Wild Juvenile Salmonid Monitoring Program 2020
Discovery Islands, BC

Report Date: June 30, 2020

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Summary

Beach seine sampling was conducted on behalf of MOWI Canada West, Cermaq Canada and Grieg Seafood BC Ltd. in the Discovery Islands, BC in 2020. The intent of sampling was to monitor sea lice abundance, prevalence and intensity on juvenile wild salmon within the Discovery Islands in support of the Aquaculture Stewardship Certification process for finfish aquaculture sites in the area.

Sampling was conducted at 29 sites within the Discovery Islands, BC during two separate sampling events in April and May 2020, selected to coincide with the peak outmigration period of juvenile salmonids. The sampling sites were chosen based on their locations relative to existing aquaculture sites in the area and adapted from historical purse seine sites sampled by Fisheries and Oceans Canada (DFO) with three additional, new sites. Seven of the sites were in locations on the salmon migration route where out-migrating juvenile salmon would be unlikely to be exposed to existing aquaculture sites. These are considered 'pre-exposure' sites. Twenty-two sites were in locations where migrating salmon would be exposed to existing aquaculture sites at some point along their migration route. These are considered 'post-exposure' sites.

Thirty individuals from each target fish species or the total number of captured individuals from each target species (if less than 30 were captured) were collected from each of the 29 sites during the sampling events. Total catch numbers of each species were recorded. Surface water temperature and salinity were recorded at each site during each sampling event.

Retained fish were frozen and delivered to the Center for Aquatic Health Sciences (CAHS) for laboratory analysis. Sea lice infestation data was tabulated by CAHS and provided to Mainstream Biological Consulting for analysis and reporting. Sea lice observed on the individual fish specimens during laboratory analysis were identified as either *Lepeophtheirus spp.* or *Caligus sp*. These lice are assumed to be *L. salmonis* and *C. clemensi* due to the lack of documented infestation of Pacific salmon by other species. The lice were recorded by life stage and the sex of pre-adult or adult motile lice was determined.

This summary report documents the observed sea lice infestation rate on retained Pre-Exposure and Post-Exposure wild juvenile salmon collected in the Discovery Islands in 2020.

A total of 285 individual samples from Pre-Exposure beach seine sites underwent lab analysis for sea lice infestation in 2020. This included 112 chum and 173 pink salmon. No coho, chinook, sockeye, Atlantic salmon, or threespine stickleback were captured at the Pre-Exposure sites in the Discovery Islands in 2020. Of the 285 fish collected from Pre-Exposure sites, 74 individuals were infested with 89 sea lice. The calculated prevalence for the total Pre-Exposure sample population was 26.0 % and the sea lice abundance was 0.31 for the Pre-Exposure sample population collected in the Discovery Islands in 2020.

A total of 663 chum salmon were captured, representing 10.8 % of all captured Pre-Exposure samples. Of the 663 chum captured, 112 were retained for lab analysis for sea lice infestation. A total of 22 chum smolts were found to be infested with 27 lice resulting in a calculated prevalence of 19.6 % and an abundance of 0.24 for the Pre-Exposure chum salmon sample population.

A total of 5485 pink salmon were captured at Pre-Exposure sites, representing 89.2 % of all captured Pre-Exposure samples. Of the 5485 pinks captured, 173 were kept for lab analysis for sea lice infestation. A total of 52 pink salmon were found to be infested with 62 lice resulting in a calculated prevalence of 30.1 % and an abundance of 0.36 for the Pre-Exposure pink salmon sample population.

For the total Pre-Exposure sample population (n=285), a total of 18 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 18 individuals and 71 *Caligus clemensi* sea lice were found on 57 of the samples analyzed in the lab. There was a single sample infested with both *L. salmonis* and *C. clemensi*.

For the Pre-Exposure chum salmon sample population, a total of four *Lepeophtheirus salmonis* sea lice of various life stages were identified on four juvenile chum salmon and 23 *Caligus clemensi* sea lice were found on 18 of the juvenile chum salmon. No juvenile chum salmon were infested with both *L. salmonis* and *C. clemensi*.

For the Pre-Exposure pink salmon sample population, a total of 48 *Caligus clemensi* sea lice were found on 39 of the juvenile pink salmon and 14 *L. salmonis* sea lice were identified on 14 juvenile pink salmon. There was a single pink salmon infested with both species of sea lice.

A total of 896 individual samples from the Post-Exposure beach seine sites underwent lab analysis for sea lice infestation including 452 chum, 405 pink, 33 coho and 6 chinook salmon. From the total Post-Exposure sample population, 163 individuals were infested with 256 sea lice. The calculated prevalence for the total Post-Exposure sample population collected in the Discovery Islands in 2020 was 18.2 %; the sea lice abundance was 0.29.

A total of 1287 Post-Exposure chum salmon were captured, representing 46.3 % of all captured Post-Exposure samples. Of the 1287 chum captured, 452 were retained for lab analysis for sea lice infestation. A total of 77 chum smolts were found to be infested with 125 lice resulting in a calculated prevalence of 17.0 % and an abundance of 0.28 for the Post-Exposure chum salmon sample population.

A total of 1425 pink salmon were captured, representing 51.2 % of all captured Post-Exposure samples. Of the 1425 pinks captured, 405 were kept for lab analysis for sea lice infestation. A total of 75 pink salmon were found to be infested with 114 lice resulting in a calculated prevalence of 18.5 % and an abundance of 0.28 for the Post-Exposure pink salmon sample population.

A total of 63 coho salmon were captured, representing 2.3 % of all captured Post-Exposure samples. Of the 63 coho captured, 33 were retained for lab analysis for sea lice infestation. A total of 11 coho salmon were found to be infested with 17 lice resulting in a calculated prevalence of 33.3 % and an abundance of 0.52 for the Post-Exposure coho salmon sample population.

A total of six chinook salmon were captured, retained and analyzed for sea lice infestation from the Post-Exposure sample sites. None of the chinook salmon were found to be infested by sea lice.

For the Post-Exposure sample population, a total of 172 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 113 individuals and 84 *Caligus clemensi* sea lice were found on 70 of the samples analyzed in the lab. There were 20 samples that were infested with both *L. salmonis* and *C. clemensi*.

For the Post-Exposure chum salmon sample population, a total of 94 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 57 juvenile chum salmon and 31 *Caligus clemensi* sea lice were found on 28 of the juvenile chum salmon. There were eight juvenile chum salmon infested with both *L. salmonis* and *C. clemensi*.

For the Post-Exposure pink salmon sample population, a total of 73 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 52 juvenile pink salmon and 41 *Caligus clemensi* sea lice were found on 33 of the juvenile pink salmon. There were ten juvenile pink salmon infested with both *L. salmonis* and *C. clemensi*.

For the Post-Exposure coho salmon sample population, a total of five *Lepeophtheirus salmonis* sea lice of various life stages were identified on four juvenile coho salmon and 12 *Caligus clemensi* sea lice were found on nine of the juvenile coho salmon. There were two juvenile coho salmon infested with both *L. salmonis* and *C. clemensi*.

The following summary tables provide a comparison of Pre- and Post-Exposure sea lice infestation rates on pink and chum salmon collected in the Discovery Islands in 2020.

Species	Sample Location	Sample size (n)	Total number of lice observed	Total number of fish infested	Prevalence (%)	Abundance	Average Intensity
chum	Pre-Exposure	112	27	22	19.6	0.24	1.2
	Post-Exposure	452	125	77	17.0	0.28	1.6
pink	Pre-Exposure	173	62	52	30.1	0.36	1.2
	Post-Exposure	405	114	75	18.5	0.28	1.5

Fish Species	Sample Location	*Caligus clemensi*			*Lepeophtheirus salmonis*		
		Prevalence (%)	Abundance	Average Intensity	Prevalence (%)	Abundance	Average Intensity
chum (n=112)	Pre-Exposure	16.1 %	0.21	1.3	3.6 %	0.04	1.0
chum (n=452)	Post-Exposure	6.2 %	0.07	1.1	12.6 %	0.21	1.6
pink (n=173)	Pre-Exposure	22.5 %	0.28	1.2	8.1 %	0.08	1.0
pink (n=405)	Post-Exposure	8.1 %	0.10	1.2	12.8 %	0.18	1.4

A comparison of the prevalence, abundance and average intensity of sea lice species found on chum and pink salmon was completed for sample data collected in the Discovery Islands between 2017 and 2020. This data is presented in the following summary tables with additional yearly comparisons presented in Appendix IV.

Year	Sample Location and Species	*Caligus clemensi*			*Lepeophtheirus salmonis*		
		Prevalence	Abundance	Average Intensity	Prevalence	Abundance	Average Intensity
2017	Pre-Exposure chum (n=395)	8.4 %	0.22	2.6	1.8 %	0.02	1.1
	Post-Exposure chum (n=727)	3.9 %	0.04	1.1	3.2 %	0.03	1.0
2018	Pre-Exposure chum (n=123)	22.0 %	0.27	1.2	2.4 %	0.02	1.0
	Post-Exposure chum (n=599)	1.3 %	0.01	1.0	2.8 %	0.03	1.0
2019	Pre-Exposure chum (n=126)	21.4 %	0.40	1.9	7.1 %	0.09	1.2
	Post-Exposure chum (n=519)	6.4 %	0.08	1.2	18.3 %	0.26	1.4
2020	Pre-Exposure chum (n=112)	16.1 %	0.21	1.3	3.6 %	0.04	1.0
	Post-Exposure chum (n=452)	6.2 %	0.07	1.1	12.6 %	0.21	1.6

Year	Sample Location and Species	*Caligus clemensi*			*Lepeophtheirus salmonis*		
		Prevalence	Abundance	Average Intensity	Prevalence	Abundance	Average Intensity
2017	Pre-Exposure pink (n=173)	13.3 %	0.31	2.3	1.2 %	0.01	1.0
	Post-Exposure pink (n=277)	5.0 %	0.05	1.1	4.0 %	0.04	1.1
2018	Pre-Exposure pink (n=125)	19.2 %	0.25	1.3	4.8 %	0.06	1.2
	Post-Exposure pink (n=309)	1.9 %	0.03	1.7	1.9 %	0.02	1.0
2019	Pre-Exposure pink (n=40)	12.5 %	0.23	1.8	0 %	0	-
	Post-Exposure pink (n=470)	3.2 %	0.03	1.1	8.5 %	0.09	1.1
2020	Pre-Exposure pink (n=173)	22.5 %	0.28	1.2	8.1 %	0.08	1.0
	Post-Exposure pink (n=405)	8.1 %	0.10	1.2	12.8 %	0.18	1.4

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1.0 Introduction

At the request of MOWI Canada West, Cermaq Canada and Grieg Seafood BC Ltd. beach seine sampling to capture wild juvenile salmon to be analyzed for sea lice infestation took place at 29 sites in the Discovery Islands, BC (Figure 1). The sample collection occurred on April 13 – 15, 2020 and May 19 - 21, 2020. These dates were selected to coincide with the estimated peak outmigration dates of juvenile salmonids.

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* (*C. clemensi*) has been identified (Margolis and Arthur, 1979; McDonald and Margolis, 1995). *C. clemensi* infest an extremely wide range of natural hosts in the marine environment including salmonids and non-salmonids; while the natural hosts of *L. salmonis* on the Pacific coast have been found to include Pacific salmon, threespine stickleback and Pacific herring. *Lepeophtheirus spp.* sea lice found on salmonid specimens were assumed to be *L. salmonis* due to the lack of documented infestations 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 go 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 four 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 detach from their hosts and are able to move freely on the fish as they develop through a pre-adult stage before becoming reproductively viable adults.

Water temperature and salinity are two environmental variables that influence sea lice development, growth, survival and reproductive rate. In British Columbia, surface seawater temperatures generally range from approximately 6 °C to 13 °C. Research on sea lice abundance conducted in the Discovery Islands and elsewhere on the coast of British Columbia indicates that surface water temperature during the winter months does not appear to hinder the seasonal abundance of *L. salmonis* (Saksida et al., 2007a, b). The rate of development and generation times for *C. elongates* are strongly temperature dependent (Tully, 1992) and although this research has not been conducted, similar relationships with temperature are to be expected for *C. clemensi* (Jones and Johnson, 2015). Survival and development of *L. salmonis* is optimal in high salinity seawater. Under laboratory conditions copepodid survival was limited to conditions where salinity was greater than 10 ppt (Johnson and Albright, 1991b).

MOWI Canada West, Cermaq Canada and Grieg Seafood BC Ltd. requested monitoring of sea lice abundance, prevalence and intensity on juvenile wild salmon within the Discovery Islands in support of the Aquaculture Stewardship Certification for their aquaculture sites within the area. This data summary report documents the observed sea lice infestation rates on retained juvenile salmonids collected in the Discovery Islands in 2020. Data presented, including water quality, fish sample composition, size and sea lice infestation rates, have been divided into two sections based on the locations of the sample sites relative to aquaculture sites in the area and salmon migration routes (Table 1; Figure 2). A total of 29 sites were sampled in 2020. Seven of the sites were in locations on the salmon migration route where out-migrating juvenile salmon would be

unlikely to be exposed to existing aquaculture sites. These are considered 'pre-exposure' sites. Twenty-two sites were in locations where migrating salmon would be exposed to existing aquaculture sites at some point along their migration route. These are considered 'post-exposure' sites.

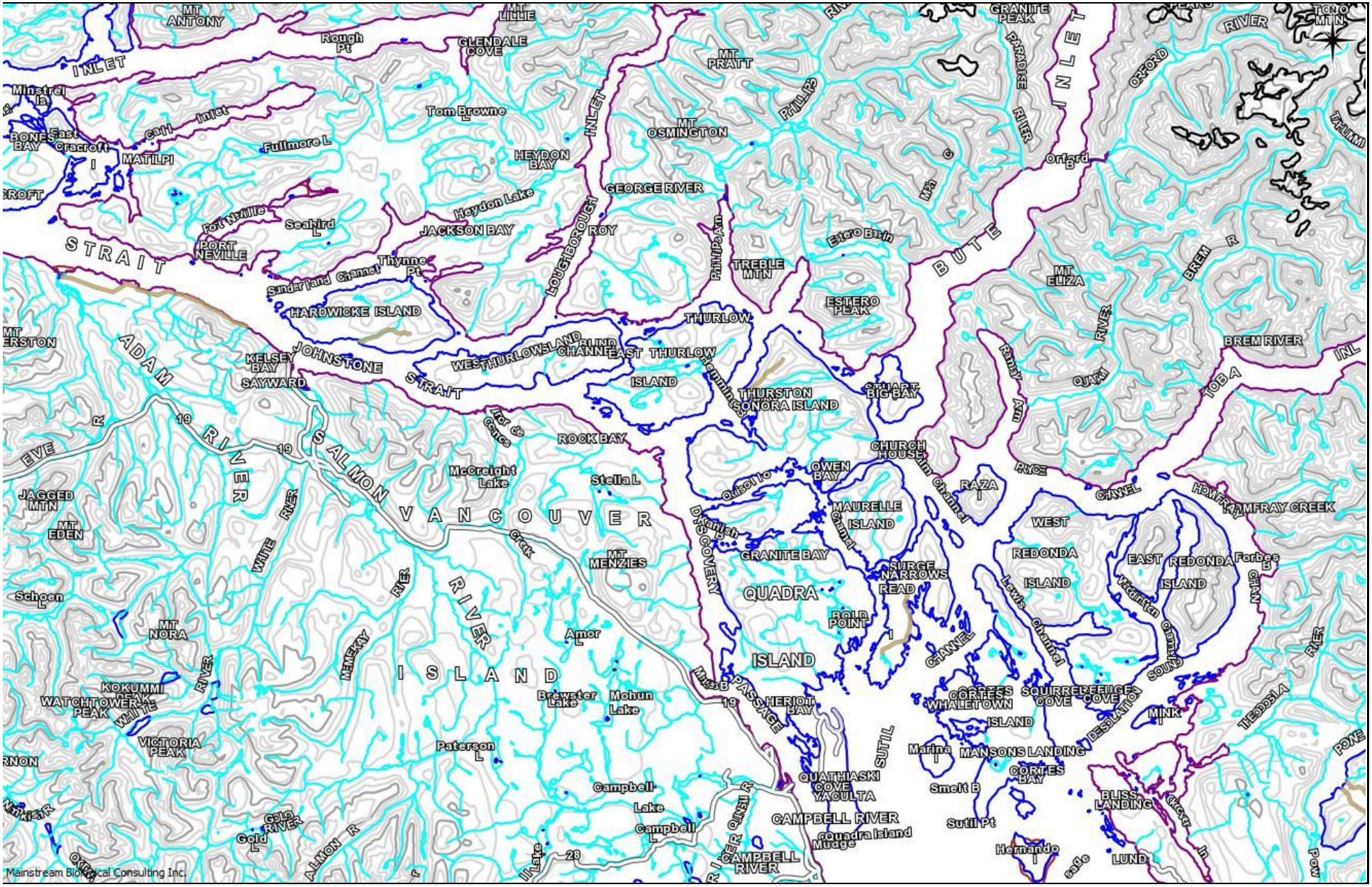

Figure 1: An overview map showing the location of the Discovery Islands.

2.0 Methods

The fish inspected for sea lice infestation were collected from 29 sites in the Discovery Islands, BC (Figure 2). These sites were chosen based on their locations relative to existing aquaculture sites in the area and adapted from historical purse seine sites sampled by Fisheries and Oceans Canada with three sites added. Two sampling events were completed in 2020, with the goal of sampling each site once during each sampling event. Sampling was conducted on April 13 – 15 and May 19 – 21, 2020.

2.1 Site Locations

The approximate locations of the 29 sampling sites are shown in Figure 2. GPS coordinates collected in the field for the sites are presented in Table 1. The Bear Bay, Knox Bay and Cordero sites in the Post-Exposure area were only sampled once in 2020, during the April 13 – 15 sampling period. Rough water conditions prevented access to Bear Bay and Knox Bay sample sites during the May 19 – 21 sampling period. Significant tide prevented the successful retrieval of the seine net at Cordero during the May sampling period as well.

Table 1: The site name and location coordinates of the 29 beach seine sites where fish were collected for sea lice analysis in the Discovery Islands in 2020.

Location	Site Name	Latitude	Longitude
Pre-Exposure	Francisco Point	50 00.467	125 09.031
	Marina Island	50 04.708	125 04.225
	Rebecca Spit	50 05.823	125 11.061
	Viner Point	50 07.886	125 07.809
	SE Hill Island	50 09.573	125 03.600
	Penn Island	50 11.018	125 01.449
	Deepwater Bay	50 10.669	125 19.641
Post-Exposure	Raza	50 19.184	124 58.959
	Raza North	50 21.057	125 02.542
	Okisollo	50 18.499	125 19.865
	Owen Bay	50 19.192	125 14.042
	Rock Bay	50 19.659	125 28.380
	Discovery	50 20.507	125 23.968
	Nodales	50 24.092	125 20.943
	Shoal Bay	50 27.467	125 22.061
	Fanny Bay	50 31.182	125 23.210
	Bickley Bay	50 26.684	125 23.825
	Cordero	50 26.953	125 32.677
	Knox Bay	50 23.618	125 36.348
	Bear Bay	50 21.799	125 38.099
	Chancellor Channel	50 24.563	125 43.797
	Race Passage	50 23.076	125 53.227
	Wellbore Channel	50 27.167	125 46.127
	Bessborough Bay	50 29.519	125 46.443
	Sunderland	50 28.212	125 50.607
	Blenkinsop Bay	50 28.732	125 59.983
	Primary 3	50 28.546	126 03.880
	Primary 1	50 25.805	126 01.769
	Beautiful Bay	50 26.895	126 05.066

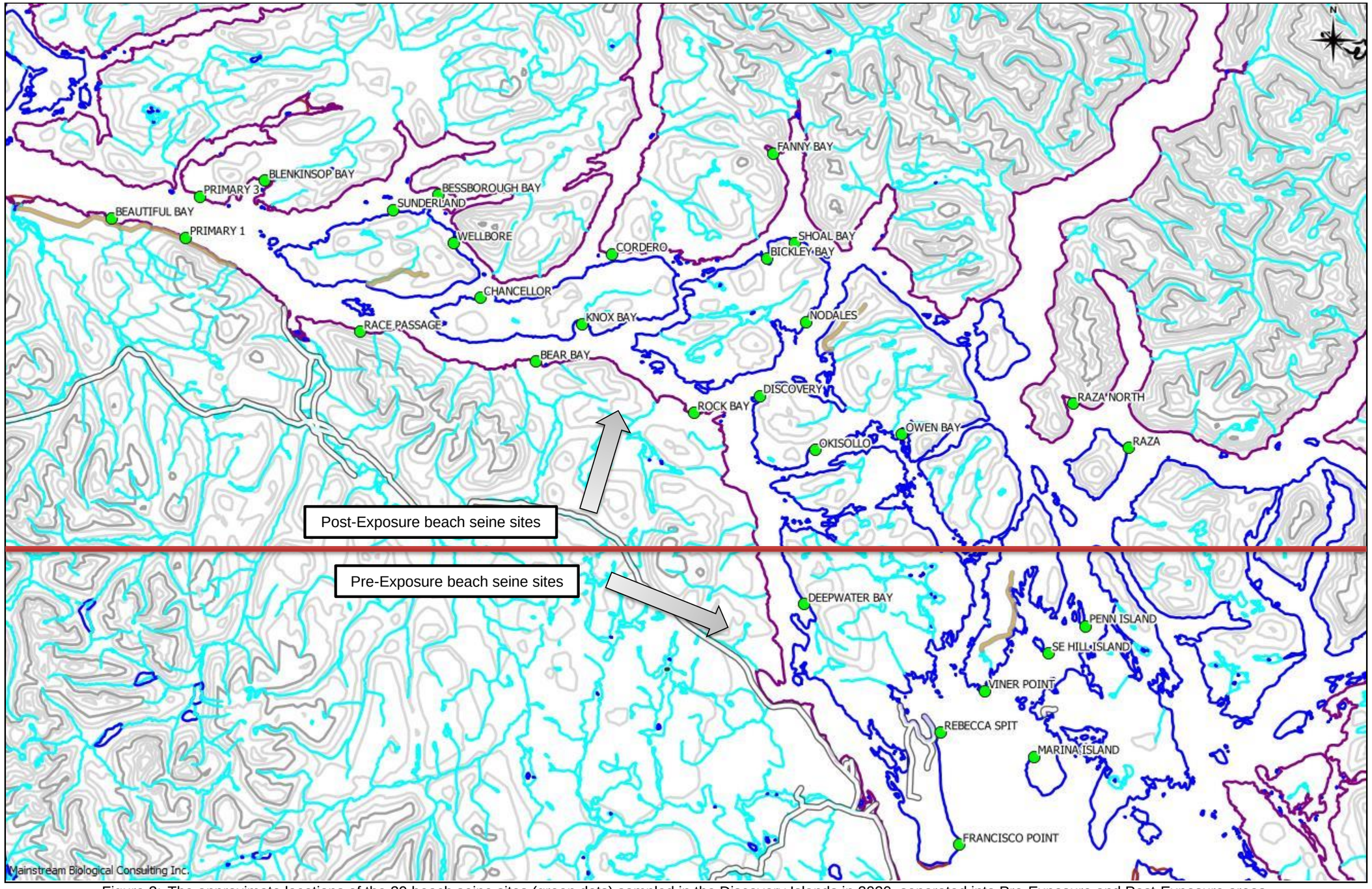

Figure 2: The approximate locations of the 29 beach seine sites (green dots) sampled in the Discovery Islands in 2020, separated into Pre-Exposure and Post-Exposure areas.

2.2 Field Procedures

The procedures implemented for beach seining, fish collection and field data recording in the Discovery Islands during the 2020 sampling period were adapted from those utilized by Fisheries and Oceans Canada (DFO).

An 18 ft Boston Whaler powered by a 70 horsepower outboard motor was used to access the beach seine sites. 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, with two side panels (wings) of 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.

Sampling was due to be completed with assistance of a Wei Wai Kum fisheries guardian. However, due to the COVID-19 pandemic the field crew was limited to Mainstream Biological Consulting staff.

A three-person crew conducted the beach seine sets. All sampling sites were approached slowly by boat and the first 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 another crewmember ensured the net deployed smoothly off the bow or side of the boat. 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 crewmember on the bow of the boat 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, a sample of surface water was collected to measure salinity and water temperature data using an Oakton® SALT 6+ meter.

Crewmembers retrieved the net evenly from both 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.

All crew members 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 as needed in response to changing tides to ensure the captured fish remained in the net and were held in sufficient water to minimize contact with the net or with other fish.

A total of 30 individuals from each target species captured 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 whirl-pak bag. All handling of fish was kept to a minimum.

Once all fish for retention were bagged, 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.

Information from each beach seine set was recorded in a standardized field form. The information recorded included the following:

- Site name;
- Date;
- Time at the end of the individual fish collection;
- Comments on weather and oceanic conditions;
- Total capture and retained fish numbers for each specimen group;
- Water temperature (°C) and salinity (ppt) to one decimal place;
- Exact GPS coordinates; and
- The number of salmonid mortalities.

The retained fish from each site were packaged separately in re-sealable bags and labelled with the site name, the date, sample numbers and species. Site sample bags were placed in a cooler with sufficient ice packs during sampling. A portable freezer, which was plugged into the truck was used to transport the specimens from the boat launch to the office. 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.

A fourth person remained on a crew boat for additional support. Two out of the three shore crew were transferred to the crew boat for transportation between sites.

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

2.3 Laboratory Procedures

Collected sample fish were frozen and delivered to the Center for Aquatic Health Sciences (CAHS) for laboratory analysis. Sea lice observed on the individual fish specimens during laboratory analysis were identified as either non-motile chalimus, or motile pre-adults and adults. 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 lice, either pre-adults or adults, were identified as either *Lepeophtheirus salmonis* or *Caligus clemensi* and the sex of the louse was determined. Sea lice infestation data was tabulated by CAHS and provided to Mainstream Biological Consulting for reporting.

Data provided by CAHS also included measured fork length in millimetres and weight (recorded to the nearest tenth of a gram). Lengths and weights were recorded with the specimen's corresponding sea lice analysis results.

2.4 Data Analysis

All data collected was analysed and has been summarized into two separate sections based on location of the sample sites: Pre-Exposure and Post-Exposure. Pre-Exposure sites included the seven southernmost sites where no fish farm tenures currently exist. These included Francisco Point, Marina Island, Rebecca Spit, Viner Point, SE Hill Island, Penn Island and Deepwater Bay. Fish collected from this area are considered to not

have been exposed to fish farms (Table 1, Figure 2). Post-Exposure sites included the 22 northernmost sites in the vicinity of existing fish farm tenures. Fish captured at these sites may or may not have migrated past fish farms (Table 1, Figure 2).

Surface water quality data collected for temperature and salinity was summarized to report the minimum and maximum values as well as the calculated averages for each sample week.

Beach seine fish sample composition was summarized by species and site for each week. The fork lengths and weights of the juvenile salmon 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 Pre- and Post-Exposure 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 and for chum, pink and coho salmon. Abundance, as defined as the total number of sea lice observed compared to the total number of host fish examined, was also determined for the sample population and chum, pink and coho salmon. The intensity of sea lice infestation, as described by the number of sea lice found on a single salmon was summarized. Average intensity was calculated by dividing the total number of sea lice identified by the number of infested fish

Statistical analysis of the spatial and temporal distribution of sea lice was not conducted. Spatial and temporal analysis has been limited to the presentation and discussion of the number of sea lice found on fish specimens collected from each site within the Pre- and Post-Exposure areas during each of the sampling events in 2020.

3.0 Results

The following sections outline the results of beach seine collection and subsequent sea lice infestation analysis of juvenile salmonids collected from the Discovery Islands, BC, in 2020. The results are presented in two separate sections based on whether data was collected from Pre-Exposure (southern) or Post-Exposure (northern) sites.

Water quality field data is presented in Appendix I, beach seine fish capture data is included in Appendix II and data on the sample population including sea lice lab analysis results provided by CAHS are provided in Appendix III.

Three Post-Exposure sites (Bear Bay, Knox Bay and Cordero) were not sampled during the May 2020 sample period due to rough weather and safety concerns or a strong tide.

3.1 Pre-Exposure Water Quality Parameters

Surface measurements of water temperature and salinity collected at each of the seven Pre-Exposure sites are presented in Table 2. A complete dataset is also included in Appendix I.

Recorded surface water temperatures at Pre-Exposure sites ranged from a low of 10.0 °C recorded at Marina Island on April 14, 2020, to a high of 14.7°C recorded at Penn Island on May 20, 2020 (Table 2; Appendix I). Average surface water temperatures increased from 11.3 °C for April 13 - 15, 2020, to 13.9 °C for May 19 – 21, 2020.

Recorded surface water salinity at Pre-Exposure sites ranged from a low of 25.0 ppt recorded at Penn Island on May 20, 2020, to a high of 32.3 ppt recorded at Deepwater Bay on May 21, 2020 (Table 2; Appendix I). The average surface water salinity decreased from 31.3 ppt for April 13 - 15, 2020, to 29.2 ppt for May 19 – 21, 2020.

Table 2: Surface water quality parameters collected at Pre-Exposure beach seine sites in the Discovery Islands in 2020.

Site Name	April 13 - 15		May 19 – 21	
	Temp. (°C)	Salinity (ppt)	Temp. (°C)	Salinity (ppt)
Francisco Point	10.3	32.2	13.5	28.8
Marina Island	10.0	32.2	13.8	29.5
Rebecca Spit	12.0	31.9	14.3	30.2
Viner Point	10.2	30.8	13.9	30.1
SE Hill Island	11.1	31.4	14.5	28.8
Penn Island	12.0	28.4	14.7	25.0
Deepwater Bay	13.7	31.9	12.8	32.3
Average	**11.3**	**31.3**	**13.9**	**29.2**

3.2 Post-Exposure Water Quality Parameters

Surface measurements of water temperature and salinity collected at each of the 22 Post-Exposure sites are presented in Table 3. A complete dataset is also included in Appendix I.

Recorded surface water temperatures at Post-Exposure sites ranged from a low of 8.2 °C recorded at Primary 1 on April 13, 2020, to a high of 16.3 °C recorded at

Discovery on April 15, 2020 (Table 3; Appendix I). Calculated weekly average surface water temperatures increased from 11.8 °C for April 13 – 15, 2020, to 12.1 °C for May 19 – 21, 2020.

Recorded surface water salinity at Post-Exposure sites ranged from a low of 15.7 ppt recorded at Owen Bay on April 15, 2020, to a high of 33.8 ppt recorded at Primary 3 on April 13, 2020 (Table 3; Appendix I). The calculated weekly average surface water salinity remained consistent with a slight decreased from 29.2 ppt for April 13 – 15, 2020, to 29.1 ppt for May 19 – 21, 2020.

Table 3: Surface water quality parameters collected at the Post-Exposure beach seine sites in the Discovery Islands in 2020.

Site Name	April 13 – 15		May 19 – 21	
	Temp. (°C)	Salinity (ppt)	Temp. (°C)	Salinity (ppt)
Primary 1	8.2	30.9	12.5	32.7
Beautiful Bay	10.3	32.2	12.2	33.4
Primary 3	9.4	33.8	10.0	33.7
Blenkinsop Bay	9.9	33.7	10.3	33.3
Sunderland	9.5	32.9	11.3	32.4
Bessborough Bay	12.1	33.0	12.3	27.9
Wellbore Channel	11.2	32.8	13.6	21.5
Chancellor Channel	13.1	32.0	13.0	31.6
Race Passage	10.3	31.3	10.6	33.5
Raza	11.7	29.6	14.8	24.5
Raza North	14.1	25.9	14.8	22.1
Rock Bay	8.5	29.4	10.0	32.4
Bear Bay	8.8	31.3	Not Sampled	
Knox Bay	8.8	24.4	Not Sampled	
Cordero	12.9	32.6	10.7	25.4
Bickley Bay	13.1	29.2	10.8	25.8
Fanny Bay	13.4	16.0	11.4	23.5
Shoal Bay	14.6	20.7	10.6	22.6
Nodales	13.5	32.1	10.8	29.0
Discovery	16.3	32.1	13.8	30.6
Okisollo	13.7	31.0	13.7	32.6
Owen Bay	15.9	15.7	15.4	32.5
Average	**11.8**	**29.2**	**12.1**	**29.1**

3.3 Fish Sample Composition

A total of 8929 fish were captured from all sites during beach seine sampling conducted in the Discovery Islands in 2020. Of those, 1181 individual fish (13.2 %) were retained as sample specimens and underwent analysis for sea lice infestation (Table 4). The total collected fish and the representative percentage of the total beach seine capture population for each species are presented in Table 4. Pink salmon and chum salmon were the most common species captured during sampling in 2020. Of the 6910 pink salmon captured, 578 individuals (8.4 %) were retained and underwent lab analysis. Of the 1950 chum salmon captured, 564 individuals (28.9 %) were retained and underwent lab analysis. Of the 63 coho salmon captured, 33 individuals (52.4 %) were retained and underwent lab analysis. All of the 6 chinook salmon captured were retained and analyzed for sea lice infestation. No threespine stickleback or Atlantic salmon were captured during 2020 sampling in the Discovery Islands.

A summary of the total number of fish captured and collected as specimens at each site over the collection period is provided in Table 7. A complete dataset showing fish capture and collection totals by site in 2020 can be found in Appendix II. No salmonids were captured at the Penn Island, Primary 3, Sunderland, Wellbore or Cordero sites during either sampling period in 2020.

Table 4: The total of collected individuals of each fish species captured in the Discovery Islands, BC in April and May 2020, and the percentage of the total capture population that they represent.

Common Name	Capture Totals (% of total capture population)	Collection Totals	Collection %
chum salmon	1950 (21.8 %)	564	28.9
pink salmon	6910 (77.4 %)	578	8.4
coho salmon	63 (0.7 %)	33	52.4
chinook salmon	6 (0.1 %)	6	100.0
sockeye salmon	0	0	0.0
All species	**8929**	**1181**	**13.2**

3.3.1 Pre-Exposure Sample Composition

A total of 6148 fish were captured during beach seine sampling conducted in the Pre-Exposure sites in the Discovery Islands in 2020. Of those, 285 individual fish (4.6 %) were collected as sample specimens and underwent analysis for sea lice infestation (Table 5). The total collected fish from each species and the percentage that it represents of the total Pre-Exposure capture population are shown in Table 5. Of the 663 chum salmon captured, 112 individuals (16.9 %) were retained and underwent lab analysis. Of the 5485 pink salmon captured, 173 individuals (3.2 %) were retained and underwent lab analysis.

Table 5: The total number of collected individuals of each fish species captured in the Pre-Exposure sites in the Discovery Islands, BC, in April and May 2020, and the percentage of the total Pre-Exposure capture population that they represent.

Common Name	Capture Totals (% of total pre-exposure capture population)	Collection Totals	Collection %
chum salmon	663 (10.8 %)	112	16.9
pink salmon	5485 (89.2 %)	173	3.2
All species	**6148**	**285**	**4.6**

3.3.2 Post-Exposure Sample Composition

A total of 2781 fish were captured during beach seine sampling conducted at the Post-Exposure sites in the Discovery Islands in 2020. Of those, 896 individual fish (32.2 %) were collected as sample specimens and underwent analysis for sea lice infestation (Table 6). The total collected fish from each species and the percentage that it represents of the total beach seine post exposure capture population is shown in Table 6. Of the 1287 chum salmon captured, 452 individuals (35.1 %) were retained and underwent lab analysis. Of the 1425 pink salmon captured, 405 individuals (28.4 %) were retained and underwent lab analysis. Of the 63 coho salmon captured, 33 individuals (52.4 %) were retained and underwent lab analysis. All 6 chinook salmon captured were retained and underwent lab analysis.

Table 6: The total of collected individuals of each fish species captured in the Post-Exposure sites in the Discovery Islands BC, in April and May 2020, and the percentage of the total Post-Exposure capture population that they represent.

Common Name	Capture Totals (% of total post-exposure capture population)	Collection Totals	Collection %
chum salmon	1287 (46.3 %)	452	35.1
pink salmon	1425 (51.2 %)	405	28.4
coho salmon	63 (2.3 %)	33	52.4
chinook salmon	6 (0.2 %)	6	100.0
All species	**2781**	**896**	**32.2**

Table 7: The number of captured fish (Capture Total) and the number of individual fish collected (Sample Total) from each of the 29 sample sites separated into Pre- and Post-Exposure totals in the Discovery Islands, BC in April and May 2020.

		Pink		Chum		Coho		Chinook		Sockeye		Capture Total	Sample Total
Site Location	**Site Name**	Capture Total	Sample Total	Capture Total	Sample Total	Capture Total	Sample Total	Capture Total	Sample Total	Capture Total	Sample Total		
Pre-Exposure	Francisco Point	174	58	112	35	0	0	0	0	0	0	286	93
	Marina Island	19	19	2	2	0	0	0	0	0	0	21	21
	Rebecca Spit	23	23	73	31	0	0	0	0	0	0	96	54
	Viner Point	10	10	16	16	0	0	0	0	0	0	26	26
	SE Hill Island	1	1	0	0	0	0	0	0	0	0	1	1
	Penn Island	0	0	0	0	0	0	0	0	0	0	0	0
	Deepwater Bay	5258	62	460	28	0	0	0	0	0	0	5718	90
Pre-Exposure Site Subtotals		5485	173	663	112	0	0	0	0	0	0	6148	285
Post-Exposure	Primary 1	18	18	24	24	0	0	1	1	0	0	43	43
	Beautiful Bay	117	30	442	30	0	0	0	0	0	0	559	60
	Primary 3	0	0	0	0	0	0	0	0	0	0	0	0
	Blenkinsop Bay	412	30	87	31	60	30	0	0	0	0	559	91
	Sunderland	0	0	0	0	0	0	0	0	0	0	0	0
	Bessborough Bay	280	30	120	30	0	0	0	0	0	0	400	60
	Wellbore	0	0	0	0	0	0	0	0	0	0	0	0
	Chancellor	0	0	2	2	0	0	0	0	0	0	2	2
	Race Passage	40	31	20	20	0	0	0	0	0	0	60	51
	Raza	73	30	2	2	0	0	0	0	0	0	75	32
	Raza North	26	26	18	18	0	0	0	0	0	0	44	44
	Rock Bay	266	59	49	38	0	0	0	0	0	0	315	97
	Bear Bay	19	19	188	30	0	0	0	0	0	0	207	49
	Knox Bay	5	5	4	4	0	0	0	0	0	0	9	9
	Cordero	0	0	0	0	0	0	0	0	0	0	0	0
	Bickley Bay	7	7	16	16	0	0	0	0	0	0	23	23
	Fanny Bay	0	0	58	49	0	0	5	5	0	0	63	54
	Shoal Bay	11	11	102	60	0	0	0	0	0	0	113	71
	Nodales	96	54	117	60	0	0	0	0	0	0	213	114
	Discovery	19	19	3	3	0	0	0	0	0	0	22	22
	Okisollo	19	19	7	7	0	0	0	0	0	0	26	26
	Owen Bay	17	17	28	28	3	3	0	0	0	0	48	48
Post-Exposure Site Subtotals		**1425**	**405**	**1287**	**452**	**63**	**33**	**6**	**6**	**0**	**0**	**2781**	**896**
Discovery Islands Totals		**6910**	**578**	**1950**	**564**	**63**	**33**	**6**	**6**	**0**	**0**	**8929**	**1181**

3.4 Pre-Exposure Fish Sample Size Statistics

Summary statistics for the Pre-Exposure sample population were completed for weight and fork length of chum and pink salmon (Table 8).

3.4.1 Chum Salmon

The weight of 112 chum smolts collected during the two sample events at Pre-Exposure sites in the Discovery Islands in 2020 ranged from 0.29 g to 2.59 g and averaged 0.53 g (SD = 0.3). The fork length of the chum smolts ranged from 32 mm to 60 mm and averaged 37 mm (SD = 4.1). Chum salmon weight and length data was summarized by month, showing an increase in both parameters in the sample population from April to May 2020 (Table 8).

3.4.2 Pink Salmon

The weight of 173 pink smolts collected during the two sample events at Pre-Exposure sites in the Discovery Islands in 2020 ranged from 0.22 g to 2.89 g and averaged 0.83 g (SD = 0.6). The fork length of the pink smolts ranged from 28 mm to 62 mm and averaged 42 mm (SD = 8.8) (Table 8).

Table 8: Average weights and lengths of the Pre-Exposure chum and pink salmon collected in the Discovery Islands in 2020, summarized by month.

Species	Average Weight (g)		Average Length (mm)	
	April	May	April	May
Chum	0.49 (n=109)	1.85 (n=3)	37	52
Pink	0.40 (n=75)	1.17 (n=98)	34	48

3.5 Post-Exposure Fish Sample Size Statistics

Summary statistics for the Post-Exposure sample population were completed for weight and fork length of chum, pink, and coho salmon (Table 9). This was not completed for chinook (n=6), as the small sample size would not provide meaningful analysis (Table 6).

3.5.1 Chum Salmon

The weight of 452 chum smolts collected during the two sample events at Post-Exposure sites in the Discovery Islands in 2020 ranged from 0.24 g to 8.97 g and averaged 1.01 g (SD = 1.0). The fork length of the chum smolts ranged from 31 mm to 93 mm and averaged 43 mm (SD = 9.6). Chum salmon weight and length data were summarized by month, showing an increase in both parameters in the sample population from April to May 2020 (Table 9).

3.5.2 Pink Salmon

The weight of 405 pink smolts collected during the two sample events at Post-Exposure sites in the Discovery Islands in 2020 ranged from 0.09 g to 4.17 g and averaged 0.77 g (SD = 0.7). The fork length of the pink smolts ranged from 24 mm to 73 mm and averaged 40 mm (SD = 10). Pink salmon weight and length data were summarized by month, showing an increase in both parameters in the sample population from April to May, 2020 (Table 9).

3.5.3 Coho Salmon

All 33 coho samples collected at Post-Exposure sites in the Discovery Islands in 2020 were collected in May. The weight of the 33 coho smolts collected ranged from 5.50 g to

16.90 g and averaged 9.64 g (SD = 2.7). The fork length of the coho smolts ranged from 79 mm to 110 mm and averaged 92 mm (SD = 8.9). Coho salmon weight and length data is summarized in Table 9.

Table 9: Average weights and lengths of the Post-Exposure chum and pink salmon collected in the Discovery Islands in 2020, summarized by month.

Species	Average Weight (g)		Average Length (mm)	
	April	May	April	May
Chum	0.51 (n=235)	1.56 (n=217)	37	49
Pink	0.33 (n=224)	1.33 (n=181)	33	49
Coho	-	9.64 (n=33)	-	92

3.6 Pre-Exposure Sea Lice Infestation Rates

The results of the laboratory analysis for the presence of sea lice on the Pre-Exposure sample population collected in the Discovery Islands in 2020 are presented in Table 10 and lab analysis data are included in Appendix III. A total of 285 samples were collected at the seven Pre-Exposure sites in the Discovery Islands in 2020 and inspected for sea lice infestation. A total of 74 individuals in the sample population (22 chum and 52 pink salmon), were found to be infested with 89 sea lice (Table 10). This data included 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/lice 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 (Table 10). The sea lice prevalence in the 2020 Pre-Exposure sample population was 26.0 % and the abundance was 0.31. Sea lice counts of both lice species (*L. salmonis and C. clemensi*) were combined for the prevalence and abundance calculations.

The intensity of sea lice infestation, defined as the number of sea lice on a single infested salmon ranged from one louse found on 61 individuals to a maximum of three lice found on two individuals. The average intensity (1.2) was calculated by dividing the total number of sea lice by the number of infested fish of each species (Table 10).

Table 10: Results of analysis for sea lice infestation on Pre-Exposure salmonid smolts collected by beach seine in the Discovery Islands, BC in 2020.

Species	Sample size (n)	Total number of lice observed	Total number of fish infested	Prevalence (%)	Abundance	Average Intensity
chum	112	27	22	19.6	0.24	1.2
pink	173	62	52	30.1	0.36	1.2
Total	**285**	**89**	**74**	**26.0**	**0.31**	**1.2**

3.6.1 Pre-Exposure Infestation Rates on Chum Salmon

A total of 22 chum salmon were found to be infested with 27 sea lice (Table 10). The results of the laboratory analysis for sea lice infestation for the Pre-Exposure chum salmon sample population are presented by site in Table 11. Sea lice counts of both sea lice species observed (*L. salmonis and C. clemensi*) were combined (Table 10 and 11). Sea lice counts of both sea lice species observed (*L. salmonis and C. clemensi*) were combined for the presentation of sea lice infestation, prevalence and abundance on the Pre-Exposure chum salmon sample population. For the Pre-Exposure chum salmon sample population (n=112) there were more chum sampled, more infested individuals (n=20) and more sea lice (n=22) found on chum salmon collected in April (n=109) than in May (n=3); however, the prevalence, abundance and average intensity of sea lice infestation were higher for those fish captured in May 2020 (Table 11).

A total of 22 chum salmon were found to be infested with at least one sea louse. The prevalence of sea lice on the chum salmon sample population (n=112) collected in the Pre-Exposure Discovery Island sites in 2020 was 19.6 %. Sea lice prevalence on chum salmon in 2020 was higher in May (66.7 %) than in April (18.3 %). Chum salmon were only captured at one site during May sampling. The highest sea lice prevalence

(100.0 %) was at Francisco Point in May 2020. Sea lice prevalence calculated by site for the total Pre-Exposure chum sample population was highly variable ranging from 0 % at Marina Island and Rebecca Spit to a high of 51.4 % at Francisco Point (Table 11).

A total of 27 sea lice were identified during laboratory analysis of retained chum salmon from Pre-Exposure sites. The abundance of sea lice on the Pre-Exposure chum salmon sample population (n=112) collected in the Discovery Islands in 2020 was 0.24. Sea lice abundance was calculated by week and by site and is presented in Table 11. During 2020 sampling, sea lice abundance on chum salmon was lower in April (0.20) compared to May (1.67). The highest sea lice abundance (2.5) was at Francisco Point in May 2020. Sea lice abundance calculated by site for the total Pre-Exposure chum sample population was also highly variable ranging from 0.00 at Marina Island and Rebecca Spit to a high of 0.66 at Francisco Point (Table 11).

Table 11: The number of sea lice found on chum salmon collected from the Pre-Exposure sites in the Discovery Islands in 2020 summarized by site. Calculated sea lice prevalence, abundance and average intensity is also included by site.

Site	Sample Week													**Total Pre-Exposure Chum Sample Population**		
	April 13 – 15							May 19 – 21								
	# of Chum Analyzed	# of Infested Chum	Average Weight of Infested Chum (g)	# of Lice	Prevalence (%)	Abundance	Average Intensity	# of Chum Analyzed	# of Infested Chum	Average Weight of Infested Chum (g)	# of Lice	Prevalence (%)	Abundance	Average Intensity	**Prevalence (%)**	**Abundance**	**Average Intensity**
Francisco Point	33	16	0.56	18	48.5	0.55	1.1	2	2	2.40	5	100.0	2.50	2.5	**51.4**	**0.66**	**1.3**
Marina Island	2	0	-	0	0.0	0.00	-	0	-	-	-	-	-	-	**0.0**	**0.00**	**-**
Rebecca Spit	30	0	-	0	0.0	0.00	-	1	0	-	0	0.0	0.00	-	**0.0**	**0.00**	**-**
Viner Point	16	2	0.51	2	12.5	0.13	1.0	0	-	-	-	-	-	-	**12.5**	**0.13**	**1.0**
SE Hill Island	0	-	-	-	-	-	-	0	-	-	-	-	-	-	**-**	**-**	**-**
Penn Island	0	-	-	-	-	-	-	0	-	-	-	-	-	-	**-**	**-**	**-**
Deepwater Bay	28	2	0.72	2	7.1	0.07	1.0	0	-	-	-	-	-	-	**7.1**	**0.07**	**1.0**
Total	109	20	0.57	22	18.3	0.20	1.1	3	2	2.40	5	66.7	1.67	2.5	**19.6**	**0.24**	**1.2**

3.6.2 Pre-Exposure Infestation Rates on Pink Salmon

A total of 52 pink salmon were found to be infested with 62 sea lice (Table 10). The results of the laboratory analysis for sea lice infestation for the Pre-Exposure pink salmon sample population are presented by site in Table 12. Sea lice counts of both sea lice species observed (*L. salmonis and C. clemensi*) were combined for the presentation of sea lice infestation, prevalence and abundance on the Pre-Exposure pink salmon sample population (Table 12). Of the 173 pink salmon captured, 75 were collected in April and 98 were collected in May 2020 sampling (Table 12).

A total of 43 pink salmon were found to be infested with at least one sea louse while one was found to be infested with three. The prevalence of sea lice on the Pre-Exposure pink salmon sample population (n=173) collected in the Pre-Exposure Discovery Island sites in 2020 was 30.1 %. The highest sea lice prevalence (100 %) was at Viner Point in May 2020. Sea lice prevalence calculated by site for the total Pre-Exposure pink sample population was variable ranging from 0.0 % at SE Hill Island to a high of 47.8 % at Rebecca Spit (Table 12).

A total of 62 sea lice were identified during laboratory analysis of retained Pre-Exposure pink salmon. The abundance of sea lice on the pink salmon sample population (n=173) collected in the Pre-Exposure Discovery Island sites in 2020 was 0.36. Sea lice abundance was calculated by week and by site and is presented in Table 12. The highest sea lice abundance (1.00) was at Viner Point in May 2020. Sea lice abundance calculated by site for the total Pre-Exposure pink sample population was also highly variable ranging from 0.00 at SE Hill Island to a high of 0.61 at Rebecca Spit (Table 12).

Table 12: The number of sea lice found on pink salmon collected in the Pre-Exposure Discovery Island sites in 2020 summarized by site. Calculated sea lice prevalence, abundance and average intensity is also included by site.

Site	Sample Week													**Total Pre-Exposure Pink Sample Population**		
	April 13 – 15							May 19 – 21								
	# of Pinks Analyzed	# of Infested Pinks	Average Weight of Infested Pinks (g)	# of Lice	Prevalence (%)	Abundance	Average Intensity	# of Pinks Analyzed	# of Infested Pinks	Average Weight of Infested Pinks (g)	# of Lice	Prevalence (%)	Abundance	Average Intensity	**Prevalence (%)**	**Abundance**	**Average Intensity**
Francisco Point	28	15	0.36	20	53.6	0.71	1.3	30	9	1.06	10	30.0	0.33	1.1	**41.4**	**0.52**	**1.3**
Marina Island	1	0	-	0	0.0	0.00	-	18	8	0.84	8	44.4	0.44	1.0	**42.1**	**0.42**	**1.0**
Rebecca Spit	5	0	-	0	0.0	0.00	-	18	11	0.92	14	61.1	0.78	1.3	**47.8**	**0.61**	**1.3**
Viner Point	9	1	0.53	1	11.1	0.11	1.0	1	1	0.40	1	100.0	1.00	1.0	**20.0**	**0.20**	**1.0**
SE Hill Island	0	-	-	-	-	-	-	1	0	-	0	0.0	0.00	-	**0.0**	**0.00**	**-**
Penn Island	0	-	-	-	-	-	-	0	-	-	-	-	-	-	**-**	**-**	**-**
Deepwater Bay	32	4	0.50	5	12.5	0.16	1.3	30	3	1.05	3	10.0	0.10	1.0	**11.3**	**0.13**	**1.1**
Total	75	20	0.40	26	26.7	0.35	1.3	98	32	0.94	36	32.7	0.37	1.1	**30.1**	**0.36**	**1.2**

3.7 Post-Exposure Sea Lice Infestation Rates

The results of the laboratory analysis for the presence of sea lice on the Post-Exposure sample population collected in the Discovery Islands in 2020 are presented in Table 13. The data recorded for each fish in the sample population during lab analysis are included in Appendix III. A total of 896 samples were collected at the 22 Post-Exposure sites in the Discovery Islands in 2020 and were inspected for sea lice infestation. A total of 163 individuals comprising 77 chum, 75 pink, and 11 coho salmon were found to be infested with 256 sea lice in the Post-Exposure sample population (Table 13). This data included sea lice of either species (*L. salmonis and C. clemensi*). No sea lice were found on the six chinook salmon collected at Post-Exposure sites in 2020.

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 Post-Exposure sample population collected in the Discovery Islands in 2020 was 18.2 % and the abundance was 0.29 (Table 13). Sea lice counts of both species observed (*L. salmonis and C. clemensi*) were combined for the prevalence and abundance calculations.

The intensity of sea lice infestation is defined as the number of sea lice on a single infested salmon. There were 115 samples infested with one louse and one individual infested with a maximum of eight lice. The average intensity (1.6) was calculated by dividing the total number of sea lice by the number of infested fish of each species (Table 13).

Table 13: Results of analysis for sea lice infestation on Post-Exposure samples collected by beach seine in the Discovery Islands, BC in 2020.

Species	Sample size (n)	Total number of lice observed	Total number of fish infested	Prevalence (%)	Abundance	Average Intensity
chum	452	125	77	17.0	0.28	1.6
pink	405	114	75	18.5	0.28	1.5
coho	33	17	11	33.3	0.52	1.5
chinook	6	0	0	0.0	0.00	-
Total	**896**	**256**	**163**	**18.2**	**0.29**	**1.6**

3.7.1 Post-Exposure Sea Lice Infestation Rates on Chum Salmon

A total of 77 chum salmon were found to be infested with 125 sea lice (Table 13). The results of the laboratory analysis for sea lice infestation for the Post-Exposure chum salmon sample population are presented by site in Table 14. Sea lice counts of both sea lice species observed (*L. salmonis and C. clemensi*) were combined for the presentation of sea lice infestation, prevalence and abundance on the Post-Exposure chum salmon sample population (Table 13 and 14). For the chum salmon sample population collected in 2020 (n=452), there were more infested individuals and more sea lice found on chum salmon collected in May than in April (Table 14).

A total of 77 chum salmon were found to be infested with at least one sea louse. The prevalence of sea lice on the chum salmon sample population (n=452) collected in the Post-Exposure Discovery Island sites in 2020 was 17.0 %. The highest sea lice prevalence (100.0 %) was at Chancellor in May 2020 (Table 14). Sea lice prevalence calculated by site for the total Post-Exposure chum sample population was highly variable ranging from 0 % at four sites to a high of 100 % at Chancellor (Table 14).

A total of 125 sea lice were identified during laboratory analysis of retained Post-Exposure chum salmon. The abundance of sea lice on the Post-Exposure chum salmon sample population (n=452) collected in the Discovery Islands in 2020 was 0.28. Sea lice abundance was calculated by week and by site and is presented in Table 14. The highest sea lice abundance (2.00) was at Chancellor in May 2020. Sea lice abundance calculated by site for the total Post-Exposure chum sample population was also highly variable ranging from 0.00 at four sites to a high of 2.00 at Chancellor (Table 14).

Sea lice prevalence, abundance and average intensity of infestation were higher in May than in April for the 2020 Post-Exposure chum salmon sample population.

Table 14: The number of sea lice found on chum salmon collected from the Post-Exposure sites in the Discovery Islands in 2020 summarized by site. Calculated sea lice prevalence, abundance and average intensity is also included by site.

Site	Sample Week														**Total Post-Exposure Chum Sample Population**		
	April 13 – 15							May 19 – 21									
	# of Chum Analyzed	# of Infested Chum	Average Weight of Infested Chum (g)	# of Lice	Prevalence (%)	Abundance	Average Intensity	# of Chum Analyzed	# of Infested Chum	Average Weight of Infested Chum (g)	# of Lice	Prevalence (%)	Abundance	Average Intensity	**Prevalence (%)**	**Abundance**	**Average Intensity**
Primary 1	0	-	-	-	-	-	-	24	0	-	0	0.0	0.00	-	**0.0**	**0.00**	**-**
Beautiful Bay	30	2	0.89	2	6.7	0.07	1.0	0	-	-	-	-	-	-	**6.7**	**0.07**	**1.0**
Primary 3	0	-	-	-	-	-	-	0	-	-	-	-	-	-	**-**	**-**	**-**
Blenkinsop Bay	30	2	0.50	2	6.7	0.07	1.0	1	0	-	0	0.0	0.00	-	**6.5**	**0.06**	**1.0**
Sunderland	0	-	-	-	-	-	-	0	-	-	-	-	-	-	**-**	**-**	**-**
Bessborough Bay	0	-	-	-	-	-	-	30	3	1.58	3	10.0	0.10	1.0	**10.0**	**0.10**	**1.0**
Wellbore	0	-	-	-	-	-	-	0	-	-	-	-	-	-	**-**	**-**	**-**
Chancellor	0	-	-	-	-	-	-	2	2	1.92	4	100.0	2.00	2.0	**100.0**	**2.00**	**2.0**
Race Passage	0	-	-	-	-	-	-	20	3	0.70	3	15.0	0.15	1.0	**15.0**	**0.15**	**1.0**
Raza	2	0	-	0	0.0	0.00	-	0	-	-	-	-	-	-	**0.0**	**0.00**	**-**
Raza North	17	3	0.61	3	17.6	0.18	1.0	1	0	-	0	0.0	0.00	-	**16.7**	**0.17**	**1.0**
Rock Bay	31	1	0.35	1	3.2	0.03	1.0	7	1	1.03	1	14.3	0.14	1.0	**5.3**	**0.05**	**1.0**
Bear Bay	30	4	0.64	4	13.3	0.13	1.0	NS	-	-	-	-	-	-	**13.3**	**0.13**	**1.0**
Knox Bay	4	0	-	0	0.0	0.00	-	NS	-	-	-	-	-	-	**0.0**	**0.00**	**-**
Cordero	0	-	-	-	-	-	-	NS	-	-	-	-	-	-	**-**	**-**	**-**
Bickley Bay	0	-	-	-	-	-	-	16	5	2.06	5	31.3	0.31	1.0	**31.3**	**0.31**	**1.0**
Fanny Bay	30	0	-	0	0.0	0.00	-	19	0	-	0	0.0	0.00	-	**0.0**	**0.00**	**-**
Shoal Bay	30	0	-	0	0.0	0.00	-	30	3	0.88	3	10.0	0.10	1.0	**5.0**	**0.05**	**1.0**
Nodales	30	9	0.72	11	30.0	0.37	1.2	30	10	1.03	20	33.3	0.67	2.0	**31.7**	**0.52**	**1.6**
Discovery	0	-	-	-	-	-	-	3	2	0.66	2	66.7	0.67	1.0	**66.7**	**0.67**	**1.0**
Okisollo	0	-	-	-	-	-	-	7	5	0.76	11	71.4	1.57	2.2	**71.4**	**1.57**	**2.2**
Owen Bay	1	0	-	0	0.0	0.00	-	27	22	3.48	50	81.5	1.85	2.3	**78.6**	**1.79**	**2.3**
Total	235	21	0.67	23	8.9	0.10	1.1	217	56	2.09	102	25.8	0.47	1.8	**17.0**	**0.28**	**1.6**

NS = not sampled

3.7.2 Post-Exposure Sea Lice Infestation Rates on Pink Salmon

A total of 75 pink salmon were found to be infested with 114 sea lice (Table 13). The results of the laboratory analysis for sea lice infestation for the Post-Exposure pink salmon sample population are presented by site in Table 15. Sea lice counts of both sea lice species observed (*L. salmonis and C. clemensi*) were combined for the presentation of sea lice infestation, prevalence and abundance on the Post-Exposure pink salmon sample population (Table 13 and 15). For the pink salmon sample population (n=405) there were more infested individuals (55 pink) and more sea lice (91 lice) found on pink salmon collected in May as compared to the 20 infested pink salmon with 23 lice collected in April 2020 (Table 15).

A total of 75 pink salmon were found to be infested with at least one louse. The prevalence of sea lice on the pink salmon sample population (n=405) collected in the Post-Exposure Discovery Island sites in 2020 was 18.5 %. The highest sea lice prevalence (75.0 %) was found at the Owen Bay site in May 2020. Sea lice prevalence calculated by site for the total Post-Exposure pink sample population was highly variable ranging from 0 % at two sites to a high of 70.6 % at Owen Bay (Table 15).

A total of 114 sea lice were identified during laboratory analysis of retained Post-Exposure pink salmon. The abundance of sea lice on the Post-Exposure pink salmon sample population (n=405) collected in the Discovery Islands in 2020 was 0.28. Sea lice abundance is presented by week and by site in Table 15. The highest sea lice abundance (1.75) was found at Owen Bay in May 2020. Sea lice abundance calculated by site for the total Post-Exposure pink sample population was variable, ranging from 0.00 at two sites to a high of 1.65 at Owen Bay (Table 15).

Table 15: The number of sea lice found on pink salmon collected from the Post-Exposure sites in the Discovery Islands in 2020 summarized by site. Calculated sea lice prevalence, abundance and average intensity is also included by site.

Site	Sample Week													**Total Post-Exposure Pink Sample Population**		
	April 13 – 15							May 19 – 21								
	# of Pink Analyzed	# of Infested Pinks	Average Weight of Infested Pinks (g)	# of Lice	Prevalence (%)	Abundance	Average Intensity	# of Pinks Analyzed	# of Infested Pinks	Average Weight of Infested Pinks (g)	# of Lice	Prevalence (%)	Abundance	Average Intensity	**Prevalence (%)**	**Abundance**	**Average Intensity**
Primary 1	11	1	0.32	1	9.1	0.09	1.0	7	1	1.37	1	14.3	0.14	1.0	**11.1**	**0.11**	**1.0**
Beautiful Bay	30	1	0.26	1	3.3	0.03	1.0	0	-	-	-	-	-	-	**3.3**	**0.03**	**1.0**
Primary 3	0	-	-	-	-	-	-	0	-	-	-	-	-	-	**-**	**-**	**-**
Blenkinsop Bay	30	2	0.55	3	6.7	0.10	1.5	0	-	-	-	-	-	-	**6.7**	**0.10**	**1.5**
Sunderland	0	-	-	-	-	-	-	0	-	-	-	-	-	-	**-**	**-**	**-**
Bessborough Bay	0	-	-	-	-	-	-	30	7	2.16	9	23.3	0.30	1.3	**23.3**	**0.30**	**1.3**
Wellbore	0	-	-	-	-	-	-	0	-	-	-	-	-	-	**-**	**-**	**-**
Chancellor	0	-	-	-	-	-	-	0	-	-	-	-	-	-	**-**	**-**	**-**
Race Passage	0	-	-	-	-	-	-	31	7	0.92	8	22.6	0.26	1.1	**22.6**	**0.26**	**1.1**
Raza	30	1	0.85	1	3.3	0.03	1.0	0	-	-	-	-	-	-	**3.3**	**0.03**	**1.0**
Raza North	25	6	0.32	7	24.0	0.28	1.2	1	0	-	0	0.0	0.00	-	**23.1**	**0.27**	**1.2**
Rock Bay	29	3	0.51	4	10.3	0.14	1.3	30	7	1.17	7	23.3	0.23	1.0	**16.9**	**0.19**	**1.1**
Bear Bay	19	1	0.23	1	5.3	0.05	1.0	NS	-	-	-	-	-	-	**5.3**	**0.05**	**1.0**
Knox Bay	5	1	0.44	1	20.0	0.20	1.0	NS	-	-	-	-	-	-	**20.0**	**0.20**	**1.0**
Cordero	0	-	-	-	-	-	-	NS	-	-	-	-	-	-	**-**	**-**	**-**
Bickley Bay	3	0	-	0	0.0	0.00	-	4	0	-	0	0.0	0.00	-	**0.0**	**0.00**	**-**
Fanny Bay	0	-	-	-	-	-	-	0	-	-	-	-	-	-	**-**	**-**	**-**
Shoal Bay	11	0	-	0	0.0	0.00	-	0	-	-	-	-	-	-	**0.0**	**0.00**	**-**
Nodales	30	4	0.33	4	13.3	0.13	1.0	24	5	0.98	10	20.8	0.42	2.0	**16.7**	**0.26**	**1.6**
Discovery	0	-	-	-	-	-	-	19	4	0.88	4	21.1	0.21	1.0	**21.1**	**0.21**	**1.0**
Okisollo	0	-	-	-	-	-	-	19	12	0.66	24	63.2	1.26	2.0	**63.2**	**1.26**	**2.0**
Owen Bay	1	0	-	0	0.0	0.00	-	16	12	2.23	28	75.0	1.75	2.3	**70.6**	**1.65**	**2.3**
Total	224	20	0.40	23	8.9	0.10	1.2	181	55	1.35	91	30.4	0.50	1.7	**18.5**	**0.28**	**1.5**

NS = not sampled

3.7.3 Post-Exposure Sea Lice Infestation Rates on Coho and Chinook Salmon

A total of 33 coho and 6 chinook salmon were collected during beach seine sampling from the Post-Exposure sites in the Discovery Islands in 2020. The total Post-Exposure prevalence for coho salmon was 33.3 % (Table 16). While the abundance of sea lice on the coho salmon population was 0.52 (Table 16). None of the chinook salmon samples were found to be infested with sea lice (Table 16).

Table 16: Coho and chinook salmon collected from the Post-Exposure sites in the Discovery Islands in May 2020 summarized by site.

Site	Species	# of fish analyzed	# of fish infested	# of lice	Prevalence (%)	Abundance	Average Intensity
Blenkinsop Bay	coho	30	8	9	26.7	0.30	1.1
Primary 1	chinook	1	0	0	0.0	0.00	-
Fanny Bay	chinook	5	0	0	0.0	0.00	-
Owen Bay	coho	3	3	8	100	2.67	2.7
Total	**coho**	**33**	**11**	**17**	**33.3**	**0.52**	**1.5**
Total	**chinook**	**6**	**0**	**0**	**0**	**0**	**-**

3.8 Pre-Exposure Infestation Rates by Sea Lice Species

For the Pre-Exposure sample population (n=285), a total of 18 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 18 individuals, and 71 *Caligus clemensi* sea lice were found on 57 individuals (Appendix III). A single fish was found to be infested with both a *L. salmonis* and a *C. clemensi*. Sea lice were found on both chum and pink salmon collected from Pre-Exposure sites (Table 10).

3.8.1 Pre-Exposure Infestation Rates by Sea Lice Species on Chum Salmon

An analysis of the species of sea lice identified on the 112 chum salmon collected at the Pre-Exposure sites in the Discovery Islands is presented in Table 17. A total of four *Lepeophtheirus salmonis* sea lice of various life stages were identified on four juvenile chum salmon, and 23 *Caligus clemensi* sea lice were found on 18 of the juvenile chum salmon analyzed in the lab (Appendix III). No juvenile chum salmon were infested with both *L. salmonis* and *C. clemensi*. The sea lice species identified on chum salmon are also presented by site and by week in Table 18.

For the chum salmon sample population infested with *Caligus clemensi* sea lice (n=18) there were 14 samples infested with one louse, three with two lice and one with three lice. For the chum salmon sample population infested with *Lepeophtheirus salmonis* sea lice (n=4), all four individuals were infested with one louse.

Table 17: The number of sea lice in each life stage by species identified on the Pre-Exposure chum salmon sample population from the Discovery Islands in 2020. LEP = *Lepeophtheirus salmonis* CAL = *Caligus clemensi*

Life Stage[1]	April 13 – 15	May 19 – 21
LEP Co	2	0
LEP C1	1	0
LEP C2	1	0
LEP PAM	0	0
LEP PAF	0	0
LEP AM	0	0
LEP AF	0	0
Total LEP	**4**	**0**
CAL Co	7	1
CAL C1	10	1
CAL C2	1	0
CAL C3	0	1
CAL C4	0	1
CAL PAM	0	0
CAL PAF	0	0
CAL AM	0	1
CAL AF	0	0
Total CAL	**18**	**5**

[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 18: The species of sea lice found on Pre-Exposure chum salmon collected in the Discovery Islands in 2020 summarized by site. LEP = *Lepeophtheirus salmonis* CAL = *Caligus clemensi*

Site	Sample Week								**TOTAL**		
	April 13 – 15				May 19 – 21						
	# of Chum Analyzed	# of Infested Chum	# of LEP	# of CAL	# of Chum Analyzed	# of Infested Chum	# of LEP	# of CAL	**# of Chum Analyzed**	**# of Infested Chum**	**# of Lice**
Francisco Point	33	16	3	15	2	2	0	5	**35**	**18**	**23**
Marina Island	2	0	0	0	0	-	-	-	**2**	**0**	**0**
Rebecca Spit	30	0	0	0	1	0	0	0	**31**	**0**	**0**
Viner Point	16	2	1	1	0	-	-	-	**16**	**2**	**2**
SE Hill Island	0	-	-	-	0	-	-	-	**0**	**-**	**-**
Penn Island	0	-	-	-	0	-	-	-	**0**	**-**	**-**
Deepwater Bay	28	2	0	2	0	-	-	-	**28**	**2**	**2**
Total	**109**	**20**	**4**	**18**	**3**	**2**	**0**	**5**	**112**	**22**	**27**

3.8.2 Pre-Exposure Infestation Rates by Sea Lice Species on Pink Salmon

An analysis of the species of sea lice identified on the 173 pink salmon collected at Pre-Exposure sites in the Discovery Islands in 2020 is presented in Table 19. A total of 48 *Caligus clemensi* sea lice were found on 39 of the juvenile pink salmon analyzed in the lab (Appendix III). A total of 14 *Lepeophtheirus salmonis* sea lice were identified on 14 juvenile pink salmon. There was one pink salmon infested with both species of sea lice. Sea lice identified on pink salmon are also presented by site and week in Table 20.

For the pink salmon sample population infested with *Caligus clemensi* sea lice (n=39) there were 31 individuals infested with one louse, seven samples infested with two lice and one sample with three lice. For the pink salmon sample population infested with *Lepeophtheirus salmonis* sea lice (n=14), all 14 individuals were infested with one louse.

Table 19: The number of sea lice in each life stage by species identified on the Pre-Exposure pink salmon sample population from the Discovery Islands in 2020. LEP = *Lepeophtheirus salmonis* CAL = *Caligus clemensi*

Life Stage[1]	April 13 – 15	May 19 - 21
LEP Co	1	1
LEP C1	1	3
LEP C2	2	5
LEP PAM	0	1
LEP PAF	0	0
LEP AM	0	0
LEP AF	0	0
Total LEP	**4**	**10**
CAL Co	6	4
CAL C1	15	13
CAL C2	1	6
CAL C3	0	1
CAL C4	0	1
CAL PAM	0	1
CAL PAF	0	0
CAL AM	0	0
CAL AF	0	0
Total CAL	**22**	**26**

[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 20: The species of sea lice found on Pre-Exposure pink salmon collected in the Discovery Islands in 2020 summarized by site. LEP = *Lepeophtheirus salmonis CAL = Caligus clemensi*

Site	Sample Week								**TOTAL**		
	April 13 – 15				May 19 – 21						
	# of Pinks Analyzed	# of Infested Pinks	# of LEP	# of CAL	# of Pinks Analyzed	# of Infested Pinks	# of LEP	# of CAL	**# of Pinks Analyzed**	**# of Infested Pinks**	**# of Lice**
Francisco Point	28	15	1	19	30	9	2	8	**58**	**24**	**30**
Marina Island	1	0	0	0	18	8	3	5	**19**	**8**	**8**
Rebecca Spit	5	0	0	0	18	11	3	11	**23**	**11**	**14**
Viner Point	9	1	1	0	1	1	0	1	**10**	**2**	**2**
SE Hill Island	0	-	-	-	1	0	0	0	**1**	**0**	**0**
Penn Island	0	-	-	-	0	-	-	-	**0**	**-**	**-**
Deepwater Bay	32	4	2	3	30	3	2	1	**62**	**7**	**8**
Total	**75**	**20**	**4**	**22**	**98**	**32**	**10**	**26**	**173**	**52**	**62**

3.9 Post-Exposure Sea Lice Infestation Rates by Sea Lice Species

Within the 2020 Post-Exposure sample population, a total of 172 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 113 individuals and 84 *Caligus clemensi* sea lice were found on 70 of the samples analyzed in the lab (Appendix III). There were 20 samples infested with both *L. salmonis* and *C. clemensi*.

3.9.1 Post-Exposure Infestation Rates by Sea Lice Species on Chum Salmon

An analysis of the species of sea lice identified on the 452 chum salmon collected in the Post-Exposure sites in the Discovery Islands is presented in Table 21. A total of 94 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 57 juvenile chum salmon and 31 *Caligus clemensi* sea lice were found on 28 of the juvenile chum salmon analyzed in the lab (Appendix III). There were eight juvenile chum salmon infested with both *L. salmonis* and *C. clemensi*. The sea lice species identified on chum salmon are also presented by site by week in Table 22.

For the chum salmon sample population infested with *Lepeophtheirus salmonis* sea lice (n=57), 38 samples were infested with one louse, nine with two lice, six with three lice, two with four lice, one with five lice and one with seven lice. For the chum salmon sample population infested with *Caligus clemensi* sea lice (n=28), 26 of the infested chum had one louse, one had two lice, and one had three lice.

Table 21: The number of sea lice in each life stage by species identified on the Post-Exposure chum salmon sample population from the Discovery Islands in 2020. LEP = *Lepeophtheirus salmonis* CAL = *Caligus clemensi*

Life Stage[1]	April 13 – 15	May 19 – 21
LEP Co	4	9
LEP C1	7	32
LEP C2	2	25
LEP PAM	0	7
LEP PAF	0	2
LEP AM	0	5
LEP AF	0	1
Total LEP	**13**	**81**
CAL Co	3	2
CAL C1	5	10
CAL C2	1	5
CAL C3	0	1
CAL C4	1	1
CAL PAM	0	0
CAL PAF	0	2
CAL AM	0	0
CAL AF	0	0
Total CAL	**10**	**21**

[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 22: The species of sea lice found on Post-Exposure chum salmon collected in the Discovery Islands in 2020 summarized by site. LEP = *Lepeophtheirus salmonis CAL = Caligus clemensi*

Site	Sample Week								**TOTAL**		
	April 13 – 15				May 19 – 21						
	# of Chum Analyzed	# of Infested Chum	# of LEP	# of CAL	# of Chum Analyzed	# of Infested Chum	# of LEP	# of CAL	**# of Chum Analyzed**	**# of Infested Chum**	**# of Lice**
Primary 1	0	-	-	-	24	0	0	0	**24**	**0**	**0**
Beautiful Bay	30	2	1	1	0	-	-	-	**30**	**2**	**2**
Primary 3	0	-	-	-	0	-	-	-	**0**	**-**	**-**
Blenkinsop Bay	30	2	0	2	1	0	0	0	**31**	**2**	**2**
Sunderland	0	-	-	-	0	-	-	-	**0**	**0**	**0**
Bessborough Bay	0	-	-	-	30	3	3	0	**30**	**3**	**3**
Wellbore	0	-	-	-	0	-	-	-	**0**	**-**	**-**
Chancellor	0	-	-	-	2	2	3	1	**2**	**2**	**4**
Race Passage	0	-	-	-	20	3	3	0	**20**	**3**	**3**
Raza	2	0	0	0	0	-	-	-	**2**	**0**	**0**
Raza North	17	3	1	2	1	0	0	0	**18**	**3**	**3**
Rock Bay	31	1	1	0	7	1	0	1	**38**	**2**	**2**
Bear Bay	30	4	1	3	NS	-	-	-	**30**	**4**	**4**
Knox Bay	4	0	0	0	NS	-	-	-	**4**	**0**	**0**
Cordero	0	-	-	-	NS	-	-	-	**0**	**-**	**-**
Bickley Bay	0	-	-	-	16	5	5	0	**16**	**5**	**5**
Fanny Bay	30	0	0	0	19	0	0	0	**49**	**0**	**0**
Shoal Bay	30	0	0	0	30	3	3	0	**60**	**3**	**3**
Nodales	30	9	9	2	30	10	19	1	**60**	**19**	**31**
Discovery	0	-	-	-	3	2	0	2	**3**	**2**	**2**
Okisollo	0	-	-	-	7	5	11	0	**7**	**5**	**11**
Owen Bay	1	0	0	0	27	22	34	16	**28**	**22**	**50**
Total	**235**	**21**	**13**	**10**	**217**	**56**	**76**	**21**	**452**	**77**	**125**

3.9.2 Post Exposure Infestation Rates by Sea Lice Species on Pink Salmon

An analysis of the species of sea lice identified on the 405 pink salmon collected at the Post-Exposure sites in the Discovery Islands is presented in Table 23. A total of 73 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 52 juvenile pink salmon and 41 *Caligus clemensi* sea lice were found on 33 of the juvenile pink salmon analyzed in the lab (Appendix III). A total of ten juvenile pink salmon were infested with both *L. salmonis* and *C. clemensi*. The sea lice species identified on pink salmon are also presented by site and by week in Table 24.

For the pink salmon sample population infested with *Lepeophtheirus salmonis* sea lice (n=52), 39 of the samples were infested with one louse, nine were infested with two lice, one was infested with three lice, two were infested with four lice and one sample had five lice. For the pink salmon sample population infested with *Caligus clemensi* sea lice (n=33) there were 27 samples infested with one louse, four samples were infested with two lice and two samples were infested with three lice.

Table 23: The number of sea lice in each life stage by species identified on the Post-Exposure pink salmon sample population from the Discovery Islands in 2020. LEP = *Lepeophtheirus salmonis* CAL = *Caligus clemensi*

Life Stage[1]	April 13 - 15	May 19 – 21
LEP Co	7	8
LEP C1	3	18
LEP C2	5	11
LEP PAM	0	9
LEP PAF	0	7
LEP AM	0	4
LEP AF	0	1
Total LEP	**15**	**58**
CAL Co	1	2
CAL C1	6	10
CAL C2	0	3
CAL C3	0	7
CAL C4	0	4
CAL PAM	0	2
CAL PAF	0	3
CAL AM	1	1
CAL AF	0	1
Total CAL	**8**	**33**

[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 24: The species of sea lice found on Post-Exposure pink salmon collected in the Discovery Islands in 2020 summarized by site. LEP = *Lepeophtheirus salmonis* CAL = *Caligus clemensi*

Site	Sample Week								**TOTAL**		
	April 13 – 15				May 19 – 21						
	# of pink Analyzed	# of Infested pink	# of LEP	# of CAL	# of pink Analyzed	# of Infested pink	# of LEP	# of CAL	**# of pink Analyzed**	**# of Infested pink**	**# of Lice**
Primary 1	11	1	1	0	7	1	1	0	**18**	**2**	**2**
Beautiful Bay	30	1	1	0	0	-	-	-	**30**	**1**	**1**
Primary 3	0	-	-	-	0	-	-	-	**0**	**-**	**-**
Blenkinsop Bay	30	2	2	1	0	-	-	-	**30**	**2**	**3**
Sunderland	0	-	-	-	0	-	-	-	**0**	**-**	**-**
Bessborough Bay	0	-	-	-	30	7	8	1	**30**	**7**	**9**
Wellbore	0	-	-	-	0	-	-	-	**0**	**-**	**-**
Chancellor	0	-	-	-	0	-	-	-	**0**	**-**	**-**
Race Passage	0	-	-	-	31	7	3	5	**31**	**7**	**8**
Raza	30	1	0	1	0	-	-	-	**30**	**1**	**1**
Raza North	25	6	3	4	1	0	0	0	**26**	**6**	**7**
Rock Bay	29	3	4	0	30	7	1	6	**59**	**10**	**11**
Bear Bay	19	1	1	0	NS	-	-	-	**19**	**1**	**1**
Knox Bay	5	1	1	0	NS	-	-	-	**5**	**1**	**1**
Cordero	0	-	-	-	NS	-	-	-	**0**	**-**	**-**
Bickley Bay	3	0	0	0	4	0	0	0	**7**	**0**	**0**
Fanny Bay	0	-	-	-	0	-	-	-	**0**	**-**	**-**
Shoal Bay	11	0	0	0	0	-	-	-	**11**	**0**	**0**
Nodales	30	4	2	2	24	5	9	1	**54**	**9**	**14**
Discovery	0	-	-	-	19	4	3	1	**19**	**4**	**4**
Okisollo	0	-	-	-	19	12	16	8	**19**	**12**	**24**
Owen Bay	1	0	0	0	16	12	17	11	**17**	**12**	**28**
Total	**224**	**20**	**15**	**8**	**181**	**55**	**58**	**33**	**405**	**75**	**114**

3.9.3 Post-Exposure Infestation Rates by Sea Lice Species on Coho and Chinook Salmon

A total of six chinook salmon were collected from Post-Exposure sites in the Discovery Islands in 2020. No sea lice were found on any chinook salmon samples.

For the Post-Exposure coho salmon sample population, a total of five *Lepeophtheirus salmonis* sea lice of various life stages were identified on four juvenile coho salmon and 12 *Caligus clemensi* sea lice were found on nine of the juvenile coho salmon. There were two juvenile coho salmon infested with both *L. salmonis* and *C. clemensi*.

A total of 33 coho salmon were collected from Owen Bay and Blenkinsop Bay in May 2020. All of the Owen Bay samples (n=3) were infested with sea lice. One coho was infested with two *L. salmonis* copepodids. Two of the coho collected from Owen Bay were infested with both *L. salmonis* and *C. clemensi*.

A total of eight coho salmon collected from Blenkinsop Bay were infested with sea lice, primarily with *C. clemensi* (eight lice). One of the samples was infested with two lice and the remaining samples had one louse. Only one *L. salmonis* was identified.

4.0 Conclusions

This report presents the data from the fourth year of industry driven beach seining and sea lice analysis conducted for wild juvenile salmonid monitoring in the Discovery Islands, BC by Marine Harvest Canada, Cermaq Canada and Grieg Seafood BC Ltd. This report is limited to the summary and presentation of data collected in 2020. A tabular comparison of water quality data as well as chum and pink sea lice infestation data from 2017 through 2020 is presented in Appendix IV.

4.1 Pre-Exposure Conclusions

A total of 285 individual samples from the Pre-Exposure beach seine sites underwent lab analysis for sea lice infestation including 112 chum and 173 pink salmon. From the total Pre-Exposure sample population 74 individuals were infested with 89 sea lice. The calculated prevalence for the total Pre-Exposure sample population was 26.0 % and the sea lice abundance was 0.31 for the Pre-Exposure sample population collected in the Discovery Islands in 2020.

A total of 663 chum salmon were captured, representing 10.8 % of all captured Pre-Exposure samples. Of the 663 chum captured, 112 were retained for lab analysis for sea lice infestation. A total of 22 chum smolts were found to be infested with 27 lice resulting in a calculated prevalence of 19.6 % and an abundance of 0.24 for the Pre-Exposure chum salmon sample population.

A total of 5485 pink salmon were captured, representing 89.2 % of all captured Pre-Exposure samples. Of the 5485 pinks captured, 173 were kept for lab analysis for sea lice infestation. A total of 52 pink salmon were found to be infested with 62 lice resulting in a calculated prevalence of 30.1 % and an abundance of 0.36 for the Pre-Exposure pink salmon sample population.

For the Pre-Exposure sample population (n=285), a total of 18 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 18 individuals and 71 *Caligus clemensi* sea lice were found on 57 of the samples analyzed in the lab. A single sample was found to be infested with both *L. salmonis* and *C. clemensi*.

For the Pre-Exposure chum salmon sample population, a total of four *Lepeophtheirus salmonis* sea lice of various life stages were identified on four juvenile chum salmon and 23 *Caligus clemensi* sea lice were found on 18 of the juvenile chum salmon. No juvenile chum salmon were infested with both *L. salmonis* and *C. clemensi*.

For the Pre-Exposure pink salmon sample population, a total of 48 *Caligus clemensi* sea lice were found on 39 of the juvenile pink salmon and 14 *L. salmonis* sea lice were identified on 14 juvenile pink salmon. There was one pink salmon that was infested with both species of sea lice.

A comparison of the prevalence, abundance and average intensity of sea lice species found on Pre-Exposure chum and pink salmon in 2020 is presented in the following summary table.

Fish Species	*Caligus clemensi*			*Lepeophtheirus salmonis*		
	Prevalence	Abundance	Average Intensity	Prevalence	Abundance	Average Intensity
Chum (n=112)	16.1 %	0.21	1.3	3.6 %	0.04	1.0
Pink (n=173)	22.5 %	0.28	1.2	6.9 %	0.08	1.2

4.2 Post-Exposure Conclusions

A total of 896 individual samples from the Post-Exposure beach seine sites underwent lab analysis for sea lice infestation including 452 chum, 405 pink, 33 coho and 6 chinook salmon. Within the Post-Exposure sample population, 163 individuals were infested with 256 sea lice. The calculated prevalence for the total Post-Exposure sample population collected in the Discovery Islands in 2020 was 18.2 %; the sea lice abundance was 0.29.

A total of 1287 Post-Exposure chum salmon were captured, representing 46.3 % of all captured Post-Exposure samples. Of the 1287 chum captured, 452 were retained for lab analysis for sea lice infestation. A total of 77 chum smolts were found to be infested with 125 lice resulting in a calculated prevalence of 17.0 % and an abundance of 0.28 for the Post-Exposure chum salmon sample population.

A total of 1425 pink salmon were captured, representing 51.2 % of all captured Post-Exposure samples. Of the 1425 pinks captured, 405 were retained for lab analysis for sea lice infestation. A total of 75 pink salmon were found to be infested with 114 lice resulting in a calculated prevalence of 18.5 % and an abundance of 0.28 for the Post-Exposure pink salmon sample population.

A total of six chinook salmon were captured, retained and analyzed for sea lice infestation from the Post-Exposure sample sites. None of the chinook salmon were found to be infested by sea lice.

A total of 63 coho salmon were captured, representing 2.3 % of all captured Post-Exposure samples. Of the 63 coho captured, 33 were retained for lab analysis for sea lice infestation. A total of 11 coho salmon were found to be infested with 17 lice resulting in a calculated prevalence of 33.3 % and an abundance of 0.52 for the Post-Exposure coho salmon sample population.

For the Post-Exposure sample population, a total of 172 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 113 individuals and 84 *Caligus clemensi* sea lice were found on 70 of the samples analyzed in the lab. There were 20 samples that were infested with both *L. salmonis* and *C. clemensi*.

For the Post-Exposure chum salmon sample population, a total of 94 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 57 juvenile chum salmon and 31 *Caligus clemensi* sea lice were found on 28 of the juvenile chum salmon. There were eight juvenile chum salmon infested with both *L. salmonis* and *C. clemensi*.

For the Post-Exposure pink salmon sample population, a total of 73 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 52 juvenile pink salmon and 41 *Caligus clemensi* sea lice were found on 33 of the juvenile pink salmon. There were ten juvenile pink salmon infested with both *L. salmonis* and *C. clemensi*.

For the Post-Exposure coho salmon sample population, a total of five *Lepeophtheirus salmonis* sea lice of various life stages were identified on four juvenile coho salmon and 12 *Caligus clemensi* sea lice were found on nine of the juvenile coho salmon. There were two juvenile coho salmon infested with both *L. salmonis* and *C. clemensi*.

No sea lice were identified on Post-Exposure chinook salmon samples.

A comparison of the prevalence, abundance and average intensity of sea lice species found on Post-Exposure chum and pink salmon was completed for sample data from 2020 collected in the Discovery Islands. This data is presented in the following summary table.

Fish Species	*Caligus clemensi*			*Lepeophtheirus salmonis*		
	Prevalence	Abundance	Average Intensity	Prevalence	Abundance	Average Intensity
Chum (n=452)	6.2 %	0.07	1.1	12.6 %	0.21	1.6
Pink (n=405)	8.1 %	0.10	1.2	12.8 %	0.18	1.4

4.3 Comparison of Data between Pre- and Post-Exposure Sites

The following summary tables have been prepared to allow for direct comparison of the Pre- and Post-Exposure data of sea lice infestation rates on pink and chum salmon collected in the Discovery Islands in 2020. Table 25 presents the infestation rates for the species as a combination of both *L. salmonis* and *C. clemensi* while Table 26 presents the infestation rates separated by sea lice species.

Table 25: A comparison of sea lice infestation rates on the chum and pink salmon sample populations collected at Pre- and Post-Exposure sites in the Discovery Islands in 2020.

Species	Sample Location	Sample size (n)	Total number of lice observed	Total number of fish infested	Prevalence (%)	Abundance	Average Intensity
chum	Pre-Exposure	112	27	22	19.6	0.24	1.2
	Post-Exposure	452	125	77	17.0	0.28	1.6
pink	Pre-Exposure	173	62	52	30.1	0.36	1.2
	Post-Exposure	405	114	75	18.5	0.28	1.5

Table 26: A comparison of sea lice infestation rates by sea lice species on the chum and pink salmon sample populations collected at Pre- and Post-Exposure sites in the Discovery Islands in 2020.

Fish Species	Sample Location	*Caligus clemensi*			*Lepeophtheirus salmonis*		
		Prevalence (%)	Abundance	Average Intensity	Prevalence (%)	Abundance	Average Intensity
chum (n=112)	Pre-Exposure	16.1 %	0.21	1.3	3.6 %	0.04	1.0
chum (n=452)	Post-Exposure	6.2 %	0.07	1.1	12.6 %	0.21	1.6
pink (n=173)	Pre-Exposure	22.5 %	0.28	1.2	6.9 %	0.08	1.2
pink (n=405)	Post-Exposure	8.1 %	0.10	1.2	12.8 %	0.18	1.4

The percentage of the Pre- and Post-Exposure chum salmon sample population with the number of sea lice per sample was graphed and is presented in Figure 3. As shown in the figure 80.4 % of the Pre-Exposure chum salmon sample population and 83.0 % of the Post-Exposure chum salmon sample population were not infested with sea lice.

The percentage of the Pre- and Post-Exposure pink salmon sample population with the number of sea lice per sample was graphed and is presented in Figure 4. As shown in the figure 69.9 % of the Pre-Exposure pink salmon sample population and 81.5 % of the Post-Exposure pink salmon sample population were not infested with sea lice.

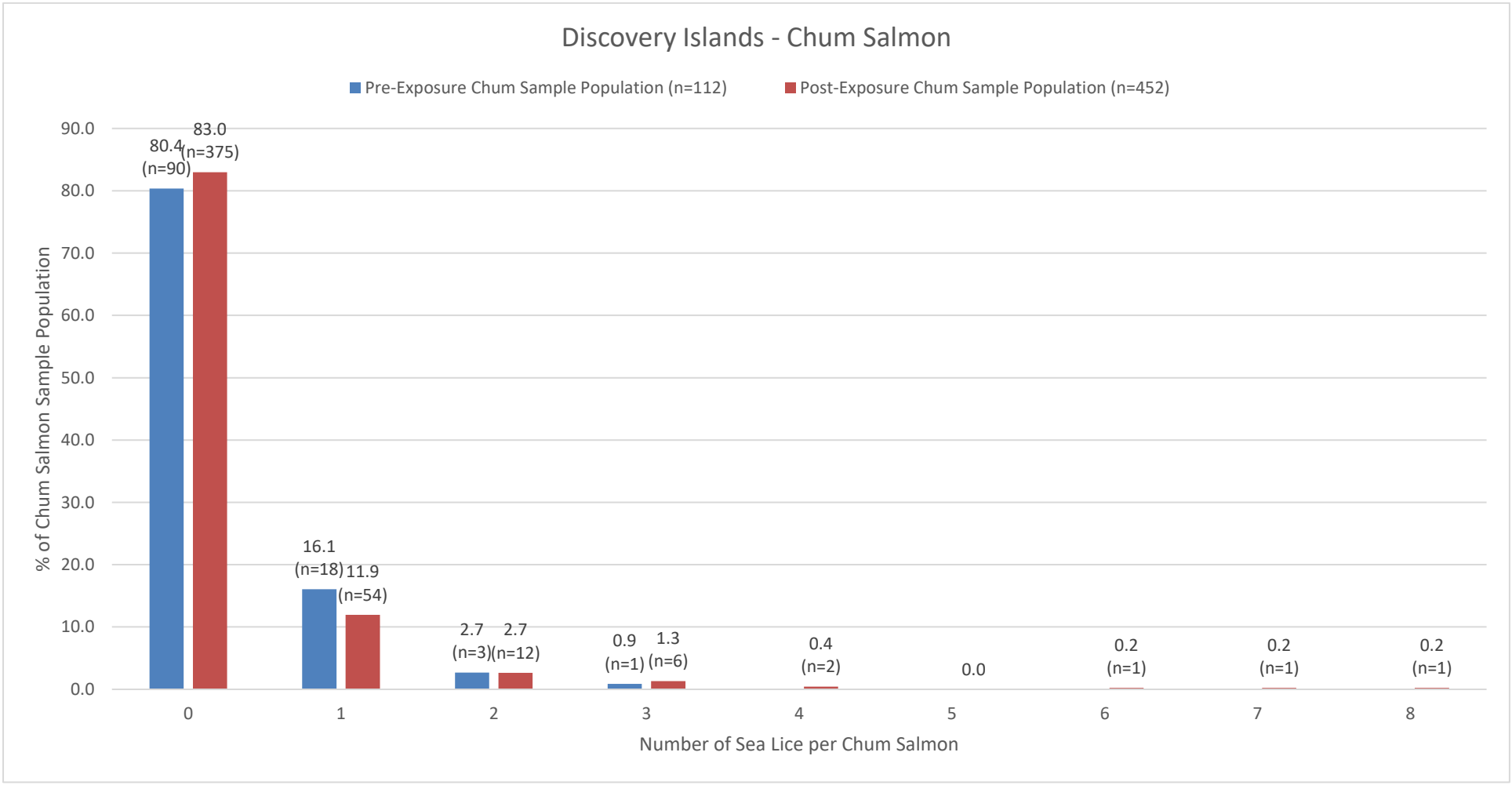

Figure 3: The number of sea lice per chum salmon graphed as a percentage of the total chum salmon sample population collected from Pre- and Post-Exposure sites in the Discovery Islands in 2020.

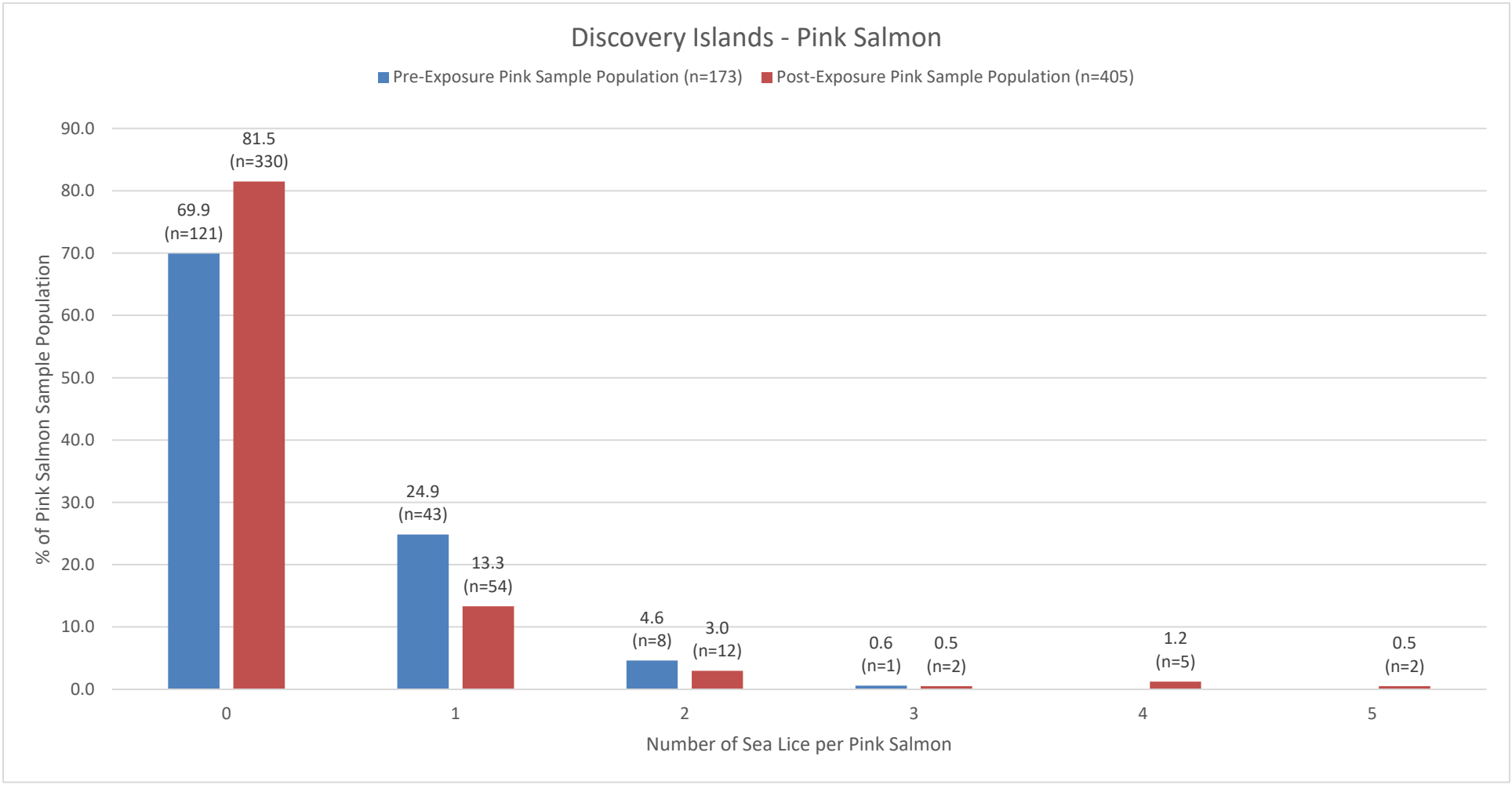

Figure 4: The number of sea lice per pink salmon graphed as a percentage of the total pink salmon sample population collected from Pre- and Post-Exposure sites in the Discovery Islands in 2020.

4.4 Comparison of Data Between Sample Years

A comparison of the prevalence, abundance and average intensity of sea lice species found on chum and pink salmon collected in the Discovery Islands between 2017 and 2020 is presented in the following summary tables. Additional yearly comparisons are presented in Appendix IV.

Year	Sample Location and Species	*Caligus clemensi*			*Lepeophtheirus salmonis*		
		Prevalence	Abundance	Average Intensity	Prevalence	Abundance	Average Intensity
2017	Pre-Exposure chum (n=395)	8.4 %	0.22	2.6	1.8 %	0.02	1.1
	Post-Exposure chum (n=727)	3.9 %	0.04	1.1	3.2 %	0.03	1.0
2018	Pre-Exposure chum (n=123)	22.0 %	0.27	1.2	2.4 %	0.02	1.0
	Post-Exposure chum (n=599)	1.3 %	0.01	1.0	2.8 %	0.03	1.0
2019	Pre-Exposure chum (n=126)	21.4 %	0.40	1.9	7.1 %	0.09	1.2
	Post-Exposure chum (n=519)	6.4 %	0.08	1.2	18.3 %	0.26	1.4
2020	Pre-Exposure chum (n=112)	16.1 %	0.21	1.3	3.6 %	0.04	1.0
	Post-Exposure chum (n=452)	6.2 %	0.07	1.1	12.6 %	0.21	1.6

Year	Sample Location and Species	*Caligus clemensi*			*Lepeophtheirus salmonis*		
		Prevalence	Abundance	Average Intensity	Prevalence	Abundance	Average Intensity
2017	Pre-Exposure pink (n=173)	13.3 %	0.31	2.3	1.2 %	0.01	1.0
	Post-Exposure pink (n=277)	5.0 %	0.05	1.1	4.0 %	0.04	1.1
2018	Pre-Exposure pink (n=125)	19.2 %	0.25	1.3	4.8 %	0.06	1.2
	Post-Exposure pink (n=309)	1.9 %	0.03	1.7	1.9 %	0.02	1.0
2019	Pre-Exposure pink (n=40)	12.5 %	0.23	1.8	0 %	0	-
	Post-Exposure pink (n=470)	3.2 %	0.03	1.1	8.5 %	0.09	1.1
2020	Pre-Exposure pink (n=173)	22.5 %	0.28	1.2	6.9 %	0.08	1.2
	Post-Exposure pink (n=405)	8.1 %	0.10	1.2	12.8 %	0.18	1.4

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Appendix I – Field Data

Date	Time	Site Name	Salinity (ppt)	Temperature (° C.)
			0.2m	0.2m
04-13-20	9:02	Primary 1	30.9	8.2
04-13-20	9:56	Beautiful Bay	32.2	10.3
04-13-20	10:16	Primary 3	33.8	9.4
04-13-20	10:39	Blenkinsop Bay	33.7	9.9
04-13-20	11:34	Sunderland	32.9	9.5
04-13-20	12:08	Bessborough Bay	33.0	12.1
04-13-20	12:34	Wellbore	32.8	11.2
04-13-20	13:02	Chancellor	32.0	13.1
04-13-20	13:29	Race Passage	31.3	10.3
04-14-20	7:57	Francisco Point	32.2	10.3
04-14-20	8:56	Marina Island	32.2	10.0
04-14-20	9:37	Rebecca Spit	31.9	12.0
04-14-20	9:57	Viner Point	30.8	10.2
04-14-20	10:35	SE Hill Island	31.4	11.1
04-14-20	11:50	Penn Island	28.4	12.0
04-14-20	11:36	Raza	29.6	11.7
04-14-20	12:21	Raza North	25.9	14.1
04-15-20	8:20	Rock Bay	29.4	8.5
04-15-20	8:57	Bear Bay	31.3	8.8
04-15-20	9:46	Knox Bay	24.4	8.8
04-15-20	10:32	Cordero	32.6	12.9
04-15-20	10:59	Bickley Bay	29.2	13.1
04-15-20	11:49	Fanny Bay	16.0	13.4
04-15-20	12:11	Shoal Bay	20.7	14.6
04-15-20	12:52	Nodales	32.1	13.5
04-15-20	13:33	Discovery	32.1	16.3
04-15-20	14:07	Okisollo	31.0	13.7
04-15-20	14:32	Owen Bay	15.7	15.9
04-15-20	15:56	Deepwater Bay	31.9	13.7
05-19-20	9:20	Primary 1	32.7	12.5
05-19-20	9:54	Beautiful Bay	33.4	12.2
05-19-20	10:21	Primary 3	33.7	10.0
05-19-20	10:48	Blenkinsop Bay	33.3	10.3
05-19-20	11:41	Sunderland	32.4	11.3
05-19-20	12:28	Bessborough Bay	27.9	12.3
05-19-20	13:16	Wellbore	21.5	13.6
05-19-20	13:37	Chancellor	31.6	13.0
05-19-20	14:24	Race Passage	33.5	10.6
05-20-20	6:59	Francisco Point	28.8	13.5
05-20-20	7:35	Marina Island	29.5	13.8
05-20-20	8:08	Rebecca Spit	30.2	14.3
05-20-20	8:36	Viner Point	30.1	13.9
05-20-20	9:02	SE Hill Island	28.8	14.5
05-20-20	9:36	Penn Island	25.0	14.7
05-20-20	10:15	Raza	24.5	14.8
05-20-20	10:40	Raza North	22.1	14.8
05-21-20	8:03	Rock Bay	32.4	10.0
05-21-20	NS	Bear Bay	NS	NS

Date	Time	Site Name	Salinity (ppt) 0.2m	Temperature (° C.) 0.2m
05-21-20	9:19	Nodales	29	10.8
05-21-20	10:12	Shoal Bay	22.6	10.6
05-21-20	10:38	Bickley Bay	25.8	10.8
05-21-20	NS	Knox Bay	NS	NS
05-21-20	11:23	Cordero	25.4	10.7
05-21-20	11:58	Fanny Bay	23.5	11.4
05-21-20	13:24	Discovery	30.6	13.8
05-21-20	13:58	Okisollo	32.6	13.7
05-21-20	14:33	Owen Bay	32.5	15.4
05-21-20	15:50	Deepwater Bay	32.3	12.8

NS = not sampled

Appendix II – Capture and Collection Sample Totals

Date	Site Name	Weather Comments	Pink Captured	Pink Retained	Chum Captured	Chum Retained	Coho Captured	Coho Retained	Chinook Captured	Chinook Retained	Sockeye Captured	Sockeye Retained	TSB Captured	TSB Retained	Comments
04-13-20	Primary 1	Sun, calm	11	11	0	0	0	0	0	0	0	0	0	0	No bycatch.
04-13-20	Beautiful Bay	Sun, calm	117	30	442	30	0	0	0	0	0	0	0	0	2 sculpin bycatch, boulders
04-13-20	Primary 3	Sun, calm	0	0	0	0	0	0	0	0	0	0	0	0	2 green urchins, 1 tubesnout
04-13-20	Blenkinsop Bay	Sun, calm	412	30	86	30	0	0	0	0	0	0	0	0	3 green urchins
04-13-20	Sunderland	Sun, calm	0	0	0	0	0	0	0	0	0	0	0	0	No fish caught
04-13-20	Bessborough Bay	Sun, calm	0	0	0	0	0	0	0	0	0	0	0	0	2 green urchins, 1 sculpin, flounder
04-13-20	Wellbore	Sun, calm	0	0	0	0	0	0	0	0	0	0	0	0	greenling, sculpin
04-13-20	Chancellor	Sun, calm	0	0	0	0	0	0	0	0	0	0	0	0	1 juvenile lingcod, greenlings, sanddabs, crabs.
04-13-20	Race Passage	Sun, calm	0	0	0	0	0	0	0	0	0	0	0	0	No fish caught
04-14-20	Francisco Point	Sun, calm	117	28	110	33	0	0	0	0	0	0	0	0	No bycatch
04-14-20	Marina Island	Sun, wind	1	1	2	2	0	0	0	0	0	0	0	0	No bycatch
04-14-20	Rebecca Spit	Sun, small waves	5	5	72	30	0	0	0	0	0	0	0	0	Sand lances. Rock in bunt.
04-14-20	Viner Point	Sun, calm	9	9	16	16	0	0	0	0	0	0	0	0	No bycatch
04-14-20	SE Hill Island	Sun, calm	0	0	0	0	0	0	0	0	0	0	0	0	No fish caught
04-14-20	Penn Island	Sun, calm	0	0	0	0	0	0	0	0	0	0	0	0	No fish caught
04-14-20	Raza	Sun, calm	73	30	2	2	0	0	0	0	0	0	0	0	6 sculpins, sand lances
04-14-20	Raza North	Sun, calm	25	25	17	17	0	0	0	0	0	0	0	0	4 sculpin
04-15-20	Rock Bay	Sun, wind, waves	51	29	42	31	0	0	0	0	0	0	0	0	Juvenile lingcod, sculpin. Shallow, crashing waves.
04-15-20	Bear Bay	Sun, cloud, waves	19	19	188	30	0	0	0	0	0	0	0	0	No bycatch
04-15-20	Knox Bay	Sun, waves	5	5	4	4	0	0	0	0	0	0	0	0	2 sculpins
04-15-20	Cordero	Sun, calm	0	0	0	0	0	0	0	0	0	0			No fish caught
04-15-20	Bickley Bay	Sun, calm	3	3	0	0	0	0	0	0	0	0	0	0	1 flounder
04-15-20	Fanny Bay	Sun, calm	0	0	39	30	0	0	0	0	0	0			1 sculpin
04-15-20	Shoal Bay	Sun, calm	11	11	52	30	0	0	0	0	0	0	0	0	Sculpins
04-15-20	Nodales	Sun, calm	72	30	55	30	0	0	0	0	0	0	0	0	Sculpins, gunnels, crab, tubesnouts
04-15-20	Discovery	Sun, calm	0	0	0	0	0	0	0	0	0	0	0	0	Tubesnout
04-15-20	Okisollo	Sun, calm	0	0	0	0	0	0	0	0	0	0			Pipefish, gunnels, crab, sculpin
04-15-20	Owen Bay	Sun, calm	1	1	1	1	0	0	0	0	0	0			Sculpins, crab.
04-15-20	Deepwater Bay	Sun, calm	1758	32	460	28	0	0	0	0	0	0	0	0	Juvenile rockfish, prawn, greenling.
05-19-20	Primary 1	Sun/cloud, wind, waves	7	7	24	24	0	0	1	1	0	0	0	0	1 rockfish. Set a bit north to try to avoid waves.
05-19-20	Beautiful Bay	Cloud, wind, waves	0	0	0	0	0	0	0	0	0	0	0	0	No fish caught
05-19-20	Primary 3	Cloud, wind, waves	0	0	0	0	0	0	0	0	0	0	0	0	No fish caught
05-19-20	Blenkinsop Bay	Cloud, wind, waves	0	0	1	1	60	30	0	0	0	0	0	0	No bycatch
05-19-20	Sunderland	Cloud, waves, light wind	0	0	0	0	0	0	0	0	0	0	0	0	No fish caught
05-19-20	Bessborough Bay	Cloud, wind	280	30	120	30	0	0	0	0	0	0	0	0	No bycatch
05-19-20	Wellbore	Sun, cloud, calm	0	0	0	0	0	0	0	0	0	0	0	0	No fish caught
05-19-20	Chancellor	Cloud, wind	0	0	2	2	0	0	0	0	0	0	0	0	1 juvenile lingcod, sculpins
05-19-20	Race Passage	Cloud, extreme tide	40	31	20	20	0	0	0	0	0	0	0	0	2 sculpins. Very strong tide.
05-20-20	Francisco Point	Cloud, calm	57	30	2	2	0	0	0	0	0	0	0	0	No bycatch
05-20-20	Marina Island	Rain, wind, waves	18	18	0	0	0	0	0	0	0	0	0	0	Flounder, sculpins, shiner perch
05-20-20	Rebecca Spit	Cloud, calm	18	18	1	1	0	0	0	0	0	0	0	0	1 juvenile lingcod
05-20-20	Viner Point	Cloud, calm	1	1	0	0	0	0	0	0	0	0	0	0	Gobi, juvenile rockfish, jellyfish
05-20-20	SE Hill Island	Cloud, calm	1	1	0	0	0	0	0	0	0	0	0	0	2 juvenile lingcod

Date	Site Name	Weather Comments	Pink Captured	Pink Retained	Chum Captured	Chum Retained	Coho Captured	Coho Retained	Chinook Captured	Chinook Retained	Sockeye Captured	Sockeye Retained	TSB Captured	TSB Retained	Comments
05-20-20	Penn Island	Rain, calm	0	0	0	0	0	0	0	0	0	0	0	0	Abundant sand lances
05-20-20	Raza	Cloud, calm	0	0	0	0	0	0	0	0	0	0	0	0	Sea cucumber, leather seastar, juvenile lingcod
05-20-20	Raza North	Cloud, calm	1	1	1	1	0	0	0	0	0	0	0	0	Shiner perch, sand lances, pipefish
05-21-20	Rock Bay	Cloud, wind, waves	215	30	7	7	0	0	0	0	0	0	0	0	Abundant sand lances, dungeness, sculpins, gunnels
05-21-20	Bear Bay	-	-	-	-	-	-	-	-	-	-	-	-	-	Too rough to get to site
05-21-20	Nodales	Cloud, calm	24	24	62	30	0	0	0	0	0	0	0	0	Gunnels, sculpins, perch, kely crabs, greenlings, poacher
05-21-20	Shoal Bay	Cloud, calm	0	0	50	30	0	0	0	0	0	0	0	0	Shrimp, sanddabs, juvenile lingcod, dungeness, sculpins
05-21-20	Bickley Bay	Cloud, calm	4	4	16	16	0	0	0	0	0	0	0	0	Gunnels, pipefish, dungeness, sculpins
05-21-20	Knox Bay	-	-	-	-	-	-	-	-	-	-	-	-	-	Too rough to get to site
05-21-20	Cordero	Wind, tide, waves	-	-	-	-	-	-	-	-	-	-	-	-	Attempted set, too much tide
05-21-20	Fanny Bay	Cloud, light wind	0	0	19	19	0	0	5	5	0	0	0	0	Sculpins
05-21-20	Discovery	Sun, wind, waves	19	19	3	3	0	0	0	0	0	0	0	0	Abundant sand lances, gunnels
05-21-20	Okisollo	Wind, waves, sun	19	19	7	7	0	0	0	0	0	0	0	0	Gunnels
05-21-20	Owen Bay	Sun, calm	16	16	27	27	3	3	0	0	0	0	0	0	No bycatch. Large samples difficult to identify
05-21-20	Deepwater Bay	Sun, wind, waves	3500	30	0	0	0	0	0	0	0	0	0	0	No bycatch

Appendix III – Sea Lice Analysis Data

Sample Date	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	LEP Total	Cal Co	Cal C1	Cal C2	Cal C3	Cal C4	CAL PAM	CAL PAF	CAL AM	CAL AF	CAL Total
15-Apr-20	Shoal Bay	Chum	35	0.40								0										0
15-Apr-20	Shoal Bay	Chum	35	0.41								0										0
15-Apr-20	Shoal Bay	Chum	32	0.30								0										0
15-Apr-20	Shoal Bay	Chum	34	0.42								0										0
15-Apr-20	Shoal Bay	Chum	33	0.43								0										0
15-Apr-20	Shoal Bay	Chum	35	0.44								0										0
15-Apr-20	Shoal Bay	Chum	35	0.37								0										0
15-Apr-20	Shoal Bay	Chum	35	0.41								0										0
15-Apr-20	Shoal Bay	Chum	34	0.37								0										0
15-Apr-20	Shoal Bay	Chum	36	0.41								0										0
15-Apr-20	Shoal Bay	Chum	33	0.32								0										0
15-Apr-20	Shoal Bay	Chum	35	0.41								0										0
15-Apr-20	Shoal Bay	Chum	36	0.45								0										0
15-Apr-20	Shoal Bay	Chum	35	0.40								0										0
15-Apr-20	Shoal Bay	Chum	34	0.40								0										0
15-Apr-20	Shoal Bay	Chum	35	0.39								0										0
15-Apr-20	Shoal Bay	Chum	32	0.32								0										0
15-Apr-20	Shoal Bay	Chum	36	0.45								0										0
15-Apr-20	Shoal Bay	Chum	34	0.40								0										0
15-Apr-20	Shoal Bay	Chum	35	0.46								0										0
15-Apr-20	Shoal Bay	Chum	34	0.38								0										0
15-Apr-20	Shoal Bay	Chum	31	0.24								0										0
15-Apr-20	Shoal Bay	Chum	34	0.32								0										0
15-Apr-20	Shoal Bay	Chum	37	0.40								0										0
15-Apr-20	Shoal Bay	Chum	36	0.37								0										0
15-Apr-20	Shoal Bay	Chum	33	0.40								0										0
15-Apr-20	Shoal Bay	Chum	36	0.38								0										0
15-Apr-20	Shoal Bay	Chum	34	0.27								0										0
15-Apr-20	Shoal Bay	Chum	36	0.45								0										0
15-Apr-20	Shoal Bay	Chum	37	0.51								0										0
15-Apr-20	Shoal Bay	Pink	28	0.20								0										0
15-Apr-20	Shoal Bay	Pink	27	0.16								0										0
15-Apr-20	Shoal Bay	Pink	24	0.09								0										0
15-Apr-20	Shoal Bay	Pink	30	0.27								0										0
15-Apr-20	Shoal Bay	Pink	33	0.35								0										0
15-Apr-20	Shoal Bay	Pink	29	0.15								0										0
15-Apr-20	Shoal Bay	Pink	28	0.22								0										0
15-Apr-20	Shoal Bay	Pink	25	0.15								0										0
15-Apr-20	Shoal Bay	Pink	28	0.20								0										0
15-Apr-20	Shoal Bay	Pink	28	0.17								0										0
15-Apr-20	Shoal Bay	Pink	29	0.21								0										0
15-Apr-20	Raza	Chum	34	0.30								0										0
15-Apr-20	Raza	Chum	35	0.37								0										0
15-Apr-20	Raza	Pink	31	0.22								0										0
15-Apr-20	Raza	Pink	32	0.30								0										0

Sample Date	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	LEP Total	Cal Co	Cal C1	Cal C2	Cal C3	Cal C4	CAL PAM	CAL PAF	CAL AM	CAL AF	CAL Total
15-Apr-20	Raza	Pink	31	0.24								0										0
15-Apr-20	Raza	Pink	33	0.22								0										0
15-Apr-20	Raza	Pink	32	0.33								0										0
15-Apr-20	Raza	Pink	33	0.31								0										0
15-Apr-20	Raza	Pink	33	0.31								0										0
15-Apr-20	Raza	Pink	32	0.32								0										0
15-Apr-20	Raza	Pink	33	0.31								0										0
15-Apr-20	Raza	Pink	32	0.32								0										0
15-Apr-20	Raza	Pink	33	0.31								0										0
15-Apr-20	Raza	Pink	31	0.26								0										0
15-Apr-20	Raza	Pink	33	0.32								0										0
15-Apr-20	Raza	Pink	32	0.31								0										0
15-Apr-20	Raza	Pink	32	0.29								0										0
15-Apr-20	Raza	Pink	31	0.20								0										0
15-Apr-20	Raza	Pink	33	0.31								0										0
15-Apr-20	Raza	Pink	32	0.31								0										0
15-Apr-20	Raza	Pink	33	0.28								0										0
15-Apr-20	Raza	Pink	32	0.31								0										0
15-Apr-20	Raza	Pink	45	0.85								0		1								1
15-Apr-20	Raza	Pink	32	0.31								0										0
15-Apr-20	Raza	Pink	31	0.27								0										0
15-Apr-20	Raza	Pink	33	0.30								0										0
15-Apr-20	Raza	Pink	30	0.21								0										0
15-Apr-20	Raza	Pink	33	0.23								0										0
15-Apr-20	Raza	Pink	32	0.26								0										0
15-Apr-20	Raza	Pink	33	0.23								0										0
15-Apr-20	Raza	Pink	32	0.26								0										0
15-Apr-20	Raza	Pink	31	0.19								0										0
15-Apr-20	Raza	Pink	31	0.31								0										0
15-Apr-20	Raza	Pink	31	0.31								0										0
15-Apr-20	Deepwater Bay	Pink	42	0.66		1						1										0
15-Apr-20	Deepwater Bay	Pink	38	0.56								0										0
15-Apr-20	Deepwater Bay	Pink	44	0.84								0										0
15-Apr-20	Deepwater Bay	Pink	33	0.32								0										0
15-Apr-20	Deepwater Bay	Pink	34	0.34								0										0
15-Apr-20	Deepwater Bay	Pink	36	0.42								0										0
15-Apr-20	Deepwater Bay	Pink	38	0.54								0										0
15-Apr-20	Deepwater Bay	Pink	39	0.61								0										0
15-Apr-20	Deepwater Bay	Pink	40	0.55			1					1		1								1
15-Apr-20	Deepwater Bay	Pink	33	0.30								0										0
15-Apr-20	Deepwater Bay	Pink	32	0.24								0		1								1
15-Apr-20	Deepwater Bay	Pink	40	0.58								0										0
15-Apr-20	Deepwater Bay	Pink	33	0.33								0										0
15-Apr-20	Deepwater Bay	Pink	32	0.27								0										0
15-Apr-20	Deepwater Bay	Pink	38	0.50								0										0
15-Apr-20	Deepwater Bay	Pink	39	0.62								0										0
15-Apr-20	Deepwater Bay	Pink	31	0.30								0										0
15-Apr-20	Deepwater Bay	Pink	37	0.50								0										0
15-Apr-20	Deepwater Bay	Pink	32	0.26								0										0

Sample Date	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	LEP Total	Cal Co	Cal C1	Cal C2	Cal C3	Cal C4	CAL PAM	CAL PAF	CAL AM	CAL AF	CAL Total
15-Apr-20	Deepwater Bay	Pink	39	0.55								0		1								1
15-Apr-20	Deepwater Bay	Pink	37	0.48								0										0
15-Apr-20	Deepwater Bay	Pink	34	0.29								0										0
15-Apr-20	Deepwater Bay	Pink	39	0.56								0										0
15-Apr-20	Deepwater Bay	Pink	32	0.27								0										0
15-Apr-20	Deepwater Bay	Pink	33	0.25								0										0
15-Apr-20	Deepwater Bay	Pink	36	0.37								0										0
15-Apr-20	Deepwater Bay	Pink	33	0.28								0										0
15-Apr-20	Deepwater Bay	Pink	38	0.57								0										0
15-Apr-20	Deepwater Bay	Pink	38	0.49								0										0
15-Apr-20	Deepwater Bay	Pink	33	0.29								0										0
15-Apr-20	Deepwater Bay	Pink	36	0.42								0										0
15-Apr-20	Deepwater Bay	Pink	42	0.68								0										0
15-Apr-20	Deepwater Bay	Chum	38	0.52								0										0
15-Apr-20	Deepwater Bay	Chum	38	0.54								0										0
15-Apr-20	Deepwater Bay	Chum	37	0.43								0										0
15-Apr-20	Deepwater Bay	Chum	37	0.37								0										0
15-Apr-20	Deepwater Bay	Chum	37	0.41								0										0
15-Apr-20	Deepwater Bay	Chum	42	0.74								0										0
15-Apr-20	Deepwater Bay	Chum	38	0.57								0										0
15-Apr-20	Deepwater Bay	Chum	36	0.44								0										0
15-Apr-20	Deepwater Bay	Chum	37	0.57								0										0
15-Apr-20	Deepwater Bay	Chum	37	0.49								0										0
15-Apr-20	Deepwater Bay	Chum	37	0.54								0										0
15-Apr-20	Deepwater Bay	Chum	42	0.79								0		1								1
15-Apr-20	Deepwater Bay	Chum	37	0.54								0										0
15-Apr-20	Deepwater Bay	Chum	42	0.79								0		1								1
15-Apr-20	Deepwater Bay	Chum	40	0.65								0			1							1
15-Apr-20	Deepwater Bay	Chum	38	0.54								0										0
15-Apr-20	Deepwater Bay	Chum	35	0.34								0										0
15-Apr-20	Deepwater Bay	Chum	43	0.79								0										0
15-Apr-20	Deepwater Bay	Chum	35	0.42								0										0
15-Apr-20	Deepwater Bay	Chum	38	0.58								0										0
15-Apr-20	Deepwater Bay	Chum	42	0.82								0										0
15-Apr-20	Deepwater Bay	Chum	38	0.48								0										0
15-Apr-20	Deepwater Bay	Chum	41	0.70								0										0
15-Apr-20	Deepwater Bay	Chum	37	0.42								0										0
15-Apr-20	Deepwater Bay	Chum	39	0.63								0										0
15-Apr-20	Deepwater Bay	Chum	35	0.33								0										0
15-Apr-20	Deepwater Bay	Chum	39	0.56								0										0
15-Apr-20	Deepwater Bay	Chum	42	0.75								0										0
15-Apr-20	Deepwater Bay	Chum	40	0.62								0										0
15-Apr-20	Deepwater Bay	Chum	40	0.77								0										0
15-Apr-20	Fanny Bay	Chum	37	0.40								0										0
15-Apr-20	Fanny Bay	Chum	37	0.49								0										0
15-Apr-20	Fanny Bay	Chum	39	0.48								0										0
15-Apr-20	Fanny Bay	Chum	36	0.44								0										0
15-Apr-20	Fanny Bay	Chum	36	0.35								0										0
15-Apr-20	Fanny Bay	Chum	36	0.43								0										0

Sample Date	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	LEP Total	Cal Co	Cal C1	Cal C2	Cal C3	Cal C4	CAL PAM	CAL PAF	CAL AM	CAL AF	CAL Total
15-Apr-20	Fanny Bay	Chum	44	1.02								0										0
15-Apr-20	Fanny Bay	Chum	38	0.44								0										0
15-Apr-20	Fanny Bay	Chum	34	0.37								0										0
15-Apr-20	Fanny Bay	Chum	34	0.43								0										0
15-Apr-20	Fanny Bay	Chum	36	0.48								0										0
15-Apr-20	Fanny Bay	Chum	37	0.47								0										0
15-Apr-20	Fanny Bay	Chum	38	0.49								0										0
15-Apr-20	Fanny Bay	Chum	39	0.55								0										0
15-Apr-20	Fanny Bay	Chum	36	0.47								0										0
15-Apr-20	Fanny Bay	Chum	37	0.52								0										0
15-Apr-20	Fanny Bay	Chum	40	0.53								0										0
15-Apr-20	Fanny Bay	Chum	39	0.61								0										0
15-Apr-20	Fanny Bay	Chum	36	0.43								0										0
15-Apr-20	Fanny Bay	Chum	38	0.56								0										0
15-Apr-20	Fanny Bay	Chum	36	0.36								0										0
15-Apr-20	Fanny Bay	Chum	36	0.39								0										0
15-Apr-20	Fanny Bay	Chum	36	0.42								0										0
15-Apr-20	Fanny Bay	Chum	36	0.40								0										0
15-Apr-20	Fanny Bay	Chum	35	0.41								0										0
15-Apr-20	Fanny Bay	Chum	38	0.45								0										0
15-Apr-20	Fanny Bay	Chum	37	0.42								0										0
15-Apr-20	Fanny Bay	Chum	35	0.42								0										0
15-Apr-20	Fanny Bay	Chum	38	0.55								0										0
15-Apr-20	Fanny Bay	Chum	35	0.46								0										0
15-Apr-20	Rock Bay	Pink	32	0.28								0										0
15-Apr-20	Rock Bay	Pink	32	0.28								0										0
15-Apr-20	Rock Bay	Pink	37	0.54			1					1										0
15-Apr-20	Rock Bay	Pink	30	0.27								0										0
15-Apr-20	Rock Bay	Pink	31	0.36								0										0
15-Apr-20	Rock Bay	Pink	33	0.38								0										0
15-Apr-20	Rock Bay	Pink	38	0.49								0										0
15-Apr-20	Rock Bay	Pink	35	0.51			2					2										0
15-Apr-20	Rock Bay	Pink	31	0.33								0										0
15-Apr-20	Rock Bay	Pink	35	0.38								0										0
15-Apr-20	Rock Bay	Pink	35	0.48								0										0
15-Apr-20	Rock Bay	Pink	40	0.62								0										0
15-Apr-20	Rock Bay	Pink	36	0.45								0										0
15-Apr-20	Rock Bay	Pink	34	0.40								0										0
15-Apr-20	Rock Bay	Pink	35	0.47			1					1										0
15-Apr-20	Rock Bay	Pink	37	0.41								0										0
15-Apr-20	Rock Bay	Pink	37	0.46								0										0
15-Apr-20	Rock Bay	Pink	30	0.35								0										0
15-Apr-20	Rock Bay	Pink	35	0.40								0										0
15-Apr-20	Rock Bay	Pink	37	0.54								0										0
15-Apr-20	Rock Bay	Pink	34	0.46								0										0
15-Apr-20	Rock Bay	Pink	35	0.35								0										0
15-Apr-20	Rock Bay	Pink	33	0.34								0										0
15-Apr-20	Rock Bay	Pink	31	0.25								0										0

Sample Date	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	LEP Total	Cal Co	Cal C1	Cal C2	Cal C3	Cal C4	CAL PAM	CAL PAF	CAL AM	CAL AF	CAL Total
15-Apr-20	Rock Bay	Pink	32	0.28								0										0
15-Apr-20	Rock Bay	Pink	37	0.47								0										0
15-Apr-20	Rock Bay	Pink	34	0.37								0										0
15-Apr-20	Rock Bay	Pink	33	0.40								0										0
15-Apr-20	Rock Bay	Pink	35	0.36								0										0
15-Apr-20	Rock Bay	Pink	35	0.39								0										0
15-Apr-20	Rock Bay	Chum	36	0.44								0										0
15-Apr-20	Rock Bay	Chum	37	0.48								0										0
15-Apr-20	Rock Bay	Chum	35	0.39								0										0
15-Apr-20	Rock Bay	Chum	37	0.61								0										0
15-Apr-20	Rock Bay	Chum	35	0.39								0										0
15-Apr-20	Rock Bay	Chum	37	0.49								0										0
15-Apr-20	Rock Bay	Chum	39	0.60								0										0
15-Apr-20	Rock Bay	Chum	38	0.63								0										0
15-Apr-20	Rock Bay	Chum	36	0.57								0										0
15-Apr-20	Rock Bay	Chum	34	0.35		1						1										0
15-Apr-20	Rock Bay	Chum	37	0.62								0										0
15-Apr-20	Rock Bay	Chum	36	0.43								0										0
15-Apr-20	Rock Bay	Chum	34	0.39								0										0
15-Apr-20	Rock Bay	Chum	37	0.53								0										0
15-Apr-20	Rock Bay	Chum	34	0.44								0										0
15-Apr-20	Rock Bay	Chum	40	0.75								0										0
15-Apr-20	Rock Bay	Chum	34	0.41								0										0
15-Apr-20	Rock Bay	Chum	37	0.51								0										0
15-Apr-20	Rock Bay	Chum	32	0.32								0										0
15-Apr-20	Rock Bay	Chum	37	0.51								0										0
15-Apr-20	Rock Bay	Chum	37	0.48								0										0
15-Apr-20	Rock Bay	Chum	34	0.37								0										0
15-Apr-20	Rock Bay	Chum	34	0.48								0										0
15-Apr-20	Rock Bay	Chum	37	0.54								0										0
15-Apr-20	Rock Bay	Chum	35	0.42								0										0
15-Apr-20	Rock Bay	Chum	40	0.64								0										0
15-Apr-20	Rock Bay	Chum	35	0.48								0										0
15-Apr-20	Rock Bay	Chum	33	0.34								0										0
15-Apr-20	Rock Bay	Chum	39	0.77								0										0
15-Apr-20	Rock Bay	Chum	38	0.57								0										0
15-Apr-20	Rock Bay	Chum	36	0.41								0										0
14-Apr-20	Rebecca Spit	Chum	35	0.42								0										0
14-Apr-20	Rebecca Spit	Chum	34	0.33								0										0
14-Apr-20	Rebecca Spit	Chum	34	0.37								0										0
14-Apr-20	Rebecca Spit	Chum	34	0.43								0										0
14-Apr-20	Rebecca Spit	Chum	35	0.35								0										0
14-Apr-20	Rebecca Spit	Chum	34	0.37								0										0
14-Apr-20	Rebecca Spit	Chum	35	0.34								0										0
14-Apr-20	Rebecca Spit	Chum	34	0.35								0										0
14-Apr-20	Rebecca Spit	Chum	34	0.35								0										0
14-Apr-20	Rebecca Spit	Chum	35	0.39								0										0

Sample Date	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	LEP Total	Cal Co	Cal C1	Cal C2	Cal C3	Cal C4	CAL PAM	CAL PAF	CAL AM	CAL AF	CAL Total
14-Apr-20	Rebecca Spit	Chum	33	0.35								0										0
14-Apr-20	Rebecca Spit	Chum	33	0.31								0										0
14-Apr-20	Rebecca Spit	Chum	34	0.36								0										0
14-Apr-20	Rebecca Spit	Chum	34	0.29								0										0
14-Apr-20	Rebecca Spit	Chum	34	0.35								0										0
14-Apr-20	Rebecca Spit	Chum	34	0.36								0										0
14-Apr-20	Rebecca Spit	Chum	34	0.35								0										0
14-Apr-20	Rebecca Spit	Chum	32	0.35								0										0
14-Apr-20	Rebecca Spit	Chum	34	0.32								0										0
14-Apr-20	Rebecca Spit	Chum	37	0.43								0										0
14-Apr-20	Rebecca Spit	Chum	32	0.29								0										0
14-Apr-20	Rebecca Spit	Chum	34	0.31								0										0
14-Apr-20	Rebecca Spit	Chum	35	0.35								0										0
14-Apr-20	Rebecca Spit	Chum	34	0.37								0										0
14-Apr-20	Rebecca Spit	Chum	34	0.33								0										0
14-Apr-20	Rebecca Spit	Chum	34	0.37								0										0
14-Apr-20	Rebecca Spit	Chum	34	0.30								0										0
14-Apr-20	Rebecca Spit	Chum	35	0.38								0										0
14-Apr-20	Rebecca Spit	Chum	36	0.45								0										0
14-Apr-20	Rebecca Spit	Pink	35	0.46								0										0
14-Apr-20	Rebecca Spit	Pink	30	0.28								0										0
14-Apr-20	Rebecca Spit	Pink	34	0.42								0										0
14-Apr-20	Rebecca Spit	Pink	29	0.30								0										0
14-Apr-20	Rebecca Spit	Pink	34	0.43								0										0
14-Apr-20	Rebecca Spit	Chum	35	0.56								0										0
14-Apr-20	Rebecca Spit	Pink	34	0.43								0										0
14-Apr-20	Rebecca Spit	Chum	35	0.56								0										0
15-Apr-20	Nodales	Chum	41	0.72								0										0
15-Apr-20	Nodales	Chum	34	0.32								0										0
15-Apr-20	Nodales	Chum	45	0.88								0										0
15-Apr-20	Nodales	Chum	35	0.48								0										0
15-Apr-20	Nodales	Chum	34	0.45								0										0
15-Apr-20	Nodales	Chum	38	0.63								0										0
15-Apr-20	Nodales	Chum	42	0.65								0										0
15-Apr-20	Nodales	Chum	35	0.36	1							1										0
15-Apr-20	Nodales	Chum	41	0.68		1						1										0
15-Apr-20	Nodales	Chum	42	0.73								0										0
15-Apr-20	Nodales	Chum	33	0.37								0										0
15-Apr-20	Nodales	Chum	40	0.72								0										0
15-Apr-20	Nodales	Chum	40	0.70								0										0
15-Apr-20	Nodales	Chum	37	0.57								0										0
15-Apr-20	Nodales	Chum	42	0.85								0										0
15-Apr-20	Nodales	Chum	51	0.86								0										0
15-Apr-20	Nodales	Chum	43	0.81								0										0
15-Apr-20	Nodales	Chum	40	0.65								0										0
15-Apr-20	Nodales	Chum	38	0.57	1							1										0
15-Apr-20	Nodales	Chum	36	0.48	1							1										0
15-Apr-20	Nodales	Chum	45	0.93			1					1		1								1
15-Apr-20	Nodales	Chum	42	0.81		1						1										0

Sample Date	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	LEP Total	Cal Co	Cal C1	Cal C2	Cal C3	Cal C4	CAL PAM	CAL PAF	CAL AM	CAL AF	CAL Total
15-Apr-20	Nodales	Chum	38	0.65								0										0
15-Apr-20	Nodales	Chum	53	1.02		1						1										0
15-Apr-20	Nodales	Chum	40	0.69								0										0
15-Apr-20	Nodales	Chum	44	0.93								0		1								1
15-Apr-20	Nodales	Chum	39	0.62								0										0
15-Apr-20	Nodales	Chum	42	0.74		1	1					2										0
15-Apr-20	Nodales	Chum	44	0.83								0										0
15-Apr-20	Nodales	Chum	34	0.35								0										0
15-Apr-20	Nodales	Pink	33	0.27								0										0
15-Apr-20	Nodales	Pink	32	0.25								0										0
15-Apr-20	Nodales	Pink	36	0.42								0										0
15-Apr-20	Nodales	Pink	39	0.48								0										0
15-Apr-20	Nodales	Pink	32	0.27								0	1									1
15-Apr-20	Nodales	Pink	32	0.28								0										0
15-Apr-20	Nodales	Pink	31	0.26								0										0
15-Apr-20	Nodales	Pink	32	0.21								0										0
15-Apr-20	Nodales	Pink	34	0.35								0										0
15-Apr-20	Nodales	Pink	33	0.24	1							1										0
15-Apr-20	Nodales	Pink	33	0.22								0										0
15-Apr-20	Nodales	Pink	34	0.36								0										0
15-Apr-20	Nodales	Pink	31	0.25								0										0
15-Apr-20	Nodales	Pink	31	0.22								0								1		1
15-Apr-20	Nodales	Pink	40	0.59		1						1										0
15-Apr-20	Nodales	Pink	33	0.28								0										0
15-Apr-20	Nodales	Pink	33	0.27								0										0
15-Apr-20	Nodales	Pink	33	0.28								0										0
15-Apr-20	Nodales	Pink	33	0.27								0										0
15-Apr-20	Nodales	Pink	31	0.21								0										0
15-Apr-20	Nodales	Pink	33	0.23								0										0
15-Apr-20	Nodales	Pink	32	0.26								0										0
15-Apr-20	Nodales	Pink	34	0.30								0										0
15-Apr-20	Nodales	Pink	32	0.28								0										0
15-Apr-20	Nodales	Pink	34	0.35								0										0
15-Apr-20	Nodales	Pink	38	0.55								0										0
15-Apr-20	Nodales	Pink	32	0.29								0										0
15-Apr-20	Nodales	Pink	35	0.47								0										0
15-Apr-20	Nodales	Pink	32	0.26								0										0
15-Apr-20	Nodales	Pink	36	0.43								0										0
15-Apr-20	Nodales	Pink	34	0.29								0										0
15-Apr-20	Nodales	Pink	32	0.29								0										0
14-Apr-20	Francisco Point	Chum	38	0.66								0										0
14-Apr-20	Francisco Point	Chum	37	0.57		1						1										0
14-Apr-20	Francisco Point	Chum	40	0.75								0	1	1								2
14-Apr-20	Francisco Point	Chum	37	0.48								0										0
14-Apr-20	Francisco Point	Chum	35	0.38								0										0
14-Apr-20	Francisco Point	Chum	44	0.81								0	1									1
14-Apr-20	Francisco Point	Chum	38	0.47								0	2									2
14-Apr-20	Francisco Point	Chum	37	0.46								0	1									1
14-Apr-20	Francisco Point	Chum	36	0.42								0										0

Sample Date	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	LEP Total	Cal Co	Cal C1	Cal C2	Cal C3	Cal C4	CAL PAM	CAL PAF	CAL AM	CAL AF	CAL Total
14-Apr-20	Francisco Point	Chum	38	0.53								0										0
14-Apr-20	Francisco Point	Chum	44	0.91								0		1								1
14-Apr-20	Francisco Point	Chum	34	0.38								0	1									1
14-Apr-20	Francisco Point	Chum	39	0.65								0	1									1
14-Apr-20	Francisco Point	Chum	38	0.57								0										0
14-Apr-20	Francisco Point	Chum	34	0.52								0		1								1
14-Apr-20	Francisco Point	Chum	34	0.35								0										0
14-Apr-20	Francisco Point	Chum	32	0.37								0										0
14-Apr-20	Francisco Point	Chum	41	0.68								0										0
14-Apr-20	Francisco Point	Chum	36	0.35	1							1										0
14-Apr-20	Francisco Point	Chum	52	0.70								0										0
14-Apr-20	Francisco Point	Chum	34	0.36								0										0
14-Apr-20	Francisco Point	Chum	40	0.61								0										0
14-Apr-20	Francisco Point	Chum	38	0.85								0										0
14-Apr-20	Francisco Point	Chum	35	0.58								0										0
14-Apr-20	Francisco Point	Chum	34	0.52								0										0
14-Apr-20	Francisco Point	Chum	35	0.46								0		1								1
14-Apr-20	Francisco Point	Chum	38	0.59								0		1								1
14-Apr-20	Francisco Point	Chum	38	0.54								0		1								1
14-Apr-20	Francisco Point	Chum	36	0.51								0										0
14-Apr-20	Francisco Point	Chum	37	0.50								0		1								1
14-Apr-20	Francisco Point	Chum	35	0.43								0										0
14-Apr-20	Francisco Point	Chum	38	0.57								0		1								1
14-Apr-20	Francisco Point	Pink	34	0.41								0	1									1
14-Apr-20	Francisco Point	Pink	31	0.28								0										0
14-Apr-20	Francisco Point	Pink	30	0.38								0										0
14-Apr-20	Francisco Point	Pink	34	0.40								0										0
14-Apr-20	Francisco Point	Pink	32	0.40								0										0
14-Apr-20	Francisco Point	Pink	34	0.44								0	1									1
14-Apr-20	Francisco Point	Pink	34	0.31								0										0
14-Apr-20	Francisco Point	Pink	33	0.35								0										0
14-Apr-20	Francisco Point	Pink	34	0.34								0			1							1
14-Apr-20	Francisco Point	Pink	35	0.40								0		1								1
14-Apr-20	Francisco Point	Pink	35	0.38								0		1								1
14-Apr-20	Francisco Point	Pink	34	0.33								0										0
14-Apr-20	Francisco Point	Pink	29	0.34								0		1								1
14-Apr-20	Francisco Point	Pink	34	0.45								0		2								2
14-Apr-20	Francisco Point	Pink	34	0.31								0	1									1
14-Apr-20	Francisco Point	Pink	38	0.58								0										0
14-Apr-20	Francisco Point	Pink	34	0.36	1							1										0
14-Apr-20	Francisco Point	Pink	28	0.22								0	1									1
14-Apr-20	Francisco Point	Pink	28	0.29								0		1								1
14-Apr-20	Francisco Point	Pink	34	0.44								0		2								2
14-Apr-20	Francisco Point	Pink	28	0.29								0										0
14-Apr-20	Francisco Point	Pink	34	0.38								0										0
14-Apr-20	Francisco Point	Pink	29	0.30								0										0
14-Apr-20	Francisco Point	Pink	33	0.33								0										0

Sample Date	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	LEP Total	Cal Co	Cal C1	Cal C2	Cal C3	Cal C4	CAL PAM	CAL PAF	CAL AM	CAL AF	CAL Total
14-Apr-20	Francisco Point	Pink	34	0.33								0	2									2
14-Apr-20	Francisco Point	Pink	33	0.35								0		1								1
14-Apr-20	Francisco Point	Pink	35	0.33								0										0
14-Apr-20	Francisco Point	Pink	34	0.31								0		3								3
14-Apr-20	Francisco Point	Chum	34	0.45			1					1										0
15-Apr-20	Knox Bay	Pink	32	0.24								0										0
15-Apr-20	Knox Bay	Pink	32	0.28								0										0
15-Apr-20	Knox Bay	Pink	37	0.64								0										0
15-Apr-20	Knox Bay	Pink	38	0.58								0										0
15-Apr-20	Knox Bay	Pink	34	0.44	1							1										0
15-Apr-20	Knox Bay	Chum	35	0.40								0										0
15-Apr-20	Knox Bay	Chum	36	0.41								0										0
15-Apr-20	Knox Bay	Chum	33	0.39								0										0
15-Apr-20	Knox Bay	Chum	37	0.56								0										0
15-Apr-20	Bickley Bay	Pink	31	0.22								0										0
15-Apr-20	Bickley Bay	Pink	35	0.50								0										0
15-Apr-20	Bickley Bay	Pink	32	0.26								0										0
13-Apr-20	Primary 1	Pink	33	0.29								0										0
13-Apr-20	Primary 1	Pink	33	0.34								0										0
13-Apr-20	Primary 1	Pink	34	0.32	1							1										0
13-Apr-20	Primary 1	Pink	42	0.64								0										0
13-Apr-20	Primary 1	Pink	33	0.26								0										0
13-Apr-20	Primary 1	Pink	34	0.29								0										0
13-Apr-20	Primary 1	Pink	38	0.51								0										0
13-Apr-20	Primary 1	Pink	32	0.26								0										0
13-Apr-20	Primary 1	Pink	38	0.51								0										0
13-Apr-20	Primary 1	Pink	32	0.26								0										0
13-Apr-20	Primary 1	Pink	33	0.24								0										0
13-Apr-20	Primary 1	Pink	32	0.27								0										0
13-Apr-20	Primary 1	Pink	38	0.38								0										0
13-Apr-20	Beautiful Bay	Pink	32	0.26								0										0
13-Apr-20	Beautiful Bay	Pink	34	0.40								0										0
13-Apr-20	Beautiful Bay	Pink	33	0.24								0										0
13-Apr-20	Beautiful Bay	Pink	34	0.26	1							1										0
13-Apr-20	Beautiful Bay	Pink	34	0.28								0										0
13-Apr-20	Beautiful Bay	Pink	34	0.29								0										0
13-Apr-20	Beautiful Bay	Pink	35	0.42								0										0
13-Apr-20	Beautiful Bay	Pink	33	0.26								0										0
13-Apr-20	Beautiful Bay	Pink	35	0.39								0										0
13-Apr-20	Beautiful Bay	Pink	34	0.38								0										0
13-Apr-20	Beautiful Bay	Pink	34	0.30								0										0
13-Apr-20	Beautiful Bay	Pink	35	0.30								0										0
13-Apr-20	Beautiful Bay	Pink	33	0.27								0										0
13-Apr-20	Beautiful Bay	Pink	33	0.30								0										0
13-Apr-20	Beautiful Bay	Pink	33	0.29								0										0
13-Apr-20	Beautiful Bay	Pink	33	0.30								0										0
13-Apr-20	Beautiful Bay	Pink	33	0.27								0										0
13-Apr-20	Beautiful Bay	Pink	33	0.27								0										0
13-Apr-20	Beautiful Bay	Pink	34	0.32								0										0

Sample Date	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	LEP Total	Cal Co	Cal C1	Cal C2	Cal C3	Cal C4	CAL PAM	CAL PAF	CAL AM	CAL AF	CAL Total
13-Apr-20	Beautiful Bay	Pink	35	0.34								0										0
13-Apr-20	Beautiful Bay	Pink	33	0.31								0										0
13-Apr-20	Beautiful Bay	Pink	34	0.33								0										0
13-Apr-20	Beautiful Bay	Pink	31	0.22								0										0
13-Apr-20	Beautiful Bay	Pink	34	0.42								0										0
13-Apr-20	Beautiful Bay	Pink	35	0.43								0										0
13-Apr-20	Beautiful Bay	Pink	36	0.36								0										0
13-Apr-20	Beautiful Bay	Pink	33	0.27								0										0
13-Apr-20	Beautiful Bay	Pink	33	0.25								0										0
13-Apr-20	Beautiful Bay	Pink	33	0.30								0										0
13-Apr-20	Beautiful Bay	Pink	34	0.30								0										0
13-Apr-20	Beautiful Bay	Chum	45	0.98								0										0
13-Apr-20	Beautiful Bay	Chum	40	0.75								0										0
13-Apr-20	Beautiful Bay	Chum	35	0.38								0										0
13-Apr-20	Beautiful Bay	Chum	37	0.44								0										0
13-Apr-20	Beautiful Bay	Chum	34	0.35								0										0
13-Apr-20	Beautiful Bay	Chum	37	0.51								0										0
13-Apr-20	Beautiful Bay	Chum	37	0.47								0										0
13-Apr-20	Beautiful Bay	Chum	36	0.37								0										0
13-Apr-20	Beautiful Bay	Chum	38	0.55								0										0
13-Apr-20	Beautiful Bay	Chum	38	0.55								0										0
13-Apr-20	Beautiful Bay	Chum	34	0.32								0										0
13-Apr-20	Beautiful Bay	Chum	36	0.38								0										0
13-Apr-20	Beautiful Bay	Chum	39	0.62								0										0
13-Apr-20	Beautiful Bay	Chum	35	0.38								0										0
13-Apr-20	Beautiful Bay	Chum	35	0.38								0										0
13-Apr-20	Beautiful Bay	Chum	36	0.44								0										0
13-Apr-20	Beautiful Bay	Chum	39	0.60								0										0
13-Apr-20	Beautiful Bay	Chum	35	0.38								0										0
13-Apr-20	Beautiful Bay	Chum	35	0.39								0										0
13-Apr-20	Beautiful Bay	Chum	41	0.75		1						1										0
13-Apr-20	Beautiful Bay	Chum	35	0.37								0										0
13-Apr-20	Beautiful Bay	Chum	37	0.51								0										0
13-Apr-20	Beautiful Bay	Chum	46	1.02								0			1							1
13-Apr-20	Beautiful Bay	Chum	37	0.48								0										0
13-Apr-20	Beautiful Bay	Chum	37	0.42								0										0
13-Apr-20	Beautiful Bay	Chum	36	0.43								0										0
13-Apr-20	Beautiful Bay	Chum	35	0.38								0										0
13-Apr-20	Beautiful Bay	Chum	40	0.63								0										0
13-Apr-20	Beautiful Bay	Chum	35	0.40								0										0
13-Apr-20	Beautiful Bay	Chum	44	0.92								0										0
13-Apr-20	Beautiful Bay	Chum	36	0.39								0										0
15-Apr-20	Bear Bay	Pink	33	0.32								0										0
15-Apr-20	Bear Bay	Pink	32	0.33								0										0
15-Apr-20	Bear Bay	Pink	27	0.22								0										0
15-Apr-20	Bear Bay	Pink	32	0.32								0										0
15-Apr-20	Bear Bay	Pink	34	0.37								0										0
15-Apr-20	Bear Bay	Pink	30	0.23	1							1										0

Sample Date	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	LEP Total	Cal Co	Cal C1	Cal C2	Cal C3	Cal C4	CAL PAM	CAL PAF	CAL AM	CAL AF	CAL Total
15-Apr-20	Bear Bay	Pink	34	0.30								0										0
15-Apr-20	Bear Bay	Pink	33	0.27								0										0
15-Apr-20	Bear Bay	Pink	29	0.24								0										0
15-Apr-20	Bear Bay	Pink	32	0.26								0										0
15-Apr-20	Bear Bay	Pink	32	0.25								0										0
15-Apr-20	Bear Bay	Pink	30	0.27								0										0
15-Apr-20	Bear Bay	Pink	41	0.73								0										0
15-Apr-20	Bear Bay	Pink	32	0.29								0										0
15-Apr-20	Bear Bay	Pink	32	0.30								0										0
15-Apr-20	Bear Bay	Pink	28	0.18								0										0
15-Apr-20	Bear Bay	Pink	31	0.26								0										0
15-Apr-20	Bear Bay	Pink	29	0.17								0										0
15-Apr-20	Bear Bay	Pink	33	0.37								0										0
15-Apr-20	Bear Bay	Chum	37	0.48								0										0
15-Apr-20	Bear Bay	Chum	38	0.49								0										0
15-Apr-20	Bear Bay	Chum	37	0.46								0										0
15-Apr-20	Bear Bay	Chum	38	0.51								0										0
15-Apr-20	Bear Bay	Chum	40	0.70		1						1										0
15-Apr-20	Bear Bay	Chum	39	0.48								0										0
15-Apr-20	Bear Bay	Chum	38	0.54								0										0
15-Apr-20	Bear Bay	Chum	35	0.38								0										0
15-Apr-20	Bear Bay	Chum	36	0.41								0										0
15-Apr-20	Bear Bay	Chum	37	0.48								0										0
15-Apr-20	Bear Bay	Chum	38	0.45								0										0
15-Apr-20	Bear Bay	Chum	37	0.48								0										0
15-Apr-20	Bear Bay	Chum	38	0.45								0										0
15-Apr-20	Bear Bay	Chum	37	0.48								0										0
15-Apr-20	Bear Bay	Chum	34	0.38								0										0
15-Apr-20	Bear Bay	Chum	36	0.45								0										0
15-Apr-20	Bear Bay	Chum	37	0.45								0		1								1
15-Apr-20	Bear Bay	Chum	36	0.46								0										0
15-Apr-20	Bear Bay	Chum	36	0.46								0										0
15-Apr-20	Bear Bay	Chum	38	0.52								0										0
15-Apr-20	Bear Bay	Chum	32	0.30								0										0
15-Apr-20	Bear Bay	Chum	38	0.46								0										0
15-Apr-20	Bear Bay	Chum	38	0.45								0										0
15-Apr-20	Bear Bay	Chum	35	0.39								0										0
15-Apr-20	Bear Bay	Chum	35	0.45								0										0
15-Apr-20	Bear Bay	Chum	37	0.51								0										0
15-Apr-20	Bear Bay	Chum	40	0.55								0	1									1
15-Apr-20	Bear Bay	Chum	38	0.48								0										0
15-Apr-20	Bear Bay	Chum	36	0.44								0										0
15-Apr-20	Bear Bay	Chum	42	0.85								0					1					1
15-Apr-20	Bear Bay	Chum	35	0.42								0										0
15-Apr-20	Bear Bay	Chum	35	0.38								0										0
14-Apr-20	Marina Island	Pink	42	0.69								0										0
14-Apr-20	Marina Island	Chum	38	0.74								0										0
14-Apr-20	Marina Island	Chum	34	0.37								0										0
14-Apr-20	Viner Point	Pink	32	0.23								0										0

Sample Date	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	LEP Total	Cal Co	Cal C1	Cal C2	Cal C3	Cal C4	CAL PAM	CAL PAF	CAL AM	CAL AF	CAL Total
14-Apr-20	Viner Point	Pink	32	0.28								0										0
14-Apr-20	Viner Point	Pink	37	0.55								0										0
14-Apr-20	Viner Point	Pink	33	0.24								0										0
14-Apr-20	Viner Point	Pink	31	0.23								0										0
14-Apr-20	Viner Point	Pink	38	0.53			1					1										0
14-Apr-20	Viner Point	Pink	33	0.29								0										0
14-Apr-20	Viner Point	Pink	34	0.34								0										0
14-Apr-20	Viner Point	Pink	31	0.25								0										0
14-Apr-20	Viner Point	Chum	38	0.51	1							1										0
14-Apr-20	Viner Point	Chum	38	0.45								0										0
14-Apr-20	Viner Point	Chum	37	0.44								0										0
14-Apr-20	Viner Point	Chum	37	0.47								0										0
14-Apr-20	Viner Point	Chum	34	0.33								0										0
14-Apr-20	Viner Point	Chum	35	0.41								0										0
14-Apr-20	Viner Point	Chum	40	0.71								0										0
14-Apr-20	Viner Point	Chum	36	0.52								0										0
14-Apr-20	Viner Point	Chum	35	0.38								0										0
14-Apr-20	Viner Point	Chum	37	0.35								0										0
14-Apr-20	Viner Point	Chum	35	0.48								0										0
14-Apr-20	Viner Point	Chum	35	0.39								0										0
14-Apr-20	Viner Point	Chum	35	0.44								0										0
14-Apr-20	Viner Point	Chum	36	0.51								0		1								1
14-Apr-20	Viner Point	Chum	34	0.47								0										0
14-Apr-20	Viner Point	Chum	39	0.64								0										0
13-Apr-20	Blenkinsop Bay	Pink	32	0.27								0										0
13-Apr-20	Blenkinsop Bay	Pink	32	0.27								0										0
13-Apr-20	Blenkinsop Bay	Pink	38	0.44								0										0
13-Apr-20	Blenkinsop Bay	Pink	36	0.40								0										0
13-Apr-20	Blenkinsop Bay	Pink	36	0.37								0										0
13-Apr-20	Blenkinsop Bay	Pink	34	0.33								0										0
13-Apr-20	Blenkinsop Bay	Pink	39	0.58								0										0
13-Apr-20	Blenkinsop Bay	Pink	35	0.35								0										0
13-Apr-20	Blenkinsop Bay	Pink	35	0.29								0										0
13-Apr-20	Blenkinsop Bay	Pink	32	0.33								0										0
13-Apr-20	Blenkinsop Bay	Pink	34	0.32								0										0
13-Apr-20	Blenkinsop Bay	Pink	34	0.30								0										0
13-Apr-20	Blenkinsop Bay	Pink	33	0.25								0										0
13-Apr-20	Blenkinsop Bay	Pink	34	0.38								0										0
13-Apr-20	Blenkinsop Bay	Pink	35	0.38								0										0
13-Apr-20	Blenkinsop Bay	Pink	34	0.33								0										0
13-Apr-20	Blenkinsop Bay	Pink	35	0.30								0										0
13-Apr-20	Blenkinsop Bay	Pink	35	0.37								0										0
13-Apr-20	Blenkinsop Bay	Pink	33	0.27								0										0
13-Apr-20	Blenkinsop Bay	Pink	35	0.28								0										0
13-Apr-20	Blenkinsop Bay	Pink	39	0.66		1						1										0
13-Apr-20	Blenkinsop Bay	Pink	45	0.81								0										0
13-Apr-20	Blenkinsop Bay	Pink	33	0.34								0										0
13-Apr-20	Blenkinsop Bay	Pink	34	0.37								0										0

Sample Date	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	LEP Total	Cal Co	Cal C1	Cal C2	Cal C3	Cal C4	CAL PAM	CAL PAF	CAL AM	CAL AF	CAL Total
13-Apr-20	Blenkinsop Bay	Pink	35	0.34								0										0
13-Apr-20	Blenkinsop Bay	Pink	32	0.28								0										0
13-Apr-20	Blenkinsop Bay	Pink	34	0.35								0										0
13-Apr-20	Blenkinsop Bay	Pink	34	0.31								0										0
13-Apr-20	Blenkinsop Bay	Pink	36	0.43		1						1		1								1
13-Apr-20	Blenkinsop Bay	Pink	33	0.29								0										0
13-Apr-20	Blenkinsop Bay	Pink	32	0.30								0										0
13-Apr-20	Blenkinsop Bay	Chum	40	0.73								0										0
13-Apr-20	Blenkinsop Bay	Chum	35	0.41								0										0
13-Apr-20	Blenkinsop Bay	Chum	48	1.21								0										0
13-Apr-20	Blenkinsop Bay	Chum	38	0.50								0										0
13-Apr-20	Blenkinsop Bay	Chum	38	0.48								0	1									1
13-Apr-20	Blenkinsop Bay	Chum	36	0.39								0										0
13-Apr-20	Blenkinsop Bay	Chum	36	0.39								0										0
13-Apr-20	Blenkinsop Bay	Chum	38	0.54								0										0
13-Apr-20	Blenkinsop Bay	Chum	37	0.58								0										0
13-Apr-20	Blenkinsop Bay	Chum	34	0.43								0										0
13-Apr-20	Blenkinsop Bay	Chum	37	0.45								0										0
13-Apr-20	Blenkinsop Bay	Chum	38	0.53								0										0
13-Apr-20	Blenkinsop Bay	Chum	36	0.38								0										0
13-Apr-20	Blenkinsop Bay	Chum	35	0.41								0										0
13-Apr-20	Blenkinsop Bay	Chum	38	0.53								0										0
13-Apr-20	Blenkinsop Bay	Chum	40	0.69								0										0
13-Apr-20	Blenkinsop Bay	Chum	38	0.52								0										0
13-Apr-20	Blenkinsop Bay	Chum	37	0.44								0										0
13-Apr-20	Blenkinsop Bay	Chum	38	0.52								0										0
13-Apr-20	Blenkinsop Bay	Chum	37	0.44								0										0
13-Apr-20	Blenkinsop Bay	Chum	36	0.40								0										0
13-Apr-20	Blenkinsop Bay	Chum	37	0.47								0										0
13-Apr-20	Blenkinsop Bay	Chum	37	0.47								0										0
13-Apr-20	Blenkinsop Bay	Chum	37	0.56								0										0
13-Apr-20	Blenkinsop Bay	Chum	45	1.01								0										0
13-Apr-20	Blenkinsop Bay	Chum	40	0.66								0										0
13-Apr-20	Blenkinsop Bay	Chum	37	0.51								0	1									1
13-Apr-20	Blenkinsop Bay	Chum	37	0.58								0										0
13-Apr-20	Blenkinsop Bay	Chum	40	0.68								0										0
13-Apr-20	Blenkinsop Bay	Chum	37	0.45								0										0
13-Apr-20	Blenkinsop Bay	Chum	41	0.75								0										0
13-Apr-20	Blenkinsop Bay	Chum	37	0.44								0										0
15-Apr-20	Owen Bay	Pink	31	0.23								0										0
15-Apr-20	Owen Bay	Chum	35	0.41								0										0
14-Apr-20	Raza North	Pink	31	0.25								0										0
14-Apr-20	Raza North	Pink	32	0.26								0										0
14-Apr-20	Raza North	Pink	32	0.25								0										0
14-Apr-20	Raza North	Pink	34	0.32								0										0
14-Apr-20	Raza North	Pink	34	0.30								0										0
14-Apr-20	Raza North	Pink	32	0.27								0										0
14-Apr-20	Raza North	Pink	33	0.26								0										0
14-Apr-20	Raza North	Pink	34	0.30	1							1										0

Sample Date	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	LEP Total	Cal Co	Cal C1	Cal C2	Cal C3	Cal C4	CAL PAM	CAL PAF	CAL AM	CAL AF	CAL Total
14-Apr-20	Raza North	Pink	34	0.30								0										0
14-Apr-20	Raza North	Pink	38	0.58								0										0
14-Apr-20	Raza North	Pink	32	0.27								0										0
14-Apr-20	Raza North	Pink	34	0.32								0										0
14-Apr-20	Raza North	Pink	32	0.28								0										0
14-Apr-20	Raza North	Pink	33	0.36								0										0
14-Apr-20	Raza North	Pink	32	0.28								0										0
14-Apr-20	Raza North	Pink	35	0.33								0										0
14-Apr-20	Raza North	Pink	34	0.31	1							1										0
14-Apr-20	Raza North	Pink	36	0.44			1					1										0
14-Apr-20	Raza North	Pink	33	0.30								0										0
14-Apr-20	Raza North	Pink	34	0.30								0										0
14-Apr-20	Raza North	Pink	34	0.29								0		1								1
14-Apr-20	Raza North	Pink	33	0.30								0										0
14-Apr-20	Raza North	Pink	34	0.30								0		1								1
14-Apr-20	Raza North	Pink	34	0.28								0										0
14-Apr-20	Raza North	Pink	32	0.29								0		2								2
14-Apr-20	Raza North	Chum	40	0.73								0										0
14-Apr-20	Raza North	Chum	39	0.48								0		1								1
14-Apr-20	Raza North	Chum	37	0.48								0										0
14-Apr-20	Raza North	Chum	40	0.71								0										0
14-Apr-20	Raza North	Chum	37	0.46								0										0
14-Apr-20	Raza North	Chum	42	0.77								0										0
14-Apr-20	Raza North	Chum	43	0.86								0		1								1
14-Apr-20	Raza North	Chum	34	0.40								0										0
14-Apr-20	Raza North	Chum	43	0.86								0		1								1
14-Apr-20	Raza North	Chum	34	0.40								0										0
14-Apr-20	Raza North	Chum	34	0.37								0										0
14-Apr-20	Raza North	Chum	37	0.48	1							1										0
14-Apr-20	Raza North	Chum	38	0.52								0										0
14-Apr-20	Raza North	Chum	37	0.44								0										0
14-Apr-20	Raza North	Chum	37	0.46								0										0
14-Apr-20	Raza North	Chum	37	0.47								0										0
14-Apr-20	Raza North	Chum	38	0.54								0										0
14-Apr-20	Raza North	Chum	36	0.43								0										0
14-Apr-20	Raza North	Chum	36	0.41								0										0
20-May-20	Francisco Point	Pink	50	1.05								0										0
20-May-20	Francisco Point	Pink	35	0.36								0										0
20-May-20	Francisco Point	Pink	45	1.01								0		1								1
20-May-20	Francisco Point	Pink	44	0.80								0										0
20-May-20	Francisco Point	Pink	44	0.73								0		1								1
20-May-20	Francisco Point	Pink	50	1.11								0										0
20-May-20	Francisco Point	Pink	55	1.56								0										0
20-May-20	Francisco Point	Pink	52	1.78								0										0
20-May-20	Francisco Point	Pink	50	1.15								0										0
20-May-20	Francisco Point	Pink	50	1.35								0										0
20-May-20	Francisco Point	Pink	46	1.00								0										0
20-May-20	Francisco Point	Pink	45	1.02								0										0
20-May-20	Francisco Point	Pink	45	0.73								0										0

Sample Date	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	LEP Total	Cal Co	Cal C1	Cal C2	Cal C3	Cal C4	CAL PAM	CAL PAF	CAL AM	CAL AF	CAL Total
20-May-20	Francisco Point	Pink	33	0.25								0										0
20-May-20	Francisco Point	Pink	43	0.75								0										0
20-May-20	Francisco Point	Pink	40	0.69								0										0
20-May-20	Francisco Point	Pink	55	1.32								0										0
20-May-20	Francisco Point	Pink	52	1.31								0		1								1
20-May-20	Francisco Point	Pink	45	0.82								0										0
20-May-20	Francisco Point	Pink	38	0.62								0		1								1
20-May-20	Francisco Point	Pink	50	1.12		1						1										0
20-May-20	Francisco Point	Pink	50	1.14								0										0
20-May-20	Francisco Point	Pink	55	1.58				1				1										0
20-May-20	Francisco Point	Pink	46	1.04								0										0
20-May-20	Francisco Point	Pink	48	1.04								0	1									1
20-May-20	Francisco Point	Pink	47	0.93								0										0
20-May-20	Francisco Point	Pink	50	1.26								0		1								1
20-May-20	Francisco Point	Pink	50	1.33								0										0
20-May-20	Francisco Point	Pink	42	0.89								0	2									2
20-May-20	Francisco Point	Pink	46	1.11								0										0
20-May-20	Francisco Point	Chum	60	2.59								0	1	1						1		3
20-May-20	Francisco Point	Chum	55	2.21								0				1	1					2
20-May-20	Viner Point	Pink	34	0.40								0		1								1
20-May-20	Raza North	Chum	36	0.53								0										0
20-May-20	Raza North	Pink	47	0.64								0										0
20-May-20	Hill Island	Pink	49	1.03								0										0
19-May-20	Chancellor	Chum	60	2.11		1	1					2										0
19-May-20	Chancellor	Chum	55	1.72		1						1		1								1
21-May-20	Shoal Bay	Chum	40	0.64								0										0
21-May-20	Shoal Bay	Chum	51	1.53								0										0
21-May-20	Shoal Bay	Chum	45	1.10		1						1										0
21-May-20	Shoal Bay	Chum	46	0.82								0										0
21-May-20	Shoal Bay	Chum	47	1.17								0										0
21-May-20	Shoal Bay	Chum	47	0.83			1					1										0
21-May-20	Shoal Bay	Chum	46	1.13								0										0
21-May-20	Shoal Bay	Chum	40	0.87								0										0
21-May-20	Shoal Bay	Chum	41	0.84								0										0
21-May-20	Shoal Bay	Chum	40	0.77								0										0
21-May-20	Shoal Bay	Chum	41	0.72		1						1										0
21-May-20	Shoal Bay	Chum	48	1.12								0										0
21-May-20	Shoal Bay	Chum	50	1.40								0										0
21-May-20	Shoal Bay	Chum	42	0.87								0										0
21-May-20	Shoal Bay	Chum	45	1.12								0										0
21-May-20	Shoal Bay	Chum	50	1.30								0										0
21-May-20	Shoal Bay	Chum	45	0.94								0										0
21-May-20	Shoal Bay	Chum	50	1.36								0										0
21-May-20	Shoal Bay	Chum	45	1.16								0										0
21-May-20	Shoal Bay	Chum	43	0.95								0										0
21-May-20	Shoal Bay	Chum	43	0.82								0										0
21-May-20	Shoal Bay	Chum	42	1.15								0										0

Sample Date	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	LEP Total	Cal Co	Cal C1	Cal C2	Cal C3	Cal C4	CAL PAM	CAL PAF	CAL AM	CAL AF	CAL Total
21-May-20	Shoal Bay	Chum	44	1.02								0										0
21-May-20	Shoal Bay	Chum	48	1.10								0										0
21-May-20	Shoal Bay	Chum	45	0.99								0										0
21-May-20	Shoal Bay	Chum	42	0.73								0										0
21-May-20	Shoal Bay	Chum	45	0.87								0										0
21-May-20	Shoal Bay	Chum	43	0.83								0										0
21-May-20	Shoal Bay	Chum	46	1.17								0										0
21-May-20	Shoal Bay	Chum	48	1.25								0										0
21-May-20	Deepwater	Pink	55	1.91								0										0
21-May-20	Deepwater	Pink	51	1.54								0										0
21-May-20	Deepwater	Pink	52	1.36								0										0
21-May-20	Deepwater	Pink	56	2.00								0										0
21-May-20	Deepwater	Pink	49	1.05								0					1					1
21-May-20	Deepwater	Pink	60	2.14								0										0
21-May-20	Deepwater	Pink	61	2.22								0										0
21-May-20	Deepwater	Pink	45	1.02								0										0
21-May-20	Deepwater	Pink	33	0.43								0										0
21-May-20	Deepwater	Pink	56	1.55								0										0
21-May-20	Deepwater	Pink	60	2.89								0										0
21-May-20	Deepwater	Pink	52	1.38								0										0
21-May-20	Deepwater	Pink	45	0.89								0										0
21-May-20	Deepwater	Pink	54	2.02								0										0
21-May-20	Deepwater	Pink	58	2.29								0										0
21-May-20	Deepwater	Pink	55	1.96								0										0
21-May-20	Deepwater	Pink	45	1.11								0										0
21-May-20	Deepwater	Pink	47	1.09								0										0
21-May-20	Deepwater	Pink	60	2.02								0										0
21-May-20	Deepwater	Pink	60	2.15								0										0
21-May-20	Deepwater	Pink	58	2.39								0										0
21-May-20	Deepwater	Pink	35	0.52								0										0
21-May-20	Deepwater	Pink	50	1.26			1					1										0
21-May-20	Deepwater	Pink	50	1.57								0										0
21-May-20	Deepwater	Pink	60	2.49								0										0
21-May-20	Deepwater	Pink	62	2.47								0										0
21-May-20	Deepwater	Pink	50	1.43								0										0
21-May-20	Deepwater	Pink	52	1.42								0										0
21-May-20	Deepwater	Pink	58	2.45								0										0
21-May-20	Deepwater	Pink	41	0.83			1					1										0
19-May-20	Primary 1	Pink	38	0.50								0										0
19-May-20	Primary 1	Pink	50	1.32								0										0
19-May-20	Primary 1	Pink	38	0.57								0										0
19-May-20	Primary 1	Pink	32	0.31								0										0
19-May-20	Primary 1	Pink	49	1.01								0										0
19-May-20	Primary 1	Pink	52	1.37	1							1										0
19-May-20	Primary 1	Pink	35	0.37								0										0
19-May-20	Primary 1	Chum	37	0.43								0										0
19-May-20	Primary 1	Chum	35	0.53								0										0

Sample Date	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	LEP Total	Cal Co	Cal C1	Cal C2	Cal C3	Cal C4	CAL PAM	CAL PAF	CAL AM	CAL AF	CAL Total
19-May-20	Primary 1	Chum	37	0.58								0										0
19-May-20	Primary 1	Chum	35	0.43								0										0
19-May-20	Primary 1	Chum	45	0.97								0										0
19-May-20	Primary 1	Chum	46	0.97								0										0
19-May-20	Primary 1	Chum	41	0.72								0										0
19-May-20	Primary 1	Chum	40	0.65								0										0
19-May-20	Primary 1	Chum	38	0.63								0										0
19-May-20	Primary 1	Chum	39	0.75								0										0
19-May-20	Primary 1	Chum	48	1.01								0										0
19-May-20	Primary 1	Chum	42	0.76								0										0
19-May-20	Primary 1	Chum	45	0.85								0										0
19-May-20	Primary 1	Chum	46	1.04								0										0
19-May-20	Primary 1	Chum	41	0.71								0										0
19-May-20	Primary 1	Chum	37	0.52								0										0
19-May-20	Primary 1	Chum	46	0.95								0										0
19-May-20	Primary 1	Chum	39	0.68								0										0
19-May-20	Primary 1	Chum	36	0.50								0										0
19-May-20	Primary 1	Chum	37	0.47								0										0
19-May-20	Primary 1	Chum	41	0.79								0										0
19-May-20	Primary 1	Chum	32	0.37								0										0
19-May-20	Primary 1	Chum	40	0.59								0										0
19-May-20	Primary 1	Chum	41	0.61								0										0
19-May-20	Primary 1	Chinook	38	0.68								0										0
20-May-20	Rebecca Spit	Pink	43	0.96								0										0
20-May-20	Rebecca Spit	Pink	44	0.84								0				1		1				2
20-May-20	Rebecca Spit	Pink	44	0.90			1					1										0
20-May-20	Rebecca Spit	Pink	45	0.99								0		1								1
20-May-20	Rebecca Spit	Pink	41	0.61								0		1								1
20-May-20	Rebecca Spit	Pink	46	0.91								0			1							1
20-May-20	Rebecca Spit	Pink	49	1.16								0			2							2
20-May-20	Rebecca Spit	Pink	36	0.42								0										0
20-May-20	Rebecca Spit	Pink	44	0.83		1						1										0
20-May-20	Rebecca Spit	Pink	50	1.05								0										0
20-May-20	Rebecca Spit	Pink	43	0.79								0										0
20-May-20	Rebecca Spit	Pink	37	0.50								0										0
20-May-20	Rebecca Spit	Pink	49	1.08								0			1							1
20-May-20	Rebecca Spit	Pink	50	1.07								0										0
20-May-20	Rebecca Spit	Pink	40	0.73								0										0
20-May-20	Rebecca Spit	Pink	51	1.42								0		1								1
20-May-20	Rebecca Spit	Pink	38	0.59								0	1		1							2
20-May-20	Rebecca Spit	Pink	46	0.82			1					1										0
20-May-20	Rebecca Spit	Chum	40	0.75								0										0
20-May-20	Marina Island	Pink	42	0.68								0										0
20-May-20	Marina Island	Pink	55	1.33	1							1										0
20-May-20	Marina Island	Pink	51	1.12								0										0
20-May-20	Marina Island	Pink	35	0.45								0										0
20-May-20	Marina Island	Pink	55	1.34								0										0

Sample Date	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	LEP Total	Cal Co	Cal C1	Cal C2	Cal C3	Cal C4	CAL PAM	CAL PAF	CAL AM	CAL AF	CAL Total
20-May-20	Marina Island	Pink	44	0.79		1						1										0
20-May-20	Marina Island	Pink	55	1.45								0										0
20-May-20	Marina Island	Pink	44	0.73			1					1										0
20-May-20	Marina Island	Pink	35	0.41								0		1								1
20-May-20	Marina Island	Pink	35	0.40								0		1								1
20-May-20	Marina Island	Pink	33	0.42								0										0
20-May-20	Marina Island	Pink	50	1.03								0										0
20-May-20	Marina Island	Pink	51	1.31								0		1								1
20-May-20	Marina Island	Pink	34	0.44								0										0
20-May-20	Marina Island	Pink	53	1.52								0										0
20-May-20	Marina Island	Pink	42	0.71								0		1								1
20-May-20	Marina Island	Pink	49	1.32								0										0
20-May-20	Marina Island	Pink	45	1.01								0			1							1
21-May-20	Rock Bay	Chum	56	1.91								0										0
21-May-20	Rock Bay	Chum	57	1.72								0										0
21-May-20	Rock Bay	Chum	58	2.17								0										0
21-May-20	Rock Bay	Chum	54	1.88								0										0
21-May-20	Rock Bay	Chum	51	1.49								0										0
21-May-20	Rock Bay	Chum	46	1.03								0							1			1
21-May-20	Rock Bay	Chum	64	2.25								0										0
21-May-20	Rock Bay	Pink	61	2.22								0										0
21-May-20	Rock Bay	Pink	47	1.1								0										0
21-May-20	Rock Bay	Pink	45	0.84								0										0
21-May-20	Rock Bay	Pink	47	0.91		1						1										0
21-May-20	Rock Bay	Pink	45	0.91								0										0
21-May-20	Rock Bay	Pink	47	0.91		1						1										0
21-May-20	Rock Bay	Pink	45	0.91								0										0
21-May-20	Rock Bay	Pink	52	1.47								0										0
21-May-20	Rock Bay	Pink	42	0.93								0										0
21-May-20	Rock Bay	Pink	46	1.15								0										0
21-May-20	Rock Bay	Pink	51	1.45								0										0
21-May-20	Rock Bay	Pink	50	1.08								0										0
21-May-20	Rock Bay	Pink	56	1.78								0										0
21-May-20	Rock Bay	Pink	41	0.68								0		1								1
21-May-20	Rock Bay	Pink	51	1.12								0										0
21-May-20	Rock Bay	Pink	44	0.93								0										0
21-May-20	Rock Bay	Pink	52	1.52								0		1								1
21-May-20	Rock Bay	Pink	48	1.02								0										0
21-May-20	Rock Bay	Pink	46	0.89								0										0
21-May-20	Rock Bay	Pink	53	1.49								0										0
21-May-20	Rock Bay	Pink	45	0.93								0								1		1
21-May-20	Rock Bay	Pink	60	1.99								0										0
21-May-20	Rock Bay	Pink	48	1.11								0				1						1
21-May-20	Rock Bay	Pink	52	1.64								0										0
21-May-20	Rock Bay	Pink	55	1.75								0										0
21-May-20	Rock Bay	Pink	49	1.25								0										0
21-May-20	Rock Bay	Pink	51	1.26								0										0
21-May-20	Rock Bay	Pink	55	1.76								0		1								1
21-May-20	Rock Bay	Pink	50	1.19								0										0

Sample Date	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	LEP Total	Cal Co	Cal C1	Cal C2	Cal C3	Cal C4	CAL PAM	CAL PAF	CAL AM	CAL AF	CAL Total
21-May-20	Rock Bay	Pink	41	0.91								0										0
21-May-20	Rock Bay	Pink	50	1.28								0		1								1
21-May-20	Rock Bay	Pink	49	1.17								0										0
21-May-20	Discovery	Chum	36	0.48								0	1									1
21-May-20	Discovery	Chum	46	1.12								0										0
21-May-20	Discovery	Chum	42	0.84								0					1					1
21-May-20	Discovery	Pink	51	1.36								0										0
21-May-20	Discovery	Pink	46	1.19								0										0
21-May-20	Discovery	Pink	45	0.97								0										0
21-May-20	Discovery	Pink	43	0.94								0										0
21-May-20	Discovery	Pink	50	1.21								0										0
21-May-20	Discovery	Pink	41	0.74								0										0
21-May-20	Discovery	Pink	42	1.06								0										0
21-May-20	Discovery	Pink	46	1.10								0										0
21-May-20	Discovery	Pink	46	0.87			1					1										0
21-May-20	Discovery	Pink	48	1.01								0										0
21-May-20	Discovery	Pink	46	1.00								0										0
21-May-20	Discovery	Pink	45	0.95								0					1					1
21-May-20	Discovery	Pink	43	0.92				1				1										0
21-May-20	Discovery	Pink	35	0.45								0										0
21-May-20	Discovery	Pink	46	1.02								0										0
21-May-20	Discovery	Pink	44	0.78		1						1										0
21-May-20	Discovery	Pink	44	0.82								0										0
21-May-20	Discovery	Pink	45	0.91								0										0
21-May-20	Discovery	Pink	45	0.90								0										0
19-May-20	Race Passage	Pink	48	1.03								0										0
19-May-20	Race Passage	Pink	45	0.98								0										0
19-May-20	Race Passage	Pink	52	1.16	1		1					2										0
19-May-20	Race Passage	Pink	55	1.62								0										0
19-May-20	Race Passage	Pink	49	1.03								0										0
19-May-20	Race Passage	Pink	35	0.38								0										0
19-May-20	Race Passage	Pink	49	1.21								0		1								1
19-May-20	Race Passage	Chum	39	0.62								0										0
19-May-20	Race Passage	Pink	40	0.64								0	1									1
19-May-20	Race Passage	Pink	35	0.39								0										0
19-May-20	Race Passage	Pink	35	0.39								0										0
19-May-20	Race Passage	Pink	51	1.12					1			1										0
19-May-20	Race Passage	Pink	42	0.65								0										0
19-May-20	Race Passage	Pink	41	0.64								0										0
19-May-20	Race Passage	Pink	42	0.55								0										0
19-May-20	Race Passage	Pink	49	1.16								0										0
19-May-20	Race Passage	Pink	47	1.00								0										0
19-May-20	Race Passage	Pink	45	0.91								0										0
19-May-20	Race Passage	Pink	47	1.13								0										0
19-May-20	Race Passage	Pink	47	1.14								0										0
19-May-20	Race Passage	Pink	38	0.63								0							1			1
19-May-20	Race Passage	Pink	43	0.83								0										0

Sample Date	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	LEP Total	Cal Co	Cal C1	Cal C2	Cal C3	Cal C4	CAL PAM	CAL PAF	CAL AM	CAL AF	CAL Total
19-May-20	Race Passage	Pink	39	0.50								0										0
19-May-20	Race Passage	Pink	45	0.91								0										0
19-May-20	Race Passage	Pink	54	1.58								0										0
19-May-20	Race Passage	Pink	48	1.14								0										0
19-May-20	Race Passage	Pink	53	1.45								0										0
19-May-20	Race Passage	Pink	47	0.95								0			1							1
19-May-20	Race Passage	Pink	40	0.70								0				1						1
19-May-20	Race Passage	Pink	33	0.32								0										0
19-May-20	Race Passage	Pink	44	0.91								0										0
19-May-20	Race Passage	Chum	41	0.67								0										0
19-May-20	Race Passage	Chum	40	0.66								0										0
19-May-20	Race Passage	Chum	46	0.94				1				1										0
19-May-20	Race Passage	Chum	38	0.41								0										0
19-May-20	Race Passage	Chum	37	0.54		1						1										0
19-May-20	Race Passage	Chum	35	0.38								0										0
19-May-20	Race Passage	Chum	43	0.89								0										0
19-May-20	Race Passage	Chum	39	0.54								0										0
19-May-20	Race Passage	Chum	48	1.16								0										0
19-May-20	Race Passage	Chum	40	0.58								0										0
19-May-20	Race Passage	Chum	51	1.35								0										0
19-May-20	Race Passage	Chum	43	0.83								0										0
19-May-20	Race Passage	Chum	41	0.64								0										0
19-May-20	Race Passage	Chum	40	0.62			1					1										0
19-May-20	Race Passage	Chum	40	0.57								0										0
19-May-20	Race Passage	Chum	36	0.43								0										0
19-May-20	Race Passage	Chum	36	0.43								0										0
19-May-20	Race Passage	Chum	42	0.76								0										0
19-May-20	Race Passage	Chum	42	0.73								0										0
19-May-20	Race Passage	Pink	36	0.42								0										0
19-May-20	Race Passage	Chum	35	0.43								0										0
21-May-20	Owen Bay	Coho	84	8.28	2							2										0
21-May-20	Owen Bay	Coho	96	13.41					1			1		1		1					1	3
21-May-20	Owen Bay	Coho	100	12.59				1				1		1								1
21-May-20	Owen Bay	Pink	52	1.71		1	1	1	1			4										0
21-May-20	Owen Bay	Pink	71	3.84				1				1										0
21-May-20	Owen Bay	Pink	68	3.33					2			2			1	1						2
21-May-20	Owen Bay	Pink	55	1.77								0						1				1
21-May-20	Owen Bay	Pink	57	1.88	2							2		1			1					2
21-May-20	Owen Bay	Pink	45	1.00		1						1		1								1
21-May-20	Owen Bay	Pink	71	3.64								0		1								1
21-May-20	Owen Bay	Pink	49	1.20			1					1				1		1			1	3
21-May-20	Owen Bay	Pink	61	2.48		1						1										0
21-May-20	Owen Bay	Pink	63	3.09								0	1									1
21-May-20	Owen Bay	Pink	71	3.88								0										0
21-May-20	Owen Bay	Pink	48	1.28				1		1		2										0
21-May-20	Owen Bay	Pink	58	2.49								0										0
21-May-20	Owen Bay	Pink	52	1.58		1	1			1		3										0
21-May-20	Owen Bay	Pink	63	3.08								0										0

Sample Date	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	LEP Total	Cal Co	Cal C1	Cal C2	Cal C3	Cal C4	CAL PAM	CAL PAF	CAL AM	CAL AF	CAL Total
21-May-20	Owen Bay	Pink	54	1.57								0										0
21-May-20	Owen Bay	Chum	60	2.64	3	1	1					5		1					1			2
21-May-20	Owen Bay	Chum	62	2.77								0		1								1
21-May-20	Owen Bay	Chum	71	3.50								0		1								1
21-May-20	Owen Bay	Chum	60	2.54								0		1								1
21-May-20	Owen Bay	Chum	43	1.04		5	2					7			1							1
21-May-20	Owen Bay	Chum	65	2.85					1			1										0
21-May-20	Owen Bay	Chum	62	3.03	1		1	1				3			2	1						3
21-May-20	Owen Bay	Chum	66	3.71						1		1										0
21-May-20	Owen Bay	Chum	71	3.79								0										0
21-May-20	Owen Bay	Chum	60	2.26								0										0
21-May-20	Owen Bay	Chum	75	6.22			1	1				2										0
21-May-20	Owen Bay	Chum	70	4.09			1					1										0
21-May-20	Owen Bay	Chum	80	5.87								0			1							1
21-May-20	Owen Bay	Chum	73	4.92				1				1										0
21-May-20	Owen Bay	Chum	61	2.77	1							1										0
21-May-20	Owen Bay	Chum	72	4.04						2	1	3										0
21-May-20	Owen Bay	Chum	68	3.59								0		1								1
21-May-20	Owen Bay	Chum	69	3.48								0			1							1
21-May-20	Owen Bay	Chum	61	2.94								0										0
21-May-20	Owen Bay	Chum	73	5.00								0		1								1
21-May-20	Owen Bay	Chum	68	3.69		1	1					2		1								1
21-May-20	Owen Bay	Chum	42	0.92	1		1		1	1		4										0
21-May-20	Owen Bay	Chum	79	6.44								0										0
21-May-20	Owen Bay	Chum	71	4.84								0										0
21-May-20	Owen Bay	Chum	68	4.40			1			1		2										0
21-May-20	Owen Bay	Chum	59	2.25								0		1								1
21-May-20	Owen Bay	Chum	62	3.34			1					1	1									1
21-May-20	Okisollo	Chum	40	0.88			4					4										0
21-May-20	Okisollo	Chum	38	0.65								0										0
21-May-20	Okisollo	Chum	40	0.55		3						3										0
21-May-20	Okisollo	Chum	35	0.53		2						2										0
21-May-20	Okisollo	Chum	45	1.33								0										0
21-May-20	Okisollo	Chum	35	0.48		1						1										0
21-May-20	Okisollo	Chum	48	1.37			1					1										0
21-May-20	Okisollo	Pink	35	0.47								0										0
21-May-20	Okisollo	Pink	37	0.57		1						1					1					1
21-May-20	Okisollo	Pink	38	0.53								0										0
21-May-20	Okisollo	Pink	32	0.41								0										0
21-May-20	Okisollo	Pink	40	0.54		1						1										0
21-May-20	Okisollo	Pink	45	0.93								0		1								1
21-May-20	Okisollo	Pink	31	0.35		1						1				2						2
21-May-20	Okisollo	Pink	35	0.32								0										0
21-May-20	Okisollo	Pink	35	0.30			1					1										0
21-May-20	Okisollo	Pink	36	0.48	2	2		1				5										0
21-May-20	Okisollo	Pink	35	0.50		1						1										0
21-May-20	Okisollo	Pink	45	1.03	1	1						2			1		1		1			3

Sample Date	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	LEP Total	Cal Co	Cal C1	Cal C2	Cal C3	Cal C4	CAL PAM	CAL PAF	CAL AM	CAL AF	CAL Total
21-May-20	Okisollo	Pink	38	0.56			1					1										0
21-May-20	Okisollo	Pink	41	0.77								0										0
21-May-20	Okisollo	Pink	46	1.12								0										0
21-May-20	Okisollo	Pink	54	1.24			1					1				1						1
21-May-20	Okisollo	Pink	40	0.61								0										0
21-May-20	Okisollo	Pink	34	0.24		1						1										0
21-May-20	Okisollo	Pink	45	1.15				1				1										0
19-May-20	Blenkinsop Bay	Coho	80	6.10								0										0
19-May-20	Blenkinsop Bay	Coho	84	7.45								0		1								1
19-May-20	Blenkinsop Bay	Coho	85	8.22								0										0
19-May-20	Blenkinsop Bay	Coho	84	7.60								0										0
19-May-20	Blenkinsop Bay	Coho	96	11.40								0										0
19-May-20	Blenkinsop Bay	Coho	105	13.49								0										0
19-May-20	Blenkinsop Bay	Coho	90	8.36								0										0
19-May-20	Blenkinsop Bay	Coho	95	10.34								0										0
19-May-20	Blenkinsop Bay	Coho	100	12.50								0		1								1
19-May-20	Blenkinsop Bay	Coho	85	8.45								0										0
19-May-20	Blenkinsop Bay	Coho	108	16.90								0										0
19-May-20	Blenkinsop Bay	Coho	100	12.98								0										0
19-May-20	Blenkinsop Bay	Coho	98	11.37								0										0
19-May-20	Blenkinsop Bay	Coho	80	5.50								0		2								2
19-May-20	Blenkinsop Bay	Coho	92	10.59								0										0
19-May-20	Blenkinsop Bay	Coho	88	8.70								0										0
19-May-20	Blenkinsop Bay	Coho	80	5.61								0		1								1
19-May-20	Blenkinsop Bay	Coho	110	11.11								0										0
19-May-20	Blenkinsop Bay	Coho	90	8.92								0										0
19-May-20	Blenkinsop Bay	Coho	110	13.87								0		1								1
19-May-20	Blenkinsop Bay	Coho	85	8.23								0										0
19-May-20	Blenkinsop Bay	Coho	90	8.99								0										0
19-May-20	Blenkinsop Bay	Coho	87	8.70								0										0
19-May-20	Blenkinsop Bay	Coho	88	8.43								0										0
19-May-20	Blenkinsop Bay	Coho	87	9.32								0										0
19-May-20	Blenkinsop Bay	Coho	95	8.16								0										0
19-May-20	Blenkinsop Bay	Coho	87	8.81								0		1								1
19-May-20	Blenkinsop Bay	Coho	85	8.40	1							1										0
19-May-20	Blenkinsop Bay	Coho	100	9.71								0										0
19-May-20	Blenkinsop Bay	Coho	79	5.64								0		1								1
19-May-20	Blenkinsop Bay	Chum	93	8.97								0										0
21-May-20	Nodales	Chum	35	0.54								0										0
21-May-20	Nodales	Chum	42	0.90								0										0
21-May-20	Nodales	Chum	46	0.98			2					2										0
21-May-20	Nodales	Chum	60	2.19								0										0
21-May-20	Nodales	Chum	49	1.28		1						1		1								1
21-May-20	Nodales	Chum	55	2.11								0										0
21-May-20	Nodales	Chum	42	0.80								0										0
21-May-20	Nodales	Chum	42	0.89								0										0
21-May-20	Nodales	Chum	45	1.38								0										0

Sample Date	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	LEP Total	Cal Co	Cal C1	Cal C2	Cal C3	Cal C4	CAL PAM	CAL PAF	CAL AM	CAL AF	CAL Total
21-May-20	Nodales	Chum	40	0.96			1	1				2										0
21-May-20	Nodales	Chum	36	0.48		2	1					3										0
21-May-20	Nodales	Chum	36	0.44								0										0
21-May-20	Nodales	Chum	45	0.81			1					1										0
21-May-20	Nodales	Chum	50	1.36								0										0
21-May-20	Nodales	Chum	54	1.63								0										0
21-May-20	Nodales	Chum	45	0.99	1	2						3										0
21-May-20	Nodales	Chum	35	0.50								0										0
21-May-20	Nodales	Chum	45	1.17								0										0
21-May-20	Nodales	Chum	52	1.80								0										0
21-May-20	Nodales	Chum	39	0.70								0										0
21-May-20	Nodales	Chum	48	1.32								0										0
21-May-20	Nodales	Chum	45	0.93								0										0
21-May-20	Nodales	Chum	50	1.64		1	1					2										0
21-May-20	Nodales	Chum	50	1.56		1						1										0
21-May-20	Nodales	Chum	40	0.69		1						1										0
21-May-20	Nodales	Chum	45	0.93		3						3										0
21-May-20	Nodales	Chum	43	1.26								0										0
21-May-20	Nodales	Chum	50	1.47								0										0
21-May-20	Nodales	Chum	53	1.43								0										0
21-May-20	Nodales	Chum	49	1.21								0										0
21-May-20	Nodales	Pink	55	1.66								0										0
21-May-20	Nodales	Pink	55	1.69								0										0
21-May-20	Nodales	Pink	40	0.64								0										0
21-May-20	Nodales	Pink	52	1.19								0										0
21-May-20	Nodales	Pink	52	1.54								0										0
21-May-20	Nodales	Pink	46	0.86								0										0
21-May-20	Nodales	Pink	50	1.21								0										0
21-May-20	Nodales	Pink	35	0.38								0										0
21-May-20	Nodales	Pink	64	2.18								0										0
21-May-20	Nodales	Pink	48	1.24								0										0
21-May-20	Nodales	Pink	55	1.65						1		1										0
21-May-20	Nodales	Pink	45	1.01								0										0
21-May-20	Nodales	Pink	45	0.73								0										0
21-May-20	Nodales	Pink	45	0.90								0										0
21-May-20	Nodales	Pink	42	0.83								0										0
21-May-20	Nodales	Pink	58	2.16								0										0
21-May-20	Nodales	Pink	53	1.26								0										0
21-May-20	Nodales	Pink	50	1.11	1	2	1					4										0
21-May-20	Nodales	Pink	50	0.89		1	1					2										0
21-May-20	Nodales	Pink	60	1.65								0										0
21-May-20	Nodales	Pink	54	1.47								0										0
21-May-20	Nodales	Pink	42	0.47					1			1										0
21-May-20	Nodales	Pink	45	0.83								0										0
21-May-20	Nodales	Pink	45	0.78			1					1		1								1
19-May-20	Bessborough	Pink	54	1.55								0										0
19-May-20	Bessborough	Pink	51	1.60								0										0

Sample Date	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	LEP Total	Cal Co	Cal C1	Cal C2	Cal C3	Cal C4	CAL PAM	CAL PAF	CAL AM	CAL AF	CAL Total
19-May-20	Bessborough	Pink	60	2.63								0										0
19-May-20	Bessborough	Chum	40	0.73								0										0
19-May-20	Bessborough	Pink	68	3.69								0										0
19-May-20	Bessborough	Pink	50	1.56								0										0
19-May-20	Bessborough	Pink	58	2.11								0										0
19-May-20	Bessborough	Pink	48	1.07								0										0
19-May-20	Bessborough	Pink	60	2.09								0										0
19-May-20	Bessborough	Pink	50	1.30				1	1			2										0
19-May-20	Bessborough	Pink	73	4.17								0										0
19-May-20	Bessborough	Pink	62	2.62								0										0
19-May-20	Bessborough	Pink	60	2.40				1	1			2										0
19-May-20	Bessborough	Pink	50	1.15				1				1										0
19-May-20	Bessborough	Pink	70	3.00								0										0
19-May-20	Bessborough	Pink	54	1.90								0										0
19-May-20	Bessborough	Pink	65	3.05						1		1										0
19-May-20	Bessborough	Pink	52	1.84								0										0
19-May-20	Bessborough	Pink	42	0.76								0										0
19-May-20	Bessborough	Pink	65	2.75								0										0
19-May-20	Bessborough	Pink	67	3.46								0										0
19-May-20	Bessborough	Pink	60	2.45								0										0
19-May-20	Bessborough	Pink	50	1.38		1						1										0
19-May-20	Bessborough	Pink	53	1.80								0							1			1
19-May-20	Bessborough	Pink	45	1.07								0										0
19-May-20	Bessborough	Pink	70	3.84								0										0
19-May-20	Bessborough	Pink	72	4.01							1	1										0
19-May-20	Bessborough	Pink	60	2.39								0										0
19-May-20	Bessborough	Pink	60	2.06								0										0
19-May-20	Bessborough	Pink	58	1.19								0										0
19-May-20	Bessborough	Chum	40	0.80								0										0
19-May-20	Bessborough	Chum	58	2.09								0										0
19-May-20	Bessborough	Chum	58	2.41								0										0
19-May-20	Bessborough	Chum	50	1.37								0										0
19-May-20	Bessborough	Chum	50	1.72								0										0
19-May-20	Bessborough	Chum	68	3.81								0										0
19-May-20	Bessborough	Chum	40	0.62								0										0
19-May-20	Bessborough	Chum	50	1.48								0										0
19-May-20	Bessborough	Chum	66	3.50								0										0
19-May-20	Bessborough	Chum	58	2.17								0										0
19-May-20	Bessborough	Chum	56	2.26								0										0
19-May-20	Bessborough	Chum	46	1.12								0										0
19-May-20	Bessborough	Chum	52	1.69			1					1										0
19-May-20	Bessborough	Chum	50	1.45								0										0
19-May-20	Bessborough	Chum	60	2.51								0										0
19-May-20	Bessborough	Chum	40	0.76				1				1										0
19-May-20	Bessborough	Chum	51	1.65								0										0
19-May-20	Bessborough	Chum	65	3.57								0										0
19-May-20	Bessborough	Chum	56	2.65								0										0

Sample Date	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	LEP Total	Cal Co	Cal C1	Cal C2	Cal C3	Cal C4	CAL PAM	CAL PAF	CAL AM	CAL AF	CAL Total
19-May-20	Bessborough	Chum	61	2.73								0										0
19-May-20	Bessborough	Chum	45	1.23								0										0
19-May-20	Bessborough	Chum	52	1.98								0										0
19-May-20	Bessborough	Chum	62	3.29								0										0
19-May-20	Bessborough	Chum	52	1.96								0										0
19-May-20	Bessborough	Chum	55	2.28				1				1										0
19-May-20	Bessborough	Chum	43	1.09								0										0
19-May-20	Bessborough	Chum	42	0.96								0										0
19-May-20	Bessborough	Pink	55	1.74								0										0
19-May-20	Bessborough	Chum	40	0.92								0										0
19-May-20	Bessborough	Chum	70	4.33								0										0
21-May-20	Bickley Bay	Chum	49	1.42		1						1										0
21-May-20	Bickley Bay	Chum	52	1.72								0										0
21-May-20	Bickley Bay	Chum	57	1.98								0										0
21-May-20	Bickley Bay	Chum	64	3.11								0										0
21-May-20	Bickley Bay	Chum	43	0.73		1						1										0
21-May-20	Bickley Bay	Chum	56	1.85								0										0
21-May-20	Bickley Bay	Chum	57	2.30	1							1										0
21-May-20	Bickley Bay	Chum	64	2.87								0										0
21-May-20	Bickley Bay	Chum	45	0.97								0										0
21-May-20	Bickley Bay	Chum	48	1.44								0										0
21-May-20	Bickley Bay	Chum	34	0.58								0										0
21-May-20	Bickley Bay	Chum	62	2.79	1							1										0
21-May-20	Bickley Bay	Chum	65	3.07		1						1										0
21-May-20	Bickley Bay	Chum	59	2.25								0										0
21-May-20	Bickley Bay	Chum	38	0.76								0										0
21-May-20	Bickley Bay	Chum	48	1.52								0										0
21-May-20	Bickley Bay	Pink	37	0.60								0										0
21-May-20	Bickley Bay	Pink	48	1.16								0										0
21-May-20	Bickley Bay	Pink	69	3.06								0										0
21-May-20	Bickley Bay	Pink	44	0.90								0										0
21-May-20	Fanny Bay	Chinook	49	1.55								0										0
21-May-20	Fanny Bay	Chinook	50	1.61								0										0
21-May-20	Fanny Bay	Chinook	48	1.53								0										0
21-May-20	Fanny Bay	Chinook	49	1.48								0										0
21-May-20	Fanny Bay	Chinook	68	3.84								0										0
21-May-20	Fanny Bay	Chum	44	0.91								0										0
21-May-20	Fanny Bay	Chum	45	1.24								0										0
21-May-20	Fanny Bay	Chum	45	1.08								0										0
21-May-20	Fanny Bay	Chum	45	1.09								0										0
21-May-20	Fanny Bay	Chum	50	1.39								0										0
21-May-20	Fanny Bay	Chum	41	0.76								0										0
21-May-20	Fanny Bay	Chum	53	1.80								0										0
21-May-20	Fanny Bay	Chum	47	1.32								0										0
21-May-20	Fanny Bay	Chum	50	1.32								0										0
21-May-20	Fanny Bay	Chum	42	0.83								0										0
21-May-20	Fanny Bay	Chum	49	1.47								0										0

Sample Date	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP PAM	LEP PAF	LEP AM	LEP AF	LEP Total	Cal Co	Cal C1	Cal C2	Cal C3	Cal C4	CAL PAM	CAL PAF	CAL AM	CAL AF	CAL Total
21-May-20	Fanny Bay	Chum	49	1.36								0										0
21-May-20	Fanny Bay	Chum	46	1.21								0										0
21-May-20	Fanny Bay	Chum	46	1.16								0										0
21-May-20	Fanny Bay	Chum	46	1.12								0										0
21-May-20	Fanny Bay	Chum	47	1.09								0										0
21-May-20	Fanny Bay	Chum	46	1.16								0										0
21-May-20	Fanny Bay	Chum	49	1.35								0										0
21-May-20	Fanny Bay	Chum	48	1.27								0										0

Appendix IV – 2017-2020 Comparisons

Surface water temperature comparisons between data collected at Pre-Exposure Sites in Discovery Islands in 2017 – 2020.

Site Name	April Temp (°C)				May Temp (°C)			
	2017	2018	2019	2020	2017	2018	2019	2020
Francisco Point	10.1	9.0	9.7	10.3	20.0	16.4	18.2	13.5
Marina Island	10.5	10.0	9.6	10.0	19.5	17.7	22.2	13.8
Rebecca Spit	9.8	10.0	10.7	12.0	21.2	17.0	21.7	14.3
Viner Point	10.0	10.0	10.6	10.2	19.7	16.7	18.0	13.9
SE Hill Island	10.1	10.0	10.9	11.1	20.8	17.7	19.3	14.5
Penn Island	10.3	10.0	11.1	12.0	20.2	18.5	18.2	14.7
Deepwater Bay	9.4	9.5	10.6	13.7	21.6	15.4	13.3	12.8
Average	**10.0**	**9.8**	**10.5**	**11.3**	**20.4**	**17.1**	**18.7**	**13.9**

Surface water salinity comparison between data collected at Pre-Exposure Sites in Discovery Islands in 2017 – 2020.

Site Name	April Salinity (ppt)				May Salinity (ppt)			
	2017	2018	2019	2020	2017	2018	2019	2020
Francisco Point	27.1	26.0	31.5	32.2	19.7	24.7	27.8	28.8
Marina Island	27.5	25.0	31.2	32.2	19.3	22.7	24.8	29.5
Rebecca Spit	25.2	25.0	30.6	31.9	19.3	27.0	24.6	30.2
Viner Point	27.5	23.0	31.7	30.8	19.1	26.5	25.9	30.1
SE Hill Island	27.7	22.0	31.6	31.4	18.2	26.7	24.0	28.8
Penn Island	27.5	24.0	31.5	28.4	17.5	26.6	24.7	25.0
Deepwater Bay	25.4	29.0	31.8	31.9	17.8	30.8	30.7	32.3
Average	**26.8**	**24.9**	**31.4**	**31.3**	**18.7**	**26.4**	**26.1**	**29.2**

Surface water temperature comparisons between data collected at Post-Exposure Sites in Discovery Islands in 2017 – 2020.

Site Name	April Temp (°C)				May Temp (°C)			
	2017	2018	2019	2020	2017	2018	2019	2020
Raza	10.5	10.0	12.0	11.7	23.3	17.6	18.1	14.8
Raza North	11.4	10.0	12.6	14.1	22.6	18.8	20.1	14.8
Okisollo	9.7	9.0	-	13.7	17.7	13.8	12.3	13.7
Owen Bay	9.6	9.5	-	15.9	20.3	15.4	15.4	15.4
Rock Bay	9.5	9.0	9.4	8.5	13.6	11.1	16.4	10.0
Discovery	9.4	9.0	11.2	16.3	13.0	13.6	13.4	13.8
Nodales	9.3	9.0	12.7	13.5	14.3	13.2	17.1	10.8
Shoal Bay	9.4	9.0	12.3	14.6	14.3	14.4	15.7	10.6
Fanny Bay	8.9	9.0	-	13.4	13.5	13.3	15.7	11.4
Bickley Bay	9.4	9.0	14.0	13.1	12.7	14.1	14.8	10.8
Cordero	9.5	9.0	-	12.9	12.6	12.2	13.7	10.7
Knox Bay	9.6	9.0	12.5	8.8	12.7	11.6	17.4	-
Bear Bay	9.6	9.0	11.4	8.8	13.6	11.5	13.5	-
Chancellor Channel	9.3	10.0	10.6	13.1	14.1	11.0	15.2	13.0
Race Passage	9.3	9.0	12.0	10.3	14.0	10.7	13.2	10.6
Wellbore Channel	9.0	-	11.0	11.2	13.4	10.2	12.3	13.6
Bessborough Bay	9.2	9.0	11.8	12.1	14.0	11.0	15.5	12.3
Sunderland	9.1	9.0	11.5	9.5	13.6	10.2	12.7	11.3
Blenkinsop Bay	9.1	11.0	11.5	9.9	16.0	11.9	13.9	10.3
Primary 3	9.1	9.0	9.6	9.4	13.8	10.2	12.0	10.0
Primary 1	9.9	9.5	9.2	8.2	13.3	10.6	11.0	12.5
Beautiful Bay	9.2	8.0	8.9	10.3	14.1	10.4	12.3	12.2
Average	**9.5**	**9.2**	**11.3**	**11.8**	**15.0**	**12.6**	**14.6**	**12.1**

Surface water salinity comparison between data collected at Post-Exposure Sites in Discovery Islands in 2017 – 2020.

Site Name	April Salinity (ppt)				May Salinity (ppt)			
	2017	2018	2019	2020	2017	2018	2019	2020
Raza	23.3	21.0	28.4	29.6	11.1	7.4	22.0	24.5
Raza North	22.9	8.0	27.2	25.9	11.6	8.7	17.2	22.1
Okisollo	28.9	28.0	-	31.0	21.9	31.8	32.0	32.6
Owen Bay	28.9	25.0	-	15.7	21.4	32.4	30.4	32.5
Rock Bay	28.8	27.0	31.0	29.4	24.7	32.3	33.4	32.4
Discovery	29.0	26.0	26.0	32.1	27.1	32.5	29.9	30.6
Nodales	26.4	27.0	32.6	32.1	25.3	31.5	-	29.0
Shoal Bay	23.4	26.0	29.0	20.7	21.6	27.1	28.8	22.6
Fanny Bay	8.2	19.0	-	16.0	11.5	30.3	29.2	23.5
Bickley Bay	28.5	25.0	27.5	29.2	24.5	31.5	29.4	25.8
Cordero	29.1	25.0	-	32.6	24.3	32.4	28.7	25.4
Knox Bay	29.4	24.0	15.0	24.4	24.7	32.9	26.5	-
Bear Bay	29.2	28.0	24.4	31.3	25.5	32.7	24.0	-
Chancellor Channel	28.9	25.0	32.2	32.0	8.9	32.7	31.1	31.6
Race Passage	18.0	27.0	34.0	31.3	24.3	33.6	31.9	33.5
Wellbore Channel	27.3	26.0	16.0	32.8	24.6	32.9	31.9	21.5
Bessborough Bay	29.7	26.0	30.3	33.0	20.7	33.1	35.4	27.9
Sunderland	29.7	26.0	34.2	32.9	24.8	33.1	33.6	32.4
Blenkinsop Bay	29.5	20.0	33.3	33.7	16.3	32.3	31.1	33.3
Primary 3	30.0	26.0	33.3	33.8	24.4	33.7	31.7	33.7
Primary 1	28.7	-	26.1	30.9	24.3	33.9	31.9	32.7
Beautiful Bay	29.4	20.0	32.5	32.2	23.9	33.7	31.6	33.4
Average	**26.7**	**23.2**	**28.5**	**29.2**	**21.2**	**30.1**	**29.6**	**29.1**

A comparison of the results of analysis for sea lice infestation on samples collected at Pre-Exposure Sites in Discovery Islands in 2017 – 2020.

Species	Year	Sample Size	Number of Fish Infested	Number of Lice	Prevalence (%)	Abundance
Chum	2017	215	40	95	18.6	0.44
	2018	123	30	36	24.4	0.29
	2019	126	35	62	27.8	0.49
	2020	112	22	27	19.6	0.24
Pink	2017	97	23	55	23.7	0.57
	2018	125	29	38	23.2	0.30
	2019	40	5	9	12.5	0.23
	2020	173	52	62	30.1	0.36
Coho	2017	44	11	12	25.0	0.27
	2018	1	0	0	0	-
	2019	19	10	40	52.6	2.11
	2020	0	0	0	0	-
Chinook	2017	12	4	5	33.3	0.42
	2018	15	0	0	0	-
	2019	0	0	0	0	-
	2020	0	0	0	0	-
All Species	**2017**	**368**	**78**	**167**	**21.2**	**0.45**
	2018	**264**	**59**	**74**	**22.3**	**0.28**
	2019	**185**	**50**	**111**	**27.0**	**0.60**
	2020	**285**	**74**	**89**	**26.0**	**0.31**

A comparison of the results of analysis for sea lice infestation on samples collected at Post-Exposure Sites in Discovery Islands in 2017 – 2020.

Species	Year	Sample Size	Number of Fish Infested	Number of Lice	Prevalence (%)	Abundance
Chum	2017	727	48	54	6.6	0.07
	2018	599	24	25	4.0	0.04
	2019	519	120	175	23.1	0.34
	2020	452	77	125	17.0	0.28
Pink	2017	277	25	27	9.0	0.10
	2018	309	15	16	4.9	0.05
	2019	470	53	60	11.3	0.13
	2020	405	75	114	18.5	0.28
Coho	2017	44	8	9	18.2	0.20
	2018	33	4	10	12.1	0.30
	2019	21	0	0	0	0
	2020	33	11	17	33.3	0.52
Chinook	2017	14	0	0	0	-
	2018	64	5	6	7.8	0.09
	2019	9	0	0	0	0
	2020	6	0	0	0	0
Sockeye	2017	0	0	0	0	-
	2018	1	0	0	0	-
	2019	2	2	9	100.0	4.50
	2020	0	0	0	0	-
TSB	2017	1	0	0	0	-
	2018	26	21	92	80.8	3.54
	2019	0	0	0	0	-
	2020	0	0	0	0	-
All Species	**2017**	**1063**	**81**	**90**	**7.6**	**0.08**
	2018	**1032**	**69**	**149**	**6.7**	**0.14**
	2019	**1021**	**175**	**244**	**17.1**	**0.24**
	2020	**896**	**163**	**256**	**18.2**	**0.29**

A comparison of the calculated sea lice prevalence and abundance by site and month as determined for the Pre-Exposure chum salmon collected in Discovery Islands in 2017 – 2020.

Site	April								May							
	Prevalence (%)				Abundance				Prevalence (%)				Abundance			
	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020
Francisco Point	9.1	33.3	25.0	48.5	0.36	0.47	0.25	0.55	13.3	16.7	11.8	100.0	0.17	0.17	0.18	2.50
Marina Island	67.7	27.7	50.0	0.0	2.25	0.32	0.92	0.00	0	-	-	-	0	-	-	-
Rebecca Spit	0	0	28.6	0.0	0	0	0.50	0.00	14.8	-	44.4	0.0	0.19	-	1	0.00
SE Hill Island	-	-	0.0	-	-	-	0.00	-	19.0	50.0	33.3	-	0.19	0.50	0.67	-
Viner Point	-	-	-	12.5	-	-	-	0.13	-	-	25.0	-	-	-	0.42	-
Penn Island	-	-	-	-	-	-	-	-	16.7	100	100.0	-	0.20	1.0	2	-
Deepwater Bay	0	6.7	6.9	7.1	0	0.07	0.07	0.07	3.3	-	-	-	0.03	-	-	-
TOTALS	**28.9**	**22.5**	**25.0**	**18.3**	**0.97**	**0.28**	**0.41**	**0.20**	**12.9**	**41.7**	**32.6**	**66.7**	**0.15**	**0.42**	**0.63**	**1.67**

A comparison of the calculated sea lice prevalence and abundance by site and month as determined for the Pre-Exposure pink salmon collected in Discovery Islands in 2017 – 2020.

Site	April								May							
	Prevalence (%)				Abundance				Prevalence (%)				Abundance			
	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020
Francisco Point	12.5	13.3	0.0	53.6	0.16	0.17	0.00	0.71	-	7.1	-	30.0	-	0.07	-	0.33
Marina Island	62.1	53.8	37.5	0.0	1.69	0.92	0.88	0.00	-	-	-	44.4	-	-	-	0.44
Rebecca Spit	-	-	-	0.0	-	-	-	0.00	0	-	-	61.1	0	-	-	0.78
SE Hill Island	50.0	-	0.0	-	0.50	-	0.00	-	-	51.7	-	0.0	-	0.62	-	0.00
Viner Point	-	-	-	11.1	-	-	-	0.11	-	-	-	100.0	-	-	-	1.00
Penn Island	-	-	-	-	-	-	-	-	-	11.1	-	-	-	0.11	-	-
Deepwater Bay	0	3.3	6.9	12.5	0	0.03	0.07	0.16	-	-	-	10.0	-	-	-	0.10
TOTALS	**25.3**	**16.4**	**12.5**	**26.7**	**0.60**	**0.25**	**0.23**	**0.35**	**0**	**32.7**	**-**	**32.7**	**0**	**0.38**	**-**	**0.37**

A comparison of the calculated sea lice prevalence and abundance by site and month as determined for the Post-Exposure chum salmon collected in Discovery Islands in 2017 – 2020.

Site	April								May							
	Prevalence (%)				Abundance				Prevalence (%)				Abundance			
	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020
Raza	23.3	-	0.0	0.0	0.27	-	0.00	0.00	3.3	8.3	42.9	-	0.07	0.08	0.64	-
Raza North	0	0	43.3	17.6	0	0	0.53	0.18	0	0	71.4	0.0	0	0	1.18	0.00
Okisollo	3.3	0	-	-	0.3	0	-	-	10.0	50.0	6.5	71.4	0.10	1.0	0.06	1.57
Owen Bay	0	-	-	0.0	0	-	-	0.00	0	-	-	81.5	0	-	-	1.85
Beautiful Bay	-	0	0.0	6.7	-	0	0.00	0.07	-	-	0.0	-	-	-	0.00	-
Rock Bay	-	0	0.0	3.2	-	0	0.00	0.03	0	100.0	0.0	14.3	0	1.0	0.00	0.14
Discovery	17.2	0	11.4	-	0.21	0	0.14	-	22.6	17.1	38.7	66.7	0.26	0.17	0.55	0.67
Nodales	5.8	3.3	50.0	30.0	0.06	0.03	0.87	0.37	30.0	66.7	75.0	33.3	0.37	0.67	1.29	0.67
Shoal Bay	0	0	0.0	0.0	0	0	0.00	0.00	3.3	0	13.3	10.0	0.03	0	0.13	0.10
Fanny Bay	0	0	-	0.0	0	0	-	0.00	0	0	14.3	0.0	0	0	0.14	0.00
Bickley Bay	-	0	14.3	-	-	0	0.14	-	10.0	7.9	25.8	31.3	0.10	0.08	0.29	0.31
Cordero	0	16.0	-	-	0	0.16	-	-	0	10.8	30.6	-	0	0.11	0.44	-
Knox Bay	0	0	-	0.0	0	0	-	0.00	3.2	-	0.0	-	0.03	-	0.00	-
Bear Bay	0	0	0.0	13.3	0	0	0.00	0.13	0	3.2	-	-	0	0.03	-	-
Chancellor Channel	0	0	-	-	0	0	-	-	20.0	-	-	100.0	0.20	-	-	2.00
Race Passage	-	-	-	-	-	-	-	-	0	0	10.0	15.0	0	0	0.10	0.15
Wellbore Channel	0	-	3.3	-	0	-	0.03	-	-	-	0.0	-	-	-	0.00	-
Bessborough Bay	3.1	0	0.0	-	0.03	0	0.00	-	3.6	0	0.0	10.0	0.04	0	0.00	0.10
Sunderland	-	0	-	-	-	0	-	-	12.5	-	0.0	-	0.13	-	0.00	-
Blenkinsop Bay	0	0	-	6.7	0	0	-	0.07	0	0	0.0	0.0	0	0	0.00	0.00
Primary 3	3.0	-	0.0	-	0.03	-	0.00	-	-	-	0.0	-	-	-	0.00	-
Primary 1	-	0	0.0	-	-	0	0.00	-	3.3	-	0.0	0.0	0.03	-	0.00	0.00
TOTALS	**6.2**	**1.5**	**17.5**	**8.9**	**0.07**	**0.02**	**0.25**	**0.10**	**6.8**	**7.0**	**26.9**	**25.8**	**0.08**	**0.07**	**0.40**	**0.47**

A comparison of the calculated sea lice prevalence and abundance by site and month as determined for the Post-Exposure pink salmon collected in Discovery Islands in 2017 – 2020.

Site	April								May							
	Prevalence (%)				Abundance				Prevalence (%)				Abundance			
	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020
Raza	-	-	-	3.3	-	-	-	0.03	-	-	-	-	-	-	-	-
Raza North	-	0	-	24.0	-	0	-	0.28	-	0	-	0.0	-	0	-	0.00
Okisollo	-	-	-	-	-	-	-	-	-	-	7.1	63.2	-	-	0.07	1.26
Owen Bay	-	-	-	0.0	-	-	-	0.00	-	-	-	75.0	-	-	-	1.75
Beautiful Bay	-	-	0.0	3.3	-	-	0.00	0.03	-	-	0.0	-	-	-	0.00	-
Rock Bay	-	3.3	0.0	10.3	-	0.03	0.00	0.14	-	33.3	0.0	23.3	-	0.42	0.00	0.23
Discovery	0	-	8.0	-	0	-	0.12	-	13.3	-	16.7	21.1	0.17	-	0.17	0.21
Nodales	3.3	10.0	3.4	13.3	0.03	0.1	0.03	0.13	50.0	0	43.3	20.8	0.53	0	0.50	0.42
Shoal Bay	-	0	10.0	0.0	-	0	0.10	0.00	-	-	3.2	-	-	-	0.03	-
Fanny Bay	-	0	-	-	-	0	-	-	-	-	0.0	-	-	-	0.00	-
Bickley Bay	-	0	0.0	0.0	-	0	0.00	0.00	-	0	17.2	0.0	-	0	0.17	0.00
Cordero	-	10.0	-	-	-	0.10	-	-	-	0	25.0	-	-	0	0.38	-
Knox Bay	0	0	-	20.0	0	0	-	0.20	8.3	-	0.0	-	0.08	-	0.00	-
Bear Bay	0	16.7	0.0	5.3	0	0.17	0.00	0.05	0	6.7	100.0	-	0	0.07	1.00	-
Chancellor Channel	-	0	-	-	-	0	-	-	-	-	-	-	-	-	-	-
Race Passage	0	-	0.0	-	0	-	0.00	-	0	-	13.8	22.6	0	-	0.17	0.26
Wellbore Channel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bessborough Bay	0	0	33.3	-	0	0	0.33	-	0	-	0.0	23.3	0	-	0.00	0.30
Sunderland	-	0	0.0	-	-	0	0.00	-	20.0	-	12.9	-	0.20	-	0.13	-
Blenkinsop Bay	-	0	-	6.7	-	0	-	0.10	-	-	-	-	-	-	-	-
Primary 3	0	-	13.8	-	0	-	0.14	-	-	-	100.0	-	-	-	1.00	-
Primary 1	0	3.3	0.0	9.1	0	0.03	0.00	0.09	0	-	-	14.3	0	-	-	0.14
2017 Lumped Sites*	0	n/a	n/a	n/a	0	n/a	n/a	n/a	11.8	n/a	n/a	n/a	0.21	n/a	n/a	n/a
TOTALS	**0.9**	**4.2**	**4.7**	**8.9**	**0.01**	**0.04**	**0.05**	**0.10**	**14.4**	**6.4**	**17.9**	**30.4**	**0.16**	**0.07**	**0.21**	**0.50**

[1] Sites with a capture total of less than 10 pink salmon were lumped in 2017. Lumped sites for the Post-Exposure pink salmon population included: Raza, Okisollo, Rock Bay, Shoal Bay, Fanny Bay, Bickley Bay, Wellbore Channel, Blenkinsop Bay

The number of sea lice by life stage and species identified on the chum salmon sample population from Pre-Exposure sites in Discovery Islands in 2017 – 2020. LEP = *Lepeophtheirus salmonis,* CAL = *Caligus clemensi*

Life Stage[1]	Number of Lice			
	2017	2018	2019	2020
LEP Co	2	1	4	2
LEP C1	3	1	3	1
LEP C2	2	0	2	1
LEP PAM	1	0	1	0
LEP PAF	0	0	0	0
LEP AM	0	1	1	0
LEP AF	0	0	0	0
TOTAL LEP	**8**	**3**	**11**	**4**
CAL Co	25	4	0	8
CAL C1	52	25	21	11
CAL C2	5	3	17	1
CAL C3	3	0	4	1
CAL C4	1	0	2	1
CAL PAM	0	1	1	0
CAL PAF	0	0	0	0
CAL AM	0	0	4	1
CAL AF	1	0	2	0
TOTAL CAL	**87**	**33**	**51**	**23**

[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

The number of sea lice by life stage and species identified on the pink salmon sample population from Pre-Exposure sites in Discovery Islands in 2017 – 2020. LEP = *Lepeophtheirus salmonis* CAL = *Caligus clemensi*

Life Stage[1]	Number of Lice			
	2017	2018	2019	2020
LEP Co	1	2	0	2
LEP C1	1	3	0	4
LEP C2	0	0	0	7
LEP PAM	0	1	0	1
LEP PAF	0	0	0	0
LEP AM	0	1	0	0
LEP AF	0	0	0	0
TOTAL LEP	**2**	**7**	**0**	**14**
CAL Co	29	2	0	10
CAL C1	22	18	6	28
CAL C2	1	5	1	7
CAL C3	1	2	2	1
CAL C4	0	1	0	1
CAL PAM	0	0	0	1
CAL PAF	0	0	0	0
CAL AM	0	1	0	0
CAL AF	0	2	0	0
TOTAL CAL	**53**	**31**	**9**	**48**

[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

The number of sea lice by life stage and species identified on the chum salmon sample population from Post-Exposure sites in Discovery Islands in 2017 – 2020. LEP = *Lepeophtheirus salmonis* CAL = *Caligus clemensi*

Life Stage[1]	Number of Lice			
	2017	2018	2019	2020
LEP Co	6	4	23	13
LEP C1	3	7	32	39
LEP C2	10	4	57	27
LEP PAM	4	1	11	7
LEP PAF	0	1	11	2
LEP AM	0	0	0	5
LEP AF	0	0	0	1
TOTAL LEP	**23**	**17**	**134**	**94**
CAL Co	12	0	7	5
CAL C1	14	5	18	15
CAL C2	1	1	5	6
CAL C3	1	0	5	1
CAL C4	0	1	2	2
CAL PAM	0	0	1	0
CAL PAF	0	1	0	2
CAL AM	3	0	3	0
CAL AF	0	0	0	0
TOTAL CAL	**31**	**8**	**41**	**31**

[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

The number of sea lice by life stage and species identified on the pink salmon sample population from Post-Exposure sites in Discovery Islands in 2017 – 2020. LEP = *Lepeophtheirus salmonis* CAL = *Caligus clemensi*

Life Stage[1]	Number of Lice			
	2017	2018	2019	2020
LEP Co	1	3	6	15
LEP C1	3	2	6	21
LEP C2	4	1	15	16
LEP PAM	3	0	5	9
LEP PAF	1	0	10	7
LEP AM	0	0	1	4
LEP AF	0	0	1	1
TOTAL LEP	**12**	**6**	**44**	**73**
CAL Co	4	2	0	3
CAL C1	7	6	10	16
CAL C2	4	1	2	3
CAL C3	0	0	2	7
CAL C4	0	0	1	4
CAL PAM	0	0	0	2
CAL PAF	0	0	0	3
CAL AM	0	1	1	2
CAL AF	0	0	0	1
TOTAL CAL	**15**	**10**	**16**	**41**

[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

The species of sea lice found on chum salmon collected at Pre-Exposure Sites in Discovery Islands in 2017 – 2020.

Site	Sample Month															
	April								May							
	Lepeophtheirus salmonis				*Caligus clemensi*				*Lepeophtheirus salmonis*				*Caligus clemensi*			
	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020
Deepwater Bay	0	0	0	0	0	2	2	2	0	0	1	-	1	0	2	-
Francisco	0	0	0	3	4	14	22	15	1	0	0	0	4	1	0	5
Marina Island	0	0	1	0	70	15	6	0	0	0	0	-	0	0	9	-
Penn Island	0	0	0	-	0	0	0	-	4	1	0	-	2	1	2	-
Rebecca Spit	0	0	0	0	0	0	0	0	1	0	5	0	4	0	0	0
SE Hill Island	0	0	0	-	0	0	0	-	2	2	3	-	2	0	7	-
Viner Point	0	0	1	1	0	0	1	1	0	0	0	-	0	0	0	-
TOTAL	**0**	**0**	**2**	**4**	**74**	**31**	**31**	**18**	**8**	**3**	**9**	**0**	**13**	**2**	**20**	**5**

The species of sea lice found on pink salmon collected at Pre-Exposure Sites in Discovery Islands in 2017 – 2020.

Site	Sample Month															
	April								May							
	Lepeophtheirus salmonis				*Caligus clemensi*				*Lepeophtheirus salmonis*				*Caligus clemensi*			
	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020
Deepwater Bay	0	0	-	2	0	1	2	3	0	0	-	2	0	0	-	1
Francisco	0	0	-	1	5	5	0	19	0	0	-	2	0	1	-	8
Marina Island	2	0	-	0	47	12	7	0	0	0	-	3	0	0	-	5
Penn Island	0	0	-	-	0	0	-	-	0	0	-	-	0	1	-	-
Rebecca Spit	0	0	-	0	0	0	-	0	0	0	-	3	0	0	-	11
SE Hill Island	0	0	-	-	1	0	0	-	0	7	-	0	0	11	-	0
Viner Point	0	0	-	1	0	0	-	0	0	0	-	0	0	0	-	1
TOTAL	**2**	**0**	**-**	**4**	**53**	**0**	**9**	**22**	**0**	**7**	**-**	**10**	**0**	**13**	**-**	**26**

The species of sea lice found on chum salmon collected at Post-Exposure Sites in Discovery Islands in 2017 – 2020.

Site	Sample Month															
	April								May							
	Lepeophtheirus salmonis				*Caligus clemensi*				*Lepeophtheirus salmonis*				*Caligus clemensi*			
	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020
Bear Bay	0	0	0	1	0	0	0	3	0	0	-	-	0	1	-	-
Beautiful Bay	0	0	0	1	0	0	0	1	0	0	0	-	0	0	0	-
Bessborough Bay	0	0	0	-	1	0	0	-	0	0	0	3	1	0	0	0
Bickley Bay	0	0	3	-	0	0	1	-	2	3	7	5	1	0	2	0
Blenkinsop Bay	0	0	-	0	0	0	-	2	0	0	0	0	0	0	0	0
Chancellor	0	0	-	-	0	0	-	-	1	0	-	3	0	0	-	1
Cordero	0	3	-	-	0	1	-	-	0	2	16	-	0	2	0	-
Discovery	3	0	3	-	3	0	2	-	3	3	11	0	5	3	6	2
Fanny Bay	0	0	-	0	0	0	-	0	0	0	1	0	0	0	0	0
Knox Bay	0	0	-	0	0	0	-	0	0	0	0	-	1	0	0	-
Nodales	1	1	17	9	0	0	9	2	6	2	24	19	5	0	7	1
Okisollo	1	0	-	-	0	0	-	-	0	1	1	11	3	1	1	0
Owen Bay	0	0	-	0	0	0	-	0	0	0	-	34	0	0	-	16
Primary 3	1	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Primary 1	0	0	0	-	0	0	0	-	0	0	0	0	1	0	0	0
Race Passage	0	0	-	-	0	0	-	-	0	0	1	3	0	0	0	0
Raza	1	0	0	0	7	0	0	0	1	1	7	-	1	0	2	-
Raza North	0	0	9	1	0	0	7	2	0	0	33	0	0	0	0	0
Rock Bay	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	1
Shoal Bay	0	0	0	0	0	0	0	0	1	0	1	3	0	0	3	0
Sunderland	0	0	-	-	0	0	-	-	2	0	0	-	2	0	0	-
Wellbore Channel	0	0	0	-	0	0	1	-	0	0	0	-	0	0	0	-
TOTAL	**7**	**4**	**32**	**13**	**11**	**1**	**20**	**10**	**16**	**13**	**102**	**81**	**20**	**7**	**21**	**21**

The species of sea lice found on pink salmon collected at Post-Exposure Sites in Discovery Islands in 2017 – 2020.

Site	Sample Month															
	April								May							
	Lepeophtheirus salmonis				*Caligus clemensi*				*Lepeophtheirus salmonis*				*Caligus clemensi*			
	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020
Bear Bay	0	0	0	1	0	1	0	0	0	1	1	-	0	1	0	-
Beautiful Bay	0	0	0	1	0	0	0	0	0	0	0	-	0	0	0	-
Bessborough Bay	0	0	1	-	0	0	0	-	0	0	0	8	0	0	0	1
Bickley Bay	0	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0
Blenkinsop Bay	0	0	-	2	0	0	-	1	0	0	-	-	0	0	-	-
Chancellor	0	0	-	-	0	0	-	-	0	0	-	-	0	0	-	-
Cordero	0	2	-	-	0	1	-	-	0	0	9	-	0	0	0	-
Discovery	0	0	0	-	0	0	3	-	2	1	5	3	3	4	0	1
Fanny Bay	0	0	-	-	0	0	-	-	0	0	0	-	0	0	0	-
Knox Bay	0	0	-	1	0	0	-	0	0	0	0	-	1	0	0	-
Nodales	1	1	1	2	0	2	0	2	7	0	8	9	9	0	7	1
Okisollo	0	0	-	-	0	0	-	-	0	0	1	16	0	0	0	8
Owen Bay	0	0	-	0	0	0	-	0	0	0	-	17	0	0	-	11
Primary 3	0	0	0	-	0	0	0	-	0	0	-	-	0	0	-	-
Primary 1	0	0	2	1	0	1	2	0	0	0	2	1	0	0	0	0
Race Passage	0	0	0	-	0	0	0	-	0	0	4	3	0	0	1	5
Raza	0	0	-	0	0	0	-	1	0	0	-	-	0	0	-	-
Raza North	0	0	-	3	0	0	-	4	0	0	-	0	0	0	-	0
Rock Bay	0	1	0	4	0	0	0	0	0	0	0	1	1	0	0	6
Shoal Bay	0	0	2	0	0	0	1	0	1	0	1	-	0	0	0	-
Sunderland	0	0	0	-	0	0	0	-	1	0	4	-	1	0	0	-
Wellbore Channel	0	0	-	-	0	0	-	-	0	0	-	-	0	0	-	-
TOTAL	**1**	**4**	**6**	**15**	**0**	**5**	**6**	**8**	**11**	**2**	**38**	**58**	**15**	**5**	**10**	**33**

A comparison of sea lice infestation rates on chum salmon collected in Discovery Islands in 2017 – 2020.

Year	Sample Location and Species	*Caligus clemensi*			*Lepeophtheirus salmonis*		
		Prevalence	Abundance	Average Intensity	Prevalence	Abundance	Average Intensity
2017	Pre-Exposure chum (n=395)	8.4 %	0.22	2.6	1.8 %	0.02	1.1
	Post-Exposure chum (n=727)	3.9 %	0.04	1.1	3.2 %	0.03	1.0
2018	Pre-Exposure chum (n=123)	22.0 %	0.27	1.2	2.4 %	0.02	1.0
	Post-Exposure chum (n=599)	1.3 %	0.01	1.0	2.8 %	0.03	1.0
2019	Pre-Exposure chum (n=126)	21.4 %	0.40	1.9	7.1 %	0.09	1.2
	Post-Exposure chum (n=519)	6.4 %	0.08	1.2	18.3 %	0.26	1.4
2020	Pre-Exposure chum (n=112)	16.1 %	0.21	1.3	3.6 %	0.04	1.0
	Post-Exposure chum (n=452)	6.2 %	0.07	1.1	12.6 %	0.21	1.6

A comparison of sea lice infestation rates on pink salmon collected in Discovery Islands in 2017 – 2020.

Year	Sample Location and Species	*Caligus clemensi*			*Lepeophtheirus salmonis*		
		Prevalence	Abundance	Average Intensity	Prevalence	Abundance	Average Intensity
2017	Pre-Exposure pink (n=173)	13.3 %	0.31	2.3	1.2 %	0.01	1.0
	Post-Exposure pink (n=277)	5.0 %	0.05	1.1	4.0 %	0.04	1.1
2018	Pre-Exposure pink (n=125)	19.2 %	0.25	1.3	4.8 %	0.06	1.2
	Post-Exposure pink (n=309)	1.9 %	0.03	1.7	1.9 %	0.02	1.0
2019	Pre-Exposure pink (n=40)	12.5 %	0.23	1.8	0 %	0	-
	Post-Exposure pink (n=470)	3.2 %	0.03	1.1	8.5 %	0.09	1.1
2020	Pre-Exposure pink (n=173)	22.5 %	0.28	1.2	8.1 %	0.08	1.0
	Post-Exposure pink (n=405)	8.1 %	0.10	1.2	12.8 %	0.18	1.4