VOLUME 1

STREAM INVENTORY
THAUTIL RIVER WATERSHED
1996

WATERSHED CODE: 460-6006-508

Prepared by

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for

HOUSTON FOREST PRODUCTS LTD.
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1.0 INTRODUCTION

An aquatic stream inventory was conducted in the Thautil River Watershed in the Morice Forest District during the summer and fall of 1996. This report presents an overview of the key results of the fish and habitat sampling program including fish distribution, abundance, and a comparison to historical data. As well, it identifies key habitats and patterns of habitat use by those fish species using the Thautil River. Detailed results for each tributary are included in Volume 2 (Stream Survey Cards) and on the 1:20,000 maps accompanying the report. Photodocumentation information is presented in Volume 3.

1.1 STUDY OBJECTIVES

The specific objectives of the program were as follows:

- to identify the known watershed distributions of fish presence/absence based on existing information;
- to identify stream gradients and potential obstructions to fish passage within the Thautil Watershed;
- to identify stream reaches for major and minor drainages within the Thautil Watershed;
- to characterize the distributions of fish and fish habitat throughout the Thautil Watershed to allow for the identification and classification of fish-bearing streams under the Forest Practices Code (FPC) at a mapping scale of 1:20,000;
- to provide FPC riparian classification for stream reaches sampled during watershed inventory;
- to identify key habitat features/sites requiring special management attention during watershed inventory;
- to determine bull trout (*Salvelinus confluentus)* distributions within the Thautil Watershed and identify critical bull trout habitats; and
- to provide baseline distributions of stream-dependent amphibian species and life-history stages

The major emphasis of the study was to provide a broad-based aquatic inventory at an operational and landscape level to facilitate planning for forest development that minimizes impacts on the aquatic resources of the watershed. The study conducted in the Thautil focused particular attention on accurately describing the distribution of fish within the entire Thautil Watershed and establishing a riparian classification for all stream sections.

The sampling program also established a series of "index sites" in the watershed to compare fish abundance to some past fisheries surveys, and to serve as a reference point for future sampling.

Special emphasis was placed on delineating the abundance and distribution of bull trout within the watershed. This work was linked to similar studies conducted on bull trout elsewhere in the Bulkley Watershed by Gordon Haas of the Fisheries Research Section of the Ministry of Environment, Lands and Parks (MELP).

The studies were funded by the Operational Inventory Program of Forest Renewal B.C., with Houston Forest Products (HFP) as the project proponent. The overall inventory program was coordinated by Melissa Todd and Diedre Quinlan of Houston Forest Products. Andy Witt (MELP Houston) was the contract monitor. The field surveys were conducted by Rob Dams, John Hagen, Dave Bustard, Shannon Stotyn and Kate Portman of Dave Bustard and Associates. Kate Portman and Rob Dams were responsible for all data compilation and draft map preparations. Western Geographic Information Systems Inc. was responsible for GIS digital mapping. North Shore Environmental Services conducted the char aging analysis.

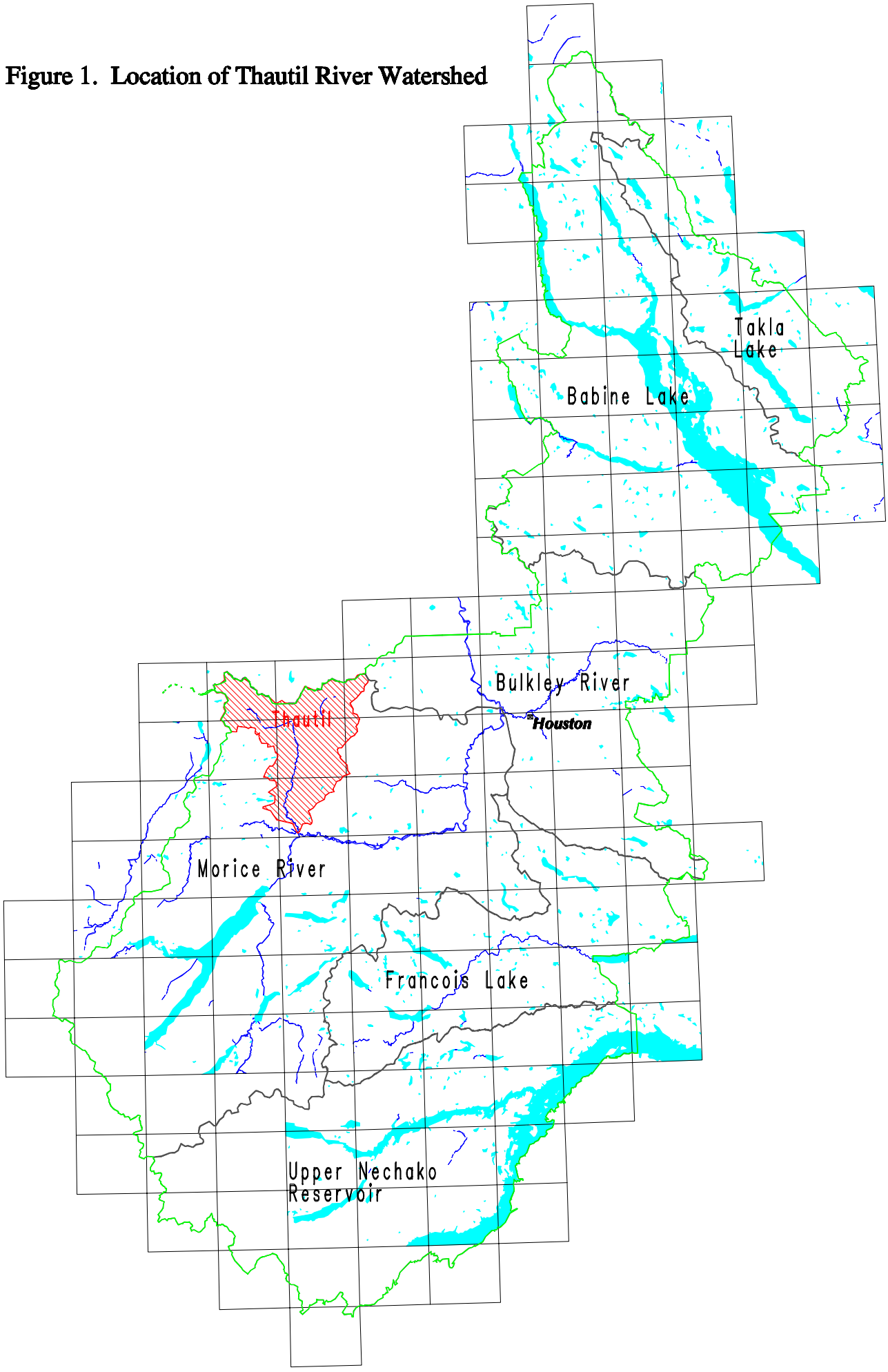
2.0 STUDY AREA

The headwaters of the Thautil River are located approximately 40 km southwest of Smithers in the Telkwa Mountain Range (Figure 1). The upper Thautil River is dominated by two major tributaries, Starr and Denys creeks. The river flows in a north-south direction to enter the Morice River approximately 13 km downstream from Morice Lake. The Thautil River Watershed is approximately 250 km^2.

Although there is not a stream gauging station on the Thautil River, some streamflow and water temperature information is available from data collected at the Gosnell/Thautil confluence with the Morice during the Kemano Completion Studies (Envirocon 1984). Discharge in the Thautil normally peaks during the late May and early June period of the snowmelt freshet, with a second high flow period occurring during the fall rains of October and early November in some years. Streamflows remain relatively high through much of the late summer period due to high elevation snowmelt in the upper watershed. Lowest flows in the Thautil occur during the late winter period. Some of the smaller, low elevation tributaries in the lower sections of the watershed may also experience low flows and channel dewatering during the late summer.

High elevation snowmelt in the upper watershed also keeps the Thautil River water temperatures below 15°C year-round, with temperatures exceeding 10°C only for the

Figure 1. Location of Thautil River Watershed



period mid-July to mid-September. Water temperatures in headwater tributaries such as upper Denys and Starr creeks probably do not exceed 10°C. Water temperatures remain below 5°C throughout most of the watershed from late October to late May.

Active valley wall slumps are present along the Thautil River and tributary streams. These areas are significant suspended sediment sources to the Thautil River and to downstream areas on the Morice. Most suspended sediment in the mid-reaches of the Morice River appears to originate from the Thautil River (Weiland and Schwab 1992). Studies in the major spawning reach of the Morice River located immediately downstream from the Thautil River confluence suggest that most of the bedload component of the sediment load also originates from the Thautil River, largely from the Starr Creek basin (Weiland and Schwab 1992).

Logging roads have been developed upstream along the east and west sides of the Thautil River for approximately 15 km. There is no road access to the upper reaches of the watershed. An extensive network of old mineral exploration roads is present throughout the headwater sections of upper Denys and Starr creeks - a result of active mineral exploration in the area during the 1960's. Other activities in the watershed include hunting, guiding and trapping, as well as winter ski touring and snowmobiling based out of a cabin located in the headwaters of the East Fork of Starr Creek.

A number of fisheries studies have been conducted in the Thautil River since the mid-1960's, and these have been summarized in Bustard and Associates (1996). The Department of Fisheries and Oceans (DFO) conducted limited aerial salmon spawning observations in the Thautil River since 1966 (Hancock et al. 1983; Stream Information Summaries, data on file, MELP, Smithers). A small fish sampling program was conducted in 1968 in response to the potential development of a coal deposit in upper Denys Creek (Taylor 1968). Carswell (1979) undertook a more extensive fish sampling and habitat assessment study of the Thautil River and its major tributaries during June and July 1978. As well, studies associated with the Kemano Completion Project added some additional fish distribution and abundance information for the Thautil River (Envirocon 1984; Shepherd 1979). The Fish Habitat Improvement Section of MELP conducted a program of juvenile fish sampling at a small number of sites in the Thautil River during the period 1981 to 1985 (Tredger 1981 to 1986) as part of an overall juvenile steelhead stock assessment program. Juvenile steelhead studies in the Thautil were also conducted in 1991 and 1992 (Bustard 1991 and 1992).

All of the above studies tended to focus on the mainstem river and large tributaries such as Denys, Loljuh, Gabriel and Starr creeks. The studies indicated that the Thautil River is a significant producer of summer steelhead (*Oncorhynchus mykiss*) and char (identified as Dolly Varden (*Salvelinus malma*), as well as coho salmon (*Oncorhynchus kisutch*) in some years. These observations were largely based on juvenile sampling.

Small numbers of mountain whitefish (*Prosopium williamsoni*), longnose dace (*Rhinichtys cataractae*), lake chub (*Couesius plumbeus*), and Pacific lamprey (*Lampetra tridentata*)

have been noted during some of the surveys. Pink salmon (*Oncorhynchus gorbuscha*) spawners have been only observed during one year and chinook salmon (*Oncorhynchus tshawytscha*) and cutthroat trout (*Oncorhynchus clarki*) have never been reported to use the Thautil. Some resident rainbow trout (*Oncorhynchus mykiss*) use is also suspected based on past surveys.

A review of the historical fish information indicates that the distribution and abundance of fish using the smaller tributaries, as well as the delineation of the upper extent of use in the main tributaries is not well understood. As well, recent observations elsewhere suggest that both bull trout and Dolly Varden occur together in portions of the Skeena Watershed. The Thautil River drainage, characterized by cool water temperatures and extensive sections of umembedded cobbles, seems well-suited for potential use by both species. Previous fish studies have not been able to differentiate between the two species. The extent of bull trout use (an identified wildlife species under the Forest Practices Code) in the Thautil Watershed is an important aspect of the 1996 studies.

3.0 METHODS

3.1 TIMING

A review of existing fisheries inventory reports was conducted during the summer of 1996. Preliminary mapping (including site referencing to watershed codes at a 1:20,000 scale) and air photo studies to identify preliminary reach breaks and to assist with sample site locations was conducted during early September.

The field studies were initiated on September 11 and completed on October 23, 1996. The fall timing of the studies ensured steelhead emergence was complete, and allowed for observations of spawning Dolly Varden and bull trout redds. Streamflows in the Thautil River remained high throughout July and August, so the later survey dates were well-suited for the habitat and fish observations.

3.2 LOGISTICS

Most of the field surveys were conducted by two crews with two persons per team. However, many of the habitat surveys in significant fish reaches were conducted by either the project biologist or senior technician working on their own.

Road access was used whenever available in the lower 15 km of the Thautil Watershed. A helicopter (Northern Mountain Helicopters based out of Houston) was used to access the upper areas in the watershed as well as the upper reaches of tributaries in the lower Thautil not accessible by road. Approximately 50 hours of helicopter time was required for this project.

3.3 STREAM IDENTIFIERS

Watershed codes were available from the MELP office in Smithers from maps at a 1:50,000 scale. These were transferred to the 1:20,000 base maps. Since many of the smaller tributaries do not appear on the larger scale map and therefore did not have a map designation at the 1:20,000 scale, we developed an interim location point identifier consisting of a mix of letters (first letter of tributary) and number (n^{th} tributary upstream from the mouth of the main tributary). Each stream in the Thautil has this unique designation. Only some have the official watershed code as digitized by MELP.

3.4 HABITAT AND FISH SAMPLING

Resources Inventory Committee (RIC) Standard Reconnaissance Level Stream Inventory (RIC Draft, May 1995) and Forest Practices Code guidebooks provided the framework for conducting the fish and habitat reconnaissance level surveys. The details of the sampling procedure are laid out in the *Schedule A Streams* accompanying all reconnaissance level stream survey contracts conducted in 1996.

Several modifications were made to methodologies in consultation with the project monitor to allow for a more realistic achievement of overall program objectives. These are outlined below:

- The surveys emphasized distribution information. With this in mind, considerable effort was directed at establishing upstream barriers to fish distribution. Many of the smaller tributaries were walked to the upper extent of fish access, or until the stream gradient exceeded levels utilized by fish in the watershed. This was typically in the 15-20% slope range. In areas with poor access, or where tributaries continued for a considerable distance, but where slopes were less than 20%, an estimate of the upper extent of fish access was made based on map contours and aerial reconnaissance observations. These sites have been delineated as suspected fish habitat on the accompanying fish maps (dashed red lines).

- Fish sampling was conducted in most, but not all stream reaches. Some judgment was used in delineating fish habitat, particularly in the lower sections of small streams entering a larger fish stream where fish information was available. Some of these streams were only accessible for 100 m or less. Habitat information was collected at these sites, but fish sampling was not conducted in all cases due to difficult access for electroshocking. We also did not sample all streams in the areas that are mapped as barren due to steep gradient or barriers. Fish sampling was conducted at 155 locations, while habitat information was collected at 266 sites.

- Headwater sampling focused on those systems with significant low gradient sections in their upper ends, particularly if they were associated with a wetland or lake system potentially capable of supporting fish populations.

- Several systems with extensive potential fish habitat in their upper reaches were identified as barren due to downstream barriers. In these situations, a minimum of two fish sample sites were established to confirm the barren designation. In one situation with extensive headwater areas (upper Hagman Creek), the number of sites was increased to six. The main fish species present in the Thautil tributaries (Dolly Varden and/or rainbow trout) are in these systems year-round, making it unnecessary to repeat sampling in these creeks during a different season to confirm that they are barren.

- Some electroshocking was conducted at sites with water temperatures less than 4°C. Our observations indicate that electroshocking is effective at these temperatures, and restricting fish sampling to the short period between the end of high streamflows and when water temperatures drop below 4°C would have made sampling many of the higher elevation tributaries impractical. Conducting surveys during late September and early October also provided additional Dolly Varden spawning information.

3.5 DETAILED HABITAT ASSESSMENTS

Stream sections that were identified as potentially key areas for fish production (particularly for bull trout) were examined by ground surveys for their entire length. These included:

- Thautil River upstream from Denys Creek to the headwaters;
- Lower Hagman Creek;
- Denys Creek from the Thautil River to its headwaters;
- Loljuh Creek;
- Lower Starr Creek;
- East Fork of Starr Creek to its headwaters; and
- West Fork of Starr Creek upstream to the definite upstream barrier.

The ground surveys allowed for visual observations of bull trout redds, Dolly Varden spawners; newly-emerged fry (trout and char); and important groundwater areas and sidechannels adjacent to the main channel. These observations were noted on the stream cards and delineated on the fish maps.

Our review of the existing fish and habitat data for the Thautil indicated that considerable effort had been extended by Carswell (1979) to describe the mainstem Thautil River from Starr Creek downstream, so we did not alter his delineation of reach breaks for this section.

3.6 INDEX FISH SAMPLE SITES FOR WATERSHED MONITORING

Index sites were established at 15 locations in key fish-producing sections of the Thautil Watershed as shown in Table 1. These sites were enclosed with stopnets and two-pass removal electrofishing was conducted to establish estimates of fish production on a m^2 basis. This allowed for comparison between reaches within the watershed for key species (bull trout, steelhead, coho and Dolly Varden). Information from some of these sites (mainstem Thautil River) is also useful for comparison to past surveys conducted as part of the steelhead stock assessment program in Morice River tributaries. Habitat information at these locations was collected in an identical fashion to methods used in surveys conducted for bull trout in other sections of the Bulkley Watershed[1].

Table 1. Location and Number of Fish Index Sites in the Thautil Watershed.

Sub-drainage	Number of Sites	Key Fish Species
Lower Thautil River	3	Steelhead, bull trout
Upper Thautil River	2	Steelhead, Dolly Varden
Hagman Creek	1	Steelhead, Dolly Varden
Gabriel Creek	1	Dolly Varden, coho
Denys Creek	3	Bull trout, Dolly Varden
Loljuh Creek	1	Bull trout , Dolly Varden
Lower Starr Creek	2	Steelhead, bull trout
Upper Starr Creek	2	Bull trout, Dolly Varden
TOTAL	15	

3.7 DETAILED FISH MEASUREMENTS

Branchiostegal ray counts were conducted on all char larger than 50 mm fork length. These counts, in conjunction with head shape, were used to separate bull trout from Dolly

[1] Habitat parameters provided by Dr. Gordon Haas, MELP, Fisheries Research Section, UBC.

Varden juveniles in the study. Results from previous DNA analyses have been very effective at separating these two species based on these morphometric characteristics[2].

It should be recognized that the visual separation is not 100% effective, but is reliable in most cases. Fish do not have to be sacrificed and subjected to a more rigorous morphometric and genetic examination. As well, hybrids cannot be identified by visual means.

A total of 35 bull trout and 20 Dolly Varden from a range of sites were retained as voucher specimens[3]. As well, DNA samples were retained from 37 bull trout and 14 juvenile steelhead. A summary of all voucher specimens and DNA samples is presented in Appendix 1 Table 1.

Pelvic fin clips for age analyses were retained from 37 char (Appendix 1 Table 2).

3.8 AMPHIBIAN DISTRIBUTION

Amphibian presence/absence information was recorded during the reconnaissance inventory. Electrofishing and minnow trapping, particularly in pond and small headwater lakes, provided special opportunities for amphibian observations. Care was taken to look for tailed frogs in steeper tributary streams.

[2] Refer to *Results for Genetic Sampling for Kemess Char*. 1995. Unpublished memo. Submitted to Dr. Ted Down, MELP, Victoria.

[3] These samples were sent along with the DNA samples to Dr. Gordon Haas, Fisheries Research Section, MELP, University of B.C.

4.0 RESULTS AND DISCUSSION

The results are presented in two sections. Section 4.1 provides an overview of fish distribution and abundance by species presented in the context of historical data where available. This section includes species life history information and critical habitats.

Section 4.2 reviews the main drainages and describes the key species and habitat information for these systems and associated tributaries. It should be noted that the **detailed** distribution and habitat information is presented on the accompanying maps, stream survey cards (Volume 2), and in the photodocumentation report (Volume 3).

4.1 OVERVIEW OF FISH DISTRIBUTION AND ABUNDANCE

A total of 155 sites were sampled for fish in the Thautil Watershed during the 1996 surveys. Fish were located at 70 of these sites.

4.1.1 Overall Species Composition

Of the total 730 fish captured at the sample sites (Table 2), juvenile steelhead (including fry) comprised 38% of the catch, followed by Dolly Varden (34%) and bull trout (12%). Char fry (a combination of bull trout and Dolly Varden) also comprised 12% of the catch. A small number of resident rainbow (4%), coho salmon (<1%), and a single mountain whitefish and Pacific lamprey ammocoete comprised the remainder of the sample.

Table 2. Percentage Composition by Species of Fish Sampled at All Sites in the Thautil River Watershed in 1996.

SPECIES	NUMBER	%
Bull Trout	89	12.2
Dolly Varden	244	33.5
Char fry	86	11.8
Steelhead	275	37.7
Rainbow[4]	29	4.0
Coho	5	0.5
Mountain Whitefish	1	0.1
Pacific Lamprey	1	0.1
	730	**100**

[4] Resident rainbow trout and juvenile steelhead are visually very similar and difficult to distinguish. Some juveniles in Gabriel and lower Denys creeks exhibited increased spotting and appeared to have more resident fish characteristics, so have been listed as resident rainbow. Carswell (1979) captured a resident rainbow in lower Denys Creek.

A comparison of species present in the lower Thautil mainstem (Starr Creek confluence downstream) during other years provides an interesting comparison to the 1996 results for this section (Table 3). Comparable data is not available for other sections of the watershed.

Sampling at five locations in 1978 (Carswell 1979) indicated that juvenile coho were the most abundant fish species present in the lower system, comprising 62% of the overall catch. By 1996, coho comprised 1% of the catch in this section of the watershed. At the same time juvenile steelhead abundance has increased from 9% in 1979 to between 74-84% of the catch since 1991. Longnose dace were present only during the 1992 surveys.

Table 3. Summary of Fish Species Composition in the Lower Thautil River During Four Different Years.

	STEELHEAD		COHO	DV	BULL TROUT		MW	LN	SUM	AREA
	0+	PARR			0+	PARR		DACE		(m*m)
1978	1	6	49	na[5]	1	21	1	0	79	nr[6]
%	1.3	7.6	62.0		1.3	26.6	1.3	0.0	100	
1991	88	40	14	na	19	11	0	0	172	451
%	51.2	23.3	8.1		11.0	6.4	0.0	0.0	100	
1992	49	30	1	na	6	5	1	13	105	387
%	46.7	28.6	1.0		5.7	4.8	1.0	12.4	100	
1996	103	56	2	1	14	15	1	0	193	509
%	53.5	29.1	1.0	0.5	7.4	7.9	0.5	0.0	100	

4.1.2 Stream Gradient and Width Characteristics

Figure 2 indicates that more than 50% of the stream channels with gradients of 5% or less in the Thautil Watershed had fish present. As gradient increased, the proportion of sites with fish present tended to decline. Fish were not present at any of the sites sampled that had gradients exceeding 15% slope.

[5] Char juveniles captured in this section of the Thautil during the period 1979 to 1992 are assumed to be predominantly bull trout based on 1996 observations.
[6] nr = Sample area not reported.

Figure 2. Summary of Thautil Watershed Fish Sample Sites by Gradient.

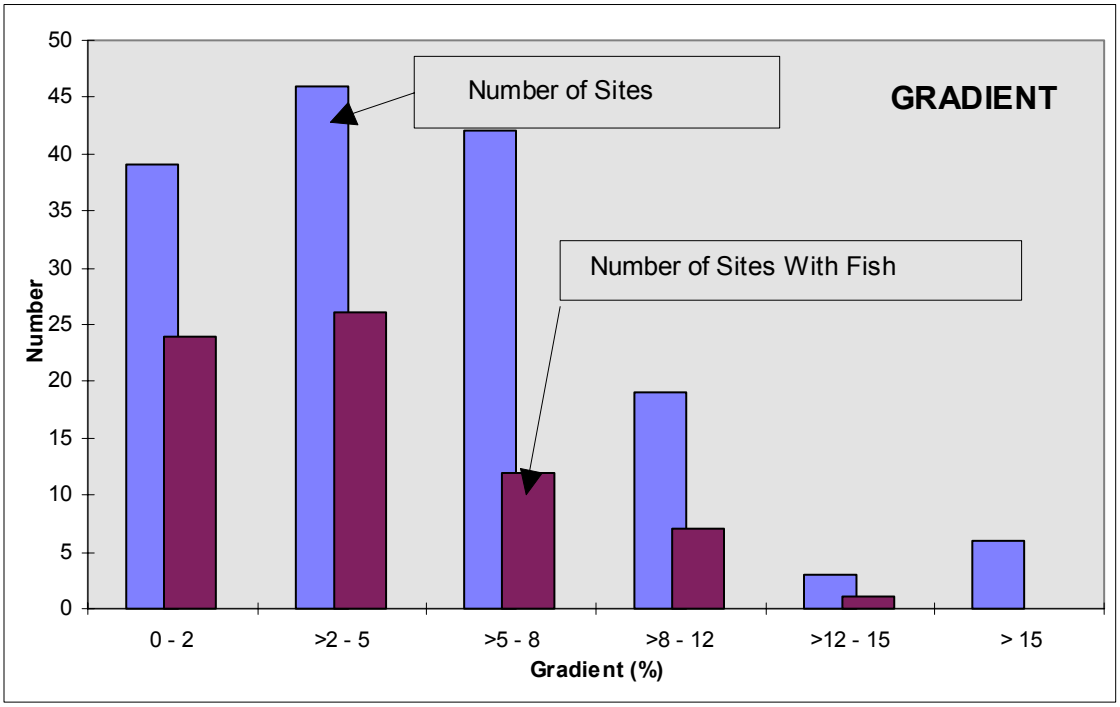


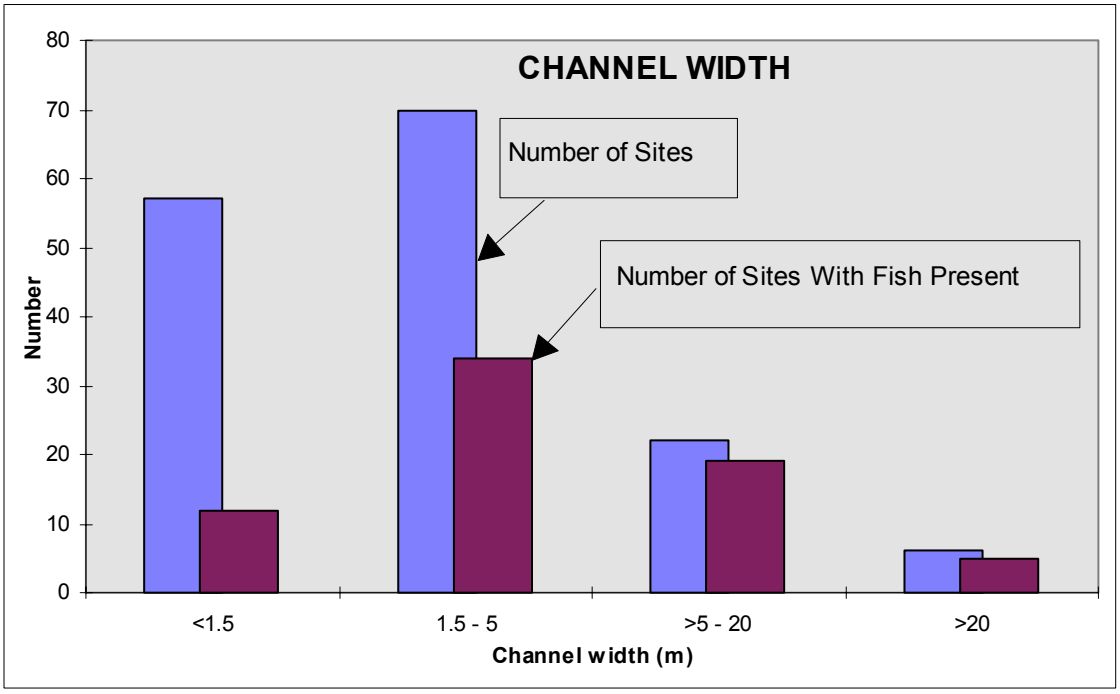
Figure 3 indicates that approximately 20% of the Thautil Watershed sample sites where stream channel width was less than 1.5 m had fish present. Nearly 50% of the sites between 1.5 and 5 m had fish present, and most sites greater than 5 m width had fish present.

Table 4 summarizes some of the habitat characteristics of sites in the Thautil Watershed utilized by the three principal fish species present in 1996. The data indicates that steelhead were present at 14 locations and sites were characterized by gradients in the 1-5% range. Steelhead tended to be in the larger streams averaging 6.5 m wetted width and 24 m channel width. Steelhead were present in very few of the small tributaries; the smallest channel utilized was 1.6 m wide.

It is interesting to note that bull trout in the Thautil also tended to occupy habitat with similar gradient and channel widths to those utilized by steelhead (Table 4), but often farther upstream in the watershed. This presumably reflects their preference for habitats with cool water temperatures. Bull trout were present at more sites in the watershed than steelhead, largely a result of their distribution into headwater sites. The smallest channel size (1.9 m wide), agrees with Rieman and McIntyre (1995), who reported bull trout using channels 2 m or wider in their analysis of bull trout distribution in Idaho .

Dolly Varden were the most widely dispersed fish species, and occupied sites ranging from less than 1% up to 13% slope. Dolly Varden were present in channels as small as

Figure 3. Summary of Thautil Watershed Sample Sites by Channel Width.



0.6 m wide and were identified at 63 locations throughout the watershed. This species tended to dominate most smaller tributaries. Dolly Varden and bull trout occurred together at 13 sample site locations. Some hybridization between these two species occurring together in the Thautil is likely based on recent studies of a similar situation in another north central B.C. watershed (Baxter et al. 1997).

Table 4. Summary of Channel Characteristics for the Three Principal Fish Species Sampled in the Thautil River.

SPECIES	SLOPE (%)		CHANNEL WIDTH (m)		WETTED WIDTH (m)		N
	Range	Mean	Mean	Range	Mean	Range	
Steelhead	2.3	1 - 5	24.2	1.6 -77.5	6.5	1.6 - 15.6	14
Bull Trout	2.6	1 - 6	21.1	1.9 - 53.8	7.1	1.7 - 15.6	19
Dolly Varden	4.6	1 - 13	6.0	0.6 - 57	2.9	0.6 - 10.5	63

4.1.3 Steelhead and Resident Rainbow Trout

4.1.3.1 Distribution in Thautil Watershed

Steelhead trout are the dominant fish species present in the mainstem Thautil River from the Morice River confluence to a barrier located approximately 5 km upstream from the Starr Creek confluence. They are also present in the lower two reaches of Starr Creek, lower Hagman Creek, and in the lower reaches of Tributaries TH2, TH10 and TH28.

Lower Gabriel, Denys and Loljuh creeks appear to have a mix of resident rainbow and steelhead present. This is based on spotting and parr mark configuration of juveniles captured. Carswell (1979) captured a resident rainbow trout (30 cm fork length) in Loljuh Creek. As well, newly-emerged fry (27-29 mm) were captured in the lower end of Trib D12 and are thought to be the progeny of resident rainbow trout rather than steelhead based on their very small size. It is not clear whether juveniles captured in Trib ST1 were rainbow or steelhead. This system is accessible upstream from Starr Creek to a small lake.

4.1.3.2 Steelhead Life History Information

No studies conducted in the Thautil River to date have actually observed adult steelhead. For example, none of the 23 steelhead radio-tagged in the Morice River in 1979 subsequently spawned in the Thautil River (Envirocon Ltd. 1984).

Most studies have been conducted in the summer and fall period. Aerial observations conducted during October in the Thautil in past years, as well as work conducted during this study, suggests that adult steelhead do not overwinter in the Thautil. The system is probably too small to provide adequate holding water for overwintering adult steelhead.

The typical pattern for steelhead spawning in the Morice is for adults to hold in the mainstem Morice until rising streamflows in late April and early May (Envirocon 1984). Adults then move into tributary streams or use mainstem sites (often sidechannels) to spawn, and leave the system prior to mid-June, the earliest that any fisheries studies have occurred in the Thautil River. Streamflows tend to be high and turbid through much of this time period in systems such as the Thautil, making visual observations difficult.

Steelhead fry emergence typically occurs during August in most systems, but may begin in late July in some of the warmer tributaries to the Morice (Envirocon 1984). By late September and early October, Thautil steelhead fry range from 28 to 52 mm fork length (Figure 4).

Whately et al. (1978) determined that most Morice steelhead spent 3 or 4 years in freshwater prior to leaving as smolts. Typically steelhead juveniles move downstream into larger systems as they grow.
Length data collected in the Thautil suggests that many of the steelhead parr sampled in 1996 were age 1+ (Figure 4). This may partially reflect the difficulty of sampling deeper

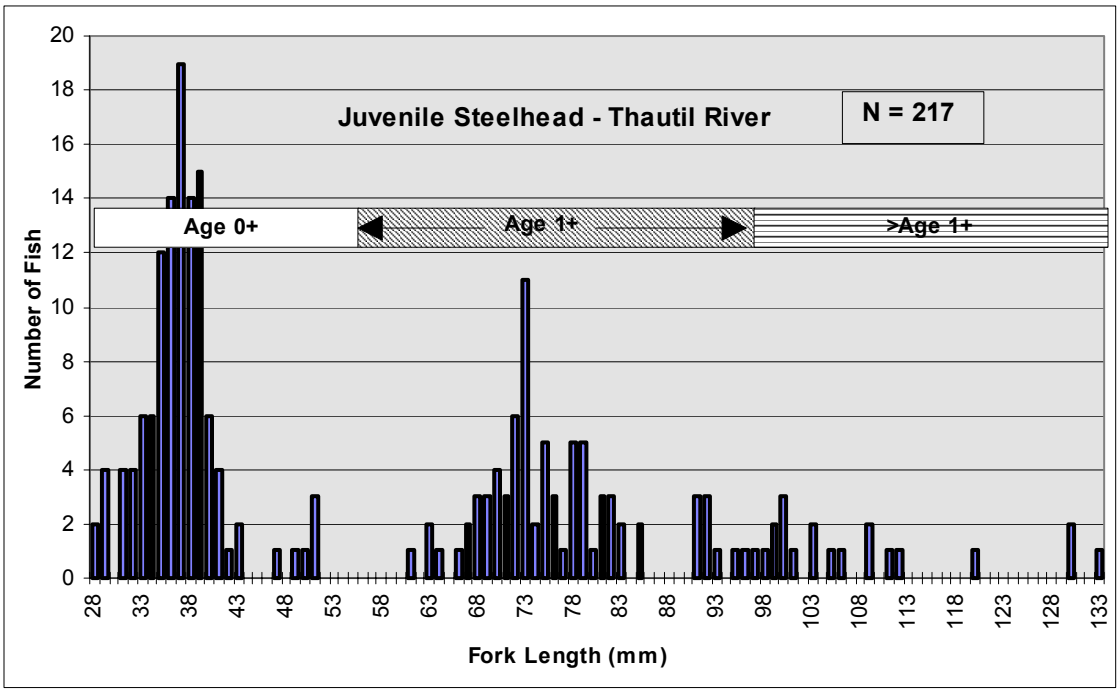
faster habitats used by the larger parr. The data also suggests that larger parr may move downstream into the Morice and Bulkley rivers. The 1996 age-length data is based on scale aging information collected during 1991 and 1992 (Bustard 1992 and 1993).

4.1.3.3 Key Steelhead Habitats

Figure 5 summarizes the densities of steelhead fry and parr in the main steelhead rearing sections of the Thautil River. Three areas stand out as very significant areas for steelhead production in this tributary.

Reach 2 of the Thautil River from Starr Creek to a canyon section 5 km upstream was identified as a key spawning area for steelhead. Steelhead fry were very numerous in this section, with densities achieving levels more than double those measured at any other reaches of the Thautil or tributaries. For example, steelhead fry densities exceeded 80 fry/100m^2 at Site In5 (Appendix 3 Table 3).

Figure 4. Length-Frequency Distribution of Juvenile Steelhead Sampled in the Thautil River, 1996.



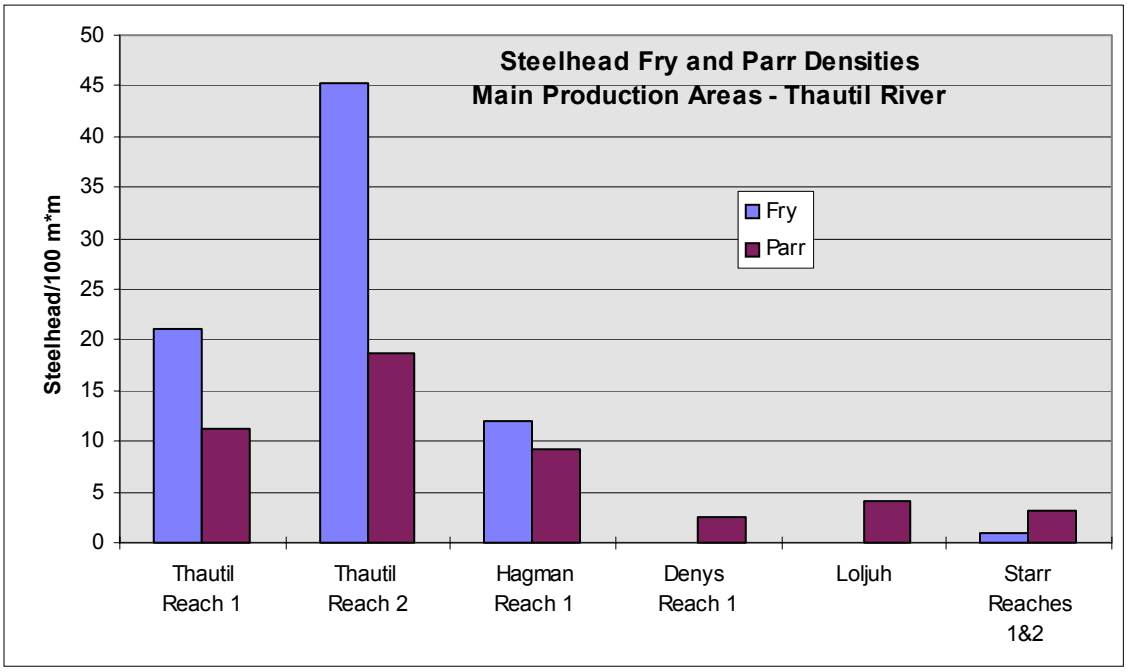
Reach 2 offers excellent unembedded gravels used by spawning steelhead. At least four suspected steelhead redds were identified in the lower sections of this reach, with higher densities of steelhead fry visually observed from TH49 upstream during ground surveys.

An outstanding feature of this reach is the exceptionally low streamflows given the large watershed area upstream and the significant inflows from upstream tributaries. We suspect that much of the streamflow through this reach is subsurface through porous gravels. This helps to moderate high flows in this section, and helps to explain why we were still able to observe steelhead redds post-freshet. Much of the steelhead spawning in the Thautil may occur in this section, with fry dispersing to downstream areas in the mainstem, including Reach 1.

Large numbers of newly-emerged steelhead fry were present at the sample location in the lower reach of Hagman Creek and we assume that steelhead spawning occurs in this system. As well, it is probable that steelhead spawning occurs in Reach 1 of the Thautil, particularly in sidechannels and possibly in the bottom ends of some of the smaller tributary streams. Newly-emerged steelhead fry were also sampled at the lower index site in Starr Creek, indicating some steelhead spawning occurs in this system.

The mainstem of the Thautil River downstream from Starr Creek (Reach 1) and lower Hagman Creek are both significant steelhead rearing areas. The mainstem Thautil in Reach 1 provides excellent parr rearing with extensive areas of unembedded cobbles.

Figure 5. Comparison of Steelhead Fry and Parr Densities in the Main Steelhead Areas in the Thautil River.



Juvenile steelhead densities in lower Denys, Loljuh and the lower two reaches of Starr Creek suggest these areas are relatively minor steelhead rearing areas compared to the Thautil River and Hagman Creek (Figure 5).

Steelhead juveniles were sampled in the lower sections of several smaller tributaries (TH2, TH10, and TH28). We suspect juveniles may have moved upstream into these tributaries from the mainstem Thautil. TH28 is larger than these other tributaries and may be used by steelhead spawners during some years. No fry were sampled in these creeks in 1996.

4.1.3.4 Comparison of Steelhead Rearing Densities Between Years

Figure 6 summarizes steelhead fry and parr rearing densities measured in the lower Thautil for eight years during the period 1979 to 1996. The data indicates that this year's surveys were conducted during a year of high steelhead fry recruitment, comparable to levels measured in 1991, and two to four times the levels measured during the period 1979 to 1985. Data from Carswell (1979) suggests that steelhead fry abundance was also very low in 1978 (Table 3), although density estimates cannot be calculated from his information since sample areas were not recorded.

Steelhead parr levels measured in 1996 (averaging 11 parr/100m^2) were in the mid-range of densities ranging between 7 and 15 parr/100m^2 of habitat recorded in studies since 1982 (Figure 6). Parr densities were very low in the sample years prior to 1982.

4.1.4 Bull Trout

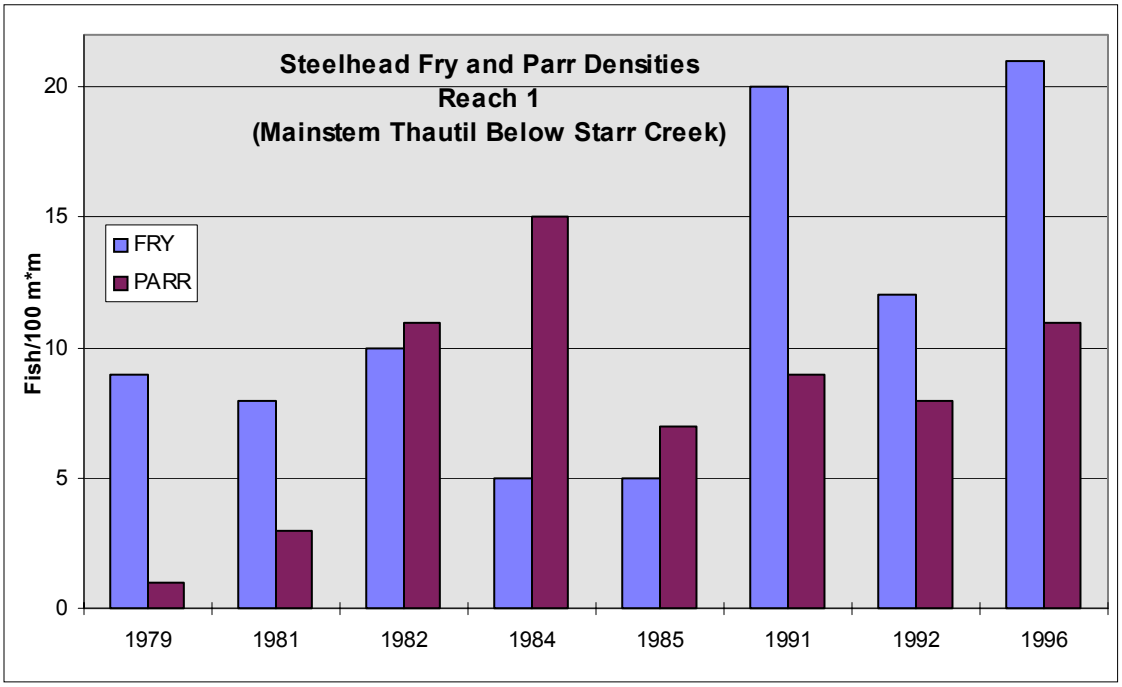
4.1.4.1 Distribution in Thautil Watershed

Bull trout distribution information is based on the presence of juvenile fish, since surveys were conducted after the period of adult migration and spawning in the Thautil Watershed.

Bull trout were present at sites throughout the mainstem Thautil River upstream to the Starr Creek confluence, but not in the upper reaches of the Thautil River. Bull trout were present throughout Denys Creek to a falls in Reach 5, in Starr Creek up to the headwaters of the East Fork, and to a 5 m falls located at the top of Reach 3 on the mainstem of Starr Creek. Bull trout were also captured in lower Loljuh, Gabriel, and Hagman creeks and in Trib ST35 on Starr Creek. Trib TH10 was the only smaller tributary sampled (<4 m wide channel width) that had bull trout juveniles present.

Figure 6. Comparison of Steelhead Fry and Parr Densities in Reach 1 of Thautil River for Eight Years[7].

[7] See Appendix 4 Table 1. Data sources as follows:
1979 - Envirocon 1984



4.1.4.2 Bull Trout Life History Information

Limited information is available documenting bull trout life history in the Morice drainage. We suspect that most of the bull trout juveniles sampled in the Thautil are the progeny of fluvial bull trout that live in the Morice River during their sub-adult and adult phase, but spawn and spend their early rearing phase in cooler tributaries.

A sexually mature 50 cm char observed by Carswell (1979) in Denys Creek in late July gives some indication as to bull trout size and the timing of when adults are present in the Thautil Watershed. Char of this size are present in the Morice River and lake system (Envirocon 1984). Of interest is the almost total lack of juvenile char in the mainstem Morice, suggesting that nearly all early rearing occurs in tributary streams (Bustard 1992 and 1993).

Observations elsewhere in the Bulkley suggest that bull trout upstream migration may occur mainly during August with spawning at the end of August or early September. Bull trout adults were noted moving upstream in Goathorn and Denison creeks, two other Bulkley tributaries during mid to late August in 1996 (Bustard 1996). This is similar to migration timing of bull trout populations in the Thutade Watershed (Bustard 1997).

1981 to 1985 - Tredger (1981 to 1986)
1991 - Bustard (1992)
1992 - Bustard (1993)

Data collected in the Thautil River and tributaries in the fall of 1996 indicated that bull trout fry[8] range in size from 32 to nearly 60 mm fork length (Figure 7). Aging data from pelvic fin clips suggests that age 1+ bull trout range from 60-90 mm (Appendix 1 Table 2). A smaller proportion of the bull trout sampled were age 2+ or older. McPhail and Baxter (1996) indicate two or three years of stream residence is typical of bull trout juveniles prior to recruitment to adult habitat.

Although many stream reaches separated from the Thautil River by impassable barriers were barren, two locations with barrier falls were identified that had resident bull trout populations upstream.

Resident bull trout were sampled in the mid-reaches of Trib ST35, a large tributary entering Reach 3 of Starr Creek. Bull trout in this tributary were isolated from the accessible sections of Starr Creek by a series of chutes and falls between 2 and 3 m high that were judged to be impassable for bull trout moving upstream from the Thautil River. Starr Creek is barren of all fish species upstream from a 5 m high falls located near the top end of Reach 3.

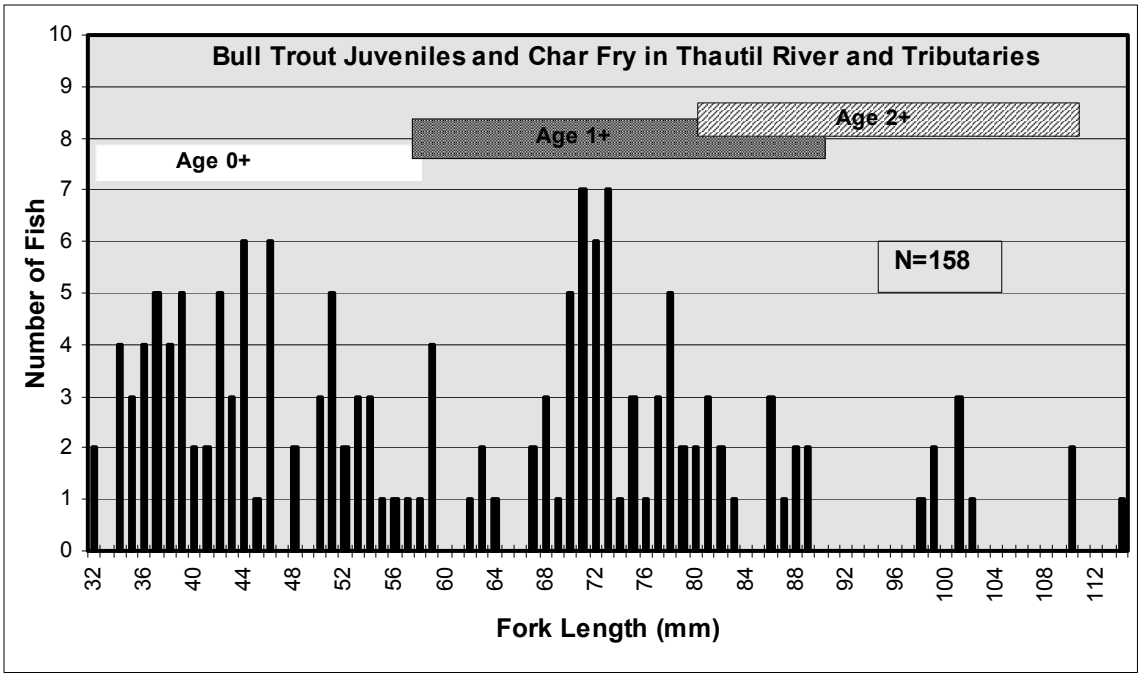
Four bull trout ranging in size from 22-27 cm fork length were sampled in Trib ST35 upstream from the falls. A 25 cm bull trout from this site was age 5+ (Appendix 1 Table 2), further suggesting that these were resident fish.

Similarly, resident bull trout juveniles were sampled at an index site in the upper reach of East Starr Creek. This is above a series of falls and chutes up to 4 m high, judged to be impassable to bull trout.

We assume that historically, fluvial bull trout were able to access Trib ST35, and populations were able to establish themselves in this tributary, but not upstream of the larger falls on Starr Creek. Over time, the chutes and falls lower in the system became impassable, leading to a resident population isolated from downstream locations in the Thautil. A similar process may have occurred in the upper reach of the East Fork of Starr Creek.

Figure 7. Length-Frequency Distribution of Juvenile Bull Trout Sampled in the Thautil River and Tributaries, September and October 1996.

[8] Char fry collected at sites where bull trout juveniles were the predominant char present are assumed to be bull trout fry and identified in Figure 7 as age 0+ bull trout.



4.1.4.3 Key Bull Trout Habitats

Figure 8 summarizes the density of bull trout juveniles and fry[9] in the main production sections in the Thautil Watershed. The data indicate that bull trout fry and juvenile densities tend to be low (<10 fry or juveniles/100m^2 of habitat). The exception is the resident bull trout population in the upper reaches of the East Fork of Starr Creek, where juvenile densities exceeded 25 fish/100m^2.

McPhail and Baxter (1996), in their review of bull trout rearing densities reported in the literature, conclude that bull trout densities in streams tend to be low, similar to the situation found in the Thautil. For comparison, studies in the Thutade Watershed of a relatively unexploited bull trout population, indicated juvenile densities in bull trout streams ranged from 5 to 17 juveniles/100m^2 of habitat (Bustard 1997)[10]. Bull trout densities in five Bulkley River tributaries with bull trout juveniles present ranged from 1 to 9 juveniles/100m^2 of habitat sample (data derived from Bustard 1996)[11].

Figure 8. Comparison of Bull Trout Fry and Juvenile Densities in the Main Bull Trout Areas in the Thautil Watershed.

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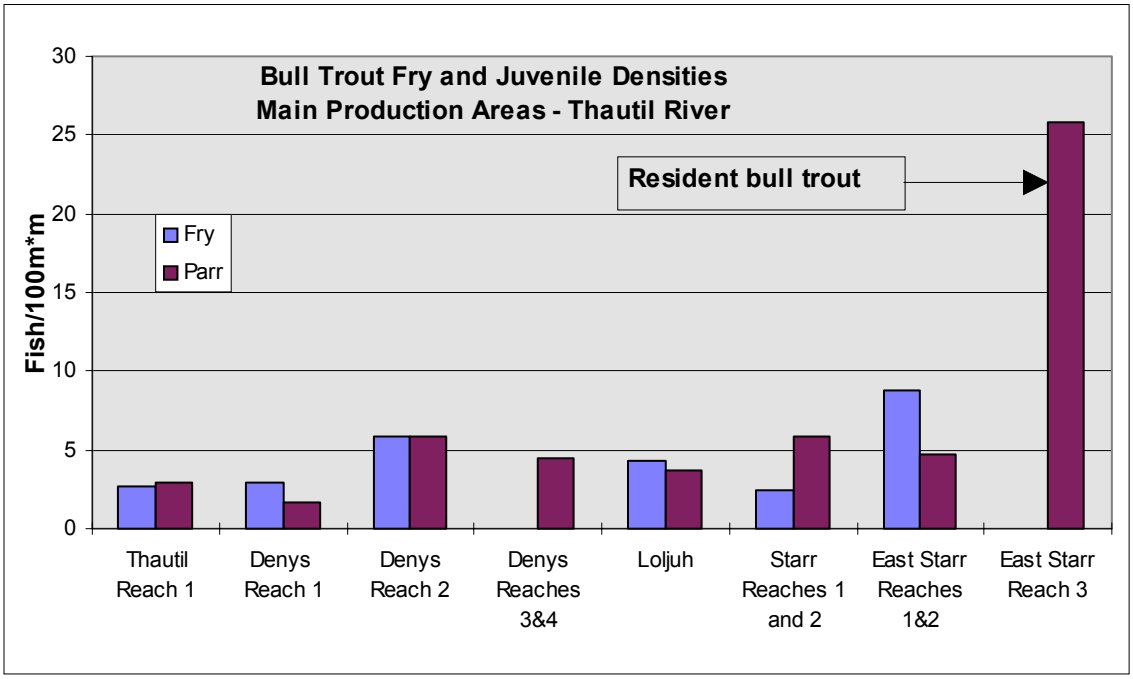
[9] Note- fry may be a mix of bull trout and Dolly Varden. We have assumed that char fry captured at sites that were comprised mainly of bull trout juveniles are bull trout fry.

[10] Excludes estimates in the Niven River (1 juvenile/100m^2).

[11] Densities in four tributaries (Denison, Canyon, Goathorn and Cumming creeks) were <4 fish/100m^2, while Luno Creek densities ranged from 3-9 bull trout/100m^2.



It is interesting to note that nearly all char juveniles sampled at the three index sites in the lower Thautil River were bull trout. Results combined for the three index sites in this reach indicate juvenile bull trout densities of 2.9 juveniles/100m^2 of habitat in 1996. This compares to estimates of 4.6 and 1.4 juvenile bull trout/100m^2 of habitat for 1991 and 1992 respectively (Bustard 1991 and 1992)[12].

It should be emphasized that bull trout fry tend to occupy the interstices in coarse bed material, and efficient recovery during electrofishing surveys is difficult. This tends to underestimate fry densities in many situations.

Bull trout fry densities were highest in the lower two reaches of the East Fork of Starr Creek, lower Loljuh Creek and in the mid-reaches of Denys Creek. These sites correspond to locations where bull trout redds were identified during ground surveys.

A total of 9 bull trout redds were observed including 6 redds in East Starr Creek (Reaches 1 and 2); 2 redds in lower Loljuh Creek; and 1 bull trout redd in Denys Creek (Reach 4). Detailed locations for these redd sites are shown on the 1:20,000 maps and described in the Volume 2 summaries. It is interesting to note that Tredger (1982) reported high char fry densities, suggesting localized spawning, when he conducted sampling in lower Loljuh Creek.

[12] Assumes 100% of juvenile char in this reach were bull trout. 1996 surveys indicated over 90% of char were bull trout.

Stream reaches that were utilized by spawning bull trout (based on redds observed) were all 1-2% slope with channel widths ranging from 7-10.5 m wide.

These three spawning and fry rearing sections should be considered key habitats for bull trout in the Thautil River. Rearing sections downstream from these locations also provided important rearing for both fry and juvenile bull trout.

Surveys were not conducted during the bull trout migration period (suspected to be late July and August). Based on observations that bull trout tend to hold at key junction pools during their migration, sometimes for periods of up to a month, we suspect that pools located in the vicinity of the Loljuh-Denys Creek confluence, Denys-Thautil River confluence, and in the Starr Creek-Thautil River confluence provide important staging and holding habitat for bull trout using the Thautil River.

4.1.5 Dolly Varden

4.1.5.1 Distribution in Thautil Watershed

Dolly Varden were widely dispersed throughout the Thautil Watershed, and dominated the catches in the smaller tributaries. They were sampled at 63 locations (Table 4), characterized by a wide range of slope and channel width conditions.

The smallest channel utilized was 0.6 m wide (Trib ST18) and the steepest gradient where Dolly Varden were located was 13% (Trib TH53).

Dolly Varden were sampled at eight locations that were judged to be isolated from the mainstem Thautil River including upstream of a chute and falls in Reach 3 of the Thautil River, upstream of a 3-4 m falls on Trib L10, and between two impassable falls on the East Fork of Starr Creek (Reach 3). Other locations with isolated Dolly Varden populations included TH4.1, TH11, G4, TH49, TH51, ST18, and ST19.

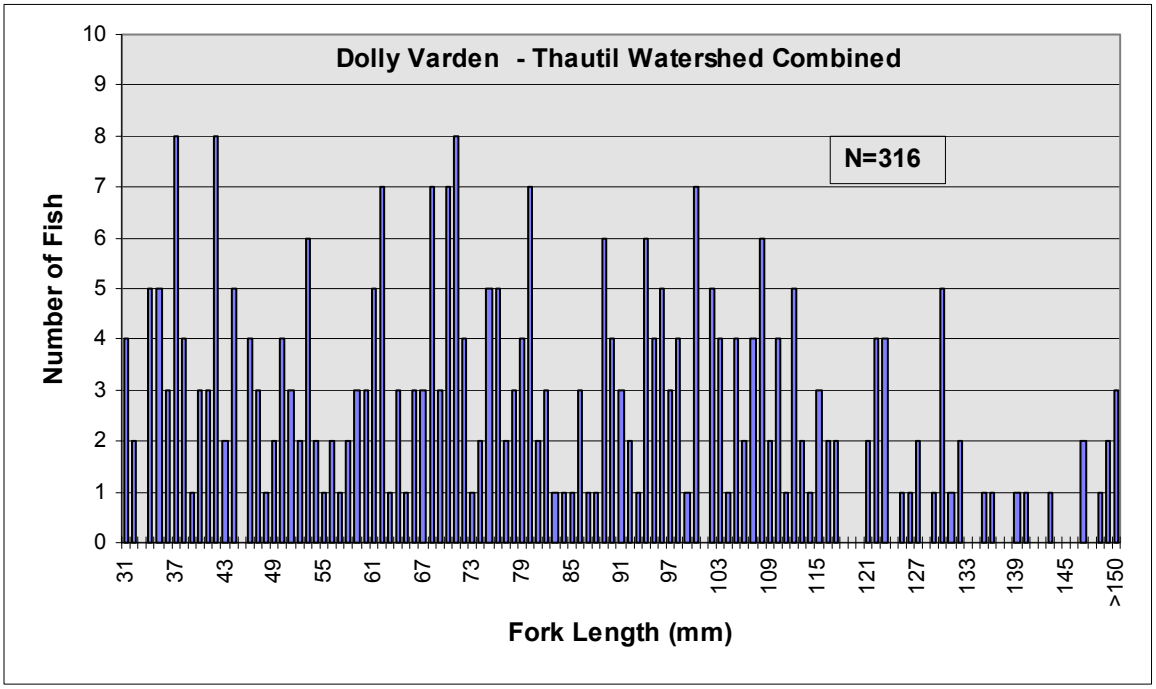
A number of major areas in the Thautil Watershed located upstream of barriers that appeared to offer suitable habitat for Dolly Varden (e.g., upper Gabriel, upper Starr, and upper Hagman creeks), as well as many smaller systems, were not utilized. We assume that the distribution of fish in the Thautil Watershed has been determined by early colonization by char following glacial retreat, in conjunction with gradual changes in channel characteristics that has resulted in fish barriers in some portions of the watershed that were formerly accessible. The low abundance of Dolly Varden within the mainstem of the Thautil River (Reach 1) combined with the capture of Dolly Varden at 10 isolated sites, suggests that most Dolly Varden in the Thautil River are residents.

4.1.5.2 Dolly Varden Life History Information

Figure 9 summarizes the fork lengths of Dolly Varden sampled throughout the Thautil Watershed in 1996. Only three Dolly Varden exceeded 150 mm fork length. The largest Dolly Varden was a 198 mm ripe male sampled in ST1. Dolly Varden aging was not conducted in this study.

Many of the Dolly Varden that exceeded 110 mm were sexually mature or spent fish. Actively spawning Dolly Varden were observed during the late September and early October surveys, and we have assumed that the surveys coincided with peak spawning in the watershed. A review of all of the observations of ripe and spawned-out Dolly Varden, as well as direct observations of spawning fish and Dolly Varden redds, suggests that spawning occurs from mid-September to mid-October, probably peaking at the end of September (Appendix 5 Table 1). Spawning in the Thautil was complete by October 22, based on redd observations with no fish present (e.g., Reach 2 of the Thautil River).

Figure 9. Length-Frequency Distribution of Dolly Varden Sampled in the Thautil Watershed, September and October 1996.



The timing of Dolly Varden spawning in the Thautil appears to be considerably later than that for bull trout, since all bull trout spawning was completed prior to the initiation of the surveys in mid-September. This timing difference between these two species appears to

be similar to that observed in the Thutade Watershed (Bustard 1997), and presumably reflects a temperature difference in the incubation environment of most spawning sites.

4.1.5.3 Key Dolly Varden Habitats

Twenty locations were identified as Dolly Varden spawning locations based on the presence of ripe fish, kelts, or redd observations (Appendix 5 Table 1). We suspect that many more locations are present throughout the watershed, presumably in most of the tributaries where Dolly Varden were found.

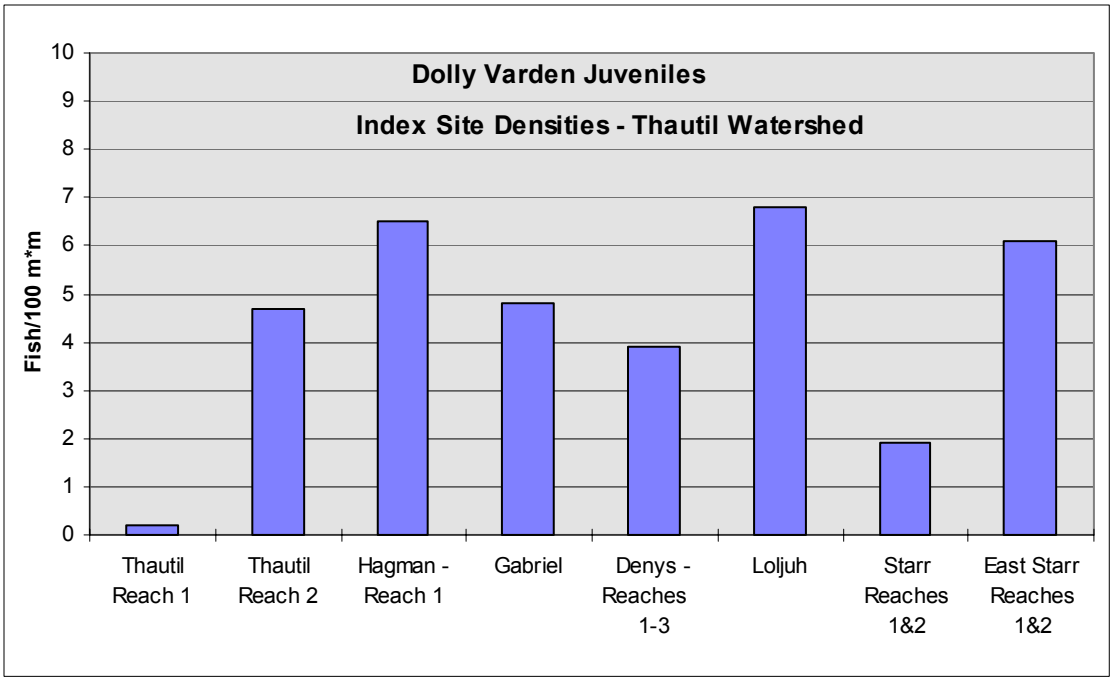
Channel widths at these sites ranged from 0.8 - 9.7 m wide and slopes were 1-7%. Dolly Varden spawners or redds were found in the vicinity of locations used by bull trout spawners in Loljuh and the East Fork of Starr Creek. Dolly Varden redds were also identified in the upper Thautil River mainstem in the vicinity of steelhead redds. These three locations were the largest channels used by Dolly Varden.

Observations suggest that groundwater-fed sidechannels provide important spawning habitat for Dolly Varden. For example, sidechannels and seepages in East Fork of Starr Creek (Reach 2) and adjacent to the mainstem of Starr Creek (Reach 2) provided important habitat for Dolly Varden spawners. Similarly, a large number of Dolly Varden spawners and redds was noted at the lower end of TH28. We suspect this site was influenced by flows from a sidechannel of the Thautil River, and possibly groundwater.

The index site sampling provides some information describing rearing densities of Dolly Varden at a range of sites in the Thautil Watershed (Figure 10). The data indicates that, similar to bull trout, Dolly Varden rear at relatively low densities at most sites (ranging from 2-7 fish/100 m^2 at most index sites). The lowest densities of Dolly Varden tended to be in the mainstem Thautil downstream from Starr Creek and in the lower reaches of Starr Creek.

These are the widest channels sampled and illustrate the preference of Dolly Varden for small channels. We suspect that Dolly Varden achieve higher densities than shown in Figure 10 in some of the smaller tributaries in the watershed. Sampling in the smaller tributaries typically used single pass electroshocking, often without stopnets, so density estimates were not determined for these sites in this study.

Figure 10. Dolly Varden Densities at Index Sites in the Thautil Watershed.



4.1.6 Coho Salmon

4.1.6.1 Distribution in the Thautil Watershed

The 1996 fish sampling results indicated extremely low levels of juvenile coho present in the 155 sample sites examined, with coho juveniles comprising less than 1% of the overall catch (Table 2). Five juvenile coho were sampled, including 3 age 0+ coho in lower Denys Creek and two yearling coho in the lower Thautil River.

Previous surveys suggest that although coho abundance has been low in the Thautil in the 1990's, coho did achieve much higher levels in other years (Table 3). Taylor and Seredick (1968) also reported that other than char, coho were the most widely distributed species in the Thautil Watershed.

Carswell (1979) indicates that two age classes of coho were present at all six mainstem Thautil sites sampled from the Denys Creek confluence downstream in 1978. Coho also dominated fish catches at two sites in Gabriel Creek. Catches in the mainstem of Gabriel Creek included newly-emerged coho, indicating that coho spawning had occurred in this tributary. Coho juveniles were not present at sites in Reach 2 of the Thautil River or at sites in Starr Creek and tributaries.

Taylor and Seredick (1968) reported newly-emerged coho fry at a site located in the mainstem Thautil River just downstream from Starr Creek. This is the uppermost extent of coho identified in the Thautil to date.

No adult coho were noted during any of the field surveys conducted in the Thautil in 1996, including a helicopter flight from Hagman Creek downstream looking for coho and pink salmon spawners on September 16. Conditions in the mainstem river were suitable for adult observations.

Past aerial observations during the fall have resulted in coho spawner sitings. For example, 10 coho adults were noted in the lower 3 km of the Thautil during a helicopter flight on September 19, 1982[13]. One month later, 6 coho were subsequently noted holding in pools in the lower 6 km of the Thautil. DFO observations suggest coho spawning in the lower 10 km of the Thautil River based on observations from aircraft (Hancock et al. 1983). Their records indicate several hundred coho spawners in this section during the period 1966 to 1970.

Habitat observations combined with past sampling information suggests that the Thautil River has the capability to support a significant coho population. Sidechannels and mainstem habitat along the Thautil upstream as far as Starr Creek are utilized during years when there is adequate adult escapement. As well, the lower reach of Denys Creek and Reach 1 of Gabriel Creek are known to be utilized by coho. We suspect that during years of suitable recruitment, coho juveniles would disperse up into the accessible lower reaches of some tributaries in Reach 1 of the Thautil, and may spawn in some of these systems if fall freshets coincide with the late October and November spawning period.

4.1.7 Other Species

Pink Salmon

Pink salmon have only been observed in the Thautil River in 1987, when 5000 pinks were reported in the lower Thautil[14]. Pink salmon escapements in the Morice have shown an increasing trend since the late 1950's, and future use of the Thautil by some pink salmon is a possibility. The coarse bed material and cool water temperatures are probably limitations to pink salmon use of this system.

Mountain Whitefish

Mountain whitefish use of the Thautil appears to be very limited. Only a single whitefish juvenile was sampled in 1996 (Table 2). Carswell (1979) captured a single 27 cm mountain whitefish in Starr Creek, and Taylor and Seredick (1968) reported newly -

[13] D. Bustard, field notes on file, Smithers.
[14] Stream Information Summary System (On file, Ministry of Environment, Smithers).

emerged whitefish fry in the lower end of Reach 1 of the Thautil. These observations, as well as the presence of a whitefish fry in the lower Thautil River in 1991 (Bustard 1992), suggests limited whitefish spawning may occur in the Thautil River during some years.

Longnose Dace

No longnose dace were sampled in the Thautil in 1996. This species has only been reported once in this watershed when 13 longnose dace were captured at a site located approximately 4 km upstream from the Morice confluence in 1992 (Bustard 1993).

Lake Chub

Carswell (1979) reported catching 9 lake chub in the outlet stream to the small lake in Trib ST1.

4.2 SAMPLING RESULTS FOR LARGER TRIUBUTARIES

The objective of this section is to provide an overview of key fish distribution and habitat information for the main reaches and larger tributaries in the Thautil Watershed. Detailed fish distribution, habitat summaries, and riparian classification information for all systems is presented on the 1:20,000 mapsheets and in the Stream Survey Card Summary Forms (Volume 2).

The Thautil Watershed has been separated into 5 major sub-drainages as follows:

1. Lower Thautil River (Reach 1) and tributaries (excluding Denys Creek);

2. Denys/Loljuh creeks and associated tributaries;

3. Starr Creek (including the upper West Fork) and tributaries;

4. East Fork of Starr Creek and tributaries; and

5. Upper Thautil River (Reaches 2 to 5) and tributaries.

4.2.1 Lower Thautil River (Reach 1) and Tributaries (WS Code: 460-6006-508)

The lower 25 km of the Thautil River is characterized by wide flat gravel and cobble bars interspersed with short confined sections controlled by bedrock outcrops. Sidechannels and associated debris accumulations are common, and active valley wall erosion contributes to high sediment loads in this section of river. The channel widths in this reach varied from 30 m to over 100 m wide at the three sites sampled in 1996. The mean slope for this reach is just under 1%. Carswell (1979) is a source for additional information describing the habitat characteristics of this section.

This entire reach is accessible to steelhead, coho salmon and bull trout moving upstream from the Morice River. Fish sampling results in this study, combined with past information (Table 3), indicate that this reach is a key rearing area for steelhead and bull trout juveniles, and for coho salmon when escapements are adequate. Extensive areas of unembedded cobbles along the mainstem channel are particularly favourable for rearing steelhead parr and bull trout juveniles. Sidechannels, especially those associated with debris, and the lower ends of tributaries accessible from the mainstem Thautil, are probably the best coho rearing habitats, although these areas were not utilized in 1996 due to poor spawning escapements to the Thautil.

The mainstem bed material through much of this section of the Thautil tends to be large gravels and cobbles - too large at most locations for spawning. However, pockets of suitable gravel sites are available, and we suspect some steelhead, bull trout and coho spawning occurs within the floodplain of this reach (i.e., sidechannels, lower ends of tributaries and possibly some groundwater-influenced mainstem site) based on the observation of newly-emerged fry of these species.

A total of 44 tributary streams (excluding Denys Creek) were identified entering directly into this reach of the Thautil River (based on 1:20,000 mapping). Over 70% of the streams are accessible from the Thautil River for 500 m or less (Table 5). This total includes 17 streams that were mapped as creeks, but which have no defined stream channel based on field observations. Typically, these are the small, low-energy systems unable to cut down through the valley wall adjacent the Thautil. These minor drainages are particularly prevalent in the Thautil upstream from Denys Creek where none of the 14 mapped creeks possess suitable fish habitat.

It should be emphasized that some of these small creeks that may be accessible for 100 m or less may provide important fish habitat, including spawning areas for fish species using this section of the Thautil River.

The more significant streams along this section of the Thautil typically have channel widths of 2 m or more. Key tributaries in this section include the following:

Tributary TH2 (WS Code: 460-6006-508-141)

Rainbow (possibly steelhead) and Dolly Varden were sampled in the lower reach of Trib TH2. This tributary splits into a complex of channels in a low gradient section below the road. No fish are present in this system at the road crossing sites, and we assume fish access ends at some point in the marsh downstream.

Table 5. Summary of Tributaries Entering Reach 1 of the Thautil River.

Length used by fish (km)	Number of streams	Specific Tributaries	Mean Channel Width (m)
5-10	1	Hagman, Gabriel	9.7
2-5	5	TH4,TH11,TH23,TH27, TH28	3.4
1-2	3	TH2,TH10,TH22	2.0
0.5-1	3	TH7,TH9,TH12	2.2
0.1-0.5	7		1.6
<0.1	24		na[15]
Total	44		

Tributary TH4 (WS Code: 460-6006-508-174)

This is a large and dynamic tributary with a high potential to transport debris and sediment to downstream areas. Dolly Varden were observed 1100 m upstream from the road crossing. Dolly Varden kelts were captured in the vicinity of the bridge crossing, indicating spawning in this reach. A possible bull trout (approx. 40 cm) was observed during the ground surveys in this creek.

TH4.1 is a small stable tributary to TH4 and is accessible for up to 3 km upstream from the road crossing.

Tributary TH10 (WS Code: 460-6006-508-305)

This tributary is accessible for nearly 2 km upstream from the Thautil River. Suspected steelhead juveniles and bull trout (including char fry) were sampled in the lower reach. We suspect Dolly Varden are present upstream from the road crossing for 600 m. Beyond this point, the gradient increases to more than 20%.

Tributary TH11 (WS Code: 460-6006-508-343)

[15] Data not available since some of these drainages had no defined channel.

This is a high-energy stream capable of transporting debris during high flow conditions. We estimate Dolly Varden use the lower 2 km of this system, and that fish sampled upstream from the topographic break are resident fish due to high gradient sections between Reaches 1 and 2.

Tributary TH14 (Hagman Creek) (WS Code: 460-6006-508-381)

Hagman Creek is a large dynamic creek utilized by steelhead, bull trout and Dolly Varden. The lower reach is comprised of an unstable fan section at the base of an entrenched and rather spectacular canyon section (Reach 2). A 4 m high falls located 6.1 km upstream on Hagman Creek is the upper extent of fish access on this system. There were no helicopter landing sites in the canyon, so fish use to these falls could not be confirmed. Unstable slumping banks and large debris jams were noted in the top section of Reach 1 and lower Reach 2.

Large numbers of newly-emerged steelhead fry were sampled at an index site 1100 m upstream from the Thautil confluence, and highlight the importance of this tributary as a steelhead spawning system. Dolly Varden spawners were observed in the lower section of Trib H2.

Trib H1 is accessible for up to 2 km from its confluence with Hagman. There were no accessible tributaries to Reach 2 of Hagman Creek (canyon section).

A combination of minnow trapping (4 sites) and electrofishing (2 sites) in upper Hagman Creek confirmed that this system is barren upstream from the canyon.

Tributaries TH23 & TH27 (WS Codes: 460-6006-508-469 & 460-6006-508-493)

Both of these creek systems are difficult to access in their mid-reaches and have been classified as suspected fish habitat based on stream gradient. Road access should be available to these sites within a year and the classification could be confirmed at that time.

TH23 was examined in the lower 0.5 km, and offers suitable habitat for Dolly Varden up to 2.2 km, where the gradient increases sharply.

TH27 has a section of steep gradient channel in the lower reach but may be utilized by resident fish in Reach 2.

Tributary TH26 (Gabriel Creek) (WS Codes: 460-6006-508-480)

Gabriel Creek is a moderate-sized tributary with a complex drainage pattern. Many of Gabriel Creek's tributaries are accessible and utilized by fish. The mainstem is accessible to a 1.2 m falls located 2 km upstream from the bridge crossing (5.4 km upstream from the Thautil).

While Dolly Varden were the prevalent species present at most sites in this system, bull trout and rainbow trout (suspected mix of resident rainbow and steelhead) were sampled at a lower site. Carswell (1979) reported coho juveniles were prevalent in samples collected at two sites downstream from the present road crossing. The lower reach offers sections of good potential spawning habitat for steelhead and coho. Dolly Varden spawning is suspected in Tribs G4 and G5 based on the presence of mature fish and char fry at fish sample sites.

Tributary G5 has fish access upstream for 3.5 km, as well as in the lower ends of several small tributaries. This system is large enough to provide spawning and rearing habitat for coho and steelhead, although only Dolly Varden were found at sample sites in 1996.

Sampling at four sites was conducted in headwater streams with associated small lakes located upstream from barriers on the mainstem of Gabriel Creek and three larger tributaries. In all cases, these headwater areas were barren of fish.

Tributary TH28 (WS Code: 460-6006-508-513)

This tributary is a large (6 m channel width) and high-energy stream compared to most of the tributaries to the lower Thautil. A total of 40 Dolly Varden were observed spawning in the lower 200 m of this creek, and a juvenile steelhead was captured just upstream. This system has the potential to be used by steelhead spawners, although no fry were captured at the lower sample site in 1996.

The mid-reaches of TH28 are heavily-timbered and had poor access during the surveys, and the estimate of the upper extent of fish access is based on aerial observations, increasing gradient, and the fact that no fish were found at two sites located in the upper reaches of this stream.

4.2.2 Denys and Loljuh Creeks and Tributaries

Denys and Loljuh Creek (a major tributary to Denys Creek) enter the upper section of Reach 1 in the Thautil and together comprise a significant proportion of the Thautil drainage.

Denys Creek and Tributaries (WS Codes: 460-6006-508-584)

Denys Creek is accessible to fish for approximately 16 km upstream from the Thautil to a 3.5 m falls located just upstream from Trib D33. The mean channel width ranges from 10-15 m in the four reaches accessible to fish. The stream gradient averages 2.5% over this section. Bed materials are comprised predominantly of cobbles and boulders, with only pockets of gravels suitable for spawning. Gravel bars and sidechannels are present to a limited extent, particularly in Reaches 2 and 3.

Sampling indicated bull trout and Dolly Varden are present in moderate abundance throughout the accessible reaches of Denys Creek (Figures 8 and 10). A bull trout redd and evidence of Dolly Varden spawning was found in the vicinity of D27 (Reach 4). A mix of steelhead and resident rainbow are present in the lower reach of Denys Creek. Similarly coho fry were captured at a site in lower Denys Creek. Coho have been sampled in this lower reach in the past (Carswell 1979), suggesting consistent use by coho salmon.

Electrofishing at two sites located upstream from the impassable falls in the headwaters of Denys Creek upstream from Tributary D33 confirms that upper Denys Creek is barren of fish. The headwaters reach is steep-sided with avalanche tracks right to the creek.

A total of 35 tributary streams were initially identified within the fish-producing sections of Denys Creek (Table 6). Of this total, 30 are accessible to fish from Denys Creek for 500 m or less, mostly for under 100 m. Eleven of these drainages appear on the map, but were not identified as streams in the field surveys. One stream (Trib D20B) was not mapped, but had fish use in the lower 300 m.

While all of Denys Creek tends to be confined into a narrow valley, the adjacent topography is more open in the vicinity of the Loljuh Creek confluence. This is where most of the significant fish tributaries to Denys Creek are located.

Three of these tributaries (Tribs D10, D11 and D12) converge within 500 m of the Loljuh Creek confluence. Trib D22 is the other significant tributary, entering Denys Creek from gentle west side slopes near the lower end of Reach 3. These streams are accessible for between 1 and 3.5 km. Stream gradients in the accessible fish sections range from 5-10%, and channel widths average 1.4 to 3.8 m.

Dolly Varden are the dominant fish species utilizing these tributaries. Trib D12, the largest of the tributaries, had newly-emerged rainbow fry at the lower sample site, indicating either resident rainbow or possibly steelhead spawning in this system.

Table 6. Summary of Tributary Streams to Denys Creek

Length used	Number	Specific	Mean Channel

by fish (km)	of streams	Tributaries	Width (m)
5-10			
2-5	2	D10, D22	2.9
1-2	2	D11, D12	2.6
0.5-1	1	D27,	4.2
.1-0.5	10		1.8
<0.1	20		na
Total	35		

Loljuh Creek and Tributaries (WS Code: 460-6006-508-584-214)

Loljuh Creek is accessible to fish for its entire 7 km length up to two small headwater lakes. Channel widths range from 9 m near the Denys Creek confluence to 1-2 m in the upper sections near the lake outlet. The stream gradient averages 2.3% over the accessible length.

The lower reach of Loljuh Creek is a high-energy system, with frequent debris accumulations, LOD stepping, and some evidence of bank instability. The valley bottom is narrow, and a mature conifer forest dominates the riparian zone.

Although the bed material is predominantly cobbles, Loljuh Creek is a significant bull trout spawning system. Bull trout redds and newly-emerged char fry were observed in the lower 4 km of this system. Only Dolly Varden were captured in the upper sections of Loljuh Creek and tributaries in the 1996 surveys.

A total of 23 tributaries to Loljuh Creek were identified in the preliminary mapping (Table 7). Most (16) are accessible for 100 m or less. This includes 7 drainages that were not classified as streams during the field surveys.

Five significant tributaries to Loljuh Creek provide Dolly Varden rearing and spawning habitat. Trib L10 was utilized up to a small headwater lake. The upper sections of this tributary are isolated from Loljuh Creek by two falls (3-4 m high), indicating this is a resident population of fish. Spawning fish are located downstream from the lake. This is the only tributary in the Denys/Loljuh system that has resident fish present upstream from a barrier.

Table 7. Summary of Tributary Streams to Loljuh Creek.

Length used by fish (km)	Number of streams	Specific Tributaries	Mean Channel Width (m)

5-10	1	L10	5.1
2-5	2	L17, L18	4.5
1-2	1	L3	5.1
0.5-1	1	L20	3.2
.1-0.5	2		1.8
<0.1	16		
Total	23		

Tribs L3, L17, and L18 are accessible for between 1.8 and 2.6 km upstream from Loljuh Creek. These high-energy streams have moderate slopes (5-10%) in their lower reaches, but become increasingly confined and steeper in their mid and upper sections. Newly-emerged char fry were observed in Trib L20, indicating this system is utilized by Dolly Varden spawners up to a 2.3 m falls at 850 m.

4.2.3 Starr Creek (Excluding East Fork) (WS Code: 460-6006-508-722-024)

Starr Creek is accessible from the Thautil River upstream for approximately 11 km to a 2.5 m falls located just upstream from the East Fork confluence. A major tributary (East Fork or Trib ST33) joins Starr Creek 10.5 km upstream from the Thautil confluence and is treated separately in this report due to its large size and importance to fish.

Starr Creek is a major source of bedload for the Thautil River, and this is most apparent on the large gravel outwash in the lower 2 km of Starr Creek. The active channel width in this section exceeds 70 m. Upstream from here, Starr Creek enters a short confined section with some unstable valley wall slumps and then opens up into a broader valley. The channel width remains wide (35-40 m) and is dominated by cobbles and large gravels.

Approximately 600 m upstream from the East Fork confluence, the mainstem narrows into a confined, steep section characterized by a series of rock falls and chutes. We suspect fish moving upstream from lower Starr Creek are restricted by a 2.5 m falls located 745 m upstream from the East Fork. Resident bull trout are present upstream from this falls in Trib ST35.

No fish are present in the headwaters of Starr Creek upstream from a falls located 3 km above the East Fork. This was confirmed by electrofishing at two sites located in Reaches 4 and 5 upstream from the falls.

Steelhead, bull trout and Dolly Varden are present in Starr Creek downstream from the East Fork confluence. Reach 2 of Starr Creek, dominated by unembedded cobbles, provides excellent bull trout rearing. Some bull trout spawning may occur in this section,

although no redds were observed. Dolly Varden spawn in sidechannel seepages adjacent to the mainstem in this reach.

Of the 34 tributaries initially identified in Starr Creek, 29 were either not found in the field (i.e., no definite channel), or were accessible to fish for less than 500 m.

Many of the tributaries entering lower Starr Creek (up to ST17) flow off steep sideslopes and are not accessible right from their confluence with the mainstem. Trib ST1 on lower Starr is an exception to this. This lake-headed system is accessible for approximately 2.5 km, and is a stable and productive tributary. The beaver dam complex at the bottom of this tributary is probably passable at high spring flows, and this system had juvenile rainbow (suspected residents but possibly steelhead) at a sample site below the lake. As well, a 20 cm Dolly Varden spawner was sampled in this tributary.

Table 8. Summary of Tributary Streams to Starr Creek.

Length used by fish (km)	Number of streams	Specific Tributaries	Mean Channel Width (m)
5-10	0		
2-5	3	ST1, ST18, ST35	4.0
1-2	1	ST19	0.9
0.5-1	1	ST31	2.5
.1-0.5	7		1.9
<0.1	22		
Total	34		

Both Tribs ST18 and ST19 have barriers in their lower reaches, but have resident populations of Dolly Varden upstream. Mature Dolly Varden spawners were captured at sample sites in both of these systems. ST19 is one of the few low gradient tributaries to Starr Creek.

ST35 is a large (channel width 12 m) dynamic system with numerous impassable falls and chutes in a lower canyon reach, and extensive bank instability throughout. A resident bull trout population is present in a 3.7 km section of this tributary, and rearing habitat in the cobble and boulder channel was described as excellent.

4.2.4 East Fork Starr Creek and Tributaries (WS Code: 460-6006-508-722-519)

The East Fork of Starr Creek is accessible for 3.4 km upstream from the mainstem of Starr Creek. A series of 2 m to 4.5 m high falls located at the top of Reach 2 and the lower sections of Reach 3 isolate fish populations in the upper creek.

The lower 2 km of the East Fork of Starr Creek is in a steep (6% gradient), confined canyon section dominated by cobbles and boulders. The adjacent valley walls open out in Reach 2, and the resulting lower stream gradient, combined with smaller bed material (gravel/cobble mix) creates good spawning opportunities in this reach.

Bull trout and Dolly Varden redds were present throughout Reach 2 up to the first falls, suggesting that this is one of the main bull trout spawning areas in the Thautil Watershed. Dolly Varden redds were also present throughout this reach.

Seepage channels located along the valley bottom of East Starr Creek are a key component of the fish habitat in this upper elevation system (>1200 m). Some of the groundwater seepages adjacent to the East Fork of Starr Creek are utilized by Dolly Varden spawners. For example, at least three seepages used by spawning Dolly Varden were identified in the section between EST3 and EST6 (Volume 2 and Appendix 6 Table 1). Bull trout redds in the mainstem creek may also be linked to groundwater inflows from seepages along this section of East Starr Creek. Baxter and McPhail (1996), in their review of bull trout spawning requirements, suggest there is strong anecdotal evidence for bull trout spawning sites to be linked to areas of groundwater influence.

The East Fork of Starr Creek had 14 tributaries identified on the 1:20,000 mapping. None of these 14 streams were accessible beyond their lower 500 m. EST 6 is probably the most significant of the tributaries, with Dolly Varden spawners and redds present in the lower 150 m section. Several small tributaries and seepage areas not mapped (due to scale) are summarized in Appendix 6 Table 1.

4.2.5 Upper Thautil River and Tributaries (WS Code: 460-6006-508)

Reach 2 (lower 6 km) of the Thautil River, located upstream from Starr Creek, comprises some of the most significant fish habitat in the Thautil Watershed. The stream gradient ranges from 1-2%, and this section has a good mix of pools and riffles. The bed material is comprised of gravels and cobbles, much of it derived from the adjacent terraces. This section provides some of the best spawning and fry rearing habitat for steelhead in the Thautil Watershed.

Although the channel width ranged from 7-10 m wide, the wetted width was only 3-5 m, and visual observations suggest that the discharge through this section was considerably less than the combined flows of upstream sections of the mainstem and large tributaries such as TH51.

We suspect that much of the streamflow through this section is subsurface, and that the broad valley flats have a "sponge-like" effect moderating streamflows in the mainstem and providing an ideal incubation environment for steelhead. Streamflows in Tribs TH51 and TH48 were completely subsurface across the valley flat despite significant flows in upstream areas.

Old redd sites (presumed steehead based on size and high fry abundance in the vicinity of redd sites) were still evident in the lower 2 km of this reach. Recent Dolly Varden redds were also noted in this section. We suspect bull trout do not use this area, possibly due to warm water temperatures. Water temperatures at Site In5 were still a moderate 7° C on the October 8. No bull trout juveniles were captured at either index site in this reach.

The upper extent of fish access in the Thautil is located in the narrow canyon section of Reach 3, 6.9 km upstream from the Starr Creek confluence. A low gradient headwater area is located upstream from the canyon. Resident Dolly Varden were present at three sample sites in these upper reaches of the Thautil River up to an elevation of 1300 m.

A number of significant tributaries are associated with Reach 2 of the Thautil River, presumably the result of a wider valley flats in this section. Tribs TH49 and TH51 are utilized for at least 2 km. We suspect the Dolly Varden populations in these systems are resident fish, since the channels in their lower sections are poorly defined and flows are subsurface.

Tributaries in the upper section of Reach 3 tend to be steep and inaccessible either from their confluence with the Thautil or within a short distance upstream.

4.3 AMPHIBIAN OBSERVATIONS

Observations of all amphibians encountered during the surveys were recorded and are summarized in Appendix 7 Table 1. The data indicate that amphibian observations were relatively infrequent in the Thautil Watershed and were restricted to two species - Spotted Frogs[16] (*Rana pretiosa*) and the Western Toad (*Bufo boreas*).

Of the two, Spotted Frogs were observed more commonly in a range of habitats. Many of the observations were made within a week of initiating the field surveys, and we suspect that the late timing of the field surveys (mid-September to late October) was not well suited to observations of amphibians.

No salmanders were captured in minnow traps set at pond sites in this survey. As well, no tailed frogs (*Ascaphus truei*) were observed during the surveys.

[16] Also called Western Spotted Frogs

5.0 CONCLUSIONS

The 266 habitat and 155 fish sample sites conducted in the Thautil River during 1996, in conjunction with ground and aerial surveys, and past studies, provide an excellent database for mapping fish distribution and riparian stream classification for the entire Thautil Watershed. Some of the key conclusions from the studies include the following:

Fish were present at 70 of the 155 sites sampled. Steelhead, bull trout, and Dolly Varden char were the three principal fish species in the Thautil Watershed during the 1996 surveys. Steelhead were present at 14 locations, bull trout at 19 sites and Dolly Varden were present at 63 sites throughout the watershed.

Steelhead and bull trout utilized the larger channels with gradients less than 6%. Dolly Varden were the dominant species in the smaller tributaries, and were present in streams up to 13% gradient.

Key areas for steelhead production in the Thautil Watershed include the mainstem Thautil River and lower Hagman Creek. Reach 2 of the Thautil River, located upstream from the Starr Creek confluence, was identified as a significant spawning and fry production area. Starr Creek, lower Denys Creek, and several smaller tributaries to the lower Thautil receive minor use relative to the mainstem locations downstream. A comparison of juvenile steelhead density estimates in the Thautil mainstem to past years indicates that the 1996 recruitment of fry and parr was relatively strong.

Bull trout spawning sites were identified in the East Fork of Starr Creek, lower Loljuh Creek and the mid reaches of Denys Creek. Bull trout juveniles were distributed throughout Starr and Denys creeks, and in lower abundance in the mainstem Thautil downstream from Starr Creek. While bull trout and Dolly Varden occurred together at 13 locations, bull trout dominated the char catch in the mainstem Thautil River sites below Starr Creek. Resident populations of bull trout were present in upper sections of both forks of Starr Creek.

Dolly Varden were widely dispersed throughout the watershed, including at least 10 sites with resident populations. Spawning occurred in many of the tributary streams and in sidechannels and groundwater seepages associated with the mainstem, particularly in headwater locations such as the East Fork of Starr Creek. Mature Dolly Varden in the Thautil did not appear to exceed 20 cm fork length. Dolly Varden spawning in the Thautil peaks in late September while bull trout spawning was finished before field studies were initiated in mid September.

Historical evidence suggests that coho salmon use in the Thautil and tributaries can be significant. Only five juveniles were captured at all of the sites combined in 1996, suggesting the Thautil River coho run is in a distressful situation. The depleted coho

stock is a result of inadequate spawning escapements, rather than a deterioration of spawning or rearing habitat in the Thautil Watershed.

6.0 RECOMMENDATIONS

Significant areas of potential fish habitat that are barren of fish include upper Hagman Gabriel, and Denys creeks and the upper reaches of the main (West) fork of Starr Creek. The barriers are substantial and probably not suitable as future enhancement options. Adequate fish sampling was conducted at these location to confirm their barren status, and further sampling is not recommended.

The fish distribution for a number of smaller tributaries of the Thautil between Hagman and Denys Creek was estimated based on gradient, and needs to be confirmed as access improves to this section. Our observations suggest that delineating creeks as fish streams when slopes range from 15-20% in situations when sampling information is not available, is probably too conservative. The maximum gradient of any fish creeks sampled in the Thautil Watershed was 13%.

Culverts were used at crossing sites at five Thautil River tributaries that had fish present upstream from the roads (Appendix 8 Table 1). Tributaries TH4.1, TH22, G4 and possibly G5 should be examined to determine whether the culverts should be removed or replaced to allow for fish passage.

Surveys noted extensive areas of bank instability associated with larger stream channels. As well, highly erodeable soil types are present including along road cuts in the lower Thautil. Terrain and soil mapping that identifies areas to avoid with road and cutblock developments should be a high priority in this watershed.

Careful consideration should be given to any road developments in the vicinity of Reach 2 of the Thautil (upstream from Starr Creek), to avoid interruption of subsurface flows or sedimentation in this critical area for steelhead spawning.

Although coho use in the Thautil Watershed was low in 1996, historical data indicates the potential habitat is there for more significant utilization. Management practices in the watershed, particularly in the lower accessible ends of smaller tributaries, should reflect the potential of these sites to be used in some years by coho.

Road developments in the upper sections of the Thautil should attempt to avoid creating easy access to probable key staging areas for bull trout at the Denys/Thautil confluence and at the Thautil/Starr Creek confluence area. The history of bull trout elsewhere suggests that angling fish at key holding areas may have more of an impact on overall bull trout populations than direct habitat alteration from logging.

The Thautil River, with its mix of Dolly Varden, bull trout (fluvial and resident), and steelhead, offers some interesting areas for future research, particularly related to habitat use differences between the two char species. The upper reaches of East Starr are complex, and require more study before the char distribution in this upper watershed is fully understood. The role of groundwater seepages at this location is of considerable interest.

Adult bull trout studies in the Thautil River would be useful to confirm the anecdotal observations of adult fish from past studies and the redd information collected in 1996. Snorkel and ground observations at key locations during the period of upstream migration and spawning would provide useful background information describing the Thautil River bull trout population.

The linkage of adult bull trout in the Thautil River relative to the rest of the Morice drainage is fundamental to understanding the movement patterns and management implications that angling regulations on the Morice River have on the Thautil River bull trout population. A radio-telemetry study of bull trout in the Morice would help to provide some indication of the significance of the Thautil River bull trout to the overall Morice River population. Such a study may also lead to additional bull trout spawning sites in the watershed.

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Stream Name	Watershed Code	Date	Survey Crew	UTM	Reach #	Site #	Area (m*m)	Water Temp (^{0}C)	Cond. (u mhos)	Capture Method	Pass/ Trap #	Spp.	Maturity	FL (mm)	Activity	Comments
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	SST	F	33	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	SST	F	36	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	SST	F	36	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	SST	F	36	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	SST	F	37	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	SST	F	38	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	SST	F	39	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	SST	F	39	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	SST	F	43	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	SST	F	43	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	SST	F	47	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	SST	F	49	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	SST	F	50	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	SST	F	51	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	SST	F	51	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	SST	F	51	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	SST	IM	68	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	SST	IM	71	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	SST	IM	72	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	SST	IM	72	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	SST	IM	73	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	SST	IM	75	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	SST	IM	75	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	SST	IM	78	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	SST	IM	79	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	SST	IM	83	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	SST	IM	83	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	SST	IM	91	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	SST	IM	93	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	SST	IM	109	R	+ 8 fry and 3 parr nm.
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	2	SST	F	34	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	2	SST	F	35	R	Fin ray sample taken.
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	2	SST	F	36	R	Fin ray sample taken.
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	2	SST	F	37	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	2	SST	IM	76	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	2	SST	IM	85	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	2	SST	IM	85	R	Fin ray sample taken.
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	BT	IM	114	R	Fin ray/DNA samples taken.
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	CO	IM	85	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	CO	IM	98	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	MW	F	52	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	JH/SS	9.6072.60096	1	In1	162.6	3	60	EL	1	PL	IM	nr	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	SST	F	32	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	SST	F	33	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	SST	F	33	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	SST	F	33	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	SST	F	33	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	SST	F	37	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	SST	F	37	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	SST	F	37	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	SST	F	38	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	SST	F	38	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	SST	F	39	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	SST	F	39	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	SST	F	40	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	SST	F	42	R	+ 16 fry nm.
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	SST	IM	64	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	SST	IM	69	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	SST	IM	70	R	DNA sample taken. Specimen.
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	SST	IM	71	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	SST	IM	72	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	SST	IM	79	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	SST	IM	81	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	SST	IM	81	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	SST	IM	82	R	

Stream Name	Watershed Code	Date	Survey Crew	UTM	Reach #	Site #	Area (m*m)	Water Temp (^{0}C)	Cond. (*u* mhos)	Capture Method	Pass/ Trap #	Spp.	Maturity	FL (mm)	Activity	Comments
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	SST	IM	92	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	SST	IM	92	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	SST	IM	98	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	SST	IM	112	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	SST	IM	133	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	2	SST	F	31	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	2	SST	F	32	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	2	SST	F	32	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	2	SST	F	34	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	2	SST	F	35	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	2	SST	F	36	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	2	SST	F	37	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	2	SST	F	37	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	2	SST	F	37	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	2	SST	F	37	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	2	SST	F	38	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	2	SST	F	39	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	2	SST	F	39	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	2	SST	F	39	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	2	SST	F	39	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	2	SST	F	41	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	2	SST	IM	68	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	2	SST	IM	69	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	2	SST	IM	72	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	2	SST	IM	92	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	DV	M	129	M, S	Mature male. Specimen.
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	CHF	F	41	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	CHF	F	43	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	CHF	F	45	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	2	CHF	F	39	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	BT	IM	54	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	BT	IM	57	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	BT	IM	59	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	BT	IM	62	R	Fin ray/DNA samples taken. Specimen.
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	1	BT	IM	88	R	Fin ray/DNA samples taken. Specimen.
Thautil R.	460-6006-508-000-000-000-000	96/10/23	RD/CP	9.6061.60153	1	In2	161.9	2.5	60	EL	2	BT	IM	72	R	Fin ray/DNA samples taken. Specimen.
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	1	SST	F	29	R	
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	1	SST	F	29	R	
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	1	SST	F	31	R	
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	1	SST	F	33	R	
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	1	SST	F	34	R	
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	1	SST	F	34	R	
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	1	SST	F	35	R	
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	1	SST	F	39	R	
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	1	SST	F	41	R	
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	1	SST	IM	73	R	
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	1	SST	IM	73	R	
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	1	SST	IM	78	R	
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	1	SST	IM	79	R	
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	1	SST	IM	82	R	
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	1	SST	IM	91	R	
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	1	SST	IM	99	R	
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	1	SST	IM	103	R	
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	1	SST	IM	103	R	
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	1	SST	IM	106	R	
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	1	SST	IM	111	R	
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	1	SST	IM	120	R	
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	2	SST	F	37	R	
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	2	SST	IM	72	R	
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	2	SST	IM	96	R	
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	2	SST	IM	101	R	
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	1	BT	IM	82	R	
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	1	BT	IM	86	R	
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	1	BT	IM	130	R	Fin ray/DNA samples taken. Specimen.
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	2	BT	IM	69	R	Fin ray/DNA samples taken. Specimen.

Stream Name	Watershed Code	Date	Survey Crew	UTM	Reach #	Site #	Area (m*m)	Water Temp (^{0}C)	Cond. (u mhos)	Capture Method	Pass/ Trap #	Spp.	Maturity	FL (mm)	Activity	Comments
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	2	BT	IM	78	R	Fin ray/DNA samples taken. Specimen.
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	1	CHF	F	36	R	
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	1	CHF	F	46	R	
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	1	CHF	F	51	R	
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	2	CHF	F	42	R	
Thautil R.	460-6006-508-000-000-000-000	96/09/26	RD/CP/DB	9.608050.6023090	1	In3	184.2	8.6	nm	EL	2	CHF	F	44	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	1	SST	F	35	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	1	SST	F	35	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	1	SST	F	36	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	1	SST	F	36	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	1	SST	F	36	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	1	SST	F	37	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	1	SST	F	38	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	1	SST	F	38	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	1	SST	IM	61	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	1	SST	IM	67	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	1	SST	IM	70	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	1	SST	IM	70	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	1	SST	IM	73	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	1	SST	IM	73	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	1	SST	IM	75	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	1	SST	IM	76	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	1	SST	IM	78	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	1	SST	IM	97	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	1	SST	IM	100	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	1	SST	IM	109	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	2	SST	F	29	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	2	SST	F	35	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	2	SST	IM	74	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	2	SST	IM	79	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	2	SST	IM	80	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	2	SST	IM	81	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	1	DV	F	44	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	1	DV	IM	78	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	1	DV	IM	79	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	1	DV	IM	80	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	1	DV	IM	81	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	1	DV	IM	87	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	2	DV	IM	70	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	2	DV	IM	70	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/22	JH/SS	9.6068.60291	2	In4	158.4	3	70	EL	2	DV	IM	73	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	28	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	29	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	31	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	31	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	34	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	34	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	35	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	35	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	35	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	35	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	36	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	36	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	36	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	36	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	36	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	37	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	37	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	37	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	38	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	38	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	38	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	38	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	38	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	38	R	

Stream Name	Watershed Code	Date	Survey Crew	UTM	Reach #	Site #	Area (m*m)	Water Temp (^{0}C)	Cond. (*u* mhos)	Capture Method	Pass/ Trap #	Spp.	Maturity	FL (mm)	Activity	Comments
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	39	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	39	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	39	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	39	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	39	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	39	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	39	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	40	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	40	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	40	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	40	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	F	41	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	IM	67	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	IM	71	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	IM	73	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	IM	75	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	IM	76	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	SST	IM	100	R	DNA sample taken.
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	2	SST	F	31	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	2	SST	F	35	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	2	SST	F	36	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	2	SST	F	36	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	2	SST	F	37	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	2	SST	F	37	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	2	SST	F	37	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	2	SST	F	38	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	2	SST	F	38	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	2	SST	F	38	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	2	SST	F	39	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	2	SST	F	39	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	2	SST	F	39	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	2	SST	IM	73	R	DNA sample taken.
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	2	SST	IM	75	R	DNA sample taken.
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	2	SST	IM	95	R	DNA sample taken.
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	2	SST	IM	105	R	DNA sample taken.
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	DV	IM	115	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	1	CHF	F	44	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/08	DB/SS	9.6064.60306	2	In5	69.1	7	nm	EL	2	CHF	F	34	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/15	DB/CP	9.6088.60328	3	1	95.0	1	60	EL	1	DV	IM	70	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/15	DB/CP	9.6088.60328	3	1	95.0	1	60	EL	1	DV	IM	70	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/15	DB/CP	9.6088.60328	3	1	95.0	1	60	EL	1	DV	IM	72	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/15	DB/CP	9.6088.60328	3	1	95.0	1	60	EL	1	DV	IM	97	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/15	RD/SS	9.6105.60342	4	2	32.0	2	50	EL	1	DV	IM	62	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/15	RD/SS	9.6105.60342	4	2	32.0	2	50	EL	1	DV	IM	75	R	
Thautil R.	460-6006-508-000-000-000-000	96/10/15	RD/SS	9.6105.60342	4	2	32.0	2	50	EL	1	DV	IM	99	R	
Thautil R. Trib. Th2	460-6006-508-141-000-000-000	96/09/13	SS/JH	9.6059.60105	1	1	130.0	9.5	nm	EL	1	RB	F	39	R	
Thautil R. Trib. Th2	460-6006-508-141-000-000-000	96/09/13	SS/JH	9.6059.60105	1	1	130.0	9.5	nm	EL	1	RB	F	40	R	
Thautil R. Trib. Th2	460-6006-508-141-000-000-000	96/09/13	SS/JH	9.6059.60105	1	1	130.0	9.5	nm	EL	1	RB	F	41	R	
Thautil R. Trib. Th2	460-6006-508-141-000-000-000	96/09/13	SS/JH	9.6059.60105	1	1	130.0	9.5	nm	EL	1	RB	F	41	R	
Thautil R. Trib. Th2	460-6006-508-141-000-000-000	96/09/13	SS/JH	9.6059.60105	1	1	130.0	9.5	nm	EL	1	RB	F	41	R	
Thautil R. Trib. Th2	460-6006-508-141-000-000-000	96/09/13	SS/JH	9.6059.60105	1	1	130.0	9.5	nm	EL	1	RB	F	47	R	
Thautil R. Trib. Th2	460-6006-508-141-000-000-000	96/09/13	SS/JH	9.6059.60105	1	1	130.0	9.5	nm	EL	1	RB	F	48	R	
Thautil R. Trib. Th2	460-6006-508-141-000-000-000	96/09/13	SS/JH	9.6059.60105	1	1	130.0	9.5	nm	EL	1	DV	IM	83	R	
Thautil R. Trib. Th4	460-6006-508-174-000-000-000	96/09/13	CP/RD	9.6061.60117	3	2	n/a	8	nm	MT	1	DV	IM	79	R	
Thautil R. Trib. Th4	460-6006-508-174-000-000-000	96/09/13	CP/RD	9.6061.60117	3	2	n/a	8	nm	MT	1	DV	IM	92	R	
Thautil R. Trib. Th4	460-6006-508-174-000-000-000	96/09/13	CP/RD	9.6061.60117	3	2	n/a	8	nm	MT	1	DV	IM	108	R	
Thautil R. Trib. Th4	460-6006-508-174-000-000-000	96/09/13	CP/RD	9.6061.60117	3	2	n/a	8	nm	MT	1	DV	IM	117	R	
Thautil R. Trib. Th4	460-6006-508-174-000-000-000	96/09/13	CP/RD	9.6061.60117	3	2	n/a	8	nm	MT	1	DV	IM	122	R	
Thautil R. Trib. Th4	460-6006-508-174-000-000-000	96/09/13	CP/RD	9.6061.60117	3	2	n/a	8	nm	MT	1	DV	IM	127	R	
Thautil R. Trib. Th4	460-6006-508-174-000-000-000	96/09/13	CP/RD	9.6061.60117	3	2	n/a	8	nm	MT	1	DV	ST	130	S	Spawned-out male.
Thautil R. Trib. Th4	460-6006-508-174-000-000-000	96/09/13	CP/RD	9.6061.60117	3	2	n/a	8	nm	MT	1	DV	ST	143	S	Spawned-out male.
Thautil R. Trib. Th4.1	460-6006-508-174-044-000-000	96/09/13	CP/RD	9.6063.60118	1	3	n/a	8	nm	MT	1	DV	IM	82	R	
Thautil R. Trib. Th4.1	460-6006-508-174-044-000-000	96/09/13	CP/RD	9.6063.60118	1	3	n/a	8	nm	MT	1	DV	IM	89	R	
Thautil R. Trib. Th4.1	460-6006-508-174-044-000-000	96/09/13	CP/RD	9.6063.60118	1	3	n/a	8	nm	MT	1	DV	IM	94	R	
Thautil R. Trib. Th4.1	460-6006-508-174-044-000-000	96/09/13	CP/RD	9.6063.60118	1	3	n/a	8	nm	MT	1	DV	IM	94	R	

Stream Name	Watershed Code	Date	Survey Crew	UTM	Reach #	Site #	Area (m*m)	Water Temp (^{0}C)	Cond. (u mhos)	Capture Method	Pass/ Trap #	Spp.	Maturity	FL (mm)	Activity	Comments
Thautil R. Trib. Th4.1	460-6006-508-174-044-000-000	96/09/13	CP/RD	9.6063.60118	1	3	n/a	8	nm	MT	1	DV	IM	96	R	
Thautil R. Trib. Th4.1	460-6006-508-174-044-000-000	96/09/13	CP/RD	9.6063.60118	1	3	n/a	8	nm	MT	1	DV	IM	96	R	
Thautil R. Trib. Th4.1	460-6006-508-174-044-000-000	96/09/13	CP/RD	9.6063.60118	1	3	n/a	8	nm	MT	1	DV	IM	96	R	
Thautil R. Trib. Th4.1	460-6006-508-174-044-000-000	96/09/13	CP/RD	9.6063.60118	1	3	n/a	8	nm	MT	1	DV	IM	100	R	
Thautil R. Trib. Th4.1	460-6006-508-174-044-000-000	96/09/13	CP/RD	9.6063.60118	1	3	n/a	8	nm	MT	1	DV	IM	103	R	
Thautil R. Trib. Th4.1	460-6006-508-174-044-000-000	96/09/13	CP/RD	9.6063.60118	1	3	n/a	8	nm	MT	1	DV	IM	103	R	
Thautil R. Trib. Th4.1	460-6006-508-174-044-000-000	96/09/13	CP/RD	9.6063.60118	1	3	n/a	8	nm	MT	1	DV	IM	105	R	
Thautil R. Trib. Th4.1	460-6006-508-174-044-000-000	96/09/13	CP/RD	9.6063.60118	1	3	n/a	8	nm	MT	1	DV	IM	112	R	
Thautil R. Trib. Th4.1	460-6006-508-174-044-000-000	96/09/13	CP/RD	9.6063.60118	1	3	n/a	8	nm	MT	1	DV	IM	123	R	
Thautil R. Trib. Th10	460-6006-508-305-000-000-000	96/09/20	JH/SS	9.6062.60156	1	1	85.0	6	nm	EL	1	SST	IM	50	R	
Thautil R. Trib. Th10	460-6006-508-305-000-000-000	96/09/20	JH/SS	9.6062.60156	1	1	85.0	6	nm	EL	1	SST	IM	57	R	
Thautil R. Trib. Th10	460-6006-508-305-000-000-000	96/09/20	JH/SS	9.6062.60156	1	1	85.0	6	nm	EL	1	SST	IM	57	R	
Thautil R. Trib. Th10	460-6006-508-305-000-000-000	96/09/20	JH/SS	9.6062.60156	1	1	85.0	6	nm	EL	1	SST	IM	59	R	
Thautil R. Trib. Th10	460-6006-508-305-000-000-000	96/09/20	JH/SS	9.6062.60156	1	1	85.0	6	nm	EL	1	SST	IM	65	R	
Thautil R. Trib. Th10	460-6006-508-305-000-000-000	96/09/20	JH/SS	9.6062.60156	1	1	85.0	6	nm	EL	1	CHF	F	49	R	
Thautil R. Trib. Th10	460-6006-508-305-000-000-000	96/09/20	JH/SS	9.6062.60156	1	1	85.0	6	nm	EL	1	BT	IM	84	R	
Thautil R. Trib. Th10	460-6006-508-305-000-000-000	96/09/20	JH/SS	9.6062.60156	1	1	85.0	6	nm	EL	1	BT	IM	111	R	Specimen.
Thautil R. Trib. Th10	460-6006-508-305-000-000-000	96/09/23	JH/SS	9.6062.60156	2	2	180.8	4.5	nm	EL	1	DV	IM	47	R	Spot shocked 25 m d/s from site.
Thautil R. Trib. Th11	460-6006-508-343-000-000-000	96/09/17	RD/CP	9.6070.60165	2	1	75.0	5	nm	EL	1	DV	IM	81	R	Observed 2 DV.
Thautil R. Trib. Th11	460-6006-508-343-000-000-000	96/09/17	RD/CP	9.6070.60165	2	1	75.0	5	nm	EL	1	DV	IM	112	R	
Thautil R. Trib. Th11	460-6006-508-343-000-000-000	96/10/22	RD/CP	9.6070.60165	2	2	65.0	3	nm	EL	1	DV	IM	75	R	
Thautil R. Trib. Th11	460-6006-508-343-000-000-000	96/10/22	RD/CP	9.6070.60165	2	2	65.0	3	nm	EL	1	DV	IM	130	R	
Thautil R. Trib. Th12	460-6006-508-355-000-000-000	96/09/20	RD/CP/DB	9.6071.60169	1	1	57.0	6	nm	EL	1	DV	IM	132	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	SST	F	34	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	SST	F	35	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	SST	F	35	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	SST	F	35	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	SST	F	36	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	SST	F	37	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	SST	F	37	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	SST	F	37	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	SST	F	37	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	SST	F	38	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	SST	F	38	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	SST	F	38	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	SST	F	38	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	SST	F	39	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	SST	F	39	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	SST	F	40	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	SST	F	41	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	SST	IM	63	R	DNA sample taken.
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	SST	IM	64	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	SST	IM	66	R	DNA sample taken.
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	SST	IM	69	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	SST	IM	72	R	DNA sample taken.
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	SST	IM	73	R	DNA sample taken.
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	SST	IM	73	R	DNA sample taken.
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	SST	IM	73	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	SST	IM	74	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	SST	IM	79	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	SST	IM	82	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	SST	IM	92	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	2	SST	IM	70	R	+ 5 parr & 8 fry nm; 1 parr in pass 3 nm.
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	DV	IM	75	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	DV	IM	76	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	DV	IM	80	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	DV	IM	107	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	DV	IM	120	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	2	DV	IM	67	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	2	DV	IM	74	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	2	DV	IM	112	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	2	DV	IM	116	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	3	DV	IM	70	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	3	DV	IM	80	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	3	DV	IM	96	R	

Stream Name	Watershed Code	Date	Survey Crew	UTM	Reach #	Site #	Area (m*m)	Water Temp (^{0}C)	Cond. (μ mhos)	Capture Method	Pass/ Trap #	Spp.	Maturity	FL (mm)	Activity	Comments
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	CHF	F	46	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	CHF	F	46	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	CHF	F	48	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	CHF	F	50	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	CHF	F	50	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	CHF	F	51	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	CHF	F	51	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	CHF	F	51	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	CHF	F	52	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	CHF	F	54	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	CHF	F	54	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	CHF	F	55	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	1	CHF	F	56	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	2	CHF	F	43	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	2	CHF	F	53	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	2	CHF	F	53	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	3	CHF	F	50	R	
Hagman C.	460-6006-508-381-000-000-000	96/10/10	JH/SS	9.6071.60177	1	In1	207.8	7.5	60	EL	3	BT	IM	101	R	Fin ray/DNA samples taken. Specimen.
Hagman C. Trib. H1	460-6006-508-381-118-000-000	96/10/10	JH/SS	9.6085.60181	1	4	143.0	6.5	110	EL	1	DV	IM	70	R	DV caught u/s and d/s from road culvert.
Hagman C. Trib. H1	460-6006-508-381-118-000-000	96/10/10	JH/SS	9.6085.60181	1	4	143.0	6.5	110	EL	1	DV	IM	100	R	Note that the culvert is a barrier to fish
Hagman C. Trib. H1	460-6006-508-381-118-000-000	96/10/10	JH/SS	9.6085.60181	1	4	143.0	6.5	110	EL	1	DV	IM	105	R	migration.
Hagman C. Trib. H1	460-6006-508-381-118-000-000	96/10/10	JH/SS	9.6085.60181	1	4	143.0	6.5	110	EL	1	DV	IM	110	R	
Hagman C. Trib. H1	460-6006-508-381-118-000-000	96/10/10	JH/SS	9.6085.60181	1	4	143.0	6.5	110	EL	1	DV	IM	110	R	
Thautil R. Trib. Th22	460-6006-508-468-000-000-000	96/09/25	JH/SS	9.6076.60205	2	2	35.1	6	nm	EL	1	DV	F	41	R	
Thautil R. Trib. Th22	460-6006-508-468-000-000-000	96/09/25	JH/SS	9.6076.60205	2	2	35.1	6	nm	EL	1	DV	F	42	R	
Thautil R. Trib. Th22	460-6006-508-468-000-000-000	96/09/25	JH/SS	9.6076.60205	2	2	35.1	6	nm	EL	1	DV	F	56	R	
Thautil R. Trib. Th22	460-6006-508-468-000-000-000	96/09/25	JH/SS	9.6076.60205	2	2	35.1	6	nm	EL	1	DV	IM	65	R	
Thautil R. Trib. Th22	460-6006-508-468-000-000-000	96/09/25	JH/SS	9.6076.60205	2	2	35.1	6	nm	EL	1	DV	IM	68	R	
Thautil R. Trib. Th22	460-6006-508-468-000-000-000	96/09/25	JH/SS	9.6076.60205	2	2	35.1	6	nm	EL	1	DV	IM	69	R	
Thautil R. Trib. Th22	460-6006-508-468-000-000-000	96/09/25	JH/SS	9.6076.60205	2	2	35.1	6	nm	EL	1	DV	IM	70	R	
Thautil R. Trib. Th22	460-6006-508-468-000-000-000	96/09/25	JH/SS	9.6076.60205	2	2	35.1	6	nm	EL	1	DV	IM	71	R	
Gabriel C.	460-6006-508-480-000-000-000	96/09/26	RD/SS	9.6075.60209	1	2	133.0	8	nm	EL	1	RB	IM	62	R	Suspect resident RB.
Gabriel C.	460-6006-508-480-000-000-000	96/09/26	RD/SS	9.6075.60209	1	2	133.0	8	nm	EL	1	RB	IM	62	R	
Gabriel C.	460-6006-508-480-000-000-000	96/09/26	RD/SS	9.6075.60209	1	2	133.0	8	nm	EL	1	RB	IM	71	R	
Gabriel C.	460-6006-508-480-000-000-000	96/09/26	RD/SS	9.6075.60209	1	2	133.0	8	nm	EL	1	RB	IM	72	R	
Gabriel C.	460-6006-508-480-000-000-000	96/09/26	RD/SS	9.6075.60209	1	2	133.0	8	nm	EL	1	RB	IM	72	R	
Gabriel C.	460-6006-508-480-000-000-000	96/09/26	RD/SS	9.6075.60209	1	2	133.0	8	nm	EL	1	RB	IM	75	R	
Gabriel C.	460-6006-508-480-000-000-000	96/09/26	RD/SS	9.6075.60209	1	2	133.0	8	nm	EL	1	RB	IM	76	R	
Gabriel C.	460-6006-508-480-000-000-000	96/09/26	RD/SS	9.6075.60209	1	2	133.0	8	nm	EL	1	RB	IM	76	R	
Gabriel C.	460-6006-508-480-000-000-000	96/09/26	RD/SS	9.6075.60209	1	2	133.0	8	nm	EL	1	RB	IM	96	R	
Gabriel C.	460-6006-508-480-000-000-000	96/09/26	RD/SS	9.6075.60209	1	2	133.0	8	nm	EL	1	RB	IM	140	R	+ 1 fry nm (eaten in the bucket).
Gabriel C.	460-6006-508-480-000-000-000	96/09/26	RD/SS	9.6075.60209	1	2	133.0	8	nm	EL	1	DV	IM	72	R	
Gabriel C.	460-6006-508-480-000-000-000	96/09/26	RD/SS	9.6075.60209	1	2	133.0	8	nm	EL	1	DV	IM	77	R	
Gabriel C.	460-6006-508-480-000-000-000	96/09/26	RD/SS	9.6075.60209	1	2	133.0	8	nm	EL	1	DV	IM	89	R	
Gabriel C.	460-6006-508-480-000-000-000	96/09/26	RD/SS	9.6075.60209	1	2	133.0	8	nm	EL	1	DV	IM	109	R	
Gabriel C.	460-6006-508-480-000-000-000	96/09/26	RD/SS	9.6075.60209	1	2	133.0	8	nm	EL	1	DV	ST	123	S	Spawned-out male.
Gabriel C.	460-6006-508-480-000-000-000	96/09/26	RD/SS	9.6075.60209	1	2	133.0	8	nm	EL	1	BT	IM	106	R	
Gabriel C.	460-6006-508-480-000-000-000	96/09/26	RD/SS	9.6075.60209	1	2	133.0	8	nm	EL	1	CHF	F	42	R	
Gabriel C.	460-6006-508-480-000-000-000	96/09/26	RD/SS	9.6075.60209	1	2	133.0	8	nm	EL	1	CHF	F	42	R	
Gabriel C.	460-6006-508-480-000-000-000	96/09/26	RD/SS	9.6075.60209	1	2	133.0	8	nm	EL	1	CHF	F	47	R	
Gabriel C.	460-6006-508-480-000-000-000	96/09/27	JH/SS	9.6075.60209	2	In1	149.9	6	19	EL	1	DV	IM	91	R	
Gabriel C.	460-6006-508-480-000-000-000	96/09/27	JH/SS	9.6075.60209	2	In1	149.9	6	19	EL	1	DV	M	131	S	Mature.
Gabriel C.	460-6006-508-480-000-000-000	96/09/27	JH/SS	9.6075.60209	2	In1	149.9	6	19	EL	2	DV	IM	68	R	
Gabriel C.	460-6006-508-480-000-000-000	96/09/27	JH/SS	9.6075.60209	2	In1	149.9	6	19	EL	2	DV	IM	76	R	
Gabriel C.	460-6006-508-480-000-000-000	96/09/27	JH/SS	9.6075.60209	2	In1	149.9	6	19	EL	2	DV	IM	76	R	
Gabriel C.	460-6006-508-480-000-000-000	96/09/27	JH/SS	9.6075.60209	2	In1	149.9	6	19	EL	2	DV	M	121	S	Mature.
Gabriel C.	460-6006-508-480-000-000-000	96/09/27	JH/SS	9.6075.60209	2	In1	149.9	6	19	EL	3	DV	IM	90	R	
Gabriel C. Trib. G4	460-6006-508-480-707-000-000	96/09/27	RD/CP	9.6057.60224	2	1	46.8	6.7	58	EL	1	DV	IM	80	R	
Gabriel C. Trib. G4	460-6006-508-480-707-000-000	96/09/27	RD/CP	9.6057.60224	2	1	46.8	6.7	58	EL	1	DV	IM	80	R	
Gabriel C. Trib. G4	460-6006-508-480-707-000-000	96/09/27	RD/CP	9.6057.60224	2	1	46.8	6.7	58	EL	1	DV	ST	117	S	Spawned-out male.
Gabriel C. Trib. G4	460-6006-508-480-707-000-000	96/09/27	RD/CP	9.6057.60224	2	1	46.8	6.7	58	EL	1	DV	ST	175	S	Spawned-out female.
Gabriel C. Trib. G4	460-6006-508-480-707-000-000	96/10/04	RD/CP	9.6057.60224	3	2	67.5	4	nm	EL	1	DV	IM	60	R	
Gabriel C. Trib. G4	460-6006-508-480-707-000-000	96/10/04	RD/CP	9.6057.60224	3	2	67.5	4	nm	EL	1	DV	IM	61	R	
Gabriel C. Trib. G4	460-6006-508-480-707-000-000	96/10/04	RD/CP	9.6057.60224	3	2	67.5	4	nm	EL	1	DV	IM	86	R	
Gabriel C. Trib. G4	460-6006-508-480-707-000-000	96/10/04	RD/CP	9.6057.60224	3	2	67.5	4	nm	EL	1	DV	IM	92	R	+ 1 parr nm.

Stream Name	Watershed Code	Date	Survey Crew	UTM	Reach #	Site #	Area (m*m)	Water Temp (^{0}C)	Cond. (μmhos)	Capture Method	Pass/ Trap #	Spp.	Maturity	FL (mm)	Activity	Comments
Gabriel C. Trib. G5	460-6006-508-480-767-000-000	96/09/27	RD/CP	9.6055.60225	1	1	98.9	8	nm	EL	1	DV	IM	68	R	
Gabriel C. Trib. G5	460-6006-508-480-767-000-000	96/09/27	RD/CP	9.6055.60225	1	1	98.9	8	nm	EL	1	DV	IM	69	R	
Gabriel C. Trib. G5	460-6006-508-480-767-000-000	96/09/27	RD/CP	9.6055.60225	1	1	98.9	8	nm	EL	1	DV	IM	69	R	
Gabriel C. Trib. G5	460-6006-508-480-767-000-000	96/09/27	RD/CP	9.6055.60225	1	1	98.9	8	nm	EL	1	DV	IM	71	R	
Gabriel C. Trib. G5	460-6006-508-480-767-000-000	96/09/27	RD/CP	9.6055.60225	1	1	98.9	8	nm	EL	1	DV	IM	73	R	
Gabriel C. Trib. G5	460-6006-508-480-767-000-000	96/09/27	RD/CP	9.6055.60225	1	1	98.9	8	nm	EL	1	DV	IM	74	R	
Gabriel C. Trib. G5	460-6006-508-480-767-000-000	96/09/27	RD/CP	9.6055.60225	1	1	98.9	8	nm	EL	1	DV	IM	76	R	
Gabriel C. Trib. G5	460-6006-508-480-767-000-000	96/09/27	RD/CP	9.6055.60225	1	1	98.9	8	nm	EL	1	DV	IM	82	R	
Gabriel C. Trib. G5	460-6006-508-480-767-000-000	96/09/27	RD/CP	9.6055.60225	1	1	98.9	8	nm	EL	1	DV	IM	89	R	
Gabriel C. Trib. G5	460-6006-508-480-767-000-000	96/09/27	RD/CP	9.6055.60225	1	1	98.9	8	nm	EL	1	DV	IM	90	R	
Gabriel C. Trib. G5	460-6006-508-480-767-000-000	96/09/27	RD/CP	9.6055.60225	1	1	98.9	8	nm	EL	1	DV	IM	95	R	
Gabriel C. Trib. G5	460-6006-508-480-767-000-000	96/09/27	RD/CP	9.6055.60225	1	1	98.9	8	nm	EL	1	DV	IM	95	R	
Gabriel C. Trib. G5	460-6006-508-480-767-000-000	96/09/27	RD/CP	9.6055.60225	1	1	98.9	8	nm	EL	1	DV	IM	98	R	
Gabriel C. Trib. G5	460-6006-508-480-767-000-000	96/09/27	RD/CP	9.6055.60225	1	1	98.9	8	nm	EL	1	DV	IM	98	R	
Gabriel C. Trib. G5	460-6006-508-480-767-000-000	96/09/27	RD/CP	9.6055.60225	1	1	98.9	8	nm	EL	1	DV	IM	98	R	
Gabriel C. Trib. G5	460-6006-508-480-767-000-000	96/09/27	RD/CP	9.6055.60225	1	1	98.9	8	nm	EL	1	DV	IM	108	R	
Gabriel C. Trib. G5	460-6006-508-480-767-000-000	96/09/27	RD/CP	9.6055.60225	1	1	98.9	8	nm	EL	1	DV	MT	108	S, M	Maturing female.
Gabriel C. Trib. G5	460-6006-508-480-767-000-000	96/09/27	RD/CP	9.6055.60225	1	1	98.9	8	nm	EL	1	DV	MT	121	S, M	Maturing DV.
Gabriel C. Trib. G5	460-6006-508-480-767-000-000	96/09/27	RD/CP	9.6055.60225	1	1	98.9	8	nm	EL	1	CHF	F	35	R	
Gabriel C. Trib. G5	460-6006-508-480-767-000-000	96/09/27	RD/CP	9.6055.60225	1	1	98.9	8	nm	EL	1	CHF	F	37	R	
Gabriel C. Trib. G5	460-6006-508-480-767-000-000	96/09/27	RD/CP	9.6055.60225	1	1	98.9	8	nm	EL	1	CHF	F	41	R	
Gabriel C. Trib. G5	460-6006-508-480-767-000-000	96/09/27	RD/CP	9.6055.60225	1	1	98.9	8	nm	EL	1	CHF	F	42	R	
Gabriel C. Trib. G5	460-6006-508-480-767-000-000	96/09/27	RD/CP	9.6055.60225	1	1	98.9	8	nm	EL	1	CHF	F	47	R	
Gabriel C. Trib. G5	460-6006-508-480-767-000-000	96/09/27	RD/CP	9.6055.60225	1	1	98.9	8	nm	EL	1	CHF	F	53	R	
Gabriel C. Trib. G5	460-6006-508-480-767-000-000	96/10/09	RD/CP	9.6055.60225	2	2	56.0	6.5	nm	EL	1	DV	IM	71	R	
Thautil R. Trib. Th28	460-6006-508-513-000-000-000	96/09/20	DB/CP	9.6080.60218	1	1	140.0	5	nm	EL	1	SST	IM	62	R	~40 actively spawning DV and ~25
Thautil R. Trib. Th28	460-6006-508-513-000-000-000	96/09/20	DB/CP	9.6080.60218	1	1	140.0	5	nm	EL	1	SST	IM	86	R	redds obs. in lower 200 m of Th28.
Thautil R. Trib. Th28	460-6006-508-513-000-000-000	96/09/20	DB/CP	9.6080.60218	1	1	140.0	5	nm	EL	1	SST	IM	113	R	
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	1	RB	IM	56	R	RB suspected to be residents.
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	1	RB	IM	60	R	
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	1	RB	IM	60	R	
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	1	RB	IM	62	R	
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	1	RB	IM	63	R	
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	2	RB	IM	60	R	
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	2	RB	IM	116	R	
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	3	RB	IM	60	R	
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	1	DV	IM	62	R	
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	1	DV	IM	64	R	
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	1	DV	IM	75	R	
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	1	DV	IM	89	R	Specimen.
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	1	DV	IM	90	R	Specimen.
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	1	DV	IM	91	R	
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	1	DV	IM	94	R	Specimen.
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	1	DV	IM	94	R	
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	1	DV	IM	107	R	
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	2	DV	IM	58	R	
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	3	DV	IM	70	R	
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	1	BT	IM	68	R	DNA sample taken.
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	1	BT	IM	98	R	DNA/fin ray samples taken. Specimen.
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	2	BT	IM	68	R	
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	2	BT	IM	71	R	DNA/fin ray samples taken. Specimen.
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	2	BT	IM	102	R	DNA/fin ray samples taken. Specimen.
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	1	CHF	F	40	R	
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	1	CHF	F	41	R	
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	1	CHF	F	42	R	
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	1	CHF	F	46	R	
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	1	CHF	F	53	R	
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	2	CHF	F	34	R	
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	2	CHF	F	39	R	
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	2	CHF	F	43	R	
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	2	CHF	F	44	R	
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	1	CO	F	44	R	
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	1	CO	F	46	R	
Denys C.	460-6006-508-584-000-000-000	96/09/18	DB/CP/SS	9.6104.60255	1	In1	315.0	6	nm	EL	2	CO	F	42	R	
Denys C.	460-6006-508-584-000-000-000	96/09/19	SS/CP	9.6127.60298	3	In2	154.1	4	76	EL	1	DV	IM	61	R	Specimen.

Stream Name	Watershed Code	Date	Survey Crew	UTM	Reach #	Site #	Area (m*m)	Water Temp (^{0}C)	Cond. (μmhos)	Capture Method	Pass/ Trap #	Spp.	Maturity	FL (mm)	Activity	Comments
Denys C.	460-6006-508-584-000-000-000	96/09/19	SS/CP	9.6127.60298	3	In2	154.1	4	76	EL	1	DV	IM	62	R	Specimen.
Denys C.	460-6006-508-584-000-000-000	96/09/19	SS/CP	9.6127.60298	3	In2	154.1	4	76	EL	1	DV	IM	66	R	
Denys C.	460-6006-508-584-000-000-000	96/09/19	SS/CP	9.6127.60298	3	In2	154.1	4	76	EL	1	DV	IM	71	R	
Denys C.	460-6006-508-584-000-000-000	96/09/19	SS/CP	9.6127.60298	3	In2	154.1	4	76	EL	1	DV	IM	130	R	
Denys C.	460-6006-508-584-000-000-000	96/09/19	SS/CP	9.6127.60298	3	In2	154.1	4	76	EL	1	DV	IM	147	R	
Denys C.	460-6006-508-584-000-000-000	96/09/19	SS/CP	9.6127.60298	3	In2	154.1	4	76	EL	2	DV	IM	59	R	
Denys C.	460-6006-508-584-000-000-000	96/09/19	SS/CP	9.6127.60298	3	In2	154.1	4	76	EL	2	DV	IM	61	R	
Denys C.	460-6006-508-584-000-000-000	96/09/19	SS/CP	9.6127.60298	3	In2	154.1	4	76	EL	2	DV	IM	64	R	
Denys C.	460-6006-508-584-000-000-000	96/09/19	SS/CP	9.6127.60298	3	In2	154.1	4	76	EL	2	DV	IM	82	R	Specimen.
Denys C.	460-6006-508-584-000-000-000	96/09/19	SS/CP	9.6127.60298	3	In2	154.1	4	76	EL	2	DV	IM	170	R	
Denys C.	460-6006-508-584-000-000-000	96/09/19	SS/CP	9.6127.60298	3	In2	154.1	4	76	EL	1	BT	IM	59	R	
Denys C.	460-6006-508-584-000-000-000	96/09/19	SS/CP	9.6127.60298	3	In2	154.1	4	76	EL	1	BT	IM	68	R	DNA/fin ray samples taken. Specimen.
Denys C.	460-6006-508-584-000-000-000	96/09/19	SS/CP	9.6127.60298	3	In2	154.1	4	76	EL	1	BT	IM	71	R	
Denys C.	460-6006-508-584-000-000-000	96/09/19	SS/CP	9.6127.60298	3	In2	154.1	4	76	EL	1	BT	IM	73	R	DNA/fin ray samples taken. Specimen.
Denys C.	460-6006-508-584-000-000-000	96/09/19	SS/CP	9.6127.60298	3	In2	154.1	4	76	EL	1	BT	IM	99	R	
Denys C.	460-6006-508-584-000-000-000	96/09/19	SS/CP	9.6127.60298	3	In2	154.1	4	76	EL	1	BT	IM	110	R	DNA/fin ray samples taken. Specimen.
Denys C.	460-6006-508-584-000-000-000	96/09/19	SS/CP	9.6127.60298	3	In2	154.1	4	76	EL	2	BT	IM	71	R	DNA/fin ray samples taken. Specimen.
Denys C.	460-6006-508-584-000-000-000	96/09/19	SS/CP	9.6127.60298	3	In2	154.1	4	76	EL	2	BT	IM	101	R	DNA/fin ray samples taken. Specimen.
Denys C.	460-6006-508-584-000-000-000	96/09/19	SS/CP	9.6127.60298	3	In2	154.1	4	76	EL	1	CHF	F	35	R	
Denys C.	460-6006-508-584-000-000-000	96/09/19	SS/CP	9.6127.60298	3	In2	154.1	4	76	EL	1	CHF	F	36	R	
Denys C.	460-6006-508-584-000-000-000	96/09/19	SS/CP	9.6127.60298	3	In2	154.1	4	76	EL	1	CHF	F	37	R	
Denys C.	460-6006-508-584-000-000-000	96/09/19	SS/CP	9.6127.60298	3	In2	154.1	4	76	EL	1	CHF	F	38	R	
Denys C.	460-6006-508-584-000-000-000	96/09/19	SS/CP	9.6127.60298	3	In2	154.1	4	76	EL	1	CHF	F	42	R	
Denys C.	460-6006-508-584-000-000-000	96/09/19	SS/CP	9.6127.60298	3	In2	154.1	4	76	EL	1	CHF	F	52	R	
Denys C.	460-6006-508-584-000-000-000	96/09/19	SS/CP	9.6127.60298	3	In2	154.1	4	76	EL	2	CHF	F	34	R	
Denys C.	460-6006-508-584-000-000-000	96/09/19	SS/CP	9.6149.60335	4	In3	91.8	4	65	EL	1	DV	IM	102	R	Specimen.
Denys C.	460-6006-508-584-000-000-000	96/09/19	SS/CP	9.6149.60335	4	In3	91.8	4	65	EL	1	BT	IM	70	R	DNA/fin ray samples taken. Specimen.
Denys C.	460-6006-508-584-000-000-000	96/09/19	SS/CP	9.6149.60335	4	In3	91.8	4	65	EL	1	BT	IM	71	R	DNA/fin ray sample taken.
Denys C.	460-6006-508-584-000-000-000	96/09/19	SS/CP	9.6149.60335	4	In3	91.8	4	65	EL	1	BT	IM	75	R	DNA/fin ray samples taken. Specimen.
Denys C.	460-6006-508-584-000-000-000	96/09/19	SS/CP	9.6149.60335	4	In3	91.8	4	65	EL	1	BT	IM	81	R	DNA/fin ray samples taken. Specimen.
Denys C. Trib. D10.1	460-6006-508-584-179-143-000	96/09/18	DB	9.6117.60252	1	4	n/a	6	nm	MT	1	DV	IM	107	R	
Denys C. Trib. D10.1	460-6006-508-584-179-143-000	96/09/18	DB	9.6117.60252	1	4	n/a	6	nm	MT	1	DV	IM	107	R	
Denys C. Trib. D10.1	460-6006-508-584-179-143-000	96/09/18	DB	9.6117.60252	1	4	n/a	6	nm	MT	1	DV	IM	113	R	
Denys C. Trib. D10.1	460-6006-508-584-179-143-000	96/09/18	DB	9.6117.60252	1	4	n/a	6	nm	MT	1	DV	IM	113	R	
Denys C. Trib. D10.1	460-6006-508-584-179-143-000	96/09/18	DB	9.6117.60252	1	4	n/a	6	nm	MT	1	DV	IM	120	R	
Denys C. Trib. D10.1	460-6006-508-584-179-143-000	96/09/18	DB	9.6117.60252	1	4	n/a	6	nm	MT	1	DV	IM	122	R	
Denys C. Trib. D10.1	460-6006-508-584-179-143-000	96/09/18	DB	9.6117.60252	1	4	n/a	6	nm	MT	1	DV	IM	126	R	
Denys C. Trib. D12	460-6006-508-584-208-000-000	96/10/15	DB/CP	9.6116.60262	1	1	91.0	3	80	EL	1	DV	IM	71	R	
Denys C. Trib. D12	460-6006-508-584-208-000-000	96/10/15	DB/CP	9.6116.60262	1	1	91.0	3	80	EL	1	DV	IM	98	R	
Denys C. Trib. D12	460-6006-508-584-208-000-000	96/10/15	DB/CP	9.6116.60262	1	1	91.0	3	80	EL	1	DV	IM	123	R	
Denys C. Trib. D12	460-6006-508-584-208-000-000	96/10/15	DB/CP	9.6116.60262	1	1	91.0	3	80	EL	1	RB	F	27	R	Suspect resident RB due to the small
Denys C. Trib. D12	460-6006-508-584-208-000-000	96/10/15	DB/CP	9.6116.60262	1	1	91.0	3	80	EL	1	RB	F	28	R	size of the fry.
Denys C. Trib. D12	460-6006-508-584-208-000-000	96/10/15	DB/CP	9.6116.60262	1	1	91.0	3	80	EL	1	RB	F	28	R	
Denys C. Trib. D12	460-6006-508-584-208-000-000	96/10/15	DB/CP	9.6116.60262	1	1	91.0	3	80	EL	1	RB	F	28	R	
Denys C. Trib. D12	460-6006-508-584-208-000-000	96/10/15	DB/CP	9.6116.60262	1	1	91.0	3	80	EL	1	RB	F	28	R	
Denys C. Trib. D12	460-6006-508-584-208-000-000	96/10/15	DB/CP	9.6116.60262	1	1	91.0	3	80	EL	1	RB	F	29	R	
Denys C. Trib. D12	460-6006-508-584-208-000-000	96/10/15	DB/CP	9.6116.60262	1	1	91.0	3	80	EL	1	CHF	F	35	R	
Denys C. Trib. D12	460-6006-508-584-208-000-000	96/10/15	DB/CP	9.6116.60262	1	1	91.0	3	80	EL	1	CHF	F	37	R	
Denys C. Trib. D12	460-6006-508-584-208-000-000	96/10/15	DB/CP	9.6116.60262	1	1	91.0	3	80	EL	1	CHF	F	38	R	
Loljuh C.	460-6006-508-584-214-000-000	96/09/18	SS/CP	9.6119.60268	1	In1	123.1	6	nm	EL	1	SST	IM	64	R	Suspect SST/RB mix in the lower section of
Loljuh C.	460-6006-508-584-214-000-000	96/09/18	SS/CP	9.6119.60268	1	In1	123.1	6	nm	EL	1	SST	IM	65	R	Loljuh C.
Loljuh C.	460-6006-508-584-214-000-000	96/09/18	SS/CP	9.6119.60268	1	In1	123.1	6	nm	EL	1	SST	IM	68	R	
Loljuh C.	460-6006-508-584-214-000-000	96/09/18	SS/CP	9.6119.60268	1	In1	123.1	6	nm	EL	1	SST	IM	114	R	
Loljuh C.	460-6006-508-584-214-000-000	96/09/18	SS/CP	9.6119.60268	1	In1	123.1	6	nm	EL	1	SST	IM	125	R	
Loljuh C.	460-6006-508-584-214-000-000	96/09/18	SS/CP	9.6119.60268	1	In1	123.1	6	nm	EL	1	DV	IM	68	R	
Loljuh C.	460-6006-508-584-214-000-000	96/09/18	SS/CP	9.6119.60268	1	In1	123.1	6	nm	EL	1	DV	IM	79	R	
Loljuh C.	460-6006-508-584-214-000-000	96/09/18	SS/CP	9.6119.60268	1	In1	123.1	6	nm	EL	1	DV	IM	85	R	
Loljuh C.	460-6006-508-584-214-000-000	96/09/18	SS/CP	9.6119.60268	1	In1	123.1	6	nm	EL	1	DV	IM	89	R	
Loljuh C.	460-6006-508-584-214-000-000	96/09/18	SS/CP	9.6119.60268	1	In1	123.1	6	nm	EL	1	DV	IM	114	R	Specimen.
Loljuh C.	460-6006-508-584-214-000-000	96/09/18	SS/CP	9.6119.60268	1	In1	123.1	6	nm	EL	2	DV	IM	68	R	Specimen.
Loljuh C.	460-6006-508-584-214-000-000	96/09/18	SS/CP	9.6119.60268	1	In1	123.1	6	nm	EL	2	DV	IM	78	R	Specimen.
Loljuh C.	460-6006-508-584-214-000-000	96/09/18	SS/CP	9.6119.60268	1	In1	123.1	6	nm	EL	1	BT	IM	59	R	DNA/fin ray samples taken. Specimen.
Loljuh C.	460-6006-508-584-214-000-000	96/09/18	SS/CP	9.6119.60268	1	In1	123.1	6	nm	EL	1	BT	IM	70	R	DNA/fin ray samples taken. Specimen.
Loljuh C.	460-6006-508-584-214-000-000	96/09/18	SS/CP	9.6119.60268	1	In1	123.1	6	nm	EL	1	BT	IM	70	R	
Loljuh C.	460-6006-508-584-214-000-000	96/09/18	SS/CP	9.6119.60268	1	In1	123.1	6	nm	EL	2	BT	IM	70	R	DNA/fin ray samples taken. Specimen.

Stream Name	Watershed Code	Date	Survey Crew	UTM	Reach #	Site #	Area (m*m)	Water Temp (^{0}C)	Cond. (μmhos)	Capture Method	Pass/ Trap #	Spp.	Maturity	FL (mm)	Activity	Comments
Loljuh C.	460-6006-508-584-214-000-000	96/09/18	SS/CP	9.6119.60268	1	In1	123.1	6	nm	EL	1	CHF	F	38	R	
Loljuh C.	460-6006-508-584-214-000-000	96/09/18	SS/CP	9.6119.60268	1	In1	123.1	6	nm	EL	1	CHF	F	40	R	
Loljuh C.	460-6006-508-584-214-000-000	96/09/18	SS/CP	9.6119.60268	1	In1	123.1	6	nm	EL	1	CHF	F	42	R	
Loljuh C.	460-6006-508-584-214-000-000	96/09/18	SS/CP	9.6119.60268	1	In1	123.1	6	nm	EL	1	CHF	F	46	R	
Loljuh C.	460-6006-508-584-214-000-000	96/09/18	SS/CP	9.6119.60268	1	In1	123.1	6	nm	EL	2	CHF	F	44	R	
Loljuh C.	460-6006-508-584-214-000-000	96/09/16	RD/CP	9.6118.60262	1	1	n/a	6	nm	MT	1	DV	M	112	S,M	Male.
Loljuh C.	460-6006-508-584-214-000-000	96/09/16	RD/CP	9.6118.60262	1	1	n/a	6	nm	MT	1	DV	M	127	S,M	Male.
Loljuh C.	460-6006-508-584-214-000-000	96/09/16	RD/CP	9.6118.60262	1	1	n/a	6	nm	MT	1	DV	ST	132	S, M	Suspect spawned-out male.
Loljuh C.	460-6006-508-584-214-000-000	96/09/16	RD/CP	9.6118.60262	1	1	n/a	6	nm	MT	1	DV	M	150	S, M	Mature male.
Loljuh C.	460-6006-508-584-214-000-000	96/09/16	RD/CP	9.6118.60262	1	1	n/a	6	nm	MT	1	BT	IM	92	R	
Loljuh C.	460-6006-508-584-214-000-000	96/09/19	RD	9.6118.60262	3	3	n/a	9	nm	MT	1	DV	IM	102	R	
Loljuh C.	460-6006-508-584-214-000-000	96/09/19	RD	9.6118.60262	3	3	n/a	9	nm	MT	1	DV	IM	122	R	
Loljuh C.	460-6006-508-584-214-000-000	96/09/19	RD	9.6118.60262	3	3	n/a	9	nm	MT	1	DV	SP	147	S, M	Ripe male.
Loljuh C.	460-6006-508-584-214-000-000	96/09/19	RD	9.6118.60262	3	3	n/a	9	nm	MT	1	DV	SP	150	S, M	Ripe male.
Loljuh C. Trib. L10	460-6006-508-584-214-521-000	96/09/18	DB	9.6154.60273	2	2	n/a	7	nm	MT	1	DV	IM	76	R	
Loljuh C. Trib. L10	460-6006-508-584-214-521-000	96/09/18	DB	9.6154.60273	2	2	n/a	7	nm	MT	1	DV	IM	78	R	
Loljuh C. Trib. L10	460-6006-508-584-214-521-000	96/09/18	DB	9.6154.60273	2	2	n/a	7	nm	MT	1	DV	IM	86	R	
Loljuh C. Trib. L10	460-6006-508-584-214-521-000	96/09/18	DB	9.6154.60273	2	2	n/a	7	nm	MT	1	DV	IM	90	R	
Loljuh C. Trib. L10	460-6006-508-584-214-521-000	96/09/18	DB	9.6154.60273	2	2	n/a	7	nm	MT	1	DV	IM	91	R	
Loljuh C. Trib. L10	460-6006-508-584-214-521-000	96/09/18	DB	9.6154.60273	2	2	n/a	7	nm	MT	1	DV	IM	94	R	
Loljuh C. Trib. L10	460-6006-508-584-214-521-000	96/09/18	DB	9.6154.60273	2	2	n/a	7	nm	MT	1	DV	IM	95	R	
Loljuh C. Trib. L10	460-6006-508-584-214-521-000	96/09/18	DB	9.6154.60273	2	2	n/a	7	nm	MT	1	DV	IM	95	R	
Loljuh C. Trib. L10	460-6006-508-584-214-521-000	96/09/18	DB	9.6154.60273	2	2	n/a	7	nm	MT	1	DV	IM	97	R	
Loljuh C. Trib. L10	460-6006-508-584-214-521-000	96/09/18	DB	9.6154.60273	2	2	n/a	7	nm	MT	1	DV	IM	97	R	
Loljuh C. Trib. L10	460-6006-508-584-214-521-000	96/09/18	DB	9.6154.60273	2	2	n/a	7	nm	MT	1	DV	IM	100	R	
Loljuh C. Trib. L10	460-6006-508-584-214-521-000	96/09/18	DB	9.6154.60273	2	2	n/a	7	nm	MT	1	DV	IM	100	R	
Loljuh C. Trib. L10	460-6006-508-584-214-521-000	96/09/18	DB	9.6154.60273	2	2	n/a	7	nm	MT	1	DV	SP	102	S, M	> 100 mm - DV are spent/ripe.
Loljuh C. Trib. L10	460-6006-508-584-214-521-000	96/09/18	DB	9.6154.60273	2	2	n/a	7	nm	MT	1	DV	SP	103	S, M	
Loljuh C. Trib. L10	460-6006-508-584-214-521-000	96/09/18	DB	9.6154.60273	2	2	n/a	7	nm	MT	1	DV	SP	104	S, M	
Loljuh C. Trib. L10	460-6006-508-584-214-521-000	96/09/18	DB	9.6154.60273	2	2	n/a	7	nm	MT	1	DV	SP	105	S, M	
Loljuh C. Trib. L10	460-6006-508-584-214-521-000	96/09/18	DB	9.6154.60273	2	2	n/a	7	nm	MT	1	DV	SP	105	S, M	
Loljuh C. Trib. L10	460-6006-508-584-214-521-000	96/09/18	DB	9.6154.60273	2	2	n/a	7	nm	MT	1	DV	SP	106	S, M	
Loljuh C. Trib. L10	460-6006-508-584-214-521-000	96/09/18	DB	9.6154.60273	2	2	n/a	7	nm	MT	1	DV	SP	108	S, M	
Loljuh C. Trib. L10	460-6006-508-584-214-521-000	96/09/18	DB	9.6154.60273	2	2	n/a	7	nm	MT	1	DV	SP	108	S, M	
Loljuh C. Trib. L10	460-6006-508-584-214-521-000	96/09/18	DB	9.6154.60273	2	2	n/a	7	nm	MT	1	DV	SP	109	S, M	
Loljuh C. Trib. L10	460-6006-508-584-214-521-000	96/09/18	DB	9.6154.60273	2	2	n/a	7	nm	MT	1	DV	SP	112	S, M	
Loljuh C. Trib. L10	460-6006-508-584-214-521-000	96/09/18	DB	9.6154.60273	2	2	n/a	7	nm	MT	1	DV	SP	115	S, M	
Loljuh C. Trib. L10	460-6006-508-584-214-521-000	96/09/18	DB	9.6154.60273	2	2	n/a	7	nm	MT	1	DV	SP	120	S, M	Spawning male.
Loljuh C. Trib. L10	460-6006-508-584-214-521-000	96/09/18	DB	9.6154.60273	2	2	n/a	7	nm	MT	1	DV	SP	125	S, M	
Loljuh C. Trib. L10	460-6006-508-584-214-521-000	96/09/18	DB	9.6154.60273	2	2	n/a	7	nm	MT	1	DV	ST	130	S, M	Kelt.
Loljuh C. Trib. L10	460-6006-508-584-214-521-000	96/09/18	DB	9.6154.60273	2	2	n/a	7	nm	MT	1	DV	ST	140	S, M	Kelt.
Loljuh C. Trib. L18	460-6006-508-584-214-696-000	96/09/18	DB	9.6171.60274	2	3	n/a	5.5	nm	MT	1	DV	IM	93	R	
Loljuh C. Trib. L18	460-6006-508-584-214-696-000	96/09/18	DB	9.6171.60274	2	3	n/a	5.5	nm	MT	1	DV	IM	100	R	
Loljuh C. Trib. L18	460-6006-508-584-214-696-000	96/09/18	DB	9.6171.60274	2	3	n/a	5.5	nm	MT	1	DV	IM	103	R	
Loljuh C. Trib. L18	460-6006-508-584-214-696-000	96/09/18	DB	9.6171.60274	2	3	n/a	5.5	nm	MT	1	DV	M	108	S, M	Male.
Loljuh C. Trib. L18	460-6006-508-584-214-696-000	96/09/18	DB	9.6171.60274	2	3	n/a	5.5	nm	MT	1	DV	M	116	S, M	Male.
Loljuh C. Trib. L18	460-6006-508-584-214-696-000	96/09/18	DB	9.6171.60274	2	3	n/a	5.5	nm	MT	1	DV	SP	122	S, M	Ripe male.
Loljuh C. Trib. L18	460-6006-508-584-214-696-000	96/09/18	DB	9.6171.60274	2	3	n/a	5.5	nm	MT	1	DV	M	130	S, M	Male.
Loljuh C. Trib. L20	460-6006-508-584-214-800-000	96/09/19	DB	9.6175.60272	1	1	n/a	5.5	nm	MT	1	DV	F	50	R	
Loljuh C. Trib. L20	460-6006-508-584-214-800-000	96/09/19	DB	9.6175.60272	1	1	n/a	5.5	nm	MT	1	DV	F	53	R	
Loljuh C. Trib. L20	460-6006-508-584-214-800-000	96/09/19	DB	9.6175.60272	1	1	n/a	5.5	nm	MT	1	DV	IM	64	R	
Loljuh C. Trib. L20	460-6006-508-584-214-800-000	96/09/19	DB	9.6175.60272	1	1	n/a	5.5	nm	MT	1	DV	IM	66	R	
Loljuh C. Trib. L20	460-6006-508-584-214-800-000	96/09/19	DB	9.6175.60272	1	1	n/a	5.5	nm	MT	1	DV	IM	80	R	
Loljuh C. Trib. L20	460-6006-508-584-214-800-000	96/09/19	DB	9.6175.60272	1	1	n/a	5.5	nm	MT	1	DV	IM	102	R	
Denys C. Trib. D22	460-6006-508-584-442-000-000	96/10/15	RD/SS	9.6124.60304	1	1	159.0	2	50	EL	1	DV	IM	71	R	
Denys C. Trib. D22	460-6006-508-584-442-000-000	96/10/15	RD/SS	9.6124.60304	1	1	159.0	2	50	EL	1	DV	IM	88	R	
Denys C. Trib. D22	460-6006-508-584-442-000-000	96/10/15	RD/SS	9.6124.60304	1	1	159.0	2	50	EL	1	DV	IM	123	R	Obs. 1 other DV, lost in boulders.
Denys C. Trib. D22.2	460-6006-508-584-442-418-000	96/10/15	DB/CP	9.6116.60298	1	4	80.0	1	50	EL	1	CHF	F	36	R	
Denys C. Trib. D22.2	460-6006-508-584-442-418-000	96/10/15	DB/CP	9.6116.60298	1	4	80.0	1	50	EL	1	CHF	F	37	R	
Denys C. Trib. D22.2	460-6006-508-584-442-418-000	96/10/15	DB/CP	9.6116.60298	1	4	80.0	1	50	EL	1	DV	IIM	62	R	
Denys C. Trib. D22.2	460-6006-508-584-442-418-000	96/10/15	DB/CP	9.6116.60298	1	4	80.0	1	50	EL	1	DV	IM	67	R	
Denys C. Trib. D22.2	460-6006-508-584-442-418-000	96/10/15	DB/CP	9.6116.60298	1	4	80.0	1	50	EL	1	DV	IM	72	R	
Denys C. Trib. D22.2	460-6006-508-584-442-418-000	96/10/15	DB/CP	9.6116.60298	1	4	80.0	1	50	EL	1	DV	IM	77	R	
Denys C. Trib. D23	460-6006-508-584-498-000-000	96/10/15	SS/RD	9.6124.60313	1	1	26.4	2	60	EL	1	CHF	F	~30	R	
Denys C. Trib. D23	460-6006-508-584-498-000-000	96/10/15	SS/RD	9.6124.60313	1	1	26.4	2	60	EL	1	DV	IM	59	R	

Stream Name	Watershed Code	Date	Survey Crew	UTM	Reach #	Site #	Area (m*m)	Water Temp (^{0}C)	Cond. (μ mhos)	Capture Method	Pass/ Trap #	Spp.	Maturity	FL (mm)	Activity	Comments
Denys C. Trib. D23	460-6006-508-584-498-000-000	96/10/15	SS/RD	9.6124.60313	1	1	26.4	2	60	EL	1	DV	IM	79	R	
Denys C. Trib. D23	460-6006-508-584-498-000-000	96/10/15	SS/RD	9.6124.60313	1	1	26.4	2	60	EL	1	DV	IM	~120	R	
Starr C.	460-6006-508-722-000-000-000	96/09/26	DB/CP	9.6039.60277	2	In1	192.0	7.2	59	EL	1	SST	F	28	R	
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In1	192.0	7.2	59	EL	1	SST	F	32	R	
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In1	192.0	7.2	59	EL	1	SST	IM	63	R	
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In1	192.0	7.2	59	EL	1	SST	IM	73	R	
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In1	192.0	7.2	59	EL	1	SST	IM	77	R	
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In1	192.0	7.2	59	EL	1	SST	IM	99	R	
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In1	192.0	7.2	59	EL	1	SST	IM	130	R	
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In1	192.0	7.2	59	EL	1	SST	IM	130	R	
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In1	192.0	7.2	59	EL	2	SST	IM	78	R	
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In1	192.0	7.2	59	EL	2	SST	IM	100	R	
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In1	192.0	7.2	59	EL	1	BT	IM	67	R	
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In1	192.0	7.2	59	EL	1	BT	IM	72	R	
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In1	192.0	7.2	59	EL	1	BT	IM	73	R	
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In1	192.0	7.2	59	EL	1	BT	IM	78	R	Fin ray/DNA samples taken. Specimen.
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In1	192.0	7.2	59	EL	1	BT	IM	89	R	Fin ray/DNA samples taken. Specimen.
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In1	192.0	7.2	59	EL	2	BT	IM	78	R	Fin ray/DNA samples taken. Specimen.
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In1	192.0	7.2	59	EL	2	DV	IM	110	R	Specimen.
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In1	192.0	7.2	59	EL	1	CHF	F	48	R	
Starr C.	460-6006-508-722-000-000-000	96/09/26	DB/CP	9.5996.60307	2	In2	122.1	7.5	47	EL	1	SST	IM	68	R	
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In2	122.1	7.5	47	EL	1	SST	IM	78	R	
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In2	122.1	7.5	47	EL	1	CHF	F	35	R	
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In2	122.1	7.5	47	EL	1	CHF	F	38	R	
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In2	122.1	7.5	47	EL	1	CHF	F	39	R	
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In2	122.1	7.5	47	EL	1	CHF	F	39	R	
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In2	122.1	7.5	47	EL	2	CHF	F	39	R	
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In2	122.1	7.5	47	EL	1	BT	IM	70	R	
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In2	122.1	7.5	47	EL	1	BT	IM	71	R	
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In2	122.1	7.5	47	EL	1	BT	IM	72	R	
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In2	122.1	7.5	47	EL	1	BT	IM	73	R	
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In2	122.1	7.5	47	EL	1	BT	IM	73	R	Fin ray/DNA samples taken. Specimen.
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In2	122.1	7.5	47	EL	1	BT	IM	75	R	
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In2	122.1	7.5	47	EL	1	BT	IM	77	R	
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In2	122.1	7.5	47	EL	1	BT	IM	77	R	
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In2	122.1	7.5	47	EL	1	BT	IM	101	R	Fin ray/DNA samples taken. Specimen.
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In2	122.1	7.5	47	EL	2	BT	IM	99	R	Fin ray/DNA samples taken. Specimen.
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In2	122.1	7.5	47	EL	2	DV	IM	68	R	
Starr C.	460-6006-508-722-000-000-000	96/09/26			2	In2	122.1	7.5	47	EL	2	DV	IM	102	R	Fin ray sample taken. Specimen.
Starr C. Trib. St1	460-6006-508-722-024-000-000	96/09/26	DB/CP	9.6066.60287	1	2	57.4	9.6	68	EL	1	RB	IM	60	R	
Starr C. Trib. St1	460-6006-508-722-024-000-000	96/09/26	DB/CP	9.6066.60287	1	2	57.4	9.6	68	EL	1	RB	IM	62	R	
Starr C. Trib. St1	460-6006-508-722-024-000-000	96/09/26	DB/CP	9.6066.60287	1	2	57.4	9.6	68	EL	1	RB	IM	69	R	
Starr C. Trib. St1	460-6006-508-722-024-000-000	96/09/26	DB/CP	9.6066.60287	1	2	57.4	9.6	68	EL	1	RB	IM	101	R	
Starr C. Trib. St1	460-6006-508-722-024-000-000	96/09/26	DB/CP	9.6066.60287	1	2	57.4	9.6	68	EL	1	DV	M	198	S, M	Ripe male. (Photo A8/12)
Starr C. Trib. St18	460-6006-508-722-275-000-000	96/10/08	RD/CP	9.6017.60274	2	2	22.8	5.5	124	EL	1	DV	IM	59	R	+ 1 DV escapee, ~60-70 mm FL.
Starr C. Trib. St18	460-6006-508-722-275-000-000	96/10/08	RD/CP	9.6017.60274	2	2	22.8	5.5	124	EL	1	DV	IM	61	R	
Starr C. Trib. St18	460-6006-508-722-275-000-000	96/10/08	RD/CP	9.6017.60274	2	2	22.8	5.5	124	EL	1	DV	IM	62	R	
Starr C. Trib. St18	460-6006-508-722-275-000-000	96/10/08	RD/CP	9.6017.60274	2	2	22.8	5.5	124	EL	1	DV	IM	67	R	
Starr C. Trib. St18	460-6006-508-722-275-000-000	96/10/08	RD/CP	9.6017.60274	2	2	22.8	5.5	124	EL	1	DV	IM	72	R	
Starr C. Trib. St18	460-6006-508-722-275-000-000	96/10/08	RD/CP	9.6017.60274	2	2	22.8	5.5	124	EL	1	DV	IM	80	R	+ 1 DV escapee, ~60-70 mm FL.
Starr C. Trib. St18	460-6006-508-722-275-000-000	96/10/08	RD/CP	9.6017.60274	3	3	72.0	4.9	130	EL	1	DV	SP	96	S	Ripe spawning male.
Starr C. Trib. St18	460-6006-508-722-275-000-000	96/10/08	RD/CP	9.6017.60274	3	3	72.0	4.9	130	EL	1	DV	SP	115	S	Ripe spawning male.
Starr C. Trib. St19	460-6006-508-722-300-000-000	96/10/08	RD/CP	9.6017.60274	2	2	36.0	4.8	101	EL	1	DV	IM	86	R	+ 1 DV lost during EL.
Starr C. Trib. St19	460-6006-508-722-300-000-000	96/10/08	RD/CP	9.6017.60274	2	2	36.0	4.8	101	EL	1	DV	M	106	S, M	Ripe male.
Starr C. Trib. St19	460-6006-508-722-300-000-000	96/10/08	RD/CP	9.6017.60274	2	2	36.0	4.8	101	EL	1	DV	M	111	S, M	Ripe male.
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03	DB/CP	9.5981.60336	1	In3	196.3	3.7	59	EL	1	CHF	F	31	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			1	In3	196.3	3.7	59	EL	1	CHF	F	31	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			1	In3	196.3	3.7	59	EL	1	CHF	F	32	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			1	In3	196.3	3.7	59	EL	1	CHF	F	32	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			1	In3	196.3	3.7	59	EL	1	CHF	F	34	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			1	In3	196.3	3.7	59	EL	1	CHF	F	35	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			1	In3	196.3	3.7	59	EL	1	CHF	F	36	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			1	In3	196.3	3.7	59	EL	1	CHF	F	37	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			1	In3	196.3	3.7	59	EL	1	CHF	F	53	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			1	In3	196.3	3.7	59	EL	1	CHF	F	57	R	

Stream Name	Watershed Code	Date	Survey Crew	UTM	Reach #	Site #	Area (m*m)	Water Temp (^{0}C)	Cond. (u mhos)	Capture Method	Pass/ Trap #	Spp.	Maturity	FL (mm)	Activity	Comments
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			1	In3	196.3	3.7	59	EL	2	CHF	F	31	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			1	In3	196.3	3.7	59	EL	2	CHF	F	37	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			1	In3	196.3	3.7	59	EL	2	CHF	F	37	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			1	In3	196.3	3.7	59	EL	2	CHF	F	37	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			1	In3	196.3	3.7	59	EL	2	CHF	F	49	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			1	In3	196.3	3.7	59	EL	1	BT	IM	62	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			1	In3	196.3	3.7	59	EL	1	BT	IM	67	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			1	In3	196.3	3.7	59	EL	1	BT	IM	71	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			1	In3	196.3	3.7	59	EL	1	BT	IM	72	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			1	In3	196.3	3.7	59	EL	1	BT	IM	73	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			1	In3	196.3	3.7	59	EL	1	BT	IM	74	R	Fin ray/DNA samples taken. Specimen.
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			1	In3	196.3	3.7	59	EL	1	BT	IM	76	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			1	In3	196.3	3.7	59	EL	1	BT	IM	79	R	Fin ray/DNA samples taken. Specimen.
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			1	In3	196.3	3.7	59	EL	2	BT	IM	64	R	Fin ray/DNA samples taken. Specimen.
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			1	In3	196.3	3.7	59	EL	1	DV	IM	60	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			1	In3	196.3	3.7	59	EL	1	DV	IM	62	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			1	In3	196.3	3.7	59	EL	1	DV	IM	62	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			1	In3	196.3	3.7	59	EL	1	DV	IM	63	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			1	In3	196.3	3.7	59	EL	1	DV	IM	66	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			1	In3	196.3	3.7	59	EL	1	DV	IM	71	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			1	In3	196.3	3.7	59	EL	1	DV	IM	100	R	Specimen.
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			1	In3	196.3	3.7	59	EL	2	DV	IM	61	R	Specimen.
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			1	In3	196.3	3.7	59	EL	2	DV	IM	94	R	Specimen.
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03	DB/CP	9.5963.60352	3	In4	85.5	3.0	54	EL	1	BT	IM	72	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			3	In4	85.5	3.0	54	EL	1	BT	IM	72	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			3	In4	85.5	3.0	54	EL	1	BT	IM	73	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			3	In4	85.5	3.0	54	EL	1	BT	IM	73	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			3	In4	85.5	3.0	54	EL	1	BT	IM	75	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			3	In4	85.5	3.0	54	EL	1	BT	IM	77	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			3	In4	85.5	3.0	54	EL	1	BT	IM	78	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			3	In4	85.5	3.0	54	EL	1	BT	IM	78	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			3	In4	85.5	3.0	54	EL	1	BT	IM	79	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			3	In4	85.5	3.0	54	EL	1	BT	IM	80	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			3	In4	85.5	3.0	54	EL	1	BT	IM	80	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			3	In4	85.5	3.0	54	EL	1	BT	IM	81	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			3	In4	85.5	3.0	54	EL	1	BT	IM	81	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			3	In4	85.5	3.0	54	EL	1	BT	IM	82	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			3	In4	85.5	3.0	54	EL	1	BT	IM	83	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			3	In4	85.5	3.0	54	EL	1	BT	IM	86	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			3	In4	85.5	3.0	54	EL	1	BT	IM	86	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			3	In4	85.5	3.0	54	EL	1	BT	IM	87	R	
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			3	In4	85.5	3.0	54	EL	1	BT	IM	88	R	Fin ray/DNA samples taken. Specimen.
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			3	In4	85.5	3.0	54	EL	1	BT	IM	89	R	Fin ray/DNA samples taken. Specimen.
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			3	In4	85.5	3.0	54	EL	1	BT	IM	110	R	Fin ray/DNA samples taken. Specimen.
East Fork Starr C. (St33)	460-6006-508-722-519-000-000	96/10/03			3	In4	85.5	3.0	54	EL	2	BT	IM	71	R	
Starr C. Trib. St35	460-6006-508-722-599-000-000	96/10/03	RD/SS	9.5973.60309	2	2	629.0	2.5	nm	EL	1	BT	IM	220	R	Suspect BT are residents.
Starr C. Trib. St35	460-6006-508-722-599-000-000	96/10/03	RD/SS	9.5973.60309	2	2	629.0	2.5	nm	EL	1	BT	IM	230	R	
Starr C. Trib. St35	460-6006-508-722-599-000-000	96/10/03	RD/SS	9.5973.60309	2	2	629.0	2.5	nm	EL	1	BT	IM	240	R	
Starr C. Trib. St35	460-6006-508-722-599-000-000	96/10/03	RD/SS	9.5973.60309	2	2	629.0	2.5	nm	EL	1	BT	IM	270	R	
Thautil R. Trib. Th49	460-6006-508-745-000-000-000	96/10/08	RD/SS	9.5973.60309	2	2	45.0	5.7	nm	EL	1	DV	IM	110	S, M	Ripe male.
Thautil R. Trib. Th49	460-6006-508-745-000-000-000	96/10/08	RD/SS	9.5973.60309	2	2	45.0	5.7	nm	EL	1	DV	IM	149	S, M	Suspect spent female.
Thautil R. Trib. Th50	460-6006-508-804-000-000-000	96/10/08	DB/SS	9.6063.60307	1	2	33.6	7.0	nm	EL	1	SST	F	31	R	
Thautil R. Trib. Th50	460-6006-508-804-000-000-000	96/10/08	DB/SS	9.6063.60307	1	2	33.6	7.0	nm	EL	1	SST	F	34	R	
Thautil R. Trib. Th50	460-6006-508-804-000-000-000	96/10/08	DB/SS	9.6063.60307	1	2	33.6	7.0	nm	EL	1	SST	F	34	R	
Thautil R. Trib. Th50	460-6006-508-804-000-000-000	96/10/08	DB/SS	9.6063.60307	1	2	33.6	7.0	nm	EL	1	SST	F	34	R	
Thautil R. Trib. Th50	460-6006-508-804-000-000-000	96/10/08	DB/SS	9.6063.60307	1	2	33.6	7.0	nm	EL	1	SST	F	34	R	
Thautil R. Trib. Th50	460-6006-508-804-000-000-000	96/10/08	DB/SS	9.6063.60307	1	2	33.6	7.0	nm	EL	1	SST	F	35	R	
Thautil R. Trib. Th50	460-6006-508-804-000-000-000	96/10/08	DB/SS	9.6063.60307	1	2	33.6	7.0	nm	EL	1	SST	F	36	R	
Thautil R. Trib. Th50	460-6006-508-804-000-000-000	96/10/08	DB/SS	9.6063.60307	1	2	33.6	7.0	nm	EL	1	SST	F	36	R	
Thautil R. Trib. Th50	460-6006-508-804-000-000-000	96/10/08	DB/SS	9.6063.60307	1	2	33.6	7.0	nm	EL	1	SST	F	37	R	
Thautil R. Trib. Th50	460-6006-508-804-000-000-000	96/10/08	DB/SS	9.6063.60307	1	2	33.6	7.0	nm	EL	1	SST	F	38	R	
Thautil R. Trib. Th50	460-6006-508-804-000-000-000	96/10/08	DB/SS	9.6063.60307	1	2	33.6	7.0	nm	EL	1	SST	F	39	R	
Thautil R. Trib. Th50	460-6006-508-804-000-000-000	96/10/08	DB/SS	9.6063.60307	1	2	33.6	7.0	nm	EL	1	SST	F	39	R	
Thautil R. Trib. Th50	460-6006-508-804-000-000-000	96/10/08	DB/SS	9.6063.60307	1	2	33.6	7.0	nm	EL	1	SST	F	39	R	
Thautil R. Trib. Th50	460-6006-508-804-000-000-000	96/10/08	DB/SS	9.6063.60307	1	2	33.6	7.0	nm	EL	1	SST	F	42	R	

Thautil River Watershed Fish Collection Data Form - 1996

Stream Name	Watershed Code	Date	Survey Crew	UTM	Reach #	Site #	Area (m*m)	Water Temp (^{0}C)	Cond. (μmhos)	Capture Method	Pass/ Trap #	Spp.	Maturity	FL (mm)	Activity	Comments
Thautil R. Trib. Th50	460-6006-508-804-000-000-000	96/10/08	DB/SS	9.6063.60307	1	2	33.6	7.0	nm	EL	1	SST	F	44	R	
Thautil R. Trib. Th50	460-6006-508-804-000-000-000	96/10/08	DB/SS	9.6063.60307	1	2	33.6	7.0	nm	EL	1	SST	F	44	R	
Thautil R. Trib. Th50	460-6006-508-804-000-000-000	96/10/08	DB/SS	9.6063.60307	1	2	33.6	7.0	nm	EL	1	SST	F	45	R	
Thautil R. Trib. Th50	460-6006-508-804-000-000-000	96/10/08	DB/SS	9.6063.60307	1	2	33.6	7.0	nm	EL	1	SST	F	46	R	
Thautil R. Trib. Th50	460-6006-508-804-000-000-000	96/10/08	DB/SS	9.6063.60307	1	2	33.6	7.0	nm	EL	1	DV	IM	89	R	
Thautil R. Trib. Th50	460-6006-508-804-000-000-000	96/10/08	DB/SS	9.6063.60307	1	2	33.6	7.0	nm	EL	1	DV	IM	136	R	
Thautil R. Trib. Th51	460-6006-508-822-000-000-000	96/10/15	DB/SS	9.6037.60312	2	2	96.0	4.0	nm	EL	1	DV	IM	58	R	
Thautil R. Trib. Th51	460-6006-508-822-000-000-000	96/10/15	DB/SS	9.6037.60312	2	2	96.0	4.0	nm	EL	1	DV	IM	68	R	
Thautil R. Trib. Th51	460-6006-508-822-000-000-000	96/10/15	DB/SS	9.6037.60312	2	2	96.0	4.0	nm	EL	1	DV	IM	71	R	
Thautil R. Trib. Th51	460-6006-508-822-000-000-000	96/10/15	DB/SS	9.6037.60312	2	2	96.0	4.0	nm	EL	1	DV	IM	75	R	
Thautil R. Trib. Th51	460-6006-508-822-000-000-000	96/10/15	DB/SS	9.6037.60312	2	2	96.0	4.0	nm	EL	1	DV	IM	84	R	
Thautil R. Trib. Th51	460-6006-508-822-000-000-000	96/10/15	DB/SS	9.6037.60312	2	2	96.0	4.0	nm	EL	1	DV	M	139	S, M	
Thautil R. Trib. Th53	460-6006-508-895-000-000-000	96/10/22	JH/SS	9.6087.60326	1	1	40.0	3.0	100	EL	1	DV	M	100	S, M	
Thautil R. Trib. Th53	460-6006-508-895-000-000-000	96/10/22	JH/SS	9.6087.60326	1	1	40.0	3.0	100	EL	1	DV	M	135	S, M	

Notes: - Sampling was conducted by Dave Bustard and Associates (C58).
- Char fry, consisting of DV and/or BT fry, was abbreviated as CHF in the above table.
- nm = not measured
- Area sampled was not available for the minnow trapping sites.
- All specimens were sent to Gordon Haas, University of B. C., Fisheries Research.

Crew Summary: Dave Bustard
Rob Dams
Catherine Portman
John Hagen
Shannon Stotyn

THAUTIL RIVER WATERSHED AMPHIBIAN OBSERVATION SUMMARY

Dave Bustard and Associates - Sept.-Oct., 1996.

Stream Name	Date	Reach #	Site #	Species	Number	Comments
Thautil R. Tributary Th1	21/10/1996	3	3	Western Spotted Frog tadpoles	2 5	Located in meadow, 900 m u/s from road.
Thautil R. Tributary Th2	13/09/1996	1	1	Western Spotted Frog	1	Transforming tadpole.
Thautil R. Tributary Th2.1.1	13/09/1996	1	3	Western Spotted Frog	1	Photos B1/13, 14.
Thautil R. Tributary Th6	12/09/1996	1	n/a	tadpoles	several	Located along muddy margins near the mainstem Thautil R. (Photo B1/6)
Thautil R. Tributary Th8	17/09/1996	2	2	tadpoles	several	Located along channel margins.
Thautil R. Tributary Th10	23/09/1996	2	2	Western Spotted Frog	3	Post-tadpole stage.
Gabriel C. Tributary G5.6	26/09/1996	2	8	Western Spotted Frog	1	Site located in channel below pond.
Denys C.	24/09/1996	2	n/a	tadpoles	several	Located in stagnant water in old flood channel, u/s from trib. D20B.
Loljuh C. Tributary L5.2	18/09/1996	1	3	Western Spotted Frog	3	Located in wetland area surrounding the lake.
East Fork Starr C.	07/10/1996	2	n/a	Western Toad	1	Located ~240 m u/s from ESt4 mouth.
Starr C. Tributary St1	25/09/1996	1	1	tadpoles	several	Located in the lower section of St1.
Thautil R. Tributary Th48	08/10/1996	1	2	Western Spotted Frog	2	Located at landing meadow in 0.2 m seepage.

PHOTO SURVEY FORM 1 - Equipment Details

Survey start date (yyyy/mm/dd)**:** 1996/09/11 **Agency:** C58
Survey end date: 1996/10/22 **Crew:** DB/RD/JH/CP/SS

CAMERAS A & B:

Make and model:	Pentax Zoom 90-WR Multi-AF	**Lens:**	38-90 mm zoom
Format:	35 mm film		(focal length, mm)
Resolution (for digital and video cameras):	n/a		
Output file type (for digital and video cameras):	n/a		

CAMERA DB:

Make and model:	Olympus OM-1	**Lens:**	50 mm
Format:	35 mm film		(focal length, mm)
Resolution (for digital and video cameras):	n/a		
Output file type (for digital and video cameras):	n/a		

ROLL DETAILS:

Roll #'s	Camera #	Output Medium	For film cameras:	
			Film Type	ISO
A1 to A14	A	negative	color	200
B1 to B13	B	negative	color	200
DB1 to DB4	DB	negative	color	200

Photo #	Survey start date	Stream name (gaz.)	Stream name (loc.)	Watershed code	Agency	Crew (Init 1)	Crew (Init 2)	Crew (Init 3)	Reach/ site card (Y/N)	Fish cards (Y/N)	Roll/ Batch #	Counter #	Negative #	Date of photo	Reach #	Site #	Map # NTS/TRIM	UTM mtd G/M	Zone	E(field)	N(field)	E(correct)	N(correct)	Stream photo dir.	Picture type	Photo direction	Focal length (mm)	Focal range	Scale item	Comments
1	1996/09/12	Thautil River	Thautil River (Lower)	460-6006-508-000-000-000-000-000-000-000-000-000	C58	JH	SS		Y	Y	B13	1	1	1996/10/23	1	In1	093L024	Map	9	n/a	n/a	6072	60096	Up	Ch	NE	38	38-90		Index site.
2	1996/09/12	Thautil River	Thautil River (Lower)	460-6006-508-000-000-000-000-000-000-000-000-000	C58	JH	SS		Y	Y	B13	2	2	1996/10/23	1	In1	093L024		9	n/a	n/a	6072	60096	Dn	Ch	SW	38	38-90		Index site.
3	1996/09/12	Thautil River	Thautil River (Lower)	460-6006-508-000-000-000-000-000-000-000-000-000	C58	RD	CP		Y	Y	A14	24	24	1996/10/23	1	In2	093L024		9	n/a	n/a	6061	60153	Up	Ch	NE	38	38-90		Index site.
4	1996/09/12	Thautil River	Thautil River (Lower)	460-6006-508-000-000-000-000-000-000-000-000-000	C58	RD	CP		Y	Y	A14	23	23	1996/10/23	1	In2	093L024		9	n/a	n/a	6061	60153	Dn	Ch	SW	38	38-90		Index site.
5	1996/09/12	Thautil River	Thautil River (Lower)	460-6006-508-000-000-000-000-000-000-000-000-000	C58	RD	CP		Y	Y	A14	25	25	1996/10/23	1	In2	093L024		9	n/a	n/a	6061	60153	Xs	Ch	S	38	38-90		Index site.
6	1996/09/12	Thautil River	Thautil River (Mid)	460-6006-508-000-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A6	24	24	1996/09/25	1	In3	093L034		9	n/a	n/a	6081	60231	Up	Ch	NE	38	38-90		Index site, location of habitat measurements.
7	1996/09/12	Thautil River	Thautil River (Mid)	460-6006-508-000-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A6	23	23	1996/09/25	1	In3	093L034		9	n/a	n/a	6081	60231	Dn	Ch	SW	38	38-90		Index site, location of habitat measurements.
8	1996/09/12	Thautil River	Thautil River (Mid)	460-6006-508-000-000-000-000-000-000-000-000-000	C58	DB	CP		Y	Y	A8	16	15	1996/09/26	1	In3	093L034		9	n/a	n/a	6081	60231	Up	Ch	NE	38	38-90		Index site, location of fish sampling.
9	1996/09/12	Thautil River	Thautil River (Mid)	460-6006-508-000-000-000-000-000-000-000-000-000	C58	DB	CP		Y	Y	A8	18	17	1996/09/26	1	In3	093L034		9	n/a	n/a	6081	60231	Dn	Ch	SW	38	38-90		Index site, location of fish sampling.
10	1996/09/12	Thautil River	Thautil River (Upper)	460-6006-508-000-000-000-000-000-000-000-000-000	C58	JH	SS		Y	Y	B11	6	6	1996/10/22	2	In4	093L044		9	n/a	n/a	6068	60291	Up	Ch	NE	38	38-90		Index site.
11	1996/09/12	Thautil River	Thautil River (Upper)	460-6006-508-000-000-000-000-000-000-000-000-000	C58	JH	SS		Y	Y	B11	7	7	1996/10/22	2	In4	093L044		9	n/a	n/a	6068	60291	Dn	Ch	SW	38	38-90		Index site.
12	1996/09/12	Thautil River	Thautil River (Upper)	460-6006-508-000-000-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B11	10	10	1996/10/22	2	n/a	093L044		9	n/a	n/a	nr	nr	Up	O	NE	38	38-90		Eroding bank, 300 m u/s from Th48.
13	1996/09/12	Thautil River	Thautil River (Upper)	460-6006-508-000-000-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B11	13	13	1996/10/22	2	n/a	093L044		9	n/a	n/a	nr	nr	Up	O	NE	38	38-90		Eroding bank, 650 m u/s from Th49.
14	1996/09/12	Thautil River	Thautil River (Upper)	460-6006-508-000-000-000-000-000-000-000-000-000	C58	DB	SS		Y	Y	DB4	11	11	1996/10/08	2	In5	093L044		9	n/a	n/a	6064	60306	Up	Ch	NE	50	50		Index site.
15	1996/09/12	Thautil River	Thautil River (Upper)	460-6006-508-000-000-000-000-000-000-000-000-000	C58	DB	SS		Y	Y	DB4	12	12	1996/10/08	2	In5	093L044		9	n/a	n/a	6064	60306	Dn	Ch	SW	50	50		Index site.
16	1996/09/12	Thautil River	Thautil River (Upper)	460-6006-508-000-000-000-000-000-000-000-000-000	C58	DB	CP		Y	N	DB4	19	19	1996/10/15	3	1	093L044		9	n/a	n/a	6088	60328	Up	Ch	NE	50	50		
17	1996/09/12	Thautil River	Thautil River (Upper)	460-6006-508-000-000-000-000-000-000-000-000-000	C58	DB	CP		Y	N	DB4	20	20	1996/10/15	3	1	093L044		9	n/a	n/a	6088	60328	Dn	Ch	SW	50	50		
18	1996/09/12	Thautil River	Thautil River (Upper)	460-6006-508-000-000-000-000-000-000-000-000-000	C58	RD	SS		Y	N	A13	10	10	1996/10/15	4	2	093L044		9	n/a	n/a	6105	60342	Up	Ch	NE	38	38-90		
19	1996/09/12	Thautil River	Thautil River (Upper)	460-6006-508-000-000-000-000-000-000-000-000-000	C58	RD	SS		Y	N	A13	9	9	1996/10/15	4	2	093L044		9	n/a	n/a	6105	60342	Dn	Ch	SW	38	38-90		
20	1996/09/12	Thautil River Tributary	Th1	460-6006-508-093-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A1	3	3	1996/09/12	1	1	093L024		9	n/a	n/a	6073	60098	Up	Ch	E	38	38-90		
21	1996/09/12	Thautil River Tributary	Th1	460-6006-508-093-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A1	4	4	1996/09/13	2	2	093L024		9	n/a	n/a	6073	60098	Up	Ch	E	38	38-90		
22	1996/09/12	Thautil River Tributary	Th1	460-6006-508-093-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A1	5	5	1996/09/13	2	2	093L024		9	n/a	n/a	6073	60098	Dn	Ch	W	38	38-90		
23	1996/09/12	Thautil River Tributary	Th1	460-6006-508-093-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A14	9	9	1996/10/21	3	3	093L024		9	n/a	n/a	6073	60098	Up	Ch	E	38	38-90		
24	1996/09/12	Thautil River Tributary	Th1	460-6006-508-093-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A14	10	10	1996/10/21	3	3	093L024		9	n/a	n/a	6073	60098	Dn	Ch	W	38	38-90		
25	1996/09/12	Thautil River Tributary	Th2	460-6006-508-141-000-000-000-000-000-000-000-000	C58	SS	JH		Y	Y	B1	16	16	1996/09/13	1	1	093L024		9	n/a	n/a	6059	60105	Up	Ch	NW	38	38-90		Lower sample site.
26	1996/09/12	Thautil River Tributary	Th2	460-6006-508-141-000-000-000-000-000-000-000-000	C58	SS	JH		Y	Y	B3	18	18	1996/09/13	1	1	093L024		9	n/a	n/a	6059	60105	Up	Ch	NW	38	38-90		Upper sample site.
27	1996/09/12	Thautil River Tributary	Th2	460-6006-508-141-000-000-000-000-000-000-000-000	C58	SS	JH		Y	Y	B2	3	4	1996/09/13	1	1	093L024		9	n/a	n/a	6059	60105	Up	O	NW	38	38-90		Th2 road culvert.
28	1996/09/12	Thautil River Tributary	Th2.1	460-6006-508-141-TH -2.1 -000-000-000-000-000-000	C58	SS	JH		Y	N	B2	14	15	1996/09/17	1	2	093L024		9	n/a	n/a	6056	60105	Up	Ch	NW	38	38-90		
29	1996/09/12	Thautil River Tributary	Th2.1.1	460-6006-508-141-TH -2.1 -.1 -000-000-000-000-000	C58	SS	JH		Y	N	B1	11	11	1996/09/13	1	3	093L024		9	n/a	n/a	6056	60105	Up	Ch	W	38	38-90		
30	1996/09/12	Thautil River Tributary	Th2.1.1	460-6006-508-141-TH -2.1 -.1 -000-000-000-000-000	C58	SS	JH		Y	N	B1	13	13	1993/09/13	1	3	093L024		9	n/a	n/a	6056	60105	n/a	O	nr	38	38-90		Top view of Western Spotted Frog, located at Site 3.
31	1996/09/12	Thautil River Tributary	Th2.1.1	460-6006-508-141-TH -2.1 -.1 -000-000-000-000-000	C58	SS	JH		Y	N	B1	14	14	1996/09/13	1	3	093L024		9	n/a	n/a	6056	60105	n/a	O	nr	38	38-90		Underside of Western Spotted Frog, located at Site 3.
32	1996/09/12	Thautil River Tributary	Th2.1.1	460-6006-508-141-TH -2.1 -.1 -000-000-000-000-000	C58	SS	JH		Y	N	B2	10	11	1996/09/17	1	4	093L024		9	n/a	n/a	6056	60105	Up	Ch	NW	38	38-90		
33	1996/09/12	Thautil River Tributary	Th2.1.1	460-6006-508-141-TH -2.1 -.1 -000-000-000-000-000	C58	SS	JH		Y	N	B2	11	12	1996/09/17	1	4	093L024		9	n/a	n/a	6056	60105	Dn	Ch	SE	38	38-90		
34	1996/09/12	Thautil River Tributary	Th2.1.1.1	460-6006-508-141-TH -2.1 - .1. -1 -000-000-000-000	C58	SS	JH		Y	N	B1	10	10	1996/09/13	1	5	093L024		9	n/a	n/a	not on map	not on map	Up	Ch	NW	38	38-90		U/S from the road.
35	1996/09/12	Thautil River Tributary	Th2.1.1.1	460-6006-508-141-TH -2.1 - .1. -1 -000-000-000-000	C58	SS	JH		Y	N	B2	4	5	1996/09/13	1	5	093L024		9	n/a	n/a	not on map	not on map	Up	Ch	NW	38	38-90		Sample site below the road.
36	1996/09/12	Thautil River Tributary	Th2.1.1.1	460-6006-508-141-TH -2.1 - .1. -1 -000-000-000-000	C58	SS	JH		Y	N	B2	5	6	1996/09/13	1	5	093L024		9	n/a	n/a	not on map	not on map	Dn	Ch	SE	38	38-90		Sample site below the road.
37	1996/09/12	Thautil River Tributary	Th2.1.1.2	460-6006-508-141-TH -2.1 - .1. -2 -000-000-000-000	C58	SS	JH		Y	N	B2	9	10	1996/09/17	1	6	093L024		9	n/a	n/a	not on map	not on map	Up	Ch	NW	38	38-90		
38	1996/09/12	Thautil River Tributary	Th2.1.1.2	460-6006-508-141-TH -2.1 - .1. -2 -000-000-000-000	C58	SS	JH		Y	N	B2	6	7	1996/09/17	1	6	093L024		9	n/a	n/a	not on map	not on map	Dn	Ch	SE	38	38-90		
39	1996/09/12	Thautil River Tributary	Th3	460-6006-508-TH -3 -000-000-000-000-000-000-000	C58	SS	JH		Y	N	B1	18	18	1996/09/13	1	1	093L024		9	n/a	n/a	6058	60109	Up	Ch	NW	38	38-90		
40	1996/09/12	Thautil River Tributary	Th3	460-6006-508-TH -3 -000-000-000-000-000-000-000	C58	SS	JH		Y	N	B1	17	17	1996/09/13	1	1	093L024		9	n/a	n/a	6058	60109	Dn	Ch	SE	38	38-90		
41	1996/09/12	Thautil River Tributary	Th3	460-6006-508-TH -3 -000-000-000-000-000-000-000	C58	SS	JH		Y	N	B2	16	17	1996/09/17	3	2	093L024		9	n/a	n/a	6058	60109	Up	Ch	W	38	38-90		
42	1996/09/12	Thautil River Tributary	Th3	460-6006-508-TH -3 -000-000-000-000-000-000-000	C58	SS	JH		Y	N	B2	15	16	1996/09/17	3	2	093L024		9	n/a	n/a	6058	60109	Dn	Ch	E	38	38-90		
43	1996/09/12	Thautil River Tributary	Th4	460-6006-508-174-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A1	15	15	1996/09/13	2	1	093L024		9	n/a	n/a	6061	60117	Up	Ch	NE	38	38-90		
44	1996/09/12	Thautil River Tributary	Th4	460-6006-508-174-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A1	14	14	1996/09/13	2	1	093L024		9	n/a	n/a	6061	60117	Dn	Ch	SW	38	38-90		
45	1996/09/12	Thautil River Tributary	Th4	460-6006-508-174-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A1	13	13	1996/09/13	3	2	093L024		9	n/a	n/a	6061	60117	Up	Ch	NE	38	38-90		
46	1996/09/12	Thautil River Tributary	Th4	460-6006-508-174-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A1	12	12	1996/09/13	3	2	093L024		9	n/a	n/a	6061	60117	Dn	Ch	SW	38	38-90		
47	1996/09/12	Thautil River Tributary	Th4.1	460-6006-508-174-044-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A1	8	8	1996/09/13	1	3	093L024		9	n/a	n/a	6063	60118	Up	Ch	E	38	38-90		
48	1996/09/12	Thautil River Tributary	Th4.1	460-6006-508-174-044-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A1	7	7	1996/09/13	1	3	093L024		9	n/a	n/a	6063	60118	Dn	Ch	W	38	38-90		
49	1996/09/12	Thautil River Tributary	Th4.1	460-6006-508-174-044-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A1	6	6	1996/09/13	1	3	093L024		9	n/a	n/a	6063	60118	Up	O	E	38	38-90		Culvert at road.
50	1996/09/12	Thautil River Tributary	Th4.1	460-6006-508-174-044-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A5	11	11	1996/09/23	1	4	093L024		9	n/a	n/a	6063	60118	Up	Ch	E	38	38-90		
51	1996/09/12	Thautil River Tributary	Th4.1	460-6006-508-174-044-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A5	10	10	1996/09/23	1	4	093L024		9	n/a	n/a	6063	60118	Dn	Ch	W	38	38-90		
52	1996/09/12	Thautil River Tributary	Th4.1.1	460-6006-508-174-044-TH -4.1-.1 -000-000-000-000	C58	RD	CP		Y	N	A2	13	13	1996/09/17	1	5	093L024		9	n/a	n/a	6073	60112	Up	Ch	E	38	38-90		
53	1996/09/12	Thautil River Tributary	Th4.1.1	460-6006-508-174-044-TH -4.1-.1 -000-000-000-000	C58	RD	CP		Y	N	A2	12	12	1996/09/17	1	5	093L024		9	n/a	n/a	6073	60112	Dn	Ch	W	38	38-90		
54	1996/09/12	Thautil River Tributary	Th4.2	460-6006-508-174-TH -4.2-000-000-000-000-000-000	C58	RD	CP		Y	N	A2	7	7	1996/09/17	2	6	093L024		9	n/a	n/a	6073	60112	Up	Ch	NE	38	38-90		
55	1996/09/12	Thautil River Tributary	Th4.2	460-6006-508-174-TH -4.2-000-000-000-000-000-000	C58	RD	CP		Y	N	A2	6	6	1996/09/17	2	6	093L024		9	n/a	n/a	6073	60112	Dn	Ch	SW	38	38-90		
56	1996/09/12	Thautil River Tributary	Th4.3	460-6006-508-174-159-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A1	10	10	1996/09/13	1	7	093L024		9	n/a	n/a	6072	60125	Up	Ch	E	38	38-90		
57	1996/09/12	Thautil River Tributary	Th4.3	460-6006-508-174-159-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A1	9	9	1996/09/13	1	7	093L024		9	n/a	n/a	6072	60125	Dn	Ch	W	38	38-90		
58	1996/09/12	Thautil River Tributary	Th4.4	460-6006-508-174-TH -4.4-000-000-000-000-000-000	C58	RD	CP		Y	N	A2	5	5	1996/09/17	1	8	093L024		9	n/a	n/a	6073	60126	Up	Ch	E	38	38-90		
59	1996/09/12	Thautil River Tributary	Th4.4	460-6006-508-174-TH -4.4-000-000-000-000-000-000	C58	RD	CP		Y	N	A2	4	4	1996/09/17	1	8	093L024		9	n/a	n/a	6073	60126	Dn	Ch	W	38	38-90		
60	1996/09/12	Thautil River Tributary	Th5	460-6006-508-203-000-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B1	9	9	1996/09/12	1	1	093L024		9	n/a	n/a	6054	60122	Up	Ch	W	38	38-90		
61	1996/09/12	Thautil River Tributary	Th5	460-6006-508-203-000-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B1	8	8	1996/09/12	1	1	093L024		9	n/a	n/a	6054	60122	Dn	Ch	E	38	38-90		
62	1996/09/12	Thautil River Tributary	Th5	460-6006-508-203-000-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B1	7	7	1996/09/12	1	1	093L024		9	n/a	n/a	6054	60122	nr	O	nr	38	38-90		Eroding banks, located in lower section of Th5.
63	1996/09/12	Thautil River Tributary	Th6	460-6006-508-TH -6 -000-000-000-000-000-000-000	C58	JH	SS		Y	N	B1	3	3	1996/09/12	1	1	093L024		9	n/a	n/a	6054	60127	Up	Ch	W	38	38-90		Chute, located just d/s from road.
64	1996/09/12	Thautil River Tributary	Th6	460-6006-508-TH -6 -000-000-000-000-000-000-000	C58	JH	SS		Y	N	B1	4	4	1996/09/12	1	1	093L024		9	n/a	n/a	6054	60127	Xs	O	N	38	38-90		Eroding banks, located 320 m d/s from road.
65	1996/09/12	Thautil River Tributary	Th6	460-6006-508-TH -6 -000-000-000-000-000-000-000	C58	JH	SS		Y	N	B1	6	6	1996/09/12	1	1	093L024		9	n/a	n/a	6054	60127	Bd	O	n/a	38	38-90		Tadpoles, located at the base of Th6.
66	1996/09/12	Thautil River	Thautil River	460-6006-508-000-000-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B1	5	5	1996/09/12	1	1	093L024		9	n/a	n/a	nr	nr	Up	O	N	38	38-90		Unstable bank, located near mouth of Th6.
67	1996/09/12	Thautil River Tributary	Th6	460-6006-508-TH -6 -000-000-000-000-000-000-000	C58	JH	SS		Y	N	B1	2	2	1996/09/12	2	2	093L024		9	n/a	n/a	6054	60127	Up	Ch	NW	38	38-90		
68	1996/09/12	Thautil River Tributary	Th6	460-6006-508-TH -6 -000-000-000-000-000-000-000	C58	JH	SS		Y	N	B1	1	1	1996/09/12	2	2	093L024		9	n/a	n/a	6054	60127	Dn	Ch	SE	38	38-90		
69	1996/09/12	Thautil River Tributary	Th7	460-6006-508-231-000-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B3	22	22	1996/09/23	1	1	093L024		9	n/a	n/a	6057	60134	Up	Ch	NW	38	38-90		
70	1996/09/12	Thautil River Tributary	Th7	460-6006-508-231-000-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B2	17	18	1996/09/17	1	2	093L024		9	n/a	n/a	6057	60134	Up	Ch	NW	38	38-90		
71	1996/09/12	Thautil River Tributary	Th7	460-6006-508-231-000-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B2	18	19	1996/09/17	1	2	093L024		9	n/a	n/a	6057	60134	Dn	Ch	SE	38	38-90		
72	1996/09/12	Thautil River Tributary	Th8	460-6006-508-245-000-000-000-000-000-000-000-000	C58	RD	CP	DB	Y	N	A5	3	3	1996/09/20	1	1	093L024		9	n/a	n/a	6057	60138	Up	Ch	E	38	38-90		
73	1996/09/12	Thautil River Tributary	Th8	460-6006-508-245-000-000-000-000-000-000-000-000	C58	RD	CP	DB	Y	N	A5	2	2	1996/09/20	1	1	093L024		9	n/a	n/a	6057	60138	Dn	Ch	W	38	38-90		
74	1996/09/12	Thautil River Tributary	Th8	460-6006-508-245-000-000-000-000-000-000-000-000	C58	RD	CP	DB	Y	N	A2	9	9	1996/09/17	2	2	093L024		9	n/a	n/a	6057	60138	Up	Ch	E	38	38-90		
75	1996/09/12	Thautil River Tributary	Th8	460-6006-508-245-000-000-000-000-000-000-000-000	C58	RD	CP	DB	Y	N	A2	8	8	1996/09/17	2	2	093L024		9	n/a	n/a	6057	60138	Dn	Ch	W	38	38-90		
76	1996/09/12	Thautil River Tributary	Th9	460-6006-508-286-000-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B2	19	20	1996/09/17	2	2	093L024		9	n/a	n/a	6058	60149	Up	Ch	NW	38	38-90		
77	1996/09/12	Thautil River Tributary	Th9	460-6006-508-286-000-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B2	21	22	1996/09/17	2	2	093L024		9	n/a	n/a	6058	60149	Up	O	NW	38	38-90		Erosion problem at culvert.
78	1996/09/12	Thautil River Tributary	Th10	460-6006-508-305-000-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B3	20	20	1996/09/20	1	1	093L024		9	n/a	n/a	6062	60156	Up	Ch	N	38	38-90		
79	1996/09/12	Thautil River Tributary	Th10	460-6006-508-305-000-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B3	25	25	1996/09/23	2	2	093L024		9	n/a	n/a	6062	60156	Up	Ch	NW	38	38-90		
80	1996/09/12	Thautil River Tributary	Th10	460-6006-508-305-000-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B3	24	24	1996/09/23	2	2	093L024		9	n/a	n/a	6062	60156	Dn	Ch	SE	38	38-90		
81	1996/09/12	Thautil River Tributary	Th10	460-6006-508-305-000-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B3	23	23	1996/09/23	2	2	093L024		9	n/a	n/a	6062	60156	Up	O	NW	38	38-90		Road culvert.
82	1996/09/12	Thautil River Tributary	Th10	460-6006-508-305-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A14	16	16	1996/10/22	3	3	093L024		9	n/a	n/a	6062	60156	Up	Ch	NW	38	38-90		
83	1996/09/12	Thautil River Tributary	Th10	460-6006-508-305-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A14	15	15	1996/10/22	3	3	093L024		9	n/a	n/a	6062	60156	Dn	Ch	SE	38	38-90		
84	1996/09/12	Thautil River Tributary	Th10.1	460-6006-508-305-TH -10.-1 -000-000-000-000-000	C58	JH	SS		Y	N	B3	21	21	1996/09/20	1	4	093L024		9	n/a	n/a	6063	60159	Up	Ch	N	38	38-90		
85	1996/09/12	Thautil River Tributary	Th10.1	460-6006-508-305-TH -10.-1 -000-000-000-000-000	C58	JH	SS		Y	N	B4	4	4	1996/09/23	1	5	093L024		9	n/a	n/a	6063	60159	Up	O	NW	38	38-90		Road culvert.
86	1996/09/12	Thautil River Tributary	Th10.1	460-6006-508-305-TH -10.-1 -000-000-000-000-000	C58	JH	SS		Y	N	B4	5	5	1996/09/23	1	5	093L024		9	n/a	n/a	6063	60159	Dn	Ch	SE	38	38-90		
87	1996/09/12	Thautil River Tributary	Th11	460-6006-508-343-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A2	10	10	1996/09/17	2	1	093L024		9	n/a	n/a	6070	60165	Up	Ch	SE	38	38-90		
88	1996/09/12	Thautil River Tributary	Th11	460-6006-508-343-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A2	11	11	1996/09/17	2	1	093L024		9	n/a	n/a	6070	60165	Dn	Ch	NW	38	38-90		
89	1996/09/12	Thautil River Tributary	Th11	460-6006-508-343-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A14	13	13	1996/10/22	2	2	093L024		9	n/a	n/a	6070	60165	Up	Ch	SE	38	38-90		
90	1996/09/12	Thautil River Tributary	Th11	460-6006-508-343-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A14	14	14	1996/10/22	2	2	093L024		9	n/a	n/a	6070	60165	Dn	Ch	NW	38	38-90		
91	1996/09/12	Thautil River Tributary	Th11	460-6006-508-343-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A5	15	15	1996/10/22	3	3	093L024		9	n/a	n/a	6070	60165	Up	Ch	SE	38	38-90		
92	1996/09/12	Thautil River Tributary	Th11	460-6006-508-343-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A5	14	14	1996/10/22	3	3	093L024		9	n/a	n/a	6070	60165	Dn	Ch	NW	38	38-90		
93	1996/09/12	Thautil River Tributary	Th11.1	460-6006-508-343-TH -11.-1 -000-000-000-000-000	C58	RD	CP		Y	N	A5	12	12	1996/09/23	1	4	093L024		9	n/a	n/a	6092	60154	Up	Ch	NE	38	38-90		
94	1996/09/12	Thautil River Tributary	Th11.1	460-6006-508-343-TH -11.-1 -000-000-000-000-000	C58	RD	CP		Y	N	A5	13	13	1996/09/23	1	4	093L024		9	n/a	n/a	6092	60154	Dn	Ch	SW	38	38-90		
95	1996/09/12	Thautil River Tributary	Th12	460-6006-508-355-000-000-000-000-000-000-000-000	C58	RD	CP	DB	Y	N	DB2	7	6	1996/09/20	1	1	093L024		9	n/a	n/a	6071	60169	Up	Ch	E	50	50		
96	1996/09/12	Thautil River Tributary	Th12	460-6006-508-355-000-000-000-000-000-000-000-000	C58	RD	CP	DB	Y	N	DB2	6	5	1996/09/20	1	1	093L024		9	n/a	n/a	6071	60169	Dn	Ch	W	50	50		
97	1996/09/12	Thautil River Tributary	Th12	460-6006-508-355-000-000-000-000-000-000-000-000	C58	RD			Y	N	A5	4	4	1996/09/20	2	2	093L024		9	n/a	n/a	6071	60169	Up	Ch	E	38	38-90		
98	1996/09/12	Thautil River Tributary	Th12	460-6006-508-355-000-000-000-000-000-000-000-000	C58	RD			Y	N	A5	5	5	1996/09/20	2	2	093L024		9	n/a	n/a	6071	60169	Dn	Ch	W	38	38-90		
99	1996/09/12	Thautil River Tributary	Th12	460-6006-508-355-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A5	20	20	1996/09/23	3	3	093L024		9	n/a	n/a	6071	60169	Up	Ch	SE	38	38-90		
100	1996/09/12	Thautil River Tributary	Th12	460-6006-508-355-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A5	19	19	1996/09/23	3	3	093L024		9	n/a	n/a	6071	60169	Dn	Ch	NW	38	38-90		
101	1996/09/12	Thautil River Tributary	Th12	460-6006-508-355-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A5	21	21	1996/09/23	3	3	093L024		9	n/a	n/a	6071	60169	Up	O	SE	38	38-90		Road fill on top of 2 road culverts.
102	1996/09/12	Thautil River Tributary	Th12.1	460-6006-508-355-TH -12. 1 -000-000-000-000-000	C58	RD	CP		Y	N	A5	16	16	1996/09/23	2	4	093L024		9	n/a	n/a	6074	60167	Up	Ch	SE	38	38-90		
103	1996/09/12	Thautil River Tributary	Th12.1	460-6006-508-355-TH -12. 1 -000-000-000-000-000	C58	RD	CP		Y	N	A5	17	17	1996/09/23	2	4	093L024		9	n/a	n/a	6074	60167	Dn	Ch	NW	38	38-90		
104	1996/09/12	Thautil River Tributary	Th12.1	460-6006-508-355-TH -12. 1 -000-000-000-000-000	C58	RD	CP		Y	N	A5	18	18	1996/09/23	2	4	093L024		9	n/a	n/a	6074	60167	Up	O	SE	38	38-90		Road fill on top of road culvert.
105	1996/09/12	Thautil River Tributary	Th12.1.1	460-6006-508-355-TH -12.-1.1-000-000-000-000-000	C58	RD	CP		Y	N	A5	7	7	1996/09/23	1	5	093L024		9	n/a	n/a	6075	60168	Up	Ch	E	38	38-90		
106	1996/09/12	Thautil River Tributary	Th12.1.1	460-6006-508-355-TH -12.-1.1-000-000-000-000-000	C58	RD	CP		Y	N	A5	6	6	1996/09/23	1	5	093L024		9	n/a	n/a	6075	60168	Dn	Ch	W	38	38-90		
107	1996/09/12	Thautil River Tributary	Th13	460-6006-508-370-000-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B4	2	2	1996/09/23	1	1	093L024		9	n/a	n/a	6068	60174	Up	Ch	NW	38	38-90		
108	1996/09/12	Hagman Creek	Hagman Creek	460-6006-508-381-000-000-000-000-000-000-000-000	C58	JH	SS		Y	Y	B9	19	19	1996/10/10	1	In1	093L034		9	n/a	n/a	6071	60177	Up	Ch	E	38	38-90		
109	1996/09/12	Hagman Creek	Hagman Creek	460-6006-508-381-000-000-000-000-000-000-000-000	C58	JH	SS		Y	Y	B9	20	20	1996/10/10	1	In1	093L034		9	n/a	n/a	6071	60177	Dn	Ch	W	38	38-90		
110	1996/09/12	Hagman Creek	Hagman Creek	460-6006-508-381-000-000-000-000-000-000-000-000	C58	JH	SS		Y	Y	B9	21	21	1996/10/10	1	In1	093L034		9	n/a	n/a	6071	60177	n/a	Fi	nr	38	38-90		BT - DV comparison.
111	1996/09/12	Hagman Creek	Hagman Creek	460-6006-508-381-000-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B9	2	2	1996/10/10	1	In1	093L034		9	n/a	n/a	6071	60177	Up	Ch	E	38	38-90		Recent channel change.
112	1996/09/12	Hagman Creek	Hagman Creek	460-6006-508-381-000-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B9	3	3	1996/10/10	1	In1	093L034		9	n/a	n/a	6071	60177	Dn	Ch	W	38	38-90		Recent channel change.
113	1996/09/12	Hagman Creek	Hagman Creek	460-6006-508-381-000-000-000-000-000-000-000-000	C58	JH	SS		Y	Y	B8	25	25	1996/10/10	1	In1	093L034		9	n/a	n/a	6071	60177	Up	O	E	38	38-90		Eroding bank, located 120 m u/s from bridge.
114	1996/09/12	Hagman Creek	Hagman Creek	460-6006-508-381-000-000-000-000-000-000-000-000	C58	JH	SS		Y	Y	B9	4	4	1996/10/10	1	In1	093L034		9	n/a	n/a	6071	60177	Up	O	E	38	38-90		Slump into channel, located 315 m u/s from bridge.
115	1996/09/12	Hagman Creek	Hagman Creek	460-6006-508-381-000-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B9	6	6	1996/10/09	2	1	093L034		9	n/a	n/a	6071	60177	Up	Ch	E	38	38-90		Debris jam, located ~200 m d/s from the top of R2.
116	1996/09/12	Hagman Creek	Hagman Creek	460-6006-508-381-000-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B9	7	7	1996/10/09	2	1	093L034		9	n/a	n/a	6071	60177	Up	Ch	E	38	38-90		Debris jam, located ~200 m d/s from the top of R2.
117	1996/09/12	Hagman Creek	Hagman Creek	460-6006-508-381-000-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B9	8	8	1996/10/09	2	1	093L034		9	n/a	n/a	6071	60177	Dn	Ch	W	38	38-90		
118	1996/09/12	Hagman Creek	Hagman Creek	460-6006-508-381-000-000-000-000-000-000-000-000	C58	SS	CP		Y	N	DB2	5	4	1996/09/19	3	2	093L034		9	n/a	n/a	6071	60177	Up	Ch	S	50	50		
119	1996/09/12	Hagman Creek	Hagman Creek	460-6006-508-381-000-000-000-000-000-000-000-000	C58	SS	CP		Y	N	DB2	4	3	1996/09/19	3	2	093L034		9	n/a	n/a	6071	60177	Dn	Ch	N	50	50		
120	1996/09/12	Hagman Creek	Hagman Creek	460-6006-508-381-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A4	23	23	1996/09/20	3	3	093L034		9	n/a	n/a	6071	60177	Up	Ch	SE	38	38-90		
121	1996/09/12	Hagman Creek	Hagman Creek	460-6006-508-381-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A4	24	24	1996/09/20	3	3	093L034		9	n/a	n/a	6071	60177	Dn	Ch	NW	38	38-90		
122	1996/09/12	Hagman Creek Tributary	H1	460-6006-508-381-118-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B9	13	13	1996/10/10	1	4	093L034		9	n/a	n/a	6085	60181	Up	Ch	NE	38	38-90		

Photo #	Survey start date	Stream name (gaz.)	Stream name (loc.)	Watershed code	Agency	Crew (Init 1)	Crew (Init 2)	Crew (Init 3)	Reach/ site card (Y/N)	Fish cards (Y/N)	Roll/ Batch #	Counter #	Negative #	Date of photo	Reach #	Site #	Map # NTS/TRIM	UTM mtd G/M	Zone	E(field)	N(field)	E(correct)	N(correct)	Stream photo dir.	Picture type	Photo direction	Focal length (mm)	Focal range	Scale item	Comments
123	1996/09/12	Hagman Creek Tributary	H1	460-6006-508-381-118-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B9	14	14	1996/10/10	1	4	093L034		9	n/a	n/a	6085	60181	Dn	Ch	SW	38	38-90		
124	1996/09/12	Hagman Creek Tributary	H1	460-6006-508-381-118-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B9	15	15	1996/10/10	2	5	093L034		9	n/a	n/a	6085	60181	Up	Ch	NE	38	38-90		
125	1996/09/12	Hagman Creek Tributary	H1	460-6006-508-381-118-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B9	16	16	1996/10/10	2	5	093L034		9	n/a	n/a	6085	60181	Dn	Ch	SW	38	38-90		
126	1996/09/12	Hagman Creek Tributary	H2	460-6006-508-381-162-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B9	12	12	1996/10/09	1	6	093L034		9	n/a	n/a	6092	60181	Up	Ch	S	38	38-90		
127	1996/09/12	Hagman Creek Tributary	H2	460-6006-508-381-162-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B9	10	10	1996/10/09	1	6	093L034		9	n/a	n/a	6092	60181	Dn	Ch	N	38	38-90		
128	1996/09/12	Hagman Creek Tributary	H15.1	460-6006-508-381-422-H15-.1 -000-000-000-000-000	C58	RD			Y	N	A4	20	20	1996/09/19	1	7	093L034		9	n/a	n/a	6130	60189	Up	Ch	SE	38	38-90		
129	1996/09/12	Hagman Creek Tributary	H23	460-6006-508-381-606-000-000-000-000-000-000-000	C58	RD			Y	N	A4	21	21	1996/09/19	2	9	093L034		9	n/a	n/a	6148	60179	Up	Ch	SW	38	38-90		
130	1996/09/12	Hagman Creek Tributary	H23	460-6006-508-381-606-000-000-000-000-000-000-000	C58	RD			Y	N	A4	22	22	1996/09/19	2	9	093L034		9	n/a	n/a	6148	60179	Dn	Ch	NE	38	38-90		
131	1996/09/12	Hagman Creek Tributary	H25	460-6006-508-381-622-000-000-000-000-000-000-000	C58	DB			Y	N	DB2	2	2	1996/09/19	1	10	093L034		9	n/a	n/a	6149	60179	Xs	Ch	S	50	50		
132	1996/09/12	Thautil River Tributary	Th15	460-6006-508-392-000-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B4	16	16	1996/09/25	1	1	093L034		9	n/a	n/a	6070	60180	Up	Ch	W	38	38-90		
133	1996/09/12	Thautil River Tributary	Th15	460-6006-508-392-000-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B4	15	15	1996/09/25	1	1	093L034		9	n/a	n/a	6070	60180	Dn	Ch	E	38	38-90		
134	1996/09/12	Thautil River Tributary	Th15.1	460-6006-508-392-TH -15.-1 -000-000-000-000-000	C58	JH	SS		Y	N	B4	20	20	1996/09/25	2	2	093L034		9	n/a	n/a	6068	60185	Up	Ch	SW	38	38-90		
135	1996/09/12	Thautil River Tributary	Th16	460-6006-508-TH -16 -000-000-000-000-000-000-000	C58	RD	CP		Y	N	A14	7	7	1996/10/21	1	1	093L034		9	n/a	n/a	6073	60186	Up	Ch	E	38	38-90		
136	1996/09/12	Thautil River Tributary	Th16	460-6006-508-TH -16 -000-000-000-000-000-000-000	C58	RD	CP		Y	N	A14	8	8	1996/10/21	1	1	093L034		9	n/a	n/a	6073	60186	Dn	Ch	W	38	38-90		
137	1996/09/12	Thautil River Tributary	Th17	460-6006-508-414-000-000-000-000-000-000-000-000	C58	RD	DA		Y	N	T1	15	15	1996/03/13	1	1	093L034		9	n/a	n/a	6074	60187	Up	Ch	E	38	38-90		
138	1996/09/12	Thautil River Tributary	Th17	460-6006-508-414-000-000-000-000-000-000-000-000	C58	RD	DA		Y	N	T1	16	16	1996/03/13	1	1	093L034		9	n/a	n/a	6074	60187	Dn	Ch	W	38	38-90		
139	1996/09/12	Thautil River Tributary	Th18	460-6006-508-TH -18 -000-000-000-000-000-000-000	C58	RD	DA		Y	N	T1	19	19	1996/06/14	1	1	093L034		9	n/a	n/a	6074	60189	Up	Ch	nr	38	38-90		
140	1996/09/12	Thautil River Tributary	Th21	460-6006-508-446-000-000-000-000-000-000-000-000	C58	RD	DA		Y	N	T1	13	13	1996/06/13	1	1	093L034		9	n/a	n/a	6078	60198	Up	Ch	E	38	38-90		
141	1996/09/12	Thautil River Tributary	Th21	460-6006-508-446-000-000-000-000-000-000-000-000	C58	RD	DA		Y	N	T1	14	14	1996/06/13	1	1	093L034		9	n/a	n/a	6078	60198	Dn	Ch	W	38	38-90		
142	1996/09/12	Thautil River Tributary	Th22	460-6006-508-468-000-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B4	24	24	1996/09/25	1	1	093L034		9	n/a	n/a	6076	60205	Up	Ch	NW	38	38-90		
143	1996/09/12	Thautil River Tributary	Th22	460-6006-508-468-000-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B4	25	25	1996/09/25	2	2	093L034		9	n/a	n/a	6076	60205	Up	Ch	W	38	38-90		
144	1996/09/12	Thautil River Tributary	Th22	460-6006-508-468-000-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B5	1	1	1996/09/25	2	2	093L034		9	n/a	n/a	6076	60205	Up	Ch	W	38	38-90		Culvert barrier; 1 m high drop at outlet.
145	1996/09/12	Thautil River Tributary	Th22	460-6006-508-468-000-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B5	2	2	1996/09/25	3	3	093L034		9	n/a	n/a	6076	60205	Up	Ch	SW	38	38-90		
146	1996/09/12	Thautil River Tributary	Th23	460-6006-508-469-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A5	22	22	1996/09/24	1	1	093L034		9	n/a	n/a	6076	60206	Up	Ch	E	38	38-90		
147	1996/09/12	Thautil River Tributary	Th23	460-6006-508-469-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A5	23	23	1996/09/24	1	1	093L034		9	n/a	n/a	6076	60206	Dn	Ch	W	38	38-90		
148	1996/09/12	Thautil River Tributary	Th25	460-6006-508-TH -25 -000-000-000-000-000-000-000	C58	RD	CP		Y	N	A6	2	2	1996/09/24	1	1	093L034		9	n/a	n/a	6075	60208	Up	Ch	E	38	38-90		
149	1996/09/12	Thautil River Tributary	Th25	460-6006-508-TH -25 -000-000-000-000-000-000-000	C58	RD	CP		Y	N	A6	3	3	1996/09/24	1	1	093L034		9	n/a	n/a	6075	60208	Dn	Ch	W	38	38-90		
150	1996/09/12	Gabriel Creek	Gabriel Creek	460-6006-508-480-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A5	24	24	1996/09/24	1	1	093L034		9	n/a	n/a	6075	60209	Up	Ch	NW	38	38-90		
151	1996/09/12	Gabriel Creek	Gabriel Creek	460-6006-508-480-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A5	25	25	1996/09/24	1	1	093L034		9	n/a	n/a	6075	60209	Dn	Ch	SE	38	38-90		
152	1996/09/12	Gabriel Creek	Gabriel Creek	460-6006-508-480-000-000-000-000-000-000-000-000	C58	RD	SS		Y	N	B5	15	15	1996/09/26	1	2	093L034		9	n/a	n/a	6075	60209	Up	Ch	NW	38	38-90		
153	1996/09/12	Gabriel Creek	Gabriel Creek	460-6006-508-480-000-000-000-000-000-000-000-000	C58	RD	SS		Y	N	B5	16	16	1996/09/26	1	2	093L034		9	n/a	n/a	6075	60209	Dn	Ch	SE	38	38-90		
154	1996/09/12	Gabriel Creek	Gabriel Creek	460-6006-508-480-000-000-000-000-000-000-000-000	C58	JH	SS		Y	Y	B5	17	17	1996/09/27	2	In1	093L034		9	n/a	n/a	6075	60209	Up	Ch	W	38	38-90		Index site.
155	1996/09/12	Gabriel Creek	Gabriel Creek	460-6006-508-480-000-000-000-000-000-000-000-000	C58	JH	SS		Y	Y	B5	18	18	1996/09/27	2	In1	093L034		9	n/a	n/a	6075	60209	Dn	Ch	E	38	38-90		Index site.
156	1996/09/12	Gabriel Creek	Gabriel Creek	460-6006-508-480-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A10	14	14	1996/10/04	2	3	093L034		9	n/a	n/a	6075	60209	Up	Ch	SW	38	38-90		
157	1996/09/12	Gabriel Creek	Gabriel Creek	460-6006-508-480-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A10	15	15	1996/10/04	2	3	093L034		9	n/a	n/a	6075	60209	Dn	Ch	NE	38	38-90		
158	1996/09/12	Gabriel Creek	Gabriel Creek	460-6006-508-480-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A10	18	18	1996/10/04	3	4	093L034		9	n/a	n/a	6075	60209	Up	Ch	SW	38	38-90		
159	1996/09/12	Gabriel Creek	Gabriel Creek	460-6006-508-480-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A10	19	19	1996/10/04	3	4	093L034		9	n/a	n/a	6075	60209	Dn	Ch	NE	38	38-90		
160	1996/09/12	Gabriel Creek	Gabriel Creek	460-6006-508-480-000-000-000-000-000-000-000-000	C58	RD	SS		Y	N	B5	9	9	1996/09/26	4	5	093L033		9	n/a	n/a	6075	60209	Up	Ch	SW	38	38-90		
161	1996/09/12	Gabriel Creek	Gabriel Creek	460-6006-508-480-000-000-000-000-000-000-000-000	C58	RD	SS		Y	N	B5	10	10	1996/09/26	4	5	093L033		9	n/a	n/a	6075	60209	Dn	Ch	NE	38	38-90		
162	1996/09/12	Gabriel Creek Tributary	G2	460-6006-508-480-195-000-000-000-000-000-000-000	C58	RD	SS		Y	N	B5	3	3	1996/09/26	2	1	093L034		9	n/a	n/a	6074	60216	Up	Ch	N	38	38-90		
163	1996/09/12	Gabriel Creek Tributary	G2	460-6006-508-480-195-000-000-000-000-000-000-000	C58	RD	SS		Y	N	B5	4	4	1996/09/26	2	1	093L034		9	n/a	n/a	6074	60216	Dn	Ch	S	38	38-90		
164	1996/09/12	Gabriel Creek Tributary	G3	460-6006-508-480-364-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A12	7	7	1996/10/09	1	1	093L034		9	n/a	n/a	6068	60219	Up	Ch	W	38	38-90		
165	1996/09/12	Gabriel Creek Tributary	G3	460-6006-508-480-364-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A12	8	8	1996/10/09	1	1	093L034		9	n/a	n/a	6068	60219	Dn	Ch	E	38	38-90		
166	1996/09/12	Gabriel Creek Tributary	G3	460-6006-508-480-364-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B6	1	1	1996/09/27	2	2	093L034		9	n/a	n/a	6068	60219	Up	Ch	W	38	38-90		
167	1996/09/12	Gabriel Creek Tributary	G3	460-6006-508-480-364-000-000-000-000-000-000-000	C58	SS			Y	N	B6	3	3	1996/09/27	3	3	093L034		9	n/a	n/a	6068	60219	Up	Ch	SW	38	38-90		
168	1996/09/12	Gabriel Creek Tributary	G3.2	460-6006-508-480-364-G3.-2 -000-000-000-000-000	C58	JH	SS		Y	N	B5	24	24	1996/09/27	1	4	093L034		9	n/a	n/a	6062	60219	Up	Ch	SW	38	38-90		
169	1996/09/12	Gabriel Creek Tributary	G3.2	460-6006-508-480-364-G3.-2 -000-000-000-000-000	C58	JH	SS		Y	N	B5	23	23	1996/09/27	2	5	093L034		9	n/a	n/a	6062	60219	Up	Ch	SW	38	38-90		
170	1996/09/12	Gabriel Creek Tributary	G3.3	460-6006-508-480-364-G3.-3 -000-000-000-000-000	C58	JH	SS		Y	N	B5	25	25	1996/09/27	1	6	093L034		9	n/a	n/a	6057	60217	Dn	Ch	NE	38	38-90		
171	1996/09/12	Gabriel Creek Tributary	G4	460-6006-508-480-707-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A8	20	20	1996/09/27	2	1	093L034		9	n/a	n/a	6057	60224	Up	Ch	N	38	38-90		
172	1996/09/12	Gabriel Creek Tributary	G4	460-6006-508-480-707-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A8	21	21	1996/09/27	2	1	093L034		9	n/a	n/a	6057	60224	Dn	Ch	S	38	38-90		
173	1996/09/12	Gabriel Creek Tributary	G4	460-6006-508-480-707-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A8	22	22	1996/09/27	2	1	093L034		9	n/a	n/a	6057	60224	Up	O	N	38	38-90		0.7 m high drop at culvert.
174	1996/09/12	Gabriel Creek Tributary	G4	460-6006-508-480-707-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A10	20	20	1996/10/04	3	2	093L034		9	n/a	n/a	6057	60224	Up	Ch	N	38	38-90		
175	1996/09/12	Gabriel Creek Tributary	G4	460-6006-508-480-707-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A10	21	21	1996/10/04	3	2	093L034		9	n/a	n/a	6057	60224	Dn	Ch	S	38	38-90		
176	1996/09/12	Gabriel Creek Tributary	G4.2	460-6006-508-480-707-G4.-2 -000-000-000-000-000	C58	RD	CP		Y	N	A8	19	19	1996/09/27	1	3	093L034		9	n/a	n/a	6059	60232	Up	Ch	NE	38	38-90		
177	1996/09/12	Gabriel Creek Tributary	G5	460-6006-508-480-767-000-000-000-000-000-000-000	C58	RD	CP		Y	Y	A9	6	6	1996/09/27	1	1	093L034		9	n/a	n/a	6055	60225	Up	Ch	N	38	38-90		
178	1996/09/12	Gabriel Creek Tributary	G5	460-6006-508-480-767-000-000-000-000-000-000-000	C58	RD	CP		Y	Y	A9	5	5	1996/09/27	1	1	093L034		9	n/a	n/a	6055	60225	Dn	Ch	S	38	38-90		
179	1996/09/12	Gabriel Creek Tributary	G5	460-6006-508-480-767-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A12	4	4	1996/10/09	2	2	093L034		9	n/a	n/a	6055	60225	Up	Ch	N	38	38-90		Lower sample site.
180	1996/09/12	Gabriel Creek Tributary	G5	460-6006-508-480-767-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A12	3	3	1996/10/09	2	2	093L034		9	n/a	n/a	6055	60225	Dn	Ch	S	38	38-90		Lower sample site.
181	1996/09/12	Gabriel Creek Tributary	G5	460-6006-508-480-767-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A12	5	5	1996/10/09	2	2	093L034		9	n/a	n/a	6055	60225	Up	Ch	N	38	38-90		Upper sample site.
182	1996/09/12	Gabriel Creek Tributary	G5	460-6006-508-480-767-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A12	6	6	1996/10/09	2	2	093L034		9	n/a	n/a	6055	60225	Dn	Ch	S	38	38-90		Upper sample site.
183	1996/09/12	Gabriel Creek Tributary	G5	460-6006-508-480-767-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A10	23	23	1996/10/04	3	3	093L034		9	n/a	n/a	6055	60225	Up	Ch	NW	38	38-90		
184	1996/09/12	Gabriel Creek Tributary	G5	460-6006-508-480-767-000-000-000-000-000-000-000	C58	RD	SS		Y	N	B5	12	12	1996/09/26	5	4	093L033		9	n/a	n/a	6055	60225	Up	Ch	SW	38	38-90		
185	1996/09/12	Gabriel Creek Tributary	G5	460-6006-508-480-767-000-000-000-000-000-000-000	C58	RD	SS		Y	N	B5	11	11	1996/09/26	5	4	093L033		9	n/a	n/a	6055	60225	Dn	Ch	NE	38	38-90		
186	1996/09/12	Gabriel Creek Tributary	G5.1	460-6006-508-480-767-G5.-1 -000-000-000-000-000	C58	RD	CP		Y	N	A8	24	24	1996/09/27	1	5	093L034		9	n/a	n/a	6055	60227	Up	Ch	NW	38	38-90		
187	1996/09/12	Gabriel Creek Tributary	G5.1	460-6006-508-480-767-G5.-1 -000-000-000-000-000	C58	RD	CP		Y	N	A8	23	23	1996/09/27	1	5	093L034		9	n/a	n/a	6055	60227	Dn	Ch	SE	38	38-90		
188	1996/09/12	Gabriel Creek Tributary	G5.2	460-6006-508-480-767-G5.-2 -000-000-000-000-000	C58	RD	CP		Y	Y	A9	4	4	1996/09/27	2	6	093L034		9	n/a	n/a	6052	60241	Up	Ch	W	38	38-90		
189	1996/09/12	Gabriel Creek Tributary	G5.2	460-6006-508-480-767-G5.-2 -000-000-000-000-000	C58	RD	CP		Y	Y	A9	3	3	1996/09/27	2	6	093L034		9	n/a	n/a	6052	60241	Dn	Ch	E	38	38-90		
190	1996/09/12	Gabriel Creek Tributary	G5.4	460-6006-508-480-767-G5.-4 -000-000-000-000-000	C58	RD	CP		Y	Y	A9	2	2	1996/09/27	2	7	093L034		9	n/a	n/a	6050	60248	Up	Ch	SW	38	38-90		
191	1996/09/12	Gabriel Creek Tributary	G5.4	460-6006-508-480-767-G5.-4 -000-000-000-000-000	C58	RD	CP		Y	Y	A9	1	1	1996/09/27	2	7	093L034		9	n/a	n/a	6050	60248	Dn	Ch	NE	38	38-90		
192	1996/09/12	Gabriel Creek Tributary	G5.6	460-6006-508-480-767-G5.-6 -000-000-000-000-000	C58	RD	SS		Y	N	B5	13	13	1996/09/26	2	8	093L033		9	n/a	n/a	6038	60254	Up	Ch	SW	38	38-90		
193	1996/09/12	Gabriel Creek Tributary	G5.6	460-6006-508-480-767-G5.-6 -000-000-000-000-000	C58	RD	SS		Y	N	B5	14	14	1996/09/26	2	8	093L033		9	n/a	n/a	6038	60254	Dn	Ch	NE	38	38-90		
194	1996/09/12	Gabriel Creek Tributary	G8	460-6006-508-480-G8 -000-000-000-000-000-000-000	C58	RD	CP		Y	N	A10	17	17	1996/10/04	1	1	093L034		9	n/a	n/a	6043	60214	Up	Ch	SE	38	38-90		
195	1996/09/12	Gabriel Creek Tributary	G8	460-6006-508-480-G8 -000-000-000-000-000-000-000	C58	RD	SS		Y	N	B5	6	6	1996/09/26	2	2	093L034		9	n/a	n/a	6043	60214	Up	Ch	S	38	38-90		
196	1996/09/12	Gabriel Creek Tributary	G8	460-6006-508-480-G8 -000-000-000-000-000-000-000	C58	RD	SS		Y	N	B5	5	5	1996/09/26	2	2	093L034		9	n/a	n/a	6043	60214	Dn	Ch	N	38	38-90		
197	1996/09/12	Gabriel Creek Tributary	G8	460-6006-508-480-G8 -000-000-000-000-000-000-000	C58	RD	SS		Y	N	B5	8	8	1996/09/26	3	3	093L034		9	n/a	n/a	6043	60214	Up	Ch	SW	38	38-90		
198	1996/09/12	Gabriel Creek Tributary	G8	460-6006-508-480-G8 -000-000-000-000-000-000-000	C58	RD	SS		Y	N	B5	7	7	1996/09/26	3	3	093L034		9	n/a	n/a	6043	60214	Dn	Ch	NE	38	38-90		
199	1996/09/12	Thautil River Tributary	Th27	460-6006-508-493-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A6	7	7	1996/09/24	1	1	093L034		9	n/a	n/a	6078	60212	Up	Ch	E	38	38-90		
200	1996/09/12	Thautil River Tributary	Th27	460-6006-508-493-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A6	6	6	1996/09/24	1	1	093L034		9	n/a	n/a	6078	60212	Dn	Ch	W	38	38-90		
201	1996/09/12	Thautil River Tributary	Th27	460-6006-508-493-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A6	4	4	1996/09/24	2	2	093L034		9	n/a	n/a	6078	60212	Up	Ch	E	38	38-90		
202	1996/09/12	Thautil River Tributary	Th27	460-6006-508-493-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A6	5	5	1996/09/24	2	2	093L034		9	n/a	n/a	6078	60212	Dn	Ch	W	38	38-90		
203	1996/09/12	Thautil River Tributary	Th28	460-6006-508-513-000-000-000-000-000-000-000-000	C58	DB	CP		Y	N	DB2	7	7	1996/09/20	1	1	093L034		9	n/a	n/a	6080	60218	Up	Ch	NE	50	50		
204	1996/09/12	Thautil River Tributary	Th28	460-6006-508-513-000-000-000-000-000-000-000-000	C58	DB	CP		Y	N	DB2	8	8	1996/09/20	1	1	093L034		9	n/a	n/a	6080	60218	Dn	Ch	SW	50	50		
205	1996/09/12	Thautil River Tributary	Th28	460-6006-508-513-000-000-000-000-000-000-000-000	C58	RD			Y	N	A5	8	8	1996/09/20	2	2	093L034		9	n/a	n/a	6080	60218	Up	Ch	NE	38	38-90		
206	1996/09/12	Thautil River Tributary	Th28	460-6006-508-513-000-000-000-000-000-000-000-000	C58	RD			Y	N	A5	9	9	1996/09/20	2	2	093L034		9	n/a	n/a	6080	60218	Dn	Ch	SW	38	38-90		
207	1996/09/12	Thautil River Tributary	Th28	460-6006-508-513-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A14	18	18	1996/10/22	4	3	093L034		9	n/a	n/a	6080	60218	Up	Ch	NE	38	38-90		
208	1996/09/12	Thautil River Tributary	Th28	460-6006-508-513-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A14	17	17	1996/10/22	4	3	093L034		9	n/a	n/a	6080	60218	Dn	Ch	SW	38	38-90		
209	1996/09/12	Thautil River Tributary	Th28.8	460-6006-508-513-818-000-000-000-000-000-000-000	C58	DB			Y	N	DB2	1	1	1996/09/19	1	4	093L034		9	n/a	n/a	6016	60233	n/a	L	nr	50	50		Small headwater pond.
210	1996/09/12	Thautil River Tributary	Th30	460-6006-508-TH -30 -000-000-000-000-000-000-000	C58	CP			Y	N	A6	8	8	1996/09/24	1	1	093L034		9	n/a	n/a	6080	60238	Up	Ch	NW	38	38-90		
211	1996/09/12	Thautil River Tributary	Th30	460-6006-508-TH -30 -000-000-000-000-000-000-000	C58	CP			Y	N	A6	9	9	1996/09/24	1	1	093L034		9	n/a	n/a	6080	60238	Dn	Ch	SE	38	38-90		
212	1996/09/12	Denys Creek	Denys Creek	460-6006-508-584-000-000-000-000-000-000-000-000	C58	JH			Y	N	B1	21	21	1996/09/18	1	1	093L034		9	n/a	n/a	6105	60256	Xs	O	W	50	50		Eroding bank, located 1390 m u/s from Denys C. mouth.
213	1996/09/12	Denys Creek	Denys Creek	460-6006-508-584-000-000-000-000-000-000-000-000	C58	SS	CP	DB	Y	Y	DB1	9	9	1996/09/18	1	In1	093L034		9	n/a	n/a	6105	60256	Up	Ch	NE	50	50		Index site.
214	1996/09/12	Denys Creek	Denys Creek	460-6006-508-584-000-000-000-000-000-000-000-000	C58	SS	CP	DB	Y	Y	DB1	8	8	1996/09/18	1	In1	093L034		9	n/a	n/a	6105	60256	Dn	Ch	SW	38	38-90		Index site.
215	1996/09/12	Denys Creek	Denys Creek	460-6006-508-584-000-000-000-000-000-000-000-000	C58	JH			Y	N	B3	17	17	1996/09/19	2	2	093L034		9	n/a	n/a	6105	60256	Up	Ch	NE	38	38-90		
216	1996/09/12	Denys Creek	Denys Creek	460-6006-508-584-000-000-000-000-000-000-000-000	C58	JH			Y	N	B4	8	8	1996/09/19	2	2	093L034		9	n/a	n/a	6105	60256	Up	O	NE	38	38-90		Section of eroding bank, located 133 m u/s from D19.
217	1996/09/12	Denys Creek	Denys Creek	460-6006-508-584-000-000-000-000-000-000-000-000	C58	JH			Y	N	B4	9	9	1996/09/19	2	2	093L034		9	n/a	n/a	6105	60256	Up	O	NE	38	38-90		Section of eroding bank, located 133 m u/s from D19.
218	1996/09/12	Denys Creek	Denys Creek	460-6006-508-584-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A14	5	5	1996/10/15	3	3	093L044		9	n/a	n/a	6105	60256	Up	Ch	NE	38	38-90		
219	1996/09/12	Denys Creek	Denys Creek	460-6006-508-584-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A14	6	6	1996/10/15	3	3	093L044		9	n/a	n/a	6105	60256	Dn	Ch	SW	38	38-90		
220	1996/09/12	Denys Creek	Denys Creek	460-6006-508-584-000-000-000-000-000-000-000-000	C58	SS	CP		Y	Y	DB1	20	20	1996/09/19	3	In2	093L044		9	n/a	n/a	6105	60256	Up	Ch	NE	50	50		Index site.
221	1996/09/12	Denys Creek	Denys Creek	460-6006-508-584-000-000-000-000-000-000-000-000	C58	SS	CP		Y	Y	DB1	21	21	1996/09/19	3	In2	093L044		9	n/a	n/a	6105	60256	Dn	Ch	SW	50	50		Index site.
222	1996/09/12	Denys Creek	Denys Creek	460-6006-508-584-000-000-000-000-000-000-000-000	C58	SS	CP		Y	Y	DB1	24	24	1996/09/19	4	In3	093L044		9	n/a	n/a	6105	60256	Up	Ch	E	50	50		Index site.
223	1996/09/12	Denys Creek	Denys Creek	460-6006-508-584-000-000-000-000-000-000-000-000	C58	SS	JH		Y	N	B11	19	19	1996/10/16	5	4	093L044		9	n/a	n/a	6105	60256	Up	Ch	NE	38	38-90		
224	1996/09/12	Denys Creek	Denys Creek	460-6006-508-584-000-000-000-000-000-000-000-000	C58	SS	JH		Y	N	B11	20	20	1996/10/16	5	4	093L044		9	n/a	n/a	6105	60256	Dn	Ch	SW	38	38-90		
225	1996/09/12	Denys Creek Tributary	D1	460-6006-508-584-D1 -000-000-000-000-000-000-000	C58	SS	JH		Y	N	B1	20	20	1996/09/16	1	1	093L034		9	n/a	n/a	6084	60242	Up	Ch	E	38	38-90		
226	1996/09/12	Denys Creek Tributary	D4	460-6006-508-584-D4 -000-000-000-000-000-000-000	C58	SS	JH		Y	N	B1	22	22	1996/09/16	1	1	093L034		9	n/a	n/a	6091	60250	Up	Ch	N	38	38-90		
227	1996/09/12	Denys Creek Tributary	D5	460-6006-508-584-039-000-000-000-000-000-000-000	C58	SS	JH		Y	N	B1	23	23	1996/09/16	1	1	093L034		9	n/a	n/a	6095	60252	Up	Ch	SE	38	38-90		
228	1996/09/12	Denys Creek Tributary	D5	460-6006-508-584-039-000-000-000-000-000-000-000	C58	SS	JH		Y	N	B1	24	24	1996/09/16	2	2	093L034		9	n/a	n/a	6095	60252	Up	Ch	SE	38	38-90		
229	1996/09/12	Denys Creek Tributary	D6	460-6006-508-584-128-000-000-000-000-000-000-000	C58	SS	JH		Y	N	B1	25	25	1996/09/16	1	1	093L034		9	n/a	n/a	6102	60254	Up	Ch	NW	38	38-90		
230	1996/09/12	Denys Creek Tributary	D7	460-6006-508-584-134-000-000-000-000-000-000-000	C58	SS	JH		Y	N	B2	1	2	1996/09/16	1	1	093L034		9	n/a	n/a	6103	60254	Up	Ch	SE	38	38-90		
231	1996/09/12	Denys Creek Tributary	D7	460-6006-508-584-134-000-000-000-000-000-000-000	C58	SS	JH		Y	N	B2	2	3	1996/09/16	2	2	093L034		9	n/a	n/a	6103	60254	Up	Ch	SE	38	38-90		
232	1996/09/12	Denys Creek Tributary	D7	460-6006-508-584-134-000-000-000-000-000-000-000	C58	DB			Y	N	DB1	25	25	1996/09/19	2	3	093L034		9	n/a	n/a	6103	60254	n/a	L	nr	50	50		Headwater lake at top of D7.
233	1996/09/12	Denys Creek Tributary	D9	460-6006-508-584-D9 -000-000-000-000-000-000-000	C58	JH			Y	N	B2	22	23	1996/09/18	1	1	093L034		9	n/a	n/a	6110	60258	Up	Ch	N	38	38-90		
234	1996/09/12	Denys Creek Tributary	D10	460-6006-508-584-179-000-000-000-000-000-000-000	C58	JH			Y	N	B2	23	24	1996/09/18	1	1	093L034		9	n/a	n/a	6112	60259	Up	Ch	SE	38	38-90		
235	1996/09/12	Denys Creek Tributary	D10	460-6006-508-584-179-000-000-000-000-000-000-000	C58	JH			Y	N	B2	24	25	1996/09/18	1	1	093L034		9	n/a	n/a	6112	60259	Up	Ch	SE	38	38-90		Debris drop, located 80 m u/s from the mouth.
236	1996/09/12	Denys Creek Tributary	D10	460-6006-508-584-179-000-000-000-000-000-000-000	C58	JH			Y	N	B3	1	1	1996/09/18	1	1	093L034		9	n/a	n/a	6112	60259	Xs	O	S	38	38-90		Eroding bank, located 481 m u/s from the mouth.
237	1996/09/12	Denys Creek Tributary	D10	460-6006-508-584-179-000-000-000-000-000-000-000	C58	JH			Y	N	B3	6	6	1996/09/18	2	2	093L034		9	n/a	n/a	6112	60259	Up	Ch	E	38	38-90		
238	1996/09/12	Denys Creek Tributary	D10.1	460-6006-508-584-179-143-000-000-000-000-000-000	C58	JH			Y	N	B3	3	3	1996/09/18	1	3	093L034		9	n/a	n/a	6117	60252	Up	Ch	SE	38	38-90		Debris jam located 390 m u/s from the mouth.
239	1996/09/12	Denys Creek Tributary	D10.1	460-6006-508-584-179-143-000-000-000-000-000-000	C58	JH			Y	N	B3	4	4	1996/09/18	1	3	093L034		9	n/a	n/a	6117	60252	Up	O	SE	38	38-90		Failed bank, located 400 m u/s from the mouth.
240	1996/09/12	Denys Creek Tributary	D10.1	460-6006-508-584-179-143-000-000-000-000-000-000	C58	DB			Y	N	DB1	6	6	1996/09/18	1	4	093L034		9	n/a	n/a	6117	60252	Up	Ch	SE	50	50		
241	1996/09/12	Denys Creek Tributary	D10.1	460-6006-508-584-179-143-000-000-000-000-000-000	C58	DB			Y	N	DB1	7	7	1996/09/18	1	4	093L034		9	n/a	n/a	6117	60252	Dn	Ch	NW	50	50		
242	1996/09/12	Denys Creek Tributary	D10.2	460-6006-508-584-179-D10-.2 -000-000-000-000-000	C58	JH			N	N	B3	5	5	1996/09/18	1	n/a	093L034		9	n/a	n/a	nr	nr	Up	Ch	S	38	38-90		No defined channel.
243	1996/09/12	Denys Creek Tributary	D10.3	460-6006-508-584-179-D10-.3 -000-000-000-000-000	C58	JH			N	N	B3	7	7	1996/09/18	1	n/a	093L034		9	n/a	n/a	nr	nr	Up	Ch	S	38	38-90		No defined channel or above ground discharge.
244	1996/09/12	Denys Creek Tributary	D10.4	460-6006-508-584-179-D10-.4 -000-000-000-000-000	C58	JH			N	N	B3	8	8	1996/09/18	1	n/a	093L034		9	n/a	n/a	nr	nr	Up	Ch	S	38	38-90		No defined channel or above ground discharge.

Photo #	Survey start date	Stream name (gaz.)	Stream name (loc.)	Watershed code	Agency	Crew (Init 1)	Crew (Init 2)	Crew (Init 3)	Reach/ site card (Y/N)	Fish cards (Y/N)	Roll/ Batch #	Counter #	Negative #	Date of photo	Reach #	Site #	Map # NTS/TRIM	UTM mtd G/M	Zone	E(field)	N(field)	E(correct)	N(correct)	Stream photo dir.	Picture type	Photo direction	Focal length (mm)	Focal range	Scale item	Comments
245	1996/09/12	Denys Creek Tributary	D10.5	460-6006-508-584-179-D10-.5 -000-000-000-000-000	C58	JH			Y	N	B3	9	9	1996/09/18	1	5	093L034		9	n/a	n/a	6124	60252	Up	Ch	E	38	38-90		
246	1996/09/12	Denys Creek Tributary	D11	460-6006-508-584-210-000-000-000-000-000-000	C58	JH			Y	N	B3	10	10	1996/09/19	1	1	093L034		9	n/a	n/a	6115	60261	Up	Ch	SE	38	38-90		
247	1996/09/12	Denys Creek Tributary	D11.1	460-6006-508-584-210-D11-.1 -000-000-000-000-000	C58	JH			Y	N	B3	11	11	1996/09/19	1	2	093L034		9	n/a	n/a	6123	60256	Up	Ch	NE	38	38-90		
248	1996/09/12	Denys Creek Tributary	D12	460-6006-508-584-208-000-000-000-000-000-000	C58	DB	CP		Y	N	DB4	23	23	1996/10/15	1	1	093L034		9	n/a	n/a	6116	60262	Up	Ch	NW	38	38-90		
249	1996/09/12	Denys Creek Tributary	D12	460-6006-508-584-208-000-000-000-000-000-000	C58	DB	CP		Y	N	DB4	24	24	1996/10/15	1	1	093L034		9	n/a	n/a	6116	60262	Dn	Ch	SE	38	38-90		
250	1996/09/12	Denys Creek Tributary	D12	460-6006-508-584-208-000-000-000-000-000-000	C58	JH			Y	N	B3	13	13	1996/09/19	1	1	093L034		9	n/a	n/a	6116	60262	Up	Ch	NW	38	38-90		Numerous debris jams, located 600 m u/s from mouth.
251	1996/09/12	Denys Creek Tributary	D12	460-6006-508-584-208-000-000-000-000-000-000	C58	JH			Y	N	B3	14	14	1996/09/19	1	1	093L034		9	n/a	n/a	6116	60262	Up	Ch	NW	38	38-90		Debris jam, located 890 m u/s from mouth.
252	1996/09/12	Denys Creek Tributary	D12	460-6006-508-584-208-000-000-000-000-000-000	C58	JH			Y	N	B3	15	15	1996/09/19	2	2	093L034		9	n/a	n/a	6116	60262	Up	Ch	NW	38	38-90		
253	1996/09/12	Loljuh Creek	Loljuh Creek	460-6006-508-584-214-000-000-000-000-000-000	C58	RD	CP		Y	Y	A1	18	18	1996/09/16	1	1	093L034		9	n/a	n/a	6118	60262	Up	Ch	NE	38	38-90		
254	1996/09/12	Loljuh Creek	Loljuh Creek	460-6006-508-584-214-000-000-000-000-000-000	C58	RD	CP		Y	Y	A1	19	19	1996/09/16	1	1	093L034		9	n/a	n/a	6118	60262	Dn	Ch	SW	38	38-90		
255	1996/09/12	Loljuh Creek	Loljuh Creek	460-6006-508-584-214-000-000-000-000-000-000	C58	RD	CP		Y	Y	A3	8	8	1996/09/16	1	1	093L034		9	n/a	n/a	6118	60262	Xs	O	N	38	38-90		Slump, located 4200 m u/s from Loljuh C. mouth.
256	1996/09/12	Loljuh Creek	Loljuh Creek	460-6006-508-584-214-000-000-000-000-000-000	C58	RD			Y	N	A4	9	9	1996/09/18	2	2	093L035		9	n/a	n/a	6118	60262	Up	Ch	SE	38	38-90		
257	1996/09/12	Loljuh Creek	Loljuh Creek	460-6006-508-584-214-000-000-000-000-000-000	C58	RD			Y	N	A4	8	8	1996/09/18	2	2	093L035		9	n/a	n/a	6118	60262	Dn	Ch	NW	38	38-90		
258	1996/09/12	Loljuh Creek	Loljuh Creek	460-6006-508-584-214-000-000-000-000-000-000	C58	RD			Y	N	A4	16	16	1996/09/19	3	3	093L035		9	n/a	n/a	6118	60262	Up	Ch	SE	38	38-90		
259	1996/09/12	Loljuh Creek	Loljuh Creek	460-6006-508-584-214-000-000-000-000-000-000	C58	RD			Y	N	A4	15	15	1996/09/19	3	3	093L035		9	n/a	n/a	6118	60262	Dn	Ch	NW	38	38-90		
260	1996/09/12	Loljuh Creek Tributary	L2	460-6006-508-584-214-224-000-000-000-000-000	C58	RD	CP		Y	N	A1	16	16	1996/09/16	1	1	093L034		9	n/a	n/a	6134	60270	Up	Ch	SE	38	38-90		
261	1996/09/12	Loljuh Creek Tributary	L2	460-6006-508-584-214-224-000-000-000-000-000	C58	RD	CP		Y	N	A1	17	17	1996/09/16	1	1	093L034		9	n/a	n/a	6134	60270	Dn	Ch	NW	38	38-90		
262	1996/09/12	Loljuh Creek Tributary	L3	460-6006-508-584-214-285-000-000-000-000-000	C58	RD	CP		Y	N	A1	21	21	1996/09/16	1	1	093L034		9	n/a	n/a	6137	60271	Up	Ch	SE	38	38-90		
263	1996/09/12	Loljuh Creek Tributary	L3	460-6006-508-584-214-285-000-000-000-000-000	C58	RD	CP		Y	N	A1	20	20	1996/09/16	1	1	093L034		9	n/a	n/a	6137	60271	Dn	Ch	NW	38	38-90		
264	1996/09/12	Loljuh Creek Tributary	L3	460-6006-508-584-214-285-000-000-000-000-000	C58	RD	CP		Y	N	A1	22	22	1996/09/16	2	2	093L034		9	n/a	n/a	6137	60271	Up	Ch	SE	38	38-90		
265	1996/09/12	Loljuh Creek Tributary	L3	460-6006-508-584-214-285-000-000-000-000-000	C58	RD	CP		Y	N	A1	23	23	1996/09/16	2	2	093L034		9	n/a	n/a	6137	60271	Dn	Ch	NW	38	38-90		
266	1996/09/12	Loljuh Creek Tributary	L5	460-6006-508-584-214-363-000-000-000-000-000	C58	RD	CP		Y	N	A2	3	3	1996/09/16	1	1	093L034		9	n/a	n/a	6143	60273	Up	Ch	N	38	38-90		
267	1996/09/12	Loljuh Creek Tributary	L5	460-6006-508-584-214-363-000-000-000-000-000	C58	RD	CP		Y	N	A2	2	2	1996/09/16	1	1	093L034		9	n/a	n/a	6143	60273	Dn	Ch	S	38	38-90		
268	1996/09/12	Loljuh Creek Tributary	L5	460-6006-508-584-214-363-000-000-000-000-000	C58	RD	CP		Y	N	A1	25	25	1996/09/16	2	2	093L034		9	n/a	n/a	6143	60273	Up	Ch	N	38	38-90		
269	1996/09/12	Loljuh Creek Tributary	L5	460-6006-508-584-214-363-000-000-000-000-000	C58	RD	CP		Y	N	A1	24	24	1996/09/16	2	2	093L034		9	n/a	n/a	6143	60273	Dn	Ch	S	38	38-90		
270	1996/09/12	Loljuh Creek Tributary	L5.2	460-6006-508-584-214-363-L5.-2 -000-000-000-000	C58	DB			Y	N	DB1	10	10	1996/09/18	1	3	093L034		9	n/a	n/a	6140	60284	Dn	L	E	50	50		Headwater lake.
271	1996/09/12	Loljuh Creek Tributary	L5.2	460-6006-508-584-214-363-L5.-2 -000-000-000-000	C58	DB			Y	N	DB1	11	11	1996/09/18	1	3	093L034		9	n/a	n/a	6140	60284	Up	Ch	W	50	50		
272	1996/09/12	Loljuh Creek Tributary	L6	460-6006-508-584-214-L6 -000-000-000-000-000-000	C58	RD			Y	N	A3	3	3	1996/09/18	1	1	093L034		9	n/a	n/a	6147	60273	Up	Ch	NE	38	38-90		
273	1996/09/12	Loljuh Creek Tributary	L6	460-6006-508-584-214-L6 -000-000-000-000-000-000	C58	RD			Y	N	A3	2	2	1996/09/18	1	1	093L034		9	n/a	n/a	6147	60273	Dn	Ch	SW	38	38-90		
274	1996/09/12	Loljuh Creek Tributary	L7	460-6006-508-584-214-L7 -000-000-000-000-000-000	C58	RD			Y	N	A3	6	6	1996/09/18	1	1	093L034		9	n/a	n/a	6148	60273	Up	Ch	NE	38	38-90		
275	1996/09/12	Loljuh Creek Tributary	L7	460-6006-508-584-214-L7 -000-000-000-000-000-000	C58	RD			Y	N	A3	7	7	1996/09/18	1	1	093L034		9	n/a	n/a	6148	60273	Dn	Ch	SW	38	38-90		
276	1996/09/12	Loljuh Creek Tributary	L8	460-6006-508-584-214-L8 -000-000-000-000-000-000	C58	RD			Y	N	A3	4	4	1996/09/18	1	1	093L034		9	n/a	n/a	6148	60273	Up	Ch	S	38	38-90		
277	1996/09/12	Loljuh Creek Tributary	L8	460-6006-508-584-214-L8 -000-000-000-000-000-000	C58	RD			Y	N	A3	5	5	1996/09/18	1	1	093L034		9	n/a	n/a	6148	60273	Dn	Ch	N	38	38-90		
278	1996/09/12	Loljuh Creek Tributary	L9	460-6006-508-584-214-L9 -000-000-000-000-000-000	C58	RD			Y	N	A3	10	10	1996/09/18	1	1	093L034		9	n/a	n/a	6153	60273	Up	Ch	S	38	38-90		
279	1996/09/12	Loljuh Creek Tributary	L9	460-6006-508-584-214-L9 -000-000-000-000-000-000	C58	RD			Y	N	A3	9	9	1996/09/18	1	1	093L034		9	n/a	n/a	6153	60273	Dn	Ch	N	38	38-90		
280	1996/09/12	Loljuh Creek Tributary	L10	460-6006-508-584-214-521-000-000-000-000-000	C58	RD			Y	N	A3	11	11	1996/09/18	1	1	093L034		9	n/a	n/a	6154	60273	Up	Ch	NE	38	38-90		
281	1996/09/12	Loljuh Creek Tributary	L10	460-6006-508-584-214-521-000-000-000-000-000	C58	RD			Y	N	A3	12	12	1996/09/18	1	1	093L034		9	n/a	n/a	6154	60273	Dn	Ch	SW	38	38-90		
282	1996/09/12	Loljuh Creek Tributary	L10	460-6006-508-584-214-521-000-000-000-000-000	C58	DB			Y	Y	DB1	13	13	1996/09/18	2	2	093L034		9	n/a	n/a	6154	60273	Up	Ch	NW	50	50		
283	1996/09/12	Loljuh Creek Tributary	L10	460-6006-508-584-214-521-000-000-000-000-000	C58	DB			Y	Y	DB1	12	12	1996/09/18	2	2	093L034		9	n/a	n/a	6154	60273	Dn	Ch	SE	50	50		
284	1996/09/12	Loljuh Creek Tributary	L13	460-6006-508-584-214-583-000-000-000-000-000	C58	RD			Y	N	A4	2	2	1996/09/18	1	1	093L034		9	n/a	n/a	6159	60273	Up	Ch	S	38	38-90		
285	1996/09/12	Loljuh Creek Tributary	L13	460-6006-508-584-214-583-000-000-000-000-000	C58	RD			Y	N	A4	3	3	1996/09/18	1	1	093L034		9	n/a	n/a	6159	60273	Dn	Ch	N	38	38-90		
286	1996/09/12	Loljuh Creek Tributary	L17	460-6006-508-584-214-690-000-000-000-000-000	C58	RD			Y	N	A4	4	4	1996/09/18	1	1	093L034		9	n/a	n/a	6167	60274	Up	Ch	NE	38	38-90		
287	1996/09/12	Loljuh Creek Tributary	L17	460-6006-508-584-214-690-000-000-000-000-000	C58	RD			Y	N	A4	5	5	1996/09/18	1	1	093L034		9	n/a	n/a	6167	60274	Dn	Ch	SW	38	38-90		
288	1996/09/12	Loljuh Creek Tributary	L17.1	460-6006-508-584-214-690-062-000-000-000-000	C58	RD			Y	N	A4	6	6	1996/09/18	1	2	093L034		9	n/a	n/a	6167	60278	Up	Ch	NE	38	38-90		
289	1996/09/12	Loljuh Creek Tributary	L17.2	460-6006-508-584-214-690-365-000-000-000-000	C58	DB			Y	N	DB1	15	15	1996/09/18	2	3	093L044		9	n/a	n/a	6169	60293	Up	Ch	NW	50	50		
290	1996/09/12	Loljuh Creek Tributary	L17.2	460-6006-508-584-214-690-365-000-000-000-000	C58	DB			Y	N	DB1	14	14	1996/09/18	2	3	093L044		9	n/a	n/a	6169	60293	Dn	Ch	SE	50	50		
291	1996/09/12	Loljuh Creek Tributary	L18	460-6006-508-584-214-696-000-000-000-000-000	C58	RD			Y	N	A4	10	10	1996/09/19	1	1	093L035		9	n/a	n/a	6171	60274	Up	Ch	NE	38	38-90		
292	1996/09/12	Loljuh Creek Tributary	L18	460-6006-508-584-214-696-000-000-000-000-000	C58	RD			Y	N	A4	11	11	1996/09/19	1	1	093L035		9	n/a	n/a	6171	60274	Dn	Ch	SW	38	38-90		
293	1996/09/12	Loljuh Creek Tributary	L18.1	460-6006-508-584-214-696-L18-.1 -000-000-000-000	C58	RD			Y	N	A4	12	12	1996/09/19	1	2	093L035		9	n/a	n/a	6178	60278	Dn	Ch	S	38	38-90		
294	1996/09/12	Loljuh Creek Tributary	L18	460-6006-508-584-214-696-000-000-000-000-000	C58	DB			Y	N	DB1	16	16	1996/09/18	2	3	093L035		9	n/a	n/a	6171	60274	Up	Ch	NE	50	50		
295	1996/09/12	Loljuh Creek Tributary	L18	460-6006-508-584-214-696-000-000-000-000-000	C58	DB			Y	N	DB1	17	17	1996/09/18	2	3	093L035		9	n/a	n/a	6171	60274	Dn	Ch	SW	50	50		
296	1996/09/12	Loljuh Creek Tributary	L20	460-6006-508-584-214-800-000-000-000-000-000	C58	DB			Y	Y	DB1	19	19	1996/09/19	1	1	093L035		9	n/a	n/a	6175	60272	Up	Ch	S	50	50		
297	1996/09/12	Loljuh Creek Tributary	L20	460-6006-508-584-214-800-000-000-000-000-000	C58	DB			Y	Y	DB1	18	18	1996/09/19	1	1	093L035		9	n/a	n/a	6175	60272	Dn	Ch	N	50	50		
298	1996/09/12	Loljuh Creek Tributary	L20	460-6006-508-584-214-800-000-000-000-000-000	C58	DB			Y	Y	A4	14	14	1996/09/19	1	1	093L035		9	n/a	n/a	6175	60272	Up	Ch	S	38	38-90		Falls, located 850 m u/s from mouth.
299	1996/09/12	Loljuh Creek Tributary	L20	460-6006-508-584-214-800-000-000-000-000-000	C58	DB			Y	N	DB1	23	23	1996/09/19	2	2	093L035		9	n/a	n/a	6175	60272	Up	Ch	SW	50	50		
300	1996/09/12	Loljuh Creek Tributary	L20	460-6006-508-584-214-800-000-000-000-000-000	C58	DB			Y	N	DB1	22	22	1996/09/19	2	2	093L035		9	n/a	n/a	6175	60272	Dn	Ch	NE	50	50		
301	1996/09/12	Loljuh Creek Tributary	L23	460-6006-508-584-214-933-000-000-000-000-000	C58	RD			Y	N	A4	18	18	1996/09/19	1	1	093L035		9	n/a	n/a	6183	60266	Up	Ch	E	38	38-90		
302	1996/09/12	Loljuh Creek Tributary	L23	460-6006-508-584-214-933-000-000-000-000-000	C58	RD			Y	N	A4	17	17	1996/09/19	1	1	093L035		9	n/a	n/a	6183	60266	Dn	Ch	W	38	38-90		
303	1996/09/12	Denys Creek Tributary	D15	460-6006-508-584-D15-000-000-000-000-000-000	C58	JH			Y	N	B3	16	16	1996/09/19	1	1	093L034		9	n/a	n/a	6125	60278	Up	Ch	NE	38	38-90		
304	1996/09/12	Denys Creek Tributary	D17	460-6006-508-584-D17-000-000-000-000-000-000	C58	JH	SS		Y	N	B4	6	6	1996/09/24	1	1	093L034		9	n/a	n/a	6126	60282	Up	Ch	NW	38	38-90		
305	1996/09/12	Denys Creek Tributary	D18	460-6006-508-584-D18-000-000-000-000-000-000	C58	JH	SS		N	N	B4	7	7	1996/09/24	1	n/a	093L034		9	n/a	n/a	nr	nr	Up	Ch	NW	38	38-90		No defined channel.
306	1996/09/12	Denys Creek Tributary	D20	460-6006-508-584-336-000-000-000-000-000-000	C58	JH	SS		Y	N	B4	10	10	1996/09/24	1	1	093L034		9	n/a	n/a	6128	60293	Up	Ch	E	38	38-90		
307	1996/09/12	Denys Creek Tributary	D20B	460-6006-508-584-D20-B -000-000-000-000-000-000	C58	JH			Y	N	B4	14	14	1996/09/24	1	1	093L034		9	n/a	n/a	6127	60294	Up	Ch	NE	38	38-90		
308	1996/09/12	Denys Creek Tributary	D20B	460-6006-508-584-D20-B -000-000-000-000-000-000	C58	JH			Y	N	B4	13	13	1996/09/24	2	2	093L034		9	n/a	n/a	6127	60294	Up	Ch	E	38	38-90		
309	1996/09/12	Denys Creek Tributary	D22	460-6006-508-584-442-000-000-000-000-000-000	C58	RD	SS		Y	N	A13	16	16	1996/10/15	1	1	093L044		9	n/a	n/a	6124	60304	Up	Ch	SW	38	38-90		
310	1996/09/12	Denys Creek Tributary	D22	460-6006-508-584-442-000-000-000-000-000-000	C58	RD	SS		Y	N	A13	15	15	1996/10/15	1	1	093L044		9	n/a	n/a	6124	60304	Dn	Ch	NE	38	38-90		
311	1996/09/12	Denys Creek Tributary	D22.1	460-6006-508-584-442-D22-.1 -000-000-000-000-000	C58	RD	SS		Y	N	A13	17	17	1996/10/15	1	2	093L044		9	n/a	n/a	6124	60304	Up	Ch	NW	38	38-90		
312	1996/09/12	Denys Creek Tributary	D22.1	460-6006-508-584-442-D22-.1 -000-000-000-000-000	C58	RD	SS		Y	N	A13	18	18	1996/10/15	1	2	093L044		9	n/a	n/a	6124	60304	Dn	Ch	SE	38	38-90		
313	1996/09/12	Denys Creek Tributary	D22.1	460-6006-508-584-442-D22-.1 -000-000-000-000-000	C58	RD	SS		Y	N	A13	20	20	1996/10/15	2	3	093L044		9	n/a	n/a	6124	60304	Up	Ch	NW	38	38-90		
314	1996/09/12	Denys Creek Tributary	D22.1	460-6006-508-584-442-D22-.1 -000-000-000-000-000	C58	RD	SS		Y	N	A13	19	19	1996/10/15	2	3	093L044		9	n/a	n/a	6124	60304	Dn	Ch	SE	38	38-90		
315	1996/09/12	Denys Creek Tributary	D22.2	460-6006-508-584-442-418-000-000-000-000-000	C58	DB	CP		Y	N	DB4	25	25	1996/10/15	1	4	093L044		9	n/a	n/a	6116	60298	Up	Ch	W	50	50		
316	1996/09/12	Denys Creek Tributary	D23	460-6006-508-584-498-000-000-000-000-000-000	C58	RD	SS		Y	N	A13	21	21	1996/10/15	1	1	093L044		9	n/a	n/a	6124	60313	Up	Ch	NW	38	38-90		
317	1996/09/12	Denys Creek Tributary	D23	460-6006-508-584-498-000-000-000-000-000-000	C58	RD	SS		Y	N	A13	22	22	1996/10/15	1	1	093L044		9	n/a	n/a	6124	60313	Dn	Ch	SE	38	38-90		
318	1996/09/12	Denys Creek Tributary	D24	460-6006-508-584-513-000-000-000-000-000-000	C58	RD	CP		Y	N	A14	3	3	1996/10/16	1	1	093L044		9	n/a	n/a	6124	60317	Up	Ch	NW	38	38-90		
319	1996/09/12	Denys Creek Tributary	D24	460-6006-508-584-513-000-000-000-000-000-000	C58	RD	CP		Y	N	A14	4	4	1996/10/16	1	1	093L044		9	n/a	n/a	6124	60317	Dn	Ch	SE	38	38-90		
320	1996/09/12	Denys Creek Tributary	D25	460-6006-508-584-526-000-000-000-000-000-000	C58	RD	SS		Y	N	A13	23	23	1996/10/15	2	1	093L044		9	n/a	n/a	6124	60317	Up	Ch	SE	38	38-90		
321	1996/09/12	Denys Creek Tributary	D25	460-6006-508-584-526-000-000-000-000-000-000	C58	RD	SS		Y	N	A13	24	24	1996/10/15	2	1	093L044		9	n/a	n/a	6124	60317	Dn	Ch	NW	38	38-90		
322	1996/09/12	Denys Creek Tributary	D26	460-6006-508-584-593-000-000-000-000-000-000	C58	JH	SS		Y	N	B11	17	17	1996/10/16	1	1	093L044		9	n/a	n/a	6130	60334	Up	Ch	NW	38	38-90		
323	1996/09/12	Denys Creek Tributary	D26	460-6006-508-584-593-000-000-000-000-000-000	C58	JH	SS		Y	N	B11	18	18	1996/10/16	1	1	093L044		9	n/a	n/a	6130	60334	Dn	Ch	SE	38	38-90		
324	1996/09/12	Denys Creek Tributary	D27	460-6006-508-584-625-000-000-000-000-000-000	C58	JH	SS		Y	N	B11	22	22	1996/10/16	1	1	093L044		9	n/a	n/a	6140	60333	Up	Ch	NE	38	38-90		
325	1996/09/12	Denys Creek Tributary	D27	460-6006-508-584-625-000-000-000-000-000-000	C58	JH	SS		Y	N	B11	21	21	1996/10/16	1	1	093L044		9	n/a	n/a	6140	60333	Dn	Ch	SW	38	38-90		
326	1996/09/12	Denys Creek Tributary	D27	460-6006-508-584-625-000-000-000-000-000-000	C58	JH	SS		Y	N	B11	23	23	1996/10/16	1	1	093L044		9	n/a	n/a	6140	60333	Up	Ch	NE	38	38-90		Debris jam, located 185 m u/s from mouth.
327	1996/09/12	Denys Creek Tributary	D27	460-6006-508-584-625-000-000-000-000-000-000	C58	JH	SS		Y	N	B11	24	24	1996/10/16	1	1	093L044		9	n/a	n/a	6140	60333	Up	Ch	NE	38	38-90		Debris jams/chutes; 719-900 m u/s from the mouth.
328	1996/09/12	Thautil River	Thautil River	460-6006-508-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A6	10	10	1996/09/25	1	In3	093L034		9	n/a	n/a	nr	nr	Dn	O	S	38	38-90		Slump, located ~400 m d/s from Th32 confluence.
329	1996/09/12	Thautil River	Thautil River	460-6006-508-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A6	11	11	1996/09/25	1	In3	093L034		9	n/a	n/a	nr	nr	Xs	O	E	38	38-90		Slump, located 170 m d/s from Th33 confluence.
330	1996/09/12	Thautil River Tributary	Th33	460-6006-508-TH -33 -000-000-000-000-000-000	C58	RD	CP		Y	N	A6	13	13	1996/09/25	1	1	093L034		9	n/a	n/a	6077	60252	Up	Ch	NE	38	38-90		
331	1996/09/12	Thautil River Tributary	Th33	460-6006-508-TH -33 -000-000-000-000-000-000	C58	RD	CP		Y	N	A6	12	12	1996/09/25	1	1	093L034		9	n/a	n/a	6077	60252	Dn	Ch	SW	38	38-90		
332	1996/09/12	Thautil River Tributary	Th35	460-6006-508-634-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A6	15	15	1996/09/25	1	1	093L034		9	n/a	n/a	6074	60257	Up	Ch	NW	38	38-90		
333	1996/09/12	Thautil River Tributary	Th35	460-6006-508-634-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A6	14	14	1996/09/25	1	1	093L034		9	n/a	n/a	6074	60257	Dn	Ch	SE	38	38-90		
334	1996/09/12	Thautil River Tributary	Th36	460-6006-508-TH -36 -000-000-000-000-000-000	C58	RD	CP		N	N	A6	16	16	1996/09/25	1	1	093L034		9	n/a	n/a	nr	nr	Up	Ch	E	38	n/a		Channel is dewatered and not defined.
335	1996/09/12	Thautil River Tributary	Th38	460-6006-508-659-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A6	17	17	1996/09/25	1	1	093L034		9	n/a	n/a	6074	60264	Up	Ch	SW	38	38-90		
336	1996/09/12	Thautil River Tributary	Th38	460-6006-508-659-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A6	18	18	1996/09/25	1	1	093L034		9	n/a	n/a	6074	60264	Dn	Ch	NE	38	38-90		
337	1996/09/12	Thautil River Tributary	Th39	460-6006-508-680-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A6	19	19	1996/09/25	1	1	093L034		9	n/a	n/a	6073	60272	Up	Ch	E	38	38-90		
338	1996/09/12	Thautil River Tributary	Th39	460-6006-508-680-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A6	20	20	1996/09/25	1	1	093L034		9	n/a	n/a	6073	60272	Dn	Ch	W	38	38-90		
339	1996/09/12	Thautil River Tributary	Th41	460-6006-508-TH -41 -000-000-000-000-000-000	C58	RD	CP		Y	N	A6	22	22	1996/09/25	1	1	093L034		9	n/a	n/a	6071	60275	Up	Ch	W	38	38-90		
340	1996/09/12	Thautil River Tributary	Th41	460-6006-508-TH -41 -000-000-000-000-000-000	C58	RD	CP		Y	N	A6	21	21	1996/09/25	1	1	093L034		9	n/a	n/a	6071	60275	Dn	Ch	E	38	38-90		
341	1996/09/12	Thautil River Tributary	Th45	460-6006-508-TH -45 -000-000-000-000-000-000	C58	RD	CP		Y	N	A7	4	4	1996/09/25	1	1	093L034		9	n/a	n/a	6071	60285	Up	Ch	E	38	38-90		
342	1996/09/12	Starr Creek	Starr Creek	460-6006-508-722-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A7	5	5	1996/09/25	2	1	093L034		9	n/a	n/a	6071	60286	Up	Ch	NW	38	38-90		
343	1996/09/12	Starr Creek	Starr Creek	460-6006-508-722-000-000-000-000-000-000-000	C58	DB	CP		Y	Y	A8	2	2	1996/09/26	2	In1	093L034		9	n/a	n/a	6071	60286	Up	Ch	W	38	38-90		Index site.
344	1996/09/12	Starr Creek	Starr Creek	460-6006-508-722-000-000-000-000-000-000-000	C58	DB	CP		Y	Y	A8	1	1	1996/09/26	2	In1	093L034		9	n/a	n/a	6071	60286	Dn	Ch	E	38	38-90		Index site.
345	1996/09/12	Starr Creek	Starr Creek	460-6006-508-722-000-000-000-000-000-000-000	C58	DB	CP		Y	Y	A8	4	4	1996/09/26	2	In2	093L043		9	n/a	n/a	6071	60286	Up	Ch	W	38	38-90		Index site.
346	1996/09/12	Starr Creek	Starr Creek	460-6006-508-722-000-000-000-000-000-000-000	C58	DB	CP		Y	Y	A8	3	3	1996/09/26	2	In2	093L043		9	n/a	n/a	6071	60286	Dn	Ch	E	38	38-90		Index site.
347	1996/09/12	Starr Creek	Starr Creek	460-6006-508-722-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A11	1	1	1996/10/07	3	2	093L043		9	n/a	n/a	6071	60286	Up	Ch	W	38	38-90		
348	1996/09/12	Starr Creek	Starr Creek	460-6006-508-722-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A11	2	2	1996/10/07	3	2	093L043		9	n/a	n/a	6071	60286	Dn	Ch	E	38	38-90		
349	1996/09/12	Starr Creek	Starr Creek	460-6006-508-722-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A11	3	3	1996/10/07	3	2	093L043		9	n/a	n/a	6071	60286	Up	Ch	W	38	38-90		Falls, located 745 m u/s from the base of R3.
350	1996/09/12	Starr Creek	Starr Creek	460-6006-508-722-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A11	4	4	1996/10/07	3	2	093L043		9	n/a	n/a	6071	60286	Up	Ch	W	38	38-90		Chute, located 1600 m u/s from the base of R3.
351	1996/09/12	Starr Creek	Starr Creek	460-6006-508-722-000-000-000-000-000-000-000	C58	DB	CP		Y	N	A10	1	1	1996/10/03	3	2	093L043		9	n/a	n/a	6071	60286	Up	Ch	W	38	38-90		Falls, located 2950 m u/s from the base of R3.
352	1996/09/12	Starr Creek	Starr Creek	460-6006-508-722-000-000-000-000-000-000-000	C58	DB	CP		Y	N	A10	3	3	1996/10/03	3	2	093L043		9	n/a	n/a	6071	60286	Up	Ch	W	38	38-90		Falls, located 3450 m u/s from the base of R3.
353	1996/09/12	Starr Creek	Starr Creek	460-6006-508-722-000-000-000-000-000-000-000	C58	DB	CP		Y	N	A9	12	12	1996/10/03	4	3	093L043		9	n/a	n/a	6071	60286	Up	Ch	W	38	38-90		
354	1996/09/12	Starr Creek	Starr Creek	460-6006-508-722-000-000-000-000-000-000-000	C58	DB	CP		Y	N	A9	13	13	1996/10/03	4	3	093L043		9	n/a	n/a	6071	60286	Dn	Ch	E	38	38-90		
355	1996/09/12	Starr Creek	Starr Creek	460-6006-508-722-000-000-000-000-000-000-000	C58	DB	CP		Y	N	A10	4	4	1996/10/03	4	3	093L043		9	n/a	n/a	6071	60286	Up	O	W	38	38-90		Valley bottom looking u/s in R4.
356	1996/09/12	Starr Creek	Starr Creek	460-6006-508-722-000-000-000-000-000-000-000	C58	DB	CP		Y	N	A10	5	5	1996/10/03	5	4	093L043		9	n/a	n/a	6071	60286	Up	O	W	38	38-90		Valley bottom looking u/s into R5.
357	1996/09/12	Starr Creek	Starr Creek	460-6006-508-722-000-000-000-000-000-000-000	C58	DB	CP		Y	N	A10	6	6	1996/10/03	5	4	093L043		9	n/a	n/a	6071	60286	Up	Ch	W	38	38-90		
358	1996/09/12	Starr Creek	Starr Creek	460-6006-508-722-000-000-000-000-000-000-000	C58	DB	CP		Y	N	A10	7	7	1996/10/03	5	4	093L043		9	n/a	n/a	6071	60286	Dn	Ch	E	38	38-90		
359	1996/09/12	Starr Creek Tributary	St1	460-6006-508-722-024-000-000-000-000-000-000	C58	JH	SS		Y	N	B10	2	2	1996/10/11	1	1	093L034		9	n/a	n/a	6066	60287	Up	Ch	SW	38	38-90		
360	1996/09/12	Starr Creek Tributary	St1	460-6006-508-722-024-000-000-000-000-000-000	C58	JH	SS		Y	N	B10	3	3	1996/10/11	1	1	093L034		9	n/a	n/a	6066	60287	Dn	Ch	NE	38	38-90		
361	1996/09/12	Starr Creek Tributary	St1	460-6006-508-722-024-000-000-000-000-000-000	C58	JH	SS		Y	N	B10	1	1	1996/10/11	1	1	093L034		9	n/a	n/a	6066	60287	Up	Ch	SW	38	38-90		Beaver dam drop, located 40 m u/s from the mouth.
362	1996/09/12	Starr Creek Tributary	St1	460-6006-508-722-024-000-000-000-000-000-000	C58	DB	CP		Y	N	A8	7	7	1996/09/26	1	2	093L034		9	n/a	n/a	6066	60287	Up	Ch	SW	38	38-90		
363	1996/09/12	Starr Creek Tributary	St1	460-6006-508-722-024-000-000-000-000-000-000	C58	DB	CP		Y	N	A8	8	8	1996/09/26	1	2	093L034		9	n/a	n/a	6066	60287	Dn	Ch	NE	38	38-90		
364	1996/09/12	Starr Creek Tributary	St1	460-6006-508-722-024-000-000-000-000-000-000	C58	DB	CP		Y	N	A8	12	12	1996/09/26	1	2	093L034		9	n/a	n/a	6066	60287	n/a	Fi	n/a	38	38-90		Ripe DV male.
365	1996/09/12	Starr Creek Tributary	St1	460-6006-508-722-024-000-000-000-000-000-000	C58	RD	CP		Y	N	A12	2	2	1996/10/09	2	3	093L034		9	n/a	n/a	6066	60287	Up	Ch	SW	38	38-90		
366	1996/09/12	Starr Creek Tributary	St1	460-6006-508-722-024-000-000-000-000-000-000	C58	RD	CP		Y	N	A12	1	1	1996/10/09	2	3	093L034		9	n/a	n/a	6066	60287	Dn	Ch	NE	38	38-90		

Photo #	Survey start date	Stream name (gaz.)	Stream name (loc.)	Watershed code	Agency	Crew (Init 1)	Crew (Init 2)	Crew (Init 3)	Reach/ site card (Y/N)	Fish cards (Y/N)	Roll/ Batch #	Counter #	Negative #	Date of photo	Reach #	Site #	Map # NTS/TRIM	UTM mtd G/M	Zone	E(field)	N(field)	E(correct)	N(correct)	Stream photo dir.	Picture type	Photo direction	Focal length (mm)	Focal range	Scale item	Comments
367	1996/09/12	Starr Creek Tributary	St1	460-6006-508-722-024-000-000-000-000-000-000-000	C58	DB	CP		Y	N	A8	13	13	1996/09/26	4	4	093L034		9	n/a	n/a	6066	60287	Up	Ch	W	38	38-90		
368	1996/09/12	Starr Creek Tributary	St1	460-6006-508-722-024-000-000-000-000-000-000-000	C58	DB	CP		Y	N	A8	14	14	1996/09/26	4	4	093L034		9	n/a	n/a	6066	60287	Dn	Ch	E	38	38-90		
369	1996/09/12	Starr Creek	Starr Creek	460-6006-508-722-000-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B10	4	4	1996/10/11	2	n/a	093L034		9	n/a	n/a	6071	60286	Up	O	W	38	38-90		Eroding bank, located at the base of St2.
370	1996/09/12	Starr Creek Tributary	St2	460-6006-508-722-ST2-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B10	6	6	1996/10/11	1	1	093L034		9	n/a	n/a	6046	60278	Up	Ch	NW	38	38-90		
371	1996/09/12	Starr Creek Tributary	St2	460-6006-508-722-ST2-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B10	7	7	1996/10/11	1	1	093L034		9	n/a	n/a	6046	60278	Dn	Ch	SE	38	38-90		
372	1996/09/12	Starr Creek Tributary	St5	460-6006-508-722-154-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B10	8	8	1996/10/11	1	1	093L034		9	n/a	n/a	6041	60277	Up	Ch	NW	38	38-90		Falls, located at the mouth of St5.
373	1996/09/12	Starr Creek	Starr Creek	460-6006-508-722-000-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B10	9	9	1996/10/11	2	n/a	093L034		9	n/a	n/a	6071	60286	Xs	O	S	38	38-90		Slump, located 100 m u/s from St5.
374	1996/09/12	Starr Creek	Starr Creek	460-6006-508-722-000-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B10	10	10	1996/10/11	2	n/a	093L034		9	n/a	n/a	6071	60286	Xs	O	N	38	38-90		Eroding bank, located 200 m u/s from St5.
375	1996/09/12	Starr Creek Tributary	St7	460-6006-508-722-ST7-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B10	11	11	1996/10/11	1	1	093L033		9	n/a	n/a	6038	60275	Up	Ch	SW	38	38-90		
376	1996/09/12	Starr Creek Tributary	St7	460-6006-508-722-ST7-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B10	12	12	1996/10/11	1	1	093L033		9	n/a	n/a	6038	60275	Dn	Ch	NE	38	38-90		
377	1996/09/12	Starr Creek Tributary	St8	460-6006-508-722-186-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B10	13	13	1996/10/11	1	1	093L033		9	n/a	n/a	6035	60274	Up	Ch	S	38	38-90		
378	1996/09/12	Starr Creek Tributary	St8	460-6006-508-722-186-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B10	14	14	1996/10/11	1	1	093L033		9	n/a	n/a	6035	60274	Dn	Ch	N	38	38-90		
379	1996/09/12	Starr Creek Tributary	St8	460-6006-508-722-186-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B10	15	15	1996/10/11	1	1	093L033		9	n/a	n/a	6035	60274	Up	Ch	S	38	38-90		Falls, located 118 m u/s from the mouth.
380	1996/09/12	Starr Creek Tributary	St9	460-6006-508-722-ST9-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B10	16	16	1996/10/11	1	1	093L033		9	n/a	n/a	6032	60275	Up	Ch	S	38	38-90		Falls, located at St9 mouth.
381	1996/09/12	Starr Creek Tributary	St10	460-6006-508-722-213-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B10	17	17	1996/10/11	1	1	093L033		9	n/a	n/a	6029	60276	Up	Ch	N	38	38-90		
382	1996/09/12	Starr Creek Tributary	St10	460-6006-508-722-213-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B10	18	18	1996/10/11	1	1	093L033		9	n/a	n/a	6029	60276	Dn	Ch	S	38	38-90		
383	1996/09/12	Starr Creek Tributary	St13	460-6006-508-722-224-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B10	19	19	1996/10/11	1	1	093L033		9	n/a	n/a	6027	60275	Up	Ch	S	38	38-90		
384	1996/09/12	Starr Creek Tributary	St13	460-6006-508-722-224-000-000-000-000-000-000-000	C58	JH	SS		Y	N	B10	20	20	1996/10/11	1	1	093L033		9	n/a	n/a	6027	60275	Dn	Ch	N	38	38-90		
385	1996/09/12	Starr Creek Tributary	St14	460-6006-508-722-ST -14 -000-000-000-000-000-000	C58	JH	SS		Y	N	B10	23	23	1996/10/11	1	1	093L033		9	n/a	n/a	6025	60275	Up	Ch	N	38	38-90		
386	1996/09/12	Starr Creek Tributary	St17	460-6006-508-722-265-000-000-000-000-000-000-000	C58	JH			Y	N	B10	24	24	1996/10/15	1	1	093L033		9	n/a	n/a	6019	60273	Up	Ch	S	38	38-90		
387	1996/09/12	Starr Creek Tributary	St17	460-6006-508-722-265-000-000-000-000-000-000-000	C58	JH			Y	N	B10	25	25	1996/10/15	1	1	093L033		9	n/a	n/a	6019	60273	Dn	Ch	N	38	38-90		
388	1996/09/12	Starr Creek Tributary	St17	460-6006-508-722-265-000-000-000-000-000-000-000	C58	JH			Y	N	B11	2	2	1996/10/15	1	1	093L033		9	n/a	n/a	6019	60273	Up	Ch	S	38	38-90		One of several debris jams present in R1.
389	1996/09/12	Starr Creek Tributary	St17	460-6006-508-722-265-000-000-000-000-000-000-000	C58	JH			Y	N	B11	3	3	1996/10/15	1	1	093L033		9	n/a	n/a	6019	60273	Up	Ch	S	38	38-90		Falls, located 180 m u/s from the mouth.
390	1996/09/12	Starr Creek Tributary	St17	460-6006-508-722-265-000-000-000-000-000-000-000	C58	DB	SS		Y	N	DB4	7	7	1996/10/08	2	2	093L033		9	n/a	n/a	6019	60273	Up	Ch	SE	50	50		
391	1996/09/12	Starr Creek Tributary	St17	460-6006-508-722-265-000-000-000-000-000-000-000	C58	DB	SS		Y	N	DB4	8	8	1996/10/08	2	2	093L033		9	n/a	n/a	6019	60273	Dn	Ch	NW	50	50		
392	1996/09/12	Starr Creek Tributary	St18	460-6006-508-722-275-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A12	10	10	1996/10/11	1	1	093L033		9	n/a	n/a	6017	60274	Up	Ch	SW	38	38-90		
393	1996/09/12	Starr Creek Tributary	St18	460-6006-508-722-275-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A12	9	9	1996/10/11	1	1	093L033		9	n/a	n/a	6017	60274	Dn	Ch	NE	38	38-90		
394	1996/09/12	Starr Creek Tributary	St18	460-6006-508-722-275-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A11	16	16	1996/10/08	2	2	093L033		9	n/a	n/a	6017	60274	Up	Ch	SW	38	38-90		
395	1996/09/12	Starr Creek Tributary	St18	460-6006-508-722-275-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A11	15	15	1996/10/08	2	2	093L033		9	n/a	n/a	6017	60274	Dn	Ch	NE	38	38-90		
396	1996/09/12	Starr Creek Tributary	St18	460-6006-508-722-275-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A11	17	17	1996/10/08	3	3	093L033		9	n/a	n/a	6017	60274	Up	Ch	E	38	38-90		
397	1996/09/12	Starr Creek Tributary	St18	460-6006-508-722-275-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A11	18	18	1996/10/08	3	3	093L033		9	n/a	n/a	6017	60274	Dn	Ch	W	38	38-90		
398	1996/09/12	Starr Creek Tributary	St18.1	460-6006-508-722-275-ST -18.-1 -000-000-000-000	C58	RD	CP		Y	N	A12	12	12	1996/10/11	1	4	093L033		9	n/a	n/a	6014	60272	Up	Ch	SE	38	38-90		
399	1996/09/12	Starr Creek Tributary	St18.1	460-6006-508-722-275-ST -18.-1 -000-000-000-000	C58	RD	CP		Y	N	A12	11	11	1996/10/11	1	4	093L033		9	n/a	n/a	6014	60272	Dn	Ch	NW	38	38-90		
400	1996/09/12	Starr Creek Tributary	St18.1	460-6006-508-722-275-ST -18.-1 -000-000-000-000	C58	DB	SS		Y	N	DB4	5	5	1996/10/08	2	5	093L033		9	n/a	n/a	6014	60272	Up	Ch	SE	50	50		
401	1996/09/12	Starr Creek Tributary	St18.1	460-6006-508-722-275-ST -18.-1 -000-000-000-000	C58	DB	SS		Y	N	DB4	6	6	1996/10/08	2	5	093L033		9	n/a	n/a	6014	60272	Dn	Ch	NW	50	50		
402	1996/09/12	Starr Creek Tributary	St19	460-6006-508-722-300-000-000-000-000-000-000-000	C58	RD			Y	N	A12	14	14	1996/10/11	1	1	093L033		9	n/a	n/a	6017	60274	Up	Ch	SW	38	38-90		
403	1996/09/12	Starr Creek Tributary	St19	460-6006-508-722-300-000-000-000-000-000-000-000	C58	RD			Y	N	A12	13	13	1996/10/11	1	1	093L033		9	n/a	n/a	6017	60274	Dn	Ch	NE	38	38-90		
404	1996/09/12	Starr Creek Tributary	St19	460-6006-508-722-300-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A11	14	14	1996/10/08	2	2	093L033		9	n/a	n/a	6017	60274	Up	Ch	SW	38	38-90		
405	1996/09/12	Starr Creek Tributary	St19	460-6006-508-722-300-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A11	13	13	1996/10/08	2	2	093L033		9	n/a	n/a	6017	60274	Dn	Ch	NE	38	38-90		
406	1996/09/12	Starr Creek Tributary	St20	460-6006-508-722-ST -20 -000-000-000-000-000-000	C58	RD	CP		Y	N	A12	16	16	1996/10/11	1	1	093L033		9	n/a	n/a	6017	60274	Up	Ch	NE	38	38-90		
407	1996/09/12	Starr Creek Tributary	St20	460-6006-508-722-ST -20 -000-000-000-000-000-000	C58	RD	CP		Y	N	A12	15	15	1996/10/11	1	1	093L033		9	n/a	n/a	6017	60274	Dn	Ch	SW	38	38-90		
408	1996/09/12	Starr Creek Tributary	St22	460-6006-508-722-ST -22 -000-000-000-000-000-000	C58	DB	SS		Y	N	DB4	3	3	1996/10/08	1	1	093L033		9	n/a	n/a	6010	60279	Up	Ch	NW	50	50		
409	1996/09/12	Starr Creek Tributary	St22	460-6006-508-722-ST -22 -000-000-000-000-000-000	C58	DB	SS		Y	N	DB4	4	4	1996/10/08	1	1	093L033		9	n/a	n/a	6010	60279	Dn	Ch	SE	50	50		
410	1996/09/12	Starr Creek Tributary	St22	460-6006-508-722-ST -22 -000-000-000-000-000-000	C58	RD	CP		Y	N	A12	17	17	1996/10/11	1	1	093L033		9	n/a	n/a	6010	60279	Up	Ch	NW	38	38-90		Falls, located at the mouth of St22.
411	1996/09/12	Starr Creek Tributary	St22.1	460-6006-508-722-ST -22.-1 -000-000-000-000-000	C58	DB	SS		Y	N	DB4	1	1	1996/10/08	1	2	093L033		9	n/a	n/a	6008	60282	Up	Ch	NW	50	50		
412	1996/09/12	Starr Creek Tributary	St22.1	460-6006-508-722-ST -22.-1 -000-000-000-000-000	C58	DB	SS		Y	N	DB4	2	2	1996/10/08	1	2	093L033		9	n/a	n/a	6008	60282	Dn	Ch	SE	50	50		
413	1996/09/12	Starr Creek Tributary	St23	460-6006-508-722-339-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A12	18	18	1996/10/11	2	1	093L033		9	n/a	n/a	6011	60283	Up	Ch	NE	38	38-90		
414	1996/09/12	Starr Creek Tributary	St23	460-6006-508-722-339-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A12	19	19	1996/10/11	2	1	093L033		9	n/a	n/a	6011	60283	Dn	Ch	SW	38	38-90		
415	1996/09/12	Starr Creek Tributary	St26	460-6006-508-722-371-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A12	22	22	1996/10/11	1	1	093L033		9	n/a	n/a	6007	60288	Up	Ch	W	38	38-90		
416	1996/09/12	Starr Creek Tributary	St26	460-6006-508-722-371-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A12	21	21	1996/10/11	1	1	093L033		9	n/a	n/a	6007	60288	Dn	Ch	E	38	38-90		
417	1996/09/12	Starr Creek Tributary	St26	460-6006-508-722-371-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A12	20	20	1996/10/11	1	1	093L033		9	n/a	n/a	6007	60288	Up	Ch	W	38	38-90		Falls, located 47 m u/s from the mouth.
418	1996/09/12	Starr Creek Tributary	St26	460-6006-508-722-371-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A11	12	12	1996/10/09	2	2	093L033		9	n/a	n/a	6007	60288	Up	Ch	W	38	38-90		
419	1996/09/12	Starr Creek Tributary	St26	460-6006-508-722-371-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A11	11	11	1996/10/09	2	2	093L033		9	n/a	n/a	6007	60288	Dn	Ch	E	38	38-90		
420	1996/09/12	Starr Creek Tributary	St27	460-6006-508-722-ST -27 -000-000-000-000-000-000	C58	RD	CP		Y	N	A12	23	23	1996/10/11	1	1	093L043		9	n/a	n/a	6006	60293	Up	Ch	NE	38	38-90		
421	1996/09/12	Starr Creek Tributary	St27	460-6006-508-722-ST -27 -000-000-000-000-000-000	C58	RD	CP		Y	N	A12	24	24	1996/10/11	1	1	093L043		9	n/a	n/a	6006	60293	Dn	Ch	SW	38	38-90		
422	1996/09/12	Starr Creek Tributary	St27A	460-6006-508-722-ST -27A-000-000-000-000-000-000	C58	RD	CP		Y	N	A13	2	2	1996/10/11	1	1	093L043		9	n/a	n/a	6003	60293	Up	Ch	SW	38	38-90		
423	1996/09/12	Starr Creek Tributary	Starr Creek	460-6006-508-722-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A13	1	1	1996/10/11	2	n/a	093L043		9	n/a	n/a	6071	60286	Xs	O	S	38	38-90		Unstable bank, located at the base of St27A.
424	1996/09/12	Starr Creek Tributary	St28	460-6006-508-722-ST -28 -000-000-000-000-000-000	C58	RD	CP		Y	N	A13	3	3	1996/10/11	1	1	093L043		9	n/a	n/a	6004	60294	Up	Ch	W	38	38-90		
425	1996/09/12	Starr Creek Tributary	St28	460-6006-508-722-ST -28 -000-000-000-000-000-000	C58	RD	CP		Y	N	A13	4	4	1996/10/11	1	1	093L043		9	n/a	n/a	6004	60294	Dn	Ch	E	38	38-90		
426	1996/09/12	Starr Creek Tributary	St28	460-6006-508-722-ST -28 -000-000-000-000-000-000	C58	DB	SS		Y	N	DB3	8	8	1996/10/08	2	2	093L043		9	n/a	n/a	6004	60294	Up	Ch	NW	50	50		
427	1996/09/12	Starr Creek Tributary	St28	460-6006-508-722-ST -28 -000-000-000-000-000-000	C58	DB	SS		Y	N	DB3	9	9	1996/10/08	2	2	093L043		9	n/a	n/a	6004	60294	Dn	Ch	SE	50	50		
428	1996/09/12	Starr Creek Tributary	St29	460-6006-508-722-445-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A13	5	5	1996/10/11	1	1	093L043		9	n/a	n/a	6002	60301	Up	Ch	NE	38	38-90		
429	1996/09/12	Starr Creek Tributary	St29	460-6006-508-722-445-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A13	6	6	1996/10/11	1	1	093L043		9	n/a	n/a	6002	60301	Dn	Ch	SW	38	38-90		
430	1996/09/12	Starr Creek Tributary	St30	460-6006-508-722-ST -30 -000-000-000-000-000-000	C58	RD	CP		Y	N	A14	21	21	1996/10/22	1	1	093L043		9	n/a	n/a	6000	60301	Up	Ch	N	38	38-90		
431	1996/09/12	Starr Creek Tributary	St30	460-6006-508-722-ST -30 -000-000-000-000-000-000	C58	RD	CP		Y	N	A14	22	22	1996/10/22	1	1	093L043		9	n/a	n/a	6000	60301	Dn	Ch	S	38	38-90		
432	1996/09/12	Starr Creek Tributary	St31	460-6006-508-722-486-000-000-000-000-000-000-000	C58	RD	SS		Y	N	B6	7	7	1996/10/03	1	1	093L043		9	n/a	n/a	5995	60306	Up	Ch	NE	38	38-90		
433	1996/09/12	Starr Creek Tributary	St31	460-6006-508-722-486-000-000-000-000-000-000-000	C58	RD	SS		Y	N	B6	6	6	1996/10/03	1	1	093L043		9	n/a	n/a	5995	60306	Dn	Ch	SW	38	38-90		
434	1996/09/12	Starr Creek Tributary	St32	460-6006-508-722-503-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A10	25	25	1996/10/07	1	1	093L043		9	n/a	n/a	5993	60308	Up	Ch	SW	38	38-90		
435	1996/09/12	Starr Creek Tributary	St32	460-6006-508-722-503-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A10	24	24	1996/10/07	1	1	093L043		9	n/a	n/a	5993	60308	Dn	Ch	NE	38	38-90		
436	1996/09/12	Starr Creek Tributary	St32.1	460-6006-508-722-503-ST -32.-1 -000-000-000-000	C58	RD	SS		Y	N	B6	9	9	1996/10/03	1	2	093L043		9	n/a	n/a	5985	60302	Up	Ch	SW	38	38-90		
437	1996/09/12	Starr Creek Tributary	St32.1	460-6006-508-722-503-ST -32.-1 -000-000-000-000	C58	RD	SS		Y	N	B6	8	8	1996/10/03	1	2	093L043		9	n/a	n/a	5985	60302	Dn	Ch	NE	38	38-90		
438	1996/09/12	Starr Creek Tributary	St33 (East Fork Starr C.)	460-6006-508-722-519-000-000-000-000-000-000-000	C58	SS			Y	N	B7	8	8	1996/10/07	1	1	093L043		9	n/a	n/a	5990	60310	Up	Ch	NW	38	38-90		
439	1996/09/12	Starr Creek Tributary	St33 (East Fork Starr C.)	460-6006-508-722-519-000-000-000-000-000-000-000	C58	SS			Y	N	B7	9	9	1996/10/07	1	1	093L043		9	n/a	n/a	5990	60310	Dn	Ch	SE	38	38-90		Eroding bank, located at site.
440	1996/09/12	Starr Creek Tributary	St33 (East Fork Starr C.)	460-6006-508-722-519-000-000-000-000-000-000-000	C58	SS			Y	N	B7	10	10	1996/10/07	1	1	093L043		9	n/a	n/a	5990	60310	Bd	O	n/a	38	38-90		BT redd, located 1700 m u/s in R1.
441	1996/09/12	Starr Creek Tributary	St33 (East Fork Starr C.)	460-6006-508-722-519-000-000-000-000-000-000-000	C58	JH	SS		Y	Y	B7	15	15	1996/10/07	2	2	093L043		9	n/a	n/a	5990	60310	Up	Ch	NW	38	38-90		
442	1996/09/12	Starr Creek Tributary	St33 (East Fork Starr C.)	460-6006-508-722-519-000-000-000-000-000-000-000	C58	JH	SS		Y	Y	B7	16	16	1996/10/07	2	2	093L043		9	n/a	n/a	5990	60310	Bd	O	n/a	38	38-90		BT redd, located 700 m u/s in R2.
443	1996/09/12	Starr Creek Tributary	St33 (East Fork Starr C.)	460-6006-508-722-519-000-000-000-000-000-000-000	C58	DB	CP		Y	Y	A9	10	10	1996/10/03	2	In3	093L043		9	n/a	n/a	5990	60310	Up	Ch	NW	38	38-90		Index site.
444	1996/09/12	Starr Creek Tributary	St33 (East Fork Starr C.)	460-6006-508-722-519-000-000-000-000-000-000-000	C58	DB	CP		Y	Y	A9	11	11	1996/10/03	2	In3	093L043		9	n/a	n/a	5990	60310	Dn	Ch	SE	38	38-90		Index site.
445	1996/09/12	Starr Creek Tributary	St33 (East Fork Starr C.)	460-6006-508-722-519-000-000-000-000-000-000-000	C58	JH	SS		Y	Y	B8	1	1	1996/10/07	3	3	093L043		9	n/a	n/a	5990	60310	Up	Ch	NW	38	38-90		
446	1996/09/12	Starr Creek Tributary	St33 (East Fork Starr C.)	460-6006-508-722-519-000-000-000-000-000-000-000	C58	JH	SS		Y	Y	B7	24	24	1996/10/07	3	3	093L043		9	n/a	n/a	5990	60310	Up	Ch	NW	38	38-90		Consecutive falls/chute/falls, located 500 m u/s in R3.
447	1996/09/12	Starr Creek Tributary	St33 (East Fork Starr C.)	460-6006-508-722-519-000-000-000-000-000-000-000	C58	JH	SS		Y	Y	B8	6	6	1996/10/08	3	3	093L043		9	n/a	n/a	5990	60310	Up	Ch	NW	38	38-90		Series of chutes, located 600 m u/s in R3.
448	1996/09/12	Starr Creek Tributary	St33 (East Fork Starr C.)	460-6006-508-722-519-000-000-000-000-000-000-000	C58	JH	SS		Y	Y	B8	11	11	1996/10/08	3	3	093L043		9	n/a	n/a	5990	60310	Up	Ch	NW	38	38-90		Chute, located 950 m u/s in R3.
449	1996/09/12	Starr Creek Tributary	St33 (East Fork Starr C.)	460-6006-508-722-519-000-000-000-000-000-000-000	C58	JH	SS		Y	Y	B8	12	12	1996/10/08	3	3	093L043		9	n/a	n/a	5990	60310	Up	Ch	NW	38	38-90		Falls, located 306 m u/s from ESt11.
450	1996/09/12	Starr Creek Tributary	St33 (East Fork Starr C.)	460-6006-508-722-519-000-000-000-000-000-000-000	C58	JH	SS		Y	Y	A9	8	8	1996/10/07	3	In4	093L043		9	n/a	n/a	5990	60310	Up	Ch	NW	38	38-90		Index site.
451	1996/09/12	Starr Creek Tributary	St33 (East Fork Starr C.)	460-6006-508-722-519-000-000-000-000-000-000-000	C58	JH	SS		Y	Y	A9	9	9	1996/10/07	3	In4	093L043		9	n/a	n/a	5990	60310	Dn	Ch	SE	38	38-90		Index site.
452	1996/09/12	Starr Creek Tributary	St33 (East Fork Starr C.)	460-6006-508-722-519-000-000-000-000-000-000-000	C58	JH	SS		N	N	B8	19	19	1996/10/08	4	n/a	093L043		9	n/a	n/a	5990	60310	Up	Ch	NW	38	38-90		Chute, located at the base of R4.
453	1996/09/12	Starr Creek Tributary	St33 (East Fork Starr C.)	460-6006-508-722-519-000-000-000-000-000-000-000	C58	JH	SS		N	N	B8	20	20	1996/10/08	4	n/a	093L043		9	n/a	n/a	5990	60310	Up	Ch	NW	38	38-90		
454	1996/09/12	Starr Creek Tributary	St33 (East Fork Starr C.)	460-6006-508-722-519-000-000-000-000-000-000-000	C58	JH	SS		N	N	B8	21	21	1996/10/08	4	n/a	093L043		9	n/a	n/a	5990	60310	Up	Ch	NW	38	38-90		Falls, located 200 m u/s in R4.
455	1996/09/12	Starr Creek Tributary	ESt1	460-6006-508-722-519-124-000-000-000-000-000-000	C58	DB	CP		Y	N	A10	8	8	1996/10/03	1	1	093L043		9	n/a	n/a	5986	60320	Up	Ch	NE	38	38-90		
456	1996/09/12	Starr Creek Tributary	ESt1	460-6006-508-722-519-124-000-000-000-000-000-000	C58	DB	CP		Y	N	A10	9	9	1996/10/03	1	1	093L043		9	n/a	n/a	5986	60320	Dn	Ch	SW	38	38-90		
457	1996/09/12	Starr Creek Tributary	Unmapped Seepage	n/a	C58	JH			N	N	B7	11	11	1996/10/07	1	n/a	093L043		9	n/a	n/a	nr	nr	Up	Ch	nr	38	38-90		Located 225 m d/s from the top of R1.
458	1996/09/12	Starr Creek Tributary	ESt2	460-6006-508-722-519-322-000-000-000-000-000-000	C58	RD	SS		Y	N	B7	6	6	1996/10/03	1	1	093L043		9	n/a	n/a	5982	60334	Up	Ch	NE	38	38-90		
459	1996/09/12	Starr Creek Tributary	ESt2	460-6006-508-722-519-322-000-000-000-000-000-000	C58	RD	SS		Y	N	B7	7	7	1996/10/03	1	1	093L043		9	n/a	n/a	5982	60334	Dn	Ch	SW	38	38-90		
460	1996/09/12	Starr Creek Tributary	ESt2	460-6006-508-722-519-322-000-000-000-000-000-000	C58	RD	SS		Y	N	B7	14	14	1996/10/03	1	1	093L043		9	n/a	n/a	5982	60334	Up	Ch	NE	38	38-90		Falls, located 285 m u/s from the mouth.
461	1996/09/12	Starr Creek Tributary	ESt3.1	460-6006-508-722-519-EST-3.1-000-000-000-000-000	C58	JH	SS		Y	N	B7	17	17	1996/10/07	1	1	093L043		9	n/a	n/a	5979	60338	Up	Ch	NE	38	38-90		
462	1996/09/12	Starr Creek Tributary	ESt3.1	460-6006-508-722-519-EST-3.1-000-000-000-000-000	C58	JH	SS		Y	N	B7	18	18	1996/10/07	1	1	093L043		9	n/a	n/a	5979	60338	nr	Ch	NE	38	38-90		Base of ESt3 fan.
463	1996/09/12	Starr Creek Tributary	ESt3	460-6006-508-722-519-EST-3 -000-000-000-000-000	C58	DB	CP		Y	N	A10	10	10	1996/10/03	2	2	093L043		9	n/a	n/a	5979	60337	Up	Ch	NE	38	38-90		
464	1996/09/12	Starr Creek Tributary	ESt3	460-6006-508-722-519-EST-3 -000-000-000-000-000	C58	DB	CP		Y	N	A10	11	11	1996/10/03	2	2	093L043		9	n/a	n/a	5979	60337	Dn	Ch	SW	38	38-90		
465	1996/09/12	Starr Creek Tributary	ESt5	460-6006-508-722-519-467-000-000-000-000-000-000	C58	DB	CP		Y	N	A10	12	12	1996/10/04	1	1	093L043		9	n/a	n/a	5977	60346	Up	Ch	NE	38	38-90		
466	1996/09/12	Starr Creek Tributary	ESt5	460-6006-508-722-519-467-000-000-000-000-000-000	C58	DB	CP		Y	N	A10	13	13	1996/10/04	1	1	093L043		9	n/a	n/a	5977	60346	Dn	Ch	SW	38	38-90		
467	1996/09/12	Starr Creek Tributary	ESt6	460-6006-508-722-519-EST-6 -000-000-000-000-000	C58	JH			Y	N	B7	20	20	1996/10/07	1	1	093L043		9	n/a	n/a	5977	60346	Up	Ch	W	38	38-90		
468	1996/09/12	Starr Creek Tributary	ESt7	460-6006-508-722-519-500-000-000-000-000-000-000	C58	RD	SS		Y	N	B6	4	4	1996/10/03	1	1	093L043		9	n/a	n/a	5975	60347	Up	Ch	NE	38	38-90		
469	1996/09/12	Starr Creek Tributary	ESt7	460-6006-508-722-519-500-000-000-000-000-000-000	C58	JH			Y	N	B7	21	21	1996/10/07	1	1	093L043		9	n/a	n/a	5975	60347	Xs	O	nr	38	38-90		Bedload deposition, located at the mouth of ESt7.
470	1996/09/12	Starr Creek Tributary	ESt7	460-6006-508-722-519-500-000-000-000-000-000-000	C58	JH			Y	N	B7	22	22	1996/10/07	1	1	093L043		9	n/a	n/a	5975	60347	Up	Ch	NE	38	38-90		Debris drop, located 5 m u/s from mouth.
471	1996/09/12	Starr Creek Tributary	ESt7	460-6006-508-722-519-500-000-000-000-000-000-000	C58	JH			Y	N	B7	23	23	1996/10/07	1	1	093L043		9	n/a	n/a	5975	60347	Up	Ch	NE	38	38-90		
472	1996/09/12	Starr Creek Tributary	ESt8	460-6006-508-722-519-540-000-000-000-000-000-000	C58	JH			Y	N	B7	25	25	1996/10/07	1	1	093L043		9	n/a	n/a	5971	60347	Up	Ch	SW	38	38-90		Cascade, located at the mouth of ESt8.
473	1996/09/12	Starr Creek Tributary	ESt9	460-6006-508-722-519-587-000-000-000-000-000-000	C58	JH			Y	N	B8	5	5	1996/10/08	1	1	093L043		9	n/a	n/a	5969	60350	Up	Ch	NE	38	38-90		
474	1996/09/12	Starr Creek Tributary	Unmapped Seepage	n/a	C58	JH			N	N	B8	4	4	1996/10/08	1	n/a	093L043		9	n/a	n/a	nr	nr	Up	Ch	nr	38	38-90		Located 30 m u/s from ESt9. Falls at the mouth.
475	1996/09/12	Starr Creek Tributary	ESt10	460-6006-508-722-519-EST-10 -000-000-000-000-000	C58	JH			Y	N	B8	2	2	1996/10/08	1	1	093L043		9	n/a	n/a	5968	60350	Up	Ch	SW	38	38-90		
476	1996/09/12	Starr Creek Tributary	Unmapped Seepage	n/a	C58	JH			N	N	B8	7	7	1996/10/08	1	n/a	093L043		9	n/a	n/a	nr	nr	Up	Ch	nr	38	38-90		Located 30 m d/s from ESt11. Falls at the mouth.
477	1996/09/12	Starr Creek Tributary	ESt11	460-6006-508-722-519-605-000-000-000-000-000-000	C58	JH			Y	N	B8	8	8	1996/10/08	1	1	093L043		9	n/a	n/a	5963	60353	Up	Ch	N	38	38-90		Cascade, located at the mouth of ESt11.
478	1996/09/12	Starr Creek Tributary	ESt11	460-6006-508-722-519-605-000-000-000-000-000-000	C58	JH			Y	N	B8	9	9	1996/10/08	1	1	093L043		9	n/a	n/a	5963	60353	Up	Ch	N	38	38-90		
479	1996/09/12	Starr Creek Tributary	ESt11	460-6006-508-722-519-605-000-000-000-000-000-000	C58	JH			Y	N	B8	10	10	1996/10/08	1	1	093L043		9	n/a	n/a	5963	60353	Up	Ch	N	38	38-90		Debris jam, located 271 m u/s from the mouth.
480	1996/09/12	Starr Creek Tributary	Unmapped Seepage	n/a	C58	JH			N	N	B8	16	16	1996/10/08	1	n/a	093L043		9	n/a	n/a	nr	nr	Up	Ch	nr	38	38-90		Located 20 m u/s from ESt12.
481	1996/09/12	Starr Creek Tributary	ESt12	460-6006-508-722-519-EST-12 -000-000-000-000-000	C58	JH			Y	N	B8	14	14	1996/10/08	1	1	093L043		9	n/a	n/a	5957	60354	Up	Ch	S	38	38-90		
482	1996/09/12	Starr Creek Tributary	ESt12	460-6006-508-722-519-EST-12 -000-000-000-000-000	C58	JH			Y	N	B8	15	15	1996/10/08	1	1	093L043		9	n/a	n/a	5957	60354	Up	Ch	S	38	38-90		
483	1996/09/12	Starr Creek Tributary	ESt13	460-6006-508-722-519-699-000-000-000-000-000-000	C58	JH			Y	N	B8	18	18	1996/10/08	1	1	093L043		9	n/a	n/a	5956	60354	Dn	Ch	SE	38	38-90		
484	1996/09/12	Starr Creek Tributary	ESt14	460-6006-508-722-519-EST-14 -000-000-000-000-000	C58	JH			Y	N	B8	22	22	1996/10/08	1	1	093L043		9	n/a	n/a	5957	60355	Up	Ch	N	38	38-90		Reach break, located ~240 m u/s from mouth.
485	1996/09/12	Starr Creek Tributary	ESt14	460-6006-508-722-519-EST-14 -000-000-000-000-000	C58	JH			Y	N	B8	23	23	1996/10/08	1	1	093L043		9	n/a	n/a	5957	60355	Up	Ch	N	38	38-90		
486	1996/09/12	Starr Creek Tributary	ESt14	460-6006-508-722-519-EST-14 -000-000-000-000-000	C58	JH			Y	N	B8	24	24	1996/10/08	1	1	093L043		9	n/a	n/a	5957	60355	Dn	Ch	S	38	38-90		
487	1996/09/12	Starr Creek Tributary	St34	460-6006-508-722-573-000-000-000-000-000-000-000	C58	RD	SS		Y	N	B7	4	4	1996/10/03	2	1	093L043		9	n/a	n/a	5981	60308	Up	Ch	SW	38	38-90		
488	1996/09/12	Starr Creek Tributary	St34	460-6006-508-722-573-000-000-000-000-000-000-000	C58	RD	SS		Y	N	B7	5	5	1996/10/03	2	1	093L043		9	n/a	n/a	5981	60308	Dn	Ch	NE	38	38-90		

Photo #	Survey start date	Stream name (gaz.)	Stream name (loc.)	Watershed code	Agency	Crew (Init 1)	Crew (Init 2)	Crew (Init 3)	Reach/ site card (Y/N)	Fish cards (Y/N)	Roll/ Batch #	Counter #	Negative #	Date of photo	Reach #	Site #	Map # NTS/TRIM	UTM mtd G/M	Zone	E(field)	N(field)	E(correct)	N(correct)	Stream photo dir.	Picture type	Photo direction	Focal length (mm)	Focal range	Scale item	Comments
489	1996/09/12	Starr Creek Tributary	St35	460-6006-508-722-599-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A11	5	5	1996/10/07	1	1	093L043		9	n/a	n/a	5973	60309	Up	Ch	SW	38	38-90		
490	1996/09/12	Starr Creek Tributary	St35	460-6006-508-722-599-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A11	6	6	1996/10/07	1	1	093L043		9	n/a	n/a	5973	60309	Dn	Ch	NE	38	38-90		
491	1996/09/12	Starr Creek Tributary	St35	460-6006-508-722-599-000-000-000-000-000-000-000	C58	RD	SS		Y	N	B6	11	11	1996/10/03	2	2	093L043		9	n/a	n/a	5973	60309	Up	Ch	SW	38	38-90		
492	1996/09/12	Starr Creek Tributary	St35	460-6006-508-722-599-000-000-000-000-000-000-000	C58	RD	SS		Y	N	B6	10	10	1996/10/03	2	2	093L043		9	n/a	n/a	5973	60309	Dn	Ch	NE	38	38-90		
493	1996/09/12	Starr Creek Tributary	St35.1	460-6006-508-722-599-106-000-000-000-000-000-000	C58	RD	SS		Y	N	B7	3	3	1996/10/03	2	3	093L043		9	n/a	n/a	5970	60306	Up	Ch	SW	38	38-90		
494	1996/09/12	Starr Creek Tributary	St35.1	460-6006-508-722-599-106-000-000-000-000-000-000	C58	RD	SS		Y	N	B7	2	2	1996/10/03	2	3	093L043		9	n/a	n/a	5970	60306	Dn	Ch	NE	38	38-90		
495	1996/09/12	Starr Creek Tributary	St35.2	460-6006-508-722-599-402-000-000-000-000-000-000	C58	RD	CP		Y	N	A11	8	8	1996/10/07	1	4	093L043		9	n/a	n/a	5962	60293	Up	Ch	SE	38	38-90		
496	1996/09/12	Starr Creek Tributary	St35.2	460-6006-508-722-599-402-000-000-000-000-000-000	C58	RD	CP		Y	N	A11	7	7	1996/10/07	1	4	093L043		9	n/a	n/a	5962	60293	Dn	Ch	NW	38	38-90		
497	1996/09/12	Starr Creek Tributary	St35.3	460-6006-508-722-599-506-000-000-000-000-000-000	C58	RD	CP		Y	N	A11	9	9	1996/10/07	1	5	093L043		9	n/a	n/a	5959	60289	Up	Ch	SE	38	38-90		
498	1996/09/12	Starr Creek Tributary	St35.3	460-6006-508-722-599-506-000-000-000-000-000-000	C58	RD	CP		Y	N	A11	10	10	1996/10/07	1	5	093L043		9	n/a	n/a	5959	60289	Dn	Ch	NW	38	38-90		
499	1996/09/12	Thautil River Tributary	Th47	460-6006-508-TH -47 -000-000-000-000-000-000-000	C58	JH			Y	N	B11	4	4	1996/10/15	1	1	093L044		9	n/a	n/a	6071	60288	Up	Ch	NE	38	38-90		
500	1996/09/12	Thautil River Tributary	Th47	460-6006-508-TH -47 -000-000-000-000-000-000-000	C58	JH			Y	N	B11	5	5	1996/10/15	1	1	093L044		9	n/a	n/a	6071	60288	Dn	Ch	SW	38	38-90		
501	1996/09/12	Thautil River Tributary	Th48	460-6006-508-736-000-000-000-000-000-000-000-000	C58	JH			Y	N	B11	9	9	1996/10/15	1	1	093L044		9	n/a	n/a	6071	60289	Up	Ch	NE	38	38-90		
502	1996/09/12	Thautil River Tributary	Th48	460-6006-508-736-000-000-000-000-000-000-000-000	C58	JH			Y	N	B11	8	8	1996/10/15	1	1	093L044		9	n/a	n/a	6071	60289	Dn	Ch	SW	38	38-90		
503	1996/09/12	Thautil River Tributary	Th48	460-6006-508-736-000-000-000-000-000-000-000-000	C58	DB	SS		Y	N	DB4	9	9	1996/10/08	1	2	093L044		9	n/a	n/a	6071	60289	Up	Ch	NE	50	50		
504	1996/09/12	Thautil River Tributary	Th48	460-6006-508-736-000-000-000-000-000-000-000-000	C58	DB	SS		Y	N	DB4	10	10	1996/10/08	1	2	093L044		9	n/a	n/a	6071	60289	Dn	Ch	SW	50	50		
505	1996/09/12	Thautil River Tributary	Th49	460-6006-508-745-000-000-000-000-000-000-000-000	C58	JH			Y	N	B11	11	11	1996/10/15	1	1	093L044		9	n/a	n/a	6068	60291	Up	Ch	NW	38	38-90		
506	1996/09/12	Thautil River Tributary	Th49	460-6006-508-745-000-000-000-000-000-000-000-000	C58	JH			Y	N	B11	12	12	1996/10/15	1	1	093L044		9	n/a	n/a	6068	60291	Dn	Ch	SE	38	38-90		
507	1996/09/12	Thautil River Tributary	Th49	460-6006-508-745-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A11	19	19	1996/10/08	2	2	093L044		9	n/a	n/a	6068	60291	Up	Ch	NW	38	38-90		
508	1996/09/12	Thautil River Tributary	Th49	460-6006-508-745-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A11	20	20	1996/10/08	2	2	093L044		9	n/a	n/a	6068	60291	Dn	Ch	SE	38	38-90		
509	1996/09/12	Thautil River Tributary	Th49	460-6006-508-745-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A11	21	21	1996/10/08	3	3	093L044		9	n/a	n/a	6068	60291	Up	Ch	NW	38	38-90		
510	1996/09/12	Thautil River Tributary	Th49	460-6006-508-745-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A11	22	22	1996/10/08	3	3	093L044		9	n/a	n/a	6068	60291	Dn	Ch	SE	38	38-90		
511	1996/09/12	Thautil River	Thautil River	460-6006-508-000-000-000-000-000-000-000-000-000	C58	JH			Y	Y	B11	14	14	1996/10/15	2	n/a	093L044		9	n/a	n/a	nr	nr	Bd	O	n/a	38	38-90		Recent SST redd, located 640 m u/s from Th49.
512	1996/09/12	Thautil River Tributary	Th50	460-6006-508-804-000-000-000-000-000-000-000-000	C58	JH			Y	N	B11	15	15	1996/10/15	1	1	093L044		9	n/a	n/a	6063	60307	Up	Ch	NW	38	38-90		
513	1996/09/12	Thautil River Tributary	Th50	460-6006-508-804-000-000-000-000-000-000-000-000	C58	JH			Y	N	B11	16	16	1996/10/15	1	1	093L044		9	n/a	n/a	6063	60307	Dn	Ch	SE	38	38-90		
514	1996/09/12	Thautil River Tributary	Th50	460-6006-508-804-000-000-000-000-000-000-000-000	C58	DB	SS		Y	N	DB4	13	13	1996/10/08	1	2	093L044		9	n/a	n/a	6063	60307	Up	Ch	NW	50	50		
515	1996/09/12	Thautil River Tributary	Th50	460-6006-508-804-000-000-000-000-000-000-000-000	C58	DB	SS		Y	N	DB4	14	14	1996/10/08	1	2	093L044		9	n/a	n/a	6063	60307	Dn	Ch	SE	50	50		
516	1996/09/12	Thautil River Tributary	Th51	460-6006-508-822-000-000-000-000-000-000-000-000	C58	RD	SS		Y	N	A13	7	7	1996/10/15	1	1	093L044		9	n/a	n/a	6065	60312	Up	Ch	NW	38	38-90		
517	1996/09/12	Thautil River Tributary	Th51	460-6006-508-822-000-000-000-000-000-000-000-000	C58	RD	SS		Y	N	A13	8	8	1996/10/15	1	1	093L044		9	n/a	n/a	6065	60312	Dn	Ch	SE	38	38-90		
518	1996/09/12	Thautil River Tributary	Th51	460-6006-508-822-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A11	23	23	1996/10/08	1	1	093L044		9	n/a	n/a	6065	60312	Up	O	NW	38	38-90		Marsh/dry lake bed.
519	1996/09/12	Thautil River Tributary	Th51	460-6006-508-822-000-000-000-000-000-000-000-000	C58	RD	CP		Y	N	A11	24	24	1996/10/08	1	1	093L044		9	n/a	n/a	6065	60312	Dn	O	SE	38	38-90		Dewatered channel.
520	1996/09/12	Thautil River Tributary	Th51	460-6006-508-822-000-000-000-000-000-000-000-000	C58	DB	SS		Y	N	DB4	16	16	1996/10/08	2	2	093L043		9	n/a	n/a	6065	60312	Up	Ch	W	50	50		
521	1996/09/12	Thautil River Tributary	Th51	460-6006-508-822-000-000-000-000-000-000-000-000	C58	DB	SS		Y	N	DB4	15	15	1996/10/08	2	2	093L043		9	n/a	n/a	6065	60312	Dn	Ch	E	50	50		
522	1996/09/12	Thautil River Tributary	Th51	460-6006-508-822-000-000-000-000-000-000-000-000	C58	DB	CP		Y	N	DB4	17	17	1996/10/15	3	3	193L043		9	n/a	n/a	6065	60312	Up	Ch	W	50	50		
523	1996/09/12	Thautil River Tributary	Th51	460-6006-508-822-000-000-000-000-000-000-000-000	C58	DB	CP		Y	N	DB4	18	18	1996/10/15	3	3	093L043		9	n/a	n/a	6065	60312	Dn	Ch	E	50	500		
524	1996/09/12	Thautil River Tributary	Th53	460-6006-508-895-000-000-000-000-000-000-000-000	C58	DB	CP		Y	N	DB4	21	21	1996/10/15	3	2	093L044		9	n/a	n/a	6087	60326	Up	Ch	NE	50	50		
525	1996/09/12	Thautil River Tributary	Th53	460-6006-508-895-000-000-000-000-000-000-000-000	C58	DB	CP		Y	N	DB4	22	22	1996/10/15	3	2	093L044		9	n/a	n/a	6087	60326	Dn	Ch	SW	50	50		
526	1996/09/12	Thautil River Tributary	Th54	460-6006-508-940-000-000-000-000-000-000-000-000	C58	RD	SS		Y	N	A13	13	13	1996/10/15	1	1	093L044		9	n/a	n/a	6091	60328	Up	Ch	SE	38	38-90		
527	1996/09/12	Thautil River Tributary	Th54	460-6006-508-940-000-000-000-000-000-000-000-000	C58	RD	SS		Y	N	A13	14	14	1996/10/15	1	1	093L044		9	n/a	n/a	6091	60328	Dn	Ch	NW	38	38-90		
528	1996/09/12	Thautil River Tributary	Th54	460-6006-508-940-000-000-000-000-000-000-000-000	C58	RD	SS		Y	N	A13	12	12	1996/10/15	2	2	093L044		9	n/a	n/a	6091	60328	Up	Ch	SE	38	38-90		
529	1996/09/12	Thautil River Tributary	Th54	460-6006-508-940-000-000-000-000-000-000-000-000	C58	RD	SS		Y	N	A13	11	11	1996/10/15	2	2	093L044		9	n/a	n/a	6091	60328	Dn	Ch	NW	38	38-90		