Site C Clean Energy Project

Peace River Fish Community Monitoring Program (Mon-2)

Task 2b – Peace River Composition and Abundance Survey

Construction Year 7 (2021)

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Peace River Fish Composition and Abundance Survey Mon-2, Task 2b

Construction Year 7 (2021) Annual Report

BC Hydro

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Disclaimer

This report is rendered solely for the use of BC Hydro in connection with the Peace River Fish Composition and Abundance Survey (Mon-2, Task 2b), a component of the Site C Fisheries and Aquatic Habitat Monitoring and Follow-up Program (FAHMFP), and no person may rely on it for any other purpose without Triton Environmental Consultants Ltd.'s (Triton) prior written approval. Should a third party use this report without Triton's approval, they may not rely upon it. Triton accepts no responsibility for loss or damages suffered by any third party as a result of decisions made or actions taken based on this report.

This report is based on information and data from the referenced documents inclusive of programs carried out under the FAHMFP. Triton has attempted to identify and consider facts and documents relevant to the scope of work, accurate as of the period during which we conducted this work. However, our opinions, or recommendations may change if new information becomes available or if information we have relied on is altered.

The following assumptions were relied on during the preparation of this report:

- Information provided by BC Hydro is accurate at the time of preparing this report. This includes plans and documents outlining the project's study design such as sampling methods, river sections, and historic data.
- The information contained within reports from prior versions of this study (Mainstream 2010, 2011, 2013) is accurate, including historic GPS and map locations, survey method descriptions, and presentation of the results.

In the process of developing and interpreting data provided by BC Hydro or third-party sources, we did not attempt to comprehensively verify the accuracy of any such data.

This report must be considered as a whole; selecting only portions of this report may result in a misleading view of the results, our opinions, or recommendations.

Executive Summary

To meet Condition Number 7 of the Environmental Assessment Certificate, Schedule B as well as Condition Numbers 8.4.3 and 8.4.4 of the Federal Decision Statement issued for the Site C Clean Energy Project (the Project), BC Hydro developed the Site C Fisheries and Aquatic Habitat Monitoring and Follow-up Program (FAHMFP). The FAHMFP consists of 18 distinct monitoring programs that aim to monitor the effects on fish and fish habitat during the construction and operation of the Project, and to evaluate the effectiveness of mitigation and compensation measures as they relate to fish and fish habitat. Sources of baseline fisheries information supporting the FAHMFP have been gathered by BC Hydro since 2001 under various programs.

The purpose of the Peace River Fish Composition and Abundance Survey (Mon-2, Task 2b) is to collect information on small-bodied fish (<200 mm) and younger age classes of large-bodied fish. This will provide information on recruitment and conditions for early rearing. Data from Mon-2, Task 2b will be used to interpret results from the Peace River Large Fish Indexing Survey (Mon-2, Task 2a) and provide a linkage between Mon-2, Task 2a and the Peace River Fish Food Organisms Monitoring Program (Mon-7). Data collected under Mon-2, Task 2b will also supplement data collected under the Offset Effectiveness Monitoring Program (Mon-2, Task 2d).

The Mon-2, Task 2b study builds off baseline data collected by BC Hydro's Peace River Fish Inventory (Mainstream 2010, 2011, 2013; Triton 2021). As such, similar methods and sites to those outlined in the baseline study were followed in the present study to the extent possible. Sampling under Mon-2, Task 2b occurred during the late September to early October period to correspond with the timing of the baseline datasets (Mainstream 2010, 2011, 2013), to provide a temporal linkage to the Mon-2, Task 2a and Mon-7 programs, and to facilitate the capture of spring-spawned age-0 fish that may be present in the area. The monitoring design has been developed to address the management questions based on experience monitoring in the Peace River and other systems, and input during the regulatory process for the Project. Data from this study will be used to help BC Hydro test six hypotheses within the FAHMFP and help answer the primary management question. These hypotheses will determine how the Project affects the total fish biomass, and community composition in the Peace River, 10- and 30-years post-construction.

In 2021, sampling for the Peace River Fish Composition and Abundance Survey was conducted in three different sections (Section 5, Section 7, and Section 9) of the Peace River, from the dam site downstream to the Many Islands area in Alberta. Fish were sampled using backpack electrofisher, small boat electrofisher, beach seine, and gill net. Incidental large fish that were captured were implanted with half-duplex (HDX) passive integrated transponder (PIT) tags. Lengths and weights were collected from all fish, and ageing structures collected from fish of management concern, including Arctic Grayling (*Thymallus arcticus)*, Bull Trout (*Salvelinus confluentus)*, Mountain Whitefish (*Prosopium williamsoni)*, Rainbow Trout (*Oncorhynchus mykiss)*, Walleye (*Sander vitreus)*, and Northern Pike (*Esox lucius)*. Genetic samples were collected from

some fish of management concern. Methylmercury and stable isotope samples were collected from Redside Shiner (*Richardsonius balteatus)* but the results of the sample analysis are not included in this report.

The 2021 survey was successful in achieving its goal of collecting information on small-bodied fish and younger age classes of large-bodied fish. The Peace River supports a diverse fish community that includes several coldwater fish species, coolwater fish species, as well as numerous suckers, sculpins, and minnows. The fish community gradually transitioned from being numerically dominated by Mountain Whitefish to a fish community numerically dominated by sucker and minnow species downstream. The transition from cold, clear water to cool, slightly turbid water downstream represents a shift in the species tolerance in the changing habitat downstream.

Catch per unit effort (CPUE) results in the 2021 study were within the range that was reported in previous fall small fish programs for all sampling techniques except beach seining, which was more than double any previous year (Mainstream 2010, 2011, 2013; Triton 2021). A similar number of fish species were captured but the fish community was slightly different from previous fall small fish programs, with a considerable drop in sculpin catch. Mountain Whitefish and Longnose Sucker had large sample sizes represented by various age classes and sizes. For several fish species, small sample sizes limited the population inferences that could be made. These numerically scarce fish species include: Kokanee (*Oncorhynchus nerka*), Rainbow Trout, Walleye, Prickly Sculpin *(Cottus asper)*, and Spoonhead Sculpin *(Cottus ricei);* they may not be caught in large enough numbers during the small fish program to inform management decisions.

Environmental conditions were generally similar to previous fall sampling programs with the exception of 2020 when water was lowered at Peace Canyon Dam to support river diversion. Discharge returned to normal levels in 2021.

The 2021 study and historic works represent consistent sampling across a multi-year period that effectively characterize the Peace River fish community for small-bodied fish (<200 mm) and younger age classes of large-bodied fish.

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2. $W = aLb$ 17
3. $Lt = L\infty 1\text{-}e\text{-}kt\text{-}t0$ 17
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1.0 Introduction

In accordance with Provincial Environmental Assessment Certificate Condition No. 7 and Federal Decision Statement Condition Nos. 8.4.3 and 8.4.4 for the Site C Clean Energy Project (the Project), BC Hydro developed the Site C Fisheries and Aquatic Habitat Monitoring and Follow-up Program (FAHMFP). The FAHMFP consists of 18 spatially and logistically distinct monitoring programs that aim to:

- Monitor fish and fish habitat during the construction and operation of the Project;
- Understand the effects of the Project and the effectiveness of mitigation measures; and
- Evaluate and implement future mitigation and compensation options.

The FAHMFP includes implementation of the Peace River Fish Composition and Abundance Survey (Mon-2, Task 2b), for which Triton Environmental Consultants Ltd. (Triton) has been retained and which is the subject of this report.

The study is based on a reference design developed by Mainstream Aquatics Ltd. (Mainstream) but has been modified to meet the objectives of Mon-2, Task 2b.

1.1 Study Objective

The purpose of the Peace River Fish Composition and Abundance Survey is to collect information on small-bodied fish (<200 mm) and younger age classes of large-bodied fish. This will provide information on recruitment and conditions for early rearing. Data from Mon-2, Task 2b will be used to interpret results from the Peace River Large Fish Indexing Survey (Mon-2, Task 2a) and provide a linkage between Mon-2, Task 2a and the Peace River Fish Food Organisms Monitoring Program (Mon-7) (BC Hydro 2015a). This data will help BC Hydro answer the primary management question for Mon-2.

1.1.1 Primary Management Question

The overarching fisheries management question for the Peace River Fish Community Monitoring Program is:

- How will the Project affect fish in the Peace River between the Project site and the Many Islands area in Alberta during the short (10 years after Project operations begin) and longer (30 years after Project operations begin) term?

1.1.2 Management Hypotheses

Mon-2 focuses on monitoring fish abundance and biomass, species distribution, community composition, and population structure, and assessing whether any changes observed in these metrics are related to the construction or operation of the Project. To address the primary management question, six management hypotheses were developed, as follows (BC Hydro 2015a):

H_1: Post-Project total fish biomass in the Peace River between the Project and the Many Islands area in Alberta will be less than pre-Project conditions (current = 37.42 tons (t); at 10 years of operations = 30.78 t; >30 years of operations = 30.79 t).

H_2: Post-Project harvestable fish biomass in the Peace River between the Project and the Many Islands area in Alberta will be greater than pre-Project estimates of harvestable fish biomass (current = 13.93 t; at 10 years of operations = 18.77 t; >30 years of operations = 18.78 t).

H_3: Post-Project biomass of each fish species in the Peace River between the Project and the Many Islands area in Alberta will be consistent with biomass estimates in the Environmental Impact Statement (EIS) (Table 1).

H_4: Changes in post-Project fish community composition in the Peace River between the Project and the Many Islands area in Alberta will be consistent with EIS predictions.

H_5: The fish community can support angling effort that is similar to baseline conditions.

H_6: Indicator fish species will use the Site C offset habitat areas in the Peace River between the Project and the Many Islands area in Alberta for rearing, feeding, and/or spawning (Table 2).

The management hypotheses are to be tested post-Project (i.e., after river diversion in 2020). The data collected during this study will be used as a baseline to help test the six management hypotheses.

Table 1. Short- and longer-term predictions of fish biomass (t) for pre- and post-Project conditions for the Peace River from the Project to the Many Islands area in Alberta

Species Group	*Species Name*	*Pre-Project Biomass (t)*	*Post-Project Biomass (t)*			
			Short Term (10 Years)		Longer Term (>30 Years)	
			Most Likely	*Range*	*Most Likely*	*Range*
1	Walleye	3.38	1.69	0.34 - 1.69	1.69	0.34 - 1.69
	Lake Trout	0.00	0.00	0.00 - 0.01	0.00	0.00 - 0.01
	Rainbow Trout	0.17	0.35	0.17 - 0.35	0.35	0.17 - 0.35
	Northern Pike	0.74	0.37	0.37 - 0.74	0.37	0.37 - 0.74
	Burbot	0.10	0.05	0.01 - 0.05	0.05	0.01 - 0.05
Group 1 Subtotal		**4.39**	**2.46**	**0.89 - 2.83**	**2.46**	**0.89 - 2.83**
2	Bull Trout	1.49	1.23	1.23 - 2.54	1.23	1.23 - 2.54
	Arctic Grayling	0.69	0.23	0.06 - 0.64	0.32	0.06 - 0.64
	Mountain Whitefish	7.38	14.74	14.74 - 14.74	14.74	14.74 - 14.74
Group 2 Subtotal		**9.50**	**16.29**	**16.03 - 17.91**	**16.29**	**16.03 - 17.91**
3	Kokanee	0.03	0.01	0.00 - 0.02	0.03	0.01 - 0.04
	Lake Whitefish	0.00	0.01	0.00 - 0.01	0.00	0.00 - 0.01
Group 3 Subtotal		**0.03**	**0.02**	**0.01 - 0.03**	**0.03**	**0.01 - 0.04**
Total Harvestable Fish Biomass		**13.93**	**18.77**	**16.94 - 20.78**	**18.78**	**16.94 - 20.79**
4	Sucker species	21.74	10.87	10.87 - 10.87	10.87	10.87 - 10.87
	Small-bodied fish	0.87	0.70	0.43 - 0.87	0.70	0.43 - 0.87
	Northern Pikeminnow	0.87	0.44	0.26 - 0.52	0.44	0.26 - 0.52
Group 4 Subtotal		**23.49**	**12.01**	**11.57 - 12.27**	**12.01**	**11.57 - 12.27**
Total Fish Biomass		**37.42**	**30.78**	**28.50 - 33.05**	**30.79**	**28.50 - 33.06**

Note: Fish biomass is presented for the "Most Likely" scenario (plus a minimum to maximum range). Data summarized from Mon 2 of the FAHMFP (BC Hydro 2015a).

Table 2. Expected fish use of proposed offset locations in the Peace River between the Project and the Many Islands area in Alberta (BC Hydro 2015b, 2015c)

Location	*Species*				
	Arctic Grayling	**Bull Trout**	**Mountain Whitefish**	**Rainbow Trout**	**Walleye**
River Road Rock Spurs	R, F	F	R, F	R, F	
Upper Site 109L	R	F	R, F, S	R, F	F
Side Channel Site 108R	R, F		R, F	R, F	
Main Channel Bar Excavation	R, F	R, F	R, F	F	F
Lower Site 109 L	R	F	R, F, S	R, F	F

R = rearing; F = feeding; and S = Spawning

1.2 Study Area

The study area for Mon-2, Task 2b includes an approximately 125.5 km section of the Peace River from the Project (river km 105.5) downstream to the Many Islands area in Alberta (river km 231) as measured downstream from the WAC Bennett Dam. The Peace River was further divided into river sections using information provided by Mainstream (2013), with sampling taking place during this study in three river sections: Sections 5, 7, and 9 (Figure 1, Table 3).

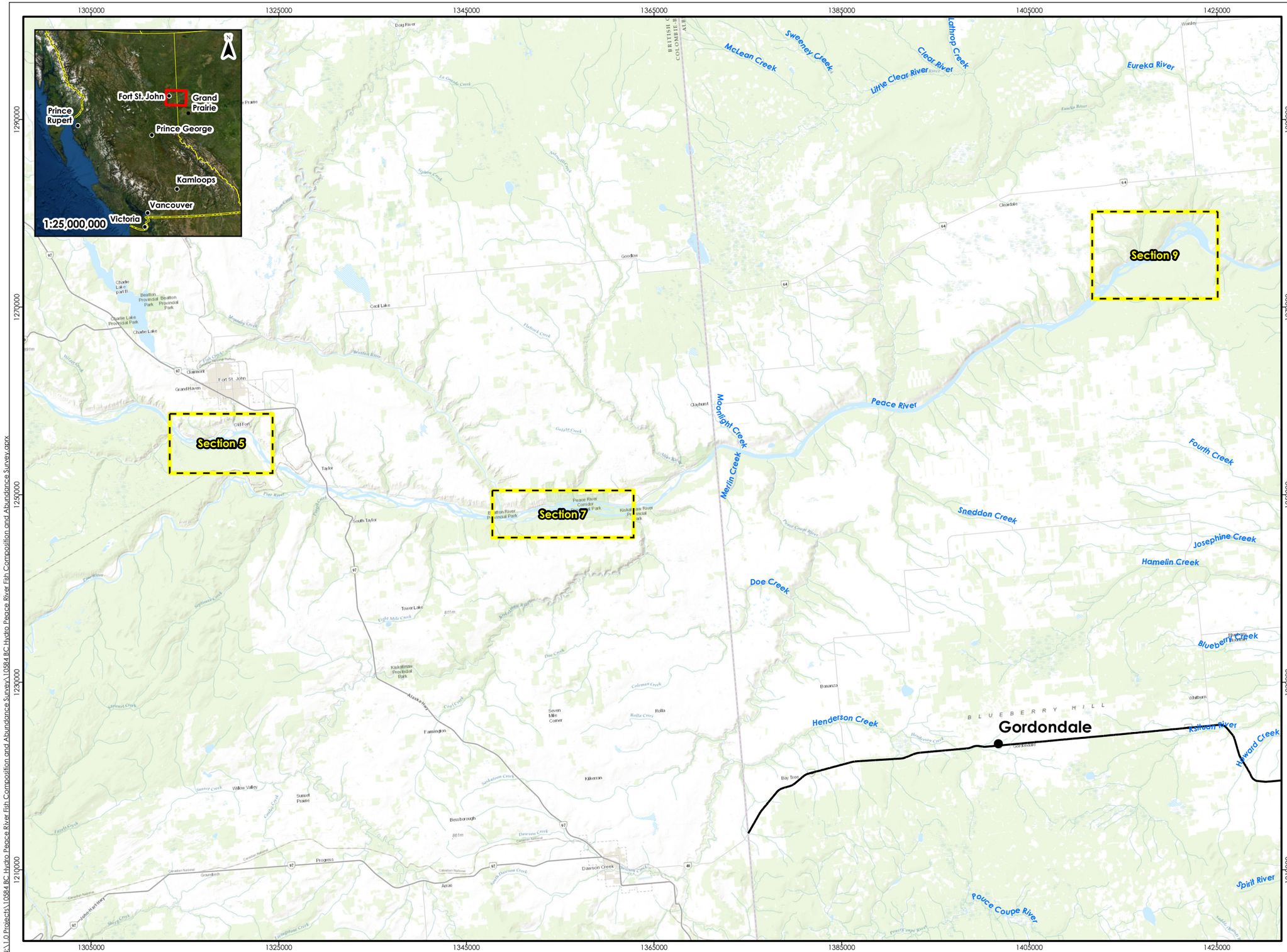
Table 3. Location and distance from WAC Bennett Dam of sample locations on the Peace River as delineated by Mainstream (2013)

River Section	*Location*	*River Kilometre*		*No. of sites sampled in 2021*
		Upstream	**Downstream**	
5	Site C Dam downstream to the Canadian National Railway bridge	105.5	117.7	25
7	Beatton River confluence downstream to the Kiskatinaw River confluence	140.0	158.0	25
9	Dunvegan West Wildland Provincial Park boundary downstream to Many Islands Park	217.5	231.0	26

BC Hydro Peace River Fish Composition and Abundance Survey

Figure 1

Project Overview



Legend

- Town
- Highway
- Section

Sources and Disclaimer

1. Base Map Source: ESRI World Topographic Map
2. Inset Base Map Source: ESRI World Imagery
3. Base Map Data: DataBC Data Catalogue
4. Disclaimer: This map is a visual aid only to be used together with the accompanying report, including and incorporating any disclaimer contained therein. This map has been prepared to illustrate the results of our work, and is **not intended to be used for navigational purposes**. Information displayed on this map is based, in whole or in part, on geographic information that may have been provided by third parties, including government data. Triton Environmental Consultants Ltd. disclaims (without limiting the generality of the foregoing) all responsibility for the accuracy of any such third party information, regardless of the source.

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2.0 Methods

2.1 Sampling Design

Sampling took place in Sections 5, 7, and 9 of the Peace River, with historical sampling locations identified by Mainstream (2013) being used to the extent possible. Sampling was conducted in the fall, between September 25 and October 1, 2021, consistent with previous sampling events (Mainstream 2010, 2011, and 2013; Triton 2021). The number of sampling sites for each river section and gear type can be found in Table 4, and a list of sampling locations is presented in Appendix 1.

Table 4. Number of sample sites by sampling method and river section

River Section	*Number of Sampling Sites*			
	Small Boat Electrofisher	**Backpack Electrofisher**	**Gill Net**	**Beach Seine**
5	12	4	1	8
7	12	4	1	8
9	12	4	1	9

During the 2020 program (Triton 2021) in Section 5, two boat electrofishing sites (SF0517 and SF0518), two beach seine sites (BS0502 and BS0512), and three backpack electrofishing sites (EF0503, EF0508, and EF0509) could not be sampled due to proximity to active Project construction. As such, they were permanently replaced with sites in representative areas identified by Ecofish Research (Ecofish 2020) within the 108R Offset Channel to contribute additional sampling effort toward the Offset Effectiveness Monitoring Program (Mon-2, Task 2d).

Sampling occurred within the three major Peace River habitats previously described and sampled by Mainstream (2013).

- Main channel – Portion of active channel that is permanently wetted and that is characterized by moving water under the typical flow regime, and the dominance of rock (i.e., gravel, pebble, cobble, boulder, and/or bedrock) bed materials. This includes the thalweg channel and smaller channels that exhibit similar characteristics.
- Side channel – Portion of the active channel that is permanently wetted and that is characterized by slow moving or still water under the typical flow regime, and the presence of silt and sand bed materials. Includes channels protected from the main river flow that exhibit unique features such as standing water and emergent/submergent vegetation.
- Tributary confluence – Portion of the tributary confluence that is within the immediate influence of the Peace River flow regime. The habitat can be divided into the tributary channel proper and the confluence zone within the active Peace River channel. The confluence zone includes an upstream area that exhibits higher water velocities and is dominated by rock bed materials (i.e., riffle

section) and a downstream area that exhibits low water velocities and bed materials dominated by silts and sands (i.e., backwater section).

Crews used Avenza Maps moving-map software as well as handheld GPS units to provide real-time location status on digital base maps with predetermined sampling locations demarcated. Maps of the sample site locations can be found in Appendix 2.

2.2 Data Collection

2.2.1 Water Quality

Water temperature, pH, and conductivity were measured in the field using an Oakton PCTSTestr 50 pen-type water quality tester (temperature resolution 0.1°C; accuracy ±0.5°C, pH resolution 0.01; accuracy ±0.01, conductivity resolution 0.1 µS/cm; accuracy ±1% full scale). Water clarity was measured using a Secchi disk by taking the average of two depths (i.e., depth the disk can't be seen anymore when lowering into the water column, and depth it is seen again when pulling back up). Water quality parameters recorded, and the collection methods are consistent with those described in Mainstream (2010, 2011, 2013).

2.2.2 Fish Capture

Sampling involved the use of a small boat electrofisher, backpack electrofisher, gill net, and beach seine. The sampling methods listed below follow the methods summarized by Mainstream (2013).

2.2.2.1 Boat Electrofishing

The typical small boat electrofishing sampling approach:

1. Site identification and scouting – To familiarize themselves with current site conditions, the crew completed a scouting pass prior to electrofishing along the proposed sampling route. Upstream and downstream site limits were verified along with any limitations to completing the full sample length (approximately 500 m), and maintaining the suitable water depth of 0.1 to 0.3 m. To minimize the risk of scaring fish away, care was taken not to disturb the target habitat (e.g., to measure habitat variables) until after sampling was complete.
2. Sampling was completed in a single pass in an upstream to downstream direction, adhering to protocols that have been followed during previous sampling events. Briefly, this involves:
    I. Using oars, the Zodiac Mark II boat was positioned perpendicular to the channel margin while drifting with the current and operating the Smith-Root Generator Powered Pulsator (GPP) 2.5 electrofisher.
    II. Settings were maintained at 3.5 to 6.0 Amperes (A), pulsed DC at 60 Hertz (Hz) using a Smith Root GPP 2.5 unit. Electrofisher settings were consistent with previous sampling programs (Mainstream 2010, 2011, 2013; Triton 2021).

III. A single netter was positioned at the bow, using a net with 0.5 cm mesh. The netter did not bias their capture effort to a particular species unless a rare species or life stage was encountered.

3. All fish captured were held in a live well (tubs/buckets) equipped with an aeration system prior to processing and release.
4. Fish were released near the middle of the site where they were captured, to minimize the risk of recapturing the same fish at multiple sites when sites were located adjacent to one another.

2.2.2.2 Backpack Electrofisher

The typical backpack electrofishing sampling approach:

1. Prior to sampling, sites were inspected to determine if sampling conditions were within the range of parameters observed during previous sampling events, and that the prescribed capture method was suitable. If conditions were significantly different, this was recorded. To minimize the risk of scaring fish away, care was taken not to disturb the target habitat (e.g., to measure habitat variables) until after sampling was complete.
2. Backpack electrofishing involved a single pass (approximately 100 m), with the operator wading along the channel margin moving in a downstream to upstream direction. The netter was positioned nearby to capture immobilized fish and place them in a holding bucket.
    I. Settings were maintained between 300-400 V pulsed DC, at 60 Hz and a pulse width of 6 milliseconds using a Smith Root 12-B electrofishing unit.

2.2.2.3 Beach Seine

The typical beach seine sampling approach:

1. Prior to sampling, sites were inspected to ensure sampling conditions were within the range of parameters observed during previous sampling events, and that the prescribed capture method was suitable. To minimize the risk of scaring fish away, care was taken not to disturb the target habitat (e.g., to measure habitat variables) until after sampling was complete.
2. Beach seine sites involved three discrete, 25 m long hauls completed adjacent to one another. Stillwater habitat that could not be effectively sampled with a backpack electrofisher was targeted.
    I. Seine nets were 4.2 m long by 1.5 m high with 5.0 mm mesh.
    II. All three hauls were completed contiguously, but fish from each haul were held separately in buckets and measured after all hauls were completed.

2.2.2.4 Gill Net

The typical gill net sampling approach:

1. Prior to sampling, sites were inspected to determine if sampling conditions were within the range of parameters observed during previous sampling events, and that the prescribed capture method was suitable. If conditions were significantly different, this was recorded. To minimize the risk of scaring fish away, care was taken not to disturb the target habitat (e.g., to measure habitat variables) until after sampling was complete.
2. Gill nets were set in low velocity, deep water habitat (1 to 3 m deep) that could not be effectively sampled by other methods.
    I. Gill nets consisted of three 15.2 m by 2.4 m panels with 3.8, 6.4, and 8.9 cm mesh.
    II. Gill net soak times were recorded and kept to a maximum of 2 hours.

2.2.3 Fish Processing

Captured fish were processed for the following metrics:

- Species identification
- Scanning for an existing passive integrated transponder (PIT) tag and applying a new tag if no existing tag was present (if specimen was the appropriate species and size class)
- Fork length (FL; or total length for sculpin species and Burbot)
- Weight (using a digital scale or spring scales)
- External health assessment
- Genetic sampling (Table 6)
- Methylmercury and stable isotope sampling (Table 7)
- Collecting ageing structures from select fish species

2.2.3.1 Species Identification

To help validate species identifications made in the field, representative photographs were taken of every species captured. Individuals that succumbed to sampling were retained as voucher specimens, especially small, difficult to identify species. Voucher specimen collection and preservation followed the guidelines in Fish Collection Methods and Standards (BC Ministry of Environment, Lands, and Parks 1997). Fish identified to species were recorded using the species codes found in Table 5.

Table 5. Nomenclature and abbreviations used for recorded fish species in 2021 and past small fish programs

Group	*Species*	*Scientific Name*	*Species Code**
Coldwater	Arctic Grayling	*Thymallus arcticus*	GR
	Bull Trout	*Salvelinus confluentus*	BT
	Kokanee	*Oncorhynchus nerka*	KO
	Mountain Whitefish	*Prosopium williamsoni*	MW
	Rainbow Trout	*Oncorhynchus mykiss*	RT

Coolwater	Burbot	*Lota lota*	BB
	Northern Pike	*Esox lucius*	NP
	Walleye	*Sander vitreus*	WP
Suckers	Largescale Sucker	*Catostomus macrocheilus*	CSU
	Longnose Sucker	*Catostomus catostomus*	LSU
	White Sucker	*Catostomus commersoni*	WSU
Sculpins	Prickly Sculpin	*Cottus asper*	CAS
	Slimy Sculpin	*Cottus cognatus*	CCG
	Spoonhead Sculpin	*Cottus ricei*	CRI
Minnows	Flathead Chub	*Platygobio gracilis*	FHC
	Lake Chub	*Couesius plumbeus*	LKC
	Longnose Dace	*Rhinichthys cataractae*	LNC
	Northern Pikeminnow	*Ptychocheilus oregonensis*	NSC
	Redside Shiner	*Richardsonius balteatus*	RSC
	Spottail Shiner	*Notropis hudsonius*	STC
	Trout Perch	*Percopsis omiscomaycus*	TP

*Species codes from *Fish Collection Methods and Standards* (BC Ministry of Environment, Lands and Parks 1997)

2.2.3.2 PIT Tags

Larger fish in good condition with no existing tag detected were marked with a half-duplex (HDX) PIT tag (ISO 11784/11785 compliant) (Oregon RFID, OR, USA). This included all Arctic Grayling, Bull Trout, Burbot, Goldeye, Rainbow Trout, and Walleye greater than 149 mm in length and all Lake Trout, Largescale Sucker, Longnose Sucker, Mountain Whitefish, Northern Pike, and White Sucker that were greater than 199 mm in length. Tags were implanted within the left axial muscle below the dorsal fin origin, and oriented parallel with the anteroposterior axis of the fish. All tags and applicators were immersed in antiseptic and rinsed with distilled water prior to being implanted. Tags were applied based on fish length (either fork length or total length as applicable) consistent with the approach followed by other programs such as the Peace River Large Fish Indexing Survey (BC Hydro 2015a, Mon-2, Task 2a):

- Fish between 150 and 199 mm received 12.0 mm x 2.12 mm HDX+ tag.
- Fish between 200 and 299 mm received 23.0 mm x 3.65 mm HDX+ tag.
- Fish greater than 300 mm received 32.0 mm x 3.65 mm HDX+ tag.

2.2.3.3 External Health Assessment

The DELT Index (Ohio EPA 1996) was used to characterize the health of fish collected during this study, following similar methodology as Mainstream (2013). External examination to identify and count the number of deformities (D), erosions (E), lesions (L), tumours (T), cuts (C), and electrofisher injury (I) on each fish with severity was as follows:

Deformities

Defined as twisted, missing, forked, or bulging body parts including deformed fins, abdomen, or skeleton (e.g., head, vertebrae). Deformities are classified as:

- Light (DL) when they are limited to 1 deformed fin or 1 deformed barbel; or
- Heavy (DH) when there are >2 deformed fins or barbels, or any deformity of the skeleton of other body part exclusive of fins or barbels.

Erosions

Defined as loss of tissue on the fins and/or gill covers. Erosion is classified as:

- Light (EL) when 1 fin is not eroded past a ray fork, or the gill cover is eroded, but there is no exposed gill tissue; or
- Heavy (EH) when >2 eroded fins, or the gill cover is eroded with exposed gill tissue.

Lesions

Defined as open sores, exposed tissue, and/or prominent bloody areas. Lesions are classified as:

- Light (LL) when there are ≤2 lesions smaller than or equal to the size of the largest scale; or
- Heavy (LH) when there are >2 small lesions, when there is a lesion larger than the size of the largest scales, or when there is raw tissue.

Tumours

Defined as tumour-like masses that cannot be easily broken when squeezed. Tumours are defined as:

- Light (TL) when there are ≤3 tumours larger than the diameter of the eye. Lymphocystis patches are counted as one tumour; or
- Heavy (TH) when there are >3 tumours or there is 1 tumour larger than the diameter of the eye.

Cuts

Defined as distinct open wounds on the body caused by predation. Cuts are classified as:

- Light (CL) when there are ≤2 cuts; or
- Heavy (CH) when there are >2 cuts.

Electrofisher Injury (I)

Defined as misalignment of vertebrae (not a deformity). Electrofisher injury was classified as:

- Medium (IM) when there is evidence of vertebrae misalignment from an electrofisher injury.

Multiple DELTS (M)

Occur when fish have two or more DELT anomalies. Recorded as the DELT types followed by the letter M.

2.2.3.4 Genetic Samples

Genetic samples from a subset of fish (Table 6) were clipped from a 5 x 5 mm portion of the upper caudal fin lobe. Redside Shiner and Longnose Dace caught in Section 7 were the only species with a high enough number of individuals caught to collect the target samples. Samples were preserved in 2 mL microcentrifuge vials containing 95% non-denatured ethanol and provided to BC Hydro for analysis.

Table 6. Targeted and actual number of genetic samples

Genetic Samples				
Species	**Section 5***		**Section 7***	
	Targeted	**Actual**	**Target**	**Actual**
Redside Shiner*	≥60	36 (12)	≥60	68 (12)
Longnose Dace*	≥60	26 (5)	≥60	72 (9)
Prickly Sculpin*	≥60	2 (1)	≥60	0
Slimy Sculpin*	≥60	6 (3)	≥60	10 (4)
Bull Trout	Collect opportunistically	2	Collect opportunistically	2
Arctic Grayling		5		2
Rainbow Trout		0		1

*Sampling plan prescribed targeting at least 30 samples from each of two sites in Section 5, and two sites in Section 7, but capture numbers were insufficient for most species to achieve that ideal. Numbers in parentheses denote the number of sites that contributed to the actual number of samples collected.

2.2.3.5 Methylmercury and Stable Isotope Samples

Methylmercury and stable isotope samples were collected from a subset of Redside Shiners to support the Site C Methylmercury Monitoring Plan (Table 7). The target number was not reached as only 10 samples were taken for this species. Two fillets were taken from each individual fish (i.e., terminal sampling), including one for methylmercury, and one for stable isotope analysis. Fillets were retained individually in whirl-pacs on ice in the field, and then stored in a freezer at the end of each field day. Care was taken during sample collection and shipment to prevent desiccation and freeze-thaw cycles to ensure sample integrity.

Methylmercury samples were express shipped on ice to ALS Laboratories in Burnaby, BC at the end of the field program, and analyzed for:

- Mercury (HG-WET-CVAFS-N-VA + prep PREP-TISS-DIGEST-VA) and moisture (MOISTURE-TISS-VA) applied to all samples; and
- Methylmercury (MEHG-WET-MIC-GCAF-VA) for 20% of samples.

Stable isotope samples were express shipped on ice to the University of New Brunswick's SINLAB at the end of the field program and analyzed for ^{13}C and ^{15}N.

Table 7. Targeted and actual number of methylmercury and stable isotope samples

Methylmercury and Stable Isotope Samples				
Species	**Section 5**		**Section 7**	
	Targeted	**Actual**	**Target**	**Actual**
Redside Shiner	≥35	4	≥35	6

2.2.3.6 Ageing Structures

Ageing structures were collected from all indicator species, consistent with the protocol described in Golder and Gazey (2018), including:

- Scale samples: Arctic Grayling, Kokanee, Mountain Whitefish, and Rainbow Trout;
- Fin ray samples (first two rays of right pectoral): Bull Trout, Northern Pike, and Walleye; and
- Otoliths: Mountain Whitefish that succumbed to sampling.

It was assumed that ageing structures have previously been collected from captured fish where an existing PIT tag were identified. No structures were collected from fish with an existing PIT tag. Prior to collecting fin ray or scale samples from fish smaller than 150 mm (i.e., too small for PIT tags), the right pectorals were closely inspected to determine if structures were removed, suggesting they were collected during another sampling event earlier in the year under another component of the FAHMFP (especially within the 108R Offset Channel). Ageing structures were placed in an envelope and air-dried prior to storage. Ageing structures were shipped to North/South Consultants Inc. for age analysis.

2.2.4 Field Data

Field data were recorded using tablet computers on customized forms. Hard copy paper forms that approximate the digital forms were available in the event of a tablet malfunction or if software issues were encountered. Site and sampling parameters collected at each site, by both crews, included the following:

- Crew identification
- Site identification
- General weather observations (e.g., temperature, precipitation, cloud cover)
- Date and time each sampling event commenced and ended
- Gear specifications (e.g., electrofisher settings, gill net panel configuration)
- Sample site description (i.e., site length, mean and maximum water depth, flow stage, instream cover)
- Water physiochemistry (i.e., temperature, pH, conductivity, Secchi depth)
- Sampling effort (e.g., electrofishing seconds and time duration, area)
- Any substantial deviations from previous habitat conditions were also noted (e.g., bank erosion, channel bed aggradation or degradation, new or missing LWD complexes)
- Any other relevant comments

2.3 Data Analyses

2.3.1 Quality Assurance and Quality Control

The day prior to going into the field, the entire crew, led by Triton's Project Manager, participated in an internal orientation session that included a comprehensive review of the Work Plan to ensure everyone was aware of the goals, objectives, and expectations for the program. The crew also reviewed in-house fish identification resources and training, including synoptic keys for difficult species groups, tailored to the species that may be encountered on the Project.

In the field, data were entered directly into a custom-built FileMaker Pro database using iPad tablets. Quality Assurance/Quality Control (QA/QC) features were incorporated into the database design to standardize data entry and minimize the risk for transcription errors. Some of the QAQC features included:

- Use of pick lists wherever possible (e.g., fish species, weather conditions, DELT codes);
- Fields that auto-populate with the push of a button, such as sampling dates, times and UTM coordinates; and
- Built-in restrictions on numerical data fields such as establishing range limits for acceptable values, standardizing decimal place settings, and precluding negative numbers.

At the conclusion of the field program, data were transferred into a Microsoft Access database for further QA/QC routines. Some of the validation steps included:

- Ensuring PIT tag numbers were accurate by comparing the tag readers and database;
- Ensuring the number of biological samples that were collected for genetics, methylmercury, stable isotopes, and ageing were identical to what was entered in the database and that identification codes were consistent; and
- Removing age, weight, or length outliers identified by graphical examination.

Data presented in graphs and tables were reviewed by a Registered Professional Biologist, to the extent practical, to confirm that correct calculation approaches were applied, and to generally reality-check the results.

2.3.2 Mapping

Site location information (UTM coordinates) were tabulated and plotted on geo-referenced base maps using ESRI World Topographic Map, ArcMap® 10.8. Base map data for areas within British Columbia were sourced from DataBC Data Catalogue, while data for base maps within Alberta came from Government of Alberta Open Data. Scales for the three base maps generated ranged from 1:35,000 to 1:50,000 NTS.

2.3.3 Water Quality

Analysis of field water quality included calculating the mean for each parameter across all sites for each day as well as for each river section. Water quality parameters were graphed using Microsoft Excel and compared to historical data (Mainstream 2010, 2011, 2013; Triton 2021) where possible.

2.3.4 Discharge

Historic daily discharge data were obtained from several Water Survey of Canada (Government of Canada 2022) gauging stations. Discharge data from station 07FA004 (Peace River Above Pine River) were used to represent Section 5. Data from station 07FD010 (Peace River Above Alces River) were used to represent discharge in Section 7, with flows from station 07FD001 (Kiskatinaw River Near Farmington) subtracted because the sample sites in that section were located at or upstream of the confluence with the Kiskatinaw River. Maximum, minimum, and mean discharge were derived for each day and section and presented in graphical form. Five-minute interval discharge data for the dates of the study period (September 25 to October 1, 2021) were also obtained from the same gauging stations. From these data, daily mean discharge was calculated and graphed for each river section. Accurate historic discharge data for Section 9 were not available because the nearest downstream station 07FD003 (Peace River at Dunvegan Bridge) is approximately 66 km downstream from the sample sites.

2.3.5 Catch Rate (Relative Abundance)

Catch rates were presented as catch-per-unit-effort (CPUE) for each site and expressed as the number of fish captured divided by the sampling effort. For boat and backpack electrofishers, CPUE was expressed as the number of fish caught per kilometre of river sampled per hour fished (#fish/km/hr). Beach seine CPUE was expressed as the number of fish caught per area sampled (#fish/m^2), while gill net CPUE was expressed as the number of fish caught per area sampled per length of time the gill net was set (#fish/m^2/hr). Area sampled for beach seine was calculated using the length of the beach seine site (i.e., 75 m) times the length of the net, while gill net area was calculated using the length and height of the net.

CPUE was graphed for each species of fish, sampling method, river section, and year. The average CPUE for each river section and year was calculated by averaging the CPUE across all sample sites for each sample method. Individual species' CPUEs were also calculated by averaging the CPUE across all sample sites for each sample method. The standard deviation of the CPUE was calculated as the square root of the variance from each species for all sampling sites divided by the number of sampling events and across all sites.

2.3.6 Community Composition

Parameters used to describe fish community structure included species composition, species assemblage, species diversity, and species occurrence. These parameters were calculated and presented throughout the report as follows:

- **Species Composition** – Calculated as the percentage of the total fish caught for each fish species, fish group (coldwater, coolwater, minnows, suckers, and sculpins) and sample year (2009, 2010, 2011, 2020, 2021).
- **Fish Assemblage** – Relative species abundance of each species group by river section and sample year.
- **Species Diversity** – Diversity profiles (see equation 1 below) were calculated for each river section and sample year.
- **Species Occurrence** – Percentage occurrence of each fish species by river section and percentage occurrence of each fish species by habitat type sampled.

Diversity profiles were calculated to replicate the methodology applied by Golder and Gazey (2020) using the following equation developed by Leinster and Cobbold (2012):

1. $$ {}^{\mathbf{q}}\mathbf{D}^{\mathbf{Z}}(\mathbf{p}) = \left(\sum \boldsymbol{pi}\,(\mathbf{Zp})_{\mathbf{i}}^{\mathbf{q-1}}\right)^{\mathbf{1/(1-q)}} $$

Where *D* is the effective number of species, *p* is the relative abundance of species present, *q* is the parameter representing the relative contribution of relative abundance data, *Z* is the similarity matrix among species (Leinster and Cobbold 2012). The shape of

diversity profiles can be used to interpret the community composition and compare between datasets. A flat profile indicates near equal abundance of species, while an increasingly steeper profile indicates more unequal species abundances. A *q* value of 0 places equal emphasis on all species present, and as such is sensitive to rare species (e.g., a single capture occurrence is weighted the same as a species dominating the catch). A *q* value of 1 is less sensitive to rare species, and further increasing values of *q* results in decreasing significance of rare species (Leinster and Cobbold 2012).

Similarity values were assigned based on the criteria in Golder and Gazey (2020) where *Z* values were set to 1 for all "small fish" and for all sucker species, which treated each of these groups as one species. Similarity matrix values were set to 0 for all pairs of species with the interpretation that all these pairs of species were equally and completely different.

2.3.7 Biological Characteristics

Analysis of fish biological characteristics included examining fish length distribution, length-weight relationships, fish growth rate, age-length relationships, and body condition. All analyses were graphed using Microsoft Excel.

Length-weight relationships were examined using the power function:

2. $$\boldsymbol{W = aL^b}$$

Where *W* = weight (g), *a* = constant, *b* = exponent, and *L* = fork length (mm). The cubic relationship between a fish's length and its weight has been widely used to characterize the growth of fish (Neuman et al. 2012). Exponent values where *b* equals 3 indicate isometric growth where a fish's weight increases proportional to an increase in length (Neuman et al. 2012). Positive allometric growth occurs when a fish's weight increases faster than an increase in length ($b > 3$), and negative allometric growth when a fish's length increases faster than an increase in weight ($b < 3$) (Neuman et al. 2012). Negative allometry generally occurs in species with thin elongated bodies such as Burbot or Northern Pike.

The von Bertalanffy growth function (Equation 3) was used to describe the growth rate of Mountain Whitefish, which was the only species for which enough data were present and convergence was possible.

3. $$\boldsymbol{Lt = L_\infty\left[1 - e^{\{-k(t-t0)\}}\right]}$$

Where *t* = the age of fish in years from the starting time t_0, L_∞ = maximum asymptotic length, *k* = growth coefficient, and *e* = the base of the natural logarithm.

A simple linear best fit regression was applied when convergence was not possible to describe the age-length relationship. The linear regression used was:

4. $$\boldsymbol{Y = a + bX}$$

Where *Y* = fork length (mm), *a* = fork length intercept, *b* = slope, and *X* = age (in years).

Fish body condition was characterized by Fulton's Condition Index (*K*), and was calculated using equation 5:

5. $$\boldsymbol{K = \left(\frac{W}{L^3}\right) \times 100,000}$$

Where *W* = weight (g), and *L* = length (mm). Fulton's Condition Index is a measure of a fish's relative condition, robustness, or well-being at the time of capture. The larger the value of *K,* the better the condition or health of the individual fish. Mainstream (2013) has historically used a body condition value of K > 1.0 to indicate good condition. However, the condition can be influenced by age, sex, season, maturity, fullness of gut, food consumed, fat reserves, and the degree of muscle development (Barnham and Baxter 1998). Because K increases with length for fish with positive allometric growth and decreases for fish with negative allometric growth, comparisons are limited to fish with similar lengths (Neuman et al. 2012). Therefore, species like Northern Pike with an elongated body type, and a negative allometric growth, would be expected to have a lower body condition value. Comparisons between species is also problematic because different species have different shapes (Neuman et al. 2012). We have also excluded fish less than 100 mm from body condition calculations due to the inaccuracy of the scale when weighing small fish. Excess water on the fish/scale, a gust of wind, and/or waves under the boat have a proportionally large affect on the accuracy of weight measurements of small fish (<100 mm).

3.0 Results

3.1 Environmental Conditions

3.1.1 Discharge

Flows in the Peace River are regulated by the WAC Bennett Dam and Peace Canyon Dam. Mean daily discharges were found to follow different trends in Section 5 and Section 7 (Figure 2). Historical maximum and minimum flows for the Peace River tend to gradually decrease from January until May, increase during spring freshet from June until August, before gradually increasing until December. However, the historic mean daily discharge does not show a distinct freshet that would normally be seen on an undammed river. Historic mean daily discharge in Section 5 was found to vary from a low of 969 m^3/s in June to a high of 1,585 m^3/s in December (Figure 2, Appendix 3). In Section 7 mean daily discharge varied from 1,175 m^3/s in August to a high of 1,790 m^3/s in June.

During the 2021 field sampling period between September 25 and October 1, 2021, the flows were similar to the historic mean (Figure 3). Mean daily discharge in Section 5 over a seven-day period fluctuated from a low of 924 m^3/s on September 27 to a high of 1,092 m^3/s on September 30 with an average of 1,007 m^3/s. Mean daily discharge in Section 7 over a seven-day period fluctuated from a low of 1,140 m^3/s on September 27 to a high of 1,377 m^3/s on September 25 with an average of 1,254 m^3/s. Peace River discharge during previous fall fish sampling has varied from 600 to 1,381 m^3/s, while lows in 2020 varied from a low of 392 m^3/s in Section 5 to a high of 940 m^3/s in Section 7 (Mainstream 2010, 2011, 2013; Triton 2021).

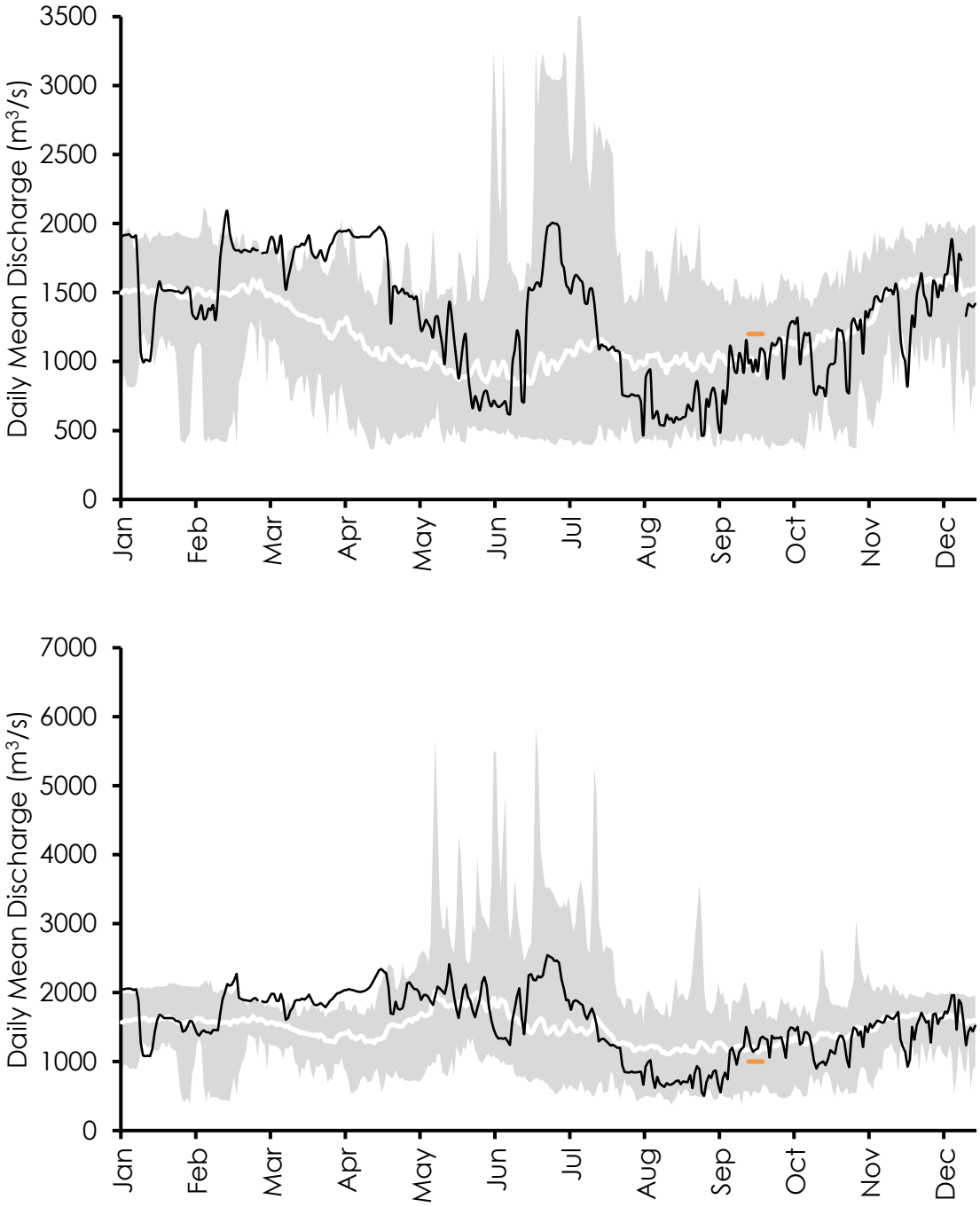


Figure 2. Mean daily discharge (black line) for Section 5 (top) and Section 7 (bottom) in 2021. The shaded area represents historical minimum and maximum mean daily discharge. The white line represents the historical mean discharge. The orange bar indicates the sampling period in 2021. Historical data range from 2000 to 2019 (Gov. of Canada 2022). Section 5 data derived from WSC 07FA004 and Section 7 data derived from WSC 07FD010 minus WSC 07FD001.

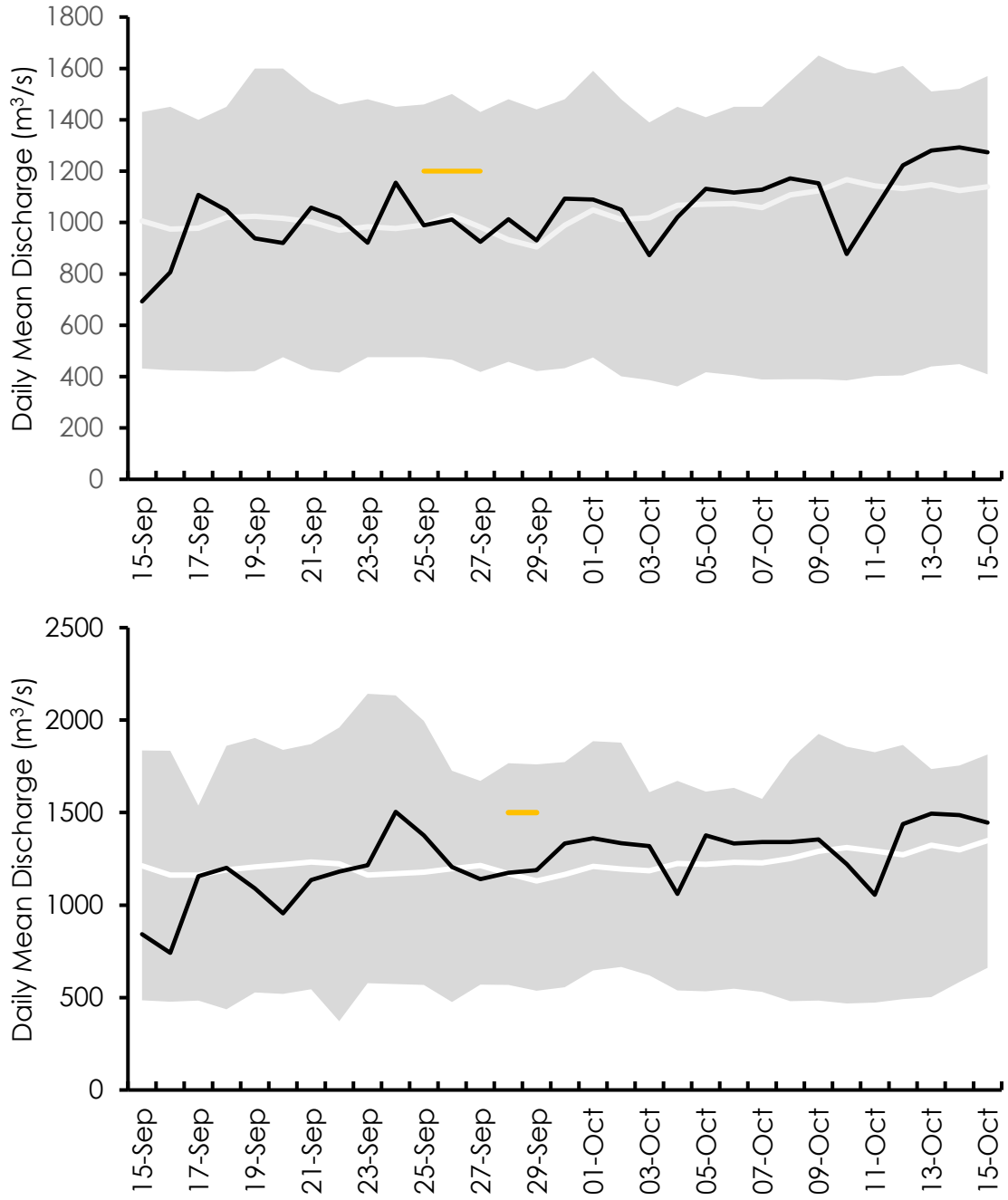


Figure 3. Mean daily discharge (black line) for Section 5 (top) and Section 7 (bottom) in 2021. The shaded area represents historical minimum and maximum mean daily discharge. The white line represents the historical mean discharge. The orange bar indicates the sampling period in 2021 within the respective river sections. Historical data range from 2000 to 2019 (Gov. of Canada 2022).

3.1.2 Water Temperature

Surface water temperatures in the Peace River measured at sampled sites varied by date, river section, and habitat type (Figure 4). Mean water temperatures across all habitats in 2021 were highest in Section 5 (11.9°C), followed by Section 7 (10.7°C), and lowest in Section 9 (10.5°C). Mean water temperatures in 2021 were found to be slightly higher than historic water temperatures recorded by Mainstream in 2009, 2010, and 2011, and Triton in 2020, with the exception of Section 9 where temperatures were slightly lower than in 2011 but higher than those recorded in 2020. No data were available for Section 9 in 2009 and 2010.

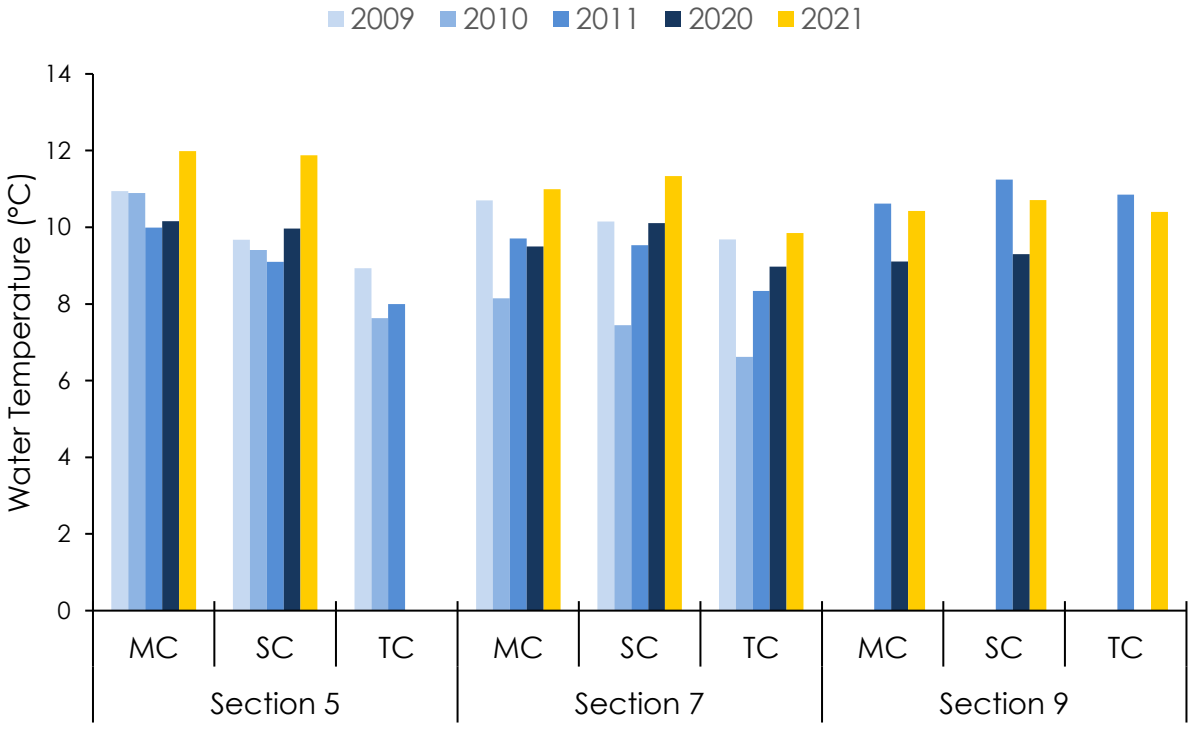


Figure 4. Mean daily water temperatures for the Peace River in Sections 5, 7, and 9 in 2009, 2010, 2011, 2020, and 2021 by habitat type. MC = Main Channel, SC = Side Channel and TC = Tributary Confluence. No data were available for Section 9 in 2009 and 2010. Historic data provided by Mainstream.

3.1.3 Water Clarity

Water clarity of the Peace River measured at sample sites varied by date, river section, and habitat type (Figure 5). Mean water clarity across all habitats in 2021 was highest in Section 5 at 1.36 m, followed by Section 7 at 0.77 m, and was lowest in Section 9 at 0.74 m. Water clarity was higher in 2021 than the mean historic water clarity recorded in 2020, but remained slightly lower or comparable to values recorded in 2009, 2010, and 2011 in Section 5. Water quality in 2021 was comparable to mean historic water clarity values in Sections 7 and 9. By habitat, water clarity in 2021 was higher in main channel habitats compared to side channel in Section 5. Water clarity was comparable across all habitats in Section 7 and 9, with the exception of the tributary confluence habitat in Section 7 where the 2021 water clarity was slightly lower than historic values. No historic water clarity data were available in 2009 and 2010 in Section 9 as no sampling was conducted.

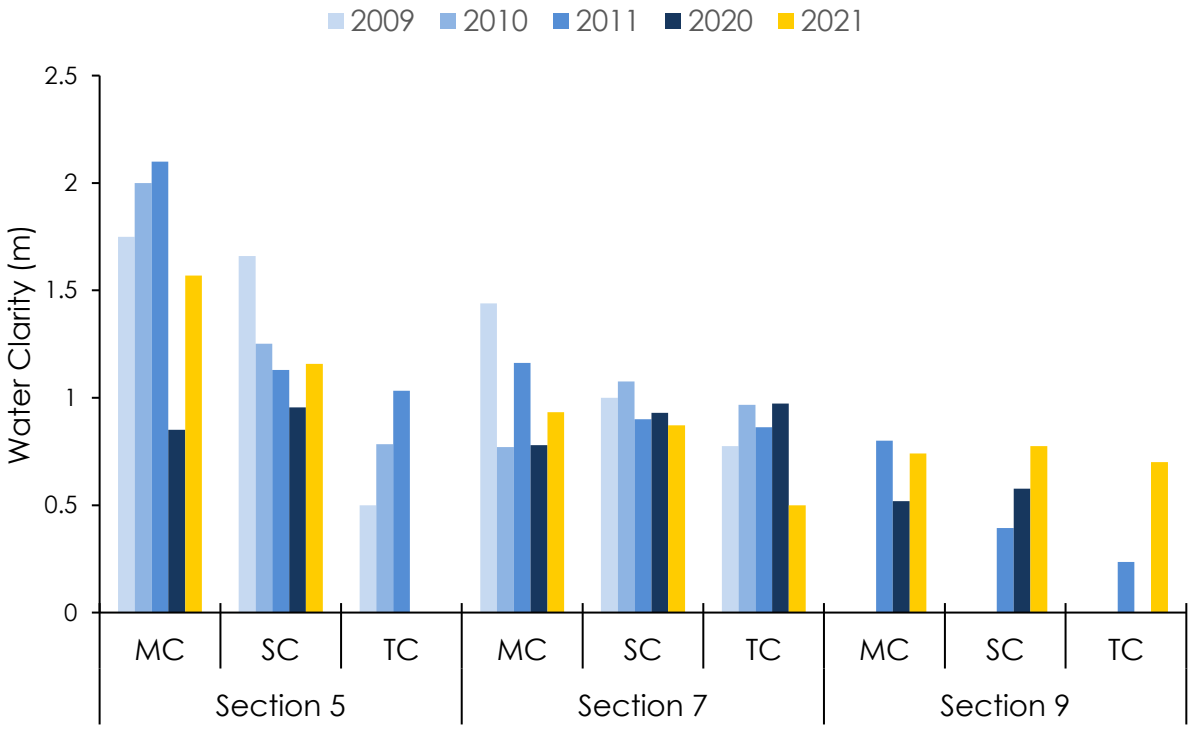


Figure 5. Mean water clarity on the Peace River for Sections 5, 7, and 9 in 2009, 2010, 2011, 2020, and 2021 by habitat type. MC = Main Channel, SC = Side Channel and TC = Tributary Confluence. No data available for Section 9 in 2009 and 2010. Historic data provided by Mainstream.

3.1.4 Water Conductivity

Water conductivity on the Peace River measured at sample sites varied little by date, river section, and habitat type (Figure 6). Mean conductivity across all habitats in 2021 was lowest in Section 5 at 190 µS/cm, followed by Section 9 at 202 µS/cm, and was highest in Section 7 at 207 µS/cm. Historically, mean conductivity has varied from 194 to 243 µS/cm in Section 5, from 185 to 268 µS/cm in Section 7 in 2009, 2010, 2011, and 2020, and from 188 to 245 µS/cm in 2011 and 2020 for Section 9. In 2021, conductivity was comparable across all habitat types.

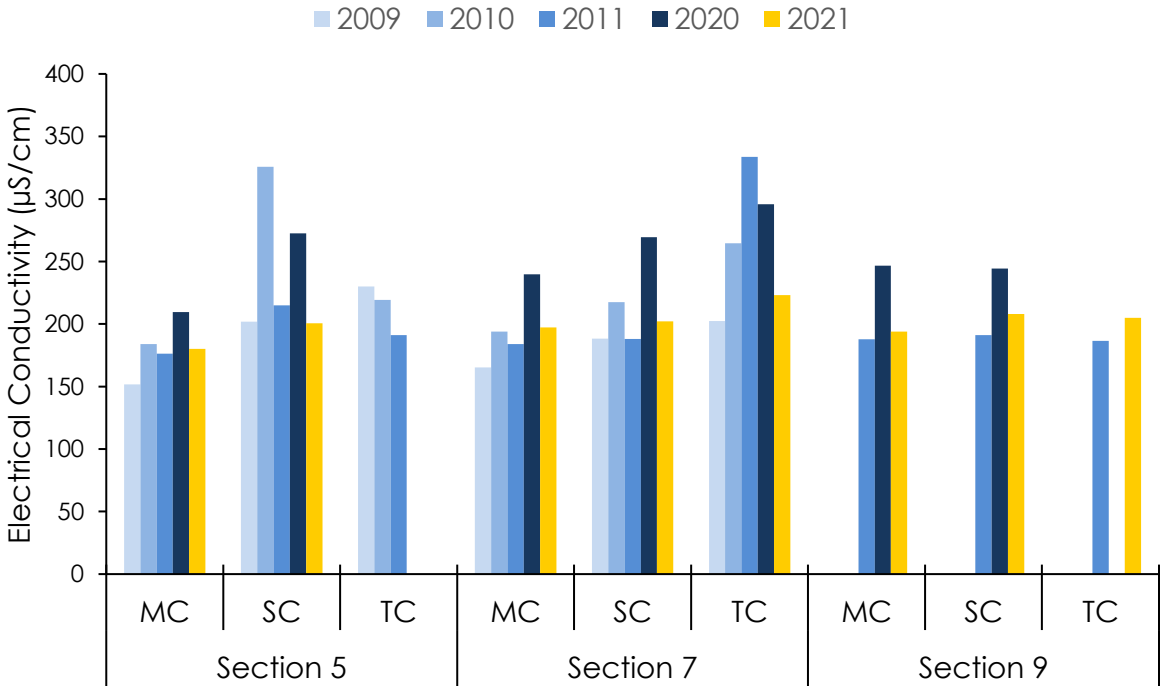


Figure 6. Mean conductivity for the Peace River for Sections 5, 7, and 9 during sample years 2009, 2010, 2011, 2020, and 2021 by habitat type. MC = Main Channel, SC = Side Channel and TC = Tributary Confluence. No data available for Section 9 in 2009 or 2010. Historic data provided by Mainstream.

3.2 Fish Community Structure

3.2.1 Species Composition

A total of 2,038 fish were captured during sampling in 2021, comprising 21 species of fishes (Table 8). Five of these species were coldwater species, 3 were coolwater species, 3 were suckers, 3 were sculpins, and 7 were minnows. Minnows accounted for the greatest proportion of the species captured at 53.5%, followed next by the sucker group at 22.4%, coldwater fish at 22.2%, coolwater at 1.1%, and the sculpin group at 1%. The three most numerically abundant fish caught were Mountain Whitefish (n = 429) followed by Longnose Sucker (n = 411) and Longnose Dace (n = 369). Kokanee (n = 1), Rainbow Trout (n = 4), Walleye (n = 2), and Spoonhead Sculpin (n = 1) were least

abundant and considered scarce throughout. No Lake Whitefish, Yellow Perch, Finescale Dace, or Northern Redbelly Dace (which were present sporadically during previous sampling) were caught in 2021.

Table 8. Composition of captured fish by fish group and fish species along with percentage of total catch for 2021

Group	*Species*	*Total*	*% of Total Catch*
Coldwater	Arctic Grayling	10	0.5
	Bull Trout	8	0.4
	Kokanee	1	0.1
	Mountain Whitefish	429	21.1
	Rainbow Trout	4	0.2
	Sub Total	452	22.2
Coolwater	Burbot	4	0.2
	Northern Pike	16	0.8
	Walleye	2	0.1
	Sub Total	22	1.1
Suckers	Largescale Sucker	21	1.1
	Longnose Sucker	411	20.2
	White Sucker	23	1.2
	Sub Total	455	22.4
Sculpins	Prickly Sculpin	2	0.1
	Slimy Sculpin	17	0.9
	Spoonhead Sculpin	1	0.1
	Sub Total	20	1
Minnows*	Flathead Chub	47	2.4
	Lake Chub	287	14.1
	Longnose Dace	369	18.2
	Northern Pikeminnow	87	4.3
	Redside Shiner	257	12.7
	Spottail Shiner	27	1.4
	Trout-perch	15	0.8
	Sub Total	1,089	53.5
	Grand Total	2,038	100

* Note that the Minnow group includes true minnows of the family Cyprinidae and Trout-perch of the family Percopsidae.

Coldwater species made up a similar percentage of the total catch in 2021 when compared to 2020, however more coldwater species were caught in 2009 and 2010 (Figure 7). Coolwater species accounted for approximately the same percentage of the total catch as previous sampling years. The sucker species percentage was

comparable to that in 2011, and slightly higher than the total catch percentage in 2009, 2010, and 2020. The sculpin percentage was considerably lower compared to all previous sample years. The total catch percentage for minnow species in 2021 was higher than all previous sample years. Fewer fish were captured during previous small fish programs in the fall, with a total of 1,248 fish captured in 2009, 864 fish captured in 2010, 982 captured in 2011, and 1,505 captured on 2020; however the number of sites sampled each year (2009: n = 50, 2010: n = 51, 2011: n = 72, 2020: n = 76, 2021: n = 76) and the location of sampling (no sampling in Section 9 in 2009 or 2010) has not been consistent from year to year (Mainstream 2010, 2011, 2013; Triton 2021).

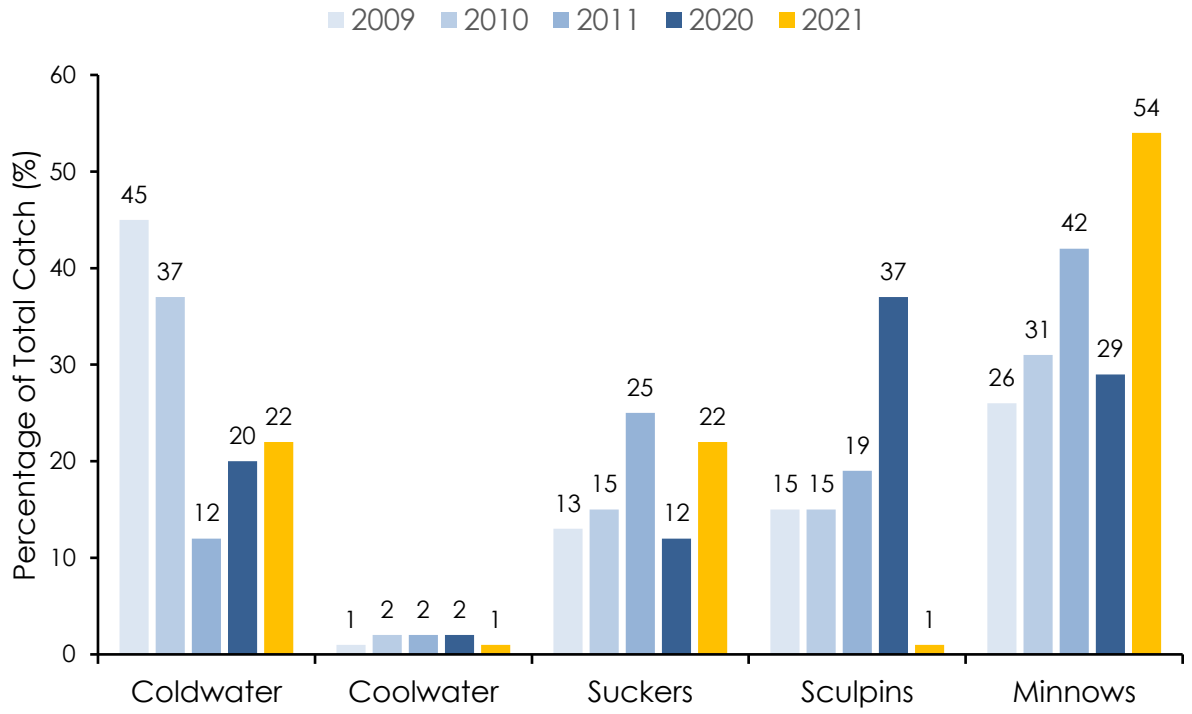


Figure 7. Percent of total catch by fish group and sample year. Historic data provided by Mainstream (2010, 2011, 2013; Triton 2021).

3.2.2 Fish Assemblage

Fish assemblage varied across sampled sections and habitats (Figure 8, Figure 9). Mountain Whitefish were the numerically dominant fish group captured in Section 5, while minnows accounted for the majority of the fish in Sections 7 and 9. The assemblage of coldwater species decreased from upstream to downstream, while minnows displayed the opposite trend. Suckers remained relatively constant throughout all sections. Historically, fish assemblages by river section were similar to 2021 with the exception of sculpin assemblage in all river sections which dropped dramatically compared to historic values (Mainstream 2010, 2011, 2013; Triton 2021). Minnow assemblage in 2021 was comparable across all sections to historic data from 2009 and 2011, while there was an increase in all sections compared to the 2010 and 2020 assemblage (Mainstream 2010, 2011, 2013; Triton 2021).

When comparing across the three habitat types sampled in 2021, minnows were the dominant fish group in side channels and tributary confluences, and coldwater fish were the dominant group in main channels.

Fish assemblage by habitat has historically fluctuated from year to year based on the relative abundances of each species group. In 2021, and historically, coldwater fish were primarily found in main channels, minnows in side channels and tributaries, suckers throughout all habitats, and no trend in assemblage by habitat type is apparent for coolwater fish and sculpins (Mainstream 2010, 2011, 2013; Triton 2021).

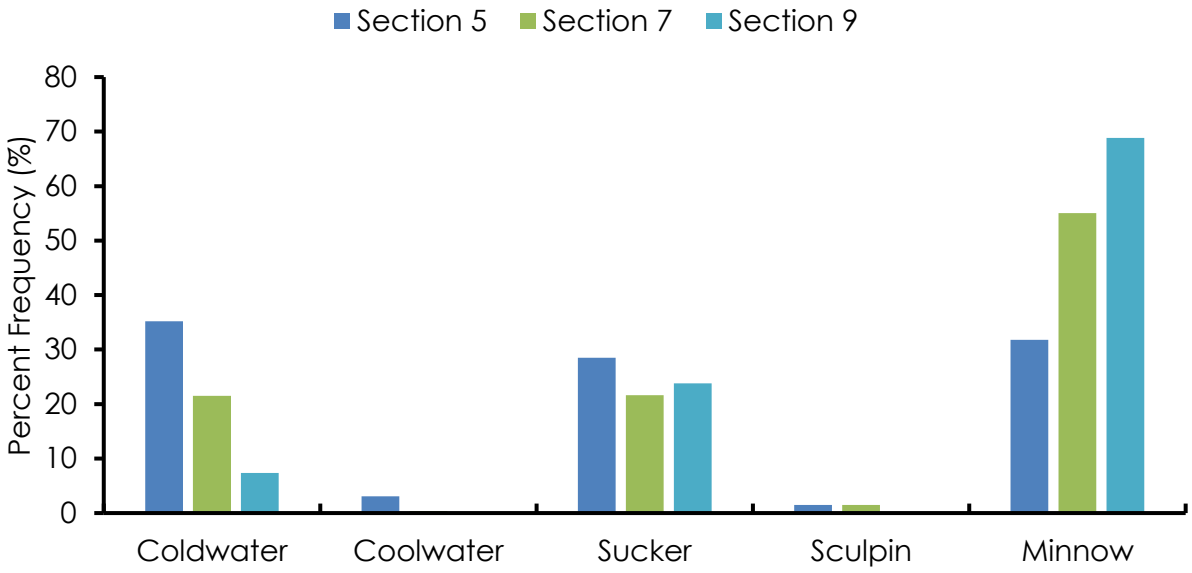


Figure 8. Fish assemblage in 2021 by fish group and river section

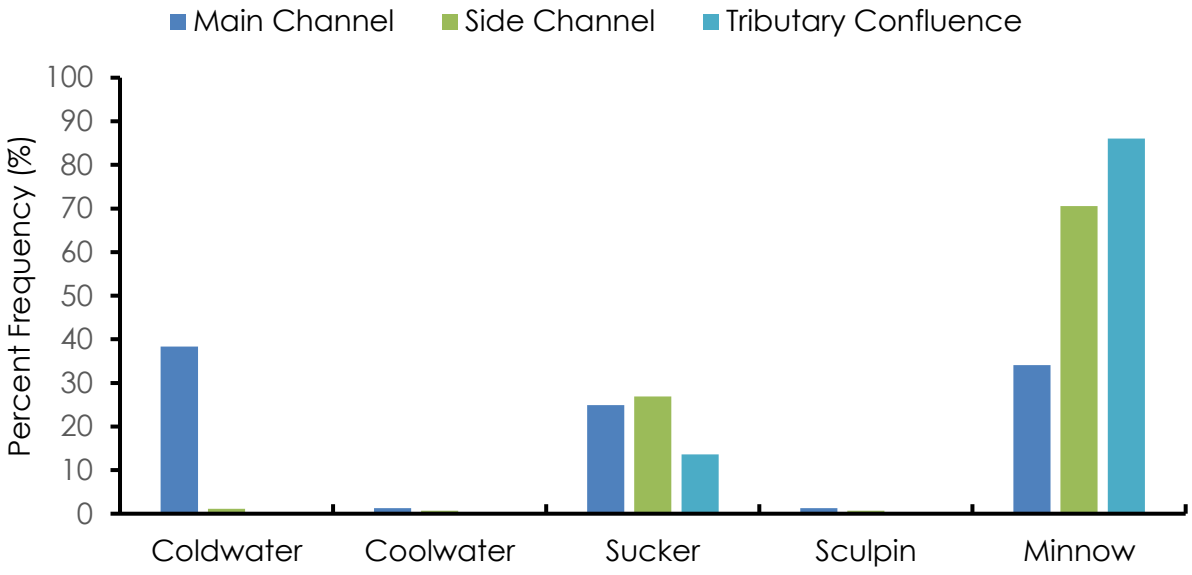


Figure 9. Fish assemblage in 2021 by fish group and habitat

3.2.3 Species Diversity Index

Data from the 2021 program showed a decrease in species diversity from the 2020 program. However, species diversity in 2021 was comparable or slightly higher than the 2009, 2010, and 2011 sample years, which resulted in steeper curves than historically observed.

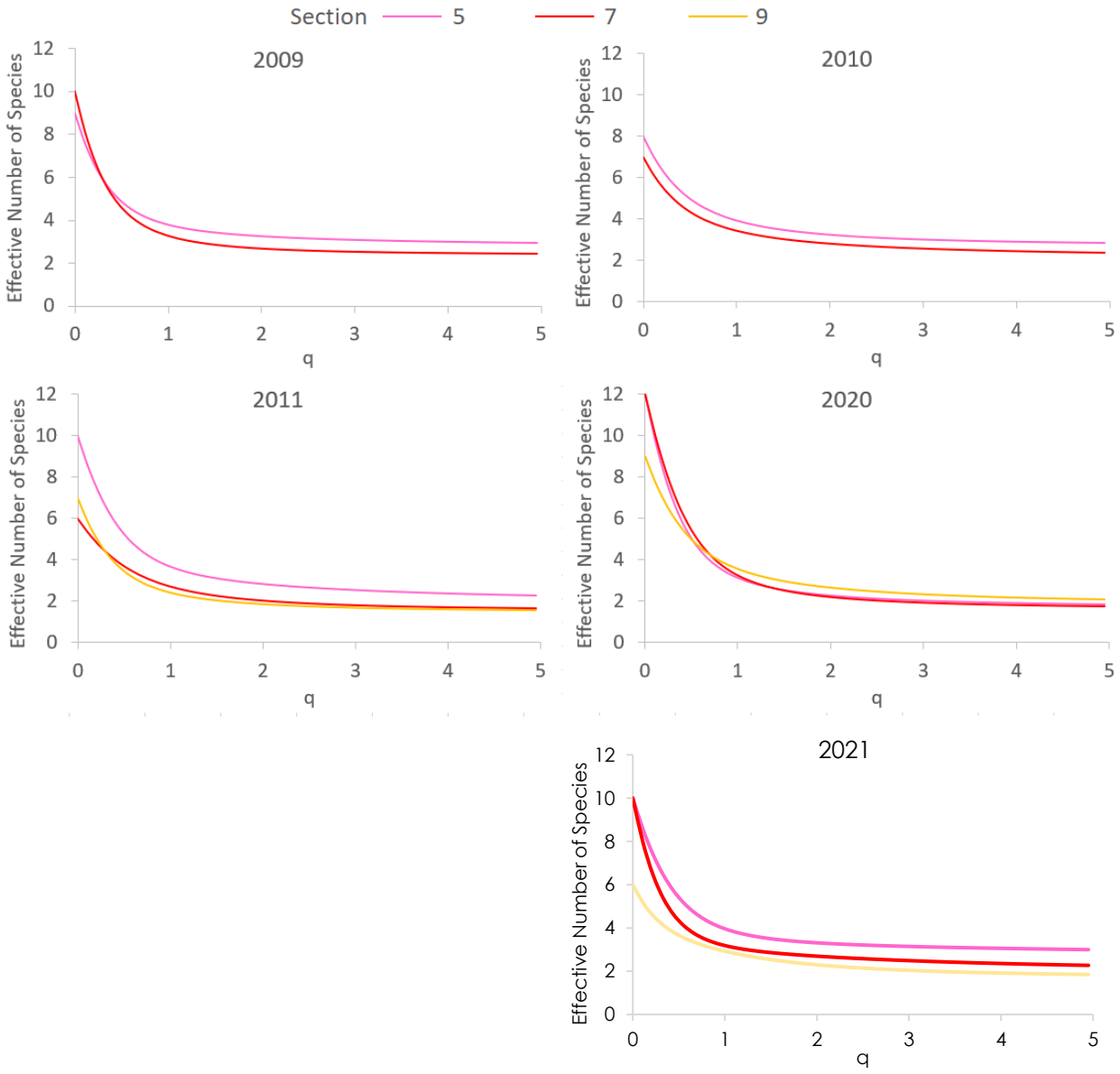


Figure 10. Diversity profiles showing the effective number of species versus the parameter (*q*) representing the importance of less common to common species in the calculation.

3.2.4 Species Occurrence

Fish species occurrence was compared between species and river section. For Section 5, Mountain Whitefish was encountered the most often (39% of sites), followed by Longnose Sucker (19%), and Redside Shiner (16%). For Section 7, Mountain Whitefish (23%) was encountered the most often, followed by Longnose Sucker (21%), and Longnose Dace (21%). For Section 9, Lake Chub (25%) was encountered the most often, followed by Longnose Sucker (21%), and Longnose Dace (21%). Across all sections, Mountain Whitefish (21%), Longnose Sucker (20%), Longnose Dace (18%), Lake Chub (14%), and Redside Shiner (13%) made up 86% of the species encountered (**Figure 11**).

By habitat, Mountain Whitefish (38%) followed by Longnose Sucker (23%) and Lake Chub (14%) were the most frequent fish species encountered in main channel habitat. Longnose Dace (26%) followed by Redside Shiner (25%) and Longnose Sucker (19%) were the most frequent fish species encountered in side channel habitat. Redside Shiner (27%) followed by Longnose Dace (25%) and Lake Chub (21%) were the most frequent fish species encountered in tributary confluence habitat (Figure 12).

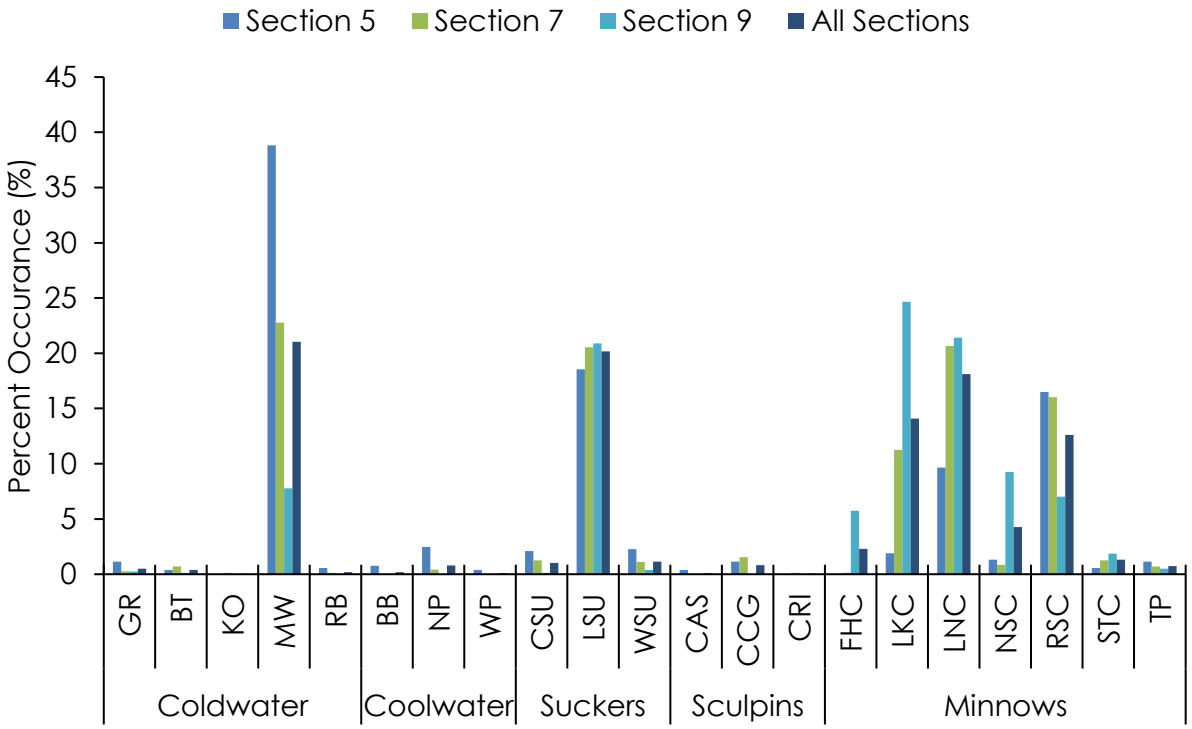


Figure 11. Percent occurrence of fish species at sampled sites by river section in 2021

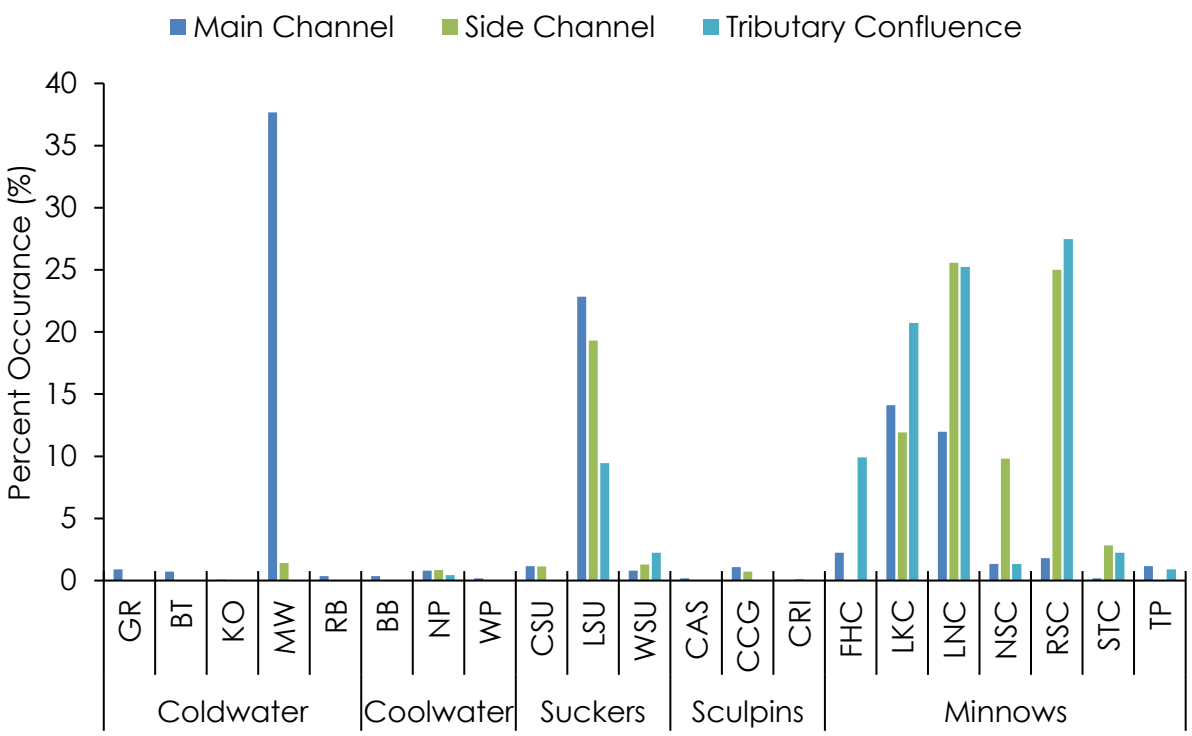


Figure 12. Percent occurrence of fish species at sampled sites by habitat type in 2021

3.3 Catch Rates

Of the total 2,038 fish captured in 2021, 47% were caught by boat electrofisher, 29% were caught by beach seine, 23% were caught by backpack electrofisher, and 24 fish or 1% were caught by gill net. CPUE calculations fluctuated from year to year, however, they were similar in 2021 to previous years for all methods, except beach seining which was more than double all previous years (Figure 13, Figure 14). The number of sites has varied among sampling years, with no sampling of Section 9 in 2009 and 2010, and some sites in 2020 were changed due to low water levels.

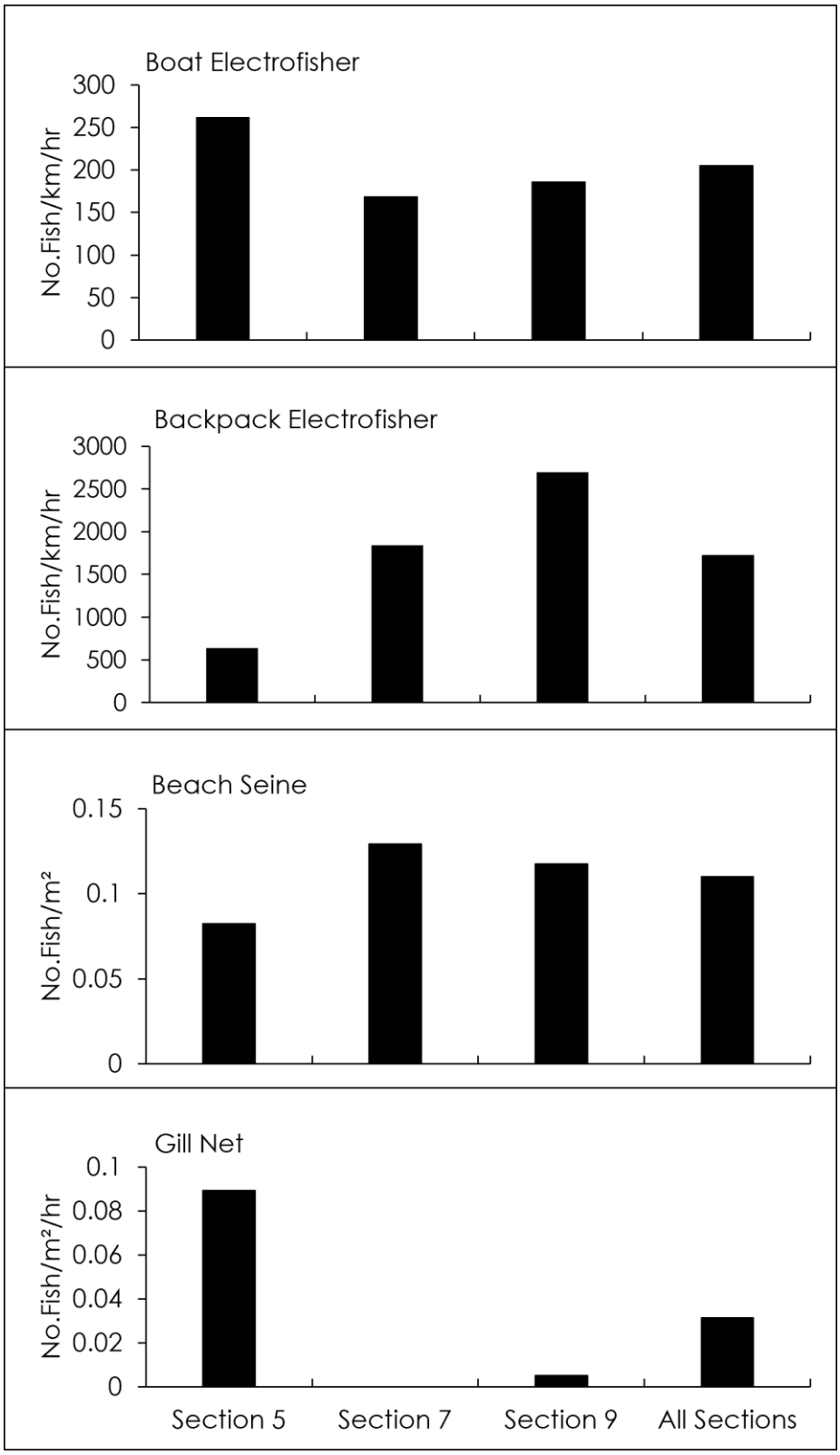


Figure 13. Average CPUE for each sample method and river section in 2021. No fish were caught by gill net in Section 7.

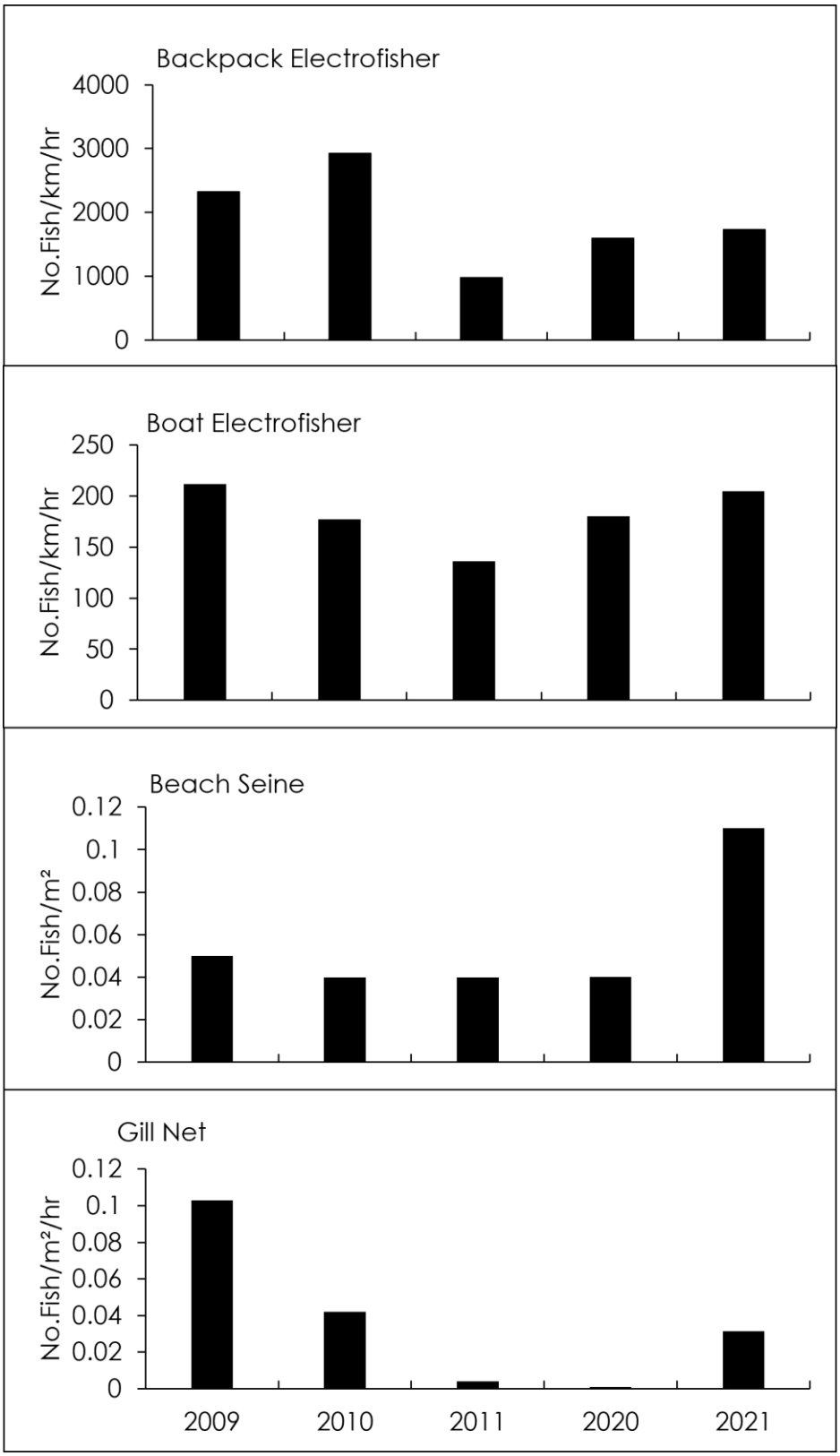


Figure 14. Average CPUE for each sample method and sample year

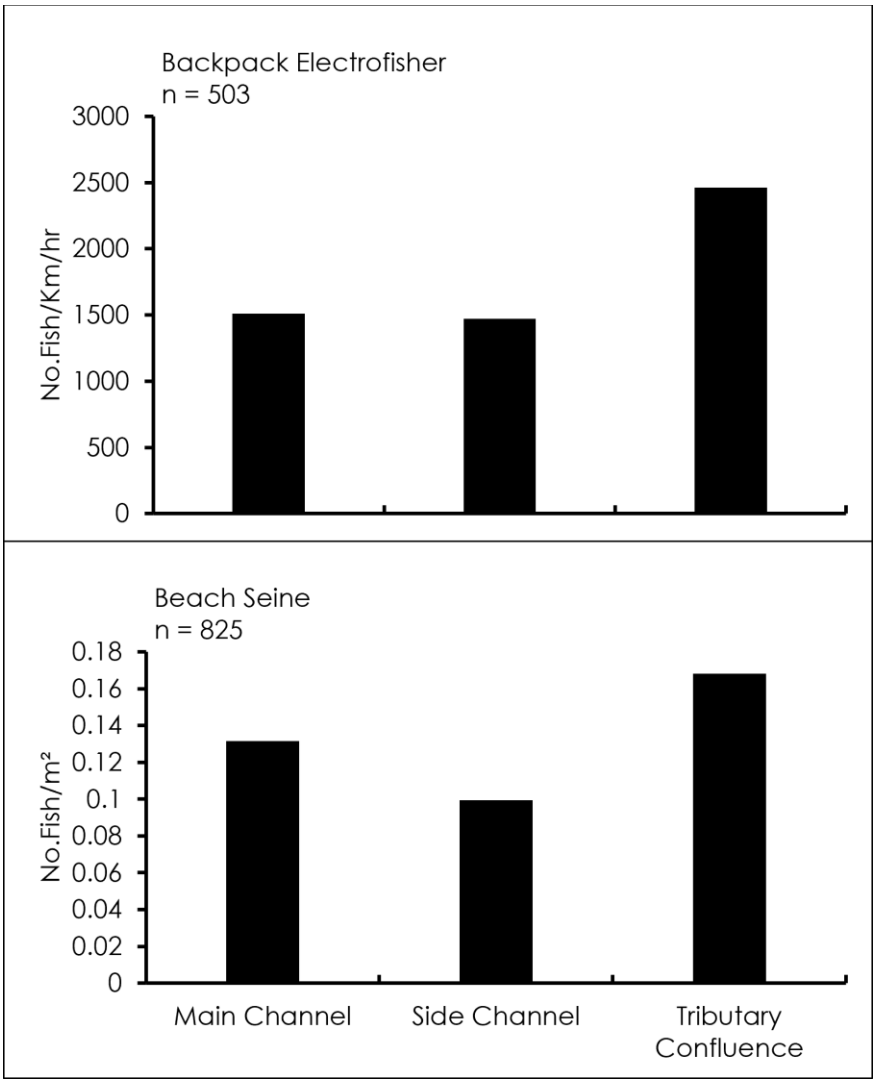


Figure 15. Average CPUE for backpack electrofisher and beach seine by habitat type in 2021

Catch rates for backpack electrofishing sites showed that side channel habitats had a higher density of fish compared to main channel and tributary habitat (Figure 15). This trend was also evident in the beach seine sites. Tributary confluence sites exhibited the highest catch rates. All but two boat electrofishing sites were in main channel habitat and only one gill net site occurred in each river section, so insufficient data exists to infer any habitat-related trends from those capture methods.

3.3.1 PIT Tags

In total, 319 of the 2,038 fish captured in 2021 either had existing PIT tags (n=49) or were implanted with new PIT tags (n=270). The number of existing PIT tags recorded, and new PIT tags implanted in 2021 was more than double that of 2020: existing (n=25), new (n=131). One of the recaptures also included a radio tagged Walleye being monitored under the Site C Fish Movement Assessment (Mon-1b, Task 2d; LGL Limited 2020).

3.4 Fish Health

Based on the DELT Index values, 36 (1.8%) of the 2,038 fish captured in 2021 showed evidence of impairment to health (presence of deformity, erosion, lesion, cut, or tumour). These included one species in the coldwater fish group (Mountain Whitefish), one species in the coolwater fish group (Northern Pike), two in the sucker group (Longnose Sucker and Largescale Sucker), and two in the minnow group (Longnose Dace and Northern Pikeminnow). The majority (n = 26) of DELTs were observed on fish greater than 200 mm in length.

Of the health issues identified, light cuts were found in eight fish and appeared to be the most common impairment. Three fish exhibited heavy cuts, three fish light deformities, five fish light erosions, seven fish heavy erosions, four fish light lesions, two fish heavy lesions, three fish light tumours, and one fish had multiple DELTs. Most of the fish with DELT codes were Longnose Sucker (n = 19), followed by Mountain Whitefish (n = 8), and Largescale Sucker (n = 3). Of the 36 fish with DELT codes, 26 were captured in Section 5, 7 were captured in Section 7, and 3 fish with DELT codes were captured in Section 9. Historically, less than 1.5% of the fish captured had DELT codes with 4 fish in 2009, 2 in 2010, 1 in 2011, and 17 in 2020 during the small fish program in the fall (Mainstream 2010, 2011, 2013; Triton 2021).

3.5 Coldwater Fish Abundance

Coldwater fish was the third most numerous fish group, accounting for 22% of the total fish in 2021 across all sample sections and fish groups. The 2021 data fall within the 12% to 45% proportional range for catches of the coldwater fish group documented by historical baseline studies (Mainstream 2010, 2011, 2013; Triton 2021).

Five species of coldwater fish were recorded during sampling in the Peace River in 2021, with Mountain Whitefish overwhelmingly representing the majority (Table 9). The other four species each comprised <1% of the catch within the coldwater fish group. The abundance of coldwater fish decreased from upstream to downstream.

Table 9. Number of coldwater fish species caught and their frequency of occurrence in sampled sections, 2021

Species	*Section 5*	*Section 7*	*Section 9*	*Total*	*% of Coldwater fish Group*
Arctic Grayling	6	2	2	10	2
Bull Trout	2	5	1	8	2
Kokanee	0	1	0	1	0
Mountain Whitefish	205	162	62	429	95
Rainbow Trout	3	1	0	4	1
Subtotal	**216**	**171**	**65**	**452**	**100**

Arctic Grayling were captured in all three river sections that were sampled in 2021 and accounted for 0.5% of the total fish caught. More Arctic Grayling were captured upstream in Section 5 than in Section 7 and 9 combined. Historically in Section 5, 10 Arctic Grayling were caught in 2020, 1 in 2011, 5 in 2010, and 28 in 2009. In Section 7, 2 were caught in 2020, 4 were caught in 2011, 31 were caught in 2010, and 16 in 2009. In Section 9, five Arctic Grayling were caught 2020, and one was caught in 2011. No sampling took place in Section 9 in 2009 or 2010 (Mainstream 2010, 2011, 2013; Triton 2021).

Bull Trout were captured in all three river sections that were sampled in 2021 and accounted for 0.4% of the total fish caught. In 2020, all five Bull Trout were caught in Section 7 (Triton 2021). In 2009, 2010, and 2011, Bull Trout were captured in all sections downstream of the project with catch rates generally decreasing from upstream to downstream (Mainstream 2010, 2011, 2013).

A single Kokanee was captured in Section 7 during the 2021 program, which accounted for 0.1% of the total fish caught. Kokanee was the second most abundant coldwater fish encountered in 2020 with Kokanee abundance increasing with distance downstream. Historically, Mainstream captured three Kokanee in Section 5 in 2009 and 2011, and two Kokanee in Section 7 in 2009 and 2011, with no Kokanee being caught in 2010 (Mainstream 2010, 2011, 2013; Triton 2021).

Mountain Whitefish were captured in all three river sections sampled in 2021, accounting for 21% of the total fish caught. In 2021, Mountain Whitefish was the most abundant fish captured, with abundance decreasing from upstream to downstream. In similar programs (Mon-2, Task 2a, Mon-2, Task 2b) on the Peace River using large and small fish sampling methods, Mountain Whitefish have made up between 40 and 50 percent of the total fish caught (Mainstream 2013, Golder and Gazey 2018). In 2020, Mountain Whitefish was the second most abundant fish captured, and most abundant of the coldwater fish with 109 caught in Section 5, 84 caught in Section 7, and 63 caught in Section 9. Historically, Mainstream captured between 58 and 198 Mountain Whitefish in Section 5, between 31 and 308 Mountain Whitefish in Section 7 during sampling in 2009, 2010, and 2011, and 20 Mountain Whitefish in Section 9 in 2011 (Mainstream 2010, 2011, 2013; Triton 2021). Overall, the relative abundance of Mountain Whitefish has fluctuated from year to year and by section, however they still account for a sizeable portion of the total fish biomass in the Peace River (Golder and Gazey 2018).

Rainbow Trout were captured in Section 5 and 7, with Rainbow Trout accounting for 0.2% of the total fish caught. Two Rainbow Trout were captured in Section 7 in 2020 (Triton 2021). Historically only one Rainbow Trout was captured during the small fish program in the fall of 2009 (Mainstream 2010, 2011, 2013). Due to the small number of Rainbow captured during the current and historical fish programs, spatial trends in their abundance have not been inferred.

No Lake Whitefish were captured during the 2021 sampling program.

3.5.1 Arctic Grayling

3.5.1.1 Catch Rate

Of the 10 Arctic Grayling captured, all were caught using the boat electrofisher sampling method. Catch rate of Arctic Grayling was highest in Section 5, with a mean CPUE of 4.5 fish/km/hr, compared to Sections 7 and 9 where mean CPUE were 0.8 and 2.6 fish/km/hr, respectively (Figure 16, Appendix 4). The majority of Arctic Grayling were caught in main channel habitats with only two being caught in side channel habitat.

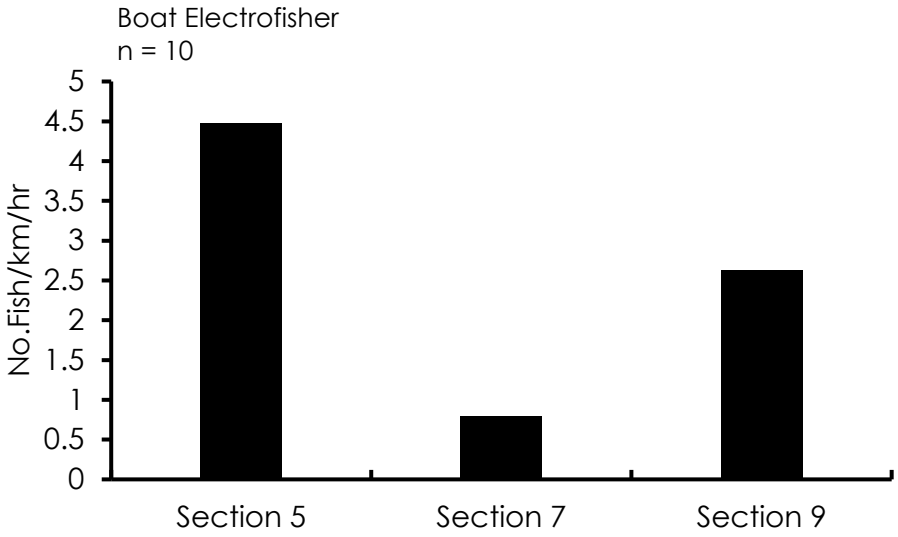


Figure 16. Average boat electrofishing catch rate for Arctic Grayling by river section in 2021

3.5.1.2 Biological Characteristics

Three age classes of Arctic Grayling were captured in 2021 based on the 8 scale samples collected: age-0, age-1, and age-2 (Table 10). Five Arctic Grayling were implanted with new PIT tags, and one was recorded with an existing PIT tag. No DELT codes were recorded on the Arctic Grayling captured. Sampled Arctic Grayling ranged in length from 104 mm to 211 mm, ranged in weight from 15 g to 128 g, and ranged in body condition from 0.99 to 1.36. The Arctic Grayling length-weight regression suggested a negative allometric growth rate (Figure 19).

Table 10. Average fork length, weight, and body condition along with standard deviation and sample range by age for Arctic Grayling captured by boat electrofishing in 2021

Age	*Fork Length (mm)*			*Weight (g)*			*Body Condition (K)*		
	n	Average ± SD	Range	n	Average ± SD	Range	n	Average ± SD	Range
0	2	111 ± 7	104 - 118	2	16 ± 1	15 - 17	2	1.18 ± 0.15	1.03 - 1.33
1	3	175 ± 30	132 - 200	3	61 ± 24	28 - 84	3	1.09 ± 0.10	0.99 - 1.22
2	3	207 ± 6	198 - 211	3	107 ± 18	84 - 128	3	1.20 ± 0.12	1.08 - 1.36

No interpretation of the length-frequency (Figure 17) and age-frequency (Figure 18) distributions is provided, given the low catch numbers.

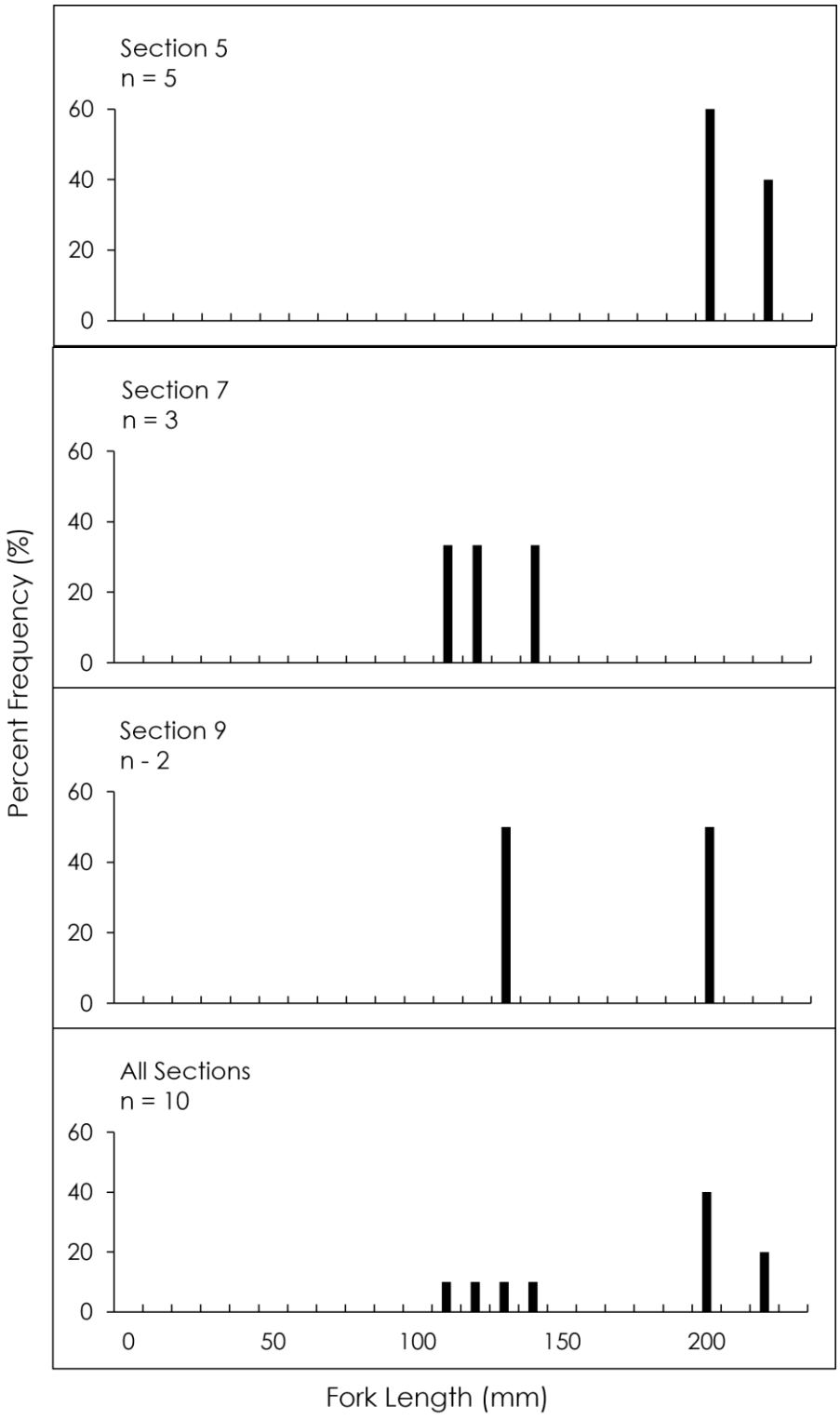


Figure 17. Length-frequency distributions for Arctic Grayling captured by boat electrofishing in 2021

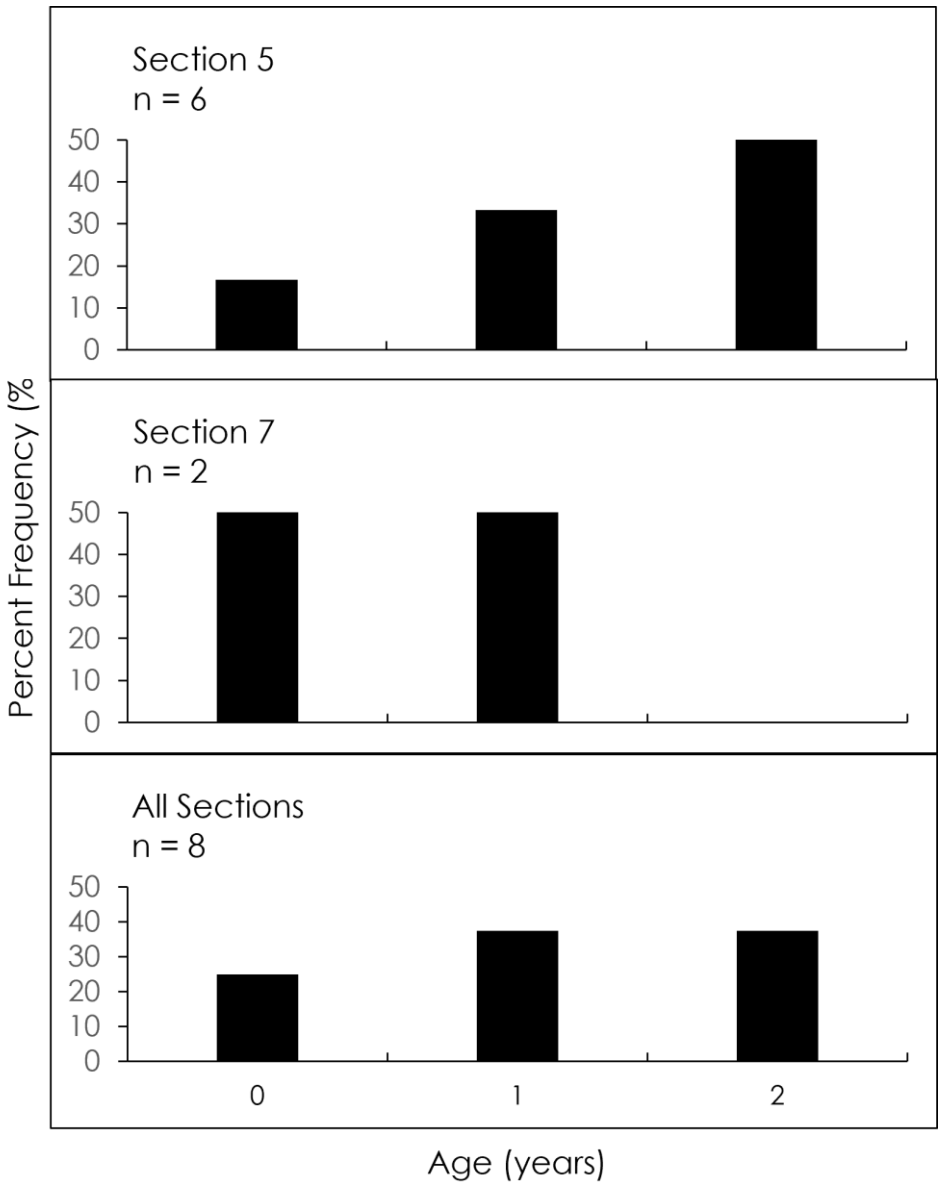


Figure 18. Age-frequency distributions for Arctic Grayling captured by boat electrofishing in 2021

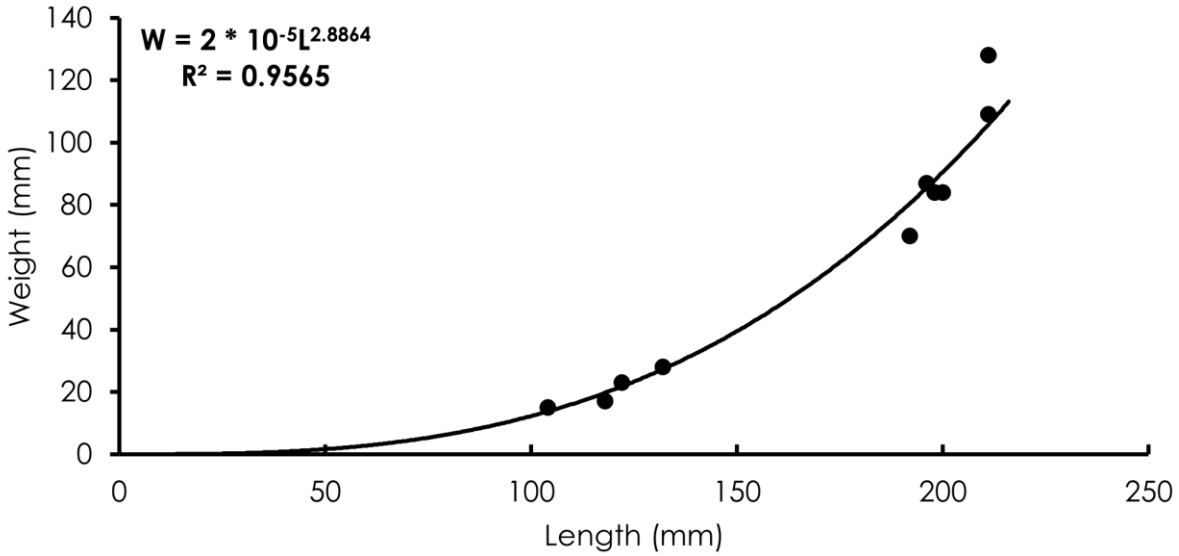


Figure 19. Length-weight regression for Arctic Grayling captured by boat electrofishing in 2021

3.5.2 Bull Trout

3.5.2.1 Catch Rate

Of the eight Bull Trout encountered in 2021, seven were captured using the boat electrofishing sampling method, and one was captured in the beach seine. Two Bull Trout were captured in Section 5, five in Section 7, and one in Section 9 (Figure 20, Appendix 4). All eight Bull Trout were captured in main channel habitat.

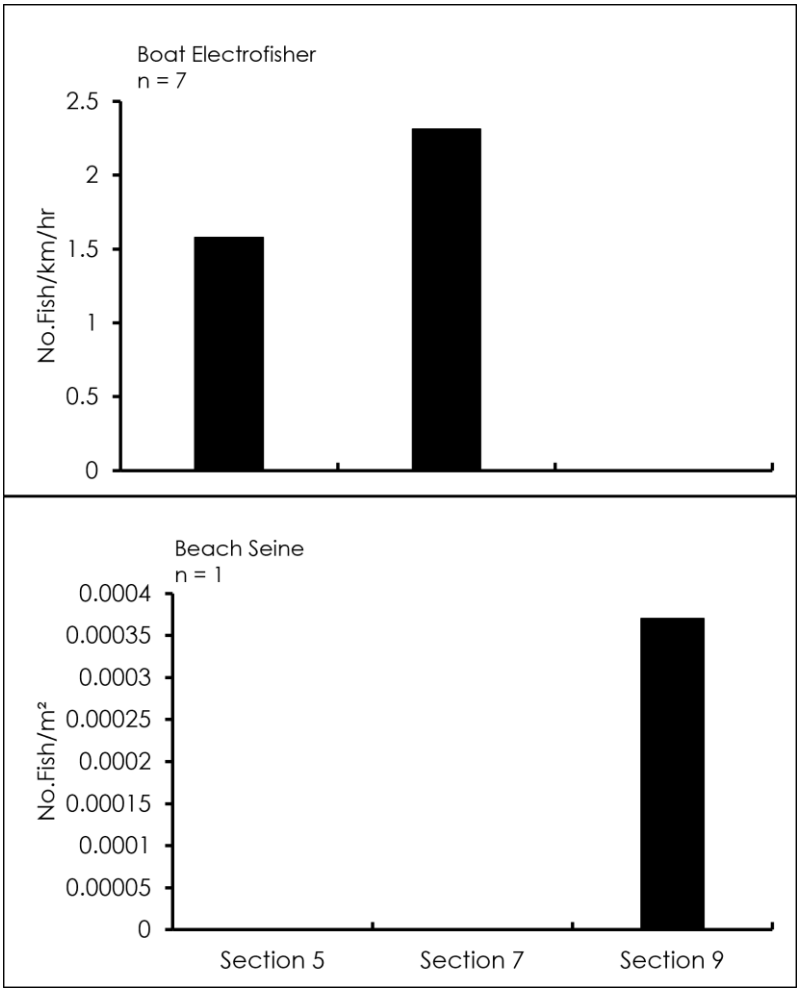


Figure 20. Average boat electrofishing and beach seine catch rate by river section for Bull Trout captured in 2021

3.5.2.2 Biological Characteristics

Fin ray samples were collected from five of the eight Bull Trout captured in 2021 and were each also implanted with a new PIT tag. The other three Bull Trout were recaptures that had existing PIT tags so ageing structures were not taken from those fish. No DELT codes were recorded on the Bull Trout captured. Captured Bull Trout comprised four age classes: age-2, age-3, age-4, and age-8 (Table 11). Fish ranged in length from 224 mm to 575 mm, ranged in weight from 120 g to 1,050 g, and ranged in body condition from 0.84 to 1.17.

Table 11. Average fork length, weight, and body condition along with standard deviation and sample range by fish age, for Bull Trout captured by boat electrofishing and beach seine in 2021

Age	*Fork Length (mm)*			*Weight (g)*			*Body Condition (K)*		
	n	**Average ± SD**	**Range**	***n***	**Average ± SD**	**Range**	***n***	**Average ± SD**	**Range**
2	1	224 ± 0	224	1	132 ± 0	132	1	1.17 ± 0	1.17
3	2	248 ± 3	245 - 250	2	137 ± 14	123 - 151	2	0.90 ± 0.07	0.84 - 0.97
4	1	274 ± 0	274	1	210 ± 0	210	1	1.02 ± 0	1.02
8	1	407 ± 0	407	1	666 ± 0	666	1	0.99 ± 0	0.99

Interpretation of length-frequency and age-frequency distributions were limited due to low sample numbers (Figure 21). The Bull Trout length-weight regression displayed a strong relationship and suggested a negative allometric growth rate (Figure 22).

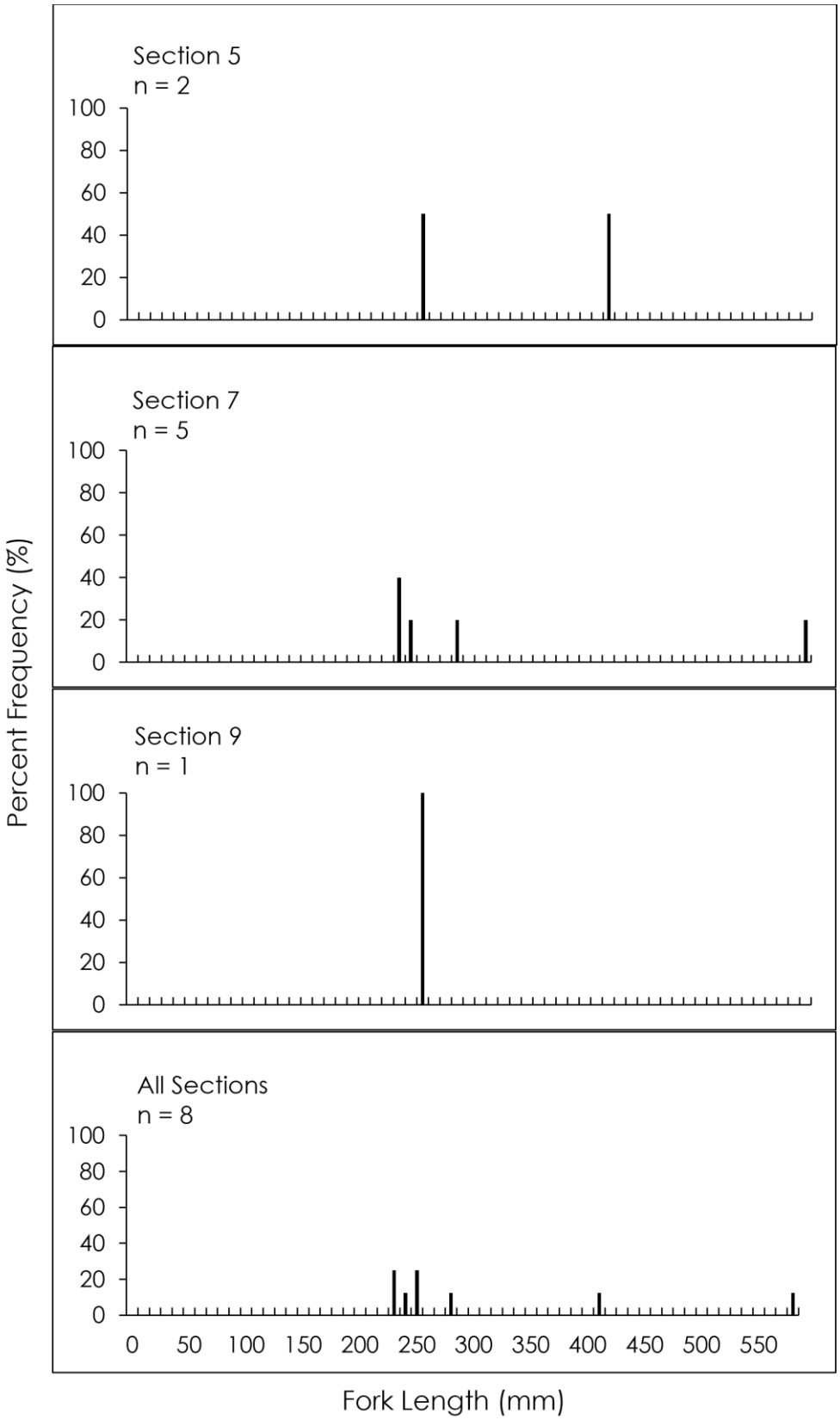


Figure 21. Length-frequency distribution for Bull Trout caught in 2021

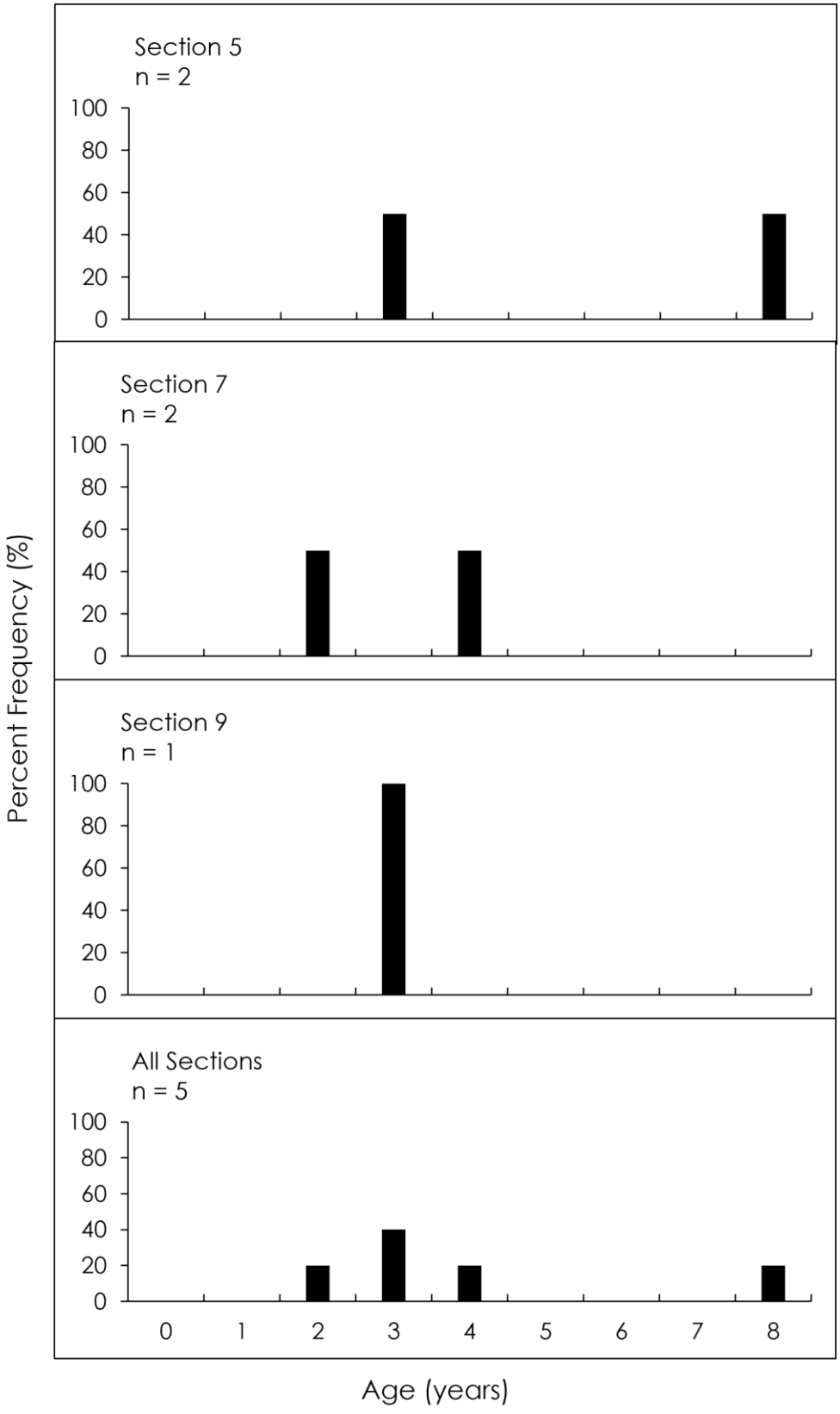


Figure 22. Age-frequency distribution for Bull Trout caught in 2021

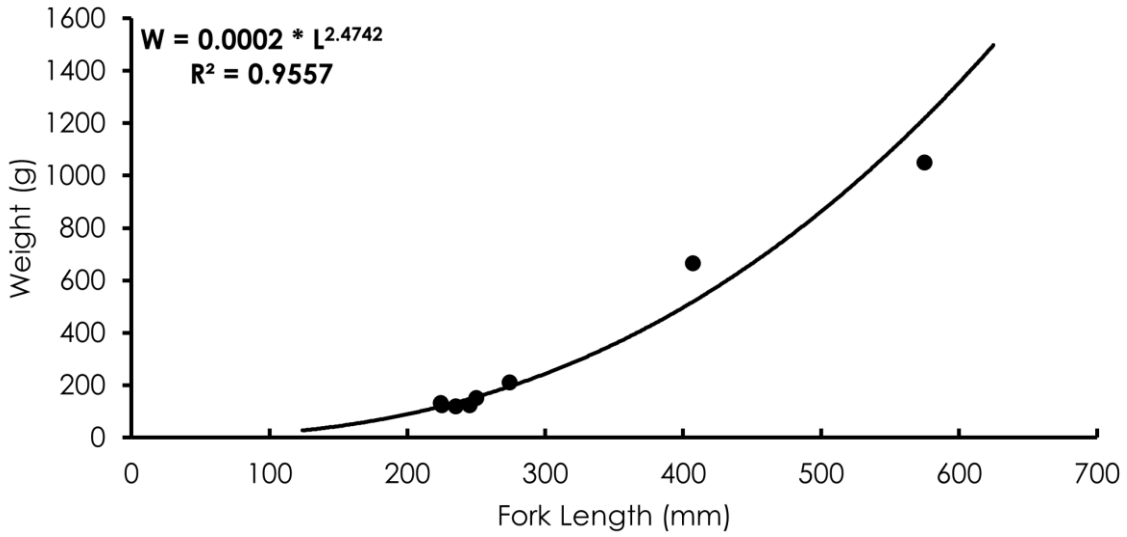


Figure 23. Length-weight regression for Bull Trout caught by boat electrofishing in 2021

3.5.3 Kokanee

3.5.3.1 Catch Rate

Only one Kokanee was captured in 2021 using the boat electrofisher, with a mean CPUE of 0.22 fish/km/hr in Section 7 (Figure 24, Appendix 4). The single Kokanee was caught in main channel habitat.

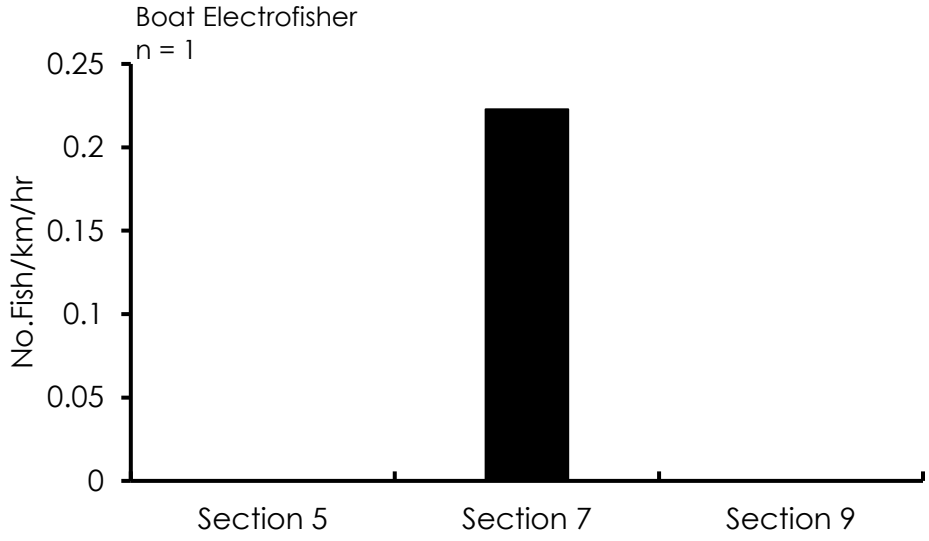


Figure 24. Average boat electrofishing catch rate by river section for Kokanee captured in 2021

3.5.3.2 Biological Characteristics

Scale samples collected from the single Kokanee captured in 2021 indicated the specimen was age-2. The length was 127 mm, weight was 21 g, and body condition factor was 1.03. No DELT codes were recorded on the Kokanee captured.

Due to low sample numbers, interpretation of length-frequency and age-frequency distributions were not possible.

3.5.4 Mountain Whitefish

3.5.4.1 Catch Rate

Of the 429 Mountain Whitefish captured in 2021, the vast majority (n = 428) were caught using the boat electrofisher, with only 1 being caught by the backpack electrofisher. Boat electrofisher catch rates declined steadily from a high of 156 fish/km/hr in Section 5, 84 fish/km/hr in Section 7, to 42 fish/km/hr in Section 9 (Figure 25, Appendix 4). Catch rates using the backpack electrofisher were 9.8 fish/km/hr in Section 9 and 0 for both Sections 5 and 7. By habitat, a total of 419 Mountain Whitefish were caught in main channel habitat compared to 10 in side channel habitat. Six Mountain Whitefish were captured within the 108R offset channel habitat at Site SB07 of Section 5.

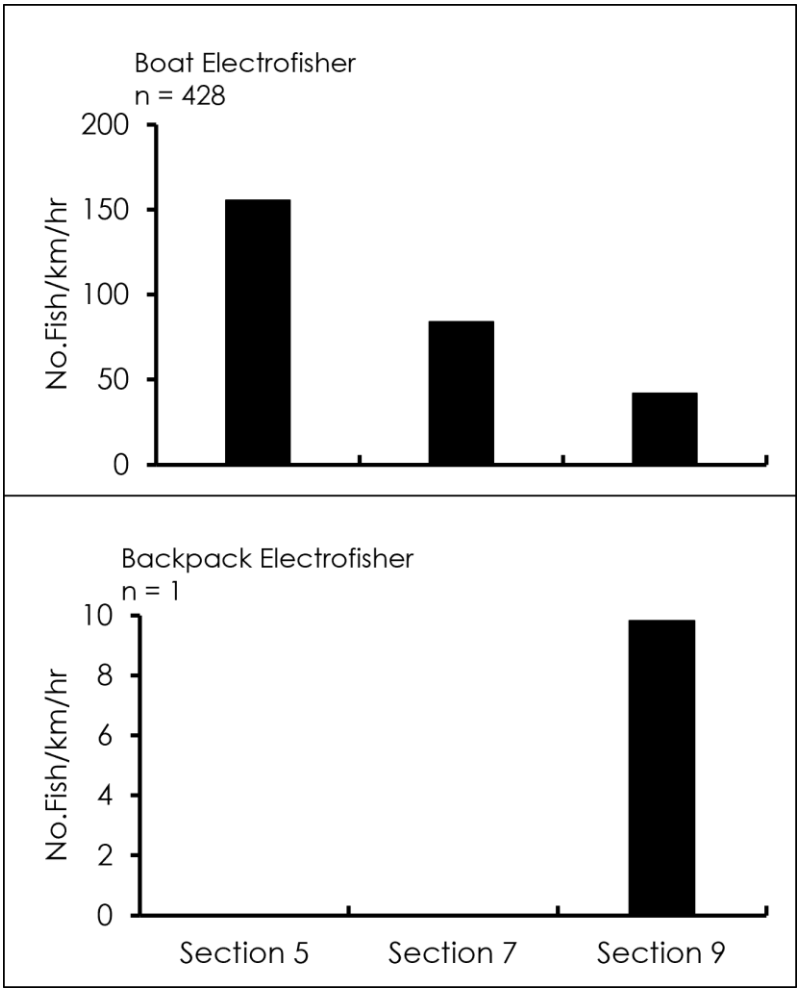


Figure 25. Average boat electrofishing and backpack electrofishing catch rate by river section for Mountain Whitefish captured in 2021

3.5.4.2 Biological Characteristics

In total, 427 Mountain Whitefish were used to describe length-frequency and length-weight with 138 being used for the ageing analysis. A total of 13 age classes of Mountain Whitefish were captured in 2021, ranging from age-0 up to age-12 (Table 12). New PIT tags were implanted in 149 Mountain Whitefish, and 27 were recorded with an existing PIT tag. Eight of the Mountain Whitefish captured were observed with DELT codes (3 CL, 3 EL, 1 LL, and 1 EH). Sampled fish ranged in length from 15 mm to 465 mm, ranged in weight from 1 g to 1,082 g, and ranged in body condition from 0.62 to 1.27. Mountain Whitefish length and weight became more variable with age.

Table 12. Average fork length, weight, and body condition along with standard deviation and sample range by fish age for Mountain Whitefish caught boat and backpack electrofishing in 2021

Age	*Fork Length (mm)*			*Weight (g)*			*Body Condition (K) (Fish >100 mm)*		
	n	**Average ± SD**	**Range**	***n***	**Average ± SD**	**Range**	***n***	**Average ± SD**	**Range**
0	38	97 ± 11	77 - 119	38	9 ± 3	4 - 15	14	0.94 ± 0.10	0.69 - 1.13
1	6	109 ± 8	94 - 115	6	11± 2	8 - 14	5	0.85 ± 0.10	0.72 - 0.92
2	10	166 ± 15	130 - 184	10	49 ± 14	20 - 69	10	1.04 ± 0.12	0.91 - 1.27
3	5	198 ± 61	160 - 320	5	95 ± 94	45 - 282	5	1.00 ± 0.10	0.86 - 1.11
4	4	192 ± 21	177 - 228	4	78 ± 30	55 - 129	4	1.06 ± 0.08	0.98 - 1.17
5	4	221 ± 21	191 - 250	4	113 ± 26	69 - 140	4	1.04 ± 0.10	0.90 - 1.16
6	11	280 ± 34	225 - 342	11	188 ± 70	105 - 330	11	0.83 ± 0.13	0.64 - 1.08
7	17	280 ± 27	217 - 327	17	188 ± 63	94 - 350	17	0.84 ± 0.14	0.63 - 1.16
8	14	297 ± 44	204 - 378	14	251 ± 104	85 - 470	14	0.92 ± 0.15	0.67 - 1.21
9	8	346 ± 61	272 - 465	8	404 ± 271	165 – 1,082	8	0.89 ± 0.21	0.62 - 1.26
10	7	327 ± 52	218 - 402	7	315 ± 123	110 - 554	7	0.87 ± 0.13	0.64 - 1.06
11	7	330 ± 29	283 - 375	7	310 ± 156	183 - 670	7	0.82 ± 0.20	0.63 - 1.27
12	1	309 ± 0	309	1	219 ± 0	219	1	0.74 ± 0	0.74

Length-frequency distributions were skewed toward the younger age classes, however a number of adult fish were caught (Figure 26). This trend was also pronounced in Mountain Whitefish age frequency distributions, with Sections 5 and 7 having varied age distributions and Section 9 having an abundance of fish less than two years of age (Figure 27).

Mountain Whitefish length-weight data indicated negative allometric growth (Figure 28) and sufficient data were available to apply the von Bertalanffy equation (Figure 29), which indicated the maximum asymptotic length was calculated to be 344 mm with a growth coefficient of 0.18. Historically, Mountain Whitefish have had similar growth coefficients of between 0.13 to 0.20 (Mainstream 2010, 2011, 2013; Triton 2021). Fork length and age followed a logarithmic relationship, with growth being fastest in the first four years of life and slowing upon maturity until the maximum size was reached.

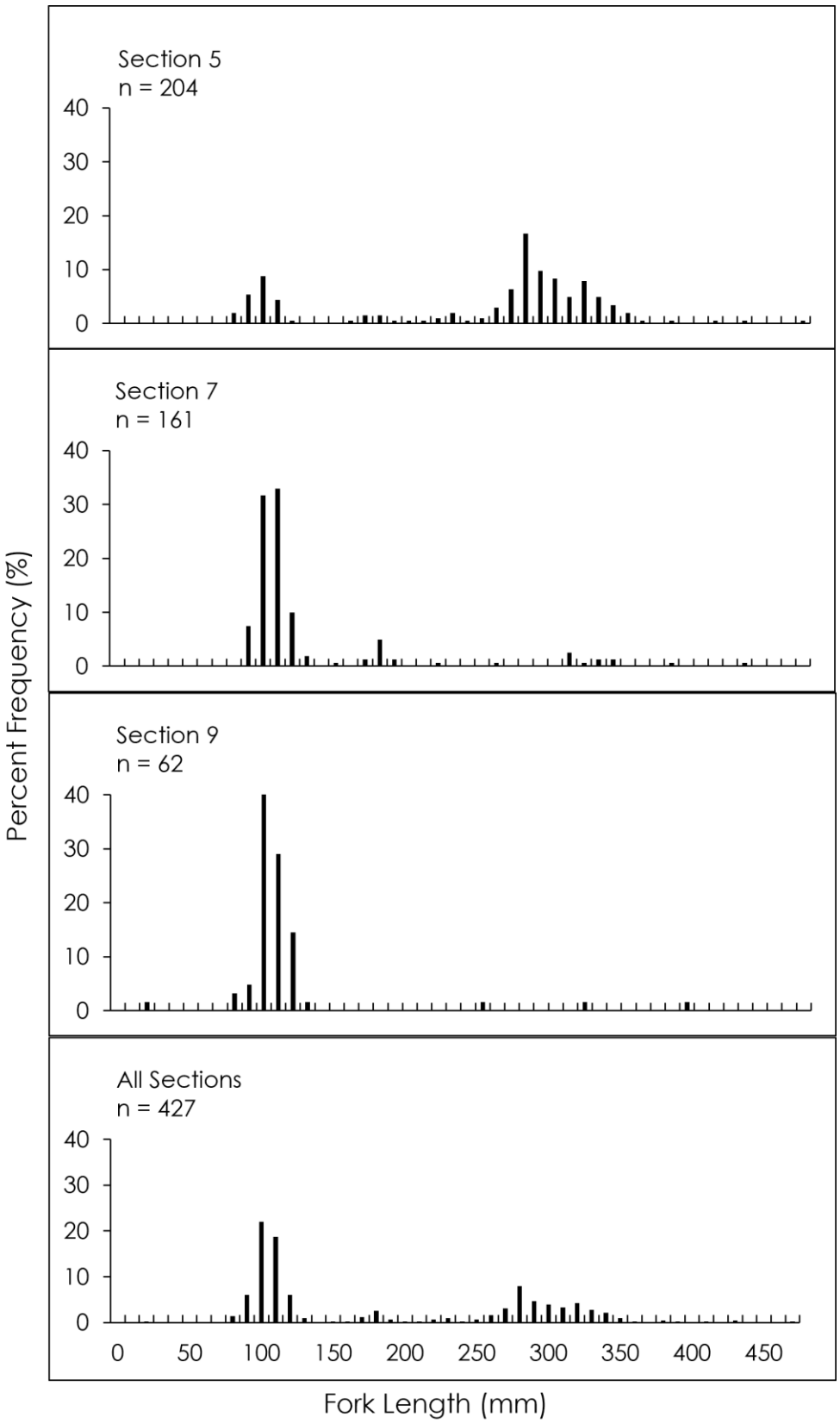


Figure 26. Length-frequency distribution by river section for Mountain Whitefish caught in 2021

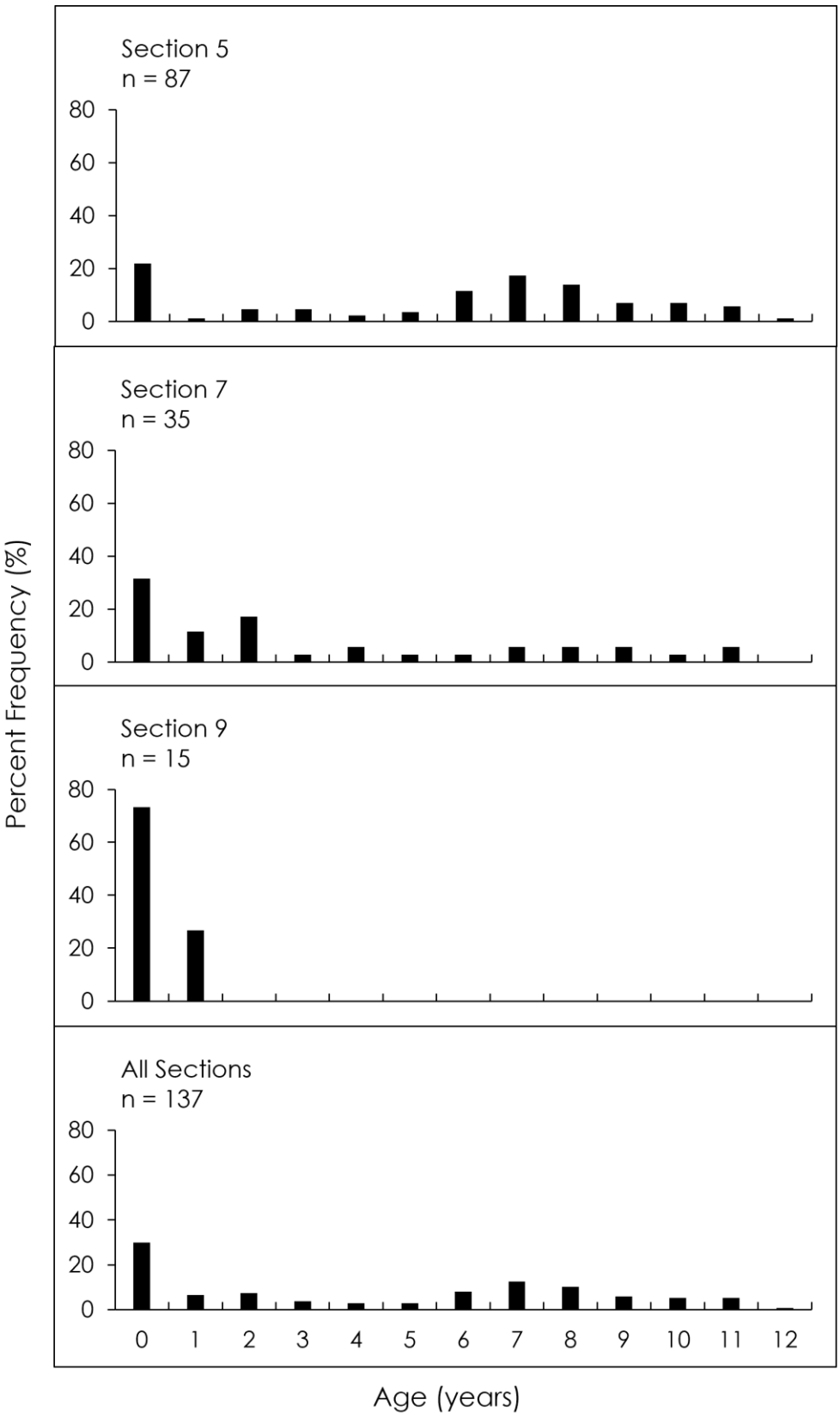


Figure 27. Age-frequency distribution by river section for Mountain Whitefish caught by boat electrofishing in 2021

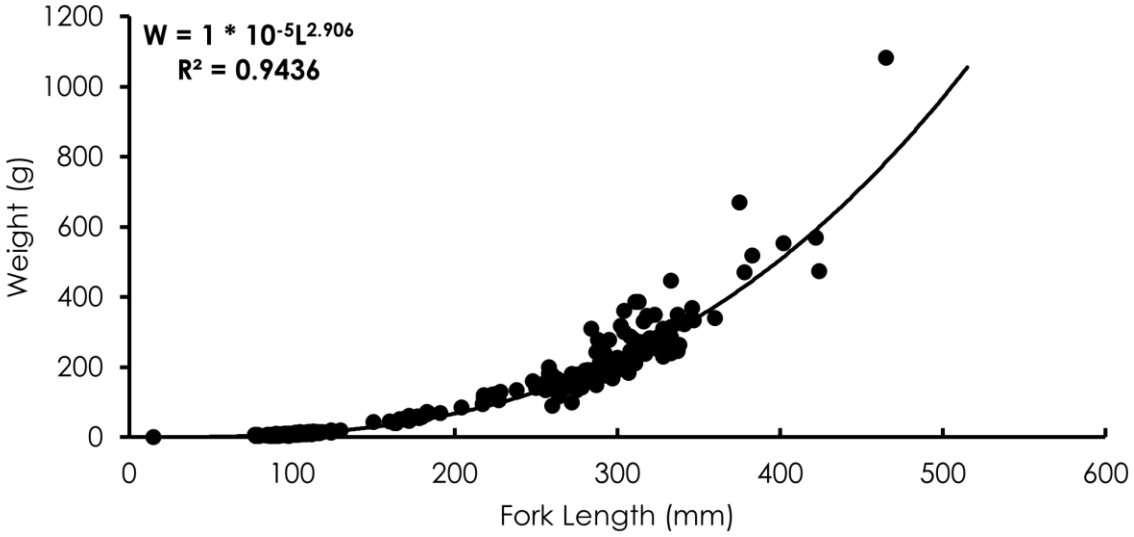


Figure 28. Length-weight regression for Mountain Whitefish caught in 2021

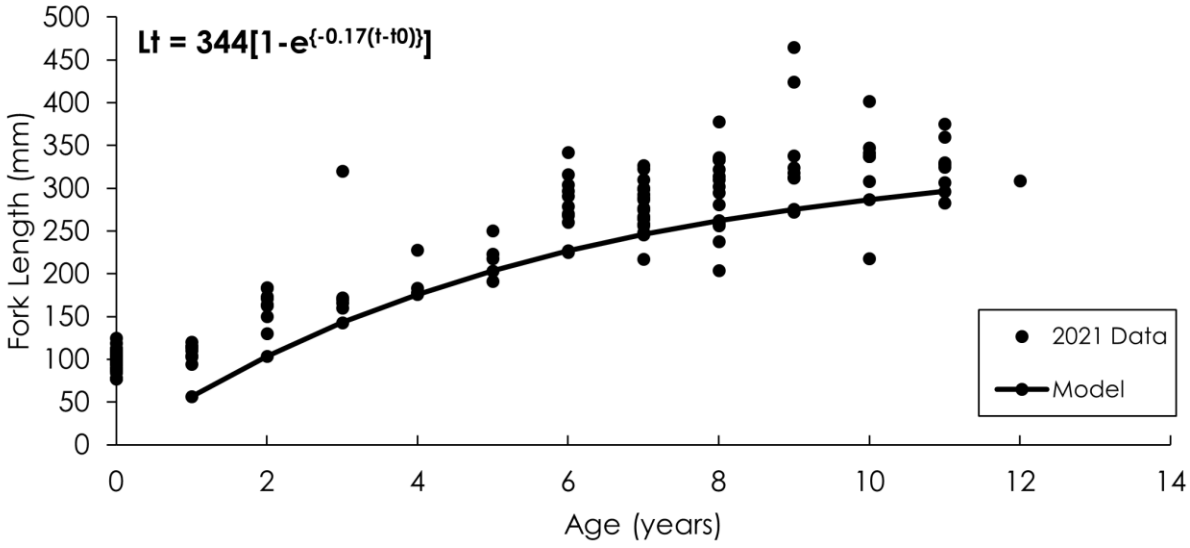


Figure 29. Mountain Whitefish growth model using the von Bertalanffy growth equation

3.5.5 Rainbow Trout

3.5.5.1 Catch Rate

A total of four Rainbow Trout were captured in 2021. All four were caught using the boat electrofisher sampling method. Rainbow Trout catch rates were highest in Section 5 with a mean catch rate of 2.2 fish/km/hr (Figure 30, Appendix 4). All four Rainbow Trout were caught in main channel habitat. No Rainbow Trout were captured within the 108R offset channels of Section 5.

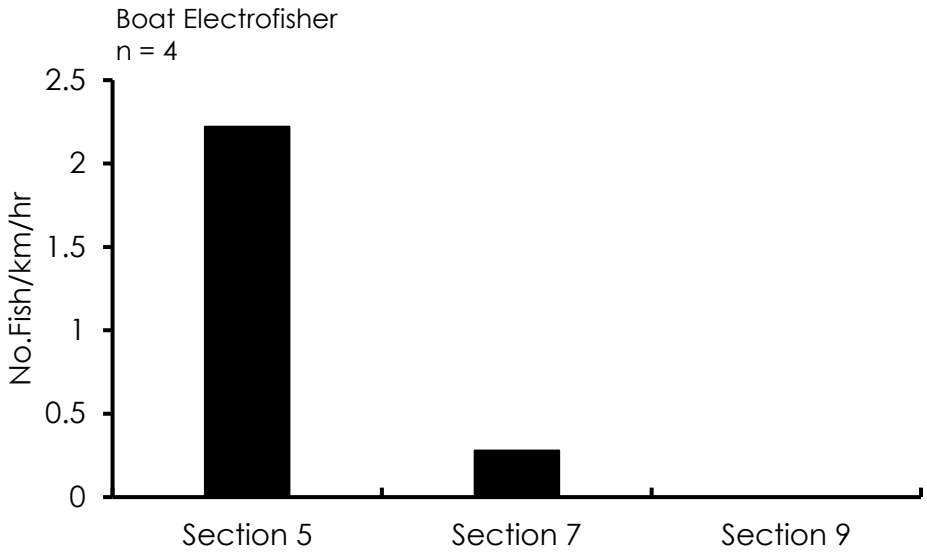


Figure 30. Average boat electrofishing catch rate by river section for Rainbow Trout captured in 2021

3.5.5.2 Biological Characteristics

Rainbow Trout ranged in length from 195 mm to 273 mm, ranged in weight from 68 g to 223 g, and ranged in body condition from 0.92 to 1.17 (Table 13). Three Rainbow Trout were implanted with new PIT tags, and one was recorded with an existing PIT tag. No DELT codes were recorded on the Rainbow Trout captured. No age analysis occurred for the Rainbow Trout captured because scale samples sent to the lab were deemed inconclusive.

Table 13. Average fork length, weight, and body condition along with standard deviation and sample range for Rainbow Trout caught by boat electrofishing in 2021

Fork Length (mm)			*Weight (g)*			*Body Condition (K)*		
n	**Average ± SD**	**Length**	***n***	**Average ± SD**	**Weight**	***n***	**Average ± SD**	**K**
4	222 ± 31	195 - 273	4	123 ± 59	68 - 223	4	1.05 ± 0.09	0.92 - 1.17

Due to the extremely small sample size, length-frequency, age-frequency, and length-weight inferences could not be made for Rainbow Trout (Figure 31).

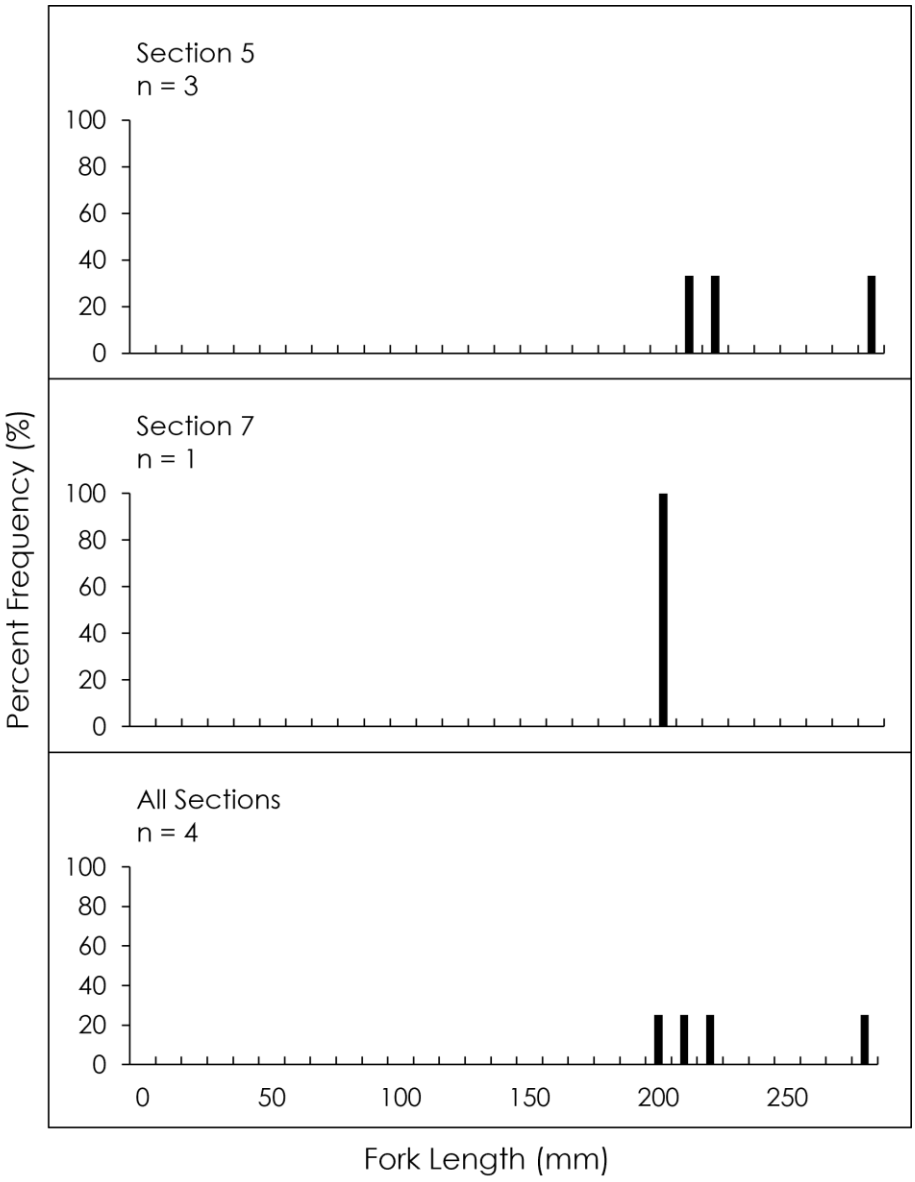


Figure 31. Length-frequency distribution of the Rainbow Trout caught in 2021

3.6 Coolwater Fish Abundance

Coolwater fish was the least abundant fish group encountered in 2021, accounting for 1% of the total fish caught across all sample sections and fish groups. The 2021 data made up a similar percentage of between 1% to 2% of the total fish caught, similar to historic baseline studies (Mainstream 2010, 2011, 2013; Triton 2021).

Three species of fish in the coolwater fish group were recorded during field sampling of the Peace River in 2021, with Northern Pike the most abundant (Table 14). Burbot composed 18% and Walleye composed 9% of the coolwater fish catch. The abundance of coolwater fish was highest in Section 5 followed by Section 7. No coolwater species were captured in Section 9.

Table 14. Number of coolwater fish species caught and their frequency of occurrence in sampled sections, 2021

Species	*Section 5*	*Section 7*	*Section 9*	*Total*	*% of Coolwater fish Group*
Burbot	4	0	0	4	18
Northern Pike	13	3	0	16	73
Walleye	2	0	0	2	9
Subtotal	**19**	**3**	**0**	**22**	**100**

Burbot were captured in one site of river Section 5 on the Peace River, making them the second most abundant coolwater fish encountered in 2021 and accounting for 0.2% of the total fish caught. Historically, no Burbot were captured by Mainstream in 2009 and 2010, however in 2011 two Burbot were captured in Section 5 (Mainstream 2010, 2011, 2013). In 2020, Triton captured two burbot in Section 5, and one in Section 7 (Triton 2021). Due to the small sample size of the 2021 program and past small fish programs, trends in distribution could not be determined.

Sixteen Northern Pike were captured in Sections 5 and 7 in 2021, accounting for 0.8% of the total fish caught in 2021. This was consistent with historical studies which also found the majority of Northern Pike in upstream sections, with 6 to 14 being caught in Section 5, 1 to 9 being caught in Section 7, and 0 to 1 being caught in Section 9 (Mainstream 2010, 2011, 2013; Triton 2021).

Two Walleye were captured in Section 5 in 2021, accounting for 0.1% of the total fish caught in 2021. In 2020, one Walleye was caught in Section 5, and four were caught in both Sections 7 and 9 (Triton 2021). Historically, Walleye were only caught in Section 7 with three caught in 2009, four in 2010, and none caught in 2011 (Mainstream 2010, 2011, 2013). Due to the small sample size of the 2021 program and past small fish programs, trends in distribution could not be determined.

No Yellow Perch were captured during the 2021 program. In 2020, Yellow Perch were captured in Section 5 and 7. Historically, 1 to 3 Yellow Perch have been caught in

Section 5, with none being caught in Section 7, and three being caught in Section 9 in 2011 only (Mainstream 2010, 2011, 2013). Due to no Yellow Perch being caught during the 2021 program, and the small sample size of past small fish programs, spatial trends in distribution could not be determined.

3.6.1 Burbot

3.6.1.1 Catch Rate

All four of the Burbot captured in 2021 were caught using the boat electrofisher sampling method. Burbot catch rates were highest for the boat electrofisher with a mean catch rate of 2.4 fish/km/hr (Figure 32, Appendix 4). By habitat, all four Burbot were captured in the main channel among the access road riprap at site SB08 in Section 5.

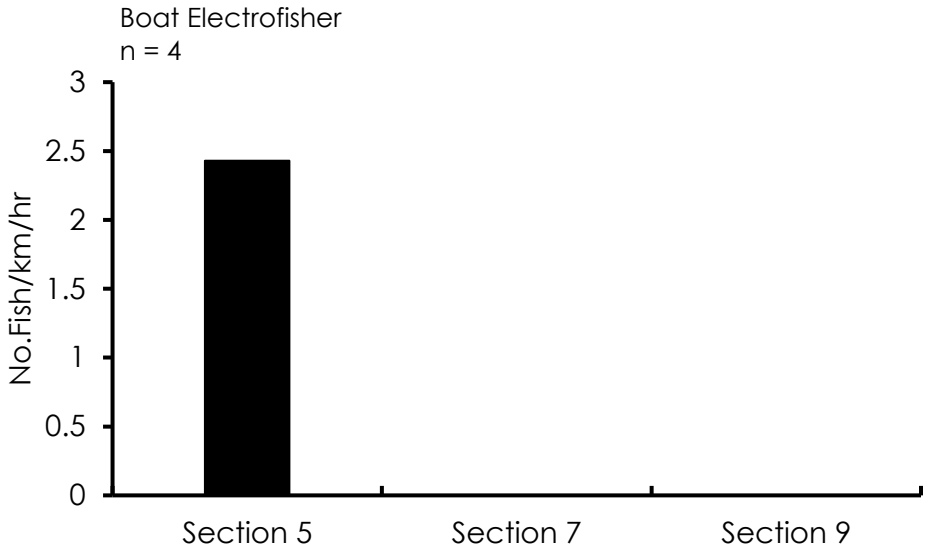


Figure 32. Average catch rate by river section for Burbot caught in 2021

3.6.1.2 Biological Characteristics

Ageing structures were not collected from Burbot captured in 2021 as it requires lethal sampling to extract the otolith, however the length-frequency distribution suggests that one age class was potentially captured (Figure 33). All four Burbot were implanted with new PIT tags. No DELT codes were recorded on the Burbot captured. The smallest Burbot had a total length of 273 mm, weighed 90 g, and had a body condition of 0.44, while the largest Burbot had a total length of 311 mm, weighed 135 g, and had a body condition of 0.45. Due to their eel-like body style, the Fulton condition index appears not to accurately reflect healthy body condition (K>1) for Burbot. Comparisons using this index are still possible within the species and suggest the four fish were of similar health and appeared healthy upon capture.

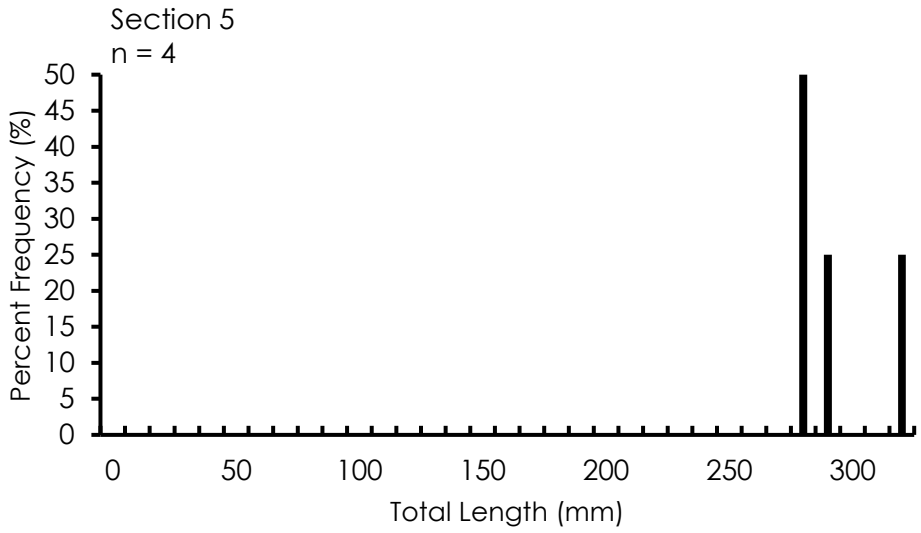


Figure 33. Length-frequency distribution for Burbot caught in 2021

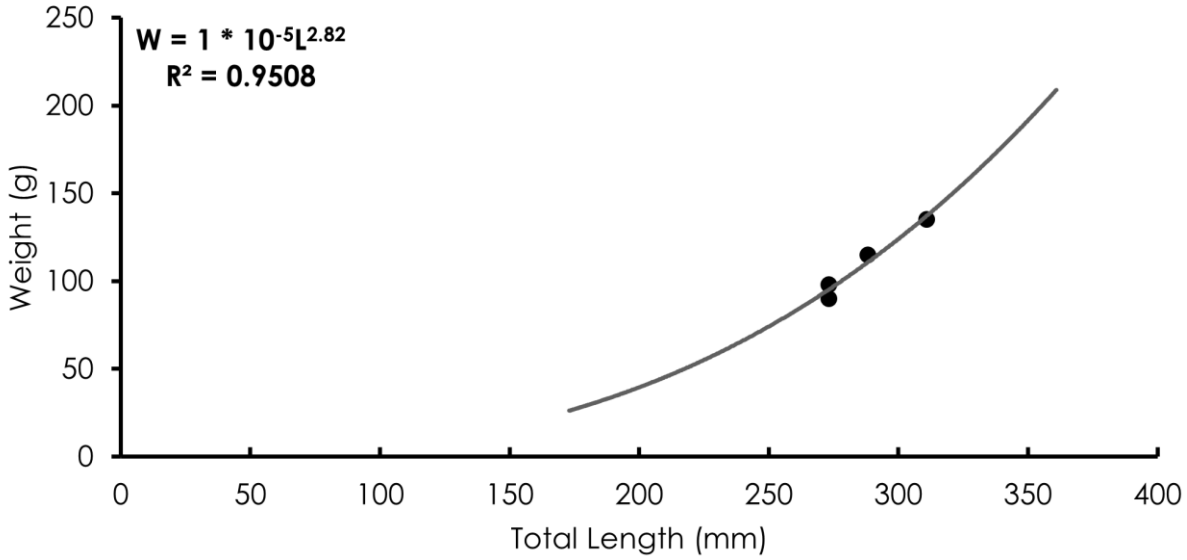


Figure 34. Length-weight regression for Burbot caught in 2021

3.6.2 Northern Pike

3.6.2.1 Catch Rate

Of the 16 Northern Pike captured in 2021, 11 were caught using the boat electrofisher sampling method, 2 using the beach seine method, and 4 using the gill net method. Catch rates for Northern Pike were highest in Section 5 using the boat electrofisher with a mean catch rate of 6 fish/km/hr (Figure 35, Appendix 4). By habitat, nine of the Northern Pike were captured in main channel habitat, six were captured in side

channel habitat, and one was captured in the tributary confluence habitat. Five Northern Pike were captured within the 108R offset channels of Section 5. Habitat sampled by the boat electrofisher was usually main channel and not typical Northern Pike habitat.

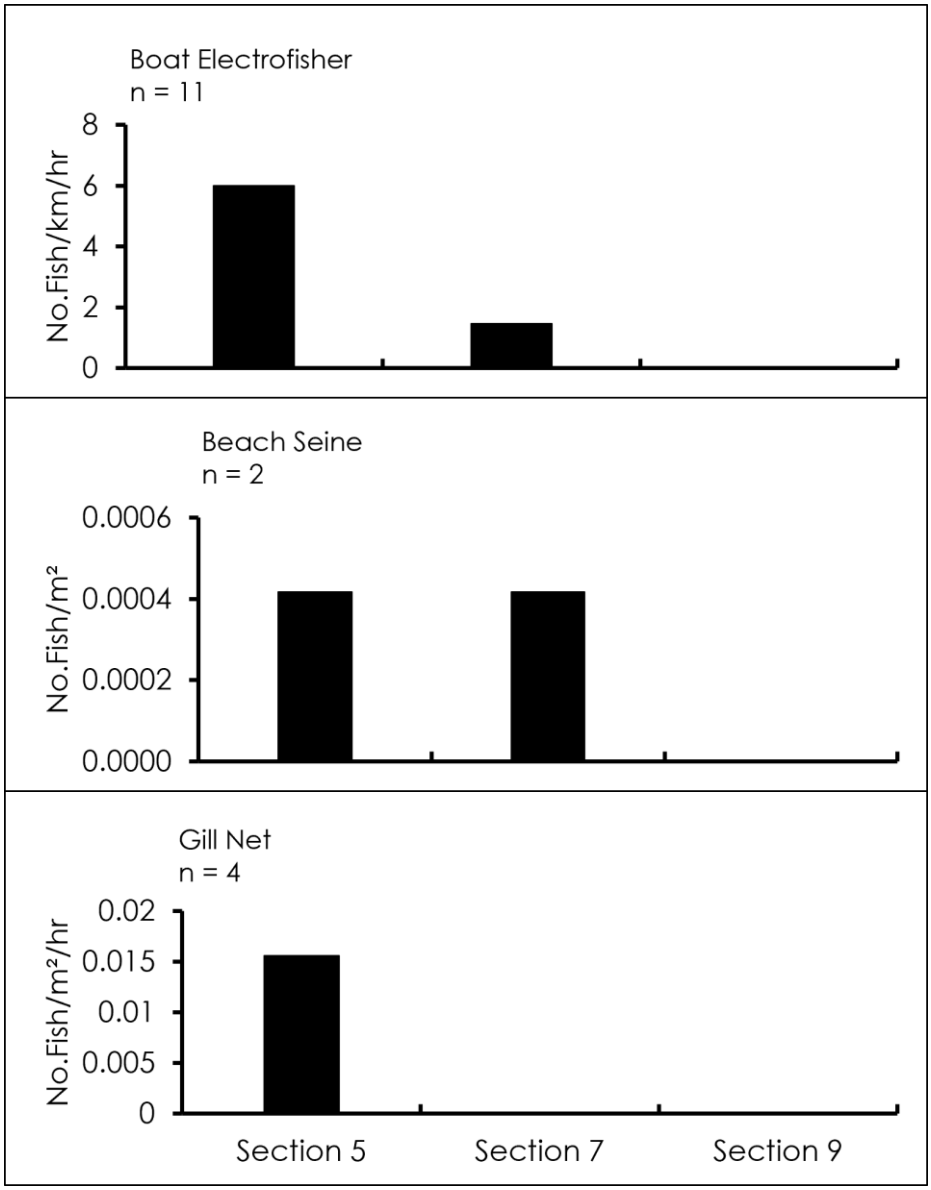


Figure 35. Average catch rate by river section for Northern Pike caught in 2021

3.6.2.2 Biological Characteristics

Based on the fin rays collected, a total of seven age classes of Northern Pike were captured in 2021 (Table 15). New PIT tags were implanted in 14 of the Northern Pike, and none were recorded with an existing PIT tag. One Northern Pike was recorded with an LH DELT code. Fish ranged in length from 170 mm to 788 mm, ranged in weight from 25 g to 2,700 g, and ranged in body condition from 0.46 to 0.81. No distinct trends for

Northern Pike length and weight could be determined with such a small sample size, however body condition values were smaller than other fish species of similar size, suggesting the Fulton condition index may not be a representative index for long slender fish such as Northern Pike. Body condition values were similar for all seven Northern Pike, with one having a high lesion DELT index.

Table 15. Average fork length, weight, and body condition along with standard deviation and sample range by fish age for Northern Pike caught by boat electrofishing, beach seine, and gill net in 2021

Age	*Fork Length (mm)*			*Weight (g)*			*Body Condition (K)*		
	n	**Average ± SD**	**Range**	***n***	**Average ± SD**	**Range**	***n***	**Average ± SD**	**Range**
1	2	173 ± 3	170 - 176	2	29 ± 4	25 - 32	2	0.55 ± 0.10	0.46 - 0.65
3	2	556 ± 79	477 - 634	1	790 ± 0	790	1	0.73 ± 0	0.73
4	1	460 ± 0	460	1	735 ± 0	735	1	0.76 ± 0	0.76
5	5	572 ± 113	466 - 788	2	1,024 ± 122	902 – 1,145	2	0.71 ± 0.01	0.70 - 0.72
7	2	591 ± 111	480 - 702	2	1,798 ± 903	895 – 2,700	2	0.79 ± 0.01	0.78 - 0.81
9	2	576 ± 140	436 - 715	2	1,530 ± 1,070	460 – 2,600	2	0.63 ± 0.08	0.56 - 0.71
14	1	529 ± 0	529	1	968 ± 0	968	1	0.65 ± 0	0.65

Sample numbers for the length-frequency and age-frequency data are low. However, they do suggest a wide variety of age cohorts occupy the sampled areas (Figure 36, Figure 37). Low numbers preclude accurate inferences, however growth with the power equation improved clarity, suggesting slightly positive allometric growth (Figure 38).

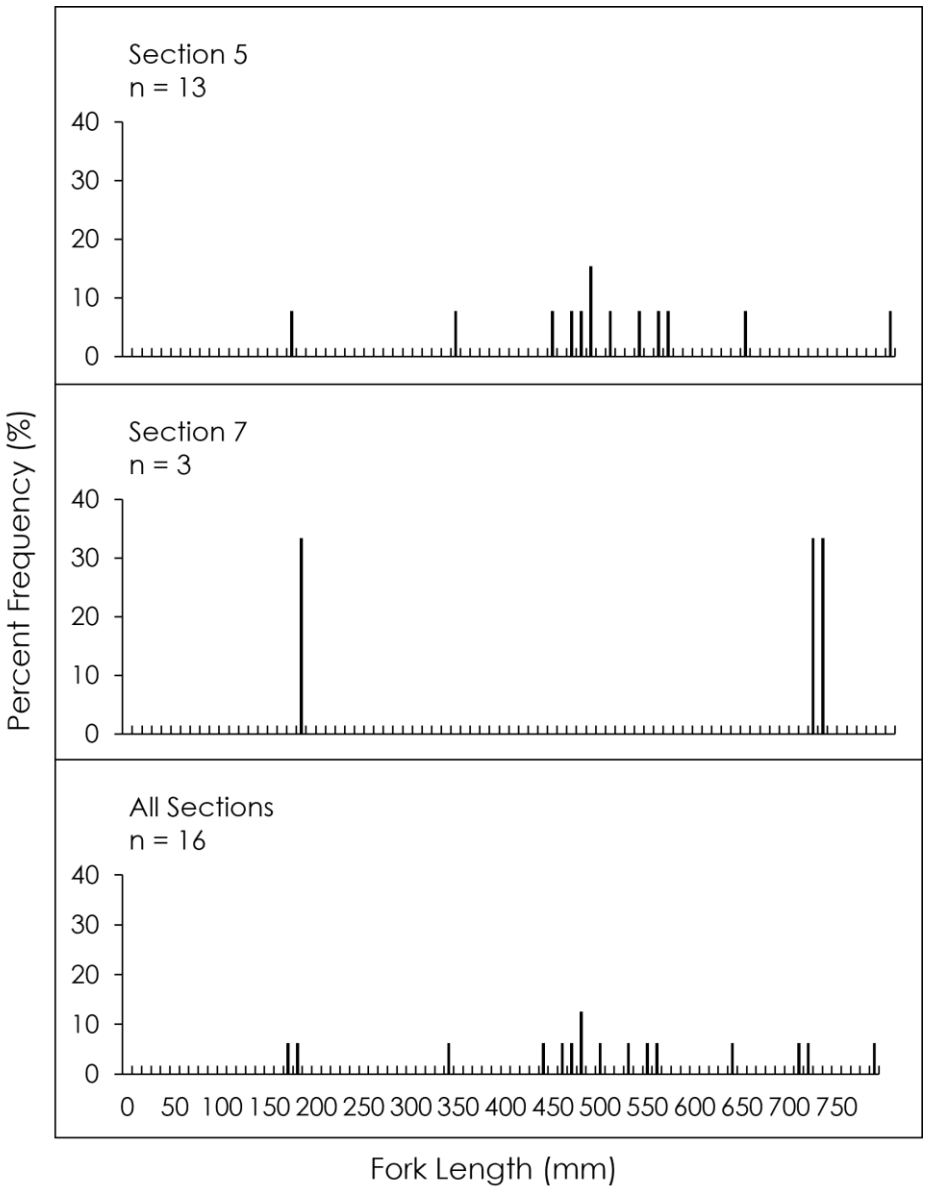


Figure 36. Length-frequency distribution by river section for Northern Pike caught in 2021

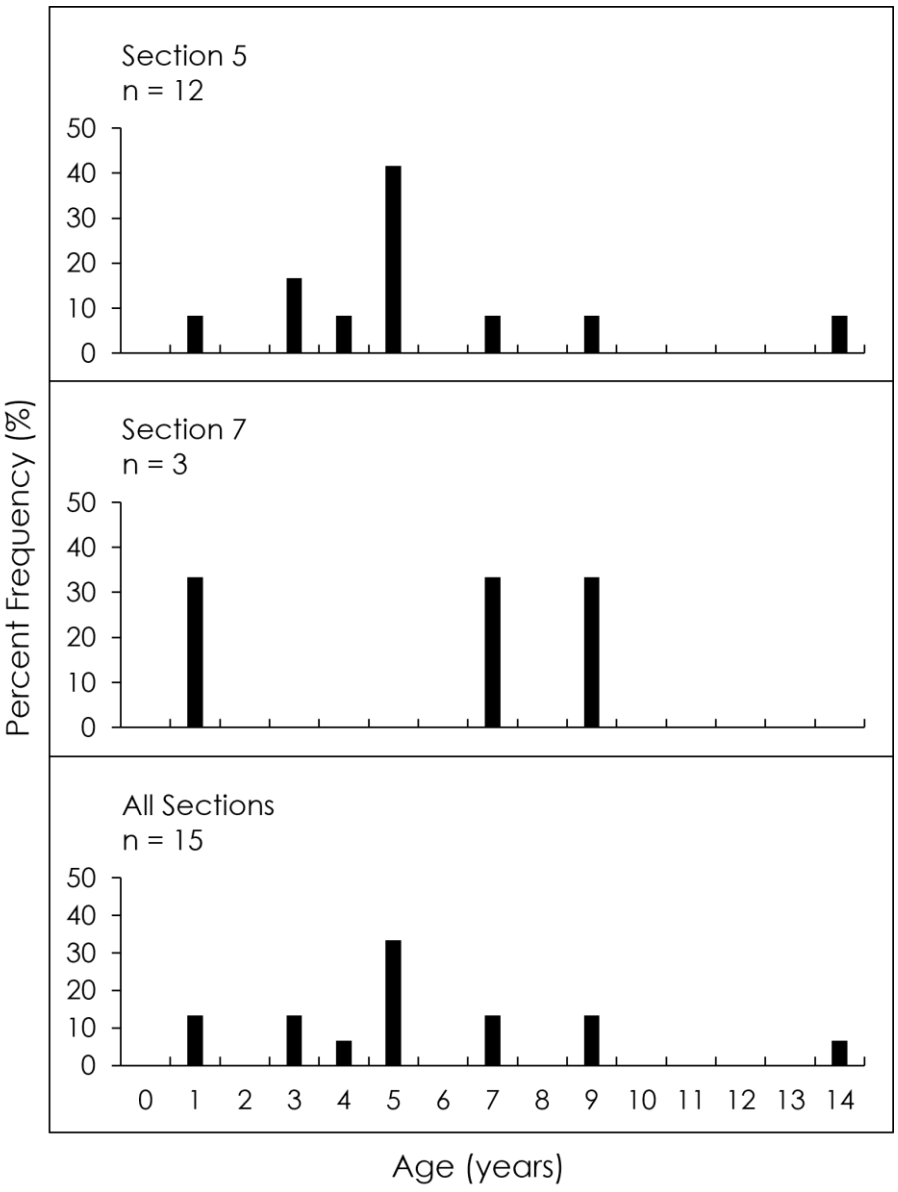


Figure 37. Age-frequency distribution for Northern Pike caught in 2021

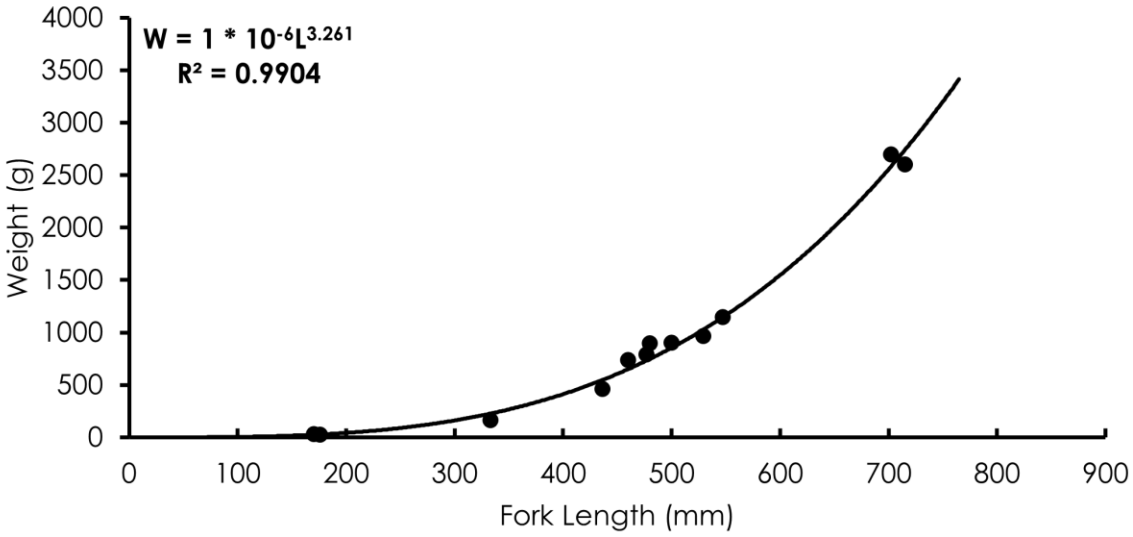


Figure 38. Length-weight regression for Northern Pike caught in 2021

3.6.3 Walleye

3.6.3.1 Catch Rate

The two Walleye captured in 2021 were caught using the boat electrofisher sampling method. Both fish were caught in Section 5 with a catch rate of 2.2 fish/km/hr (Figure 39, Appendix 4). By habitat, both Walleye were caught in main channels with none being caught in side channel or tributary confluence habitat. No Walleye were captured within the 108R offset channels of Section 5.

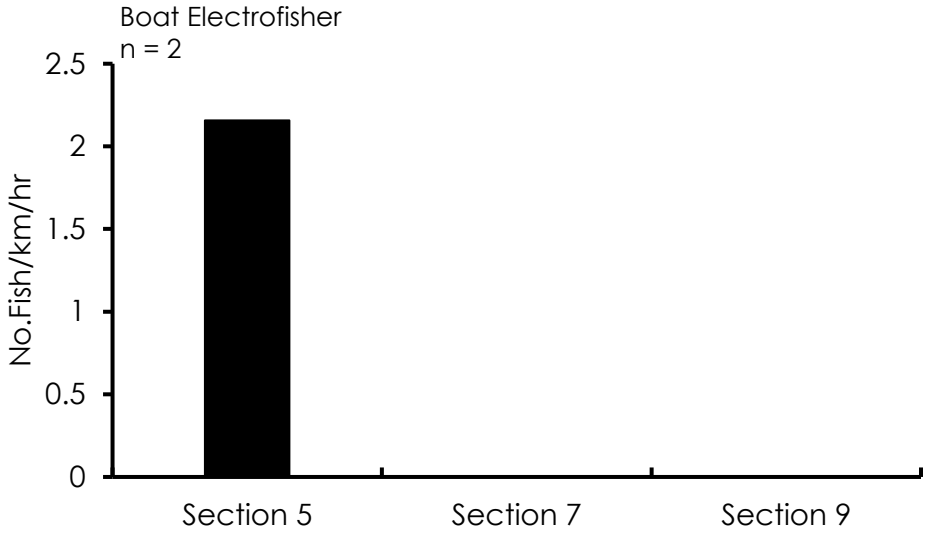


Figure 39. Average catch rate by river section for Walleye caught in 2021

3.6.3.2 Biological Characteristics

The results of the one Walleye fin ray sent for age analysis was inconclusive. One Walleye was implanted with new PIT tag, and one was recorded with an existing PIT tag and a radio tag. No DELT codes were recorded on the Walleye captured. The two Walleye caught had a fork length that ranged from 495 mm to 521 mm, weight ranged from 1,323 g to 1,440 g, and body condition ranged from 1.02 to 1.09 (Table 16).

Table 16. Average fork length, weight, and body condition along with standard deviation and sample range for Walleye caught by boat electrofishing in 2021

Fork Length (mm)			*Weight (g)*			*Body Condition (K)*		
n	**Average ± SD**	**Range**	***n***	**Average ± SD**	**Range**	***n***	**Average ± SD**	**Range**
2	508 ± 13	495 - 521	2	1,382 ± 59	1,323 – 1,440	2	1.05 ± 0.04	1.02 - 1.09

Given the low sample numbers, length-frequency provides no discernable trends (Figure 40). The Walleye length-weight relationship visually appears to show strong negative allometric growth, although sampled numbers were low (Figure 41).

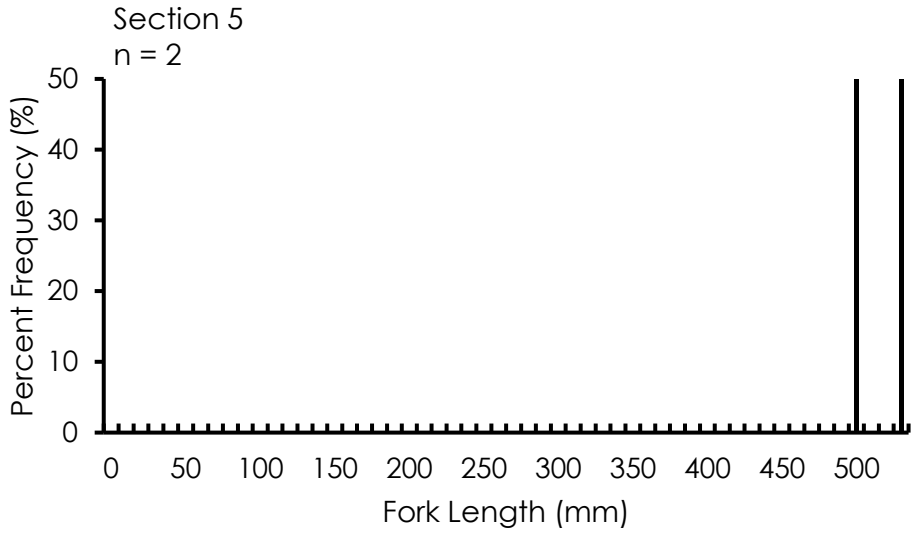


Figure 40. Length-frequency distribution by river section for Walleye caught in 2021

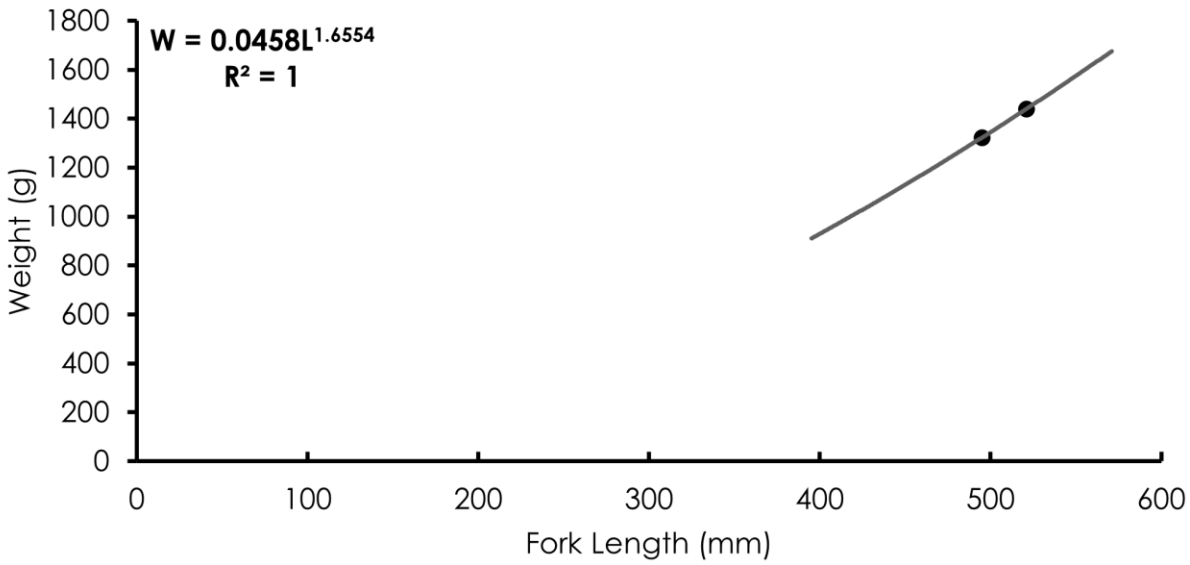


Figure 41. Length-weight regression for Walleye caught in 2021

3.7 Sucker Population

Suckers were the second most abundant fish group encountered in 2021, accounting for 22.4% of the total fish caught. The 2021 data fall within the 12% to 25% proportional range for the sucker group documented by historical baseline studies (Mainstream 2010, 2011, 2013; Triton 2021).

Three species of suckers were recorded during field sampling of the Peace River in 2021 (Table 17). Longnose Sucker was the most abundant species, accounting for 90% of the total suckers caught. White Sucker and Largescale Sucker comprise the remaining 10%.

Table 17. Number of sucker species caught and their frequency of occurrence in sampled sections, 2021

Species	*Section 5*	*Section 7*	*Section 9*	*Total*	*% of Sucker Catch*
Longnose Sucker	98	146	167	411	90
Largescale Sucker	11	9	1	21	5
White Sucker	12	8	3	23	5
Subtotal	**121**	**163**	**171**	**455**	**100**

A total of 411 Longnose Suckers were captured in the three sampled sections of the Peace River, accounting for 20.2% of the total fish caught in 2021. The 2021 Longnose Sucker catch numbers exceeded those of all previous historical studies for all river sections. Historically, lower proportions of total fish caught have been documented for Longnose Suckers (6% to 9%) with between 22 to 32 in Section 5 (2009, 2010, 2011, 2020), 18 to 45 in Section 7 (2009, 2010, 2011, 2020), and 72 to 81 in Section 9 in (2011, 2020) (Mainstream 2010, 2011, 2013; Triton 2021). The abundance of Longnose Suckers was highest in downstream river sections, an observation similar to previous study years (Mainstream 2010, 2011, 2013; Triton 2021).

Largescale Suckers were captured in all three of the sampled sections of the Peace River, accounting for 1.1% of the total fish caught in 2021. Similar proportions of between 1% to 3% have been documented by historical studies (Mainstream 2010, 2011, 2013; Triton 2021). Largescale Sucker was the least abundant of the sucker species recorded in 2021 and appears to be more prevalent in upstream river sections, though the small sample size makes interpretation of spatial trends difficult. Mainstream and Triton also documented more Largescale Suckers in the upstream sections, with 10 to 23 being caught in Section 5 (2009, 2010, 2011, 2020), 1 to 11 being caught in Section 7 (2009, 2010, 2011, 2020), and 2 to 3 being caught in Section 9 (2011, 2020) (Mainstream 2010, 2011, 2013; Triton 2021).

White Suckers were captured in the three sampled sections of the Peace River and accounted for 1.2% of the total fish caught in 2021. In past years, White Suckers have made up between 1% to 6% of the total fish caught, with the number of White Suckers caught per river section ranging from 7 to 68 in Section 5 (2009, 2010, 2020), 1 to 8 in

Section 7 (2009, 2010, 2020), and 15 White Suckers being caught in Section 9 in 2020 (Mainstream 2010, 2011, 2013; Triton 2021).

3.7.1 Sucker Catch Rate and Distribution

Of the 455 total suckers captured in 2021, 275 were caught using the boat electrofisher, 129 were caught using a backpack electrofisher, 31 were caught using a beach seine, and 20 were caught with a gill net. The backpack electrofisher yielded the highest average catch rates by section, between 161 and 650 suckers/km/hr, followed next by boat electrofisher between 43 and 75 suckers/km/hr (Figure 42, Appendix 4). Beach seine average catch rates were between 0.002 and 0.006 suckers/m^2, and for gill net average catch rates were between 0 and 0.07 suckers/m^2/hr. By habitat, 276 of the suckers were caught in main channels, 153 were caught in side channel habitat, and 26 were caught at a tributary confluence. A total of 16 suckers were captured within the 108R offset channels in Section 5.

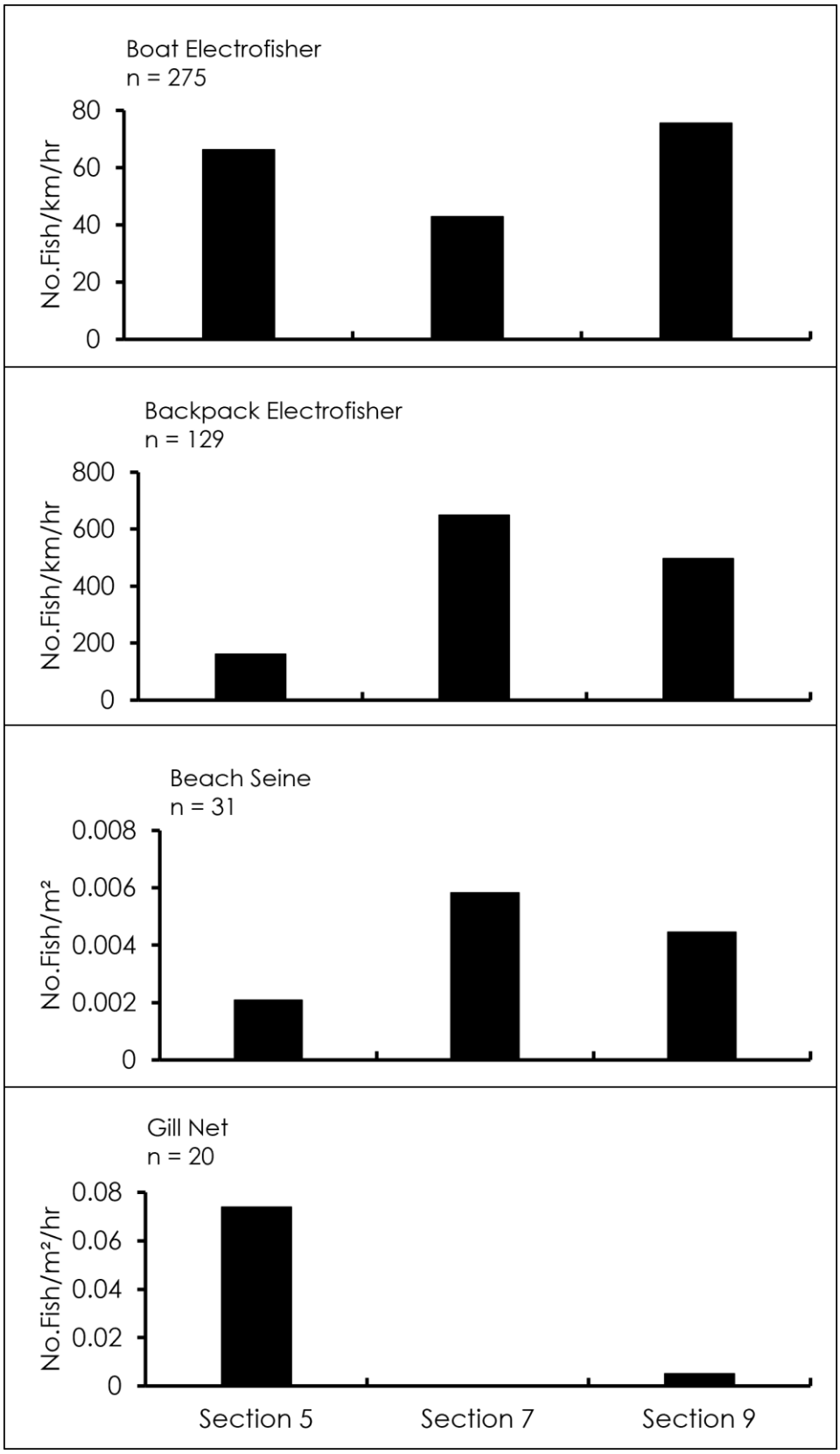


Figure 42. Average catch rate for suckers by sample method and section in 2021

3.7.2 Longnose Sucker

3.7.2.1 Biological Characteristics

Of the 411 Longnose Suckers caught, 238 were used to describe length and weight, and 110 were used to describe body condition. New PIT tags were implanted in 75 Longnose Suckers, and 14 were recorded with an existing PIT tag. DELT codes were observed on 19 of the Longnose Suckers captured (2 CH, 5 CL, 2 DL, 4 EH, 1 EL, 1 LH, 3 LL, and 1 TL).The Longnose Suckers analyzed ranged in length from 30 mm to 480 mm, ranged in weight from 0.1 g to 1,274 g, and ranged in body condition from 0.66 to 2.2 (Table 18). Average body condition (K > 1) and low standard deviation suggest the 110 fish analyzed were healthy and in good condition.

Table 18. Average fork length, weight, and body condition for Longnose Suckers caught in 2021

Fork Length (mm)			*Weight (g)*			*Body Condition (K) (Fish >100 mm)*		
n	**Average ± SD**	**Range**	***n***	**Average ± SD**	**Range**	***n***	**Average ± SD**	**Range**
238	161 ± 143	30 - 480	238	186 ± 310	0.1 - 1274	110	1.17 ± 0.2	0.66 - 2.2

Length-frequency distribution shows a higher proportion of larger fish caught in Section 5, while the majority of Longnose Suckers caught in Sections 7 and 9 were less than 80 mm (Figure 43). The length-weight relationship represented by the power function appears to show nearly isometric growth, suggesting an increase in weight is almost directly proportional to an increase in length (Figure 44).

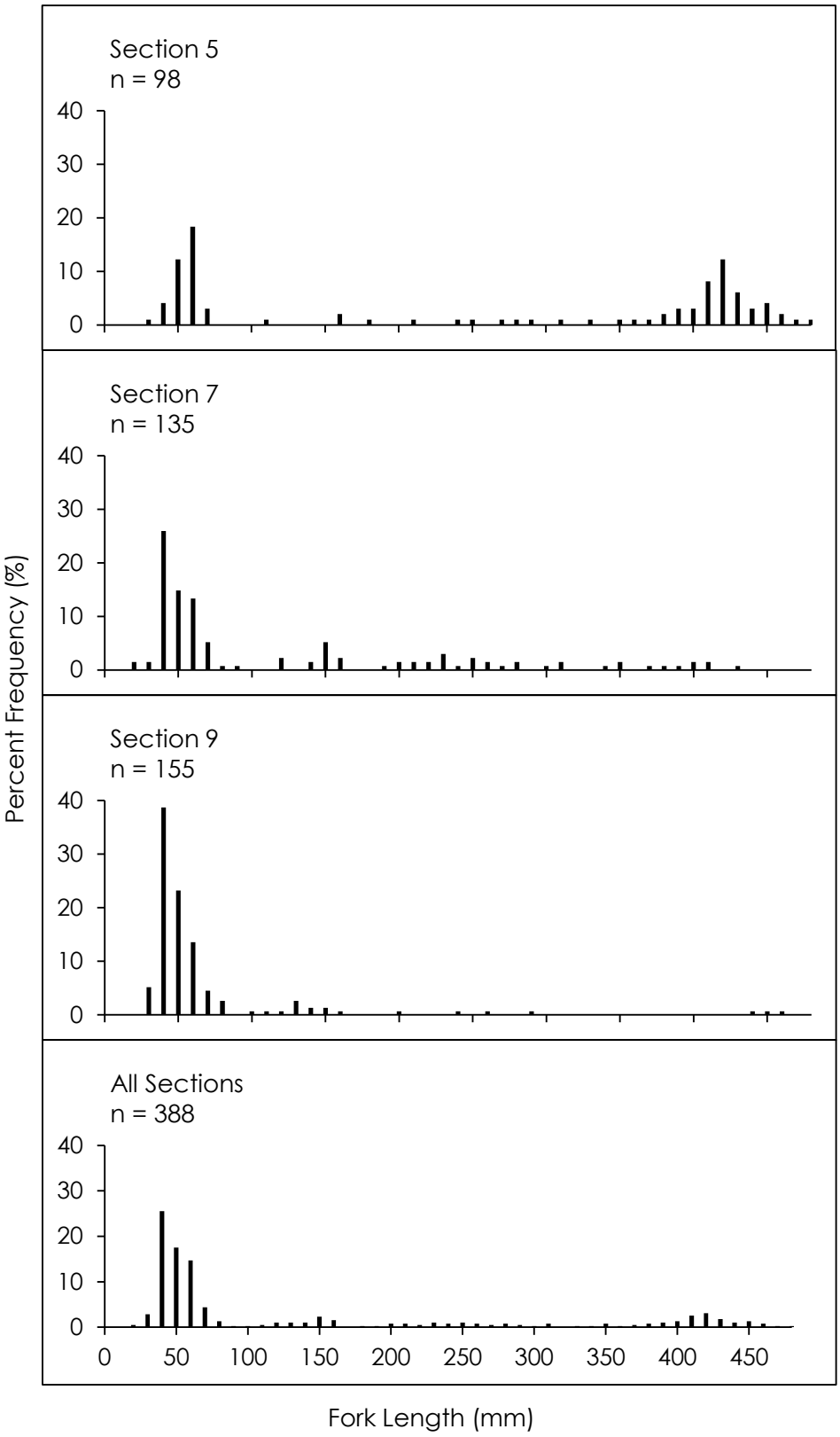


Figure 43. Length-frequency distribution by river section for Longnose Suckers caught in 2021

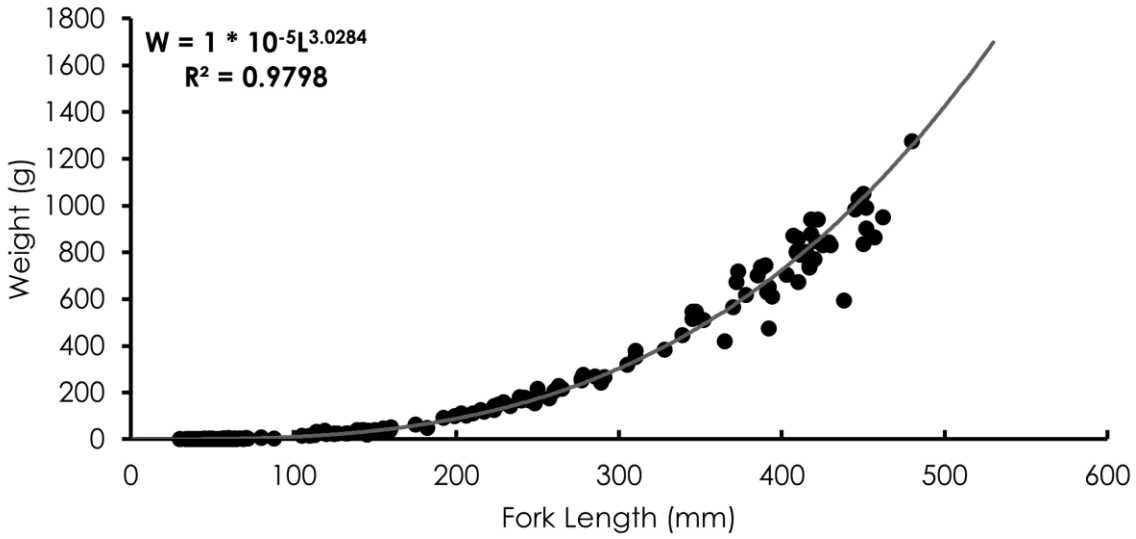


Figure 44. Length-weight regression for Longnose Suckers caught in 2021

3.7.3 Largescale Sucker

3.7.3.1 Biological Characteristics

Of the 21 Largescale Suckers caught, 16 were used to describe length and weight, and 9 were used to describe body condition. Nine Largescale Suckers were implanted with new PIT tags, and one was recorded with an existing PIT tag. Three of the Largescale Suckers captured were observed with DELT codes (1 CH, and 2 EH). The Largescale Suckers analyzed ranged in length from 38 mm to 502 mm, ranged in weight from 0.3 g to 1,510 g, and ranged in body condition from 0.98 to 1.35 (Table 19). Average body condition (K > 1) and low standard deviation suggest the nine fish analyzed were healthy and in good condition, however this could also be a product of their broad girth.

Table 19. Average fork length, weight, and body condition for Largescale Suckers caught in 2021

Fork Length (mm)			*Weight (g)*			*Body Condition (K) (Fish >100 mm)*		
n	**Average ± SD**	**Range**	***n***	**Average ± SD**	**Range**	***n***	**Average ± SD**	**Range**
16	185 ± 154	38 - 502	16	277 ± 496	0.3 - 1510	9	1.21 ± 0.1	0.98 - 1.35

Length-frequency data for Largescale Sucker suggest several age classes in Sections 5 and 7 with low numbers. Low sample numbers for Section 9 make age class prediction difficult. The length-weight relationship represented by the power function appears to show nearly isometric growth, suggesting an increase in weight is almost directly proportional to an increase in length (Figure 45).

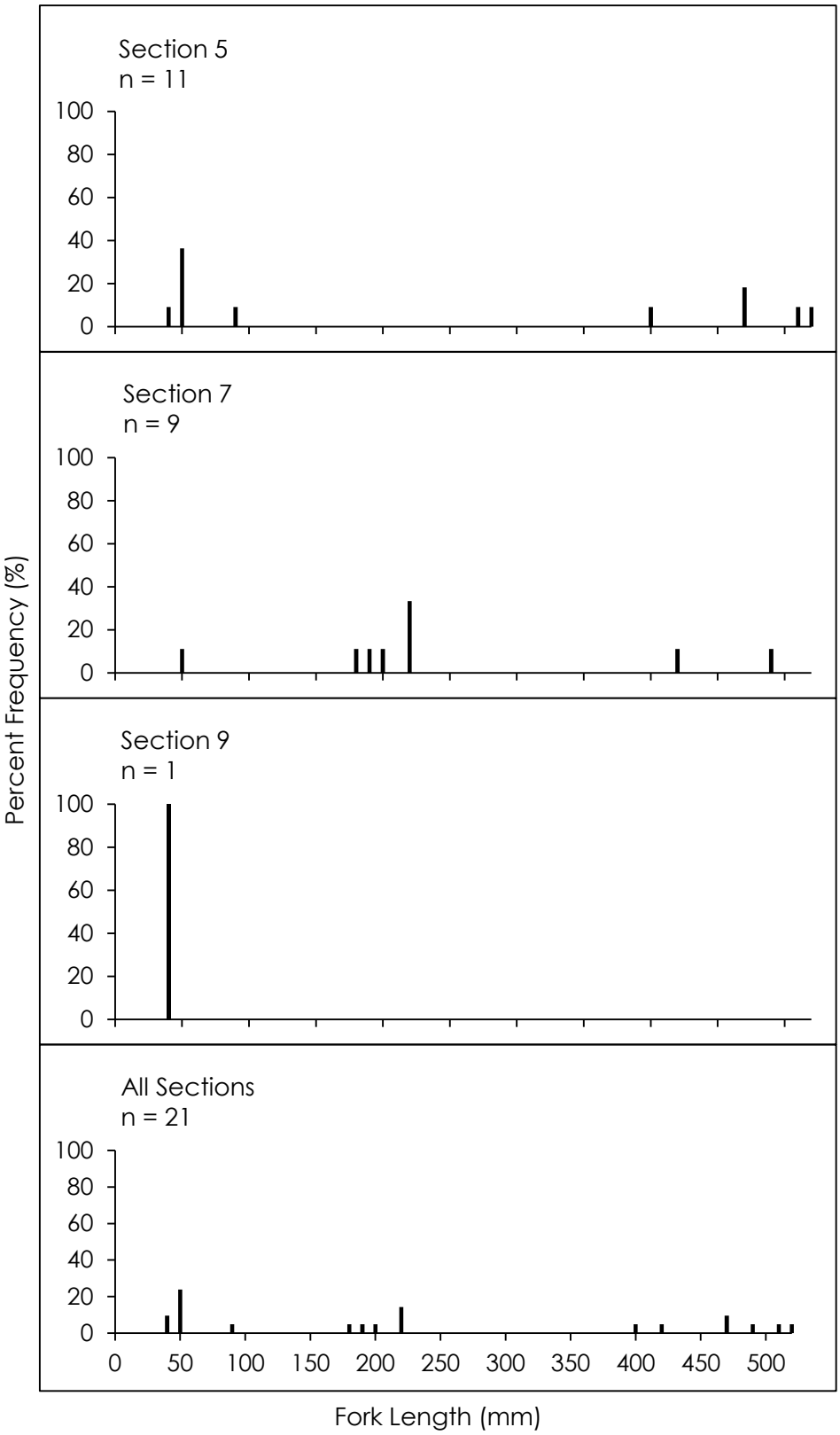


Figure 45. Length-frequency distribution by river section for Largescale Suckers caught in 2021

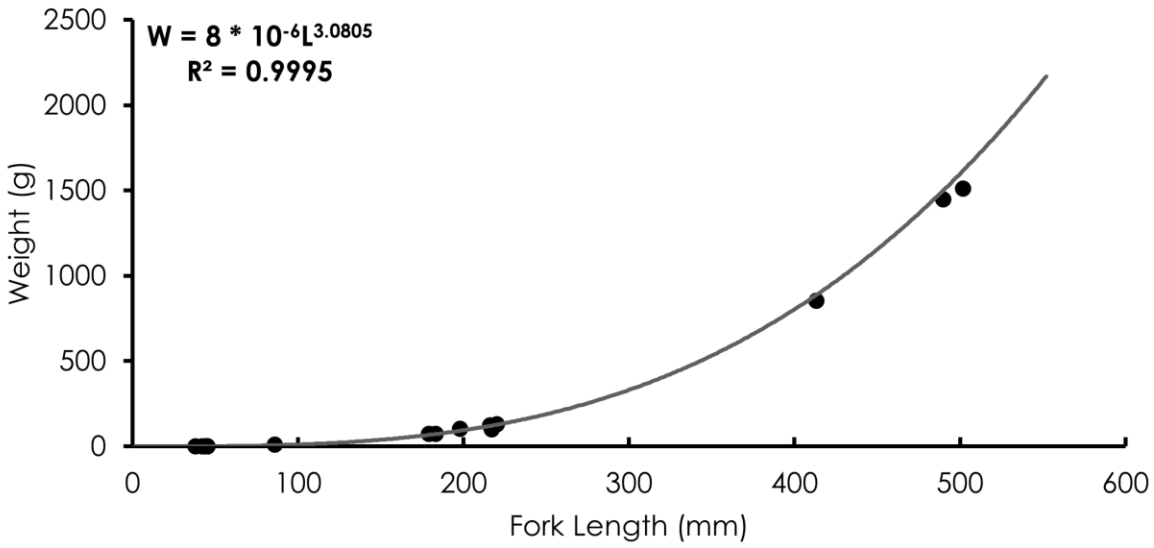


Figure 46. Length-weight regression for Largescale Suckers caught in 2021

3.7.4 White Sucker

3.7.4.1 Biological Characteristics

Of the 23 White Suckers caught, 15 were used to describe length and weight, and 6 were used to describe body condition. Five White Suckers were implanted with new PIT tags, and one was recorded with an existing PIT tag. No DELT codes were recorded on the White Suckers captured. The 15 White Suckers analyzed ranged in length from 45 mm to 453 mm, ranged in weight from 0.03 g to 1,062 g, and ranged in body condition from 1.05 to 1.41 (Table 20).

Table 20. Average weight, fork length, and body condition for White Suckers caught in 2021

Fork Length (mm)			*Weight (g)*			*Body Condition (K) (Fish >100 mm)*		
n	**Average ± SD**	**Range**	***n***	**Average ± SD**	**Range**	***n***	**Average ± SD**	**Range**
15	164 ± 143	45 - 453	15	205 ± 325	0.03 – 1,062	6	1.25 ± 0.13	1.05 - 1.41

Length-frequency data indicated the population across all river sections was predominantly young with few sub-adult or adult fish (Figure 47). White Sucker length-weight relationship was expressed using the power function to improve clarity, suggesting allometric growth for this fish species (Figure 48).

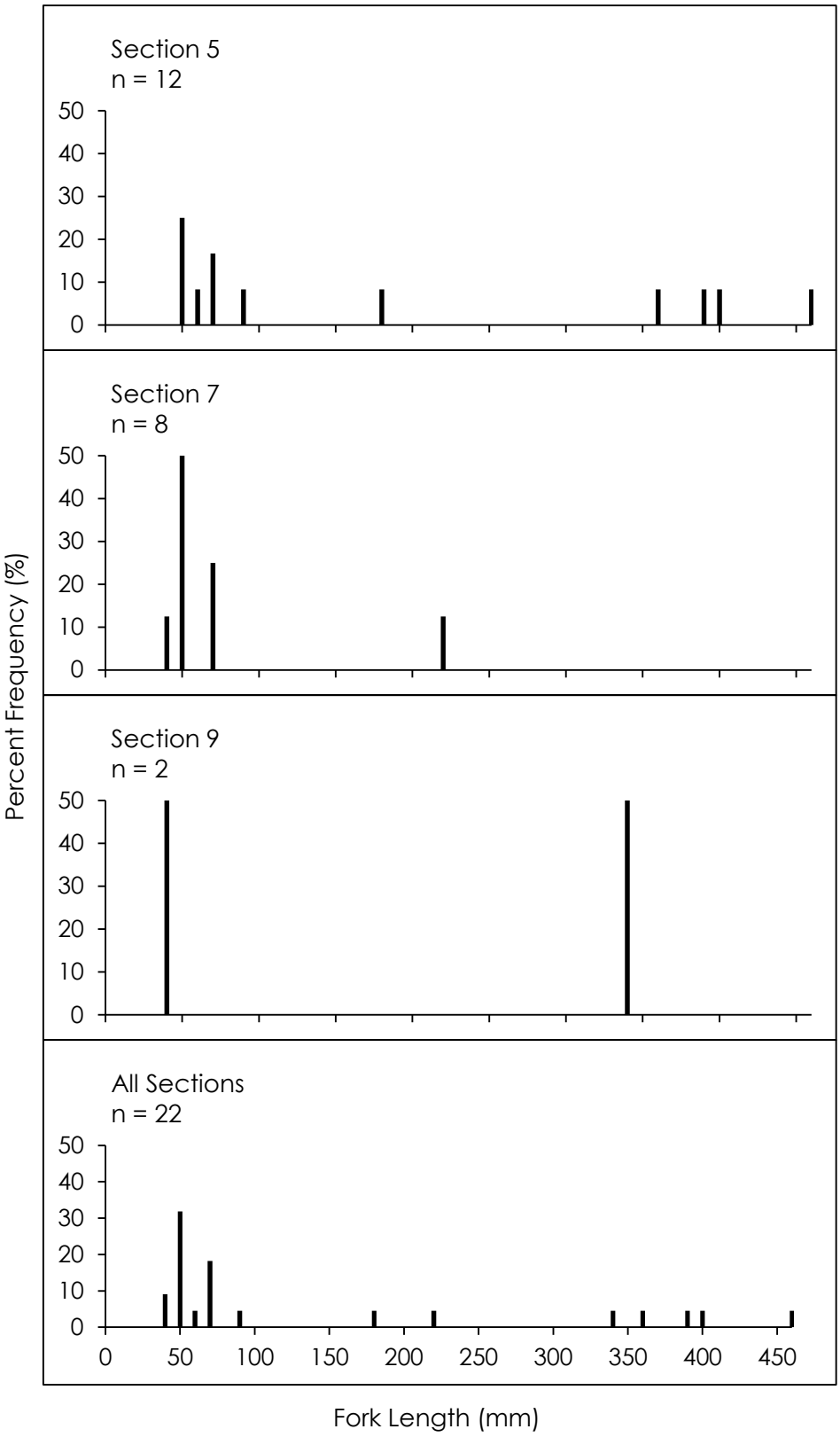


Figure 47. Length-frequency distribution by river section for White Suckers caught in 2021

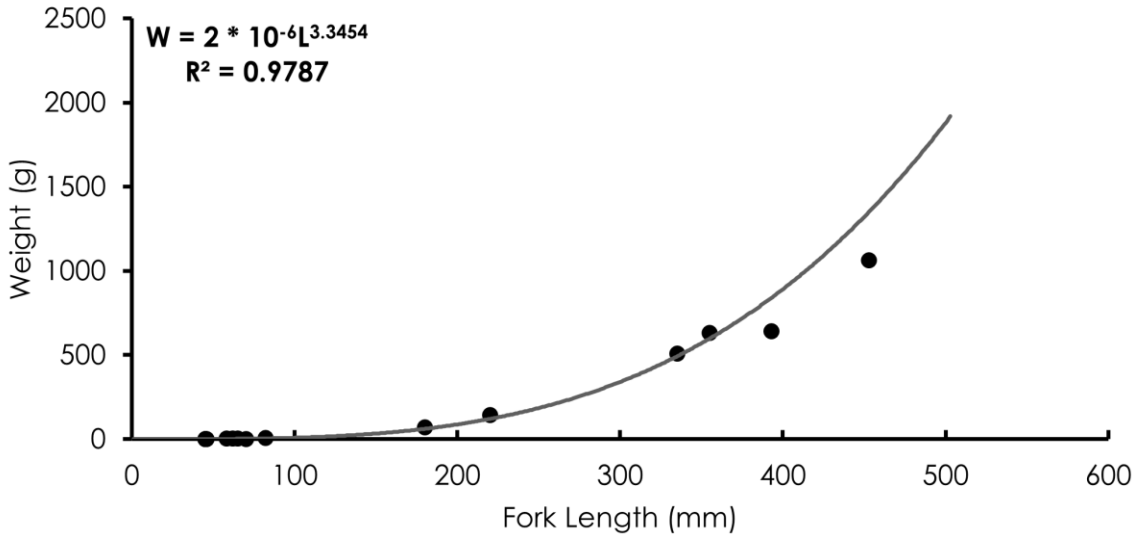


Figure 48. Length-weight regression for White Suckers caught in 2021

3.8 Sculpin Population

Sculpins were the least abundant fish group encountered in 2021, accounting for 1% of the total fish caught. A total of 20 sculpins were captured in 2021 which is a considerable drop compared to 2020 where 545 sculpins were caught, making up 37% of the total fish caught (Triton 2021). Historical studies captured between 127 to 188 total sculpins (Mainstream 2010, 2011, 2013).

Three species of sculpins were recorded during field sampling of the Peace River in 2021 (Table 21). Slimy Sculpin was the most prevalent sculpin species recorded, at 0.9% of the total fish caught, followed by Prickly Sculpin (0.1%) and Spoonhead Sculpin (0.1%). Due to the small sample size of the 2021 program, trends in distribution could not be determined. However, in the 2020 program the abundance of sculpins decreased from upstream to downstream. Spoonhead Sculpins were captured more frequently in downstream sections while both Prickly Sculpin and Slimy Sculpin were more prevalent in upstream sections (Triton 2021).

Table 21. Number of sculpin species caught and their frequency of occurrence in sampled sections, 2021

Species	*Section 5*	*Section 7*	*Section 9*	*Total*	*% of Sculpin Catch*
Prickly Sculpin	2	0	0	2	10
Slimy Sculpin	6	11	0	17	85
Spoonhead Sculpin	0	1	0	1	5
Subtotal	**8**	**12**	**0**	**20**	**100**

3.8.1 Sculpin Catch Rate and Distribution

Of the total 20 total sculpins captured in 2021, 15 were captured by boat electrofisher, and 5 were captured by backpack electrofisher. The backpack electrofisher yielded the highest average catch rates of 11 to 37 sculpins/km/hr sampled, followed by the boat electrofisher with an average catch rate of 3 to 4 sculpins/km/hr (Figure 49, Appendix 4). By habitat, 14 sculpins were captured in main channels, and 6 were captured in side channels. One sculpin was captured within the 108R offset channels of Section 5.

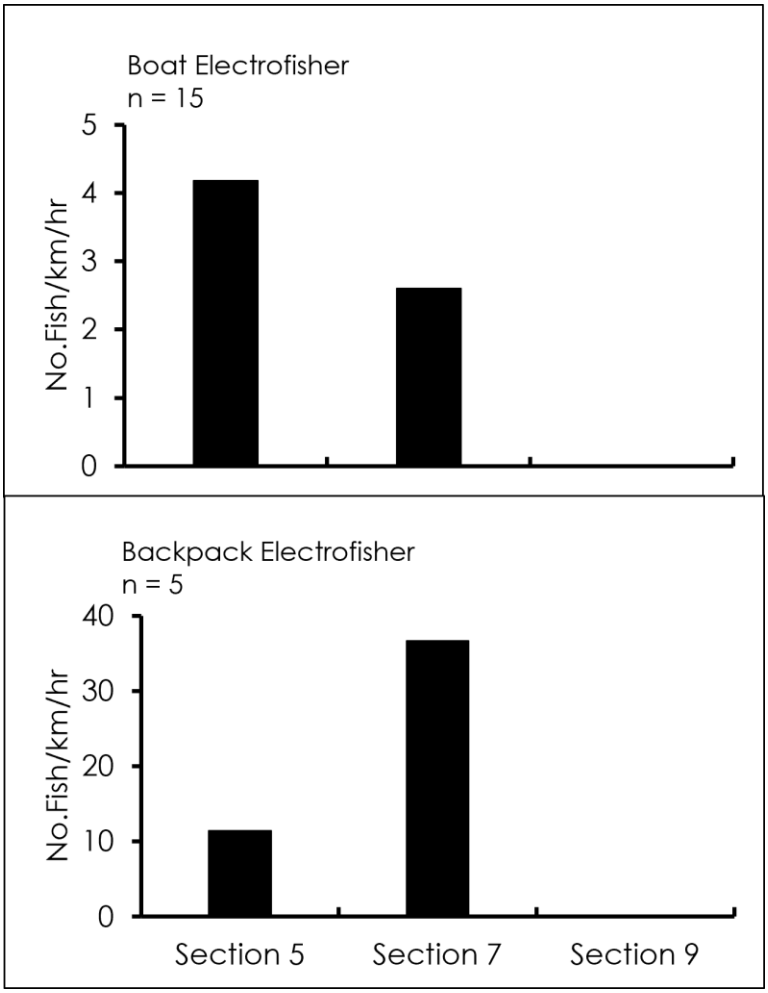


Figure 49. Average catch rate for sculpins by sample method and section in 2021

3.8.2 Prickly Sculpin

Two Prickly Sculpins were captured in 2021, ranging from 85 mm to 120 mm total length, and 7 g to 21 g (Table 22). No DELT codes were recorded on the Prickly Sculpin captured.

Table 22. Average length and weight for Prickly Sculpins caught in 2021

Length (mm)			*Weight (g)*			*Body Condition (K) (Fish> 100 mm)*		
n	**Average ± SD**	**Range**	***n***	**Average ± SD**	**Range**	***n***	**Average ± SD**	**Range**
2	103 ± 18	85 - 120	2	14 ± 7	7 - 21	-	-	-

3.8.3 Slimy Sculpin

Of the 17 Slimy Sculpins caught, length and weight were obtained from 11 specimens. Slimy Sculpins ranged in length from 45 mm to 84 mm and ranged in weight from 0.8 g to 7 g (Table 23). No DELT codes were recorded on the Slimy Sculpin captured.

Table 23. Average length, weight, for Slimy Sculpins caught in 2021

Length (mm)			*Weight (g)*			*Body Condition (K) (Fish >100 mm)*		
n	**Average ± SD**	**Range**	***n***	**Average ± SD**	**Range**	***n***	**Average ± SD**	**Range**
11	66 ± 12	45 - 84	11	3 ± 2	0.8 - 7	-	-	-

The length-frequency distribution for Slimy Sculpin showed a range of lengths and presumably various ages of this small-bodied fish, with the majority in the 50 mm to 80 mm range (Figure 50). Slimy Sculpin length-weight data were examined using the power equation, suggesting strong positive allometric growth (Figure 51).

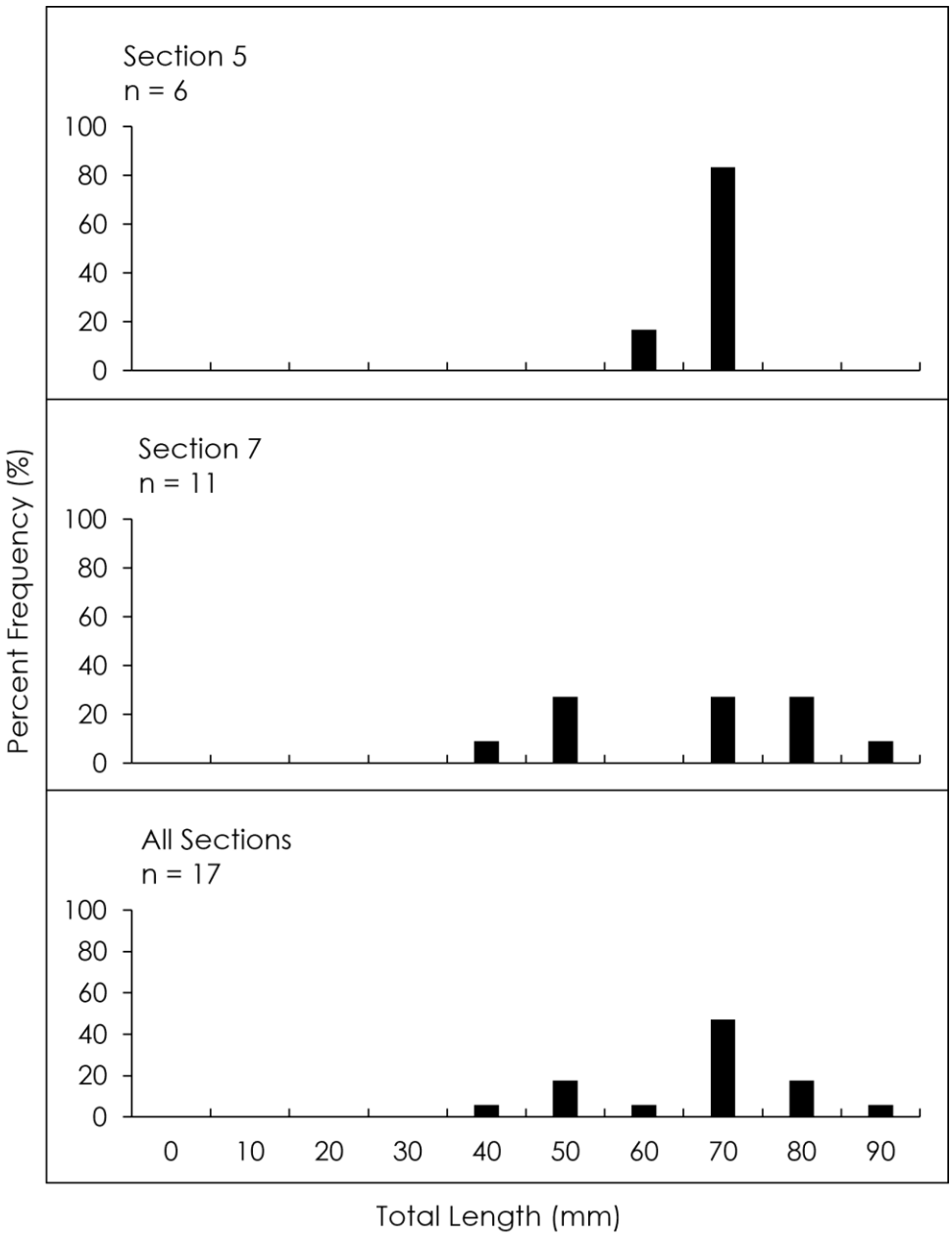


Figure 50. Length-frequency distribution by river section for Slimy Sculpins caught in 2021

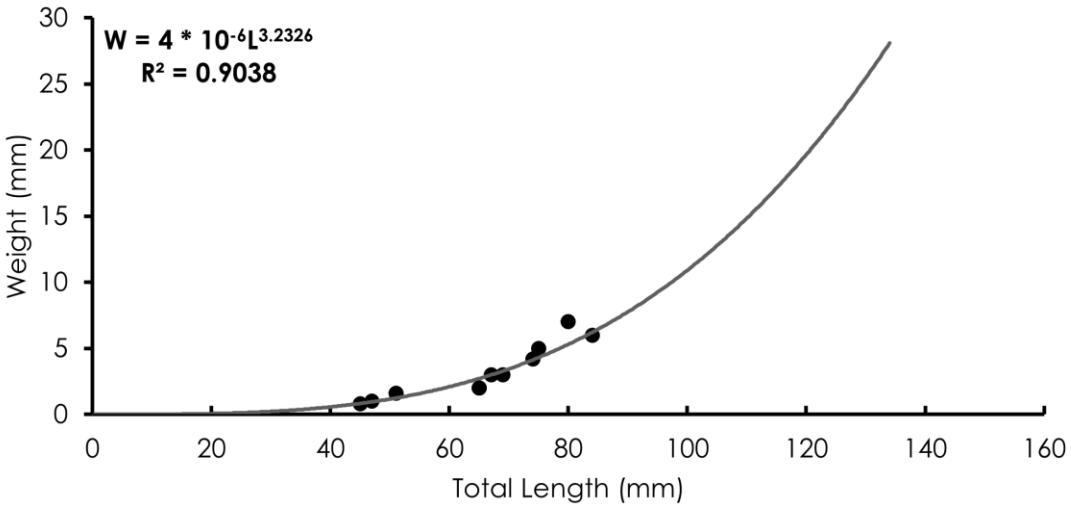


Figure 51. Length-weight regression for Slimy Sculpins caught in 2021

3.8.4 Spoonhead Sculpin

The single Spoonhead Sculpin caught in 2021 in Section 7 was 50 mm in length, and weighed 1.0 g. No DELT codes were recorded on the Spoonhead Sculpin captured.

3.9 Minnow Populations

The minnow group was the most abundant fish group recorded in 2021, with 1,089 fish caught, accounting for 54% of the total fish caught. Historically, the minnow group has made up a lower percentage, between 26% to 42% of the total fish caught, with a maximum of 441 and minimum of 268 (Mainstream 2010, 2011, 2013; Triton 2021).

Seven species of minnows were recorded during field sampling of the Peace River in 2021 (Table 24), which was similar to the six to seven species recorded between 2009 and 2011 (Mainstream 2010, 2011, 2013) and lower than the nine species recorded in 2020 (Triton 2021). Longnose Dace was the most prevalent minnow species captured in 2021, composing 18.2% of total fish caught. Lake Chub was the second most prevalent minnow, accounting for 14.1% of total fish caught. Redside Shiner was the third most prevalent minnow, accounting for 12.7% of the total fish caught. The remaining four species: Flathead Chub (2.4%), Northern Pikeminnow (4.3%), Spottail Shiner (1.4%), and Trout-perch (0.8%) composed 8.9% of the total fish caught. The numbers of minnows caught increased from upstream to downstream, with Section 9 having the greatest numbers of minnows caught.

Table 24. Number of minnow species caught and their frequency of occurrence in sampled sections, 2021

*Species**	*Section 5*	*Section 7*	*Section 9*	*Total*	*% of Minnows Caught*
Flathead Chub	0	1	46	47	4
Lake Chub	10	80	197	287	26
Longnose Dace	51	147	171	369	34
Northern Pikeminnow	7	6	74	87	8
Redside Shiner	87	114	56	257	24
Spottail Shiner	3	9	15	27	3
Trout-perch	6	5	4	15	1
Subtotal	**164**	**362**	**563**	**1,089**	**100**

*Note that the Minnow group includes true minnows of the family Cyprinidae and Trout-perch of the family Percopsidae.

3.9.1 Minnow Catch Rate and Distribution

Of the 1,089 minnows captured in 2021, 195 were caught using the boat electrofisher, 340 using the backpack electrofisher, and 554 using a beach seine. The backpack electrofisher yielded the highest catch rate of between 468 to 1,965 minnows/km/hr sampled (Figure 52, Appendix 4). Boat electrofishing had a catch rate between 16 and 65 minnows/km/hr. Beach seining yielded the lowest catch rate between 0.04 and 0.09 minnows/m^2 sampled. Catch rates increased from upstream to downstream sections for all capture methods, with the exception of Sections 7 and 9 for beach seine which were both 0.09 minnows/m^2 sampled. By habitat, 365 minnows were captured in main channel habitat, 529 were captured in side channel habitat, and 195 were captured at tributary confluences. A total of 96 minnows were captured in the 108R offset channels of Section 5, including 3 Lake Chub, 34 Longnose Dace, 2 Northern Pikeminnow, 1 Spottail Shiner, and 56 Redside Shiner.

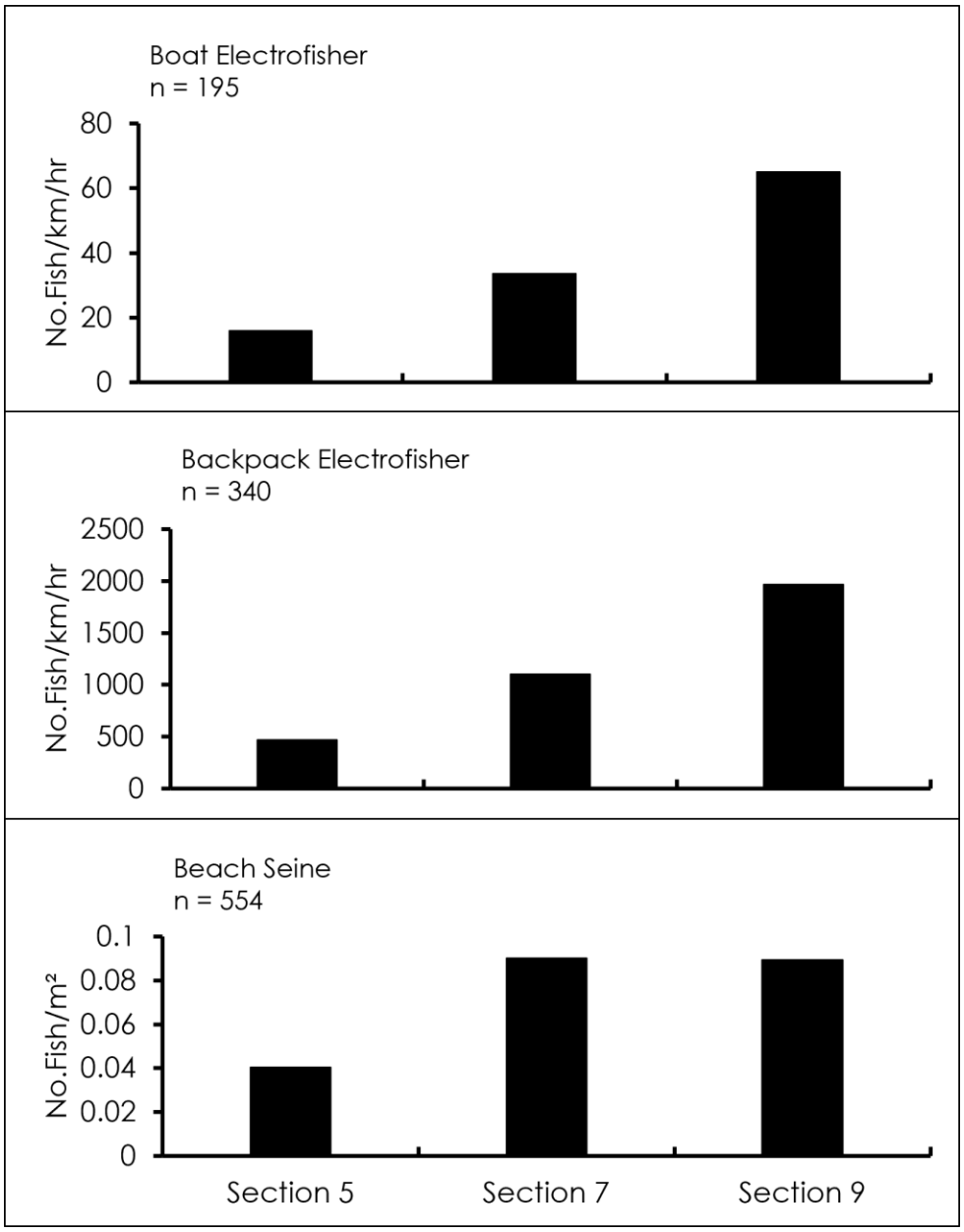


Figure 52. Average catch rate for minnows by sampling method and section in 2021

3.9.2 Biological Characteristics

Capture numbers, fork length, weight, and body condition, along with averages and standard deviation for the seven minnow species captured, is summarized in Table 25.

Table 25. Average fork length, weight, and body condition along with standard deviation and range for the seven minnow species caught in 2021

Species	Fork Length (mm)			Weight (g)			Body Condition (K) (Fish >100 mm)		
	n	Average ± SD	Range	*n*	Average ± SD	Range	*n*	Average ± SD	Range
Flathead Chub	13	64 ± 8	52 - 75	13	3 ± 1	1.1 - 5	-	-	-
Lake Chub	126	65 ± 13	44 - 98	126	3 ± 2	1 - 8	-	-	-
Longnose Dace	15	28 ± 2	24 - 31	15	1 ± 0	0.01 - 1	-	-	-
Northern Pikeminnow	15	113 ± 107	37 - 380	15	82 ± 180	0.9 - 680	4	1.09 ± 0.11	0.96 - 1.24
Redside Shiner	12	66 ± 22	33 - 108	12	5 ± 5	0.6 - 18	-	-	-
Spottail Shiner	3	34 ± 4	30 - 40	3	1 ± 0	1 - 1	-	-	-
Trout-perch	12	66 ± 11	51 - 90	12	4 ± 1	1.6 - 5.9	-	-	-

Of the 47 Flathead Chub caught in 2021, length and weight were obtained from 13 specimens. Most Flathead Chub lengths were measured without weights as their small size (i.e., less than 40 mm) precluded accurate weight measurements. No clear trends could be determined from the length-frequency distribution for Flathead Chub. All but one individual was captured in Section 7 (Figure 53). No DELT codes were recorded on the Flathead Chub captured.

Of the 287 Lake Chub caught in 2021, length and weight were obtained from 126 specimens. A large proportion of Lake Chub lengths were measured without weights as their small size (i.e., less than 40 mm) precluded accurate weight measurements. Of the Lake Chub caught across all sections, 90% were between 20 mm and 40 mm in length (Figure 54). No DELT codes were recorded on the Lake Chub captured.

Of the 369 Longnose Dace caught in 2021, length and weight were obtained from 15 specimens. Most Longnose Dace lengths were measured without weights as their small size (i.e., less than 40 mm) precluded accurate weight measurements (Figure 55). Only two Longnose Dace greater than 40 mm were captured in 2021. One of the Longnose Dace captured was observed with a DELT code (TL).

Of the 87 Northern Pikeminnow caught in 2021, length and weight were obtained from 15 specimens, and body condition from the 4 specimens greater than 100 mm long. The majority of Northern Pikeminnow lengths were measured without weights as their small size (i.e., less than 40 mm) precluded accurate weight measurements. The Northern Pikeminnow analyzed ranged in length from 37 mm to 380 mm, ranged in weight from

0.9 g to 680 g, and ranged in body condition from 0.96 to 1.24. The majority of Northern Pikeminnow were caught in Section 9 (n = 57) followed by Section 5 (n = 7), and Section 9 (n = 6). 82% of Northern Pikeminnow caught across all sections were between 20 mm and 50 mm in length. One of the Northern Pikeminnow captured was observed with a DELT code (TL).

Of the 257 Redside Shiners caught in 2021, length and weight were obtained from 12 specimens. The majority of Redside Shiner lengths were measured without weights as their small size (i.e., less than 40 mm) precluded accurate weight measurements. The length-frequency distribution for Redside Shiners was relatively uniform across all sections with greater than 90% of individuals between 10 and 30 mm in length (Figure 57). No DELT codes were recorded on the Redside Shiners captured.

Of the 27 Spottail Shiner caught in 2021, length and weight were obtained from 3 specimens. The majority of Spottail Shiner lengths were measured without weights as their small size (i.e., less than 40 mm) precluded accurate weight measurements. The length-frequency distribution for the 27 Spottail Shiners did not form any discernable pattern, as numbers and lengths varied throughout the sampled sections (Figure 58). No DELT codes were recorded on the Spottail Shiner captured.

Of the 15 Trout-perch caught in 2021, length and weight were obtained from 12 specimens. The length-frequency distribution for the 15 Trout-perch did not form any discernable pattern, as numbers and lengths varied throughout the sampled sections (Figure 59). No DELT codes were recorded on the Trout-perch captured.

No Finescale Dace or Northern Redbelly Dace were caught in 2021.

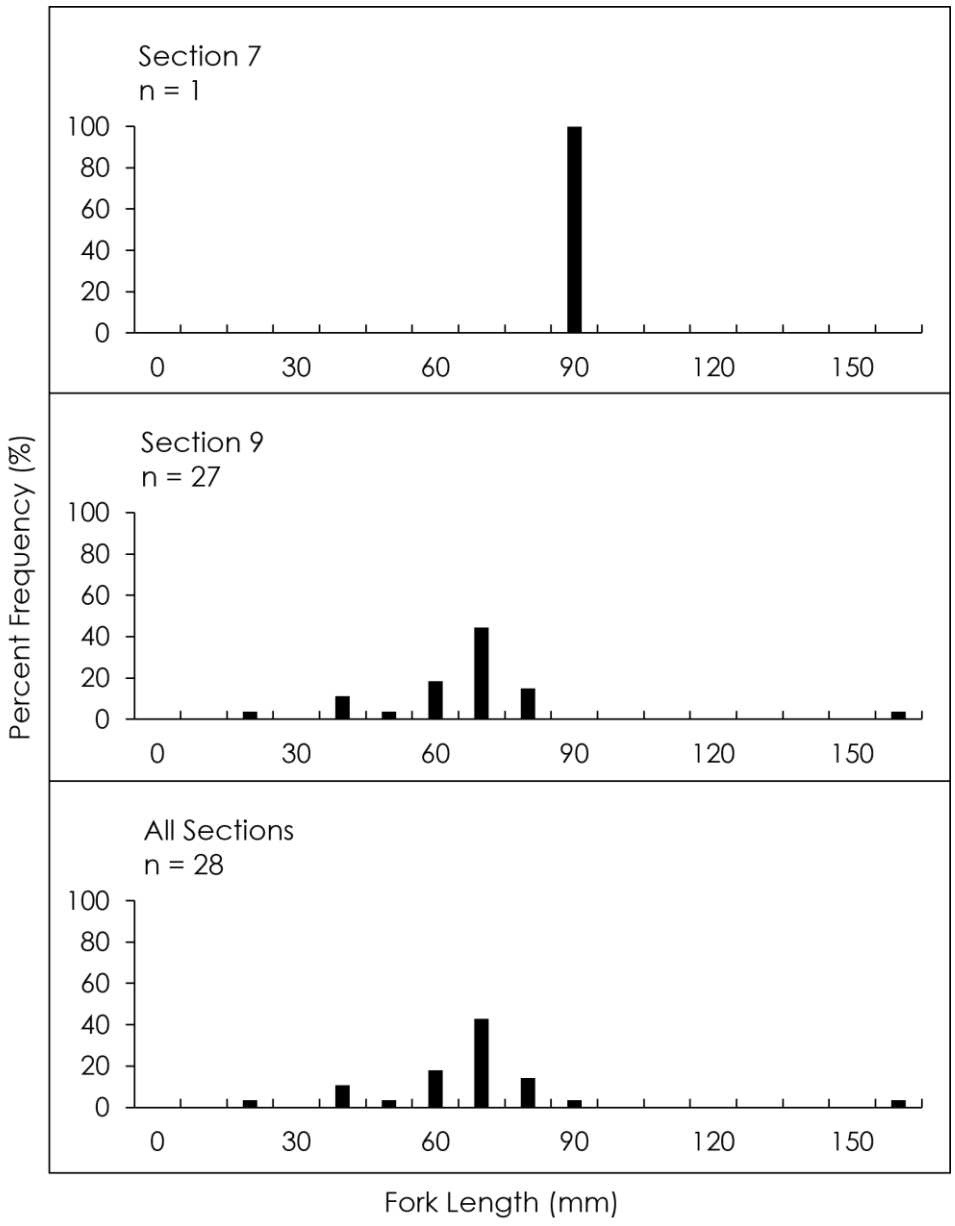


Figure 53. Length-frequency distribution by river section for Flathead Chub caught in 2021

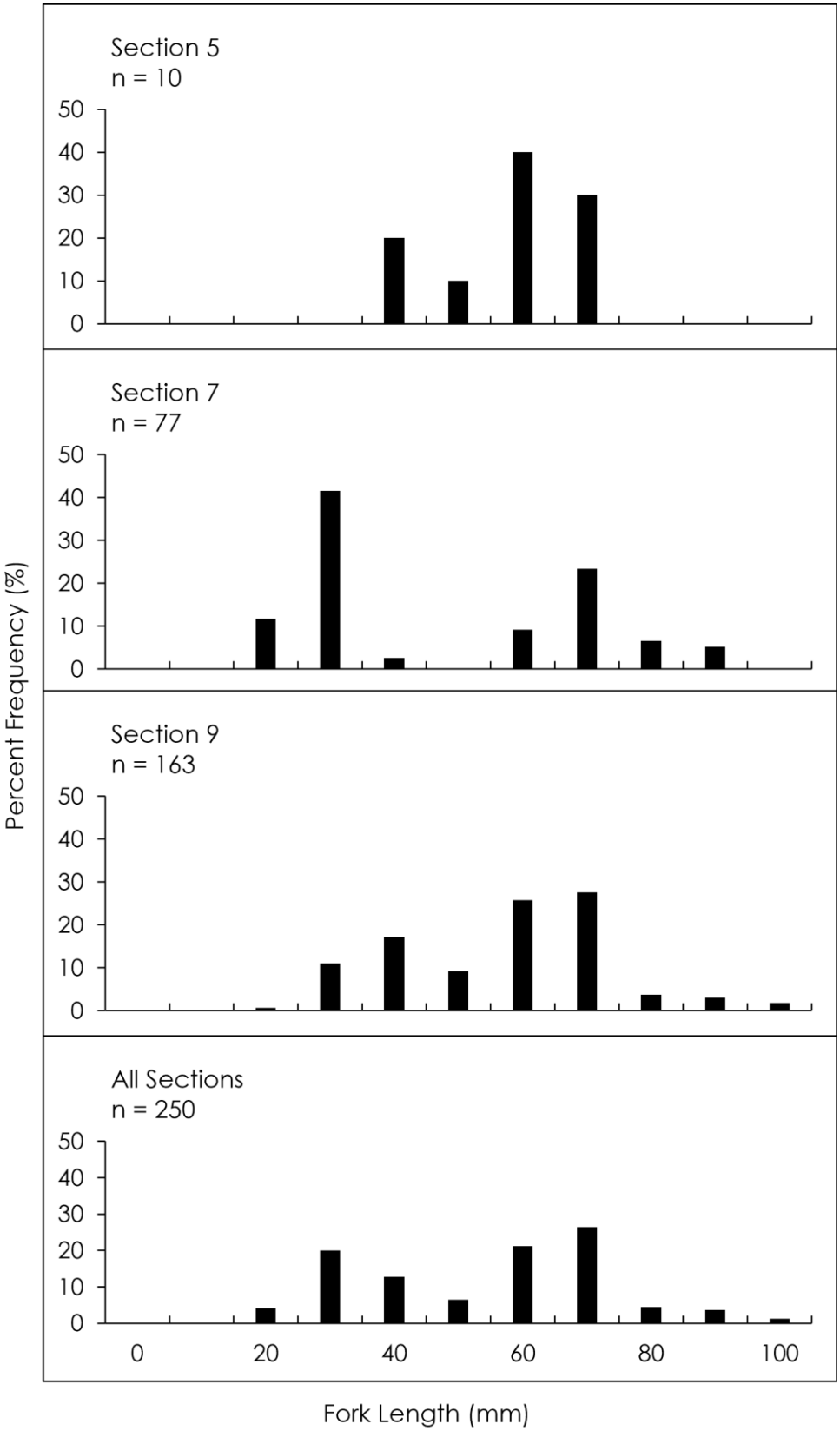


Figure 54. Length-frequency distribution by river section for Lake Chub caught in 2021

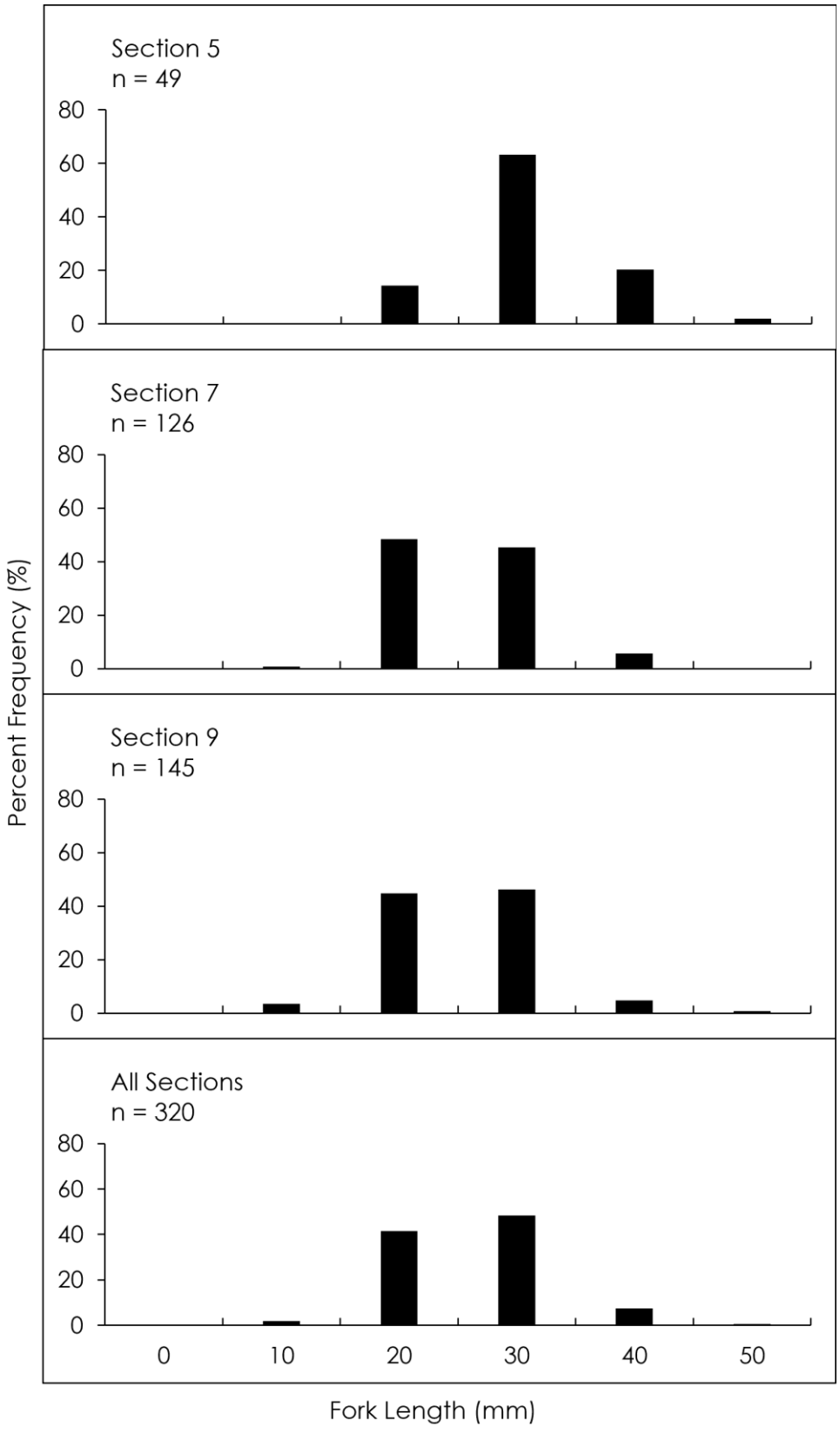


Figure 55. Length-frequency distribution by river section for Longnose Dace caught in 2021

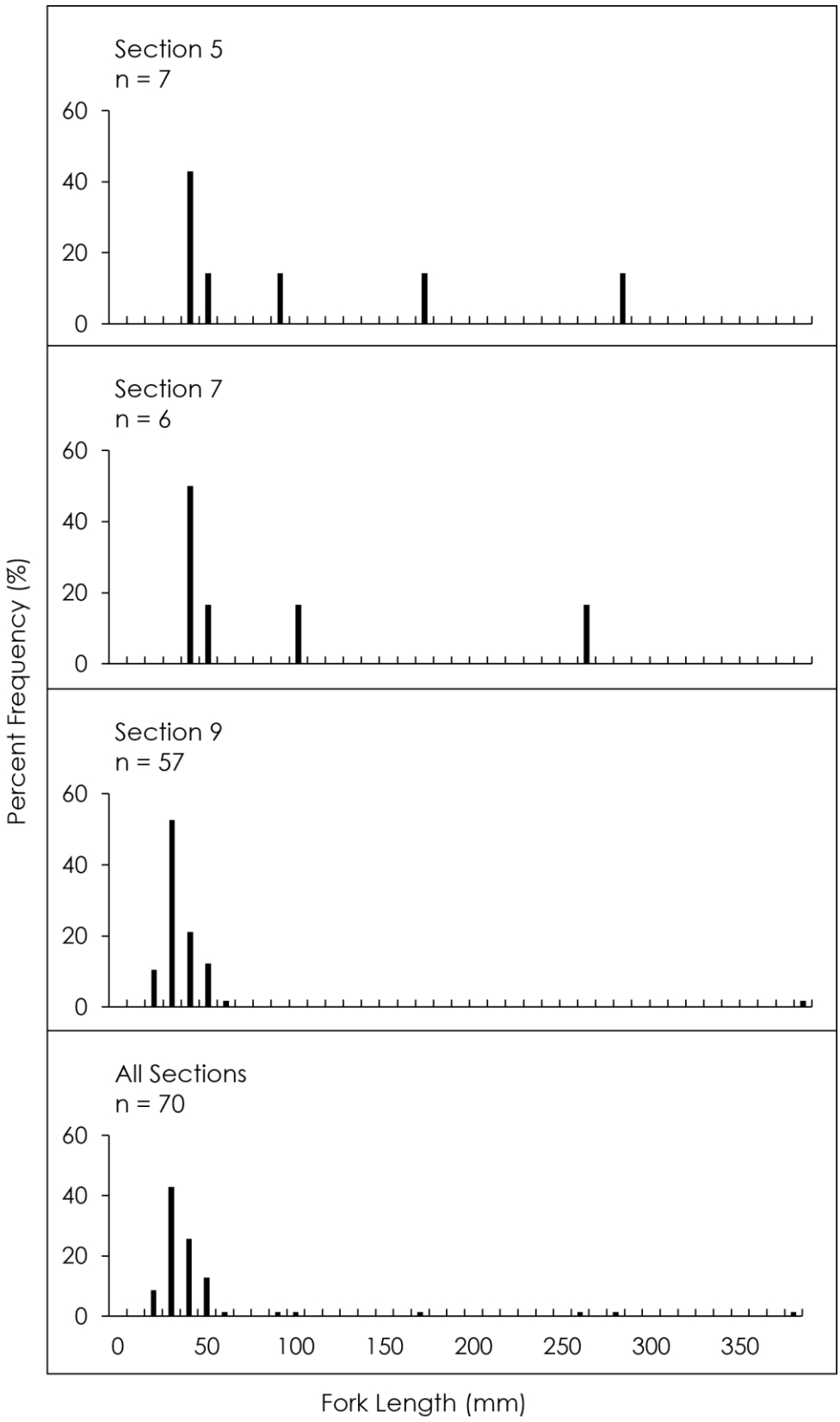


Figure 56. Length-frequency distribution by river section for Northern Pikeminnow caught in 2021

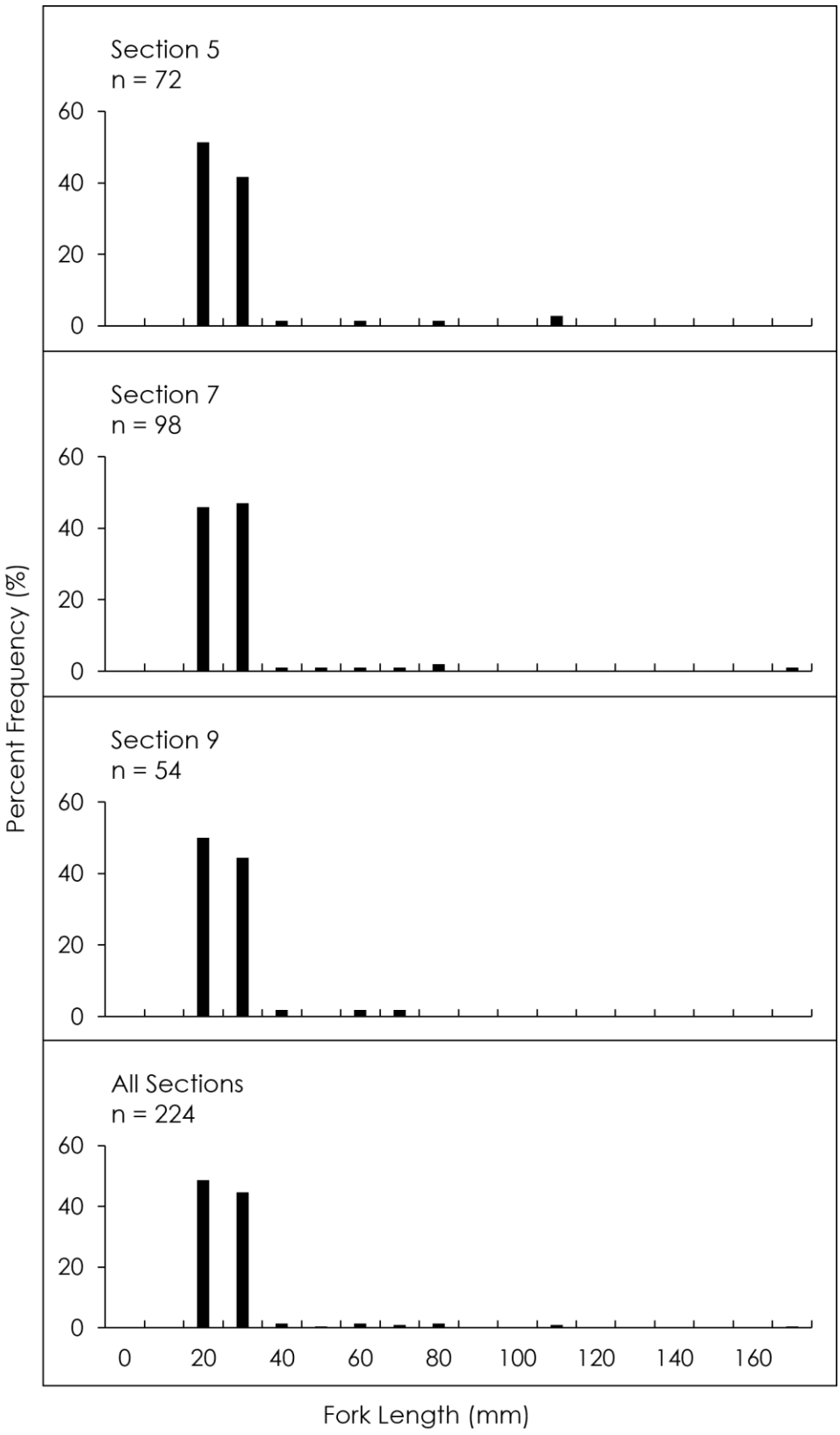


Figure 57. Length-frequency distribution by river section for Redside Shiners caught in 2021

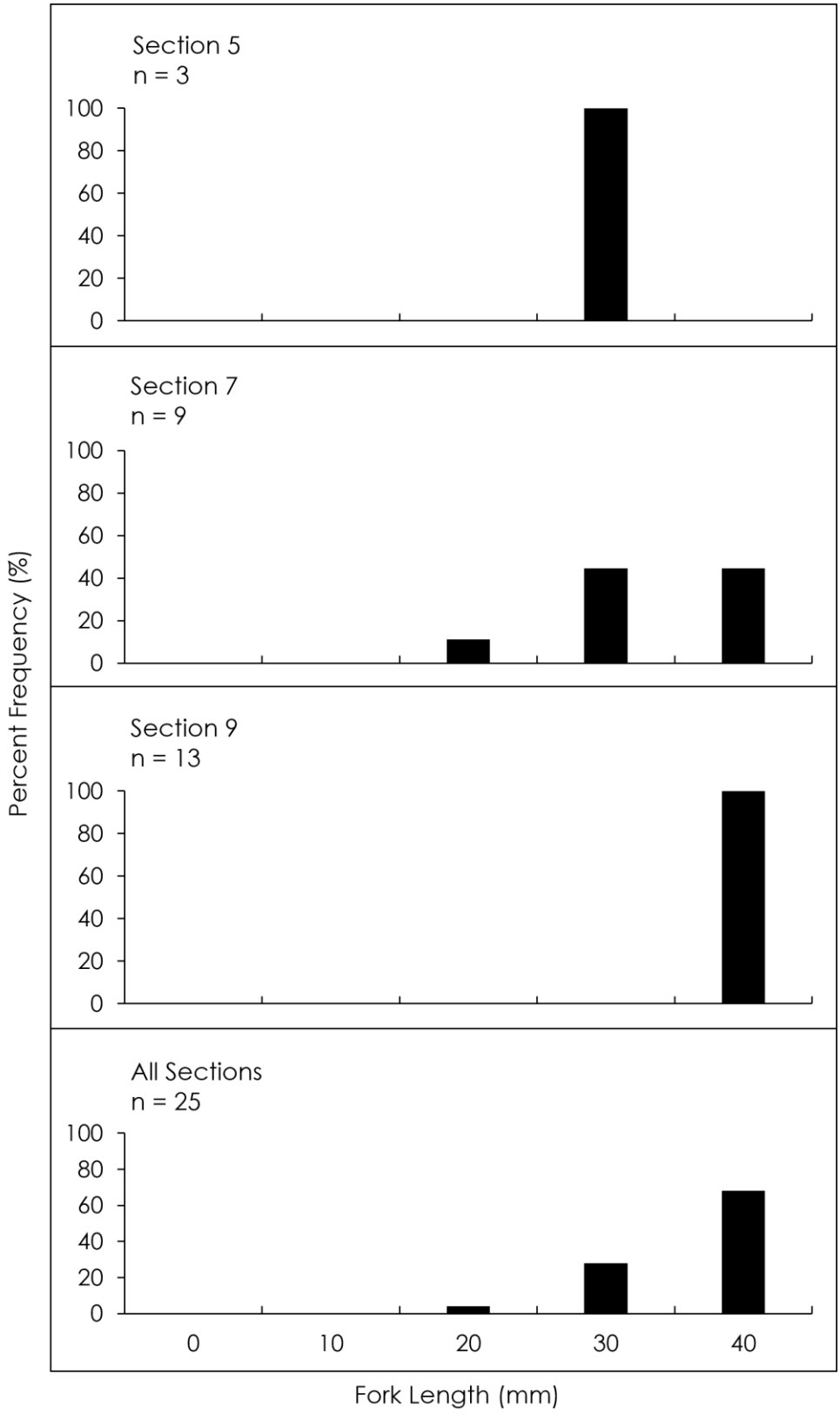


Figure 58. Length-frequency distribution by river section for Spottail Shiners caught in 2021

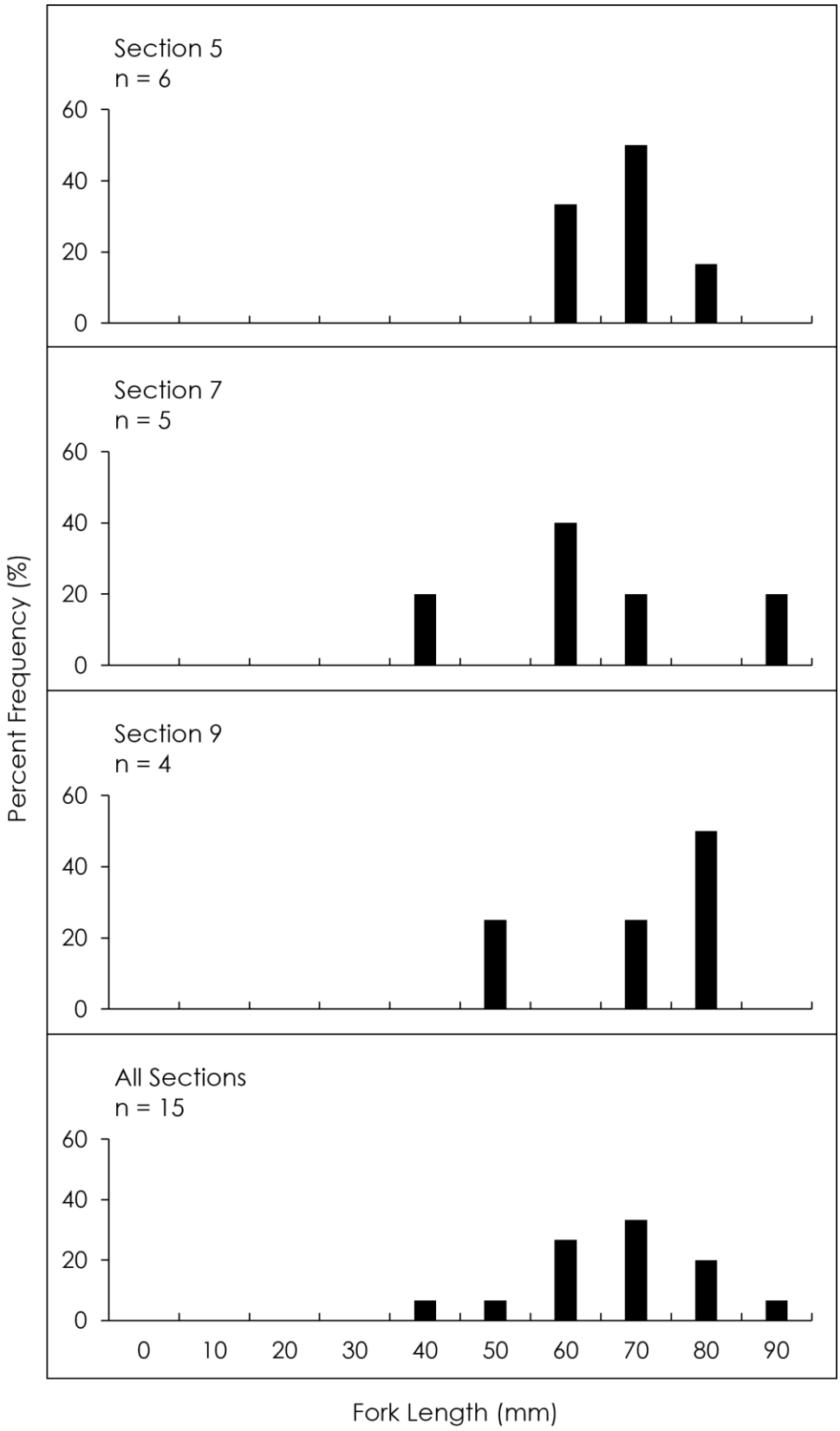


Figure 59. Length-frequency distribution by river section for Trout-perch caught in 2021

4.0 Discussion

This study documented higher numbers of captured fish and a similar number of total fish species compared to previous fall small fish sampling programs (Mainstream 2010, 2011, 2013; Triton 2021). In total, 2,038 fish were captured over 7 days of sampling on the Peace River, representing 21 species of fish. Some notable differences in species composition were observed compared to historic years, with a dramatic decrease in the number of sculpins, and a greater number of cyprinid fishes caught. The assemblage of coldwater species decreased from upstream to downstream, while minnows and suckers displayed the opposite trend. Most of the fish captured were less than three years of age, suggesting the sampling design and sampling locations were appropriate to target the desired fish sizes.

4.1 Environmental Conditions

Sampling was conducted from September 25 to October 1, 2021, similar to the previous studies in 2009, 2010, 2011, and 2020 (Mainstream 2010, 2011, 2013; Triton 2021). The environmental conditions (i.e., water temperature, clarity, and conductivity) varied slightly among years but were generally consistent.

Mean discharge on the Peace River in September is usually 1,000 m^3/s in Section 5 and 1,239 m^3/s in Section 7 (Gov. of Canada 2022). Similar discharges were recorded during the field sampling in 2021 with a mean discharge of 1,007 m^3/s in Section 5 and 1,254 m^3/s in Section 7.

4.2 Fish Community Structure

4.2.1 Species Composition

In total, 21 species of fish were captured in the Peace River during sampling in 2021. This number is lower than the 2020 program (25 species), and similar to previous small fish programs that caught between 17 (2011) and 21 (2009) species of fish (Mainstream 2010, 2011, 2013). There are 31 species of fish that have been recorded from the Peace River between the Project and the Many Islands area. Species that are known to occur but have not been documented on the small fish program include: Lake Trout, Pygmy Whitefish, Brook Stickleback, Goldeye, Peamouth, and Pearl Dace. These species were documented on other studies using different sampling methods, sampling for longer periods or over multiple seasons, and in other sections of the Peace River (Golder and Gazey 2018, Mainstream 2010, 2011, 2013). In 2021, the species composition included five coldwater species, three coolwater species, three suckers, three sculpins, and seven minnow species. Numerically, minnows were the most abundant fish, followed by suckers, coldwater fish, coolwater fish, and lastly sculpins. Mountain Whitefish was the numerically dominant species recorded in 2021, followed by Longnose Sucker. This was similar to the results of historic sampling in 2009, 2010, and 2011 (Mainstream 2010, 2011, 2013). Mountain Whitefish were also the most numerous fish species in 2009 and 2010 while Longnose Suckers composed the bulk of the catch in 2011. Several species were numerically scarce in 2021, including: Kokanee, Rainbow Trout, Burbot, Walleye, Prickly

Sculpin, and Spoonhead Sculpin. Together, these species made up less than 1% of the total catch and were caught sporadically throughout. During previous fall small fish programs, the species listed above have also been numerically scarce in addition to: Bull Trout, Lake Whitefish, Yellow Perch, Finescale Dace, and Northern Redbelly Dace (Mainstream 2010, 2011, 2013; Triton 2021).

Species composition in 2021 was similar to previous sampling years, with the exception of sculpins, and suckers. On average, half as many coldwater fish were caught in 2021 compared to 2009 and 2010, while the proportion of sculpins in the catch dropped from a previous low of 12% to under 1% in 2021, and an all time high of 37% in 2020. However, the cause of the significant reduction in sculpin numbers in 2021 is unknown and difficult to explain. The record high sculpin catch during the 2020 fall sampling program was likely attributed to the low discharge and water levels during the sampling period.

Sculpins as a group are small benthic fish that lack a swim bladder and reside between the interstitial spaces of rocks. This makes sculpins challenging to catch compared to salmonids, suckers, and many minnows, which are generally not bottom dwellers, are of larger size, and possess a swim bladder. These differences in biology mean sculpins tend not to roll upside down and expose the lighter coloured ventral surface as other fish do, and hence remain camouflaged, and tend to remain in contact with the bottom rather than be suspended in the open water. These characteristics would have challenged previous sampling events, but the effects may be exacerbated at different water levels (Triton 2021). These key differences highlight how catch rates between species groups can be exacerbated by water levels, boat operator, netter experience, or types of electrofishing equipment.

The sucker portion of the total species composition increased from 12% in 2020 to 22% in 2021 with total catch numbers increasing from 178 in 2020 to 455 in 2021. Spatial trends for sucker catch show a 3% increase in Section 5, a 10% increase in the Section 7, and a 13% decrease in Section 9 in 2021 compared to 2020. The increase in sucker catch is consistent with the concurrent Mon-2, Task 2a study. which saw a doubling of Longnose Suckers in 2021 compared to 2020 in the sections downstream of Site C (Golder 2022 in prep).

4.2.2 Fish Assemblage

Fish assemblage in 2021 varied across the sampled river sections but followed a similar trend to species composition. The assemblage of coldwater fish species decreased from upstream to downstream, while minnows and suckers were more numerous downstream compared to upstream. These findings are not surprising and similar to previous sampling years, as the transition from coldwater-dominant to coolwater-dominant fish assemblages begins around the upstream extent of Section 5 (Mainstream 2010, 2011, 2013). Sculpin assemblage in 2021 decreased dramatically compared to historic values in all river sections. The post-glacial dispersal of Columbia endemics (i.e., Largescale Sucker, Northern Pikeminnow) or species dispersing from the Great plains (i.e., Goldeye, Spoonhead Sculpin) could also explain their assemblages

(McPhail 2007). While enough time should have elapsed for dispersal it is likely the product of habitat preferences based on the transition from cold to coolwater.

The trends in fish assemblage by habitat type generally aligned with the habitat preferences for each species group. Coldwater and coolwater fish typically resided in cooler, deeper main channels, Minnows dominated the composition in side channels, minnows were heavily documented at tributary confluences, and suckers were found to vary throughout all three habitats. Notwithstanding coldwater fish, assemblage by species group and habitat varied from year to year, likely based on environmental conditions. Species such as suckers are habitat generalists and show no affinity for specific habitats.

4.2.3 Species Diversity

The long-term trend that has been observed by Golder and Gazey (2020) is that diversity is greater in downstream sections of the Peace River (i.e., sections 6, 7, and 9) than in upstream sections (i.e., sections 1, 3, and 5). This trend has not been evident with the Mon-2, Task 2b program or the predecessor programs completed by Mainstream (2010, 2011, 2013; Triton 2021), and in most years the opposite trend has been observed, in which Section 5 has greater diversity than the downstream areas.

Two main factors, targeted habitat and available data points, likely account for the difference in diversity trends observed between the programs. The Mon-2, Task 2b program targets small fish in shallow main channel margin habitat, side channels, and back channels, whereas the Mon-2, Task 2a program targets larger fish along deeper main channel margins. It is also possible that the limited data points associated with Mon-2, Task 2b (and predecessor programs) relative to Mon-2, Task 2a (and predecessor programs) is contributing to the differing diversity trends observed to-date. Mon-2, Task 2b (and predecessor programs) only have five years of data for sections 5 and 7, and three years of data for Section 9, while >15 years of data exists for Mon-2, Task 2a (and predecessor programs). At this time, it is not possible to determine the extent to which each of the two factors account for observed differences in diversity profile trends between the programs.

4.2.4 Species Occurrence

Fish species occurrence was found to be variable among river sections in 2021. Mountain Whitefish was the most prevalent species to occur in upstream sections, while species such as Longnose Sucker, Lake Chub, Flathead Chub, and Redside Shiner occurred more frequently downstream. For some species where spawning is known to occur in tributaries (e.g., Arctic Grayling and Burbot), occurrences were higher in sections with known recruitment sources such as the Moberly River near the upstream extent of Section 5 (Golder 2017). Arctic Grayling have also been known to recruit from tributaries as far downstream as the Beatton River, accounting for the varied presence observed (Mainstream 2013), however the Beatton River Arctic Grayling appear to be residents (Golder 2019, Golder 2020). Species that were rare such as Bull Trout, Northern Pike, or Rainbow Trout tended to have sporadic distribution, reflecting either localized

populations, transient or sporadic presence, or low catch rates using the methods employed on Mon 2, Task 2b. Species occurrence generally aligned with the habitat requirements or recruitment sources, which is a similar trend to those expressed for fish assemblage and species composition.

4.3 Catch Rate

Catch rates varied greatly by sample method and river section in 2021. Backpack electrofishing was the method with the highest mean CPUE[1], followed by boat electrofishing, beach seining, and then gill netting, a trend similar to past sampling programs (Mainstream 2010, 2011, 2013; Triton 2021). Backpack electrofishing CPUE is assumed to be higher than boat electrofishing because that method is more conducive to the capture of very small (<40 mm) fish, which tend to occur in greater number, and the catch from boat electrofishing sites is distributed over a greater linear distance (500 m compared to 100 m). The average sampling rate with the boat electrofisher was 0.83 m/s, which was approximately 7.5 times faster than the backpack electrofisher at 0.11 m/s. This may also enable a greater proportion of the fish within a sampled area to be captured during backpack electrofishing, whereas more fish are missed during boat electrofishing because the boat continually drifts, affording netters little opportunity for a second chance to catch stunned fish. Almost 8.4 times more fish are caught per distance over time with the backpack electrofisher. Backpack electrofishing catch rates in 2021 were lower compared to 2009 and 2010, and higher than 2011 and 2020. Catch rates are a challenging fisheries index to compare across sample methods and years, since different operators, netter experience, and environmental conditions can occur.

In 2021, the beach seine catch rate was more than double any previous year (Mainstream 2010, 2011, 2013; Triton 2021). Conditions in 2020 were challenging for beach seines due to the low water levels which exposed deep, soft substrates and woody debris, making wading difficult. This was especially evident in the 108R offset channels of Section 5 where the substrate combined with swifter flows in some sites contributed to low beach seine effectiveness. This may help explain differences between 2020 and 2021 beach seine results, but not previous results. Beach seine crews encountered many schools of newly emerged cyprinid and catostomid fry in 2021. The presence/absence of these schools within a given sampling site results in significantly increased total catch numbers.

All methods, with the exception of gill netting, have proven to be effective methods for sampling small fish in the Peace River during the fall season. Gill net catch rates in 2021 were higher than the 2011 and 2020 sample years, and lower than the 2009 and 2010 sample years, with 24 fish caught. Gill nets are necessarily set in areas that are relatively not-complex (e.g., free of large boulders, LWD, changes in currents, and variable bottom profiles). This generally provides less than ideal conditions for small-bodied and juvenile fish and may help explain poor capture rates for small fish. Gill nets were more

[1] CPUE is not directly comparable among methods, except between backpack and boat electrofishing, because they are reported with different units.

effective at catching larger fish. Longer soak times and placement in areas preferred by larger fish (deeper water) may increase the overall catch rate using gill nets.

Capture data associated with the backpack electrofisher and beach seine methods suggest the highest density of fish within the target size range were present in tributary confluence habitat, although this result could be attributed to the limited number of sites in that habitat type (n = 5). Boat electrofishing and gill netting methods did not have enough sites located in the various habitat types to draw any inferences.

4.4 Fish Health

Of the fish sampled in 2021, 36 or 1.8% were found to exhibit evidence of impairment to health. These included six species of fish, with the majority of the DELT codes being found in Longnose Sucker and Mountain Whitefish. This is not surprising given that Longnose Sucker and Mountain Whitefish make up a large percentage of the overall fish population. More fish were found with DELT codes in Section 5 compared to Sections 7 and 9 combined. Similar percentages of fish have historically been captured with DELT codes during the small fish program in the fall, with 4 fish or 0.32% in 2009, 2 fish or 0.23% in 2010, 1 fish or 0.1% in 2011, and 17 fish or 1.1% in 2020. Given the small sample size and few records of DELT index values relative to capture numbers, fish in the Peace River appear healthy.

4.5 Population Characteristics

4.5.1 Coldwater

Coldwater fish populations were described using length-frequency, age-frequency, length-weight, and body condition where possible. In general, coldwater fish populations were highest in upstream river sections, similar to historical findings (Golder and Gazey 2018; Mainstream 2010, 2011, 2013; Triton 2021). Predominantly young fish were found for most coldwater species caught. Catch of coldwater fish species in 2021 (22% of total catch) was lower than the 2009 (45%) and 2010 (37%) study years. However, Section 9 was not sampled in 2009 and 2010 which likely inflated the coldwater fish total catch percentage for those years as coldwater fish have historically been less abundant in Section 9 compared to further upstream sections. The catch of coldwater fish in 2021 was similar to 2020 (20%), and almost double that of 2011 (12%).

Mountain Whitefish composed the majority of the coldwater fish population as found in previous studies (Mon-2, Task 2a; Mon-2, Task 2b) on the Peace River using large and small fish sampling methods; Mountain Whitefish have made up 17 to 50% of the total fish caught (Mainstream 2010, 2011, 2013; Golder and Gazey 2018; Triton 2021). The Mountain Whitefish population inferred from boat electrofishing catch rates declined steadily from a high of 156 fish/km/hr in Section 5, to 84 fish/km/hr in Section 7 and 42 fish/km/hr in Section 9. Mountain Whitefish fork length data displayed a higher proportion of larger fish caught in Section 5, while the majority of Mountain Whitefish caught in Sections 7 and 9 were less than 120 mm. Mountain Whitefish prefer coldwater habitat. Therefore, it is not surprising to see catch rates for Mountain Whitefish decline as

recruitment sources (e.g., Halfway River and Moberly River), and the habitat type transitions from coldwater in Section 5 to coolwater in Sections 7 and 9.

Kokanee were scarce in 2021 with a total of one, age-2 fish caught. During the 2020 fall small fish program, more young-of-the-year age-0 Kokanee were caught in upstream Sections 5 and 7 (n = 5) compared to Section 9 (n = 2), suggesting a recruitment source upstream (Triton 2021). It has been speculated in previous studies that numbers of Kokanee or other fish may be bolstered via entrainment through the Peace Canyon Dam (Mainstream 2013, Golder and Gazey 2018). There are no known Kokanee spawning locations downstream from the Peace Canyon Dam (BC Hydro 2015a).

Eight Bull Trout were captured in 2021 with two being caught in Section 5, five in Section 7, and one in Section 9. Bull Trout have been shown to move from the Pine River into the Peace River for feeding or overwintering (AMEC and LGL 2009) which could be the source of the Section 7 fish, assuming downstream movement was occurring. The single Bull Trout caught in Section 9 was a juvenile and may have been using the coolwater downstream habitat for rearing before moving to more typical coldwater Bull Trout habitat upstream in the Peace River.

Coldwater fish captured in 2021 ranged in age from 0 to 12 years in 2021, Approximately half of all coldwater fish caught were less than three years of age, which suggests the sampling design and sampling locations selected for this study adopted from Mainstream successfully targets young fish.

4.5.2 Coolwater

Coolwater fish populations were scarce throughout the sample sections of the Peace River in 2021. Characterization of the coolwater fish populations was difficult due to the small numbers of fish caught. Northern Pike composed the majority (73%) of the coolwater fish abundance, followed next by Burbot (18%) and Walleye (9%). Coolwater fish made up similar percentages of the total fish caught as in historic sampling years, suggesting little change in the populations.

The Northern Pike and Walleye caught were mature and had healthy body conditions. All four Burbot caught in 2021 were juveniles and appeared to have healthy body conditions. By habitat, Northern Pike showed some use of side channel habitats while Walleye were found entirely in main channel habitats. This is not surprising, considering side channels are more typical habitat for lie-in-wait ambush predators such as Northern Pike (i.e., slower backwaters, abundant cover), and Walleye typically reside in slower, deeper water found in main channels (McPhail 2007). Both of the Walleye caught in 2021 were captured in back eddies of large beaver lodges protruding into the main channel. All four of the Burbot caught in 2021 were juvenile and were caught among the access road riprap at site SB08 in Section 5. Pre-Site C dam construction, immature Burbot were likely recruiting from the Moberly River as they have been caught in this tributary in the past (Mainstream 2010, Golder 2017). It is uncertain if the Burbot caught in 2021 moved downstream from the Moberly River through the Site C

dam diversion tunnels, or whether they occupied this section of river prior to the diversion of the Peace River upstream. No Yellow Perch were caught during the 2021 sampling program, and they have been scarce in all preceding fall small fish programs (Mainstream 2010, 2011, 2013; Triton 2021).

4.5.3 Suckers

Species in the sucker fish group were numerous throughout all river sections during sampling of the Peace River in 2021. Sucker assemblage remained stable (22% to 29%) from upstream to downstream as the river transitions from coldwater to cool-turbid water (Figure 8).

Sucker catch rates in 2021 for the backpack electrofishing, and boat electrofishing methods yielded notable increases compared to 2020. In 2021, backpack electrofishing average catch rates by section were between 161 and 650 suckers/km/hr, while in 2020 they were between 25.1 and 148.9 suckers/km/hr. In 2021, boat electrofishing average catch rates by section were between 43 and 75 suckers/km/hr, while in 2020 they were between 18.6 and 31.8 suckers/km/hr.

Longnose Suckers were by far the most numerous species, making up 90% of the sucker catch in 2021. The increase in Longnose Sucker catch from 2020 to 2021 appears to be driven by fish <60 mm. In 2021, 59% of the Longnose Suckers caught were between 21 mm and 60 mm compared to 5% in 2020. This trend increased from upstream to downstream in 2021 for Longnose Suckers caught with 36% in Section 5, 56% in Section 7, and 81% in Section 9 that were within the 21 mm to 60 mm size range. This is a major difference compared to 2020 where Longnose Suckers caught between 21 mm and 60 mm were 11% in Section 5, 0% in Section 7, and 4% in Section 9. Due to periodicity of the cohort, Longnose Suckers <60 mm in the 2021 catch would not have been available to capture in the 2020 program, so the notable increase in this species in 2021 relative to 2020 is not likely the product of inconsistent sub-sampling error rate.

The majority of Largescale Suckers were caught in upstream sections with few in Section 9. Length-frequency distributions for Longnose and Largescale suckers showed a range in lengths, suggesting cohorts of both juvenile and mature fish are present. White Sucker catch was composed predominantly of young fish.

By habitat, 276 of the suckers were caught in main channels, 153 were caught in side channel habitat, and 26 suckers were caught at tributary confluences. Sixteen suckers were caught in the offset channels created in Section 5 or approximately 8.1% of the total (n = 196) fish caught within the 108R offset channels. Historically, catches of suckers have been higher in side channels and tributary confluences, however much of this data is during the spring and summer when suckers are spawning (Mainstream 2010, 2011, 2013; McPhail 2007).

4.5.4 Sculpins

Sculpins were the least abundant fish group encountered during sampling of the Peace River in 2021. Due to low sample numbers in 2021, it was difficult to discern any spatial trends for sculpins. In previous sample years, sculpins followed a similar distribution as coldwater fish, where abundance was highest in upstream sections (Mainstream 2010, 2011, 2013; Triton 2021).

Slimy Sculpin was the most numerous of the sculpin species, followed by Prickly Sculpin and Spoonhead Sculpin. More sculpins were captured in main channel habitats compared to side channel habitats, with no fish being captured at tributary confluences. This apparent preference for main channel habitats was also found in previous sampling years (Mainstream 2010, 2011, 2013; Triton 2021). One sculpin was captured within the 108R offset channels of Section 5 in 2021. This contrasts with the 2020 results where the majority (n = 56, 55%) of the fish captured within the 108R offset channels were sculpins.

4.5.5 Minnows

Minnows were the most common fish group encountered in 2021. The abundance of minnows increased from upstream to downstream. The minnow group was the most diverse of the fish groups sampled, with a total of seven different species recorded. Historically, between six and nine different minnow species were caught during small fish sampling in the fall (Mainstream 2010, 2011, 2013; Triton 2021). Several of these minnow species were numerically rare in 2021 (i.e., Flathead Chub, Spottail Shiner, and Trout-perch), while others such as Lake Chub, Longnose Dace, and Redside Shiner were common and dominated the overall minnow catch. The most abundant minnow species has varied when comparing the 2011 and 2020 sample years (the years in which Section 9 was sampled). In 2020, Lake Chub, followed by Longnose Dace, and Trout-perch, were the three most abundant species. In 2011, Lake Chub, followed by Redside Shiner, and Flathead Chub were the three most abundant minnow species.

Population inferences for the minnow group were challenging due to the small sample sizes of some species, and lack of age analysis. Longnose Dace and Spottail Shiner catch data comprised small (≤30 mm) fish, suggesting either high capture efficiency of this size, successful spawning upstream or possible spawning areas in the vicinity of the sampled sites.

The majority of minnows appear to reside in side channel habitat followed by main channel, and lastly tributary confluences. This trend in habitat preference is similar to previous fall sampling findings on the Peace River (Mainstream 2010, 2011, 2013; Triton 2021). Minnows were the most prevalent group captured within the 108R offset channels in Section 5 (n = 96, 49%) which suggests strong colonization and use of these areas by the minnow group.

4.6 Sampling Consistency

Water levels in 2021 returned to levels that were consistent with previous sampling events (in contrast to the anomalously low water levels encountered in 2020). Due to the low water levels in 2020, as a result of river diversion, it is difficult to discern trends between the two years. In 2020, over 80% of the sample sites either had to be moved further from shore or relocated greater than 25 m from their historical locations (Triton 2021). Water levels returned to near historical means during the 2021 sampling period and sampling sites were consistent with those establish by Mainstream (2013).

5.0 Conclusion

Fish index sampling of the Peace River has been conducted since 2001, providing a long-term, baseline dataset that can be used to examine fish community structure, catch rates, population characteristics, and fish health. The data collected during this small fish program is another component of the dataset that will be used to test management hypotheses that relate to the effects of the construction and operation of the Project. The management hypotheses are currently planned to be tested in the post-Project condition for the Peace River (i.e., after completion of river diversion in 2020).

The 2021 program was successful in documenting the population characteristics, fish community structure, catch rates, and health of small-bodied fish. The Peace River supports a diverse fish community that includes coldwater and coolwater fish, suckers, minnows, and sculpins. Based on the 2021 results (and similar to previous years), the fish community gradually shifts from a coldwater community dominated by Mountain Whitefish to a coolwater community downstream dominated by minnows and suckers. Some notable differences in the fish community structure were observed compared to previous fall small fish programs, with the sculpin catch dropping dramatically from a 2020 high, Longnose Suckers in the <60 mm size class increasing substantially, and minnows representing approximately half of the total fish caught.

Environmental conditions were generally found to be similar to previous fall sampling programs except for 2020 where discharge was low due to river diversion activities. The 2021 program is unique to other baseline programs in that the river has been diverted for approximately one year which is enough time to potentially affect fish movement upstream and downstream.

A similar number of species were captured in 2021 compared to previous fall small fish programs. CPUE results in the 2021 study were within the range that was reported in previous years for all sampling techniques except beach seining, which was more than double any previous year. Several species, particularly suckers and minnows, were found using the offset habitat channels (108R); however, out of the expected fish species (Arctic Grayling, Mountain Whitefish, Rainbow Trout [Table 2]; [BC Hydro 2015b, 2015c]), only Mountain Whitefish was captured within the offset channels by Mon-2, Task 2b. Most fish were found residing in main channel habitats, followed by side channel and then tributary confluences.

Small sample sizes for several fish species limited the ability to interpret length-frequency, age-frequency, length-weight, and habitat use relationships. Several fish species were numerically scarce (i.e., Kokanee, Rainbow Trout, Walleye, and Spoonhead Sculpin) and will likely not be caught in large enough numbers during the small fish program to inform management decisions. Many species, particularly Mountain Whitefish and Longnose Sucker, had large enough sample sizes that should allow population trends to be identified over time.

Post-construction small fish program planning should consider the efficacy of gill net sampling as it has not yet been an effective means of catching small fish during the baseline programs. Boat electrofishing, backpack electrofishing, and beach seine sampling methods continue to be effective methods for catching small fish with each showing strengths and weaknesses for catching certain species in different habitats. For example, boat electrofishing appears is an effective way to capture larger fish such as Mountain Whitefish. Boat electrofishing is a less effective way at capturing smaller fish such as Longnose Dace, and Sculpins that tend to hide or get lodged in the substrate after shocking. In contrast, backpack electrofishing, and beach seining are useful capture methods for catching small fish that tend to hide in the substrate rather than flee.

6.0 Literature Cited

[AMEC and LGL] AMEC Earth & Environmental and LGL Limited. 2009. Peace River Fisheries Investigation – Peace River and Pine River Radio Telemetry Study 2008. Prepared for BC Hydro. 148 pages.

Barnham, C., and A. Baxter. 1998. Condition Factor, K for Salmonid Fish. State of Victoria. Department of Primary Industries. Fisheries Notes. Pages 1 - 3.

BC Hydro. 2015a. Fisheries and aquatic habitat monitoring and follow-up program. Site C Clean Energy Project. Submitted to Fisheries and Oceans Canada. December 22, 2015. 40 pages and 20 appendices.

BC Hydro. 2015b. Site C Clean Energy Project *Fisheries Act* Application for Authorization – Site Preparation. Submitted to Fisheries and Oceans Canada. February 23, 2015. 80 pages and 15 appendices.

BC Hydro. 2015c. Site C Clean Energy Project *Fisheries Act* Application for Authorization – Dam Construction, Reservoir Preparation, and Filling. Submitted to Fisheries and Oceans Canada. December 15, 2015. 178 pages and 24 appendices.

BC Ministry of Environment, Lands, and Parks. 1997. Fish collection methods and standards, version 4.0. Prepared by the Fish Inventory Unit for the Aquatic Ecosystems Task Force, Resources Inventory Committee. Accessed January 2022: https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/nr-laws-policy/risc/fishml04.pdf.

Ecofish Research Ltd. 2020. Memorandum – Re: 2020 workplan for Offset Channel Effectiveness Monitoring of Site 108R. Prepared for BC Hydro. Ecofish File No. 5200-21: 12 pages.

Government of Canada. 2022. Historical and Real-time Hydrometric flow data. Accessed December 2022 from: https://wateroffice.ec.gc.ca/mainmenu/historical_data_index_e.html.

Golder Associates Ltd. 2017. Site C reservoir Tributary Fish Population Indexing Survey (Mon-1b, Task 2c) – 2016 Investigations. Report Prepared for BC Hydro, Vancouver, British Columbia. Golder Report No. 1650533: 28 pages + 3 appendices.

Golder Associates Ltd. 2019. Beatton River Arctic Grayling Status Assessment: 2018 Investigations. Report prepared for BC Hydro, Vancouver, British Columbia. Golder Report No. 1780230-003F: 19 pages + 4 appendices.

Golder Associates Ltd. 2020. Beatton River Arctic Grayling Status Assessment: 2019 Investigations. Report prepared for BC Hydro, Vancouver, British Columbia. Golder Report No. 19121770-001F: 40 pages + 2 appendices.

[Golder and Gazey] Golder Associates Ltd. and W.J. Gazey Research. 2018. Peace River Large Fish Indexing Survey – 2017 investigations. Report prepared for BC Hydro, Vancouver, British Columbia. Golder Report No. 1670320. 118 pages + 8 appendices.

[Golder and Gazey] Golder Associates Ltd. and W.J. Gazey Research. 2020. Peace River Large Fish Indexing Survey – 2019 Investigations. Report prepared for BC Hydro, Vancouver, British Columbia. Golder Report No. 19121769. 139 pages + 8 appendices.

[Golder] Golder Associates Ltd. 2022 (in prep). Peace River Large Fish Indexing Survey – 2021 Investigations. Report prepared for BC Hydro, Vancouver, British Columbia.

Leinster, T. and C.A. Cobbold. 2012. Measuring Diversity: The Importance of Species Similarity. Ecology 93(3): 477-489.

LGL Limited. 2020. Site C Reservoir Tributaries Fish Community and Spawning Monitoring Program (Mon-1b) Task 2d – Site C Fish Movement Assessment Construction Year 5 (2019). Report prepared for BC Hydro, Vancouver, British Columbia. Agreement No. 12273: 32 pages.

[Mainstream] Mainstream Aquatics Ltd. 2010. Site C fisheries studies – 2009 Peace River Fish Inventory. Prepared for BC Hydro Site C Project, Corporate Affairs Report No. 09008AF: 90 pages + plates (Volume 1) and appendices (Volume 2).

[Mainstream] Mainstream Aquatics Ltd. 2011. Site C fisheries studies – 2010 Peace River Fish Inventory.

[Mainstream] Mainstream Aquatics Ltd. 2013. Site C fisheries studies – 2011 Peace River Fish Inventory. Prepared for BC Hydro Site C Project, Corporate Affairs Report No. 11005F: 98 pages + plates and appendices.

McPhail, J.D. 2007. The freshwater fishes of British Columbia. University of Alberta Press, Edmonton, Alberta.

Neumann, R.M., C.S. Guy, and D.W. Willis. 2012. Length, Weight, and Associated Indices. Pages 637 – 676 in A. V. Zale D. L. Parrish and T. M. Sutton, editors. Fisheries Techniques, 3rd Edition. American Fisheries Society, Bethesda, Maryland.

Ohio EPA. 1996. Ohio EPA's Guide to DELT Anomalies (Deformities, Erosion, Lesions and Tumors) in Bauman et al. 2020. Fish Tumors or Other Deformities. Prepared for the Lake Eire LAMP Preliminary Beneficial Use Impairment Assessment. Report No. 6: 58 pages.

Triton Environmental Consultants Ltd. 2021. Peace River Fish Composition and Abundance Survey Mon 2, Task 2b – Construction Year 6 (2020) Annual Report. Report prepared for BC Hydro, Vancouver, British Columbia. Report No. 10584/P5047: 107 pages + 6 appendices.

APPENDIX 1

Site Locations

Table A1-1. Location of sampled sites for Section 5 in 2021

Sampling Type (# Sites Sampled)	*Site ID*	*Historical Sampling*				*UTM Coordinates in Section 5*			
						Upper Extent		Lower Extent	
		2009	2010	2011	2020	Easting	Northing	Easting	Northing
Small Boat Electrofisher (12)	SF0503	X	X	X	X	632302	6229356	633101	6229498
	SF0508	X	X	X	X	633180	6229543	633907	6229558
	SF0509	X	X	X	X	636159	6230191	636956	6229134
	SF0510	X	X	X	X	636753	6229847	636982	6229142
	SF0511	X	X	X	X	637009	6229021	637240	6228471
	SF0512	X	X	X	X	637290	6228368	637602	6227832
	SF0513	X	X	X	X	637609	6227868	638046	6227380
	SF0514	X	X	X	X	638294	6227327	638648	6226944
	SF0519	-	X	X	X	631290	6229329	631803	6229327
	SF0520	-	X	X	X	634749	6229953	635179	6230260
	SB07	-	-	-	X	631651	6228489	632105	6228514
	SB08	-	-	-	X	631595	6229562	632119	6229576
Backpack Electrofisher (4)	EF0506	-	X	X	X	634411	6230465	634452	6230552
	EF0507	-	X	-	X	636958	6229132	636991	6229035
	BP01	-	-	-	X	632019	6229067	632091	6229006
	BP03	-	-	-	X	632931	6229357	632969	6229281
Beach Seine (8)	BS0503	X	X	X	X	633479	6229107	633531	6229133
	BS0504	X	X	X	X	632378	6228562	632307	6228573
	BS0507	X	X	X	X	637571	6227256	637633	6227217
	BS0508	X	X	X	X	637464	6227363	637509	6227332
	BS0510	-	-	X	X	637809	6227385	637840	6227282
	BS01	-	-	-	X	632214	6228763	632165	6228705
	BS02	-	-	-	X	632745	6228705	632771	6228686
	BS03	-	-	-	X	633800	6229331	633870	6229358
Gill Net (1)	GN0501		X	X	X	633543	6229152	633585	6229175

Table A1-2. Location of sampled sites for Section 7 in 2021

Sampling Type (# Sites Sampled)	*Site ID*	*Historical Sampling*				*UTM Coordinates in Section 7*			
						Upper Extent		**Lower Extent**	
		2009	**2010**	**2011**	**2020**	**Easting**	**Northing**	**Easting**	**Northing**
Small Boat Electrofisher (12)	SF0703	X	X	X	X	665881	6220446	666245	6220485
	SF0704	X	X	X	X	667014	6220795	668097	6220744
	SF0705	X	X	X	X	668034	6220735	668836	6220761
	SF0706	X	X	X	X	669616	6220680	670705	6220952
	SF0707	X	X	X	X	672110	6221211	672816	6220379
	SF0708	X	X	X	X	667267	6220941	667971	6221013
	SF0709	X	X	X	X	668111	6221104	668903	6221112
	SF0710	X	X	X	X	669963	6221301	670540	6221305
	SF0713	X	X	X	X	673370	6220115	673933	6220005
	SF0714	X	X	X	X	673959	6220003	674973	6219927
	SF0715	-	X	X	X	662954	6219838	663518	6219846
	SB09	-	-	-	X	663841	6220165	664388	6220330
Backpack Electrofisher (4)	EF0705		-	X	X	663214	6220206	663272	6220123
	EF0706		-	X	X	666352	6219858	666435	6219878
	EF0708		-	X	X	676368	6219788	676458	6219853
	EF0709	-	-	-	X	669680	6220645	669766	6220619
Beach Seine (8)	BS0703	X	X	X	X	664371	6219478	664434	6219495
	BS0704	X	X	X	X	662997	6220230	662957	6220194
	BS0707	X	X	X	X	672222	6220458	672260	6220403
	BS0708	X	X	X	X	676615	6219953	676684	6219986
	BS0709	X	X	X	X	676116	6220545	676184	6220567
	BS0710	X	X	X	X	674442	6220893	674510	6220872
	BS0712	-	-	X	X	665855	6220341	665918	6220366
	BS0714	-	-	X	X	662997	6220230	662957	6220194
Gill Net (1)	GN0701	-	-	X	X	676451	6220745	676492	6220720

Table A1-3. Location of sampled sites for Section 9 in 2021

Sampling Type (# Sites Sampled)	*Site ID*	*Historical Sampling*				*UTM Coordinates in Section 9*			
						Upper		Lower	
		2009	2010	2011	2020	Easting	Northing	Easting	Northing
Small Boat Electrofisher (12)	SF0901	-	-	X	X	358330	6239193	358793	6239872
	SF0902	-	-	X	X	358795	6239876	359504	6240061
	SF0903	-	-	X	X	360181	6240458	361011	6240529
	SF0904	-	-	X	X	361014	6240520	361742	6240510
	SF0905	-	-	X	X	362554	6240638	363198	6241063
	SF0906	-	-	X	X	364174	6241606	364733	6242545
	SF0907	-	-	X	X	364924	6242816	365444	6243338
	SF0908	-	-	X	X	365752	6243462	366476	6243434
	SF0909	-	-	X	X	366475	6243433	367090	6243034
	SF0910	-	-	X	X	367090	6243033	367472	6242697
	SF0911	-	-	X	X	367761	6242364	367792	6241687
	SF0912	-	-	X	X	367794	6241684	368166	6240880
Backpack Electrofisher (4)	EF0901	-	-	X	X	357777	6238385	357831	6238467
	EF0902	-	-	X	X	366353	6242596	366423	6242652
	EF0903	-	-	X	X	357702	6238229	357738	6238340
	EF0904	-	-	-	X	366876	6242485	366863	6242407
Beach Seine (9)	BS0901	-	-	X	X	358364	6239187	358360	6239251
	BS0902	-	-	X	X	357889	6238524	357888	6238541
	BS0903	-	-	X	X	356236	6238109	356308	6238127
	BS0904	-	-	X	X	360140	6240012	360159	6240074
	BS0905	-	-	X	X	360795	6239992	360842	6240034
	BS0907	-	-	X	X	366556	6243889	366577	6243833
	BS0908	-	-	X	X	367808	6242742	367865	6242686
	BS0909	-	-	X	X	367153	6242280	367197	6242252
	BS0910	-	-	X	X	366732	6242590	366798	6242590
Gill Net (1)	GN0901	-	-	-	X	367717	6241116	367749	6241064

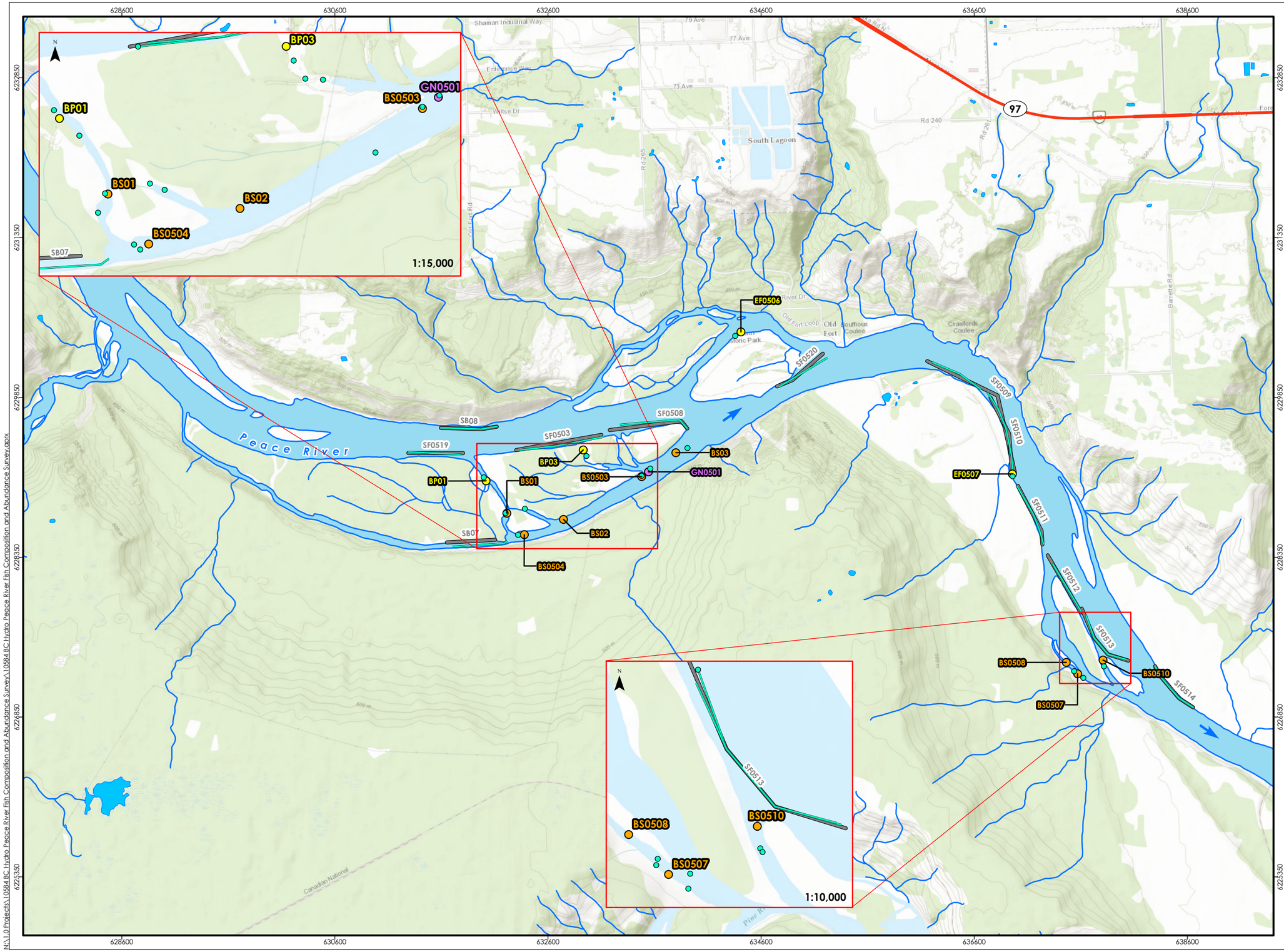
APPENDIX 2

Site Maps

BC Hydro Peace River Fish Composition and Abundance Survey

Figure A2-1

Section 5 Survey Sites



Legend

- Flow Direction
- Highway
- Watercourse
- River
- Waterbody

2021 Survey Sites

- Backpack Electrofisher
- Beach Seine
- Gill Net
- Boat Electroshocking Site

Historical Survey Data

- Survey Site
- Boat Electroshocking Site

Sources and Disclaimer

1. Base Map Source: ESRI World Topographic Map, ESRI World Hillshade
2. Base Map Data: DataBC Data Catalogue
3. Disclaimer: This map is a visual aid only to be used together with the accompanying report, including and incorporating any disclaimer contained therein. This map has been prepared to illustrate the results of our work, and is **not intended to be used for navigational purposes**. Information displayed on this map is based, in whole or in part, on geographic information that may have been provided by third parties, including government data. Triton Environmental Consultants Ltd. disclaims (without limiting the generality of the foregoing) all responsibility for the accuracy of any such third party information, regardless of the source.

N W E S

1:35,000

UTM Zone 10 (NAD 1983)

Date: March 28, 2022 | **Project Number:** 10584

Meters

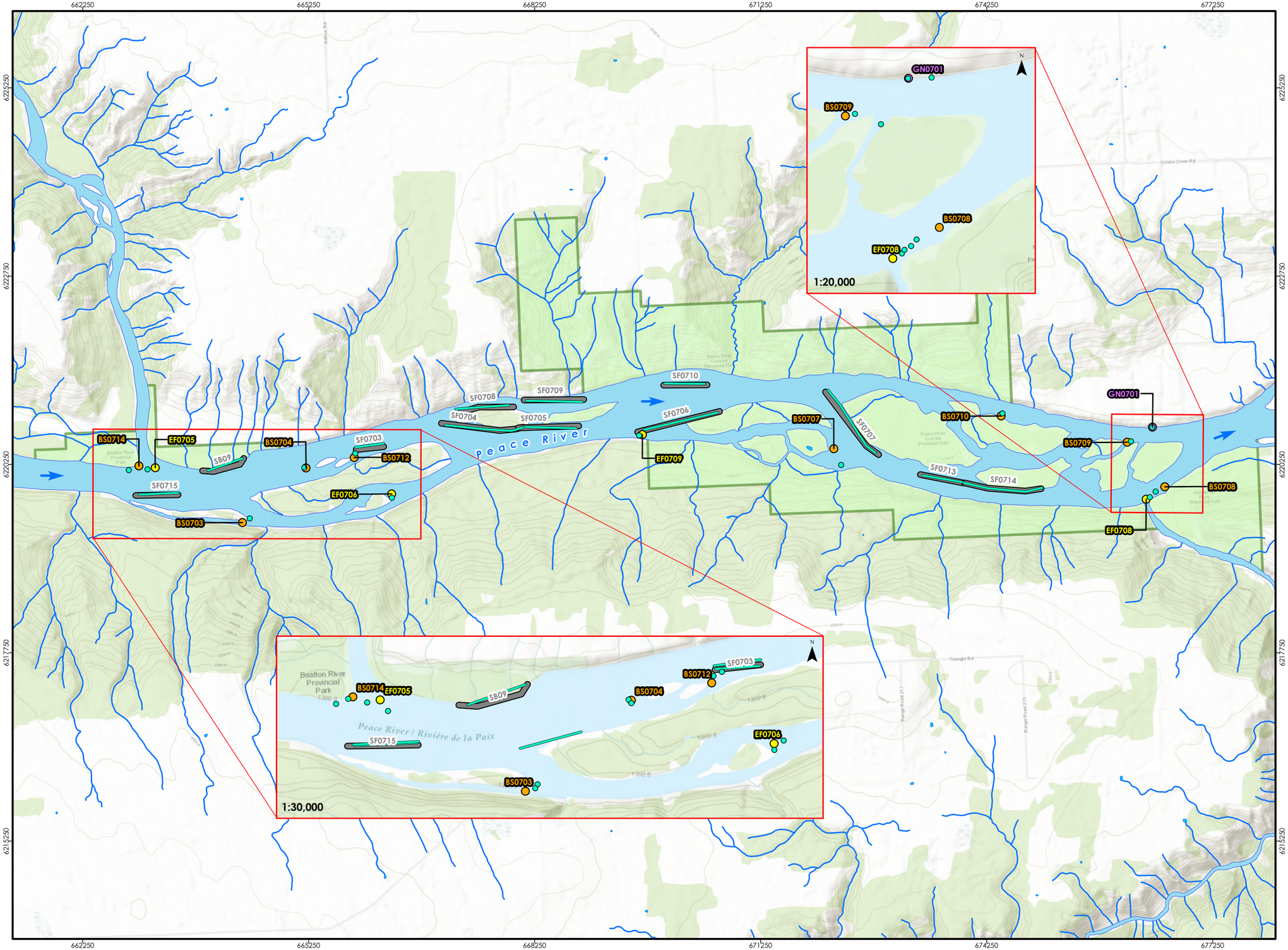
0 200 400 800 1,200 1,600

TRITON Environmental Consultants

BC Hydro Peace River Fish Composition and Abundance Survey

Figure A2-2

Section 7 Survey Sites



Legend

- Flow Direction
- Watercourse
- Park
- Waterbody

2021 Survey Sites

- Backpack Electrofisher
- Beach Seine
- Gill Net

Historical Survey Data

- Survey Site
- Boat Electroshocking Site

Sources and Disclaimer

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1:50,000

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Meters

0 300 600 1,200 1,800 2,400

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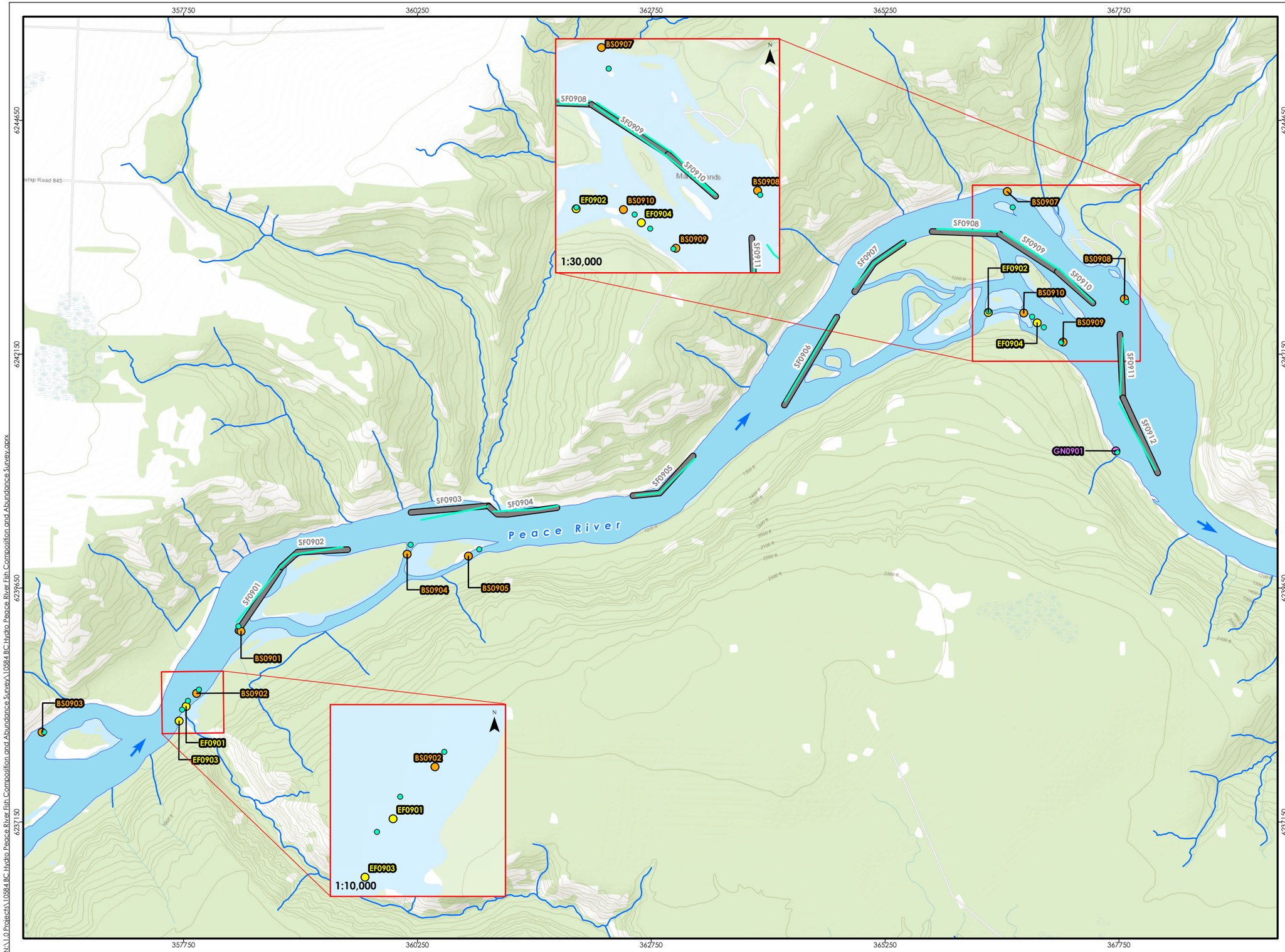
BC Hydro Peace River Fish Composition and Abundance Survey

Figure A2-3

Section 9 Survey Sites



Legend

- Flow Direction
- Watercourse

2021 Survey Sites

- Backpack Electrofisher
- Beach Seine
- Gill Net
- Boat Electroshocking Site

Historical Survey Data

- Survey Site
- Boat Electroshocking Site

Sources and Disclaimer

1. Base Map Source: ESRI World Topographic Map
2. Base Map Data: DataBC Data Catalogue
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N W E S

1:40,000

UTM Zone 11 (NAD 1983)

Date: March 28, 2022 | **Project Number:** 10584

Meters

0 250 500 1,000 1,500 2,000

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Appendix 3

Historic Peace River Discharge

Table A3-1. Maximum, minimum, and mean discharge values by month and river section

Month		*Jan*	*Feb*	*Mar*	*Apr*	*May*	*June*	*July*	*Aug*	*Sept*	*Oct*	*Nov*	*Dec*	*Grand Total*
Section 5	**Max**	1,970	2,120	1,860	2,020	1,870	3,270	3,520	2,000	2,010	1,650	1,980	2,020	3,520
	Min	412	402	465	362	402	418	389	369	376	356	372	843	356
	Mean	1,509	1,510	1,375	1,186	992	969	1,154	1,003	1,000	1,100	1,337	1,585	1,226
Section 7	**Max**	2,140	2,190	1,900	2,560	5,900	6,140	5,770	2,240	3,700	2,670	3,060	2,020	6,140
	Min	393	422	692	541	731	684	500	380	372	468	486	849	372
	Mean	1,615	1,594	1,456	1,454	1,843	1,790	1,508	1,175	1,239	1,297	1,456	1,643	1,505

Notes:

Data for section 5 from station 07FA004, data for section 7 from 07FD010 data range from 2000 to 2020 (Gov. Canada 2022)

Appendix 4

Catch Rates

Table A4-1. Coldwater and coolwater fish boat electrofisher catch rate (no. fish/km/hr)

Section	Site	Date	Time Sampled (s)	Length Sampled (km)	Arctic Grayling		Bull Trout		Burbot		Kokanee		Mountain Whitefish		Northern Pike		Rainbow Trout		Walleye		All Species	
					No.	CPUE	No.	CPUE	No.	CPUE	No.	CPUE	No.	CPUE	No.	CPUE	No.	CPUE	No.	CPUE	No.	CPUE
5	SB07	26-Sep-21	847	0.5	0	0.00	0	0.00	0	0.00	0	0	6	51.00	1	8.50	0	0.00	0	0.00	7	59.50
	SB08	26-Sep-21	988	0.5	0	0.00	0	0.00	4	29.15	0	0	15	109.31	0	0.00	2	14.57	0	0.00	21	153.04
	SF0503	26-Sep-21	655	0.8	2	13.74	1	6.87	0	0.00	0	0	32	219.85	0	0.00	0	0.00	0	0.00	35	240.46
	SF0508	26-Sep-21	762	0.7	1	6.75	0	0.00	0	0.00	0	0	23	155.23	0	0.00	0	0.00	0	0.00	24	161.98
	SF0509	27-Sep-21	575	0.5	0	0.00	0	0.00	0	0.00	0	0	25	313.04	2	25.04	0	0.00	0	0.00	27	338.09
	SF0510	27-Sep-21	900	0.75	0	0.00	0	0.00	0	0.00	0	0	24	128.00	3	16.00	0	0.00	0	0.00	27	144.00
	SF0511	27-Sep-21	616	0.5	0	0.00	0	0.00	0	0.00	0	0	16	187.01	0	0.00	0	0.00	0	0.00	16	187.01
	SF0512	27-Sep-21	843	0.5	0	0.00	0	0.00	0	0.00	0	0	15	128.11	0	0.00	0	0.00	0	0.00	15	128.11
	SF0513	27-Sep-21	817	0.6	1	7.34	0	0.00	0	0.00	0	0	15	110.16	0	0.00	0	0.00	0	0.00	16	117.50
	SF0514	25-Sep-21	596	0.5	0	0.00	1	12.08	0	0.00	0	0	9	108.72	0	0.00	1	12.08	0	0.00	11	132.89
	SF0519	26-Sep-21	642	0.5	1	11.21	0	0.00	0	0.00	0	0	3	33.64	2	22.43	0	0.00	1	11.21	7	78.50
	SF0520	27-Sep-21	491	0.5	1	14.66	0	0.00	0	0.00	0	0	22	322.61	0	0.00	0	0.00	1	14.66	24	351.93
Section 5 Summary			**8,732**	**6.85**	**6**	**0.36**	**2**	**0.12**	**4**	**0.24**	**0**	**0**	**205**	**12.34**	**8**	**0.48**	**3**	**0.18**	**2**	**0.12**	**230**	**2,093.02**
Section 5 Average			**727.67**	**0.57**	**0.5**	**4.48**	**0.17**	**1.58**	**0.33**	**2.43**	**0**	**0**	**17.08**	**155.56**	**0.67**	**6.00**	**0.25**	**2.22**	**0.17**	**2.16**	**19.17**	**174.42**
Section 5 Standard Error					**0.19**	**1.64**	**0.11**	**1.06**	**0.32**	**2.33**	**0**	**0**	**2.35**	**25.21**	**0.30**	**2.67**	**0.17**	**1.44**	**0.11**	**1.41**	**2.39**	**25.53**
7	SB09	28-Sep-21	454	0.5	0	0.00	0	0.00	0	0.00	0	0	8	126.87	0	0.00	0	0.00	0	0	8	126.87
	SF0703	28-Sep-21	284	0.4	0	0.00	0	0.00	0	0.00	0	0	2	63.38	0	0.00	0	0.00	0	0	2	63.38
	SF0704	28-Sep-21	982	1	0	0.00	1	3.67	0	0.00	0	0	19	69.65	1	3.67	0	0.00	0	0	21	76.99
	SF0705	29-Sep-21	832	0.7	0	0.00	1	6.18	0	0.00	0	0	35	216.35	0	0.00	0	0.00	0	0	36	222.53
	SF0706	29-Sep-21	1,347	1	0	0.00	0	0.00	0	0.00	1	2.67	28	74.83	0	0.00	0	0.00	0	0	29	77.51
	SF0707	29-Sep-21	961	1	1	3.75	1	3.75	0	0.00	0	0	36	134.86	1	3.75	0	0.00	0	0	39	146.10
	SF0708	28-Sep-21	883	0.7	1	5.82	0	0.00	0	0.00	0	0	5	29.12	0	0.00	0	0.00	0	0	6	34.95
	SF0709	28-Sep-21	754	0.7	0	0.00	0	0.00	0	0.00	0	0	3	20.46	0	0.00	0	0.00	0	0	3	20.46
	SF0710	29-Sep-21	596	0.5	0	0.00	0	0.00	0	0.00	0	0	2	24.16	0	0.00	0	0.00	0	0	2	24.16
	SF0713	29-Sep-21	666	0.5	0	0.00	1	10.81	0	0.00	0	0	19	205.41	0	0.00	0	0.00	0	0	20	216.22
	SF0714	29-Sep-21	1,074	1	0	0.00	1	3.35	0	0.00	0	0	1	3.35	0	0.00	1	3.35	0	0	3	10.06
	SF0715	28-Sep-21	713	0.5	0	0.00	0	0.00	0	0.00	0	0	4	40.39	1	10.10	0	0.00	0	0	5	50.49
Section 7 Summary			**9,546**	**8.5**	**2**	**0.09**	**5**	**0.22**	**0**	**0.00**	**1**	**0.04**	**162**	**7.19**	**3**	**0.13**	**1**	**0.04**	**0**	**0**	**174**	**1,069.70**
Section 7 Average			**795.5**	**0.71**	**0.17**	**0.80**	**0.42**	**2.31**	**0**	**0.00**	**0.08**	**0.22**	**13.5**	**84.07**	**0.25**	**1.46**	**0.08**	**0.28**	**0**	**0**	**14.5**	**89.14**
Section 7 Standard Error					**0.11**	**0.53**	**0.14**	**0.95**	**0**	**0.00**	**0.08**	**0.21**	**3.69**	**19.80**	**0.125**	**0.85**	**0.08**	**0.27**	**0**	**0**	**3.84**	**20.27**
9	SF0901	30-Sep-21	903	0.75	0	0.00	0	0.00	0	0.00	0	0	0	0.00	0	0.00	0	0.00	0	0	0	0.00
	SF0902	30-Sep-21	989	0.75	0	0.00	0	0.00	0	0.00	0	0	2	9.71	0	0.00	0	0.00	0	0	2	9.71
	SF0903	30-Sep-21	1,029	0.7	0	0.00	0	0.00	0	0.00	0	0	27	134.94	0	0.00	0	0.00	0	0	27	134.94
	SF0904	30-Sep-21	1,054	0.7	0	0.00	0	0.00	0	0.00	0	0	0	0.00	0	0.00	0	0.00	0	0	0	0.00
	SF0905	30-Sep-21	761	0.8	0	0.00	0	0.00	0	0.00	0	0	0	0.00	0	0.00	0	0.00	0	0	0	0.00
	SF0906	30-Sep-21	1,032	1	0	0.00	0	0.00	0	0.00	0	0	9	31.40	0	0.00	0	0.00	0	0	9	31.40
	SF0907	01-Oct-21	967	0.75	0	0.00	0	0.00	0	0.00	0	0	5	24.82	0	0.00	0	0.00	0	0	5	24.82
	SF0908	01-Oct-21	876	0.6	1	6.85	0	0.00	0	0.00	0	0	0	0.00	0	0.00	0	0.00	0	0	1	6.85
	SF0909	01-Oct-21	986	0.7	0	0.00	0	0.00	0	0.00	0	0	0	0.00	0	0.00	0	0.00	0	0	0	0.00
	SF0910	01-Oct-21	760	0.5	0	0.00	0	0.00	0	0.00	0	0	0	0.00	0	0.00	0	0.00	0	0	0	0.00
	SF0911	01-Oct-21	243	0.6	1	24.69	0	0.00	0	0.00	0	0	11	271.60	0	0.00	0	0.00	0	0	12	296.30
	SF0912	01-Oct-21	1,041	0.8	0	0.00	0	0.00	0	0.00	0	0	7	30.26	0	0.00	0	0.00	0	0	7	30.26
Section 9 Summary			**10,641**	**8.56**	**2**	**0.08**	**0**	**0.00**	**0**	**0.00**	**0**	**0**	**61**	**2.41**	**0**	**0.00**	**0**	**0.00**	**0**	**0**	**63**	**534.27**
Section 9 Average			**886.75**	**0.72**	**0.17**	**2.63**	**0**	**0.00**	**0**	**0.00**	**0**	**0**	**5.08**	**41.89**	**0**	**0.00**	**0**	**0.00**	**0**	**0**	**5.25**	**44.52**
Section 9 Standard Error					**0.11**	**2.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0**	**2.20**	**22.60**	**0**	**0.00**	**0**	**0.00**	**0**	**0**	**2.21**	**24.28**
Grand Total			**28,919**	**23.91**	**10**	**0.05**	**7**	**0.04**	**4**	**0.02**	**1**	**0.01**	**428**	**2.23**	**11**	**0.06**	**4**	**0.02**	**2**	**0.01**	**467**	**2.43**
All Sections Average			**803.31**	**0.67**	**0.28**	**2.63**	**0.19**	**1.30**	**0.11**	**0.81**	**0.03**	**0.07**	**11.89**	**93.84**	**0.31**	**2.49**	**0.11**	**0.83**	**0.06**	**0.72**	**12.97**	**102.69**
All Sections Standard Error					**0.08**	**0.91**	**0.07**	**0.50**	**0.11**	**0.80**	**0.03**	**0.07**	**1.84**	**15.23**	**0.12**	**1.03**	**0.07**	**0.52**	**0.04**	**0.50**	**1.94**	**16.26**

Table A4-2. Sucker boat electrofisher catch rate (no. fish/km/hr)

Section	Site	Date	Time Sampled (s)	Length Sampled (km)	Longnose Sucker		Largescale Sucker		White Sucker		All Suckers	
					No.	CPUE	No.	CPUE	No.	CPUE	No.	CPUE
5	SB07	26-Sep-21	847	0.5	4	34.00	0	0.00	2	17.00	6	51.00
	SB08	26-Sep-21	988	0.5	5	36.44	0	0.00	1	7.29	6	43.72
	SF0503	26-Sep-21	655	0.8	1	6.87	0	0.00	0	0.00	1	6.87
	SF0508	26-Sep-21	762	0.7	4	27.00	0	0.00	0	0.00	4	27.00
	SF0509	27-Sep-21	575	0.5	7	87.65	1	12.52	1	12.52	9	112.70
	SF0510	27-Sep-21	900	0.75	7	37.33	0	0.00	1	5.33	8	42.67
	SF0511	27-Sep-21	616	0.5	3	35.06	0	0.00	0	0.00	3	35.06
	SF0512	27-Sep-21	843	0.5	4	34.16	1	8.54	3	25.62	8	68.33
	SF0513	27-Sep-21	817	0.6	2	14.69	0	0.00	0	0.00	2	14.69
	SF0514	25-Sep-21	596	0.5	11	132.89	0	0.00	0	0.00	11	132.89
	SF0519	26-Sep-21	642	0.5	16	179.44	1	11.21	1	11.21	18	201.87
	SF0520	27-Sep-21	491	0.5	4	58.66	0	0.00	0	0.00	4	58.66
Section 5 Summary			**8,732**	**6.85**	**68**	**4.09**	**3**	**0.18**	**9**	**0.54**	**80**	**795.45**
Section 5 Average			**727.67**	**0.57**	**5.67**	**57.02**	**0.25**	**2.50**	**0.75**	**6.12**	**6.67**	**66.29**
Section 5 Standard Error					**1.16**	**14.25**	**0.125**	**1.37**	**0.27**	**2.34**	**1.29**	**15.60**
7	SB09	28-Sep-21	454	0.5	3	47.58	0	0.00	0	0.00	3	47.58
	SF0703	28-Sep-21	284	0.4	2	63.38	0	0.00	0	0.00	2	63.38
	SF0704	28-Sep-21	982	1	11	40.33	0	0.00	0	0.00	11	40.33
	SF0705	29-Sep-21	832	0.7	2	12.36	2	12.36	0	0.00	4	24.73
	SF0706	29-Sep-21	1,347	1	8	21.38	0	0.00	0	0.00	8	21.38
	SF0707	29-Sep-21	961	1	22	82.41	4	14.98	0	0.00	26	97.40
	SF0708	28-Sep-21	883	0.7	5	29.12	2	11.65	1	5.82	8	46.59
	SF0709	28-Sep-21	754	0.7	9	61.39	0	0.00	0	0.00	9	61.39
	SF0710	29-Sep-21	596	0.5	1	12.08	1	12.08	0	0.00	2	24.16
	SF0713	29-Sep-21	666	0.5	4	43.24	0	0.00	0	0.00	4	43.24
	SF0714	29-Sep-21	1,074	1	7	23.46	0	0.00	0	0.00	7	23.46
Section 7 Summary			**9,546**	**8.5**	**76**	**3.37**	**9**	**0.40**	**1**	**0.04**	**86**	**513.83**
Section 7 Average			**795.5**	**0.71**	**6.33**	**38.08**	**0.75**	**4.26**	**0.08**	**0.49**	**7.17**	**42.82**
Section 7 Standard Error					**1.63**	**6.18**	**0.36**	**1.75**	**0.08**	**0.46**	**1.85**	**6.35**
9	SF0901	30-Sep-21	903	0.75	9	47.84	0	0.00	0	0.00	9	47.84
	SF0902	30-Sep-21	989	0.75	8	38.83	0	0.00	0	0.00	8	38.83
	SF0903	30-Sep-21	1,029	0.7	20	99.96	0	0.00	1	5.00	21	104.96
	SF0904	30-Sep-21	1,054	0.7	5	24.40	0	0.00	0	0.00	5	24.40
	SF0905	30-Sep-21	761	0.8	2	11.83	0	0.00	0	0.00	2	11.83
	SF0906	30-Sep-21	1,032	1	2	6.98	0	0.00	0	0.00	2	6.98
	SF0907	01-Oct-21	967	0.75	11	54.60	0	0.00	0	0.00	11	54.60
	SF0908	01-Oct-21	876	0.6	5	34.25	0	0.00	0	0.00	5	34.25
	SF0909	01-Oct-21	986	0.7	6	31.30	0	0.00	0	0.00	6	31.30
	SF0910	01-Oct-21	760	0.5	21	198.95	1	9.47	0	0.00	22	208.42
	SF0911	01-Oct-21	243	0.6	13	320.99	0	0.00	0	0.00	13	320.99
Section 9 Summary			**10,641**	**8.65**	**107**	**4.18**	**1**	**0.04**	**1**	**0.04**	**109**	**905.99**
Section 9 Average			**886.75**	**0.72**	**8.92**	**74.29**	**0.08**	**0.79**	**0.08**	**0.42**	**9.08**	**75.50**
Section 9 Standard Error					**1.75**	**25.89**	**0.08**	**0.76**	**0.08**	**0.40**	**1.84**	**26.26**
Grand Total			**28,919**	**24**	**251**	**1.30**	**13**	**0.07**	**11**	**0.06**	**275**	**1.43**
All Sections Average			**803.31**	**0.67**	**6.97**	**56.46**	**0.36**	**2.58**	**0.31**	**2.49**	**7.64**	**61.54**
All Sections Standard Error					**0.91**	**10.36**	**0.14**	**0.82**	**0.11**	**0.94**	**0.99**	**10.65**

Table A4-3. Sculpin boat electrofisher catch rate (no. fish/km/hr)

Section	Site	Date	Time Sampled (s)	Length Sampled (km)	Prickly Sculpin		Slimy Sculpin		Spoonhead Sculpin		All Sculpins	
					No.	CPUE	No.	CPUE	No.	CPUE	No.	CPUE
5	SB07	26-Sep-21	847	0.5	0	0.00	0	0.00	0	0.00	0	0.00
	SB08	26-Sep-21	988	0.5	2	14.57	0	0.00	0	0.00	2	14.57
	SF0503	26-Sep-21	655	0.8	0	0.00	0	0.00	0	0.00	0	0.00
	SF0508	26-Sep-21	762	0.7	0	0.00	4	27.00	0	0.00	4	27.00
	SF0509	27-Sep-21	575	0.5	0	0.00	0	0.00	0	0.00	0	0.00
	SF0510	27-Sep-21	900	0.75	0	0.00	0	0.00	0	0.00	0	0.00
	SF0511	27-Sep-21	616	0.5	0	0.00	0	0.00	0	0.00	0	0.00
	SF0512	27-Sep-21	843	0.5	0	0.00	1	8.54	0	0.00	1	8.54
	SF0513	27-Sep-21	817	0.6	0	0.00	0	0.00	0	0.00	0	0.00
	SF0514	25-Sep-21	596	0.5	0	0.00	0	0.00	0	0.00	0	0.00
	SF0519	26-Sep-21	642	0.5	0	0.00	0	0.00	0	0.00	0	0.00
	SF0520	27-Sep-21	491	0.5	0	0.00	0	0.00	0	0.00	0	0.00
Section 5 Summary			**8,732**	**6.85**	**2**	**0.12**	**5**	**0.30**	**0**	**0.00**	**7**	**50.11**
Section 5 Average			**727.67**	**0.57**	**0.17**	**1.21**	**0.42**	**2.76**	**0**	**0.00**	**0.58**	**4.18**
Section 5 Standard Error					**0.16**	**1.16**	**0.32**	**2.20**	**0**	**0.00**	**0.34**	**2.36**
7	SB09	28-Sep-21	454	0.5	0	0.00	0	0.00	0	0.00	0	0.00
	SF0703	28-Sep-21	284	0.4	0	0.00	0	0.00	0	0.00	0	0.00
	SF0704	28-Sep-21	982	1	0	0.00	0	0.00	0	0.00	0	0.00
	SF0705	29-Sep-21	832	0.7	0	0.00	0	0.00	0	0.00	0	0.00
	SF0706	29-Sep-21	1,347	1	0	0.00	1	2.67	0	0.00	1	2.67
	SF0707	29-Sep-21	961	1	0	0.00	4	14.98	0	0.00	4	14.98
	SF0708	28-Sep-21	883	0.7	0	0.00	0	0.00	0	0.00	0	0.00
	SF0709	28-Sep-21	754	0.7	0	0.00	0	0.00	1	6.82	1	6.82
	SF0710	29-Sep-21	596	0.5	0	0.00	0	0.00	0	0.00	0	0.00
	SF0713	29-Sep-21	666	0.5	0	0.00	0	0.00	0	0.00	0	0.00
	SF0714	29-Sep-21	1,074	1	0	0.00	2	6.70	0	0.00	2	6.70
	SF0715	28-Sep-21	713	0.5	0	0.00	0	0.00	0	0.00	0	0.00
Section 7 Summary			**9,546**	**8.5**	**0**	**0.00**	**7**	**0.31**	**1**	**0.04**	**8**	**31.18**
Section 7 Average			**795.5**	**0.71**	**0**	**0.00**	**0.58**	**2.03**	**0.08**	**0.57**	**0.67**	**2.60**
Section 7 Standard Error					**0**	**0.00**	**0.34**	**1.26**	**0.08**	**0.54**	**0.34**	**1.30**
9	SF0901	30-Sep-21	903	0.75	0	0.00	0	0.00	0	0.00	0	0.00
	SF0902	30-Sep-21	989	0.75	0	0.00	0	0.00	0	0.00	0	0.00
	SF0903	30-Sep-21	1,029	0.7	0	0.00	0	0.00	0	0.00	0	0.00
	SF0904	30-Sep-21	1,054	0.7	0	0.00	0	0.00	0	0.00	0	0.00
	SF0905	30-Sep-21	761	0.8	0	0.00	0	0.00	0	0.00	0	0.00
	SF0906	30-Sep-21	1,032	1	0	0.00	0	0.00	0	0.00	0	0.00
	SF0907	01-Oct-21	967	0.75	0	0.00	0	0.00	0	0.00	0	0.00
	SF0908	01-Oct-21	876	0.6	0	0.00	0	0.00	0	0.00	0	0.00
	SF0909	01-Oct-21	986	0.7	0	0.00	0	0.00	0	0.00	0	0.00
	SF0910	01-Oct-21	760	0.5	0	0.00	0	0.00	0	0.00	0	0.00
	SF0911	01-Oct-21	243	0.6	0	0.00	0	0.00	0	0.00	0	0.00
	SF0912	01-Oct-21	1,041	0.8	0	0.00	0	0.00	0	0.00	0	0.00
Section 9 Summary			**10,641**	**8.65**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**
Section 9 Average			**886.75**	**0.72**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**
Section 9 Standard Error					**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**
Grand Total			**28,919**	**24**	**2**	**0.01**	**12**	**0.06**	**1**	**0.01**	**15**	**0.08**
All Sections Average			**803.31**	**0.67**	**0.06**	**0.40**	**0.33**	**1.66**	**0.03**	**0.19**	**0.42**	**2.26**
All Sections Standard Error					**0.05**	**0.40**	**0.16**	**0.87**	**0.03**	**0.19**	**0.17**	**0.94**

Table A4-4. Minnow boat electrofisher catch rate (no. fish/km/hr)

Section	Site	Date	Time Sampled (s)	Length Sampled (km)	Flathead Chub		Lake Chub		Longnose Dace		Northern Pikeminnow		Redside Shiner		Spottail Shiner		Trout-perch		All Minnows	
					No.	CPUE	No.	CPUE	No.	CPUE	No.	CPUE	No.	CPUE	No.	CPUE	No.	CPUE	No.	CPUE
5	SB07	26-Sep-21	847	0.5	0	0.00	0	0.00	0	0.00	1	8.50	0	0.00	0	0.00	0	0.00	1	8.50
	SB08	26-Sep-21	988	0.5	0	0.00	0	0.00	0	0.00	1	7.29	1	7.29	0	0.00	0	0.00	2	14.57
	SF0503	26-Sep-21	655	0.8	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	SF0508	26-Sep-21	762	0.7	0	0.00	1	6.75	0	0.00	0	0.00	1	6.75	0	0.00	1	6.75	3	20.25
	SF0509	27-Sep-21	575	0.5	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	SF0510	27-Sep-21	900	0.75	0	0.00	0	0.00	0	0.00	2	10.67	0	0.00	0	0.00	0	0.00	2	10.67
	SF0511	27-Sep-21	616	0.5	0	0.00	0	0.00	0	0.00	0	0.00	1	11.69	0	0.00	0	0.00	1	11.69
	SF0512	27-Sep-21	843	0.5	0	0.00	2	17.08	0	0.00	0	0.00	0	0.00	0	0.00	2	17.08	4	34.16
	SF0513	27-Sep-21	817	0.6	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3	22.03	3	22.03
	SF0514	25-Sep-21	596	0.5	0	0.00	0	0.00	0	0.00	1	12.08	1	12.08	0	0.00	0	0.00	2	24.16
	SF0519	26-Sep-21	642	0.5	0	0.00	0	0.00	2	22.43	1	11.21	0	0.00	1	11.21	0	0.00	4	44.86
	SF0520	27-Sep-21	491	0.5	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Section 5 Summary			**8,732**	**6.85**	**0**	**0.00**	**3**	**0.18**	**2**	**0.12**	**6**	**0.36**	**4**	**0.24**	**1**	**0.06**	**6**	**0.36**	**22**	**190.89**
Section 5 Average			**727.67**	**0.57**	**0**	**0.00**	**0.25**	**1.99**	**0.17**	**1.87**	**0.5**	**4.15**	**0.33**	**3.15**	**0.08**	**0.93**	**0.5**	**3.82**	**1.83**	**15.91**
Section 5 Standard Error					**0**	**0.00**	**0.17**	**1.42**	**0.16**	**1.79**	**0.19**	**1.45**	**0.14**	**1.35**	**0.08**	**0.89**	**0.28**	**2.12**	**0.41**	**3.87**
7	SB09	28-Sep-21	454	0.5	0	0.00	1	15.86	1	15.86	1	15.86	4	63.44	0	0.00	1	15.86	8	126.87
	SF0703	28-Sep-21	284	0.4	0	0.00	2	63.38	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	63.38
	SF0704	28-Sep-21	982	1	1	3.67	3	11.00	5	18.33	0	0.00	0	0.00	0	0.00	0	0.00	9	32.99
	SF0705	29-Sep-21	832	0.7	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	SF0706	29-Sep-21	1,347	1	0	0.00	5	13.36	0	0.00	2	5.35	0	0.00	0	0.00	0	0.00	7	18.71
	SF0707	29-Sep-21	961	1	0	0.00	2	7.49	0	0.00	0	0.00	1	3.75	0	0.00	0	0.00	3	11.24
	SF0708	28-Sep-21	883	0.7	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	SF0709	28-Sep-21	754	0.7	0	0.00	3	20.46	0	0.00	2	13.64	0	0.00	1	6.82	0	0.00	6	40.92
	SF0710	29-Sep-21	596	0.5	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	SF0713	29-Sep-21	666	0.5	0	0.00	1	10.81	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	10.81
	SF0714	29-Sep-21	1,074	1	0	0.00	4	13.41	0	0.00	0	0.00	0	0.00	0	0.00	1	3.35	5	16.76
	SF0715	28-Sep-21	713	0.5	0	0.00	6	60.59	0	0.00	0	0.00	0	0.00	0	0.00	2	20.20	8	80.79
Section 7 Summary			**9,546**	**8.5**	**1**	**0.04**	**27**	**1.20**	**6**	**0.27**	**5**	**0.22**	**5**	**0.22**	**1**	**0.04**	**4**	**0.18**	**49**	**402.47**
Section 7 Average			**795.5**	**0.71**	**0.08**	**0.31**	**2.25**	**18.03**	**0.5**	**2.85**	**0.42**	**2.90**	**0.42**	**5.60**	**0.08**	**0.57**	**0.33**	**3.28**	**4.08**	**33.54**
Section 7 Standard Error					**0.08**	**0.29**	**0.55**	**5.96**	**0.40**	**1.84**	**0.22**	**1.59**	**0.32**	**5.04**	**0.08**	**0.54**	**0.18**	**1.94**	**0.96**	**10.79**
9	SF0901	30-Sep-21	903	0.75	1	5.32	17	90.37	0	0.00	0	0.00	0	0.00	0	0.00	3	15.95	21	111.63
	SF0902	30-Sep-21	989	0.75	0	0.00	11	53.39	4	19.41	0	0.00	1	4.85	0	0.00	0	0.00	16	77.65
	SF0903	30-Sep-21	1,029	0.7	0	0.00	0	0.00	0	0.00	1	5.00	0	0.00	0	0.00	0	0.00	1	5.00
	SF0904	30-Sep-21	1,054	0.7	1	4.88	1	4.88	0	0.00	1	4.88	0	0.00	1	4.88	0	0.00	4	19.52
	SF0905	30-Sep-21	761	0.8	3	17.74	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3	17.74
	SF0906	30-Sep-21	1,032	1	1	3.49	13	45.35	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	14	48.84
	SF0907	01-Oct-21	967	0.75	0	0.00	22	109.2	1	4.96	0	0.00	0	0.00	0	0.00	0	0.00	23	114.17
	SF0908	01-Oct-21	876	0.6	0	0.00	17	116.4	1	6.85	0	0.00	0	0.00	0	0.00	0	0.00	18	123.29
	SF0909	01-Oct-21	986	0.7	0	0.00	7	36.51	4	20.86	0	0.00	1	5.22	0	0.00	0	0.00	12	62.59
	SF0910	01-Oct-21	760	0.5	3	28.42	0	0.00	2	18.95	0	0.00	0	0.00	0	0.00	0	0.00	5	47.37
	SF0911	01-Oct-21	243	0.6	0	0.00	4	98.77	2	49.38	0	0.00	0	0.00	0	0.00	0	0.00	6	148.15
	SF0912	01-Oct-21	1,041	0.8	0	0.00	1	4.32	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	4.32
Section 9 Summary			**10,641**	**8.65**	**9**	**0.35**	**93**	**3.64**	**14**	**0.55**	**2**	**0.08**	**2**	**0.08**	**1**	**0.04**	**3**	**0.12**	**124**	**780.26**
Section 9 Average			**886.75**	**0.72**	**0.75**	**4.99**	**7.75**	**46.60**	**1.17**	**10.04**	**0.17**	**0.82**	**0.17**	**0.84**	**0.08**	**0.41**	**0.25**	**1.33**	**10.33**	**65.02**
Section 9 Standard Error					**0.31**	**2.48**	**2.20**	**12.81**	**0.42**	**4.14**	**0.11**	**0.53**	**0.11**	**0.54**	**0.08**	**0.39**	**0.24**	**1.27**	**2.20**	**13.75**
Grand Total			**28,919**	**24**	**10**	**0.05**	**123**	**0.64**	**22**	**0.11**	**13**	**0.07**	**11**	**0.06**	**3**	**0.02**	**13**	**0.07**	**195**	**1.01**
All Sections Average			**803.31**	**0.67**	**0.28**	**1.76**	**3.42**	**22.21**	**0.61**	**4.92**	**0.36**	**2.62**	**0.31**	**3.20**	**0.08**	**0.64**	**0.36**	**2.81**	**5.42**	**38.16**
All Sections Standard Error					**0.12**	**0.92**	**0.92**	**5.64**	**0.21**	**1.74**	**0.11**	**0.77**	**0.12**	**1.78**	**0.05**	**0.37**	**0.14**	**1.06**	**1.01**	**6.86**

Table A4-5. Coldwater and coolwater fish backpack electrofisher catch rate (no. fish/km/hr)

Section	Site	Date	Time Sampled (s)	Length Sampled (km)	Mountain Whitefish		All Species	
					No.	CPUE	No	CPUE
5	BP01	26-Sep-21	835	0.1	0	0	0	0
	BP03	26-Sep-21	752	0.11	0	0	0	0
	EF0506	27-Sep-21	976	0.1	0	0	0	0
	EF0507	27-Sep-21	824	0.11	0	0	0	0
Section 5 Summary			**3,387**	**0.41**	**0**	**0**	**0**	**0**
Section 5 Average			**846.75**	**0.10**	**0**	**0**	**0**	**0**
Section 5 Standard Error					**0**	**0**	**0**	**0**
7	EF0705	28-Sep-21	715	0.1	0	0	0	0
	EF0706	28-Sep-21	835	0.1	0	0	0	0
	EF0708	29-Sep-21	744	0.11	0	0	0	0
	EF0709	29-Sep-21	983	0.1	0	0	0	0
Section 7 Summary			**3,277**	**0.405**	**0**	**0**	**0**	**0**
Section 7 Average			**819.25**	**0.10**	**0**	**0**	**0**	**0**
Section 7 Standard Error					**0**	**0**	**0**	**0**
9	EF0901	30-Sep-21	1,007	0.1	0	0	0	0
	EF0902	01-Oct-21	840	0.1	0	0	0	0
	EF0903	30-Sep-21	858	0.1	0	0	0	0
	EF0904	01-Oct-21	916	0.1	1	39.30	1	39.30
Section 9 Summary			**3,621**	**0.4**	**1**	**2.49**	**1**	**39.30**
Section 9 Average			**905.25**	**0.1**	**0.25**	**9.83**	**0.25**	**9.83**
Section 9 Standard Error					**0.22**	**8.51**	**0.22**	**8.51**
Grand Total			**10,285**	**1.215**	**1**	**0.29**	**1**	**0.29**
All Sections Average			**857.08**	**0.10**	**0.08**	**3.28**	**0.08**	**3.28**
All Sections Standard Error					**0.08**	**3.14**	**0.08**	**3.14**

Table A4-6. Sucker backpack electrofisher catch rate (no. fish/km/hr)

Section	Site	Date	Time Sampled (s)	Length Sampled (km)	Longnose Sucker		Largescale Sucker		White Sucker		All Suckers	
					No.	CPUE	No.	CPUE	No.	CPUE	No.	CPUE
5	BP01	26-Sep-21	835	0.1	0	0	0	0	0	0	0	0
	BP03	26-Sep-21	752	0.11	1	45.59	0	0	1	45.59	2	91.19
	EF0506	27-Sep-21	976	0.1	11	405.74	4	147.54	0	0	15	553.28
	EF0507	27-Sep-21	824	0.11	0	0	0	0	0	0	0	0
Section 5 Summary			**3387**	**0.41**	**12**	**31.11**	**4**	**10.37**	**1**	**2.59**	**17**	**644.46**
Section 5 Average			**846.75**	**0.10**	**3**	**112.83**	**1**	**36.89**	**0.25**	**11.40**	**4.25**	**161.12**
Section 5 Standard Error					**2.32**	**85.07**	**0.87**	**31.94**	**0.22**	**9.87**	**3.13**	**114.73**
7	EF0705	28-Sep-21	715	0.1	0	0	0	0	2	100.70	2	100.70
	EF0706	28-Sep-21	835	0.1	26	1,120.96	0	0	0	0	26	1,120.96
	EF0708	29-Sep-21	744	0.11	9	414.75	0	0	1	46.08	10	460.83
	EF0709	29-Sep-21	983	0.1	21	769.07	0	0	4	146.49	25	915.56
Section 7 Summary			**3,277**	**0.405**	**56**	**151.90**	**0**	**0**	**7**	**18.99**	**63**	**2598.05**
Section 7 Average			**819.25**	**0.10**	**14**	**576.19**	**0**	**0**	**1.75**	**73.32**	**15.75**	**649.51**
Section 7 Standard Error					**5.09**	**207.97**	**0**	**0**	**0.74**	**27.64**	**5.08**	**198.41**
9	EF0901	30-Sep-21	1,007	0.1	10	357.50	0	0	2	71.50	12	429.00
	EF0902	01-Oct-21	840	0.1	22	942.86	0	0	0	0	22	942.86
	EF0903	30-Sep-21	858	0.1	9	377.62	0	0	0	0	9	377.62
	EF0904	01-Oct-21	916	0.1	6	235.81	0	0	0	0	6	235.81
Section 9 Summary			**3,621**	**0.4**	**47**	**116.82**	**0**	**0**	**2.00**	**4.97**	**49**	**1,985.28**
Section 9 Average			**905.25**	**0.1**	**11.75**	**478.45**	**0**	**0**	**0.50**	**17.87**	**12.25**	**496.32**
Section 9 Standard Error					**3.05**	**136.78**	**0**	**0**	**0.43**	**15.48**	**3.01**	**133.67**
Grand Total			**10,285**	**1.22**	**115**	**299.83**	**4.00**	**10.37**	**10.00**	**26.55**	**129**	**5,227.80**
All Sections Average			**857.08**	**0.10**	**9.58**	**389.16**	**0.33**	**12.30**	**0.83**	**34.20**	**10.75**	**435.65**
All Sections Standard Error					**2.53**	**104.89**	**0.32**	**11.77**	**0.35**	**13.66**	**2.63**	**106.25**

Table A4-7. Sculpin backpack electrofisher catch rate (no. fish/km/hr)

Section	Site	Date	Time Sampled (s)	Length Sampled (km)	Prickly Sculpin		Slimy Sculpin		Spoonhead Sculpin		All Sculpins	
					No.	CPUE	No.	CPUE	No.	CPUE	No.	CPUE
5	BP01	26-Sep-21	835	0.1	0	0	0	0	0	0	0	0
	BP03	26-Sep-21	752	0.11	0	0	1	45.59	0	0	1	45.59
	EF0506	27-Sep-21	976	0.1	0	0	0	0	0	0	0	0
	EF0507	27-Sep-21	824	0.11	0	0	0	0	0	0	0	0
Section 5 Summary			**3,387**	**0.41**	**0**	**0**	**1**	**2.59**	**0**	**0**	**1**	**45.59**
Section 5 Average			**846.75**	**0.10**	**0**	**0**	**0.25**	**11.40**	**0**	**0**	**0.25**	**11.40**
Section 5 Standard Error					**0**	**0**	**0.22**	**9.87**	**0**	**0**	**0.22**	**9.87**
7	EF0705	28-Sep-21	715	0.1	0	0	0	0	0	0	0	0
	EF0706	28-Sep-21	835	0.1	0	0	0	0	0	0	0	0
	EF0708	29-Sep-21	744	0.11	0	0	0	0	0	0	0	0
	EF0709	29-Sep-21	983	0.1	0	0	4	146.49	0	0	4	146.49
Section 7 Summary			**3,277**	**0.405**	**0**	**0**	**4**	**10.85**	**0**	**0**	**4**	**146.49**
Section 7 Average			**819.25**	**0.10**	**0**	**0**	**1**	**36.62**	**0**	**0**	**1**	**36.62**
Section 7 Standard Error					**0**	**0**	**0.87**	**31.72**	**0**	**0**	**0.87**	**31.72**
9	EF0901	30-Sep-21	1,007	0.1	0	0	0	0	0	0	0	0
	EF0902	01-Oct-21	840	0.1	0	0	0	0	0	0	0	0
	EF0903	30-Sep-21	858	0.1	0	0	0	0	0	0	0	0
	EF0904	01-Oct-21	916	0.1	0	0	0	0	0	0	0	0
Section 9 Summary			**3,621**	**0.4**	**0**	**0**	**0**	**0.00**	**0**	**0**	**0**	**0**
Section 9 Average			**905.25**	**0.1**	**0**	**0**	**0**	**0.00**	**0**	**0**	**0**	**0**
Section 9 Standard Error					**0**	**0**	**0**	**0.00**	**0**	**0**	**0**	**0**
Grand Total			**10,285**	**1.22**	**0**	**0**	**5.00**	**13.44**	**0**	**0**	**5**	**192.08**
All Sections Average			**857.08**	**0.10**	**0**	**0**	**0.42**	**16.01**	**0**	**0**	**0.42**	**16.01**
All Sections Standard Error					**0**	**0**	**0.32**	**11.92**	**0**	**0**	**0.32**	**11.92**

Table A4-8. Minnow backpack electrofisher catch rate (no. fish/km/hr)

Section	Site	Date	Time Sampled (s)	Length Sampled (km)	Flathead Chub		Lake Chub		Longnose Dace		Northern Pikeminnow		Redside Shiner		Spottail Shiner		Trout-perch		All Minnows	
					No.	CPUE	No.	CPUE	No.	CPUE	No.	CPUE	No.	CPUE	No.	CPUE	No.	CPUE	No	CPUE
5	BP01	26-Sep-21	835	0.1	0	0	0	0	19	819.16	0	0	0	0	0	0	0	0	19	819.16
	BP03	26-Sep-21	752	0.11	0	0	3	136.78	2	91.19	0	0	1	46	0	0	0	0	6	273.56
	EF0506	27-Sep-21	976	0.1	0	0	2	74	7	258.20	0	0	2	73.77	0	0	0	0	11	406
	EF0507	27-Sep-21	824	0.11	0	0	0	0	8	332.87	0	0	1	41.61	0	0	0	0	9	374.48
Section 5 Summary			**3,387**	**0.41**	**0**	**0**	**5**	**12.96**	**36**	**93.33**	**0**	**0**	**4**	**10.37**	**0**	**0**	**0**	**0**	**45**	**1,872.94**
Section 5 Average			**846.75**	**0.10**	**0**	**0**	**1.25**	**52.64**	**9.00**	**375.35**	**0**	**0**	**1.00**	**40.24**	**0**	**0**	**0**	**0**	**11.25**	**468.23**
Section 5 Standard Error					**0**	**0**	**0.65**	**28.58**	**3.10**	**135.38**	**0**	**0**	**0.35**	**13.17**	**0**	**0**	**0**	**0**	**2.41**	**104.21**
7	EF0705	28-Sep-21	715	0.1	0	0	7	352.45	19	956.64	0	0	11	553.85	3	151.05	0	0	40	2,014
	EF0706	28-Sep-21	835	0.1	0	0	3	129.34	1	43.11	0	0	2	86.23	1	43.11	0	0	7	302
	EF0708	29-Sep-21	744	0.11	0	0	0	0	17	783.41	1	46.08	9	414.75	0	0	1	46.08	28	1,290
	EF0709	29-Sep-21	983	0.1	0	0	4	146.49	17	622.58	0	0	1	36.62	0	0	0	0	22	805.70
Section 7 Summary			**3,277**	**0.405**	**0**	**0**	**14**	**37.98**	**54**	**146.48**	**1**	**2.71**	**23**	**62.39**	**4**	**10.85**	**1**	**2.71**	**97**	**4,411.80**
Section 7 Average			**819.25**	**0.10**	**0**	**0**	**3.5**	**157.07**	**13.5**	**601.44**	**0.25**	**11.52**	**5.75**	**272.86**	**1.00**	**48.54**	**0.25**	**11.52**	**24.25**	**1,102.95**
Section 7 Standard Error					**0**	**0**	**1.25**	**63.11**	**3.63**	**171.66**	**0.22**	**9.98**	**2.16**	**108.89**	**0.61**	**30.87**	**0.22**	**9.98**	**5.94**	**315.76**
9	EF0901	30-Sep-21	1,007	0.1	22	786.49	39	1,394.24	9	321.75	2	71.50	0	0	0	0	1	35.75	73	2,610
	EF0902	01-Oct-21	840	0.1	0	0	25	1,071.43	16	685.71	17	728.57	3	128.57	0	0	0	0	61	2,614
	EF0903	30-Sep-21	858	0.1	10	419.58	25	1,048.95	9	377.62	0	0	1	41.96	0	0	0	0	45	1,888
	EF0904	01-Oct-21	916	0.1	0	0	1	39	17	668.12	1	39.30	0	0	0	0	0	0	19	747
Section 9 Summary			**3,621**	**0.4**	**32**	**79.54**	**90**	**223.70**	**51**	**126.76**	**20**	**49.71**	**4**	**9.94**	**0**	**0**	**1**	**2.49**	**198**	**7,858.85**
Section 9 Average			**905.25**	**0.1**	**8.00**	**301.52**	**22.50**	**888.48**	**12.75**	**513.30**	**5.00**	**209.84**	**1.00**	**42.63**	**0**	**0**	**0**	**8.94**	**49.5**	**1,964.71**
Section 9 Standard Error					**4.53**	**164.12**	**6.83**	**254.47**	**1.88**	**82.46**	**3.48**	**150.28**	**0.61**	**26.25**	**0**	**0**	**0**	**7.74**	**10.11**	**381.39**
Grand Total			**10,285**	**1.22**	**32**	**79.54**	**109.00**	**274.63**	**141**	**366.56**	**21**	**52.42**	**31**	**82.70**	**4**	**10.85**	**2**	**5.20**	**340**	**14,143.59**
All Sections Average			**857.08**	**0.10**	**2.67**	**100.51**	**9.08**	**366.06**	**11.75**	**496.70**	**1.75**	**73.79**	**2.58**	**118.58**	**0**	**16.18**	**0**	**6.82**	**28.33**	**1,178.63**
All Sections Standard Error					**1.86**	**68.38**	**3.60**	**138.75**	**1.80**	**82.39**	**1.34**	**57.39**	**1.00**	**49.04**	**0**	**12.23**	**0**	**4.44**	**6.08**	**244.52**

Table A4-9. Coldwater and coolwater fish beach seine catch rate (no. fish/m²)

Section	Site	Date	Area Sampled (m²)	Bull Trout		Northern Pike		All Species	
				No.	CPUE	No.	CPUE	No.	CPUE
5	BS01	26-Sep-21	300	0	0	0	0	0	0
	BS02	26-Sep-21	300	0	0	0	0	0	0
	BS03	26-Sep-21	300	0	0	0	0	0	0
	BS0503	26-Sep-21	300	0	0	0	0	0	0
	BS0504	26-Sep-21	300	0	0	0	0	0	0
	BS0507	27-Sep-21	300	0	0	0	0	0	0
	BS0508	27-Sep-21	300	0	0	0	0	0	0
	BS0510	25-Sep-21	300	0	0	1	0.0033	1	0.0033
Section 5 Total			**2,400**	0	0	1	0.0004	1	0.0033
Section 5 Average			**300**	0	0	0.125	0.0004	0.125	0.0004
Section 5 Standard Error				0	0	0.1169	0.0004	0.1169	0.0004
7	BS0703	28-Sep-21	300	0	0	0	0	0	0
	BS0704	28-Sep-21	300	0	0	0	0	0	0
	BS0707	29-Sep-21	300	0	0	0	0	0	0
	BS0708	29-Sep-21	300	0	0	0	0	0	0
	BS0709	29-Sep-21	300	0	0	0	0	0	0
	BS0710	29-Sep-21	300	0	0	0	0	0	0
	BS0712	28-Sep-21	300	0	0	0	0	0	0
	BS0714	28-Sep-21	300	0	0	1	0.0033	1	0.0033
Section 7 Total			**2,400**	0	0	1	0.0004	1	0.0033
Section 7 Average			**300**	0	0	0.125	0.0004	0.125	0.0004
Section 7 Standard Error				0	0	0.1169	0.0004	0.1169	0.0004
9	BS0901	30-Sep-21	300	0	0	0	0	0	0
	BS0902	30-Sep-21	300	0	0	0	0	0	0
	BS0903	30-Sep-21	300	0	0	0	0	0	0
	BS0904	30-Sep-21	300	0	0	0	0	0	0
	BS0905	30-Sep-21	300	0	0	0	0	0	0
	BS0907	01-Oct-21	300	0	0	0	0	0	0
	BS0908	01-Oct-21	300	1	0.003	0	0	1	0.0033
	BS0909	01-Oct-21	300	0	0	0	0	0	0
	BS0910	01-Oct-21	300	0	0	0	0	0	0
Section 9 Total			**2,700**	**1**	**0.0004**	**0**	**0**	**1**	**0.0033**
Section 9 Average			**300**	**0.1111**	**0.0004**	**0**	**0**	**0.1111**	**0.0004**
Section 9 Standard Error				**0.1048**	**0.0003**	**0**	**0**	**0.1048**	**0.0003**
Grand Total			**7,500**	**1**	**0.0001**	**2**	**0.0003**	**3**	**0.0100**
All Sections Average			**300**	**0.0400**	**0.0001**	**0.0800**	**0.0003**	**0.1200**	**0.0004**
All Sections Standard Error				**0.0392**	**0.0001**	**0.0543**	**0.0002**	**0.0650**	**0.0002**

Table A4-10. Sucker beach seine catch rate (no. fish/m²)

Section	Site	Date	Area Sampled (m²)	Longnose Sucker		White Sucker		All Suckers	
				No.	CPUE	No.	CPUE	No.	CPUE
5	BS01	26-Sep-21	300	0	0	0	0	0	0
	BS02	26-Sep-21	300	0	0	1	0.003	1	0.003
	BS03	26-Sep-21	300	0	0	0	0	0	0
	BS0503	26-Sep-21	300	0	0	0	0	0	0
	BS0504	26-Sep-21	300	0	0	0	0	0	0
	BS0507	27-Sep-21	300	3	0.010	0	0	3	0.010
	BS0508	27-Sep-21	300	1	0.003	0	0	1	0.003
	BS0510	25-Sep-21	300	0	0	0	0	0	0
Section 5 Total			**2,400**	**4**	**0.002**	**1**	**0**	**5**	**0.017**
Section 5 Average			**300**	**0.500**	**0.002**	**0.125**	**0**	**0.625**	**0.002**
Section 5 Standard Error				**0.354**	**0.001**	**0.117**	**0**	**0.351**	**0.001**
7	BS0703	28-Sep-21	300	3	0.010	0	0	3	0.010
	BS0704	28-Sep-21	300	1	0.003	0	0	1	0.003
	BS0707	29-Sep-21	300	2	0.007	0	0	2	0.007
	BS0708	29-Sep-21	300	2	0.007	0	0	2	0.007
	BS0709	29-Sep-21	300	1	0.003	0	0	1	0.003
	BS0710	29-Sep-21	300	0	0	0	0	0	0
	BS0712	28-Sep-21	300	5	0.017	0	0	5	0.017
	BS0714	28-Sep-21	300	0	0	0	0	0	0
Section 7 Total			**2,400**	**14**	**0.006**	**0**	**0**	**14**	**0.047**
Section 7 Average			**300**	**1.750**	**0.006**	**0**	**0**	**3.111**	**0.006**
Section 7 Standard Error				**0.552**	**0.002**	**0**	**0**	**0.552**	**0.002**
9	BS0901	30-Sep-21	300	2	0.007	0	0	2	0.007
	BS0902	30-Sep-21	300	0	0	0	0	0	0
	BS0903	30-Sep-21	300	2	0.007	0	0	2	0.007
	BS0904	30-Sep-21	300	2	0.007	0	0	2	0.007
	BS0905	30-Sep-21	300	1	0.003	0	0	1	0.003
	BS0907	01-Oct-21	300	2	0.007	0	0	2	0.007
	BS0908	01-Oct-21	300	3	0.010	0	0	3	0.010
	BS0909	01-Oct-21	300	0	0	0	0	0	0
	BS0910	01-Oct-21	300	0	0	0	0	0	0
Section 9 Total			**2,700**	**12**	**0.004**	**0**	**0**	**12**	**0.040**
Section 9 Average			**300**	**1.333**	**0.004**	**0**	**0**	**2.400**	**0.004**
Section 9 Standard Error				**0.351**	**0.001**	**0**	**0**	**0.351**	**0.001**
Grand Total			**7,500.00**	**1**	**0.0001**	**1**	**0.0001**	**31**	**0.103**
All Sections Average			**300**	**1.200**	**0.004**	**0.040**	**0.0001**	**1.240**	**0.004**
All Sections Standard Error				**0.265**	**0.001**	**0.039**	**0.0001**	**0.261**	**0.001**

Table A4-11. Minnow beach seine catch rate (no. fish/m²)

Section	Site	Date	Area Sampled (m²)	Flathead Chub		Lake Chub		Longnose Dace		Northern Pikeminnow		Redside Shiner		Spottail Shiner		All Minnows	
				No.	CPUE	No.	CPUE	No.	CPUE	No.	CPUE	No.	CPUE	No.	CPUE	No.	CPUE
5	BS01	26-Sep-21	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	BS02	26-Sep-21	300	0	0	0	0	1	0.003	1	0.003	42	0.140	1	0.003	45	0.150
	BS03	26-Sep-21	300	0	0	0	0	12	0.040	0	0	11	0.037	0	0	23	0.077
	BS0503	26-Sep-21	300	0	0	0	0	0	0	0	0	1	0.003	0	0	1	0.003
	BS0504	26-Sep-21	300	0	0	0	0	0	0	0	0	1	0.003	0	0	1	0.003
	BS0507	27-Sep-21	300	0	0	2	0.007	0	0	0	0	2	0.007	0	0	4	0.013
	BS0508	27-Sep-21	300	0	0	0	0	0	0	0	0	0	0	1	0.003	1	0.003
	BS0510	25-Sep-21	300	0	0	0	0	0	0	0	0	22	0.073	0	0	22	0.073
Section 5 Total			**2,400**	**0**	**0**	**2**	**0**	**13**	0.005	**1**	0.000	**79**	0.033	**2**	0.001	**97**	**0.323**
Section 5 Average			**300**	**0**	**0**	**0.250**	**0**	**2**	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**12**	**0.040**
Section 5 Standard Error				**0**	**0**	**0.234**	**0**	**1**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**5**	**0.018**
7	BS0703	28-Sep-21	300	0	0	0	0	14	0.047	0	0	22	0.073	1	0.003	37	0.123
	BS0704	28-Sep-21	300	0	0	0	0	25	0.083	0	0	6	0.02	0	0	31	0.103
	BS0707	29-Sep-21	300	0	0	37	0.123	12	0.04	0	0	7	0.023	1	0.003	57	0.190
	BS0708	29-Sep-21	300	0	0	0	0	2	0.007	0	0	27	0.09	1	0.003	30	0.100
	BS0709	29-Sep-21	300	0	0	2	0.007	7	0.023	0	0	3	0.01	0	0	12	0.040
	BS0710	29-Sep-21	300	0	0	0	0	0	0.000	0	0	2	0.007	0	0	2	0.007
	BS0712	28-Sep-21	300	0	0	0	0	18	0.06	0	0	5	0.017	0	0	23	0.077
	BS0714	28-Sep-21	300	0	0	0	0	9	0.03	0	0	14	0.047	1	0.003	24	0.080
Section 7 Total			**2,400**	**0**	**0**	**39**	**0.016**	**87**	0.036	**0**	0	**86**	0.036	**4**	0.002	**216**	**0.720**
Section 7 Average			**300**	**0**	**0**	**4.875**	**0.016**	**10.875**	**0.036**	**0**	**0**	**10.750**	**0.036**	**0.500**	**0.002**	**27**	**0.090**
Section 7 Standard Error				**0**	**0**	**4.299**	**0.014**	**2.730**	**0.009**	**0**	**0**	**3.081**	**0.010**	**0.177**	**0.001**	**5.449**	**0.018**
9	BS0901	30-Sep-21	300	3	0.010	3	0.010	6	0.020	0	0	0	0	0	0	12	0.040
	BS0902	30-Sep-21	300	1	0.003	9	0.030	12	0.040	0	0	1	0.003	0	0	23	0.077
	BS0903	30-Sep-21	300	0	0	0	0	5	0.017	0	0	0	0	0	0	5	0.017
	BS0904	30-Sep-21	300	0	0	0	0	7	0.023	0	0	25	0.083	0	0	32	0.107
	BS0905	30-Sep-21	300	0	0	1	0.003	4	0.013	20	0.067	17	0.057	14	0.047	56	0.187
	BS0907	01-Oct-21	300	0	0	1	0.003	3	0.010	27	0.09	7	0.023	0	0	38	0.127
	BS0908	01-Oct-21	300	1	0	0	0	51	0.170	5	0.017	0	0	0	0	57	0.190
	BS0909	01-Oct-21	300	0	0	0	0	17	0.057	0	0	0	0	0	0	17	0.057
	BS0910	01-Oct-21	300	0	0	0	0	1	0.003	0	0	0	0	0	0	1	0.003
Section 9 Total			**2,700**	**5**	**0.002**	**14**	**0.005**	**106**	0.039	**52**	0.019	**50**	0.019	**14**	0.005	**241**	**0.803**
Section 9 Average			**300**	**0.556**	**0.002**	**2**	**0.005**	**12**	**0.039**	**6**	**0.019**	**6**	**0.019**	**2**	**0.005**	**27**	**0.089**
Section 9 Standard Error				**0.319**	**0.001**	**1**	**0.003**	**5**	**0.016**	**3**	**0.011**	**3**	**0.010**	**1**	**0.005**	**6**	**0.022**
Grand Total			**7,500**	**5**	**0.001**	**55**	**0.007**	**206**	**0.027**	**53**	**0.007**	**215**	**0.029**	**20**	**0.003**	**554**	**1.847**
All Sections Average			**300**	**0.200**	**0.001**	**2.200**	**0.007**	**8.240**	**0.027**	**2.120**	**0.007**	**8.600**	**0.029**	**0.800**	**0.003**	**22.160**	**0.074**
All Sections Standard Error				**0.126**	**0.000**	**1.469**	**0.005**	**2.206**	**0.007**	**1.292**	**0.004**	**2.199**	**0.007**	**0.546**	**0.002**	**3.656**	**0.012**

Table A4-12. All species gill net catch rate (no. fish/m²/hr)

Section	Site	Date	Soak Time (hr)	Area Sampled (m²)	Northern Pike		Longnose Sucker		Largescale Sucker		White Sucker		All Species	
					No	CPUE	No	CPUE	No	CPUE	No	CPUE	No	CPUE
5	GN0501	26-Sep-21	2.35	109.44	4	0.016	14	0.054	4	0.016	1	0.004	23	0.089
Section 5 Total				109.44	**4**	0.016	**14**	0.054	**4**	0.016	**1**	0.004	**23**	**0.089**
Section 5 Average				109.44	**4**	**0.016**	**14**	**0.054**	**4**	**0.016**	**1**	**0.004**	**23**	**0.089**
Section 5 Standard Error					**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
7	GN0701	29-Sep-21	2.07	109.44	0	0	0	0	0	0	0	0	0	0
Section 7 Total				109.44	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Section 7 Average				109.44	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Section 7 Standard Error					**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
9	GN0901	01-Oct-21	1.82	109.44	0	0	1	0.005	0	0	0	0	1	0.005
Section 9 Total				109.44	**0**	0	**1**	0.005	**0**	0	**0**	0	**1**	**0.005**
Section 9 Average				109.44	**0**	**0**	**1**	**0.005**	**0**	**0**	**0**	**0**	**1**	**0.005**
Section 9 Standard Error					**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Grand Total			**6.24**	**328.32**	**4**	**0.016**	**15**	**0.059**	**4**	**0.016**	**1**	**0.004**	**24**	**0.0944507**
All Sections Average			**2.08**	**109.44**	**1.333**	**0.005**	**5.000**	**0.020**	**1.333**	**0.005**	**0.333**	**0.001**	**8**	**0.03148357**
All Sections Standard Error					**1.089**	**0.004**	**3.682**	**0.014**	**1.089**	**0.004**	**0.272**	**0.001**	**6.128**	**0.024**

Appendix 5

Biological Characteristics

Table A5-1. Biological characteristics of the 2,296 fish captured in 2021 including all unidentified fish

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
5	SF0514	9/25/2021	1	LSU	SF0514-1347	409	803		900230000258053	New	EH				
5	SF0514	9/25/2021	1	LSU	SF0514-1348	410	673		900228000463940	New	EH				
5	SF0514	9/25/2021	1	LSU	SF0514-1349	403	703		900230000258054	New					
5	SF0514	9/25/2021	1	LSU	SF0514-1350	430	830		900230000258003	New					
5	SF0514	9/25/2021	1	LSU	SF0514-1351	417	745		900230000078336	Existing					
5	SF0514	9/25/2021	1	LSU	SF0514-1352	452	903		900230000258057	New					
5	SF0514	9/25/2021	1	LSU	SF0514-1353	450	836		900230000258020	New	EL				
5	SF0514	9/25/2021	1	LSU	SF0514-1354	450	1,050		900230000258092	New					
5	SF0514	9/25/2021	1	LSU	SF0514-1355	421	847		900230000258039	New					
5	SF0514	9/25/2021	1	MW	SF0514-1356	320	282	Scales		No					
5	SF0514	9/25/2021	1	MW	SF0514-1357	342	330	Scales	900230000258198	New					
5	SF0514	9/25/2021	1	MW	SF0514-1358	333	282	Scales	900230000268015	Existing					
5	SF0514	9/25/2021	1	MW	SF0514-1359	294	221	Scales	900228000463501	New					
5	SF0514	9/25/2021	1	LSU	SF0514-1360	265	215			No	CH				
5	SF0514	9/25/2021	1	NSC	SF0514-1361	272	234			No					
5	SF0514	9/25/2021	1	MW	SF0514-1362	272	171	Scales	900228000463572	New					
5	SF0514	9/25/2021	1	MW	SF0514-1363	276	145	Scales	900228000465935	Existing					
5	SF0514	9/25/2021	1	LSU	SF0514-1364	233	141		900228000463930	New					
5	SF0514	9/25/2021	1	MW	SF0514-1365	282	192	Scales	900228000463054	Existing					
5	SF0514	9/25/2021	1	MW	SF0514-1366	225	123	Scales	900228000462278	Existing					
5	SF0514	9/25/2021	1	MW	SF0514-1367	275	179	Scales	900228000462980	Existing	EL				
5	SF0514	9/25/2021	1	BT	SF0514-1368	245	123	Fin Rays	900228000463357	New		Yes			
5	BP01	9/26/2021	1	LNC	BP01-1377	30						Yes			
5	BP01	9/26/2021	1	LNC	BP01-1378	35						Yes			
5	BP01	9/26/2021	1	LNC	BP01-1379	40						Yes			
5	BP01	9/26/2021	1	LNC	BP01-1380	35						Yes			
5	BP01	9/26/2021	1	LNC	BP01-1381	28						Yes			
5	BP01	9/26/2021	1	LNC	BP01-1382	24									
5	BP01	9/26/2021	1	LNC	BP01-1383	25									
5	BP01	9/26/2021	1	LNC	BP01-1384	26									
5	BP01	9/26/2021	1	LNC	BP01-1385	31									
5	BP01	9/26/2021	1	LNC	BP01-1386	31									
5	BP01	9/26/2021	1	LNC	BP01-1387	23									
5	BP01	9/26/2021	1	LNC	BP01-1388	27									
5	BP01	9/26/2021	1	LNC	BP01-1389	28									
5	BP01	9/26/2021	1	LNC	BP01-1390	24									
5	BP01	9/26/2021	1	LNC	BP01-1391	41									
5	BP01	9/26/2021	1	LNC	BP01-1392	35									
5	BP01	9/26/2021	1	LNC	BP01-1393	31									
5	BP01	9/26/2021	1	LNC	BP01-1394	22									
5	BP01	9/26/2021	1	LNC	BP01-1395	24									

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
5	BS0504	9/26/2021	1	RSC	BS0504-1401	23						Yes			
5	BS02	9/26/2021	1	RSC	BS02-1402	21									
5	BS02	9/26/2021	1	RSC	BS02-1403	17									
5	BS02	9/26/2021	1	RSC	BS02-1404	17									
5	BS02	9/26/2021	1	RSC	BS02-1405	20									
5	BS02	9/26/2021	1	RSC	BS02-1406	24						Yes			
5	BS02	9/26/2021	1	RSC	BS02-1407	24						Yes			
5	BS02	9/26/2021	1	SU	BS02-1408	20									
5	BS02	9/26/2021	1	RSC	BS02-1409	21									
5	BS02	9/26/2021	1	RSC	BS02-1410	16									
5	BS02	9/26/2021	1	RSC	BS02-1411	19									
5	BS02	9/26/2021	1	RSC	BS02-1412	17									
5	BS02	9/26/2021	1	RSC	BS02-1413	19									
5	BS02	9/26/2021	1	RSC	BS02-1414	23									
5	BS02	9/26/2021	1	RSC	BS02-1415	21						Yes			
5	BS02	9/26/2021	1	RSC	BS02-1416	23						Yes			
5	BS02	9/26/2021	1	SU	BS02-1417	26									
5	BS02	9/26/2021	1	NSC	BS02-1418	35									
5	BS02	9/26/2021	1	SU	BS02-1419	20									
5	BS02	9/26/2021	1	SU	BS02-1420	18									
5	BS02	9/26/2021	1	SU	BS02-1421	18									
5	BS02	9/26/2021	1	RSC	BS02-1422	21						Yes			
5	BS02	9/26/2021	6	RSC	BS02-1423										
5	BS02	9/26/2021	6	SU	BS02-1424										
5	BS02	9/26/2021	12	RSC	BS02-1425										
5	BS02	9/26/2021	17	RSC	BS02-1426										
5	BS02	9/26/2021	15	RSC	BS02-1427										
5	BS02	9/26/2021	8	RSC	BS02-1428										
5	BS02	9/26/2021	7	RSC	BS02-1429										
5	BS02	9/26/2021	4	RSC	BS02-1430										
5	BS02	9/26/2021	5	SU	BS02-1431										
5	BS02	9/26/2021	1	C	BS02-1432	18									
5	BS02	9/26/2021	1	SU	BS02-1433	24									
5	BS02	9/26/2021	1	SU	BS02-1434	20									
5	BS02	9/26/2021	1	RSC	BS02-1435	20									
5	BS02	9/26/2021	1	SU	BS02-1436	21									
5	BS02	9/26/2021	1	RSC	BS02-1437	20						Yes			
5	BS02	9/26/2021	1	RSC	BS02-1438	22						Yes			
5	BS02	9/26/2021	1	RSC	BS02-1439	22						Yes			
5	SF0514	9/25/2021	1	RB	SF0514-1369	195	68	Scales	900226001221720	New		Yes			
5	SF0514	9/25/2021	1	RSC	SF0514-1370	103	12.9					Yes	Yes	Yes	Yes
5	BS0510	9/25/2021	1	NP	BS0510-1348	436	460	Fin Rays	900230000258064	New					

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
5	BS0510	9/25/2021	1	RSC	BS0510-1350	22						Yes			
5	BS0510	9/25/2021	1	RSC	BS0510-1351	24						Yes			
5	BS0510	9/25/2021	1	RSC	BS0510-1352	19									
5	BS0510	9/25/2021	1	RSC	BS0510-1353	17									
5	BS0510	9/25/2021	1	RSC	BS0510-1354	22						Yes			
5	BS0510	9/25/2021	1	RSC	BS0510-1355	12									
5	BS0510	9/25/2021	1	C	BS0510-1356	20									
5	BS0510	9/25/2021	1	RSC	BS0510-1357	18									
5	BS0510	9/25/2021	1	RSC	BS0510-1358	16									
5	BS0510	9/25/2021	1	RSC	BS0510-1359	14									
5	BS0510	9/25/2021	1	RSC	BS0510-1360	14						Yes			
5	BS0510	9/25/2021	1	RSC	BS0510-1361	21									
5	BS0510	9/25/2021	1	RSC	BS0510-1362	19									
5	BS0510	9/25/2021	1	RSC	BS0510-1363	19									
5	BS0510	9/25/2021	1	RSC	BS0510-1364	18									
5	BS0510	9/25/2021	1	RSC	BS0510-1365	22									
5	BS0510	9/25/2021	1	C	BS0510-1366	16									
5	BS0510	9/25/2021	1	RSC	BS0510-1367	21									
5	BS0510	9/25/2021	1	RSC	BS0510-1368	18									
5	BS0510	9/25/2021	1	C	BS0510-1369	16									
5	BS0510	9/25/2021	1	RSC	BS0510-1370	19									
5	BS0510	9/25/2021	1	RSC	BS0510-1371	22						Yes			
5	BS0510	9/25/2021	1	RSC	BS0510-1372	18									
5	BS0510	9/25/2021	1	C	BS0510-1373	17									
5	BS0510	9/25/2021	1	RSC	BS0510-1374	24									
5	BS0510	9/25/2021	1	C	BS0510-1375	10									
5	BS0510	9/25/2021	1	RSC	BS0510-1376	16									
5	SF0503	9/26/2021	1	MW	SF0503-1374	280	173	Scales	900228000463434	New					
5	SF0503	9/26/2021	1	MW	SF0503-1375	317	238	Scales	900230000031415	Existing					
5	SF0503	9/26/2021	1	MW	SF0503-1376	289	180	Scales	900228000463938	New					
5	SF0503	9/26/2021	1	MW	SF0503-1377	300	210	Scales	900228000461568	Existing					
5	SF0503	9/26/2021	1	MW	SF0503-1378	275	135	Scales	900228000463970	New					
5	SF0503	9/26/2021	1	MW	SF0503-1379	289	186	Scales	900228000463778	New					
5	SF0503	9/26/2021	1	MW	SF0503-1380	258	200	Scales	900228000463390	New					
5	SF0503	9/26/2021	1	MW	SF0503-1381	263	166	Scales	900228000463780	New					
5	SF0503	9/26/2021	1	MW	SF0503-1382	227	105	Scales	900228000463588	New					
5	SF0503	9/26/2021	1	MW	SF0503-1383	270	153	Scales		No	EH				
5	SF0503	9/26/2021	1	MW	SF0503-1384	250	140	Scales	900228000463440	New					
5	SF0503	9/26/2021	1	MW	SF0503-1385	277	170	Scales	900228000463391	New					
5	SF0503	9/26/2021	1	MW	SF0503-1386	273	155	Scales	900228000463862	New					
5	SF0503	9/26/2021	1	MW	SF0503-1387	300	192	Scales	900230000258091	New					
5	SF0503	9/26/2021	1	MW	SF0503-1388	273	155	Scales	900228000463511	New					

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
5	SF0503	9/26/2021	1	GR	SF0503-1389	198	84	Scales	900226001222310	Existing					
5	SF0503	9/26/2021	1	GR	SF0503-1390	211	109	Scales	900228000463887	New		Yes			
5	SF0503	9/26/2021	1	MW	SF0503-1391	265	145	Scales	900228000463752	New					
5	SF0503	9/26/2021	1	MW	SF0503-1392	248	160	Scales	900228000463863	New					
5	SF0503	9/26/2021	1	MW	SF0503-1393	270	160	Scales	900228000463688	New					
5	SF0503	9/26/2021	1	MW	SF0503-1394	280	172	Scales	900228000463841	New					
5	SF0503	9/26/2021	1	MW	SF0503-1395	256	157	Scales	900228000463547	New					
5	SF0503	9/26/2021	1	MW	SF0503-1396	223	122	Scales	900228000463497	New					
5	SF0503	9/26/2021	1	MW	SF0503-1397	177	56	Scales	900226001221752	New					
5	SF0503	9/26/2021	1	MW	SF0503-1398	98	10	Scales							
5	EF0506	9/27/2021	1	LNC	EF0506-1570	24	0.01					Yes			
5	EF0506	9/27/2021	1	LSU	EF0506-1571	43	0.7								
5	EF0506	9/27/2021	1	LSU	EF0506-1572	49	1.2								
5	EF0506	9/27/2021	1	LNC	EF0506-1573	26	0.2					Yes			
5	EF0506	9/27/2021	1	LNC	EF0506-1574	29	0.3					Yes			
5	EF0506	9/27/2021	1	LNC	EF0506-1575	30	0.3					Yes			
5	EF0506	9/27/2021	1	LSU	EF0506-1576	54	1.1								
5	EF0506	9/27/2021	1	LSU	EF0506-1577	48	0.8								
5	EF0506	9/27/2021	1	RSC	EF0506-1578	20						Yes			
5	EF0506	9/27/2021	1	LSU	EF0506-1579	56	1.7								
5	EF0506	9/27/2021	1	LNC	EF0506-1580	31	0.2					Yes			
5	EF0506	9/27/2021	1	LNC	EF0506-1581	26	0.2					Yes			
5	EF0506	9/27/2021	1	CSU	EF0506-1582	44	0.8				EH				
5	EF0506	9/27/2021	1	LSU	EF0506-1583	36	0.6								
5	EF0506	9/27/2021	1	LSU	EF0506-1584	46	1.1								
5	EF0506	9/27/2021	1	LSU	EF0506-1585	46	1.1				EH				
5	EF0506	9/27/2021	1	CSU	EF0506-1586	38	0.3				EH				
5	EF0506	9/27/2021	1	LSU	EF0506-1587	47	1.2								
5	EF0506	9/27/2021	1	CSU	EF0506-1588	45	1.1								
5	EF0506	9/27/2021	1	LKC	EF0506-1589	56	1.7								
5	EF0506	9/27/2021	1	LSU	EF0506-1590	52	2								
5	EF0506	9/27/2021	1	CSU	EF0506-1591	42	1.1								
5	EF0506	9/27/2021	1	LSU	EF0506-1592	45	1								
5	EF0506	9/27/2021	1	LNC	EF0506-1593	30	0.2					Yes			
5	EF0506	9/27/2021	1	RSC	EF0506-1594	21						Yes			
5	EF0507	9/27/2021	1	LNC	EF0507-1595	23						Yes			
5	EF0507	9/27/2021	1	LNC	EF0507-1596	32						Yes			
5	EF0507	9/27/2021	1	LNC	EF0507-1597	26						Yes			
5	EF0507	9/27/2021	1	LNC	EF0507-1598	27						Yes			
5	EF0507	9/27/2021	1	LNC	EF0507-1599	27						Yes			
5	EF0507	9/27/2021	1	LNC	EF0507-1600	28						Yes			
5	EF0507	9/27/2021	1	LNC	EF0507-1601	25						Yes			

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
5	EF0507	9/27/2021	1	LNC	EF0507-1602	24						Yes			
5	EF0507	9/27/2021	1	RSC	EF0507-1603	27						Yes			
5	BS0507	9/27/2021	1	LSU	BS0507-1604	43	0.7								
5	BS0507	9/27/2021	1	LKC	BS0507-1605	37	0.6								
5	BS0507	9/27/2021	1	LSU	BS0507-1606	38	0.4								
5	BS0507	9/27/2021	1	LSU	BS0507-1607	37	0.3								
5	BS0507	9/27/2021	1	C	BS0507-1608	22									
5	BS0507	9/27/2021	1	RSC	BS0507-1609	17						Yes			
5	BS0507	9/27/2021	1	RSC	BS0507-1610	17						Yes			
5	BS0507	9/27/2021	1	LKC	BS0507-1611	34	0.3								
5	BS0508	9/27/2021	1	C	BS0508-1613	19									
5	BS0508	9/27/2021	1	C	BS0508-1614	20									
5	BS0508	9/27/2021	1	C	BS0508-1615	20									
5	BS0508	9/27/2021	1	C	BS0508-1616	22									
5	BS0508	9/27/2021	1	C	BS0508-1617	25									
5	BS0508	9/27/2021	1	C	BS0508-1618	21									
5	BS0508	9/27/2021	1	C	BS0508-1619	11									
5	BS0508	9/27/2021	1	C	BS0508-1620	25									
5	BS0508	9/27/2021	1	C	BS0508-1621	21									
5	BS0508	9/27/2021	1	C	BS0508-1622	11									
5	BS0508	9/27/2021	1	C	BS0508-1623	21									
5	BS0508	9/27/2021	1	C	BS0508-1624	16									
5	BS0508	9/27/2021	1	C	BS0508-1625	9					EL				
5	BS0508	9/27/2021	1	C	BS0508-1626	16									
5	BS0508	9/27/2021	1	C	BS0508-1627	23									
5	BS0508	9/27/2021	1	STC	BS0508-1628	25									
5	BS0508	9/27/2021	1	C	BS0508-1629	10									
5	BS0508	9/27/2021	1	C	BS0508-1630	11									
5	BS0508	9/27/2021	1	C	BS0508-1631	26									
5	BS02	9/26/2021	1	RSC	BS02-1440	24						Yes			
5	BS02	9/26/2021	1	RSC	BS02-1441	22						Yes			
5	BS02	9/26/2021	1	RSC	BS02-1442	20									
5	BS02	9/26/2021	1	RSC	BS02-1443	21									
5	BS02	9/26/2021	1	SU	BS02-1444	25									
5	BS02	9/26/2021	1	SU	BS02-1445	25									
5	BS02	9/26/2021	1	SU	BS02-1446	22									
5	BS02	9/26/2021	5	RSC	BS02-1447										
5	BS02	9/26/2021	4	SU	BS02-1448										
5	BS02	9/26/2021	1	C	BS02-1449										
5	BS02	9/26/2021	1	SU	BS02-1451	35									
5	BS02	9/26/2021	9	SU	BS02-1452										
5	BS02	9/26/2021	11	SU	BS02-1453										

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
5	BS02	9/26/2021	4	RSC	BS02-1454										
5	BS02	9/26/2021	8	RSC	BS02-1455										
5	BS02	9/26/2021	4	SU	BS02-1456										
5	BS02	9/26/2021	6	RSC	BS02-1457										
5	BS02	9/26/2021	9	SU	BS02-1458										
5	BS02	9/26/2021	7	RSC	BS02-1459										
5	BS02	9/26/2021	8	SU	BS02-1460										
5	BS02	9/26/2021	6	RSC	BS02-1461										
5	BS02	9/26/2021	6	SU	BS02-1462										
5	BS02	9/26/2021	104	UN	BS02-1463										
5	BS02	9/26/2021	73	UN	BS02-1464										
5	BS02	9/26/2021	1	WSU	BS02-1465	46	0.025								
5	BS02	9/26/2021	1	SU	BS02-1466	21									
5	BS02	9/26/2021	1	SU	BS02-1467	20									
5	BS02	9/26/2021	1	SU	BS02-1468	20									
5	BS02	9/26/2021	1	SU	BS02-1469	21									
5	BS02	9/26/2021	1	SU	BS02-1470	21									
5	BS02	9/26/2021	1	RSC	BS02-1471	20						Yes			
5	BS02	9/26/2021	1	SU	BS02-1472	25									
5	BS02	9/26/2021	1	RSC	BS02-1473	23						Yes			
5	BS02	9/26/2021	16	SU	BS02-1475										
5	BS02	9/26/2021	22	SU	BS02-1476										
5	BS02	9/26/2021	1	RSC	BS02-1477	19						Yes			
5	BS02	9/26/2021	9	SU	BS02-1478										
5	BS02	9/26/2021	1	RSC	BS02-1479	23						Yes			
5	BS02	9/26/2021	1	RSC	BS02-1480	23						Yes			
5	BS02	9/26/2021	1	SU	BS02-1481	24									
5	BS02	9/26/2021	1	SU	BS02-1482	30									
5	BS02	9/26/2021	1	SU	BS02-1483	21									
5	BS02	9/26/2021	1	STC	BS02-1484	21									
5	BS02	9/26/2021	13	SU	BS02-1485										
5	BS02	9/26/2021	3	RSC	BS02-1486										
5	BS02	9/26/2021	1	LNC	BS02-1487	21									
5	BS02	9/26/2021	6	SU	BS02-1488										
5	BP03	9/26/2021	1	RSC	BP03-1489	59						Yes	Yes	Yes	
5	BP03	9/26/2021	1	LKC	BP03-1490	61									
5	BP03	9/26/2021	1	LKC	BP03-1491	58									
5	BP03	9/26/2021	1	CCG	BP03-1492	68						Yes			
5	BP03	9/26/2021	1	LSU	BP03-1493	63									
5	BP03	9/26/2021	1	LKC	BP03-1494	64									
5	BP03	9/26/2021	1	WSU	BP03-1495	49									
5	BP03	9/26/2021	1	LNC	BP03-1496	28									

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
5	BP03	9/26/2021	1	LNC	BP03-1497	26									
5	BS03	9/26/2021	1	SU	BS03-1498	16									
5	BS03	9/26/2021	1	Su	BS03-1499	26									
5	BS03	9/26/2021	1	RSC	BS03-1500	15									
5	BS03	9/26/2021	1	RSC	BS03-1501	21									
5	BS03	9/26/2021	1	SU	BS03-1502	20									
5	BS03	9/26/2021	1	SU	BS03-1503	19									
5	BS03	9/26/2021	1	RSC	BS03-1504	21						Yes			
5	BS03	9/26/2021	1	C	BS03-1505	14									
5	BS03	9/26/2021	1	SU	BS03-1506	21									
5	BS03	9/26/2021	1	SU	BS03-1507	20									
5	BS03	9/26/2021	1	SU	BS03-1508	18									
5	BS03	9/26/2021	1	SU	BS03-1509	15									
5	BS03	9/26/2021	1	LNC	BS03-1510	20									
5	BS03	9/26/2021	1	LNC	BS03-1511	21									
5	BS03	9/26/2021	1	RSC	BS03-1512	15									
5	BS03	9/26/2021	1	SU	BS03-1513	21									
5	BS03	9/26/2021	1	LNC	BS03-1514	15									
5	BS03	9/26/2021	1	RSC	BS03-1515	20						Yes			
5	BS03	9/26/2021	1	RSC	BS03-1516	20						Yes			
5	BS03	9/26/2021	1	RSC	BS03-1517	15									
5	BS03	9/26/2021	1	RSC	BS03-1518	26						Yes			
5	BS03	9/26/2021	1	LNC	BS03-1519	25						Yes			
5	BS03	9/26/2021	1	LNC	BS03-1520	19									
5	BS03	9/26/2021	1	SU	BS03-1521	21									
5	BS03	9/26/2021	1	LNC	BS03-1523	18						Yes			
5	BS03	9/26/2021	32	UN	BS03-1524										
5	BS03	9/26/2021	1	SU	BS03-1525	22									
5	BS03	9/26/2021	1	SU	BS03-1526	22									
5	BS03	9/26/2021	1	SU	BS03-1527	18									
5	BS03	9/26/2021	1	LNC	BS03-1528	16									
5	BS03	9/26/2021	1	RSC	BS03-1529	15						Yes			
5	BS03	9/26/2021	8	SU	BS03-1530										
5	BS03	9/26/2021	2	LNC	BS03-1531										
5	BS03	9/26/2021	1	RSC	BS03-1532										
5	BS03	9/26/2021	9	SU	BS03-1533										
5	BS03	9/26/2021	9	SU	BS03-1534										
5	BS03	9/26/2021	8	LNC	BS03-1535										
5	BS03	9/26/2021	8	SU	BS03-1536										
5	BS03	9/26/2021	1	LNC	BS03-1537	24									
5	BS03	9/26/2021	1	SU	BS03-1538	21									
5	BS03	9/26/2021	1	SU	BS03-1539	22									

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5	BS03	9/26/2021	1	RSC	BS03-1540	15									
5	BS03	9/26/2021	1	LNC	BS03-1541	17						Yes			
5	BS03	9/26/2021	1	LNC	BS03-1542	19						Yes			
5	GN0501	9/26/2021	1	LSU	GN0501-1543	420			900230000258093	New	DL				
5	GN0501	9/26/2021	1	LSU	GN0501-1544	440			900230000081739	Existing					
5	GN0501	9/26/2021	1	LSU	GN0501-1545	425			900230000258006	New	LL				
5	GN0501	9/26/2021	1	CSU	GN0501-1546	515			900230000205623	Existing					
5	GN0501	9/26/2021	1	NP	GN0501-1547	788		Fin Rays	900230000258047	New	LH				
5	GN0501	9/26/2021	1	NP	GN0501-1548	560		Fin Rays	900230000258079	New					
5	GN0501	9/26/2021	1	NP	GN0501-1549	634		Fin Rays	900230000258100	New					
5	GN0501	9/26/2021	1	LSU	GN0501-1550	435			900230000258072	New					
5	GN0501	9/26/2021	1	LSU	GN0501-1551	410			900230000263339	Existing					
5	GN0501	9/26/2021	1	LSU	GN0501-1552	424			900230000126967	Existing					
5	GN0501	9/26/2021	1	LSU	GN0501-1553	414			900230000258192	New					
5	GN0501	9/26/2021	1	LSU	GN0501-1554	395			900230000258181	New					
5	GN0501	9/26/2021	1	LSU	GN0501-1555	406			900010000188233	Existing	CL				
5	GN0501	9/26/2021	1	LSU	GN0501-1556	410			900230000205101	Existing	CL				
5	GN0501	9/26/2021	1	CSU	GN0501-1557	466			900230000258027	New					
5	GN0501	9/26/2021	1	CSU	GN0501-1558	461			900230000258029	New	CH				
5	GN0501	9/26/2021	1	LSU	GN0501-1559	418			900230000258174	New					
5	GN0501	9/26/2021	1	CSU	GN0501-1560	395				New					
5	GN0501	9/26/2021	1	LSU	GN0501-1561	405			900230000263936	Existing					
5	GN0501	9/26/2021	1	LSU	GN0501-1562	411			900230000258005	New					
5	GN0501	9/26/2021	1	WSU	GN0501-1563	385			900230000262686	Existing					
5	GN0501	9/26/2021	1	LSU	GN0501-1564	436			900230000258081	New					
5	GN0501	9/26/2021	1	NP	GN0501-1565	466		Fin Rays	900230000258101	New					
5	BS0503	9/26/2021	1	RSC	BS0503-1566	18									
5	SB07	9/26/2021	1	NP	SB07-1345	547	1,145	Fin Rays	900230000258140	New					
5	SB07	9/26/2021	1	LSU	SB07-1346	480	1,274		900230000258059	New					
5	SB07	9/26/2021	1	LSU	SB07-1347	429	842		900010000056078	Existing					
5	SB07	9/26/2021	1	WSU	SB07-1348	453	1,062		900230000258031	New					
5	SB07	9/26/2021	1	LSU	SB07-1349	447	1,028		900230000258058	New					
5	SB07	9/26/2021	1	MW	SB07-1350	315	272	Scales	900230000258007	New					
5	SB07	9/26/2021	1	MW	SB07-1351	281	187	Scales		No					
5	SB07	9/26/2021	1	MW	SB07-1352	275	156	Scales		No					
5	SB07	9/26/2021	1	MW	SB07-1353	272	99	Scales	900228000463659	New					
5	SB07	9/26/2021	1	MW	SB07-1354	260	90	Scales	900228000463817	New					
5	SB07	9/26/2021	1	MW	SB07-1355	264	116	Scales	900228000463298	New					
5	SB07	9/26/2021	1	NSC	SB07-1356	38	1								
5	SB07	9/26/2021	1	WSU	SB07-1357	70	2								
5	SB07	9/26/2021	1	LSU	SB07-1358	30	1								
5	SF0519	9/26/2021	1	WP	SF0519-1359	521	1,440		900230000269433	Existing					

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5	SF0519	9/26/2021	1	NP	SF0519-1360	529	968	Fin Rays	900230000258008	New					
5	SF0519	9/26/2021	1	LSU	SF0519-1361	378	618		900230000258166	New					
5	SF0519	9/26/2021	1	LSU	SF0519-1362	445	984		900230000263930	Existing					
5	SF0519	9/26/2021	1	LSU	SF0519-1363	409	800		900230000258169	New					
5	SF0519	9/26/2021	1	LSU	SF0519-1364	392	652			New					
5	SF0519	9/26/2021	1	MW	SF0519-1365	310	247	Scales	900230000210989	Existing					
5	SF0519	9/26/2021	1	MW	SF0519-1366	287	243	Scales	900228000463876	New					
5	SF0519	9/26/2021	1	NP	SF0519-1367	170	32	Fin Rays	900226001221793	New					
5	SF0519	9/26/2021	1	LSU	SF0519-1368	110	15								
5	SF0519	9/26/2021	1	LSU	SF0519-1369	60	5								
5	SF0519	9/26/2021	1	LSU	SF0519-1370	60	3								
5	SF0519	9/26/2021	1	NSC	SF0519-1371	90	8								
5	SF0519	9/26/2021	1	WSU	SF0519-1372	45	1								
5	SF0519	9/26/2021	1	STC	SF0519-1373	30	1								
5	SF0519	9/26/2021	1	CSU	SF0519-1374	45	1								
5	SF0519	9/26/2021	1	LSU	SF0519-1375	55	2								
5	SF0519	9/26/2021	1	LSU	SF0519-1376	55	2								
5	SF0519	9/26/2021	1	LNC	SF0519-1377	31	1					Yes			
5	SF0519	9/26/2021	1	LSU	SF0519-1378	50	1								
5	SF0519	9/26/2021	1	LSU	SF0519-1379	55	1								
5	SF0519	9/26/2021	1	LSU	SF0519-1380	60	3								
5	SF0519	9/26/2021	1	LSU	SF0519-1381	60	2								
5	SF0519	9/26/2021	1	LSU	SF0519-1382	55	2								
5	SF0519	9/26/2021	1	LSU	SF0519-1383	45	1								
5	SF0519	9/26/2021	1	LSU	SF0519-1384	50	2								
5	SF0519	9/26/2021	1	LNC	SF0519-1385	30	1					Yes			
5	SB08	9/26/2021	1	MW	SB08-1387	302	318	Scales	900230000258128	New					
5	SB08	9/26/2021	1	MW	SB08-1388	278	180	Scales	900228000463327	New					
5	SB08	9/26/2021	1	MW	SB08-1389	311	210	Scales	900230000258077	New					
5	SB08	9/26/2021	1	MW	SB08-1390	299	208	Scales	900228000463586	New					
5	SB08	9/26/2021	1	MW	SB08-1391	284	310	Scales	900228000463489	New					
5	SB08	9/26/2021	1	MW	SB08-1392	360	340	Scales	900230000258043	New					
5	SB08	9/26/2021	1	MW	SB08-1393	292	190	Scales	900228000463667	New					
5	SB08	9/26/2021	1	MW	SB08-1394	277	155	Scales	900228000463707	New					
5	SB08	9/26/2021	1	MW	SB08-1395	284	190	Scales	900228000463466	New					
5	SB08	9/26/2021	1	MW	SB08-1396	295	278	Scales	900228000463490	New					
5	SB08	9/26/2021	1	MW	SB08-1397	293	175	Scales	900228000463491	New					
5	SB08	9/26/2021	1	MW	SB08-1398	289	210	Scales	900228000463895	New					
5	SB08	9/26/2021	1	MW	SB08-1399	286	185	Scales	900228000463445	New					
5	SB08	9/26/2021	1	MW	SB08-1400	265	150	Scales	900228000463583	New					
5	SB08	9/26/2021	1	LSU	SB08-1401	411	790		900230000268496	Existing					
5	SB08	9/26/2021	1	MW	SB08-1402	319	275	Scales	900230000258014	New					

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5	SB08	9/26/2021	1	RB	SB08-1403	273	223	Scales	900228000463573	New		Yes			
5	SB08	9/26/2021	1	RB	SB08-1404	216	104		900228000460899	Existing					
5	SB08	9/26/2021	1	WSU	SB08-1405	180	70								
5	SB08	9/26/2021	1	NSC	SB08-1406	161	40								
5	SB08	9/26/2021	1	LSU	SB08-1407	210	111		900228000463961	New					
5	SB08	9/26/2021	1	LSU	SB08-1408	155	35								
5	SB08	9/26/2021	1	LSU	SB08-1409	160	50								
5	SB08	9/26/2021	1	LSU	SB08-1410	175	63								
5	SB08	9/26/2021	1	CAS	SB08-1411	120	21					Yes			
5	SB08	9/26/2021	1	CAS	SB08-1412	85	7					Yes			
5	SB08	9/26/2021	1	BB	SB08-1413	288	115		900228000463690	New					
5	SB08	9/26/2021	1	BB	SB08-1414	273	98		900228000463532	New					
5	SB08	9/26/2021	1	BB	SB08-1415	311	135		900230000258163	New					
5	SB08	9/26/2021	1	BB	SB08-1416	273	90		900228000463645	New					
5	SB08	9/26/2021	1	RSC	SB08-1417	108	18					Yes	Yes	Yes	
5	SF0512	9/27/2021	1	LSU	SF0512-1348	415	802		900230000159508	Existing					
5	SF0512	9/27/2021	1	LSU	SF0512-1349	345	515		900228000463711	New					
5	SF0512	9/27/2021	1	MW	SF0512-1350	336	256	Scales	900230000080362	Existing					
5	SF0512	9/27/2021	1	MW	SF0512-1351	296	210	Scales	900228000465356	Existing					
5	SF0512	9/27/2021	1	MW	SF0512-1353	291	193	Scales	900228000463774	New					
5	SF0512	9/27/2021	1	MW	SF0512-1354	276	166								
5	SF0512	9/27/2021	1	MW	SF0512-1355	273	158	Scales	900228000463811	New					
5	SF0512	9/27/2021	1	MW	SF0512-1356	172	46	Scales	900226001221779	New					
5	SF0512	9/27/2021	1	MW	SF0512-1357	101	9.4	Scales							
5	SF0512	9/27/2021	1	MW	SF0512-1358	88	5.8	Scales							
5	SF0512	9/27/2021	1	MW	SF0512-1359	103	8.8	Scales							
5	SF0512	9/27/2021	1	MW	SF0512-1360	94	7.7	Scales							
5	SF0512	9/27/2021	1	MW	SF0512-1361	90	7.1	Scales							
5	SF0512	9/27/2021	1	MW	SF0512-1362	88	5.9	Scales							
5	SF0512	9/27/2021	1	MW	SF0512-1363	98	9	Scales							
5	SF0512	9/27/2021	1	MW	SF0512-1364	91	6.5	Scales							
5	SF0512	9/27/2021	1	MW	SF0512-1365	89	7	Scales							
5	SF0512	9/27/2021	1	WSU	SF0512-1366	58	3.8								
5	SF0512	9/27/2021	1	WSU	SF0512-1367	82	5.6								
5	SF0512	9/27/2021	1	TP	SF0512-1368	63	3								
5	SF0512	9/27/2021	1	WSU	SF0512-1369	62	2.9								
5	SF0512	9/27/2021	1	LSU	SF0512-1370	57	2.2								
5	SF0512	9/27/2021	1	CSU	SF0512-1371	86	9.1								
5	SF0512	9/27/2021	1	LKC	SF0512-1372	52	1.2								
5	SF0512	9/27/2021	1	LKC	SF0512-1373	63	2.2								
5	SF0512	9/27/2021	1	CCG	SF0512-1374	51	1.6					Yes			
5	SF0512	9/27/2021	1	TP	SF0512-1375	63	3.9								

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5	SF0512	9/27/2021	1	LSU	SF0512-1376	57	1.7								
5	SF0503	9/26/2021	1	BT	SF0503-1371	407	666	Fin Rays	900230000258130	New		Yes			
5	SF0503	9/26/2021	1	MW	SF0503-1372	465	1,082	Scales	900026000148689	Existing					
5	SF0503	9/26/2021	1	MW	SF0503-1373	278	143	Scales	900228000463636	New					
5	SF0503	9/26/2021	1	MW	SF0503-1399	108	12	Scales							
5	SF0503	9/26/2021	1	MW	SF0503-1400	96	9	Scales							
5	SF0503	9/26/2021	1	MW	SF0503-1401	110	15	Scales							
5	SF0503	9/26/2021	1	MW	SF0503-1402	108	10	Scales							
5	SF0503	9/26/2021	1	MW	SF0503-1403	103	10	Scales							
5	SF0503	9/26/2021	1	LSU	SF0503-1404	57	2								
5	SF0503	9/26/2021	1	MW	SF0503-1405	90	10	Scales							
5	SF0503	9/26/2021	1	MW	SF0503-1406	95	8								
5	SF0503	9/26/2021	1	CC	SF0503-1407	25	0.4			No					
5	SF0508	9/26/2021	1	MW	SF0508-1408	311	386	Scales	900230000258114	New					
5	SF0508	9/26/2021	1	MW	SF0508-1409	378	470	Scales	965000000082362	Existing					
5	SF0508	9/26/2021	1	MW	SF0508-1410	270	157	Scales	900228000463788	New					
5	SF0508	9/26/2021	1	LSU	SF0508-1411	457	863		900230000258098	New	CL				
5	SF0508	9/26/2021	1	MW	SF0508-1412	288	182	Scales	900228000463405	New					
5	SF0508	9/26/2021	1	MW	SF0508-1413	272	150	Scales	900228000463838	New					
5	SF0508	9/26/2021	1	MW	SF0508-1414	278	157	Scales	900228000463710	New					
5	SF0508	9/26/2021	1	GR	SF0508-1415	200	84	Scales	900226001221745	New		Yes			
5	SF0508	9/26/2021	1	MW	SF0508-1416	279	173	Scales	900228000463714	New					
5	SF0508	9/26/2021	1	MW	SF0508-1417	282	178	Scales	900228000541811	Existing					
5	SF0508	9/26/2021	1	MW	SF0508-1418	218	110	Scales	900228000463600	New					
5	SF0508	9/26/2021	1	MW	SF0508-1419	286	188	Scales	900228000463506	New					
5	SF0508	9/26/2021	1	MW	SF0508-1420	272	162	Scales	900228000678490	Existing					
5	SF0508	9/26/2021	1	MW	SF0508-1421	274	170	Scales	900228000678854	Existing					
5	SF0508	9/26/2021	1	MW	SF0508-1422	277	175	Scales	900228000463687	New					
5	SF0508	9/26/2021	1	MW	SF0508-1423	272	175	Scales	900228000463849	New					
5	SF0508	9/26/2021	1	MW	SF0508-1424	315	248	Scales	900230000258112	New					
5	SF0508	9/26/2021	1	MW	SF0508-1425	272	165	Scales	900228000463885	New					
5	SF0508	9/26/2021	1	MW	SF0508-1426	308	288	Scales	900230000258187	New					
5	SF0508	9/26/2021	1	MW	SF0508-1427	292	210	Scales	900228000463963	New					
5	SF0508	9/26/2021	1	MW	SF0508-1428	280	190	Scales	900228000463791	New					
5	SF0508	9/26/2021	1	LSU	SF0508-1429	245	166		900228000463805	New					
5	SF0508	9/26/2021	1	MW	SF0508-1430	271	150	Scales	900228000463618	New					
5	SF0508	9/26/2021	1	MW	SF0508-1431	114	11	Scales		No					
5	SF0508	9/26/2021	1	MW	SF0508-1432	90	8	Scales							
5	SF0508	9/26/2021	1	LKC	SF0508-1433	58	2								
5	SF0508	9/26/2021	1	LSU	SF0508-1434	63	3								
5	SF0508	9/26/2021	1	LSU	SF0508-1435	69	2								
5	SF0508	9/26/2021	1	CCG	SF0508-1436	65	2					Yes			

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5	SF0508	9/26/2021	1	CCG	SF0508-1437	68						Yes			
5	SF0508	9/26/2021	1	MW	SF0508-1438	96	7	Scales							
5	SF0508	9/26/2021	1	TP	SF0508-1439	63	2								
5	SF0508	9/26/2021	1	CCG	SF0508-1440	65	2					Yes			
5	SF0508	9/26/2021	1	CCG	SF0508-1441	69	3					Yes			
5	SF0508	9/26/2021	1	RSC	SF0508-1442	75	5					Yes	Yes	Yes	
5	SF0520	9/27/2021	1	WP	SF0520-1443	495	1,323	Fin Rays	900230000258194	New					
5	SF0520	9/27/2021	1	LSU	SF0520-1444	370	565		900230000258142	New					
5	SF0520	9/27/2021	1	MW	SF0520-1446	288	277	Scales	900228000463601	New					
5	SF0520	9/27/2021	1	MW	SF0520-1447	289	262	Scales	900228000463852	New					
5	SF0520	9/27/2021	1	MW	SF0520-1448	267	144	Scales	900228000463823	New					
5	SF0520	9/27/2021	1	MW	SF0520-1449	307		Scales							
5	SF0520	9/27/2021	1	MW	SF0520-1450	316	330	Scales	900230000258178	New					
5	SF0520	9/27/2021	1	MW	SF0520-1451	312	256	Scales	900230000258199	New					
5	SF0520	9/27/2021	1	MW	SF0520-1452	318	347	Scales	900230000258183	New					
5	SF0520	9/27/2021	1	MW	SF0520-1453	292	239	Scales	900228000463518	New					
5	SF0520	9/27/2021	1	MW	SF0520-1454	276	157		900228000463528	New					
5	SF0520	9/27/2021	1	MW	SF0520-1455	309	219	Scales	900230000258045	New					
5	SF0520	9/27/2021	1	MW	SF0520-1456	267	141	Scales	900228000462160	Existing					
5	SF0520	9/27/2021	1	MW	SF0520-1457	274	170	Scales	900228000463865	New					
5	SF0520	9/27/2021	1	MW	SF0520-1458	164	40	Scales	900226001221764	New					
5	SF0520	9/27/2021	1	LSU	SF0520-1459	277	253		900228000463754	New					
5	SF0520	9/27/2021	1	LSU	SF0520-1460	289	243		900228000463495	New					
5	SF0520	9/27/2021	1	GR	SF0520-1461	192	70	Scales	900226001221740	New		Yes			
5	SF0520	9/27/2021	1	MW	SF0520-1462	191	69	Scales	900226001221725	New					
5	SF0520	9/27/2021	1	MW	SF0520-1463	78	4	Scales							
5	SF0520	9/27/2021	1	MW	SF0520-1464	90	5	Scales							
5	SF0520	9/27/2021	1	MW	SF0520-1465	87	6	Scales							
5	SF0520	9/27/2021	1	MW	SF0520-1466	104	10	Scales							
5	SF0520	9/27/2021	1	MW	SF0520-1467	92	9	Scales							
5	SF0520	9/27/2021	1	MW	SF0520-1468	98	7	Scales							
5	SF0520	9/27/2021	1	MW	SF0520-1469	84	5	Scales							
5	SF0520	9/27/2021	1	LSU	SF0520-1470	57	1								
5	SF0520	9/27/2021	1	MW	SF0520-1471	91	8	Scales							
5	SF0509	9/27/2021	1	NP	SF0509-1472	500	902	Fin Rays	900230000258035	New					
5	SF0509	9/27/2021	1	NP	SF0509-1473	460	735	Fin Rays	900230000258049	New					
5	SF0509	9/27/2021	1	CSU	SF0509-1474	502	1,510		900230000258062	New					
5	SF0509	9/27/2021	1	LSU	SF0509-1475	420	770		900230000258170	New					
5	SF0509	9/27/2021	1	LSU	SF0509-1476	388	734		900230000258051	New	TL				
5	SF0509	9/27/2021	1	MW	SF0509-1477	422	570	Scales							
5	SF0509	9/27/2021	1	LSU	SF0509-1479	391	630		900230000258002	New					
5	SF0509	9/27/2021	1	WSU	SF0509-1480	355	630		900230000258196	New					

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5	SF0509	9/27/2021	1	LSU	SF0509-1481	352	510		900230000258141	New					
5	SF0509	9/27/2021	1	LSU	SF0509-1482	412	793		900230000209393	New					
5	SF0509	9/27/2021	1	LSU	SF0509-1483	418	941		900230000258018	New					
5	SF0509	9/27/2021	1	MW	SF0509-1484	297	168	Scales	900228000463693	New					
5	SF0509	9/27/2021	1	LSU	SF0509-1485	390	745		900230000258188	New	CL				
5	SF0509	9/27/2021	1	MW	SF0509-1486	322	281	Scales	900230000258097	New					
5	SF0509	9/27/2021	1	MW	SF0509-1487	312	254	Scales	900230000258102	New					
5	SF0509	9/27/2021	1	MW	SF0509-1488	330	270	Scales	900230000258175	New					
5	SF0509	9/27/2021	1	MW	SF0509-1489	313	240	Scales	900230000258122	New					
5	SF0509	9/27/2021	1	MW	SF0509-1490	311	230	Scales	900230000258159	New					
5	SF0509	9/27/2021	1	MW	SF0509-1491	311	256	Scales	900230000258068	New					
5	SF0509	9/27/2021	1	MW	SF0509-1492	300	210	Scales	900228000464887	Existing					
5	SF0509	9/27/2021	1	MW	SF0509-1494	327	275	Scales	900230000258104	New					
5	SF0509	9/27/2021	1	MW	SF0509-1495	300	226	Scales	900228000587634	Existing					
5	SF0509	9/27/2021	1	MW	SF0509-1496	310	223	Scales	900230000258124	New	EL				
5	SF0509	9/27/2021	1	MW	SF0509-1497	280	190	Scales	900228000680439	Existing	CL				
5	SF0509	9/27/2021	1	MW	SF0509-1498	282	175	Scales	900228000463593	New					
5	SF0509	9/27/2021	1	MW	SF0509-1499	287	167	Scales	900228000463922	New					
5	SF0509	9/27/2021	1	MW	SF0509-1500	272	180	Scales	900228000463611	New					
5	SF0509	9/27/2021	1	MW	SF0509-1501	275	171	Scales	900228000463650	New	LL				
5	SF0509	9/27/2021	1	MW	SF0509-1502	238	134	Scales	900228000463621	New					
5	SF0509	9/27/2021	1	MW	SF0509-1503	171	51	Scales	900226001221769	New					
5	SF0509	9/27/2021	1	MW	SF0509-1504	183	65	Scales	900226001221709	New					
5	SF0509	9/27/2021	1	MW	SF0509-1505	160	45	Scales	900226001221700	New					
5	SF0509	9/27/2021	1	MW	SF0509-1506	106	13	Scales							
5	SF0509	9/27/2021	1	MW	SF0509-1507	96		Scales							
5	SF0509	9/27/2021	1	MW	SF0509-1508	99	10	Scales							
5	SF0509	9/27/2021	1	MW	SF0509-1509	80	4	Scales							
5	SF0510	9/27/2021	1	NP	SF0510-1510	480	895	Fin Rays	900230000263690	New					
5	SF0510	9/27/2021	1	NP	SF0510-1511	477	790	Fin Rays	900230000258037	New					
5	SF0510	9/27/2021	1	LSU	SF0510-1512	462	950		900230000258160	New	LL				
5	SF0510	9/27/2021	1	LSU	SF0510-1513	417	735		900230000258171	New					
5	SF0510	9/27/2021	1	LSU	SF0510-1514	328	383		900230000258131	New					
5	SF0510	9/27/2021	1	LSU	SF0510-1515	305	320		900230000258044	New					
5	SF0510	9/27/2021	1	WSU	SF0510-1516	393	640		900230000258172	New					
5	SF0510	9/27/2021	1	MW	SF0510-1517	327	267	Scales	900230000205849	Existing					
5	SF0510	9/27/2021	1	NP	SF0510-1518	333	166			No					
5	SF0510	9/27/2021	1	MW	SF0510-1519	333	285	Scales	981098104935533	Existing					
5	SF0510	9/27/2021	1	MW	SF0510-1520	302		Scales		No					
5	SF0510	9/27/2021	1	MW	SF0510-1521	283	180	Scales	900228000463484	New					
5	SF0510	9/27/2021	1	MW	SF0510-1522	325	250	Scales	900230000258136	New					
5	SF0510	9/27/2021	1	MW	SF0510-1523	307	183	Scales & Otoliths	No						

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5	SF0510	9/27/2021	1	MW	SF0510-1524	328	310	Scales	900230000258148	New					
5	SF0510	9/27/2021	1	MW	SF0510-1525	322	255	Scales	900026000064255	Existing					
5	SF0510	9/27/2021	1	MW	SF0510-1526	333	314	Scales	900230000258134	New	CL				
5	SF0510	9/27/2021	1	MW	SF0510-1527	337	246	Scales	900230000258173	New					
5	SF0510	9/27/2021	1	MW	SF0510-1528	321	263	Scales	900230000258127	New					
5	SF0510	9/27/2021	1	MW	SF0510-1529	347	333	Scales	900230000258042	New					
5	SF0510	9/27/2021	1	MW	SF0510-1530	308	246	Scales	900230000258017	New					
5	SF0510	9/27/2021	1	MW	SF0510-1531	301	202	Scales	900230000258143	New					
5	SF0510	9/27/2021	1	MW	SF0510-1532	293	190	Scales	900228000463599	New					
5	SF0510	9/27/2021	1	MW	SF0510-1533	324	260	Scales	900230000258180	New					
5	SF0510	9/27/2021	1	MW	SF0510-1534	291	186	Scales	900228000463521	New					
5	SF0510	9/27/2021	1	MW	SF0510-1535	260	177	Scales	900228000463441	New					
5	SF0510	9/27/2021	1	MW	SF0510-1536	275	162	Scales	900228000463566	New					
5	SF0510	9/27/2021	1	MW	SF0510-1537	282	173	Scales	900228000463776	New	EL				
5	SF0510	9/27/2021	1	MW	SF0510-1538	272	176	Scales	900228000463770	New					
5	SF0510	9/27/2021	1	MW	SF0510-1539	295	215	Scales	900228000463399	New					
5	SF0510	9/27/2021	1	MW	SF0510-1540	266	150	Scales	900228000463880	New					
5	SF0510	9/27/2021	1	MW	SF0510-1541	217	94	Scales	900228000463955	New					
5	SF0510	9/27/2021	1	LSU	SF0510-1542	48	1								
5	SF0510	9/27/2021	1	NSC	SF0510-1543	37	1								
5	SF0510	9/27/2021	1	LSU	SF0510-1544	53	2								
5	SF0510	9/27/2021	1	LSU	SF0510-1545	54	2								
5	SF0510	9/27/2021	1	NSC	SF0510-1546	44	1								
5	SF0511	9/27/2021	1	LSU	SF0511-1549	373	719								
5	SF0511	9/27/2021	1	LSU	SF0511-1550	425	830		900230000258179	New					
5	SF0511	9/27/2021	1	MW	SF0511-1551	333	240	Scales							
5	SF0511	9/27/2021	1	MW	SF0511-1552	328	230	Scales	900230000258177	New					
5	SF0511	9/27/2021	1	MW	SF0511-1553	314	250	Scales							
5	SF0511	9/27/2021	1	MW	SF0511-1554	267	147	Scales	900228000463424	New					
5	SF0511	9/27/2021	1	MW	SF0511-1555	260	137	Scales	900228000463907	New					
5	SF0511	9/27/2021	1	MW	SF0511-1556	268	140	Scales	900228000463814	New					
5	SF0511	9/27/2021	1	MW	SF0511-1557	256	134	Scales							
5	SF0511	9/27/2021	1	MW	SF0511-1558	94	8	Scales			CL				
5	SF0511	9/27/2021	1	MW	SF0511-1559	105	11	Scales							
5	SF0511	9/27/2021	1	MW	SF0511-1560	98	8	Scales							
5	SF0511	9/27/2021	1	MW	SF0511-1561	97	9	Scales							
5	SF0511	9/27/2021	1	MW	SF0511-1562	88	5	Scales							
5	SF0511	9/27/2021	1	MW	SF0511-1563	100	9	Scales							
5	SF0511	9/27/2021	1	MW	SF0511-1564	97	9	Scales							
5	SF0511	9/27/2021	1	MW	SF0511-1565	78	4	Scales							
5	SF0511	9/27/2021	1	LSU	SF0511-1566	58	4								
5	SF0511	9/27/2021	1	MW	SF0511-1567	84	5								

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5	SF0511	9/27/2021	1	RSC	SF0511-1568	38	1					Yes			
5	SF0513	9/27/2021	1	LSU	SF0513-1569	418	877		900230000258009	New					
5	SF0513	9/27/2021	1	LSU	SF0513-1570	385	701		900230000258107	New					
5	SF0513	9/27/2021	1	MW	SF0513-1571	402	554	Scales	900230000077259	Existing					
5	SF0513	9/27/2021	1	MW	SF0513-1572	338	264	Scales	900230000258189	New					
5	SF0513	9/27/2021	1	MW	SF0513-1573	341	323	Scales	900230000258197	New					
5	SF0513	9/27/2021	1	MW	SF0513-1574	346	369	Scales	900230000203833	Existing					
5	SF0513	9/27/2021	1	MW	SF0513-1575	316	250	Scales & Otoliths	No						
5	SF0513	9/27/2021	1	MW	SF0513-1576	287	149	Scales	900228000463633	New					
5	SF0513	9/27/2021	1	MW	SF0513-1577	267	158	Scales	900228000463499	New					
5	SF0513	9/27/2021	1	MW	SF0513-1578	283	190	Scales	900228000463622	New					
5	SF0513	9/27/2021	1	MW	SF0513-1579	228	129	Scales	900228000463488	New					
5	SF0513	9/27/2021	1	MW	SF0513-1580	277	153	Scales	900228000463419	New					
5	SF0513	9/27/2021	1	GR	SF0513-1581	211	128	Scales	900228000463903	New		Yes			
5	SF0513	9/27/2021	1	MW	SF0513-1582	204	85	Scales	900228000463726	New					
5	SF0513	9/27/2021	1	MW	SF0513-1583	163	41	Scales	900226001221705	New					
5	SF0513	9/27/2021	1	MW	SF0513-1584	166	51	Scales	900226001221770	New					
5	SF0513	9/27/2021	1	MW	SF0513-1585	77	6.8	Scales							
5	SF0513	9/27/2021	1	TP	SF0513-1586	78	5.9								
5	SF0513	9/27/2021	1	MW	SF0513-1587	94	7.5	Scales							
5	SF0513	9/27/2021	1	TP	SF0513-1588	51	2								
5	SF0513	9/27/2021	1	TP	SF0513-1589	53	1.6								
5	EF0506	9/27/2021	1	LKC	EF0506-1569	41	0.9								
5	BS0508	9/27/2021	1	C	BS0508-1632	21									
5	BS0508	9/27/2021	1	C	BS0508-1633	10									
5	BS0508	9/27/2021	1	C	BS0508-1634	20									
5	BS0508	9/27/2021	1	LSU	BS0508-1635	36									
5	BS0508	9/27/2021	1	C	BS0508-1636	9									
7	SF0715	9/28/2021	1	NP	SF0715-1590	715	2,600	Fin Rays	900230000258078	New					
7	SF0715	9/28/2021	1	MW	SF0715-1591	106	11.4	Scales							
7	SF0715	9/28/2021	1	MW	SF0715-1592	95	9.5	Scales							
7	SF0715	9/28/2021	1	MW	SF0715-1593	88	5.8	Scales							
7	SF0715	9/28/2021	1	MW	SF0715-1594	95	7.5	Scales							
7	SF0715	9/28/2021	1	TP	SF0715-1595	70	4								
7	SF0715	9/28/2021	1	LKC	SF0715-1596	68	3								
7	SF0715	9/28/2021	1	LKC	SF0715-1597	72	4								
7	SF0715	9/28/2021	1	TP	SF0715-1598	54	2								
7	SF0715	9/28/2021	1	LKC	SF0715-1599	58	2								
7	SF0715	9/28/2021	1	LSU	SF0715-1600	60	3								
7	SF0715	9/28/2021	1	LKC	SF0715-1601	63	4								
7	SF0715	9/28/2021	1	LSU	SF0715-1602	54	2								
7	SF0715	9/28/2021	1	LKC	SF0715-1603	61	2								

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7	SF0715	9/28/2021	1	LKC	SF0715-1604	78	5								
7	SB09	9/28/2021	1	LSU	SB09-1605	410	860		900230000258151	New					
7	SB09	9/28/2021	1	NSC	SB09-1606	255	167								
7	SB09	9/28/2021	1	LSU	SB09-1607	146	36								
7	SB09	9/28/2021	1	MW	SB09-1608	110	13	Scales							
7	SB09	9/28/2021	1	MW	SB09-1609	108	13	Scales							
7	SB09	9/28/2021	1	MW	SB09-1610	115	14	Scales							
7	SB09	9/28/2021	1	MW	SB09-1611	108	12	Scales							
7	SB09	9/28/2021	1	MW	SB09-1613	100	9	Scales							
7	SB09	9/28/2021	1	MW	SB09-1614	102	11	Scales							
7	SB09	9/28/2021	1	MW	SB09-1615	98	9	Scales							
7	SB09	9/28/2021	1	MW	SB09-1616	92	5	Scales							
7	SB09	9/28/2021	1	LNC	SB09-1617	25	1								
7	SB09	9/28/2021	1	TP	SB09-1618	90	5								
7	SB09	9/28/2021	1	LKC	SB09-1619	90	2								
7	SB09	9/28/2021	1	LSU	SB09-1620	57	1								
7	SB09	9/28/2021	1	RSC	SB09-1621	77	6					Yes	Yes	Yes	
7	SB09	9/28/2021	1	RSC	SB09-1622	42	1					Yes	Yes	Yes	
7	SB09	9/28/2021	1	RSC	SB09-1623	60	2					Yes	Yes	Yes	
7	SB09	9/28/2021	1	RSC	SB09-1624	61	2					Yes	Yes	Yes	
7	SF0703	9/28/2021	1	LSU	SF0703-1625	226	150		900228000463608	New					
7	SF0703	9/28/2021	1	MW	SF0703-1626	109	9	Scales							
7	SF0703	9/28/2021	1	MW	SF0703-1627	95	7	Scales							
7	SF0703	9/28/2021	1	LSU	SF0703-1628	133	25				CH				
7	SF0703	9/28/2021	1	LKC	SF0703-1629	65	2								
7	SF0703	9/28/2021	1	LKC	SF0703-1630	65	2								
7	SF0708	9/28/2021	1	CSU	SF0708-1631	413	853		900230000258155	New					
7	SF0708	9/28/2021	1	WSU	SF0708-1632	220	143		900228000463962	New					
7	SF0708	9/28/2021	1	CSU	SF0708-1633	220	130		900228000463801	New					
7	SF0708	9/28/2021	1	LSU	SF0708-1634	194									
7	SF0708	9/28/2021	1	MW	SF0708-1635	89	7	Scales							
7	SF0708	9/28/2021	1	MW	SF0708-1636	105	14	Scales							
7	SF0708	9/28/2021	1	GR	SF0708-1637	118	17	Scales				Yes			
7	SF0708	9/28/2021	1	MW	SF0708-1638	105	12	Scales							
7	SF0708	9/28/2021	1	MW	SF0708-1639	105	12								
7	SF0708	9/28/2021	1	MW	SF0708-1640	101	10								
7	SF0708	9/28/2021	1	LSU	SF0708-1641	155	46								
7	SF0708	9/28/2021	1	LSU	SF0708-1642	63	1								
7	SF0708	9/28/2021	1	LSU	SF0708-1643	64	2								
7	SF0708	9/28/2021	1	LSU	SF0708-1644	56	1								
7	SF0709	9/28/2021	1	LSU	SF0709-1646	422	940		900230000258085	New					
7	SF0709	9/28/2021	1	LSU	SF0709-1647	339	445		900230000258050	New					

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
7	SF0709	9/28/2021	1	MW	SF0709-1648	310	280	Scales	900230000258111	New					
7	SF0709	9/28/2021	1	LSU	SF0709-1649	206	101		900228000463662	New					
7	SF0709	9/28/2021	1	MW	SF0709-1650	105	11	Scales							
7	SF0709	9/28/2021	1	MW	SF0709-1651	90	8	Scales							
7	SF0709	9/28/2021	1	LSU	SF0709-1652	143	38								
7	SF0709	9/28/2021	1	LSU	SF0709-1653	120	23								
7	SF0709	9/28/2021	1	LSU	SF0709-1654	142	31								
7	SF0709	9/28/2021	1	LKC	SF0709-1655	65	1								
7	SF0709	9/28/2021	1	STC	SF0709-1656	32	1								
7	SF0709	9/28/2021	1	NSC	SF0709-1657	38	1								
7	SF0709	9/28/2021	1	LKC	SF0709-1658	62	1								
7	SF0709	9/28/2021	1	LKC	SF0709-1659	70	2								
7	SF0709	9/28/2021	1	LSU	SF0709-1660	54	1								
7	SF0709	9/28/2021	1	LSU	SF0709-1661	48	1								
7	SF0709	9/28/2021	1	LSU	SF0709-1662	66	4								
7	SF0709	9/28/2021	1	CRI	SF0709-1663	50	1								
7	SF0709	9/28/2021	1	NSC	SF0709-1664	42	2								
7	SF0704	9/28/2021	1	LSU	SF0704-1666	387	736		900230000258041	New					
7	SF0704	9/28/2021	1	MW	SF0704-1667	424	474	Scales	900230000258118	New					
7	SF0704	9/28/2021	1	LSU	SF0704-1669	291	267		900228000463619	New					
7	SF0704	9/28/2021	1	LSU	SF0704-1671	277	260		900228000463721	New	CL				
7	SF0704	9/28/2021	1	BT	SF0704-1673	225	123		900228000469579	Existing					
7	SF0704	9/28/2021	1	MW	SF0704-1674	101	6								
7	SF0704	9/28/2021	1	MW	SF0704-1675	108	8								
7	SF0704	9/28/2021	1	MW	SF0704-1676	98	7								
7	SF0704	9/28/2021	1	MW	SF0704-1677	104	9								
7	SF0704	9/28/2021	1	MW	SF0704-1678	101									
7	SF0704	9/28/2021	1	LKC	SF0704-1679	75									
7	SF0704	9/28/2021	1	MW	SF0704-1680	100									
7	SF0704	9/28/2021	1	MW	SF0704-1681	117									
7	SF0704	9/28/2021	1	MW	SF0704-1682	98									
7	SF0704	9/28/2021	1	LSU	SF0704-1683	54									
7	SF0704	9/28/2021	1	MW	SF0704-1684	100									
7	SF0704	9/28/2021	1	MW	SF0704-1685	110									
7	SF0704	9/28/2021	1	MW	SF0704-1686	102									
7	SF0704	9/28/2021	1	LSU	SF0704-1687	60									
7	SF0704	9/28/2021	1	LNC	SF0704-1688	24									
7	SF0704	9/28/2021	1	LNC	SF0704-1689	33									
7	SF0704	9/28/2021	1	MW	SF0704-1690	98									
7	SF0704	9/28/2021	1	MW	SF0704-1691	100									
7	SF0704	9/28/2021	1	LNC	SF0704-1692	38									
7	SF0704	9/28/2021	1	MW	SF0704-1693	102									

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
7	SF0704	9/28/2021	1	MW	SF0704-1694	105									
7	SF0704	9/28/2021	1	LNC	SF0704-1695	38									
7	SF0704	9/28/2021	1	MW	SF0704-1696	108									
7	SF0704	9/28/2021	1	MW	SF0704-1697	87									
7	SF0704	9/28/2021	1	LKC	SF0704-1698	74									
7	SF0704	9/28/2021	1	MW	SF0704-1699	106									
7	SF0704	9/28/2021	1	LSU	SF0704-1700	48									
7	SF0704	9/28/2021	1	LKC	SF0704-1701	60									
7	SF0704	9/28/2021	1	LSU	SF0704-1702	64									
7	SF0704	9/28/2021	1	SU	SF0704-1703	30									
7	SF0704	9/28/2021	1	LSU	SF0704-1704	51									
7	SF0704	9/28/2021	1	LSU	SF0704-1705	51									
7	SF0704	9/28/2021	1	LNC	SF0704-1706	33									
7	SF0704	9/28/2021	1	FHC	SF0704-1707	81									
7	SF0704	9/28/2021	1	LSU	SF0704-1708	68									
7	SF0704	9/28/2021	1	LSU	SF0704-1709	43									
7	BS0714	9/28/2021	1	NP	BS0704-1637	176	25	Fin Rays							
7	BS0714	9/28/2021	1	STC	BS0704-1638	33									
7	BS0714	9/28/2021	1	C	BS0704-1639	22									
7	BS0714	9/28/2021	1	C	BS0704-1640	18									
7	BS0714	9/28/2021	1	RSC	BS0704-1641	23						Yes			
7	BS0714	9/28/2021	1	C	BS0704-1642	16									
7	BS0714	9/28/2021	1	LNC	BS0704-1643	14									
7	BS0714	9/28/2021	1	LNC	BS0704-1644	15						Yes			
7	BS0714	9/28/2021	1	RSC	BS0704-1645	23						Yes			
7	BS0714	9/28/2021	1	C	BS0704-1646	22									
7	BS0714	9/28/2021	1	C	BS0704-1647	14									
7	BS0714	9/28/2021	1	C	BS0704-1648	18									
7	BS0714	9/28/2021	1	C	BS0704-1649	16									
7	BS0714	9/28/2021	1	C	BS0704-1650	23									
7	BS0714	9/28/2021	1	C	BS0704-1651	19									
7	BS0714	9/28/2021	1	RSC	BS0704-1652	21						Yes			
7	BS0714	9/28/2021	1	C	BS0704-1653	16									
7	BS0714	9/28/2021	1	C	BS0704-1654	19									
7	BS0714	9/28/2021	1	C	BS0704-1655	18									
7	BS0714	9/28/2021	1	C	BS0704-1656	25									
7	BS0714	9/28/2021	1	C	BS0704-1657	23									
7	BS0714	9/28/2021	1	C	BS0704-1658	13									
7	BS0714	9/28/2021	1	C	BS0704-1659	13									
7	BS0714	9/28/2021	1	C	BS0704-1660	18									
7	BS0714	9/28/2021	1	C	BS0704-1661	14									
7	BS0714	9/28/2021	1	C	BS0704-1662	19									

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
7	BS0714	9/28/2021	1	C	BS0704-1663	16									
7	BS0714	9/28/2021	1	C	BS0704-1664	21									
7	BS0714	9/28/2021	1	C	BS0704-1665	20									
7	BS0714	9/28/2021	1	C	BS0704-1666	13									
7	BS0714	9/28/2021	1	C	BS0704-1667	12									
7	BS0714	9/28/2021	1	C	BS0704-1668	16									
7	BS0714	9/28/2021	1	C	BS0704-1669	9									
7	BS0714	9/28/2021	5	C	BS0704-1670										
7	BS0714	9/28/2021	1	C	BS0704-1671	16									
7	BS0714	9/28/2021	1	RSC	BS0704-1672	18						Yes			
7	BS0714	9/28/2021	1	RSC	BS0704-1673	20						Yes			
7	BS0714	9/28/2021	1	C	BS0704-1674	14									
7	BS0714	9/28/2021	1	C	BS0704-1675	11									
7	BS0714	9/28/2021	1	RSC	BS0704-1676	21						Yes			
7	BS0714	9/28/2021	1	RSC	BS0704-1677	19						Yes			
7	BS0714	9/28/2021	1	C	BS0704-1678	11									
7	BS0714	9/28/2021	1	C	BS0704-1679	12									
7	BS0714	9/28/2021	1	RSC	BS0704-1680	19									
7	BS0714	9/28/2021	1	RSC	BS0704-1681	17									
7	BS0714	9/28/2021	1	RSC	BS0704-1682	19									
7	BS0714	9/28/2021	1	C	BS0704-1683	12									
7	BS0714	9/28/2021	1	C	BS0704-1684	19									
7	BS0714	9/28/2021	1	RSC	BS0704-1685	22						Yes			
7	BS0714	9/28/2021	1	RSC	BS0704-1686	21						Yes			
7	BS0714	9/28/2021	1	RSC	BS0704-1687	22						Yes			
7	BS0714	9/28/2021	1	RSC	BS0704-1688	21						Yes			
7	BS0714	9/28/2021	14	C	BS0704-1689										
7	BS0714	9/28/2021	20	C	BS0704-1690										
7	BS0714	9/28/2021	35	C	BS0704-1691										
7	BS0714	9/28/2021	1	LNC	BS0704-1692	18									
7	BS0714	9/28/2021	8	C	BS0704-1693										
7	BS0714	9/28/2021	1	LNC	BS0704-1694	18						Yes			
7	BS0714	9/28/2021	14	C	BS0704-1695										
7	BS0714	9/28/2021	1	LNC	BS0704-1696	16						Yes			
7	BS0714	9/28/2021	1	LNC	BS0704-1697	18						Yes			
7	BS0714	9/28/2021	1	LNC	BS0704-1698	22						Yes			
7	BS0714	9/28/2021	1	LNC	BS0704-1699	18						Yes			
7	BS0714	9/28/2021	1	LNC	BS0704-1700	17						Yes			
7	BS0714	9/28/2021	4	C	BS0704-1701										
7	EF0705	9/28/2021	1	LNC	EF0705-1702	21						Yes			
7	EF0705	9/28/2021	1	LNC	EF0705-1703	23						Yes			
7	EF0705	9/28/2021	1	LNC	EF0705-1704	23						Yes			

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7	EF0705	9/28/2021	1	LNC	EF0705-1705	21						Yes			
7	EF0705	9/28/2021	1	LNC	EF0705-1706	23						Yes			
7	EF0705	9/28/2021	1	LNC	EF0705-1707	22						Yes			
7	EF0705	9/28/2021	1	RSC	EF0705-1708	20						Yes			
7	EF0705	9/28/2021	1	STC	EF0705-1709	17									
7	EF0705	9/28/2021	1	LNC	EF0705-1710	23						Yes			
7	EF0705	9/28/2021	1	RSC	EF0705-1711	25						Yes			
7	EF0705	9/28/2021	1	RSC	EF0705-1712	20						Yes			
7	EF0705	9/28/2021	1	LNC	EF0705-1713	19						Yes			
7	EF0705	9/28/2021	1	LNC	EF0705-1714	23						Yes			
7	EF0705	9/28/2021	1	LNC	EF0705-1715	23						Yes			
7	EF0705	9/28/2021	1	LNC	EF0705-1716	22						Yes			
7	EF0705	9/28/2021	1	LKC	EF0705-1717	31									
7	EF0705	9/28/2021	1	LKC	EF0705-1718	29									
7	EF0705	9/28/2021	30	LNC	EF0705-1719										
7	EF0705	9/28/2021	4	RSC	EF0705-1720										
7	EF0705	9/28/2021	2	LKC	EF0705-1721										
7	EF0705	9/28/2021	10	LNC	EF0705-1722										
7	EF0705	9/28/2021	5	RSC	EF0705-1723										
7	EF0705	9/28/2021	5	LKC	EF0705-1724										
7	EF0705	9/28/2021	1	STC	EF0705-1725	22									
7	EF0705	9/28/2021	24	LNC	EF0705-1726										
7	EF0705	9/28/2021	1	RSC	EF0705-1730	25									
7	EF0705	9/28/2021	1	RSC	EF0705-1731	18									
7	EF0705	9/28/2021	1	RSC	EF0705-1732	15									
7	EF0705	9/28/2021	1	STC	EF0705-1733	21									
7	EF0705	9/28/2021	1	LNC	EF0705-1734	25									
7	EF0705	9/28/2021	1	LKC	EF0705-1735	20									
7	EF0705	9/28/2021	1	LKC	EF0705-1736	31									
7	EF0705	9/28/2021	1	WSU	EF0705-1737	41									
7	EF0705	9/28/2021	1	LNC	EF0705-1738	22									
7	EF0705	9/28/2021	4	LNC	EF0705-1739										
7	EF0705	9/28/2021	3	RSC	EF0705-1740										
7	EF0705	9/28/2021	17	LNC	EF0705-1741										
7	EF0705	9/28/2021	3	RSC	EF0705-1742										
7	EF0705	9/28/2021	4	C	EF0705-1743										
7	EF0705	9/28/2021	1	WSU	EF0705-1744	36									
7	EF0705	9/28/2021	3	LKC	EF0705-1745										
7	EF0705	9/28/2021	7	LNC	EF0705-1746										
7	EF0705	9/28/2021	4	RSC	EF0705-1747										
7	BS0703	9/28/2021	1	LNC	BS0703-1748	16						Yes			
7	BS0703	9/28/2021	1	STC	BS0703-1749	23									

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7	BS0703	9/28/2021	1	SU	BS0703-1750	23									
7	BS0703	9/28/2021	1	LNC	BS0703-1751	14						Yes			
7	BS0703	9/28/2021	1	LNC	BS0703-1752	16						Yes			
7	BS0703	9/28/2021	1	RSC	BS0703-1753	22						Yes			
7	BS0703	9/28/2021	1	C	BS0703-1754	20									
7	BS0703	9/28/2021	1	C	BS0703-1755	15									
7	BS0703	9/28/2021	1	C	BS0703-1756	15									
7	BS0703	9/28/2021	1	RSC	BS0703-1757	24						Yes			
7	BS0703	9/28/2021	1	LNC	BS0703-1758	17						Yes			
7	BS0703	9/28/2021	1	LNC	BS0703-1759	18						Yes			
7	BS0703	9/28/2021	1	RSC	BS0703-1760	23						Yes			
7	BS0703	9/28/2021	1	LNC	BS0703-1761	18						Yes			
7	BS0703	9/28/2021	1	RSC	BS0703-1762	24						Yes			
7	BS0703	9/28/2021	1	LNC	BS0703-1763	20						Yes			
7	BS0703	9/28/2021	1	RSC	BS0703-1764	23						Yes			
7	BS0703	9/28/2021	1	RSC	BS0703-1765	17						Yes			
7	BS0703	9/28/2021	1	RSC	BS0703-1766	16									
7	BS0703	9/28/2021	1	LNC	BS0703-1767	16						Yes			
7	BS0703	9/28/2021	1	LNC	BS0703-1768	22									
7	BS0703	9/28/2021	1	RSC	BS0703-1769	23						Yes			
7	BS0703	9/28/2021	1	LNC	BS0703-1770	15						Yes			
7	BS0703	9/28/2021	1	RSC	BS0703-1771	17						Yes			
7	BS0703	9/28/2021	1	SU	BS0703-1772	29					DL				
7	BS0703	9/28/2021	1	RSC	BS0703-1773	24						Yes			
7	BS0703	9/28/2021	1	LSU	BS0703-1774	25									
7	BS0703	9/28/2021	1	LSU	BS0703-1775	26									
7	BS0703	9/28/2021	1	RSC	BS0703-1776	20									
7	BS0703	9/28/2021	1	C	BS0703-1777	11									
7	BS0703	9/28/2021	1	RSC	BS0703-1778	17									
7	BS0703	9/28/2021	1	LNC	BS0703-1779	17									
7	BS0703	9/28/2021	1	RSC	BS0703-1780	17									
7	BS0703	9/28/2021	1	RSC	BS0703-1781	20									
7	BS0703	9/28/2021	1	RSC	BS0703-1782	21						Yes			
7	BS0703	9/28/2021	1	RSC	BS0703-1784	24						Yes			
7	BS0703	9/28/2021	1	RSC	BS0703-1785	19						Yes			
7	BS0703	9/28/2021	1	RSC	BS0703-1786	20						Yes			
7	BS0703	9/28/2021	1	RSC	BS0703-1787	22						Yes			
7	BS0703	9/28/2021	1	LNC	BS0703-1788	23						Yes			
7	BS0703	9/28/2021	1	RSC	BS0703-1789	22									
7	BS0703	9/28/2021	1	RSC	BS0703-1790	25									
7	BS0703	9/28/2021	10	RSC	BS0703-1791										
7	BS0703	9/28/2021	1	LSU	BS0703-1792	40									

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7	BS0703	9/28/2021	1	LNC	BS0703-1793	24									
7	BS0703	9/28/2021	1	LNC	BS0703-1794	21									
7	BS0703	9/28/2021	30	C	BS0703-1795										
7	BS0703	9/28/2021	23	C	BS0703-1796										
7	EF0706	9/28/2021	1	LSU	EF0706-1797	40									
7	EF0706	9/28/2021	1	LSU	EF0706-1798	42									
7	EF0706	9/28/2021	1	LSU	EF0706-1799	40									
7	EF0706	9/28/2021	1	LSU	EF0706-1800	39									
7	EF0706	9/28/2021	1	LSU	EF0706-1801	40									
7	EF0706	9/28/2021	1	STC	EF0706-1802	35									
7	EF0706	9/28/2021	1	LSU	EF0706-1803	39									
7	EF0706	9/28/2021	1	LSU	EF0706-1804	41									
7	EF0706	9/28/2021	1	LSU	EF0706-1805	35									
7	EF0706	9/28/2021	1	LSU	EF0706-1806	33									
7	EF0706	9/28/2021	1	LSU	EF0706-1807	35									
7	EF0706	9/28/2021	1	LKC	EF0706-1808	54									
7	EF0706	9/28/2021	1	LSU	EF0706-1809	41									
7	EF0706	9/28/2021	1	LSU	EF0706-1810	35									
7	EF0706	9/28/2021	1	RSC	EF0706-1811	26						Yes			
7	EF0706	9/28/2021	1	LSU	EF0706-1812	37									
7	EF0706	9/28/2021	1	LSU	EF0706-1813	39									
7	EF0706	9/28/2021	1	LSU	EF0706-1814	39									
7	EF0706	9/28/2021	1	LSU	EF0706-1815	37									
7	EF0706	9/28/2021	1	LSU	EF0706-1816	48	2.5								
7	EF0706	9/28/2021	1	LKC	EF0706-1817	67	3.2								
7	EF0706	9/28/2021	1	LKC	EF0706-1818	66	2.1								
7	EF0706	9/28/2021	1	LSU	EF0706-1819	38									
7	EF0706	9/28/2021	12	LSU	EF0706-1820										
7	EF0706	9/28/2021	9	LSU	EF0706-1821										
7	EF0706	9/28/2021	1	LNC	EF0706-1822	33						Yes			
7	EF0706	9/28/2021	6	LSU	EF0706-1823										
7	EF0706	9/28/2021	1	RSC	EF0706-1824	25						Yes			
7	EF0706	9/28/2021	1	LSU	EF0706-1826	52	1.6								
7	EF0706	9/28/2021	1	LSU	EF0706-1827	44									
7	EF0706	9/28/2021	1	LSU	EF0706-1828	41									
7	EF0706	9/28/2021	1	LSU	EF0706-1829	41									
7	EF0706	9/28/2021	1	LSU	EF0706-1830	37									
7	BS0704	9/28/2021	1	LNC	BS0704-1831	21									
7	BS0704	9/28/2021	1	LNC	BS0704-1832	22									
7	BS0704	9/28/2021	1	LNC	BS0704-1833	17									
7	BS0704	9/28/2021	1	LNC	BS0704-1834	19									
7	BS0704	9/28/2021	1	LNC	BS0704-1835	21									

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
7	BS0704	9/28/2021	1	LNC	BS0704-1836	24									
7	BS0704	9/28/2021	1	C	BS0704-1849	10									
7	BS0704	9/28/2021	1	LSU	BS0704-1855	39									
7	BS0704	9/28/2021	1	RSC	BS0704-1856	24									
7	BS0704	9/28/2021	5	LNC	BS0704-1857										
7	BS0704	9/28/2021	6	RSC	BS0704-1858										
7	BS0704	9/28/2021	22	LNC	BS0704-1859										
7	BS0704	9/28/2021	12	RSC	BS0704-1860										
7	BS0704	9/28/2021	11	LNC	BS0704-1861										
7	BS0704	9/28/2021	5	RSC	BS0704-1862										
7	BS0704	9/28/2021	3	LNC	BS0704-1863										
7	BS0704	9/28/2021	1	RSC	BS0704-1864										
7	BS0704	9/28/2021	1	LNC	BS0704-1865	19									
7	BS0704	9/28/2021	1	LNC	BS0704-1866	20									
7	BS0704	9/28/2021	1	LNC	BS0704-1867	21									
7	BS0704	9/28/2021	1	LNC	BS0704-1868	21									
7	BS0704	9/28/2021	1	LNC	BS0704-1869	24									
7	BS0704	9/28/2021	1	LNC	BS0704-1870	19									
7	BS0704	9/28/2021	1	LNC	BS0704-1871	20									
7	BS0704	9/28/2021	1	LNC	BS0704-1872	21									
7	BS0704	9/28/2021	1	LNC	BS0704-1873	18									
7	BS0704	9/28/2021	1	LNC	BS0704-1874	11									
7	BS0704	9/28/2021	1	LNC	BS0704-1875	15									
7	BS0704	9/28/2021	1	LNC	BS0704-1876	20									
7	BS0704	9/28/2021	1	LNC	BS0704-1877	20									
7	BS0704	9/28/2021	1	LNC	BS0704-1878	26									
7	BS0704	9/28/2021	1	LNC	BS0704-1879	21									
7	BS0704	9/28/2021	1	RSC	BS0704-1880	14									
7	BS0704	9/28/2021	1	C	BS0704-1881	10									
7	BS0712	9/28/2021	1	C	BS0712-1377	9									
7	BS0712	9/28/2021	1	LNC	BS0712-1378	18						Yes			
7	BS0712	9/28/2021	1	LNC	BS0712-1379	23						Yes			
7	BS0712	9/28/2021	1	LNC	BS0712-1380	22						Yes			
7	BS0712	9/28/2021	1	LNC	BS0712-1381	19						Yes			
7	BS0712	9/28/2021	1	C	BS0712-1382	13									
7	BS0712	9/28/2021	1	LNC	BS0712-1383	19						Yes			
7	BS0712	9/28/2021	1	LNC	BS0712-1384	20						Yes			
7	BS0712	9/28/2021	1	LNC	BS0712-1385	20						Yes			
7	BS0712	9/28/2021	1	LSU	BS0712-1386	35									
7	BS0712	9/28/2021	1	RSC	BS0712-1387	25						Yes			
7	BS0712	9/28/2021	1	LSU	BS0712-1388	40									
7	BS0712	9/28/2021	1	LNC	BS0712-1389	16						Yes			

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
7	BS0712	9/28/2021	1	LNC	BS0712-1390	12						Yes			
7	BS0712	9/28/2021	1	LNC	BS0712-1391	17						Yes			
7	BS0712	9/28/2021	1	LNC	BS0712-1392	18						Yes			
7	BS0712	9/28/2021	1	LNC	BS0712-1393	20									
7	BS0712	9/28/2021	1	LNC	BS0712-1394	18									
7	BS0712	9/28/2021	1	RSC	BS0712-1395	18									
7	BS0712	9/28/2021	1	LNC	BS0712-1396	20									
7	BS0712	9/28/2021	1	RSC	BS0712-1397	18									
7	BS0712	9/28/2021	1	RSC	BS0712-1398	18									
7	BS0712	9/28/2021	1	LNC	BS0712-1399	23									
7	BS0712	9/28/2021	10	LNC	BS0712-1400										
7	BS0712	9/28/2021	1	LSU	BS0712-1401	34									
7	BS0712	9/28/2021	1	LSU	BS0712-1402	34									
7	BS0712	9/28/2021	1	LNC	BS0712-1403	22									
7	BS0712	9/28/2021	8	LNC	BS0712-1404										
7	BS0712	9/28/2021	1	LSU	BS0712-1405	32									
7	BS0712	9/28/2021	1	RSC	BS0712-1406	25									
7	EF0709	9/29/2021	1	WSU	EF0709-1882	45	0.7								
7	EF0709	9/29/2021	1	LSU	EF0709-1883	37	0.4								
7	EF0709	9/29/2021	1	LKC	EF0709-1884	66	3								
7	EF0709	9/29/2021	1	LSU	EF0709-1885	40	0.4								
7	EF0709	9/29/2021	1	LSU	EF0709-1886	41	0.4								
7	EF0709	9/29/2021	1	CCG	EF0709-1887	75	5					Yes			
7	EF0709	9/29/2021	1	LSU	EF0709-1888	43	0.5								
7	EF0709	9/29/2021	1	LSU	EF0709-1889	42	0.4								
7	EF0709	9/29/2021	1	LNC	EF0709-1890	25						Yes			
7	EF0709	9/29/2021	1	C	EF0709-1891	30									
7	EF0709	9/29/2021	1	LSU	EF0709-1892	36									
7	EF0709	9/29/2021	1	LSU	EF0709-1893	37									
7	EF0709	9/29/2021	1	LSU	EF0709-1894	55	1.1								
7	EF0709	9/29/2021	1	LSU	EF0709-1895	50									
7	EF0709	9/29/2021	1	LSU	EF0709-1896	44									
7	EF0709	9/29/2021	1	LSU	EF0709-1897	44									
7	EF0709	9/29/2021	1	LNC	EF0709-1898	30						Yes			
7	EF0709	9/29/2021	1	LNC	EF0709-1899	28						Yes			
7	EF0709	9/29/2021	1	CCG	EF0709-1900	74	4.2					Yes			
7	EF0709	9/29/2021	1	C	EF0709-1901	36									
7	EF0709	9/29/2021	1	LSU	EF0709-1902	35									
7	EF0709	9/29/2021	1	LNC	EF0709-1903	32						Yes			
7	EF0709	9/29/2021	1	CCG	EF0709-1904	45	0.8					Yes			
7	EF0709	9/29/2021	1	WSU	EF0709-1905	45	1.3								
7	EF0709	9/29/2021	1	SU	EF0709-1906	34									

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
7	EF0709	9/29/2021	1	LNC	EF0709-1907	20						Yes			
7	EF0709	9/29/2021	1	LNC	EF0709-1908	22						Yes			
7	EF0709	9/29/2021	1	RSC	EF0709-1909	23						Yes			
7	EF0709	9/29/2021	1	CCG	EF0709-1910	34									
7	EF0709	9/29/2021	1	LNC	EF0709-1911	29						Yes			
7	EF0709	9/29/2021	1	LNC	EF0709-1913	23						Yes			
7	EF0709	9/29/2021	1	LKC	EF0709-1914	54									
7	EF0709	9/29/2021	1	WSU	EF0709-1915	41									
7	EF0709	9/29/2021	1	LSU	EF0709-1916	40									
7	EF0709	9/29/2021	6	LSU	EF0709-1917										
7	EF0709	9/29/2021	1	LNC	EF0709-1918	28						Yes			
7	EF0709	9/29/2021	7	LSU	EF0709-1919										
7	EF0709	9/29/2021	5	LNC	EF0709-1920										
7	EF0709	9/29/2021	5	LSU	EF0709-1921										
7	EF0709	9/29/2021	1	LKC	EF0709-1922	64									
7	EF0709	9/29/2021	1	LKC	EF0709-1923	67									
7	EF0709	9/29/2021	2	LNC	EF0709-1924										
7	EF0709	9/29/2021	9	LNC	EF0709-1925										
7	EF0709	9/29/2021	11	LSU	EF0709-1926										
7	EF0709	9/29/2021	3	LSU	EF0709-1927										
7	EF0709	9/29/2021	4	LNC	EF0709-1928										
7	EF0709	9/29/2021	1	WSU	EF0709-1929	65									
7	EF0709	9/29/2021	8	LSU	EF0709-1930										
7	EF0709	9/29/2021	3	LNC	EF0709-1931										
7	EF0709	9/29/2021	7	LSU	EF0709-1932										
7	EF0709	9/29/2021	1	LNC	EF0709-1933	36									
7	EF0709	9/29/2021	3	LSU	EF0709-1934										
7	EF0709	9/29/2021	2	LNC	EF0709-1935										
7	EF0709	9/29/2021	12	LNC	EF0709-1936										
7	EF0709	9/29/2021	10	SU	EF0709-1937										
7	BS0707	9/29/2021	1	LNC	BS0707-1938	19						Yes			
7	BS0707	9/29/2021	1	LNC	BS0707-1939	18						Yes			
7	BS0707	9/29/2021	1	C	BS0707-1940	24									
7	BS0707	9/29/2021	1	C	BS0707-1941	18									
7	BS0707	9/29/2021	1	C	BS0707-1942	27									
7	BS0707	9/29/2021	1	C	BS0707-1943	24									
7	BS0707	9/29/2021	1	C	BS0707-1944	11									
7	BS0707	9/29/2021	1	C	BS0707-1945	13									
7	BS0707	9/29/2021	1	C	BS0707-1946	12									
7	BS0707	9/29/2021	1	RSC	BS0707-1947	15						Yes			
7	BS0707	9/29/2021	1	STC	BS0707-1948	33									
7	BS0707	9/29/2021	1	C	BS0707-1949	31									

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
7	BS0707	9/29/2021	1	C	BS0707-1950	24									
7	BS0707	9/29/2021	1	LSU	BS0707-1951	36									
7	BS0707	9/29/2021	1	RSC	BS0707-1952	24						Yes			
7	BS0707	9/29/2021	1	RSC	BS0707-1953	23						Yes			
7	BS0707	9/29/2021	1	LNC	BS0707-1954	18						Yes			
7	BS0707	9/29/2021	1	C	BS0707-1956	10									
7	BS0707	9/29/2021	1	C	BS0707-1957	24									
7	BS0707	9/29/2021	1	LNC	BS0707-1958	10						Yes			
7	BS0707	9/29/2021	1	LNC	BS0707-1959	11						Yes			
7	BS0707	9/29/2021	1	LKC	BS0707-1960	26									
7	BS0707	9/29/2021	1	LKC	BS0707-1961	23									
7	BS0707	9/29/2021	1	LKC	BS0707-1962	21									
7	BS0707	9/29/2021	1	LKC	BS0707-1963	19									
7	BS0707	9/29/2021	1	RSC	BS0707-1964	20						Yes			
7	BS0707	9/29/2021	1	LKC	BS0707-1965	22									
7	BS0707	9/29/2021	1	LKC	BS0707-1966	23									
7	BS0707	9/29/2021	1	LKC	BS0707-1967	21									
7	BS0707	9/29/2021	1	LKC	BS0707-1968	24									
7	BS0707	9/29/2021	1	LKC	BS0707-1969	23									
7	BS0707	9/29/2021	1	LKC	BS0707-1970	25									
7	BS0707	9/29/2021	1	LKC	BS0707-1971	22									
7	BS0707	9/29/2021	1	LKC	BS0707-1972	21									
7	BS0707	9/29/2021	1	RSC	BS0707-1973	22									
7	BS0707	9/29/2021	1	LKC	BS0707-1974	20									
7	BS0707	9/29/2021	1	LKC	BS0707-1975	27									
7	BS0707	9/29/2021	1	LKC	BS0707-1976	22									
7	BS0707	9/29/2021	1	LKC	BS0707-1977	23									
7	BS0707	9/29/2021	1	LKC	BS0707-1978	24									
7	BS0707	9/29/2021	1	LKC	BS0707-1979	21									
7	BS0707	9/29/2021	1	LKC	BS0707-1980	22									
7	BS0707	9/29/2021	1	LNC	BS0707-1981	17						Yes			
7	BS0707	9/29/2021	1	LKC	BS0707-1982	20									
7	BS0707	9/29/2021	1	LKC	BS0707-1983	23									
7	BS0707	9/29/2021	1	LKC	BS0707-1984	22									
7	BS0707	9/29/2021	1	LKC	BS0707-1985	25									
7	BS0707	9/29/2021	1	LKC	BS0707-1986	21									
7	BS0707	9/29/2021	1	LNC	BS0707-1987	13						Yes			
7	BS0707	9/29/2021	1	LKC	BS0707-1988	27									
7	BS0707	9/29/2021	1	LKC	BS0707-1989	22									
7	BS0707	9/29/2021	1	LKC	BS0707-1990	20									
7	BS0707	9/29/2021	1	LKC	BS0707-1991	24									
7	BS0707	9/29/2021	1	LKC	BS0707-1992	24									

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
7	BS0707	9/29/2021	1	LKC	BS0707-1993	19									
7	BS0707	9/29/2021	1	LKC	BS0707-1994	21									
7	BS0707	9/29/2021	1	LSU	BS0707-1995	34									
7	BS0707	9/29/2021	1	LNC	BS0707-1996	23						Yes			
7	BS0707	9/29/2021	1	LNC	BS0707-1997	20						Yes			
7	BS0707	9/29/2021	1	RSC	BS0707-1998	22						Yes			
7	BS0707	9/29/2021	1	LKC	BS0707-1999	24									
7	BS0707	9/29/2021	1	RSC	BS0707-2000	23						Yes			
7	BS0707	9/29/2021	1	LKC	BS0707-2001	14									
7	BS0707	9/29/2021	1	LKC	BS0707-2002	14									
7	BS0707	9/29/2021	1	LKC	BS0707-2003	22									
7	BS0707	9/29/2021	1	LNC	BS0707-2004	21									
7	BS0707	9/29/2021	1	LNC	BS0707-2005	21									
7	BS0707	9/29/2021	1	LKC	BS0707-2006	24									
7	BS0707	9/29/2021	1	LKC	BS0707-2007	20									
7	BS0707	9/29/2021	1	LNC	BS0707-2008	13						Yes			
7	BS0709	9/29/2021	1	LKC	BS0709-2009	24									
7	BS0709	9/29/2021	1	C	BS0709-2010	12									
7	BS0709	9/29/2021	1	SU	BS0709-2011	24									
7	BS0709	9/29/2021	1	SU	BS0709-2012	21									
7	BS0709	9/29/2021	1	LNC	BS0709-2013	17						Yes			
7	BS0709	9/29/2021	1	LKC	BS0709-2014	23									
7	BS0709	9/29/2021	1	SU	BS0709-2015	26									
7	BS0709	9/29/2021	1	SU	BS0709-2016	24									
7	BS0709	9/29/2021	1	C	BS0709-2018	12									
7	BS0709	9/29/2021	1	C	BS0709-2019	16					M				
7	BS0709	9/29/2021	1	C	BS0709-2020	15									
7	BS0709	9/29/2021	1	LNC	BS0709-2021	16						Yes			
7	BS0709	9/29/2021	1	C	BS0709-2022	23									
7	BS0709	9/29/2021	1	LNC	BS0709-2023	22						Yes			
7	BS0709	9/29/2021	1	RSC	BS0709-2024	23						Yes			
7	BS0709	9/29/2021	1	RSC	BS0709-2025	20						Yes			
7	BS0709	9/29/2021	1	C	BS0709-2026	22									
7	BS0709	9/29/2021	1	LNC	BS0709-2027	15						Yes			
7	BS0709	9/29/2021	1	LNC	BS0709-2028	16						Yes			
7	BS0709	9/29/2021	1	LSU	BS0709-2029	35									
7	BS0709	9/29/2021	1	RSC	BS0709-2030	24						Yes			
7	BS0709	9/29/2021	1	LNC	BS0709-2031	18						Yes			
7	BS0709	9/29/2021	1	LNC	BS0709-2032	20						Yes			
7	BS0710	9/29/2021	1	C	BS0710-2033	18									
7	BS0710	9/29/2021	1	RSC	BS0710-2035	22						Yes			
7	BS0710	9/29/2021	1	C	BS0710-2036	12									

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
7	BS0710	9/29/2021	1	RSC	BS0710-2038	166						Yes			
7	BS0708	9/29/2021	1	RSC	BS0708-2040	18						Yes			
7	BS0708	9/29/2021	1	C	BS0708-2041	14									
7	BS0708	9/29/2021	1	RSC	BS0708-2042	16									
7	BS0708	9/29/2021	1	RSC	BS0708-2043	20						Yes			
7	BS0708	9/29/2021	1	RSC	BS0708-2044	15						Yes			
7	BS0708	9/29/2021	1	STC	BS0708-2045	22									
7	BS0708	9/29/2021	1	RSC	BS0708-2046	16						Yes			
7	BS0708	9/29/2021	1	RSC	BS0708-2047	23						Yes			
7	BS0708	9/29/2021	1	RSC	BS0708-2048	14									
7	BS0708	9/29/2021	1	RSC	BS0708-2049	17						Yes			
7	BS0708	9/29/2021	1	RSC	BS0708-2050	21						Yes			
7	BS0708	9/29/2021	1	RSC	BS0708-2051	17						Yes			
7	BS0708	9/29/2021	1	RSC	BS0708-2052	16						Yes			
7	BS0708	9/29/2021	1	RSC	BS0708-2053	20						Yes			
7	BS0708	9/29/2021	1	RSC	BS0708-2054	20						Yes			
7	BS0708	9/29/2021	1	RSC	BS0708-2055	20						Yes			
7	BS0708	9/29/2021	1	C	BS0708-2056	15									
7	BS0708	9/29/2021	1	RSC	BS0708-2057	21						Yes			
7	BS0708	9/29/2021	1	RSC	BS0708-2058	20						Yes			
7	BS0708	9/29/2021	1	RSC	BS0708-2059	21						Yes			
7	BS0708	9/29/2021	1	RSC	BS0708-2060	17						Yes			
7	BS0708	9/29/2021	1	RSC	BS0708-2061	18						Yes			
7	BS0708	9/29/2021	1	RSC	BS0708-2062	11						Yes			
7	BS0708	9/29/2021	1	RSC	BS0708-2063	18						Yes			
7	BS0708	9/29/2021	1	LSU	BS0708-2064	20									
7	BS0708	9/29/2021	1	LSU	BS0708-2065	18									
7	BS0708	9/29/2021	1	LNC	BS0708-2066	20									
7	BS0708	9/29/2021	1	LNC	BS0708-2067	20									
7	BS0708	9/29/2021	6	RSC	BS0708-2068										
7	BS0708	9/29/2021	1	RSC	BS0708-2069	37						Yes	Yes	Yes	
7	BS0708	9/29/2021	1	C	BS0708-2070	8									
7	BS0708	9/29/2021	1	C	BS0708-2071	13									
7	BS0708	9/29/2021	27	RSC	BS0708-2072										
7	BS0708	9/29/2021	31	RSC	BS0708-2073										
7	BS0708	9/29/2021	13	RSC	BS0708-2074										
7	BS0708	9/29/2021	15	RSC	BS0708-2075										
7	EF0708	9/29/2021	1	LSU	EF0708-2076	44									
7	EF0708	9/29/2021	1	RSC	EF0708-2077	30									
7	EF0708	9/29/2021	1	LNC	EF0708-2078	26									
7	EF0708	9/29/2021	1	LNC	EF0708-2079	29						Yes			
7	EF0708	9/29/2021	1	WSU	EF0708-2080	65	3.2								

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
7	EF0708	9/29/2021	1	TP	EF0708-2081	34									
7	EF0708	9/29/2021	1	NSC	EF0708-2082	36									
7	EF0708	9/29/2021	1	LSU	EF0708-2083	40									
7	EF0708	9/29/2021	1	LSU	EF0708-2084	50	3.2								
7	EF0708	9/29/2021	1	LNC	EF0708-2085	26						Yes			
7	EF0708	9/29/2021	1	LNC	EF0708-2086	27						Yes			
7	EF0708	9/29/2021	1	LNC	EF0708-2087	28						Yes			
7	EF0708	9/29/2021	1	LNC	EF0708-2088	25						Yes			
7	EF0708	9/29/2021	1	LNC	EF0708-2089	28						Yes			
7	EF0708	9/29/2021	1	RSC	EF0708-2090	25									
7	EF0708	9/29/2021	1	RSC	EF0708-2091	28									
7	EF0708	9/29/2021	1	LSU	EF0708-2092	41	0.3								
7	EF0708	9/29/2021	1	LNC	EF0708-2093	26									
7	EF0708	9/29/2021	1	LNC	EF0708-2094	24									
7	EF0708	9/29/2021	1	LNC	EF0708-2095	21									
7	EF0708	9/29/2021	1	LNC	EF0708-2096	21									
7	EF0708	9/29/2021	1	LNC	EF0708-2097	20									
7	EF0708	9/29/2021	1	LNC	EF0708-2098	23					TL				
7	EF0708	9/29/2021	1	LSU	EF0708-2099	58	2.2								
7	EF0708	9/29/2021	1	LSU	EF0708-2100	38									
7	EF0708	9/29/2021	1	RSC	EF0708-2101	18									
7	EF0708	9/29/2021	1	LSU	EF0708-2102	39									
7	EF0708	9/29/2021	1	LSU	EF0708-2103	35									
7	EF0708	9/29/2021	1	RSC	EF0708-2104	24									
7	EF0708	9/29/2021	1	RSC	EF0708-2105	20									
7	EF0708	9/29/2021	47	LNC	EF0708-2106										
7	EF0708	9/29/2021	1	LSU	EF0708-2107	44									
7	EF0708	9/29/2021	1	RSC	EF0708-2108	30									
7	EF0708	9/29/2021	1	RSC	EF0708-2109	29									
7	EF0708	9/29/2021	1	LNC	EF0708-2110	22									
7	EF0708	9/29/2021	1	LNC	EF0708-2111	19									
7	EF0708	9/29/2021	2	RSC	EF0708-2112										
7	EF0708	9/29/2021	9	LNC	EF0708-2113										
7	SF0714	9/29/2021	1	BT	SF0714-1419	575	1,050		900230000205079	Existing					
7	SF0714	9/29/2021	1	LSU	SF0714-1420	365	420		900230000258132	New					
7	SF0714	9/29/2021	1	LSU	SF0714-1421	394	610		900230000258038	New					
7	SF0714	9/29/2021	1	MW	SF0714-1422	310	254		900230000202783	Existing					
7	SF0714	9/29/2021	1	RB	SF0714-1423	203	98	Scales	900228000463846	New		Yes			
7	SF0714	9/29/2021	1	LSU	SF0714-1424	257	175		900228000463493	New	EH				
7	SF0714	9/29/2021	1	LSU	SF0714-1425	248	154		900228000463634	New					
7	SF0714	9/29/2021	1	LSU	SF0714-1426	145	20								
5	SF0519	9/26/2021	21	MW	SF0714-1428										

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5	SF0519	9/26/2021	1	GR	SF0714-1429	104	15	Scales				Yes			
7	SF0714	9/29/2021	1	CCG	SF0714-1431	67						Yes			
7	SF0714	9/29/2021	1	LKC	SF0714-1432	87									
7	SF0714	9/29/2021	1	LKC	SF0714-1433	81									
7	SF0714	9/29/2021	1	LSU	SF0714-1434	69									
7	SF0714	9/29/2021	1	LKC	SF0714-1435	78									
7	SF0714	9/29/2021	1	LKC	SF0714-1436	60									
7	SF0714	9/29/2021	1	TP	SF0714-1437	53									
7	SF0714	9/29/2021	1	CCG	SF0714-1438	44						Yes			
7	SF0714	9/29/2021	1	LSU	SF0714-1439	52									
7	SF0705	9/29/2021	1	BT	SF0705-1710	274	210	Fin Rays	900228000463429	New		Yes			
7	SF0705	9/29/2021	1	MW	SF0705-1711	375	670	Scales	900230000258040	New					
7	SF0705	9/29/2021	1	MW	SF0705-1712	313	386	Scales	900230000258022	New					
7	SF0705	9/29/2021	1	MW	SF0705-1715	325	286	Scales	900230000258193	New					
7	SF0705	9/29/2021	1	MW	SF0705-1716	258	182	Scales	900228000463465	New					
7	SF0705	9/29/2021	1	MW	SF0705-1718	218	120	Scales	900228000463765	New					
7	SF0705	9/29/2021	1	MW	SF0705-1719	184	69	Scales	900226001221783	New					
7	SF0705	9/29/2021	1	MW	SF0705-1720	170	55	Scales	900226001221789	New					
7	SF0705	9/29/2021	1	MW	SF0705-1721	173	52	Scales	900226001221788	New					
7	SF0705	9/29/2021	1	MW	SF0705-1722	172	61	Scales	900226001221724	New					
7	SF0705	9/29/2021	1	CSU	SF0705-1723	217	100		900228000463943	New					
7	SF0705	9/29/2021	1	CSU	SF0705-1724	216	123		900228000463777	New					
7	SF0705	9/29/2021	1	MW	SF0705-1725	150	43	Scales	900226001221765	New					
7	SF0705	9/29/2021	1	MW	SF0705-1726	130	20	Scales		No					
7	SF0705	9/29/2021	1	LSU	SF0705-1727	114	32								
7	SF0705	9/29/2021	1	LSU	SF0705-1728	155	38								
7	SF0705	9/29/2021	1	MW	SF0705-1729	102	10	Scales							
7	SF0705	9/29/2021	1	MW	SF0705-1730	103	9	Scales							
7	SF0705	9/29/2021	1	MW	SF0705-1731	115	11	Scales							
7	SF0705	9/29/2021	1	MW	SF0705-1732	117	11								
7	SF0705	9/29/2021	1	MW	SF0705-1733	115	11								
7	SF0705	9/29/2021	1	MW	SF0705-1734	112	11								
7	SF0705	9/29/2021	1	MW	SF0705-1735	102	8								
7	SF0705	9/29/2021	1	MW	SF0705-1736	104	10								
7	SF0705	9/29/2021	1	MW	SF0705-1737	100	8								
7	SF0705	9/29/2021	1	MW	SF0705-1738	115	12								
7	SF0705	9/29/2021	1	MW	SF0705-1739	106	9								
7	SF0705	9/29/2021	1	MW	SF0705-1740	124	13								
7	SF0705	9/29/2021	1	MW	SF0705-1741	115	11								
7	SF0705	9/29/2021	1	MW	SF0705-1742	103	10								
7	SF0705	9/29/2021	1	MW	SF0705-1743	100	9								
7	SF0705	9/29/2021	1	MW	SF0705-1744	111	13								

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7	SF0705	9/29/2021	1	MW	SF0705-1745	102	9								
7	SF0705	9/29/2021	1	MW	SF0705-1746	111	12								
7	SF0705	9/29/2021	1	MW	SF0705-1747	93	6								
7	SF0705	9/29/2021	1	MW	SF0705-1748	105	9								
7	SF0705	9/29/2021	1	MW	SF0705-1749	92	7								
7	SF0705	9/29/2021	1	MW	SF0705-1750	102	9								
7	SF0705	9/29/2021	1	MW	SF0705-1752	124	19								
7	SF0705	9/29/2021	1	MW	SF0705-1753	113	16								
7	SF0706	9/29/2021	1	LSU	SF0706-1754	407	872		900230000258182	New					
7	SF0706	9/29/2021	1	LSU	SF0706-1755	347	547		900230000258185	New					
7	SF0706	9/29/2021	1	MW	SF0706-1756	333	446	Scales	900230000258095	New					
7	SF0706	9/29/2021	1	MW	SF0706-1757	304	300	Scales	900230000258021	New					
7	SF0706	9/29/2021	1	LSU	SF0706-1758	345	545		900230000258138	New					
7	SF0706	9/29/2021	1	LSU	SF0706-1759	278	277		900228000463871	New					
7	SF0706	9/29/2021	1	MW	SF0706-1760	337	350	Scales	900230000258082	New					
7	SF0706	9/29/2021	1	MW	SF0706-1761	323	350	Scales	900230000258135	New					
7	SF0706	9/29/2021	1	LSU	SF0706-1762	263	228		900228000463553	New					
7	SF0706	9/29/2021	1	LSU	SF0706-1763	217	118		900228000463793	New					
7	SF0706	9/29/2021	1	MW	SF0706-1764	177	60		900226001221706	New					
7	SF0706	9/29/2021	1	KO	SF0706-1765	127	21	Scales							
7	SF0706	9/29/2021	1	LSU	SF0706-1766	145	34								
7	SF0706	9/29/2021	1	MW	SF0706-1767	100	9								
7	SF0706	9/29/2021	1	LSU	SF0706-1768	53	1								
7	SF0706	9/29/2021	1	MW	SF0706-1769	108	10								
7	SF0706	9/29/2021	1	LKC	SF0706-1770	67	3								
7	SF0706	9/29/2021	1	MW	SF0706-1771	116	13								
7	SF0706	9/29/2021	1	MW	SF0706-1772	103	10								
7	SF0706	9/29/2021	1	LKC	SF0706-1773	61	1								
7	SF0706	9/29/2021	1	MW	SF0706-1774	93	7								
7	SF0706	9/29/2021	1	MW	SF0706-1775	98	7								
7	SF0706	9/29/2021	1	MW	SF0706-1776	101	9								
7	SF0706	9/29/2021	1	MW	SF0706-1777	99	8								
7	SF0706	9/29/2021	1	MW	SF0706-1778	92	6								
7	SF0706	9/29/2021	1	MW	SF0706-1779	106	9								
7	SF0706	9/29/2021	1	LKC	SF0706-1780	60	2								
7	SF0706	9/29/2021	1	MW	SF0706-1781	102	10								
7	SF0706	9/29/2021	1	MW	SF0706-1782	99	9								
7	SF0706	9/29/2021	1	MW	SF0706-1783	103	10								
7	SF0706	9/29/2021	1	MW	SF0706-1784	101	10								
7	SF0706	9/29/2021	1	MW	SF0706-1785	97	8								
7	SF0706	9/29/2021	1	NSC	SF0706-1786	100	9								
7	SF0706	9/29/2021	1	LKC	SF0706-1787	85	6								

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7	SF0706	9/29/2021	1	MW	SF0706-1788	96	7								
7	SF0706	9/29/2021	1	MW	SF0706-1789	94	7								
7	SF0706	9/29/2021	1	MW	SF0706-1790	100	9								
7	SF0706	9/29/2021	1	MW	SF0706-1791	100	8								
7	SF0706	9/29/2021	1	LKC	SF0706-1792	66	2								
7	SF0706	9/29/2021	1	MW	SF0706-1793	95	7								
7	SF0706	9/29/2021	1	MW	SF0706-1794	100	9								
7	SF0706	9/29/2021	1	MW	SF0706-1795	88	6								
7	SF0706	9/29/2021	1	MW	SF0706-1796	95	7								
7	SF0706	9/29/2021	1	NSC	SF0706-1797	40	1								
7	SF0706	9/29/2021	1	CCG	SF0706-1798	47	1					Yes			
7	SF0710	9/29/2021	1	LSU	SF0710-1799	223	143		900228000463496	New					
7	SF0710	9/29/2021	1	CSU	SF0710-1800	179	74								
7	SF0710	9/29/2021	1	MW	SF0710-1801	105	13	Scales							
7	SF0710	9/29/2021	1	MW	SF0710-1802	94	8.4	Scales							
7	SF0707	9/29/2021	1	NP	SF0707-1803	702	2,700	Fin Rays	900230000258088	New					
7	SF0707	9/29/2021	1	LSU	SF0707-1804	392	475		900230000258125	New					
7	SF0707	9/29/2021	1	CSU	SF0707-1805	490	1447		900230000258164	New					
7	SF0707	9/29/2021	1	LSU	SF0707-1806	310	378		900230000258119	New					
7	SF0707	9/29/2021	1	LSU	SF0707-1807	310	352		900230000258184	New					
7	SF0707	9/29/2021	1	LSU	SF0707-1808	258									
7	SF0707	9/29/2021	1	LSU	SF0707-1809	229	158		900228000465413	Existing					
7	SF0707	9/29/2021	1	LSU	SF0707-1810	250	217		900228000463467	New					
7	SF0707	9/29/2021	1	MW	SF0707-1811	304	361		900230000205342	Existing					
7	SF0707	9/29/2021	1	BT	SF0707-1812	224	132	Fin Rays	900228000463320	New		Yes			
7	SF0707	9/29/2021	1	MW	SF0707-1813	94	8								
7	SF0707	9/29/2021	1	GR	SF0707-1814	132	28	Scales		No		Yes			
7	SF0707	9/29/2021	1	MW	SF0707-1815	98	10								
7	SF0707	9/29/2021	1	LSU	SF0707-1816	242	179		900228000463812	New					
7	SF0707	9/29/2021	1	LSU	SF0707-1817	240	167		900228000463670	New					
7	SF0707	9/29/2021	1	LSU	SF0707-1818	215	125		900228000463888	New					
7	SF0707	9/29/2021	1	LSU	SF0707-1819	223	125		900228000465362	Existing	LH				
7	SF0707	9/29/2021	1	LSU	SF0707-1820	203	110		900228000463398	New					
7	SF0707	9/29/2021	1	CSU	SF0707-1821	198	105								
7	SF0707	9/29/2021	1	CSU	SF0707-1822	183	73								
7	SF0707	9/29/2021	1	LSU	SF0707-1823	146	34								
7	SF0707	9/29/2021	1	MW	SF0707-1824	173	52	Scales	900226001221731	New					
7	SF0707	9/29/2021	1	MW	SF0707-1825	180	58								
7	SF0707	9/29/2021	1	MW	SF0707-1826	178	55	Scales	900226001221708	New					
7	SF0707	9/29/2021	1	MW	SF0707-1827	172	48	Scales	900226001221773	New					
7	SF0707	9/29/2021	1	LSU	SF0707-1828	192	92								
7	SF0707	9/29/2021	1	LSU	SF0707-1829	159	46								

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7	SF0707	9/29/2021	1	MW	SF0707-1830	183	72	Scales	900226001221781	New					
7	SF0707	9/29/2021	1	LSU	SF0707-1831	182	49								
7	SF0707	9/29/2021	1	MW	SF0707-1832	172	56		900226001221707	New					
7	SF0707	9/29/2021	1	MW	SF0707-1834	95	8								
7	SF0707	9/29/2021	1	MW	SF0707-1835	106	11								
7	SF0707	9/29/2021	1	MW	SF0707-1836	100	8								
7	SF0707	9/29/2021	1	MW	SF0707-1837	98	6								
7	SF0707	9/29/2021	1	MW	SF0707-1838	95	8								
7	SF0707	9/29/2021	1	MW	SF0707-1839	100	9								
7	SF0707	9/29/2021	1	MW	SF0707-1840	108	10								
7	SF0707	9/29/2021	1	MW	SF0707-1841	92	5								
7	SF0707	9/29/2021	1	MW	SF0707-1842	103	10								
7	SF0707	9/29/2021	1	MW	SF0707-1843	102	7								
7	SF0707	9/29/2021	1	MW	SF0707-1844	100	7								
7	SF0707	9/29/2021	1	MW	SF0707-1845	103	8								
7	SF0707	9/29/2021	1	MW	SF0707-1846	98	7								
7	SF0707	9/29/2021	1	MW	SF0707-1847	105	10								
7	SF0707	9/29/2021	1	MW	SF0707-1848	112	9								
7	SF0707	9/29/2021	1	MW	SF0707-1849	92	6								
7	SF0707	9/29/2021	1	MW	SF0707-1850	86	4								
7	SF0707	9/29/2021	1	MW	SF0707-1851	103	8								
7	SF0707	9/29/2021	1	MW	SF0707-1852	111	10								
7	SF0707	9/29/2021	1	MW	SF0707-1853	99	6								
7	SF0707	9/29/2021	1	MW	SF0707-1854	110	14								
7	SF0707	9/29/2021	1	MW	SF0707-1855	96	5								
7	SF0707	9/29/2021	1	MW	SF0707-1856	111	11								
7	SF0707	9/29/2021	1	MW	SF0707-1857	108	9								
7	SF0707	9/29/2021	1	MW	SF0707-1858	100	7								
7	SF0707	9/29/2021	1	MW	SF0707-1859	108	9								
7	SF0707	9/29/2021	40	MW	SF0707-1861										
7	SF0707	9/29/2021	1	LSU	SF0707-1863	132	24								
7	SF0707	9/29/2021	1	LSU	SF0707-1864	58	1								
7	SF0707	9/29/2021	1	LSU	SF0707-1865	58	1								
7	SF0707	9/29/2021	1	LKC	SF0707-1866	62	1								
7	SF0707	9/29/2021	1	LSU	SF0707-1867	64									
7	SF0707	9/29/2021	1	LSU	SF0707-1868	57									
7	SF0707	9/29/2021	1	LKC	SF0707-1869	63									
7	SF0707	9/29/2021	1	LSU	SF0707-1870	72									
7	SF0707	9/29/2021	1	CSU	SF0707-1871	45	1								
7	SF0707	9/29/2021	1	CCG	SF0707-1872	84	6					Yes			
7	SF0707	9/29/2021	1	LSU	SF0707-1873	52	2								
7	SF0707	9/29/2021	1	CCG	SF0707-1874	80	7					Yes			

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7	SF0707	9/29/2021	1	CCG	SF0707-1875	67	3					Yes			
7	SF0707	9/29/2021	1	CCG	SF0707-1876	67						Yes			
7	SF0707	9/29/2021	1	RSC	SF0707-1877	73	4					Yes	Yes	Yes	
7	SF0713	9/29/2021	1	BT	SF0713-1879	235	120		900228000469796	Existing					
7	SF0713	9/29/2021	1	LSU	SF0713-1880	372	673		900230000258161	New					
7	SF0713	9/29/2021	1	MW	SF0713-1881	170	50	Scales	900226001221771	New					
7	SF0713	9/29/2021	1	LSU	SF0713-1882	148	35								
7	SF0713	9/29/2021	1	MW	SF0713-1883	98	6								
7	SF0713	9/29/2021	1	MW	SF0713-1884	110	11								
7	SF0713	9/29/2021	1	MW	SF0713-1885	97									
7	SF0713	9/29/2021	1	LSU	SF0713-1886	88	4								
7	SF0713	9/29/2021	1	MW	SF0713-1887	87	4								
7	SF0713	9/29/2021	1	MW	SF0713-1888	90	4								
7	SF0713	9/29/2021	1	MW	SF0713-1889	102	8								
7	SF0713	9/29/2021	1	MW	SF0713-1890	104	7								
7	SF0713	9/29/2021	1	MW	SF0713-1891	90	3								
7	SF0713	9/29/2021	1	MW	SF0713-1892	107	8								
7	SF0713	9/29/2021	1	MW	SF0713-1893	112	10								
7	SF0713	9/29/2021	1	MW	SF0713-1894	88	3								
7	SF0713	9/29/2021	1	MW	SF0713-1895	98	4								
7	SF0713	9/29/2021	1	LKC	SF0713-1896	57	1								
7	SF0713	9/29/2021	1	LSU	SF0713-1897	119	37								
7	SF0713	9/29/2021	1	MW	SF0713-1898	98	6								
7	SF0713	9/29/2021	1	MW	SF0713-1899	92	3								
7	SF0713	9/29/2021	1	MW	SF0713-1900	93	7								
7	SF0713	9/29/2021	1	MW	SF0713-1901	102	11								
7	SF0713	9/29/2021	1	MW	SF0713-1902	90	7								
7	SF0713	9/29/2021	1	MW	SF0713-1903	85	7								
9	BS0903	9/30/2021	1	LSU	BS0903-2116	30	0.1								
9	BS0903	9/30/2021	1	LNC	BS0903-2117	17									
9	BS0903	9/30/2021	1	LNC	BS0903-2118	17									
9	BS0903	9/30/2021	1	LNC	BS0903-2119	22									
9	BS0903	9/30/2021	1	LNC	BS0903-2120	17									
9	BS0903	9/30/2021	1	LNC	BS0903-2121	19									
9	BS0903	9/30/2021	1	LSU	BS0903-2122	35									
9	EF0901	9/30/2021	1	LNC	EF0901-2123	29									
9	EF0901	9/30/2021	1	LNC	EF0901-2124	24									
9	EF0901	9/30/2021	1	LNC	EF0901-2125	24									
9	EF0901	9/30/2021	1	LKC	EF0901-2126	31									
9	EF0901	9/30/2021	1	LKC	EF0901-2127	34									
9	EF0901	9/30/2021	1	LKC	EF0901-2128	93	8.3								
9	EF0901	9/30/2021	1	LSU	EF0901-2129	34									

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
9	EF0901	9/30/2021	1	LSU	EF0901-2130	36									
9	EF0901	9/30/2021	1	LKC	EF0901-2131	37									
9	EF0901	9/30/2021	1	LSU	EF0901-2132	40									
9	EF0901	9/30/2021	1	LSU	EF0901-2133	32									
9	EF0901	9/30/2021	1	LSU	EF0901-2134	34									
9	EF0901	9/30/2021	1	LSU	EF0901-2135	30									
9	EF0901	9/30/2021	1	LKC	EF0901-2136	27									
9	EF0901	9/30/2021	1	LKC	EF0901-2137	47									
9	EF0901	9/30/2021	1	TP	EF0901-2138	45									
9	EF0901	9/30/2021	1	LKC	EF0901-2139	36									
9	EF0901	9/30/2021	1	LKC	EF0901-2140	32									
9	EF0901	9/30/2021	1	FHC	EF0901-2141	52	1.1								
9	EF0901	9/30/2021	1	FHC	EF0901-2142	63	2.2								
9	EF0901	9/30/2021	1	FHC	EF0901-2143	65	2.9								
9	EF0901	9/30/2021	1	FHC	EF0901-2144	61	2.6								
9	EF0901	9/30/2021	1	LKC	EF0901-2145	49	2.2								
9	EF0901	9/30/2021	1	LKC	EF0901-2146	45	1.2								
9	EF0901	9/30/2021	1	FHC	EF0901-2147	73	3.1								
9	EF0901	9/30/2021	1	LKC	EF0901-2148	35									
9	EF0901	9/30/2021	1	LSU	EF0901-2149	32									
9	EF0901	9/30/2021	1	LKC	EF0901-2150	40									
9	EF0901	9/30/2021	1	LKC	EF0901-2151	60									
9	EF0901	9/30/2021	1	FHC	EF0901-2152	64									
9	EF0901	9/30/2021	1	LKC	EF0901-2153	42									
9	EF0901	9/30/2021	1	LKC	EF0901-2154	63	2.7								
9	EF0901	9/30/2021	1	LKC	EF0901-2155	66	3								
9	EF0901	9/30/2021	1	LKC	EF0901-2156	65	2.9								
9	EF0901	9/30/2021	1	FHC	EF0901-2157	61	2.2								
9	EF0901	9/30/2021	1	LKC	EF0901-2158	63	2.3								
9	EF0901	9/30/2021	1	LKC	EF0901-2159	29									
9	EF0901	9/30/2021	1	FHC	EF0901-2160	69	2.5								
9	EF0901	9/30/2021	1	LKC	EF0901-2161	71									
9	EF0901	9/30/2021	8	LKC	EF0901-2162										
9	EF0901	9/30/2021	1	FHC	EF0901-2163										
9	EF0901	9/30/2021	1	LNC	EF0901-2164										
9	EF0901	9/30/2021	1	LKC	EF0901-2165	33									
9	EF0901	9/30/2021	1	LKC	EF0901-2166	60									
9	EF0901	9/30/2021	1	LKC	EF0901-2167	26									
9	EF0901	9/30/2021	6	LKC	EF0901-2168										
9	EF0901	9/30/2021	1	WSU	EF0901-2169										
9	EF0901	9/30/2021	10	LKC	EF0901-2170										
9	EF0901	9/30/2021	4	FHC	EF0901-2171										

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
9	EF0901	9/30/2021	5	SU	EF0901-2172										
9	EF0901	9/30/2021	3	LSU	EF0901-2173										
9	EF0901	9/30/2021	2	FHC	EF0901-2174										
9	EF0901	9/30/2021	3	LKC	EF0901-2175										
9	EF0901	9/30/2021	10	LNC	EF0901-2176										
9	EF0901	9/30/2021	14	SU	EF0901-2177										
9	EF0901	9/30/2021	25	LKC	EF0901-2178										
9	EF0901	9/30/2021	10	FHC	EF0901-2179										
9	EF0901	9/30/2021	4	FHC	EF0901-2180										
9	EF0901	9/30/2021	2	LNC	EF0901-2181										
9	EF0901	9/30/2021	5	SU	EF0901-2182										
9	EF0901	9/30/2021	8	LKC	EF0901-2183										
9	EF0901	9/30/2021	9	SU	EF0901-2184										
9	EF0901	9/30/2021	5	FHC	EF0901-2185										
9	EF0901	9/30/2021	4	LKC	EF0901-2186										
9	EF0901	9/30/2021	4	FHC	EF0901-2187										
9	EF0901	9/30/2021	11	LKC	EF0901-2188										
9	EF0901	9/30/2021	6	SU	EF0901-2189										
9	EF0901	9/30/2021	6	SU	EF0901-2190										
9	EF0901	9/30/2021	12	LKC	EF0901-2191										
9	EF0901	9/30/2021	7	FHC	EF0901-2192										
9	EF0901	9/30/2021	9	SU	EF0901-2193										
9	EF0901	9/30/2021	13	LKC	EF0901-2194										
9	EF0901	9/30/2021	4	FHC	EF0901-2195										
9	EF0901	9/30/2021	5	FHC	EF0901-2196										
9	EF0901	9/30/2021	6	LKC	EF0901-2197										
9	EF0901	9/30/2021	14	SU	EF0901-2198										
9	EF0901	9/30/2021	7	FHC	EF0901-2199										
9	EF0901	9/30/2021	11	LKC	EF0901-2200										
9	EF0901	9/30/2021	1	FHC	EF0901-2201	38									
9	EF0901	9/30/2021	6	SU	EF0901-2202										
9	EF0901	9/30/2021	6	LKC	EF0901-2203										
9	EF0901	9/30/2021	1	NSC	EF0901-2204	41									
9	EF0901	9/30/2021	5	SU	EF0901-2205										
9	EF0901	9/30/2021	6	LKC	EF0901-2206										
9	EF0901	9/30/2021	1	FHC	EF0901-2207										
9	EF0901	9/30/2021	9	SU	EF0901-2208										
9	EF0901	9/30/2021	1	LNC	EF0901-2209										
9	EF0901	9/30/2021	5	FHC	EF0901-2210										
9	EF0901	9/30/2021	4	LKC	EF0901-2211										
9	EF0901	9/30/2021	1	LSU	EF0901-2212	38									
9	EF0901	9/30/2021	3	LKC	EF0901-2213										

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
9	EF0901	9/30/2021	5	SU	EF0901-2214										
9	EF0901	9/30/2021	1	NSC	EF0901-2215	40									
9	EF0901	9/30/2021	1	LNC	EF0901-2216	29									
9	EF0901	9/30/2021	1	WSU	EF0901-2217	39									
9	EF0901	9/30/2021	1	LSU	EF0901-2218	31									
9	EF0901	9/30/2021	1	LNC	EF0901-2219	29									
9	EF0903	9/30/2021	1	LKC	EF0903-2220	56	1.1								
9	EF0903	9/30/2021	1	FHC	EF0903-2221	75	3.3								
9	EF0903	9/30/2021	1	LNC	EF0903-2222	16									
9	EF0903	9/30/2021	1	LSU	EF0903-2223	38									
9	EF0903	9/30/2021	1	LSU	EF0903-2224	34									
9	EF0903	9/30/2021	1	LKC	EF0903-2225	35									
9	EF0903	9/30/2021	1	LKC	EF0903-2226	30									
9	EF0903	9/30/2021	1	LKC	EF0903-2227	32									
9	EF0903	9/30/2021	1	LKC	EF0903-2228	27									
9	EF0903	9/30/2021	1	LKC	EF0903-2229	27									
9	EF0903	9/30/2021	1	RSC	EF0903-2230	23									
9	EF0903	9/30/2021	1	LSU	EF0903-2231	33									
9	EF0903	9/30/2021	1	LSU	EF0903-2232	35									
9	EF0903	9/30/2021	1	LKC	EF0903-2233	31									
9	EF0903	9/30/2021	1	LKC	EF0903-2234	32									
9	EF0903	9/30/2021	8	SU	EF0903-2235										
9	EF0903	9/30/2021	8	LKC	EF0903-2236										
9	EF0903	9/30/2021	1	LKC	EF0903-2237	63	1.3								
9	EF0903	9/30/2021	1	FHC	EF0903-2238	41									
9	EF0903	9/30/2021	1	LKC	EF0903-2239	38									
9	EF0903	9/30/2021	1	LSU	EF0903-2240	39									
9	EF0903	9/30/2021	1	LSU	EF0903-2241	42	0.9								
9	EF0903	9/30/2021	1	LKC	EF0903-2242	62									
9	EF0903	9/30/2021	1	LSU	EF0903-2243	37									
9	EF0903	9/30/2021	1	LSU	EF0903-2244	40									
9	EF0903	9/30/2021	1	LSU	EF0903-2245	36									
9	EF0903	9/30/2021	1	LKC	EF0903-2246	35									
9	EF0903	9/30/2021	1	LKC	EF0903-2247	45									
9	EF0903	9/30/2021	1	LKC	EF0903-2248	30									
9	EF0903	9/30/2021	1	FHC	EF0903-2249	61									
9	EF0903	9/30/2021	1	FHC	EF0903-2250	52									
9	EF0903	9/30/2021	1	LKC	EF0903-2251	36									
9	EF0903	9/30/2021	1	LKC	EF0903-2252	35									
9	EF0903	9/30/2021	1	LKC	EF0903-2253	31									
9	EF0903	9/30/2021	1	LNC	EF0903-2254	31									
9	EF0903	9/30/2021	5	LNC	EF0903-2255										

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
9	EF0903	9/30/2021	7	FHC	EF0903-2256										
9	EF0903	9/30/2021	10	SU	EF0903-2257										
9	EF0903	9/30/2021	5	FHC	EF0903-2258										
9	EF0903	9/30/2021	3	LNC	EF0903-2259										
9	EF0903	9/30/2021	20	LKC	EF0903-2260										
9	EF0903	9/30/2021	5	FHC	EF0903-2261										
9	EF0903	9/30/2021	10	SU	EF0903-2262										
9	EF0903	9/30/2021	10	LNC	EF0903-2263										
9	EF0903	9/30/2021	4	SU	EF0903-2264										
9	EF0903	9/30/2021	6	LKC	EF0903-2265										
9	EF0903	9/30/2021	3	SU	EF0903-2266										
9	EF0903	9/30/2021	7	LKC	EF0903-2267										
9	EF0903	9/30/2021	4	SU	EF0903-2268										
9	EF0903	9/30/2021	5	LKC	EF0903-2269										
9	EF0903	9/30/2021	1	FHC	EF0903-2270										
9	EF0903	9/30/2021	10	LKC	EF0903-2271										
9	EF0903	9/30/2021	4	SU	EF0903-2272										
9	EF0903	9/30/2021	2	LNC	EF0903-2273										
9	EF0903	9/30/2021	4	LNC	EF0903-2274										
9	EF0903	9/30/2021	4	FHC	EF0903-2275										
9	EF0903	9/30/2021	4	SU	EF0903-2276										
9	EF0903	9/30/2021	2	LKC	EF0903-2277										
9	EF0903	9/30/2021	5	LNC	EF0903-2278										
9	EF0903	9/30/2021	5	LKC	EF0903-2279										
9	EF0903	9/30/2021	5	SU	EF0903-2280										
9	EF0903	9/30/2021	1	FHC	EF0903-2281										
9	EF0903	9/30/2021	2	LNC	EF0903-2282										
9	BS0902	9/30/2021	1	LNC	BS0902-2283	23									
9	BS0902	9/30/2021	1	LNC	BS0902-2284	21									
9	BS0902	9/30/2021	1	LNC	BS0902-2285	19									
9	BS0902	9/30/2021	1	LNC	BS0902-2286	16									
9	BS0902	9/30/2021	1	LNC	BS0902-2287	24									
9	BS0902	9/30/2021	1	LKC	BS0902-2288	28									
9	BS0902	9/30/2021	1	C	BS0902-2289	12									
9	BS0902	9/30/2021	1	LNC	BS0902-2290	16									
9	BS0902	9/30/2021	1	LNC	BS0902-2291	21									
9	BS0902	9/30/2021	1	LNC	BS0902-2292	16									
9	BS0902	9/30/2021	1	FHC	BS0902-2293	17									
9	BS0902	9/30/2021	1	LKC	BS0902-2294	24									
9	BS0902	9/30/2021	6	C	BS0902-2295										
9	BS0902	9/30/2021	1	C	BS0902-2296	18									
9	BS0902	9/30/2021	1	C	BS0902-2297	16									

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
9	BS0902	9/30/2021	1	LNC	BS0902-2298	21									
9	BS0902	9/30/2021	1	LKC	BS0902-2299	31									
9	BS0902	9/30/2021	1	LKC	BS0902-2300	18									
9	BS0902	9/30/2021	1	C	BS0902-2301	10									
9	BS0902	9/30/2021	1	C	BS0902-2302	11									
9	BS0902	9/30/2021	1	C	BS0902-2303	14									
9	BS0902	9/30/2021	1	LNC	BS0902-2304	14									
9	BS0902	9/30/2021	1	LNC	BS0902-2305	16									
9	BS0902	9/30/2021	1	RSC	BS0902-2306	21									
9	BS0902	9/30/2021	1	LKC	BS0902-2307	28									
9	BS0902	9/30/2021	1	LKC	BS0902-2308	25									
9	BS0902	9/30/2021	1	C	BS0902-2309	12									
9	BS0902	9/30/2021	5	C	BS0902-2310										
9	BS0902	9/30/2021	1	LKC	BS0902-2311	24									
9	BS0902	9/30/2021	1	LKC	BS0902-2312	26									
9	BS0902	9/30/2021	1	LKC	BS0902-2313	27									
9	BS0902	9/30/2021	1	LNC	BS0902-2314	18									
9	BS0901	9/30/2021	1	LNC	BS0901-2315	27									
9	BS0901	9/30/2021	1	C	BS0901-2316	24									
9	BS0901	9/30/2021	1	FHC	BS0901-2317	38									
9	BS0901	9/30/2021	1	LSU	BS0901-2318	35									
9	BS0901	9/30/2021	1	LSU	BS0901-2319	39									
9	BS0901	9/30/2021	1	LNC	BS0901-2320	15									
9	BS0901	9/30/2021	1	LKC	BS0901-2321	26									
9	BS0901	9/30/2021	1	LNC	BS0901-2322	19									
9	BS0901	9/30/2021	1	LNC	BS0901-2323	20									
9	BS0901	9/30/2021	1	LNC	BS0901-2324	24									
9	BS0905	9/30/2021	1	RSC	BS0905-2419	24									
9	BS0905	9/30/2021	4	NSC	BS0905-2420										
9	BS0905	9/30/2021	1	RSC	BS0905-2421	20									
9	BS0905	9/30/2021	1	C	BS0905-2422	14									
9	BS0905	9/30/2021	3	STC	BS0905-2423										
9	BS0905	9/30/2021	17	NSC	BS0905-2424										
9	BS0905	9/30/2021	12	NSC	BS0905-2425										
9	BS0905	9/30/2021	1	LNC	BS0905-2426	18									
9	BS0905	9/30/2021	1	RSC	BS0905-2427	21									
9	BS0905	9/30/2021	1	RSC	BS0905-2428	25									
9	BS0905	9/30/2021	1	LSU	BS0905-2429	29									
9	BS0905	9/30/2021	1	NSC	BS0905-2430	21									
9	BS0905	9/30/2021	1	NSC	BS0905-2431	19									
9	BS0905	9/30/2021	1	NSC	BS0905-2432	23									
9	SF0901	9/30/2021	1	LKC	SF0901-1904	85	7.1								

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
9	SF0901	9/30/2021	1	LKC	SF0901-1905	56	3.4								
9	SF0901	9/30/2021	1	TP	SF0901-1906	75	4.5								
9	SF0901	9/30/2021	1	LKC	SF0901-1907	62	3.7								
9	SF0901	9/30/2021	1	TP	SF0901-1908	75	4.8								
9	SF0901	9/30/2021	1	LSU	SF0901-1909	60	3.1								
9	SF0901	9/30/2021	1	LKC	SF0901-1910	53	2.5								
9	SF0901	9/30/2021	1	LKC	SF0901-1911	64	4.5								
9	SF0901	9/30/2021	1	LKC	SF0901-1912	63	3.3								
9	SF0901	9/30/2021	1	FHC	SF0901-1913	75	4.2								
9	SF0901	9/30/2021	1	LSU	SF0901-1914	43	1								
9	SF0901	9/30/2021	1	LSU	SF0901-1915	55	1.5								
9	SF0901	9/30/2021	1	TP	SF0901-1916	61	5.9								
9	SF0901	9/30/2021	1	LKC	SF0901-1917	38	0.6								
9	SF0901	9/30/2021	1	LKC	SF0901-1918	66	2								
9	SF0901	9/30/2021	1	LKC	SF0901-1919	63	2.2								
9	SF0901	9/30/2021	1	LSU	SF0901-1920	42	0.4								
9	SF0901	9/30/2021	1	LKC	SF0901-1921	61	2								
9	SF0901	9/30/2021	1	LKC	SF0901-1922	56	2.2								
9	SF0901	9/30/2021	1	LKC	SF0901-1923	64	3.1								
9	SF0901	9/30/2021	1	LKC	SF0901-1924	49	1.1								
9	SF0901	9/30/2021	1	LSU	SF0901-1925	43	0.8								
9	SF0901	9/30/2021	1	LSU	SF0901-1926	38	0.3								
9	SF0901	9/30/2021	1	LKC	SF0901-1927	59	3								
9	SF0901	9/30/2021	1	LKC	SF0901-1928	48	1.6								
9	SF0901	9/30/2021	1	LKC	SF0901-1929	46	2.1								
9	SF0901	9/30/2021	1	LSU	SF0901-1930	49	0.9								
9	SF0901	9/30/2021	1	LSU	SF0901-1931	39	0.4								
9	SF0901	9/30/2021	1	LSU	SF0901-1932	43	0.8								
9	SF0901	9/30/2021	1	LKC	SF0901-1933	42	1.4								
9	SF0902	9/30/2021	1	MW	SF0902-1934	318	342	Scales	900230000258133	New					
9	SF0902	9/30/2021	1	MW	SF0902-1935	108	10.8	Scales							
9	SF0902	9/30/2021	1	LSU	SF0902-1936	35	1								
9	SF0902	9/30/2021	1	LKC	SF0902-1937	41	2.1								
9	SF0902	9/30/2021	1	LKC	SF0902-1938	60	1.2								
9	SF0902	9/30/2021	1	LKC	SF0902-1939	66	2.4								
9	SF0902	9/30/2021	1	LSU	SF0902-1940	67	4.3								
9	SF0902	9/30/2021	1	LSU	SF0902-1941	65	1.8								
9	SF0902	9/30/2021	1	LKC	SF0902-1942	56	0.4								
9	SF0902	9/30/2021	1	LSU	SF0902-1943	51	1.5								
9	SF0902	9/30/2021	1	LKC	SF0902-1944	56	1.5								
9	SF0902	9/30/2021	1	RSC	SF0902-1945	33	0.6								
9	SF0902	9/30/2021	1	LKC	SF0902-1946	36	0.5								

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
9	SF0902	9/30/2021	1	LKC	SF0902-1947	35	0.5								
9	SF0902	9/30/2021	1	LSU	SF0902-1948	45	2.2								
9	SF0902	9/30/2021	1	LKC	SF0902-1949	33	0.4								
9	SF0902	9/30/2021	1	LKC	SF0902-1950	49	1.6								
9	SF0902	9/30/2021	1	LSU	SF0902-1951	55	2								
9	SF0902	9/30/2021	1	LSU	SF0902-1952	40	0.5								
9	SF0902	9/30/2021	1	LNC	SF0902-1953	22									
9	SF0902	9/30/2021	1	LKC	SF0902-1954	47	2.1								
9	SF0902	9/30/2021	1	LKC	SF0902-1955	38	0.4								
9	SF0902	9/30/2021	1	LSU	SF0902-1956	37	0.4								
9	SF0902	9/30/2021	1	LNC	SF0902-1957	22									
9	SF0902	9/30/2021	1	LNC	SF0902-1958	23									
9	SF0902	9/30/2021	1	LNC	SF0902-1959	24									
9	SF0903	9/30/2021	1	WSU	SF0903-1960	335	507		900230000258145	New					
9	SF0903	9/30/2021	1	NSC	SF0903-1961	380	680				TL				
9	SF0903	9/30/2021	1	MW	SF0703-1964	110	12	Scales							
9	SF0903	9/30/2021	1	MW	SF0703-1965	119	14	Scales							
9	SF0903	9/30/2021	1	MW	SF0703-1966	102	10	Scales							
9	SF0903	9/30/2021	1	MW	SF0903-1968	95	7	Scales							
9	SF0903	9/30/2021	1	MW	SF0903-1969	95	8.7	Scales							
9	SF0903	9/30/2021	1	MW	SF0903-1970	105	11.2								
9	SF0903	9/30/2021	1	MW	SF0903-1972	112	14	Scales							
9	SF0903	9/30/2021	1	MW	SF0903-1973	15	1								
9	SF0903	9/30/2021	1	LSU	SF0903-1974	139	38								
9	SF0903	9/30/2021	1	MW	SF0903-1975	92	9								
9	SF0903	9/30/2021	1	MW	SF0903-1976	98	10								
9	SF0903	9/30/2021	1	MW	SF0903-1977	97	10								
9	SF0903	9/30/2021	1	LSU	SF0903-1978	127	26								
9	SF0903	9/30/2021	1	MW	SF0903-1979	96	9								
9	SF0903	9/30/2021	1	LSU	SF0903-1980	125	24								
9	SF0903	9/30/2021	1	LSU	SF0903-1981	121	25								
9	SF0903	9/30/2021	1	LSU	SF0903-1982	142	40								
9	SF0903	9/30/2021	1	MW	SF0903-1983	78	4	Scales							
9	SF0903	9/30/2021	1	LSU	SF0903-1984	125	22								
9	SF0903	9/30/2021	1	LSU	SF0903-1985	150	40								
9	SF0903	9/30/2021	1	MW	SF0903-1986	100	6								
9	BS0901	9/30/2021	1	LKC	BS0901-2325	31									
9	BS0901	9/30/2021	1	LKC	BS0901-2326	37									
9	BS0901	9/30/2021	1	FHC	BS0901-2327	62									
9	BS0901	9/30/2021	1	FHC	BS0901-2328	55									
9	BS0901	9/30/2021	1	LNC	BS0901-2329	23									
9	BS0901	9/30/2021	1	C	BS0901-2330	15									

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
9	BS0901	9/30/2021	1	C	BS0901-2331	17									
9	BS0904	9/30/2021	1	RSC	BS0904-2332	27									
9	BS0904	9/30/2021	1	RSC	BS0904-2333	24									
9	BS0904	9/30/2021	1	RSC	BS0904-2334	19									
9	BS0904	9/30/2021	1	C	BS0904-2335	21									
9	BS0904	9/30/2021	1	RSC	BS0904-2336	20									
9	BS0904	9/30/2021	1	RSC	BS0904-2337	20									
9	BS0904	9/30/2021	1	RSC	BS0904-2338	19									
9	BS0904	9/30/2021	1	RSC	BS0904-2339	23									
9	BS0904	9/30/2021	1	RSC	BS0904-2340	16									
9	BS0904	9/30/2021	1	RSC	BS0904-2341	17									
9	BS0904	9/30/2021	1	RSC	BS0904-2342	19									
9	BS0904	9/30/2021	1	RSC	BS0904-2343	17									
9	BS0904	9/30/2021	1	LNC	BS0904-2344	19									
9	BS0904	9/30/2021	1	LNC	BS0904-2345	22									
9	BS0904	9/30/2021	1	RSC	BS0904-2346	21									
9	BS0904	9/30/2021	1	RSC	BS0904-2347	25									
9	BS0904	9/30/2021	1	LSU	BS0904-2348	26									
9	BS0904	9/30/2021	1	RSC	BS0904-2349	19									
9	BS0904	9/30/2021	1	LNC	BS0904-2350	18									
9	BS0904	9/30/2021	1	RSC	BS0904-2351	16									
9	BS0904	9/30/2021	1	RSC	BS0904-2352	17									
9	BS0904	9/30/2021	1	C	BS0904-2353	17									
9	BS0904	9/30/2021	1	RSC	BS0904-2354	25									
9	BS0904	9/30/2021	1	SU	BS0904-2355	21									
9	BS0904	9/30/2021	1	RSC	BS0904-2356	20									
9	BS0904	9/30/2021	1	LNC	BS0904-2357	22									
9	BS0904	9/30/2021	1	RSC	BS0904-2358	24									
9	BS0904	9/30/2021	1	RSC	BS0904-2359	14									
9	BS0904	9/30/2021	1	RSC	BS0904-2360	22									
9	BS0904	9/30/2021	1	RSC	BS0904-2361	16									
9	BS0904	9/30/2021	1	RSC	BS0904-2362	19									
9	BS0904	9/30/2021	1	LNC	BS0904-2363	16									
9	BS0904	9/30/2021	1	RSC	BS0904-2364	26									
9	BS0904	9/30/2021	1	LNC	BS0904-2365	17									
9	BS0904	9/30/2021	1	LNC	BS0904-2366	19									
9	BS0904	9/30/2021	1	LSU	BS0904-2367	31									
9	BS0904	9/30/2021	1	RSC	BS0904-2368	17									
9	BS0905	9/30/2021	1	STC	BS0905-2369	33									
9	BS0905	9/30/2021	1	STC	BS0905-2370	31									
9	BS0905	9/30/2021	1	RSC	BS0905-2371	29									
9	BS0905	9/30/2021	5	LNC	BS0905-2372										

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
9	BS0905	9/30/2021	10	STC	BS0905-2373										
9	BS0905	9/30/2021	12	RSC	BS0905-2374										
9	BS0905	9/30/2021	1	RSC	BS0905-2375	22									
9	BS0905	9/30/2021	1	RSC	BS0905-2376	20									
9	BS0905	9/30/2021	1	RSC	BS0905-2377	26									
9	BS0905	9/30/2021	1	RSC	BS0905-2378	19									
9	BS0905	9/30/2021	1	RSC	BS0905-2379	24									
9	BS0905	9/30/2021	1	LKC	BS0905-2380	30									
9	BS0905	9/30/2021	1	RSC	BS0905-2381	19									
9	BS0905	9/30/2021	1	NSC	BS0905-2382	43									
9	BS0905	9/30/2021	1	NSC	BS0905-2383	30									
9	BS0905	9/30/2021	1	NSC	BS0905-2384	21									
9	BS0905	9/30/2021	1	NSC	BS0905-2385	25									
9	BS0905	9/30/2021	1	NSC	BS0905-2386	18									
9	BS0905	9/30/2021	1	NSC	BS0905-2387	22									
9	BS0905	9/30/2021	1	NSC	BS0905-2388	24									
9	BS0905	9/30/2021	1	NSC	BS0905-2389	16									
9	BS0905	9/30/2021	1	NSC	BS0905-2390	20									
9	BS0905	9/30/2021	1	RSC	BS0905-2391	23									
9	BS0905	9/30/2021	1	SU	BS0905-2392	21									
9	BS0905	9/30/2021	1	STC	BS0905-2393	31									
9	BS0905	9/30/2021	24	NSC	BS0905-2394										
9	BS0905	9/30/2021	1	STC	BS0905-2395	34									
9	BS0905	9/30/2021	1	STC	BS0905-2396	31									
9	BS0905	9/30/2021	1	STC	BS0905-2397	36									
9	BS0905	9/30/2021	1	STC	BS0905-2398	34									
9	BS0905	9/30/2021	1	STC	BS0905-2399	33									
9	BS0905	9/30/2021	9	NSC	BS0905-2400										
9	BS0905	9/30/2021	1	RSC	BS0905-2401	20									
9	BS0905	9/30/2021	1	RSC	BS0905-2402	23									
9	BS0905	9/30/2021	1	SU	BS0905-2403	19									
9	BS0905	9/30/2021	13	NSC	BS0905-2404										
9	BS0905	9/30/2021	1	SU	BS0905-2405	22									
9	BS0905	9/30/2021	4	NSC	BS0905-2406										
9	BS0905	9/30/2021	1	RSC	BS0905-2407	19									
9	BS0905	9/30/2021	5	NSC	BS0905-2408										
9	BS0905	9/30/2021	1	STC	BS0905-2409	32									
9	BS0905	9/30/2021	1	STC	BS0905-2410	36									
9	BS0905	9/30/2021	1	STC	BS0905-2411	34									
9	BS0905	9/30/2021	3	RSC	BS0905-2412										
9	BS0905	9/30/2021	2	C	BS0905-2413										
9	BS0905	9/30/2021	1	SU	BS0905-2414	22									

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
9	BS0905	9/30/2021	1	STC	BS0905-2415	32									
9	BS0905	9/30/2021	1	LNC	BS0905-2416	18									
9	BS0905	9/30/2021	1	LNC	BS0905-2417	18									
9	BS0905	9/30/2021	1	SU	BS0905-2418	26									
9	SF0903	9/30/2021	1	MW	SF0903-1987	93	5								
9	SF0903	9/30/2021	1	MW	SF0903-1988	96	7								
9	SF0903	9/30/2021	1	MW	SF0903-1989	96	8								
9	SF0903	9/30/2021	1	MW	SF0903-1990	99	9								
9	SF0903	9/30/2021	1	MW	SF0903-1991	89	5								
9	SF0903	9/30/2021	1	MW	SF0903-1992	90	5								
9	SF0903	9/30/2021	1	MW	SF0903-1993	111	12								
9	SF0903	9/30/2021	1	MW	SF0903-1994	101	10								
9	SF0903	9/30/2021	1	MW	SF0903-1995	103	10								
9	SF0903	9/30/2021	1	MW	SF0903-1997	104	9								
9	SF0903	9/30/2021	1	LSU	SF0903-1998	105	15								
9	SF0903	9/30/2021	1	LSU	SF0903-1999	80	7								
9	SF0903	9/30/2021	1	LSU	SF0903-2000	71	5								
9	SF0903	9/30/2021	1	LSU	SF0903-2001	113	17								
9	SF0903	9/30/2021	1	MW	SF0903-2002	79	6								
9	SF0903	9/30/2021	1	MW	SF0903-2003	105	11								
9	SF0903	9/30/2021	1	MW	SF0903-2004	92	8								
9	SF0903	9/30/2021	1	LSU	SF0903-2005	72	3								
9	SF0903	9/30/2021	1	LSU	SF0903-2006	80	5								
9	SF0903	9/30/2021	1	LSU	SF0903-2007	70	3								
9	SF0903	9/30/2021	1	LSU	SF0903-2008	64	3								
9	SF0903	9/30/2021	1	LSU	SF0903-2009	55	2								
9	SF0903	9/30/2021	1	LSU	SF0903-2010	57	3								
9	SF0903	9/30/2021	1	LSU	SF0903-2011	59	3								
9	SF0903	9/30/2021	1	LSU	SF0903-2012	56	3								
9	SF0903	9/30/2021	1	LSU	SF0903-2013	46	1								
9	SF0904	9/30/2021	1	LSU	SF0904-2014	452	990		900010000055724	Existing					
9	SF0904	9/30/2021	1	LSU	SF0904-2015	447	1,000		900230000258115	New					
9	SF0904	9/30/2021	1	LSU	SF0904-2016	239	180		900228000463807	New					
9	SF0904	9/30/2021	1	NSC	SF0904-2017	49	2								
9	SF0904	9/30/2021	1	STC	SF0904-2018	40	1								
9	SF0904	9/30/2021	1	LSU	SF0904-2019	49	2								
9	SF0904	9/30/2021	1	FHC	SF0904-2020	53	2								
9	SF0904	9/30/2021	1	LKC	SF0904-2021	30	1								
9	SF0904	9/30/2021	1	LSU	SF0904-2022	36	1								
9	SF0905	9/30/2021	1	FHC	SF0905-2023	159									
9	SF0905	9/30/2021	1	LSU	SF0905-2024	100									
9	SF0905	9/30/2021	1	FHC	SF0905-2025	63									

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
9	SF0905	9/30/2021	1	FHC	SF0905-2026	67									
9	SF0905	9/30/2021	1	LSU	SF0905-2027	40									
9	SF0906	9/30/2021	1	MW	SF0906-2028	120		Scales		No					
9	SF0906	9/30/2021	1	MW	SF0906-2029	125		Scales							
9	SF0906	9/30/2021	1	MW	SF0906-2030	105		Scales		No					
9	SF0906	9/30/2021	1	MW	SF0906-2031	99		Scales		No					
9	SF0906	9/30/2021	1	MW	SF0906-2032	115		Scales							
9	SF0906	9/30/2021	1	MW	SF0906-2033	104		Scales		No					
9	SF0906	9/30/2021	1	MW	SF0906-2034	99									
9	SF0906	9/30/2021	1	MW	SF0906-2035	105									
9	SF0906	9/30/2021	1	MW	SF0906-2036	100									
9	SF0906	9/30/2021	1	LSU	SF0906-2037	135									
9	SF0906	9/30/2021	1	LKC	SF0906-2038	80									
9	SF0906	9/30/2021	1	LKC	SF0906-2039	55									
9	SF0906	9/30/2021	1	LKC	SF0906-2040	71									
9	SF0906	9/30/2021	1	LKC	SF0906-2041	64									
9	SF0906	9/30/2021	1	FHC	SF0906-2042	73									
9	SF0906	9/30/2021	1	LKC	SF0906-2043	52									
9	SF0906	9/30/2021	1	LKC	SF0906-2044	64									
9	SF0906	9/30/2021	1	LKC	SF0906-2045	67									
9	SF0906	9/30/2021	1	LKC	SF0906-2046	52									
9	SF0906	9/30/2021	1	LKC	SF0906-2047	63									
9	SF0906	9/30/2021	1	LSU	SF0906-2048	40									
9	SF0906	9/30/2021	1	LKC	SF0906-2049	59									
9	SF0906	9/30/2021	1	LKC	SF0906-2050	60									
9	SF0906	9/30/2021	1	LKC	SF0906-2051	58									
9	SF0906	9/30/2021	1	LKC	SF0906-2052	70									
9	SF0907	10/01/2021	1	MW	SF0907-2053	383	519		900230000258094	New					
9	SF0907	10/01/2021	1	MW	SF0907-2054	103	9								
9	SF0907	10/01/2021	1	MW	SF0907-2055	114	14								
9	SF0907	10/01/2021	1	MW	SF0907-2056	92	8								
9	SF0907	10/01/2021	1	MW	SF0907-2057	85	6								
9	SF0907	10/01/2021	1	LSU	SF0907-2058	52	1								
9	SF0907	10/01/2021	1	LKC	SF0907-2059	63	2								
9	SF0907	10/01/2021	1	LKC	SF0907-2060	53	1								
9	SF0907	10/01/2021	1	LKC	SF0907-2061	56	2								
9	SF0907	10/01/2021	1	LKC	SF0907-2062	91	10								
9	SF0907	10/01/2021	1	LKC	SF0907-2063	59	2								
9	SF0907	10/01/2021	1	LKC	SF0907-2064	64	3								
9	SF0907	10/01/2021	1	LNC	SF0907-2065	30	1								
9	SF0907	10/01/2021	1	LKC	SF0907-2066	36	1								
9	SF0907	10/01/2021	1	LKC	SF0907-2067	73	4								

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
9	SF0907	10/01/2021	1	LSU	SF0907-2068	69	3								
9	SF0907	10/01/2021	1	LKC	SF0907-2069	60	2								
9	SF0907	10/01/2021	1	LKC	SF0907-2070	66	3								
9	SF0907	10/01/2021	1	LKC	SF0907-2071	59	1								
9	SF0907	10/01/2021	1	LKC	SF0907-2072	64	3								
9	SF0907	10/01/2021	1	LSU	SF0907-2073	48	1								
9	SF0907	10/01/2021	1	LSU	SF0907-2074	50	1								
9	SF0907	10/01/2021	1	LSU	SF0907-2075	37	1								
9	SF0907	10/01/2021	1	LKC	SF0907-2076	69	5								
9	SF0907	10/01/2021	1	LKC	SF0907-2077	68	4								
9	SF0907	10/01/2021	1	LKC	SF0907-2078	82	6								
9	SF0907	10/01/2021	1	LKC	SF0907-2079	57	2								
9	SF0907	10/01/2021	1	LKC	SF0907-2080	50	1								
9	SF0907	10/01/2021	1	LKC	SF0907-2081	58	2								
9	SF0907	10/01/2021	1	LKC	SF0907-2082	58	2								
9	SF0907	10/01/2021	1	LSU	SF0907-2083	59	2								
9	SF0907	10/01/2021	1	LSU	SF0907-2084	56	2								
9	SF0907	10/01/2021	1	LSU	SF0907-2085	62	2								
9	SF0907	10/01/2021	1	LKC	SF0907-2086	59	1								
9	SF0907	10/01/2021	1	LSU	SF0907-2087	39	1								
9	SF0907	10/01/2021	1	LKC	SF0907-2088	65	3								
9	SF0907	10/01/2021	1	LKC	SF0907-2089	62	2								
9	SF0907	10/01/2021	1	LSU	SF0907-2090	51	2								
9	SF0907	10/01/2021	1	LSU	SF0907-2091	52	1								
9	SF0908	10/01/2021	1	LSU	SF0908-2092	438	593			No	LL				
9	SF0908	10/01/2021	1	GR	SF0908-2093	122	23								
9	SF0908	10/01/2021	1	LKC	SF0908-2094	67	3								
9	SF0908	10/01/2021	1	LKC	SF0908-2095	69	3								
9	SF0908	10/01/2021	1	LKC	SF0908-2096	68	2								
9	SF0908	10/01/2021	1	LKC	SF0908-2097	56	1								
9	SF0908	10/01/2021	1	LKC	SF0908-2098	58	2								
9	SF0908	10/01/2021	1	LKC	SF0908-2099	57	1								
9	SF0908	10/01/2021	1	LKC	SF0908-2100	72	4								
9	SF0908	10/01/2021	1	LSU	SF0908-2101	52	1								
9	SF0908	10/01/2021	1	LKC	SF0908-2102	58	2								
9	SF0908	10/01/2021	1	LKC	SF0908-2103	61	2								
9	SF0908	10/01/2021	1	LKC	SF0908-2104	43	1								
9	SF0908	10/01/2021	1	LKC	SF0908-2105	57	2								
9	SF0908	10/01/2021	1	LKC	SF0908-2106	64	2								
9	SF0908	10/01/2021	1	LKC	SF0908-2107	51	1								
9	SF0908	10/01/2021	1	LSU	SF0908-2108	48	1								
9	SF0908	10/01/2021	1	LNC	SF0908-2109	32									

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
9	SF0908	10/01/2021	1	LKC	SF0908-2110	56	1								
9	SF0908	10/01/2021	1	LKC	SF0908-2111	57	1								
9	SF0908	10/01/2021	1	LKC	SF0908-2112	66	2								
9	SF0908	10/01/2021	1	LKC	SF0908-2113	72	3								
9	SF0908	10/01/2021	1	LSU	SF0908-2114	47	1								
9	SF0908	10/01/2021	1	LSU	SF0908-2115	50	1								
9	SF0909	10/01/2021	1	LKC	SF0909-2116	63	2								
9	SF0909	10/01/2021	1	LKC	SF0909-2117	63	2								
9	SF0909	10/01/2021	1	LKC	SF0909-2118	63	2								
9	SF0909	10/01/2021	1	LSU	SF0909-2119	44	1								
9	SF0909	10/01/2021	1	LSU	SF0909-2120	38	1								
9	SF0909	10/01/2021	1	LNC	SF0909-2121	30	1								
9	SF0909	10/01/2021	1	LKC	SF0909-2122	44	1								
9	SF0909	10/01/2021	1	LNC	SF0909-2123	29	1								
9	SF0909	10/01/2021	1	LNC	SF0909-2124	29	1								
9	SF0909	10/01/2021	1	RSC	SF0909-2125	53	2								
9	SF0909	10/01/2021	1	LSU	SF0909-2126	37	1								
9	SF0909	10/01/2021	1	LSU	SF0909-2127	34	1								
9	SF0909	10/01/2021	1	LKC	SF0909-2128	60	3								
9	SF0909	10/01/2021	1	LSU	SF0909-2129	55	1								
9	SF0909	10/01/2021	1	LNC	SF0909-2130	27	1								
9	SF0909	10/01/2021	1	LSU	SF0909-2131	53	2								
9	SF0909	10/01/2021	1	LKC	SF0909-2132	62	3								
9	SF0909	10/01/2021	1	LKC	SF0909-2133	66	3								
9	SF0910	10/01/2021	1	LSU	SF0910-2134	44	1								
9	SF0910	10/01/2021	1	LSU	SF0910-2135	41	1								
9	SF0910	10/01/2021	1	LNC	SF0910-2136	33									
9	SF0910	10/01/2021	1	LSU	SF0910-2137	55	1								
9	SF0910	10/01/2021	1	LSU	SF0910-2138	33									
9	SF0910	10/01/2021	1	LSU	SF0910-2139	44									
9	SF0910	10/01/2021	1	CSU	SF0910-2140	38									
9	SF0910	10/01/2021	1	LSU	SF0910-2141	34	1								
9	SF0910	10/01/2021	1	FHC	SF0910-2142	54	3								
9	SF0910	10/01/2021	1	LSU	SF0910-2143	30	1								
9	SF0910	10/01/2021	1	LSU	SF0910-2144	34									
9	SF0910	10/01/2021	1	LSU	SF0910-2145	53	1								
9	SF0910	10/01/2021	1	LSU	SF0910-2146	37									
9	SF0910	10/01/2021	1	LSU	SF0910-2147	37									
9	SF0910	10/01/2021	1	FHC	SF0910-2148	69	5								
9	SF0910	10/01/2021	1	FHC	SF0910-2149	62	2								
9	SF0910	10/01/2021	1	LSU	SF0910-2150	48	1								
9	SF0910	10/01/2021	1	LSU	SF0910-2151	36	1								

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
9	SF0910	10/01/2021	1	LSU	SF0910-2152	54	2								
9	SF0910	10/01/2021	1	LSU	SF0910-2153	41									
9	SF0910	10/01/2021	1	LSU	SF0910-2154	37									
9	SF0910	10/01/2021	1	LSU	SF0910-2155	36									
9	SF0910	10/01/2021	1	SU	SF0910-2156	33									
9	SF0910	10/01/2021	1	LSU	SF0910-2157	32									
9	SF0910	10/01/2021	1	LSU	SF0910-2158	35									
9	SF0910	10/01/2021	1	LSU	SF0910-2159	49									
9	SF0910	10/01/2021	1	LSU	SF0910-2160	35									
9	SF0910	10/01/2021	1	LNC	SF0910-2161	25									
9	SF0911	10/01/2021	1	GR	SF0911-2162	196	87		900226001221722	New					
9	SF0911	10/01/2021	1	LSU	SF0911-2163	260	206		900228000463751	New					
9	SF0911	10/01/2021	1	LSU	SF0911-2164	199	98								
9	SF0911	10/01/2021	1	LSU	SF0911-2165	159	40								
9	SF0911	10/01/2021	1	MW	SF0911-2166	96	10								
9	SF0911	10/01/2021	1	MW	SF0911-2167	102	13								
9	SF0911	10/01/2021	1	MW	SF0911-2168	105	12								
9	SF0911	10/01/2021	1	MW	SF0911-2169	104	11								
9	SF0911	10/01/2021	1	MW	SF0911-2170	103	11								
9	SF0911	10/01/2021	1	MW	SF0911-2171	92									
9	SF0911	10/01/2021	1	MW	SF0911-2172	108	10								
9	SF0911	10/01/2021	1	MW	SF0911-2173	117	14								
9	SF0911	10/01/2021	1	MW	SF0911-2174	96	9								
9	SF0911	10/01/2021	1	MW	SF0911-2175	102	9								
9	SF0911	10/01/2021	1	MW	SF0911-2176	94	8								
9	SF0911	10/01/2021	1	LSU	SF0911-2177	62	2								
9	SF0911	10/01/2021	1	LKC	SF0911-2178	54	1								
9	SF0911	10/01/2021	1	LSU	SF0911-2179	42	1								
9	SF0911	10/01/2021	1	LKC	SF0911-2180	62	2								
9	SF0911	10/01/2021	1	LSU	SF0911-2181	40									
9	SF0911	10/01/2021	1	LNC	SF0911-2182	23									
9	SF0911	10/01/2021	1	LSU	SF0911-2183	38									
9	SF0911	10/01/2021	1	LKC	SF0911-2184	57									
9	SF0911	10/01/2021	1	LSU	SF0911-2185	44									
9	SF0911	10/01/2021	1	LSU	SF0911-2186	42									
9	SF0911	10/01/2021	1	LSU	SF0911-2187	37									
9	SF0911	10/01/2021	1	LSU	SF0911-2188	37									
9	SF0911	10/01/2021	1	LSU	SF0911-2189	42									
9	SF0911	10/01/2021	1	LNC	SF0911-2190	44									
9	SF0911	10/01/2021	1	LKC	SF0911-2191	62									
9	SF0911	10/01/2021	1	LSU	SF0911-2192	42									
9	SF0912	10/01/2021	1	MW	SF0912-2193	249	155		900228000465566	Existing					

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
9	SF0912	10/01/2021	1	LKC	SF0912-2194	98	8								
9	SF0912	10/01/2021	1	MW	SF0912-2195	94	8								
9	SF0912	10/01/2021	1	MW	SF0912-2196	98	7								
9	SF0912	10/01/2021	1	MW	SF0912-2197	91	7								
9	SF0912	10/01/2021	1	MW	SF0912-2198	100	8								
9	SF0912	10/01/2021	1	MW	SF0912-2199	111	14								
9	SF0912	10/01/2021	1	MW	SF0912-2200	97	8								
9	SF0912	10/01/2021	1	LSU	SF0912-2201	40									
9	SF0912	10/01/2021	1	LSU	SF0912-2202	44	1								
9	SF0912	10/01/2021	1	LSU	SF0912-2204	44									
9	SF0912	10/01/2021	1	LSU	SF0912-2205	38									
9	SF0912	10/01/2021	1	LSU	SF0912-2206	42									
9	BS0907	10/01/2021	1	LSU	BS0907-2433	26									
9	BS0907	10/01/2021	1	C	BS0907-2434	13									
9	BS0907	10/01/2021	1	C	BS0907-2435	15									
9	BS0907	10/01/2021	1	RSC	BS0907-2436	15									
9	BS0907	10/01/2021	1	RSC	BS0907-2437	14									
9	BS0907	10/01/2021	1	C	BS0907-2438	12									
9	BS0907	10/01/2021	1	LNC	BS0907-2439	13									
9	BS0907	10/01/2021	1	RSC	BS0907-2440	14									
9	BS0907	10/01/2021	1	LKC	BS0907-2441	37									
9	BS0907	10/01/2021	1	SU	BS0907-2442	24									
9	BS0907	10/01/2021	1	SU	BS0907-2443	26									
9	BS0907	10/01/2021	1	SU	BS0907-2444	25									
9	BS0907	10/01/2021	1	LNC	BS0907-2445	14									
9	BS0907	10/01/2021	1	LNC	BS0907-2446	23									
9	BS0907	10/01/2021	1	RSC	BS0907-2447	26									
9	BS0907	10/01/2021	1	NSC	BS0907-2448	24									
9	BS0907	10/01/2021	1	NSC	BS0907-2449	24									
9	BS0907	10/01/2021	1	NSC	BS0907-2450	30									
9	BS0907	10/01/2021	1	NSC	BS0907-2451	35									
9	BS0907	10/01/2021	1	NSC	BS0907-2452	29									
9	BS0907	10/01/2021	1	NSC	BS0907-2453	27									
9	BS0907	10/01/2021	1	NSC	BS0907-2454	26									
9	BS0907	10/01/2021	1	NSC	BS0907-2455	25									
9	BS0907	10/01/2021	1	C	BS0907-2456	16									
9	BS0907	10/01/2021	6	NSC	BS0907-2458										
9	BS0907	10/01/2021	1	NSC	BS0907-2459	30									
9	BS0907	10/01/2021	1	NSC	BS0907-2460	35									
9	BS0907	10/01/2021	1	NSC	BS0907-2461	27									
9	BS0907	10/01/2021	1	NSC	BS0907-2462	21									
9	BS0907	10/01/2021	1	C	BS0907-2463	13									

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
9	BS0907	10/01/2021	1	C	BS0907-2464	14									
9	BS0907	10/01/2021	1	RSC	BS0907-2465	17									
9	BS0907	10/01/2021	1	RSC	BS0907-2466	18									
9	BS0907	10/01/2021	1	NSC	BS0907-2467	26									
9	BS0907	10/01/2021	1	NSC	BS0907-2468	24									
9	BS0907	10/01/2021	1	LSU	BS0907-2469	31									
9	BS0907	10/01/2021	1	NSC	BS0907-2470	27									
9	BS0907	10/01/2021	1	NSC	BS0907-2471	26									
9	BS0907	10/01/2021	1	NSC	BS0907-2472	22									
9	BS0907	10/01/2021	1	NSC	BS0907-2473	28									
9	BS0907	10/01/2021	1	NSC	BS0907-2474	23									
9	BS0907	10/01/2021	1	NSC	BS0907-2475	29									
9	BS0907	10/01/2021	1	NSC	BS0907-2476	21									
9	BS0907	10/01/2021	1	NSC	BS0907-2477	24									
9	BS0907	10/01/2021	12	NSC	BS0907-2478										
9	BS0907	10/01/2021	8	NSC	BS0907-2479										
9	BS0907	10/01/2021	1	RSC	BS0907-2480	23									
9	BS0907	10/01/2021	4	NSC	BS0907-2481										
9	BS0907	10/01/2021	1	C	BS0907-2482	16									
9	BS0907	10/01/2021	4	NSC	BS0907-2483										
9	BS0907	10/01/2021	1	C	BS0907-2484	14									
9	EF0902	10/01/2021	1	LSU	EF0902-2485	43									
9	EF0902	10/01/2021	1	LKC	EF0902-2486	84	4.5								
9	EF0902	10/01/2021	1	RSC	EF0902-2487	66	2.5								
9	EF0902	10/01/2021	1	LKC	EF0902-2488	58	2.2								
9	EF0902	10/01/2021	1	LSU	EF0902-2489	54	1.6								
9	EF0902	10/01/2021	1	LKC	EF0902-2490	55	2.2								
9	EF0902	10/01/2021	1	LSU	EF0902-2491	29									
9	EF0902	10/01/2021	1	LNC	EF0902-2492	21									
9	EF0902	10/01/2021	1	LNC	EF0902-2493	18									
9	EF0902	10/01/2021	1	LNC	EF0902-2494	17									
9	EF0902	10/01/2021	1	RSC	EF0902-2495	30									
9	EF0902	10/01/2021	1	LKC	EF0902-2496	21									
9	EF0902	10/01/2021	1	LKC	EF0902-2497	52	2.2								
9	EF0902	10/01/2021	1	LKC	EF0902-2498	60									
9	EF0902	10/01/2021	1	LSU	EF0902-2499	34									
9	EF0902	10/01/2021	1	LSU	EF0902-2500	31									
9	EF0902	10/01/2021	1	LKC	EF0902-2501	35									
9	EF0902	10/01/2021	1	NSC	EF0902-2502	33									
9	EF0902	10/01/2021	1	NSC	EF0902-2503	31									
9	EF0902	10/01/2021	1	LKC	EF0902-2504	60	2.8								
9	EF0902	10/01/2021	1	NSC	EF0902-2505	41	0.9								

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
9	EF0902	10/01/2021	1	LNC	EF0902-2506	22									
9	EF0902	10/01/2021	1	LKC	EF0902-2507	84	3.2								
9	EF0902	10/01/2021	1	LNC	EF0902-2508	29									
9	EF0902	10/01/2021	1	LNC	EF0902-2509	23									
9	EF0902	10/01/2021	1	LKC	EF0902-2510	64	3.5								
9	EF0902	10/01/2021	1	LKC	EF0902-2511	61	2.9								
9	EF0902	10/01/2021	1	NSC	EF0902-2512	48									
9	EF0902	10/01/2021	1	NSC	EF0902-2513	37									
9	EF0902	10/01/2021	1	NSC	EF0902-2514	45									
9	EF0902	10/01/2021	1	NSC	EF0902-2515	32									
9	EF0902	10/01/2021	1	NSC	EF0902-2516	40									
9	EF0902	10/01/2021	1	LKC	EF0902-2517	65									
9	EF0902	10/01/2021	1	LSU	EF0902-2518	36									
9	EF0902	10/01/2021	1	LSU	EF0902-2519	37									
9	EF0902	10/01/2021	1	LKC	EF0902-2520	62									
9	EF0902	10/01/2021	1	LSU	EF0902-2521	50									
9	EF0902	10/01/2021	1	LSU	EF0902-2522	34									
9	EF0902	10/01/2021	1	NSC	EF0902-2523	40									
9	EF0902	10/01/2021	1	NSC	EF0902-2524	51									
9	EF0902	10/01/2021	1	LSU	EF0902-2525	41									
9	EF0902	10/01/2021	1	LKC	EF0902-2526	61	2.4								
9	EF0902	10/01/2021	1	LNC	EF0902-2527	32									
9	EF0902	10/01/2021	1	LSU	EF0902-2528	49									
9	EF0902	10/01/2021	1	LSU	EF0902-2529	36									
9	EF0902	10/01/2021	1	LSU	EF0902-2530	45									
9	EF0902	10/01/2021	1	LSU	EF0902-2531	31									
9	EF0902	10/01/2021	1	NSC	EF0902-2532	40									
9	EF0902	10/01/2021	1	NSC	EF0902-2534	45									
9	EF0902	10/01/2021	1	LKC	EF0902-2535	55									
9	EF0902	10/01/2021	1	NSC	EF0902-2536	34									
9	EF0902	10/01/2021	4	LKC	EF0902-2537										
9	EF0902	10/01/2021	2	LSU	EF0902-2538										
9	EF0902	10/01/2021	5	LKC	EF0902-2539										
9	EF0902	10/01/2021	4	LSU	EF0902-2540										
9	EF0902	10/01/2021	5	LKC	EF0902-2541										
9	EF0902	10/01/2021	5	LSU	EF0902-2542										
9	EF0902	10/01/2021	1	LNC	EF0902-2543										
9	EF0902	10/01/2021	3	NSC	EF0902-2544										
9	EF0902	10/01/2021	3	LNC	EF0902-2545										
9	EF0902	10/01/2021	2	NSC	EF0902-2546										
9	EF0902	10/01/2021	3	LSU	EF0902-2547										
9	EF0902	10/01/2021	2	LKC	EF0902-2548										

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
9	EF0902	10/01/2021	8	SU	EF0902-2549										
9	EF0902	10/01/2021	3	LNC	EF0902-2550										
9	EF0902	10/01/2021	5	LKC	EF0902-2551										
9	EF0902	10/01/2021	5	LKC	EF0902-2552										
9	EF0902	10/01/2021	1	RSC	EF0902-2553	25									
9	EF0902	10/01/2021	6	LNC	EF0902-2554										
9	EF0902	10/01/2021	3	LSU	EF0902-2555										
9	EF0902	10/01/2021	1	LKC	EF0902-2556										
9	EF0902	10/01/2021	3	LNC	EF0902-2557										
9	EF0902	10/01/2021	3	LSU	EF0902-2558										
9	EF0902	10/01/2021	2	LKC	EF0902-2559										
9	EF0902	10/01/2021	3	LNC	EF0902-2560										
9	EF0902	10/01/2021	2	LKC	EF0902-2561										
9	EF0902	10/01/2021	3	LSU	EF0902-2562										
9	EF0902	10/01/2021	2	LNC	EF0902-2563										
9	EF0902	10/01/2021	1	NSC	EF0902-2564										
9	EF0902	10/01/2021	1	LSU	EF0902-2565										
9	EF0902	10/01/2021	1	LKC	EF0902-2566										
9	EF0902	10/01/2021	1	NSC	EF0902-2567										
9	EF0902	10/01/2021	5	LNC	EF0902-2568										
9	EF0902	10/01/2021	1	LNC	EF0902-2569	18									
9	BS0910	10/01/2021	1	C	BS0910-2571	25									
9	BS0910	10/01/2021	1	C	BS0910-2572	18									
9	BS0910	10/01/2021	1	SU	BS0910-2573	28									
9	BS0910	10/01/2021	1	SU	BS0910-2574	29									
9	BS0910	10/01/2021	1	LNC	BS0910-2575	15									
9	BS0910	10/01/2021	1	C	BS0910-2576	20									
9	EF0904	10/01/2021	1	MW	EF0904-2578	113	12.8	Scales							
9	EF0904	10/01/2021	1	LKC	EF0904-2579	88	7.6								
9	EF0904	10/01/2021	1	LSU	EF0904-2580	53	1.7								
9	EF0904	10/01/2021	1	LNC	EF0904-2581	2									
9	EF0904	10/01/2021	1	LNC	EF0904-2582	23									
9	EF0904	10/01/2021	1	LNC	EF0904-2583	25									
9	EF0904	10/01/2021	1	LNC	EF0904-2584	21									
9	EF0904	10/01/2021	1	LNC	EF0904-2585	23									
9	EF0904	10/01/2021	1	LNC	EF0904-2586	24									
9	EF0904	10/01/2021	1	LNC	EF0904-2587	26									
9	EF0904	10/01/2021	1	LNC	EF0904-2588	26									
9	EF0904	10/01/2021	1	LNC	EF0904-2589	22									
9	EF0904	10/01/2021	1	LNC	EF0904-2590	23									
9	EF0904	10/01/2021	1	LNC	EF0904-2591	24									
9	EF0904	10/01/2021	1	LSU	EF0904-2592	25									

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
9	EF0904	10/01/2021	10	LNC	EF0904-2593										
9	EF0904	10/01/2021	1	LSU	EF0904-2594	39									
9	EF0904	10/01/2021	6	LNC	EF0904-2595										
9	EF0904	10/01/2021	6	LNC	EF0904-2596										
9	EF0904	10/01/2021	2	LSU	EF0904-2597										
9	EF0904	10/01/2021	5	LNC	EF0904-2598										
9	EF0904	10/01/2021	5	LSU	EF0904-2599										
9	EF0904	10/01/2021	1	NSC	EF0904-2600	29									
9	EF0904	10/01/2021	10	LNC	EF0904-2601										
9	EF0904	10/01/2021	2	LSU	EF0904-2602										
9	EF0904	10/01/2021	8	LNC	EF0904-2603										
9	EF0904	10/01/2021	2	C	EF0904-2604										
9	BS0909	10/01/2021	1	LNC	BS0909-2605	5									
9	BS0909	10/01/2021	1	LNC	BS0909-2606	8									
9	BS0909	10/01/2021	1	LNC	BS0909-2607	21									
9	BS0909	10/01/2021	1	LNC	BS0909-2608	1									
9	BS0909	10/01/2021	1	LNC	BS0909-2609	19									
9	BS0909	10/01/2021	1	LNC	BS0909-2610	17									
9	BS0909	10/01/2021	1	LNC	BS0909-2611	16									
9	BS0909	10/01/2021	1	LNC	BS0909-2612	20									
9	BS0909	10/01/2021	1	SU	BS0909-2613	23									
9	BS0909	10/01/2021	1	LNC	BS0909-2615	17									
9	BS0909	10/01/2021	1	SU	BS0909-2616	22									
9	BS0909	10/01/2021	1	LNC	BS0909-2617	21									
9	BS0909	10/01/2021	1	C	BS0909-2618	13									
9	BS0909	10/01/2021	1	C	BS0909-2619	22									
9	BS0909	10/01/2021	1	SU	BS0909-2620	23									
9	BS0909	10/01/2021	1	SU	BS0909-2621	22									
9	BS0909	10/01/2021	1	SU	BS0909-2622	21									
9	BS0909	10/01/2021	1	LNC	BS0909-2623	18									
9	BS0909	10/01/2021	1	C	BS0909-2624	15									
9	BS0909	10/01/2021	1	LNC	BS0909-2625	20									
9	BS0909	10/01/2021	1	LNC	BS0909-2626	27									
9	BS0909	10/01/2021	1	LNC	BS0909-2627	17									
9	BS0909	10/01/2021	1	LNC	BS0909-2628	15									
9	BS0909	10/01/2021	1	LNC	BS0909-2629	18									
9	BS0909	10/01/2021	1	LNC	BS0909-2630	21									
9	BS0908	10/01/2021	1	BT	BS0908-2631	250	151	Fin Rays	900228000463759	New					
9	BS0908	10/01/2021	1	LSU	BS0908-2632	49									
9	BS0908	10/01/2021	1	FHC	BS0908-2633	31									
9	BS0908	10/01/2021	1	NSC	BS0908-2634	35									
9	BS0908	10/01/2021	1	LNC	BS0908-2635	32									

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
9	BS0908	10/01/2021	1	LSU	BS0908-2636	42									
9	BS0908	10/01/2021	1	NSC	BS0908-2637	29									
9	BS0908	10/01/2021	1	LNC	BS0908-2638	18									
9	BS0908	10/01/2021	1	LNC	BS0908-2639	21									
9	BS0908	10/01/2021	1	LNC	BS0908-2640	30									
9	BS0908	10/01/2021	1	LNC	BS0908-2641	22									
9	BS0908	10/01/2021	1	LNC	BS0908-2642	32									
9	BS0908	10/01/2021	1	LNC	BS0908-2643	22									
9	BS0908	10/01/2021	1	LNC	BS0908-2644	15									
9	BS0908	10/01/2021	1	LNC	BS0908-2645	21									
9	BS0908	10/01/2021	1	LNC	BS0908-2646	17									
9	BS0908	10/01/2021	1	LNC	BS0908-2647	20									
9	BS0908	10/01/2021	1	C	BS0908-2648	20									
9	BS0908	10/01/2021	1	LNC	BS0908-2649	26									
9	BS0908	10/01/2021	1	LNC	BS0908-2650	22									
9	BS0908	10/01/2021	1	LNC	BS0908-2651	18									
9	BS0908	10/01/2021	1	LNC	BS0908-2652	32									
9	BS0908	10/01/2021	1	LNC	BS0908-2653	21									
9	BS0908	10/01/2021	1	LNC	BS0908-2654	22									
9	BS0908	10/01/2021	1	LNC	BS0908-2655	19									
9	BS0908	10/01/2021	1	LNC	BS0908-2656	22									
9	BS0908	10/01/2021	1	LNC	BS0908-2657	17									
9	BS0908	10/01/2021	1	LNC	BS0908-2658	12									
9	BS0908	10/01/2021	1	LNC	BS0908-2659	22									
9	BS0908	10/01/2021	1	LNC	BS0908-2660	18									
9	BS0908	10/01/2021	1	LNC	BS0908-2661	15									
9	BS0908	10/01/2021	1	LNC	BS0908-2662	20									
9	BS0908	10/01/2021	1	C	BS0908-2663	14									
9	BS0908	10/01/2021	1	LNC	BS0908-2664	27									
9	BS0908	10/01/2021	1	LNC	BS0908-2665	20									
9	BS0908	10/01/2021	1	LSU	BS0908-2666	36					DL				
9	BS0908	10/01/2021	1	LNC	BS0908-2667	21									
9	BS0908	10/01/2021	1	LNC	BS0908-2668	15									
9	BS0908	10/01/2021	1	C	BS0908-2669	12									
9	BS0908	10/01/2021	1	C	BS0908-2670	11									
9	BS0908	10/01/2021	1	NSC	BS0908-2671	29									
9	BS0908	10/01/2021	1	LNC	BS0908-2672	22									
9	BS0908	10/01/2021	1	C	BS0908-2673	12									
9	BS0908	10/01/2021	1	LNC	BS0908-2674	13									
9	BS0908	10/01/2021	1	LNC	BS0908-2675	23									
9	BS0908	10/01/2021	1	LNC	BS0908-2676	1									
9	BS0908	10/01/2021	1	NSC	BS0908-2677	16									

Study Unit Number	Site Label	Sample Date	Count	Species	Fish ID	Fork Length (mm)	Weight (g)	Age Structure(s) Collected	PIT Tag Code	PIT Tag?	DELT	Genetics	MethylMercury	Stable Isotope	Microchemistry
9	BS0908	10/01/2021	1	C	BS0908-2678	12									
9	BS0908	10/01/2021	1	LNC	BS0908-2679	20									
9	BS0908	10/01/2021	1	C	BS0908-2680	12									
9	BS0908	10/01/2021	1	LNC	BS0908-2681	22									
9	BS0908	10/01/2021	1	C	BS0908-2682	18									
9	BS0908	10/01/2021	1	LNC	BS0908-2683	30									
9	BS0908	10/01/2021	1	LNC	BS0908-2684	15									
9	BS0908	10/01/2021	1	LNC	BS0908-2685	15									
9	BS0908	10/01/2021	1	LNC	BS0908-2686	30									
9	BS0908	10/01/2021	1	NSC	BS0908-2687	16									
9	BS0908	10/01/2021	1	LNC	BS0908-2688	22									
9	BS0908	10/01/2021	1	LNC	BS0908-2689	18									
9	BS0908	10/01/2021	1	LNC	BS0908-2690	23									
9	BS0908	10/01/2021	1	LNC	BS0908-2691	18									
9	BS0908	10/01/2021	1	C	BS0908-2692	16									
9	BS0908	10/01/2021	1	LNC	BS0908-2693	18									
9	BS0908	10/01/2021	1	LNC	BS0908-2694	21									
9	BS0908	10/01/2021	1	C	BS0908-2695	13									
9	BS0908	10/01/2021	1	LNC	BS0908-2696	19									
9	BS0908	10/01/2021	1	LNC	BS0908-2697	18									
9	BS0908	10/01/2021	1	LNC	BS0908-2698	20									
9	BS0908	10/01/2021	1	LNC	BS0908-2699	16									
9	BS0908	10/01/2021	1	LNC	BS0908-2700	18									
9	BS0908	10/01/2021	1	LNC	BS0908-2701	17									
9	BS0908	10/01/2021	1	C	BS0908-2702	18									
9	BS0908	10/01/2021	1	C	BS0908-2703	15									
9	BS0908	10/01/2021	1	C	BS0908-2704	13									
9	BS0908	10/01/2021	1	C	BS0908-2705	17									
9	GN0901	10/01/2021	1	LSU	GN0901-2706	285	269		900228000463507	New					

Appendix 6

Sample Effort and Conditions

Table A6-1. Sampling effort and environmental conditions for the 76 sites sampled in 2021

Study Unit Number	Site Label	Sample Gear	Sample Date	Sampling Start Time	Sampling End Time	Water Temperature	Cond.	pH	Water Surface Visibility	Secchi Depth (m)	Estimated Flow Category	Channel Type Sampled	Electrofishing - Effort (seconds)	Electrofishing - Length Sampled (m)	Beach Seine - Distance Sampled (m)	Beach Seine - Total Area Sample (m^2)	Gillnet - Panel Height (m)	Gillnet - Panel Length (m)
5	BP01	Backpack Electrofisher	9/26/2021	08:32:47	08:53:56	12.1	185	8.13	Medium (small ripples)	1.3	Transitional	Side Channel	835	100				
5	BP03	Backpack Electrofisher	9/26/2021	13:10:28	13:29:30	12	200	7.83	Medium (small ripples)	1.2	Transitional	Side Channel	752	105				
5	EF0506	Backpack Electrofisher	9/27/2021	08:43:51	09:04:04	11.9	191.6	8.04	High (flat surface)	1	Transitional	Side Channel	976	100				
5	EF0507	Backpack Electrofisher	9/27/2021	10:09:41	10:28:53	11.8	198	7.99	Medium (small ripples)	1.2	Transitional	Main Channel	824	105				
5	BS0510	Beach Seine	9/25/2021	16:09:34	16:11:41	12.8	225	7.94	Medium (small ripples)	1.4	Transitional	Side Channel			25	100		
5	BS01	Beach Seine	9/26/2021	09:35:17	09:36:17	12.1	185	8.13	Medium (small ripples)	1.3	Transitional	Side Channel			25	100		
5	BS0504	Beach Seine	9/26/2021	10:10:54	10:12:10	12.1	185	8.13	Medium (small ripples)	1.2	Transitional	Side Channel			25	100		
5	BS02	Beach Seine	9/26/2021	10:57:17	11:02:18	12.1	185	8.13	Low (waves)	1	Transitional	Side Channel			25	100		
5	BS03	Beach Seine	9/26/2021	14:04:11	14:05:41	12	200	7.83	Medium (small ripples)	1.3	Transitional	Side Channel			25	100		
5	BS0503	Beach Seine	9/26/2021	16:04:26	16:05:37	12	200	7.83	Medium (small ripples)	1.2	Transitional	Side Channel			25	100		
5	BS0507	Beach Seine	9/27/2021	11:21:22	11:23:46	10.8	229	7.88	High (flat surface)	1	Transitional	Side Channel			25	100		
5	BS0508	Beach Seine	9/27/2021	12:15:03	12:16:07	10.8	229	7.88	High (flat surface)	0.8	Transitional	Side Channel			28	100		
5	GN0501	Gill Net	9/26/2021	12:44:21	15:05:46	12	200	7.83	Medium (small ripples)	1.2	Transitional	Side Channel					2.4	45.6
5	SF0514	Small Fish Boat Electrofisher	9/25/2021	14:01:43	14:34:26	12.3	161.5	8.46	Medium (small ripples)	1.88	Transitional	Main Channel	596	500				
5	SB07	Small Fish Boat Electrofisher	9/26/2021	08:52:50	09:18:56	11.7	193.2	8.27	High (flat surface)	1.7	Transitional	Side Channel	847	500				
5	SF0519	Small Fish Boat Electrofisher	9/26/2021	10:53:08	11:11:01	11.7	193.2	8.27	Medium (small ripples)	1.76	Transitional	Main Channel	642	500				
5	SB08	Small Fish Boat Electrofisher	9/26/2021	12:20:00	12:41:17	11.7	193.2	8.27	Medium (small ripples)	1.76	Transitional	Main Channel	988	500				
5	SF0503	Small Fish Boat Electrofisher	9/26/2021	14:45:32	15:01:42	12.3	161.5	8.46	Medium (small ripples)	1.76	Transitional	Main Channel	655	800				
5	SF0508	Small Fish Boat Electrofisher	9/26/2021	17:13:00	17:43:43	12.3	161.5	8.46	Medium (small ripples)	1.76	Transitional	Main Channel	762	700				
5	SF0512	Small Fish Boat Electrofisher	9/27/2021	13:57:00	14:09:52	12.2	194	8.8	High (flat surface)	1.4	Transitional	Main Channel	843	500				
5	SF0520	Small Fish Boat Electrofisher	9/27/2021	08:32:22	08:46:34	11.9	180	8.34	Medium (small ripples)	1.52	Transitional	Main Channel	491	500				
5	SF0509	Small Fish Boat Electrofisher	9/27/2021	09:59:56	10:12:08	11.9	180	8.3	High (flat surface)	1.5	Transitional	Main Channel	575	500				
5	SF0510	Small Fish Boat Electrofisher	9/27/2021	11:42:39	12:03:49	11.9	180	8.3	High (flat surface)	1.36	Transitional	Main Channel	900	750				
5	SF0511	Small Fish Boat Electrofisher	9/27/2021	13:25:00	13:39:51	11.9	180	8.3	Medium (small ripples)	1.36	Transitional	Main Channel	616	500				
5	SF0513	Small Fish Boat Electrofisher	9/27/2021	14:29:51	14:45:58	11.9	180	8.3	Medium (small ripples)	1.4	Transitional	Main Channel	817	600				
7	EF0705	Backpack Electrofisher	9/28/2021	11:24:54	11:47:08	9.2	226	7.89	Low (waves)	0.3	Transitional	Tributary Confluence	715	100				
7	EF0706	Backpack Electrofisher	9/28/2021	13:44:00	14:05:59	12.2	208	8.07	Medium (small ripples)	1.1	Transitional	Side Channel	835	100				
7	EF0709	Backpack Electrofisher	9/29/2021	09:20:12	09:48:27	10.4	212	8.1	Medium (small ripples)	1.3	Transitional	Side Channel	983	100				

Study Unit Number	Site Label	Sample Gear	Sample Date	Sampling Start Time	Sampling End Time	Water Temperature	Cond.	pH	Water Surface Visibility	Secchi Depth (m)	Estimated Flow Category	Channel Type Sampled	Electrofishing - Effort (seconds)	Electrofishing - Length Sampled (m)	Beach Seine - Distance Sampled (m)	Beach Seine - Total Area Sample (m^2)	Gillnet - Panel Height (m)	Gillnet - Panel Length (m)
7	EF0708	Backpack Electrofisher	9/29/2021	16:08:16	16:27:36	10.8	220	8.17	Medium (small ripples)	0.7	Transitional	Tributary Confluence	744	105				
7	BS0714	Beach Seine	9/28/2021	10:00:30	10:02:59	8.6	226	7.82	Medium (small ripples)	0.3	Transitional	Tributary Confluence			25	100		
7	BS0703	Beach Seine	9/28/2021	12:39:34	12:40:39	11.1	210	8.16	High (flat surface)	0.4	Transitional	Side Channel			25	100		
7	BS0704	Beach Seine	9/28/2021	15:38:10	15:39:55	12.2	208	8.07	Low (waves)	1.2	Transitional	Main Channel			25	100		
7	BS0712	Beach Seine	9/28/2021	14:47:34	14:49:05	11.8	203	8.07	Low (waves)	1.3	Transitional	Side Channel			25	100		
7	BS0707	Beach Seine	9/29/2021	10:50:53	10:52:07	10.6	210	8.11	Medium (small ripples)	0.9	Transitional	Side Channel			25	100		
7	BS0709	Beach Seine	9/29/2021	12:41:41	12:43:04	11.4	197	8.13	High (flat surface)	0.7	Transitional	Side Channel			25	100		
7	BS0710	Beach Seine	9/29/2021	13:34:04	13:35:14	11.4	197	8.13	High (flat surface)	0.7	Transitional	Side Channel			25	100		
7	BS0708	Beach Seine	9/29/2021	15:08:29	15:09:54	10.8	220	8.17	Medium (small ripples)	0.7	Transitional	Tributary Confluence			25	100		
7	GN0701	Gill Net	9/29/2021	12:28:34	14:32:39	11.4	197	8.13	Low (waves)	0.7	Transitional	Side Channel					2.4	45.6
7	SF0715	Small Fish Boat Electrofisher	9/28/2021	10:08:28	10:24:10	11.1	208	8.8	High (flat surface)	0.99	Transitional	Main Channel	713	500				
7	SB09	Small Fish Boat Electrofisher	9/28/2021	11:09:27	11:19:06	9.2	250	8.7	Medium (small ripples)	0.73	Transitional	Main Channel	454	500				
7	SF0703	Small Fish Boat Electrofisher	9/28/2021	12:16:00	12:31:58	11.5	189	8.5	Medium (small ripples)	0.75	Transitional	Main Channel	284	400				
7	SF0708	Small Fish Boat Electrofisher	9/28/2021	13:07:28	13:25:47	11.7	185	8.3	Medium (small ripples)	0.76	Transitional	Main Channel	883	700				
7	SF0709	Small Fish Boat Electrofisher	9/28/2021	13:50:19	14:05:05	11.7	185	8.3	Medium (small ripples)	0.75	Transitional	Side Channel	754	700				
7	SF0704	Small Fish Boat Electrofisher	9/28/2021	15:00:04	15:24:40	11.7	185	8.3	Medium (small ripples)	0.75	Transitional	Main Channel	982	1,000				
7	SF0714	Small Fish Boat Electrofisher	9/29/2021	15:31:57	15:53:38	11.5	190.7	8.4	Medium (small ripples)	1.1	Transitional	Main Channel	1,074	1,000				
7	SF0705	Small Fish Boat Electrofisher	9/29/2021	09:32:48	09:53:50	10.6	198	8.4	High (flat surface)	1.02	Transitional	Main Channel	832	700				
7	SF0706	Small Fish Boat Electrofisher	9/29/2021	10:47:25	11:15:54	10.6	198	8.4	Medium (small ripples)	1	Transitional	Main Channel	1,347	1,000				
7	SF0710	Small Fish Boat Electrofisher	9/29/2021	12:14:47	12:28:52	10.6	185	8.3	High (flat surface)	0.97	Transitional	Main Channel	596	500				
7	SF0707	Small Fish Boat Electrofisher	9/29/2021	12:55:24	13:21:20	10.6	185	8.3	High (flat surface)	1	Transitional	Main Channel	961	1,000				
7	SF0713	Small Fish Boat Electrofisher	9/29/2021	14:55:09	15:10:33	10.6	185	8.3	High (flat surface)	1	Transitional	Main Channel	666	500				
9	EF0901	Backpack Electrofisher	9/30/2021	10:17:22	10:53:01	10.4	205	8.44	Low (waves)	0.7	Transitional	Tributary Confluence	1,007	101				
9	EF0903	Backpack Electrofisher	9/30/2021	11:48:53	12:13:31	10.4	205	8.44	Low (waves)	0.7	Transitional	Main Channel	858	100				
9	EF0902	Backpack Electrofisher	10/01/2021	09:55:26	10:19:55	10.5	198	8.05	Medium (small ripples)	1	Transitional	Side Channel	840	100				
9	EF0904	Backpack Electrofisher	10/01/2021	11:40:59	12:04:19	10.5	198	8.05	Medium (small ripples)	0.8	Transitional	Side Channel	916	100				
9	BS0903	Beach Seine	9/30/2021	09:40:58	09:42:07	10.4	205	8.44	Low (waves)	0.7	Transitional	Side Channel			25	100		
9	BS0902	Beach Seine	9/30/2021	13:01:47	13:02:53	10.4	205	8.44	Low (waves)	0.9	Transitional	Main Channel			25	100		
9	BS0901	Beach Seine	9/30/2021	13:52:37	13:54:48	11.2	206	8.1	Low (waves)	0.6	Transitional	Main Channel			25	100		

Study Unit Number	Site Label	Sample Gear	Sample Date	Sampling Start Time	Sampling End Time	Water Temperature	Cond.	pH	Water Surface Visibility	Secchi Depth (m)	Estimated Flow Category	Channel Type Sampled	Electrofishing - Effort (seconds)	Electrofishing - Length Sampled (m)	Beach Seine - Distance Sampled (m)	Beach Seine - Total Area Sample (m^2)	Gillnet - Panel Height (m)	Gillnet - Panel Length (m)
9	BS0904	Beach Seine	9/30/2021	14:46:25	14:47:58	11.1	205	7.98	Low (waves)	0.5	Transitional	Side Channel			25	100		
9	BS0905	Beach Seine	9/30/2021	15:36:16	15:37:53	11.6	265	8.25	Low (waves)	0.7	Transitional	Side Channel			25	100		
9	BS0907	Beach Seine	10/01/2021	08:46:19	08:47:47	10.2	198	8.1	High (flat surface)	0.9	Transitional	Side Channel			25	100		
9	BS0910	Beach Seine	10/01/2021	11:14:03	11:16:02	10.5	198	8.05	Medium (small ripples)	0.8	Transitional	Side Channel			25	100		
9	BS0909	Beach Seine	10/01/2021	13:27:25	13:28:51	10.9	197	8.13	Medium (small ripples)	0.8	Transitional	Side Channel			25	100		
9	BS0908	Beach Seine	10/01/2021	14:03:57	14:05:02	10.9	197	8.13	Medium (small ripples)	0.7	Transitional	Main Channel			25	100		
9	GN0901	Gill Net	10/01/2021	12:58:38	14:47:40	10.7	196	7.96	Medium (small ripples)	0.4	Transitional	Main Channel					2.4	45.6
9	SF0901	Small Fish Boat Electrofisher	9/30/2021	09:38:26	10:01:15	10.2	197	8.5	High (flat surface)	0.9	Transitional	Main Channel	903	750				
9	SF0902	Small Fish Boat Electrofisher	9/30/2021	10:28:53	11:00:11	10.2	197	8.5	High (flat surface)	0.9	Transitional	Main Channel	989	750				
9	SF0903	Small Fish Boat Electrofisher	9/30/2021	11:37:58	12:00:38	10.2	197	8.5	Medium (small ripples)	1	Transitional	Main Channel	1,029	700				
9	SF0904	Small Fish Boat Electrofisher	9/30/2021	13:09:26	13:32:49	10.2	197	8.5	Medium (small ripples)	0.9	Transitional	Main Channel	1,054	700				
9	SF0905	Small Fish Boat Electrofisher	9/30/2021	13:56:04	14:11:32	10.2	197	8.5	Low (waves)	0.3	Transitional	Main Channel	761	800				
9	SF0906	Small Fish Boat Electrofisher	9/30/2021	14:22:38	14:54:49	10.2	197	8.5	Low (waves)	0.76	Transitional	Main Channel	1,032	1,000				
9	SF0907	Small Fish Boat Electrofisher	10/01/2021	08:47:08	09:10:41	10.3	184	8.5	High (flat surface)	0.8	Transitional	Main Channel	967	750				
9	SF0908	Small Fish Boat Electrofisher	10/01/2021	09:38:29	09:55:31	10.3	184	8.5	High (flat surface)	0.8	Transitional	Main Channel	876	600				
9	SF0909	Small Fish Boat Electrofisher	10/01/2021	10:25:02	10:45:48	10.3	184	8.5	High (flat surface)	0.8	Transitional	Main Channel	986	700				
9	SF0910	Small Fish Boat Electrofisher	10/01/2021	10:57:28	11:16:48	10.3	184	8.5	Medium (small ripples)	0.8	Transitional	Main Channel	760	500				
9	SF0911	Small Fish Boat Electrofisher	10/01/2021	11:48:27	12:06:47	11	185	8.71	Medium (small ripples)	0.8	Transitional	Main Channel	243	600				
9	SF0912	Small Fish Boat Electrofisher	10/01/2021	12:40:25	13:03:54	10.3	184	8.5	High (flat surface)	0.8	Transitional	Main Channel	1,041	800				

Appendix 7

Photos

Photo A7-1. View upstream from site SB08 toward Site C construction

Photo A7-2. View upstream of site BS0503 in the offset channels of Section 5

Photo A7-3. View upstream at the Kiskatinaw River confluence with the Peace River near site BS0708

Photo A7-4. View upstream from site SF0709 showing windy conditions

Photo A7-5. View upstream of recently exposed wet rocks and dry side channel due to dropping water levels in Section 9 at site EF0901

Photo A7-6. View upstream in Section 9 at site SF0901