

# Wild Juvenile Salmonid Monitoring Program Discovery Islands 2017

Prepared for

**Marine Harvest Canada**  
124-1334 Island Highway  
Campbell River, BC  
V9W 8C9

**Cermaq Canada**  
203-919 Island Highway  
Campbell River BC  
V9W 2C2

**Grieg Seafood BC Ltd.**  
106-1180 Ironwood St.  
Campbell River, BC  
V9W 5P7



1310 Marwalk Crescent,  
Campbell River, BC. V9W 5X1  
Phone: (250) 287-2462 Fax: (250) 287-2452  
Email: [info@mainstreambio.ca](mailto:info@mainstreambio.ca)  
[www.mainstreambio.ca](http://www.mainstreambio.ca)

**July 2017**

## Summary

Beach seine sampling was conducted on behalf of Marine Harvest Canada, Cermaq Canada and Grieg Seafood BC Ltd in the Discovery Islands, BC in 2017. Sampling was completed to monitor sea lice abundance, prevalence and intensity on juvenile wild salmon and threespine stickleback within the Discovery Islands in support of the Aquaculture Stewardship Certification process for finfish aquaculture sites in the area.

Sampling was conducted during two separate sampling events in April and May 2017, selected to coincide with the peak outmigration period of juvenile salmonids. Sampling was completed at 29 sites within the Discovery Islands, BC. 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 additional sites added. Sites have been divided into seven Pre-Exposure sites considered to be in locations on the salmon migration route that were prior to exposure to existing aquaculture sites and 22 Post-Exposure sites considered to be in locations on the salmon migration routes that would have exposed migrating salmon to existing aquaculture 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. Water quality measurements including temperature and salinity were recorded at each site during each sampling event.

Collected sample 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 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 data 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 2017.

A total of 368 individual samples from the Pre-Exposure beach seine sites underwent lab analysis for sea lice infestation including 215 chum, 97 pink, 44 coho and 12 chinook salmon. No Atlantic salmon (*Salmo salar*) were captured during sampling completed in the Discovery Islands in 2017. From the total Pre-Exposure sample population 78 individuals were infested with 167 sea lice. The calculated prevalence for the total Pre-Exposure sample population was 21.2 % and the sea lice abundance was 0.45 for the Pre-Exposure sample population collected in the Discovery Islands in 2017.

A total of 395 chum salmon were captured, representing 63.3 % of all captured Pre-Exposure samples. Of the 395 chum captured, 215 were kept for lab analysis for sea lice infestation. A total of 40 chum smolts were found to be infested with 95 lice resulting in a calculated prevalence of 18.6 % and an abundance of 0.44 for the Pre-Exposure chum salmon sample population.

A total of 173 pink salmon were captured, representing 27.7 % of all captured Pre-Exposure samples. Of the 173 pinks captured, 97 were kept for lab analysis for sea lice infestation. A total of 23 pink salmon were found to be infested with 55 lice resulting in a calculated prevalence of 23.7 % and an abundance of 0.57 for the Pre-Exposure pink salmon sample population.

A total of 44 Pre-Exposure coho salmon were captured, retained and analyzed for sea lice infestation. A total of 11 coho salmon were found to be infested by 12 lice resulting in a calculated prevalence of 25.0 % and an abundance of 0.27 for the Pre-Exposure coho salmon sample population.

A total of 12 Pre-Exposure chinook were captured, retained and analyzed for sea lice infestation. Of the 12 samples four were found to be infested with five lice resulting in a calculated prevalence of 33.3 % and an abundance of 0.42 for the Pre-Exposure chinook salmon population.

A total of 16 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 15 samples and 151 *Caligus clemensi* sea lice were found on 65 of the Pre-Exposure

juvenile salmon analyzed in the lab. There were two juvenile salmon that were infested with both *L. salmonis* and *C. clemensi*.

For the Pre-Exposure chum salmon sample population, a total of eight *Lepeophtheirus salmonis* sea lice of various life stages were identified on seven juvenile chum salmon and 87 *Caligus clemensi* sea lice were found on 33 of the juvenile chum salmon. There were no juvenile chum salmon infested with both *L. salmonis* and *C. clemensi*.

For the Pre-Exposure pink salmon sample population, a total of two *Lepeophtheirus salmonis* sea lice of various life stages were identified on two juvenile pink salmon and 53 *Caligus clemensi* sea lice were found on 23 of the juvenile pink salmon. There were two juvenile pink salmon that were infested with both *L. salmonis* and *C. clemensi*.

For the Pre-Exposure coho salmon sample population, a total of five *Lepeophtheirus salmonis* were identified on five coho salmon and seven *Caligus clemensi* sea lice of various life stages were identified on six juvenile coho salmon.

For the Pre-Exposure chinook salmon sample population, one *Lepeophtheirus salmonis* was identified on one chinook salmon and four *Caligus clemensi* were identified on three Chinook salmon.

A total of 1063 individual samples from the Post-Exposure beach seine sites underwent lab analysis for sea lice infestation including 727 chum, 277 pink, 44 coho, 14 chinook salmon and one threespine stickleback. From the total Post-Exposure sample population 81 individuals were infested with 90 sea lice. The calculated prevalence for the total Post-Exposure sample population was 7.6 % and the sea lice abundance was 0.08 for the Post-Exposure sample population collected in the Discovery Islands in 2017.

A total of 3308 Post-Exposure chum salmon were captured, representing 71.6 % of all captured Post-Exposure samples. Of the 3308 chum captured, 727 were kept for lab analysis for sea lice infestation. A total of 48 chum smolts were found to be infested with 54 lice resulting in a calculated prevalence of 6.6 % and an abundance of 0.07 for the Post-Exposure chum salmon sample population.

A total of 1242 pink salmon were captured, representing 26.9 % of all captured Post-Exposure samples. Of the 1242 pinks captured, 277 were kept for lab analysis for sea

lice infestation. A total of 25 pink salmon were found to be infested with 27 lice resulting in a calculated prevalence of 9.0 % and an abundance of 0.10 for the Post-Exposure pink salmon sample population.

A total of 44 Post-Exposure coho salmon were captured, retained and analyzed for sea lice infestation. A total of eight coho salmon were found to be infested by nine lice resulting in a calculated prevalence of 18.2 % and an abundance of 0.20 for the Post-Exposure coho salmon sample population.

There were no sea lice identified on the 14 chinook salmon samples or one threespine stickleback collected at Post-Exposure sites in the Discovery Islands in 2017.

A total of 35 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 34 samples and 55 *Caligus clemensi* sea lice were found on 50 of the Post-Exposure juvenile salmon analyzed in the lab. There were three juvenile salmon that were infested with both *L. salmonis* and *C. clemensi*.

For the Post-Exposure chum salmon sample population, a total of 23 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 23 juvenile chum salmon and 31 *Caligus clemensi* sea lice were found on 28 of the juvenile chum salmon. There were three juvenile chum salmon infested with both *L. salmonis* and *C. clemensi*.

For the Post-Exposure pink salmon sample population, a total of 12 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 11 juvenile pink salmon and 15 *Caligus clemensi* sea lice were found on 14 of the juvenile pink salmon. There were no juvenile pink salmon infested with both *L. salmonis* and *C. clemensi*.

For the Post-Exposure coho salmon sample population, a total nine *Caligus clemensi* sea lice of various life stages were identified on eight juvenile coho salmon. There were no *Lepeophtheirus salmonis* identified on the Post-Exposure coho salmon population.

A comparison of the Pre- and Post-Exposure data of sea lice infestation rates on pink and chum salmon collected in the Discovery Islands in 2017 is presented in the following summary tables.

Species	Sample Location	Sample size (n)	Total number of lice observed	Total number of fish infested	Prevalence (%)	Abundance	Average Intensity
chum	Pre-Exposure	215	95	40	18.6	0.44	2.4
	Post-Exposure	727	54	48	6.6	0.07	1.1
pink	Pre-Exposure	97	55	23	23.7	0.57	2.4
	Post-Exposure	277	27	25	9.0	0.10	1.1

Fish Species	Sample Location	<i>Caligus clemensi</i>			<i>Lepeophtheirus salmonis</i>		
		Prevalence	Abundance	Average Intensity	Prevalence	Abundance	Average Intensity
chum (n=395)	Pre-Exposure	8.4 %	0.22	2.6	1.8 %	0.02	1.1
chum (n=727)	Post-Exposure	3.9 %	0.04	1.1	3.2 %	0.03	1.0
pink (n=173)	Pre-Exposure	13.3 %	0.31	2.3	1.2 %	0.01	1.0
pink (n=277)	Post-Exposure	5.0 %	0.05	1.1	4.0 %	0.04	1.1

## Table of Contents

<b>Summary.....</b>	<b>ii</b>
<b>Table of Contents.....</b>	<b>vii</b>
<b>List of Figures .....</b>	<b>ix</b>
<b>List of Tables .....</b>	<b>x</b>
<b>1.0 Introduction.....</b>	<b>1</b>
<b>2.0 Methods.....</b>	<b>4</b>
2.1 Site Locations .....	4
2.2 Field Procedures.....	7
2.3 Laboratory Procedures .....	9
2.4 Data Analysis.....	9
<b>3.0 Results .....</b>	<b>11</b>
3.1 Pre-Exposure Water Quality Parameters .....	11
3.2 Post-Exposure Water Quality Parameters.....	12
3.3 Fish Sample Composition .....	14
3.3.1 <i>Pre-Exposure Sample Composition</i> .....	14
3.3.2 <i>Post Exposure Sample Composition</i> .....	15
3.4 Pre-Exposure Fish Sample Size Statistics .....	17
3.4.1 <i>Chum Salmon</i> .....	17
3.4.2 <i>Pink Salmon</i> .....	17
3.4.3 <i>Coho Salmon</i> .....	17
3.5 Post-Exposure Fish Sample Size Statistics.....	18
1.1.1 <i>Chum Salmon</i> .....	18
3.5.1 <i>Pink Salmon</i> .....	18
3.5.2 <i>Coho Salmon</i> .....	18
3.6 Pre-Exposure Sea Lice Infestation Rates.....	20
3.6.1 <i>Pre-Exposure Infestation Rates on Chum Salmon</i> .....	21
3.6.2 <i>Pre-Exposure Infestation Rates on Pink Salmon</i> .....	24
3.6.3 <i>Pre-Exposure Infestation Rates on other species</i> .....	26
3.7 Post-Exposure Sea Lice Infestation Rates .....	27
3.7.1 <i>Post-Exposure Sea Lice Infestation Rates on Chum Salmon</i> .....	28
3.7.2 <i>Post-Exposure Sea Lice Infestation Rates on Pink Salmon</i> .....	31
3.7.3 <i>Post-Exposure Sea Lice Infestation Rates on Coho Salmon</i> .....	33
3.8 Pre-Exposure Infestation Rates by Sea Lice Species .....	34
3.8.1 <i>Pre-Exposure Infestation Rates by Sea lice Species on Chum Salmon</i> .....	34
3.8.2 <i>Pre-Exposure Infestation Rates by Sea lice Species on Pink Salmon</i> .....	37
3.8.3 <i>Pre-Exposure Infestation Rates by Sea lice Species on Coho Salmon</i> .....	40
3.8.4 <i>Pre-Exposure Infestation Rates by Sea Lice Species on Chinook Salmon</i> .....	41
3.9 Post-Exposure Sea Lice Infestation Rates .....	42
3.9.1 <i>Post-Exposure Infestation Rates by Sea Lice Species on Chum Salmon</i> ...	42
3.9.2 <i>Post Exposure Infestation Rates by Sea Lice Species on Pink Salmon</i> .....	45
3.9.3 <i>Post-Exposure Infestation Rates by Sea Lice Species on Coho Salmon</i> ....	48
<b>4.0 Conclusions .....</b>	<b>51</b>
4.1 Pre-Exposure Conclusions.....	51
4.2 Post-Exposure Conclusions .....	53
4.3 Comparison of Data between Pre- and Post-Exposure Sites .....	54

<b>5.0</b>	<b>References .....</b>	<b>56</b>
	<b>Appendix I – Field Data .....</b>	<b>I</b>
	<b>Appendix II – Capture and Collection Sample Totals .....</b>	<b>III</b>
	<b>Appendix III – Sea Lice Analysis Data .....</b>	<b>V</b>



## **List of Figures**

Figure 1:	An overview map showing the location of the Discovery Islands. ....	3
Figure 2:	The approximate locations of the 29 beach seine sites (green dots) separated into Pre-Exposure and Post-Exposure sites in the Discovery Islands sampled in 2017.....	6

## List of Tables

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 2017. ....	5
Table 2:	Surface water quality parameters collected at the pre-exposure beach seine sites in the Discovery Islands in 2017.....	12
Table 3:	Surface water quality parameters collected at the post exposure beach seine sites in the Discovery Islands in 2017.....	13
Table 4:	The total of collected individuals of each fish species captured in the Discovery Islands, BC in April and May 2017, and the percentage of the total capture population that they represent. ....	14
Table 5:	The total of collected individuals of each fish species captured in the Pre-Exposure sites in the Discovery Islands, BC, in April and May 2017, and the percentage of the total Pre-Exposure capture population that they represent. ....	15
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 2017, and the percentage of the total Post-Exposure capture population that they represent. ....	15
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 2017.....	16
Table 8:	Average weights and lengths summarized by month of the Pre-Exposure chum, pink and coho salmon collected in the Discovery Islands in 2017. ....	18
Table 9:	Average weights and lengths summarized by month of the Post-Exposure chum, pink and coho salmon collected in the Discovery Islands in 2017. ....	19
Table 10:	Results of analysis for sea lice infestation on Pre-Exposure salmonid smolts collected by beach seine in the Discovery Islands, BC in 2017.....	21
Table 11:	The number of sea lice found on chum salmon collected from the Pre-Exposure sites in the Discovery Islands in 2017 summarized by the sites where beach seining was conducted. Calculated sea lice prevalence, abundance and average intensity is also included by site.....	23
Table 12:	The number of sea lice found on pink salmon collected in the Pre-Exposure Discovery Island sites in 2017 summarized by the sites where beach seining was conducted. Calculated sea lice prevalence, abundance and average intensity is also included by site.....	25
Table 13:	Results of analysis for sea lice infestation on Post Exposure samples collected by beach seine in the Discovery Islands, BC in 2017.....	28

Table 14:	The number of sea lice found on chum salmon collected from the Post-Exposure sites in the Discovery Islands in 2017 summarized by the sites where beach seining was conducted. Calculated sea lice prevalence, abundance and average intensity is also included by site. There were no fish captured at Beautiful Bay in 2017.....	30
Table 15:	The number of sea lice found on pink salmon collected from the Post-Exposure sites in the Discovery Islands in 2017 summarized by the sites where beach seining was conducted. Sites with a capture total of 10 pink salmon or more are shown and sites with capture totals of less than 10 pink salmon are lumped. Calculated sea lice prevalence, abundance and average intensity is also included by site.....	32
Table 16:	The number of sea lice found on coho salmon collected from the Post-Exposure sites in the Discovery Islands in 2017 summarized by the sites where beach seining was conducted.....	33
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 2017. LEP = <i>Lepeophtheirus salmonis</i> CAL = <i>Caligus clemensi</i> .....	35
Table 18:	The species of sea lice found on Pre-Exposure chum salmon collected in the Discovery Islands in 2017 summarized by the sites where beach seining was conducted. LEP = <i>Lepeophtheirus salmonis</i> CAL = <i>Caligus clemensi</i> .....	36
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 2017. LEP = <i>Lepeophtheirus salmonis</i> CAL = <i>Caligus clemensi</i> .....	38
Table 20:	The species of sea lice found on Pre-Exposure pink salmon collected in the Discovery Islands in 2017 summarized by the sites where beach seining was conducted. LEP = <i>Lepeophtheirus salmonis</i> CAL = <i>Caligus clemensi</i> .....	39
Table 21:	The number of sea lice in each life stage by species identified on Pre-Exposure coho salmon from the Discovery Islands in 2017. LEP = <i>Lepeophtheirus salmonis</i> CAL = <i>Caligus clemensi</i> .....	41
Table 22:	The species of sea lice found on Pre-Exposure coho salmon collected in the Discovery Islands in 2017 summarized by the sites where beach seining was conducted. LEP = <i>Lepeophtheirus salmonis</i> CAL = <i>Caligus clemensi</i> .....	41
Table 23:	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 2017. LEP = <i>Lepeophtheirus salmonis</i> CAL = <i>Caligus clemensi</i> .....	43
Table 24:	The species of sea lice found on Post-Exposure chum salmon collected in the Discovery Islands in 2017 summarized by the sites where beach seining was conducted. LEP = <i>Lepeophtheirus salmonis</i> CAL = <i>Caligus clemensi</i> .....	44
Table 25:	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 2017. LEP = <i>Lepeophtheirus salmonis</i> CAL = <i>Caligus clemensi</i> .....	46

Table 26:	The species of sea lice found on Post-Exposure pink salmon collected in the Discovery Islands in 2017 summarized by the sites where beach seining was conducted. LEP = <i>Lepeophtheirus salmonis</i> CAL = <i>Caligus clemensi</i> .....	47
Table 27:	The number of sea lice in each life stage by species identified on the Post Exposure coho salmon sample population from the Discovery Islands in 2017. LEP = <i>Lepeophtheirus salmonis</i> CAL = <i>Caligus clemensi</i> .....	49
Table 28:	The species of sea lice found on Post-Exposure coho salmon collected in the Discovery Islands in 2017 summarized by the sites where beach seining was conducted. LEP = <i>Lepeophtheirus salmonis</i> CAL = <i>Caligus clemensi</i> .....	50
Table 29:	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 2017.....	55
Table 30:	A comparison of sea lice infestation rates by lice species on the chum and pink salmon sample populations collected at Pre- and Post-Exposure sites in the Discovery Islands in 2017.....	55

## 1.0 Introduction

At the request of Marine Harvest Canada, Cermaq Canada and Grieg Seafood BC Ltd. beach seine sampling to capture wild juvenile salmon and threespine stickleback to be analyzed for sea lice infestation took place at 29 sites located in the Discovery Islands, BC (Figure 1). The sample collection occurred on April 9/10/11, 2017 and May 23/25/26, 2017. 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* (*Caligus clemensi*) have been identified (Margolis and Arthur, 1979; McDonald and Margolis, 1995). *Caligus clemensi* infest an extremely wide range of natural hosts in the marine environment including salmonids and non-salmonids; while *L. salmonis* natural hosts 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 develop through two free-swimming naupilii stages before developing into an infectious free-swimming copepodid. At this point, the sea lice attach to their host and develop through 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 become “motile” and are no longer attached to their hosts by the frontal filament. The sea lice can now move freely on the fish as they develop through a pre-adult stage before becoming reproductively viable adults.

Water temperature and salinity are two environmental variables that influence sea lice development, growth, survival and reproductive rate. In British Columbia, surface seawater temperatures 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 season abundance of *L. salmonis* (Saksida et al., 2007a, b). The rate of development and the 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).

Marine Harvest Canada, 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 and threespine stickleback collected in the Discovery Islands in 2017. Data presented, including water quality, fish sample composition, size and sea lice infestation rates, has 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). Seven Pre-Exposure sites were sampled and considered to be in locations on the salmon migration route that were prior to exposure to existing aquaculture sites. Twenty two Post-Exposure sites were sampled and considered to be in locations on the salmon migration routes that would have exposed migrating salmon to existing aquaculture sites.



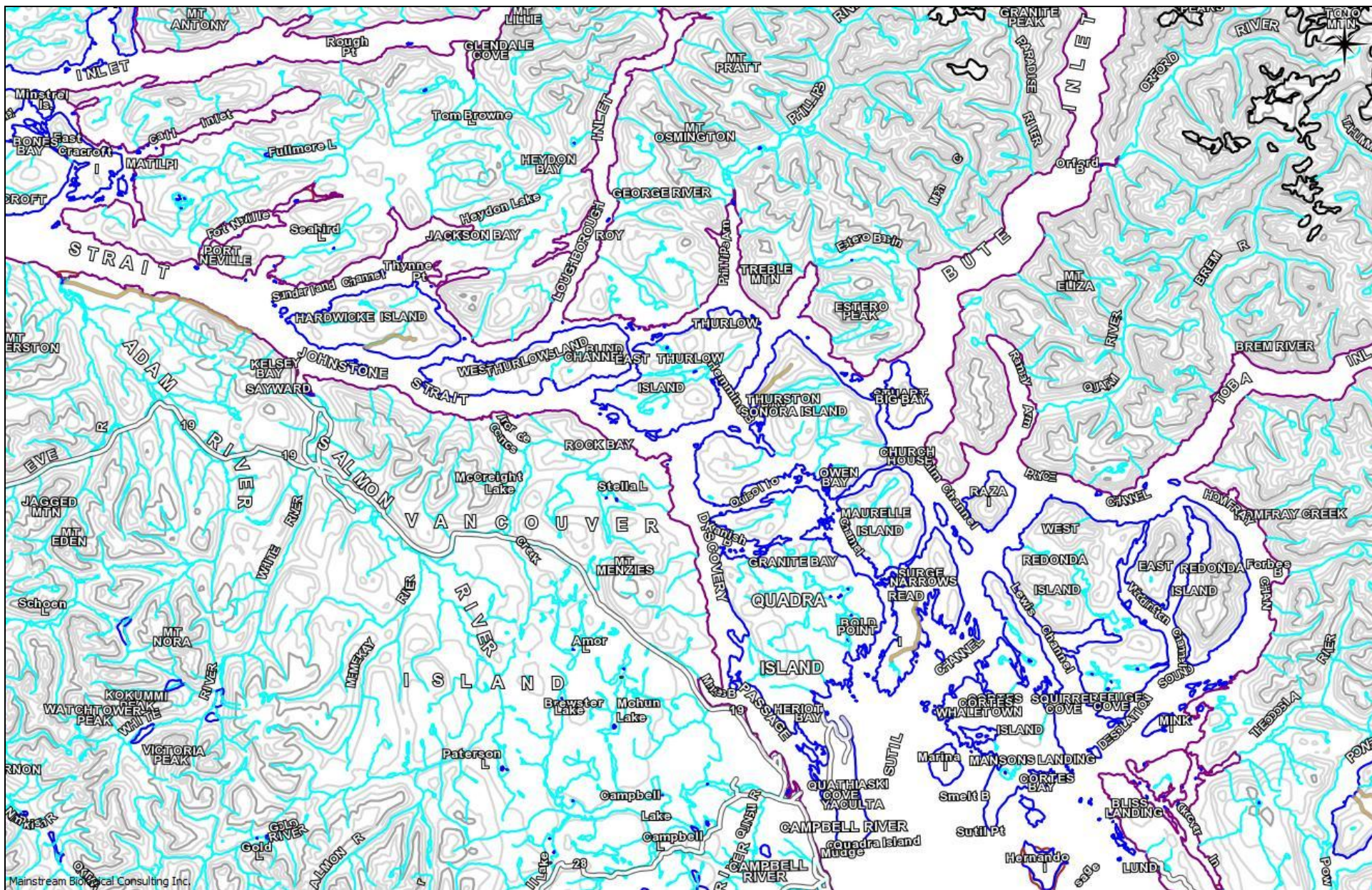


Figure 1: An overview map showing the location of the Discovery Islands.



## **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 additional sites added. Each site was sampled once during two sampling weeks: April 9, 10 and 11, 2017 and May 23, 25 and 26, 2017.

### **2.1 Site Locations**

The approximate locations of the 29 sites at which beach seining was conducted to collect specimens for sea lice analysis are shown in Figure 2. GPS coordinates collected in the field for the sites are presented in Table 1.



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 2017.

Location	Site Name	Latitude	Longitude
Pre-Exposure	Francisco Point	50 00.511	125 08.989
	Marina Island	50 04.802	125 03.985
	Rebecca Spit	50 06.419	125 11.856
	Viner Point	50 07.889	125 07.859
	SE Hill Island	50 09.578	125 03.596
	Penn Island	50 10.995	125 01.006
	Deepwater Bay	50 10.692	125 19.547
Post-Exposure	Raza	50 19.011	124 58.689
	Raza North	50 21.046	125 02.622
	Okisollo	50 18.697	125 18.843
	Owen Bay	50 19.409	125 12.962
	Rock Bay	50 19.721	125 28.716
	Discovery	50 20.518	125 23.965
	Nodales	50 24.091	125 20.922
	Shoal Bay	50 27.475	125 22.045
	Fanny Bay	50 31.206	125 23.201
	Bickley Bay	50 26.624	125 23.673
	Cordero	50 26.993	125 32.847
	Knox Bay	50 23.631	125 36.312
	Bear Bay	50 21.672	125 38.868
	Chancellor Channel	50 24.543	125 43.818
	Race Passage	50 23.076	125 53.233
	Wellbore Channel	50 27.195	125 46.103
	Bessborough Bay	50 29.463	125 46.304
	Sunderland	50 28.235	125 50.560
	Blenkinsop Bay	50 28.833	126 01.392
	Primary 3	50 28.856	126 04.099
	Primary 1	50 26.854	126 04.929
	Beautiful Bay	50 27.323	126 09.584



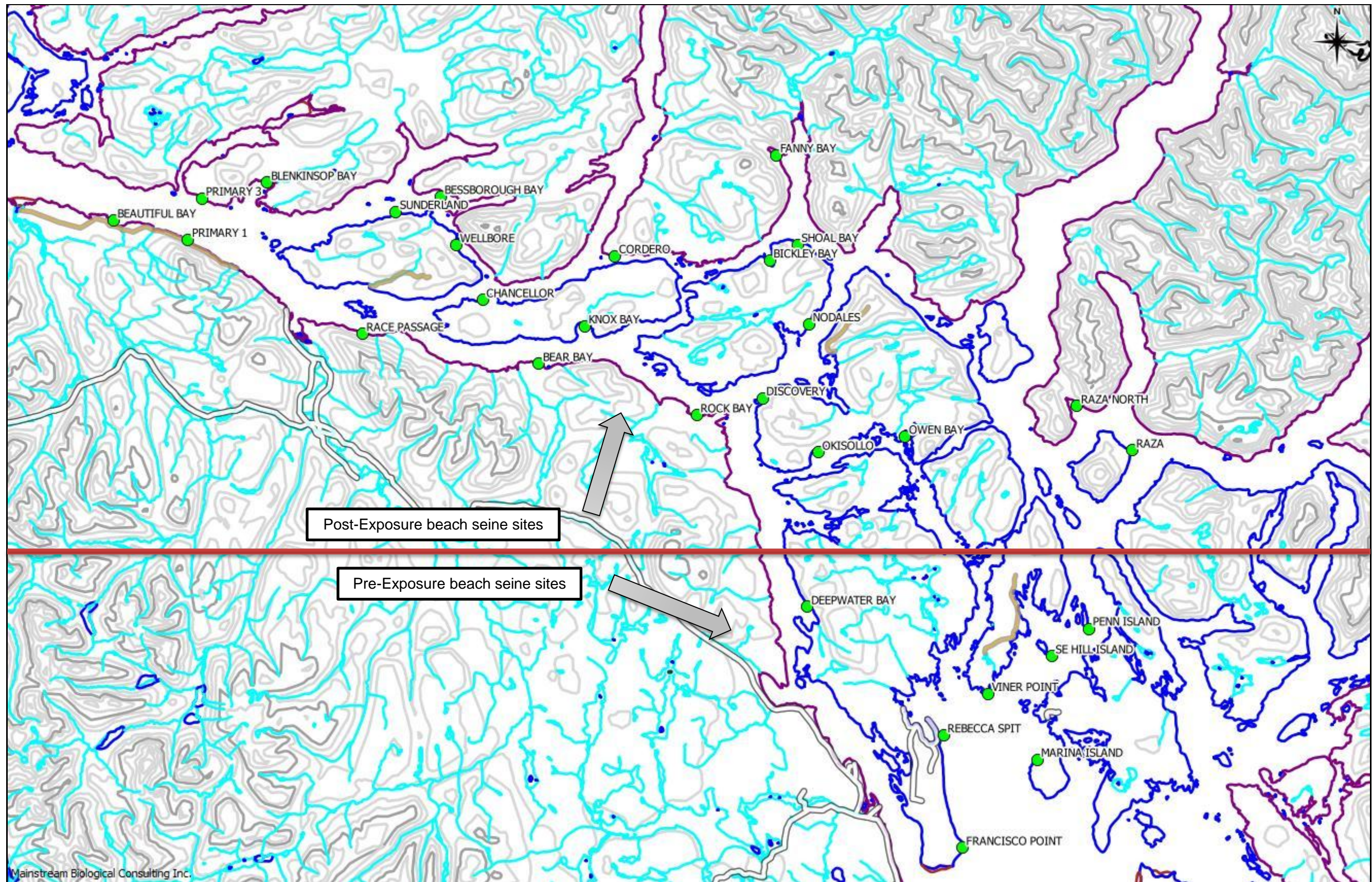


Figure 2: The approximate locations of the 29 beach seine sites (green dots) separated into Pre-Exposure and Post-Exposure sites in the Discovery Islands sampled in 2017.



## 2.2 Field Procedures

Procedures for beach seining, fish collection and field data recording adapted from procedures utilized by Fisheries and Oceans Canada (DFO) were used for juvenile salmon sampling by Mainstream Biological Consulting staff during sampling in the Discovery Islands in 2017.

An 18ft Boston Whaler, powered by a 60 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 consists of one-quarter inch diameter diamond mesh, while the two side panels (wings) consist 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.

A three person crew was utilized to conduct the beach seine sets and retrieve samples in a consistent manner at each of the 29 selected sites. All beaches were approached slowly by boat and one crewmember was put ashore with the towline from one end of the beach seine net. The onshore crewmember held the towline at one side of the sample site, while the second crewmember ensured the net deployed smoothly off the bow or side of the boat. The third crewmember, the boat operator, backed the boat in a wide semicircle towards the opposite side of the sample site and remained on the boat. When the net was fully deployed, the second crewmember stepped into the shallow water with the towline or tossed it to the awaiting crewmember on shore. A slow retrieval of the net began immediately.

As the net was slowly retrieved, the probe of a YSI85 water meter was placed just below the water surface at the stern end of the boat, to collect salinity and water temperature data. The YSI85 meter was calibrated daily.

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

shallow water to ensure the floats stayed above the surface of the water. In this manner a small, shallow bag formed from the bunt of the net held the captured fish in the water.

The three 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, if necessary, in response to rising or falling tides in order to ensure the captured fish remained in the net and were held in sufficient water to minimize stress. The level of sufficient water was dependant on the size and numbers of captured fish, but was generally thought of as enough water to minimize fish contact with the net or with other fish.

A total of 30 individuals 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 whirlpac bag. All handling of fish was kept to a minimum.

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

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

- The site name
- The date;
- The 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; and
- Water temperature (°C) and salinity (ppt) to one decimal place.

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

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

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

The above procedures for beach seine net deployment and retrieval, as well as those described for fish collection, were repeated at all 29 sample sites.

### **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 identified as being in any of the four chalimus stages were identified as *Lepeophtheirus salmonis* or *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 is summarized into two separate sections based on location of the sample sites: Pre-Exposure and Post-Exposure. Pre-Exposure sites included the seven southerly located sites: Francisco Point, Marina Island, Rebecca Spit, Viner Point, SE Hill Island, Penn Island and Deepwater Bay where no fish farm tenures currently exist, therefore fish collected are considered to not have been exposed to fish farms (Table 1, Figure 2). Post-Exposure sites included the 22 northerly located sites in the vicinity of existing fish farm tenures meaning and samples collected at these sites may or may not have passed by 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 recorded 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 simple 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.

### **3.0 Results**

The following sections outline the results of beach seine collection and subsequent sea lice infestation analysis of juvenile salmonids and threespine stickleback collected from the Discovery Islands, BC, in 2017. The results section is divided and presented in two separate sections; data collected from Pre-Exposure sites and Post-Exposure 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 located in Appendix III.

#### **3.1 Pre-Exposure Water Quality Parameters**

Surface measurements of water temperature and salinity, taken during beach seining at each of the seven pre-exposure sites during the sample period, are presented in Table 2. The field data recorded at each site, which includes data collected at the surface, 1.0 m depth if possible and 5.0 m depth if possible, is included in Appendix I.

Recorded surface water temperatures at pre-exposure sites ranged from a low of 9.4 °C recorded at Deepwater Bay on April 9, 2017, to a high of 21.6 °C recorded at Deepwater Bay on May 23, 2017 (Table 2; Appendix I). Calculated weekly average surface water temperatures increased from 10.0 °C for April 9/10/11, 2017, to 20.4 °C for May 23/25/26, 2017.

Recorded surface water salinity at pre-exposure sites ranged from a low of 17.5 ppt recorded at Penn Island on May 23, 2017, to a high of 27.7 ppt recorded at SE Hill Island on April 11, 2017 (Table 2; Appendix I). The calculated weekly average surface water salinity decreased from 26.8 ppt for April 9/10/11, 2017 to 18.7 ppt for May 23/25/26, 2017.

Table 2: Surface water quality parameters collected at the pre-exposure beach seine sites in the Discovery Islands in 2017.

Site Name	April 9/10/11, 2017		May 23/25/26, 2017	
	Temp. (°C)	Salinity (ppt)	Temp. (°C)	Salinity (ppt)
Francisco Point	10.1	27.1	20.0	19.7
Marina Island	10.5	27.5	19.5	19.3
Rebecca Spit	9.8	25.2	21.2	19.3
Viner Point	10.0	27.5	19.7	19.1
SE Hill Island	10.1	27.7	20.8	18.2
Penn Island	10.3	27.5	20.2	17.5
Deepwater Bay	9.4	25.4	21.6	17.8
<b>Average</b>	<b>10.0</b>	<b>26.8</b>	<b>20.4</b>	<b>18.7</b>

### 3.2 Post-Exposure Water Quality Parameters

Surface measurements of water temperature and salinity, taken during beach seining at each of the 22 post-exposure sites during the sample period, are presented in Table 3. The field data recorded at each site, which includes data collected at the surface, 1.0 m depth if possible and 5.0 m depth if possible, is included in Appendix I.

Recorded surface water temperatures at post-exposure sites ranged from a low of 8.9 °C recorded at Fanny Bay on April 9, 2017, to a high of 23.3 °C recorded at Raza on May 23, 2017 (Table 3; Appendix I). Calculated weekly average surface water temperatures increased from 9.5 °C for April 9/10/11, 2017, to 15.0 °C for May 23/25/26, 2017.

Recorded surface water salinity at post-exposure sites ranged from a low of 8.2 ppt recorded at Fanny Bay on April 9, 2017, to a high of 30.0 ppt recorded at Primary 3 on April 10, 2017 (Table 3; Appendix I). The calculated weekly average surface water salinity decreased from 26.7 ppt for April 23/25/26, 2017 to 21.2 ppt for May 23/25/26, 2017.



Table 3: Surface water quality parameters collected at the post exposure beach seine sites in the Discovery Islands in 2017.

Site Name	April 9/10/11, 2017		May 23/25/26, 2017	
	Temp. (°C)	Salinity (ppt)	Temp. (°C)	Salinity (ppt)
Raza	10.5	23.3	23.3	11.1
Raza North	11.4	22.9	22.6	11.6
Okisollo	9.7	28.9	17.7	21.9
Owen Bay	9.6	28.9	20.3	21.4
Rock Bay	9.5	28.8	13.6	24.7
Discovery	9.4	29.0	13.0	27.1
Nodales	9.3	26.4	14.3	25.3
Shoal Bay	9.4	23.4	14.3	21.6
Fanny Bay	8.9	8.2	13.5	11.5
Bickley Bay	9.4	28.5	12.7	24.5
Cordero	9.5	29.1	12.6	24.3
Knox Bay	9.6	29.4	12.7	24.7
Bear Bay	9.6	29.2	13.6	25.5
Chancellor Channel	9.3	28.9	14.1	8.9
Race Passage	9.3	18.0	14.0	24.3
Wellbore Channel	9.0	27.3	13.4	24.6
Bessborough Bay	9.2	29.7	14.0	20.7
Sunderland	9.1	29.7	13.6	24.8
Blenkinsop Bay	9.1	29.5	16.0	16.3
Primary 3	9.1	30.0	13.8	24.4
Primary 1	9.9	28.7	13.3	24.3
Beautiful Bay	9.2	29.4	14.1	23.9
<b>Average</b>	<b>9.5</b>	<b>26.7</b>	<b>15.0</b>	<b>21.2</b>

### 3.3 Fish Sample Composition

A total of 5244 fish were captured during beach seine sampling conducted in the Discovery Islands in 2017. Of those, 1431 individual fish (27.3 %) were collected as sample specimens and underwent analysis for sea lice infestation (Table 4). The total collected fish from each species and the percentage that it represents of the total beach seine capture population is presented in Table 4. Chum salmon and pink salmon were the most common species captured during sampling in 2017. Of the 3703 chum salmon captured, 942 individuals (25.4 %) were retained and underwent lab analysis. Of the 1415 pink salmon captured, 374 individuals (26.4 %) were retained and underwent lab analysis. A total of 99 coho salmon were captured and 88 (88.9 %) were kept for lab analysis. All of the chinook salmon and threespine stickleback captured were retained and analyzed for sea lice infestation (Table 4). There were no Atlantic salmon captured during sampling completed in the Discovery Islands in 2017.

A summary of the total number of fish captured and collected as specimens at each site over the collection period can be found in Table 7. Totals of fish captured and collected specimens at each site over the entire collection period can be found in Appendix II. There were no fish caught at Viner Point or Beautiful Bay.

Table 4: The total of collected individuals of each fish species captured in the Discovery Islands, BC in April and May 2017, and the percentage of the total capture population that they represent.

Common Name	Capture Totals (% of total capture population)	Collection Totals	Collection %
chum salmon	3703 (70.6 %)	942	25.4
pink salmon	1415 (27.0 %)	374	26.4
coho salmon	99 (1.9 %)	88	88.9
chinook salmon	26 (0.5 %)	26	100
threespine stickleback	1 (0.02 %)	1	100
<b>All species</b>	<b>5244</b>	<b>1431</b>	<b>27.3</b>

#### 3.3.1 Pre-Exposure Sample Composition

A total of 624 fish were captured during beach seine sampling conducted in the Pre-Exposure sites in the Discovery Islands in 2017. Of those, 368 individual fish (59.0 %) 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 is presented in Table 5. Of the

395 chum salmon captured, 215 individuals (54.4 %) were retained and underwent lab analysis. Of the 173 pink salmon captured, 97 individuals (56.1 %) were retained and underwent lab analysis. A total of 44 coho and 12 chinook salmon were captured and kept for lab analysis.

Table 5: The total of collected individuals of each fish species captured in the Pre-Exposure sites in the Discovery Islands, BC, in April and May 2017, 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	395 (63.3 %)	215	54.4
pink salmon	173 (27.7 %)	97	56.1
coho salmon	44 (7.1 %)	44	100
chinook salmon	12 (1.9 %)	12	100
<b>All species</b>	<b>624</b>	<b>368</b>	<b>59.0</b>

### 3.3.2 Post Exposure Sample Composition

A total of 4620 fish were captured during beach seine sampling conducted at the post-exposure sites in the Discovery Islands in 2017. Of those, 1063 individual fish (23.0 %) 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 presented in Table 6. Of the 3308 chum salmon captured, 727 individuals (22.0 %) were retained and underwent lab analysis. Of the 1242 pink salmon captured, 277 individuals (22.3 %) were retained and underwent lab analysis. Of the 55 chinook salmon captured, 44 individuals (80.0 %) were retained and underwent lab analysis. A total of 14 chinook salmon and one threespine stickleback were kept for 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 2017, and the percentage of the total Post-Exposure capture population that they represent.

Common Name	Capture Totals (% of total pre-exposure capture population)	Collection Totals	Collection %
chum salmon	3308 (71.6 %)	727	22.0
pink salmon	1242 (26.9 %)	277	22.3
coho salmon	55 (1.2 %)	44	80.0
chinook salmon	14 (0.3 %)	14	100
threespine stickleback	1 (0.02 %)	1	100
<b>All species</b>	<b>4620</b>	<b>1063</b>	<b>23.0</b>

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 2017.

Site Location	Site Name	Pink		Chum		Coho		Chinook		Threespine stickleback		Capture Total	Sample Total
		Capture Total	Sample Total	Capture Total	Sample Total	Capture Total	Sample Total	Capture Total	Sample Total	Capture Total	Sample Total		
Pre-Exposure	Francisco Point	54	32	65	41	10	10	4	4	0	0	133	87
	Marina Island	29	29	98	32	7	7	6	6	0	0	140	74
	Rebecca Spit	6	6	74	29	17	17	0	0	0	0	97	52
	Viner Point	0	0	0	0	0	0	0	0	0	0	0	0
	SE Hill Island	2	2	21	21	0	0	0	0	0	0	23	23
	Penn Island	0	0	46	30	0	0	0	0	0	0	46	30
	Deepwater Bay	82	28	91	62	10	10	2	2	0	0	185	102
Pre-Exposure Site Totals		173	97	395	215	44	44	12	12	0	0	624	368
Post-Exposure	Raza	1	1	212	60	3	3	0	0	0	0	216	64
	Raza North	0	0	73	33	0	0	0	0	0	0	73	33
	Okisollo	1	1	235	60	0	0	0	0	0	0	236	61
	Owen Bay	0	0	23	23	0	0	0	0	0	0	23	23
	Rock Bay	5	5	270	30	0	0	1	1	0	0	276	36
	Discovery	92	32	131	60	0	0	0	0	0	0	223	92
	Nodales	605	60	547	47	0	0	0	0	0	0	1152	107
	Shoal Bay	8	8	285	35	0	0	0	0	0	0	293	43
	Fanny Bay	2	2	74	34	0	0	11	11	0	0	87	47
	Bickley Bay	3	3	86	30	0	0	0	0	0	0	89	33
	Cordero	0	0	3	3	0	0	0	0	0	0	3	3
	Knox Bay	15	15	82	47	0	0	1	1	0	0	97	63
	Bear Bay	321	41	110	50	0	0	0	0	0	0	431	91
	Chancellor Channel	0	0	6	6	0	0	0	0	0	0	6	6
	Race Passage	12	12	37	30	0	0	1	1	0	0	50	43
	Wellbore Channel	1	1	4	4	0	0	0	0	0	0	5	5
	Bessborough Bay	121	41	1000	60	0	0	0	0	0	0	1121	101
	Sunderland	10	10	41	32	1	1	0	0	0	0	52	43
	Blenkinsop Bay	7	7	20	20	1	1	0	0	1	1	29	29
	Primary 3	23	23	33	33	38	30	0	0	0	0	94	86
	Primary 1	15	15	36	30	12	9	0	0	0	0	63	54
	Beautiful Bay	0	0	0	0	0	0	0	0	0	0	0	0
Post Exposure Site Totals		1242	277	3308	727	55	44	14	14	1	1	4620	1063
Total Capture Totals		1415	374	3703	942	99	88	26	26	1	1	5244	1431

### **3.4 Pre-Exposure Fish Sample Size Statistics**

Summary statistics for the Pre-Exposure sample population were completed for weight and fork length. This was completed for chum, pink and coho salmon only as there were insufficient numbers of chinook salmon (n=12) captured to warrant this analysis (Table 5).

#### **3.4.1 Chum Salmon**

Analysis of weight and fork length data was completed for the Pre-Exposure chum salmon sample population collected in the Discovery Islands in 2017. The weight of 215 chum smolts collected during the two sample events ranged from 0.32 g to 6.17 g and averaged 0.85 g (SD = 0.8). The fork length of the chum smolts ranged from 32 mm to 85 mm and averaged 41 mm (SD = 8). Chum salmon weight and length data was summarized by month which shows the increase in both parameters in the sample population from April to May, 2017 (Table 8).

#### **3.4.2 Pink Salmon**

Analysis of weight and fork length data was completed for the Pre-Exposure pink salmon sample population collected in the Discovery Islands in 2017. The weight of 97 pink smolts collected during the two sample events ranged from 0.18 g to 4.73 g and averaged 0.42 g (SD = 0.6). The fork length of the pink smolts ranged from 27 mm to 75 mm and averaged 34 mm (SD = 7). Pink salmon weight and length data was summarized by month which shows the increase in both parameters in the sample population from April to May, 2017 (Table 8).

#### **3.4.3 Coho Salmon**

Analysis of weight and fork length data was completed for the Pre-Exposure coho salmon sample population collected in the Discovery Islands in 2017. No coho were captured during sampling completed in April 2017. The weight of 44 coho smolts collected during the May sampling event ranged from 5.12 g to 18.03 g and averaged 9.18 g (SD = 3.0). The fork length of the coho smolts ranged from 75 mm to 113 mm and averaged 89 mm (SD = 9.0).

Table 8: Average weights and lengths summarized by month of the Pre-Exposure chum, pink and coho salmon collected in the Discovery Islands in 2017.

Species	Average Weight (g)		Average Length (mm)	
	April	May	April	May
Chum	0.50 (n=76)	1.05 (n=139)	37	44
Pink	0.30 (n=91)	2.26 (n=6)	32	56
Coho	NA	9.18 (n=44)	NA	89

### 3.5 Post-Exposure Fish Sample Size Statistics

Summary statistics for the Post-Exposure sample population was completed for weight and fork length. This was completed for chum, pink and coho salmon only as there were insufficient numbers of chinook salmon (n=14) and threespine stickleback (n=1) captured to warrant this analysis.

#### 1.1.1 Chum Salmon

Analysis of weight and fork length data was completed for the Post-Exposure chum salmon sample population collected in the Discovery Islands in 2017. The weight of 727 chum smolts collected during the two sample events ranged from 0.23 g to 3.97 g and averaged 0.87 g (SD = 0.6). The fork length of the chum smolts ranged from 29 mm to 69 mm and averaged 42 mm (SD = 8). Chum salmon weight and length data was summarized by month which shows the increase in both parameters in the sample population from April to May, 2017 (Table 9).

#### 3.5.1 Pink Salmon

Analysis of weight and fork length data was completed for the Post-Exposure pink salmon sample population collected in the Discovery Islands in 2017. The weight of 277 pink smolts collected during the two sample events ranged from 0.16 g to 3.31 g and averaged 0.85 g (SD = 0.7). The fork length of the pink smolts ranged from 26 mm to 67 mm and averaged 42 mm (SD = 10). Pink salmon weight and length data was summarized by month which shows the increase in both parameters in the sample population from April to May, 2017 (Table 9).

#### 3.5.2 Coho Salmon

Analysis of weight and fork length data was completed for the Post-Exposure coho salmon sample population collected in the Discovery Islands in 2017. The weight of 44 coho smolts collected during the sampling events ranged from 3.46 g to 44.78 g and

averaged 11.17 g (SD = 9.1). The fork length of the coho smolts ranged from 68 mm to 157 mm and averaged 94 mm (SD = 18).

Table 9: Average weights and lengths summarized by month of the Post-Exposure chum, pink and coho salmon collected in the Discovery Islands in 2017.

Species	Average Weight (g)		Average Length (mm)	
	April	May	April	May
Chum	0.52 (n=259)	1.06 (n=468)	37	44
Pink	0.30 (n=110)	1.21 (n=167)	33	48
Coho	43.04 (n=3)	8.84 (n=41)	153	90

### 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 2017 are presented in Table 10. The data recorded for each fish in the sample population during lab analysis is included in Appendix III. A total of 368 samples were collected at the seven Pre-Exposure sites in the Discovery Islands in 2017 and were inspected for sea lice infestation. A total of 78 individuals in the sample population were found to be infested with 167 sea lice (Table 10). A total of 40 chum, 23 pink, 11 coho and four chinook salmon were found to be infested with sea lice (Table 10). This data reflects the identification of sea lice of either species (*L. salmonis* and *C. clemensi*) on inspected juvenile salmon.

Prevalence was defined as the number of fish found to be infested with one or more sea louse compared to the total number of fish. Abundance was defined as the total number of sea lice observed compared to the total number of fish (Table 10). The sea lice prevalence in the Pre-Exposure sample population collected in the Discovery Islands in 2017 was 21.2 % and the abundance was 0.45. Sea lice counts of both species observed (*L. salmonis* and *C. clemensi*) were added together for the prevalence and abundance calculations.

The intensity of sea lice infestation, as defined as the number of sea lice on a single infested salmon, ranged from one louse found on 44 individuals to a maximum of ten lice found on one individual. There were 12 salmon infested with two lice, 10 salmon infested by three lice, three salmon infested by four lice, three salmon infested by five lice, three salmon infested by six lice and two salmon infested by seven lice. The average intensity 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 2017.

Species	Sample size (n)	Total number of lice observed	Total number of fish infested	Prevalence (%)	Abundance	Average Intensity
chum	215	95	40	18.6	0.44	2.4
pink	97	55	23	23.7	0.57	2.4
coho	44	12	11	25.0	0.27	1.1
chinook	12	5	4	33.3	0.42	1.3
<b>Total</b>	<b>368</b>	<b>167</b>	<b>78</b>	<b>21.2</b>	<b>0.45</b>	<b>2.1</b>

### 3.6.1 Pre-Exposure Infestation Rates on Chum Salmon

A total of 40 chum salmon were found to be infested with 95 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 added together for the presentation of sea lice infestation, prevalence and abundance on the chum salmon sample population (Table 10 and 11). For the Pre-Exposure chum salmon sample population (n=215) there were more infested individuals (22 chum) and more sea lice (74 lice) found on chum salmon collected in April than in May, 2017 (Table 11).

A total of 40 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=215) collected in the Pre-Exposure Discovery Island sites in 2017 was 18.6 %. Sea lice prevalence on chum salmon in 2017 was higher in April (28.9 %) than May (12.9 %). The highest sea lice prevalence (67.7 %) was at Marina Island in April 2017. Sea lice prevalence calculated by site for the total Pre-Exposure chum sample population was highly variable ranging from 0 % to a high of 65.6 % at Marina Island (Table 11).

A total of 95 sea lice were identified during laboratory analysis of retained Pre-Exposure chum salmon. The abundance of sea lice on the Pre-Exposure chum salmon sample population (n=215) collected in the Discovery Islands in 2017 was 0.44. Sea lice abundance was calculated by week and by site and is presented in Table 11. Sea lice abundance on chum salmon was lower in May (0.15) compared to April (0.97) 2017. The highest sea lice abundance (2.25) was at Marina Island in April 2017. Sea lice

abundance calculated by site for the total Pre-Exposure chum sample population was also highly variable ranging from 0.02 to a high of 2.19 (Table 11).

Table 11: The number of sea lice found on chum salmon collected from the Pre-Exposure sites in the Discovery Islands in 2017 summarized by the sites where beach seining was conducted. Calculated sea lice prevalence, abundance and average intensity is also included by site.

Site	Sample Week														Total Pre-Exposure Chum Sample Population		
	April 9/10/11, 2017							May 23/25/26, 2017							Prevalence (%)	Abundance	Average Intensity
	# 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			
Francisco Point	11	1	0.50	4	9.1	0.36	4.0	30	4	0.78	5	13.3	0.17	1.3	12.2	0.22	1.8
Marina Island	31	21	0.53	70	67.7	2.25	3.3	1	0	-	0	0	0	0	65.6	2.19	3.3
Rebecca Spit	2	0	-	0	0	0	0	27	4	2.23	5	14.8	0.19	1.3	13.8	0.17	1.3
SE Hill Island	0	0	-	0	-	-	-	21	4	0.67	4	19.0	0.19	1.0	19.0	0.19	1.0
Penn Island	0	0	-	0	-	-	-	30	5	1.27	6	16.7	0.20	1.2	16.7	0.20	1.2
Deepwater Bay	32	0	-	0	0	0	0	30	1	0.65	1	3.3	0.03	1.0	1.6	0.02	1.0
TOTALS	76	22	0.52	74	28.9	0.97	3.4	139	18	1.12	21	12.9	0.15	1.2	18.6	0.44	2.4

### **3.6.2 Pre-Exposure Infestation Rates on Pink Salmon**

A total of 23 pink salmon were found to be infested with 55 sea lice (Table 12). 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 added together for the presentation of sea lice infestation, prevalence and abundance on the Pre-Exposure pink salmon sample population (Table 12). For the Pre-Exposure pink salmon sample population (n=97) most of the samples (n=91) were collected in April 2017. There were no sea lice found on the samples collected in May, 2017 (Table 12).

A total of 23 pink salmon were found to be infested with at least one sea louse. The prevalence of sea lice on the Pre-Exposure pink salmon sample population (n=97) collected in the Pre Exposure Discovery Island sites in 2017 was 23.7 %. The highest sea lice prevalence (62.1 %) was at Marina Island in April 2017. Sea lice prevalence calculated by site for the total Pre-Exposure pink sample population was highly variable ranging from 0 to a high of 62.1 % (Table 12).

A total of 55 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=97) collected in the Pre-Exposure Discovery Island sites in 2017 was 0.57. Sea lice abundance was calculated by week and by site and is presented in Table 12. The highest sea lice abundance (1.69) was at Marina Island in April 2017. Sea lice abundance calculated by site for the total Pre-Exposure pink sample population was also highly variable ranging from 0 to a high of 1.69 (Table 12).

Table 12: The number of sea lice found on pink salmon collected in the Pre-Exposure Discovery Island sites in 2017 summarized by the sites where beach seining was conducted. Calculated sea lice prevalence, abundance and average intensity is also included by site.

Site	Sample Week														Total Pre-Exposure Pink Sample Population		
	April 9/ 10/ 11, 2017							May 23/ 25/ 26, 2017							Prevalence (%)	Abundance	Average Intensity
	# 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			
Francisco Point	32	4	0.39	5	12.5	0.16	1.3	0	0	-	-	-	-	-	12.5	0.16	1.3
Marina Island	29	18	0.36	49	62.1	1.69	2.7	0	0	-	-	-	-	-	62.1	1.69	2.7
Rebecca Spit	0	0	-	0	-	-	-	6	0	-	0	0	0	0	0	-	0
SE Hill Island	2	1	0.39	1	50.0	0.50	1.0	0	0	-	-	-	-	-	50.0	0.50	1.0
Deepwater Bay	28	0	-	0	0	0	0	0	0	-	-	-	-	-	0	0	0
	91	23	0.38	55	25.3	0.60	2.4	6	0	-	0	0	0	0	23.7	0.57	2.4

### **3.6.3 *Pre-Exposure Infestation Rates on other species***

Coho salmon were the third most abundant species collected during beach seine sampling in the Pre-Exposure Discovery Island sites in 2017 (n= 44). All coho salmon captured were collected on May 23, 2017. A total of 11 coho salmon were found to be infested with 12 sea lice resulting in a species prevalence of 25.0 % and an abundance of 0.27 (Table 10). The infested coho salmon were collected at Fransisco Point, Marina Island, Rebecca Spit and Deepwater Bay.

A total of 12 chinook salmon were collected all on May 23, 2017. Of the 12 samples collected four were found to be infested with five lice resulting in a calculated prevalence of 33.3 % and an abundance of 0.42. The infested chinook salmon were collected at Fransisco Point, Marina Island and Deepwater Bay.

### 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 2017 are presented in Table 13. The data recorded for each fish in the sample population during lab analysis is included in Appendix III. A total of 1063 samples were collected at the 22 Post-Exposure sites in the Discovery Islands in 2017 and were inspected for sea lice infestation. A total of 81 individuals in the Post-Exposure sample population were found to be infested with 90 sea lice (Table 13). A total of 48 chum, 25 pink and eight coho salmon were found to be infested with sea lice (Table 13). This data reflects the identification of sea lice of either species (*L. salmonis* and *C. clemensi*) on inspected juvenile salmon. No sea lice were found on the 14 chinook salmon or one threespine stickleback collected at the Post-Exposure sites in 2017.

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 (Table 13). The sea lice prevalence in the Post-Exposure sample population collected in the Discovery Islands in 2017 was 7.6 % and the abundance was 0.08. Sea lice counts of both species observed (*L. salmonis* and *C. clemensi*) were added together 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 73 salmon infested with one louse, seven salmon infested by two lice and one salmon infested by three lice. The average intensity 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 2017.

Species	Sample size (n)	Total number of lice observed	Total number of fish infested	Prevalence (%)	Abundance	Average Intensity
chum	727	54	48	6.6	0.07	1.1
pink	277	27	25	9.0	0.10	1.1
coho	44	9	8	18.2	0.20	1.1
chinook	14	0	0	0	0	0
threespine stickleback	1	0	0	0	0	0
<b>Total</b>	<b>1063</b>	<b>90</b>	<b>81</b>	<b>7.6</b>	<b>0.08</b>	<b>1.1</b>

### 3.7.1 Post-Exposure Sea Lice Infestation Rates on Chum Salmon

A total of 48 chum salmon were found to be infested with 54 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 added together 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 (n=727) there were more infested individuals (32 chum) and more sea lice (36 lice) found on chum salmon collected in May than in April, 2017 (Table 14).

A total of 48 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=727) collected in the Post-Exposure Discovery Island sites in 2017 was 6.6 %. The highest sea lice prevalence (30.0 %) was at Nodales in May 2017. Sea lice prevalence calculated by site for the total Post-Exposure chum sample population was highly variable ranging from 0 % to a high of 21.3 % at Nodales (Table 14).

A total of 54 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=727) collected in the Discovery Islands in 2017 was 0.07. Sea lice abundance was calculated by week and by site and is presented in Table 14. The highest sea lice abundance (0.37) was at Nodales in May 2017. Sea lice abundance calculated by site for the total Post-Exposure chum sample population was also highly variable ranging from 0.02 to a high of 0.26 at Nodales (Table 14).



Sea lice prevalence and abundance on the Post-Exposure chum salmon sample population were very similar between April and May 2017.

Table 14: The number of sea lice found on chum salmon collected from the Post-Exposure sites in the Discovery Islands in 2017 summarized by the sites where beach seining was conducted. Calculated sea lice prevalence, abundance and average intensity is also included by site. There were no fish captured at Beautiful Bay in 2017.

Site	Sample Week														Total Post-Exposure Chum Sample Population		
	April 9/10/11, 2017							May 23/25/26, 2017							Prevalence (%)	Abundance	Average Intensity
	# 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			
Raza	30	7	0.99	8	23.3	0.27	1.1	30	1	2.01	2	3.3	0.07	2.0	13.3	0.17	1.3
Raza North	3	0	-	0	0	0	0	30	0	-	0	0	0	0	0	0	0
Okisollo	30	1	0.40	1	3.3	0.03	1.0	30	3	1.05	3	10.0	0.10	1.0	8.3	0.07	0.8
Owen Bay	14	0	-	0	0	0	0	9	0	-	0	0	0	0	0	0	0
Rock Bay	0	0	-	0	-	-	-	30	0	-	0	0	0	0	0	0	0
Discovery	29	5	0.58	6	17.2	0.21	1.2	31	7	1.21	8	22.6	0.26	1.1	20.0	0.23	1.2
Nodales	17	1	2.18	1	5.8	0.06	1.0	30	9	1.48	11	30.0	0.37	1.2	21.3	0.26	1.2
Shoal Bay	5	0	-	0	0	0	0	30	1	0.66	1	3.3	0.03	1.0	2.9	0.03	1.0
Fanny Bay	4	0	-	0	0	0	0	30	0	-	0	0	0	0	0	0	0
Bickley Bay	0	0	-	0	-	-	-	30	3	1.02	3	10.0	0.10	1.0	10	0.10	1.0
Cordero	2	0	-	0	0	0	0	1	0	-	0	0	0	0	0	0	0
Knox Bay	16	0	-	0	0	0	0	31	1	3.09	1	3.2	0.03	1.0	2.1	0.02	1.0
Bear Bay	20	0	-	0	0	0	0	30	0	-	0	0	0	0	0	0	0
Chancellor Channel	1	0	-	0	0	0	0	5	1	2.58	1	20.0	0.20	1.0	16.7	0.17	1.0
Race Passage	0	0	-	0	-	-	-	30	0	-	0	0	0	0	0	0	0
Wellbore Channel	4	0	-	0	0	0	0	0	0	-	-	-	-	-	0	0	0
Bessborough Bay	32	1	0.41	1	3.1	0.03	1.0	28	1	0.91	1	3.6	0.04	1.0	3.3	0.03	1.0
Sunderland	0	0	-	0	-	-	-	32	4	1.76	4	12.5	0.13	1.0	12.5	0.13	1.0
Blenkinsop Bay	19	0	-	0	0	0	0	1	0	-	0	0	0	0	0	0	0
Primary 3	33	1	0.50	1	3.0	0.03	1.0	0	0	-	-	-	-	-	3.0	0.03	1.0
Primary 1	0	0	-	0	-	-	-	30	1	3.22	1	3.3	0.03	1.0	3.3	0.03	1.0
TOTALS	259	16	0.84	18	6.2	0.07	1.1	468	32	1.73	36	6.8	0.08	1.1	6.6	0.07	1.1

### **3.7.2 Post-Exposure Sea Lice Infestation Rates on Pink Salmon**

A total of 25 pink salmon were found to be infested with 27 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. Individual sites with a total capture of more than 10 pink salmon are shown separately in Table 15, while sites with a capture total of less than 10 pink salmon are lumped together and presented at the bottom of the table. Sea lice counts of both sea lice species observed (*L. salmonis* and *C. clemensi*) were added together 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=277) there were more infested individuals (24 pink) and more sea lice (26 lice) found on pink salmon collected in May as compared to the one infested pink salmon with one lice collected in April 2017 (Table 15).

A total of 25 pink salmon were found to be infested with at least one sea louse. The prevalence of sea lice on the pink salmon sample population (n=277) collected in the Post-Exposure Discovery Island sites in 2017 was 9.0 %. The highest sea lice prevalence (50.0 %) was at Nodales in May 2017. Sea lice prevalence calculated by site for the total Post-Exposure pink sample population was highly variable ranging from 0 % to a high of 26.7 % (Table 15).

A total of 27 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=277) collected in the Discovery Islands in 2017 was 0.10. Sea lice abundance was calculated by week and by site and is presented in Table 15. The highest sea lice abundance (0.53) was at Nodales in May 2017. Sea lice abundance calculated by site for the total Post Exposure pink sample population was also variable ranging from 0 to a high of 0.28 (Table 15).

Table 15: The number of sea lice found on pink salmon collected from the Post-Exposure sites in the Discovery Islands in 2017 summarized by the sites where beach seining was conducted. Sites with a capture total of 10 pink salmon or more are shown and sites with capture totals of less than 10 pink salmon are lumped. Calculated sea lice prevalence, abundance and average intensity is also included by site.

Site	Sample Week														Total Post Exposure Pink Sample Population		
	April 9/10/11, 2017							May 23/25/26, 2017							Prevalence (%)	Abundance	Average Intensity
	# of Pink Analyzed	# of Infested Pink	Average Weight of Infested Pink (g)	# of Lice	Prevalence (%)	Abundance	Average Intensity	# of Pink Analyzed	# of Infested Pink	Average Weight of Infested Pink (g)	# of Lice	Prevalence (%)	Abundance	Average Intensity			
Discovery	2	0	-	0	0	0	0	30	4	1.18	5	13.3	0.17	1.3	12.5	0.16	0.2
Nodales	30	1	0.27	1	3.3	0.03	1.0	30	15	1.47	16	50.0	0.53	1.1	26.7	0.28	1.1
Knox Bay	3	0	-	0	0	0	0	12	1	1.92	1	8.3	0.08	1.0	6.7	0.07	1.0
Bear Bay	10	0	-	0	0	0	0	31	0	-	0	0	0	0	0	0	0
Race Passage	0	0	-	0	0	0	0	12	0	-	0	0	0	0	0	0	0
Bessborough Bay	29	0	-	0	0	0	0	12	0	-	0	0	0	0	0	0	0
Sunderland	0	0	-	0	-	-	-	10	2	1.14	2	20.0	0.20	1.0	20.0	0.20	1.0
Primary 3	23	0	-	0	0	0	0	0	0	-	0	-	-	-	0	0	0
Primary 1	2	0	-	0	0	0	0	13	0	-	0	0	0	0	0	0	0
Lumped Sites <sup>1</sup>	11	0	-	0	0	0	0	17	2	1.51	2	11.8	0.12	1.0	7.1	0.07	1.0
TOTALS	110	1	0.27	1	0.9	0.01	1.0	167	24	1.44	26	14.4	0.16	1.1	9.0	0.10	1.1

<sup>1</sup>Lumped sites for the Post-Exposure pink salmon population include: Raza, Okisollo, Rock Bay, Shoal Bay, Fanny Bay, Bickley Bay, Wellbore Channel, Blenkinsop Bay.

### 3.7.3 Post-Exposure Sea Lice Infestation Rates on Coho Salmon

Coho salmon were the third most abundant species collected during beach seine sampling from the Post-Exposure sites in the Discovery Islands in 2017 (n= 44). A total of eight coho salmon were found to be infested with nine sea lice resulting in a Post-Exposure species prevalence of 18.2 % and an abundance of 0.20. The infested coho salmon were collected in May from Sunderland, Primary 3 and Primary 1 (Table 16).

Table 16: The number of sea lice found on coho salmon collected from the Post-Exposure sites in the Discovery Islands in 2017 summarized by the sites where beach seining was conducted

Site	# of coho analyzed with lice	Date Collected	# of coho infested	# of lice
Primary 1	3	April 10, 2017	0	0
Raza	3	May 23, 2017	0	0
Blenkinsop Bay	1	May 26, 2017	0	0
Sunderland	1	May 26, 2017	1	1
Primary 3	30	May 26, 2017	5	5
Primary 1	6	May 26, 2017	2	3
<b>TOTAL</b>	<b>44</b>		<b>8</b>	<b>9</b>

### 3.8 Pre-Exposure Infestation Rates by Sea Lice Species

For the Pre-Exposure sample population, a total of 16 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 15 individuals and 151 *Caligus clemensi* sea lice were found on 65 of the samples analyzed in the lab (Appendix III). There were two samples that were infested with both *L. salmonis* and *C. clemensi*.

#### 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 215 chum salmon collected at the Pre-Exposure site in the Discovery Islands was completed and is presented in Table 17. A total of eight *Lepeophtheirus salmonis* sea lice of various life stages were identified on seven juvenile chum salmon and 87 *Caligus clemensi* sea lice were found on 33 of the juvenile chum salmon analyzed in the lab (Appendix III). There were no 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 18.

For the chum salmon sample population infested with *Caligus clemensi* sea lice (n=33) there were 14 samples infested with one louse, five with two lice, six with three lice, three with four lice, two with five lice, one with six, one with seven and one sample infested with ten sea lice. For the chum salmon sample population infested with *Lepeophtheirus salmonis* sea lice (n=7) there were six samples infested with one louse, and one sample infested with two lice.

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 2017. LEP = *Lepeophtheirus salmonis* CAL = *Caligus clemensi*

Life Stage <sup>1</sup>	April 9/10/11, 2017	May 23/25/26, 2017
LEP Co	0	2
LEP C1	0	0
LEP C2	0	3
LEP C3	0	2
LEP C4	0	0
LEP PAM	0	1
LEP PAF	0	0
LEP AM	0	0
LEP AF	0	0
<b>TOTAL LEP</b>	<b>0</b>	<b>8</b>
CAL Co	25	0
CAL C1	47	5
CAL C2	2	3
CAL C3	0	3
CAL C4	0	1
CAL PAM	0	0
CAL PAF	0	0
CAL AM	0	0
CAL AF	0	1
<b>TOTAL CAL</b>	<b>74</b>	<b>13</b>

<sup>1</sup> 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 2017 summarized by the sites where beach seining was conducted. LEP = *Lepeophtheirus salmonis* CAL = *Caligus clemensi*

Site	Sample Week								TOTAL		
	April 9/10/11, 2017				May 23/25/26, 2017				# of Chum Analyzed	# of Infested Chum	# of Lice
	# of Chum Analyzed	# of Infested Chum	# of LEP	# of CAL	# of Chum Analyzed	# of Infested Chum	# of LEP	# of CAL			
Francisco Point	11	1	0	4	30	4	1	4	41	5	9
Marina Island	31	21	0	70	1	0	0	0	32	21	70
Rebecca Spit	2	0	0	0	27	4	1	4	29	4	5
SE Hill Island	0	0	0	0	21	4	2	2	21	4	4
Penn Island	0	0	0	0	30	5	4	2	30	5	6
Deepwater Bay	32	0	0	0	30	1	0	1	62	1	1
<b>TOTAL</b>	<b>76</b>	<b>22</b>	<b>0</b>	<b>74</b>	<b>139</b>	<b>18</b>	<b>8</b>	<b>13</b>	<b>215</b>	<b>40</b>	<b>95</b>



### **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 23 pink salmon collected at Pre-Exposure sites in the Discovery Islands was completed and is presented in Table 19. A total of two *Lepeophtheirus salmonis* sea lice of various life stages were identified on two juvenile pink salmon and 53 *Caligus clemensi* sea lice were found on 23 of the juvenile pink salmon analyzed in the lab (Appendix III). There were two juvenile pink salmon that were infested with both *L. salmonis* and *C. clemensi*. The sea lice species identified on pink salmon are also presented by site and week in Table 20. All of the sea lice identified were found on samples collected at the Pre-Exposure sites in April, 2017. No lice were found on the six pink salmon collected at the Pre-Exposure sites in May, 2017.

For the pink salmon sample population infested with *Caligus clemensi* sea lice (n=23) there were 12 samples infested with one louse, three with two lice, four with three lice, two with five lice, one with six lice and one sample infested with seven sea lice. For the pink salmon sample population infested with *Lepeophtheirus salmonis* sea lice (n=2) both samples 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 2017.  
LEP = *Lepeophtheirus salmonis* CAL = *Caligus clemensi*

Life Stage <sup>1</sup>	April 9/10/11, 2017	May 23/25/26, 2017
LEP Co	1	0
LEP C1	1	0
LEP C2	0	0
LEP C3	0	0
LEP C4	0	0
LEP PAM	0	0
LEP PAF	0	0
LEP AM	0	0
LEP AF	0	0
<b>TOTAL LEP</b>	<b>2</b>	<b>0</b>
CAL Co	29	0
CAL C1	22	0
CAL C2	1	0
CAL C3	1	0
CAL C4	0	0
CAL PAM	0	0
CAL PAF	0	0
CAL AM	0	0
CAL AF	0	0
<b>TOTAL CAL</b>	<b>53</b>	<b>0</b>

<sup>1</sup> 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 2017 summarized by the sites where beach seining was conducted. LEP = *Lepeophtheirus salmonis* CAL = *Caligus clemensi*

Site	Sample Week								TOTAL		
	April 9/10/11, 2017				May 23/25/26, 2017				# of Pinks Analyzed	# of Infested Pinks	# of Lice
	# of Pinks Analyzed	# of Infested Pinks	# of LEP	# of CAL	# of Pinks Analyzed	# of Infested Pinks	# of LEP	# of CAL			
Francisco Point	32	4	0	5	0	0	0	0	32	4	5
Marina Island	29	18	2	47	0	0	0	0	29	18	49
Rebecca Spit	0	0	0	0	6	0	0	0	6	0	0
SE Hill Island	2	1	0	1	0	0	0	0	2	1	1
Deepwater Bay	28	0	0	0	0	0	0	0	28	0	0
<b>TOTAL</b>	<b>91</b>	<b>23</b>	<b>2</b>	<b>53</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>97</b>	<b>23</b>	<b>55</b>

### **3.8.3 Pre-Exposure Infestation Rates by Sea lice Species on Coho Salmon**

The sea lice species found on the 11 infested coho salmon collected at Pre-Exposure sites are presented in Table 21. There were no coho salmon collected at Pre-Exposure sites in April 2017. Of the 44 coho salmon collected in May, a total of five *Lepeophtheirus salmonis* sea lice of various life stages were identified on five juvenile coho salmon and seven *Caligus clemensi* sea lice were found on six juvenile coho salmon analyzed in the lab (Appendix III). The sea lice species identified on coho salmon are also presented by site in Table 22.

For the coho salmon sample population infested with *Caligus clemensi* sea lice (n=6) there were five samples infested with one louse and one sample infested with two lice. For the coho salmon sample population infested with *Lepeophtheirus salmonis* sea lice (n=5) all five samples were infested with one louse.

Table 21: The number of sea lice in each life stage by species identified on Pre-Exposure coho salmon from the Discovery Islands in 2017. LEP = *Lepeophtheirus salmonis* CAL = *Caligus clemensi*

Life Stage <sup>1</sup>	May 23/25/26, 2017
LEP Co	0
LEP C1	2
LEP C2	0
LEP C3	1
LEP C4	1
LEP PAM	1
LEP PAF	0
LEP AM	0
LEP AF	0
<b>TOTAL LEP</b>	<b>5</b>
CAL Co	2
CAL C1	2
CAL C2	1
CAL C3	0
CAL C4	0
CAL PAM	0
CAL PAF	0
CAL AM	1
CAL AF	1
<b>TOTAL CAL</b>	<b>7</b>

<sup>1</sup> 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 Pre-Exposure coho salmon collected in the Discovery Islands in 2017 summarized by the sites where beach seining was conducted. LEP = *Lepeophtheirus salmonis* CAL = *Caligus clemensi*

Site	Sample Week			
	May 23, 2017			
	# of coho Analyzed	# of Infested coho	# of LEP	# of CAL
Francisco Point	10	3	1	2
Marina Island	7	1	0	1
Rebecca Spit	17	6	4	3
Deepwater Bay	10	1	0	1
<b>TOTAL</b>	<b>44</b>	<b>11</b>	<b>5</b>	<b>7</b>

### 3.8.4 Pre-Exposure Infestation Rates by Sea Lice Species on Chinook Salmon

A total of 12 chinook salmon were captured at Pre-Exposure sites in 2017. One *Lepeophtheirus salmonis* was identified on one chinook salmon and four *Caligus clemensi* sea lice of different life stages were identified on three of the infested chinook samples.

### 3.9 Post-Exposure Sea Lice Infestation Rates

For the Post-Exposure sample population, a total of 35 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 34 individuals and 55 *Caligus clemensi* sea lice were found on 50 of the samples analyzed in the lab (Appendix III). There were three samples that were 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 727 chum salmon collected in the Post Exposure sites in the Discovery Islands was completed and is presented in Table 23. A total of 23 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 23 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 three 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 24.

For the chum salmon sample population infested with *Caligus clemensi* sea lice (n=28) there were 25 samples infested with one louse and three samples infested with two lice. For the chum salmon sample population infested with *Lepeophtheirus salmonis* sea lice all 23 infested chum were infested with one louse.

Table 23: 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 2017. LEP = *Lepeophtheirus salmonis* CAL = *Caligus clemensi*

Life Stage <sup>1</sup>	April 9/10/11, 2017	May 23/25/26, 2017
LEP Co	4	2
LEP C1	2	0
LEP C2	0	1
LEP C3	1	5
LEP C4	0	4
LEP PAM	0	4
LEP PAF	0	0
LEP AM	0	0
LEP AF	0	0
<b>TOTAL LEP</b>	<b>7</b>	<b>16</b>
CAL Co	7	5
CAL C1	3	11
CAL C2	1	0
CAL C3	0	1
CAL C4	0	0
CAL PAM	0	0
CAL PAF	0	0
CAL AM	0	3
CAL AF	0	0
<b>TOTAL CAL</b>	<b>11</b>	<b>20</b>

<sup>1</sup> 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 chum salmon collected in the Discovery Islands in 2017 summarized by the sites where beach seining was conducted. LEP = *Lepeophtheirus salmonis* CAL = *Caligus clemensi*

Site	Sample Week								TOTAL		
	April 9/10/11, 2017				May 23/25/26, 2017				# of Chum Analyzed	# of Infested Chum	# of Lice
	# of Chum Analyzed	# of Infested Chum	# of LEP	# of CAL	# of Chum Analyzed	# of Infested Chum	# of LEP	# of CAL			
Raza	30	7	1	7	30	1	1	1	60	8	10
Raza North	3	0	0	0	30	0	0	0	33	0	0
Okisollo	30	1	1	0	30	3	0	3	60	4	4
Owen Bay	14	0	0	0	9	0	0	0	23	0	0
Rock Bay	0	0	0	0	30	0	0	0	30	0	0
Discovery	29	5	3	3	31	7	3	5	60	12	14
Nodales	17	1	1	0	30	9	6	5	47	10	12
Shoal Bay	5	0	0	0	30	1	1	0	35	1	1
Fanny Bay	4	0	0	0	30	0	0	0	34	0	0
Bickley Bay	0	0	0	0	30	3	2	1	30	3	3
Cordero	2	0	0	0	1	0	0	0	3	0	0
Knox Bay	16	0	0	0	31	1	0	1	47	1	1
Bear Bay	20	0	0	0	30	0	0	0	50	0	0
Chancellor Channel	1	0	0	0	5	1	1	0	6	1	1
Race Passage	0	0	0	0	30	0	0	0	30	0	0
Wellbore Channel	4	0	0	0	0	0	0	0	4	0	0
Bessborough Bay	32	1	0	1	28	1	0	1	60	2	2
Sunderland	0	0	0	0	32	4	2	2	32	4	4
Blenkinsop Bay	19	0	0	0	1	0	0	0	20	0	0
Primary 3	33	1	1	0	0	0	0	0	33	1	1
Primary 1	0	0	0	0	30	1	0	1	30	1	1
<b>TOTAL</b>	<b>259</b>	<b>16</b>	<b>7</b>	<b>11</b>	<b>468</b>	<b>32</b>	<b>16</b>	<b>20</b>	<b>727</b>	<b>48</b>	<b>54</b>



### **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 277 pink salmon collected at the Post-Exposure sites in the Discovery Islands was completed and is presented in Table 25. A total of 12 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 11 juvenile pink salmon and 15 *Caligus clemensi* sea lice were found on 14 of the juvenile pink salmon analyzed in the lab (Appendix III). There were no juvenile pink salmon 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 26.

For the pink salmon sample population infested with *Caligus clemensi* sea lice (n=14) there were 13 samples infested with one louse and one samples was infested with two lice. For the pink salmon sample population infested with *Lepeophtheirus salmonis* sea lice (n=11) there were ten samples infested with one louse and one sample infested with two lice.

Table 25: 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 2017.  
LEP = *Lepeophtheirus salmonis* CAL = *Caligus clemensi*

Life Stage <sup>1</sup>	April 9/10/11, 2017	May 23/25/26, 2017
LEP Co	1	0
LEP C1	0	3
LEP C2	0	0
LEP C3	0	2
LEP C4	0	2
LEP PAM	0	3
LEP PAF	0	1
LEP AM	0	0
LEP AF	0	0
<b>TOTAL LEP</b>	<b>1</b>	<b>11</b>
CAL Co	0	4
CAL C1	0	7
CAL C2	0	4
CAL C3	0	0
CAL C4	0	0
CAL PAM	0	0
CAL PAF	0	0
CAL AM	0	0
CAL AF	0	0
<b>TOTAL CAL</b>	<b>0</b>	<b>15</b>

<sup>1</sup> 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 26: The species of sea lice found on Post-Exposure pink salmon collected in the Discovery Islands in 2017 summarized by the sites where beach seining was conducted. LEP = *Lepeophtheirus salmonis* CAL = *Caligus clemensi*

Site	Sample Week								TOTAL		
	April 9/10/11, 2017				May 23/25/26, 2017				# of pink Analyzed	# of Infested pink	# of Lice
	# of pink Analyzed	# of Infested pink	# of LEP	# of CAL	# of pink Analyzed	# of Infested pink	# of LEP	# of CAL			
Discovery	2	0	0	0	30	4	2	3	32	4	5
Nodales	30	1	1	0	30	15	7	9	60	16	17
Knox Bay	3	0	0	0	12	1	0	1	15	1	1
Bear Bay	10	0	0	0	31	0	0	0	41	0	0
Race Passage	0	0	0	0	12	0	0	0	12	0	0
Bessborough Bay	29	0	0	0	12	0	0	0	41	0	0
Sunderland	0	0	0	0	10	2	1	1	10	2	2
Primary 3	23	0	0	0	0	0	0	0	23	0	0
Primary 1	2	0	0	0	13	0	0	0	15	0	0
Lumped Site <sup>1</sup>	11	0	0	0	17	2	1	1	28	2	2
<b>TOTAL</b>	<b>110</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>167</b>	<b>24</b>	<b>11</b>	<b>15</b>	<b>277</b>	<b>25</b>	<b>27</b>

### **3.9.3 Post-Exposure Infestation Rates by Sea Lice Species on Coho Salmon**

An analysis of the species of sea lice identified on the 44 coho salmon collected at the Post-Exposure sites in the Discovery Islands was completed and is presented in Table 27. There were no sea lice found on the three coho salmon collected at Post-Exposure sites in April 2017. A total of nine *Caligus clemensi* sea lice of various life stages were identified on eight of the juvenile coho salmon analyzed in the lab (Appendix III). There were no *Lepeophtheirus salmonis* identified during lab analysis. The sea lice species identified on coho salmon are also presented by site and by week in Table 28.

For the coho salmon sample population infested with *Caligus clemensi* sea lice (n=8) there were seven samples infested with one louse and one sample infested with two sea lice.

Table 27: The number of sea lice in each life stage by species identified on the Post Exposure coho salmon sample population from the Discovery Islands in 2017. LEP = *Lepeophtheirus salmonis* CAL = *Caligus clemensi*

Life Stage <sup>1</sup>	May 23/25/26, 2017
LEP Co	0
LEP C1	0
LEP C2	0
LEP C3	0
LEP C4	0
LEP PAM	0
LEP PAF	0
LEP AM	0
LEP AF	0
<b>TOTAL LEP</b>	<b>0</b>
CAL Co	0
CAL C1	7
CAL C2	1
CAL C3	1
CAL C4	0
CAL PAM	0
CAL PAF	0
CAL AM	0
CAL AF	0
<b>TOTAL CAL</b>	<b>9</b>

<sup>1</sup> 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 28: The species of sea lice found on Post-Exposure coho salmon collected in the Discovery Islands in 2017 summarized by the sites where beach seining was conducted. LEP = *Lepeophtheirus salmonis* CAL = *Caligus clemensi*

Site	Sample Week								TOTAL		
	April 9/10/11, 2017				May 23/25/26, 2017				# of coho Analyzed	# of Infested coho	# of Lice
	# of coho Analyzed	# of Infested coho	# of LEP	# of CAL	# of coho Analyzed	# of Infested coho	# of LEP	# of CAL			
Raza	0	0	0	0	3	0	0	0	3	0	0
Blenkinsop Bay	0	0	0	0	1	0	0	0	1	0	0
Sunderland	0	0	0	0	1	1	0	1	1	1	1
Primary 3	0	0	0	0	30	5	0	5	30	5	5
Primary 1	3	0	0	0	6	2	0	3	9	2	3
<b>TOTAL</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>41</b>	<b>8</b>	<b>0</b>	<b>9</b>	<b>44</b>	<b>8</b>	<b>9</b>

## **4.0 Conclusions**

This report presents the data from the first 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 the 2017 collected data.

### **4.1 Pre-Exposure Conclusions**

A total of 368 individual samples from the Pre-Exposure beach seine sites underwent lab analysis for sea lice infestation including 215 chum, 97 pink, 44 coho and 12 chinook salmon. From the total Pre-Exposure sample population 78 individuals were infested with 167 sea lice. The calculated prevalence for the total Pre-Exposure sample population was 21.2 % and the sea lice abundance was 0.45 for the Pre-Exposure sample population collected in the Discovery Islands in 2017.

A total of 395 chum salmon were captured, representing 63.3 % of all captured Pre-Exposure samples. Of the 395 chum captured, 215 were kept for lab analysis for sea lice infestation. A total of 40 chum smolts were found to be infested with 95 lice resulting in a calculated prevalence of 18.6 % and an abundance of 0.44 for the Pre-Exposure chum salmon sample population.

A total of 173 pink salmon were captured, representing 27.7 % of all captured Pre-Exposure samples. Of the 173 pinks captured, 97 were kept for lab analysis for sea lice infestation. A total of 23 pink salmon were found to be infested with 55 lice resulting in a calculated prevalence of 23.7 % and an abundance of 0.57 for the Pre-Exposure pink salmon sample population.

A total of 44 Pre-Exposure coho salmon were captured, retained and analyzed for sea lice infestation. A total of 11 coho salmon were found to be infested by 12 lice resulting in a calculated prevalence of 25.0 % and an abundance of 0.27 for the Pre-Exposure coho salmon sample population.

A total of 12 Pre-Exposure chinook were captured, retained and analyzed for sea lice infestation. Of the 12 samples four were found to be infested with five lice resulting in a calculated prevalence of 33.3 % and an abundance of 0.42 for the Pre-Exposure chinook salmon population.

For the Pre-Exposure sample population, a total of 16 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 15 samples and 151 *Caligus clemensi* sea lice were found on 65 of the juvenile salmon analyzed in the lab. There were two juvenile salmon that were infested with both *L. salmonis* and *C. clemensi*.

For the Pre-Exposure chum salmon sample population, a total of eight *Lepeophtheirus salmonis* sea lice of various life stages were identified on seven juvenile chum salmon and 87 *Caligus clemensi* sea lice were found on 33 of the juvenile chum salmon. There were no juvenile chum salmon infested with both *L. salmonis* and *C. clemensi*.

For the Pre-Exposure pink salmon sample population, a total of two *Lepeophtheirus salmonis* sea lice of various life stages were identified on two juvenile pink salmon and 53 *Caligus clemensi* sea lice were found on 23 of the juvenile pink salmon. There were two juvenile pink salmon that were infested with both *L. salmonis* and *C. clemensi*.

For the Pre-Exposure coho salmon sample population, a total of five *Lepeophtheirus salmonis* were identified on five coho salmon and seven *Caligus clemensi* sea lice of various life stages were identified on six juvenile coho salmon.

For the Pre-Exposure chinook salmon sample population, a total of one *Lepeophtheirus salmonis* was identified on one chinook salmon and four *Caligus clemensi* were identified on three chinook salmon.

A comparison of the prevalence, abundance and average intensity of sea lice species found on Pre-Exposure chum and pink salmon was completed for sample data from 2017 collected in the Discovery Islands. This data is presented in the following summary table.

Fish Species	<i>Caligus clemensi</i>			<i>Lepeophtheirus salmonis</i>		
	Prevalence	Abundance	Average Intensity	Prevalence	Abundance	Average Intensity
Chum (n=395)	8.4 %	0.22	2.6	1.8 %	0.02	1.1
Pink (n=173)	13.3 %	0.31	2.3	1.2 %	0.01	1.0



## 4.2 Post-Exposure Conclusions

A total of 1063 individual samples from the Post-Exposure beach seine sites underwent lab analysis for sea lice infestation including 727 chum, 277 pink, 44 coho, 14 chinook salmon and one threespine stickleback. From the total Post-Exposure sample population 81 individuals were infested with 90 sea lice. The calculated prevalence for the total Post-Exposure sample population was 7.6 % and the sea lice abundance was 0.08 for the Post-Exposure sample population collected in the Discovery Islands in 2017.

A total of 3308 Post-Exposure chum salmon were captured, representing 71.6 % of all captured Post-Exposure samples. Of the 3308 chum captured, 727 were kept for lab analysis for sea lice infestation. A total of 48 chum smolts were found to be infested with 54 lice resulting in a calculated prevalence of 6.6 % and an abundance of 0.07 for the Post-Exposure chum salmon sample population.

A total of 1242 pink salmon were captured, representing 26.9 % of all captured Post-Exposure samples. Of the 1242 pinks captured, 277 were kept for lab analysis for sea lice infestation. A total of 25 pink salmon were found to be infested with 27 lice resulting in a calculated prevalence of 9.0 % and an abundance of 0.10 for the Post-Exposure pink salmon sample population.

A total of 44 Post-Exposure coho salmon were captured, retained and analyzed for sea lice infestation. A total of eight coho salmon were found to be infested by nine lice resulting in a calculated prevalence of 18.2 % and an abundance of 0.20 for the Post-Exposure coho salmon sample population.

There were no sea lice identified on the 14 chinook salmon samples or one threespine stickleback collected at Post-Exposure sites in the Discovery Islands in 2017.

For the Post-Exposure sample population, a total of 35 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 34 samples and 55 *Caligus clemensi* sea lice were found on 50 of the juvenile salmon analyzed in the lab. There were three juvenile salmon that were infested with both *L. salmonis* and *C. clemensi*.

For the Post-Exposure chum salmon sample population, a total of 23 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 23 juvenile chum salmon and

31 *Caligus clemensi* sea lice were found on 28 of the juvenile chum salmon. There were three juvenile chum salmon infested with both *L. salmonis* and *C. clemensi*.

For the Post-Exposure pink salmon sample population, a total of 12 *Lepeophtheirus salmonis* sea lice of various life stages were identified on 11 juvenile pink salmon and 15 *Caligus clemensi* sea lice were found on 14 of the juvenile pink salmon. There were no juvenile pink salmon infested with both *L. salmonis* and *C. clemensi*.

For the Post-Exposure coho salmon sample population, a total nine *Caligus clemensi* sea lice of various life stages were identified on eight juvenile coho salmon. There were no *Lepeophtheirus salmonis* identified on the Post-Exposure coho salmon population.

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 2017 collected in the Discovery Islands. This data is presented in the following summary table.

Fish Species	<i>Caligus clemensi</i>			<i>Lepeophtheirus salmonis</i>		
	Prevalence	Abundance	Average Intensity	Prevalence	Abundance	Average Intensity
Chum (n=727)	3.9 %	0.04	1.1	3.2 %	0.03	1.0
Pink (n=277)	5.0 %	0.05	1.1	4.0 %	0.04	1.1

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

The following summary tables have been prepared to allow the 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 2017. Table 29 presents the infestation rates for the species as a combination of both *L. salmonis* and *C. clemensi* while Table 30 presents the infestation rates separated by lice species.

Table 29: 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 2017.

Species	Sample Location	Sample size (n)	Total number of lice observed	Total number of fish infested	Prevalence (%)	Abundance	Average Intensity
chum	Pre-Exposure	215	95	40	18.6	0.44	2.4
	Post-Exposure	727	54	48	6.6	0.07	1.1
pink	Pre-Exposure	97	55	23	23.7	0.57	2.4
	Post-Exposure	277	27	25	9.0	0.10	1.1

Table 30: A comparison of sea lice infestation rates by lice species on the chum and pink salmon sample populations collected at Pre- and Post-Exposure sites in the Discovery Islands in 2017.

Fish Species	Sample Location	<i>Caligus clemensi</i>			<i>Lepeophtheirus salmonis</i>		
		Prevalence	Abundance	Average Intensity	Prevalence	Abundance	Average Intensity
chum (n=395)	Pre-Exposure	8.4 %	0.22	2.6	1.8 %	0.02	1.1
chum (n=727)	Post-Exposure	3.9 %	0.04	1.1	3.2 %	0.03	1.0
pink (n=173)	Pre-Exposure	13.3 %	0.31	2.3	1.2 %	0.01	1.0
pink (n=277)	Post-Exposure	5.0 %	0.05	1.1	4.0 %	0.04	1.1

## 5.0 References

- Healey M.C. 1991. Life history of chinook salmon (*Oncorhynchus tshawytscha*). In: Pacific Salmon Life Histories. C Grott, L Margolis (eds). UBC Press, Vancouver. Pp 313-393.
- Jones S. and S. Johnson. 2015. Sea lice monitoring and non-chemical measures A: Biology of sea lice, *Lepeophtheirus salmonis* and *Caligus spp.*, in western and eastern Canada. DFO Canadian Science Advisory Secretariat. Research Document 2014/019 Pacific Region. Pacific Biological Station, Fisheries and Oceans Canada.
- Jones S. and A. Nemec. 2004. Pink Salmon Action Plan Research. Part II: Sea Lice on Juvenile Salmon and on Three-spine Sticklebacks in 2003. PSARC Working Paper H2004-01.
- Johnson S.C. and L.J. Albright. 1991a. The developmental stages of *Lepeophtheirus salmonis* (Kroyer, 1837) (Copepoda: Caligidae). Canadian Journal of Zoology 69: 929-950.
- Johnson S.C. and L.J. Albright. 1991b. Development, growth and survival of *Lepeophtheirus salmonis* (Copepoda: Caligidae) under laboratory conditions. Journal of the Marine Biological Association of the UK 71: 425-436.
- Kabata Z. 1972. Developmental stages of *Caligus clemensi* (Copepoda: Caligidae) from fishes of British Columbia. Journal of the Fisheries Research Board of Canada 29: 1571-1593.
- Kabata Z. 1974. The species of *Lepeophtheirus* (Copepoda: Caligidae), from fishes of British Columbia. Journal of the Fisheries Research Board of Canada 30: 729-759.
- Margolis L., J.R. Arthur. 1979. Synopsis of the parasites of fishes of Canada. Bulletin of the Fisheries Research Board of Canada, Number 199. Ottawa. 269 pages.
- McDonald T.E., and L. Margolis. 1995. Synopsis of the parasites of fishes of Canada (1978-1993). Canadian Special Publication of Fisheries and Aquatic Sciences No. 122. National Research Council of Canada, Ottawa. 265 pages.
- Pacific Aquaculture Regulations. Finfish Aquaculture Licence conditions under the Pacific Aquaculture Regulations. Section 7. Sea Lice Monitoring
- Parker R.R. and L. Margolis. 1964. A new species of parasitic copepod, *Caligus clemensi* sp. nov. (Clogoida: Caligidae), from pelagic fishes in the coastal waters of British Columbia. Journal of Fisheries Research Board of Canada 21: 873-889.
- Pollard W.R., G.F. Hartman, C. Groot, and P. Edgell. 1997. Field Identification of Coastal Juvenile Salmonids. Published by Harbour Publishing for the Federal Department of Fisheries and Oceans and MacMillan Bloedel Ltd. Madeira Park, BC Canada.
- Saksida, S., Constantine J., Karreman G.A. and Donald A. 2007a. Evaluation of sea lice abundance levels on farmed Atlantic salmon (*Salmo salar* L) located in the Discovery Islands of British Columbia from 2003 to 2005. Aquacult. Res. 38: 219-231.

- Saksida, S., Karreman G.A., Constantine J., and Donald A. 2007b. Differences in *Lepeophtheirus salmonis* abundance levels on Atlantic salmon farms in the Discovery Islands, British Columbia, Canada. J. Fish Dis. 30:357-366.
- Salo E.O. 1991. Life history of chum salmon (*Oncorhynchus keta*). In: Pacific Salmon Life Histories. C Grott, L Margolis (eds). UBC Press, Vancouver. Pp 233-309.
- Sandercock F.K. 1991. Life history of coho salmon (*Oncorhynchus kisutch*). In: Pacific Salmon Life Histories. C. Grott, L. Margolis (eds). UBC Press, Vancouver. Pp 397-445.
- Tully O. 1992. Predicting infestation parameters and impacts of caligid copepods in wild and captured fish populations. Invert. Reprod. Develop. 22: 91-102.

## Appendix I – Field Data

Date	Site Name	Salinity (ppt)			Temperature (°C)		
		0.2m	1.0m	5.0m	0.2m	1.0m	5.0m
04/11/17	Francisco Point	27.1	NA	NA	10.1	NA	NA
04/11/17	Marina Island	27.5	NA	NA	10.5	NA	NA
04/11/17	Rebecca Spit	25.2	NA	NA	9.8	NA	NA
04/11/17	Viner Point	27.5	27.7	27.8	10.0	10.0	10.0
04/11/17	SE Hill Island	27.7	27.7	27.7	10.1	10.1	10.1
04/11/17	Penn Island	27.5	27.5	NA	10.3	10.3	NA
04/09/17	Deepwater Bay	25.4	NA	NA	9.4	NA	NA
04/11/17	Raza	23.3	23.2	25.3	10.5	10.3	10.3
04/11/17	Raza North	22.9	NA	NA	11.4	NA	NA
04/09/17	Okisollo	28.9	NA	NA	9.7	NA	NA
04/09/17	Owen Bay	28.9	NA	NA	9.6	NA	NA
04/09/17	Rock Bay	28.8	NA	NA	9.5	NA	NA
04/09/17	Discovery	29.0	28.9	NA	9.4	9.6	NA
04/09/17	Nodales	26.4	28.2	NA	9.3	9.3	NA
04/09/17	Shoal Bay	23.4	27.0	NA	9.4	9.4	NA
04/09/17	Fanny Bay	8.2	NA	NA	8.9	NA	NA
04/09/17	Bickley Bay	28.5	NA	NA	9.4	NA	NA
04/09/17	Cordero	29.1	NA	NA	9.5	NA	NA
04/09/17	Knox Bay	29.4	NA	NA	9.6	NA	NA
04/09/17	Bear Bay	29.2	NA	NA	9.6	NA	NA
04/10/17	Chancellor channel	28.9	NA	NA	9.3	NA	NA
04/10/17	Race Passage	18.0	29.5	NA	9.3	9.3	NA
04/10/17	Wellbore Channel	27.3	NA	NA	9.0	NA	NA
04/10/17	Bessborough Bay	29.7	NA	NA	9.2	NA	NA
04/10/17	Sunderland	29.7	29.8	29.7	9.1	9.1	9.2
04/10/17	Blenkinsop Bay	29.5	NA	NA	9.1	NA	NA
04/10/17	Primary 3	30.0	30.0	NA	9.1	9.1	NA
04/10/17	Primary 1	28.7	28.7	NA	9.9	9.7	NA
04/10/17	Beautiful Bay	29.4	29.4	NA	9.2	9.2	NA
05/23/17	Francisco Point	19.7	NA	NA	20.0	NA	NA
05/23/17	Marina Island	19.3	NA	NA	19.5	NA	NA
05/23/17	Rebecca Spit	19.3	NA	NA	21.2	NA	NA
05/23/17	Viner Point	19.1	NA	NA	19.7	NA	NA
05/23/17	SE Hill Island	18.2	NA	NA	20.8	NA	NA

Date	Site Name	Salinity (ppt)			Temperature (°C)		
		0.2m	1.0m	5.0m	0.2m	1.0m	5.0m
05/23/17	Penn Island	17.5	NA	NA	20.2	NA	NA
05/23/17	Deepwater Bay	17.8	NA	NA	21.6	NA	NA
05/23/17	Raza	11.1	NA	NA	23.3	NA	NA
05/23/17	Raza North	11.6	NA	NA	22.6	NA	NA
05/23/17	Okisollo	21.9	NA	NA	17.7	NA	NA
05/23/17	Owen Bay	21.4	NA	NA	20.3	NA	NA
05/25/17	Rock Bay	24.7	NA	NA	13.6	NA	NA
05/25/17	Discovery	27.1	NA	NA	13.0	NA	NA
05/25/17	Nodales	25.3	NA	NA	14.3	NA	NA
05/25/17	Shoal Bay	21.6	NA	NA	14.3	NA	NA
05/25/17	Fanny Bay	11.5	NA	NA	13.5	NA	NA
05/25/17	Bickley Bay	24.5	NA	NA	12.7	NA	NA
05/25/17	Cordero	24.3	NA	NA	12.6	NA	NA
05/25/17	Knox Bay	24.7	NA	NA	12.7	NA	NA
05/25/17	Bear Bay	25.5	NA	NA	13.6	NA	NA
05/26/17	Chancellor channel	8.9	NA	NA	14.1	NA	NA
05/26/17	Race Passage	24.3	NA	NA	14.0	NA	NA
05/26/17	Wellbore Channel	24.6	NA	NA	13.4	NA	NA
05/26/17	Bessborough Bay	20.7	NA	NA	14.0	NA	NA
05/26/17	Sunderland	24.8	NA	NA	13.6	NA	NA
05/26/17	Blenkinsop Bay	16.3	NA	NA	16.0	NA	NA
05/26/17	Primary 3	24.4	NA	NA	13.8	NA	NA
05/26/17	Primary 1	24.3	NA	NA	13.3	NA	NA
05/26/17	Beautiful Bay	23.9	NA	NA	14.1	NA	NA

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	TSB Captured	TSB Retained	Comments
04/11/17	Francisco Point	Calm, cloudy.	54	32	11	11	0	0	0	0	0	0	22 pink taken for Fish Health.
04/11/17	Marina Island	Calm, overcast.	29	29	97	31	0	0	0	0	0	0	30 chum taken for Fish Health. 20 sculpin.
04/11/17	Rebecca Spit	Calm, Cloudy.	0	0	2	2	0	0	0	0	0	0	One sculpin, one starry flounder.
04/11/17	Viner Point	Light rain, calm.	0	0	0	0	0	0	0	0	0	0	No fish observed. One sculpin.
04/11/17	SE Hill Island	Calm, Light rain.	2	2	0	0	0	0	0	0	0	0	
04/11/17	Penn Island	Cloudy, calm.	0	0	0	0	0	0	0	0	0	0	No fish observed.
04/09/17	Deepwater Bay	Calm, low overcast.	82	28	46	32	0	0	0	0	0	0	One red rock crab, one starry flounder. 30 pink and 14 chum taken for Fish Health.
04/11/17	Raza	Cloudy, calm.	1	1	142	30	0	0	0	0	0	0	30 chum taken for Fish Health.
04/11/17	Raza North	Calm, sun/clouds.	0	0	3	3	0	0	0	0	0	0	5 sculpin.
04/09/17	Okisollo	Light wind/chop.	1	1	110	30	0	0	0	0	0	0	30 chum taken for Fish Health. One starry flounder.
04/09/17	Owen Bay	Low tide, calm.	0	0	14	14	0	0	0	0	0	0	Shallow sandy beach. 30 sculpin and one starry flounder.
04/09/17	Rock Bay	Calm, cloudy.	0	0	0	0	0	0	0	0	0	0	No fish observed.
04/09/17	Discovery	Light chop.	2	2	60	29	0	0	0	0	0	0	16 chum taken for Fish Health.
04/09/17	Nodales	Light wind.	45	30	17	17	0	0	0	0	0	0	15 pink taken for Fish Health.
04/09/17	Shoal Bay	Light wind, overcast.	0	0	5	5	0	0	0	0	0	0	
04/09/17	Fanny Bay	Choppy.	1	1	4	4	0	0	0	0	0	0	
04/09/17	Bickley Bay	Calm, light rain.	0	0	0	0	0	0	0	0	0	0	No fish observed, one sculpin.
04/09/17	Cordero	Tidy, calm.	0	0	2	2	0	0	0	0	0	0	
04/09/17	Knox Bay	Choppy.	3	3	16	16	0	0	1	1	0	0	Three sculpin.
04/09/17	Bear Bay	Choppy.	10	10	20	20	0	0	0	0	0	0	
04/10/17	Chancellor channel	Rain, calm.	0	0	1	1	0	0	0	0	0	0	Three sculpin, one starry flounder.
04/10/17	Race Passage	Rain, calm.	0	0	0	0	0	0	0	0	0	0	
04/10/17	Wellbore Channel	Rain, calm.	1	1	4	4	0	0	0	0	0	0	Five sculpin.
04/10/17	Bessborough Bay	Rain, calm.	109	29	952	32	0	0	0	0	0	0	50 chum taken for gill samples. 15 pink taken for Fish Health.
04/10/17	Sunderland	Light rain, calm.	0	0	0	0	0	0	0	0	0	0	No fish observed.
04/10/17	Blenkinsop Bay	Calm, light rain.	7	7	19	19	0	0	0	0	1	1	20 tubesnout, five sculpin and one starry flounder.
04/10/17	Primary 3	Small chop at site. Rain.	23	23	33	33	0	0	0	0	0	0	Only beach to set on.
04/10/17	Primary 1	Light chop, rain.	2	2	0	0	6	3	0	0	0	0	Three coho escaped.
04/10/17	Beautiful Bay	2ft chop at site.	0	0	0	0	0	0	0	0	0	0	One of two possible set spots in bay. 25 tubesnout.
05/23/17	Francisco Point	Calm, sun.	0	0	54	30	10	10	4	4	0	0	Two striped perch. 24 chum taken for Fish Health.
05/23/17	Marina Island	Chop, sun.	0	0	1	1	7	7	6	6	0	0	10 striped perch, one gunnel, 20 flounder.
05/23/17	Rebecca Spit	Calm, sun.	6	6	72	27	17	17	0	0	0	0	30 chum taken for Fish Health. Fish seen dimpling at the surface.



Date	Site Name	Weather Comments	Pink Captured	Pink Retained	Chum Captured	Chum Retained	Coho Captured	Coho Retained	Chinook Captured	Chinook Retained	TSB Captured	TSB Retained	Comments
05/23/17	Viner Point	Calm, sun.	0	0	0	0	0	0	0	0	0	0	One cutthroat (~300mm), 60 striped perch, two surf perch.
05/23/17	SE Hill Island	Calm, sun.	0	0	21	21	0	0	0	0	0	0	
05/23/17	Penn Island	Calm, sun.	0	0	46	30	0	0	0	0	0	0	6 chum taken for Fish Health.
05/23/17	Deepwater Bay	Windy, sun.	0	0	45	30	10	10	2	2	0	0	
05/23/17	Raza	Cloudy, calm.	0	0	70	30	3	3	0	0	0	0	Three striped perch.
05/23/17	Raza North	Cloudy, calm.	0	0	70	30	0	0	0	0	0	0	Two starry flounder.
05/23/17	Okisollo	Windy, cloudy.	0	0	125	30	0	0	0	0	0	0	
05/23/17	Owen Bay	Calm, cloudy.	0	0	9	9	0	0	0	0	0	0	Three sculpin.
05/25/17	Rock Bay	Light chop.	5	5	270	30	0	0	1	1	0	0	30 chum taken for Fish Health. 1000 juvenile pollock, one greenling, five red urchin.
05/25/17	Discovery	Calm, sunny.	90	30	71	31	0	0	0	0	0	0	2000 juvenile pollock.
05/25/17	Nodales	Calm, sunny.	560	30	530	30	0	0	0	0	0	0	30 pink taken for Fish Health.
05/25/17	Shoal Bay	Calm, sun.	8	8	280	30	0	0	0	0	0	0	Three dungeness and two red rock crab.
05/25/17	Fanny Bay	Light wind, sun.	1	1	70	30	0	0	11	11	0	0	
05/25/17	Bickley Bay	Calm, sun.	3	3	86	30	0	0	0	0	0	0	Two starry flounder.
05/25/17	Cordero	Tidy, sun.	0	0	1	1	0	0	0	0	0	0	
05/25/17	Knox Bay	Choppy, sun.	12	12	66	31	0	0	0	0	0	0	
05/25/17	Bear Bay	Choppy, sun.	311	31	90	30	0	0	0	0	0	0	30 chum and 30 pink taken for Fish Health. Two greenling and one flounder.
05/26/17	Chancellor channel	Calm, sun.	0	0	5	5	0	0	0	0	0	0	
05/26/17	Race Passage	Calm, sun.	12	12	37	30	0	0	1	1	0	0	
05/26/17	Wellbore Channel	Sun, calm.	0	0	0	0	0	0	0	0	0	0	Two sculpin.
05/26/17	Bessborough Bay	Light chop.	12	12	48	28	0	0	0	0	0	0	20 chum taken for gill samples.
05/26/17	Sunderland	Calm, cloudy.	10	10	41	32	1	1	0	0	0	0	Nine chum taken for fish gill samples. Two sculpin, 10 pipefish.
05/26/17	Blenkinsop Bay	Calm, cloudy.	0	0	1	1	1	1	0	0	0	0	500 striped perch, 70 pipefish, three starry flounder, two dungeness crab.
05/26/17	Primary 3	Choppy, cloudy.	0	0	0	0	38	30	0	0	0	0	Four Dolly Varden (~200mm).
05/26/17	Primary 1	Light chop, cloudy.	13	13	36	30	6	6	0	0	0	0	One juvenile Dolly Varden. 200 juvenile pollock.
05/26/17	Beautiful Bay	Calm, cloudy.	0	0	0	0	0	0	0	0	0	0	20 sandlance, two dungeness crab, one cutthroat (~180 mm).

### Appendix III – Sea Lice Analysis Data

Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
9-Apr-17	Bear Bay	CM	37	0.46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Bear Bay	CM	38	0.55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Bear Bay	CM	32	0.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Bear Bay	CM	36	0.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Bear Bay	CM	37	0.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Bear Bay	CM	34	0.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Bear Bay	CM	36	0.57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Bear Bay	CM	34	0.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Bear Bay	CM	37	0.46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Bear Bay	CM	34	0.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Bear Bay	CM	38	0.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Bear Bay	CM	35	0.52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Bear Bay	CM	40	0.66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Bear Bay	PK	32	0.32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Bear Bay	PK	35	0.35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Bear Bay	PK	33	0.31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Bear Bay	CM	32	0.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Bear Bay	CM	38	0.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Bear Bay	CM	39	0.74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Bear Bay	CM	35	0.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Bear Bay	CM	36	0.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Bear Bay	CM	35	0.53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Bear Bay	CM	37	0.55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Bear Bay	PK	34	0.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Bear Bay	PK	32	0.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Bear Bay	PK	30	0.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Bear Bay	PK	32	0.31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Bear Bay	PK	33	0.35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Bear Bay	PK	30	0.22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Bear Bay	PK	34	0.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Cordero	CM	40	0.47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Cordero	CM	41	0.63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	CM	36	0.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	CM	34	0.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	CM	36	0.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	CM	36	0.36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	CM	38	0.53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	CM	36	0.46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	CM	37	0.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	CM	39	0.57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	CM	35	0.47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
9-Apr-17	Deep Water Bay	CM	35	0.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	CM	37	0.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	CM	39	0.48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	CM	35	0.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	CM	41	0.72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	CM	35	0.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	CM	37	0.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	CM	39	0.62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	CM	37	0.58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	PK	32	0.32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	PK	34	0.36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	PK	32	0.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	PK	34	0.36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	PK	34	0.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	PK	33	0.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	PK	30	0.29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	PK	33	0.32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	PK	29	0.27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	PK	33	0.29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	PK	31	0.33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	PK	29	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	CM	37	0.46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	CM	34	0.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	CM	39	0.56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	CM	40	0.65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	CM	36	0.49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	CM	37	0.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	CM	39	0.61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	CM	35	0.48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	CM	38	0.47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	CM	37	0.49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	CM	36	0.46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	CM	34	0.46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	CM	37	0.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	CM	32	0.32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	PK	31	0.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	PK	30	0.26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	PK	30	0.26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	PK	31	0.26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	PK	32	0.26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	PK	29	0.20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	PK	30	0.23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	PK	30	0.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	PK	33	0.31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
9-Apr-17	Deep Water Bay	PK	29	0.23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	PK	30	0.18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	PK	31	0.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	PK	27	0.19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	PK	33	0.29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	PK	29	0.21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Deep Water Bay	PK	31	0.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Discovery	CM	37	0.53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Discovery	CM	40	0.69	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Discovery	CM	41	0.67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Discovery	CM	38	0.47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Discovery	CM	35	0.43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Discovery	CM	36	0.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Discovery	CM	38	0.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Discovery	CM	37	0.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Discovery	PK	34	0.29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Discovery	CM	45	1.06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Discovery	PK	34	0.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Discovery	CM	36	0.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Discovery	CM	36	0.48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Discovery	CM	41	0.58	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Discovery	CM	35	0.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Discovery	CM	35	0.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Discovery	CM	35	0.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Discovery	CM	38	0.55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Discovery	CM	39	0.66	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
9-Apr-17	Discovery	CM	38	0.54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Discovery	CM	51	1.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Discovery	CM	42	0.84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Discovery	CM	35	0.39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Discovery	CM	36	0.46	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Discovery	CM	38	0.56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Discovery	CM	41	0.68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Discovery	CM	38	0.53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Discovery	CM	37	0.55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Discovery	CM	37	0.50	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
9-Apr-17	Discovery	CM	38	0.67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Discovery	CM	37	0.39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Fanny Bay	CM	37	0.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Fanny Bay	CM	34	0.39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Fanny Bay	CM	35	0.29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Fanny Bay	CM	37	0.33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Fanny Bay	PK	33	0.22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Knox Bay	PK	32	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
9-Apr-17	Knox Bay	PK	32	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Knox Bay	PK	27	0.16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Knox Bay	CM	34	0.34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Knox Bay	CM	35	0.39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Knox Bay	CM	36	0.48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Knox Bay	CM	35	0.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Knox Bay	CM	31	0.34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Knox Bay	CM	35	0.41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Knox Bay	CM	35	0.35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Knox Bay	CH	34	0.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Knox Bay	CM	36	0.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Knox Bay	CM	40	0.53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Knox Bay	CM	32	0.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Knox Bay	CM	35	0.46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Knox Bay	CM	34	0.34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Knox Bay	CM	40	0.55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Knox Bay	CM	37	0.55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Knox Bay	CM	33	0.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Knox Bay	CM	35	0.36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	CM	39	0.58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	CM	36	0.57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	CM	36	0.41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	CM	37	0.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	CM	35	0.31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	CM	35	0.35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	CM	38	0.59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	CM	39	0.54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	PK	35	0.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	PK	34	0.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	PK	35	0.33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	PK	32	0.26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	PK	35	0.36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	PK	41	0.64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	PK	34	0.26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	PK	31	0.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	PK	34	0.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	PK	41	0.60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	PK	35	0.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	PK	32	0.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	PK	32	0.23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	PK	30	0.17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	PK	35	0.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	PK	33	0.29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	PK	33	0.26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
9-Apr-17	Nodales	PK	33	0.27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	PK	34	0.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	PK	34	0.31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	PK	33	0.32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	PK	33	0.27	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	PK	34	0.26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	PK	37	0.47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	PK	35	0.39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	PK	32	0.26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	PK	34	0.32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	PK	32	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	PK	41	0.69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	PK	34	0.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	CM	39	0.62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	CM	32	0.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	CM	35	0.36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	CM	41	0.63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	CM	40	0.67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	CM	60	2.18	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	CM	36	0.48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	CM	37	0.60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Nodales	CM	40	0.73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Okisollo	CM	34	0.35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Okisollo	CM	37	0.47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Okisollo	CM	35	0.46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Okisollo	CM	36	0.49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Okisollo	CM	40	0.67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Okisollo	CM	36	0.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Okisollo	CM	33	0.36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Okisollo	CM	35	0.46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Okisollo	CM	38	0.47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Okisollo	CM	30	0.43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Okisollo	CM	39	0.49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Okisollo	CM	34	0.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Okisollo	CM	36	0.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Okisollo	CM	37	0.53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Okisollo	CM	35	0.47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Okisollo	CM	33	0.34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Okisollo	CM	36	0.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Okisollo	CM	35	0.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Okisollo	CM	35	0.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Okisollo	CM	38	0.46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Okisollo	CM	32	0.36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Okisollo	CM	35	0.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
9-Apr-17	Okisollo	CM	34	0.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Okisollo	CM	36	0.43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Okisollo	CM	36	0.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Okisollo	CM	38	0.54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Okisollo	CM	35	0.41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Okisollo	CM	32	0.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Okisollo	CM	31	0.29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Okisollo	CM	36	0.40	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Okisollo	PK	33	0.34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Owen Bay	CM	39	0.47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Owen Bay	CM	37	0.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Owen Bay	CM	42	0.68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Owen Bay	CM	43	0.73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Owen Bay	CM	34	0.33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Owen Bay	CM	37	0.47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Owen Bay	CM	56	1.94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Owen Bay	CM	57	1.97	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Owen Bay	CM	47	0.94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Owen Bay	CM	45	0.99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Owen Bay	CM	35	0.49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Owen Bay	CM	37	0.55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Owen Bay	CM	36	0.47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Owen Bay	CM	35	0.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Shoal Bay	CM	37	0.48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Shoal Bay	CM	37	0.41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Shoal Bay	CM	40	0.48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Shoal Bay	CM	37	0.39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr-17	Shoal Bay	CM	38	0.49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	CM	35	0.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	CM	36	0.54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	CM	35	0.41	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
10-Apr-17	Bessaborough	CM	38	0.52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	CM	37	0.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	CM	38	0.54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	CM	36	0.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	CM	37	0.47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	CM	40	0.71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	CM	41	0.78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	CM	37	0.52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	CM	35	0.49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	CM	37	0.52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	PK	32	0.27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	PK	35	0.35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	PK	33	0.34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
10-Apr-17	Bessaborough	PK	32	0.23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	PK	30	0.27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	PK	35	0.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	PK	35	0.32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	PK	33	0.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	PK	34	0.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	PK	34	0.36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	PK	32	0.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	PK	33	0.33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	PK	33	0.36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	PK	35	0.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	PK	33	0.31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	PK	33	0.29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	CM	39	0.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	CM	35	0.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	CM	38	0.52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	CM	37	0.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	CM	36	0.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	CM	39	0.56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	PK	33	0.39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	CM	41	0.73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	PK	36	0.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	CM	38	0.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	CM	40	0.60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	CM	37	0.47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	CM	35	0.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	CM	37	0.43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	CM	34	0.32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	CM	35	0.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	CM	39	0.53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	CM	41	0.58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	CM	38	0.53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	CM	37	0.58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	CM	35	0.43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	PK	35	0.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	PK	34	0.33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	PK	32	0.31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	PK	34	0.32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	PK	33	0.33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	PK	32	0.26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	PK	32	0.31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	PK	32	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	PK	33	0.31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Bessaborough	PK	33	0.32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
10-Apr-17	Bessaborough	PK	41	0.73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Blenkinshop Bay	TSB	31	0.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Blenkinshop Bay	CM	35	0.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Blenkinshop Bay	CM	37	0.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Blenkinshop Bay	CM	36	0.55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Blenkinshop Bay	CM	34	0.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Blenkinshop Bay	CM	34	0.39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Blenkinshop Bay	CM	35	0.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Blenkinshop Bay	CM	35	0.53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Blenkinshop Bay	CM	39	0.49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Blenkinshop Bay	CM	36	0.48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Blenkinshop Bay	CM	37	0.47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Blenkinshop Bay	CM	33	0.33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Blenkinshop Bay	CM	36	0.57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Blenkinshop Bay	CM	35	0.54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Blenkinshop Bay	CM	34	0.41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Blenkinshop Bay	CM	37	0.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Blenkinshop Bay	CM	34	0.32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Blenkinshop Bay	CM	36	0.43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Blenkinshop Bay	CM	37	0.48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Blenkinshop Bay	CM	36	0.39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Blenkinshop Bay	PK	32	0.23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Blenkinshop Bay	PK	32	0.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Blenkinshop Bay	PK	32	0.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Blenkinshop Bay	PK	31	0.19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Blenkinshop Bay	PK	32	0.26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Blenkinshop Bay	PK	30	0.21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Blenkinshop Bay	PK	34	0.39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Chancellor	CM	35	0.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 1	PK	32	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 1	CO	154	41.03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 1	CO	157	44.78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 1	CO	149	43.31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 1	PK	30	0.21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	CM	38	0.46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	CM	35	0.34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	CM	35	0.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	CM	35	0.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	CM	37	0.49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	CM	33	0.31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	CM	36	0.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	CM	34	0.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	CM	36	0.43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	CM	34	0.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
10-Apr-17	Primary 3	CM	34	0.39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	CM	35	0.35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	CM	33	0.29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	CM	34	0.36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	CM	39	0.71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	CM	31	0.26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	CM	35	0.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	CM	36	0.50	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	CM	36	0.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	PK	34	0.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	PK	33	0.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	PK	34	0.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	PK	32	0.22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	PK	31	0.26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	PK	32	0.27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	PK	34	0.29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	PK	33	0.27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	PK	31	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	PK	31	0.26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	PK	32	0.23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	PK	30	0.21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	PK	33	0.29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	PK	34	0.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	PK	33	0.27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	PK	33	0.29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	PK	31	0.26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	PK	28	0.17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	PK	32	0.23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	PK	28	0.16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	PK	31	0.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	CM	36	0.39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	CM	31	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	CM	35	0.36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	CM	36	0.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	CM	33	0.31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	CM	36	0.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	CM	37	0.47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	CM	36	0.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	CM	35	0.35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	CM	36	0.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	CM	37	0.53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	CM	33	0.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	PK	33	0.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	CM	37	0.47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
10-Apr-17	Primary 3	CM	33	0.35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Primary 3	PK	31	0.21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Wellbore	CM	35	0.34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Wellbore	CM	41	0.53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Wellbore	CM	37	0.41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Wellbore	CM	37	0.46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr-17	Wellbore	PK	34	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	CM	35	0.50	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0	0	0	4
11-Apr-17	Fransisco	CM	37	0.47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	CM	36	0.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	CM	36	0.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	CM	35	0.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	CM	36	0.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	CM	34	0.41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	CM	36	0.43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	CM	37	0.49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	CM	38	0.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	CM	38	0.58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	PK	30	0.19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	PK	31	0.23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	PK	31	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	PK	27	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	PK	29	0.24	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
11-Apr-17	Fransisco	PK	31	0.22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	PK	32	0.27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	PK	33	0.31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	PK	33	0.29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	PK	32	0.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	PK	33	0.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	PK	32	0.23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	PK	35	0.39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	PK	33	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	PK	30	0.23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	PK	32	0.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	PK	33	0.32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	PK	32	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	PK	32	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	PK	33	0.31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	PK	31	0.27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	PK	37	0.67	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
11-Apr-17	Fransisco	PK	33	0.40	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
11-Apr-17	Fransisco	PK	33	0.32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	PK	32	0.27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	PK	32	0.26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
11-Apr-17	Fransisco	PK	34	0.29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	PK	31	0.26	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
11-Apr-17	Fransisco	PK	32	0.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	PK	33	0.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	PK	32	0.27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Fransisco	PK	30	0.22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Marina Is.	PK	31	0.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Marina Is.	PK	34	0.38	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	6
11-Apr-17	Marina Is.	PK	33	0.29	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3
11-Apr-17	Marina Is.	PK	34	0.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Marina Is.	PK	32	0.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Marina Is.	PK	31	0.35	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
11-Apr-17	Marina Is.	PK	33	0.29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Marina Is.	PK	31	0.26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Marina Is.	PK	35	0.37	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
11-Apr-17	Marina Is.	PK	32	0.36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Marina Is.	PK	34	0.30	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3
11-Apr-17	Marina Is.	PK	37	0.54	0	1	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	0	5
11-Apr-17	Marina Is.	PK	31	0.29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Marina Is.	PK	33	0.28	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
11-Apr-17	Marina Is.	PK	34	0.34	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
11-Apr-17	Marina Is.	PK	32	0.30	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	3
11-Apr-17	Marina Is.	PK	35	0.38	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	3
11-Apr-17	Marina Is.	PK	32	0.37	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
11-Apr-17	Marina Is.	PK	32	0.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Marina Is.	PK	33	0.34	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
11-Apr-17	Marina Is.	PK	35	0.45	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
11-Apr-17	Marina Is.	PK	31	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Marina Is.	PK	31	0.27	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
11-Apr-17	Marina Is.	PK	38	0.46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Marina Is.	PK	31	0.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Marina Is.	PK	33	0.36	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
11-Apr-17	Marina Is.	PK	32	0.28	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
11-Apr-17	Marina Is.	PK	35	0.37	0	0	0	0	0	0	0	0	0	0	4	3	0	0	0	0	0	0	0	7
11-Apr-17	Marina Is.	PK	34	0.42	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	0	0	0	0	5
11-Apr-17	Marina Is.	CM	39	0.63	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	3
11-Apr-17	Marina Is.	CM	37	0.46	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	4
11-Apr-17	Marina Is.	CM	35	0.45	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0	0	0	4
11-Apr-17	Marina Is.	CM	37	0.58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Marina Is.	CM	36	0.50	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	0	5
11-Apr-17	Marina Is.	CM	39	0.61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Marina Is.	CM	35	0.54	0	0	0	0	0	0	0	0	0	0	1	5	0	0	0	0	0	0	0	6
11-Apr-17	Marina Is.	CM	37	0.62	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	3
11-Apr-17	Marina Is.	CM	35	0.44	0	0	0	0	0	0	0	0	0	0	2	5	0	0	0	0	0	0	0	7

Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
11-Apr-17	Marina Is.	CM	36	0.49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Marina Is.	CM	36	0.56	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
11-Apr-17	Marina Is.	CM	34	0.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Marina Is.	CM	39	0.56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Marina Is.	CM	36	0.48	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3
11-Apr-17	Marina Is.	CM	40	0.64	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	3
11-Apr-17	Marina Is.	CM	42	0.71	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
11-Apr-17	Marina Is.	CM	36	0.51	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
11-Apr-17	Marina Is.	CM	38	0.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Marina Is.	CM	38	0.50	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2
11-Apr-17	Marina Is.	CM	36	0.54	0	0	0	0	0	0	0	0	0	0	4	6	0	0	0	0	0	0	0	10
11-Apr-17	Marina Is.	CM	36	0.38	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	3
11-Apr-17	Marina Is.	CM	36	0.50	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
11-Apr-17	Marina Is.	CM	35	0.41	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
11-Apr-17	Marina Is.	CM	36	0.44	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3
11-Apr-17	Marina Is.	CM	43	0.87	0	0	0	0	0	0	0	0	0	0	2	2	1	0	0	0	0	0	0	5
11-Apr-17	Marina Is.	CM	36	0.53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Marina Is.	CM	34	0.41	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
11-Apr-17	Marina Is.	CM	37	0.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Marina Is.	CM	35	0.43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Marina Is.	CM	36	0.48	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
11-Apr-17	Marina Is.	CM	38	0.56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	RAZA	PK	33	0.27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	RAZA	CM	35	0.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	RAZA	CM	39	0.57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	RAZA	CM	33	0.39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	RAZA	CM	55	1.86	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	RAZA	CM	34	0.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	RAZA	CM	37	0.46	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
11-Apr-17	RAZA	CM	33	0.31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	RAZA	CM	44	0.84	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
11-Apr-17	RAZA	CM	43	0.85	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
11-Apr-17	RAZA	CM	39	0.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	RAZA	CM	40	0.62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	RAZA	CM	35	0.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	RAZA	CM	38	0.46	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
11-Apr-17	RAZA	CM	40	0.65	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
11-Apr-17	RAZA	CM	35	0.39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	RAZA	CM	35	1.67	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
11-Apr-17	RAZA	CM	55	1.63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	RAZA	CM	39	0.57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	RAZA	CM	56	1.97	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
11-Apr-17	RAZA	CM	41	0.62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	RAZA	CM	36	0.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
11-Apr-17	RAZA	CM	39	0.62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	RAZA	CM	42	0.78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	RAZA	CM	36	0.46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	RAZA	CM	38	0.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	RAZA	CM	37	0.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	RAZA	CM	42	0.79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	RAZA	CM	37	0.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	RAZA	CM	38	0.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	RAZA	CM	38	0.54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	RAZA North	CM	38	0.47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	RAZA North	CM	36	0.36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	RAZA North	CM	37	0.46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Rebecca SPit	CM	36	0.49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	Rebecca SPit	CM	35	0.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr-17	SE Hill SPit	PK	34	0.39	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
11-Apr-17	SE Hill SPit	PK	31	0.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CM	42	0.72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CM	46	0.93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CM	44	0.93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CM	41	0.76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CM	41	0.65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CM	38	0.62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CM	43	0.92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CM	48	1.19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CM	48	1.07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CM	49	1.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CM	43	0.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CM	44	0.96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CM	44	0.82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CM	39	0.55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CM	48	1.08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CM	45	0.85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CM	38	0.65	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
23-May-17	Deep Water Bay	CM	46	1.10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CM	45	0.94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CM	46	0.92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CM	68	3.59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CM	42	0.65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CM	46	0.99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CM	47	0.96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CM	48	1.18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CM	49	1.21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CM	47	1.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CM	43	0.78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
23-May-17	Deep Water Bay	CM	51	1.52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CM	48	1.34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CH	49	1.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CH	52	2.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CO	80	6.55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CO	79	5.91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CO	96	11.12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CO	75	5.12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CO	80	6.03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CO	84	7.77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CO	88	8.55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CO	78	5.21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CO	85	7.54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Deep Water Bay	CO	90	9.46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
23-May-17	Fransisco	CH	47	1.33	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CH	39	0.72	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
23-May-17	Fransisco	CH	52	1.82	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
23-May-17	Fransisco	CH	49	1.43	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
23-May-17	Fransisco	CO	78	5.35	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
23-May-17	Fransisco	CO	88	7.48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CO	98	9.02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CO	108	13.97	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
23-May-17	Fransisco	CO	87	7.91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CO	92	10.04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CO	83	6.89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CO	85	7.10	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CO	113	18.03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CO	92	8.72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CM	40	0.58	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CM	38	0.55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CM	36	0.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CM	35	0.44	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
23-May-17	Fransisco	CM	46	0.97	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
23-May-17	Fransisco	CM	45	0.73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CM	40	0.64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CM	40	0.65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CM	43	0.82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CM	44	0.92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CM	53	1.61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CM	49	1.39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CM	38	0.56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CM	36	0.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CM	38	0.54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CM	48	1.17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
23-May-17	Fransisco	CM	47	1.08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CM	40	0.67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CM	44	0.88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CM	38	0.61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CM	36	0.35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CM	43	0.85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CM	38	0.68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CM	48	1.14	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	2
23-May-17	Fransisco	CM	38	0.49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CM	39	0.48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CM	42	0.72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CM	41	0.80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CM	37	0.49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Fransisco	CM	41	0.69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Marina Island	CO	102	13.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Marina Island	CO	82	6.94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Marina Island	CO	89	8.61	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
23-May-17	Marina Island	CO	92	10.57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Marina Island	CO	93	10.19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Marina Island	CO	92	8.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Marina Island	CO	89	8.67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Marina Island	CM	41	0.63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Marina Island	CH	97	10.83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Marina Island	CH	83	6.77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Marina Island	CH	92	10.59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Marina Island	CH	96	11.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Marina Island	CH	94	10.13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Marina Island	CH	89	8.62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Okisollo	CM	49	1.60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Okisollo	CM	52	1.63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Okisollo	CM	39	0.63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Okisollo	CM	45	1.03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Okisollo	CM	51	1.59	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
23-May-17	Okisollo	CM	43	0.93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Okisollo	CM	46	1.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Okisollo	CM	52	1.78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Okisollo	CM	48	1.12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Okisollo	CM	49	1.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Okisollo	CM	65	3.14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Okisollo	CM	44	1.02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Okisollo	CM	43	0.93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Okisollo	CM	41	0.81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Okisollo	CM	62	2.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Okisollo	CM	48	1.22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
23-May-17	Okisollo	CM	36	0.53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Okisollo	CM	44	0.91	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
23-May-17	Okisollo	CM	62	3.02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Okisollo	CM	61	2.74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Okisollo	CM	37	0.47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Okisollo	CM	52	1.52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Okisollo	CM	52	1.60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Okisollo	CM	40	0.62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Okisollo	CM	48	1.33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Okisollo	CM	39	0.65	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
23-May-17	Okisollo	CM	42	0.91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Okisollo	CM	60	2.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Okisollo	CM	46	1.29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Okisollo	CM	54	1.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Owen Bay	CM	50	1.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Owen Bay	CM	39	0.58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Owen Bay	CM	38	0.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Owen Bay	CM	35	0.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Owen Bay	CM	36	0.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Owen Bay	CM	38	0.60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Owen Bay	CM	41	0.78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Owen Bay	CM	39	0.73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Owen Bay	CM	45	1.11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Penn Island	CM	38	0.64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Penn Island	CM	40	0.61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Penn Island	CM	40	0.78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Penn Island	CM	60	2.36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Penn Island	CM	37	0.68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Penn Island	CM	40	0.70	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
23-May-17	Penn Island	CM	36	0.39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Penn Island	CM	38	0.62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Penn Island	CM	64	3.17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Penn Island	CM	35	0.36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Penn Island	CM	47	1.40	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
23-May-17	Penn Island	CM	48	1.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Penn Island	CM	37	0.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Penn Island	CM	40	0.63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Penn Island	CM	44	0.92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Penn Island	CM	40	0.69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Penn Island	CM	41	0.85	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
23-May-17	Penn Island	CM	53	1.75	0	1	0	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
23-May-17	Penn Island	CM	42	0.87	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Penn Island	CM	47	1.12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Penn Island	CM	38	0.65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
23-May-17	Penn Island	CM	35	0.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Penn Island	CM	50	1.65	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
23-May-17	Penn Island	CM	44	1.08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Penn Island	CM	41	0.73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Penn Island	CM	43	0.85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Penn Island	CM	39	0.72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Penn Island	CM	37	0.47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Penn Island	CM	36	0.43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Penn Island	CM	38	0.53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza	CO	97	11.56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza	CO	68	3.46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza	CO	81	6.80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza	CM	35	0.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza	CM	36	0.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza	CM	64	2.83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza	CM	40	0.54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza	CM	38	0.49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza	CM	36	0.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza	CM	37	0.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza	CM	37	0.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza	CM	37	0.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza	CM	50	1.18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza	CM	36	0.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza	CM	50	1.29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza	CM	37	0.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza	CM	43	0.82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza	CM	36	0.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza	CM	34	0.36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza	CM	66	3.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza	CM	40	0.67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza	CM	38	0.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza	CM	38	0.48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza	CM	33	0.34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza	CM	57	2.01	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1
23-May-17	Raza	CM	49	1.21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza	CM	36	0.43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza	CM	35	0.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza	CM	48	1.29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza	CM	35	0.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza	CM	35	0.36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza	CM	36	0.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza	CM	35	0.39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza North	CM	36	0.39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza North	CM	37	0.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
23-May-17	Raza North	CM	38	0.48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza North	CM	35	0.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza North	CM	36	0.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza North	CM	37	0.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza North	CM	35	0.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza North	CM	37	0.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza North	CM	37	0.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza North	CM	37	0.49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza North	CM	38	0.56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza North	CM	36	0.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza North	CM	38	0.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza North	CM	35	0.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza North	CM	35	0.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza North	CM	34	0.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza North	CM	35	0.39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza North	CM	37	0.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza North	CM	36	0.43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza North	CM	38	0.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza North	CM	36	0.48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza North	CM	36	0.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza North	CM	36	0.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza North	CM	38	0.48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza North	CM	38	0.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza North	CM	35	0.36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza North	CM	39	0.62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza North	CM	35	0.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza North	CM	36	0.43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Raza North	CM	37	0.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	PK	75	4.73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CM	36	0.46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	PK	40	0.71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	PK	41	0.68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CM	37	0.58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CM	56	2.21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	PK	46	1.06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	PK	64	2.69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	PK	70	3.70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CO	82	7.81	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CM	78	5.74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CM	79	5.36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CM	85	6.17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CM	39	1.07	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CM	44	0.96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CM	76	5.78	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2

Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
23-May-17	Rebecca Spit	CM	45	0.98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CM	60	2.43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CM	41	0.65	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
23-May-17	Rebecca Spit	CM	40	0.61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CM	43	0.83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CM	35	0.43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CM	42	0.92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CM	46	1.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CM	43	0.79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CM	38	0.64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CM	44	1.02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CM	61	2.43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CM	46	1.14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CM	48	1.23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CM	62	2.70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CM	70	3.76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CM	50	1.41	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
23-May-17	Rebecca Spit	CM	40	0.70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CO	98	12.01	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
23-May-17	Rebecca Spit	CO	87	8.17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CO	79	5.80	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	2
23-May-17	Rebecca Spit	CO	89	9.70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CO	101	15.18	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CO	85	8.05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CO	85	8.74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CO	104	14.07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CO	80	6.73	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CO	94	10.62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CO	109	15.06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CO	91	10.81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CO	85	9.01	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CO	84	8.21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CO	93	10.77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	Rebecca Spit	CO	85	8.33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	SE Hill Island	CM	41	0.70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
23-May-17	SE Hill Island	CM	39	0.61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	SE Hill Island	CM	40	0.55	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
23-May-17	SE Hill Island	CM	39	0.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	SE Hill Island	CM	37	0.58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	SE Hill Island	CM	40	0.73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	SE Hill Island	CM	35	0.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	SE Hill Island	CM	35	0.34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	SE Hill Island	CM	37	0.57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	SE Hill Island	CM	40	0.74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
23-May-17	SE Hill Island	CM	41	0.67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	SE Hill Island	CM	40	0.74	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
23-May-17	SE Hill Island	CM	36	0.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	SE Hill Island	CM	40	0.68	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
23-May-17	SE Hill Island	CM	35	0.34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	SE Hill Island	CM	36	0.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	SE Hill Island	CM	40	0.73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	SE Hill Island	CM	36	0.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	SE Hill Island	CM	40	0.68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	SE Hill Island	CM	39	0.58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May-17	SE Hill Island	CM	35	0.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	PK	48	1.08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	PK	48	1.09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	PK	47	1.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	PK	45	0.89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	PK	45	0.83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	PK	45	0.80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	PK	38	0.60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	PK	46	0.99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	PK	48	0.98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	PK	49	0.92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	PK	41	0.65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	PK	46	0.91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	PK	39	0.62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	PK	45	0.83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	PK	39	0.54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	PK	47	1.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	PK	42	0.79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	PK	41	0.67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	PK	45	0.90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	PK	45	0.88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	PK	50	1.32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	PK	46	0.87	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	PK	44	0.83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	PK	45	0.92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	PK	46	1.03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	PK	45	0.93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	PK	50	1.33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	PK	44	0.93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	PK	50	1.13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	PK	44	0.85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	PK	50	1.18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	CM	41	0.74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	CM	41	0.71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
25-May-17	Bear Bay	CM	42	0.81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	CM	49	1.16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	CM	41	0.68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	CM	50	1.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	CM	42	0.87	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	CM	43	0.81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	CM	48	1.19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	CM	46	1.11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	CM	37	0.46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	CM	50	1.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	CM	56	1.89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	CM	37	0.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	CM	50	1.35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	CM	50	1.20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	CM	36	0.52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	CM	35	0.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	CM	42	0.73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	CM	44	0.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	CM	42	0.74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	CM	45	0.88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	CM	45	0.98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	CM	45	0.90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	CM	39	0.61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	CM	43	0.81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	CM	41	0.80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	CM	48	1.34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	CM	54	1.56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bear Bay	CM	37	0.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bickley Bay	CM	54	1.64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bickley Bay	CM	63	2.61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bickley Bay	CM	41	0.68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bickley Bay	CM	58	2.10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bickley Bay	CM	47	1.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bickley Bay	CM	46	1.22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bickley Bay	CM	44	0.92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bickley Bay	CM	48	1.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bickley Bay	CM	46	0.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bickley Bay	CM	46	1.10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bickley Bay	CM	50	1.41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bickley Bay	CM	50	1.14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bickley Bay	CM	57	1.90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bickley Bay	CM	51	1.07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bickley Bay	CM	42	0.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bickley Bay	CM	47	1.08	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0

Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
25-May-17	Bickley Bay	CM	54	1.72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bickley Bay	CM	41	0.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bickley Bay	CM	40	0.64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bickley Bay	CM	42	0.68	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
25-May-17	Bickley Bay	CM	50	1.36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bickley Bay	CM	45	0.92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bickley Bay	CM	39	0.62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bickley Bay	CM	48	1.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bickley Bay	CM	47	1.20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bickley Bay	CM	42	0.91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bickley Bay	CM	45	1.12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bickley Bay	CM	53	1.67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bickley Bay	CM	50	1.31	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
25-May-17	Bickley Bay	CM	42	0.80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bickley Bay	PK	41	0.67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bickley Bay	PK	44	0.78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Bickley Bay	PK	50	1.26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Cordero	CM	36	0.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	CM	59	2.21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	CM	42	0.77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	CM	36	0.53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	CM	42	0.82	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
25-May-17	Discovery	CM	53	1.92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	CM	38	0.58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	CM	53	1.87	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	CM	54	1.76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	CM	53	1.82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	CM	59	2.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	CM	54	1.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	CM	58	1.94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	CM	62	2.55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	CM	60	2.33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
25-May-17	Discovery	CM	53	2.04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	CM	41	0.70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	CM	54	1.92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	CM	46	1.10	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	CM	56	1.83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	CM	52	1.63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	CM	35	0.34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
25-May-17	Discovery	CM	61	2.53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	CM	41	0.81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	CM	44	0.97	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
25-May-17	Discovery	CM	55	1.92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	CM	34	0.39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
25-May-17	Discovery	CM	53	0.74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	CM	55	1.66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	CM	57	2.08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	CM	57	2.12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	CM	45	1.05	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
25-May-17	Discovery	PK	65	2.92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	PK	55	1.52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	PK	43	0.78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	PK	49	1.29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	PK	56	1.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	PK	67	3.05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	PK	50	1.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	PK	41	0.68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	PK	56	1.81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	PK	55	1.71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	PK	50	1.41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	PK	64	2.80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	PK	52	1.49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	PK	37	0.49	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
25-May-17	Discovery	PK	50	1.30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
25-May-17	Discovery	PK	67	3.09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	PK	55	1.68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	PK	52	1.41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	PK	65	2.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	PK	52	1.67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	PK	56	1.89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	PK	53	1.40	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
25-May-17	Discovery	PK	67	2.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	PK	57	1.96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	PK	49	1.27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	PK	65	2.87	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	PK	59	2.49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	PK	36	0.46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	PK	52	1.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Discovery	PK	53	1.54	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	PK	55	1.71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CM	37	0.47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CM	54	1.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CM	40	0.69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CM	42	0.69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CH	49	1.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CM	34	0.33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CM	39	0.70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CM	35	0.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
25-May-17	Fanny Bay	CM	29	0.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CM	60	2.46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CM	48	1.23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CM	35	0.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CM	58	1.89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CM	44	0.80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CM	40	0.66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CM	43	0.89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CM	47	1.18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CM	52	1.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CM	53	1.58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CM	40	0.66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CM	41	0.74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CM	50	2.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CM	44	0.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CM	48	0.99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CM	45	1.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CM	41	0.85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CM	43	0.88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CM	39	0.82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CM	40	0.70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CM	33	0.47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CM	52	1.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CH	55	1.80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CH	45	1.23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CH	44	1.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CH	57	2.02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CH	49	1.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CH	51	1.66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CH	40	0.76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CH	44	1.03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CH	49	1.27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Fanny Bay	CH	56	2.29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	PK	38	0.69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	PK	51	1.48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	PK	46	0.91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	PK	51	1.20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	PK	61	2.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	PK	42	0.70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	PK	45	0.84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	PK	56	1.92	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
25-May-17	Knox Bay	PK	44	0.79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	PK	40	0.64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	PK	41	0.77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
25-May-17	Knox Bay	PK	39	0.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	CM	45	0.99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	CM	57	1.98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	CM	39	0.64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	CM	46	0.93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	CM	55	1.78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	CM	39	0.71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	CM	43	0.87	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	CM	56	1.99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	CM	39	0.86	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	CM	57	2.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	CM	50	1.33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	CM	41	0.87	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	CM	34	0.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	CM	42	0.82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	CM	40	0.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	CM	50	1.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	CM	37	0.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	CM	61	2.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	CM	46	0.99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	CM	40	0.60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	CM	55	1.99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	CM	44	1.10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	CM	43	0.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	CM	58	2.57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	CM	43	0.96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	CM	45	1.03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	CM	43	0.81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	CM	57	2.08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	CM	40	0.67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Knox Bay	CM	63	3.09	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
25-May-17	Knox Bay	CM	62	2.94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	PK	42	0.75	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	PK	67	3.01	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
25-May-17	Nodales	PK	39	0.67	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
25-May-17	Nodales	PK	61	2.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	PK	43	0.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	PK	53	1.77	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
25-May-17	Nodales	PK	47	1.08	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
25-May-17	Nodales	PK	49	1.26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	PK	52	1.36	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	PK	59	2.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	PK	42	0.73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	PK	55	1.66	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1

Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
25-May-17	Nodales	PK	38	0.55	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	PK	46	1.13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	PK	65	2.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	PK	65	3.31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	PK	61	2.36	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	PK	55	1.74	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	PK	59	2.20	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
25-May-17	Nodales	PK	44	0.95	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	PK	58	2.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	PK	45	1.03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	PK	65	2.67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	PK	50	1.31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	PK	49	1.18	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
25-May-17	Nodales	PK	57	1.89	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	PK	45	0.91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	PK	42	0.86	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
25-May-17	Nodales	PK	56	1.93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	PK	57	1.93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	CM	37	0.59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	CM	47	1.10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	CM	42	0.87	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
25-May-17	Nodales	CM	51	1.56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	CM	60	2.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	CM	55	1.97	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	CM	33	0.39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	CM	49	0.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	CM	56	1.80	0	0	0	0	0	1	0	0	0	1	0	2	0	0	0	0	0	0	0	2
25-May-17	Nodales	CM	44	0.97	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	CM	37	0.49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	CM	44	1.05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	CM	41	0.85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	CM	47	1.18	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	CM	41	0.69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	CM	37	0.50	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
25-May-17	Nodales	CM	47	1.16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	CM	46	1.12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	CM	66	3.97	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	CM	60	2.48	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	CM	36	0.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	CM	38	0.59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	CM	35	0.52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	CM	39	0.66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	CM	36	0.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	CM	58	2.63	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0

Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
25-May-17	Nodales	CM	40	0.73	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	CM	39	0.69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Nodales	CM	46	1.19	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
25-May-17	Nodales	CM	37	0.53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	CH	99	12.09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	PK	61	2.29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	PK	38	0.57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	PK	49	1.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	PK	60	2.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	PK	65	2.52	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
25-May-17	Rock Bay	CM	49	1.23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	CM	57	1.77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	CM	51	1.46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	CM	53	1.58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	CM	59	2.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	CM	62	2.64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	CM	47	1.16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	CM	63	2.82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	CM	49	1.31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	CM	55	2.02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	CM	64	2.49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	CM	53	1.71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	CM	61	2.59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	CM	69	3.96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	CM	51	1.47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	CM	46	1.14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	CM	50	1.34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	CM	49	1.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	CM	62	2.93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	CM	49	1.35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	CM	65	3.02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	CM	40	0.67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	CM	57	2.12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	CM	55	1.77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	CM	51	1.63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	CM	54	1.99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	CM	44	0.90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	CM	55	1.65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	CM	38	0.61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Rock Bay	CM	52	1.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	CM	47	1.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	CM	37	0.57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	CM	36	0.48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	CM	34	0.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
25-May-17	Shoal Bay	CM	36	0.64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	CM	36	0.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	CM	36	0.39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	CM	36	0.58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	CM	36	0.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	CM	35	0.47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	CM	37	0.56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	CM	31	0.34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	CM	37	0.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	CM	35	0.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	CM	33	0.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	CM	36	0.48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	CM	37	0.53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	CM	38	0.52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	CM	38	0.55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	CM	38	0.59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	CM	39	0.68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	CM	43	1.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	CM	42	0.74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	CM	42	0.66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	CM	36	0.43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	CM	38	0.62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	CM	38	0.61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	CM	36	0.60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	CM	37	0.66	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	CM	32	0.46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	PK	28	0.20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	PK	34	0.50	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	PK	38	0.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	PK	36	0.43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	PK	35	0.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	PK	29	0.27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	PK	35	0.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May-17	Shoal Bay	PK	30	0.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	PK	42	0.76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	PK	45	1.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	PK	51	1.33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	PK	31	0.26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	PK	32	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	PK	62	2.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	PK	58	1.90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	PK	59	1.90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	PK	50	1.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	PK	46	0.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
26-May-17	Bessborough Bay	PK	60	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	PK	54	1.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	CM	52	1.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	CM	43	0.80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	CM	51	1.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	CM	62	2.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	CM	49	1.20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	CM	39	0.66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	CM	48	1.10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	CM	52	1.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	CM	46	1.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	CM	50	1.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	CM	51	1.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	CM	41	0.70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	CM	44	1.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	CM	49	1.31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	CM	62	2.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	CM	60	2.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	CM	46	0.91	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
26-May-17	Bessborough Bay	CM	50	1.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	CM	49	1.20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	CM	55	1.90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	CM	41	0.77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	CM	54	1.55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	CM	48	1.16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	CM	44	0.84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	CM	54	1.72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	CM	58	2.22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	CM	55	1.96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Bessborough Bay	CM	57	2.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Blenkinsop Bay	CO	89	7.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Blenkinsop Bay	CM	33	0.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Chancellor	CM	58	2.58	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
26-May-17	Chancellor	CM	44	1.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Chancellor	CM	51	1.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Chancellor	CM	43	1.03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Chancellor	CM	45	1.22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CO	90	8.79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CO	96	11.36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CO	87	8.53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CO	86	8.60	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
26-May-17	Primary 1	CO	88	8.31	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
26-May-17	Primary 1	CO	108	17.64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	PK	37	0.32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
26-May-17	Primary 1	PK	39	0.52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	PK	41	0.68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	PK	40	0.55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	PK	49	1.09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	PK	46	0.78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	PK	49	1.08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	PK	38	0.48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	PK	45	0.87	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	PK	47	0.87	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	PK	37	0.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	PK	53	1.23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	PK	41	0.56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CM	46	1.20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CM	51	1.21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CM	35	0.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CM	36	0.32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CM	34	0.33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CM	47	1.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CM	34	0.32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CM	33	0.35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CM	38	0.53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CM	34	0.32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CM	35	0.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CM	35	0.36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CM	41	0.60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CM	36	0.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CM	45	0.73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CM	35	0.34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CM	47	0.92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CM	39	0.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CM	34	0.33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CM	45	0.81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CM	38	0.59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CM	41	0.71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CM	49	1.23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CM	40	0.57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CM	35	0.34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CM	44	0.89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CM	68	3.22	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
26-May-17	Primary 1	CM	37	0.52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CM	35	0.34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 1	CM	36	0.34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 3	CO	95	7.18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 3	CO	98	10.67	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1

Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
26-May-17	Primary 3	CO	76	6.17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 3	CO	96	9.81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 3	CO	95	11.41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 3	CO	87	5.67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 3	CO	84	6.80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 3	CO	95	9.19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 3	CO	86	7.49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 3	CO	105	13.53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 3	CO	80	6.56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 3	CO	107	12.69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 3	CO	89	9.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 3	CO	86	8.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 3	CO	110	12.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 3	CO	85	8.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 3	CO	88	7.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 3	CO	95	10.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 3	CO	87	8.88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 3	CO	88	8.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 3	CO	85	7.80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 3	CO	81	5.87	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 3	CO	82	6.54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 3	CO	85	8.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 3	CO	85	7.24	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
26-May-17	Primary 3	CO	106	12.92	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
26-May-17	Primary 3	CO	90	7.60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 3	CO	85	7.82	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
26-May-17	Primary 3	CO	90	9.90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Primary 3	CO	83	7.02	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
26-May-17	Race Passage	CH	50	1.59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	PK	36	0.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	PK	34	0.35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	PK	30	0.23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	PK	31	0.29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	PK	43	0.70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	PK	35	0.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	PK	26	0.20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	PK	34	0.35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	PK	39	0.73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	PK	33	0.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	PK	38	0.61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	PK	34	0.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	CM	42	0.80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	CM	35	0.46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	CM	36	0.48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
26-May-17	Race Passage	CM	37	0.64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	CM	36	0.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	CM	35	0.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	CM	48	1.22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	CM	37	0.61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	CM	44	1.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	CM	36	0.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	CM	39	0.61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	CM	35	0.63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	CM	35	0.48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	CM	35	0.54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	CM	35	0.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	CM	44	1.09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	CM	40	0.76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	CM	36	0.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	CM	35	0.35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	CM	37	0.55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	CM	39	0.65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	CM	34	0.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	CM	36	0.58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	CM	35	0.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	CM	41	0.87	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	CM	34	0.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	CM	35	0.48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	CM	37	0.58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	CM	42	0.88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Race Passage	CM	29	0.23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	CO	90	8.24	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
26-May-17	Sunderland	PK	48	1.19	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	PK	47	1.12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	PK	49	1.09	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
26-May-17	Sunderland	PK	42	0.74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	PK	46	0.95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	CM	36	0.43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	PK	48	1.12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	PK	55	1.78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	PK	56	1.78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	PK	56	1.83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	PK	47	1.22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	CM	48	1.07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	CM	52	1.57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	CM	34	0.34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	CM	33	0.35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	CM	42	0.96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Date of Seine	Location	Fish Species	Length (mm)	Weight (g)	LEP Co	LEP C1	LEP C2	LEP C3	LEP C4	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
26-May-17	Sunderland	CM	37	0.54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	CM	44	1.02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	CM	37	0.57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	CM	44	0.94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	CM	39	0.58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	CM	35	0.32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	CM	41	0.87	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	CM	50	1.26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	CM	51	1.83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	CM	63	2.86	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	CM	62	2.53	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	CM	35	0.43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	CM	49	1.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	CM	34	0.47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	CM	48	1.20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	CM	44	1.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	CM	50	1.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	CM	45	1.10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	CM	51	1.51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	CM	55	2.06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	CM	44	0.94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	CM	37	0.55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	CM	38	0.56	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
26-May-17	Sunderland	CM	48	1.32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	CM	35	0.46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May-17	Sunderland	CM	45	1.09	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1