Wild Juvenile Salmonid Monitoring Program Clayoquot Sound, BC 2018

Prepared for

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Summary

Beach seine sampling was conducted on behalf of Cermaq Canada in Clayoquot Sound, BC in 2018. Sampling was completed to monitor sea lice abundance, prevalence and intensity on juvenile wild salmon within Clayoquot Sound in support of the Aquaculture Stewardship Certification process for Cermaq Canada finfish aquaculture sites in the area. This data report represents the fourth year of wild juvenile salmonid monitoring within Clayoquot Sound conducted solely by Cermaq Canada.

Sampling was conducted during four separate sampling events in April and May 2018, selected to coincide with the peak outmigration period of juvenile salmonids. Sampling was completed at 16 sites within Clayoquot Sound, BC in 2018. The sites were selected based on their locations relative to existing aquaculture sites located in the area. Sampling was completed with the support of the Ahousaht First Nation and the Nuu-chah-nulth Tribal Council.

Total catch numbers of each salmonid species were recorded. Thirty individuals or the total number of captured samples (if less than 30 were captured) were collected at each of the 16 sites during the sampling events. Water quality measurements including temperature and salinity were recorded at each site during each sampling event.

Collected sample fish were frozen and analyzed in the lab for the presence of sea lice by Mainstream Biological Consulting. Sea lice observed on the individual fish specimens during laboratory analysis were initially identified as either non-motile chalimus, or motile pre-adults and adults. Non-motile sea lice were identified as either of the two chalimus stages for *Lepeophtheirus spp.* or four chalimus stages for *Caligus clemensi.* Motile lice, either pre-adults or adults, were identified as either *Lepeophtheirus spp.* or *Caligus clemensi* and the sex of the louse was determined. Motile *Lepeophtheirus spp.* sea lice found on salmonid specimens were not identified to species, but have been assumed to be *L. salmonis* due to the lack of documented infestation of Pacific salmon by other *Lepeophtheirus* lice species (Jones and Nemec, 2004).

This data summary report documents the observed sea lice infestation rate on retained wild juvenile salmon collected in Clayoquot Sound in 2018. A total of 742 juvenile salmonids and three threespine stickleback (*Gasterosteus aculeatus*) underwent

analysis for sea lice infestation including 696 chum salmon (*Oncorhynchus keta)*, 45 coho salmon (*Oncorhynchus kisutch)* and one pink salmon (*Oncorhynchus nerka)*. No Atlantic salmon (*Salmo salar*) were captured during sampling completed in Clayoquot Sound in 2018.

From the total sample population 305 fish were infested with 1321 sea lice. The calculated prevalence for the total sample population was 40.9 % and the sea lice abundance was 1.77 for the sample population collected in Clayoquot Sound in 2018.

Chum salmon smolts were captured in significantly greater numbers than any other species. A total of 7,250 chum salmon were captured, representing 97.1 % of all captured samples. Of the 7,250 chum captured, 696 were kept for lab analysis for sea lice infestation. A total of 284 chum smolts were found to be infested with a total of 1254 lice resulting in a calculated prevalence of 40.8 %, abundance of 1.80 and an average intensity of 4.4 for the chum salmon sample population.

A total of 157 coho salmon were captured, representing 2.1% of all captured salmonids. Of the 157 coho captured, 45 were kept for lab analysis for sea lice infestation. A total of 18 coho smolts were found to be infested with a total of 61 lice resulting in a calculated prevalence of 40.0 %, abundance of 1.36 and an average intensity of 3.4 for the coho salmon sample population.

One pink salmon was captured and retained for sea lice analysis. No sea lice were found on this single sample.

Three threespine stickleback were captured and retained for sea lice analysis. All three samples were found to be infested with a total of six lice resulting in a calculated prevalence of 100 %, abundance of 2.00 and an average intensity of 2.0 for the stickleback sample population.

A total of 1286 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 293 individuals and 35 *Caligus clemensi* sea lice were found on 27 of the 745 samples analyzed in the lab. There were 14 salmon and one threespine stickleback that were infested with both *L. salmonis* and *C. clemensi*.

For the chum salmon sample population, a total of 1224 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 274 juvenile chum salmon and 30 *Caligus*

clemensi sea lice were found on 24 of the juvenile chum salmon analyzed in the lab. There were 14 chum salmon infested with lice from both species.

For the coho salmon sample population, a total of 60 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 17 juvenile coho salmon and one *Caligus clemensi* sea louse was found on one of the juvenile coho salmon analyzed in the lab. There were no coho salmon infested with lice from both species.

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1.0 Introduction

At the request of Cermaq Canada, beach seine sampling to capture wild juvenile salmon and threespine stickleback to be analyzed for sea lice infestation took place at 16 sites located in Clayoquot Sound, BC (Figure 1). The sample collection occurred during four sample events in 2018 on April 4/5, April 17/18, May3/4 and May 23/24. These weeks were selected to coincide with the estimated peak outmigration dates of juvenile salmonids. Sampling was completed with the support of the Ahousaht First Nation and the Nuu-chah-nulth Tribal Council.

Parasitic copepods from the family Caligidae (sea lice) found in the coastal waters of British Columbia are divided into two genera: *Lepeophtheirus* and *Caligus*. Eleven species of *Lepeophtheirus* have been identified infesting fish in the Pacific Ocean, while only one species of *Caligus* (*Caligus clemensi*) have been identified (Margolis and Arthur 1979; McDonald and Margolis, 1995). Motile *Lepeophtheirus spp.* sea lice found on salmonid specimens were assumed to be *L. salmonis* due to the lack of documented infestation of Pacific salmon by other *Lepeophtheirus* lice species (Jones and Nemec, 2004).

Both of these genera have similar life histories and developmental stages (Kabata, 1972; Johnson and Albright, 1991a). The sea lice hatch from eggs and develop through two free-swimming naupilii stages before developing into an infectious free-swimming copepodid. At this point, the sea lice attach to their host and develop through chalimus stages. The chalimus are “non-motile” and are attached to their host by a frontal filament. The final chalimus stage terminates as the sea lice become “motile” and are no longer attached to their hosts by the frontal filament. The sea lice can now move freely on the fish as they develop through a pre-adult stage before becoming reproductively viable adults.

Interest in sea lice and their interaction with juvenile salmonids in near shore environments has been the ongoing focus of both media reports and scientific study in coastal British Columbia. This interest followed claims, made in 2001 and 2002, of high levels of sea lice infestation on salmonids in the Broughton Archipelago (Morton *et al*., 2004). Morton *et al.* (2004) concluded that sea lice abundance on juvenile pink (*Oncorhynchus gorbuscha*) and chum (*O. keta*) salmon were higher at sample sites located near salmon farms. These results led to the speculation by Morton *et al*. (2004)

and others that sea lice infestation may be negatively contributing to the survival of juvenile salmonids in the Broughton Archipelago.

Cermaq Canada requested monitoring of sea lice abundance, prevalence and intensity on wild juvenile salmon within Clayoquot Sound in support of Aquaculture Stewardship Certification for their aquaculture sites within the area. This data summary report documents the observed sea lice infestation rates on retained samples collected in Clayoquot Sound in 2018. This represents the fourth year of wild juvenile salmonid monitoring in Clayoquot Sound conducted solely by Cermaq Canada. This monitoring program has been adapted from previous sea lice monitoring completed by the Clayoquot Sound Sea Lice Working Group and represents a continuation of the sampling they conducted between 2003 and 2011.

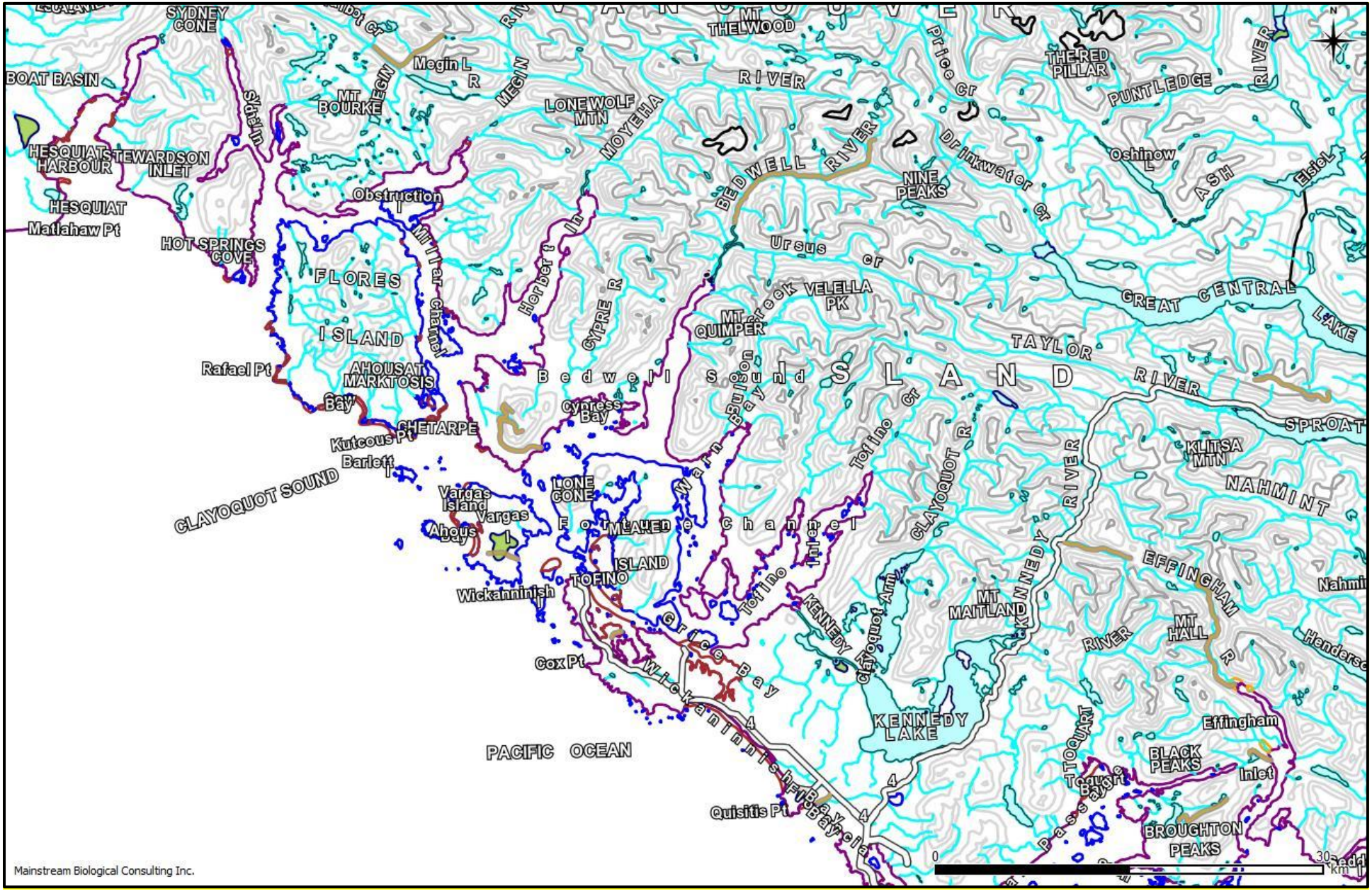

Figure 1: An overview map showing the location of Clayoquot Sound on the west coast of Vancouver Island, BC.

2.0 Methods

Attempts were made to seine at 17 sites in Clayoquot Sound, BC in 2018. No successful seines were completed at Site FC5 due to strong tidal currents at this site during all four sample periods. No samples were collected from this site during sampling completed in 2018. The fish inspected for sea lice infestation were collected from 16 sites in Clayoquot Sound, BC in 2018. These sites were chosen based on their locations relative to existing Cermaq Canada aquaculture sites in the area (Figure 2). The sites were sampled four times in 2018 on April 4/5, April 17/18, May 3/4 and May 23/24.

2.1 Site Locations

The 16 sites at which beach seining was conducted to collect specimens for sea lice analysis consisted of three sites in Shelter Inlet, two sites in Millar Channel, two sites in Herbert Inlet, six sites in Bedwell Sound and three sites in Fortune Channel. The approximate locations of the 16 beach seine sites are shown in Figure 2. GPS coordinates collected in the field for the sites are presented in Table 1.

Table 1: The site number and location of the 17 beach seine sites in Clayoquot Sound.

Site #	UTM Coordinates (NAD 83)		
	UTM Zone	Easting	Northing
SI1	9	705006	5475521
SI2	9	705188	5476034
SI3	9	711762	5480267
MC1	9	713430	5472219
MC3	9	712344	5468390
HI1	9	2885820	5474681
HI2	10	285829	5468979
BS1	10	285272	5458561
BS2	10	287224	5456470
BS3	10	288916	5462484
BS4	9	657346	5459486
BS5	10	295628	5467503
BS6	10	294024	5457784
FC2	10	299449	5454460
FC3	10	300347	5457616
FC4	10	298327	5454544
FC5 (not completed in 2018)	10	297106	5457859

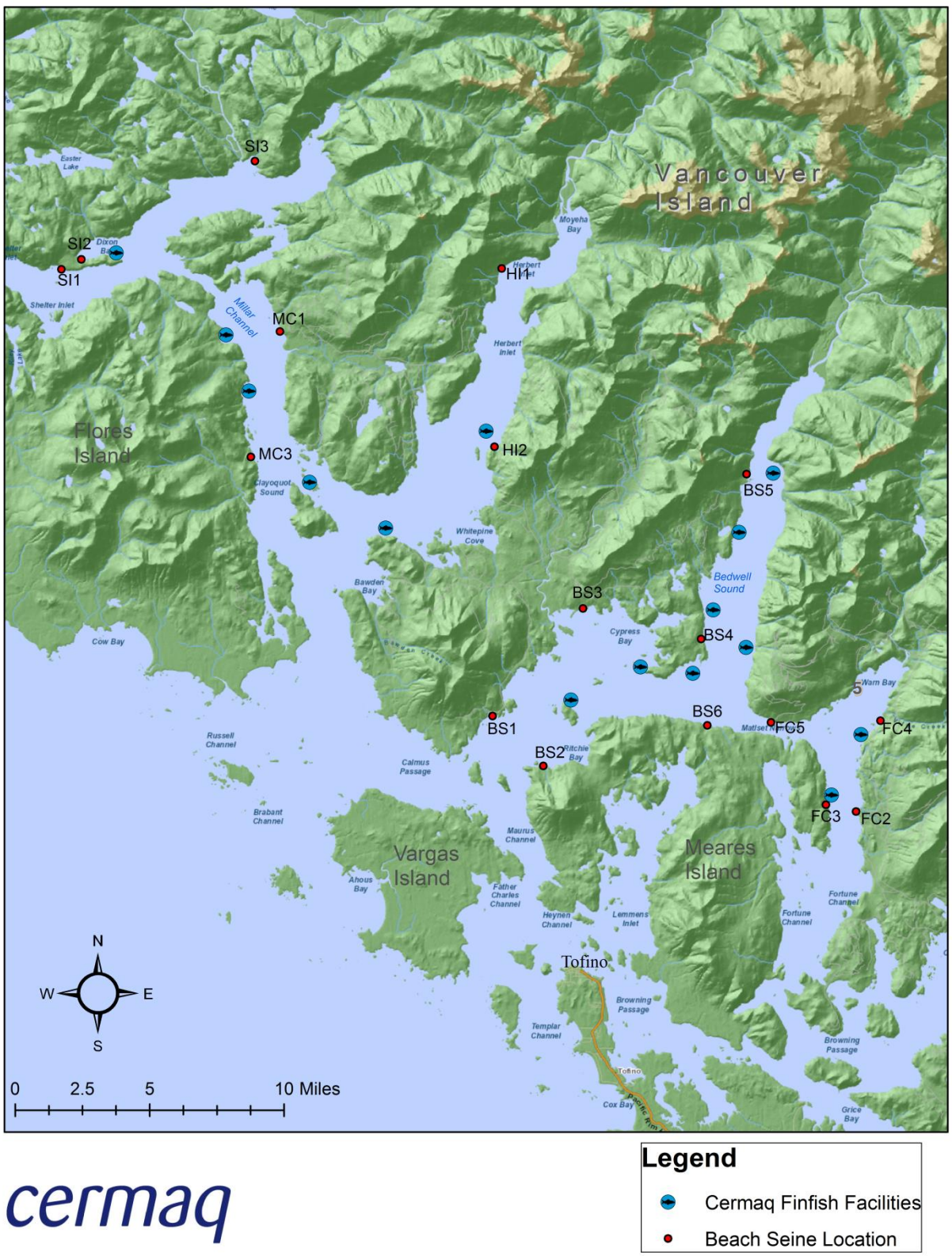

Figure 2: The locations of the 17 beach seine sites in Clayoquot Sound, 16 were sampled in 2018.

2.2 Field Procedures

In house procedures, adapted from procedures utilized by the Department of Fisheries and Oceans (DFO) for beach seining, fish collection and field data recording in place since 2004 for juvenile salmon sampling were used by Mainstream Biological Consulting staff during sampling in Clayoquot Sound in 2018.

Boats and drivers were supplied by Ahousaht First Nations for beach sampling in Clayoquot Sound in 2018. A 150 ft (45.7 m) long by 12 ft (3.7 m) deep beach seine net was used to capture specimens. The net was constructed in three 50 ft (15.2 m) sections. The centre bunt section consisted of one-quarter inch diameter diamond mesh, while the two side panels (wings) were half-inch diameter diamond mesh. Floats were located every 30 cm along the top-line and a lead line weighted the bottom of the net.

A four-person crew was utilized to conduct the beach seine sets and retrieve samples in a consistent manner at each of the 16 selected sites. All beaches were approached slowly by boat and one crewmember was put ashore with the towline from one end of the beach seine net. The onshore crewmember held the towline at one side of the sample site, while the second and third crewmembers ensured the net deployed smoothly off the bow or side of the boat. The fourth crewmember, the boat operator, backed the boat in a wide semicircle towards the opposite side of the sample site and remained on the boat. When the net was fully deployed, the second and third crewmembers stepped into the shallow water with the towline or tossed it to the awaiting crewmember on shore. A slow retrieval of the net began immediately.

As the net was slowly retrieved, the probe of a YSI85 water meter was placed just below the water surface at the stern end of the boat, to collect salinity and water temperature data. The YSI85 meter was calibrated weekly with de-ionized water while traveling to the sample sites.

The crewmembers retrieved the net evenly from opposite ends ensuring that the lead line remained as close to the bottom as possible. All retrieved netting was piled on the beach above the water level. As the retrieval reached the net bunt, the lead line was retrieved at a faster rate than the floats to allow the netting of the bunt to form a bag under the captured fish. The lead line was then pulled up onto the beach above the

water level. One crewmember worked their way around the outside of the net in the shallow water to ensure the floats stayed above the surface of the water. In this manner a small, shallow bag formed from the bunt of the net held the captured fish in the water.

The three shore crewmembers participated in the collection of individual fish to ensure that captured fish remained in the net for as short a period of time as possible. The net was manipulated, if necessary, in response to rising or falling tides in order to ensure the captured fish remained in the net and were held in sufficient water to minimize stress. The level of sufficient water was dependant on the size and numbers of captured fish, but was generally thought of as enough water to minimize fish contact with the net or with other fish.

A total of 30 individuals or all of the individuals present (if less than 30) were collected as samples for sea lice infestation analysis. Individual fish were “swam” into an appropriately sized whirlpac bag. All handling of fish was kept to a minimum.

When all the fish for retention were collected, a total catch number for each species was recorded. The fish remaining in the net were counted out of the seine net, or an estimate of the remaining fish was made (estimates were used when it appeared that more than 500 individuals from any given species remained in the net). The total of fish remaining in the net was added to the number of retained individuals to calculate a total capture number for a given species.

A crewmember recorded all the information from each beach seine set in a standardized field form. The information recorded included the following:

- The site number (Site 1-16);
- The date;
- The time at the end of the individual fish collection;
- Comments on weather and oceanic conditions;
- Comments regarding wildlife present near the sample site;
- Total capture and retained fish numbers for each specimen group; and
- Water temperature (°C) and salinity (ppt) to one decimal place.

The retained fish from each site were packaged separately in re-sealable bags and labelled with the site number (Site 1-16) and the week number (Week 1, 2, 3 or 4). Site

sample bags were placed in a portable freezer, which was plugged into the boat's battery. The specimens were transferred to a freezer immediately upon return from the field.

The beach seine net was reloaded onto the bow of the boat. Crewmembers scanned the net for obvious holes, which were repaired immediately if found. The YSI85 meter was shut off and stored, and all gear and coolers were reloaded into the boat.

The above procedures for beach seine net deployment and retrieval, as well as those described for fish collection, were repeated at all 16 sample sites.

2.3 Laboratory Procedures

The laboratory procedures for sea lice analysis have been adapted from the procedures demonstrated by Sheila Dawe and Eliah Kim at the Pacific Biological Station in Nanaimo, BC, during sea lice identification training that was conducted on April 1, 2004. Additional sea lice identification training by Paul Callow was conducted at the Pacific Biological Station in September 2007.

Fish samples were thawed immediately prior to lab analysis. Individual fish were identified to species and counted. The results of this identification and count were compared to the reported data found on the field data sheets.

A standardized data sheet was used to record sea lice analysis results from each site. The site and week number, sample date and number of fish were recorded. The date and time of the start of the analysis was also noted on the data sheet. Data from individual fish was recorded as the analysis proceeded.

Individual fish, when thawed, were removed from their bag, using a pair of forceps at the caudal peduncle, and placed in a petri dish. Each bag was labelled chronologically with an individual identification number (1 –745). Each fish was then scanned for the presence of sea lice under a stereoscopic dissection microscope. The microscope was set at a magnification of 20X for the preliminary survey of each fish sample, but magnification was occasionally increased to 40X during individual sea lice identification.

Microscopic analysis of each individual fish began at the anterior end of the left side of the specimen. The head was examined first, after which a scan was made along the

dorsal half of the specimen working towards the posterior end and the tail. The dorsal fin was lifted and expanded, as was the caudal fin, with a pair of forceps. From the posterior end a return scan was made along the ventral half of the specimen back to the head. The anal fin, pelvic fin and pectoral fin were also lifted and expanded using a pair of forceps. The fish was then flipped using a pair of forceps at the caudal peduncle and the procedure was repeated on the right hand side of the specimen. Additional scans were made longitudinally down the fish if the entire depth of the fish could not be seen in a single pass. Any sea lice observed on the fish were removed and placed in a petri dish with saline solution.

Each individual bag was visually inspected after the removal of the fish for the presence of pre-adult or adult sea lice that may have become dislodged during handling. These “loose” sea lice were recorded on the data sheet with the data for the corresponding specimen and it was assumed that the lice had come from that individual.

Sea lice were identified using characteristics outlined by Kabata (1972) and Johnson and Albright (1991a). Sea lice observed on individual fish were identified as either non-motile chalimus (including copepodid), or motile pre-adults and adults. Non-motile sea lice were identified as either of the two chalimus stages for *Lepeophtheirus salmonis* (Hamre et al., 2013) or four chalimus stages for *Caligus clemensi*. Motile sea lice were identified as *Lepeophtheirus spp.* or *Caligus clemensi*, pre-adults or adults, and males or females.

Chalimus were identified to species primarily by characteristics of the frontal filament. However, size, shape, genital development, and leg development were used as secondary identifying characteristics for speciation as well as primary indicators for life stage identification. Motile sea lice were identified to species by the presence or absence of lunules. If lunules were absent the louse was identified as *Lepeophtheirus spp.* The louse was identified as *Caligus clemensi* if lunules were present.

Lepeophtheirus spp. sea lice found on captured specimens were not identified to species, but have been assumed to be *L. salmonis* due to the lack of documented infestation of Pacific salmon by other *Lepeophtheirus* species of sea lice (Jones and Nemec, 2004).

After microscopic analysis individual fish specimens were measured (fork length) in millimetres and weighed (recorded to the nearest tenth of a gram). Lengths and weights were also recorded on the data sheet with the specimen's corresponding sea lice analysis results. The fish were then returned to their respective individual bags and the fish from each site were repackaged in the large re-sealable bags. All samples were then refrozen.

In order to allow for quality assurance of sea lice identification, all sea lice were placed in labelled vials and preserved in 70% isopropyl alcohol. Ten percent of the deloused fish specimens were randomly selected by specimen number and retained. Both the preserved lice and retained deloused fish specimens will be kept at the office of Mainstream Biological Consulting in Campbell River for five years.

2.4 Data Analysis

Surface water quality data collected for temperature and salinity was summarized to report the minimum and maximum values as well as the calculated averages. The data was graphed for report presentation.

Beach seine fish sample composition was summarized by species and site for each week. The recorded fork lengths and weights of the sample population were summarized to present minimum and maximum values as well as calculated averages. Sea lice infestation rates, including the number of infested fish and the number of sea lice identified, were determined for the sample population. Prevalence, as defined as the number of host fish found to have one or more sea lice compared to the total number of host fish examined, was determined for the sample population. Abundance, as defined as the total number of sea lice observed compared to the total number of host fish examined, was also determined for sample population. The intensity of sea lice infestation, as described by the number of sea lice found on a single salmon was summarized.

Statistical analysis of the spatial and temporal distribution of sea lice was not conducted. Spatial and temporal analysis has been limited to the simple presentation and discussion of the number of sea lice found on fish specimens collected from each site during each of the sampling events.

3.0 Results

The following sections outline the results of beach seine collection and subsequent sea lice inspection of juvenile salmonids collected from Clayoquot Sound, BC, in 2018. Water quality field data is presented in Appendix I, beach seine fish capture data is included in Appendix II and data on the juvenile salmon sample population including sea lice lab analysis results are located in Appendix III.

3.1 Water Quality Parameters

Surface measurements of temperature and salinity, taken during beach seining at each of the 16 sites during the four sample periods, are presented in Figures 3 and 4 respectively. The field data recorded at each site is included in Appendix I.

Surface water temperature readings taken at the 16 sample sites showed an overall gradual increasing trend over the sample period (Figure 3). Recorded surface water temperatures ranged from a low of 7.5 °C recorded at site SI3 on April 5, 2018, to a high of 17.1 °C recorded at site MC3 on May 24, 2018 (Appendix I). Calculated weekly average surface water temperatures increased from 9.0 °C for April 4/5, 2018, to 9.9 °C for April 17/18, 2018, to 12.0 °C for May 3/4, 2018, to the high of 14.6 °C for May 23/24, 2018.

Recorded surface water salinity ranged from a low of 5.0 ppt recorded at Site SI3 on April 5, 2018, to a high of 31.3 ppt recorded at site SI1 on May 24, 2018 (Figure 4). The calculated weekly average surface water salinity fluctuated from 16.4 ppt for April 4/5, 2018, to 21.6 ppt for April 17/18, 2018, to 21.3 for May 3/4, 2018, to 24.4 ppt for May 23/24, 2018 (Appendix I).

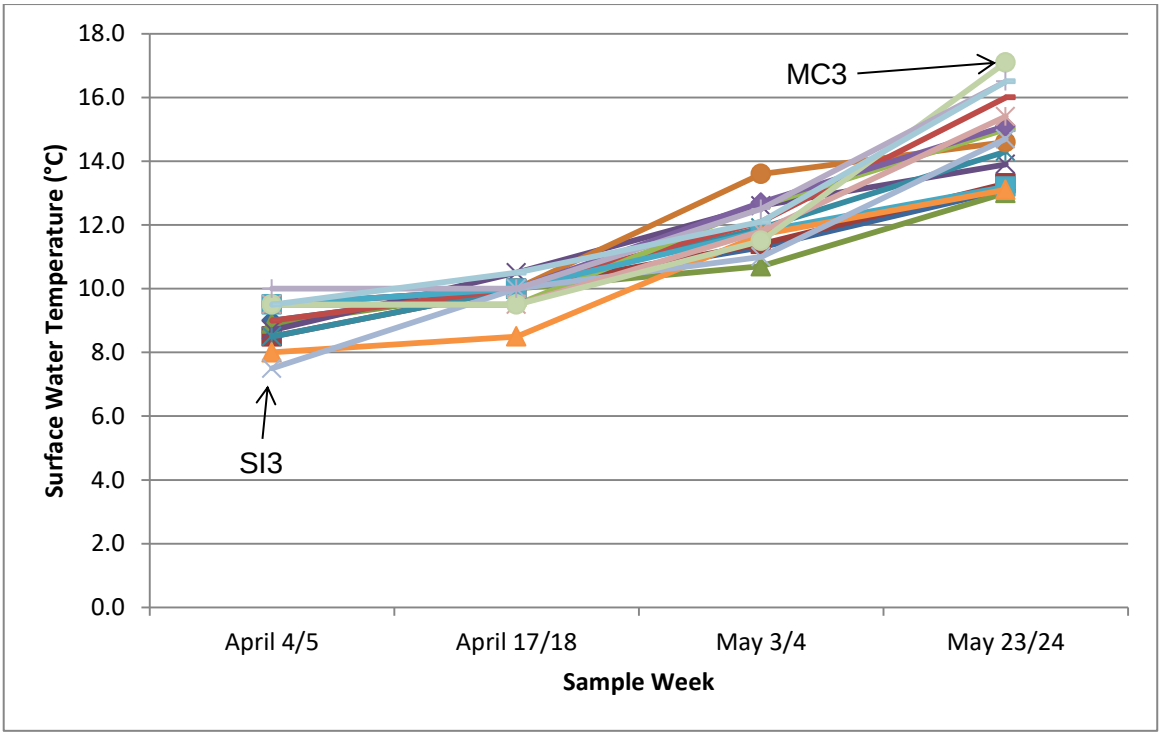

Figure 3: Surface water temperature recorded at 16 beach seine sites in Clayoquot Sound, BC between April 4, 2018 and May 24, 2018.

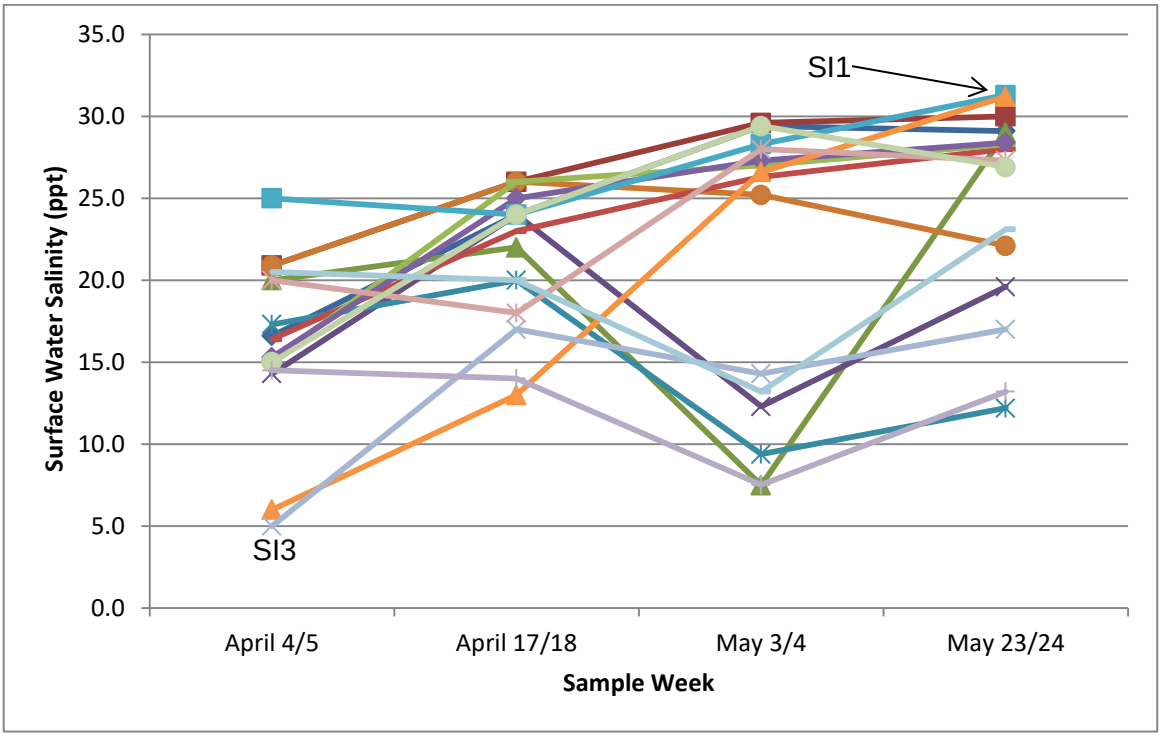

Figure 4: Salinity measurements recorded at 16 beach seine sites in Clayoquot Sound, BC between April 4, 2018 and May 24, 2018.

3.2 Fish Sample Composition

A total of 7,470 fish were captured during beach seine sampling conducted in Clayoquot Sound, BC in 2018 (Table 2). A summary of the total number of fish captured and collected as specimens at each site over the collection period can be found in Table 3. Totals of fish captured and collected specimens at each site over the entire collection period can be found in Appendix II. Only chum salmon, coho salmon, pink salmon and threespine stickleback were retained as sample specimens and underwent analysis for sea lice infestation. Of the 7,250 chum salmon captured, 696 individual chum salmon (9.6 %) were retained and underwent lab analysis. Of the 157 coho salmon captured 45 (28.7 %) individuals were retained and kept for lab analysis. The single pink salmon and the three threespine stickleback captured were retained and kept for analysis.

Chum salmon (*O. keta*) smolts were captured in significantly greater numbers than any other species. A total of 7,250 chum salmon were captured, representing 97.1 % of all captured salmonids. Coho salmon were the next most commonly caught species with a total capture of 157 fish (2.1 %) followed by chinook and pink salmon (Table 2).

Table 2: The total of collected individuals of each fish species captured in Clayoquot Sound, BC in April and May 2018, and the percentage of the total capture population that they represent.

Common Name	Capture Totals (% of total capture population)	Collection Totals	Collection %
chum salmon	7250 (97.1 %)	696	9.6
coho salmon	157 (2.1 %)	45	28.7
chinook salmon (not retained for analysis)	59 (0.8 %)	0	0
pink salmon	1 (0.01 %)	1	100
threespine stickleback	3 (0.04 %)	3	100
All species	**7470**	**745**	**10.0**

Table 3: The number of captured fish (Capture Total) and the number of individual fish collected (Sample Total) from each of the 16 sample sites in Clayoquot Sound, BC in April and May 2018.

SITE	Chum		Coho		Chinook		Pink		TSB		Capture Total	Sample Total
	Capture Total	Sample Total	Capture Total	Sample Total	Capture Total	Sample Total	Capture Total	Sample Total	Capture Total	Sample Total		
SI1	39	30	0	0	1	0	0	0	0	0	40	30
SI2	62	57	0	0	2	0	1	1	0	0	65	58
SI3	100	42	143	31	31	0	0	0	0	0	274	73
MC1	13	13	0	0	1	0	0	0	0	0	14	13
MC3	31	31	0	0	0	0	0	0	0	0	31	31
HI1	125	79	1	1	4	0	0	0	0	0	130	80
HI2	62	43	0	0	2	0	0	0	0	0	64	43
BS1	642	67	0	0	0	0	0	0	3	3	645	70
BS2	557	32	4	4	0	0	0	0	0	0	561	36
BS3	259	47	0	0	14	0	0	0	0	0	273	47
BS4	417	42	0	0	2	0	0	0	0	0	419	42
BS5	623	90	0	0	2	0	0	0	0	0	625	90
BS6	4163	78	1	1	0	0	0	0	0	0	4164	79
FC2	146	34	1	1	0	0	0	0	0	0	147	35
FC3	10	10	4	4	0	0	0	0	0	0	14	14
FC4	1	1	3	3	0	0	0	0	0	0	4	4
Total	**7250**	**696**	**157**	**45**	**59**	**0**	**1**	**1**	**3**	**3**	**7470**	**745**

3.3 Fish Sample Size Statistics

Summary statistics for the sample population of juvenile salmonids were completed for weight and fork length. This was completed for chum and coho salmon only as there were insufficient numbers of pink salmon and threespine stickleback to warrant this analysis.

3.3.1 Chum salmon

Analysis of weight and fork length data was completed for the chum salmon sample population collected in Clayoquot Sound in 2018. The weight of 696 chum smolts collected during the four sampling events ranged from 0.3 g to 7.1 g and averaged 0.8 g (SD = 0.5). The fork length of the chum smolts ranged from 31 mm to 85 mm and averaged 38 mm (SD = 5.7).

3.3.2 Coho salmon

Analysis of weight and fork length data was completed for the coho salmon sample population collected in Clayoquot Sound in 2018. The weight of 45 coho smolts collected during the four sampling events ranged from 5.8 g to 30.4 g and averaged 11.5 g (SD = 4.8). The fork length of the chum smolts ranged from 76 mm to 135 mm and averaged 92 mm (SD = 11.7).

3.4 Sea Lice Infestation

The results of the laboratory analysis for the presence of sea lice on the sample population collected in Clayoquot Sound in 2018 are presented in Table 4. The data recorded for each fish in the sample population during lab analysis is included in Appendix III. A total of 745 samples were collected at 16 sites in Clayoquot Sound in 2018 and were inspected for sea lice infestation. A total of 305 individuals in the sample population were found to be infested with 1321 sea lice (Table 4). A total of 284 chum smolts, 18 coho salmon and three threespine stickleback were found to be infested with sea lice (Table 4). No sea lice were found on the single pink salmon sample analyzed in the lab. This data reflects the identification of sea lice of either species (*L. salmonis and C. clemensi*) on inspected juvenile salmon.

Prevalence was defined as the number of fish found to be infested with one or more sea louse compared to the total number of fish. Abundance was defined as the total number of sea lice observed compared to the total number of fish. The sea lice prevalence in the sample population collected in Clayoquot Sound in 2018 was 40.9 %, and the abundance was 1.80 (Table 4). Sea lice counts of both species observed (*L. salmonis and C. clemensi*) were added together for the prevalence and abundance calculations for the entire sample population.

The intensity of sea lice infestation, as defined as the number of sea lice on a single sample, ranged from one louse found on 123 individuals to a maximum of 43 lice found on one individual. The average intensity was calculated by dividing the total number of sea lice by the number of infested fish which was 4.4 for chum salmon, 3.4 for coho salmon and 2.0 for threespine stickleback (Table 4).

Table 4: Results of analysis for sea lice infestation on the sample population collected by beach seine in Clayoquot Sound, BC in 2018.

Species	Sample size (n)	Total number of lice observed	Total number of fish infested	Prevalence (%)	Abundance	Average Intensity
chum	696	1254	284	40.8	1.80	4.4
coho	45	61	18	40.0	1.36	3.4
pink	1	0	0	0	0	0
threespine stickleback	3	6	3	100.0	2.00	2.0
Total	**745**	**1321**	**305**	**40.9**	**1.77**	**4.3**

3.4.1 Infestation Rates on Chum Salmon

A total of 696 chum salmon collected at 16 sites within Clayoquot Sound over four sample weeks were inspected for sea lice infestation. The results of the laboratory analysis are presented in Table 5 for each sample period by site for chum salmon. A total of 284 chum salmon were found to be infested with 1254 sea lice. This data reflects the identification of sea lice of either species (*L. salmonis and C. clemensi*) on inspected chum salmon. The largest number of chum salmon infested with sea lice (104 chum) and the greatest number of sea lice (506 sea lice) were found on samples collected on May 3/4, 2018 (Table 5). Site HI1 had the highest number of infested chum salmon (45) and site HI2 had the largest number of lice (353) found on 33 fish (Table 5).

Sea lice counts of both species observed (*L. salmonis and C. clemensi*) were added together for the presentation of prevalence, abundance and intensity calculations.

Prevalence was defined as the number of fish found to have one or more sea louse compared to the total number of fish. A total of 284 chum salmon were found to be infested with at least one louse. The prevalence of sea lice on the chum salmon sample (n=696) collected in Clayoquot Sound in 2018 was 40.8 %. Sea lice prevalence was calculated by site and is presented in Table 6. Sea lice prevalence calculated by site was highly variable ranging from a low of 7.8 % at site BS5 to a high of 100 % at site FC4.

A total of 1254 sea lice were identified during laboratory analysis of retained chum salmon. Abundance was defined as the total number of sea lice observed compared to

the total number of fish. The abundance of sea lice on the chum salmon sample population (n=696) collected in Clayoquot Sound in 2018 was 1.80. Sea lice abundance was calculated by site and is presented in Table 6. Sea lice abundance calculated by site was also highly variable ranging from a low of 0.13 at site BS5 to a high of 8.2 at HI2.

The calculated average intensity of sea lice infestation for the chum salmon sample population was 4.4 (Table 4). The intensity of sea lice infestation, as defined as the number of sea lice on a single salmon, ranged from one louse found on 116 individuals to a maximum of 43 lice found on one juvenile chum salmon. The percentage of the chum salmon sample population with the number of sea lice per sample was graphed and is presented in Figure 5. As shown in this graph, 59.2 % of the chum sample population were not infested with sea lice, 30.6 % were infested with less than five sea lice and 10.1 % of the chum salmon sample population was infested with five or more sea lice.

The sampled sites were also grouped by sampling area and sea lice prevalence, abundance and intensity were calculated for the chum salmon sample population collected in in these areas (Table 7).

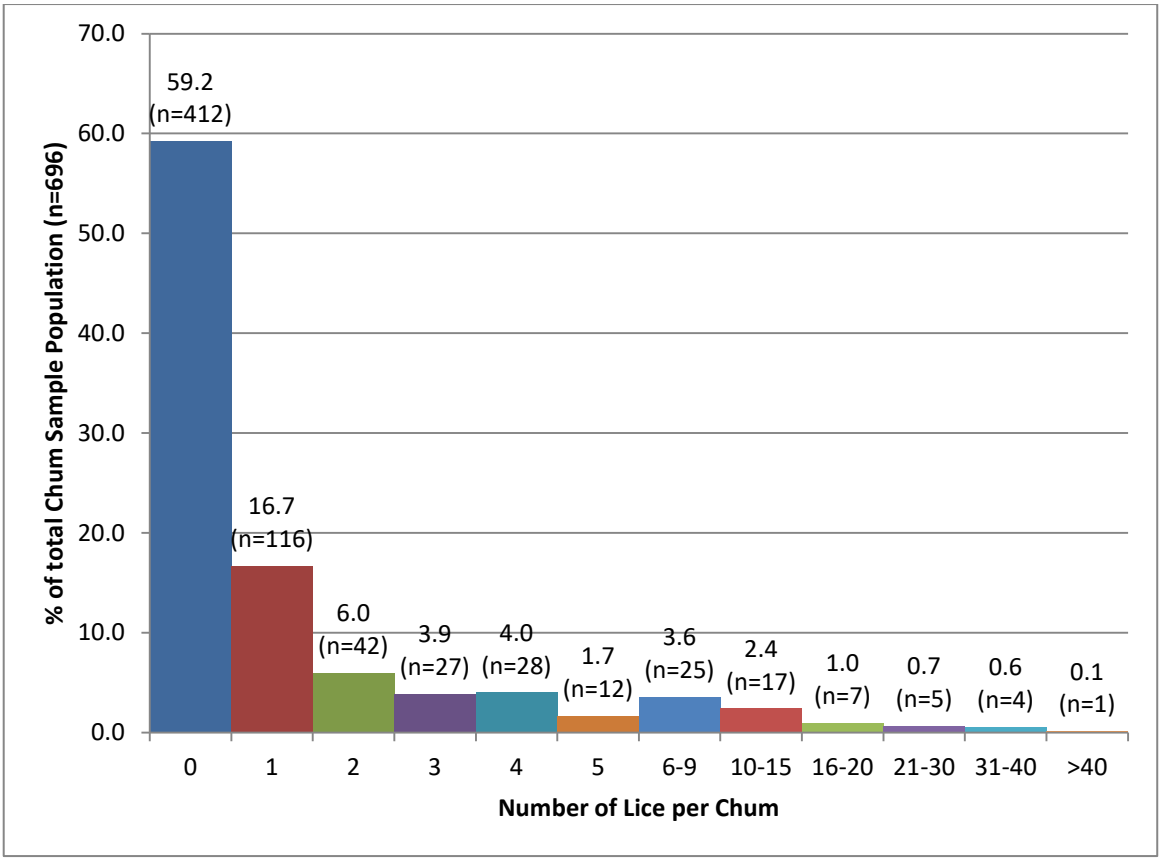

Figure 5: The number of sea lice per chum salmon graphed as a percentage of the total chum sample population collected in Clayoquot Sound in 2018.

Table 5: The number of sea lice found on chum salmon collected in Clayoquot Sound in 2018 summarized by the 16 sites where beach seining was conducted.

Site	Sample Week												TOTAL		
	April 4/5, 2018			April 17/18, 2018			May 3/4, 2018			May 23/24, 2018					
	# of Chum Analyzed	# of Infested Chum	# of Lice	# of Chum Analyzed	# of Infested Chum	# of Lice	# of Chum Analyzed	# of Infested Chum	# of Lice	# of Chum Analyzed	# of Infested Chum	# of Lice	**# of Chum Analyzed**	**# of Infested Chum**	**# of Lice**
SI1	30	13	33	0	0	0	0	0	0	0	0	0	**30**	**13**	**33**
SI2	5	0	0	30	8	9	22	19	138	0	0	0	**57**	**27**	**147**
SI3	4	1	1	30	7	13	8	3	6	0	0	0	**42**	**11**	**20**
MC1	12	2	5	0	0	0	1	1	3	0	0	0	**13**	**3**	**8**
MC3	10	7	25	21	10	35	0	0	0	0	0	0	**31**	**17**	**60**
HI1	0	0	0	0	0	0	49	28	170	30	17	108	**79**	**45**	**278**
HI2	0	0	0	9	1	6	4	4	19	30	28	328	**43**	**33**	**353**
BS1	7	2	7	30	14	47	30	28	107	0	0	0	**67**	**44**	**161**
BS2	0	0	0	30	11	21	2	1	9	0	0	0	**32**	**12**	**30**
BS3	31	12	13	14	2	15	2	0	0	0	0	0	**47**	**14**	**28**
BS4	30	3	3	0	0	0	10	7	16	2	1	10	**42**	**11**	**29**
BS5	30	6	7	30	0	0	30	1	5	0	0	0	**90**	**7**	**12**
BS6	30	7	16	30	9	13	17	12	33	1	1	3	**78**	**29**	**65**
FC2	34	14	23	0	0	0	0	0	0	0	0	0	**34**	**14**	**23**
FC3	0	0	0	10	3	3	0	0	0	0	0	0	**10**	**3**	**3**
FC4	0	0	0	0	0	0	0	0	0	1	1	4	**1**	**1**	**4**
TOTAL	**223**	**67**	**133**	**234**	**65**	**162**	**175**	**104**	**506**	**64**	**48**	**453**	**696**	**284**	**1254**

Table 6: Calculated sea lice prevalence, abundance and intensity by site as determined for chum salmon collected in Clayoquot Sound, BC in 2018.

Site	# of Chum Analyzed	# of Infested Chum	# of Lice	Sea Lice Prevalence (%)	Sea Lice Abundance	Sea Lice Intensity
SI1	30	13	33	43.3	1.10	2.5
SI2	57	27	147	47.4	2.58	5.4
SI3	42	11	20	26.2	0.48	1.8
MC1	13	3	8	23.1	0.62	2.7
MC3	31	17	60	54.8	1.94	3.5
HI1	79	45	278	57.0	3.52	6.2
HI2	43	33	353	76.7	8.21	10.7
BS1	67	44	161	65.7	2.40	3.7
BS2	32	12	30	37.5	0.94	2.5
BS3	47	14	28	29.8	0.60	2.0
BS4	42	11	29	26.2	0.69	2.6
BS5	90	7	12	7.8	0.13	1.7
BS6	78	29	65	37.2	0.83	2.2
FC2	34	14	23	41.2	0.68	1.6
FC3	10	3	3	30.0	0.30	1.0
FC4	1	1	4	100.0	4.00	4.0
TOTAL	**696**	**284**	**1254**	**40.8**	**1.80**	**4.4**

Table 7: Calculated sea lice prevalence, abundance and intensity by sampling area as determined for chum salmon collected in Clayoquot Sound, BC in 2018.

Sampling Area (# of Sites)	# of Chum Analyzed	# of Infested Chum	# of Lice	Sea Lice Prevalence (%)	Sea Lice Abundance	Sea Lice Intensity
SI (3)	129	51	200	39.5	1.55	3.9
MC (2)	44	20	68	45.5	1.55	3.4
HI (2)	122	78	631	63.9	5.17	8.1
BS (6)	356	117	325	32.9	0.91	2.8
FC (3)	45	18	30	40.0	0.67	1.7
TOTAL	**696**	**284**	**1254**	**40.8**	**1.80**	**4.4**

3.4.2 Infestation Rates of Coho Salmon

A total of 45 coho salmon collected at 16 sites within Clayoquot Sound over the four sample weeks were inspected for sea lice infestation. The results of the laboratory analysis are presented in Table 8 for each sample period by site for coho salmon. A total of 18 coho salmon were found to be infested with 61 sea lice (Table 8). This data reflects the identification of sea lice of either species (*L. salmonis and C. clemensi*) on inspected coho salmon and these combined numbers were used to calculate prevalence, abundance and intensity calculations. The largest number of coho salmon infested with sea lice (9) were collected during the May 3/4, 2018 sample week and the largest number of sea lice (35) were found on coho salmon collected during the May 23/24, 2018 sampling period (Table 8).

Prevalence was defined as the number of fish found to have one or more sea louse compared to the total number of fish. A total of 18 coho salmon were found to be infested with at least one louse. The prevalence of sea lice on the coho salmon sample (n=45) collected in Clayoquot Sound in 2018 was 40.0 %. Sea lice prevalence was calculated by site and is presented in Table 9. Sea lice prevalence calculated by site was highly variable ranging from a low of 29.0 % at site SI3 to a high of 100 % at sites HI1, BS6 and FC2.

A total of 61 sea lice were identified during laboratory analysis of retained coho salmon. Abundance was defined as the total number of sea lice observed compared to the total number of fish. The abundance of sea lice on the coho salmon sample population (n=45) collected in Clayoquot Sound in 2018 was 1.36. Sea lice abundance was calculated by site and is presented in Table 9. Sea lice abundance calculated by site was also highly variable ranging from a low of 0.61 at site SI3 to a high of 5.25 at site BS2.

The intensity of sea lice infestation, as defined as the number of sea lice on a single coho salmon, ranged from one louse found on five individuals to a maximum of ten lice found on one juvenile coho salmon. There were five coho salmon infested with two lice, one with three lice, two with four lice, one with five lice, two with six lice, and one with eight lice. The calculated sea lice intensity for the coho salmon sample population was 3.4.

Table 8: The number of sea lice found on coho salmon collected in Clayoquot Sound in 2018 summarized by the 16 sites where beach seining was conducted.

Site	Sample Week												**TOTAL**		
	April 4/5, 2018			April 17/18, 2018			May 3/4, 2018			May 23/24, 2018					
	# of Coho Analyzed	# of Infested Coho	# of Lice	# of Coho Analyzed	# of Infested Coho	# of Lice	# of Coho Analyzed	# of Infested Coho	# of Lice	# of Coho Analyzed	# of Infested Coho	# of Lice	**# of Coho Analyzed**	**# of Infested Coho**	**# of Lice**
SI1	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0**	**0**
SI2	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0**	**0**
SI3	0	0	0	0	0	0	30	8	18	1	1	1	**31**	**9**	**19**
MC1	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0**	**0**
MC3	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0**	**0**
HI1	0	0	0	0	0	0	0	0	0	1	1	4	**1**	**1**	**4**
HI2	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0**	**0**
BS1	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0**	**0**
BS2	0	0	0	0	0	0	0	0	0	4	3	21	**4**	**3**	**21**
BS3	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0**	**0**
BS4	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0**	**0**
BS5	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0**	**0**
BS6	0	0	0	0	0	0	1	1	3	0	0	0	**1**	**1**	**3**
FC2	0	0	0	0	0	0	0	0	0	1	1	1	**1**	**1**	**1**
FC3	0	0	0	4	2	5	0	0	0	0	0	0	**4**	**2**	**5**
FC4	0	0	0	0	0	0	0	0	0	3	1	8	**3**	**1**	**8**
TOTAL	**0**	**0**	**0**	**4**	**2**	**5**	**31**	**9**	**21**	**10**	**7**	**35**	**45**	**18**	**61**

Table 9: Calculated sea lice prevalence, abundance and intensity by site as determined for coho salmon collected in Clayoquot Sound, BC in 2018.

Site	# of Coho Analyzed	# of Infested Coho	# of Lice	Sea Lice Prevalence (%)	Sea Lice Abundance	Sea Lice Intensity
SI1	0	0	0	-	-	-
SI2	0	0	0	-	-	-
SI3	31	9	19	29.0	0.61	2.1
MC1	0	0	0	-	-	-
MC3	0	0	0	-	-	-
HI1	1	1	4	100	4.00	4.0
HI2	0	0	0	-	-	-
BS1	0	0	0	-	-	-
BS2	4	3	21	75.0	5.25	7.0
BS3	0	0	0	-	-	-
BS4	0	0	0	-	-	-
BS5	0	0	0	-	-	-
BS6	1	1	3	100	3.00	3.0
FC2	1	1	1	100	1.00	1.0
FC3	4	2	5	50.0	1.25	2.5
FC4	3	1	8	33.3	2.67	8.0
TOTAL	**45**	**18**	**61**	**40.0**	**1.36**	**3.4**

3.5 Infestation Rates by Sea Lice Species

A total of 1286 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 293 individuals and 35 *Caligus clemensi* sea lice were found on 27 of the 745 samples analyzed in the lab (Appendix III). There were 14 salmon and one threespine stickleback that were infested with both *L. salmonis* and *C. clemensi*.

3.5.1 Infestation Rates by Sea Lice Species on Chum Salmon

An analysis of the species of sea lice identified on the 284 infested chum salmon collected in Clayoquot Sound in 2018 was completed and is presented in Table 10. A total of 1224 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 274 juvenile chum salmon and 30 *Caligus clemensi* sea lice were found on 24 of the juvenile chum salmon analyzed in the lab (Appendix III). There were 14 chum salmon infested with lice from both species. The analysis of the species of sea lice on infested chum salmon was also summarized by grouped sampling area and presented in Table 11.

Table 10: The number of sea lice in each life stage by species identified on chum salmon from Clayoquot Sound 2018. LEP = *Lepeophtheirus salmonis* CAL = *Caligus clemensi*

Life Stage[1]	Number of lice
LEP Co	330
LEP C1	607
LEP C2	216
LEP PAM	22
LEP PAF	27
LEP AM	12
LEP AF	10
TOTAL LEP	**1224**
CAL Co	4
CAL C1	17
CAL C2	4
CAL C3	3
CAL C4	2
CAL PAM	0
CAL PAF	0
CAL AM	0
CAL AF	0
TOTAL CAL	**30**

[1] Lice life stage codes: Co = copepodid, C1-4 = chalimus 1-4, PAM = pre-adult male, PAF = pre-adult female, AM = adult male, AF = adult female.

Table 11: The number of sea lice in each life stage by species identified on chum salmon grouped by collection area in Clayoquot Sound. LEP = *Lepeophtheirus salmonis* CAL = *Caligus clemensi*

Life Stage[1]	Sampling Area (Number of fish analyzed)					
	All Sites (696)	SI (129)	MC (44)	HI (122)	BS (356)	FC (45)
LEP Co	330	118	39	92	77	4
LEP C1	607	66	28	343	163	7
LEP C2	216	14	0	123	68	11
LEP PAM	22	0	0	22	0	0
LEP PAF	27	1	0	26	0	0
LEP AM	12	0	0	12	0	0
LEP AF	10	1	0	9	0	0
TOTAL LEP	**1224**	**200**	**67**	**627**	**308**	**22**
CAL Co	4	0	0	0	3	1
CAL C1	17	0	1	3	10	3
CAL C2	4	0	0	0	3	1
CAL C3	3	0	0	1	1	1
CAL C4	2	0	0	0	0	2
CAL PAM	0	0	0	0	0	0
CAL PAF	0	0	0	0	0	0
CAL AM	0	0	0	0	0	0
CAL AF	0	0	0	0	0	0
TOTAL CAL	**30**	**0**	**1**	**4**	**17**	**8**

[1] Lice life stage codes: Co = copepodid, C1-4 = chalimus 1-4, PAM = pre-adult male, PAF = pre-adult female, AM = adult male, AF = adult female.

3.5.2 Infestation Rates by Sea Lice Species on Coho Salmon

An analysis of the species of sea lice identified on the 18 infested coho salmon collected in Clayoquot Sound in 2018 was completed and is presented in Table 12. A total of 60 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 17 juvenile coho salmon and one *Caligus clemensi* sea louse was found on one of the juvenile coho salmon analyzed in the lab (Appendix III). There were no coho salmon infested with lice from both species.

Table 12: The number of sea lice in each life stage by species identified on coho salmon from Clayoquot Sound 2018. LEP = *Lepeophtheirus salmonis* CAL = *Caligus clemensi*

Life Stage[1]	Number of lice
LEP Co	13
LEP C1	24
LEP C2	12
LEP PAM	1
LEP PAF	8
LEP AM	2
LEP AF	0
TOTAL LEP	**60**
CAL Co	0
CAL C1	0
CAL C2	1
CAL C3	0
CAL C4	0
CAL PAM	0
CAL PAF	0
CAL AM	0
CAL AF	0
TOTAL CAL	**1**

[1] Lice life stage codes: Co = copepodid, C1-4 = chalimus 1-4, PAM = pre-adult male, PAF = pre-adult female, AM = adult male, AF = adult female.

4.0 Conclusions

This report presents the data from the fourth year of beach seining and sea lice analysis conducted for wild juvenile salmonid monitoring in Clayoquot Sound, BC by Cermaq Canada. This report is limited to the summary and presentation of the 2018 collected data.

A total of 742 juvenile salmonids and three threespine stickleback underwent analysis for sea lice infestation including 696 chum salmon, 45 coho salmon and one pink salmon. No Atlantic salmon (*Salmo salar*) were captured during sampling completed in Clayoquot Sound in 2018.

From the total sample population 305 samples were infested with 1321 sea lice. The calculated prevalence for the total sample population was 40.9 % and the sea lice abundance was 1.77 for the sample population collected in Clayoquot Sound in 2018.

Chum salmon smolts were captured in significantly greater numbers than any other species. A total of 7,250 chum salmon were captured, representing 97.1 % of all captured samples. Of the 7,250 chum captured, 696 were kept for lab analysis for sea lice infestation. A total of 284 chum smolts were found to be infested with a total of 1254 lice resulting in a calculated prevalence of 40.8 %, abundance of 1.80 and an average intensity of 4.4 for the chum sample population.

A total of 157 coho salmon were captured, representing 2.1 % of all captured salmonids. Of the 157 coho captured, 45 were kept for lab analysis for sea lice infestation. A total of 18 coho smolts were found to be infested with a total of 61 lice resulting in a calculated prevalence of 40.0 %, abundance of 1.36 and an average intensity of 3.4 for the coho salmon sample population.

One pink salmon was captured and retained for sea lice analysis. No sea lice were found on this single sample.

Three threespine stickleback were captured and retained for sea lice analysis. All three samples were found to be infested with a total of six lice resulting in a calculated prevalence of 100 %, abundance of 2.00 and an average intensity of 2.0 for the stickleback sample population.

A total of 1286 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 293 individuals and 35 *Caligus clemensi* sea lice were found on 27 of the 745 samples analyzed in the lab. There were 14 salmon and one threespine stickleback that were infested with both *L. salmonis* and *C. clemensi*.

For the chum salmon sample population, a total of 1224 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 274 juvenile chum salmon and 30 *Caligus clemensi* sea lice were found on 24 of the juvenile chum salmon analyzed in the lab. There were 14 chum salmon infested with lice from both species.

For the coho salmon sample population, a total of 60 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 17 juvenile coho salmon and one *Caligus clemensi* sea louse was found on one of the juvenile coho salmon analyzed in the lab. There were no coho salmon infested with lice from both species.

5.0 References

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Appendix I – Field Data

Date	Time	Site Name	Salinity (ppt) 0.2 m	Temperature (° C) 0.2 m
04/04/18	8:25	BS-2	16.6	9.0
04/04/18	8:45	BS-1	20.9	8.5
04/04/18	9:15	BS-3	20.0	8.9
04/04/18	9:45	BS-4	14.3	8.7
04/04/18	10:15	BS-5	17.3	8.5
04/04/18	10:45	BS-6	20.9	9.5
04/04/18	11:25	FC-4	16.4	9.0
04/04/18	12:00	FC-2	15.1	9.5
04/04/18	12:20	FC-3	15.3	9.5
04/05/18	9:00	SI-1	25.0	9.5
04/05/18	9:20	SI-2	6.0	8.0
04/05/18	9:50	SI-3	5.0	7.5
04/05/18	10:15	MC-1	20.0	9.5
04/05/18	10:45	MC-3	15.0	9.5
04/05/18	11:20	HI-1	14.5	10.0
04/05/18	11:45	HI-2	20.5	9.5
04/17/18	10:55	BS-2	24.0	10.0
04/17/18	11:20	BS-1	26.0	10.0
04/17/18	11:47	BS-3	22.0	10.0
04/17/18	12:17	BS-4	24.0	10.5
04/17/18	12:44	BS-5	20.0	10.0
04/17/18	13:30	FC-4	23.0	10.0
04/17/18	13:50	FC-2	26.0	9.5
04/17/18	14:06	FC-3	25.0	10.0
04/17/18	14:30	BS-6	26.0	10.0
04/18/18	8:22	SI-1	24.0	10.0
04/18/18	8:36	SI-2	13.0	8.5
04/18/18	9:05	SI-3	17.0	10.0
04/18/18	9:34	MC-1	18.0	9.5
04/18/18	9:55	MC-3	24.0	9.5
04/18/18	10:30	HI-1	14.0	10.0
04/18/18	10:55	HI-2	20.0	10.5
05/03/18	8:56	BS-2	29.4	11.3
05/03/18	9:35	BS-1	29.6	11.4
05/03/18	10:03	BS-3	7.5	10.7
05/03/18	10:38	BS-4	12.3	12.6
05/03/18	11:10	BS-5	9.4	11.9
05/03/18	11:42	FC-4	26.3	12.1
05/03/18	12:09	FC-2	27.0	12.6
05/03/18	12:25	FC-3	27.3	12.7
05/03/18	13:09	BS-6	25.2	13.6
05/04/18	8:58	SI-1	28.3	11.8
05/04/18	9:13	SI-2	26.6	11.7

Date	Time	Site Name	Salinity (ppt) 0.2 m	Temperature (° C) 0.2 m
05/04/18	9:46	SI-3	14.3	11.0
05/04/18	10:25	MC-1	28.0	11.8
05/04/18	10:47	MC-3	29.4	11.5
05/04/18	11:20	HI-1	7.5	12.5
05/04/18	11:46	HI-2	13.2	12.1
05/23/18	9:45	BS-3	29.0	13.0
05/23/18	10:10	BS-1	30.0	13.3
05/23/18	10:25	BS-2	29.1	13.1
05/23/18	10:55	BS-4	19.6	13.9
05/23/18	11:20	BS-5	12.2	14.3
05/23/18	12:00	FC-4	28.0	16.0
05/23/18	12:25	FC-2	28.3	15.0
05/23/18	12:40	FC-3	28.4	15.1
05/23/18	13:05	BS-6	22.1	14.6
05/24/18	10:00	SI-1	31.3	13.2
05/24/18	10:25	SI-2	31.2	13.1
05/24/18	10:55	SI-3	17.0	14.7
05/24/18	11:25	MC-1	27.3	15.4
05/24/18	11:45	MC-3	26.9	17.1
05/24/18	12:15	HI-1	13.2	16.5
05/24/18	12:50	HI-2	23.1	16.5

Appendix II – Capture and Collection Sample Totals

Date	Time	Site Name	Weather Comments	Tide Stage	Pink Captured	Pink Retained	Chum Captured	Chum Retained	Coho Captured	Coho Retained	Chinook Captured	Chinook Retained	Sockeye Captured	Sockeye Retained	TSB Captured	TSB Retained	Salmonid Mortalities	Comments
04/04/18	8:25	BS-2	Calm, overcast	Low	0	0	0	0	0	0	0	0	0	0	0	0	0	4 sculpins
04/04/18	8:45	BS-1	Calm, overcast	Low	0	0	7	7	0	0	0	0	0	0	3	3	0	3 lingcod, 2 juvenile rockfish
04/04/18	9:15	BS-3	Calm, overcast	Low	o	o	243	30	0	0	1	0	0	0	0	0	0	1 cutthroat trout (250mm), 1 cutthroat trout (380mm), 6 green crab (destroyed)
04/04/18	9:45	BS-4	Calm, overcast	Low	0	0	405	30	0	0	0	0	0	0	0	0	2	3 pipefish, 2 sculpins
04/04/18	10:15	BS-5	Calm, overcast	Low	0	0	335	30	0	0	0	0	0	0	0	0	3	No bycatch
04/04/18	10:45	BS-6	Calm, light rain	Low	0	0	445	30	0	0	0	0	0	0	0	0	0	1 shiner perch, 2 juvenile rockfish
04/04/18	11:15	FC-5	Calm, light rain	Low	0	0	0	0	0	0	0	0	0	0	0	0	0	Aborted set due to strong tide
04/04/18	11:25	FC-4	Calm, light rain	Low	0	0	0	0	0	0	0	0	0	0	0	0	0	1 sculpin
04/04/18	12:00	FC-2	Calm, light rain	Low	0	0	146	30	0	0	0	0	0	0	4	4	0	12 herring, 2 lingcod, 2 flounder
04/04/18	12:20	FC-3	Calm, light rain	Low	0	0	0	0	0	0	0	0	0	0	0	0	0	3 sculpin
04/05/18	9:00	SI-1	Windy, rain	Mid	0	0	39	30	0	0	1	0	0	0	0	0	0	4 pipefish, 4 lingcod, 3 flounder
04/05/18	9:20	SI-2	Light wind, rain	Mid	1	1	5	5	0	0	0	0	0	0	0	0	0	24 flunder, 4 pipefish, 12 sculpin
04/05/18	9:50	SI-3	Calm, rain	Mid	0	0	4	4	0	0	5	0	0	0	0	0	0	1 lingcod, 4 sculpin, 1 green crab, 1 red rock crab
04/05/18	10:15	MC-1	Calm, rain	Mid	0	0	12	12	0	0	0	0	0	0	0	0	0	12 tubesnout, 10 chum caught in fold
04/05/18	10:45	MC-3	Calm, rain	Low	0	0	10	10	0	0	0	0	0	0	0	0	0	8 pipefish, 8 sculpin
04/05/18	11:20	HI-1	Calm, rain	Low	0	0	25	25	0	0	0	0	0	0	0	0	0	5 pipefish, 2 sculpin
04/05/18	11:45	HI-2	Calm rain	Low	0	0	0	0	0	0	0	0	0	0	0	0	0	No fish caught
04/17/18	10:55	BS-2	Calm, overcast	Low	0	0	575	30	0	0	0	0	0	0	0	0	2	40 sandlance, 1 sculpin
04/17/18	11:20	BS-1	Calm, partly cloudy	Mid	0	0	370	30	0	0	0	0	0	0	0	0	0	50 flounder, 1 sculpin
04/17/18	11:47	BS-3	Calm, partly cloudy	Mid	0	0	14	14	0	0	0	0	0	0	0	0	0	1 rockfish, 1 pipefish, 1 Cutthroat trout, 1 juvenile lingcod
04/17/18	12:17	BS-4	Calm, overcast	Mid	0	0	0	0	0	0	0	0	0	0	0	0	0	1 shiner perch
04/17/18	12:44	BS-5	Overcast, slight chop	Mid	0	0	168	30	0	0	0	0	0	0	0	0	0	
04/17/18	13:30	FC-4	Calm, overcast	High	0	0	0	0	0	0	0	0	0	0	0	0	0	Strong tide
04/17/18	13:50	FC-2	Calm, overcast	High	0	0	0	0	0	0	0	0	0	0	0	0	0	2 cuttroat trout, 1 pipefish
04/17/18	14:06	FC-3	Calm, overcast	High	0	0	10	10	0	0	0	0	0	0	0	0	0	
04/17/18	14:30	BS-6	Calm, light rain	High	0	0	3700	30	0	0	0	0	0	0	0	0	1	
04/18/18	8:22	SI-1	Calm, clear	Low	0	0	0	0	0	0	0	0	0	0	0	0	0	1 sandlance, 4 flounder, 1 rockfish
04/18/18	8:36	SI-2	Calm, clear	Low	0	0	35	30	0	0	1	0	0	0	0	0	0	3 flounder, 7 pipefish
04/18/18	9:05	SI-3	Calm, clear	Low	0	0	88	30	0	0	0	0	0	0	0	0	0	4 flounder, 1 cuttroat trout, 1 sea star
04/18/18	9:34	MC-1	Calm, clear	Low	0	0	0	0	0	0	0	0	0	0	0	0	0	10 pipefish, 1 rockfish
04/18/18	9:55	MC-3	Calm, clear	Low	0	0	21	21	0	0	0	0	0	0	0	0	0	25 pipefish, 3 rockfish, 1 herring, 1 sea cucumber
04/18/18	10:30	HI-1	Calm, clear	Low	0	0	0	0	0	0	0	0	0	0	0	0	0	2 sculpin, 3 flounder, 1 green crab, 4 sea cucumber
04/18/18	10:55	HI-2	Calm, clear	Mid	0	0	9	9	0	0	1	0	0	0	0	0	0	25 sandlance, 1 sea cucumber
05/03/18	8:56	BS-2	Calm, cloudy	Mid	0	0	2	2	0	0	0	0	0	0	0	0	0	1 sculpin, 1 sandlance, 6 flatfish, 4 lingcod, 1 greenling, 1 rockfish, 1 unidentified fish
05/03/18	9:35	BS-1	Calm, cloudy	Mid	0	0	265	30	0	0	0	0	0	0	0	0	0	Stary flounder and pile perch. None retained due to site conditions
05/03/18	10:03	BS-3	Calm, cloudy	Mid	0	0	2	2	0	0	1	0	0	0	0	0	0	5 green crab, 3 lingcod, 2

Date	Time	Site Name	Weather Comments	Tide Stage	Pink Captured	Pink Retained	Chum Captured	Chum Retained	Coho Captured	Coho Retained	Chinook Captured	Chinook Retained	Sockeye Captured	Sockeye Retained	TSB Captured	TSB Retained	Salmonid Mortalities	Comments
																		sculpin, 2 flounder, 1 tube snout, 1 rockfish
05/03/18	10:38	BS-4	Calm, cloudy	Low	0	0	10	10	0	0	0	0	0	0	0	0	0	Captured 115 shiner perch, 1 lingcod / Retained 25 shiner perch, 1 lingcod
05/03/18	11:10	BS-5	Calm, cloudy	Mid	0	0	120	30	0	0	2	0	0	0	0	0	0	1 sculpin
05/03/18	11:42	FC-4	Calm, cloudy	Mid	0	0	0	0	0	0	0	0	0	0	0	0	0	1 sculpin, 1 herring
05/03/18	12:09	FC-2	Calm, cloudy	Mid	0	0	0	0	0	0	0	0	0	0	0	0	0	1 flounder, 1 tubesnout, 1 sculpin / released 11 Pile perch, 1 steelhead
05/03/18	12:25	FC-3	Calm, cloudy	Mid	0	0	0	0	4	4	0	0	0	0	0	0	0	4 tubesnout, 1 sculpin, 1 lingcod
05/03/18	13:09	BS-6	Calm, cloudy	Mid	0	0	17	17	1	1	0	0	0	0	0	0	0	10 surf perch, 1 lingcod, 1 rockfish, 1 unidentified fish
05/04/18	8:58	SI-1	Calm, rainy	Mid	0	0	0	0	0	0	0	0	0	0	0	0	0	7 tubesnout, 2 sculpin, 1 gunnel, 4 greenlings, 3 lingcod, 1 unidentified
05/04/18	9:13	SI-2	Calm, rainy	Mid	0	0	22	22	0	0	1	0	0	0	0	0	0	5 tubesnout, 7 sculpin, 2 flounder, 7 lingcod, 1 rockfish, 1 unidentified
05/04/18	9:46	SI-3	Calm, rainy	Low	0	0	8	8	142	30	9	0	0	0	0	0	0	5 lingcod, 1 sculpin, 1 flounder, 1 unidentified
05/04/18	10:25	MC-1	Calm, rainy	Low	0	0	1	1	0	0	0	0	0	0	0	0	0	Released 7 striped perch, 4 pile perch, 2 cutthroat trout / Retained 1 herring, 2 sculpin, 1 gunnel, 1 greenling
05/04/18	10:47	MC-3	Calm, cloudy	Mid	0	0	0	0	0	0	0	0	0	0	0	0	0	Released 5 tubesnout, 8 lingcod, 1 rockfish, 2 sculpin / Retained 2 sculpin, 3 tubesnout
05/04/18	11:20	HI-1	Calm, cloudy	Mid	0	0	24	24	0	0	4	0	0	0	0	0	0	1 sculpin
05/04/18	11:46	HI-2	Calm, cloudy	Mid	0	0	4	4	0	0	1	0	0	0	0	0	0	1 sculpin, 2 sandlance, 1 greenling
05/23/18	9:45	BS-3	Calm, low overcast	Mid	0	0	0	0	0	0	12	0	0	0	0	0	0	5 tubesnout, 2 sculpin released
05/23/18	10:10	BS-1	Calm, low overcast	Mid	0	0	0	0	0	0	0	0	0	0	0	0	0	30 juvenile flatfish, 1 pipefish
05/23/18	10:25	BS-2	Calm, low overcast	Mid	0	0	0	0	4	4	0	0	0	0	0	0	0	10 greenling, 1 rockfish, 2 sculpin released
05/23/18	10:55	BS-4	Calm, low overcast	Mid	0	0	2	2	0	0	2	0	0	0	0	0	0	40 sandlance, 2 lingcod, 4 sculpins released
05/23/18	11:20	BS-5	Calm, clear	Low	0	0	0	0	0	0	0	0	0	0	0	0	0	No fish caught, fish observed in deeper water past reef
05/23/18	11:35	FC-5	Calm, clear	Low	0	0	0	0	0	0	0	0	0	0	0	0	0	No set, too much tidal current
05/23/18	12:00	FC-4	Calm, clear	Low	0	0	1	1	3	3	0	0	0	0	0	0	0	4 pipefish, 4 lingcod, 3 flounder
05/23/18	12:25	FC-2	Calm, clear	Low	0	0	0	0	1	1	0	0	0	0	0	0	0	23 striped perch, 2 gunnels, 17 shiner perch, 2 sculpins, 21 rockfish, 2 cutthroat trout (150mm)
05/23/18	12:40	FC-3	Calm, clear	Low	0	0	0	0	0	0	0	0	0	0	0	0	0	3 sculpins, 10 flatfish, 1 gunnel, 2 cabezon released
05/23/18	13:05	BS-6	Calm, clear	Low	0	0	1	1	0	0	0	0	0	0	0	0	0	10 striped perch, 3 sculpins, 11 juvenile rockfish, 3 pipefish released
05/24/18	10:00	SI-1	Calm, low overcast	High	0	0	0	0	0	0	0	0	0	0	0	0	0	1 gunnel, 5 sculpin, 2 rockfish released
05/24/18	10:25	SI-2	Calm, low overcast	High	0	0	0	0	0	0	0	0	0	0	0	0	0	5 striped perch released

Date	Time	Site Name	Weather Comments	Tide Stage	Pink Captured	Pink Retained	Chum Captured	Chum Retained	Coho Captured	Coho Retained	Chinook Captured	Chinook Retained	Sockeye Captured	Sockeye Retained	TSB Captured	TSB Retained	Salmonid Mortalities	Comments
05/24/18	10:55	SI-3	Calm, partly overcast	High	0	0	0	0	1	1	17	0	0	0	0	0	0	3 sculpin, 1 pipefish, 2 cutthroat (150mm) released
05/24/18	11:25	MC-1	Calm, partly overcast	Mid	0	0	0	0	0	0	1	0	0	0	0	0	0	1 shiner perch
05/24/18	11:45	MC-3	Calm, clear	Mid	0	0	0	0	0	0	0	0	0	0	0	0	0	1 shiner perch, 1 pile perch, 5 surf perch released
05/24/18	12:15	HI-1	Calm, clear	Mid	0	0	76	30	1	1	0	0	0	0	0	0	0	2 herring released
05/24/18	12:50	HI-2	Calm, clear	Mid	0	0	49	30	0	0	0	0	0	0	0	0	0	

Appendix III – Sea Lice Analysis Data

DATE COLLECTED	SITE	FISH SPECIES	LENGTH IN MM	WEIGHT IN G	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	CAL Co	CAL C1	CAL C2	CAL C3	CAL C4	CAL PAM	CAL PAF	CAL AM	CAL AF
05/04/18	SI2	CM	38	0.5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI2	CM	34	0.4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI2	CM	40	0.6	7	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI2	CM	35	0.5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI2	CM	33	0.4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI2	CM	38	0.5	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI2	CM	35	0.4	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI2	CM	36	0.4	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI2	CM	37	0.3	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI2	CM	34	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI2	CM	42	0.9	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI2	CM	42	0.7	3	8	10	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI2	CM	34	0.5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI2	CM	38	0.4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI2	CM	36	0.4	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI2	CM	34	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI2	CM	38	0.6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI2	CM	35	0.4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI2	CM	36	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI2	CM	38	0.5	4	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI2	CM	40	0.9	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI2	CM	49	1.2	7	22	2	0	0	0	1	0	0	0	0	0	0	0	0	0
05/03/18	FC3	CO	97	12.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	FC3	CO	91	10.3	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	FC3	CO	102	14.0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
05/03/18	FC3	CO	94	10.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI3	CM	38	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI3	CM	40	0.7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI3	CM	40	0.8	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI3	CM	36	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI3	CM	40	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI3	CM	35	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI3	CM	45	1.0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI3	CM	38	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI3	CM	39	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI3	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI3	CM	41	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI3	CM	37	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI3	CM	38	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI3	CM	45	1.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

DATE COLLECTED	SITE	FISH SPECIES	LENGTH IN MM	WEIGHT IN G	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	CAL Co	CAL C1	CAL C2	CAL C3	CAL C4	CAL PAM	CAL PAF	CAL AM	CAL AF
04/18/18	SI3	CM	41	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI3	CM	37	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI3	CM	47	1.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI3	CM	42	0.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI3	CM	38	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI3	CM	38	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI3	CM	41	0.9	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI3	CM	40	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI3	CM	38	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI3	CM	39	0.7	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI3	CM	40	0.7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI3	CM	40	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI3	CM	38	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI3	CM	38	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI3	CM	40	0.8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI3	CM	42	1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS2	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS2	CM	48	1.2	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS2	CM	35	0.7	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS2	CM	36	0.5	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS2	CM	35	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS2	CM	35	0.6	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS2	CM	37	0.6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS2	CM	38	0.8	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS2	CM	38	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS2	CM	36	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS2	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS2	CM	40	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS2	CM	42	1.0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS2	CM	37	0.6	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04/17/18	BS2	CM	36	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS2	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS2	CM	37	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS2	CM	37	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS2	CM	34	0.5	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS2	CM	35	0.6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS2	CM	33	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS2	CM	37	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS2	CM	38	0.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS2	CM	35	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS2	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS2	CM	36	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

DATE COLLECTED	SITE	FISH SPECIES	LENGTH IN MM	WEIGHT IN G	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	CAL Co	CAL C1	CAL C2	CAL C3	CAL C4	CAL PAM	CAL PAF	CAL AM	CAL AF
04/17/18	BS2	CM	36	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS2	CM	38	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS2	CM	41	1.0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS2	CM	37	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS4	CM	37	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS4	CM	43	1.2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS4	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS4	CM	48	1.5	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS4	CM	48	1.4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS4	CM	52	1.7	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS4	CM	50	1.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS4	CM	52	1.6	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS4	CM	43	1.2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS4	CM	47	1.5	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	33	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	37	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	40	0.9	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	36	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	35	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	39	0.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	35	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	35	0.6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	40	0.9	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
05/04/18	HI1	CM	37	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	34	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	36	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	32	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	34	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	36	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	36	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	35	0.6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	41	0.8	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	34	0.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	36	0.7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	37	0.7	0	12	16	1	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	65	3.5	5	10	8	7	4	1	3	0	0	0	0	0	0	0	0	0
04/04/18	BS5	CM	37	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS5	CM	34	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS5	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS5	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

DATE COLLECTED	SITE	FISH SPECIES	LENGTH IN MM	WEIGHT IN G	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	CAL Co	CAL C1	CAL C2	CAL C3	CAL C4	CAL PAM	CAL PAF	CAL AM	CAL AF
04/04/18	BS5	CM	36	0.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS5	CM	33	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS5	CM	35	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS5	CM	37	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS5	CM	34	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS5	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS5	CM	39	0.8	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS5	CM	33	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS5	CM	36	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS5	CM	34	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS5	CM	36	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS5	CM	34	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS5	CM	37	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS5	CM	33	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS5	CM	38	0.7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS5	CM	37	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS5	CM	36	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS5	CM	36	0.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS5	CM	39	0.7	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS5	CM	33	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS5	CM	35	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS5	CM	38	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS5	CM	40	0.8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS5	CM	38	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS5	CM	36	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS5	CM	36	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	SI3	CM	35	0.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	SI3	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	SI3	CM	37	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	SI3	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS6	CM	34	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS6	CM	33	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS6	CM	33	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS6	CM	31	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS6	CM	45	1.1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS6	CM	34	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS6	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS6	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS6	CM	35	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS6	CM	33	0.4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS6	CM	33	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS6	CM	33	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

DATE COLLECTED	SITE	FISH SPECIES	LENGTH IN MM	WEIGHT IN G	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	CAL Co	CAL C1	CAL C2	CAL C3	CAL C4	CAL PAM	CAL PAF	CAL AM	CAL AF
04/04/18	BS6	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS6	CM	37	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS6	CM	32	0.4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS6	CM	36	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS6	CM	38	0.9	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS6	CM	35	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS6	CM	31	0.4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS6	CM	33	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS6	CM	36	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS6	CM	31	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS6	CM	42	1.0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS6	CM	34	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS6	CM	40	1.1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS6	CM	33	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS6	CM	37	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS6	CM	32	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS6	CM	35	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS6	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/23/18	BS6	CM	40	0.8	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04/04/18	BS3	CM	38	0.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS3	CM	35	0.5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS3	CM	35	0.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS3	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS3	CM	32	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS3	CM	34	0.4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS3	CM	34	0.4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS3	CM	33	0.4	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
04/04/18	BS3	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS3	CM	35	0.4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS3	CM	38	0.6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS3	CM	33	0.4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS3	CM	34	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS3	CM	38	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS3	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS3	CM	33	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS3	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS3	CM	35	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS3	CM	34	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS3	CM	38	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS3	CM	35	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS3	CM	38	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS3	CM	40	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

DATE COLLECTED	SITE	FISH SPECIES	LENGTH IN MM	WEIGHT IN G	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	CAL Co	CAL C1	CAL C2	CAL C3	CAL C4	CAL PAM	CAL PAF	CAL AM	CAL AF
04/04/18	BS3	CM	35	0.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS3	CM	33	0.4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS3	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS3	CM	34	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS3	CM	37	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS3	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS3	CM	38	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS3	CM	40	0.8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS4	CM	35	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS4	CM	35	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS4	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS4	CM	33	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS4	CM	33	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS4	CM	36	0.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS4	CM	35	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS4	CM	33	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS4	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS4	CM	37	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS4	CM	35	0.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS4	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS4	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS4	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS4	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS4	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS4	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS4	CM	37	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS4	CM	38	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS4	CM	37	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS4	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS4	CM	37	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS4	CM	36	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS4	CM	33	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS4	CM	33	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS4	CM	37	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS4	CM	34	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS4	CM	35	0.6	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
04/04/18	BS4	CM	38	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS4	CM	38	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS6	CO	87	9.9	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0
05/23/18	BS4	CM	37	0.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/23/18	BS4	CM	35	0.6	0	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS2	CM	41	0.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

DATE COLLECTED	SITE	FISH SPECIES	LENGTH IN MM	WEIGHT IN G	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	CAL Co	CAL C1	CAL C2	CAL C3	CAL C4	CAL PAM	CAL PAF	CAL AM	CAL AF
05/03/18	BS2	CM	38	0.7	2	6	0	0	0	0	0	0	1	0	0	0	0	0	0	0
05/03/18	BS3	CM	33	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS3	CM	37	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	MC1	CM	38	0.8	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI2	CM	34	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI2	CM	33	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI2	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI2	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI2	CM	35	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI2	PK	32	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI2	CM	37	0.5	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI2	CM	37	0.8	2	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI2	CM	38	0.7	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI2	CM	34	0.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	HI2	CM	37	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	HI2	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	HI2	CM	36	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	HI2	CM	35	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	HI2	CM	37	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	HI2	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	HI2	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	HI2	CM	36	0.8	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/23/18	FC2	CO	87	9.1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
04/17/18	FC3	CM	38	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	FC3	CM	35	0.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	FC3	CM	33	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	FC3	CM	35	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	FC3	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	FC3	CM	35	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	FC3	CM	33	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	FC3	CM	38	0.9	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	FC3	CM	34	0.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	FC3	CM	35	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/23/18	BS2	CO	97	11.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/23/18	BS2	CO	93	13.0	0	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0
05/23/18	BS2	CO	88	8.0	1	5	3	0	0	1	0	0	0	0	0	0	0	0	0	0
05/23/18	BS2	CO	89	10.1	0	2	2	0	0	1	0	0	0	0	0	0	0	0	0	0
05/23/18	SI3	CO	135	30.4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS1	CM	35	0.5	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
04/04/18	BS1	CM	37	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS1	CM	43	0.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

DATE COLLECTED	SITE	FISH SPECIES	LENGTH IN MM	WEIGHT IN G	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	CAL Co	CAL C1	CAL C2	CAL C3	CAL C4	CAL PAM	CAL PAF	CAL AM	CAL AF
04/04/18	BS1	CM	38	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS1	CM	44	1.3	1	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS1	CM	36	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS1	CM	36	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS1	TSB	52	1.8	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
04/04/18	BS1	TSB	52	1.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	BS1	TSB	50	1.3	0	1	0	0	0	0	0	1	0	2	0	0	0	0	0	0
05/23/18	FC4	CM	43	1.2	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05/23/18	FC4	CO	99	12.9	0	3	1	1	3	0	0	0	0	0	0	0	0	0	0	0
05/23/18	FC4	CO	97	12.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/23/18	FC4	CO	95	11.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI1	CM	35	0.4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI1	CM	35	0.4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI1	CM	31	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI1	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI1	CM	36	0.6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI1	CM	35	0.5	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI1	CM	33	0.5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI1	CM	34	0.5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI1	CM	34	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI1	CM	32	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI1	CM	35	0.4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI1	CM	31	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI1	CM	37	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI1	CM	34	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI1	CM	34	0.3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI1	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI1	CM	34	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI1	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI1	CM	37	0.6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI1	CM	34	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI1	CM	39	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI1	CM	33	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI1	CM	33	0.4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI1	CM	33	0.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI1	CM	32	0.6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI1	CM	33	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI1	CM	35	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI1	CM	37	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI1	CM	33	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	SI1	CM	41	1.2	0	7	2	0	1	0	0	0	0	0	0	0	0	0	0	0
04/18/18	MC3	CM	33	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

DATE COLLECTED	SITE	FISH SPECIES	LENGTH IN MM	WEIGHT IN G	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	CAL Co	CAL C1	CAL C2	CAL C3	CAL C4	CAL PAM	CAL PAF	CAL AM	CAL AF
04/18/18	MC3	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	MC3	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	MC3	CM	37	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	MC3	CM	35	0.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	MC3	CM	33	0.5	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	MC3	CM	35	0.6	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	MC3	CM	31	0.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	MC3	CM	35	0.6	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	MC3	CM	36	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	MC3	CM	37	0.7	2	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	MC3	CM	35	0.7	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	MC3	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	MC3	CM	35	0.6	1	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	MC3	CM	37	0.8	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	MC3	CM	33	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	MC3	CM	35	0.6	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	MC3	CM	33	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	MC3	CM	37	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	MC3	CM	35	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	MC3	CM	36	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	MC1	CM	34	0.4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	MC1	CM	36	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	MC1	CM	35	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	MC1	CM	36	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	MC1	CM	33	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	MC1	CM	38	0.7	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	MC1	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	MC1	CM	34	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	MC1	CM	37	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	MC1	CM	33	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	MC1	CM	37	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	MC1	CM	33	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS3	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	BS3	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/19/18	BS3	CM	34	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/20/18	BS3	CM	34	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/21/18	BS3	CM	37	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/22/18	BS3	CM	36	0.6	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
04/23/18	BS3	CM	35	0.5	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/24/18	BS3	CM	36	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/25/18	BS3	CM	37	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/26/18	BS3	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

DATE COLLECTED	SITE	FISH SPECIES	LENGTH IN MM	WEIGHT IN G	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	CAL Co	CAL C1	CAL C2	CAL C3	CAL C4	CAL PAM	CAL PAF	CAL AM	CAL AF
04/27/18	BS3	CM	33	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/28/18	BS3	CM	35	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/29/18	BS3	CM	33	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/30/18	BS3	CM	34	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	MC3	CM	36	0.5	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	MC3	CM	35	0.5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	MC3	CM	35	0.4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	MC3	CM	35	0.7	0	3	0	0	0	0	0	0	1	0	0	0	0	0	0	0
04/05/18	MC3	CM	35	0.5	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	MC3	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	MC3	CM	35	0.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	MC3	CM	35	0.5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	MC3	CM	36	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/05/18	MC3	CM	37	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS6	CM	38	0.7	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0
05/03/18	BS6	CM	39	0.9	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
05/03/18	BS6	CM	37	0.7	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS6	CM	40	0.9	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS6	CM	33	1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS6	CM	34	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS6	CM	40	1.6	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS6	CM	34	0.6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS6	CM	37	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS6	CM	40	1.1	0	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0
05/03/18	BS6	CM	35	0.7	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS6	CM	35	0.6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS6	CM	35	0.8	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS6	CM	33	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS6	CM	47	1.5	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS6	CM	37	0.8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS6	CM	33	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	FC2	CM	39	1.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	FC2	CM	40	0.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	FC2	CM	39	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	FC2	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	FC2	CM	42	1.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	FC2	CM	37	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	FC2	CM	44	1.2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	FC2	CM	52	1.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	FC2	CM	40	0.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	FC2	CM	39	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	FC2	CM	46	1.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

DATE COLLECTED	SITE	FISH SPECIES	LENGTH IN MM	WEIGHT IN G	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	CAL Co	CAL C1	CAL C2	CAL C3	CAL C4	CAL PAM	CAL PAF	CAL AM	CAL AF
04/04/18	FC2	CM	42	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	FC2	CM	43	1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	FC2	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	FC2	CM	46	1.4	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0
04/04/18	FC2	CM	44	1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	FC2	CM	44	1.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	FC2	CM	42	1.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	FC2	CM	42	1.0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	FC2	CM	44	1.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	FC2	CM	4.3	1.0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0
04/04/18	FC2	CM	43	1.1	0	0	1	0	0	0	0	0	2	0	0	0	0	0	0	0
04/04/18	FC2	CM	40	0.8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	FC2	CM	48	1.7	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	FC2	CM	38	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	FC2	CM	43	1.2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	FC2	CM	45	1.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	FC2	CM	44	1.2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	FC2	CM	45	1.3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	FC2	CM	46	1.2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	FC2	CM	48	1.4	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
04/04/18	FC2	CM	45	0.9	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
04/04/18	FC2	CM	49	1.3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
04/04/18	FC2	CM	43	0.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS5	CM	36	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS5	CM	33	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS5	CM	33	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS5	CM	34	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS5	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS5	CM	33	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS5	CM	33	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS5	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS5	CM	35	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS5	CM	35	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS5	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS5	CM	33	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS5	CM	37	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS5	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS5	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS5	CM	33	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS5	CM	33	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS5	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS5	CM	35	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

DATE COLLECTED	SITE	FISH SPECIES	LENGTH IN MM	WEIGHT IN G	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	CAL Co	CAL C1	CAL C2	CAL C3	CAL C4	CAL PAM	CAL PAF	CAL AM	CAL AF
04/17/18	BS5	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS5	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS5	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS5	CM	33	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS5	CM	33	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS5	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS5	CM	35	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS5	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS5	CM	31	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS5	CM	37	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS5	CM	38	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS6	CM	38	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS6	CM	36	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS6	CM	40	1.0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS6	CM	33	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS6	CM	38	0.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS6	CM	37	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS6	CM	40	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS6	CM	40	0.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS6	CM	36	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS6	CM	40	0.7	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
04/17/18	BS6	CM	38	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS6	CM	39	0.9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS6	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS6	CM	32	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS6	CM	42	0.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS6	CM	35	0.7	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS6	CM	36	0.6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS6	CM	47	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS6	CM	32	1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS6	CM	35	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS6	CM	35	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS6	CM	37	0.7	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS6	CM	38	0.6	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0
04/17/18	BS6	CM	36	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS6	CM	38	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS6	CM	38	0.7	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS6	CM	46	1.5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS6	CM	38	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS6	CM	35	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS5	CM	33	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

DATE COLLECTED	SITE	FISH SPECIES	LENGTH IN MM	WEIGHT IN G	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	CAL Co	CAL C1	CAL C2	CAL C3	CAL C4	CAL PAM	CAL PAF	CAL AM	CAL AF
05/03/18	BS5	CM	36	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS5	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS5	CM	43	1.0	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS5	CM	40	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS5	CM	39	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS5	CM	38	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS5	CM	42	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS5	CM	37	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS5	CM	37	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS5	CM	38	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS5	CM	40	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS5	CM	43	1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS5	CM	36	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS5	CM	40	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS5	CM	37	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS5	CM	42	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS5	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS5	CM	38	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS5	CM	36	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS5	CM	34	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS5	CM	43	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS5	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS5	CM	36	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS5	CM	40	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS5	CM	40	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS5	CM	35	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS5	CM	33	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS5	CM	39	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS5	CM	35	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS1	CM	35	0.6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS1	CM	40	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS1	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS1	CM	36	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS1	CM	34	0.5	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS1	CM	34	0.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS1	CM	37	0.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS1	CM	47	1.4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS1	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS1	CM	36	0.6	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS1	CM	40	0.7	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS1	CM	37	0.7	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS1	CM	33	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

DATE COLLECTED	SITE	FISH SPECIES	LENGTH IN MM	WEIGHT IN G	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	CAL Co	CAL C1	CAL C2	CAL C3	CAL C4	CAL PAM	CAL PAF	CAL AM	CAL AF
04/17/18	BS1	CM	43	1.0	0	4	12	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS1	CM	37	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS1	CM	37	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS1	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS1	CM	35	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS1	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS1	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS1	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS1	CM	38	0.7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS1	CM	36	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS1	CM	36	0.7	1	4	0	0	0	0	0	0	1	0	0	0	0	0	0	0
04/17/18	BS1	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS1	CM	37	0.7	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS1	CM	35	0.5	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS1	CM	38	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS1	CM	34	0.4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/17/18	BS1	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI2	CM	46	1.3	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI2	CM	63	3.3	1	12	3	1	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI2	CM	51	1.8	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI2	CM	53	2.0	8	11	2	3	3	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI2	CM	50	2.0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI2	CM	49	1.7	1	6	3	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI2	CM	47	1.9		10	2	1	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI2	CM	57	2.7	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI2	CM	43	1.5	5	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI2	CM	48	1.8	2	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI2	CM	50	2.2	2	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI2	CM	46	1.5	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI2	CM	62	3.2	2	19	2	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI2	CM	52	2.2	1	11	3	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI2	CM	40	1.1	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI2	CM	45	1.3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI2	CM	42	1.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI2	CM	37	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI2	CM	42	1.2	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI2	CM	38	0.9	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI2	CM	49	1.6	1	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI2	CM	40	1.2	2	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI2	CM	45	1.4	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI2	CM	54	2.5	3	17	9	3	5	5	0	0	0	0	1	0	0	0	0	0
05/24/18	HI2	CM	50	1.9	2	6	4	0	0	0	0	0	0	0	0	0	0	0	0	0

DATE COLLECTED	SITE	FISH SPECIES	LENGTH IN MM	WEIGHT IN G	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	CAL Co	CAL C1	CAL C2	CAL C3	CAL C4	CAL PAM	CAL PAF	CAL AM	CAL AF
05/24/18	HI2	CM	62	3.6	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI2	CM	50	1.9	2	18	5	0	4	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI2	CM	56	2.8	0	10	2	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI2	CM	57	2.8	1	11	2	0	2	1	0	0	0	0	0	0	0	0	0	0
05/24/18	HI2	CM	58	3.2	0	13	3	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI2	CM	33	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI2	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI2	CM	37	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI2	CM	37	0.6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI2	CM	33	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI2	CM	37	0.5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI2	CM	35	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI2	CM	33	0.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI2	CM	37	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI2	CM	37	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI2	CM	36	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI2	CM	34	0.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI2	CM	36	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI2	CM	35	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI2	CM	35	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI2	CM	36	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI2	CM	34	0.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI2	CM	35	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI2	CM	35	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI2	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI2	CM	33	0.4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI2	CM	33	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI2	CM	33	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI2	CM	33	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI2	CM	33	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI2	CM	33	0.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI2	CM	35	0.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI2	CM	32	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI2	CM	37	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04/18/18	SI2	CM	36	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	35	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	40	0.7	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0
05/04/18	HI1	CM	45	1.5	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0
05/04/18	HI1	CM	39	0.8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	40	0.8	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	34	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	40	0.6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

DATE COLLECTED	SITE	FISH SPECIES	LENGTH IN MM	WEIGHT IN G	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	CAL Co	CAL C1	CAL C2	CAL C3	CAL C4	CAL PAM	CAL PAF	CAL AM	CAL AF
05/04/18	HI1	CM	54	2.0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	53	2.0	0	5	9	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	44	1.3	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	34	0.8	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	35	0.6	6	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	32	0.6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	42	0.9	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	45	1.3	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	35	0.6	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	35	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	34	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	32	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	42	1.0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	40	0.9	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	47	1.5	1	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	50	1.8	4	1	6	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	HI1	CM	45	1.1	1	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS1	CM	43	1.0	1	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS1	CM	46	1.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS1	CM	35	0.6	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS1	CM	40	0.9	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS1	CM	47	1.4	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
05/03/18	BS1	CM	38	0.8	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS1	CM	35	0.5	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS1	CM	46	1.4	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS1	CM	33	0.6	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS1	CM	42	1.0	0	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS1	CM	37	0.7	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS1	CM	40	0.9	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS1	CM	39	0.8	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS1	CM	43	1.0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS1	CM	38	0.6	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS1	CM	40	1.0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS1	CM	35	0.6	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS1	CM	46	1.0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS1	CM	40	0.8	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS1	CM	44	1.1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS1	CM	37	0.7	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS1	CM	42	0.9	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS1	CM	41	1.1	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS1	CM	38	0.9	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0

DATE COLLECTED	SITE	FISH SPECIES	LENGTH IN MM	WEIGHT IN G	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	CAL Co	CAL C1	CAL C2	CAL C3	CAL C4	CAL PAM	CAL PAF	CAL AM	CAL AF
05/03/18	BS1	CM	40	0.7	0	5	12	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS1	CM	40	0.8	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS1	CM	40	0.8	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS1	CM	40	0.7	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS1	CM	40	0.6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/03/18	BS1	CM	50	1.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CM	33	0.5	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CM	33	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CM	37	0.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CM	35	0.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CM	33	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CM	33	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CM	33	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CM	34	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CO	89	8.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CO	76	6.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CO	78	5.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CO	80	7.6	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CO	87	8.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CO	80	7.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CO	91	10.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CO	82	7.8	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CO	77	6.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CO	92	9.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CO	93	10.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CO	94	11.4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CO	90	10.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CO	93	10.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CO	88	10.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CO	80	7.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CO	88	10.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CO	86	9.7	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CO	80	10.9	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CO	97	12.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CO	95	12.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CO	112	23.5	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CO	108	15.2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CO	77	7.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CO	90	11.1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CO	92	11.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CO	85	8.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CO	120	23.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

DATE COLLECTED	SITE	FISH SPECIES	LENGTH IN MM	WEIGHT IN G	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	CAL Co	CAL C1	CAL C2	CAL C3	CAL C4	CAL PAM	CAL PAF	CAL AM	CAL AF
05/04/18	SI3	CO	98	13.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/04/18	SI3	CO	117	20.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI1	CM	47	1.6	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI1	CM	44	1.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI1	CM	50	1.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI1	CM	50	1.6	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI1	CM	48	1.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI1	CM	45	1.2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI1	CM	50	1.7	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI1	CM	45	1.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI1	CM	47	1.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI1	CM	48	1.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI1	CM	43	0.9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI1	CM	44	1.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI1	CM	52	1.7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI1	CM	40	1.0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI1	CM	51	1.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI1	CM	50	1.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI1	CM	50	1.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI1	CM	43	0.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI1	CM	44	1.1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI1	CM	54	2.1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI1	CM	52	2.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI1	CM	54	2.4	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI1	CM	47	1.4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI1	CM	43	1.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI1	CM	43	1.3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI1	CM	55	2.3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI1	CM	53	2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI1	CM	55	2.3	1	7	7	1	0	0	0	0	0	0	0	0	0	0	0	0
05/24/18	HI1	CM	70	5.1	4	19	10	0	1	1	0	0	0	0	0	0	0	0	0	0
05/24/18	HI1	CM	85	7.1	0	6	9	5	6	4	6	0	0	0	0	0	0	0	0	0
05/24/18	HI1	CO	89	9.9	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0