

Appendix V5-10E

Hope Bay Belt Project:

2010 Marine Fish and Fish Habitat Baseline Report



Hope Bay Mining Limited

HOPE BAY BELT PROJECT 2010 Marine Fish and Fish Habitat Baseline Report



HOPE BAY BELT PROJECT

2010 MARINE FISH AND FISH HABITAT

BASELINE REPORT

April 2011
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Prepared for:



Hope Bay Mining Limited

Prepared by:



Rescan™ Environmental Services Ltd.
Vancouver, British Columbia

Executive Summary

Executive Summary

This report describes the results of baseline studies of marine fish and fish habitat for the Hope Bay Belt Project that were conducted in 2010 by Rescan Environmental Services Ltd. (Rescan) in 2010, on behalf of Hope Bay Mining Ltd. (HBML). The Hope Bay Belt Property is located approximately 125 km southwest of Cambridge Bay, Nunavut, on the south shore of Melville Sound.

The purpose of the studies was to support future Phase 2 development in the belt by providing baseline data that will be required for environmental impact assessment, permitting and environmental monitoring. There were two specific objectives:

- collect baseline data on fish habitat, fish community, and macrobenthos community in the nearshore zones of five potential marine ports (P1, P2, P3, P4 and P5) on the western shore of Roberts Bay and at one reference site (REF) in Reference Bay; and
- assess the potential effect of infrastructure development on fish movement and habitat use along the western shore of Roberts Bay through the use of stationary trap nets and mark-recapture techniques.

Visual shoreline surveys showed that the nearshore substrates of sites P2 and P4 are dominated by fine sediments, the substrates of site P3 and REF are dominated by gravel, and that site P5 is dominated by bedrock. (Site P1 had already been surveyed in 2009.) Hydroacoustic surveys of deeper, offshore substrate showed it to be dominated by fine sediments at all sites. With the exception of P5, all of the proposed infrastructure will be built mainly on fine sediments.

Fish communities were sampled in late July and early August (the early period) and late August and early September (the late period) using a combination of floating and sinking gillnets, long lines, beach seines, minnow traps and crab traps. A total of 683 fish from 16 different taxa were caught. Fourhorn sculpin was the most abundant species, accounting for 42% of the total catch, and was present at all six sites during both sampling periods. Other species of importance included Pacific herring, Arctic char, saffron cod, and Greenland cod. Sites REF and P3 had the highest total abundance of fish, and site P5 had the lowest. The species composition at site P5 was dissimilar to those of the other five sites, most likely because of its different littoral habitat - steep and rocky. Catch-per-unit-effort decreased from early to late sampling periods.

Four trap nets were installed along the western shore of Roberts Bay between July 30 and September 16. They caught a total of 919 fish of which 278, including Arctic char, lake trout, and saffron cod, were tagged. Only two of those fish being recaptured, which was a recapture rate of less than 1%. This suggests that most of those species do not use the nearshore zone as a primary migration corridor. However, a relatively high number of Greenland cod (46) with clipped pelvic fins were caught. Since pelvic fins were the primary ageing structure taken from fish caught at the five infrastructure sites in 2010, this suggests that Greenland cod may use nearshore habitat to a greater extent than other species.

Eight taxa of macrobenthos were captured in crab traps, including Amphipoda, Ophiuroidea, Decapoda, Isopoda, Bivalvia, Echinoidea, Gastropoda, and Asteroidea. Sea urchins (Echinoidea) were the most abundant taxon and were present at all sampling sites except for P1. Sea snails (Gastropoda) were observed in slightly lower numbers, but were present at all sampling sites. Site P1 had the lowest abundance of macrobenthos and its community composition was different from that of all other sites, most likely a result of its shallow depth. In contrast, sites P4 and P5, which have adjacent deep water habitat, have the highest abundances of macrobenthos.

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2010 MARINE FISH AND FISH HABITAT

BASELINE REPORT

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1. Introduction

1. Introduction

The Hope Bay Belt Property is located approximately 125 km southwest of Cambridge Bay, Nunavut, on the south shore of Melville Sound (Figure 1-1). The nearest communities are Omingmaktok (75 km to the southwest of the property), Cambridge Bay, and Kingaok (Bathurst Inlet; 160 km to the southwest of the property).

The property consists of a greenstone belt running in a north/south direction, approximately 80 km long, with three main gold deposit areas. The Doris and Madrid deposits are located in the northern portion of the belt, and the Boston deposit is located in the southern end. The northern portion of the property consists of several watershed systems that drain into Roberts Bay, and a large river (Koignuk River) that drains into Hope Bay. Watersheds in the southern portion of the belt ultimately drain into the upper Koignuk, which drains into Hope Bay.

Hope Bay Mining Limited (HBML) is proceeding with the development of the Doris North Project. Required licences and permits are in place for the development of the Doris North Gold Mine, and construction of the project commenced in 2010.

HBML plans to develop additional deposits in the belt, and planning for this Phase 2 Project development has commenced. Baseline studies to support the permitting of the Phase 2 Project were carried out in 2009, and were continued in 2010. The environmental baseline program conducted in 2010 was intended to fill in information gaps in order to support the permitting process for the Phase 2 Project. The site layout options considered for the entire belt 2010 Phase 2 environmental baseline program are shown in Figure 1-2, and the site layout options considered for Roberts Bay are shown in Figure 1-3. Note that the five potential ports shown in Figure 1-3 each consist of an outer containment structure, identified as a “Barge Port” or a “Deep Water Port” in the legend, that are shown in dark brown or purple, respectively, and an inner fill area, either “Barge Port Fill” or “Deep Water Port Fill”, that are shown in light brown or blue, respectively.

Results from the 2010 Phase 2 Project environmental baseline program are being reported in a series of reports, as follows:

- 2010 Hydrology Baseline Report
- 2010 Freshwater Baseline Report
- 2010 Freshwater Fish and Fish Habitat Baseline Report
- 2010 Marine Baseline Report
- 2010 Marine Fish and Fish Habitat Baseline Report
- 2010 Terrain and Soils Baseline Report
- 2010 Country Foods Baseline Report
- 2010 Ecosystems and Vegetation Baseline Report
- 2010 Marine Wildlife Baseline Report

In addition, numerous reports are being produced as part of the Doris North Project compliance requirements, and many of these reports cover the geographical areas of the proposed Phase 2 Project.



Figure 1-1

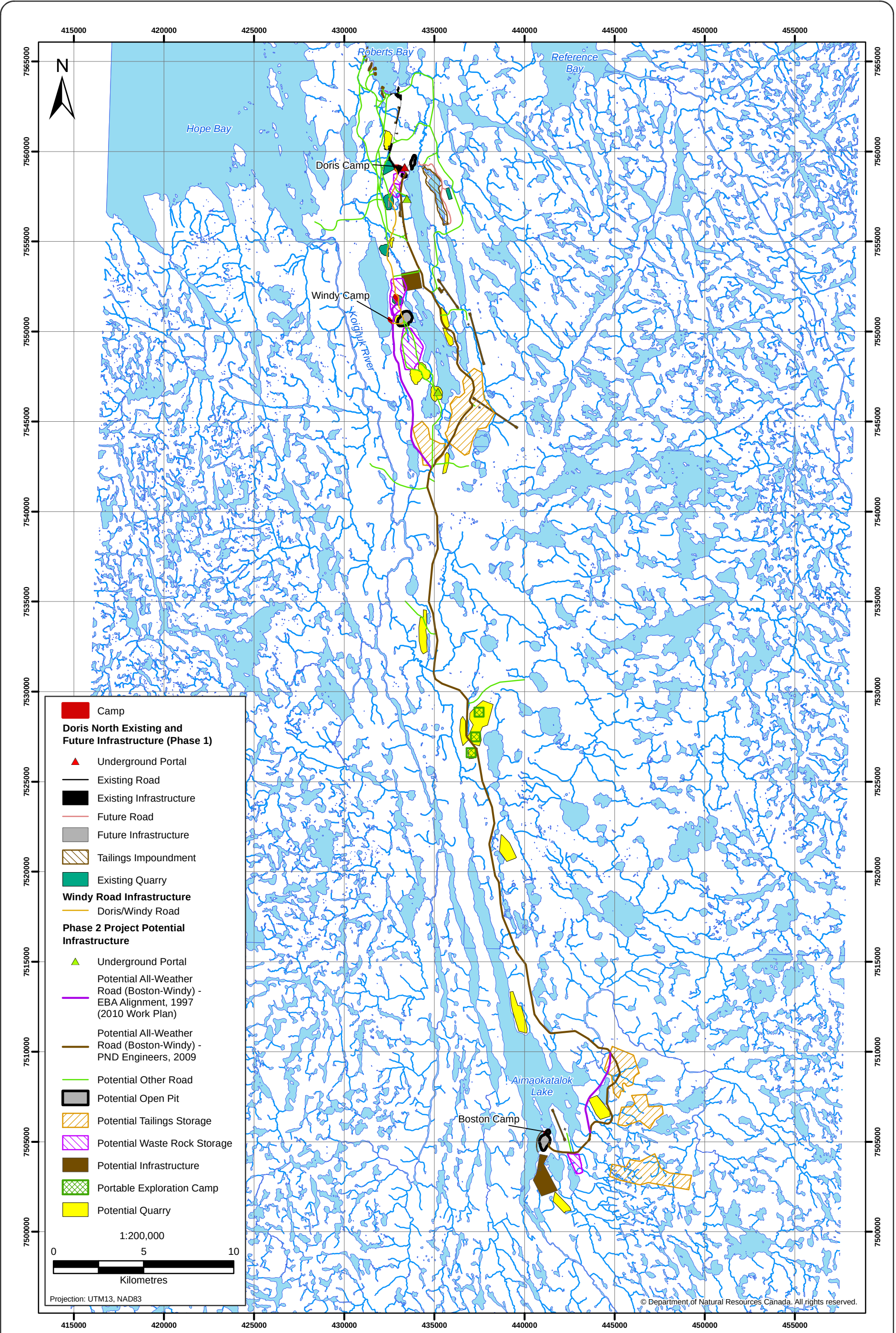
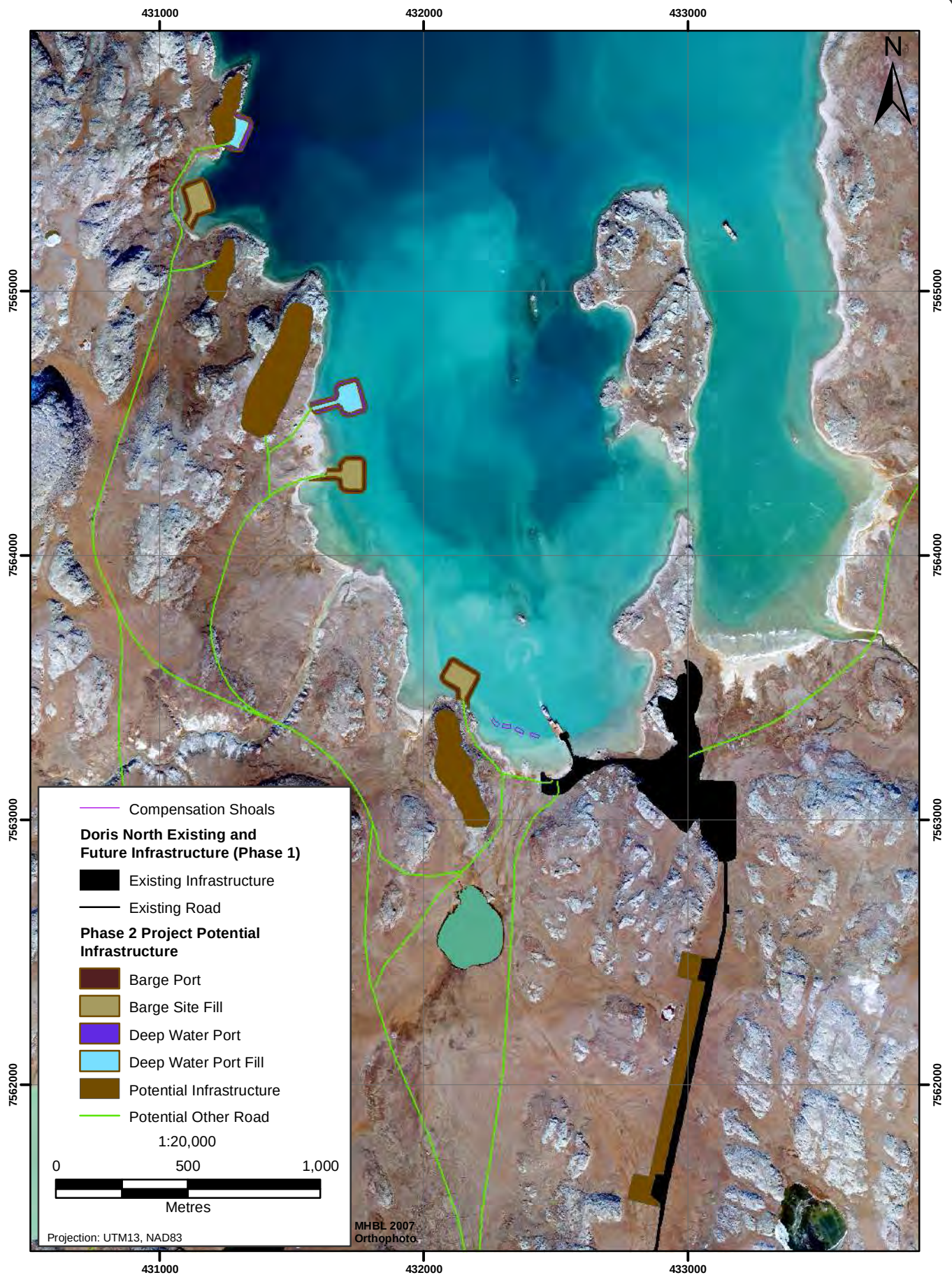


Figure 1-2

Figure 1-2

Site Layout Options Considered for
Phase 2 Baseline Program, 2010





Examples of Doris North Project compliance reports generated in 2010 that are relevant to the proposed Phase 2 Project include:

- 2010 Meteorology Compliance Report, Doris North Project
- 2010 Hydrology Compliance Report, Doris North Project
- 2010 Roberts Bay Jetty Fisheries Authorization Monitoring Report, Doris North Project
- 2010 Doris Mine Site Fisheries Authorization Monitoring Report, Doris North Project
- 2010 Wildlife Mitigation and Monitoring Report, Doris North Project
- 2010 Wildlife DNA Study, Doris North Project
- 2010 Air Quality Compliance Reports, Doris North Project
- 2010 Aquatic Effects Monitoring Program Report, Doris North Project

Archaeology work was also conducted in 2010 and is being reported separately.

This report presents the results from the Marine Fish and Fish Habitat Baseline portion of the 2010 Phase 2 environmental baseline program. The objectives of this program were to collect and report baseline data on the fish habitat, fish community, and macrobenthos community at five potential marine infrastructure sites and one reference site. The potential impacts of infrastructure development on fish movement and habitat use were also assessed along the western shore of Roberts Bay using stationary trap nets.

2. Methods

2. Methods

2.1 SAMPLING LOCATIONS

In 2010, surveys of fish habitat and sampling of fish and macrobenthos communities were conducted at five potential marine port and/or barge sites in Roberts Bay (abbreviated as P1 to P5) and at one reference site (REF) in Reference Bay (Figure 2.1-1). Three of these sites (P1, P5 and REF) had previously been surveyed as part of the 2009 Marine Fish Baseline Program (Rescan 2010). Sites P2, P3, and P4 were surveyed for the first time in 2010. Sites P1, P2, and P4 are potential Barge Port Options and sites P3 and P5 are potential Deep Water Port Options.

Fish sampling for the purpose of assessing nearshore habitat use was also conducted using four trap nets (abbreviated as TN1 to TN4) installed along the western shoreline of Roberts Bay (Figure 2.1-2). TN1 was installed south of site P1, TN2 and TN3 were installed between sites P2 and P3, and TN4 was installed north of site P5.

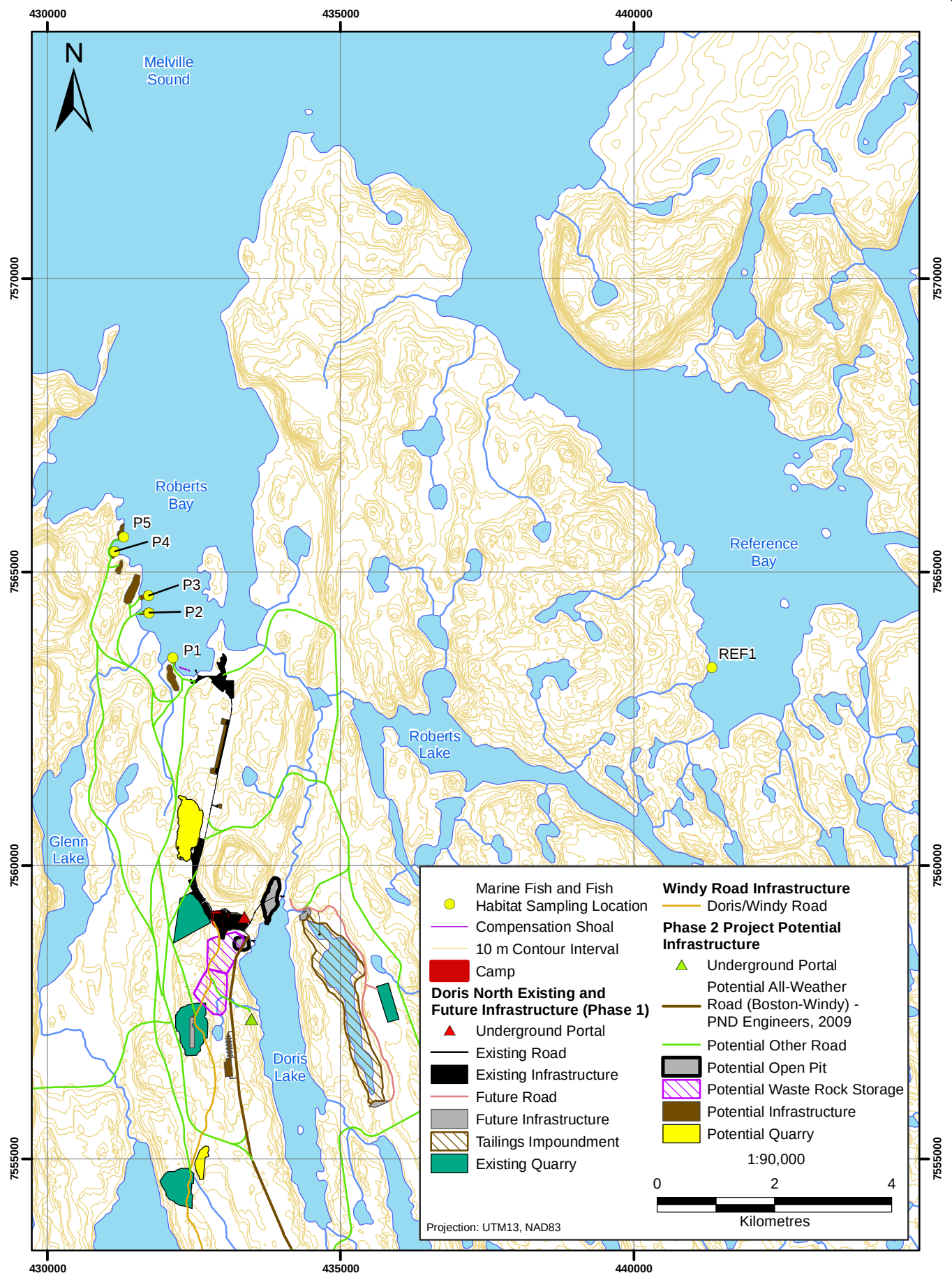
2.2 FISH HABITAT

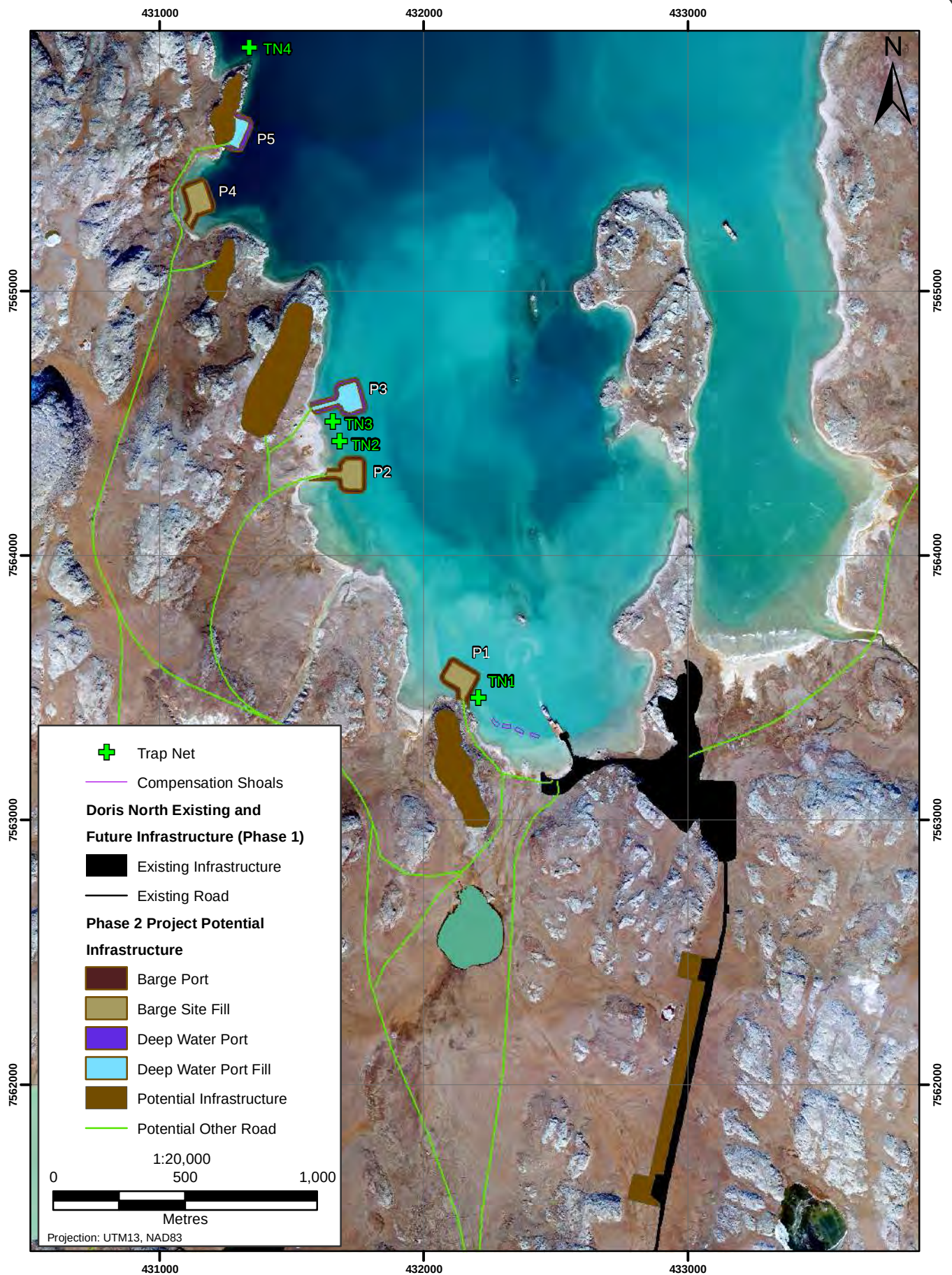
Surveys of nearshore fish habitat at sites P2 to P5 and REF were conducted by walking along the shoreline and visually delineating habitat units (i.e., areas of uniform substrate). Site P1 was not surveyed in 2010 because it had been surveyed in 2009. All shoreline habitat surveys were conducted during the late sampling period and were coordinated with the predicted low tide to ensure the maximum amount of exposed habitat.

Habitat units were identified based on the proportion of the following substrate types: bedrock (>4,000 mm diameter), boulder (256 to 4,000 mm), cobble (64 to 256 mm), gravel (2 to 64 mm), and fines (0 to 2 mm) (Orth 1983). The coordinates of the boundaries of each unit were measured using a handheld GPS unit. Within each habitat unit, substrate composition was recorded as percent coverage (e.g., 70% cobble, 20% gravel, and 10% fines) and the length of each unit was measured with a surveyors tape. Photographs were taken of the various habitat units. In the office, a combination of field notes, GPS waypoints, and photographs were used to prepare habitat maps using ArcGIS 10 mapping software.

Hydroacoustic methods were used to survey those areas of Roberts Bay that were deeper than 2 m and not clearly visible to shoreline surveyors. Surveys were conducted using a 5.8 m-long boat with an outboard engine. Depth measurements were taken with a digital echo sounding system that consisted of a BioSonics DTX scientific echo sounder with a 6.7°, 201 kHz transducer, a computer to control the sounder and record data, and a Garmin GPSmap 182 differential GPS to geo-code collected data (Table 2.2-1). The transducer was mounted, facing downwards, on a pole 56 cm below the water surface. Soundings were made continuously as the boat moved along linear transects at a speed of 1 to 2 m/s. A depth calibration, performed during the survey using a target suspended at known distances 2 to 8 m below the transducer, showed an error of ≤0.6% (range of values = -0.6 to 0.5 %, or -0.1 to 3.8 cm deviation from known depths). During the survey, an electronic monitor installed at the Roberts Bay jetty continuously measured and recorded the water level in order to provide a correction for tidal influence.

After the survey, digital data files were processed using Myriax Echoview software to track the bottom, measure water depths, and create ASCII files of depths and geo-coordinates. Depth computations in Echoview adjusted sound velocity using average water column values of 10.8°C, pH 7.9, and salinity of 21.1 ppt. Those measurements were taken on August 15, 2010, during marine baseline water quality sampling (Rescan 2011b). Depths in Echoview output files were corrected for the depth of the transducer face below the water surface and for aquatic plants, where present (i.e., reported depths are to the substrate, not to the top of plants).





Trap Net Locations in Roberts Bay,
Hope Bay Belt Project, 2010

Figure 2.1-2

Table 2.2-1. Acoustic System Specifications for Collection of Bathymetric and Substrate Data from Roberts Bay, 2010

Category	Variable	Value
Echo Sounder	type	BioSonics DTX
Transducer	type	BioSonics split-beam
	sound frequency	201 kHz
	nominal beam angle	6.7°
	depth of transducer face	0.40 m
Settings	pulse width	0.4 ms
	Transmit power level	low (-10.3 dB)
	data collection threshold	-100 dB
	minimum data range	0.5 m
	time varied threshold	40 log R
	ping rate	5 pps
DGPS	Type	WAAS-differential ¹
	Datum	NAD83
Other	transecting speed	1.4-1.9 m/s

¹A Wide Area Augmentation System (WAAS) satellite signal was received during sampling with typical nominal position accuracy of 2 to 3 m.

Additional line transects were conducted to fill in any data gaps which could not be collected due to shallow water depth or poor weather conditions. Where possible, the boat followed a straight transect from east to west. Where boat access was not possible, water depths were measured by wading. A meter stick and handheld GPS unit were used to manually read and record water depths every 5 to 20 m.

All data collected during the bathymetric surveys were corrected for tide effects and were referenced to an onshore benchmark (Table 2.2-2).

Table 2.2-2. Benchmark and Tide Gauge Location and Elevation, Doris North Project, 2010

Location	UTM Coordinates (Zone 13 NAD 83)		Elevation (m)
Benchmark	432337 E	7563181 N	1.180
Tide Gauge	432212 E	7563352 N	-0.922

The standardized data were imported into ArcGIS 10 to create bathymetric maps. Displacement between depth data from the manual and echo sounding surveys were approximately 5 to 20 m and 0.25 m, respectively. To minimize interpolation effect on the more widely distributed data and to avoid excessive grouping of closely spaced data, values interpolated from a Triangulated Irregular Network (TIN) were created using 3D Analyst. These values supplemented the widely spaced manual survey data with points at a minimum of every 7.5 m. These interpolated points, the echo sounding survey data, and depths from manual sampling done adjacent to the shoreline were converted in a Topo to Raster tool in the Spatial Analyst extension to create a grid of 1 m by 1 m cells and produce a map of predicted depths. Bathymetry contours were set at intervals of 0.5 m.

An underwater video camera was used to verify the acoustic classification of substrate types via video images taken at 32 random locations ranging in depth from 1 to 25 m. Images were collected with a Splashcam Deltavision underwater video camera recording to a Sony VRD-MC6 DVD recorder. The camera was suspended from the side of the boat with its lens aimed straight down about 50 to 100 cm above the

substrate. At each location the recording covered several meters or more of linear distance as the boat drifted. A 3.5 cm-diameter lead ball on a 50 cm string served as a size reference, sediment probe, and gauge of proximity to the bottom. Parallel lasers (10 cm apart) provided a secondary size reference. Time and GPS coordinates were recorded continuously to the video image by way of a video overlay device. Nominal position accuracy of the GPS was two to three m during the survey.

Video recordings were reviewed in the lab on a computer to confirm the substrate classifications. For each sampling location, the minimum, maximum, and dominant substrate size classes were noted.

2.3 FISH COMMUNITY

2.3.1 Sampling Frequency

The fish community at the five potential port and/or barge sites in Roberts Bay and at site REF in Reference Bay were sampled twice: in late July and early August (the early period) and in late August and early September (the late period). The number of sampling days spent at each site varied due to weather delays and logistical constraints. Therefore, although attempts were made to keep sampling effort consistent among sites, effort varied by sampling period and site (Table 2.3-1). Each site was sampled using a combination of six different types of fishing gear to cover a wide range of fish sizes, life history stages and water depths.

Table 2.3-1. Sampling Dates and Effort for Fish Community Surveys in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Bay	Site ID	Sampling Period	Set Dates	Number of gear sets					
				GNF	GNS	LL	BS	MT	CT
Roberts	P1	Early	July 30, 31; Aug 1, 4, 12	5	6	5	5	30	15
Roberts	P1	Late	Aug 28 - Sept 3	6	6	6	6	30	15
Roberts	P2	Early	Aug 5, 8, 9, 12	5	6	5	2	10	5
Roberts	P2	Late	Sept 1 - 4	6	6	6	6	30	15
Roberts	P3	Early	Aug 8, 9, 10, 12	5	6	6	5	20	15
Roberts	P3	Late	Sept 8 - 13	6	5	6	2	30	16
Roberts	P4	Early	Aug 9, 10, 11, 13	5	6	5	5	10	15
Roberts	P4	Late	Sept 4, 5, 7, 8, 18, 19	6	6	6	6	30	15
Roberts	P5	Early	Aug 15 - 19	6	6	3	0	6	10
Roberts	P5	Late	Sept 18 - 21	6	6	6	0	18	17
Reference	REF	Early	Aug 13, 14	6	6	4	5	17	16
Reference	REF	Late	Sept 22 - 24	5	5	6	6	30	17

Notes: GNF = Floating Gillnet; GNS = Sinking Gillnet; LL = Long line; BS = Beach Seine; MT = Minnow Trap; CT = Crab Trap.

2.3.2 Sampling Gear

2.3.2.1 General

Two sampling crews worked during each of the two sampling periods. All sampling was done from either an aluminum 5.8 m-long boat with a 70 hp outboard engine or flat bottom aluminum 5.4 m-long landing craft equipped with an 80 hp outboard engine. The UTM of each gear set were recorded with a handheld GPS unit and depths were recorded with a handheld depth sounder. The times of installation and retrieval of each gear were recorded.

2.3.2.2 Gillnets

A combination of floating and sinking gillnets were used to capture fish that move in the water column (pelagic) and along the seafloor (demersal), respectively. Each gillnet consisted of six panels of monofilament mesh tied together in the following order: Panel 1 (25 mm mesh); Panel 2 (76 mm); Panel 3 (51 mm); Panel 4 (89 mm); Panel 5 (38 mm); and Panel 6 (64 mm). Each panel measured 15.2 m long by 2.4 m deep for an area of 36.6 m². Total gillnet area was 219.6 m² per net.

Both types of gillnets had an upper float line with small buoys that kept the net upright in the water column. Sinking gillnets had a weighted lower lead line that forced the bottom of the net to rest along the sea bottom. Floating index gillnets did not have a weighted lead line and so their float lines rested at the sea surface.

Gillnets were set perpendicular and parallel to shore for approximately 1 h to minimize mortality of fish. If catch rates were low, then set times were increased. Figures 2.3-1 to 2.3-12 show the locations of each set of floating and sinking gillnets set in Roberts and Reference bays.

2.3.2.3 Long Lines

Long lines were used to capture actively-feeding fish. A 20 m-long cord was rigged with seven hooks attached at intervals of 2.5 m. Hooks were baited with raw fish and attached to the main line with short secondary lines and buoys. At both ends, the main line was weighted with lead and attached to a surface buoy. Once set, the long line sat in the water column with the hooks suspended in the water column.

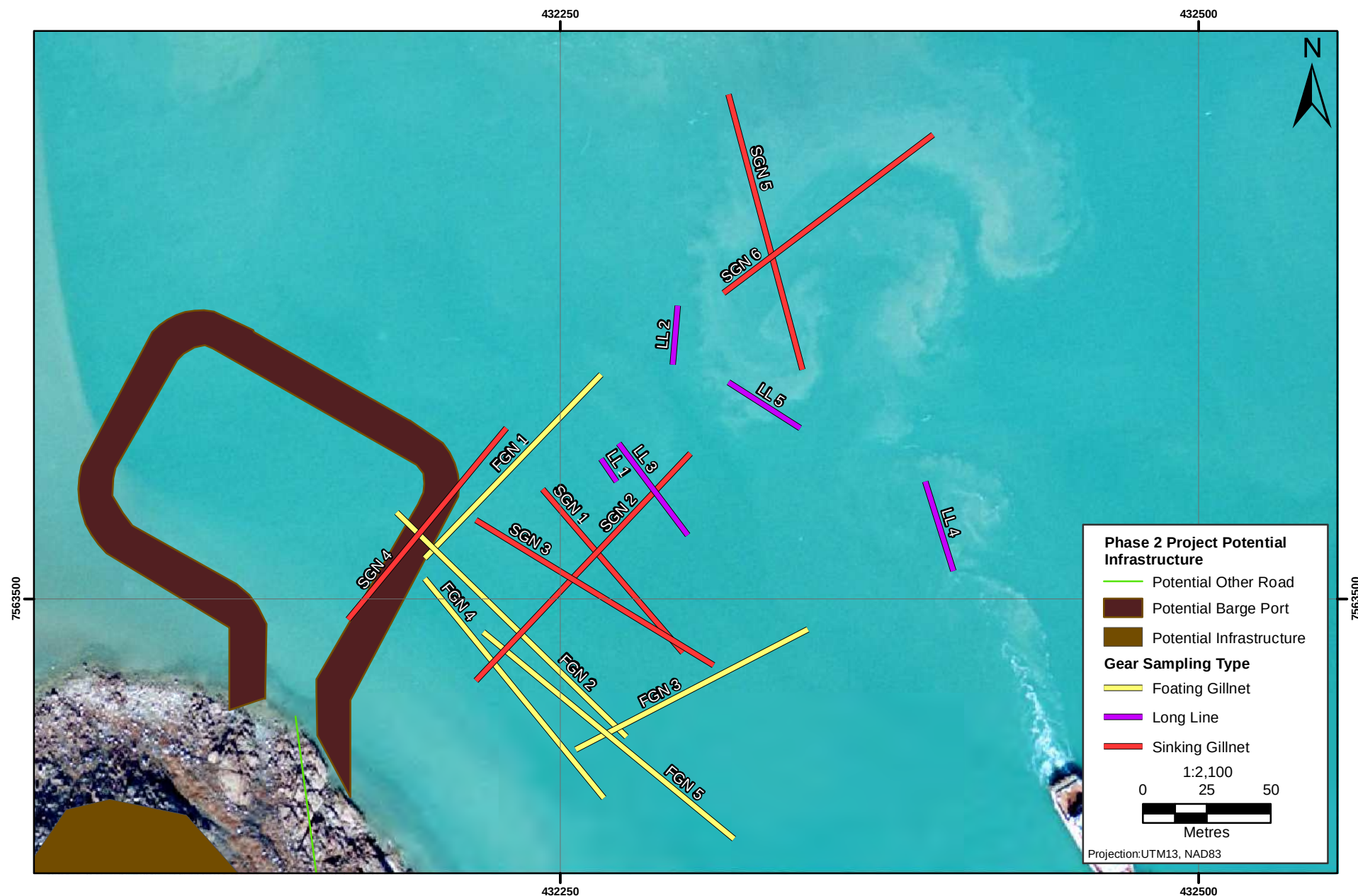
Long lines were set perpendicular and parallel to shore for an initial period of 2 h. Set times were increased if catch rates were low. Figures 2.3-1 through 2.3-12 show the locations of each long line set in Roberts and Reference bays.

2.3.2.4 Beach Seines

A beach seine was used to capture small fish that use shallow nearshore habitat. The seine net was 12 m long, 2 m deep with 2 mm mesh. While one end was held at the waterline, the other end was walked out perpendicular to shore and then arced around into a horseshoe shape until it enveloped a portion of the shoreline (Plate 2.3-1). Once onshore, both ends were slowly drawn onto the beach, keeping the lead line on the seafloor and forcing fish into the bunt of the seine. A series of between two to six seine hauls were conducted at each site. The exception was site P5 where the shoreline was too steep and rocky to allow safe beach seining. Figures 2.3-13 to 2.3-24 show the locations of beach seines in Roberts and Reference bays.

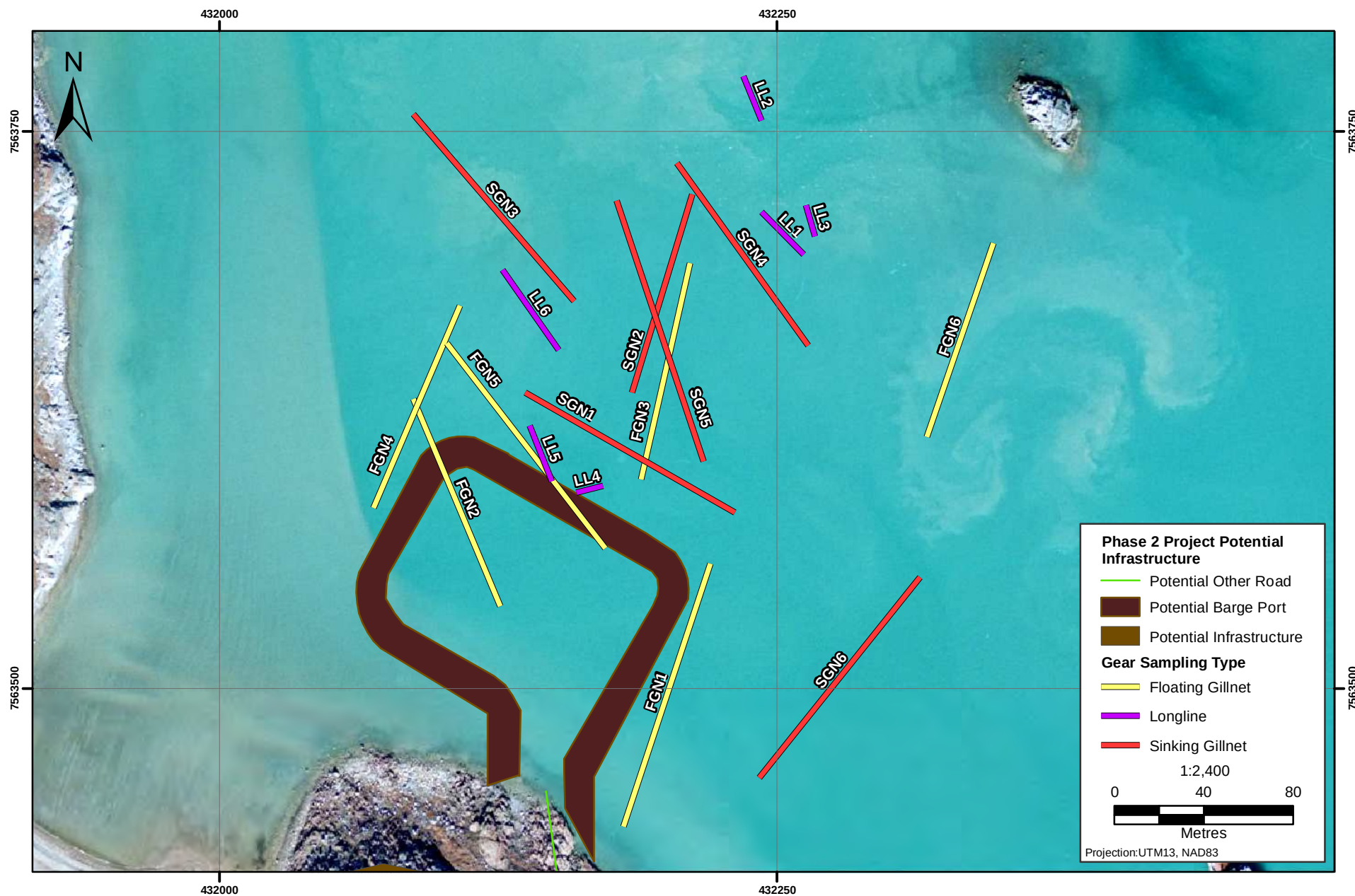
2.3.2.5 Minnow Traps

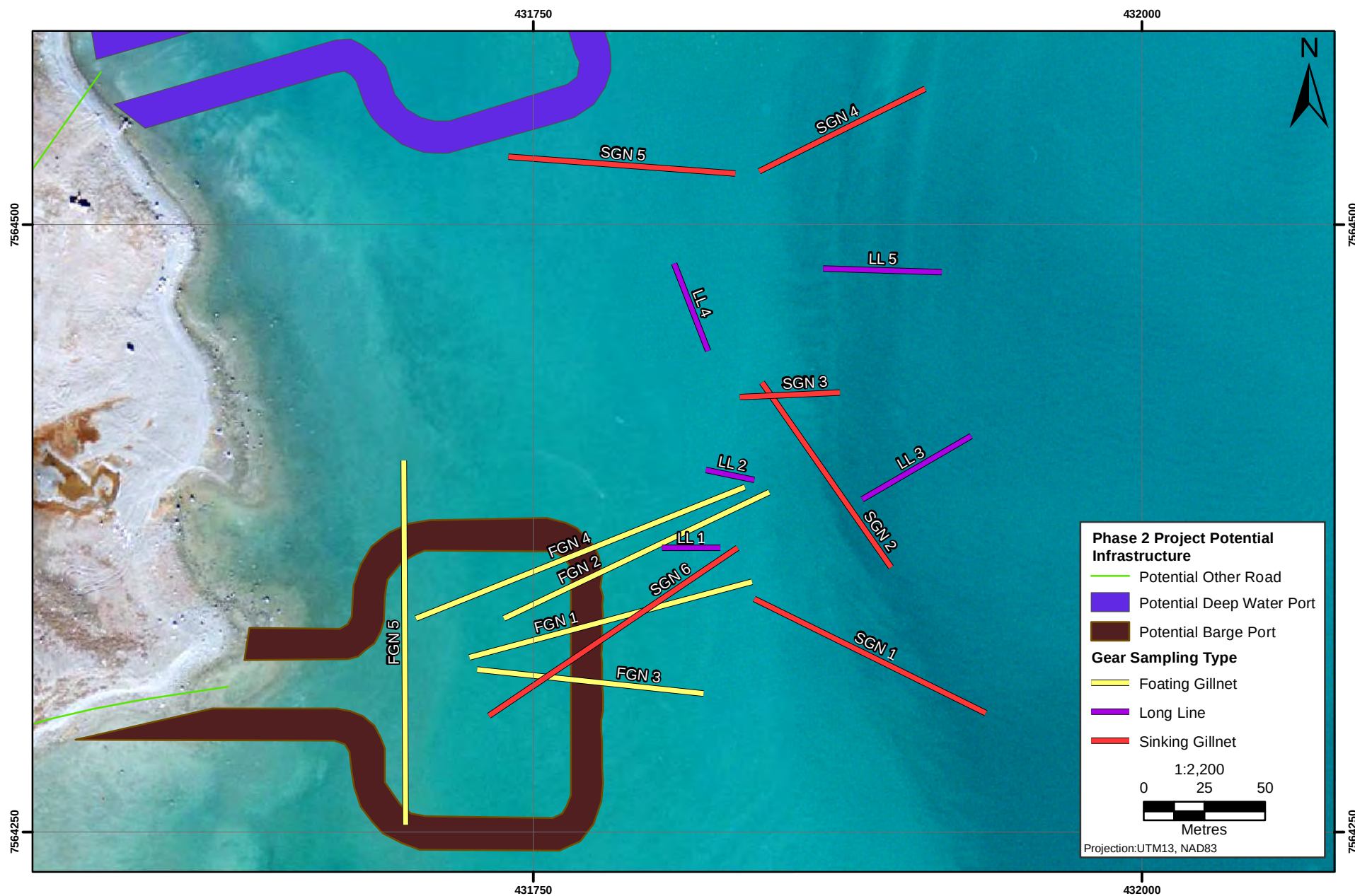
Minnow traps were used to sample juvenile and small adult fishes. The traps consisted of two 6.3 mm galvanized metal mesh cylinders measuring 42 cm long and 23 cm in diameter with a 2 cm diameter opening and 6.5 mm mesh. The cylinders were locked together using a clip attached to a rope and buoy. Each minnow trap was baited with a small amount of dry, commercial crab bait and placed along the shoreline of each sampling site. Figures 2.3-13 to 2.3-24 show the locations of each minnow trap set. Traps were left to soak overnight and retrieved the next day, though weather delays occasionally extended this soak time.

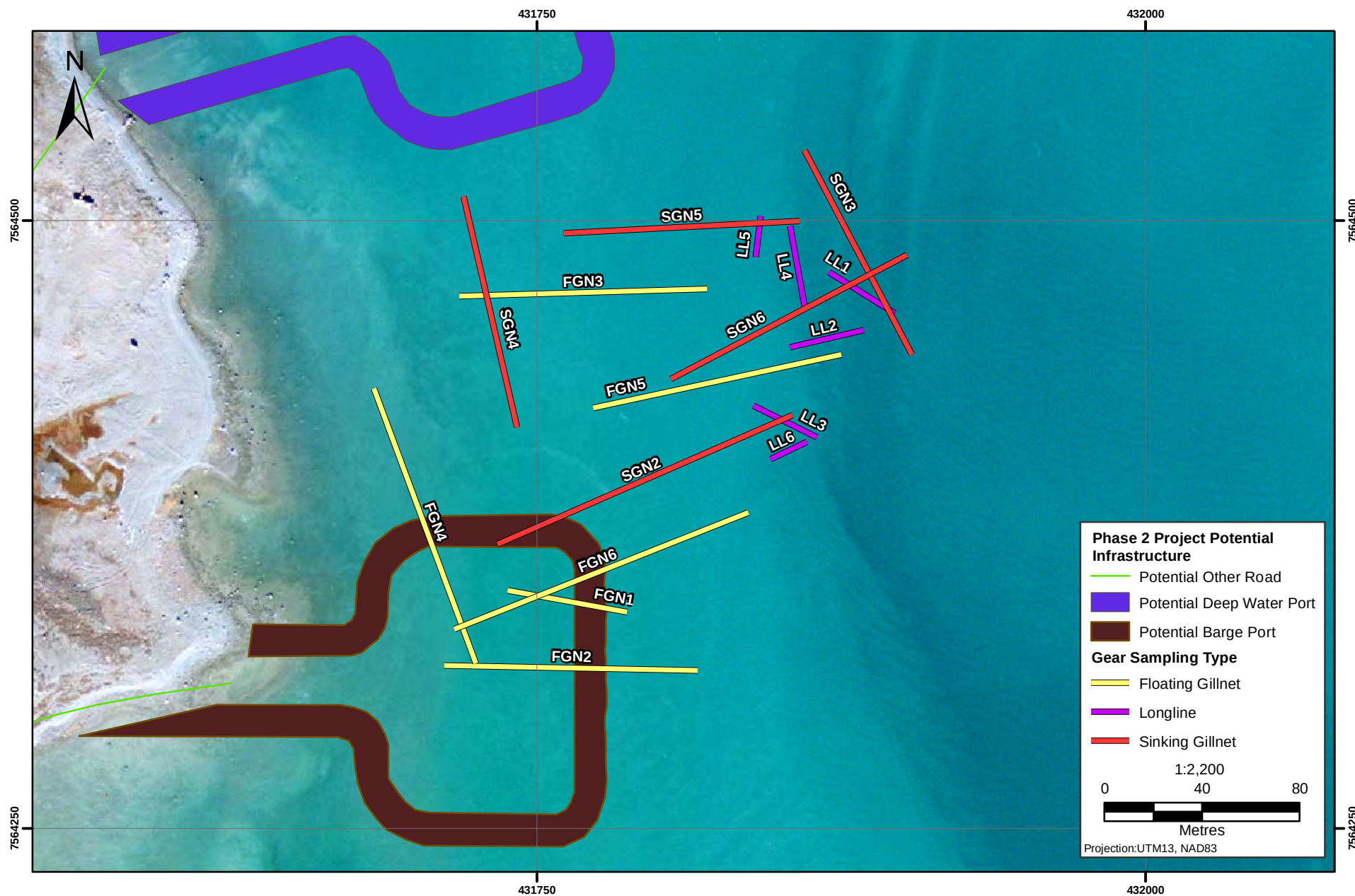


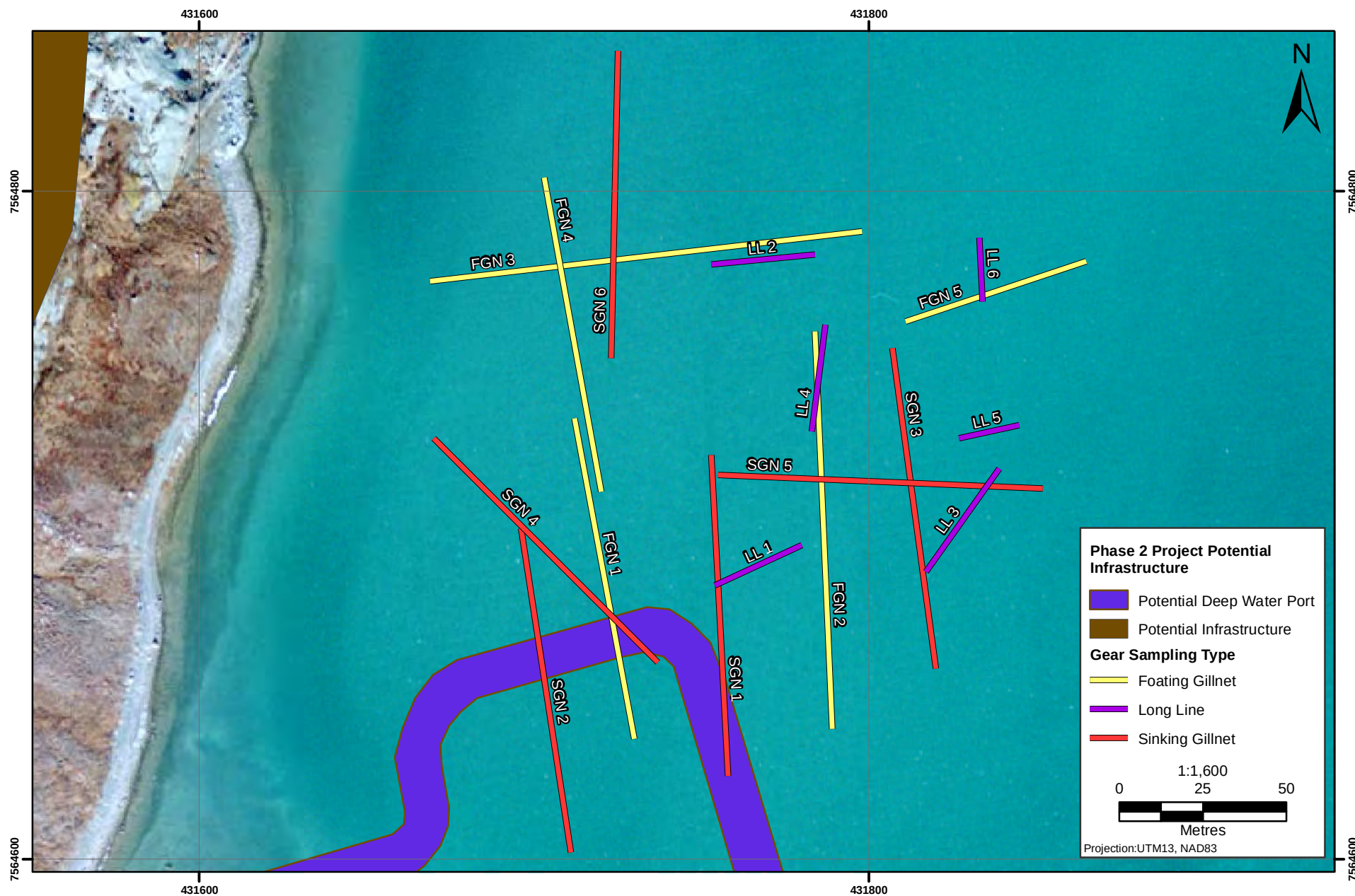
Gillnet and Long Line Locations During the Early Sampling Survey
of the Fish Community at Site P1 in
Roberts Bay, Hope Bay Belt Project, 2010

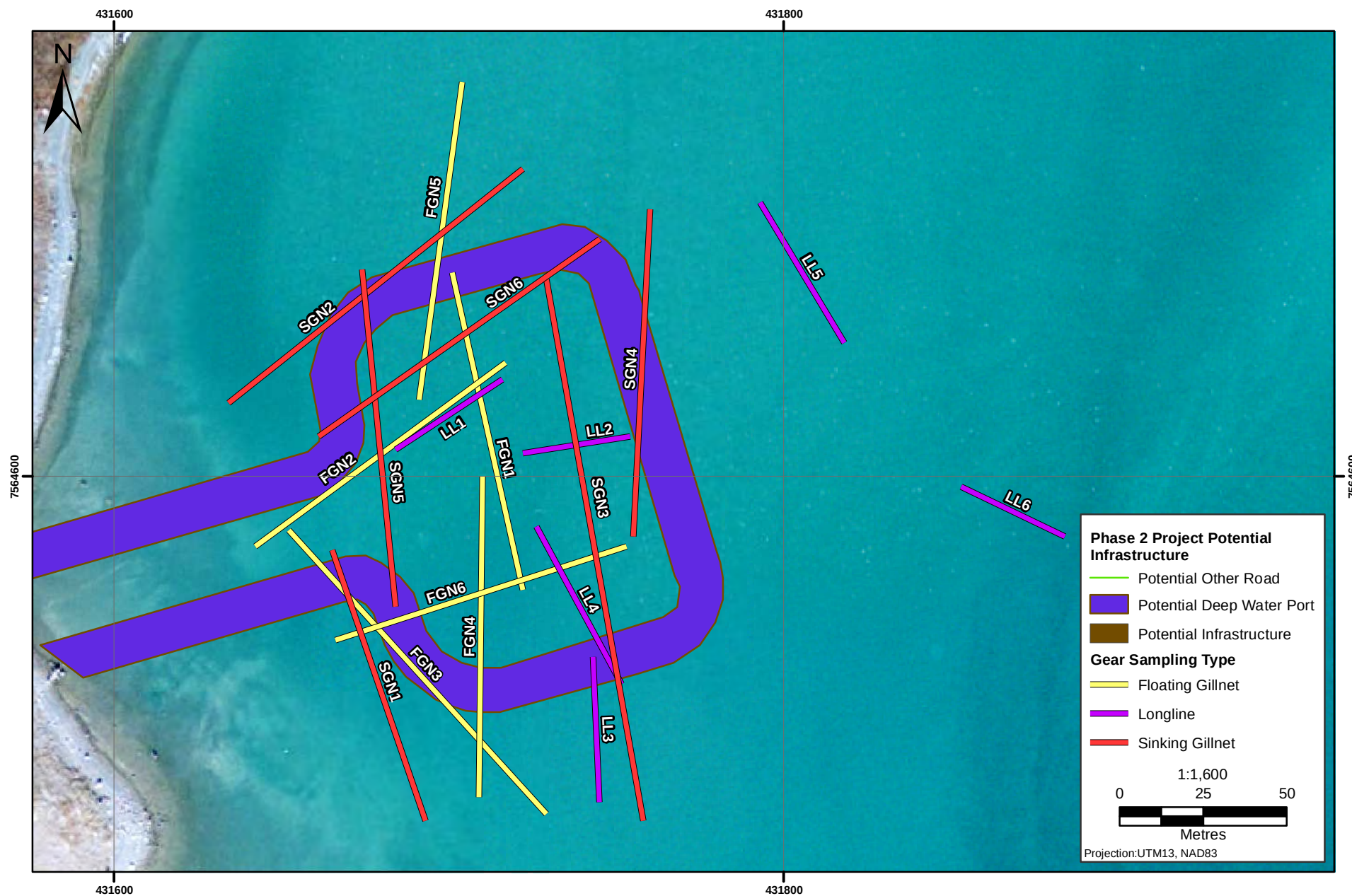
Figure 2.3-1

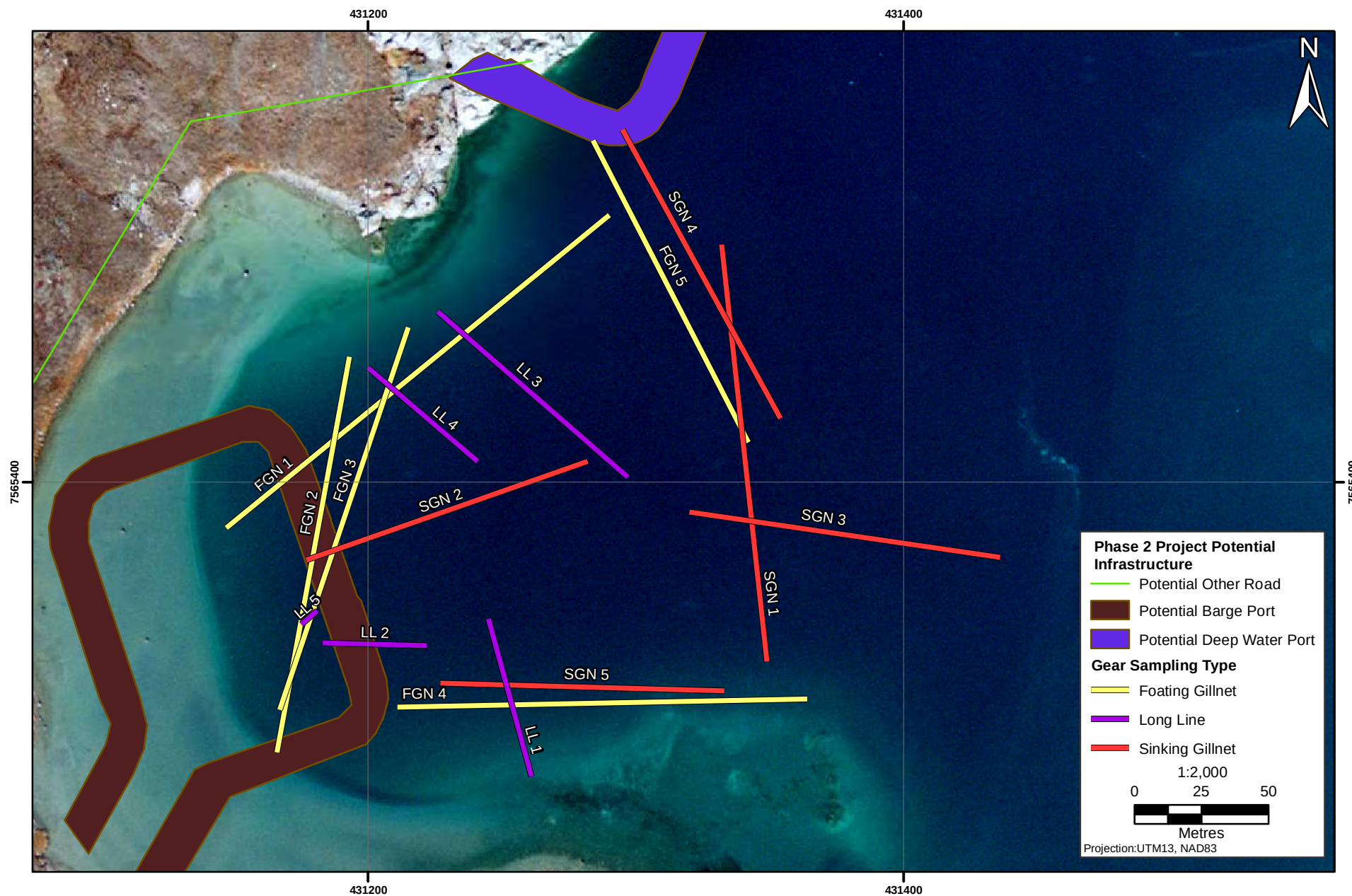


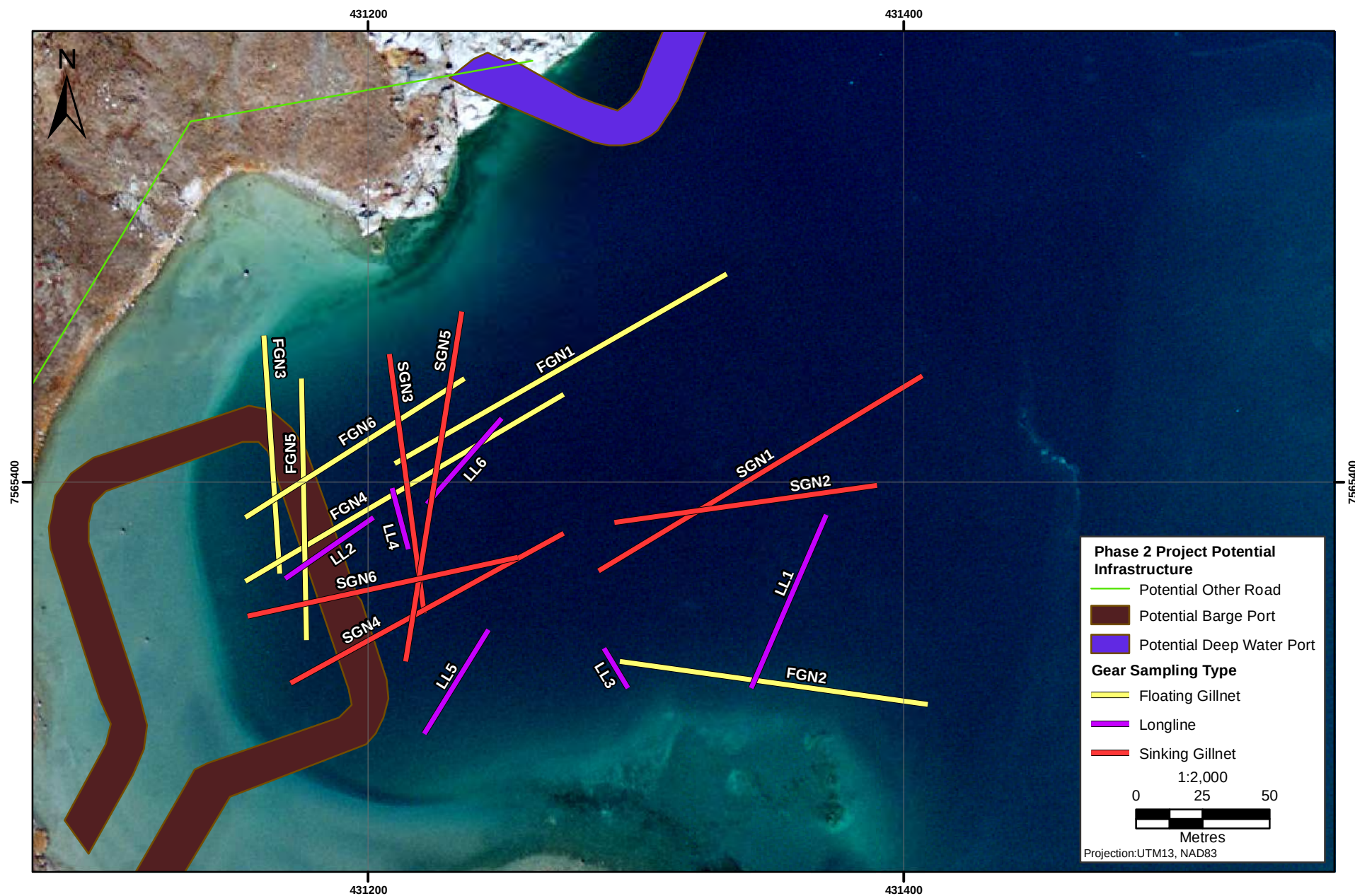


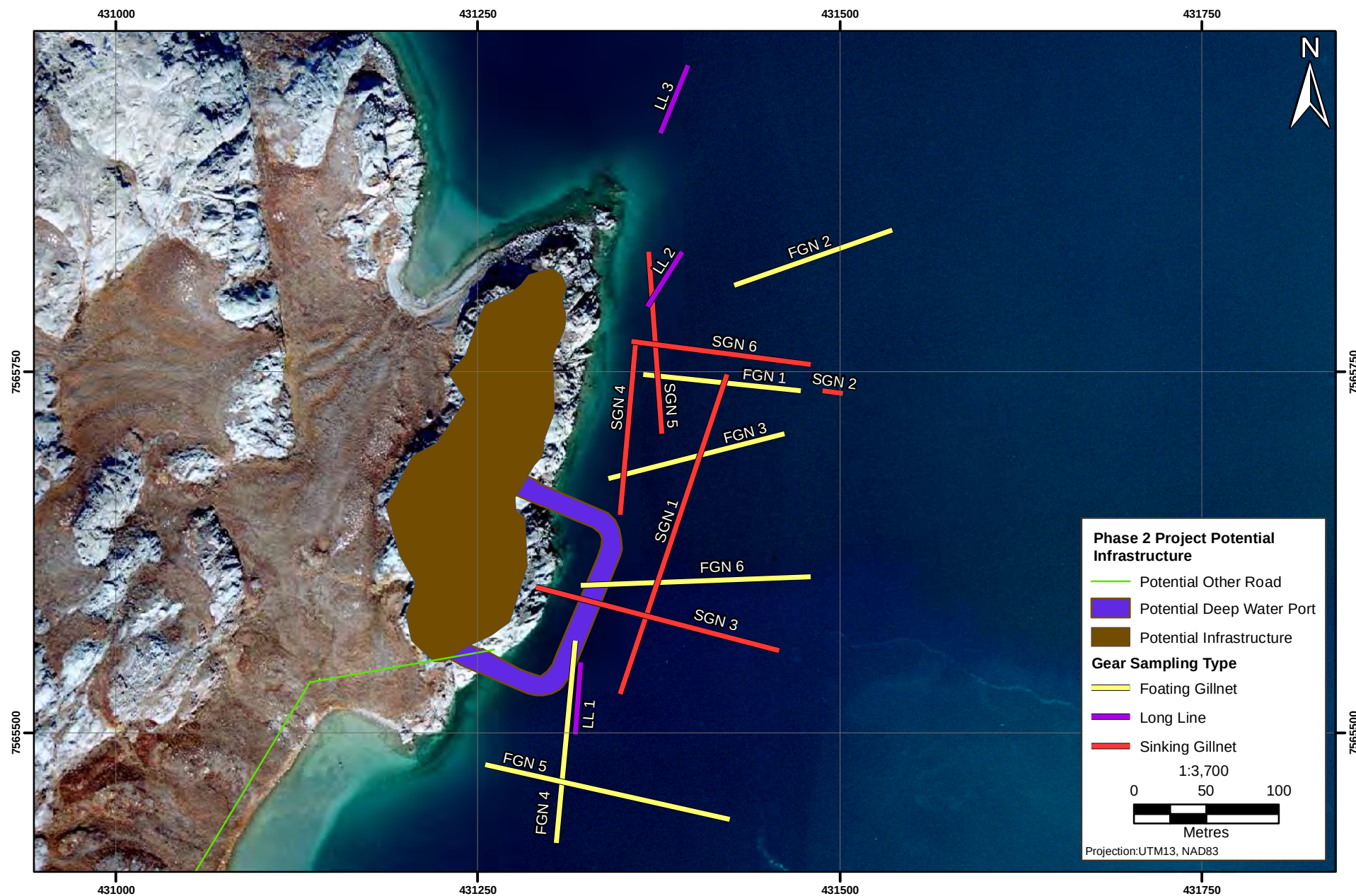


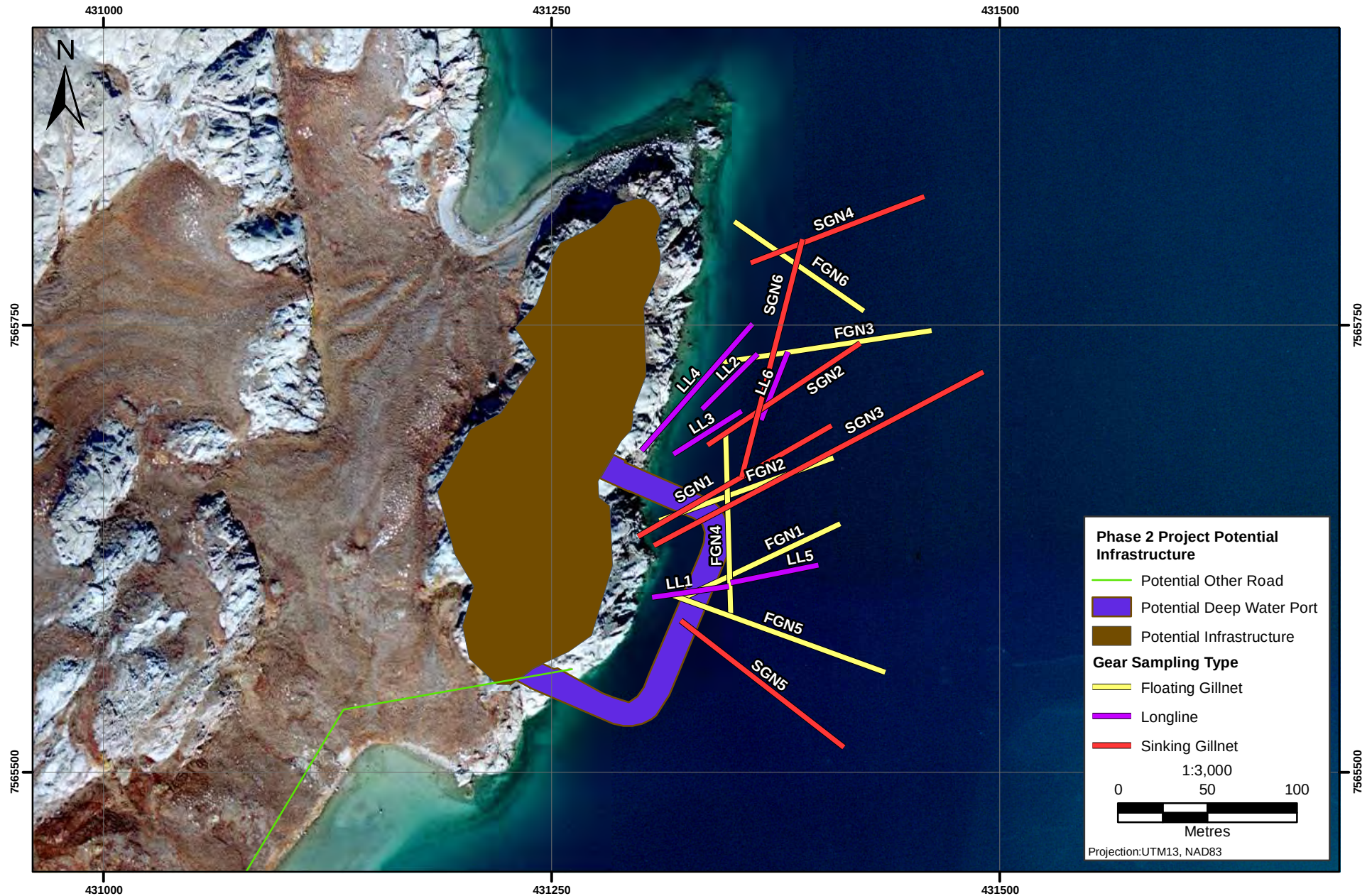


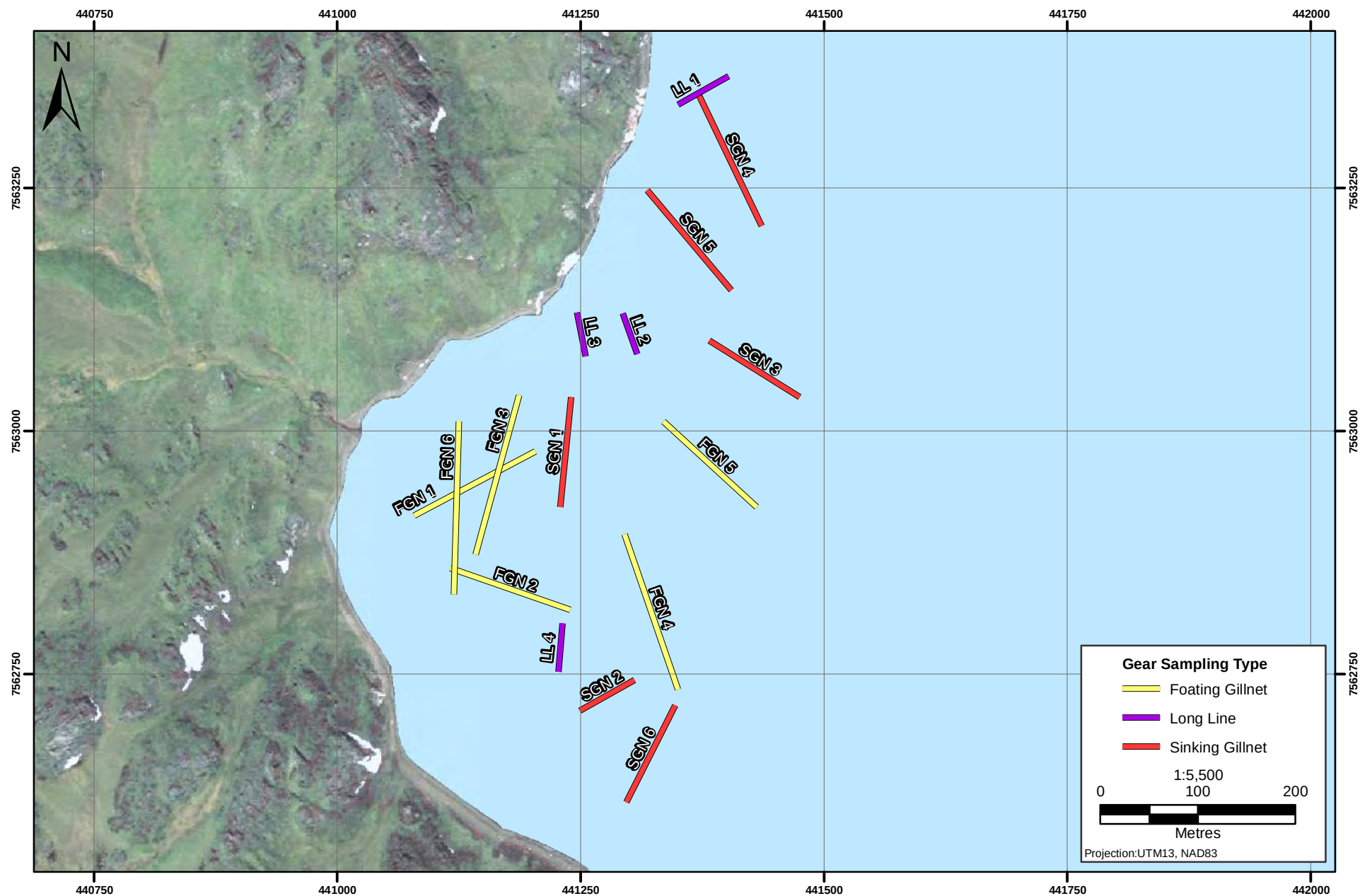


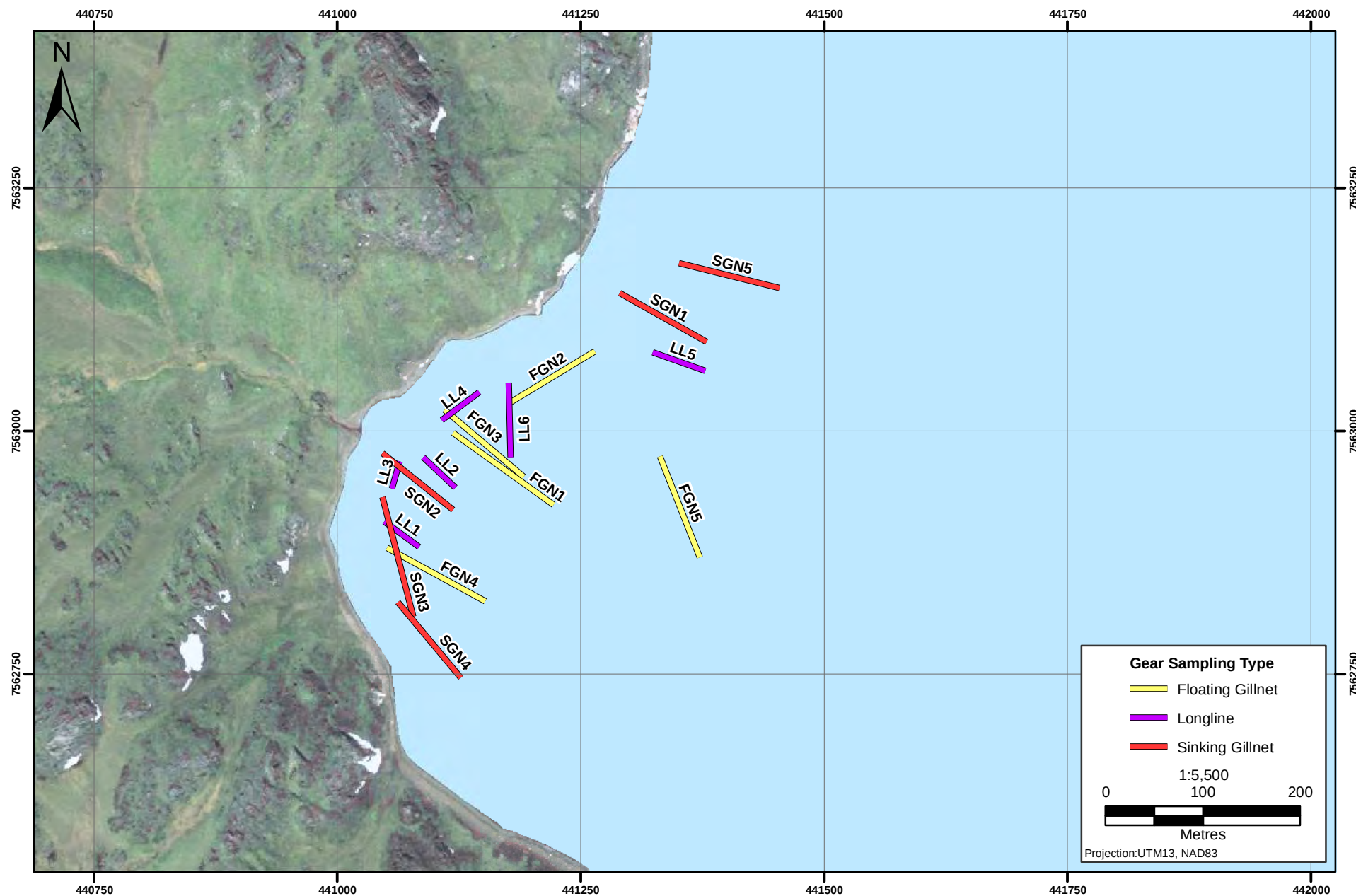


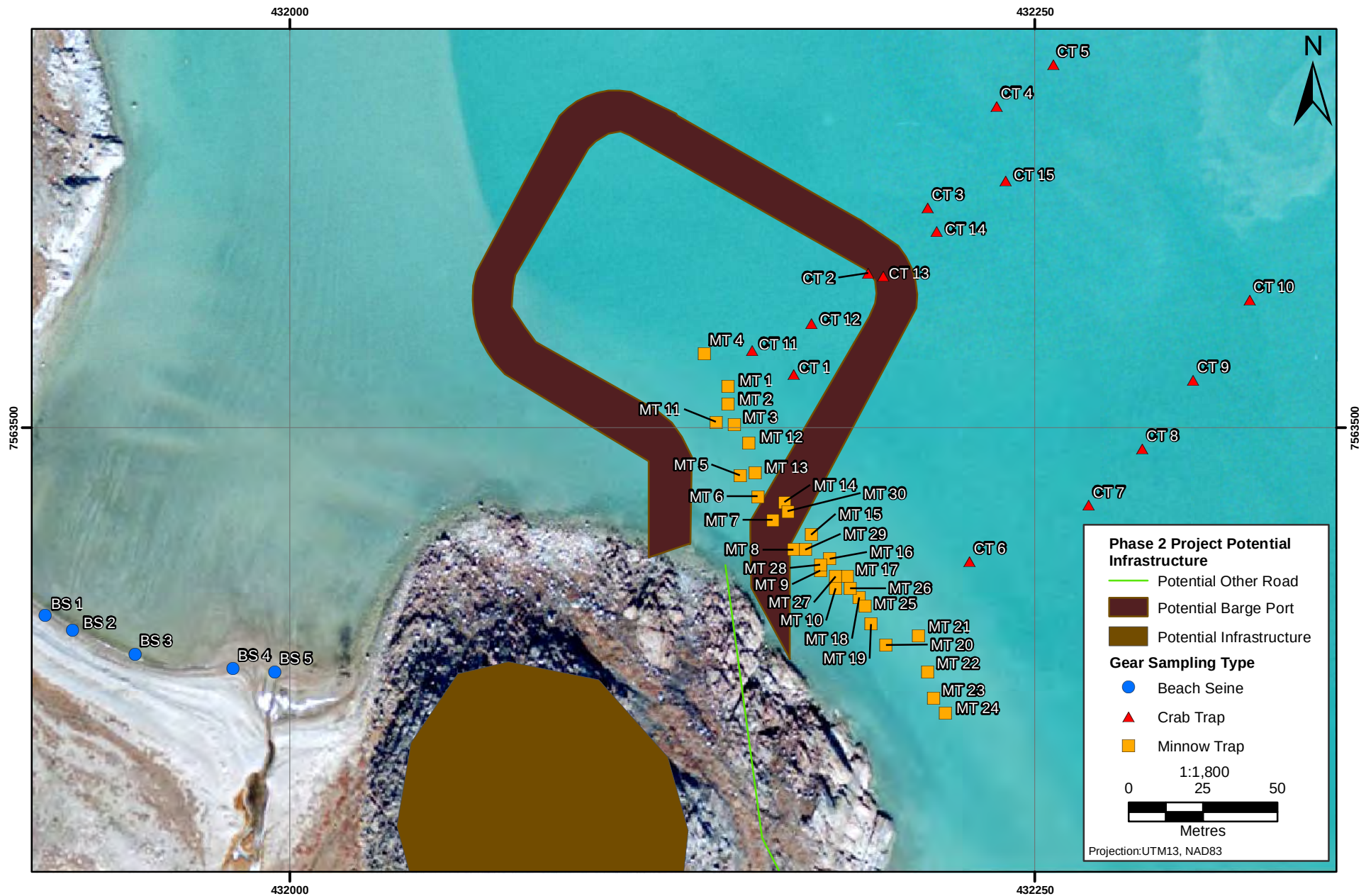


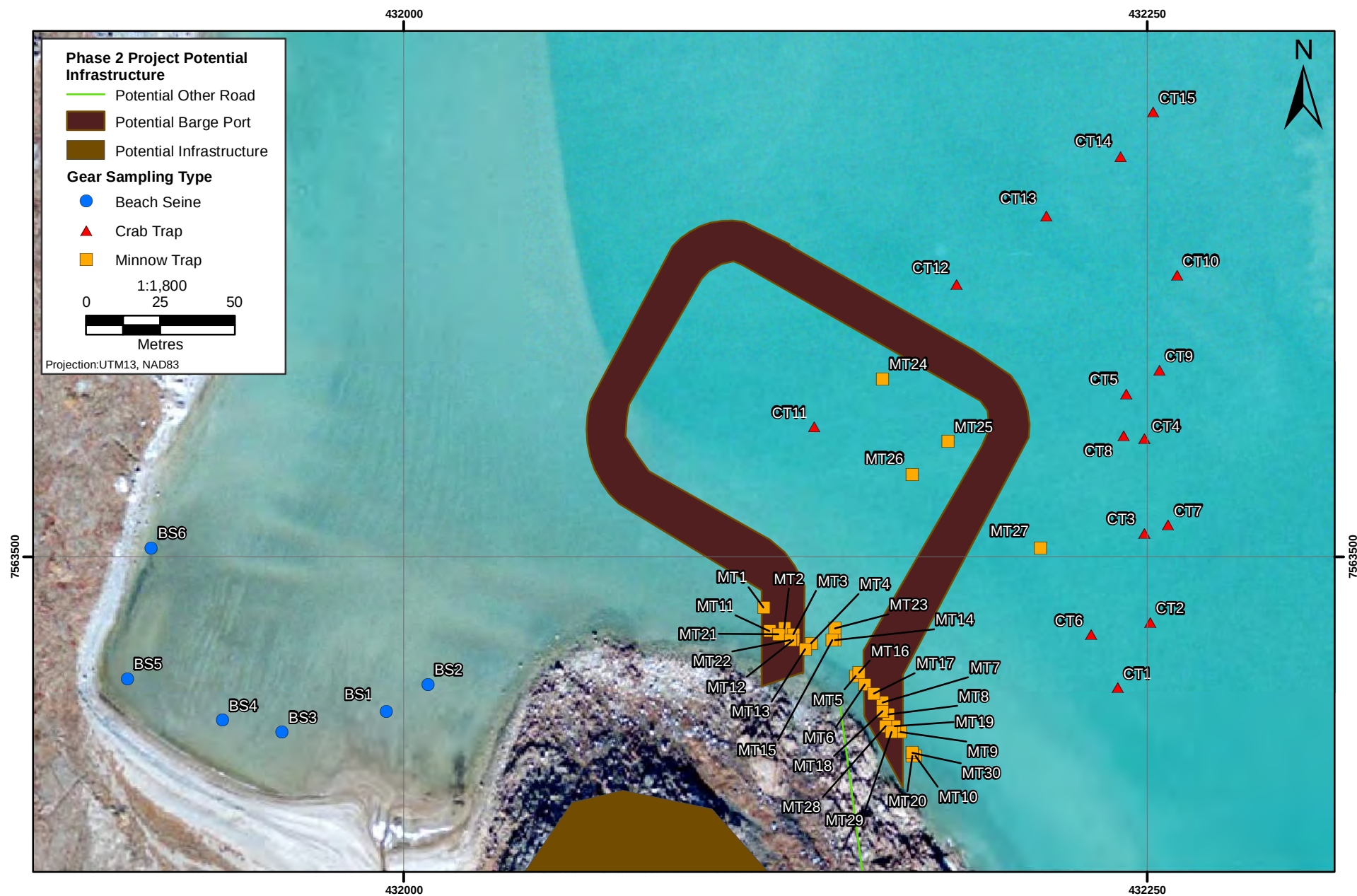






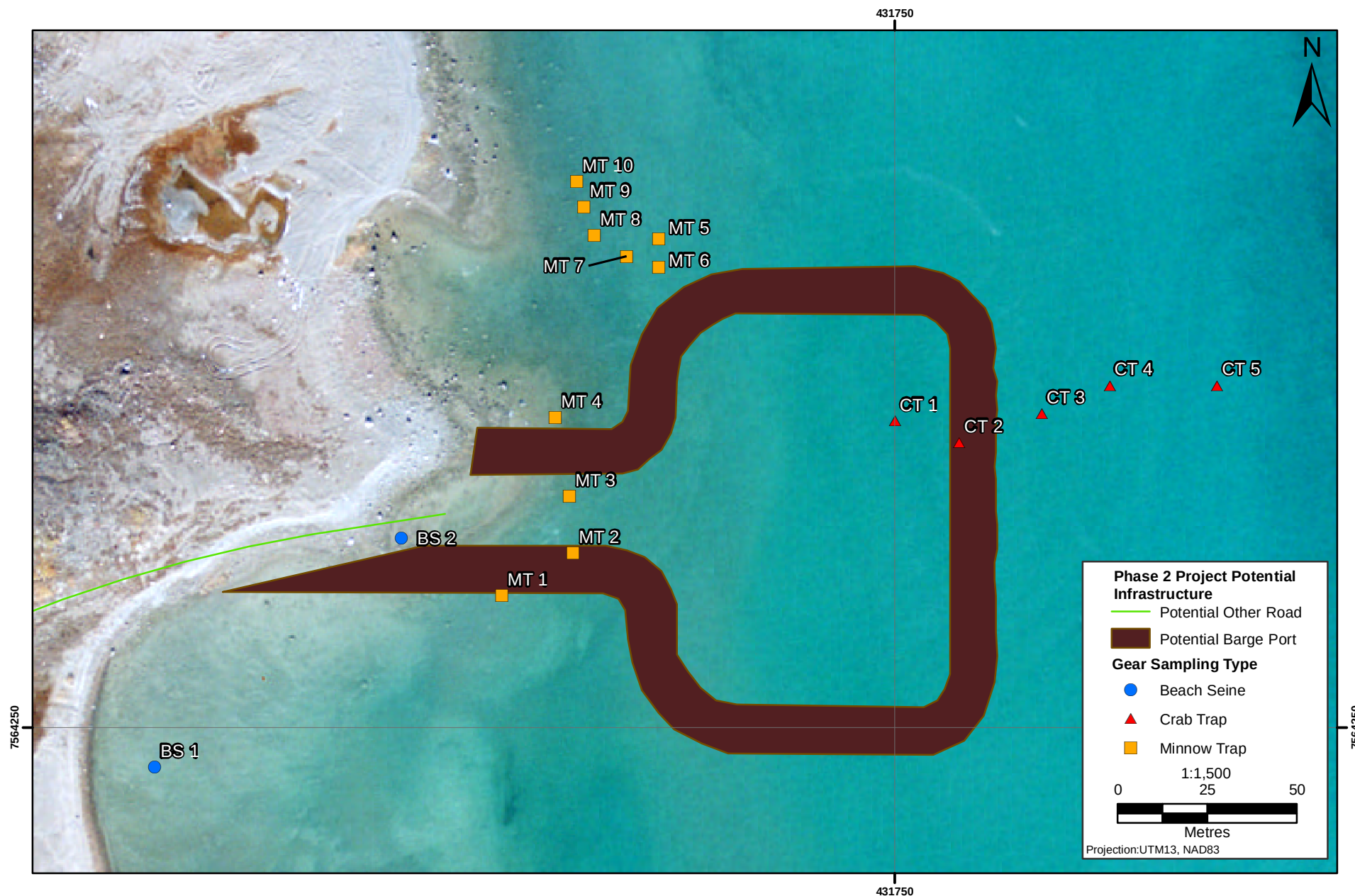


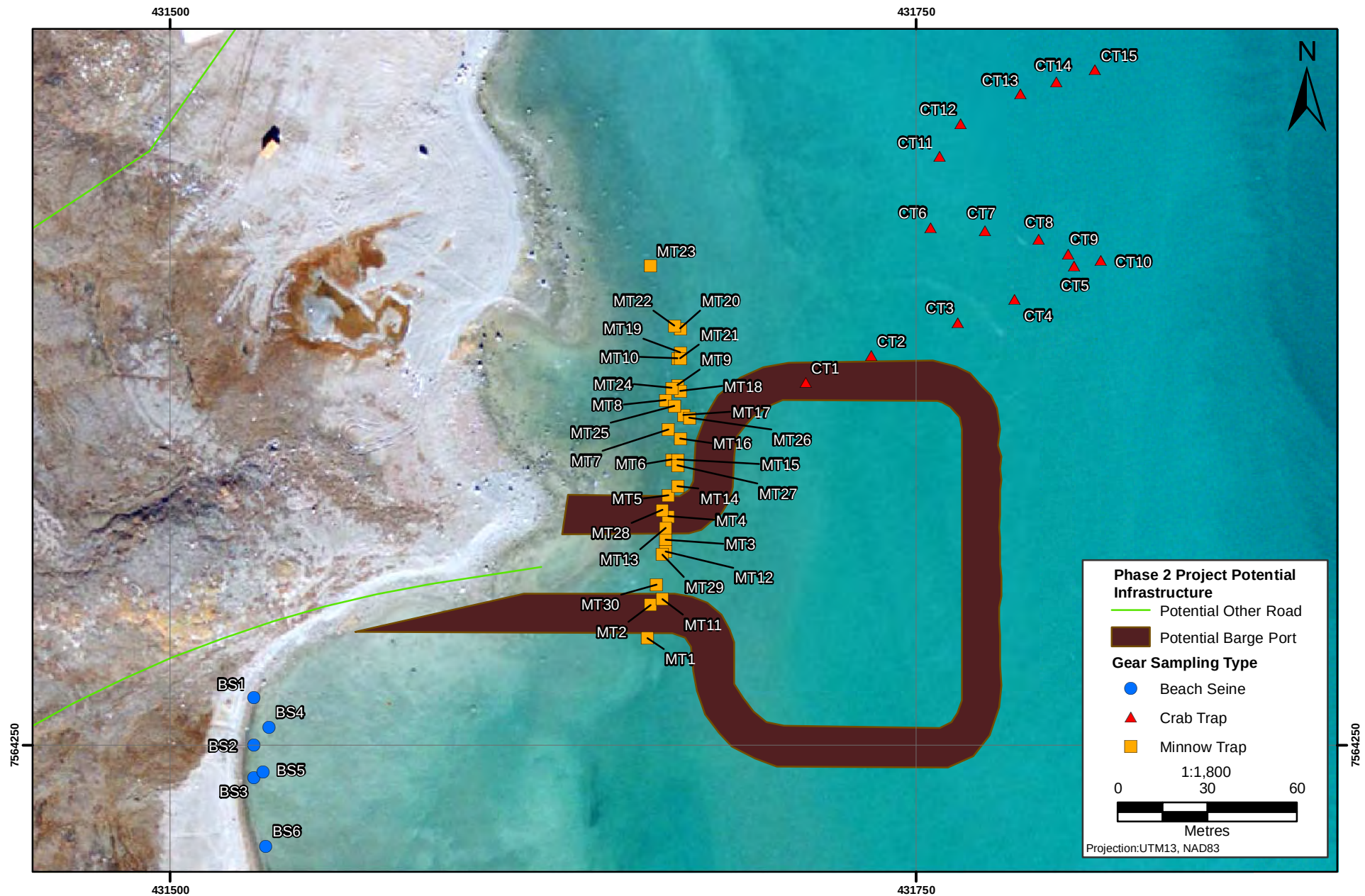


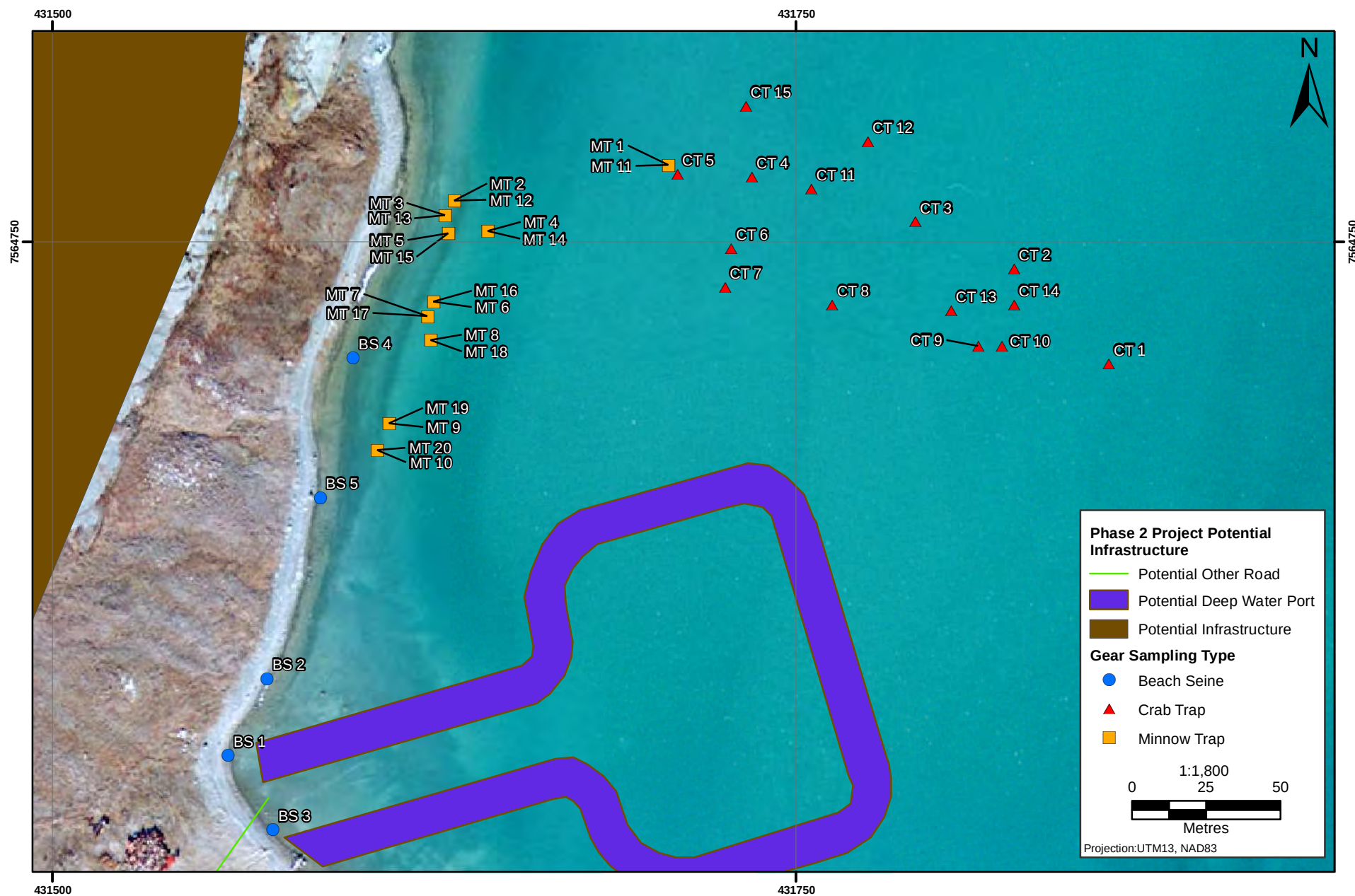


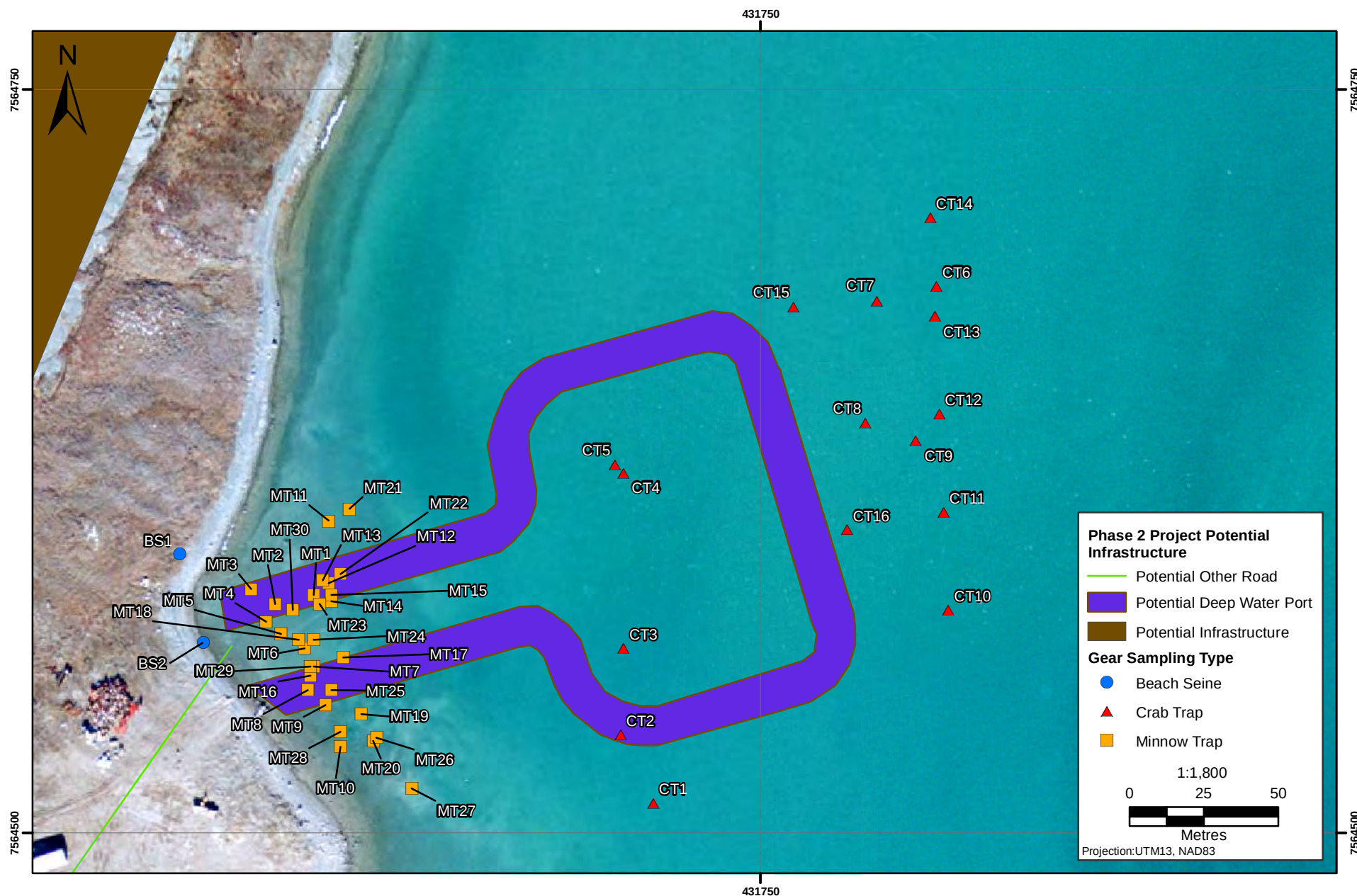
Beach Seine, Minnow Trap and Crab Trap Locations
During the Late Sampling Survey of the Fish Community
at Site P1 in Roberts Bay, Hope Bay Belt Project, 2010

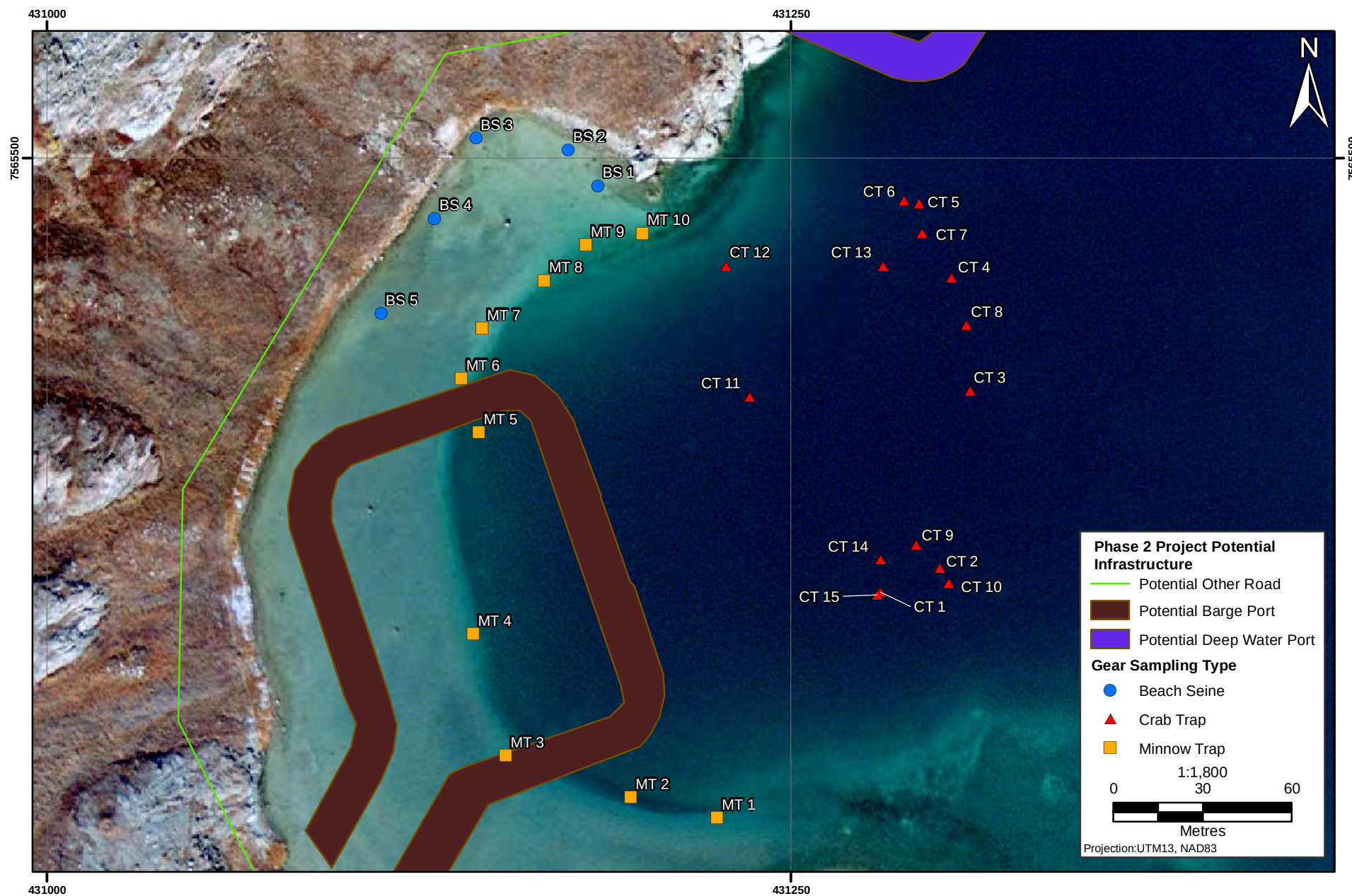
Figure 2.3-14





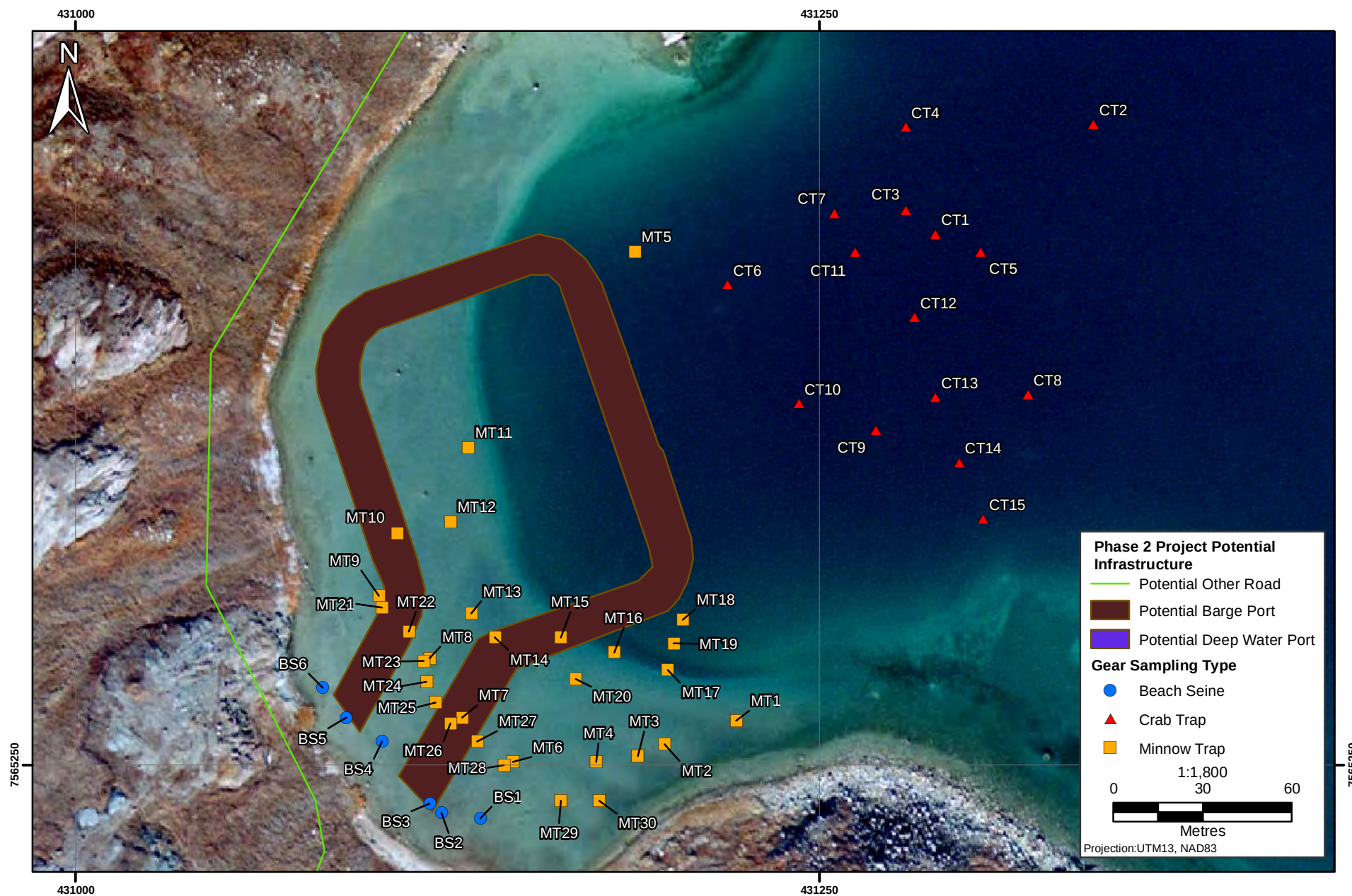


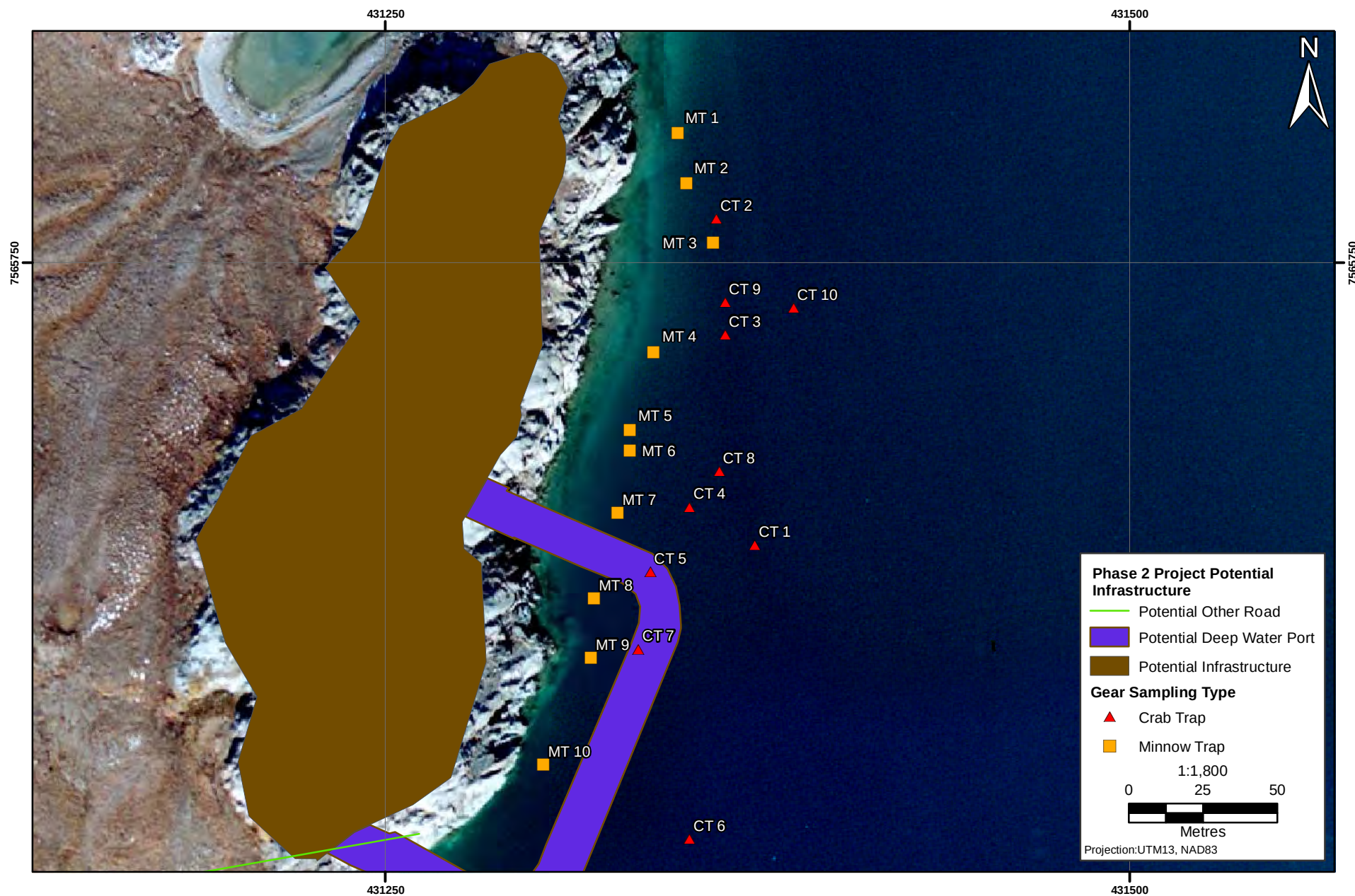


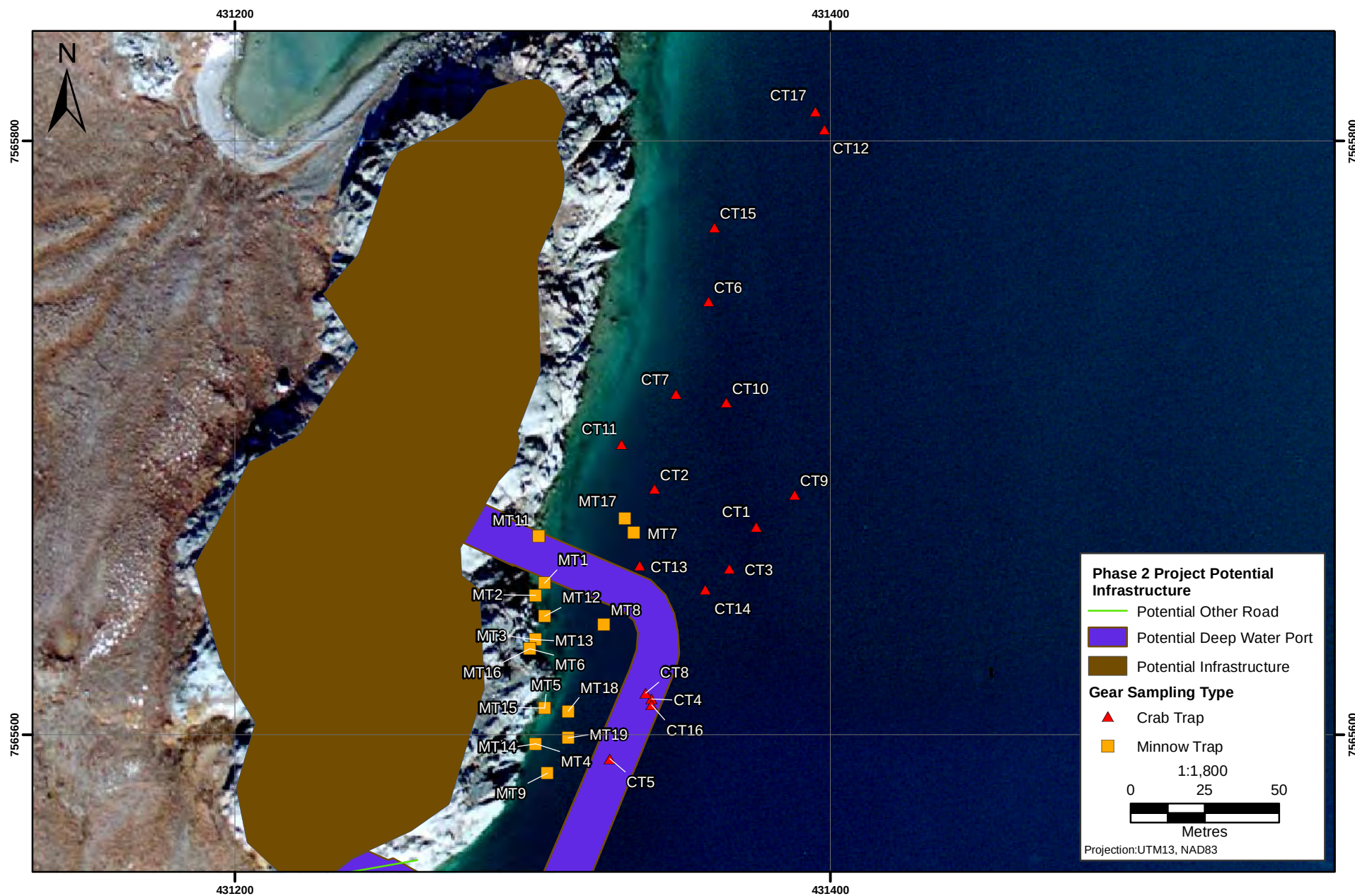


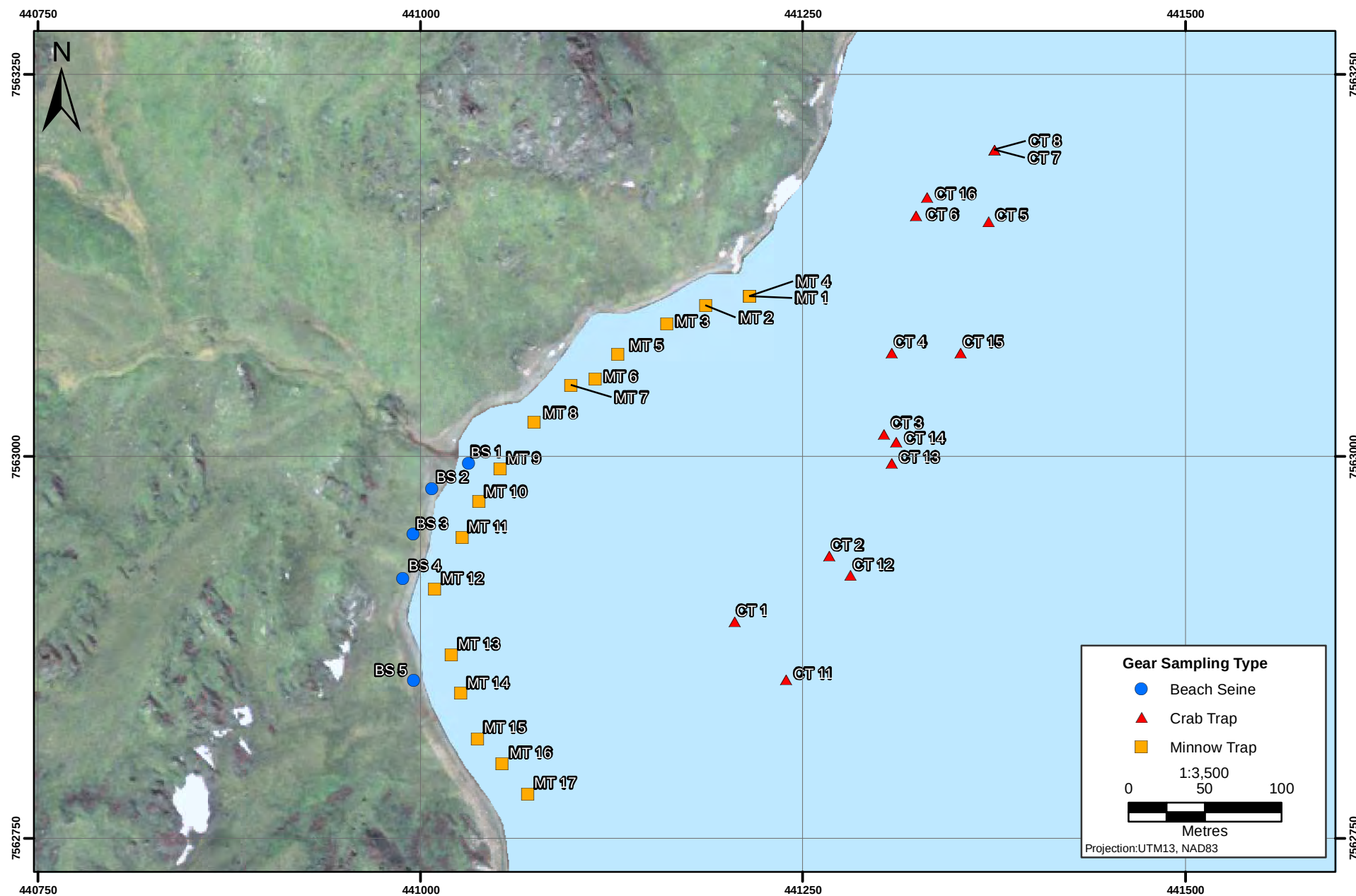
Beach Seine, Minnow Trap and Crab Trap Locations
During the Early Sampling Survey of the Fish Community
at Site P4 in Roberts Bay, Hope Bay Belt Project, 2010

Figure 2.3-19









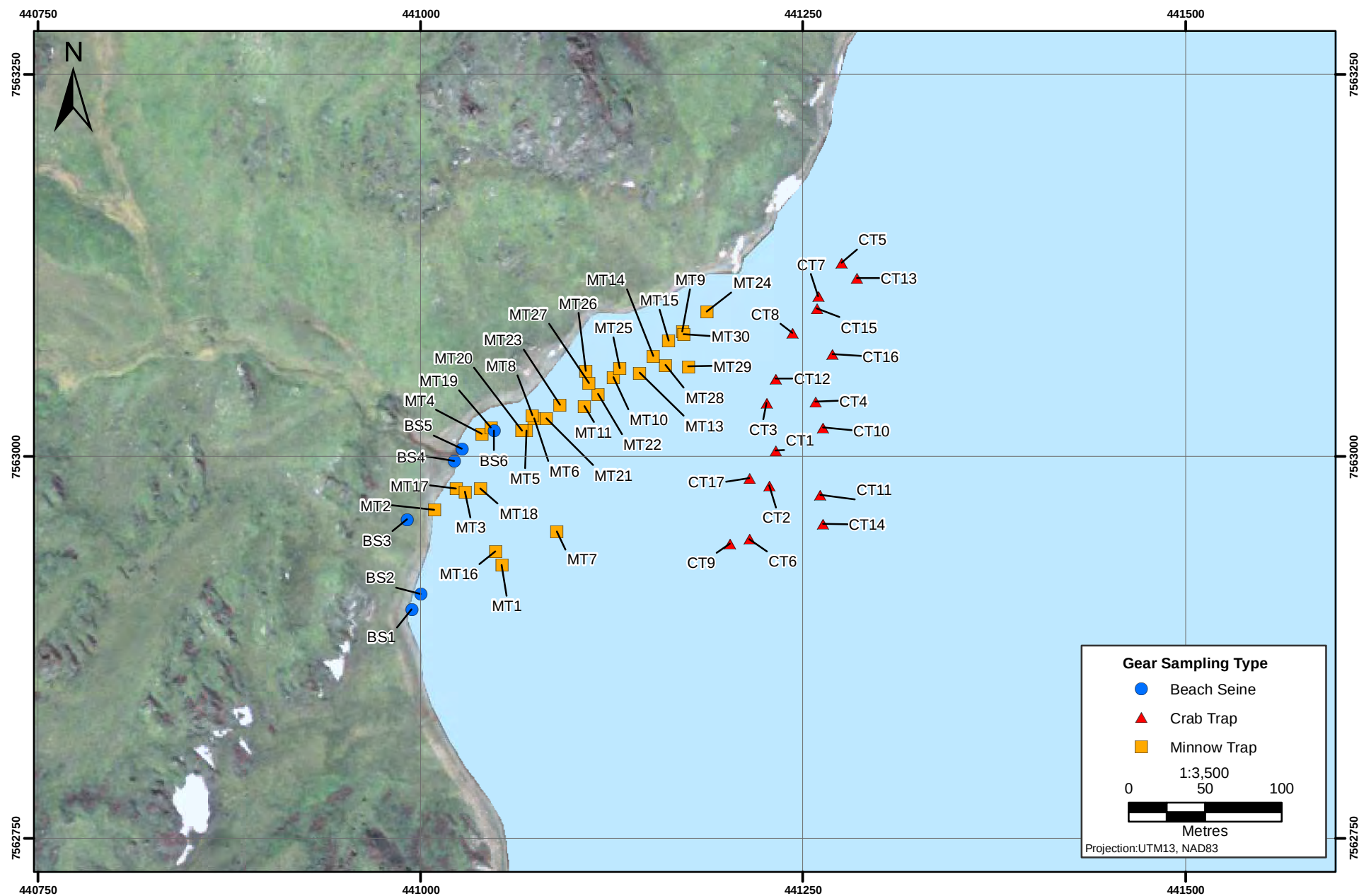




Plate 2.3-1. A beach seine set at a potential infrastructure site (P3) in Roberts Bay, Hope Bay Belt Project, 2010.

2.3.2.6 Crab Traps

Crab traps were used to sample fish and large invertebrates (also called macrobenthos) such as crabs and isopods. The traps consisted of a collapsible, spring-loaded rectangular stainless steel frame with 38 mm mesh netting and two gate style entrances. When open, the trap measured 30 cm by 42 cm by 80 cm and had a 22 cm by 8 cm opening. A bait box was filled with a combination of dry commercial crab bait and raw fish before being attached to the interior of the trap. As with minnow traps, crab traps were set overnight and retrieved the next possible day. Figures 2.3-13 to 2.3-24 show the locations of each crab trap set.

2.3.2.7 Trap Nets

Trap nets are a passive sampling method with three components: the lead net, two wings (one for each side), and the box trap (Plate 2.3-2). The lead net was a single 50 m x 1.8 m seine net with a mesh size of 25 mm which was anchored to shore and stretched perpendicularly to a maximum depth of 1.8 m at high tide (the height of the nets used). The lead net interrupted the movement of any fish swimming parallel to the shoreline. The natural reaction of fish is to follow the lead net, either to shore (where they would turn around) or out to the box trap. The box trap was attached to the lead net and made of 12 mm mesh measuring 1.8 m deep x 3.7 m long x 1.8 m wide. It has a small opening next to the lead net. To funnel fish into the box trap, two wings were attached to the box that extended 15 m from either side at a 45° angle towards shore. Once inside the trap, fish tended to stay inside because they find the small opening difficult to locate.

Large yellow buoys (for easy location by boat traffic) were attached to the surfaces of the lead net, box trap and wings. A weighted lead line kept the lead net and wings on the seafloor. The trap nets remained vertical in the water, preventing fish from escaping either along the seafloor or the surface. To secure the net against swells and wind-driven waves, the ends of the box trap and wings were each anchored with gravel-filled sandbags weighing approximately 35 kg and the lead net was firmly tied or anchored onshore.

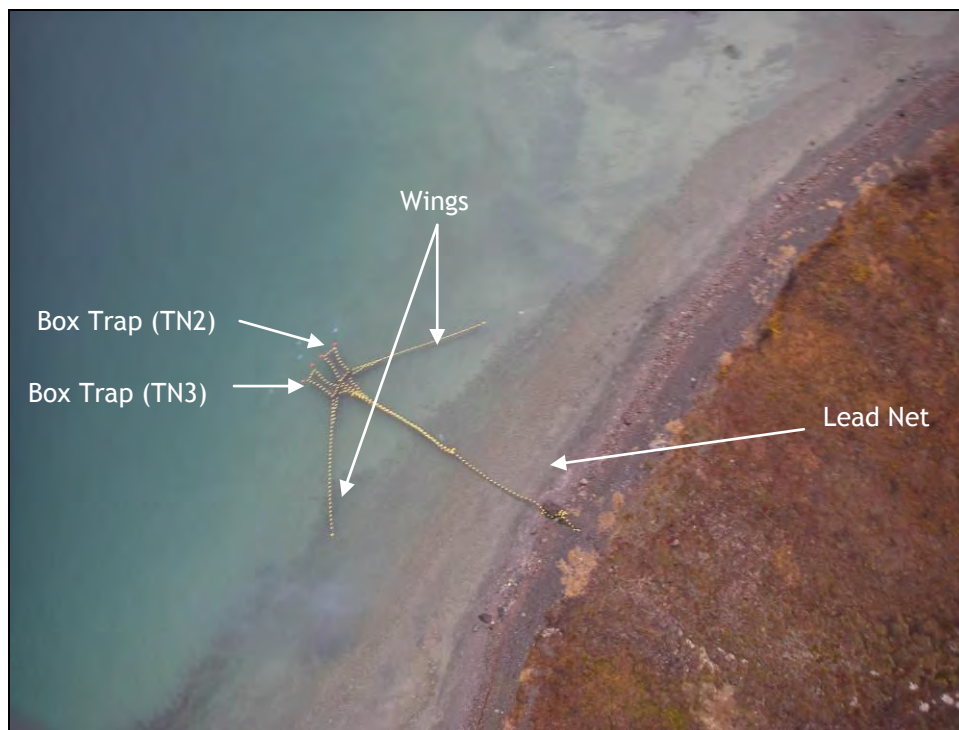


Plate 2.3-2. Aerial view of trap nets TN2 and TN3 fully deployed in Roberts Bay.

Trap nets were installed at three sites to assess fish movements along the western shore of Roberts Bay (see Figure 2.1-2). TN1, which was installed at site P1, was multi-directional (i.e., fish could enter from either direction). TN2 and TN3 were directional between sites P3 and P4 (i.e., TN2 captured northward-moving fish while TN3 captured southward-moving fish). TN4 was multi-directional past the northern boundary of P5.

2.3.3 Sample Processing

Upon gear retrieval, all fish and macrobenthos were immediately removed and placed in a water-filled plastic tub until they could be processed onshore. During processing, each specimen was assigned a unique sample number, identified to species, measured for fork length (mm) and weighed to the nearest 0.1 or 1 g, depending on total weight. For fish captured in the trap nets, all Arctic char, lake trout, and saffron cod greater than 300 mm in length were tagged with an individually numbered Floy tag inserted through the fin rays at the bottom of the dorsal fin (Plate 2.3-3). All tagged fish, as well as selected fish captured at sites P1 to P5 and REF, were sampled for aging structures. Scales were collected with forceps or a scalpel blade below the posterior margin of the dorsal fin on the left side of the fish and two to three pelvic fin rays were also collected with clippers. Otoliths were collected from those fish that died as a result of capture and handling. Processed fish were placed into a water-filled bin for recovery, and were then released live at the site of capture.

A minimum of two aging structures from each fish were placed on wax paper and kept in a labelled envelop with the site, date, species and unique sample number and sent to North Shore Environmental Services (Thunder Bay, ON) for analysis. Age was estimated by counting the number of annuli (yearly rings) from each structure. Scales were attached to plastic fiches and annuli were counted with a microfiche reader. Fin rays were air-dried and then mounted in a 50:50 epoxy medium. Microsections were cut from the fin rays using a Beuler Isomet diamond saw and mounted on slides for inspection

using a compound microscope. Otoliths were air-dried, cracked and passed over a flame to increase the visibility of annuli. Otoliths were then mounted in Plasticine and immersed in oil for better inspection using a compound microscope. When more than one structure was used for aging, the structure with the highest confidence, based on professional opinion, was used.



Plate 2.3-3. A saffron cod tagged with a dorsal Floy tag.

Following the methodology of the 2009 study (Rescan 2010), Pacific herring stomachs were collected for diet analysis. A subset of Pacific herring was sacrificed for stomach samples in both Roberts Bay and Reference Bay. Stomachs were preserved in 10% formalin and sent to Applied Technical Services (Victoria, BC) for taxonomic analysis of their contents, including number and weight of prey organisms. Percent digestion of the stomach contents and percent fullness were visually estimated by laboratory personnel.

2.4 MACROBENTHOS COMMUNITY

Macrobenthos were identified to the lowest taxonomic level, measured in length to the nearest mm and weighed to the nearest 0.1 g. Due to differences in body morphology, length data were measured by different methods depending upon taxonomic groups (Table 2.4-1).

Table 2.4-1. Measurements Taken of Macrobenthos Collected in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Macrobenthos	Measurements
Crabs	carapace width
Isopods	total length
sea stars	maximum length -from one arm tip to another
sea urchins	diameter of test

2.5 DATA ANALYSIS

2.5.1 Community Composition

For each gear type, catch was standardized for fishing effort using catch-per-unit-effort (CPUE). For gillnets, CPUE was calculated as the number of fish caught per 100 m² of net surface area per hour:

$$CPUE = \text{number of fish caught per net} \times (100 \text{ m}^2 / \text{total net area}) / \text{set time (h)}$$

For long lines, CPUE was calculated as the number of fish caught per hook per hour:

$$CPUE = \text{number of fish caught per long line} / \text{number of hooks} / \text{set time (h)}$$

For beach seines, CPUE was calculated as the number of fish caught per area seined:

$$CPUE = \text{number of fish caught} / \text{total area seined (m}^2\text{)}$$

For minnow traps, crab traps and trap nets, CPUE was calculated as the number of fish caught per trap per 24 hours:

$$CPUE = \text{number of fish} \times [24 \text{ (hrs)} / \text{set time (h)}]$$

Non-parametric Multidimensional Scaling Analysis (nMDS) was used to compare community composition among sites P1 to P5 and REF using CPUE data. All CPUE values, separated by site, sampling period and gear, were $\log(\text{CPUE} + 1)$ transformed to normalize their frequency distribution, and compared using the Bray-Curtis Similarity Index. Those indices were used as a relative distance among sample points. nMDS produced scatter plots where sites in close proximity represent similar communities and sites far away from each other are dissimilar. Next, a Two Way Analysis of Similarity (ANOSIM) was performed on the results of the nMDS to test for significant differences in species composition among sites, with sampling periods as a nested factor. A Similar Percentages (SIMPER) Analysis was also conducted to identify the main species differences among sites and sampling periods.

2.5.2 Biological Characteristics

Biological characteristics were analyzed separately for fish caught in Roberts Bay and Reference Bay because future mine activities will occur in Roberts Bay but not Reference Bay, and because the two bays are separated by 20 km of swimming distance, and hence are likely to support different breeding populations. Fish caught in Roberts Bay were pooled by species because they were assumed to belong to a single breeding population for each species (but see weight-length analyses below).

Length-frequency distributions were used to show the dominant size classes for those species with a sample size of more than eight (Johnson et al. 2007). Condition and weight-length regressions were used as indicators of the relative health of fish. Condition was based on the ratio of weight to length (Ricker 1975):

$$\text{Condition} = \text{weight (g)} \times 10^5 / \text{length}^3 \text{ (mm)}$$

Weight was multiplied by a factor of 10⁵ to avoid fractional values, and a weight-length exponent of 3 was assumed to apply to all species of fish.

Weight was regressed on length for each species. Weight and length were transformed with natural logarithms to normalize the data and homogenize the variances - the two prerequisites of parametric statistics:

$$\ln(\text{weight}) = \ln(a) + b[\ln(\text{length})]$$

where a is a coefficient and b is the slope of the regression. Weight-length relationships were only calculated for fish species captured in large enough numbers (≥ 8) to make the regression statistically significant and meaningful.

Analysis of Covariance (ANCOVA) was performed on all Roberts Bay weight-length relationships to test for differences in intercepts among sites and trap nets. For each species, a General Linear Model (GLM) was first used to test for uniformity of slope (i.e., by testing for a significant interaction of slope and site). If there was no significant interaction, then a uniform slope was assumed and ANCOVA was used to test for site-specific differences in intercepts. If the GLM had a significant interaction, then slopes were assumed to vary significantly among sites and separate weight-length regressions were calculated for each site and trap net.

Length-age relationships were described with the von Bertalanffy growth model (Ricker 1975):

$$L_t = L_{\infty}(1 - \exp(-K(t - t_0)))$$

where L_t = length (mm) at age t (years), L_{∞} = asymptotic length (mm) (i.e., length at infinite age), K = growth rate (year^{-1}) and t_0 = age (years) at $L = 0$ mm. For some species, the age ranges were too narrow to allow estimation of a realistic value of t_0 . In those cases t_0 was fixed at 0 years and only L_{∞} and K were estimated.

All linear regressions were reported with the appropriate sample size (n), coefficient of determination (r^2 , the fraction of variation in the independent parameter that was explained by the dependent parameter) and probability (p) of Type I error. The r^2 for linear or non-linear regressions were not adjusted for the degrees of freedom. All data were tested against the assumption normality and equal variances using a Kolmogorov-Smirnov test. Statistics were conducted according to Zar (1984) using the SYSTAT library of computer programs (SYSTAT 2006).

2.6 QA/QC

A quality assurance and quality control program (QA/QC) included the use of chain of custody forms, taxonomic and laboratory QA/QC procedures and data review. Field notes were transcribed onto electronic spreadsheets and all transcriptions were compared with field notes to correct transcription errors. Some length, weight and age data were plotted against each other (e.g., weight-length regressions and length-age plots) to identify outliers that may have resulted from transcription errors. If errors could not be corrected by re-examination of field notes, then those data were excluded from analysis.

3. Results and Discussion

3. Results and Discussion

3.1 FISH HABITAT

3.1.1 Shoreline Habitat

Appendix 3.1-1 shows detailed habitat data for sites P2, P3, P4, P5 and REF.

Two habitat units were identified at site P2 (Figure 3.1-1). Both are dominated by fine sediment, which makes up 69% of the 12,016 m² of total shoreline area.

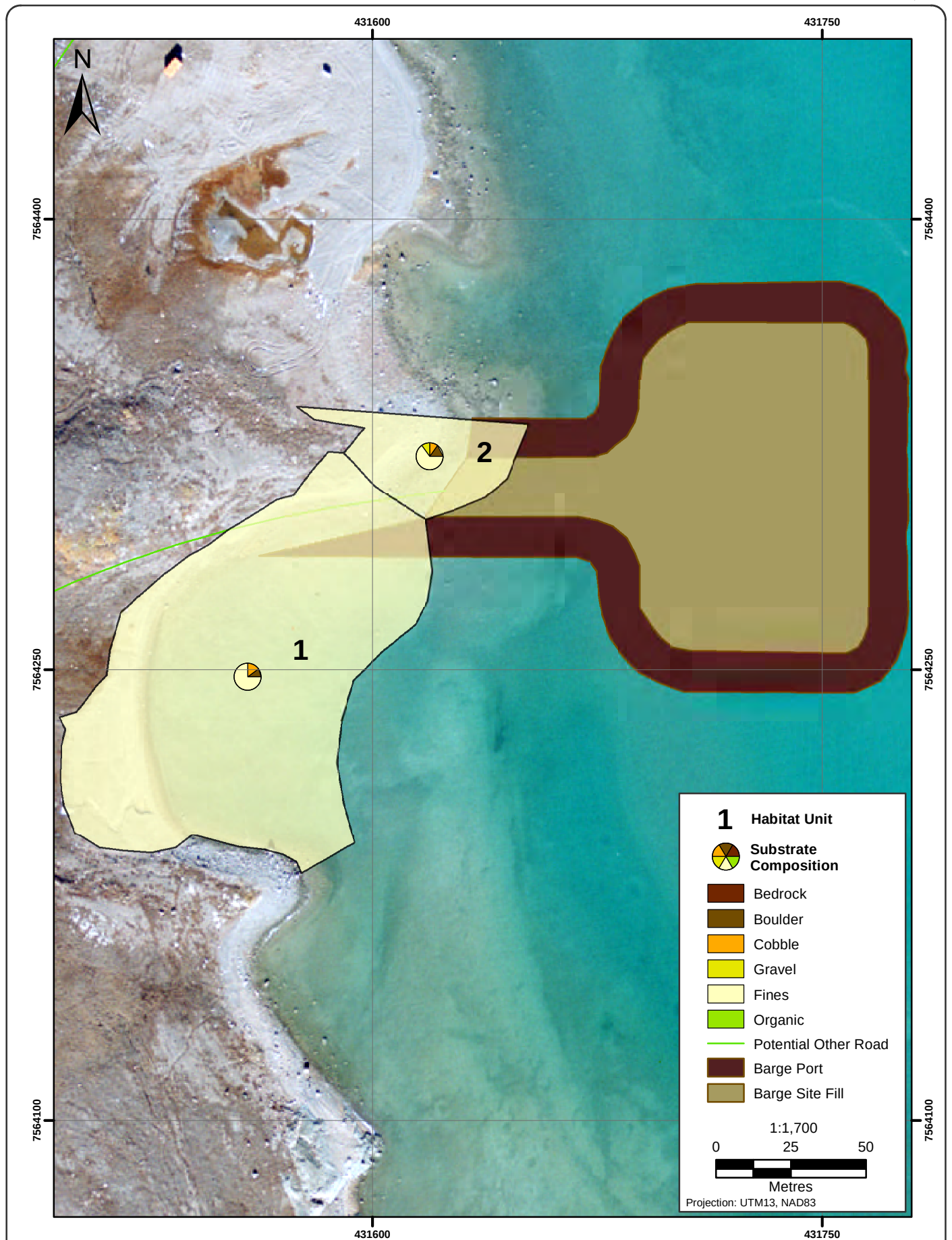
Twelve habitat units were identified as site P3 (Figure 3.1-2). The predominant substrates for the 14,952 m² of total shoreline area are gravel (45%) and cobble (27%) (Plate 3.1-1). Cobble is dominant in four of the units, and gravel is dominant in six units. One unit each is dominated by fines and boulders.

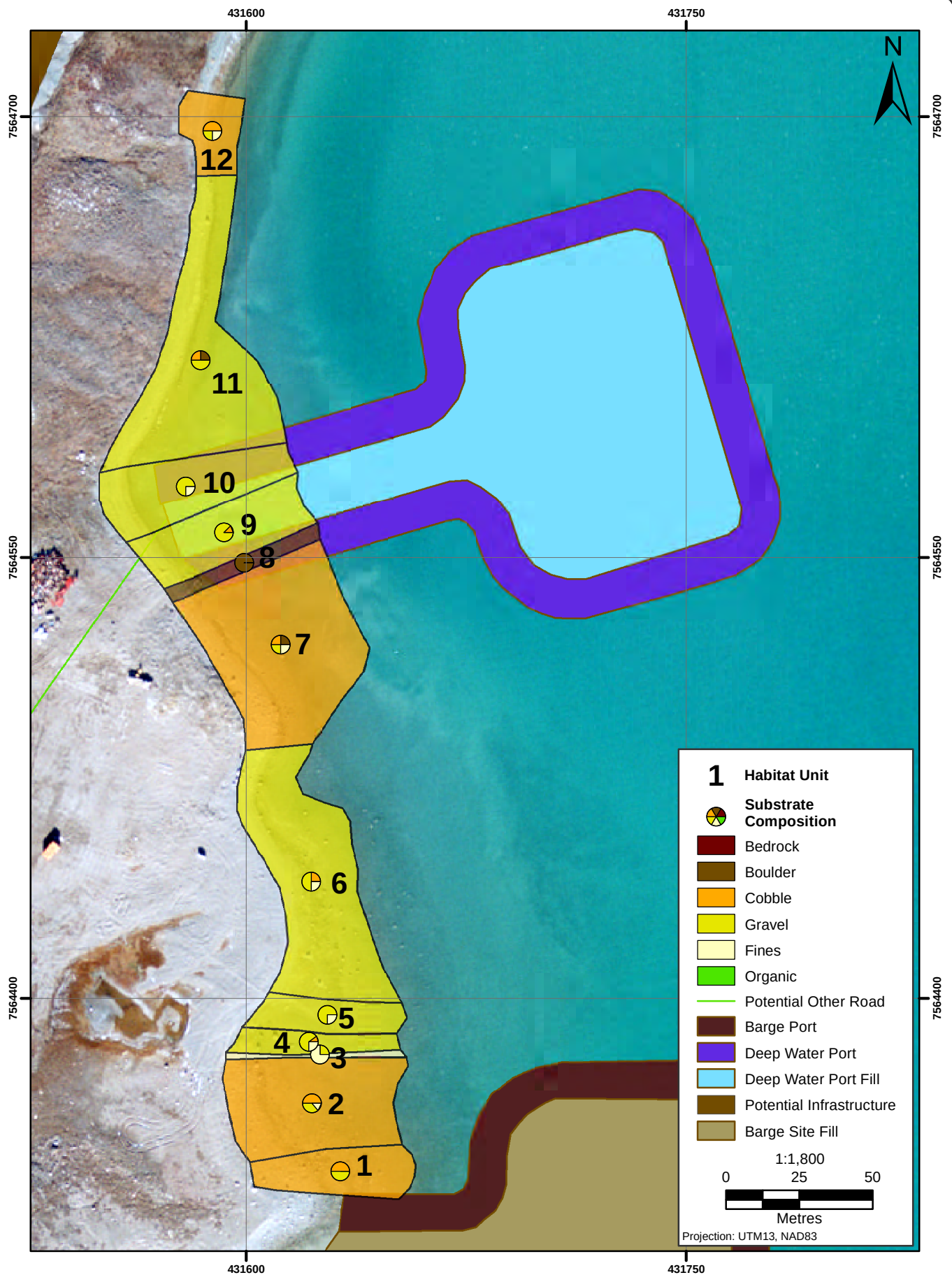


Plate 3.1-1. The dominant substrate types of the shoreline habitat at P3.

A total of 19 separate habitat units were identified at site P4 (Figure 3.1-3). This site is situated in a northeast facing cove which shelters shoreline habitat from prevailing winds. This has resulted in an accumulation of fine substrates (79% of the total area of 31,065 m²). All other substrate types contribute only minor amounts of area: cobble (8%), boulder (7%), organics (4%), and gravel (2%). The sheltered environment also leads to decreased shoreline erosion, as evidenced by areas of infringing tundra (Plate 3.1-2).

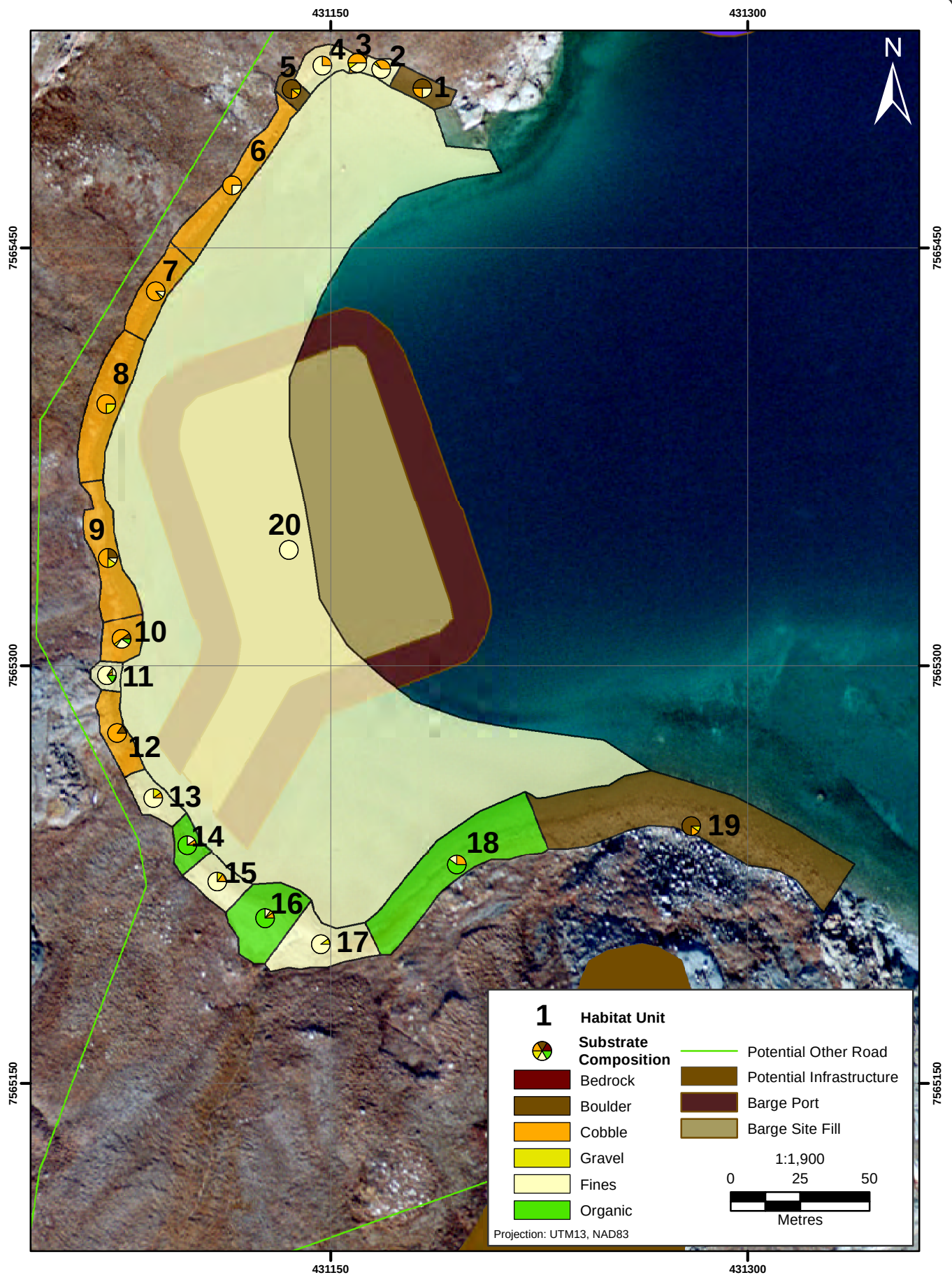
The current location of P5 was expanded and shifted northward from the location surveyed in 2009 for a Deep Water Port option (Rescan 2010) (Figure 3.1-4 and Plate 3.1-3). Therefore, the site was re-surveyed in 2010, but produced similar results. Only one habitat unit was identified, covering 5,956 m² of littoral habitat. Substrates consist of 95% bedrock and 5% boulder.





Detailed Habitat Data for Site P3 in Roberts Bay,
Hope Bay Belt Project, 2010

Figure 3.1-2



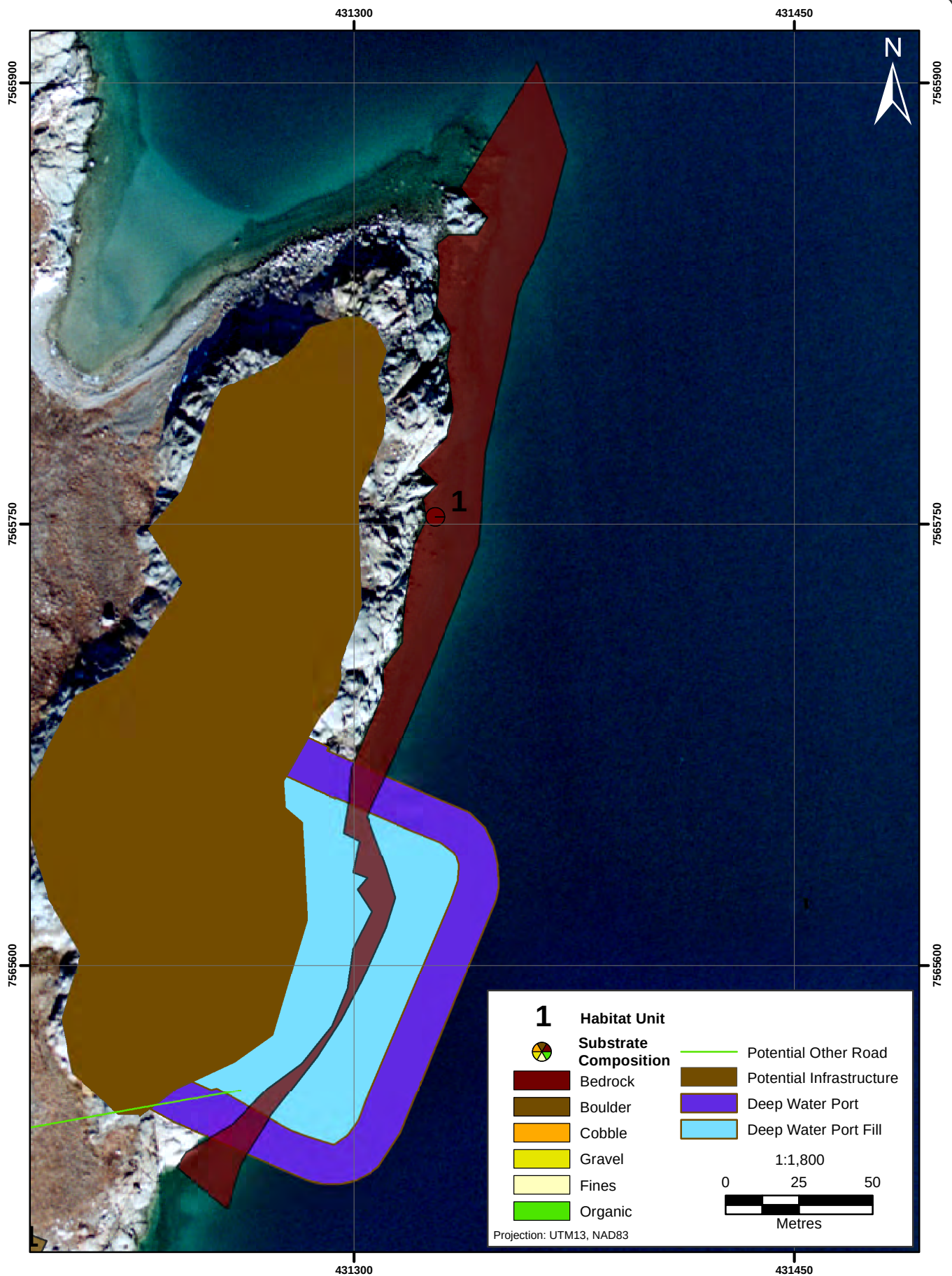




Plate 3.1-2. Different habitat units at site P4 varying from fines to gravel and cobble are separated by fringing tundra.



Plate 3.1-3. The shoreline of site P5 consists of 95% bedrock.

A total of six habitat units were identified at REF. This shoreline consists of relatively even amounts of gravel (40%), cobble (31%), and fines (20%) with boulders making up the remaining 8% of habitat area (Figure 3.1-5 and Plate 3.1-4). The submerged habitat consists of a narrow shelf which extends 3 to 5 m offshore before a substantial drop-off.



Plate 3.1-4. A view of site REF in Reference Bay.

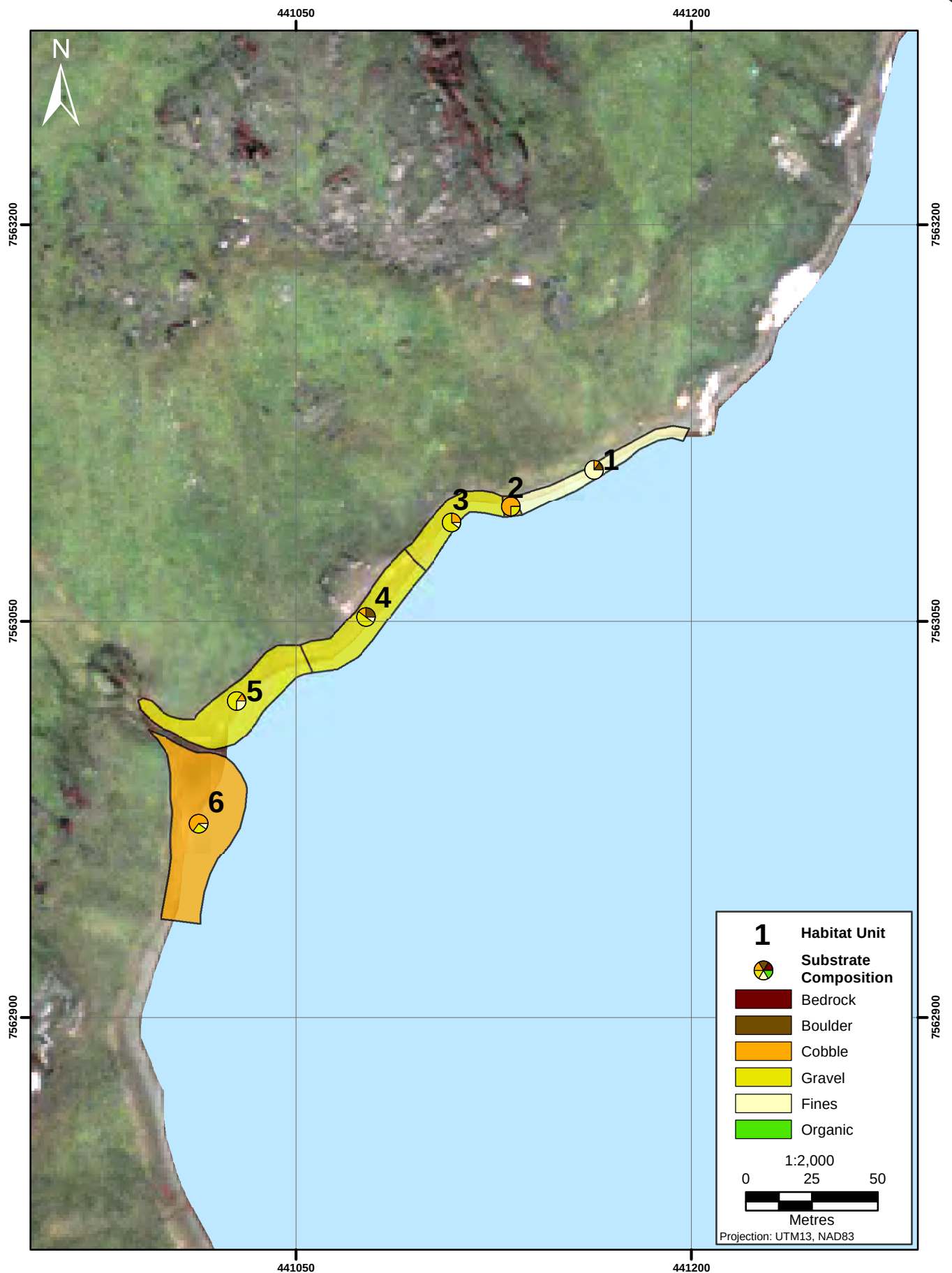
3.1.2 Bathymetric Surveys

Offshore substrates at the five Roberts Bay sites were shown by hydroacoustics and video camera to range from soft mud to bedrock (Plate 3.1-5). Mud substrates comprise the largest amount of area: P1 (81%), P2 and P3 (81%), and P4 and P5 (61%) (Table 3.1-1). Mud substrate tended to be located in deeper water away from the shoreline (Figures 3.1-6 to 3.1-8).

Table 3.1-1. Substrate types identified by Hydroacoustic and Underwater Surveys, Hope Bay Belt Project, 2010

Site	Unclassified	Mud	Fines	Sand and Gravel	Cobble and Larger Rock	Total
Area (m ²)						
P1	2,251	47,026	0	7,058	1,819	58,154
P2 and P3	2,609	156,193	4,981	21,779	7,283	192,845
P4 and P5	1,394	94,243	6,007	31,396	24,439	157,479
Percent of Total Area by Site						
P1	4	81	0	12	3	100
P2 and P3	1	81	3	11	4	100
P4 and P5	1	60	4	20	15	100

Note: Substrates were unclassified due to shallow water or steep slope: minimum depth = 1 m, maximum slope = 20%.



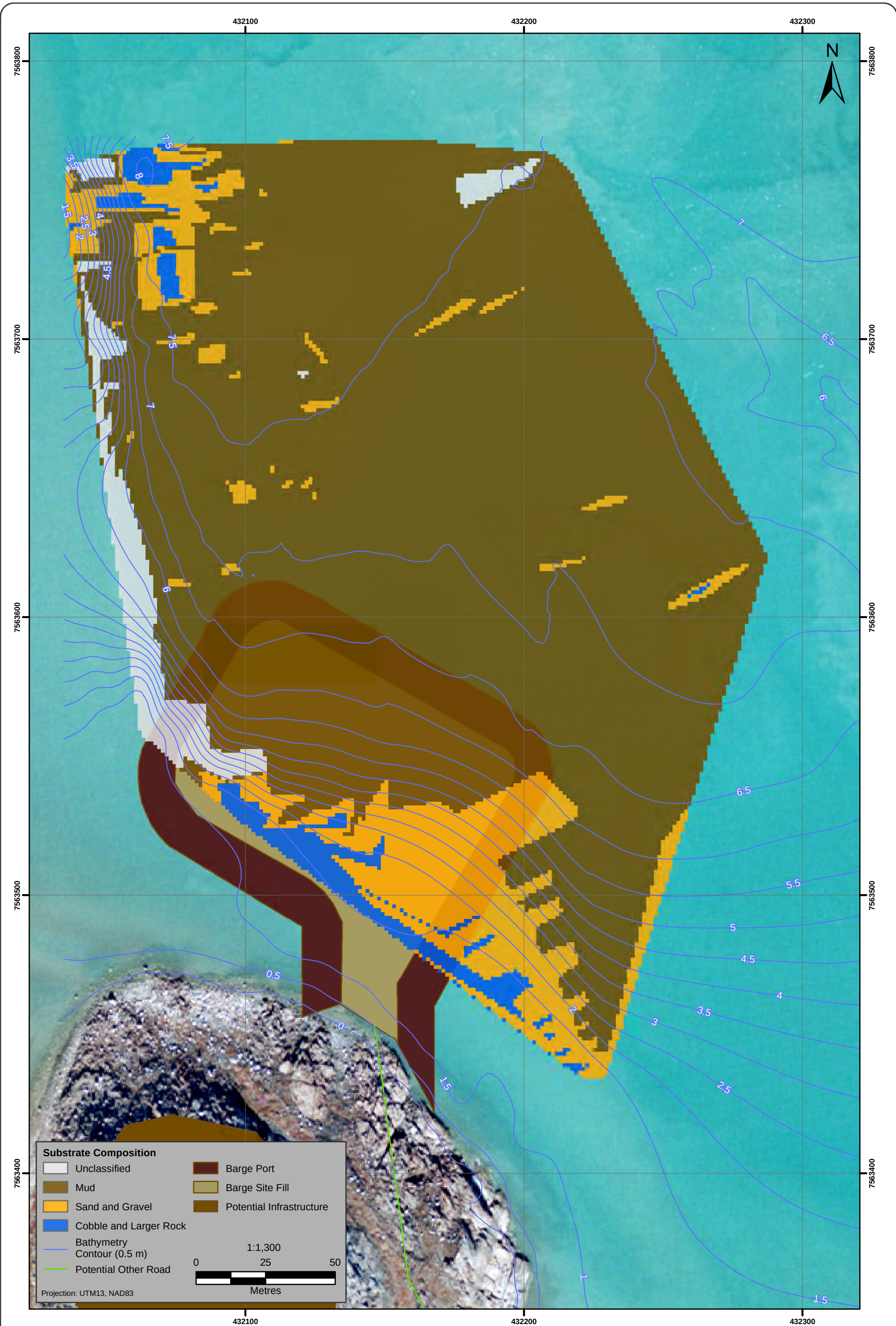


Figure 3.1-6

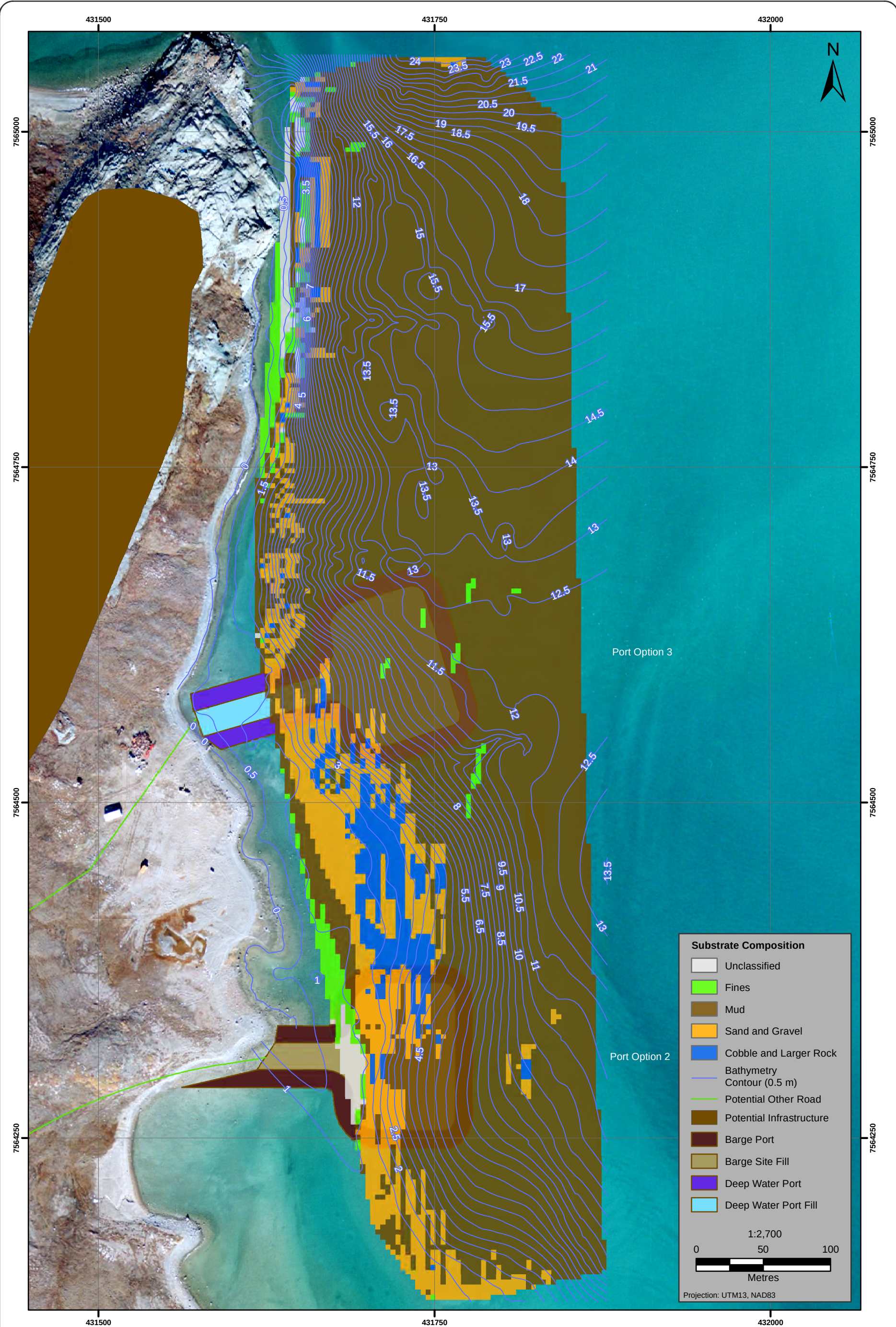


Figure 3.1-7

Figure 3.1-7

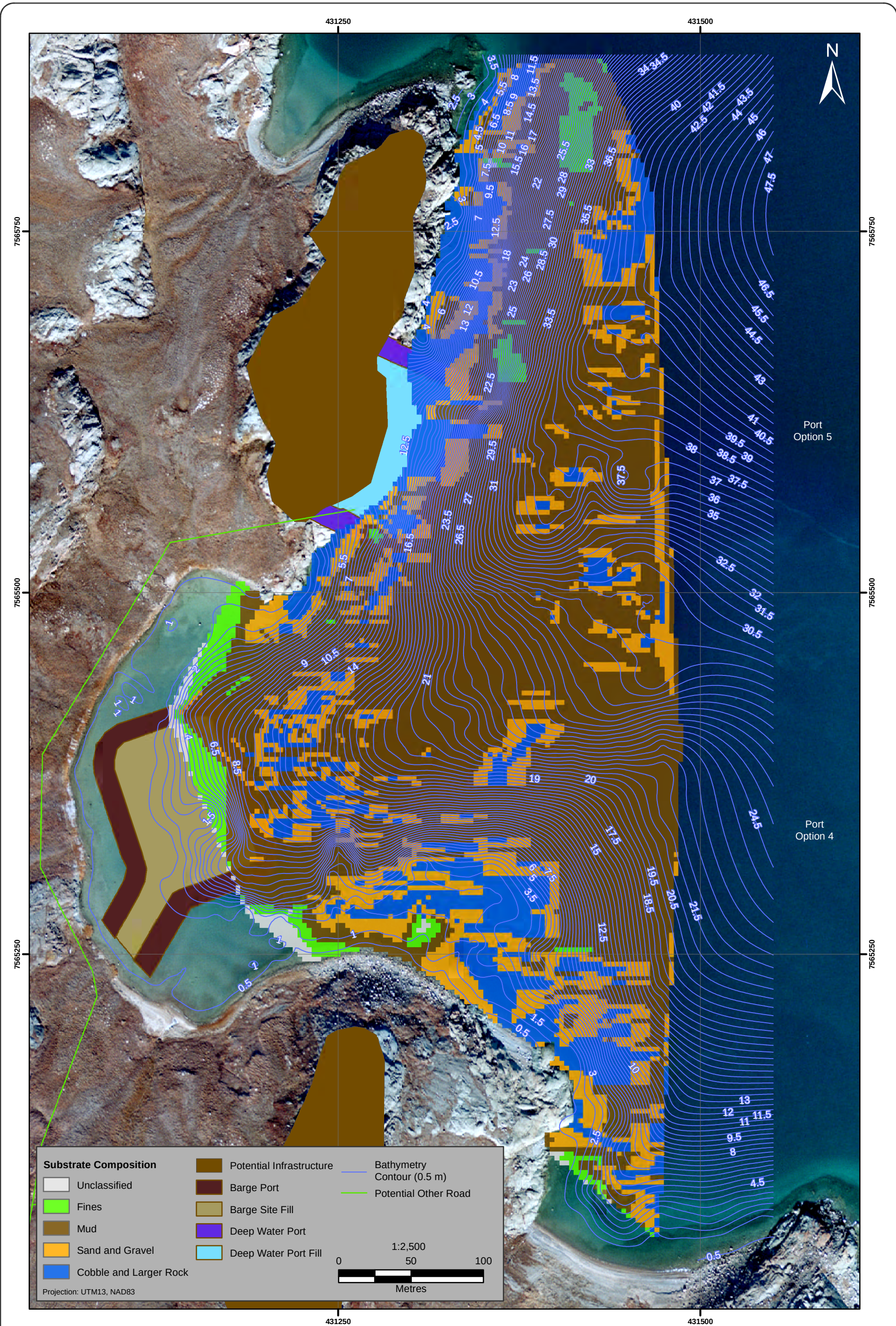


Figure 3.1-8

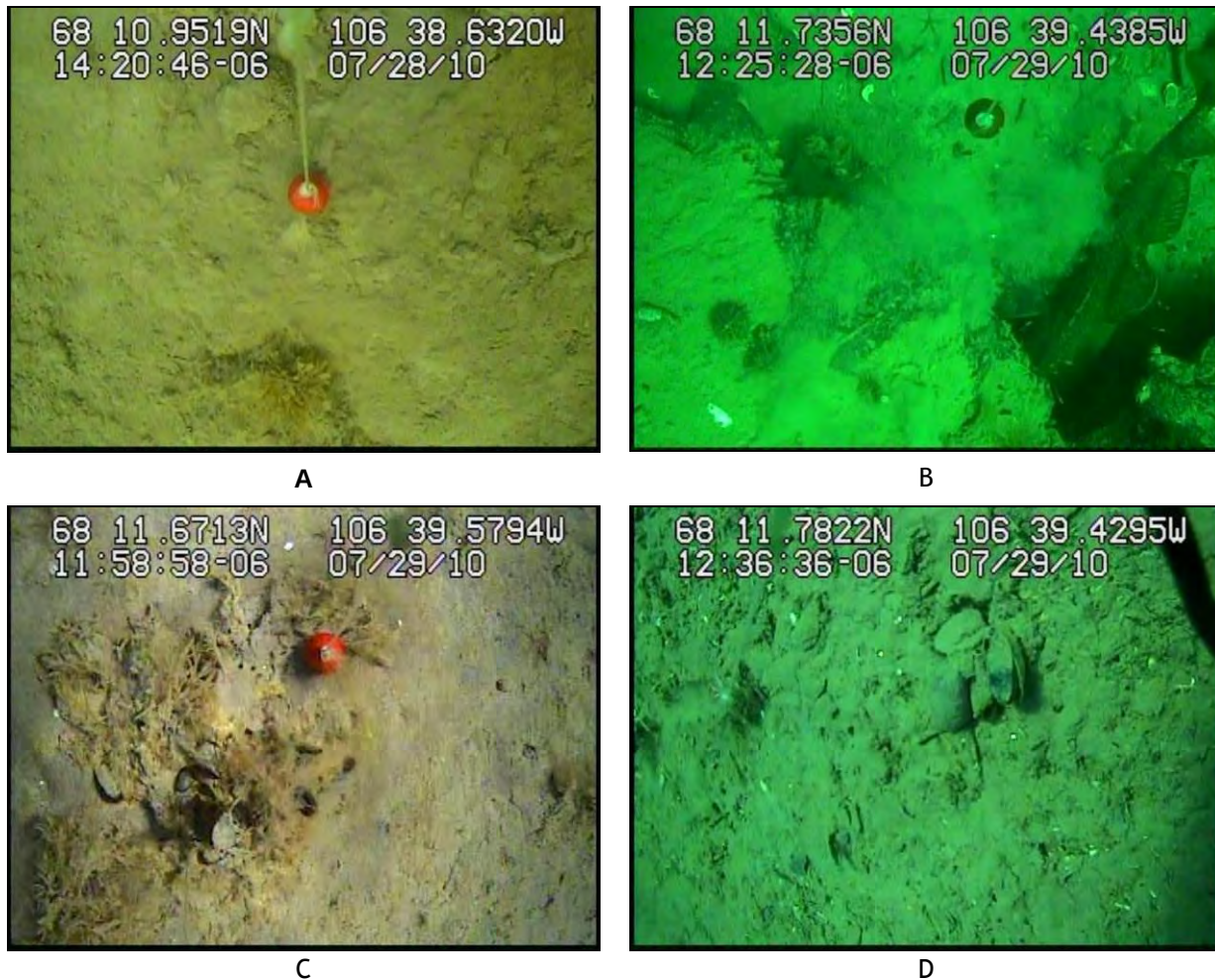


Plate 3.1-5. Video images of sediment classification groundtruthing. (A) Scattered algae over mud and gravel near sites P2 and P3. (B) A bedrock cliff with a layer of fine sediment; a Greenland cod is also visible near the base. (C) An isolated clump of mussels near sites P4 and P5. (D) Molluscs and their shells were abundant in the sediment at this location near sites P4 and P5.

At most sites, coarse sand and rock substrates were observed close to shore at depths less than 3 m. The exceptions were sites P4 and P5 where cobble and bedrock extend past 20 m. Some larger substrates were observed in deeper water, but these habitats are largely isolated, leading to abrupt transitions (often on a scale of meters or less), and patchy distributions. From ground truthing videos, organics were observed, including some patchy filamentous algae associated with both hard and soft substrates (Plate 3.1-5c) as well as molluscs and bivalve shells (Plate 3.1-5d).

The depths measured by boat-based bathymetry ranged from 0.9 to 42.5 m. Depths of the shoreline transects ranged from the waterline to a depth of 1.5 m. Site P1 has a sharp drop-off from shore to a depth of approximately 1.5 m. From this depth, a shelf extends out to about 25 m from shore, and leads into a gentle, uniform slope of fine sediments. This slope extends through the rest of the surveyed area to a depth of 8 m, approximately 100 m offshore (Figure 3.1-6).

Sites P2 and P3 both extend over a shallow, fringing area of fine substrates (Figure 3.1-7). Some patches of coarser material exist, primarily closer to shore.

Site P4 is located on a shallow shelf of fine sediments with the terminus occurring over a moderate slope consisting of patches of coarser materials (Figure 3.1-8). In contrast to the other four sites, site P5 is situated over a sharp drop off of coarse substrates, primarily bedrock and boulders. This substrate extends to a water depth of over 29 m to an abrupt transition to a moderate slope of fine sediments.

3.2 FISH COMMUNITY

3.2.1 Data

Data on the species composition and relative abundance of fish communities of Roberts Bay and Reference Bay are shown and discussed first for the sampling that was conducted at sites P1 to P5 and REF (Sections 3.2.2 to 3.2.3), and then for the four trap nets installed in Roberts Bay (Section 3.2.4). Appendices 3.2-1 to 3.2-6 show the locations, set and retrieval times, and summary catch for each floating gillnet, sinking gillnet, long line, beach seine, minnow trap and crab trap set in Roberts and Reference bays in 2010, and Appendix 3.2-8 shows summary statistics on catch, effort and CPUE for those gears. Catch, effort and CPUE for trap nets are shown in Section 3.2.4.

In contrast, biological data on fish are shown and discussed for all sampling methods combined (Sections 3.2.5 to 3.2.8), except for those cases when ANCOVA showed that gear types and sites had to be treated separately. Appendices 3.2-7, 3.2-13 and 3.2-14 show the biological data collected from catches of floating gillnets, sinking gillnets, long lines, beach seines, minnow traps and crab traps, and appendices 3.2-9 to 3.2-12 show the biological data collected from trap nets.

3.2.2 Species Composition for Sites P1 to P5 and REF

Thirteen fish species were caught at sites P1 to P5 and REF (Table 3.2-1 and Plates 3.2-1 to 3.2-11). Of these, only six species were caught in both Roberts and Reference bays during both sampling sessions: Arctic char, Arctic flounder, Pacific herring, saffron cod, fourhorn sculpin, and shorthorn sculpin. Lake trout and starry flounder were both caught in Roberts and Reference bays, but only during one sampling period. An additional three fish species were caught in Roberts Bay, but were not identified to species: a poacher (Agonidae), sandlance (Ammodytidae), and larval snailfish (Liparidae).

Table 3.2-1. Fish Species Captured in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Common Name	Scientific Name	Primary Habitat	Roberts Bay		Reference Bay	
			Early ^a	Late ^b	Early ^a	Late ^b
Arctic char	<i>Salvelinus alpinus</i>	Anadromous	X	X	X	X
Arctic flounder	<i>Liopsetta glacialis</i>	Marine	X	X	X	X
Arctic shanny	<i>Stichaeus punctatus</i>	Marine	X	X	-	-
banded gunnel	<i>Pholis fasciata</i>	Marine	X	-	-	-
Greenland cod	<i>Gadus ogac</i>	Marine	X	X	-	-
longhead dab	<i>Limanda proboscidea</i>	Marine	X	X	-	-
lake trout	<i>Salvelinus namaycush</i>	Anadromous	X	-	X	-
Pacific herring	<i>Clupea pallasii</i>	Marine	X	X	X	X
saffron cod	<i>Eleginus gracilis</i>	Marine	X	X	X	X
starry flounder	<i>Platichthys stellatus</i>	Marine	X	X	X	-
fourhorn sculpin	<i>Trigloopsis quadricornis</i>	Marine	X	X	X	X
shorthorn sculpin	<i>Myoxocephalus scorpius</i>	Marine	X	X	X	X

(continued)

Table 3.2-1. Fish Species Captured in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010 (completed)

Common Name	Scientific Name	Primary Habitat	Roberts Bay		Reference Bay	
			Early ^a	Late ^b	Early ^a	Late ^b
ninespine stickleback	<i>Pungitius pungitius</i>	Brackish/ Anadromous	X	X	-	-
poacher (unidentified spp.)	Agonidae spp.	Marine	X	-	-	-
sandlance (unidentified spp.)	Ammodytidae spp.	Marine	-	X	-	-
snailfish (unidentified spp.)	Liparidae spp.	Marine	-	X	-	-

X = captured; dashes indicate no captures.

a: late July and early August.

b: late August and early September.

Thirteen of the 16 species are primarily marine, but at least two (e.g., Arctic flounder and starry flounder) are also known to enter low-salinity habitats (Walters 1955). Arctic char and lake trout are anadromous, meaning they spawn and rear in freshwater but migrate to the sea to forage (Scott and Crossman 1973; Swanson et al. 2010). Ninespine stickleback can exhibit three life-history types: freshwater, brackish and anadromous (Arai and Goto 2005). Since they were caught in the Arctic Sea, the sticklebacks captured in this study were following either an anadromous or brackish water life history.

Arctic flounder, Arctic shanny, Greenland cod, longhead dab, saffron cod, starry flounder and sculpin are demersal, meaning they forage along the sea bottom. In contrast, Pacific herring are pelagic, meaning they forage in open water, usually in the upper and middle water column. Benthopelagic fish, including the ninespine stickleback and Arctic char, forage in both benthic and pelagic zones of either freshwater or marine habitats. None of the 16 species are currently endangered or threatened (COSEWIC 2010).



Plate 3.2-1. An Arctic char captured in Reference Bay, Hope Bay Belt Project, 2010.



Plate 3.2-2. An Arctic flounder captured in Roberts Bay, Hope Bay Belt Project, 2010.



Plate 3.2-3. An Arctic shanny captured in Roberts Bay, Hope Bay Belt Project, 2010.



Plate 3.2-4. A banded gunnel captured in Roberts Bay, Hope Bay Belt Project, 2010.



Plate 3.2-5. A Greenland cod captured in Roberts Bay, Hope Bay Belt Project, 2010.



Plate 3.2-6. A Pacific herring captured in Roberts Bay, Hope Bay Belt Project, 2010.



Plate 3.2-7. A saffron cod captured in Roberts Bay, Hope Bay Belt Project, 2010.



Plate 3.2-8. A starry flounder captured in Roberts Bay, Hope Bay Belt Project, 2010.



Plate 3.2-9. A shorthorn sculpin captured in Roberts Bay, Hope Bay Belt Project, 2010.



Plate 3.2-10. An unidentified sandlance species (Ammodytidae spp.) captured in Roberts Bay, Hope Bay Belt Project, 2010.



Plate 3.2-11. An unidentified snailfish (Liparidae spp.) larvae captured in Roberts Bay, Hope Bay Belt Project, 2010.

A total of 681 fish were caught at sites P1 to P5 and REF in 2010 (Table 3.2-2). Fourhorn sculpin comprised 42% of that total, and was either dominant or co-dominant at each of the six sites, representing between 5 and 64% of the site-specific fish communities. Arctic char was the only other species present at all six sites, but only accounted for between 5 and 15% of the total count. Arctic flounder and saffron cod were present at all sites except for the predominantly rocky site P5. Greenland cod was observed at all Roberts Bay sites, but not in Reference Bay. Pacific herring comprised a large proportion of counts at sites P2 and P3, but were less dominant at the other four sites.

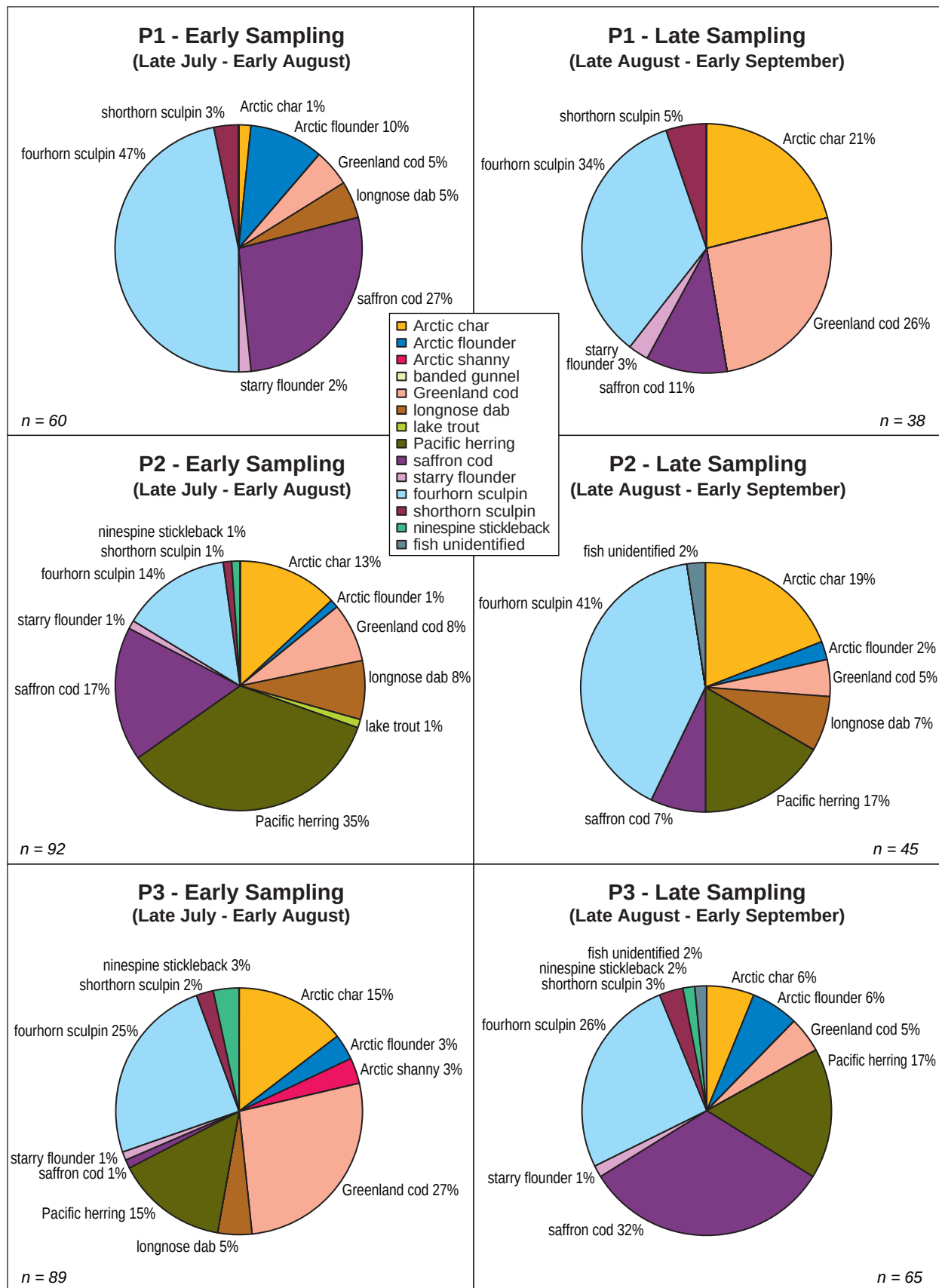
Table 3.2-2. Total Number of Fish Captured from Roberts Bay and Reference Bay during Early and Late Sampling Periods, Hope Bay Belt Project, 2010

Species	Roberts Bay					Reference Bay	Total
	P1	P2	P3	P4	P5	REF	
Arctic char	9	20	17	8	2	7	63
Arctic flounder	6	4	7	2	0	14	33
Arctic shanny	0	0	3	2	5	1	11
banded gunnel	0	0	0	0	1	0	1
Greenland cod	13	9	27	11	2	0	62
longhead dab	3	10	4	0	0	1	18
lake trout	0	1	0	0	0	1	2
Pacific herring	0	39	24	9	7	13	92
saffron cod	20	19	22	4	0	6	71
starry flounder	2	1	2	0	0	2	7
fourhorn sculpin	39	31	39	81	1	98	289
shorthorn sculpin	6	2	4	0	1	10	23
ninespine stickleback	0	0	4	1	0	1	6
poacher Unidentified	0	0	0	1	0	0	1
sandlance Unidentified	0	1	0	0	0	0	1
snailfish Unidentified	0	0	1	0	0	0	1
Total	98	137	154	119	19	154	681

At site P1, there were large differences between the early and late sampling periods including a decrease in saffron cod (from 28 to 11% of the species composition) and increases in Greenland cod (from 5% to 26%) and Arctic char (from 2% to 21%) (Figure 3.2-1). Overall, fourhorn sculpin accounted for 39% of the species composition, followed by saffron cod (22%) and Greenland cod (13%).

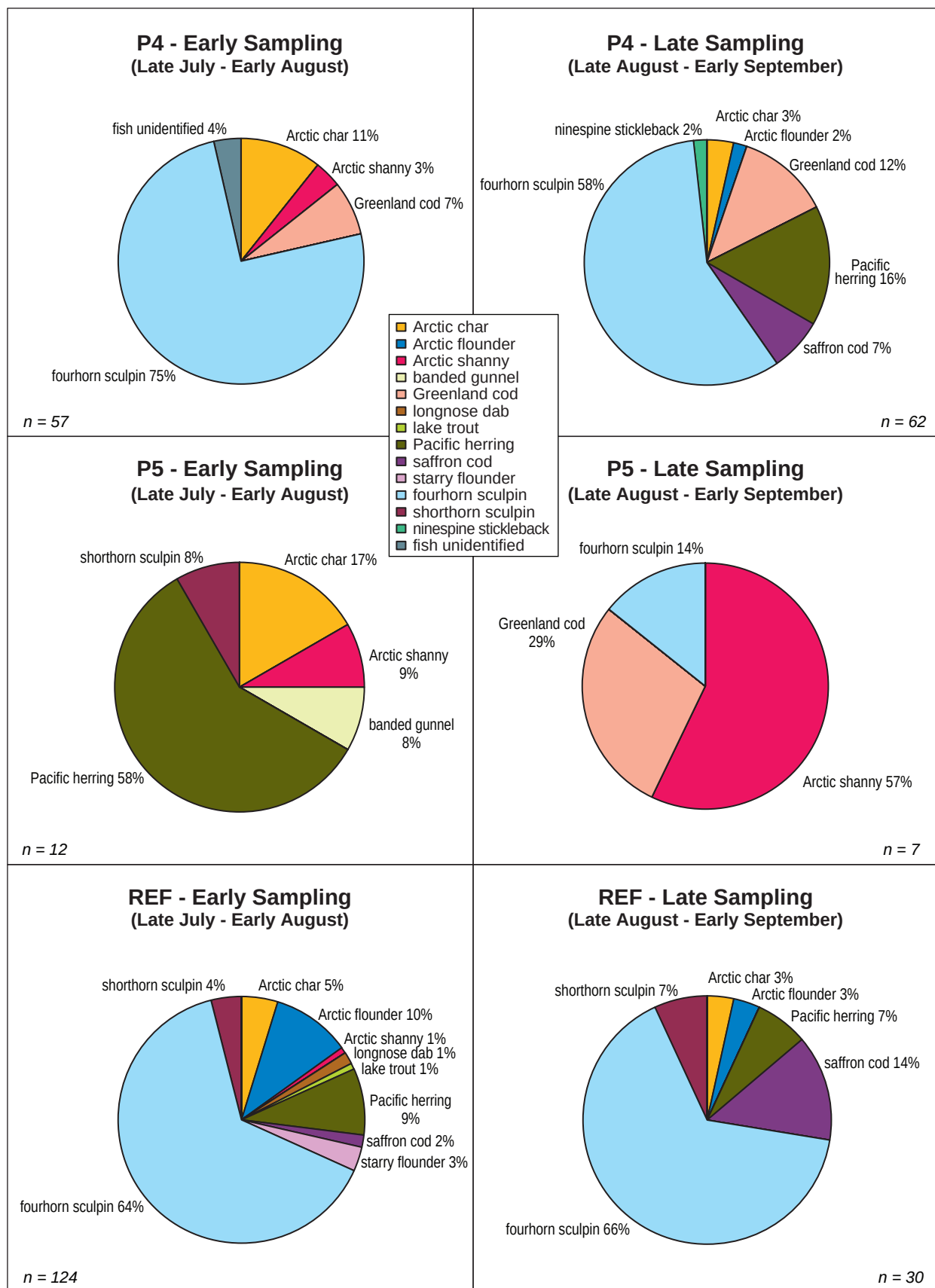
At site P2, Pacific herring and saffron cod numbers decreased with time between the early and late sampling periods (35% to 17% and 17% to 7%, respectively). However, due to the high early numbers, Pacific herring was the overall dominant species, representing 29% of the assemblage. Fourhorn sculpin (23%), Arctic char (15%), and saffron cod (14%) also represented large proportions of the fish community.

The largest number of fish (154) were caught at site P3. Between the early and late sampling (i.e., between late July-early August and late August-early September), substantial decreases in Arctic char (15% to 6%) and Greenland cod (27% to 5%) were observed while an increase in saffron cod occurred (1% to 32%). Overall, fourhorn sculpin were the most abundant, followed by Greenland cod, Pacific herring, saffron cod, and Arctic char.



**Percent Composition of Fish Species
 Captured in Roberts Bay and Reference Bay,
 Hope Bay Belt Project, 2010**

Figure 3.2-1a



**Percent Composition of Fish Species
Captured in Roberts Bay and Reference Bay,
Hope Bay Belt Project, 2010**

Figure 3.2-1b

Site P4 was dominated by fourhorn sculpin, making up between 57% and 75% of the fish numbers. Between seasons, increases in saffron cod and Pacific herring were observed. In contrast, site P5 showed minimal change in species composition between sampling periods, due in part to the low sample size; only 19 total fish were caught from both sampling sessions.

Site REF had substantial decreases in Arctic char, Arctic flounder, Pacific herring, and fourhorn sculpin between the early and late sampling. Overall species composition was dominated by fourhorn sculpin (64%).

3.2.3 Catch-per-Unit-Effort (CPUE)

3.2.3.1 Floating Gillnets

The total number of floating gillnets at each site ranged from five to six sets with total fishing effort ranging from 8.03 to 14.32 hours (Appendix 3.2-8). Mean CPUE of floating gillnets ranged from 0 to 0.36 fish/100 m² of net/h. During the early sampling, the greatest mean CPUE occurred at site P5 (0.36 fish/100 m² of net/h), driven by a high catch rate of Pacific herring (0.30 fish/100 m² of net/h) (Figure 3.2-2). During the late sampling period, the greatest mean CPUE were observed for Arctic char at sites P1, P3, and P4, ranging between 0.15 and 0.22 fish/100 m² of net/h. These results were expected because both Arctic char and Pacific herring occupy pelagic habitat, which was fished by floating gillnets.

3.2.3.2 Sinking Gillnets

The total number of sinking gillnets set at each site ranged from five to six with a total effort ranging from 7.03 to 13.8 hours (Appendix 3.2-8). This gear type caught the most species and the greatest number of fish - a total of 369 fish from 11 species - indicating that most species used benthic habitat either part or all of the time. Fourhorn sculpin - the predominant species caught with this gear - is exclusively benthic.

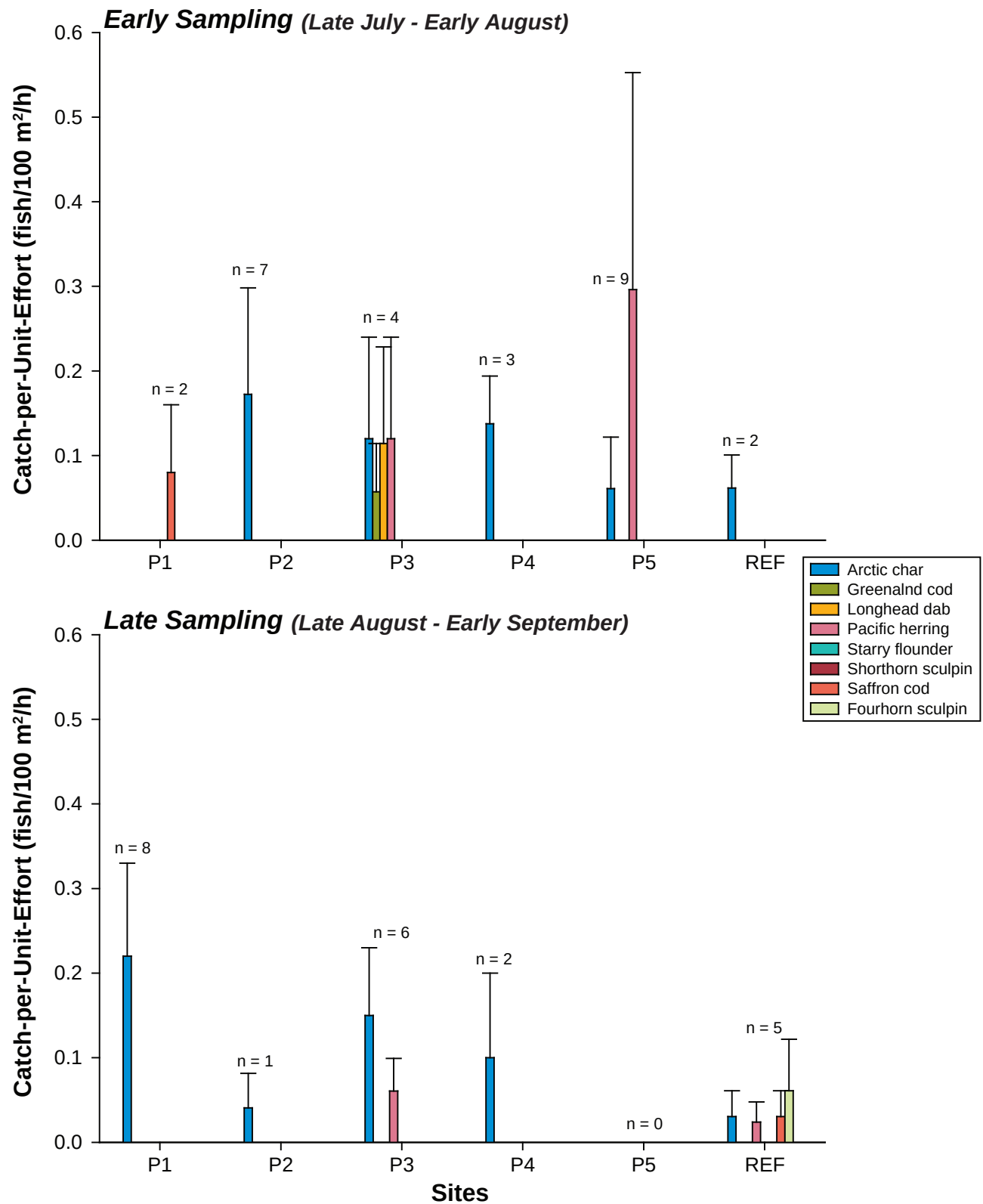
Large changes in mean CPUE occurred between sampling periods and among sampling sites. With the exception of sites P4 and P5, higher mean CPUE occurred during the early sampling period, mainly driven by fourhorn sculpin at sites P1 and REF (0.41 and 0.64 fish/100 m² of net/h, respectively), Pacific herring at site P2 (1.25 fish/100 m² of net/h), and Greenland cod at site P3 (0.93 fish/100 m² of net/h) (Figure 3.2-3). Mean CPUE was relatively low at site P5 with only a single shorthorn sculpin caught.

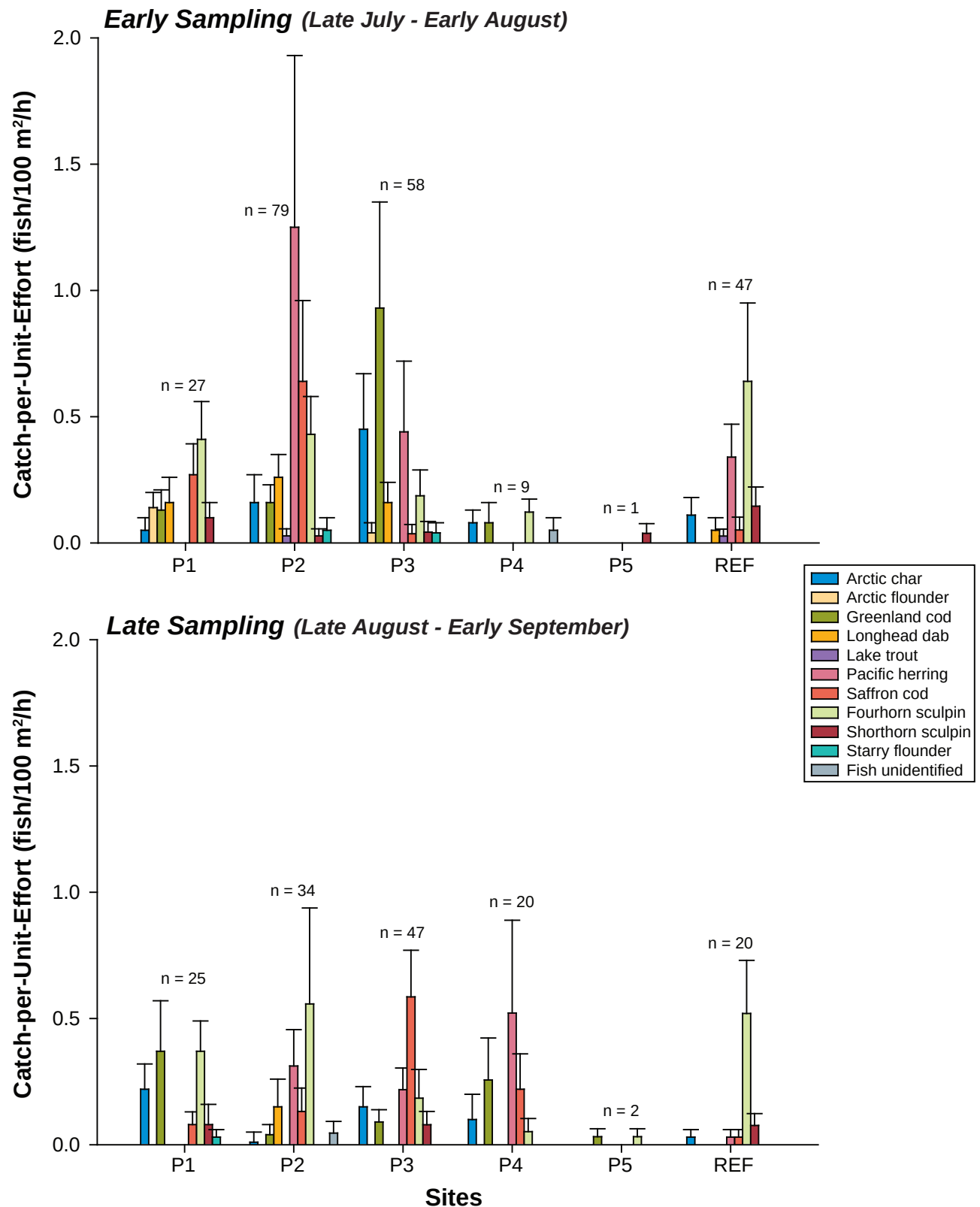
During the late sampling period, fourhorn sculpin remained dominant in terms of CPUE at sites P1 and REF (0.37 and 0.52 fish/100 m² of net/h, respectively), as well as dominating site P2 (0.56 fish/100 m² of net/hr). However, reductions in mean CPUE of Pacific herring occurred at site P2 and Greenland cod at site P3, while increases in mean CPUE for saffron cod were observed at site P4. Mean CPUE for site P5 did not change between sampling periods and remained low.

3.2.3.3 Long Lines

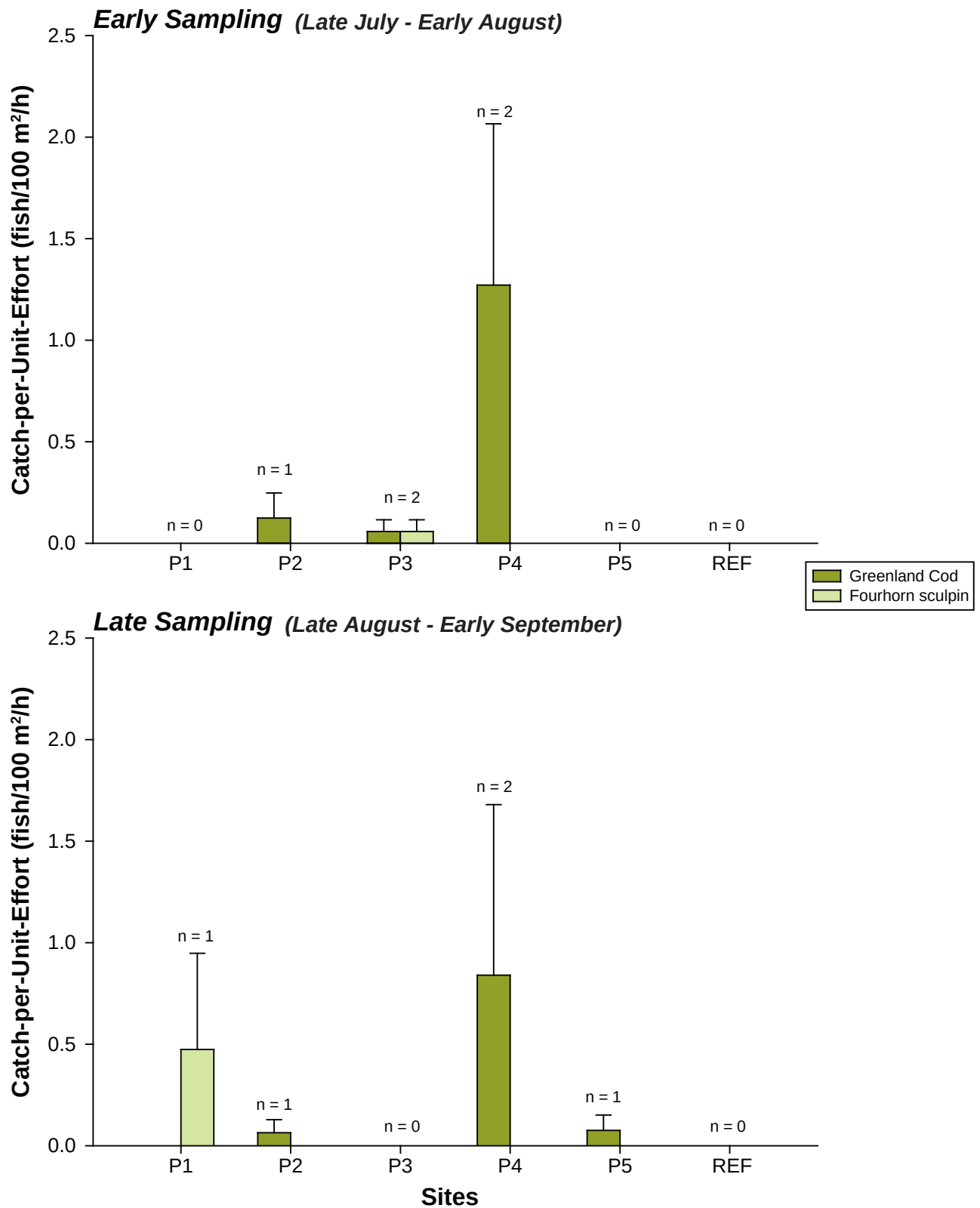
The total number of long lines set at each site ranged from three to six lines with total effort ranging from 9.8 to 119.75 hours (Appendix 3.2-8). Longer soak time occurred at some sites (P2, P4 and REF) due to overnight sets as well as weather delays which prevented gear retrieval for up to 3 days. This resulted in lower CPUE because of the reduction over time in hooks that were available to be struck.

Mean long line CPUE was low compared to other gear types, ranging from 0 to 1.27 fish/hook/h (Figure 3.2-4). Only 10 fish were caught on long lines, split evenly between the two sampling periods. Long lines were also highly selective compared to other gear types, catching only Greenland cod and fourhorn sculpin. The highest mean CPUE occurred at site P4.





Note: Error bars represent one standard error of the mean.
 n = total number of seines set.



3.2.3.4 Beach Seines

The total number of beach seines conducted at each site ranged from zero to six (Appendix 3.2-8). Total beach seine CPUE ranged from 0 to 9.72 fish/100 m². Catches were primarily composed of fourhorn sculpin and Arctic flounder, but ninespine stickleback, saffron cod, starry flounder, and a single unidentified snailfish were also captured (Figure 3.2-5). These are species that tend to prefer benthic habitat.

Saffron cod and starry flounder, which were both captured at sites P1 and REF during the early sampling, were not caught at any site during late sampling. A substantial over time in mean CPUE was also observed at site REF (9.72 to 0.35 fish/100 m²), driven by a large reduction in ninespine stickleback.

3.2.3.5 Minnow Traps

The total number of minnow traps set at each site ranged from six to 30, with site-specific effort ranging from 387.62 to 1181.87 hours (Appendix 3.2-8). Mean CPUE was highest in the early sampling period (maximum of 0.28 fish/24 h compared to 0.23 fish/24 h, respectively) (Figure 3.2-6). However, this may have been a result of fewer traps being fished for a longer period of time.

Only fourhorn sculpin, saffron cod, Arctic shanny, and banded gunnel were caught in minnow traps. These are small-bodied species that would be expected to enter minnow traps. Fourhorn sculpin predominated, being caught at all sites except for site P5. Although predominant at sites P3, P4, and P5, Arctic shanny were not caught at the other sites. Saffron cod were caught at sites P1 and P2 and a banded gunnel was caught at site P5.

3.2.3.6 Crab Traps

The total number of crab traps set at each site ranged from five to 17 with site-specific effort ranging from 303.6 to 555.7 hours (Appendix 3.2-8). Ten fish from six species were caught with seven fish caught early and three fish caught late (Figure 3.2-7). Fourhorn sculpin and starry flounder comprised the majority of fishes caught with three individuals each; however, they were only present during the early sampling.

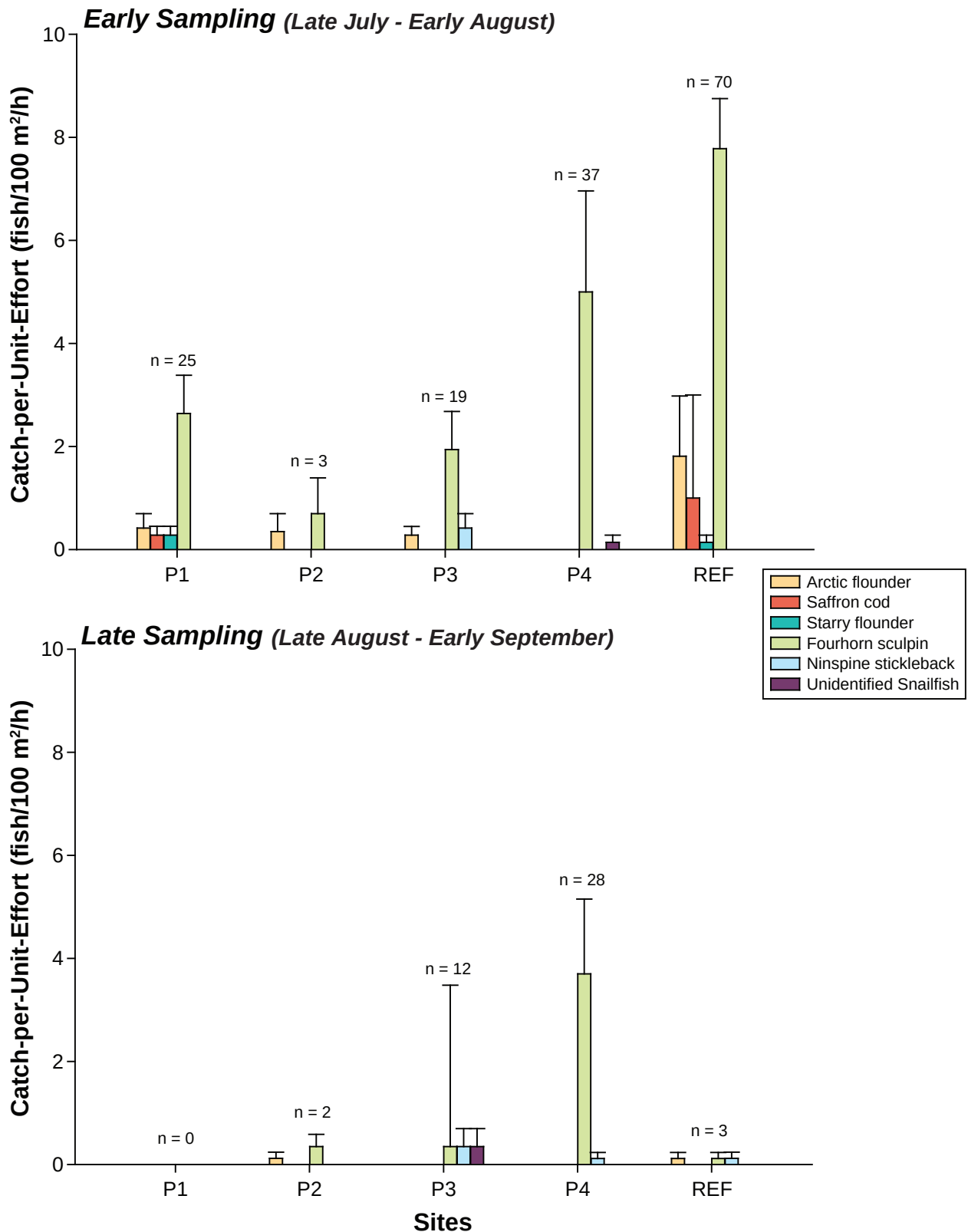
3.2.3.7 Community Composition

The nMDS analysis of pooled CPUE data from all gear types (except trap nets) showed a clear separation of site P5 from the other five sites with dissimilarities ranging from 84.01 to 91.24% (Figure 3.2-8). However, this separation was not statistically significant (ANOSIM: $r = 0.256$, $p = 0.059$) due in large part to the small number of observations (only two data points per site).

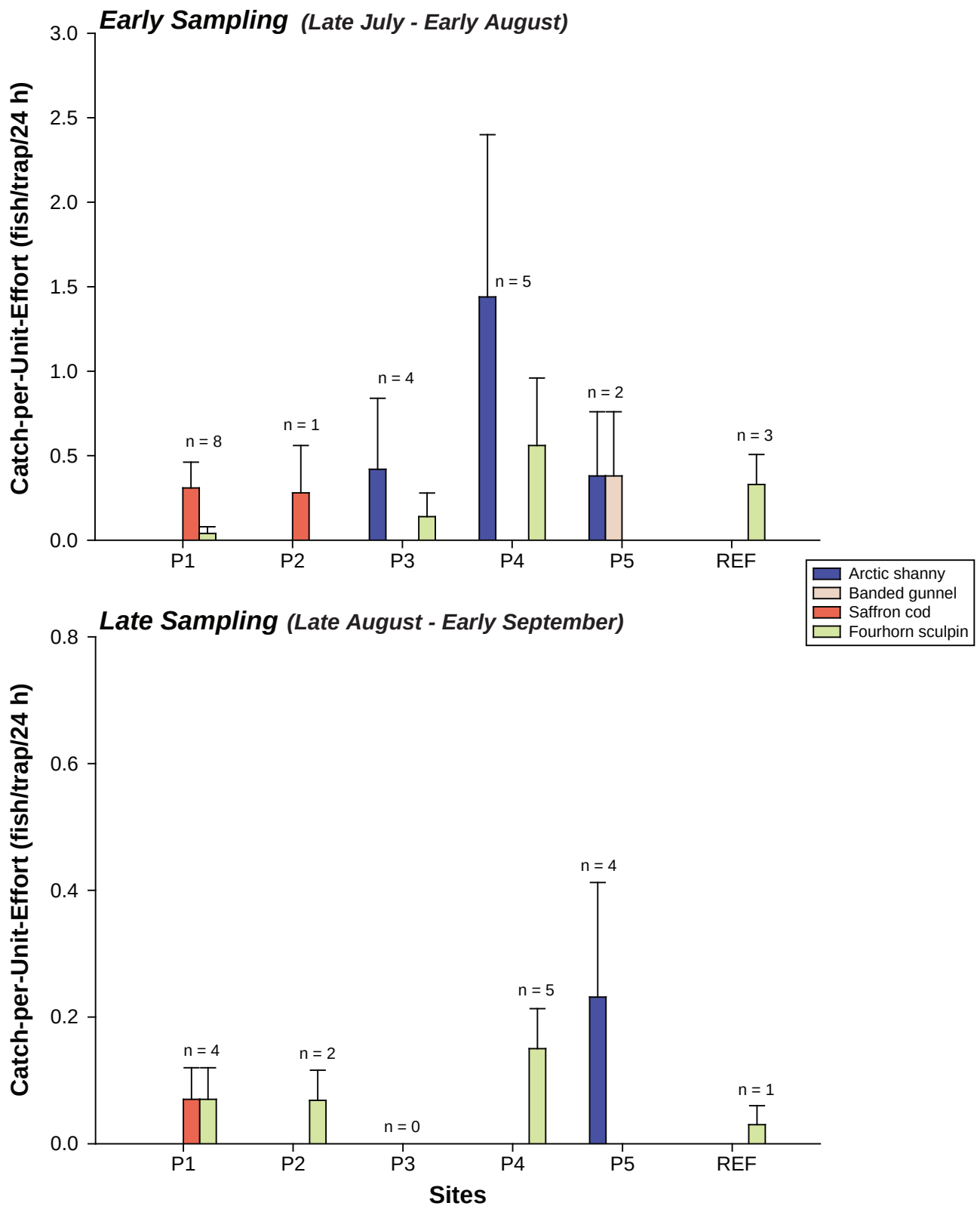
Figure 3.2-8 also suggests differences in community composition between the early (late July-Early August) and late (late August-early September) sampling periods. SIMPER analysis revealed an average dissimilarity of 51.20% between seasons, largely influenced by decreases of fourhorn sculpin (17.48% of difference), Pacific herring (13.56%), saffron cod (12.61%), Arctic flounder (10.16%), and Greenland cod (10.05%) from the early to late sampling periods (Table 3.2-3). The significance of these differences could not be tested by ANOSIM because of low sample sizes.

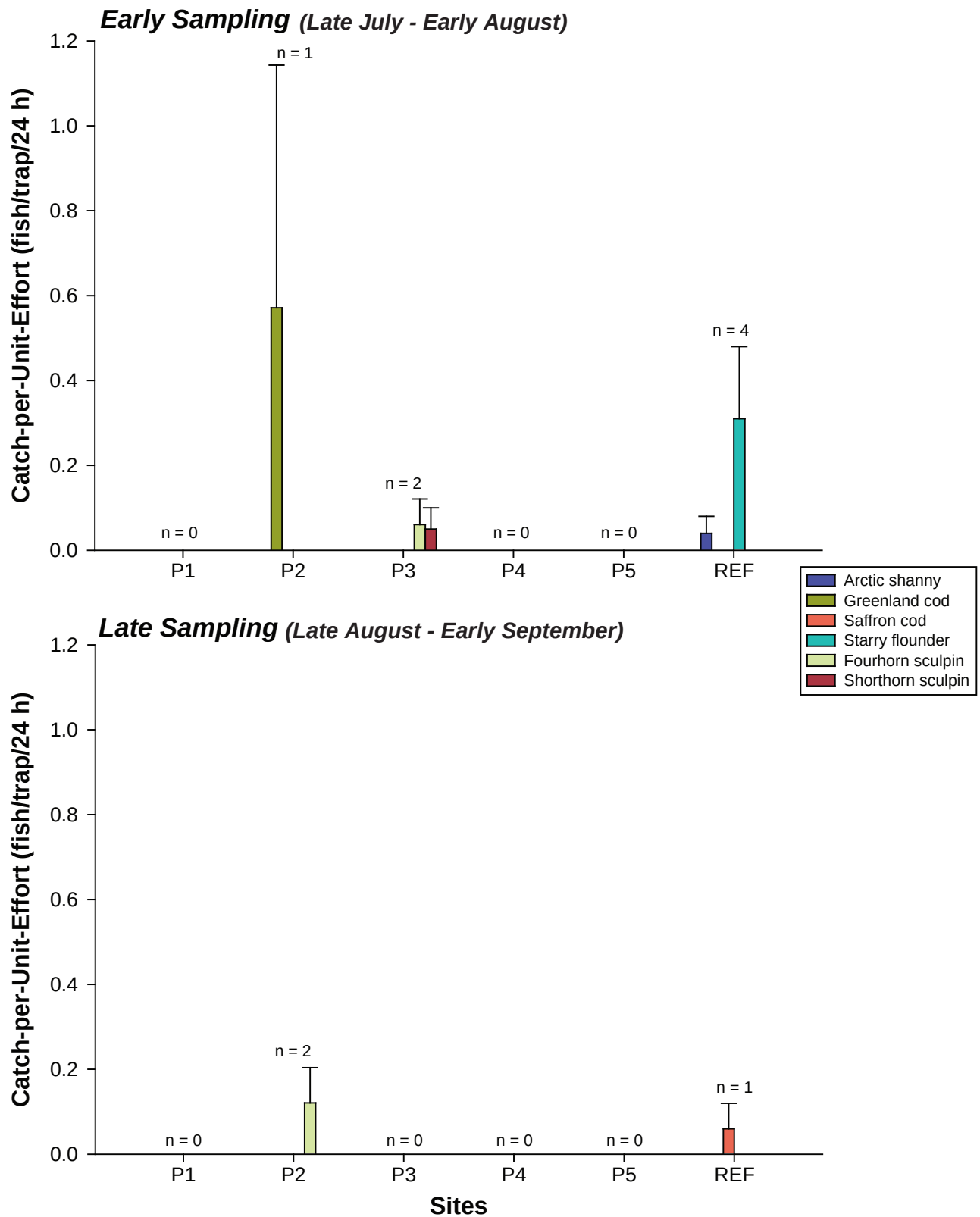
3.2.4 Trap Nets

Trap net sampling effort varied among sites due to differences in installation dates and ranged between 747.50 and 927.83 hours (Table 3.2-4). The total cumulative fishing effort was 3,412 hours, and a total of 919 fish from 14 species were caught and measured (Table 3.2-5).



Note: Site P5 not sampled due to rocky conditions at site
 Error bars represent one standard error of the mean.
 n = total number of fish caught.





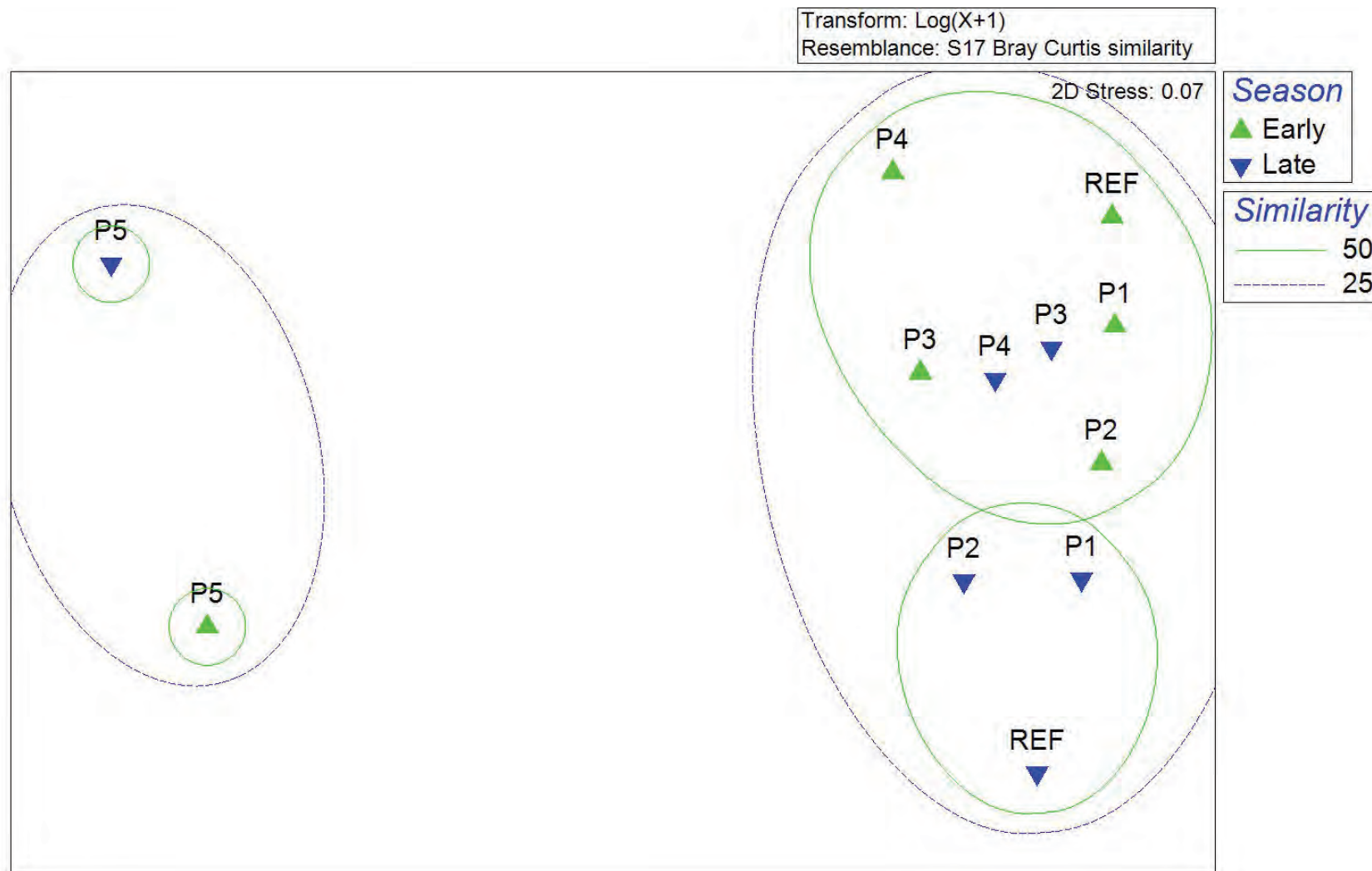


Table 3.2-3. Similarity of Percentages (SIMPER) Values Between Sampling Periods

Species	Mean Early ^a Abundance	Mean Late ^b Abundance	Mean Dissimilarity	Percentage of Dissimilarity
fourhorn sculpin	1.26	0.84	8.95	17.48
Pacific herring	0.30	0.16	6.94	13.56
saffron cod	0.34	0.17	6.46	12.61
Arctic flounder	0.34	0.04	5.20	10.16
Greenland cod	0.39	0.22	5.14	10.05
Arctic shanny	0.27	0.03	4.28	8.35
banded gunnel	0.05	0.00	3.99	7.79
Arctic char	0.20	0.17	3.36	6.56
starry flounder	0.12	0.05	2.47	4.82

a: late July-early August.

b late August-early September.

Table 3.2-4. Sampling Dates, Times, and Total Catch Data for Trap Nets used in Roberts Bay, Hope Bay Belt Project, 2010

Trap Net	Trap Nets Installed	Time In	Trap Nets Removed	Time Out	Total Hours Fished	24 h Fished	Total Fish Caught	Total CPUE (fish/24 h)
TN1	8-Aug-10	7:20	16-Sep-10	11:30	927.83	38.66	221	5.72
TN2	11-Aug-10	16:10	16-Sep-10	13:30	869.67	36.24	370	10.21
TN3	11-Aug-10	13:00	16-Sep-10	14:00	867.00	36.13	163	4.51
TN4	16-Aug-10	12:00	16-Sep-10	15:30	747.50	31.15	165	5.30

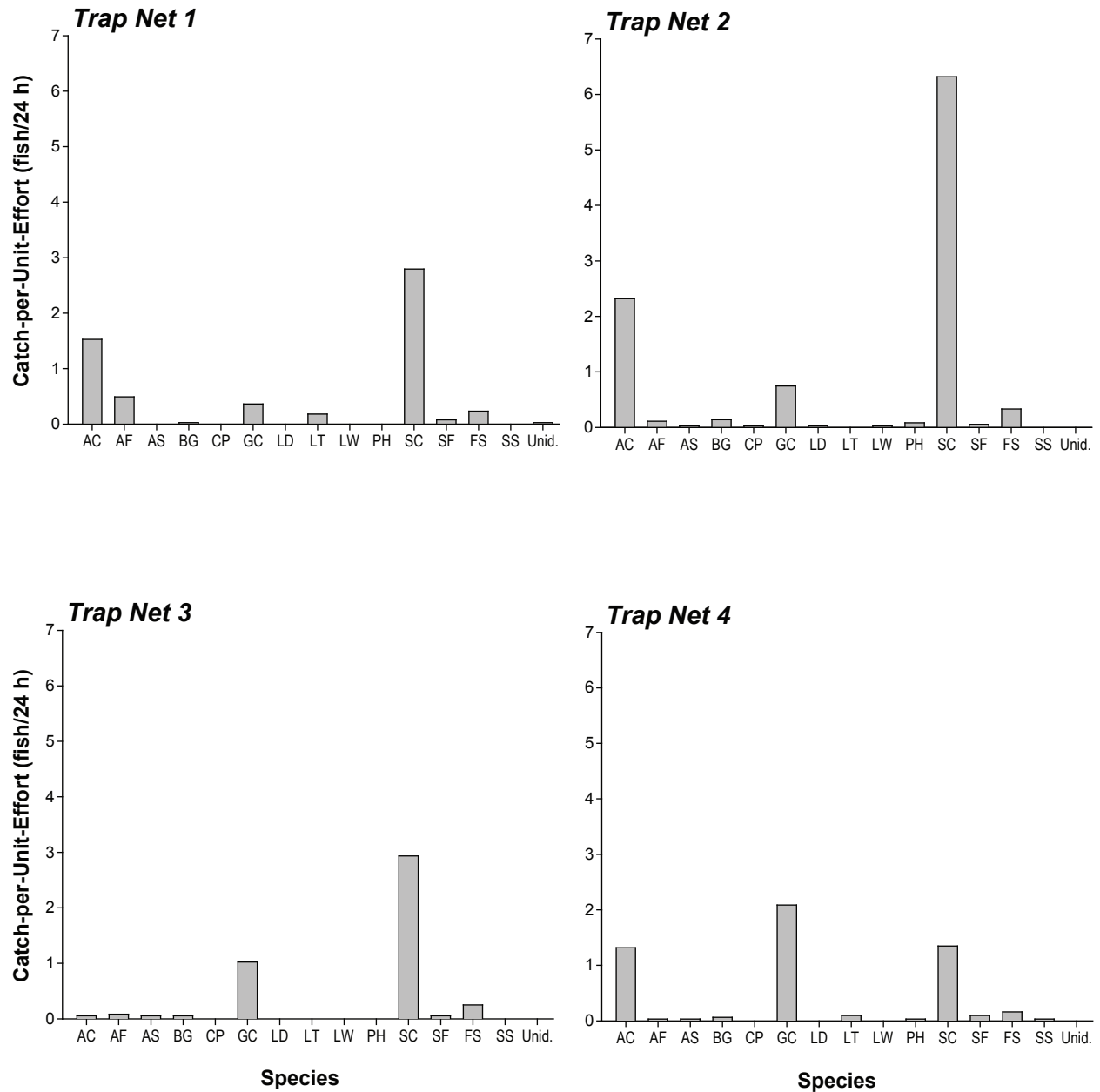
Notes: CPUE measured as the number of fish caught per 24 hours.

Table 3.2-5. Total Fish Catch Data for Trap Nets in Roberts Bay, Hope Bay Belt Project, 2010

Trap Net	AC	AF	AS	BG	CP	GC	LD	LT	LW	PH	SC	SF	FS	NS	Unid.	Total
TN1	59	19	0	1	0	14	0	7	0	0	108	3	9	0	1	221
TN2	84	4	1	5	1	27	1	0	1	3	229	2	12	0	0	370
TN3	2	3	2	2	0	37	0	0	0	0	106	2	9	0	0	163
TN4	41	1	1	2	0	65	0	3	0	1	42	3	5	1	0	165
Total	186	27	4	10	1	143	1	10	1	4	485	10	35	1	1	919

Notes: AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; CP = capelin; GC = Greenland cod; LD = longhead dab; LT = lake trout; LW = lake whitefish; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = shorthorn sculpin; Unid. = Unidentified sand lance.

CPUE was highest for site TN2, followed by sites TN1, TN4, and TN3, respectively (Figure 3.2-9). Saffron cod was the most abundant species at all trap net sites, with the exception of site TN4, where Greenland cod predominated. Arctic char was the second most abundant species at sites TN1 and TN2, and the third most abundant species at sites TN3 and TN4. Other species were observed at all four trap net sites, including fourhorn sculpin, Arctic flounder, starry flounder, and banded gunnel.



Note: AC = Arctic char, AF = Arctic flounder, AS = Arctic shanny, BG = banded gunnel, CP = capelin, gc = Greenland cod, LD = longnose dab, LT = lake trout, PH = Pacific herring, SC = saffron cod, SF = starry flounder, FS = fourhorn sculpin, SS = shorthorn sculpin, Unid = fish unidentified

Figure 3.2-9

3.2.4.1 Nearshore Habitat Use

Of the 919 fish captured in the trap nets, 150 Arctic char, 119 saffron cod, and nine lake trout were tagged and released. Only two of those 278 tagged fish were recaptured in trap nets - a recapture rate of less than 1%. One Arctic char (#Y10-0225) that was captured and tagged on August 21 at site TN2 was recaptured at site TN1 on August 22, and one saffron cod (#Y10-0479) that was captured on September 14 at site TN2 was recaptured the same day at site TN3.

These results suggest that the species caught in trap nets do not depend on nearshore, littoral habitat for migration, but move through open water over deeper parts of Roberts Bay. It is unclear, however, how much these results may have been influenced by trap shyness induced by the trauma of capture and tagging.

One Arctic char and 46 Greenland cod were caught in trap nets with recently clipped pelvic fins, indicating recent capture at one of the port sampling sites in Roberts Bay, and removal of a pelvic fin for age reading. These data suggest that Arctic char and Greenland cod are the two species most likely to use nearshore littoral habitat in Roberts Bay.

In addition to the recapture of two tagged fish and the capture of 47 fish marked at port sites, one fish captured in the trap nets had been tagged at the Roberts Outflow fish fence in 2010 (Rescan 2011a). This individual, #Y10-0320, was initially tagged on July 21, 2010, at the outflow to Roberts Lake and was recaptured on September 10, 2010, at TN1. During 52 days at liberty, the fish grew 47 mm in length and gained 143 g. No fish tagged at the trap nets were recaptured at the Roberts Outflow fish fences.

3.2.5 Length, Weight and Condition

Mean lengths, weights and condition were calculated for the five dominant fish species by site, including trap net data (Table 3.2-6). The two sampling periods (early and late) were pooled. Any fish collected with incomplete information (i.e., missing length or weight) were omitted from all further analysis for data consistency. This resulted in 385 data points being omitted.

Table 3.2-6. Mean Length, Weight and Condition of the Dominant Fish Species

Species	Site	n	Length (mm)				Weight (g)				Condition			
			Mean	SE	Min	Max	Mean	SE	Min	Max	Mean	SE	Min	Max
Arctic char	P1	9	282	28	220	499	327	129	113	1,347	1.16	0.05	1.06	1.52
	P2	20	379	18	240	553	698	101	127	2,076	1.11	0.02	0.89	1.25
	P3	13	379	26	249	612	687	151	156	2,257	1.08	0.04	0.85	1.33
	P4	8	316	47	176	491	598	223	101	1,477	1.33	0.13	0.99	2.13
	P5	2	209	37	172	246	108	62	46	170	1.02	0.12	0.90	1.14
	REF	7	367	33	268	495	606	167	210	1,348	1.07	0.05	0.86	1.29
	TN1	57	412	12	232	610	775	73	82	3,000	0.98	0.05	0.44	2.94
	TN2	81	311	11	193	612	455	65	39	3,000	1.03	0.03	0.46	2.26
	TN3	2	313	47	265	360	272	133	138	405	0.81	0.06	0.74	0.87
	TN4	35	341	16	212	615	505	85	59	2,592	0.99	0.04	0.54	1.43

(continued)

Table 3.2-6. Mean Length, Weight and Condition of the Dominant Fish Species (completed)

Species	Site	n	Length (mm)				Weight (g)				Condition			
			Mean	SE	Min	Max	Mean	SE	Min	Max	Mean	SE	Min	Max
Fourhorn sculpin	P1	18	268	24	82	375	310	48	4	638	1.18	0.09	0.67	2.12
	P2	28	274	21	35	480	293	46	0	983	1.04	0.07	0.45	2.09
	P3	27	229	24	53	425	228	50	2	869	0.91	0.05	0.34	1.34
	P4	16	126	18	61	365	45	32	2	519	0.76	0.05	0.33	1.14
	P5	1	225	-	225	225	105	-	105	105	0.92	-	0.92	0.92
	REF	40	247	10	54	332	163	15	2	394	0.93	0.04	0.53	1.29
	TN1	8	180	21	98	255	68	22	4	156	0.78	0.11	0.41	1.31
	TN2	4	201	54	102	352	71	45	8	206	0.67	0.13	0.46	0.99
	TN3	8	244	32	98	340	161	47	6	311	0.77	0.08	0.60	1.15
	TN4	5	181	45	98	340	94	69	8	368	0.79	0.06	0.58	0.94
Greenland cod	P1	12	400	12	352	482	717	57	445	1,208	1.11	0.05	0.88	1.49
	P2	9	426	11	365	466	819	80	463	1,129	1.04	0.05	0.81	1.28
	P3	27	414	10	326	594	789	88	346	2,658	1.03	0.03	0.67	1.39
	P4	8	419	30	310	562	852	147	408	1,465	1.14	0.10	0.82	1.77
	P5	2	359	61	297	420	586	310	276	896	1.13	0.08	1.05	1.21
	REF	0	-	-	-	-	-	-	-	-	-	-	-	-
	TN1	11	534	13	460	586	1644	125	905	2,390	1.08	0.06	0.73	1.31
	TN2	24	438	24	119	610	1172	133	13	2,484	1.15	0.04	0.77	1.66
	TN3	37	468	14	224	651	1190	93	63	2,193	1.03	0.04	0.56	1.54
	TN4	52	448	11	257	582	1101	83	200	2,268	1.11	0.02	0.52	1.53
Pacific herring	P1	0	-	-	-	-	-	-	-	-	-	-	-	-
	P2	38	265	5	193	378	184	8	59	260	0.98	0.03	0.43	1.59
	P3	22	258	8	135	288	169	14	22	265	0.93	0.04	0.48	1.25
	P4	8	217	17	178	280	114	32	31	237	0.91	0.07	0.52	1.25
	P5	7	238	19	152	283	156	31	27	233	1.00	0.06	0.77	1.22
	REF	12	269	6	241	323	180	21	91	350	0.89	0.07	0.57	1.20
	TN1	0	-	-	-	-	-	-	-	-	-	-	-	-
	TN2	3	171	5	162	181	23	3	20	28	0.45	0.02	0.41	0.47
	TN3	0	-	-	-	-	-	-	-	-	-	-	-	-
	TN4	1	280	-	280	280	208	-	208	208	0.95	-	0.95	0.95
Saffron cod	P1	18	158	22	61	354	60	21	2	306	0.70	0.03	0.51	0.93
	P2	18	174	13	124	281	43	18	8	152	0.56	0.05	0.22	1.21
	P3	22	206	15	123	304	85	16	14	212	0.70	0.02	0.57	0.84
	P4	4	220	52	127	312	124	66	9	243	0.62	0.11	0.38	0.80
	P5	0	-	-	-	-	-	-	-	-	-	-	-	-
	REF	6	192	28	123	282	57	23	12	150	0.63	0.07	0.36	0.86
	TN1	74	161	9	66	325	48	7	2	231	0.68	0.04	0.23	2.78
	TN2	181	167	6	88	361	44	4	3	329	0.59	0.01	0.22	1.14
	TN3	56	208	12	86	386	93	13	5	372	0.70	0.04	0.32	2.04
	TN4	10	152	23	88	293	44	20	5	182	0.68	0.03	0.49	0.91

Notes: n = number of samples taken; SE = Standard error of the mean; min = minimum; max = maximum; dashes indicate no data were available.

The largest species captured in 2010 was Arctic char (maximum length = 615 mm, maximum weight = 3,000 g), however the highest mean lengths and weights were consistently observed in Greenland cod (Table 3.2-6). Saffron cod and fourhorn sculpin were the smallest of the dominant species, a result of the large number of juveniles caught by minnow traps and beach seines.

A greater proportion of smaller Arctic char size classes were caught in the late sampling period (late August-early September) than in the early sampling period (late July-early August) (Figure 3.2-10). This difference was most pronounced at sites P1, P2, and P3, indicating the contribution of out-migrating smolts from the Roberts Lake system. This was confirmed by the recapture of an Arctic char smolt at site P2 which had tagged at the Roberts Lake Outflow fish fence (Sample P2-086 in Appendix 3.2-7).

Smaller saffron cod (<200 mm) predominated during the early sampling period at sites P1 and P2 (Figure 3.2-11). At the other sites, saffron cod catches were higher during the late sampling period. Pacific herring at sites P2 and P3 were dominated by individuals in the 251-300 mm range, particularly during the early sampling period (Figure 3.2-12). Greenland cod and fourhorn sculpin showed no clear seasonal differences in size (Figures 3.2-13 and 3.2-14). However, there were substantial differences in size distribution of fourhorn sculpin among sites with the smallest size class predominating at site P4.

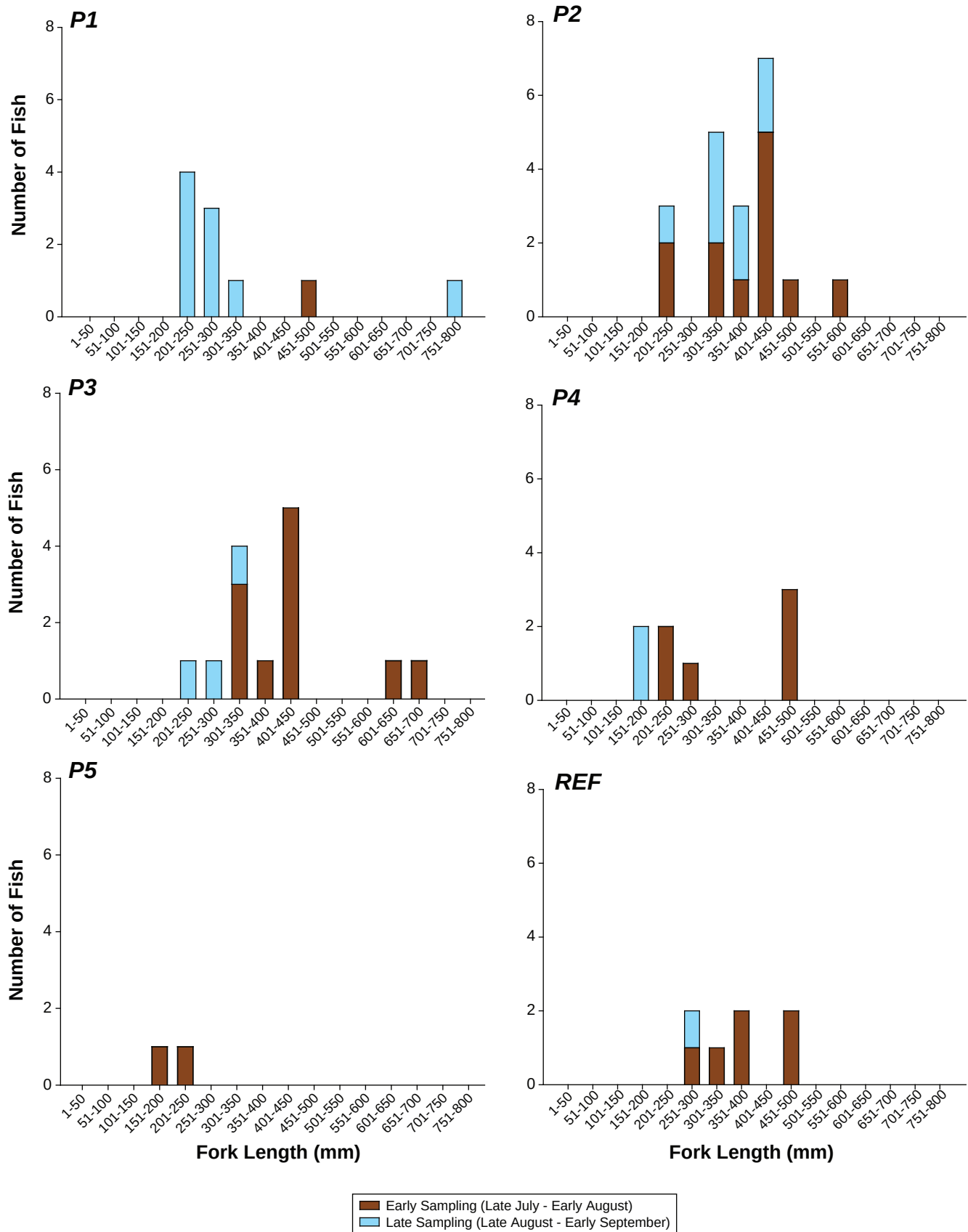
Sufficient data for length-frequency analysis of trap net catches existed only for the three dominant species: saffron cod, Arctic char, and Greenland cod (Figure 3.2-15). Younger Arctic char, within the smolt size classes, had a greater representation at site TN2 compared to the other trap net locations. Site TN1 had a greater proportion of adults, presumably of spawning age. Greenland cod exhibited a typical bell-curved distribution with sizes between 351 and 600 mm being most common. This distribution did not show any variation among trap net locations. In contrast, saffron cod size distributions were skewed towards smaller individuals. The highest frequencies were of the 51 to 100 mm cohort, and were driven largely by catches at site TN2.

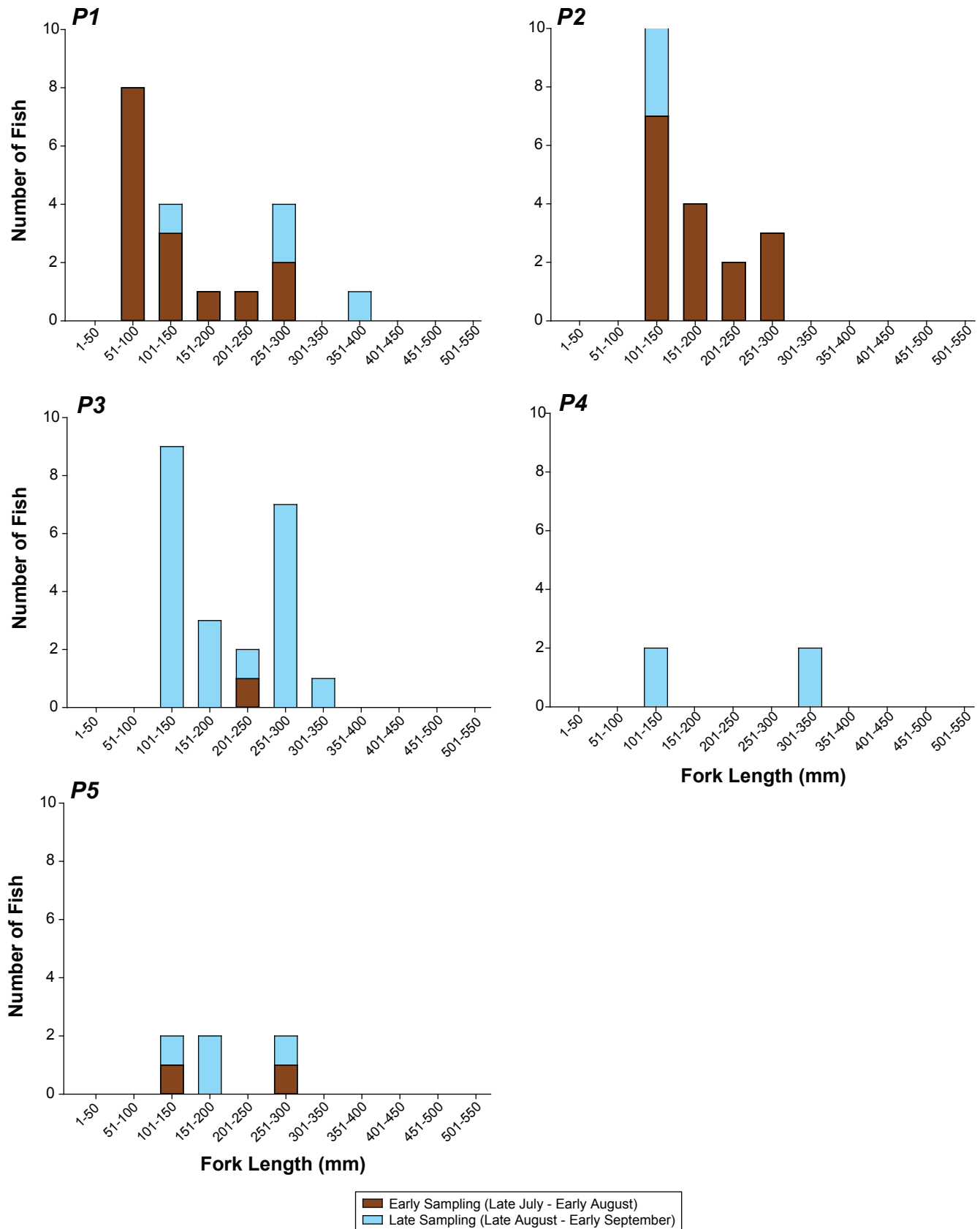
3.2.6 Weight-Length Relationships

GLM and ANCOVA showed that Arctic char had similar weight-length slopes and intercepts among the port sites ($p = 0.353$), but that slopes and intercepts varied significantly among trap nets ($p < 0.001$). Therefore, Arctic char weight-length data was pooled among sites P1 to P5, but the trap net data were analyzed separately for each site (Figure 3.2-16). All regressions were highly significant ($p < 0.001$) and explained 83% to 97% of the variation in $\ln(\text{weight})$. The slopes of the regressions ranged from 2.5 and 3.5, supporting the use of a slope of 3 for calculating condition (Ricker 1975).

GLM and ANCOVA showed that fourhorn sculpin had similar weight-length slopes and intercepts among sites P1 to P5 and trap nets ($p = 0.106$ and $p = 0.788$, respectively). Therefore, these data were pooled to calculate a single weight-length regression for Roberts Bay (Figure 3.2-17). A separate regression was calculated for fourhorn sculpin caught in Reference Bay. Both regressions were highly significant ($p < 0.001$) and explained between 94% and 99% of the variation in $\ln(\text{weight})$. The slopes of the regressions ranged from 2.9 and 3.2.

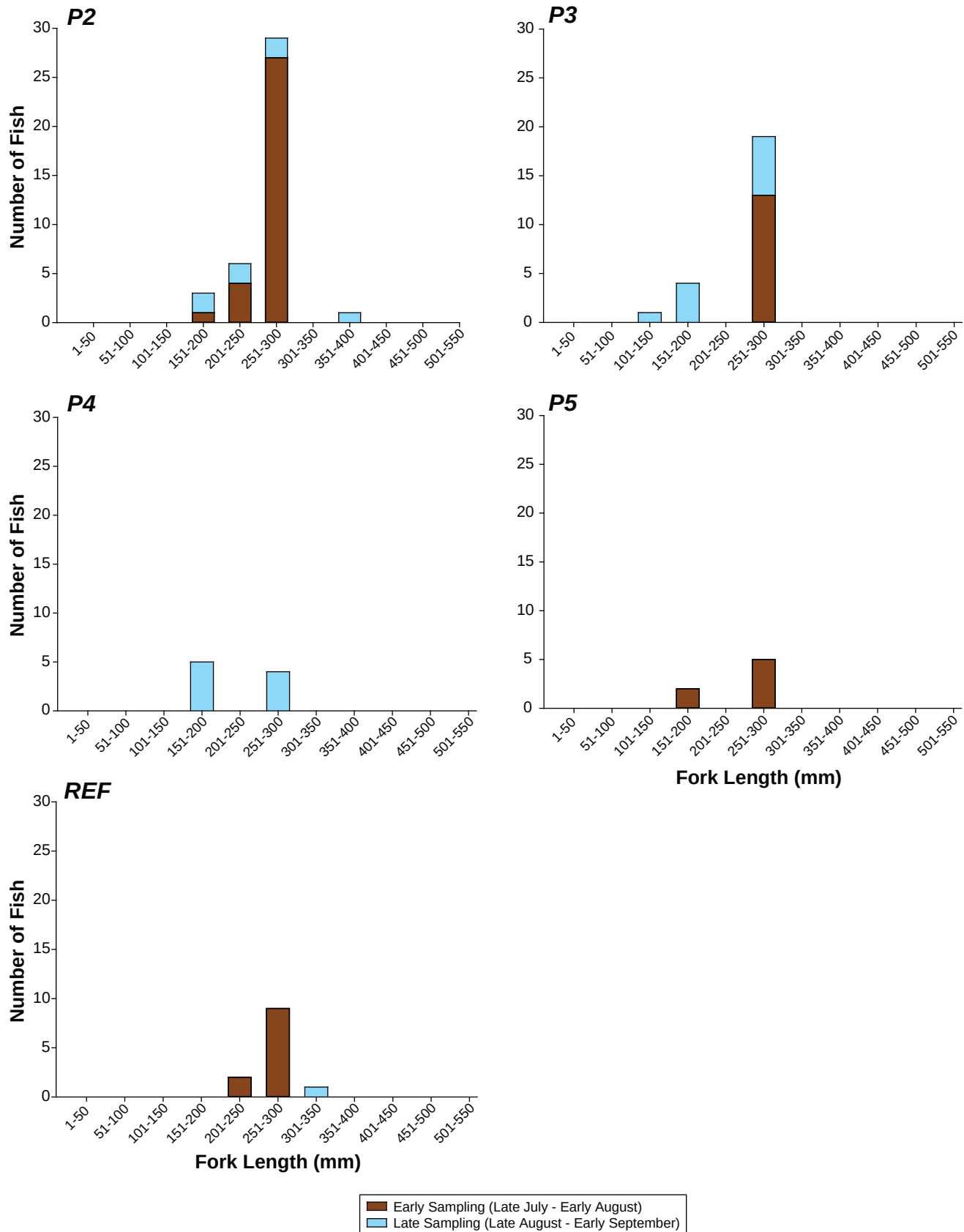
GLM showed that Greenland cod had significantly different slopes among Roberts Bay port sites ($p = 0.006$) and trap nets ($p = 0.005$). Therefore, separate weight-length regressions were calculated for each of sites P1 to P5 and TN2 to TN4 (Figure 3.2-18). No Greenland cod were caught at site REF. All regressions were highly significant ($p < 0.001$) and explained between 78% and 99% of the variation in $\ln(\text{weight})$. The slopes of the regressions ranged from 2.2 to 3.7.

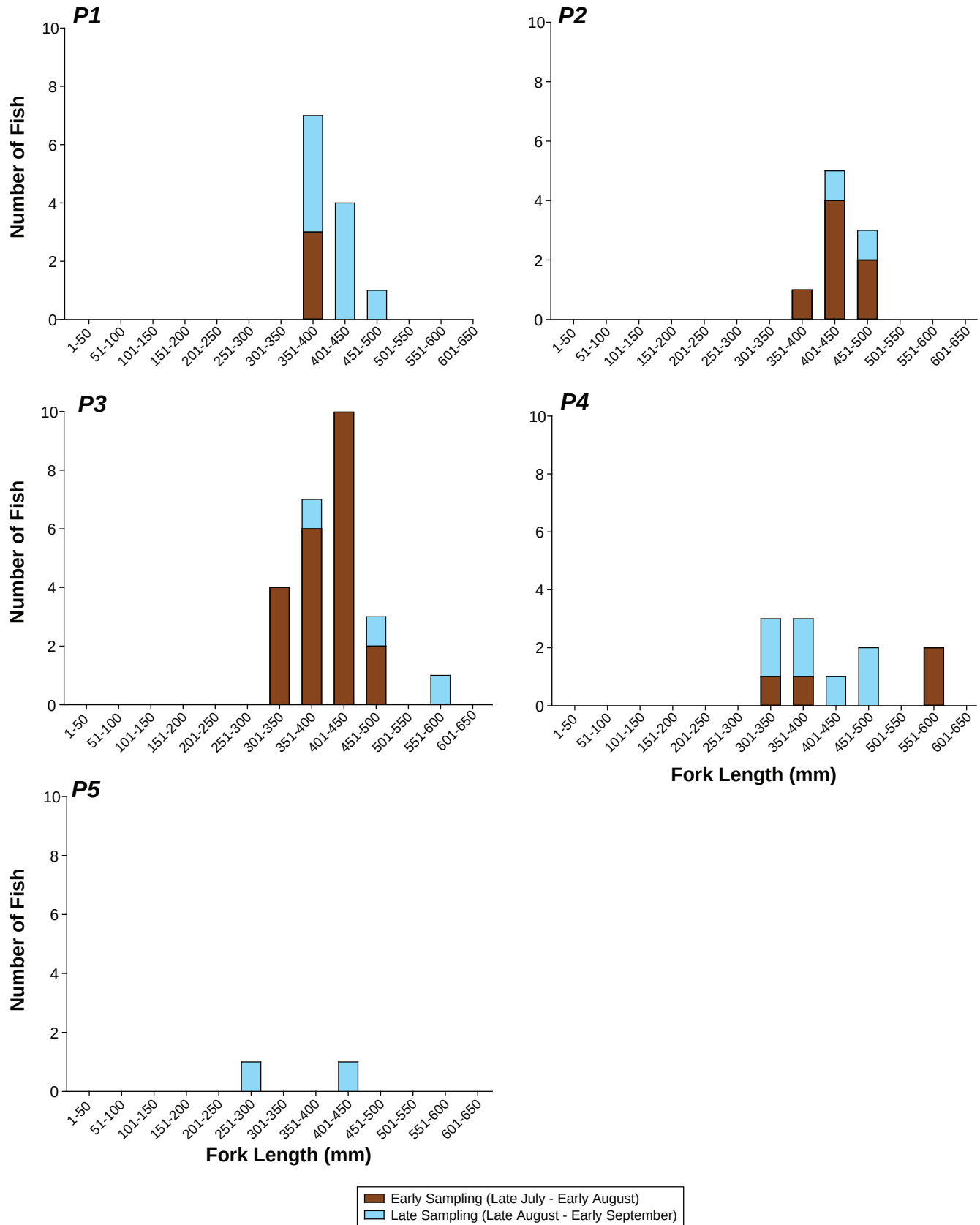




Length-Frequency Distribution of
Saffron Cod Caught in Roberts Bay,
Hope Bay Belt Project, 2010

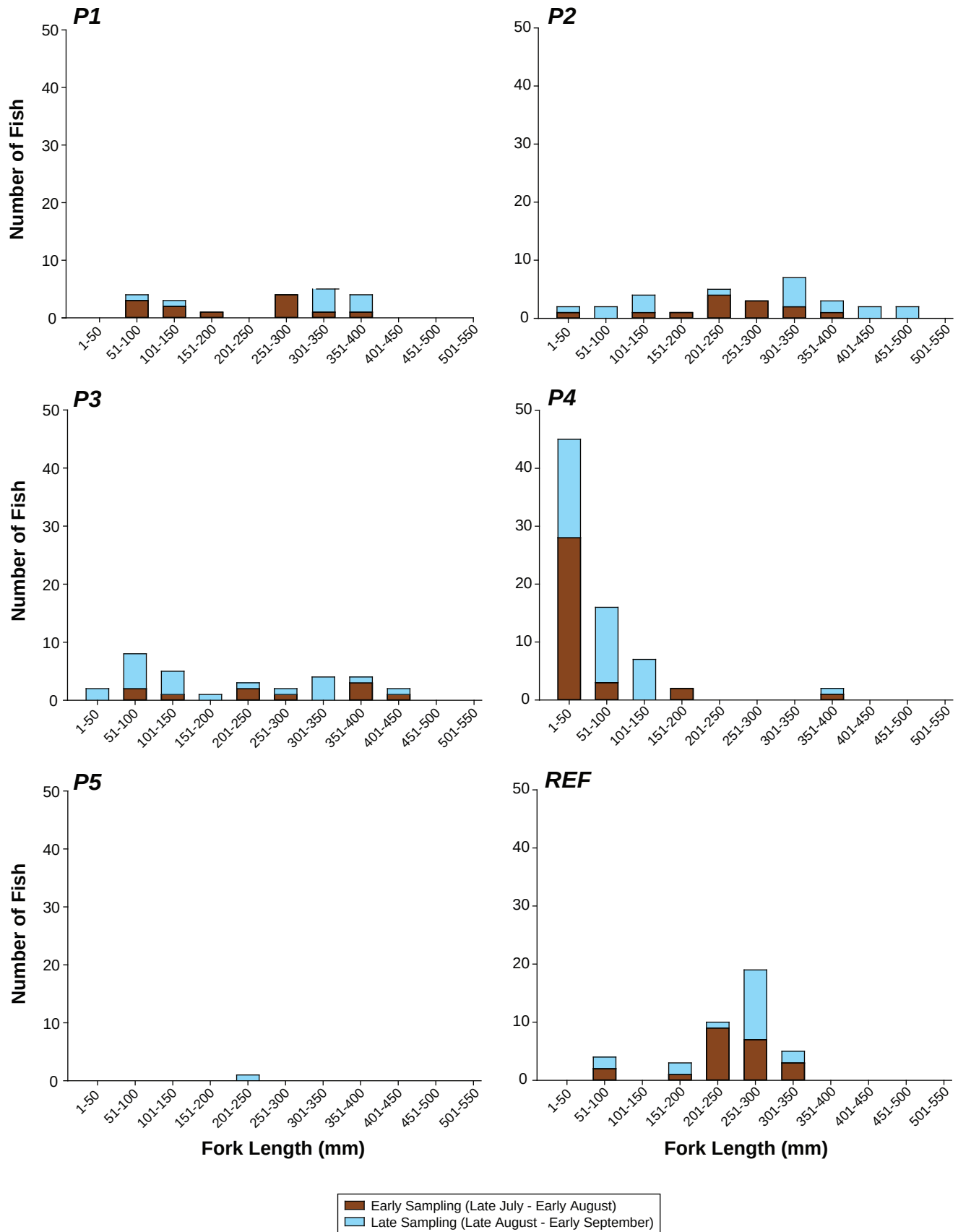
Figure 3.2-11





**Length-Frequency Distribution of
Greenland Cod Caught in Roberts Bay,
Hope Bay Belt Project, 2010**

Figure 3.2-13



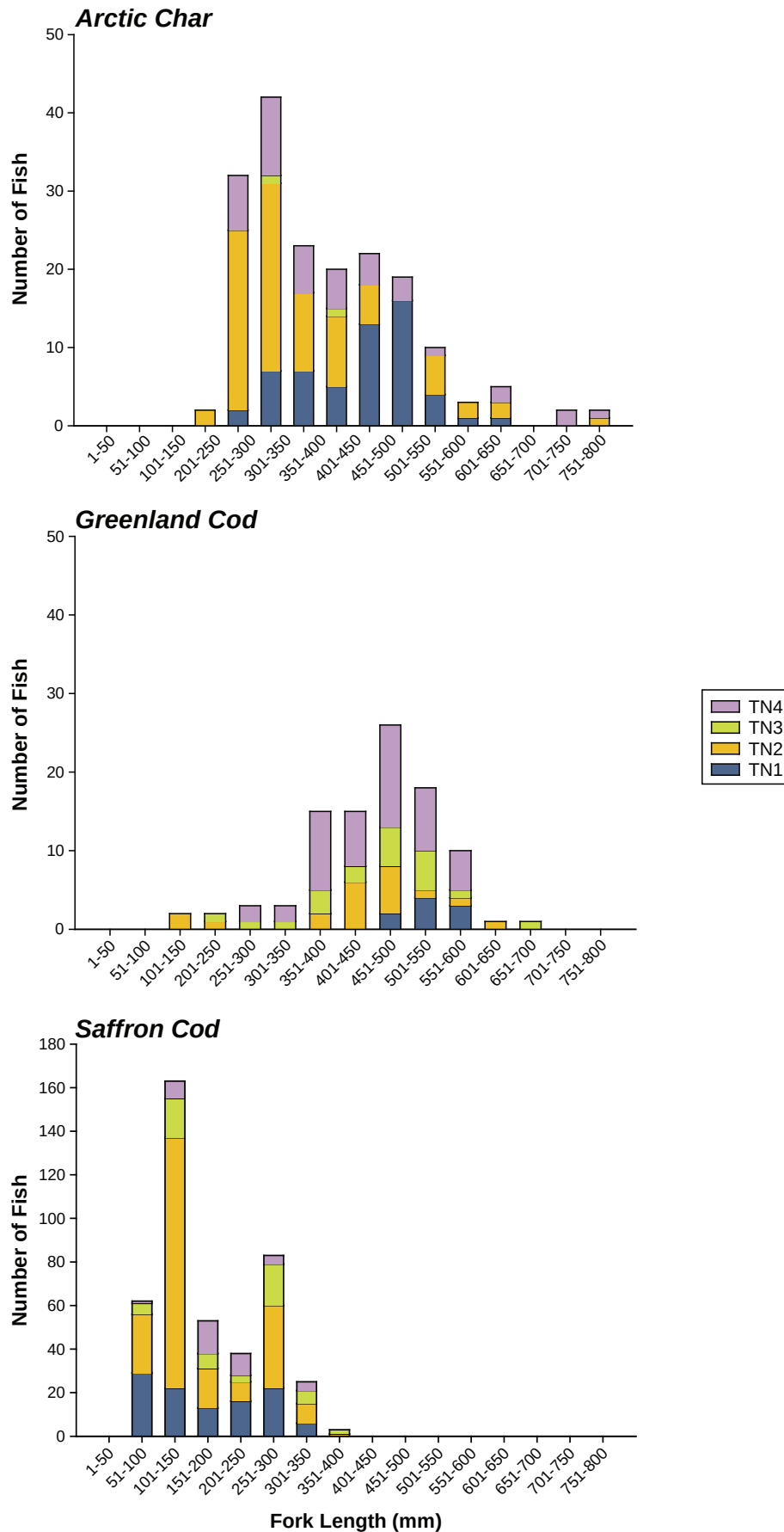
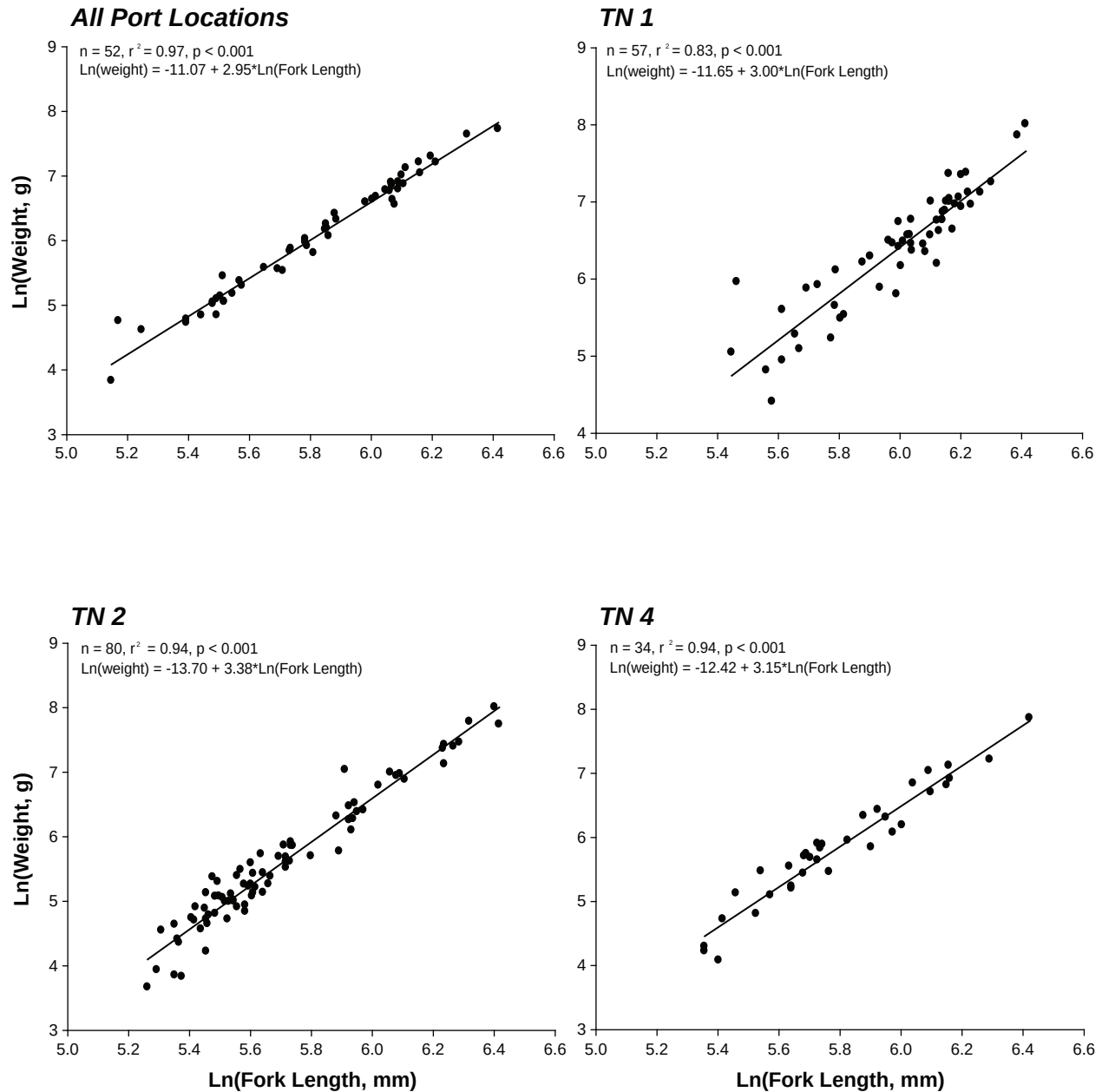


Figure 3.2-15



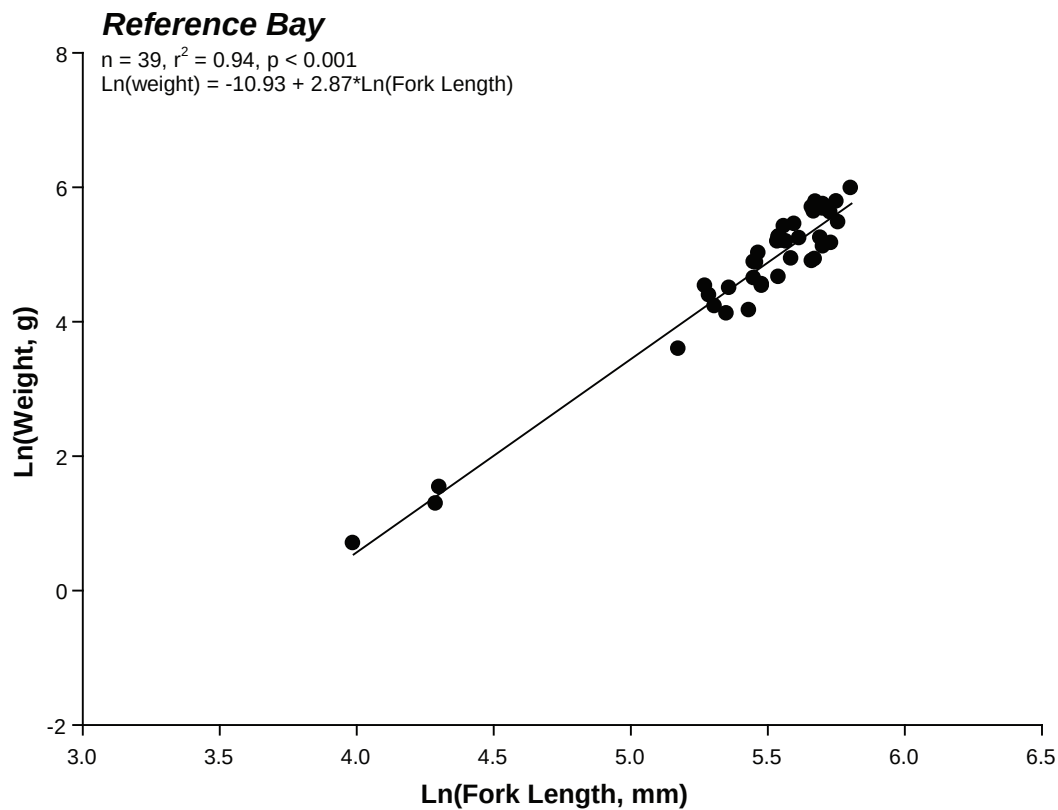
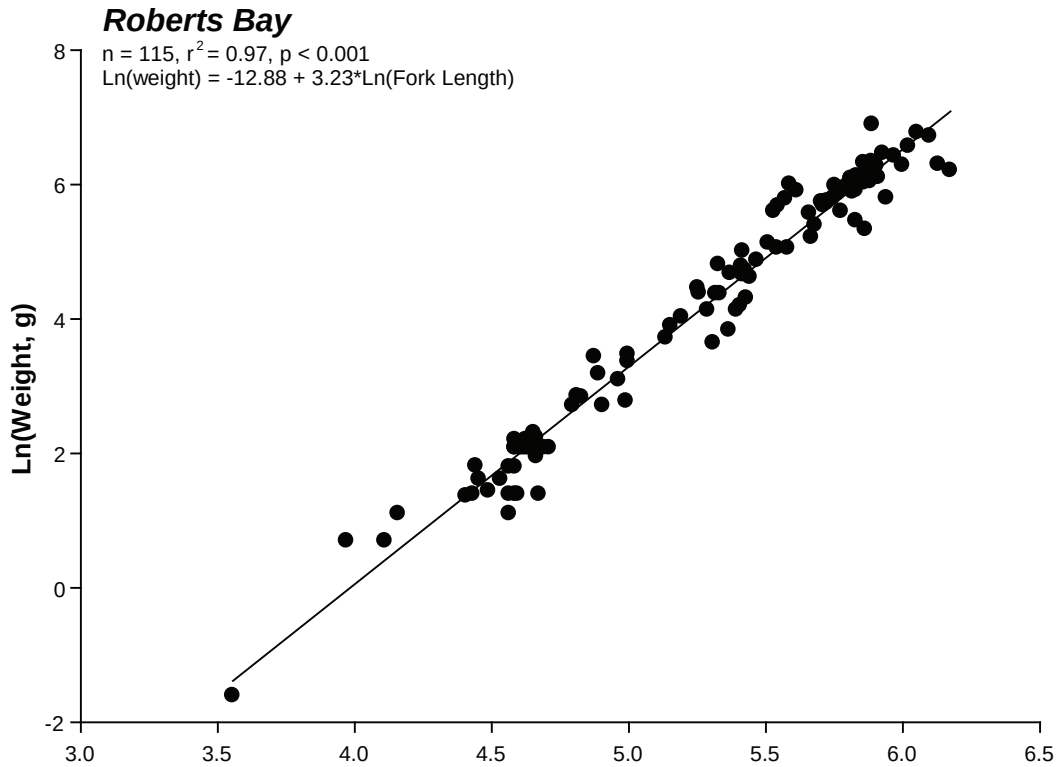


Figure 3.2-17

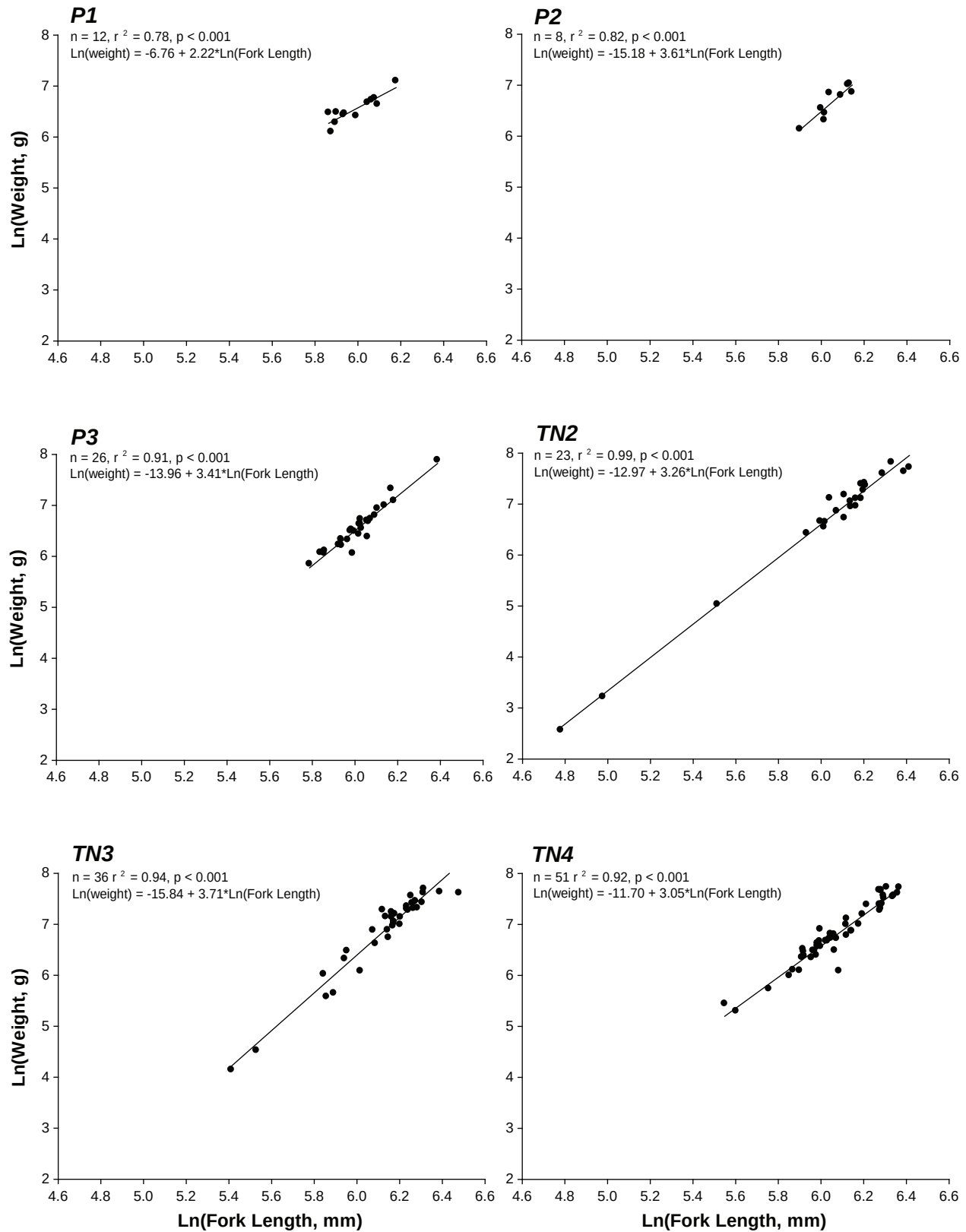


Figure 3.2-18

GLM and ANCOVA showed no significant differences in weight-length slopes and intercepts of Pacific herring caught at sites in Roberts Bay. Pacific herring caught in trap nets were not included in the analysis because of low sample sizes. Therefore, data were pooled to produce separate regressions for Roberts Bay and Reference Bay (Figure 3.2-19). Both regressions were highly significant ($p < 0.001$) and $\ln(\text{length})$ explained between 51% and 88% of the variation in $\ln(\text{weight})$. The slopes of the regressions ranged from 3.1 to 3.6.

GLM and ANCOVA showed significant differences in weight-length slopes and intercepts of saffron cod among Roberts Bay sampling locations ($p = 0.05$). Therefore, separate weight-length regressions were calculated for each site (Figure 3.2-20). Sites P4, P5, REF and TN4 were omitted due to low sample sizes. All regressions were highly significant ($p < 0.001$) and $\ln(\text{length})$ explained between 87% and 99% of the variation in $\ln(\text{weight})$. The slopes of the regressions ranged from 2.9 to 3.5.

3.2.7 Age and Growth

Age of Arctic char ranged between 2 and 14 years old with a mean of 5 years and a median of 4 years (Table 3.2-7 and Figure 3.2-21). The spawning age of Arctic char in the Cambridge Bay region is typically 9 years (DFO 2004), therefore the majority of char caught in this study were either smolts exiting from the Roberts Lake system or immature adults.

Table 3.2-7. Age of Fish Captured in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Species	Roberts Bay					Reference Bay				
	n	Mean	SE	Min	Max	n	Mean	SE	Min	Max
Arctic char	129	5	0.2	2	14	7	5	0.4	4	6
Pacific herring	53	10	0.3	4	13	8	9	0.4	7	11
Greenland cod	102	4	0.1	1	8	0	-	-	-	-
saffron cod	108	3	0.1	1	6	1	3	-	-	-

Note: SE = Standard error of the mean; min = minimum; max = maximum.

Pacific herring ranged between 4 and 13 years old, with a mean of 9 to 10 years and a median of 11 years (Figure 3.2-21). This meant that Pacific herring were among the oldest fish sampled.

Greenland cod were between the ages of 1 and 8 years (Figure 3.2-21). Most were mature adults because the initial spawning age is 2 to 3 years (Mikhail and Welch 1989).

Saffron cod was the only one of the four species to exhibit a bi-modal age-frequency distribution: one mode at an age of 1 to 2 years and a second at an age of 4 years (Figure 3.2-21).

Von Bertalanffy growth models were fit to length-age data collected from Roberts Bay, pooling data from sites P1 to P5 and the four trap nets. Growth models were not fit to length-age data from Reference Bay because of small sample sizes. Due to the absence of length-age data for the youngest age classes, the t_0 parameter for Pacific herring and Arctic char had to be fixed at zero in order to obtain biologically realistic growth models. Age explained between 67 and 83% of the variation in length (Figures 3.2-22 and 3.2-23). Arctic char had the highest L_{∞} (954 mm), followed by Greenland cod (691 mm) and saffron cod (531 mm).

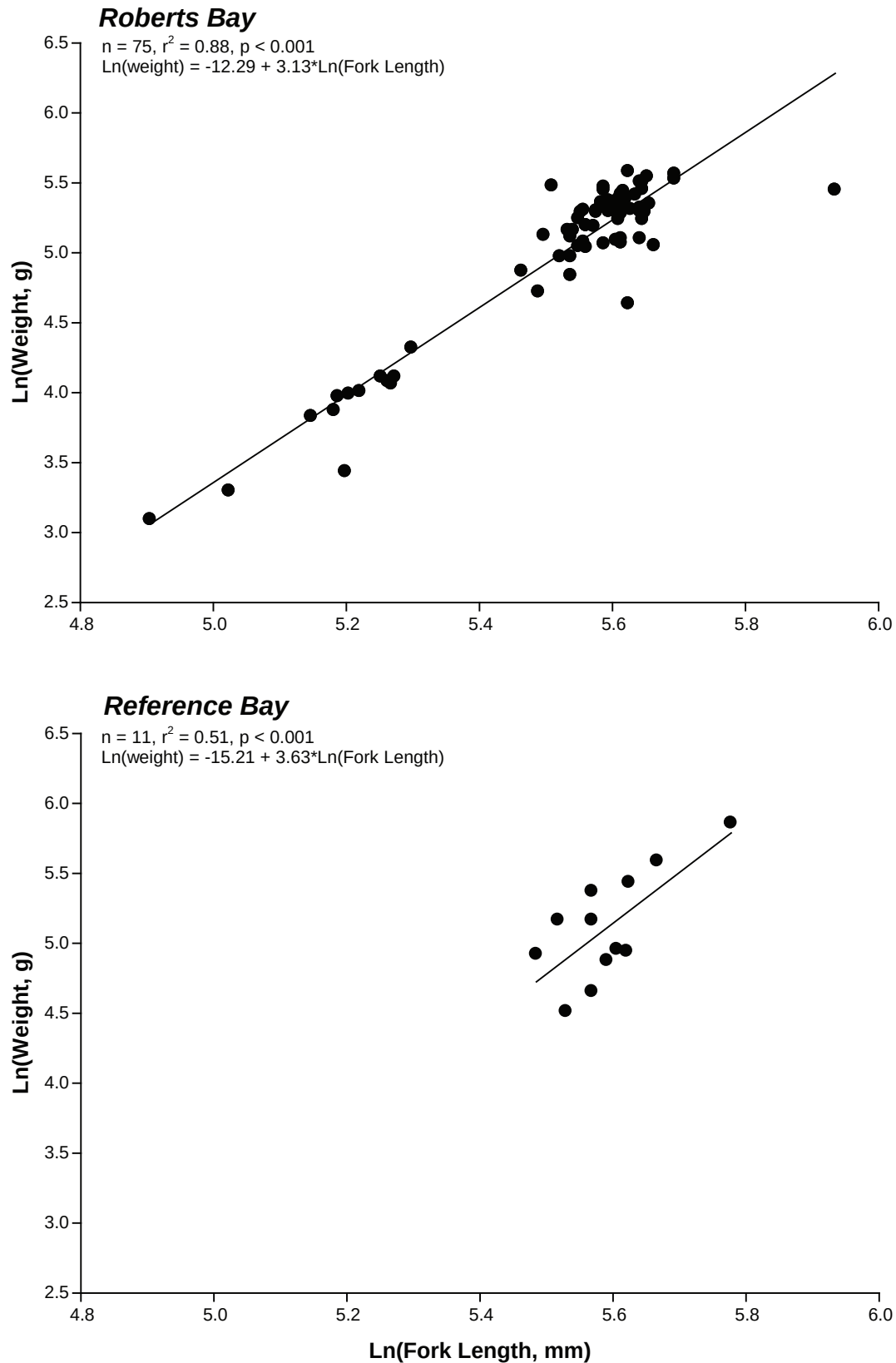


Figure 3.2-19

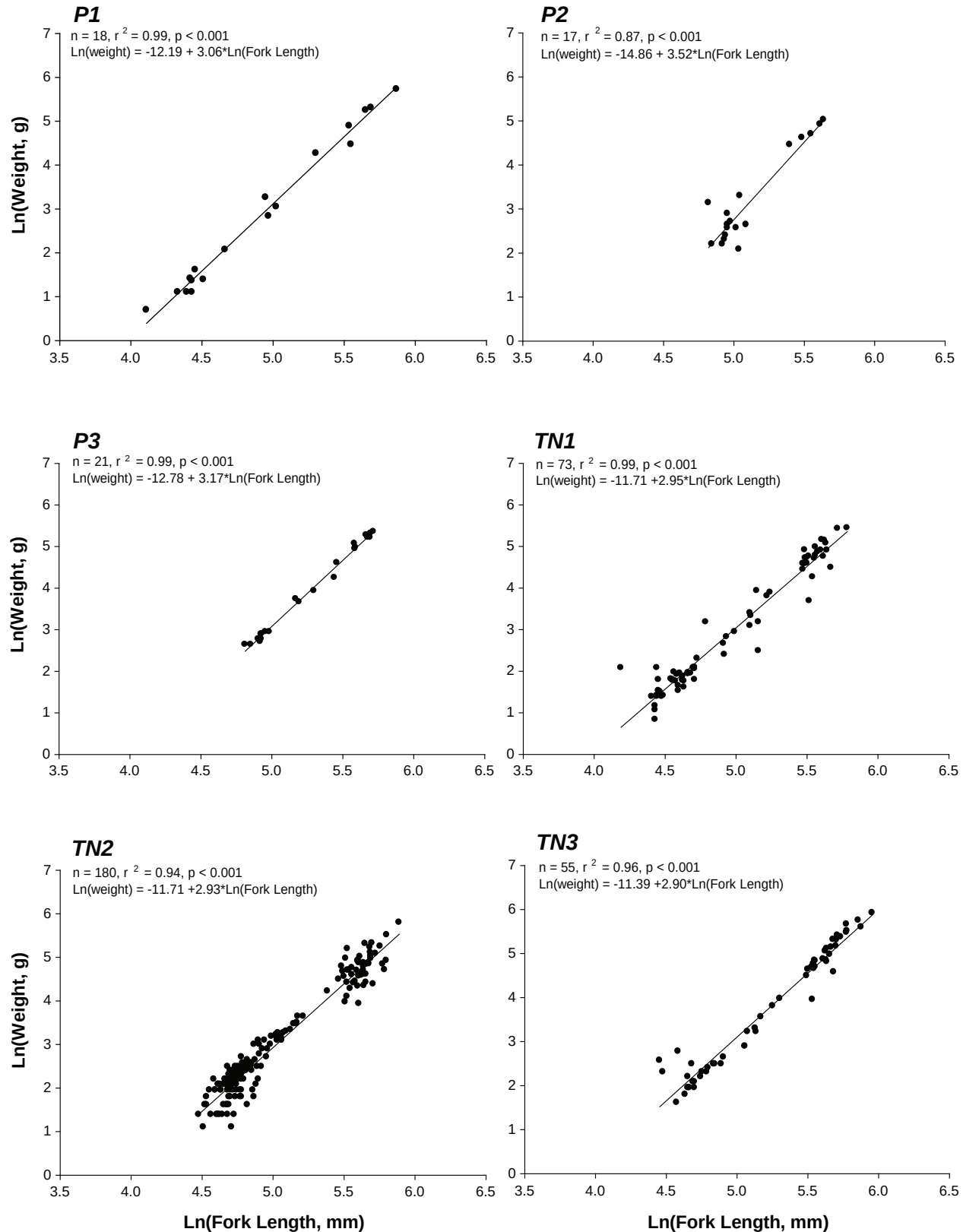
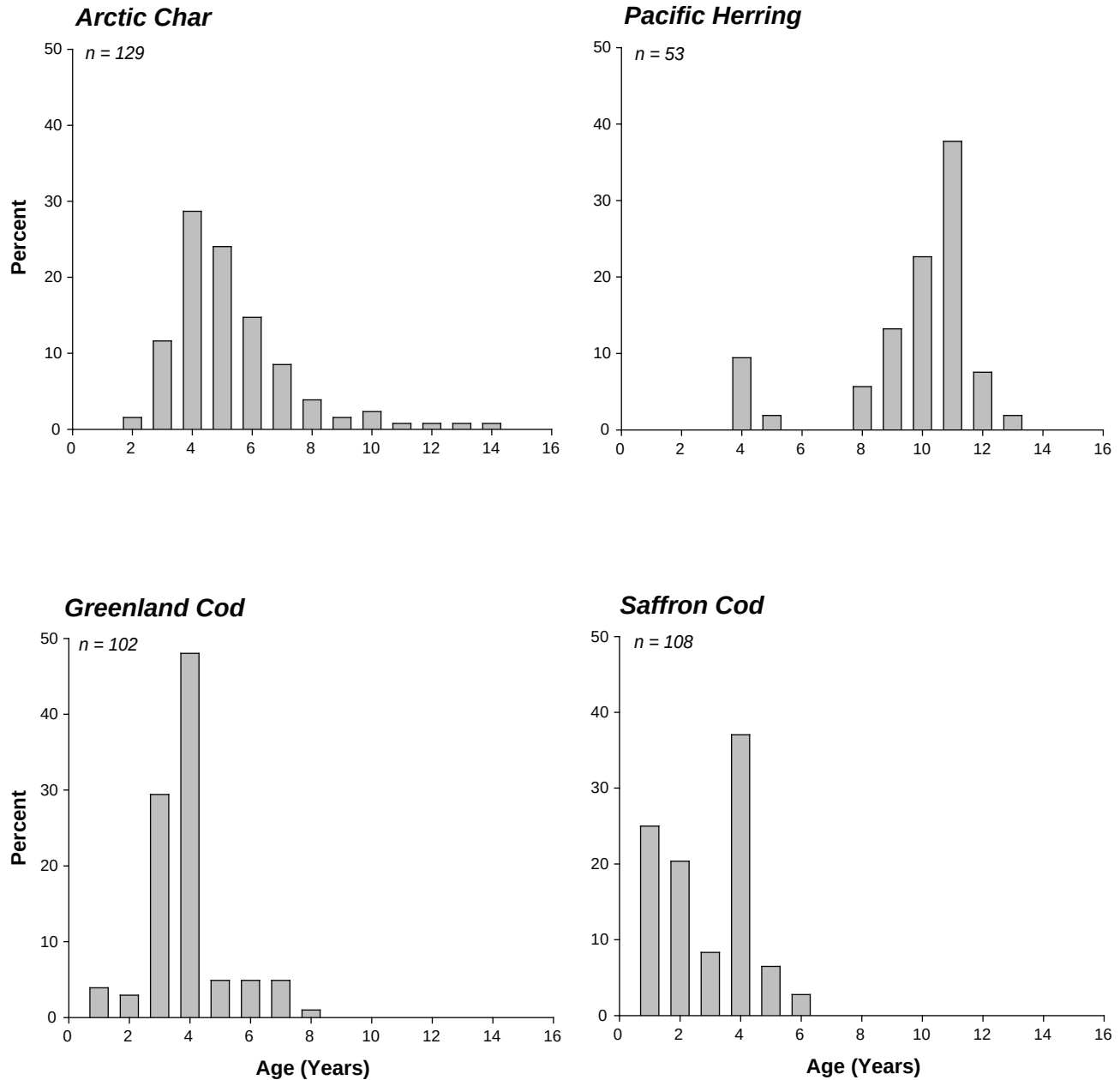


Figure 3.2-20



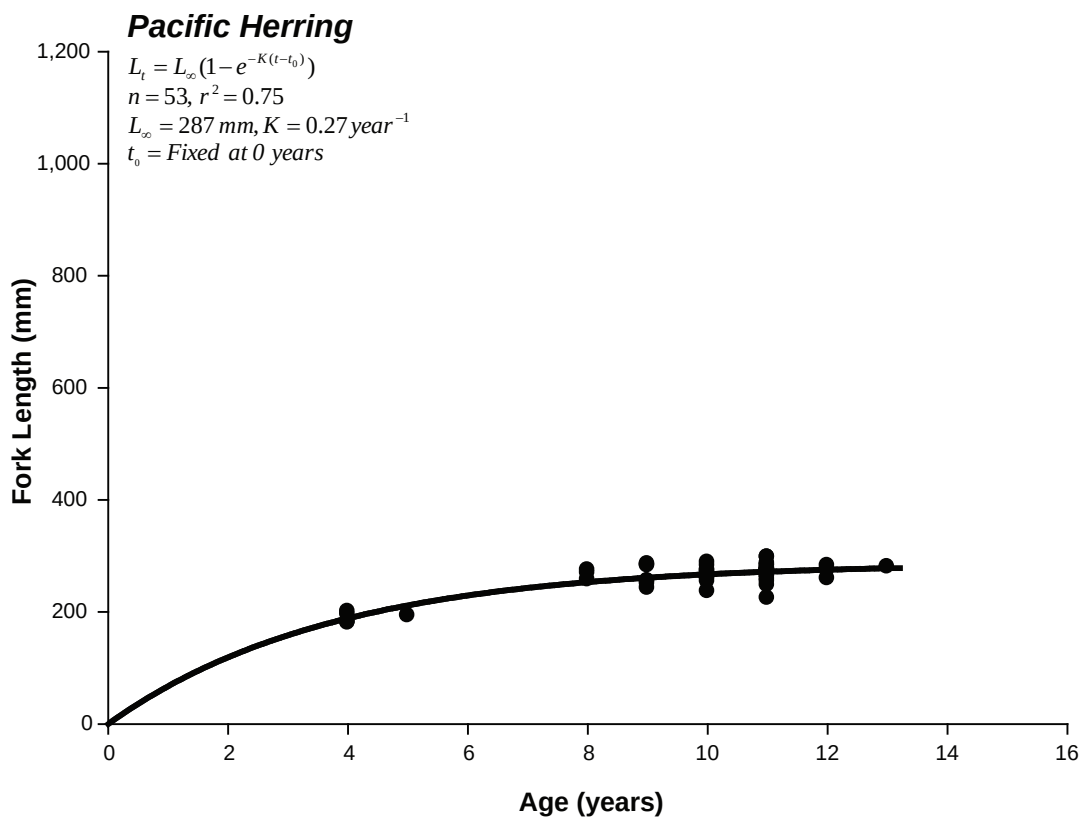
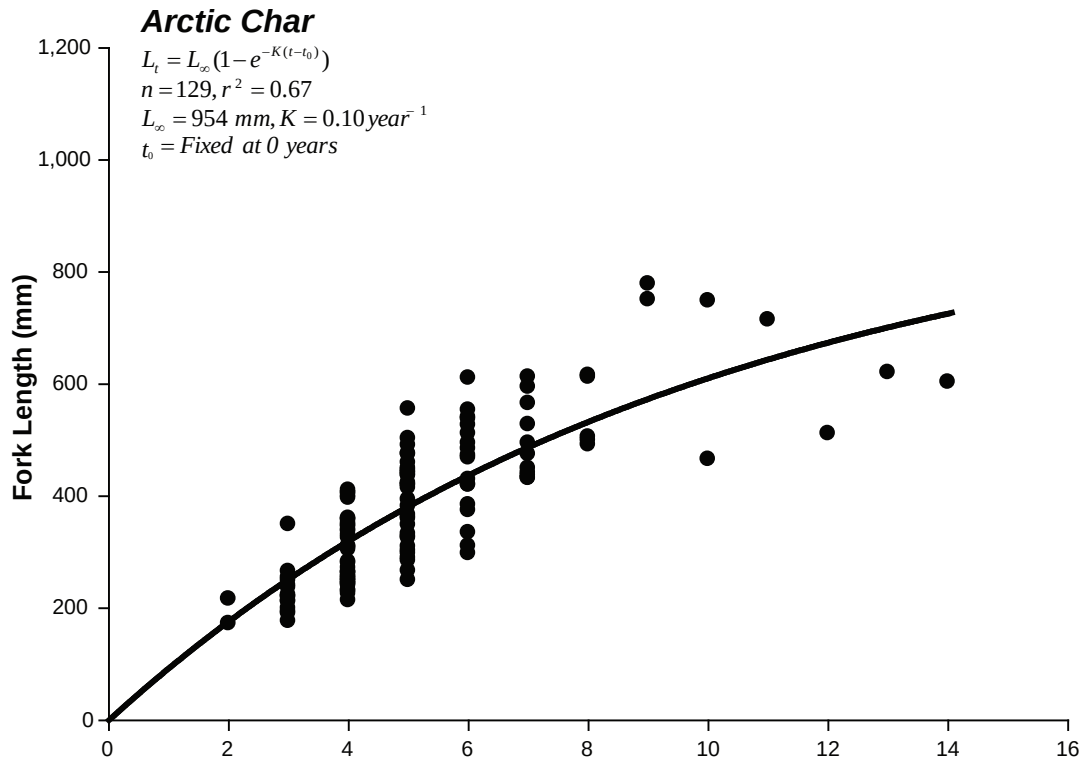


Figure 3.2-22

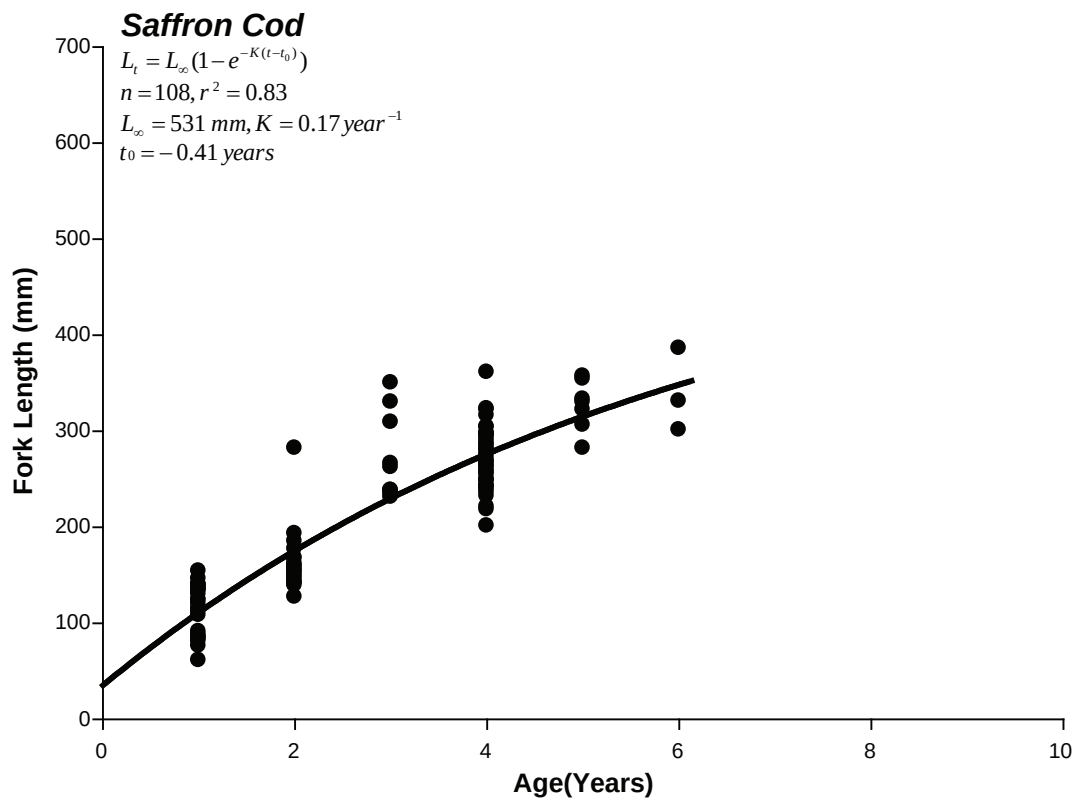
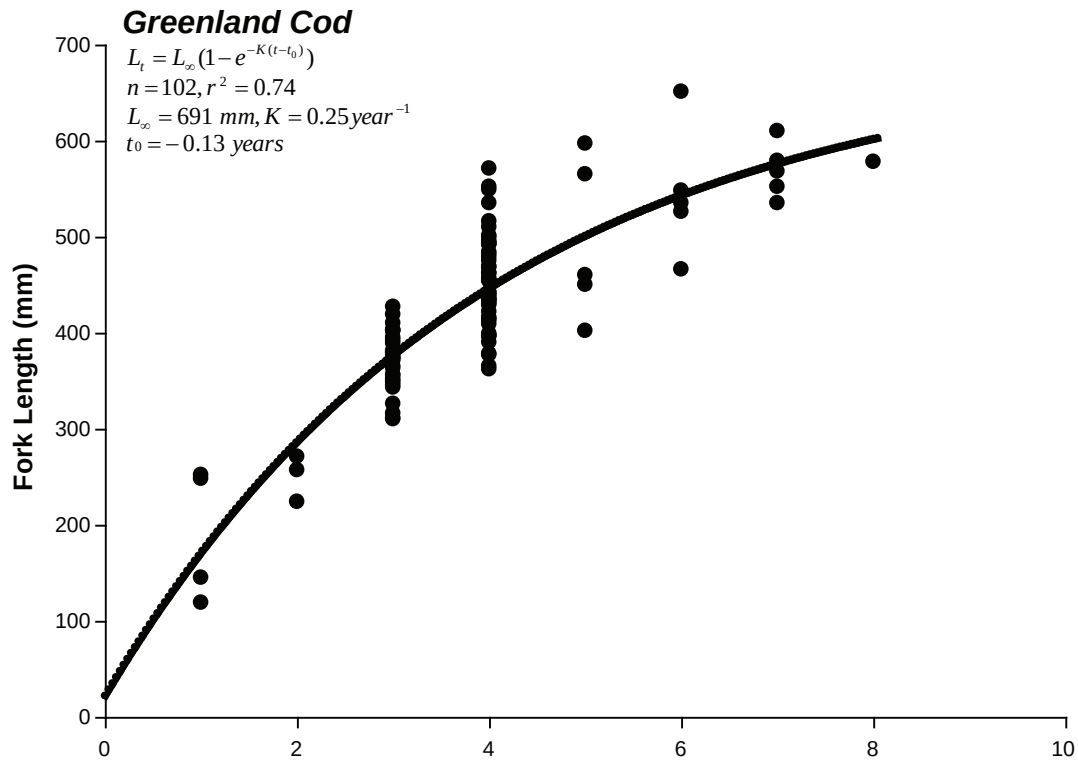


Figure 3.2-23

3.2.8 Pacific Herring Diet

Taxonomic analysis of stomach contents were conducted on a subset of the Pacific herring captured in Roberts Bay and Reference Bay (Appendices 3.2-13 and 3.2-14 and Table 3.2-8). A total of 31 stomachs were collected from both the early and late sampling periods. Of these, three samples were collected from TN2, and were therefore omitted from analysis due to the potential for selective feeding occurring inside the trap net. Of the remaining 28 stomach samples, only one sample was collected from Reference Bay, but it was empty. Therefore, only results from the Roberts Bay diet analysis are presented here.

Table 3.2-8. Fullness, Digestion and Stomach Content Weight of Pacific Herring in Roberts Bay and the Reference Bay, Hope Bay Belt Project, 2010

	n	Mean	SE	Min	Max
Fullness (%)	27	33.7	5.8	0	90
Digestion (%)	27	71.7	4.6	0	100
(mg)	27	514.0	114.5	0	1,880

Note: SE = Standard error of the mean.

Stomach contents were dominated by true crabs (Brachyura), accounting for 68% of all identified organisms (Figure 3.2-24). This prey taxon predominated in stomachs from site P5, where it accounted for almost 100% of the stomach contents collected. Three other species were of secondary importance, accounting for 6 to 7% of the total observed prey. Polychaetes from the family Syllidae were important in overall numbers, but were represented by 100% of the contents from a single individual caught at site P4. Similarly, the calanoid copepod *Centropages hamata* was important in overall numbers, but only observed in a single stomach sample from site P4. The mysidacea (shrimp-like crustacean) *Mysis litoralis* was also important numerically, but was only observed in seven different stomachs from sites P3 and P5.

Unidentified juvenile fish accounted for 58% of the total weight of stomach contents despite being comprised of 13 individuals and 1% of the total stomach contents by number (Figure 3.2-24). Brachyurans were secondary in terms of total weight, comprising 22% of the stomach contents. *Mysis litoralis* followed closely, comprising 16% of the overall stomach content weight.

3.3 MACROBENTHOS COMMUNITY

Appendices 3.2-1 through 3.2-6 show catch and effort for macrobenthos captured in crab traps and sinking gillnets (e.g., mussels and sea stars), and Appendix 3.3-1 shows the biological data collected from macrobenthos catches.

A total of 468 individual organisms from eight different macrobenthos classes and orders were caught during 2010, including Amphipoda, Ophiuroidea, Decapoda, Isopoda, Bivalvia, Echinoidea, Gastropoda, and Asteroidea (Plates 3.3-1 to 3.3-6). Sea urchins (Echinoidea) were most abundant (n = 136) and were present at all sampling sites except for site P1. Sea snails (Gastropoda) were second in overall abundance (n = 125), and were caught at each of the six sampling sites (e.g., P1 to P5 and REF). Sea stars (Asteroidea) (n = 93) were also relatively abundant and were captured at all six sites.

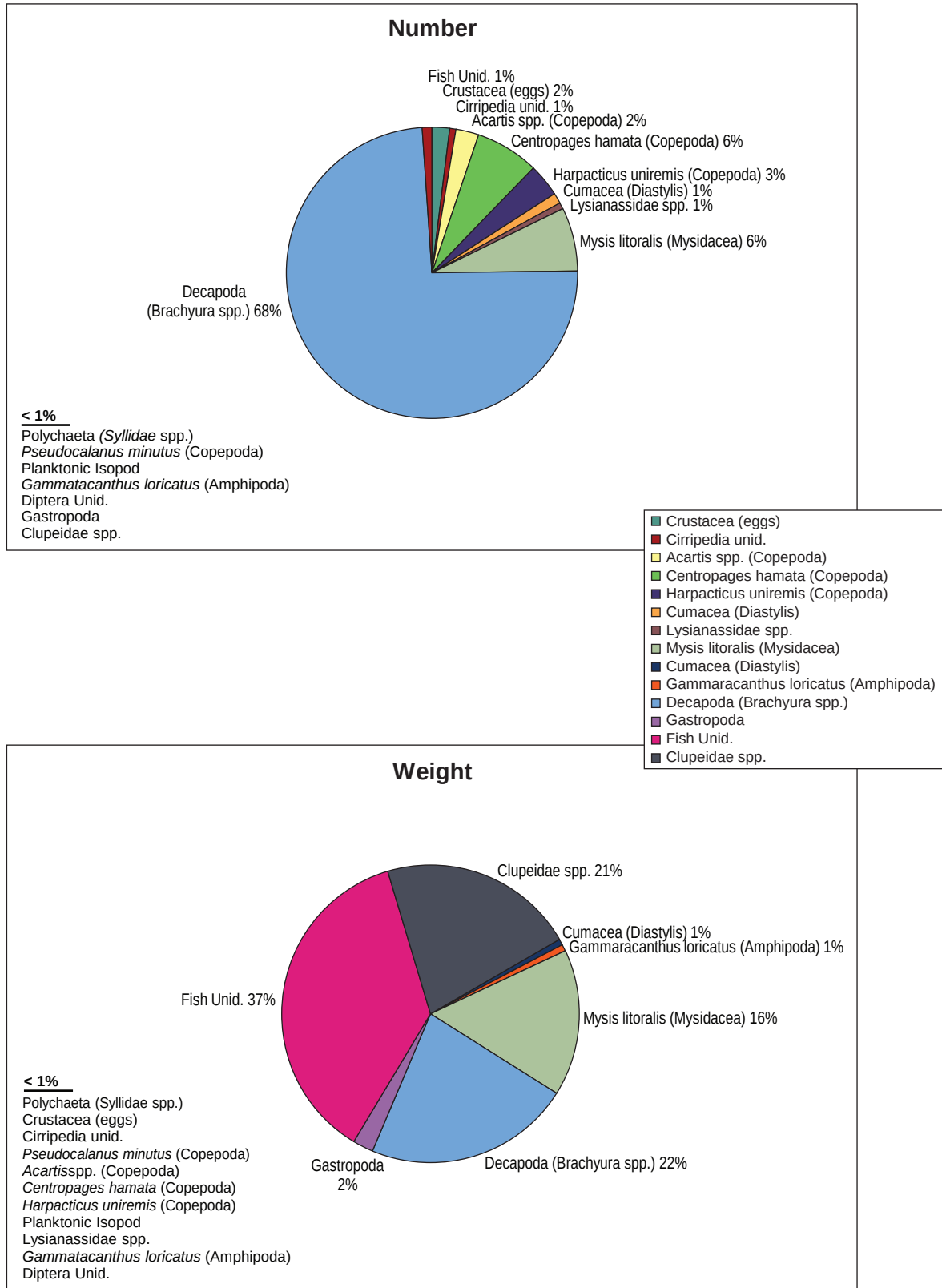


Figure 3.2-24



Plate 3.3-1. A sea star (Class Asteroidea) captured in Roberts Bay, Hope Bay Belt Project, 2010.



Plate 3.3-2. An isopod (Order Isopoda) captured in Roberts Bay, Hope Bay Belt Project, 2010.



Plate 3.3-3. An Amphipod captured in Roberts Bay, Hope Bay Belt Project, 2010.



Plate 3.3-4. A crab (Decapoda) captured in Roberts Bay, Hope Bay Belt Project, 2010.



Plate 3.3-5. A brittlestar (*Ophiuroidea*) captured in Roberts Bay, Hope Bay Belt Project, 2010.



Plate 3.3-6. A sea snail (*Gastropoda*) captured in Roberts Bay, Hope Bay Belt Project, 2010.

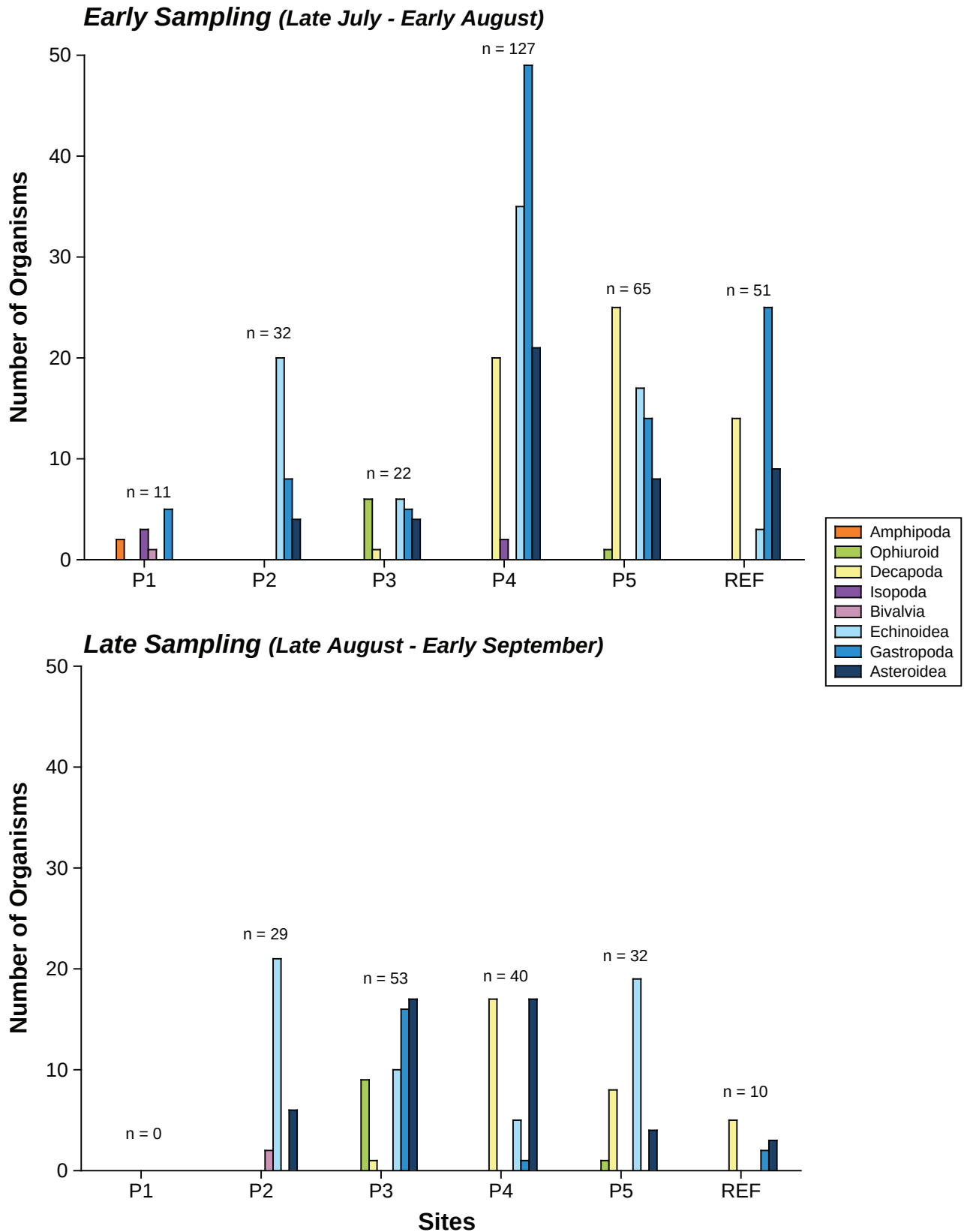
Species richness of macrobenthos was similar between the two sampling periods, with a range of three to five taxa caught per site. However, the total number of organisms decreased from 308 in early sampling (late July-early August) to 164 in the late sampling (late August-early September) (Figure 3.3-1). This seasonal decrease is attributable to decreases in sea snail (43.17% dissimilarity) and isopod (12.46%) abundance.

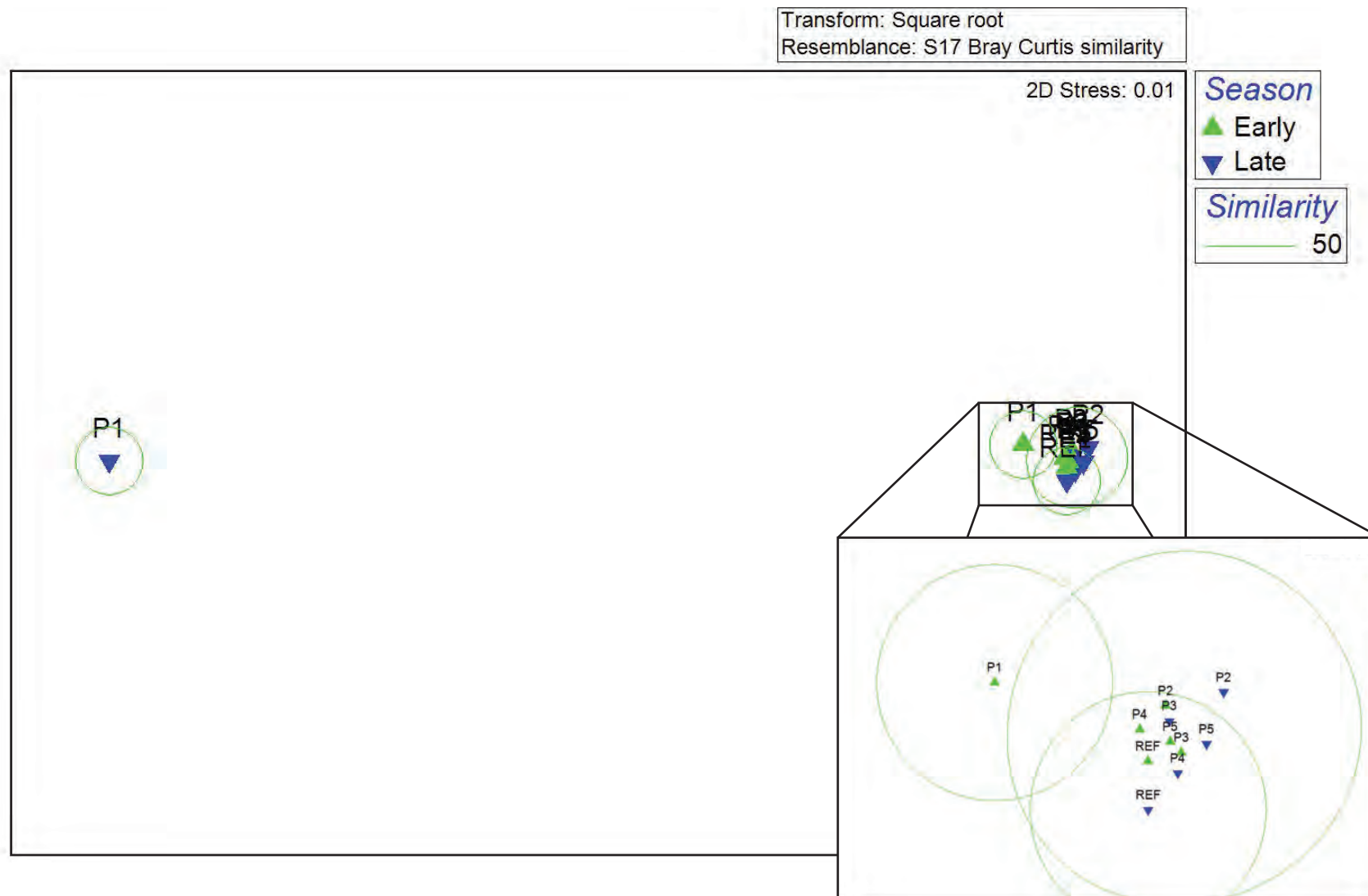
Site P1 possessed the lowest numbers of organisms, most likely a result of the shallow depth and sandy substrate. Site P1 was the only site that supported amphipods, as well as one of only two sites with mussels and isopods. This relatively high species diversity was reflected in the results of nMDS analysis (Figure 3.3-2). The macrobenthos community at site P1 during the late sampling session was very different from those of the other five sites. However, as with the fish community analysis, this difference was not significant due to the low sample size (ANOSIM: $r = 0.475$, $p = 0.10$).

The abundance of macrobenthos at site P2 was similar between the two sampling periods; however, no sea snails were caught during the late sampling period. Site P2 also had one of the two observations of mussels. Site P3 exhibited no change in species composition between sampling periods, but an increase was observed from early to late sampling across all taxa, particularly sea snails and sea stars.

In contrast, site P4 showed a substantial decrease in macrobenthos abundance from early to late sampling. Despite this decline, species richness was similar between sampling periods, with the exception of two isopods in the early session. Site P5 also showed a decrease in overall abundance between sampling periods, driven by an absence of sea snails and decrease in brittlestars (Ophiuroid).

As with the potential port sites in Roberts Bay, site REF exhibited a sharp decrease in macrobenthos abundance between sampling periods. The 80% decrease in abundance observed between early and late sampling periods was driven by a decrease in numbers of sea snails, however, all other taxa also showed decreases.





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Appendix 3.1-1

Detailed Habitat Data for Sites P2, P3, P4, and P5 in
Roberts Bay and Site REF in Reference Bay, Hope Bay
Belt Project, 2010

Appendix 3.1-1(a). Detailed Habitat Data for Site P2 in Roberts Bay, Hope Bay Belt Project, 2010

Habitat Number	Habitat Unit Length (m)	UTMs		PIC #'s	Area (m ²)	Organics (%)	Fines (%)	Gravel (%)	Cobble (%)	Boulder (%)	Bedrock (%)	Organics (m ²)	Fines (m ²)	Gravel (m ²)	Cobble (m ²)	Boulder (m ²)	Bedrock (m ²)
		Start (from S)	End (from N)														
1	435	431577	7564182	431618	7564300	10,467	0	70	10	10	5	0	7,327	1,047	1,047	523	523
2	198	431618	7564300	431630	7564345	1,550	0	65	10	10	5	0	1,007	155	155	155	77
Total Area					12,016	-	-	-	-	-	-	0	8,334	1,202	1,202	678	601
Total %					-	-	-	-	-	-	-	0	69	10	10	6	5

Appendix 3.1-1(b). Detailed Habitat Data for Site P3 in Roberts Bay, Hope Bay Belt Project, 2010

Habitat	Habitat Unit	UTMs		Area (m ²)	Organics (%)	Fines (%)	Gravel (%)	Cobble (%)	Boulder (%)	Bedrock (%)	Organics (m ²)	Fines (m ²)	Gravel (m ²)	Cobble (m ²)	Boulder (m ²)	Bedrock (m ²)		
Number	Length (m)	Start (from S)	End (from N)															
1	17	431652	7564332	431627	7564349	792	0	8	33	54	6	0	59	257	428	48	0	
2	37	431627	7564349	431612	7564380	1,848	2	13	28	55	4	0	28	231	508	1,016	65	0
3	16	431612	7564380	431616	7564381	108	0	85	8	5	3	0	92	8	5	3	0	
4	10	431616	7564381	431628	7564388	400	0	30	60	10	1	0	0	120	238	40	2	0
5	13	431628	7564388	431641	7564399	580	0	15	80	5	0	0	87	464	29	0	0	
6	69	431641	7564399	431607	7564485	2,574	5	20	45	20	10	0	129	515	1,158	515	257	0
7	78	431607	7564485	431528	7564543	2,839	0	18	30	33	20	0	0	497	852	923	568	0
8	4	431528	7564543	431581	7564543	288	0	1	2	2	95	0	0	3	6	6	273	0
9	20	431581	7564543	431567	7564558	1,113	0	8	80	10	3	0	0	83	890	111	28	0
10	25	431567	7564558	431559	7564581	1,228	0	28	68	5	0	0	0	338	829	61	0	0
11	106	431559	7564581	431591	7564680	2,652	0	5	53	28	15	0	0	133	1,392	729	398	0
12	25	431591	7564680	431592	7564699	503	0	15	33	48	5	0	0	75	164	239	25	0
				Total Area	14,925	-	-	-	-	-	-	156	2,233	6,767	4,102	1,666	0	
				Total %	-	-	-	-	-	-	-	1	15	45	27	11	0	

Appendix 3.1-1(c). Detailed Habitat Data for Site P4 in Roberts Bay, Hope Bay Belt Project, 2010

Habitat Number	Habitat Unit Length (m)	UTMs		PIC #'s	Area (m ²)	Organics (%)	Fines (%)	Gravel (%)	Cobble (%)	Boulder (%)	Bedrock (%)	Organics (m ²)	Fines (m ²)	Gravel (m ²)	Cobble (m ²)	Boulder (m ²)	Bedrock (m ²)	
		Start (from S)	End (from N)															
1	25	431225	7565500	431195	7565507	189	0	20	10	20	50	0	38	19	38	95	0	
2	14	431195	7565507	431175	7565516	90	0	60	5	30	5	0	54	4	27	4	0	
3	11	431175	7565516	431163	7565519	31	0	40	10	50	0	0	12	3	16	0	0	
4	37	431163	7565519	431158	7565520	214	0	70	10	15	5	0	150	21	32	11	0	
5	30	431158	7565520	431136	7565515	104	0	0	10	20	70	0	0	10	21	73	0	
6	55	431136	7565515	431130	7565506	545	0	20	5	70	5	0	109	27	382	27	0	
7	24	431130	7565506	431092	7565452	348	0	10	5	80	5	0	35	17	278	17	0	
8	31	431092	7565452	431076	7565421	604	0	5	20	70	5	0	30	121	423	30	0	
9	37	431076	7565421	431060	7565366	506	0	10	10	60	20	0	51	51	304	101	0	
10	24	431060	7565366	431068	7565316	217	10	25	5	50	10	22	54	11	109	22	0	
11	14	431068	7565316	431067	7565302	102	15	70	5	5	5	0	15	72	5	5	0	
12	21	431067	7565302	431068	7565292	264	0	0	5	80	15	0	0	13	211	40	0	
13	13	431068	7565292	431076	7565260	217	0	70	20	5	5	0	152	43	11	11	0	
14	8	431076	7565260	431093	7565242	176	80	10	0	10	0	141	18	0	18	0	0	
15	25	431093	7565242	431097	7565225	264	5	70	10	10	5	0	13	184	26	26	13	0
16	9	431097	7565225	431112	7565212	551	70	15	5	5	5	0	386	83	28	28	28	0
17	69	431112	7565212	431126	7565193	532	0	90	5	0	5	0	479	27	0	27	0	0
18	33	431126	7565193	431168	7565196	1,200	60	15	5	20	0	0	720	180	60	240	0	0
19	93	431168	7565196	431228	7565234	2,180	0	0	10	20	70	0	0	218	436	1,526	0	0
20	-	431152	7565206	431154	7565514	22,729	0	100	0	0	0	0	22,729	0	0	0	0	0
Note: Habitat Unit 20 is the offshore habitat assessed at this location.						Total Area	31,065	-	-	-	-	-	1,297	24,430	706	2,604	2,029	0
						Total %	-	-	-	-	-	-	4	79	2	8	7	0

Note: Habitat Unit 20 is the offshore habitat assessed at this location.

Appendix 3.1-1(d). Detailed Habitat Data for Site P5 in Roberts Bay, Hope Bay Belt Project, 2010

Habitat Number	Habitat Unit Length (m)	UTMs				Area (m ²)	Organics (%)	Fines (%)	Gravel (%)	Cobble (%)	Boulder (%)	Bedrock (%)	Organics (m ²)	Fines (m ²)	Gravel (m ²)	Cobble (m ²)	Boulder (m ²)	Bedrock (m ²)
		Start (from S)		End (from N)														
1	895	431290	7565475	431354	7565827	5,956	0	0	0	0	5	95	0	0	0	0	298	5,658
						Total Area	5,956	-	-	-	-	-	0	0	0	0	298	5,658
						Total %	-	-	-	-	-	-	0	0	0	0	5	95

Appendix 3.1-1(e). Detailed Habitat Data for Site REF in Reference Bay, Hope Bay Belt Project, 2010

Habitat Number	Habitat Unit Length (m)	UTMs				PIC #s	Area (m ²)	Organics (%)	Fines (%)	Gravel (%)	Cobble (%)	Boulder (%)	Bedrock (%)	Organics (m ²)	Fines (m ²)	Gravel (m ²)	Cobble (m ²)	Boulder (m ²)	Bedrock (m ²)
		Start (from N)		End (from S)															
1	76	441199	7563123	441127	7563090		377	0	80	0	5	15	0	0	302	0	19	57	0
2	9	441127	7563090	441129	7563091		45	0	4	25	70	1	0	0	2	11	32	0	0
3	36	441129	7563091	441094	7563074		407	0	10	70	18	2	0	0	41	285	73	8	0
4	59	441094	7563074	441054	7563036		698	0	10	50	20	20	0	0	70	349	140	140	0
5	64	441054	7563036	440998	7563004		931	0	25	60	10	5	0	0	233	559	93	47	0
6	104	441010	7562986	440980	7562893		1,442	0	10	25	60	5	0	0	144	361	865	72	0
						Total Area	3,901	-	-	-	-	-	-	0	791	1,564	1,222	324	0
						Total %	-	-	-	-	-	-	-	0	20	40	31	8	0

Appendix 3.2-1

Set Times, Retrieval Times and Locations of Floating Gillnets Used in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Appendix 3.2-1. Set Times, Retrieval Times and Locations of Floating Gillnets used in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Location		Gear			Set		Retrieval		LOCATION 1			LOCATION 2			Fish Catch	Macrobenthos
Location	Site	Method	Type	#	Date In	Time In	Date Out	Time Out	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Summary	Catch Summary
Roberts Bay	P1	GN	F	1	30-Jul-10	10:50	30-Jul-10	11:50	7.9	432266	7563588	4.4	432197	7563516	NFC	NIC
Roberts Bay	P1	GN	F	2	30-Jul-10	12:10	30-Jul-10	13:47	5.8	432186	7563534	4.1	432276	7563446	NFC	NIC
Roberts Bay	P1	GN	F	3	30-Jul-10	13:57	30-Jul-10	15:30	3.0	432256	7563441	6.9	432347	7563488	NFC	NIC
Roberts Bay	P1	GN	F	4	4-Aug-10	9:30	4-Aug-10	11:50	5.3	432197	7563508	3.2	432267	7563422	2 SC	NIC
Roberts Bay	P1	GN	F	5	4-Aug-10	11:58	4-Aug-10	13:30	5.9	432220	7563487	2.9	432318	7563406	NFC	NIC
Roberts Bay	P1	GN	F	1	29-Aug-10	13:48	29-Aug-10	16:20	1.7	432181	7563438	7.4	432220	7563556	2 AC	NIC
Roberts Bay	P1	GN	F	2	29-Aug-10	14:10	29-Aug-10	16:29	5.2	432126	7563537	8.6	432087	7563630	3 AC	NIC
Roberts Bay	P1	GN	F	3	30-Aug-10	9:32	30-Aug-10	12:13	7.4	432189	7563594	8.5	432211	7563691	NFC	NIC
Roberts Bay	P1	GN	F	4	30-Aug-10	9:40	30-Aug-10	11:40	4.2	432069	7563581	8.9	432108	7563672	1 AC	NIC
Roberts Bay	P1	GN	F	5	30-Aug-10	13:00	30-Aug-10	15:15	6.8	432173	7563563	7.9	432102	7563655	NFC	NIC
Roberts Bay	P1	GN	F	6	30-Aug-10	13:07	30-Aug-10	15:46	4.2	432347	7563700	3.8	432317	7563613	2 AC	NIC
Roberts Bay	P2	GN	F	1	5-Aug-10	9:55	5-Aug-10	11:28	4.1	431724	7564322	12.0	431840	7564353	NFC	NIC
Roberts Bay	P2	GN	F	2	5-Aug-10	12:36	5-Aug-10	14:44	5.2	431738	7564338	12.3	431847	7564390	1 AC	NIC
Roberts Bay	P2	GN	F	3	8-Aug-10	7:50	8-Aug-10	9:10	4.3	431727	7564317	10.1	431820	7564307	NFC	NIC
Roberts Bay	P2	GN	F	4	8-Aug-10	9:35	8-Aug-10	11:17	4.6	431702	7564338	12.0	431837	7564392	NFC	NIC
Roberts Bay	P2	GN	F	5	9-Aug-10	7:06	9-Aug-10	11:20	4.1	431702	7565520	3.5	431697	7564403	6 AC	NIC
Roberts Bay	P2	GN	F	1	1-Sep-10	14:35	1-Sep-10	16:26	1.4	431738	7564348	1.5	431787	7564339	NFC	NIC
Roberts Bay	P2	GN	F	2	2-Sep-10	10:14	2-Sep-10	12:00	3.7	431712	7564317	11.0	431816	7564315	NFC	NIC
Roberts Bay	P2	GN	F	3	2-Sep-10	10:33	2-Sep-10	12:37	3.7	431718	7564469	12.0	431820	7564472	NFC	NIC
Roberts Bay	P2	GN	F	4	2-Sep-10	12:48	2-Sep-10	15:01	4.1	431725	7564318	2.5	431683	7564431	NFC	NIC
Roberts Bay	P2	GN	F	5	2-Sep-10	14:38	2-Sep-10	16:30	6.5	431773	7564423	15.0	431875	7564445	1 AC	NIC
Roberts Bay	P2	GN	F	6	2-Sep-10	10:26	2-Sep-10	12:15	3.1	431716	7564332	13.0	431837	7564380	NFC	NIC
Roberts Bay	P3	GN	F	1	9-Aug-10	13:26	9-Aug-10	14:55	13.1	432187	7563450	12.0	432191	7563443	2 AC, 2 PH	NIC
Roberts Bay	P3	GN	F	2	10-Aug-10	6:53	10-Aug-10	9:18	14.0	431784	7564758	13.0	431789	7564639	NFC	NIC
Roberts Bay	P3	GN	F	3	10-Aug-10	7:05	10-Aug-10	8:35	17.0	431669	7564773	18.0	431798	7564788	NFC	NIC
Roberts Bay	P3	GN	F	4	10-Aug-10	9:45	10-Aug-10	11:21	13.0	431703	7564804	12.0	431720	7564710	NFC	NIC
Roberts Bay	P3	GN	F	5	10-Aug-10	11:59	10-Aug-10	14:01	15.0	431811	7564761	18.0	431865	7564779	NFC	NIC
Roberts Bay	P3	GN	F	1	8-Sep-10	14:45	8-Sep-10	16:50	6.0	431701	7564661	5.0	431722	7564566	2 AC	NIC
Roberts Bay	P3	GN	F	2	9-Sep-10	10:55	9-Sep-10	12:20	2.3	431642	7564579	11.6	431717	7564634	1 AC	NIC
Roberts Bay	P3	GN	F	3	9-Sep-10	12:40	9-Sep-10	15:23	3.5	431652	7564584	5.5	431729	7564499	1 PH	NIC
Roberts Bay	P3	GN	F	4	12-Sep-10	11:38	12-Sep-10	16:00	9.6	431710	7564600	4.5	431709	7564504	NFC	NIC
Roberts Bay	P3	GN	F	5	12-Sep-10	12:31	12-Sep-10	16:15	13.4	431704	7564718	10.1	431691	7564623	1 AC	NIC
Roberts Bay	P3	GN	F	6	17-Sep-10	10:40	17-Sep-10	13:00	4.3	431666	7564551	11.8	431753	7564579	1 PH	NIC
Roberts Bay	P4	GN	F	1	10-Aug-10	12:25	10-Aug-10	14:30	5.5	431147	7565383	14.7	431290	7565500	1 AC	NIC
Roberts Bay	P4	GN	F	2	10-Aug-10	14:45	10-Aug-10	16:35	4.9	431166	7565299	6.8	431193	7565447	1 AC	NIC
Roberts Bay	P4	GN	F	3	11-Aug-10	7:15	11-Aug-10	11:20	5.9	431167	7565315	6.2	431215	7565458	NFC	NIC
Roberts Bay	P4	GN	F	4	11-Aug-10	11:25	11-Aug-10	13:30	8.0	431211	7565316	5.2	431364	7565319	1 AC	NIC
Roberts Bay	P4	GN	F	5	11-Aug-10	13:55	11-Aug-10	16:30	12.6	431284	7565528	23.1	431342	7565415	NFC	NIC
Roberts Bay	P4	GN	F	1	4-Sep-10	13:33	4-Sep-10	15:45	13.6	431210	7565407	27.8	431334	7565478	NFC	NIC

Notes:

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring;
SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

NIC = No Invertebrates Caught

NFC = No Fish Caught

Appendix 3.2-1. Set Times, Retrieval Times and Locations of Floating Gillnets used in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Location		Gear			Set		Retrieval		LOCATION 1			LOCATION 2			Fish Catch	Macrobenthos
Location	Site	Method	Type	#	Date In	Time In	Date Out	Time Out	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Summary	Catch Summary
Roberts Bay	P4	GN	F	2	7-Sep-10	13:25	7-Sep-10	15:13	10.8	431294	7565333	12.3	431409	7565317	NFC	NIC
Roberts Bay	P4	GN	F	3	7-Sep-10	14:02	7-Sep-10	15:35	7.9	431167	7565366	3.1	431161	7565455	2 AC	NIC
Roberts Bay	P4	GN	F	4	18-Sep-10	10:00	18-Sep-10	11:30	7.8	431154	7565363	18.6	431273	7565433	NFC	NIC
Roberts Bay	P4	GN	F	5	18-Sep-10	13:50	18-Sep-10	15:25	8.6	431177	7565341	6.0	431175	7565439	NFC	NIC
Roberts Bay	P4	GN	F	6	19-Sep-10	10:00	19-Sep-10	13:30	6.5	431154	7565387	13.0	431236	7565439	NFC	NIC
Roberts Bay	P5	GN	F	1	17-Aug-10	12:10	17-Aug-10	13:55	17.9	431364	7565748	30.6	431473	7565737	NFC	NIC
Roberts Bay	P5	GN	F	2	17-Aug-10	14:05	17-Aug-10	16:15	22.4	431427	7565810	41.5	431536	7565848	NFC	NIC
Roberts Bay	P5	GN	F	3	18-Aug-10	14:40	18-Aug-10	16:25	20.5	431340	7565676	42.9	431462	7565707	6 PH	NIC
Roberts Bay	P5	GN	F	4	19-Aug-10	10:20	19-Aug-10	12:30	21.7	431317	7565564	21.3	431304	7565424	1 PH	NIC
Roberts Bay	P5	GN	F	5	19-Aug-10	12:30	19-Aug-10	13:30	9.3	431255	7565478	29.0	431424	7565440	NFC	NIC
Roberts Bay	P5	GN	F	6	19-Aug-10	13:35	19-Aug-10	16:05	20.0	431321	7565602	37.6	431480	7565608	2 AC	NIC
Roberts Bay	P5	GN	F	1	18-Sep-10	10:25	18-Sep-10	12:45	18.0	431324	7565598	40.5	431411	7565639	NFC	NIC
Roberts Bay	P5	GN	F	2	19-Sep-10	10:25	19-Sep-10	13:25	13.4	431310	7565641	38.5	431407	7565676	NFC	NIC
Roberts Bay	P5	GN	F	3	19-Sep-10	14:20	19-Sep-10	16:40	10.5	431343	7565729	48.8	431462	7565747	NFC	NIC
Roberts Bay	P5	GN	F	4	21-Sep-10	10:51	21-Sep-10	13:15	18.4	431347	7565689	35.5	431350	7565589	NFC	NIC
Roberts Bay	P5	GN	F	5	21-Sep-10	13:50	21-Sep-10	16:30	24.8	431318	7565599	35.1	431436	7565556	NFC	NIC
Roberts Bay	P5	GN	F	6	21-Sep-10	14:15	21-Sep-10	17:00	8.0	431352	7565808	35.0	431424	7565758	NFC	NIC
Reference Bay	REF	GN	F	1	13-Aug-10	9:13	13-Aug-10	11:55	8.0	441079	7562913	9.4	441203	7562979	1 AC	NIC
Reference Bay	REF	GN	F	2	13-Aug-10	10:37	13-Aug-10	13:20	8.8	441116	7562859	11.3	441239	7562816	NFC	NIC
Reference Bay	REF	GN	F	3	13-Aug-10	11:55	13-Aug-10	14:43	4.8	441187	7563037	9.3	441142	7562873	NFC	NIC
Reference Bay	REF	GN	F	4	13-Aug-10	13:21	13-Aug-10	15:38	11.2	441295	7562894	11.0	441350	7562734	1 AC	NIC
Reference Bay	REF	GN	F	5	14-Aug-10	17:30	14-Aug-10	19:35	16.0	441335	7563010	16.0	441431	7562922	NFC	NIC
Reference Bay	REF	GN	F	6	14-Aug-10	17:35	14-Aug-10	20:05	5.6	441125	7563010	8.8	441120	7562832	NFC	NIC
Reference Bay	REF	GN	F	1	22-Sep-10	11:30	22-Sep-10	13:45	6.2	441119	7562998	11.9	441222	7562924	NFC	NIC
Reference Bay	REF	GN	F	2	22-Sep-10	11:45	22-Sep-10	14:20	5.3	441175	7563028	9.6	441264	7563082	NFC	NIC
Reference Bay	REF	GN	F	3	22-Sep-10	14:15	22-Sep-10	18:05	4.5	441110	7563022	11.5	441191	7562953	1 PH	NIC
Reference Bay	REF	GN	F	4	23-Sep-10	13:00	23-Sep-10	15:00	7.2	441051	7562880	9.8	441152	7562825	NFC	NIC
Reference Bay	REF	GN	F	5	23-Sep-10	13:10	23-Sep-10	16:10	16.9	441331	7562974	14.8	441372	7562870	1 AC, 1 SC, 2 FS	NIC

Notes:

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring;
 SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

NIC = No Invertebrates Caught

NFC = No Fish Caught

Appendix 3.2-2

Set Times, Retrieval Times and Locations of Sinking
Gillnets Used in Roberts Bay and Reference Bay, Hope
Bay Belt Project, 2010

Appendix 3.2-2. Set Times, Retrieval Times and Locations of Sinking Gillnets used in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Location		Gear		#	Set		Retrieval		LOCATION 1			LOCATION 2			Fish Catch Summary	Macrobenthos Catch Summary
Location	Site	Method	Type		Date In	Time In	Date Out	Time Out	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing		
Roberts Bay	P1	GN	S	1	30-Jul-10	11:20	30-Jul-10	12:20	6.9	432243	7563543	6.6	432298	7563479	NFC	NIC
Roberts Bay	P1	GN	S	2	30-Jul-10	12:57	30-Jul-10	14:30	3.4	432217	7563468	7.5	432301	7563557	2 SC, 3 FS, 1 SS	1 mussel
Roberts Bay	P1	GN	S	3	30-Jul-10	14:50	30-Jul-10	16:15	6.7	432217	7563531	6.7	432310	7563474	1 LD	NIC
Roberts Bay	P1	GN	S	4	01-Aug-10	16:34	04-Aug-10	18:04	2.1	432167	7563492	7.4	432229	7563567	1 AC, 1 AF, 1 GC, 2 LD, 1 FS, 1 SS	NIC
Roberts Bay	P1	GN	S	5	04-Aug-10	9:15	04-Aug-10	10:49	3.2	432316	7563698	4.3	432345	7563590	1 AF, 2 SC, 2 FS	NIC
Roberts Bay	P1	GN	S	6	04-Aug-10	11:03	04-Aug-10	13:06	3.9	432314	7563620	4.5	432396	7563682	1 AF, 2 GC, 2 SC, 3 FS	NIC
Roberts Bay	P1	GN	S	1	29-Aug-10	14:00	29-Aug-10	16:07	8.3	432231	7563579	8.2	432137	7563633	6 GC, 4 FS	NIC
Roberts Bay	P1	GN	S	2	29-Aug-10	14:20	29-Aug-10	16:00	7.2	432212	7563722	9.1	432185	7563633	1 GC	NIC
Roberts Bay	P1	GN	S	3	30-Aug-10	9:45	30-Aug-10	11:31	8.0	432159	7563674	9.5	432087	7563758	1 SC, 2 SS	NIC
Roberts Bay	P1	GN	S	4	30-Aug-10	9:50	30-Aug-10	11:45	7.5	432264	7563654	8.3	432205	7563736	1 SC, 1 SS	NIC
Roberts Bay	P1	GN	S	5	30-Aug-10	13:05	30-Aug-10	15:06	9.2	432217	7563602	7.8	432178	7563719	2 GC, 1 FS, 2 SS	NIC
Roberts Bay	P1	GN	S	6	30-Aug-10	13:10	30-Aug-10	15:27	5.8	432242	7563460	7.4	432314	7563550	1 SF, 2 FS, 1 GC	NIC
Roberts Bay	P2	GN	S	1	05-Aug-10	12:10	05-Aug-10	14:15	11.0	431841	7564346	12.2	431936	7564299	13 PH, 1 SC, 4 FS	1 sea urchin
Roberts Bay	P2	GN	S	2	08-Aug-10	8:00	08-Aug-10	9:40	12.0	431897	7564359	12.0	431844	7564435	1 AC, 1 GC, 1 LD, 14 PH, 4 SC, 1 SF, 3 FS, 1 NS	NIC
Roberts Bay	P2	GN	S	3	08-Aug-10	10:00	08-Aug-10	11:45	12.0	431876	7564431	12.0	431835	7564429	2 FS	1 starfish
Roberts Bay	P2	GN	S	4	09-Aug-10	6:56	09-Aug-10	9:35	13.0	431911	7564556	13.0	431843	7564522	4 AC, 2 GC, 2 LD, 1 PH, 1 FS	2 starfish
Roberts Bay	P2	GN	S	5	09-Aug-10	7:01	09-Aug-10	9:45	13.0	431833	7564521	6.9	431740	7564528	2 GC, 2 LD, 1 LT, 4 PH, 3 SC, 1 FS, 1 SS	1 starfish
Roberts Bay	P2	GN	S	6	09-Aug-10	11:30	09-Aug-10	13:05	11.0	431834	7564367	4.3	431732	7564298	NFC	NIC
Roberts Bay	P2	GN	S	1	01-Sep-10	14:38	01-Sep-10	15:58	4.9	431784	7564938	2.7	431797	7564950	7 FS, 2 LD, 2 PH, 1 AF, 7 AC	NIC
Roberts Bay	P2	GN	S	2	02-Sep-10	10:21	02-Sep-10	12:15	5.2	431734	7564367	13.0	431855	7564420	3 PH, 2 FS	4 Seastar
Roberts Bay	P2	GN	S	3	02-Sep-10	10:45	02-Sep-10	12:24	16.0	431904	7564445	17.0	431860	7564529	2 SC, 1 Unid	2 Sea Urchin
Roberts Bay	P2	GN	S	4	02-Sep-10	12:55	02-Sep-10	14:51	4.7	431742	7564415	5.3	431720	7564510	1 GC, 1 SC	3 Sea Urchin, 2 Mussel
Roberts Bay	P2	GN	S	5	02-Sep-10	14:42	02-Sep-10	16:40	8.5	431761	7564495	16.0	431858	7564500	2 FS, 2 PH, 1 LD	5 Sea Urchin
Roberts Bay	P2	GN	S	6	02-Sep-10	10:34	02-Sep-10	12:30	11.0	431805	7564435	14.0	431902	7564486	NFC	1 Seastar, 2 Sea Urchin
Roberts Bay	P3	GN	S	1	09-Aug-10	13:31	09-Aug-10	15:25	14.0	432195	7563434	13.0	432200	7563427	1 FS	NIC
Roberts Bay	P3	GN	S	2	09-Aug-10	13:40	09-Aug-10	15:45	12.0	432272	7563546	10.0	432266	7563557	1 AF, 5 GC, 5 PH, 1 SC	NIC
Roberts Bay	P3	GN	S	3	10-Aug-10	6:59	10-Aug-10	8:44	18.0	431807	7564753	19.0	431820	7564657	2 AC, 11 GC, 1 LD	1 sea urchin
Roberts Bay	P3	GN	S	4	10-Aug-10	7:18	10-Aug-10	9:27	9.3	431670	7564726	15.0	431737	7564659	1 AC, 4 GC, 1 LD, 3 FS	3 sea urchin
Roberts Bay	P3	GN	S	5	10-Aug-10	9:51	10-Aug-10	11:39	13.0	431755	7564715	13.0	431852	7564711	2 AC, 1 GC, 2 LD, 6 PH, 1 SF, 1 SS	NIC
Roberts Bay	P3	GN	S	6	10-Aug-10	12:20	10-Aug-10	14:14	15.0	431723	7564750	14.0	431725	7564842	6 AC, 2 GC, 1 FS	NIC
Roberts Bay	P3	GN	S	1	08-Sep-10	14:40	08-Sep-10	16:10	6.0	431665	7564578	5.5	431693	7564497	1 GC, 1 SC, 1 FS, 1 SS	NIC
Roberts Bay	P3	GN	S	2	09-Sep-10	10:30	09-Sep-10	11:50	4.0	431634	7564622	14.0	431722	7564692	3 SC	1 Seastar, 4 Sea Urchin
Roberts Bay	P3	GN	S	3	09-Sep-10	12:55	09-Sep-10	15:37	7.5	431758	7564497	13.2	431729	7564659	3 PH, 1 SC, 2 AF, 1 SS	1 Seastar, 2 Sea Urchin
Roberts Bay	P3	GN	S	4	12-Sep-10	11:29	12-Sep-10	15:49	14.2	431760	7564680	11.8	431755	7564582	1 GC, 11 SC, 1 FS, 3 PH, 1 AF	3 Seastar, 1 Sea Urchin
Roberts Bay	P3	GN	S	5	12-Sep-10	12:38	12-Sep-10	16:34	11.0	431674	7564662	6.9	431684	7564561	6 FS, 1 PH, 1 SC, 1 GC, 1 AF	NIC
Roberts Bay	P3	GN	S	6	17-Sep-10	10:46	17-Sep-10	13:15	5.3	431661	7564612	13.3	431745	7564671	4 SC, 2 PH	2 Sea Urchin
Roberts Bay	P4	GN	S	1	10-Aug-10	12:10	10-Aug-10	14:00	10.0	431349	7565333	23.7	431332	7565489	1 FS, 1 Unid.	2 crabs
Roberts Bay	P4	GN	S	2	10-Aug-10	14:05	10-Aug-10	16:20	9.4	431177	7565371	20.6	431282	7565408	2 GC, 1 FS	6 starfish
Roberts Bay	P4	GN	S	3	11-Aug-10	7:20	11-Aug-10	10:45	20.8	431320	7565389	22.1	431436	7565372	2 AC	1 crab, 1 starfish, 1 snail
Roberts Bay	P4	GN	S	4	11-Aug-10	10:50	11-Aug-10	13:35	16.2	431295	7565532	24.6	431354	7565424	NFC	1 starfish
Roberts Bay	P4	GN	S	5	11-Aug-10	13:50	11-Aug-10	16:45	8.3	431227	7565325	5.2	431333	7565322	1 AC, 1 FS	21 sea urchin

Notes:

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

NIC = No Invertebrates Caught

NFC = No Fish Caught

Appendix 3.2-2. Set Times, Retrieval Times and Locations of Sinking Gillnets used in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Location		Gear			Set		Retrieval		LOCATION 1			LOCATION 2			Fish Catch Summary	Macrobenthos Catch Summary
Location	Site	Method	Type	#	Date In	Time In	Date Out	Time Out	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing		
Roberts Bay	P4	GN	S	1	04-Sep-10	13:21	04-Sep-10	15:34	18.0	431286	7565367	29.8	431407	7565440	NFC	NIC
Roberts Bay	P4	GN	S	2	07-Sep-10	13:49	07-Sep-10	15:26	19.7	431292	7565385	25.0	431390	7565399	NFC	NIC
Roberts Bay	P4	GN	S	3	07-Sep-10	14:20	07-Sep-10	15:49	7.1	431208	7565448	11.4	431221	7565351	2 SC	1 Seastar
Roberts Bay	P4	GN	S	4	18-Sep-10	10:17	18-Sep-10	11:45	6.5	431171	7565325	19.2	431273	7565381	3 PH, 2 GC, 1 FS	5 Seastar
Roberts Bay	P4	GN	S	5	18-Sep-10	13:45	18-Sep-10	15:15	13.6	431235	7565464	9.6	431214	7565333	3 GC	NIC
Roberts Bay	P4	GN	S	6	19-Sep-10	10:15	19-Sep-10	11:30	7.0	431155	7565350	16.4	431256	7565372	6 PH, 2 SC, 1 AF	2 Sea Urchin
Roberts Bay	P5	GN	S	1	17-Aug-10	11:40	17-Aug-10	13:30	35.2	431422	7565748	36.9	431348	7565527	NFC	NIC
Roberts Bay	P5	GN	S	2	17-Aug-10	13:45	17-Aug-10	16:30	22.9	431488	7565737	41.8	431502	7565735	NFC	1 crab, 1 starfish
Roberts Bay	P5	GN	S	3	18-Aug-10	14:25	18-Aug-10	16:00	29.0	431290	7565601	34.3	431458	7565557	NFC	NIC
Roberts Bay	P5	GN	S	4	19-Aug-10	10:15	19-Aug-10	12:15	13.4	431359	7565773	19.5	431348	7565651	1 SS	6 sea urchin, 1 starfish
Roberts Bay	P5	GN	S	5	19-Aug-10	12:17	19-Aug-10	14:00	8.1	431368	7565833	28.0	431377	7565707	NFC	6 starfish, 1 snail
Roberts Bay	P5	GN	S	6	19-Aug-10	14:00	19-Aug-10	16:20	7.6	431356	7565771	43.9	431480	7565755	NFC	NIC
Roberts Bay	P5	GN	S	1	18-Sep-10	10:35	18-Sep-10	13:00	6.4	431298	7565632	38.4	431406	7565694	1 GC, 1 FS	2 Sea Urchin
Roberts Bay	P5	GN	S	2	19-Sep-10	10:40	19-Sep-10	13:45	20.0	431337	7565683	42.0	431422	7565740	NFC	1 Crab
Roberts Bay	P5	GN	S	3	19-Sep-10	14:05	19-Sep-10	16:25	18.5	431307	7565627	49.5	431491	7565724	NFC	NIC
Roberts Bay	P5	GN	S	4	21-Sep-10	10:42	21-Sep-10	13:20	13.0	431361	7565785	42.1	431458	7565822	NFC	NIC
Roberts Bay	P5	GN	S	5	21-Sep-10	10:57	21-Sep-10	13:30	30.8	431322	7565585	30.6	431413	7565514	NFC	1 Crab, 2 Seastar, 2 Sea Urchin
Roberts Bay	P5	GN	S	6	21-Sep-10	14:00	21-Sep-10	16:40	22.1	431356	7565665	23.0	431390	7565798	NFC	1 Sea Urchin, 1 Brittlestar
Reference Bay	REF	GN	S	1	13-Aug-10	9:08	13-Aug-10	11:55	8.8	441240	7563035	11.6	441229	7562922	2 AC, 2 LD, 1 LT, 2 PH, 11 FS	NIC
Reference Bay	REF	GN	S	2	13-Aug-10	10:45	13-Aug-10	13:44	9.5	441249	7562712	11.4	441305	7562744	2 AC, 1 PH, 2 SC, 3 FS, 3 SS	1 starfish
Reference Bay	REF	GN	S	3	13-Aug-10	12:24	13-Aug-10	15:00	17.0	441382	7563093	17.4	441475	7563035	5 PH, 1 FS, 1 SS	NIC
Reference Bay	REF	GN	S	4	13-Aug-10	13:50	13-Aug-10	15:54	17.4	441370	7563349	20.8	441436	7563211	NFC	1 starfish
Reference Bay	REF	GN	S	5	14-Aug-10	17:25	14-Aug-10	19:20	13.4	441318	7563248	19.4	441405	7563145	2 PH, 1 SS	NIC
Reference Bay	REF	GN	S	6	14-Aug-10	17:40	14-Aug-10	20:00	8.8	441297	7562618	9.8	441347	7562718	1 PH, 7 FS	NIC
Reference Bay	REF	GN	S	1	22-Sep-10	12:00	22-Sep-10	14:35	11.2	441290	7563142	18.0	441379	7563092	NFC	NIC
Reference Bay	REF	GN	S	2	22-Sep-10	12:15	22-Sep-10	15:00	4.5	441046	7562977	9.7	441119	7562919	5 FS, 1 SS	NIC
Reference Bay	REF	GN	S	3	22-Sep-10	15:05	22-Sep-10	18:10	6.6	441078	7562809	10.1	441046	7562932	1 PH, 2 SC, 6 FS	NIC
Reference Bay	REF	GN	S	4	23-Sep-10	13:07	23-Sep-10	15:15	5.6	441062	7562824	5.1	441127	7562746	4 FS, 1 SS	NIC
Reference Bay	REF	GN	S	5	23-Sep-10	13:15	23-Sep-10	16:15	17.1	441351	7563173	21.6	441454	7563147	NFC	NIC

Notes:

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

NIC = No Invertebrates Caught

NFC = No Fish Caught

Appendix 3.2-3

Set Times, Retrieval Times and Locations of Long Lines
Used in Roberts Bay and Reference Bay, Hope Bay Belt
Project, 2010

Appendix 3.2-3. Set Times, Retrieval Times and Locations of Long Lines used in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Location		Gear			Set		Retrieval		LOCATION 1			LOCATION 2			Fish Catch	Macrobenthos
Location	Site	Method	Type	#	Date In	Time In	Date Out	Time Out	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Summary	Catch Summary
Roberts Bay	P1	LL	-	1	01-Aug-10	15:25	01-Aug-10	17:28	6.8	432272	7563546	7.3	432266	7563557	NFC	NIC
Roberts Bay	P1	LL	-	2	04-Aug-10	9:22	04-Aug-10	12:07	7.6	432296	7563615	7.8	432294	7563592	NFC	NIC
Roberts Bay	P1	LL	-	3	04-Aug-10	9:50	04-Aug-10	12:28	7.9	432273	7563561	7.7	432300	7563525	NFC	NIC
Roberts Bay	P1	LL	-	4	04-Aug-10	12:14	04-Aug-10	13:24	7.2	432393	7563546	6.7	432404	7563511	NFC	NIC
Roberts Bay	P1	LL	-	5	04-Aug-10	12:28	04-Aug-10	13:40	7.2	432316	7563585	7.8	432344	7563567	NFC	NIC
Roberts Bay	P1	LL	-	1	30-Aug-10	10:02	30-Aug-10	12:05	6.9	432262	7563695	7.8	432243	7563714	NFC	NIC
Roberts Bay	P1	LL	-	2	30-Aug-10	10:08	30-Aug-10	16:04	10.0	432243	7563755	10.5	432235	7563775	NFC	NIC
Roberts Bay	P1	LL	-	3	30-Aug-10	12:07	30-Aug-10	15:55	7.7	432267	7563703	6.9	432263	7563717	NFC	NIC
Roberts Bay	P1	LL	-	4	01-Sep-10	16:45	02-Sep-10	9:20	7.9	432160	7563588	8.5	432172	7563591	1 FS	NIC
Roberts Bay	P1	LL	-	5	01-Sep-10	16:50	02-Sep-10	9:30	8.0	432139	7563618	7.2	432149	7563593	NFC	NIC
Roberts Bay	P1	LL	-	6	02-Sep-10	9:25	02-Sep-10	15:30	7.9	432152	7563652	9.9	432127	7563688	NFC	NIC
Roberts Bay	P2	LL	-	1	05-Aug-10	9:48	05-Aug-10	11:17	9.3	431803	7564367	12.0	431827	7564367	NFC	NIC
Roberts Bay	P2	LL	-	2	05-Aug-10	10:02	05-Aug-10	11:58	11.0	431821	7564399	12.0	431841	7564395	NFC	NIC
Roberts Bay	P2	LL	-	3	05-Aug-10	12:26	05-Aug-10	14:32	12.0	431885	7564387	12.3	431930	7564413	NFC	NIC
Roberts Bay	P2	LL	-	4	08-Aug-10	8:13	08-Aug-10	12:30	12.1	431822	7564448	12.3	431808	7564484	NFC	NIC
Roberts Bay	P2	LL	-	5	08-Aug-10	8:20	08-Aug-10	12:40	12.2	432871	7564467	11.9	431869	7564482	1 GC	NIC
Roberts Bay	P2	LL	-	1	02-Sep-10	9:30	02-Sep-10	15:30	12.9	431897	7564462	14.8	431870	7564479	NFC	NIC
Roberts Bay	P2	LL	-	2	02-Sep-10	15:38	02-Sep-10	10:07	14.0	431854	7564448	12.0	431884	7564455	NFC	NIC
Roberts Bay	P2	LL	-	3	02-Sep-10	15:40	02-Sep-10	10:09	13.0	431839	7564424	12.0	431865	7564411	NFC	NIC
Roberts Bay	P2	LL	-	4	02-Sep-10	10:14	04-Sep-10	9:00	14.0	431860	7564465	12.0	431854	7564498	NFC	NIC
Roberts Bay	P2	LL	-	5	02-Sep-10	10:20	02-Sep-10	12:35	11.0	431842	7564502	11.9	431840	7564485	1 GC	NIC
Roberts Bay	P2	LL	-	6	02-Sep-10	12:40	04-Sep-10	9:30	13.0	431846	7564402	12.0	431861	7564409	NFC	NIC
Roberts Bay	P3	LL	-	1	08-Aug-10	7:15	08-Aug-10	11:55	13.0	431780	7564694	13.0	431754	7564682	NFC	NIC
Roberts Bay	P3	LL	-	2	08-Aug-10	7:20	08-Aug-10	12:05	14.0	431753	7564778	15.0	431784	7564781	NFC	NIC
Roberts Bay	P3	LL	-	3	09-Aug-10	12:15	09-Aug-10	14:40	15.0	432156	7563485	15.0	432166	7563475	1 GC, 1 FS	NIC
Roberts Bay	P3	LL	-	4	09-Aug-10	12:20	09-Aug-10	14:46	16.0	432175	7563464	15.0	432181	7563456	NFC	NIC
Roberts Bay	P3	LL	-	5	10-Aug-10	8:10	10-Aug-10	10:56	14.0	431827	7564726	14.0	431845	7564730	NFC	NIC
Roberts Bay	P3	LL	-	6	10-Aug-10	8:22	10-Aug-10	11:02	14.0	431834	7564767	15.0	431833	7564786	NFC	NIC
Roberts Bay	P3	LL	-	1	09-Sep-10	10:25	09-Sep-10	14:30	7.3	431684	7564608	11.7	431716	7564629	NFC	NIC
Roberts Bay	P3	LL	-	2	09-Sep-10	10:30	09-Sep-10	14:42	8.5	431722	7564607	13.0	431754	7564612	NFC	NIC
Roberts Bay	P3	LL	-	3	11-Sep-10	14:40	11-Sep-10	17:00	10.1	431743	7564546	8.7	431773	7564555	NFC	NIC
Roberts Bay	P3	LL	-	4	11-Sep-10	14:50	11-Sep-10	17:05	11.4	431726	7564585	11.4	431739	7564593	NFC	NIC
Roberts Bay	P3	LL	-	5	12-Sep-10	12:16	12-Sep-10	16:25	13.6	431793	7564682	13.3	431818	7564640	NFC	NIC
Roberts Bay	P3	LL	-	6	12-Sep-10	12:19	12-Sep-10	16:17	12.9	431853	7564597	12.9	431884	7564582	NFC	NIC
Roberts Bay	P4	LL	-	1	10-Aug-10	11:55	11-Aug-10	6:45	-	431261	7565290	-	431245	7565349	1 GC	NIC

Notes:

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

NIC = No Invertebrates Caught

NFC = No Fish Caught

Appendix 3.2-3. Set Times, Retrieval Times and Locations of Long Lines used in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Location		Gear		#	Set		Retrieval		LOCATION 1			LOCATION 2			Fish Catch Summary	Macrobenthos Catch Summary
Location	Site	Method	Type		Date In	Time In	Date Out	Time Out	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing		
Roberts Bay	P4	LL	-	2	10-Aug-10	12:05	11-Aug-10	7:00	8.9	431183	7565340	10.3	431222	7565339	NFC	NIC
Roberts Bay	P4	LL	-	3	11-Aug-10	6:55	12-Aug-10	8:35	6.9	431226	7565464	20.5	431297	7565402	1 GC	NIC
Roberts Bay	P4	LL	-	4	11-Aug-10	7:00	11-Aug-10	13:15	7.6	431200	7565443	16.1	431241	7565408	NFC	NIC
Roberts Bay	P4	LL	-	5	11-Aug-10	13:20	12-Aug-10	8:15	10.0	431175	7565347	13.4	431181	7565352	NFC	NIC
Roberts Bay	P4	LL	-	1	04-Sep-10	16:25	05-Sep-10	13:35	10.8	431343	7565323	23.3	431371	7565388	NFC	NIC
Roberts Bay	P4	LL	-	2	04-Sep-10	16:31	05-Sep-10	13:45	8.3	431169	7565364	11.3	431202	7565387	NFC	NIC
Roberts Bay	P4	LL	-	3	05-Sep-10	16:17	07-Sep-10	9:52	5.4	431297	7565323	11.2	431288	7565338	2 GC	NIC
Roberts Bay	P4	LL	-	4	05-Sep-10	16:25	07-Sep-10	9:57	12.2	431209	7565398	14.0	431215	7565375	NFC	NIC
Roberts Bay	P4	LL	-	5	08-Sep-10	17:05	09-Sep-10	14:11	7.0	431221	7565306	13.0	431245	7565345	NFC	NIC
Roberts Bay	P4	LL	-	6	08-Sep-10	17:13	09-Sep-10	14:21	15.0	431222	7565392	16.9	431250	7565424	NFC	NIC
Roberts Bay	P5	LL	-	1	15-Aug-10	17:10	16-Aug-10	15:45	22.1	431321	7565549	22.9	431335	7565565	NFC	NIC
Roberts Bay	P5	LL	-	2	16-Aug-10	16:45	17-Aug-10	16:00	16.1	431391	7565833	12.9	431367	7565795	NFC	NIC
Roberts Bay	P5	LL	-	3	17-Aug-10	16:05	19-Aug-10	10:50	11.6	431376	7565915	26.4	431395	7565962	NFC	NIC
Roberts Bay	P5	LL	-	1	19-Sep-10	11:20	19-Sep-10	14:30	16.9	431306	7565598	37.6	431349	7565604	1 GC	NIC
Roberts Bay	P5	LL	-	2	19-Sep-10	11:30	19-Sep-10	14:40	12.3	431334	7565703	20.5	431365	7565734	NFC	NIC
Roberts Bay	P5	LL	-	3	19-Sep-10	14:35	19-Sep-10	16:00	12.0	431318	7565678	17.4	431356	7565702	NFC	NIC
Roberts Bay	P5	LL	-	4	19-Sep-10	14:45	19-Sep-10	16:15	10.5	431300	7565680	11.8	431362	7565751	NFC	NIC
Roberts Bay	P5	LL	-	5	20-Sep-10	13:00	20-Sep-10	17:35	31.5	431350	7565606	37.2	431399	7565616	NFC	NIC
Roberts Bay	P5	LL	-	6	20-Sep-10	13:15	20-Sep-10	17:45	22.5	431367	7565697	24.5	431382	7565735	NFC	NIC
Reference Bay	REF	LL	-	1	13-Aug-10	8:41	14-Aug-10	18:00	19.5	441402	7563365	16.2	441350	7563336	NFC	NIC
Reference Bay	REF	LL	-	2	13-Aug-10	8:50	14-Aug-10	17:55	11.4	441293	7563121	14.5	441308	7563079	NFC	NIC
Reference Bay	REF	LL	-	3	14-Aug-10	18:00	15-Aug-10	13:05	6.8	441246	7563122	9.9	441255	7563077	NFC	NIC
Reference Bay	REF	LL	-	4	14-Aug-10	18:05	15-Aug-10	11:05	11.6	441231	7562802	-	441227	7562752	NFC	NIC
Reference Bay	REF	LL	-	1	22-Sep-10	13:15	22-Sep-10	15:25	5.4	441048	7562907	7.7	441084	7562881	NFC	NIC
Reference Bay	REF	LL	-	2	22-Sep-10	13:30	22-Sep-10	15:30	7.7	441088	7562973	10.2	441121	7562942	NFC	NIC
Reference Bay	REF	LL	-	3	22-Sep-10	15:15	22-Sep-10	17:55	6.0	441056	7562941	6.6	441064	7562969	NFC	NIC
Reference Bay	REF	LL	-	4	22-Sep-10	15:41	22-Sep-10	18:00	6.1	441107	7563011	2.3	441146	7563040	NFC	NIC
Reference Bay	REF	LL	-	5	23-Sep-10	13:30	23-Sep-10	16:30	15.5	441324	7563081	17.9	441378	7563062	NFC	NIC
Reference Bay	REF	LL	-	6	23-Sep-10	13:40	23-Sep-10	16:40	4.8	441176	7563050	9.9	441178	7562973	NFC	NIC

Notes:

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

NIC = No Invertebrates Caught

NFC = No Fish Caught

Appendix 3.2-4

Set Times, Retrieval Times and Locations of Beach Seines
Used in Roberts Bay and Reference Bay, Hope Bay Belt
Project, 2010

Appendix 3.2-4. Set Times, Retrieval Times and Locations of Beach Seines used in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Location		Gear			Set		Retrieval		LOCATION			Fish Catch Summary	Macrobenthos Catch Summary
Location	Site	Method	Type	#	Date In	Time In	Date Out	Time Out	Depth (m)	Easting	Northing		
Roberts Bay	P1	BS	-	1	12-Aug-10	15:00	12-Aug-10	15:05	1.0	431918	7563437	1 SC, 4 FS	NIC
Roberts Bay	P1	BS	-	2	12-Aug-10	15:10	12-Aug-10	15:15	1.0	431927	7563432	2 AF, 1 SC, 1 FS	NIC
Roberts Bay	P1	BS	-	3	12-Aug-10	15:20	12-Aug-10	15:25	0.8	431948	7563424	1 AF, 5 FS	NIC
Roberts Bay	P1	BS	-	4	12-Aug-10	15:30	12-Aug-10	15:35	0.7	431981	7563419	1 SF, 7 FS	NIC
Roberts Bay	P1	BS	-	5	12-Aug-10	15:35	12-Aug-10	15:40	0.3	431995	7563418	2 FS	NIC
Roberts Bay	P1	BS	-	1	31-Aug-10	15:40	31-Aug-10	15:45	<1.0	431994	7563448	NFC	NIC
Roberts Bay	P1	BS	-	2	31-Aug-10	15:46	31-Aug-10	15:51	<1.0	432008	7563457	NFC	NIC
Roberts Bay	P1	BS	-	3	31-Aug-10	16:05	31-Aug-10	16:10	<1.0	431959	7563441	NFC	NIC
Roberts Bay	P1	BS	-	4	3-Sep-10	13:30	3-Sep-10	13:35	<1.0	431939	7563445	NFC	NIC
Roberts Bay	P1	BS	-	5	3-Sep-10	13:40	3-Sep-10	13:45	<1.0	431907	7563459	NFC	NIC
Roberts Bay	P1	BS	-	6	3-Sep-10	13:50	3-Sep-10	13:55	<1.0	431915	7563503	NFC	NIC
Roberts Bay	P2	BS	-	1	12-Aug-10	13:45	12-Aug-10	13:50	1.0	431543	7564239	1 AF, 2 FS	NIC
Roberts Bay	P2	BS	-	2	12-Aug-10	14:10	12-Aug-10	14:15	0.8	431612	7564303	NFC	NIC
Roberts Bay	P2	BS	-	1	3-Sep-10	12:50	3-Sep-10	12:55	<1.0	431528	7564266	NFC	NIC
Roberts Bay	P2	BS	-	2	3-Sep-10	13:00	3-Sep-10	13:05	<1.0	431528	7564250	NFC	NIC
Roberts Bay	P2	BS	-	3	3-Sep-10	13:10	3-Sep-10	13:15	<1.0	431528	7564239	NFC	NIC
Roberts Bay	P2	BS	-	4	4-Sep-10	11:35	4-Sep-10	11:40	<1.0	431533	7564256	NFC	NIC
Roberts Bay	P2	BS	-	5	4-Sep-10	11:45	4-Sep-10	11:50	<1.0	431531	7564241	2 FS,	NIC
Roberts Bay	P2	BS	-	6	4-Sep-10	12:00	4-Sep-10	12:05	<1.0	431532	7564216	1 FS, 2 AF	NIC
Roberts Bay	P3	BS	-	1	9-Aug-10	14:45	9-Aug-10	14:50	1.0	431559	7564577	1 AF, 6 FS	NIC
Roberts Bay	P3	BS	-	2	9-Aug-10	15:05	9-Aug-10	15:10	1.2	431572	7564603	1 AF, 4 FS, 1 NS	NIC
Roberts Bay	P3	BS	-	3	9-Aug-10	15:25	9-Aug-10	15:30	1.1	431574	7564552	3 FS, 2 NS	NIC
Roberts Bay	P3	BS	-	4	12-Aug-10	12:25	12-Aug-10	12:30	1.3	431601	7564711	1 FS	NIC
Roberts Bay	P3	BS	-	5	12-Aug-10	13:00	12-Aug-10	13:05	1.3	431590	7564664	NFC	NIC
Roberts Bay	P3	BS	-	1	10-Sep-10	16:20	10-Sep-10	16:25	-	431555	7564594	1 FS	NIC
Roberts Bay	P3	BS	-	2	10-Sep-10	16:45	10-Sep-10	16:50	-	431563	7564564	8 FS, 1 SF, 1 9 NS, 1 Unid.	NIC
Roberts Bay	P4	BS	-	1	13-Aug-10	14:00	13-Aug-10	14:17	0.7	431185	7565491	4 FS	NIC
Roberts Bay	P4	BS	-	2	13-Aug-10	14:22	13-Aug-10	14:34	0.7	431175	7565503	13 FS	NIC
Roberts Bay	P4	BS	-	3	13-Aug-10	14:46	13-Aug-10	15:04	0.7	431144	7565507	15 FS, 1 Unid.	NIC
Roberts Bay	P4	BS	-	4	13-Aug-10	15:12	13-Aug-10	15:27	0.7	431130	7565480	2 FS	NIC
Roberts Bay	P4	BS	-	5	13-Aug-10	15:35	13-Aug-10	15:51	0.7	431112	7565448	2 FS	NIC
Roberts Bay	P4	BS	-	1	8-Sep-10	15:17	8-Sep-10	15:22	0.3	431136	7565232	NFC	NIC
Roberts Bay	P4	BS	-	2	8-Sep-10	15:27	8-Sep-10	15:32	0.3	431123	7565234	2 FS	NIC
Roberts Bay	P4	BS	-	3	8-Sep-10	15:45	8-Sep-10	15:50	0.4	431119	7565237	13 FS	NIC
Roberts Bay	P4	BS	-	4	8-Sep-10	16:20	8-Sep-10	16:25	0.5	431103	7565258	2 FS, 1 NS	NIC
Roberts Bay	P4	BS	-	5	8-Sep-10	16:50	8-Sep-10	16:55	0.3	431091	7565266	10 FS	NIC
Roberts Bay	P4	BS	-	6	8-Sep-10	17:17	8-Sep-10	17:22	0.4	431083	7565276	5FS	NIC
Reference Bay	REF	BS	-	1	14-Aug-10	10:15	14-Aug-10	10:20	0.7	441031	7562996	3 AF, 14 FS	NIC
Reference Bay	REF	BS	-	2	14-Aug-10	10:30	14-Aug-10	10:35	0.7	441007	7562979	14 FS	NIC
Reference Bay	REF	BS	-	3	14-Aug-10	10:55	14-Aug-10	11:00	1.0	440995	7562949	7 FS	NIC
Reference Bay	REF	BS	-	4	14-Aug-10	11:20	14-Aug-10	11:25	1.0	440988	7562920	1 AC, 12 FS	NIC
Reference Bay	REF	BS	-	5	14-Aug-10	11:45	14-Aug-10	11:50	1.0	440968	7562853	9 AF, 9 FS	NIC
Reference Bay	REF	BS	-	1	24-Sep-10	13:57	24-Sep-10	14:22	0.8	440994	7562900	NFC	NIC
Reference Bay	REF	BS	-	2	24-Sep-10	14:10	24-Sep-10	14:15	0.9	441000	7562910	NFC	NIC
Reference Bay	REF	BS	-	3	24-Sep-10	14:45	24-Sep-10	14:50	0.7	440991	7562959	NFC	NIC
Reference Bay	REF	BS	-	4	24-Sep-10	15:00	24-Sep-10	15:05	0.7	441022	7562997	1 FS, 1 AF	NIC
Reference Bay	REF	BS	-	5	24-Sep-10	15:10	24-Sep-10	15:15	0.8	441027	7563005	NFC	NIC
Reference Bay	REF	BS	-	6	24-Sep-10	15:20	24-Sep-10	15:25	0.9	441048	7563017	1 NS	NIC

Notes:

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

NIC = No Invertebrates Caught

NFC = No Fish Caught

Appendix 3.2-5

Set Times, Retrieval Times and Locations of Minnow
Traps Used in Roberts Bay and Reference Bay, Hope Bay
Belt Project, 2010

Appendix 3.2-5. Set Times, Retrieval Times and Locations of Minnow Traps used in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Location		Gear			Set		Retrieval		LOCATION			Macrobenthos	
Location	Site	Method	Type	#	Date In	Time In	Date Out	Time Out	Depth (m)	Easting	Northing	Fish Catch Summary	Catch Summary
Roberts Bay	P1	MT	-	1	30-Jul-10	10:56	31-Jul-10	15:28	2.5	432147	7563514	NFC	NIC
Roberts Bay	P1	MT	-	2	30-Jul-10	10:58	31-Jul-10	15:28	2.0	432147	7563508	NFC	NIC
Roberts Bay	P1	MT	-	3	30-Jul-10	11:00	31-Jul-10	15:30	2.0	432149	7563501	NFC	NIC
Roberts Bay	P1	MT	-	4	30-Jul-10	11:07	31-Jul-10	15:31	2.7	432139	7563525	NFC	NIC
Roberts Bay	P1	MT	-	5	30-Jul-10	11:08	31-Jul-10	15:32	1.5	432151	7563484	3 SC	NIC
Roberts Bay	P1	MT	-	6	30-Jul-10	11:08	31-Jul-10	15:33	1.5	432157	7563477	NFC	NIC
Roberts Bay	P1	MT	-	7	30-Jul-10	11:08	31-Jul-10	15:34	1.5	432162	7563469	NFC	NIC
Roberts Bay	P1	MT	-	8	30-Jul-10	11:09	31-Jul-10	15:35	1.5	432169	7563459	1 FS	NIC
Roberts Bay	P1	MT	-	9	30-Jul-10	11:09	31-Jul-10	15:35	1.7	432178	7563452	NFC	NIC
Roberts Bay	P1	MT	-	10	30-Jul-10	11:10	31-Jul-10	15:35	1.6	432183	7563446	NFC	NIC
Roberts Bay	P1	MT	-	11	31-Jul-10	15:55	01-Aug-10	15:50	1.9	432143	7563502	NFC	NIC
Roberts Bay	P1	MT	-	12	31-Jul-10	15:56	01-Aug-10	15:50	1.9	432154	7563495	NFC	NIC
Roberts Bay	P1	MT	-	13	31-Jul-10	15:57	01-Aug-10	15:50	1.7	432156	7563485	NFC	NIC
Roberts Bay	P1	MT	-	14	31-Jul-10	15:58	01-Aug-10	15:51	1.7	432166	7563475	NFC	NIC
Roberts Bay	P1	MT	-	15	31-Jul-10	15:59	01-Aug-10	15:51	1.7	432175	7563464	NFC	NIC
Roberts Bay	P1	MT	-	16	31-Jul-10	16:00	01-Aug-10	15:51	1.7	432181	7563456	NFC	NIC
Roberts Bay	P1	MT	-	17	31-Jul-10	16:01	01-Aug-10	15:52	1.7	432187	7563450	1 SC	NIC
Roberts Bay	P1	MT	-	18	31-Jul-10	16:02	01-Aug-10	15:52	1.7	432191	7563443	1 SC	NIC
Roberts Bay	P1	MT	-	19	31-Jul-10	16:03	01-Aug-10	15:52	1.7	432195	7563434	1 SC	NIC
Roberts Bay	P1	MT	-	20	31-Jul-10	16:03	01-Aug-10	15:52	1.8	432200	7563427	NFC	NIC
Roberts Bay	P1	MT	-	21	01-Aug-10	16:15	04-Aug-10	10:00	1.6	432211	7563430	NFC	NIC
Roberts Bay	P1	MT	-	22	01-Aug-10	16:16	04-Aug-10	10:02	1.6	432214	7563418	NFC	NIC
Roberts Bay	P1	MT	-	23	01-Aug-10	16:16	04-Aug-10	10:04	1.8	432216	7563409	1 SC	1 Amphipod
Roberts Bay	P1	MT	-	24	01-Aug-10	16:17	04-Aug-10	10:06	1.8	432220	7563404	NFC	2 Isopod
Roberts Bay	P1	MT	-	25	01-Aug-10	16:17	04-Aug-10	10:08	1.7	432193	7563440	NFC	1 Isopod
Roberts Bay	P1	MT	-	26	01-Aug-10	16:18	04-Aug-10	10:10	1.7	432188	7563446	NFC	1 Amphipod
Roberts Bay	P1	MT	-	27	01-Aug-10	16:18	04-Aug-10	10:12	1.7	432183	7563450	NFC	NIC
Roberts Bay	P1	MT	-	28	01-Aug-10	16:19	04-Aug-10	10:14	1.7	432178	7563454	NFC	NIC
Roberts Bay	P1	MT	-	29	01-Aug-10	16:19	04-Aug-10	10:16	1.7	432173	7563459	NFC	NIC
Roberts Bay	P1	MT	-	30	01-Aug-10	16:20	04-Aug-10	10:20	1.6	432167	7563472	NFC	NIC
Roberts Bay	P1	MT	-	1	29-Aug-10	14:22	30-Aug-10	14:30	2.2	432121	7563483	NFC	NIC
Roberts Bay	P1	MT	-	2	29-Aug-10	14:22	30-Aug-10	14:31	1.7	432128	7563476	NFC	NIC
Roberts Bay	P1	MT	-	3	29-Aug-10	14:22	30-Aug-10	14:31	1.5	432131	7563474	NFC	NIC
Roberts Bay	P1	MT	-	4	29-Aug-10	14:22	30-Aug-10	14:32	1.6	432137	7563471	NFC	NIC
Roberts Bay	P1	MT	-	5	29-Aug-10	14:22	30-Aug-10	14:33	1.5	432152	7563460	NFC	NIC
Roberts Bay	P1	MT	-	6	29-Aug-10	14:23	30-Aug-10	14:34	1.5	432155	7563457	NFC	NIC
Roberts Bay	P1	MT	-	7	29-Aug-10	14:23	30-Aug-10	14:35	1.7	432161	7563451	1 SC	NIC
Roberts Bay	P1	MT	-	8	29-Aug-10	14:23	30-Aug-10	14:34	1.5	432163	7563447	NFC	NIC
Roberts Bay	P1	MT	-	9	29-Aug-10	14:23	30-Aug-10	14:36	1.5	432167	7563441	NFC	NIC
Roberts Bay	P1	MT	-	10	29-Aug-10	14:23	30-Aug-10	14:37	1.5	432172	7563433	NFC	NIC
Roberts Bay	P1	MT	-	11	30-Aug-10	14:31	31-Aug-10	17:00	1.2	432123	7563475	NFC	NIC
Roberts Bay	P1	MT	-	12	30-Aug-10	14:31	31-Aug-10	17:00	1.1	432131	7563472	1 SC	NIC
Roberts Bay	P1	MT	-	13	30-Aug-10	14:32	31-Aug-10	17:01	1.8	432135	7563469	1 FS	NIC
Roberts Bay	P1	MT	-	14	30-Aug-10	14:33	31-Aug-10	17:01	1.5	432145	7563472	NFC	NIC
Roberts Bay	P1	MT	-	15	30-Aug-10	14:34	31-Aug-10	17:02	1.4	432144	7563472	NFC	NIC
Roberts Bay	P1	MT	-	16	30-Aug-10	14:35	31-Aug-10	17:02	2.0	432153	7563461	NFC	NIC
Roberts Bay	P1	MT	-	17	30-Aug-10	14:36	31-Aug-10	17:03	2.1	432158	7563454	NFC	NIC
Roberts Bay	P1	MT	-	18	30-Aug-10	14:36	31-Aug-10	17:04	1.1	432161	7563448	NFC	NIC
Roberts Bay	P1	MT	-	19	30-Aug-10	14:37	31-Aug-10	17:04	1.3	432165	7563443	NFC	NIC
Roberts Bay	P1	MT	-	20	30-Aug-10	14:38	31-Aug-10	17:05	1.2	432171	7563433	NFC	NIC
Roberts Bay	P1	MT	-	21	31-Aug-10	10:15	01-Sep-10	12:20	2.2	432126	7563474	NFC	NIC
Roberts Bay	P1	MT	-	22	31-Aug-10	10:15	01-Sep-10	12:20	1.8	432130	7563472	NFC	NIC
Roberts Bay	P1	MT	-	23	31-Aug-10	10:16	01-Sep-10	12:21	2.5	432145	7563476	NFC	NIC
Roberts Bay	P1	MT	-	24	31-Aug-10	10:16	01-Sep-10	12:21	1.5	432161	7563560	NFC	NIC
Roberts Bay	P1	MT	-	25	31-Aug-10	10:17	01-Sep-10	12:22	1.6	432183	7563539	NFC	NIC
Roberts Bay	P1	MT	-	26	31-Aug-10	10:17	01-Sep-10	12:22	1.2	432171	7563528	NFC	NIC
Roberts Bay	P1	MT	-	27	31-Aug-10	10:18	01-Sep-10	12:23	1.3	432214	7563503	NFC	NIC
Roberts Bay	P1	MT	-	28	31-Aug-10	10:18	01-Sep-10	12:23	1.3	432162	7563443	1 FS	NIC

Notes:

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

NIC = No Invertebrates Caught

NFC = No Fish Caught

Appendix 3.2-5. Set Times, Retrieval Times and Locations of Minnow Traps used in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Location		Gear			Set		Retrieval		LOCATION			Macroinvertebrates	
Location	Site	Method	Type	#	Date In	Time In	Date Out	Time Out	Depth (m)	Easting	Northing	Fish Catch Summary	Catch Summary
Roberts Bay	P1	MT	-	29	31-Aug-10	10:19	01-Sep-10	12:24	1.7	432164	7563441	NFC	NIC
Roberts Bay	P1	MT	-	30	31-Aug-10	10:20	01-Sep-10	12:25	1.2	432171	7563434	NFC	NIC
Roberts Bay	P2	MT	-	1	05-Aug-10	13:54	08-Aug-10	9:35	1.5	431640	7564287	NFC	NIC
Roberts Bay	P2	MT	-	2	05-Aug-10	13:55	08-Aug-10	9:33	1.8	431660	7564299	NFC	NIC
Roberts Bay	P2	MT	-	3	05-Aug-10	13:56	08-Aug-10	9:32	1.7	431659	7564315	NFC	NIC
Roberts Bay	P2	MT	-	4	05-Aug-10	13:57	08-Aug-10	9:30	0.8	431655	7564337	NFC	NIC
Roberts Bay	P2	MT	-	5	05-Aug-10	13:58	08-Aug-10	9:30	2.0	431684	7564387	NFC	NIC
Roberts Bay	P2	MT	-	6	05-Aug-10	13:59	08-Aug-10	9:23	2.0	431684	7564379	NFC	NIC
Roberts Bay	P2	MT	-	7	05-Aug-10	14:00	08-Aug-10	9:22	1.9	431675	7564382	NFC	NIC
Roberts Bay	P2	MT	-	8	05-Aug-10	14:01	08-Aug-10	9:21	1.7	431666	7564388	NFC	NIC
Roberts Bay	P2	MT	-	9	05-Aug-10	14:02	08-Aug-10	9:20	1.5	431663	7564396	NFC	NIC
Roberts Bay	P2	MT	-	10	05-Aug-10	14:03	08-Aug-10	9:15	1.4	431661	7564403	1 SC	NIC
Roberts Bay	P2	MT	-	1	01-Sep-10	12:30	02-Sep-10	9:27	1.2	431660	7564286	NFC	NIC
Roberts Bay	P2	MT	-	2	01-Sep-10	12:31	02-Sep-10	9:27	1.1	431661	7564297	NFC	NIC
Roberts Bay	P2	MT	-	3	01-Sep-10	12:31	02-Sep-10	9:27	1.3	431666	7564319	NFC	NIC
Roberts Bay	P2	MT	-	4	01-Sep-10	12:32	02-Sep-10	9:28	1.5	431667	7564327	NFC	NIC
Roberts Bay	P2	MT	-	5	01-Sep-10	12:33	02-Sep-10	9:28	1.0	431667	7564334	NFC	NIC
Roberts Bay	P2	MT	-	6	01-Sep-10	12:33	02-Sep-10	9:28	1.4	431668	7564346	NFC	NIC
Roberts Bay	P2	MT	-	7	01-Sep-10	12:34	02-Sep-10	9:29	1.5	431667	7564356	NFC	NIC
Roberts Bay	P2	MT	-	8	01-Sep-10	12:34	02-Sep-10	9:29	1.2	431666	7564366	NFC	NIC
Roberts Bay	P2	MT	-	9	01-Sep-10	12:35	02-Sep-10	9:29	1.3	431670	7564371	NFC	NIC
Roberts Bay	P2	MT	-	10	01-Sep-10	12:35	02-Sep-10	9:30	1.1	431670	7564380	NFC	NIC
Roberts Bay	P2	MT	-	11	02-Sep-10	9:58	03-Sep-10	11:30	1.5	431665	7564299	NFC	NIC
Roberts Bay	P2	MT	-	12	02-Sep-10	9:58	03-Sep-10	11:30	1.5	431666	7564315	NFC	NIC
Roberts Bay	P2	MT	-	13	02-Sep-10	9:58	03-Sep-10	11:31	1.5	431666	7564323	NFC	NIC
Roberts Bay	P2	MT	-	14	02-Sep-10	9:59	03-Sep-10	11:31	1.6	431670	7564337	NFC	NIC
Roberts Bay	P2	MT	-	15	02-Sep-10	9:59	03-Sep-10	11:32	1.2	431670	7564346	1 FS	NIC
Roberts Bay	P2	MT	-	16	02-Sep-10	9:59	03-Sep-10	11:32	1.2	431671	7564353	NFC	NIC
Roberts Bay	P2	MT	-	17	02-Sep-10	9:59	03-Sep-10	11:33	1.5	431672	7564361	NFC	NIC
Roberts Bay	P2	MT	-	18	02-Sep-10	10:00	03-Sep-10	11:34	1.8	431671	7564369	NFC	NIC
Roberts Bay	P2	MT	-	19	02-Sep-10	10:00	03-Sep-10	11:35	1.8	431671	7564382	NFC	NIC
Roberts Bay	P2	MT	-	20	02-Sep-10	10:00	03-Sep-10	11:35	1.8	431671	7564390	NFC	NIC
Roberts Bay	P2	MT	-	21	03-Sep-10	11:38	04-Sep-10	11:20	1.3	431671	7564380	NFC	NIC
Roberts Bay	P2	MT	-	22	03-Sep-10	11:39	04-Sep-10	11:21	1.3	431669	7564391	NFC	NIC
Roberts Bay	P2	MT	-	23	03-Sep-10	11:40	04-Sep-10	11:22	1.4	431661	7564411	NFC	NIC
Roberts Bay	P2	MT	-	24	03-Sep-10	11:40	04-Sep-10	11:23	1.6	431668	7564370	NFC	NIC
Roberts Bay	P2	MT	-	25	03-Sep-10	11:41	04-Sep-10	11:24	1.2	431669	7564364	NFC	NIC
Roberts Bay	P2	MT	-	26	03-Sep-10	11:42	04-Sep-10	11:25	1.2	431674	7564360	NFC	NIC
Roberts Bay	P2	MT	-	27	03-Sep-10	11:43	04-Sep-10	11:25	1.7	431670	7564344	1 FS	NIC
Roberts Bay	P2	MT	-	28	03-Sep-10	11:43	04-Sep-10	11:26	1.3	431665	7564329	NFC	NIC
Roberts Bay	P2	MT	-	29	03-Sep-10	11:44	04-Sep-10	11:26	1.3	431665	7564314	NFC	NIC
Roberts Bay	P2	MT	-	30	03-Sep-10	11:45	04-Sep-10	11:27	1.4	431663	7564304	NFC	NIC
Roberts Bay	P3	MT	-	1	08-Aug-10	12:17	11-Aug-10	7:02	13.0	431707	7564776	NFC	NIC
Roberts Bay	P3	MT	-	2	08-Aug-10	12:18	11-Aug-10	7:04	1.9	431635	7564764	NFC	NIC
Roberts Bay	P3	MT	-	3	08-Aug-10	12:18	11-Aug-10	7:06	1.8	431632	7564759	NFC	NIC
Roberts Bay	P3	MT	-	4	08-Aug-10	12:19	11-Aug-10	7:08	1.7	431632	7564755	NFC	NIC
Roberts Bay	P3	MT	-	5	08-Aug-10	12:19	11-Aug-10	7:10	1.7	431633	7564753	NFC	NIC
Roberts Bay	P3	MT	-	6	08-Aug-10	12:20	11-Aug-10	7:12	1.7	431628	7564730	3 AS	NIC
Roberts Bay	P3	MT	-	7	08-Aug-10	12:20	11-Aug-10	7:14	2.2	431626	7564725	NFC	NIC
Roberts Bay	P3	MT	-	8	08-Aug-10	12:21	11-Aug-10	7:16	1.7	431627	7564717	NFC	NIC
Roberts Bay	P3	MT	-	9	08-Aug-10	12:21	11-Aug-10	7:18	1.6	431613	7564689	1 FS	NIC
Roberts Bay	P3	MT	-	10	08-Aug-10	12:22	11-Aug-10	7:24	1.5	431609	7564680	NFC	NIC
Roberts Bay	P3	MT	-	11	09-Aug-10	12:17	11-Aug-10	7:02	13.0	431707	7564776	NFC	NIC
Roberts Bay	P3	MT	-	12	09-Aug-10	12:18	11-Aug-10	7:04	1.9	431635	7564764	NFC	NIC
Roberts Bay	P3	MT	-	13	09-Aug-10	12:18	11-Aug-10	7:06	1.8	431632	7564759	NFC	NIC
Roberts Bay	P3	MT	-	14	09-Aug-10	12:19	11-Aug-10	7:08	1.7	431632	7564755	NFC	NIC
Roberts Bay	P3	MT	-	15	09-Aug-10	12:19	11-Aug-10	7:10	1.7	431633	7564753	NFC	NIC
Roberts Bay	P3	MT	-	16	09-Aug-10	12:20	11-Aug-10	7:12	1.7	431628	7564730	NFC	NIC

Notes:

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

NIC = No Invertebrates Caught

NFC = No Fish Caught

Appendix 3.2-5. Set Times, Retrieval Times and Locations of Minnow Traps used in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Location		Gear			Set		Retrieval		LOCATION			Macroinvertebrates	
Location	Site	Method	Type	#	Date In	Time In	Date Out	Time Out	Depth (m)	Easting	Northing	Fish Catch Summary	Catch Summary
Roberts Bay	P3	MT	-	17	09-Aug-10	12:20	11-Aug-10	7:14	2.2	431626	7564725	NFC	NIC
Roberts Bay	P3	MT	-	18	09-Aug-10	12:21	11-Aug-10	7:16	1.7	431627	7564717	NFC	NIC
Roberts Bay	P3	MT	-	19	09-Aug-10	12:21	11-Aug-10	7:18	1.6	431613	7564689	NFC	NIC
Roberts Bay	P3	MT	-	20	09-Aug-10	12:22	11-Aug-10	7:24	1.5	431609	7564680	NFC	NIC
Roberts Bay	P3	MT	-	1	10-Sep-10	17:55	11-Sep-10	16:16	1.1	431600	7564580	NFC	NIC
Roberts Bay	P3	MT	-	2	10-Sep-10	17:54	11-Sep-10	16:17	0.9	431587	7564577	NFC	NIC
Roberts Bay	P3	MT	-	3	10-Sep-10	17:54	11-Sep-10	16:16	0.8	431579	7564582	NFC	NIC
Roberts Bay	P3	MT	-	4	10-Sep-10	17:53	11-Sep-10	16:15	0.9	431584	7564571	NFC	NIC
Roberts Bay	P3	MT	-	5	10-Sep-10	17:52	11-Sep-10	16:14	0.9	431589	7564567	NFC	NIC
Roberts Bay	P3	MT	-	6	10-Sep-10	17:51	11-Sep-10	16:13	1.3	431597	7564562	NFC	NIC
Roberts Bay	P3	MT	-	7	10-Sep-10	17:55	11-Sep-10	16:11	1.2	431600	7564556	NFC	NIC
Roberts Bay	P3	MT	-	8	10-Sep-10	17:49	11-Sep-10	16:12	1.0	431598	7564548	NFC	NIC
Roberts Bay	P3	MT	-	9	10-Sep-10	17:47	11-Sep-10	16:08	1.0	431604	7564543	NFC	NIC
Roberts Bay	P3	MT	-	10	10-Sep-10	17:46	11-Sep-10	16:20	0.5	431609	7564529	NFC	NIC
Roberts Bay	P3	MT	-	11	11-Sep-10	16:27	12-Sep-10	18:03	1.0	431605	7564605	NFC	NIC
Roberts Bay	P3	MT	-	12	11-Sep-10	16:30	12-Sep-10	18:04	1.1	431605	7564584	NFC	NIC
Roberts Bay	P3	MT	-	13	11-Sep-10	16:31	12-Sep-10	18:04	1.1	431603	7564585	NFC	NIC
Roberts Bay	P3	MT	-	14	11-Sep-10	16:32	12-Sep-10	18:05	1.0	431606	7564578	NFC	NIC
Roberts Bay	P3	MT	-	15	11-Sep-10	16:33	12-Sep-10	18:05	1.2	431606	7564580	NFC	NIC
Roberts Bay	P3	MT	-	16	11-Sep-10	16:34	12-Sep-10	18:07	1.0	431599	7564553	NFC	NIC
Roberts Bay	P3	MT	-	17	11-Sep-10	16:37	12-Sep-10	18:06	1.3	431610	7564559	NFC	NIC
Roberts Bay	P3	MT	-	18	11-Sep-10	16:36	12-Sep-10	18:06	1.9	431595	7564565	NFC	NIC
Roberts Bay	P3	MT	-	19	11-Sep-10	16:38	12-Sep-10	18:07	1.4	431616	7564540	NFC	NIC
Roberts Bay	P3	MT	-	20	11-Sep-10	16:39	12-Sep-10	18:08	1.2	431620	7564531	NFC	NIC
Roberts Bay	P3	MT	-	21	13-Sep-10	16:29	14-Sep-10	15:13	1.0	431612	7564609	NFC	NIC
Roberts Bay	P3	MT	-	22	13-Sep-10	16:31	14-Sep-10	15:14	1.8	431609	7564587	NFC	NIC
Roberts Bay	P3	MT	-	23	13-Sep-10	16:32	14-Sep-10	15:16	0.8	431602	7564577	NFC	NIC
Roberts Bay	P3	MT	-	24	13-Sep-10	16:33	14-Sep-10	15:17	1.0	431600	7564565	NFC	NIC
Roberts Bay	P3	MT	-	25	13-Sep-10	16:33	14-Sep-10	15:19	1.2	431606	7564548	NFC	NIC
Roberts Bay	P3	MT	-	26	13-Sep-10	16:34	14-Sep-10	15:20	1.1	431621	7564532	NFC	NIC
Roberts Bay	P3	MT	-	27	13-Sep-10	16:35	14-Sep-10	15:21	1.2	431633	7564515	NFC	NIC
Roberts Bay	P3	MT	-	28	13-Sep-10	16:37	14-Sep-10	15:24	1.0	431609	7564534	NFC	NIC
Roberts Bay	P3	MT	-	29	13-Sep-10	16:38	14-Sep-10	15:18	1.2	431599	7564556	NFC	NIC
Roberts Bay	P3	MT	-	30	13-Sep-10	16:39	14-Sep-10	15:17	1.0	431593	7564575	NFC	NIC
Roberts Bay	P4	MT	-	1	10-Aug-10	11:42	12-Aug-10	8:55	1.2	431225	7565278	NFC	NIC
Roberts Bay	P4	MT	-	2	10-Aug-10	11:43	12-Aug-10	8:55	1.7	431196	7565285	NFC	NIC
Roberts Bay	P4	MT	-	3	10-Aug-10	11:43	17-Aug-10	16:00	1.5	431154	7565299	1 AS	NIC
Roberts Bay	P4	MT	-	4	10-Aug-10	11:44	17-Aug-10	16:00	1.4	431143	7565340	1 AS	NIC
Roberts Bay	P4	MT	-	5	10-Aug-10	11:45	12-Aug-10	8:50	2.0	431145	7565408	NFC	NIC
Roberts Bay	P4	MT	-	6	10-Aug-10	11:45	12-Aug-10	8:50	1.7	431139	7565426	NFC	NIC
Roberts Bay	P4	MT	-	7	10-Aug-10	11:46	12-Aug-10	8:50	2.0	431146	7565443	2 FS	NIC
Roberts Bay	P4	MT	-	8	10-Aug-10	11:46	12-Aug-10	8:47	2.0	431167	7565459	NFC	NIC
Roberts Bay	P4	MT	-	9	10-Aug-10	11:47	12-Aug-10	8:45	1.5	431181	7565471	NFC	NIC
Roberts Bay	P4	MT	-	10	10-Aug-10	11:48	12-Aug-10	8:45	2.0	431200	7565475	1 FS	NIC
Roberts Bay	P4	MT	-	1	04-Sep-10	14:09	05-Sep-10	15:34	1.1	431222	7565265	NFC	NIC
Roberts Bay	P4	MT	-	2	04-Sep-10	14:10	05-Sep-10	15:35	0.9	431198	7565257	NFC	NIC
Roberts Bay	P4	MT	-	3	04-Sep-10	14:10	05-Sep-10	15:36	0.9	431189	7565253	1 FS	NIC
Roberts Bay	P4	MT	-	4	04-Sep-10	14:11	05-Sep-10	15:37	0.8	431175	7565251	NFC	NIC
Roberts Bay	P4	MT	-	5	04-Sep-10	14:11	05-Sep-10	15:38	0.8	431188	7565423	NFC	NIC
Roberts Bay	P4	MT	-	6	04-Sep-10	14:12	05-Sep-10	15:39	0.8	431147	7565251	NFC	NIC
Roberts Bay	P4	MT	-	7	04-Sep-10	14:12	05-Sep-10	15:40	0.8	431130	7565266	NFC	NIC
Roberts Bay	P4	MT	-	8	04-Sep-10	14:13	05-Sep-10	15:40	0.8	431119	7565286	NFC	NIC
Roberts Bay	P4	MT	-	9	04-Sep-10	14:14	05-Sep-10	15:41	0.8	431102	7565307	NFC	NIC
Roberts Bay	P4	MT	-	10	04-Sep-10	14:14	05-Sep-10	15:42	0.8	431108	7565328	NFC	NIC
Roberts Bay	P4	MT	-	11	04-Sep-10	14:15	05-Sep-10	15:42	1.1	431132	7565357	NFC	NIC
Roberts Bay	P4	MT	-	12	04-Sep-10	14:16	05-Sep-10	15:43	1.0	431126	7565332	NFC	NIC
Roberts Bay	P4	MT	-	13	04-Sep-10	14:17	05-Sep-10	15:43	0.9	431133	7565301	NFC	NIC
Roberts Bay	P4	MT	-	14	04-Sep-10	14:18	05-Sep-10	15:44	1.1	431141	7565293	NFC	NIC

Notes:

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

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Location		Gear			Set		Retrieval		LOCATION			Macroinvertebrates	
Location	Site	Method	Type	#	Date In	Time In	Date Out	Time Out	Depth (m)	Easting	Northing	Fish Catch Summary	Catch Summary
Roberts Bay	P4	MT	-	15	04-Sep-10	14:18	05-Sep-10	15:44	1.0	431163	7565293	1 FS	NIC
Roberts Bay	P4	MT	-	16	04-Sep-10	14:19	05-Sep-10	15:45	1.0	431181	7565288	NFC	NIC
Roberts Bay	P4	MT	-	17	04-Sep-10	14:19	05-Sep-10	15:45	1.2	431199	7565282	NFC	NIC
Roberts Bay	P4	MT	-	18	04-Sep-10	14:20	05-Sep-10	15:46	6.3	431204	7565299	NFC	NIC
Roberts Bay	P4	MT	-	19	04-Sep-10	14:23	05-Sep-10	15:47	2.0	431201	7565291	NFC	NIC
Roberts Bay	P4	MT	-	20	04-Sep-10	14:24	05-Sep-10	15:49	1.1	431168	7565279	NFC	NIC
Roberts Bay	P4	MT	-	21	05-Sep-10	16:02	07-Sep-10	11:16	0.8	431103	7565303	NFC	NIC
Roberts Bay	P4	MT	-	22	05-Sep-10	16:03	07-Sep-10	11:15	0.9	431112	7565295	NFC	NIC
Roberts Bay	P4	MT	-	23	05-Sep-10	16:04	07-Sep-10	11:14	0.9	431117	7565285	1 FS	NIC
Roberts Bay	P4	MT	-	24	05-Sep-10	16:04	07-Sep-10	11:13	0.9	431118	7565278	NFC	NIC
Roberts Bay	P4	MT	-	25	05-Sep-10	16:05	07-Sep-10	11:12	0.8	431121	7565271	NFC	NIC
Roberts Bay	P4	MT	-	26	05-Sep-10	16:05	07-Sep-10	11:11	0.8	431126	7565264	NFC	NIC
Roberts Bay	P4	MT	-	27	05-Sep-10	16:06	07-Sep-10	11:09	0.8	431135	7565258	NFC	NIC
Roberts Bay	P4	MT	-	28	05-Sep-10	16:08	07-Sep-10	11:08	0.8	431144	7565250	FS	NIC
Roberts Bay	P4	MT	-	29	05-Sep-10	16:09	07-Sep-10	11:07	0.8	431163	7565238	1 FS	NIC
Roberts Bay	P4	MT	-	30	05-Sep-10	16:10	07-Sep-10	11:03	0.8	431176	7565238	NFC	NIC
Roberts Bay	P5	MT	-	3	17-Aug-10	10:12	19-Aug-10	16:27	8.0	431360	7565757	NFC	NIC
Roberts Bay	P5	MT	-	4	17-Aug-10	10:13	19-Aug-10	16:26	9.0	431340	7565720	NFC	NIC
Roberts Bay	P5	MT	-	7	17-Aug-10	10:16	19-Aug-10	16:25	4.0	431328	7565666	NFC	4 sea urchin
Roberts Bay	P5	MT	-	8	17-Aug-10	10:17	19-Aug-10	16:22	8.0	431320	7565637	NFC	3 sea urchin
Roberts Bay	P5	MT	-	9	17-Aug-10	10:18	19-Aug-10	16:21	4.0	431319	7565617	1 AS, 1 BG	2 sea urchin
Roberts Bay	P5	MT	-	10	17-Aug-10	10:20	19-Aug-10	16:20	10.0	431303	7565581	NFC	NIC
Roberts Bay	P5	MT	-	1	19-Sep-10	15:45	20-Sep-10	15:55	1.0	431304	7565651	NFC	NIC
Roberts Bay	P5	MT	-	2	19-Sep-10	15:45	20-Sep-10	15:58	1.5	431301	7565647	NFC	NIC
Roberts Bay	P5	MT	-	3	19-Sep-10	15:42	20-Sep-10	16:05	0.8	431301	7565632	NFC	NIC
Roberts Bay	P5	MT	-	4	19-Sep-10	15:40	20-Sep-10	16:10	1.0	431301	7565597	NFC	NIC
Roberts Bay	P5	MT	-	5	19-Sep-10	15:41	20-Sep-10	16:10	0.6	431304	7565609	NFC	NIC
Roberts Bay	P5	MT	-	6	19-Sep-10	15:43	20-Sep-10	16:05	1.2	431299	7565629	NFC	NIC
Roberts Bay	P5	MT	-	7	19-Sep-10	15:46	20-Sep-10	15:50	13.0	431334	7565668	NFC	NIC
Roberts Bay	P5	MT	-	8	19-Sep-10	15:48	21-Sep-10	17:00	16.6	431324	7565637	NFC	NIC
Roberts Bay	P5	MT	-	9	19-Sep-10	15:50	21-Sep-10	17:00	12.8	431312	7565608	NFC	NIC
Roberts Bay	P5	MT	-	10	19-Sep-10	15:50	20-Sep-10	16:15	10.8	431305	7565587	NFC	NIC
Roberts Bay	P5	MT	-	11	20-Sep-10	15:55	21-Sep-10	9:51	1.0	431302	7565667	NFC	NIC
Roberts Bay	P5	MT	-	12	20-Sep-10	16:00	21-Sep-10	9:52	1.0	431304	7565640	NFC	NIC
Roberts Bay	P5	MT	-	13	20-Sep-10	16:05	21-Sep-10	9:54	1.0	431301	7565632	NFC	NIC
Roberts Bay	P5	MT	-	14	20-Sep-10	16:10	21-Sep-10	9:57	1.0	431301	7565597	NFC	NIC
Roberts Bay	P5	MT	-	15	20-Sep-10	16:10	21-Sep-10	9:58	2.0	431304	7565609	3 AS	NIC
Roberts Bay	P5	MT	-	16	20-Sep-10	16:05	21-Sep-10	9:53	1.0	431299	7565629	NFC	NIC
Roberts Bay	P5	MT	-	17	20-Sep-10	15:50	21-Sep-10	9:48	12.7	431331	7565673	1 AS	NIC
Roberts Bay	P5	MT	-	18	20-Sep-10	16:15	21-Sep-10	9:56	10.9	431312	7565599	NFC	NIC
Reference Bay	REF	MT	-	1	13-Aug-10	9:00	15-Aug-10	12:40	< 2.0	441215	7563105	NFC	NIC
Reference Bay	REF	MT	-	2	13-Aug-10	9:00	15-Aug-10	12:41	< 2.0	441186	7563099	NFC	NIC
Reference Bay	REF	MT	-	3	13-Aug-10	9:01	15-Aug-10	12:42	< 2.0	441161	7563087	1 FS	NIC
Reference Bay	REF	MT	-	4	13-Aug-10	9:02	15-Aug-10	12:45	< 2.0	441215	7563105	NFC	NIC
Reference Bay	REF	MT	-	5	13-Aug-10	9:02	15-Aug-10	12:56	< 2.0	441129	7563067	NFC	NIC
Reference Bay	REF	MT	-	6	13-Aug-10	9:03	15-Aug-10	12:47	< 2.0	441114	7563051	NFC	NIC
Reference Bay	REF	MT	-	7	13-Aug-10	9:03	15-Aug-10	12:48	< 2.0	441098	7563047	NFC	NIC
Reference Bay	REF	MT	-	8	13-Aug-10	9:05	15-Aug-10	12:49	< 2.0	441074	7563023	NFC	NIC
Reference Bay	REF	MT	-	9	13-Aug-10	9:53	15-Aug-10	12:51	< 2.0	441052	7562992	1 FS	NIC
Reference Bay	REF	MT	-	10	13-Aug-10	9:53	15-Aug-10	12:52	< 2.0	441038	7562971	NFC	NIC
Reference Bay	REF	MT	-	11	13-Aug-10	9:54	15-Aug-10	12:53	< 2.0	441027	7562947	NFC	NIC
Reference Bay	REF	MT	-	12	13-Aug-10	9:54	15-Aug-10	12:54	< 2.0	441009	7562913	1 FS	NIC
Reference Bay	REF	MT	-	13	13-Aug-10	9:55	15-Aug-10	12:55	< 2.0	441020	7562870	NFC	NIC
Reference Bay	REF	MT	-	14	13-Aug-10	9:55	15-Aug-10	12:56	< 2.0	441026	7562845	NFC	NIC
Reference Bay	REF	MT	-	15	13-Aug-10	9:56	15-Aug-10	12:57	< 2.0	441037	7562815	NFC	NIC
Reference Bay	REF	MT	-	16	13-Aug-10	9:56	15-Aug-10	12:58	< 2.0	441053	7562799	NFC	NIC
Reference Bay	REF	MT	-	17	13-Aug-10	9:57	15-Aug-10	12:59	< 2.0	441070	7562779	NFC	NIC
Reference Bay	REF	MT	-	1	22-Sep-10	16:49	23-Sep-10	17:15	5.9	441053	7562929	NFC	NIC

Notes:

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

NIC = No Invertebrates Caught

NFC = No Fish Caught

Appendix 3.2-5. Set Times, Retrieval Times and Locations of Minnow Traps used in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Location		Gear			Set		Retrieval		LOCATION			Macroinvertebrates	
Location	Site	Method	Type	#	Date In	Time In	Date Out	Time Out	Depth (m)	Easting	Northing	Fish Catch Summary	Catch Summary
Reference Bay	REF	MT	-	2	22-Sep-10	16:48	23-Sep-10	17:17	1.2	441009	7562965	NFC	NIC
Reference Bay	REF	MT	-	3	22-Sep-10	16:45	23-Sep-10	17:18	2.0	441029	7562977	NFC	NIC
Reference Bay	REF	MT	-	4	22-Sep-10	16:45	23-Sep-10	17:20	1.0	441040	7563015	NFC	NIC
Reference Bay	REF	MT	-	5	22-Sep-10	16:42	23-Sep-10	17:21	2.0	441069	7563017	NFC	NIC
Reference Bay	REF	MT	-	6	22-Sep-10	16:40	23-Sep-10	17:23	3.1	441074	7563025	NFC	NIC
Reference Bay	REF	MT	-	7	22-Sep-10	16:50	23-Sep-10	17:19	9.5	441089	7562951	NFC	NIC
Reference Bay	REF	MT	-	8	22-Sep-10	16:38	23-Sep-10	17:25	2.8	441073	7563027	NFC	NIC
Reference Bay	REF	MT	-	9	22-Sep-10	16:15	23-Sep-10	17:32	1.2	441171	7563082	NFC	NIC
Reference Bay	REF	MT	-	10	22-Sep-10	16:35	23-Sep-10	17:27	2.0	441126	7563052	NFC	NIC
Reference Bay	REF	MT	-	11	22-Sep-10	16:37	23-Sep-10	17:26	2.5	441107	7563033	NFC	NIC
Reference Bay	REF	MT	-	12	22-Sep-10	16:37	23-Sep-10	17:35	2.0	441116	7563041	NFC	NIC
Reference Bay	REF	MT	-	13	22-Sep-10	16:30	23-Sep-10	17:30	1.6	441143	7563055	NFC	NIC
Reference Bay	REF	MT	-	14	22-Sep-10	16:24	23-Sep-10	17:30	1.5	441152	7563066	NFC	NIC
Reference Bay	REF	MT	-	15	22-Sep-10	16:20	23-Sep-10	17:31	1.8	441162	7563076	NFC	NIC
Reference Bay	REF	MT	-	16	23-Sep-10	17:15	24-Sep-10	17:00	6.0	441049	7562938	NFC	NIC
Reference Bay	REF	MT	-	17	23-Sep-10	17:16	24-Sep-10	17:05	1.8	441023	7562979	NFC	NIC
Reference Bay	REF	MT	-	18	23-Sep-10	17:20	24-Sep-10	17:10	4.6	441039	7562979	NFC	NIC
Reference Bay	REF	MT	-	19	23-Sep-10	17:21	24-Sep-10	17:16	0.9	441046	7563019	NFC	NIC
Reference Bay	REF	MT	-	20	23-Sep-10	17:22	24-Sep-10	17:19	1.9	441066	7563017	NFC	NIC
Reference Bay	REF	MT	-	21	23-Sep-10	17:23	24-Sep-10	17:25	2.1	441082	7563025	NFC	NIC
Reference Bay	REF	MT	-	22	23-Sep-10	17:21	24-Sep-10	17:11	5.3	441084	7563029	1 FS	NIC
Reference Bay	REF	MT	-	23	23-Sep-10	17:25	24-Sep-10	17:25	2.3	441091	7563034	NFC	NIC
Reference Bay	REF	MT	-	24	23-Sep-10	17:32	24-Sep-10	17:32	1.7	441187	7563095	NFC	NIC
Reference Bay	REF	MT	-	25	23-Sep-10	17:28	24-Sep-10	17:29	2.8	441130	7563058	NFC	NIC
Reference Bay	REF	MT	-	26	23-Sep-10	17:27	24-Sep-10	17:28	1.6	441108	7563056	NFC	NIC
Reference Bay	REF	MT	-	27	23-Sep-10	17:35	24-Sep-10	17:32	3.6	441110	7563048	NFC	NIC
Reference Bay	REF	MT	-	28	23-Sep-10	17:30	24-Sep-10	17:29	1.7	441160	7563060	NFC	NIC
Reference Bay	REF	MT	-	29	23-Sep-10	17:30	24-Sep-10	17:30	1.0	441175	7563059	NFC	NIC
Reference Bay	REF	MT	-	30	23-Sep-10	17:31	24-Sep-10	17:30	1.1	441172	7563080	NFC	NIC

Notes:

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

NIC = No Invertebrates Caught

NFC = No Fish Caught

Appendix 3.2-6

Set Times, Retrieval Times and Locations of Crab Traps
Used in Roberts Bay and Reference Bay, Hope Bay Belt
Project, 2010

Appendix 3.2-6. Set Times, Retrieval Times and Locations of Crab Traps used in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Location		Gear		#	Set		Retrieval		LOCATION			Fish Catch Summary	Macrobenthos Catch Summary
Location	Site	Method	Type		Date In	Time In	Date Out	Time Out	Depth (m)	Easting	Northing		
Roberts Bay	P1	CT	-	1	30-Jul-10	15:58	31-Jul-10	15:09	4.3	432169	7563518	NFC	NIC
Roberts Bay	P1	CT	-	2	30-Jul-10	15:58	31-Jul-10	15:07	7.2	432194	7563552	NFC	NIC
Roberts Bay	P1	CT	-	3	30-Jul-10	15:59	31-Jul-10	15:05	8.2	432214	7563574	NFC	NIC
Roberts Bay	P1	CT	-	4	30-Jul-10	16:00	31-Jul-10	15:00	8.3	432237	7563608	NFC	1 Snail
Roberts Bay	P1	CT	-	5	30-Jul-10	16:00	31-Jul-10	14:55	8.5	432256	7563622	NFC	NIC
Roberts Bay	P1	CT	-	6	31-Jul-10	15:17	1-Aug-10	14:20	2.9	432228	7563455	NFC	NIC
Roberts Bay	P1	CT	-	7	31-Jul-10	15:18	1-Aug-10	14:25	2.8	432268	7563474	NFC	NIC
Roberts Bay	P1	CT	-	8	31-Jul-10	15:19	1-Aug-10	14:30	6.9	432286	7563493	NFC	NIC
Roberts Bay	P1	CT	-	9	31-Jul-10	15:20	1-Aug-10	14:35	7.5	432303	7563516	NFC	2 Snail
Roberts Bay	P1	CT	-	10	31-Jul-10	15:21	1-Aug-10	14:40	7.2	432322	7563543	NFC	NIC
Roberts Bay	P1	CT	-	11	1-Aug-10	15:40	4-Aug-10	8:25	3.7	432155	7563526	NFC	NIC
Roberts Bay	P1	CT	-	12	1-Aug-10	15:41	4-Aug-10	8:30	5.5	432175	7563535	NFC	NIC
Roberts Bay	P1	CT	-	13	1-Aug-10	15:42	4-Aug-10	8:35	6.6	432199	7563551	NFC	2 snail
Roberts Bay	P1	CT	-	14	1-Aug-10	15:43	4-Aug-10	8:40	7.2	432217	7563566	NFC	NIC
Roberts Bay	P1	CT	-	15	1-Aug-10	15:45	4-Aug-10	8:45	7.4	432240	7563583	NFC	NIC
Roberts Bay	P1	CT	-	1	28-Aug-10	16:30	29-Aug-10	16:45	4.3	432240	7563456	NFC	NIC
Roberts Bay	P1	CT	-	2	28-Aug-10	16:31	29-Aug-10	16:48	5.3	432251	7563478	NFC	NIC
Roberts Bay	P1	CT	-	3	28-Aug-10	16:32	29-Aug-10	16:50	7.0	432249	7563508	NFC	NIC
Roberts Bay	P1	CT	-	4	28-Aug-10	16:33	29-Aug-10	16:52	8.3	432249	7563540	NFC	NIC
Roberts Bay	P1	CT	-	5	28-Aug-10	16:35	29-Aug-10	16:55	8.6	432243	7563555	NFC	NIC
Roberts Bay	P1	CT	-	6	29-Aug-10	16:57	30-Aug-10	14:40	5.3	432231	7563474	NFC	NIC
Roberts Bay	P1	CT	-	7	29-Aug-10	16:59	30-Aug-10	14:41	6.4	432257	7563511	NFC	NIC
Roberts Bay	P1	CT	-	8	29-Aug-10	17:01	30-Aug-10	14:42	7.8	432242	7563541	NFC	NIC
Roberts Bay	P1	CT	-	9	29-Aug-10	17:02	30-Aug-10	14:45	8.4	432254	7563563	NFC	NIC
Roberts Bay	P1	CT	-	10	29-Aug-10	17:04	30-Aug-10	14:47	8.0	432260	7563595	NFC	NIC
Roberts Bay	P1	CT	-	11	30-Aug-10	14:50	31-Aug-10	10:05	6.7	432138	7563544	NFC	NIC
Roberts Bay	P1	CT	-	12	30-Aug-10	14:51	31-Aug-10	10:06	7.4	432186	7563592	NFC	NIC
Roberts Bay	P1	CT	-	13	30-Aug-10	14:52	31-Aug-10	10:07	7.7	432216	7563615	NFC	NIC
Roberts Bay	P1	CT	-	14	30-Aug-10	14:53	31-Aug-10	10:08	7.9	432241	7563635	NFC	NIC
Roberts Bay	P1	CT	-	15	30-Aug-10	14:55	31-Aug-10	10:09	8.0	432252	7563650	NFC	NIC
Roberts Bay	P2	CT	-	1	5-Aug-10	11:50	8-Aug-10	8:42	6.0	431750	7564336	NFC	9 sea urchin
Roberts Bay	P2	CT	-	2	5-Aug-10	11:51	8-Aug-10	8:40	7.2	431768	7564330	NFC	4 sea urchin, 2 snail
Roberts Bay	P2	CT	-	3	5-Aug-10	11:52	8-Aug-10	8:35	8.5	431791	7564338	NFC	4 sea urchin, 3 snail
Roberts Bay	P2	CT	-	4	5-Aug-10	11:53	8-Aug-10	8:27	10.0	431810	7564346	1 GC	NIC
Roberts Bay	P2	CT	-	5	5-Aug-10	11:54	8-Aug-10	8:25	11.2	431840	7564346	NFC	NIC
Roberts Bay	P2	CT	-	1	1-Sep-10	14:50	2-Sep-10	9:50	7.4	431713	7564372	NFC	NIC
Roberts Bay	P2	CT	-	2	1-Sep-10	14:52	2-Sep-10	9:52	7.9	431735	7564381	NFC	NIC
Roberts Bay	P2	CT	-	3	1-Sep-10	14:54	2-Sep-10	9:53	7.1	431764	7564392	NFC	NIC
Roberts Bay	P2	CT	-	4	1-Sep-10	14:56	2-Sep-10	9:55	5.3	431783	7564400	NFC	NIC
Roberts Bay	P2	CT	-	5	2-Sep-10	15:00	2-Sep-10	9:56	8.9	431803	7564411	1 FS	NIC
Roberts Bay	P2	CT	-	6	2-Sep-10	10:05	3-Sep-10	10:36	4.9	431755	7564424	NFC	NIC
Roberts Bay	P2	CT	-	7	2-Sep-10	10:05	3-Sep-10	10:37	6.9	431773	7564423	1FS	2 Sea Urchin
Roberts Bay	P2	CT	-	8	2-Sep-10	10:06	3-Sep-10	10:38	9.2	431791	7564420	NFC	NIC
Roberts Bay	P2	CT	-	9	2-Sep-10	10:07	3-Sep-10	10:40	11.0	431801	7564415	NFC	NIC
Roberts Bay	P2	CT	-	10	2-Sep-10	10:08	3-Sep-10	10:42	12.0	431812	7564413	NFC	NIC
Roberts Bay	P2	CT	-	11	3-Sep-10	10:49	4-Sep-10	11:40	4.5	431758	7564448	NFC	NIC
Roberts Bay	P2	CT	-	12	3-Sep-10	10:51	4-Sep-10	11:41	9.1	431765	7564459	NFC	1 Sea Urchin
Roberts Bay	P2	CT	-	13	3-Sep-10	10:52	4-Sep-10	11:42	10.0	431785	7564469	NFC	NIC
Roberts Bay	P2	CT	-	14	3-Sep-10	10:53	4-Sep-10	11:43	11.1	431797	7564473	NFC	3 Sea Urchin
Roberts Bay	P2	CT	-	15	3-Sep-10	10:55	4-Sep-10	11:45	13.2	431810	7564477	NFC	3 Sea Urchin
Roberts Bay	P3	CT	-	1	8-Aug-10	12:00	9-Aug-10	13:47	14.0	431855	7564709	NFC	NIC
Roberts Bay	P3	CT	-	2	8-Aug-10	12:01	9-Aug-10	13:50	14.0	431823	7564741	NFC	1 starfish
Roberts Bay	P3	CT	-	3	8-Aug-10	12:02	9-Aug-10	13:54	15.0	431790	7564757	NFC	1 anemone
Roberts Bay	P3	CT	-	4	8-Aug-10	12:04	9-Aug-10	13:57	13.0	431735	7564772	NFC	1 sea urchin, 1 starfish
Roberts Bay	P3	CT	-	5	8-Aug-10	12:15	9-Aug-10	13:58	12.0	431710	7564773	NFC	NIC
Roberts Bay	P3	CT	-	6	9-Aug-10	13:48	10-Aug-10	11:30	13.0	432155	7563526	NFC	1 brittlestar, 1 sea urchin, 1 starfish
Roberts Bay	P3	CT	-	7	9-Aug-10	13:49	10-Aug-10	11:35	13.0	432175	7563535	1 FS	NIC
Roberts Bay	P3	CT	-	8	9-Aug-10	13:52	10-Aug-10	11:40	14.0	432199	7563551	NFC	2 brittlestar
Roberts Bay	P3	CT	-	9	9-Aug-10	14:00	10-Aug-10	11:45	14.0	432217	7563566	NFC	NIC
Roberts Bay	P3	CT	-	10	9-Aug-10	14:01	10-Aug-10	11:50	14.0	432240	7563583	NFC	NIC
Roberts Bay	P3	CT	-	11	10-Aug-10	11:10	11-Aug-10	6:50	14.0	431755	7564768	1 SS	1 anemone, 1 brittlestar, 5 snail
Roberts Bay	P3	CT	-	12	10-Aug-10	11:14	11-Aug-10	6:52	16.0	431774	7564784	NFC	1 brittlestar
Roberts Bay	P3	CT	-	13	10-Aug-10	11:17	11-Aug-10	6:54	13.0	431802	7564727	NFC	1 brittlestar
Roberts Bay	P3	CT	-	14	10-Aug-10	11:19	11-Aug-10	6:56	14.0	431823	7564729	NFC	1 crab

Notes:

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

NIC = No Invertebrates Caught

NFC = No Fish Caught

Appendix 3.2-6. Set Times, Retrieval Times and Locations of Crab Traps used in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Location		Gear			Set		Retrieval		LOCATION			Fish Catch Summary	Macrobenthos Catch Summary
Location	Site	Method	Type	#	Date In	Time In	Date Out	Time Out	Depth (m)	Easting	Northing		
Roberts Bay	P3	CT	-	15	10-Aug-10	11:28	11-Aug-10	6:58	15.0	431733	7564796	NFC	NIC
Roberts Bay	P3	CT	-	1	10-Sep-10	15:40	11-Sep-10	15:06	4.5	431714	7564510	NFC	NIC
Roberts Bay	P3	CT	-	2	10-Sep-10	15:40	11-Sep-10	15:08	6.2	431703	7564533	NFC	NIC
Roberts Bay	P3	CT	-	3	10-Sep-10	15:42	11-Sep-10	15:10	9.2	431704	7564562	NFC	NIC
Roberts Bay	P3	CT	-	4	10-Sep-10	15:43	11-Sep-10	15:12	11.0	431704	7564621	NFC	NIC
Roberts Bay	P3	CT	-	5	10-Sep-10	15:44	11-Sep-10	14:58	8.6	431701	7564624	NFC	NIC
Roberts Bay	P3	CT	-	6	11-Sep-10	15:28	12-Sep-10	11:57	14.0	431809	7564684	NFC	1 Brittlestar
Roberts Bay	P3	CT	-	7	11-Sep-10	15:30	12-Sep-10	LOST	14.3	431789	7564679	NFC	NIC
Roberts Bay	P3	CT	-	8	11-Sep-10	15:31	12-Sep-10	11:52	14.5	431785	7564638	NFC	1 Sea Urchin
Roberts Bay	P3	CT	-	9	11-Sep-10	15:44	12-Sep-10	11:49	13.0	431802	7564632	NFC	3 Brittlestar
Roberts Bay	P3	CT	-	10	11-Sep-10	15:53	12-Sep-10	11:46	13.3	431813	7564575	NFC	2 Sea Urchin
Roberts Bay	P3	CT	-	11	13-Sep-10	16:02	14-Sep-10	15:06	12.5	431811	7564608	NFC	NIC
Roberts Bay	P3	CT	-	12	13-Sep-10	16:05	14-Sep-10	15:53	13.5	431810	7564641	NFC	NIC
Roberts Bay	P3	CT	-	13	13-Sep-10	16:07	14-Sep-10	15:49	14.4	431808	7564674	NFC	NIC
Roberts Bay	P3	CT	-	14	13-Sep-10	16:08	14-Sep-10	15:43	15.0	431807	7564707	NFC	NIC
Roberts Bay	P3	CT	-	15	13-Sep-10	16:10	14-Sep-10	15:40	14.7	431761	7564677	NFC	NIC
Roberts Bay	P3	CT	-	16	13-Sep-10	16:14	14-Sep-10	15:56	13.4	431779	7564602	NFC	NIC
Roberts Bay	P4	CT	-	1	9-Aug-10	13:30	10-Aug-10	15:35	30.0	431280	7565354	NFC	11 sea urchin
Roberts Bay	P4	CT	-	2	9-Aug-10	13:40	10-Aug-10	15:30	29.0	431300	7565362	NFC	1 crab, 1 starfish, 4 snail
Roberts Bay	P4	CT	-	3	9-Aug-10	13:50	10-Aug-10	15:25	21.2	431310	7565422	NFC	6 crab, 3 snail
Roberts Bay	P4	CT	-	4	9-Aug-10	14:00	10-Aug-10	15:20	19.6	431304	7565460	NFC	19 anemone, 2 crab
Roberts Bay	P4	CT	-	5	9-Aug-10	14:10	10-Aug-10	15:15	16.0	431293	7565485	NFC	1 starfish
Roberts Bay	P4	CT	-	6	10-Aug-10	15:15	11-Aug-10	14:15	15.2	431288	7565486	NFC	8 snail
Roberts Bay	P4	CT	-	7	10-Aug-10	15:23	11-Aug-10	14:25	16.5	431294	7565475	NFC	NIC
Roberts Bay	P4	CT	-	8	10-Aug-10	15:27	11-Aug-10	14:10	20.8	431309	7565444	NFC	3 crab, 3 snail
Roberts Bay	P4	CT	-	9	10-Aug-10	15:30	11-Aug-10	14:30	18.8	431292	7565370	NFC	5 crab, 1 starfish, 7 snail
Roberts Bay	P4	CT	-	10	10-Aug-10	15:35	11-Aug-10	14:40	15.8	431303	7565357	NFC	1 starfish, 3 snail
Roberts Bay	P4	CT	-	11	11-Aug-10	14:15	12-Aug-10	7:55	15.2	431236	7565420	NFC	1 crab
Roberts Bay	P4	CT	-	12	11-Aug-10	14:22	12-Aug-10	8:05	8.1	431228	7565464	NFC	1 starfish, 2 snail
Roberts Bay	P4	CT	-	13	11-Aug-10	14:30	12-Aug-10	8:10	14.3	431281	7565464	NFC	1 starfish, 2 snail
Roberts Bay	P4	CT	-	14	11-Aug-10	14:35	12-Aug-10	8:10	18.2	431280	7565365	NFC	1 starfish, 1 snail
Roberts Bay	P4	CT	-	15	11-Aug-10	14:40	12-Aug-10	8:15	15.0	431279	7565353	NFC	3 sea urchin, 6 starfish
Roberts Bay	P4	CT	-	1	4-Sep-10	15:07	5-Sep-10	14:14	18.5	431289	7565429	NFC	1 Crab
Roberts Bay	P4	CT	-	2	4-Sep-10	15:09	5-Sep-10	14:04	23.8	431342	7565466	NFC	1 Crab
Roberts Bay	P4	CT	-	3	4-Sep-10	15:53	5-Sep-10	14:35	13.5	431279	7565437	NFC	2 Crab, 1 Seastar
Roberts Bay	P4	CT	-	4	4-Sep-10	15:16	5-Sep-10	13:53	14.5	431279	7565465	NFC	1 Seastar
Roberts Bay	P4	CT	-	5	4-Sep-10	15:17	5-Sep-10	14:41	21.9	431304	7565423	NFC	1 Crab
Roberts Bay	P4	CT	-	6	4-Sep-10	15:57	5-Sep-10	14:26	14.5	431219	7565412	NFC	3 Crab, 1 Seastar, 1 snail
Roberts Bay	P4	CT	-	7	4-Sep-10	16:03	5-Sep-10	14:18	17.9	431255	7565436	NFC	NIC
Roberts Bay	P4	CT	-	8	4-Sep-10	16:21	5-Sep-10	14:45	17.6	431320	7565375	NFC	3 Crab
Roberts Bay	P4	CT	-	9	4-Sep-10	16:10	5-Sep-10	14:54	18.0	431269	7565363	NFC	2 Crab, 1 Sea Urchin
Roberts Bay	P4	CT	-	10	4-Sep-10	16:08	5-Sep-10	14:52	15.2	431243	7565372	NFC	NIC
Roberts Bay	P4	CT	-	11	5-Sep-10	15:16	7-Sep-10	10:18	18.3	431262	7565423	NFC	NIC
Roberts Bay	P4	CT	-	12	5-Sep-10	15:20	7-Sep-10	10:14	21.0	431282	7565401	NFC	NIC
Roberts Bay	P4	CT	-	13	5-Sep-10	15:22	7-Sep-10	10:11	19.0	431289	7565374	NFC	NIC
Roberts Bay	P4	CT	-	14	5-Sep-10	15:24	7-Sep-10	10:09	17.2	431297	7565352	NFC	NIC
Roberts Bay	P4	CT	-	15	5-Sep-10	15:27	7-Sep-10	10:04	10.0	431305	7565333	NFC	NIC
Roberts Bay	P5	CT	-	1	15-Aug-10	16:38	17-Aug-10	14:20	22.9	431374	7565655	NFC	7 crab, 1 starfish, 1 snail
Roberts Bay	P5	CT	-	2	15-Aug-10	16:43	17-Aug-10	14:50	15.4	431361	7565765	NFC	NIC
Roberts Bay	P5	CT	-	3	15-Aug-10	16:45	17-Aug-10	14:45	19.0	431364	7565726	NFC	5 crab
Roberts Bay	P5	CT	-	4	15-Aug-10	16:46	17-Aug-10	14:37	20.9	431352	7565668	NFC	2 crab, 2 snail
Roberts Bay	P5	CT	-	5	15-Aug-10	16:54	17-Aug-10	14:30	18.5	431339	7565646	NFC	2 crab, 9 snail
Roberts Bay	P5	CT	-	6	17-Aug-10	14:30	19-Aug-10	10:30	31.2	431352	7565556	NFC	3 crab
Roberts Bay	P5	CT	-	7	17-Aug-10	14:35	19-Aug-10	10:35	22.8	431335	7565620	NFC	2 crab
Roberts Bay	P5	CT	-	8	17-Aug-10	14:40	19-Aug-10	10:37	26.0	431362	7565680	NFC	1 crab, 1 snail
Roberts Bay	P5	CT	-	9	17-Aug-10	14:45	19-Aug-10	10:40	21.9	431364	7565737	NFC	NIC
Roberts Bay	P5	CT	-	10	17-Aug-10	14:55	19-Aug-10	10:45	24.5	431387	7565735	NFC	2 crab
Roberts Bay	P5	CT	-	1	19-Sep-10	17:21	20-Sep-10	17:05	42.9	431375	7565670	NFC	2 Crab
Roberts Bay	P5	CT	-	2	19-Sep-10	17:30	20-Sep-10	17:00	15.4	431341	7565683	NFC	NIC
Roberts Bay	P5	CT	-	3	19-Sep-10	17:20	20-Sep-10	16:40	27.9	431366	7565656	NFC	NIC
Roberts Bay	P5	CT	-	4	19-Sep-10	17:17	20-Sep-10	17:15	24.8	431340	7565612	NFC	2 Crab
Roberts Bay	P5	CT	-	5	19-Sep-10	17:15	20-Sep-10	17:30	22.8	431326	7565592	NFC	NIC
Roberts Bay	P5	CT	-	6	19-Sep-10	17:31	20-Sep-10	16:45	13.0	431359	7565746	NFC	NIC
Roberts Bay	P5	CT	-	7	19-Sep-10	17:30	20-Sep-10	17:00	12.8	431348	7565715	NFC	NIC

Notes:

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

NIC = No Invertebrates Caught

NFC = No Fish Caught

Appendix 3.2-6. Set Times, Retrieval Times and Locations of Crab Traps used in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Location		Gear			Set		Retrieval		LOCATION			Fish Catch Summary	Macrobenthos Catch Summary
Location	Site	Method	Type	#	Date In	Time In	Date Out	Time Out	Depth (m)	Easting	Northing		
Roberts Bay	P5	CT	-	8	19-Sep-10	17:15	20-Sep-10	16:25	23.5	431338	7565614	NFC	NIC
Roberts Bay	P5	CT	-	9	19-Sep-10	17:23	20-Sep-10	16:40	34.2	431388	7565681	NFC	1 Sea Urchin
Roberts Bay	P5	CT	-	10	20-Sep-10	17:05	21-Sep-10	9:32	21.1	431365	7565712	NFC	NIC
Roberts Bay	P5	CT	-	11	20-Sep-10	17:00	21-Sep-10	9:38	8.9	431330	7565698	NFC	NIC
Roberts Bay	P5	CT	-	12	20-Sep-10	16:45	21-Sep-10	9:45	28.4	431398	7565804	NFC	NIC
Roberts Bay	P5	CT	-	13	20-Sep-10	17:20	21-Sep-10	9:35	15.8	431336	7565657	NFC	NIC
Roberts Bay	P5	CT	-	14	20-Sep-10	17:30	21-Sep-10	9:30	23.6	431358	7565649	NFC	NIC
Roberts Bay	P5	CT	-	15	20-Sep-10	16:50	21-Sep-10	9:41	13.5	431361	7565771	NFC	NIC
Roberts Bay	P5	CT	-	16	20-Sep-10	17:35	21-Sep-10	9:20	24.8	431340	7565610	NFC	NIC
Roberts Bay	P5	CT	-	17	20-Sep-10	16:40	21-Sep-10	9:45	26.8	431395	7565810	NFC	NIC
Reference Bay	REF	CT	-	1	13-Aug-10	8:20	14-Aug-10	18:20	10.6	441205	7562892	NFC	NIC
Reference Bay	REF	CT	-	2	13-Aug-10	8:24	14-Aug-10	18:25	12.3	441267	7562935	NFC	1 crab, 1 starfish, 2 snail
Reference Bay	REF	CT	-	3	13-Aug-10	8:26	14-Aug-10	18:30	15.0	441303	7563015	NFC	1 starfish
Reference Bay	REF	CT	-	4	13-Aug-10	8:27	14-Aug-10	18:35	15.3	441308	7563068	1 SF	1 snail
Reference Bay	REF	CT	-	5	13-Aug-10	8:31	14-Aug-10	18:40	18.2	441371	7563154	1 SF	4 crab, 1 starfish
Reference Bay	REF	CT	-	6	13-Aug-10	10:08	15-Aug-10	11:30	12.5	441324	7563158	1 SF	4 crab, 4 snail
Reference Bay	REF	CT	-	7	13-Aug-10	10:09	14-Aug-10	18:35	18.0	441375	7563201	NFC	3 snail
Reference Bay	REF	CT	-	8	13-Aug-10	10:11	15-Aug-10	11:40	17.0	441375	7563201	NFC	1 crab, 1 sea urchin
Reference Bay	REF	CT	-	9	13-Aug-10	10:13	15-Aug-10	11:45	13.8	441358	7563359	NFC	1 snail
Reference Bay	REF	CT	-	10	13-Aug-10	10:15	15-Aug-10	11:45	10.2	441357	7563412	NFC	1 sea urchin, 1 starfish
Reference Bay	REF	CT	-	11	14-Aug-10	18:25	15-Aug-10	11:10	12.0	441239	7562554	NFC	1 sea urchin
Reference Bay	REF	CT	-	12	14-Aug-10	18:30	15-Aug-10	11:15	13.2	441281	7562922	1 AS	NIC
Reference Bay	REF	CT	-	13	14-Aug-10	18:31	15-Aug-10	11:20	15.6	441308	7562996	NFC	1 starfish
Reference Bay	REF	CT	-	14	14-Aug-10	18:35	15-Aug-10	11:23	16.0	441311	7563010	NFC	1 crab, 1 starfish
Reference Bay	REF	CT	-	15	14-Aug-10	18:37	15-Aug-10	11:25	17.0	441353	7563068	NFC	2 crab, 13 snail
Reference Bay	REF	CT	-	16	14-Aug-10	18:45	15-Aug-10	11:35	16.2	441331	7563170	NFC	1 crab, 1 snail
Reference Bay	REF	CT	-	1	22-Sep-10	17:30	23-Sep-10	17:00	10.4	441232	7563004	1 SC	NIC
Reference Bay	REF	CT	-	2	22-Sep-10	17:28	23-Sep-10	17:05	10.1	441228	7562981	NFC	NIC
Reference Bay	REF	CT	-	3	22-Sep-10	17:32	23-Sep-10	16:08	9.7	441226	7563035	NFC	NIC
Reference Bay	REF	CT	-	4	22-Sep-10	17:35	23-Sep-10	16:57	9.5	441232	7563051	NFC	NIC
Reference Bay	REF	CT	-	5	22-Sep-10	17:40	23-Sep-10	16:49	9.3	441275	7563127	NFC	NIC
Reference Bay	REF	CT	-	6	22-Sep-10	17:25	23-Sep-10	16:45	11.2	441215	7562946	NFC	NIC
Reference Bay	REF	CT	-	7	22-Sep-10	17:40	23-Sep-10	16:50	7.7	441260	7563105	NFC	NIC
Reference Bay	REF	CT	-	8	22-Sep-10	17:37	23-Sep-10	16:51	8.7	441243	7563081	NFC	NIC
Reference Bay	REF	CT	-	9	22-Sep-10	17:20	23-Sep-10	17:15	10.4	441202	7562943	NFC	NIC
Reference Bay	REF	CT	-	10	23-Sep-10	17:05	24-Sep-10	16:35	12.2	441263	7563019	NFC	NIC
Reference Bay	REF	CT	-	11	23-Sep-10	17:10	24-Sep-10	16:40	10.6	441261	7562975	NFC	NIC
Reference Bay	REF	CT	-	12	23-Sep-10	17:00	24-Sep-10	16:30	11.0	441258	7563036	NFC	NIC
Reference Bay	REF	CT	-	13	23-Sep-10	16:50	24-Sep-10	16:15	8.8	441285	7563117	NFC	NIC
Reference Bay	REF	CT	-	14	23-Sep-10	16:47	24-Sep-10	16:45	12.0	441263	7562956	NFC	NIC
Reference Bay	REF	CT	-	15	23-Sep-10	16:51	24-Sep-10	16:25	10.2	441259	7563097	NFC	NIC
Reference Bay	REF	CT	-	16	23-Sep-10	16:55	24-Sep-10	16:20	11.9	441269	7563067	NFC	NIC
Reference Bay	REF	CT	-	17	23-Sep-10	17:20	24-Sep-10	16:50	15.1	441215	7562986	NFC	NIC

Notes:

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

NIC = No Invertebrates Caught

NFC = No Fish Caught

Appendix 3.2-7

Biological Data for Fish Sampled in Roberts Bay and
Reference Bay, Hope Bay Belt Project, 2010

Appendix 3.2-7. Biological Data for Fish Sampled in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Location		Gear			Date	Sample #	Species	Length (mm)	Weight (g)	Condition	Stomach Samples	Aging Structures			Age (years)	Comment
Location	Site	Method	Type	#								Otolith	Scales	Fin Clip		
Roberts Bay	P1	GN	S	2	30-Jul-10	P1-001	SC	144	17	0.57	-	X	X	X	2	-
Roberts Bay	P1	GN	S	2	30-Jul-10	P1-002	SC	152	21	0.60	-	X	X	X	2	-
Roberts Bay	P1	GN	S	2	30-Jul-10	P1-003	FS	336	359	0.95	-	-	X	X	7	-
Roberts Bay	P1	GN	S	2	30-Jul-10	P1-004	FS	369	447	0.89	-	-	-	-	-	-
Roberts Bay	P1	GN	S	2	30-Jul-10	P1-005	FS	293	219	0.87	-	-	-	-	-	-
Roberts Bay	P1	GN	S	2	30-Jul-10	P1-006	SS	316	306	0.97	-	-	-	-	-	-
Roberts Bay	P1	GN	S	3	30-Jul-10	P1-007	LD	230	118	0.97	-	-	-	-	-	-
Roberts Bay	P1	MT	-	5	31-Jul-10	P1-008	SC	76	3	0.68	-	X	X	X	1	-
Roberts Bay	P1	MT	-	5	31-Jul-10	P1-009	SC	84	3	0.51	-	X	X	X	1	-
Roberts Bay	P1	MT	-	5	31-Jul-10	P1-010	SC	81	3	0.56	-	X	X	X	1	-
Roberts Bay	P1	MT	-	8	31-Jul-10	P1-011	FS	84	4	0.67	-	-	-	X	1	-
Roberts Bay	P1	MT	-	17	1-Aug-10	P1-012	SC	86	5	0.79	-	X	X	X	1	-
Roberts Bay	P1	MT	-	18	1-Aug-10	P1-013	SC	91	4	0.53	-	X	X	X	1	-
Roberts Bay	P1	MT	-	19	1-Aug-10	P1-014	SC	61	2	0.88	-	X	X	X	1	-
Roberts Bay	P1	GN	S	4	1-Aug-10	P1-015	AC	499	1,347	1.08	-	X	X	X	8	-
Roberts Bay	P1	GN	S	4	1-Aug-10	P1-016	GC	379	639	1.17	-	-	X	X	3	-
Roberts Bay	P1	GN	S	4	1-Aug-10	P1-017	LD	207	96	1.08	-	-	-	-	-	-
Roberts Bay	P1	GN	S	4	1-Aug-10	P1-018	AF	254	228	1.39	-	-	-	-	-	-
Roberts Bay	P1	GN	S	4	1-Aug-10	P1-019	FS	121	15	0.85	-	-	-	-	-	-
Roberts Bay	P1	GN	S	4	1-Aug-10	P1-020	LD	53	1.5	1.01	-	-	-	-	-	-
Roberts Bay	P1	GN	S	4	1-Aug-10	P1-021	SS	329	390	1.10	-	-	-	-	-	-
Roberts Bay	P1	MT	-	23	4-Aug-10	P1-024	SC	83	4.1	0.72	-	X	X	X	1	photo 23
Roberts Bay	P1	GN	S	5	4-Aug-10	P1-025	FS	256	292	1.74	-	-	-	-	-	photo 26
Roberts Bay	P1	GN	S	5	4-Aug-10	P1-026	FS	267	403	2.12	-	-	-	-	-	-
Roberts Bay	P1	GN	S	5	4-Aug-10	P1-027	SC	257	87	0.51	-	X	X	X	4	-
Roberts Bay	P1	GN	S	5	4-Aug-10	P1-028	SC	201	71	0.87	-	X	X	X	4	-
Roberts Bay	P1	GN	S	5	4-Aug-10	P1-029	AF	88	27	3.96	-	-	-	-	-	-
Roberts Bay	P1	GN	S	6	4-Aug-10	P1-030	AF	172	125	2.46	-	-	-	-	-	photo 30
Roberts Bay	P1	GN	S	6	4-Aug-10	P1-031	GC	365	654	1.34	-	-	X	X	4	photo 31
Roberts Bay	P1	GN	S	6	4-Aug-10	P1-032	GC	377	622	1.16	-	-	X	X	4	photo 32
Roberts Bay	P1	GN	S	6	4-Aug-10	P1-033	SC	254	133	0.81	-	-	X	X	4	photo 33
Roberts Bay	P1	GN	S	6	4-Aug-10	P1-034	SC	141	26	0.93	-	-	X	X	2	photo 34
Roberts Bay	P1	GN	S	6	4-Aug-10	P1-035	FS	274	366	1.78	-	-	-	-	-	photo 35
Roberts Bay	P1	GN	S	6	4-Aug-10	P1-036	FS	191	86	1.23	-	-	-	-	-	photo 36
Roberts Bay	P1	GN	S	6	4-Aug-10	P1-037	FS	131	31	1.38	-	-	-	-	-	photo 37
Roberts Bay	P1	BS	-	1	12-Aug-10	P1-200	FS	92	64	8.22	-	-	-	-	-	-
Roberts Bay	P1	BS	-	1	12-Aug-10	P1-201	FS	82	3.9	0.71	-	-	-	-	-	-
Roberts Bay	P1	BS	-	1	12-Aug-10	P1-202	SC	84	3.9	0.66	-	-	-	-	-	-
Roberts Bay	P1	BS	-	1	12-Aug-10	P1-203	FS	31	-	-	-	-	-	-	-	-
Roberts Bay	P1	BS	-	1	12-Aug-10	P1-204	FS	31	-	-	-	-	-	-	-	-

Notes:

Gear: GN = Gillnet; LL = Longline; BS = Beach Seine; MT = Minnow Trap; CT = Crab Trap

Type: S = Sinking; F = Floating

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Appendix 3.2-7. Biological Data for Fish Sampled in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Location		Gear			Date	Sample #	Species	Length (mm)	Weight (g)	Condition	Stomach Samples	Aging Structures			Age (years)	Comment
Location	Site	Method	Type	#								Otolith	Scales	Fin Clip		
Roberts Bay	P1	BS	-	2	12-Aug-10	P1-205	SC	106	7.9	0.66	-	-	-	-	-	-
Roberts Bay	P1	BS	-	2	12-Aug-10	P1-206	AF	63	5.9	2.36	-	-	-	-	-	-
Roberts Bay	P1	BS	-	2	12-Aug-10	P1-207	AF	59	3.9	1.90	-	-	-	-	-	-
Roberts Bay	P1	BS	-	2	12-Aug-10	P1-208	FS	31	-	-	-	-	-	-	-	-
Roberts Bay	P1	BS	-	3	12-Aug-10	P1-209	AF	154	46.5	1.27	-	-	-	-	-	-
Roberts Bay	P1	BS	-	3	12-Aug-10	P1-210	FS	35	-	-	-	-	-	-	-	-
Roberts Bay	P1	BS	-	3	12-Aug-10	P1-211	FS	32	-	-	-	-	-	-	-	-
Roberts Bay	P1	BS	-	3	12-Aug-10	P1-212	FS	34	-	-	-	-	-	-	-	-
Roberts Bay	P1	BS	-	3	12-Aug-10	P1-213	FS	35	-	-	-	-	-	-	-	-
Roberts Bay	P1	BS	-	3	12-Aug-10	P1-214	FS	30	-	-	-	-	-	-	-	-
Roberts Bay	P1	BS	-	4	12-Aug-10	P1-215	SF	151	47.5	1.38	-	-	-	-	-	-
Roberts Bay	P1	BS	-	4	12-Aug-10	P1-216	FS	32	-	-	-	-	-	-	-	-
Roberts Bay	P1	BS	-	4	12-Aug-10	P1-217	FS	32	-	-	-	-	-	-	-	-
Roberts Bay	P1	BS	-	4	12-Aug-10	P1-218	FS	31	-	-	-	-	-	-	-	-
Roberts Bay	P1	BS	-	4	12-Aug-10	P1-219	FS	30	-	-	-	-	-	-	-	-
Roberts Bay	P1	BS	-	4	12-Aug-10	P1-220	FS	32	-	-	-	-	-	-	-	-
Roberts Bay	P1	BS	-	4	12-Aug-10	P1-221	FS	30	-	-	-	-	-	-	-	-
Roberts Bay	P1	BS	-	4	12-Aug-10	P1-222	FS	31	-	-	-	-	-	-	-	-
Roberts Bay	P1	BS	-	5	12-Aug-10	P1-223	FS	29	-	-	-	-	-	-	-	-
Roberts Bay	P1	BS	-	5	12-Aug-10	P1-224	FS	31	-	-	-	-	-	-	-	-
Roberts Bay	P1	GN	S	2	29-Aug-10	P1-225	GC	482	1,208	1.08	-	-	X	X	4	-
Roberts Bay	P1	GN	S	1	29-Aug-10	P1-226	GC	442	764	0.88	-	-	X	X	4	-
Roberts Bay	P1	GN	S	1	29-Aug-10	P1-227	GC	363	534	1.12	-	-	X	X	3	-
Roberts Bay	P1	GN	S	1	29-Aug-10	P1-228	GC	352	649	1.49	-	-	X	X	3	-
Roberts Bay	P1	GN	S	1	29-Aug-10	P1-229	GC	469	-	-	-	-	X	X	4	-
Roberts Bay	P1	GN	S	1	29-Aug-10	P1-230	GC	422	791	1.05	-	-	X	X	4	-
Roberts Bay	P1	GN	S	1	29-Aug-10	P1-231	GC	356	445	0.99	-	-	X	X	3	-
Roberts Bay	P1	GN	S	1	29-Aug-10	P1-232	FS	375	638	1.21	-	-	-	-	-	-
Roberts Bay	P1	GN	S	1	29-Aug-10	P1-233	FS	361	465	0.99	-	-	-	-	-	-
Roberts Bay	P1	GN	S	1	29-Aug-10	P1-234	FS	341	456	1.15	-	-	-	-	-	-
Roberts Bay	P1	GN	S	1	29-Aug-10	P1-235	FS	350	554	1.29	-	-	-	-	-	-
Roberts Bay	P1	GN	F	1	29-Aug-10	P1-236	AC	248	232	1.52	-	-	X	X	4	-
Roberts Bay	P1	GN	F	1	29-Aug-10	P1-237	AC	243	163	1.14	-	-	X	X	4	-
Roberts Bay	P1	GN	F	2	29-Aug-10	P1-238	AC	264	200	1.09	-	-	X	X	4	-
Roberts Bay	P1	GN	F	2	29-Aug-10	P1-239	AC	262	215	1.20	-	-	X	X	4	-
Roberts Bay	P1	GN	F	2	29-Aug-10	P1-240	AC	240	155	1.12	-	-	X	X	4	-
Roberts Bay	P1	GN	S	3	30-Aug-10	P1-241	SC	354	306	0.69	-	-	X	X	5	-
Roberts Bay	P1	GN	S	3	30-Aug-10	P1-242	SS	324	-	-	-	-	-	-	-	-
Roberts Bay	P1	GN	S	3	30-Aug-10	P1-243	SS	284	252	1.10	-	-	-	-	-	-
Roberts Bay	P1	GN	F	4	30-Aug-10	P1-244	AC	309	342	1.16	-	-	X	X	5	-

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Location		Gear			Date	Sample #	Species	Length (mm)	Weight (g)	Condition	Stomach Samples	Aging Structures			Age (years)	Comment
Location	Site	Method	Type	#								Otolith	Scales	Fin Clip		
Roberts Bay	P1	GN	S	4	30-Aug-10	P1-245	FS	306	313	1.09	-	-	-	-	-	-
Roberts Bay	P1	GN	S	4	30-Aug-10	P1-246	SC	296	201	0.78	-	-	X	X	4	-
Roberts Bay	P1	MT	-	7	30-Aug-10	P1-247	SC	100	-	-	-	-	-	-	-	-
Roberts Bay	P1	GN	S	5	30-Aug-10	P1-248	GC	436	861	1.04	-	-	X	X	4	-
Roberts Bay	P1	GN	S	5	30-Aug-10	P1-249	GC	430	832	1.05	-	-	X	X	4	-
Roberts Bay	P1	GN	S	5	30-Aug-10	P1-250	FS	200	-	-	-	-	-	-	-	-
Roberts Bay	P1	GN	S	5	30-Aug-10	P1-251	SS	334	426	1.14	-	-	-	-	-	-
Roberts Bay	P1	GN	S	5	30-Aug-10	P1-252	SS	366	603	1.23	-	-	-	-	-	-
Roberts Bay	P1	GN	S	6	30-Aug-10	P1-253	SF	429	1018	1.29	-	-	-	-	-	-
Roberts Bay	P1	GN	S	6	30-Aug-10	P1-254	FS	356	492	1.09	-	-	-	-	-	-
Roberts Bay	P1	GN	S	6	30-Aug-10	P1-255	FS	334	439	1.18	-	-	-	-	-	-
Roberts Bay	P1	GN	S	6	30-Aug-10	P1-256	GC	400	609	0.95	-	-	-	-	-	-
Roberts Bay	P1	GN	F	6	30-Aug-10	P1-257	AC	220	113	1.06	-	-	X	X	3	-
Roberts Bay	P1	GN	F	6	30-Aug-10	P1-258	AC	256	177	1.06	-	-	X	X	4	-
Roberts Bay	P1	MT	-	12	31-Aug-10	P1-259	SC	102	70	6.60	-	-	-	-	-	-
Roberts Bay	P1	MT	-	13	31-Aug-10	P1-260	FS	106	90	7.56	-	-	-	-	-	-
Roberts Bay	P1	MT	-	28	1-Sep-10	P1-261	FS	93	87	10.82	-	-	-	-	-	-
Roberts Bay	P1	LL	-	4	2-Sep-10	P1-262	SC	285	190	0.82	-	X	X	X	4	-
Roberts Bay	P2	GN	F	2	5-Aug-10	P2-001	AC	243	127	0.89	-	X	X	X	4	photo 47
Roberts Bay	P2	GN	S	1	5-Aug-10	P2-002	FS	263	324	1.78	-	-	-	-	-	photo 48
Roberts Bay	P2	GN	S	1	5-Aug-10	P2-003	FS	306	304	1.06	-	-	-	-	-	-
Roberts Bay	P2	GN	S	1	5-Aug-10	P2-004	FS	252	270	1.69	-	-	-	-	-	-
Roberts Bay	P2	GN	S	1	5-Aug-10	P2-005	FS	206	122	1.40	-	-	-	-	-	-
Roberts Bay	P2	GN	S	1	5-Aug-10	P2-006	SC	221	86	0.80	-	-	X	X	4	photo 49
Roberts Bay	P2	GN	S	1	5-Aug-10	P2-007	PH	273	217	1.07	-	X	X	X	11	photo 50
Roberts Bay	P2	GN	S	1	5-Aug-10	P2-008	PH	236	130	0.99	-	X	X	X	10	-
Roberts Bay	P2	GN	S	1	5-Aug-10	P2-009	PH	283	188	0.83	-	X	X	X	-	-
Roberts Bay	P2	GN	S	1	5-Aug-10	P2-010	PH	297	251	0.96	-	-	X	-	11	-
Roberts Bay	P2	GN	S	1	5-Aug-10	P2-011	PH	273	188	0.92	-	X	X	X	-	-
Roberts Bay	P2	GN	S	1	5-Aug-10	P2-012	PH	259	160	0.92	-	X	X	X	-	-
Roberts Bay	P2	GN	S	1	5-Aug-10	P2-013	PH	274	196	0.95	-	X	X	X	-	-
Roberts Bay	P2	GN	S	1	5-Aug-10	P2-014	PH	278	202	0.94	-	X	X	X	-	-
Roberts Bay	P2	GN	S	1	5-Aug-10	P2-015	PH	275	218	1.05	-	X	X	X	12	-
Roberts Bay	P2	GN	S	1	5-Aug-10	P2-016	PH	286	210	0.90	-	X	X	X	11	-
Roberts Bay	P2	GN	S	1	5-Aug-10	P2-017	PH	284	198	0.86	-	X	X	X	-	-
Roberts Bay	P2	GN	S	1	5-Aug-10	P2-018	PH	267	158	0.83	-	X	X	X	11	-
Roberts Bay	P2	GN	S	1	5-Aug-10	P2-019	PH	193	59	0.82	-	X	X	X	5	-
Roberts Bay	P2	CT	-	4	8-Aug-10	P2-021	GC	409	552	0.81	-	-	X	X	4	photo 53, 54
Roberts Bay	P2	GN	S	2	8-Aug-10	P2-052	SF	342	831	2.08	-	-	-	-	-	p #66
Roberts Bay	P2	GN	S	2	8-Aug-10	P2-053	SS	355	432	0.97	-	-	-	-	-	p 0067

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Location	Site	Method	Type	#								Otolith	Scales	Fin Clip		
Roberts Bay	P2	GN	S	2	8-Aug-10	P2-054	FS	224	119	1.06	-	-	-	-	-	-
Roberts Bay	P2	GN	S	2	8-Aug-10	P2-055	FS	358	419	0.91	-	-	-	-	-	-
Roberts Bay	P2	GN	S	2	8-Aug-10	P2-056	FS	231	101	0.82	-	-	-	-	-	-
Roberts Bay	P2	GN	S	2	8-Aug-10	P2-057	LD	129	26	1.21	-	-	-	-	-	p 0068
Roberts Bay	P2	GN	S	2	8-Aug-10	P2-059	GC	442	897	1.04	-	-	X	X	4	-
Roberts Bay	P2	GN	S	2	8-Aug-10	P2-060	AC	474	1,140	1.07	-	X	X	X	7	-
Roberts Bay	P2	GN	S	2	8-Aug-10	P2-061	SC	142	14	0.49	-	-	-	-	-	-
Roberts Bay	P2	GN	S	2	8-Aug-10	P2-062	SC	142	18	0.63	-	-	X	X	2	-
Roberts Bay	P2	GN	S	2	8-Aug-10	P2-063	SC	145	15	0.49	-	-	-	-	-	-
Roberts Bay	P2	GN	S	2	8-Aug-10	P2-064	SC	241	101	0.72	-	-	X	X	4	-
Roberts Bay	P2	GN	S	2	8-Aug-10	P2-065	PH	274	225	1.09	-	-	X	X	10	-
Roberts Bay	P2	GN	S	2	8-Aug-10	P2-066	PH	276	218	1.04	-	-	X	X	-	-
Roberts Bay	P2	GN	S	2	8-Aug-10	P2-067	PH	264	198	1.08	-	-	X	X	11	-
Roberts Bay	P2	GN	S	2	8-Aug-10	P2-068	PH	253	174	1.07	-	-	X	X	-	-
Roberts Bay	P2	GN	S	2	8-Aug-10	P2-069	PH	255	174	1.05	-	-	X	X	9	-
Roberts Bay	P2	GN	S	2	8-Aug-10	P2-070	PH	254	166	1.01	-	-	X	X	10	-
Roberts Bay	P2	GN	S	2	8-Aug-10	P2-071	PH	244	168	1.16	-	-	X	X	-	-
Roberts Bay	P2	GN	S	2	8-Aug-10	P2-072	PH	297	260	0.99	-	-	X	X	11	-
Roberts Bay	P2	GN	S	2	8-Aug-10	P2-073	PH	257	155	0.91	-	-	X	X	-	-
Roberts Bay	P2	GN	S	2	8-Aug-10	P2-074	PH	264	200	1.09	-	-	X	X	10	-
Roberts Bay	P2	GN	S	2	8-Aug-10	P2-075	PH	283	245	1.08	-	-	X	X	11	-
Roberts Bay	P2	GN	S	2	8-Aug-10	P2-076	PH	273	196	0.96	-	-	X	X	-	-
Roberts Bay	P2	GN	S	2	8-Aug-10	P2-077	PH	282	199	0.89	-	-	X	X	12	-
Roberts Bay	P2	GN	S	2	8-Aug-10	P2-078	PH	267	207	1.09	-	-	X	X	-	-
Roberts Bay	P2	MT	-	10	8-Aug-10	P2-079	SC	102	<1	-	-	-	-	-	-	-
Roberts Bay	P2	GN	S	3	8-Aug-10	P2-080	FS	204	79	0.93	-	-	-	-	-	-
Roberts Bay	P2	GN	S	3	8-Aug-10	P2-081	FS	192	80	1.13	-	-	-	-	-	-
Roberts Bay	P2	LL	-	4	8-Aug-10	P2-083	GC	419	940	1.28	-	-	X	X	3	-
Roberts Bay	P2	GN	S	4	9-Aug-10	P2-084	GC	460	1129	1.16	-	-	X	X	5	-
Roberts Bay	P2	GN	S	4	9-Aug-10	P2-085	GC	365	463	0.95	-	-	X	X	3	-
Roberts Bay	P2	GN	S	4	9-Aug-10	P2-086	AC	433	756	0.93	-	-	-	-	-	Tag: Rob Lake Y010-0799
Roberts Bay	P2	GN	S	4	9-Aug-10	P2-087	AC	449	964	1.06	-	-	X	X	7	-
Roberts Bay	P2	GN	S	4	9-Aug-10	P2-088	AC	432	946	1.17	-	X	X	X	7	-
Roberts Bay	P2	GN	S	4	9-Aug-10	P2-089	LD	132	26	1.13	-	-	-	-	-	-
Roberts Bay	P2	GN	S	4	9-Aug-10	P2-090	LD	136	27	1.07	-	-	-	-	-	-
Roberts Bay	P2	GN	S	4	9-Aug-10	P2-091	FS	265	156	0.84	-	-	-	-	-	-
Roberts Bay	P2	GN	S	4	9-Aug-10	P2-094	PH	273	215	1.06	-	-	X	X	11	-
Roberts Bay	P2	GN	S	4	9-Aug-10	P2-095	AC	249	157	1.02	-	X	X	X	3	-
Roberts Bay	P2	GN	S	5	9-Aug-10	P2-096	GC	457	1,106	1.16	-	-	X	X	4	-
Roberts Bay	P2	GN	S	5	9-Aug-10	P2-097	GC	403	695	1.06	-	-	X	X	3	-

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Location	Site	Method	Type	#								Otolith	Scales	Fin Clip		
Roberts Bay	P2	GN	S	5	9-Aug-10	P2-098	PH	260	154	0.88	-	-	X	X	10	-
Roberts Bay	P2	GN	S	5	9-Aug-10	P2-099	PH	260	180	1.02	-	-	X	X	-	-
Roberts Bay	P2	GN	S	5	9-Aug-10	P2-100	PH	242	112	0.79	-	-	X	X	9	-
Roberts Bay	P2	GN	S	5	9-Aug-10	P2-101	PH	250	144	0.92	-	-	X	X	9	-
Roberts Bay	P2	GN	S	5	9-Aug-10	P2-102	SC	257	110	0.65	-	-	X	X	4	-
Roberts Bay	P2	GN	S	5	9-Aug-10	P2-103	SC	281	152	0.69	-	-	X	X	4	-
Roberts Bay	P2	GN	S	5	9-Aug-10	P2-104	SC	155	27	0.73	-	-	X	X	2	-
Roberts Bay	P2	GN	S	5	9-Aug-10	P2-105	LT	312	303	1.00	-	-	X	X	6	-
Roberts Bay	P2	GN	S	5	9-Aug-10	P2-106	LD	140	29	1.06	-	-	-	-	-	-
Roberts Bay	P2	GN	S	5	9-Aug-10	P2-107	LD	218	100	0.97	-	-	-	-	-	-
Roberts Bay	P2	GN	S	5	9-Aug-10	P2-109	SS	318	333	1.04	-	-	-	-	-	-
Roberts Bay	P2	GN	S	5	9-Aug-10	P2-110	FS	302	293	1.06	-	-	-	-	-	-
Roberts Bay	P2	GN	F	5	9-Aug-10	P2-111	AC	446	1,105	1.25	-	-	X	X	5	-
Roberts Bay	P2	GN	F	5	9-Aug-10	P2-112	AC	396	729	1.17	-	-	X	X	4	-
Roberts Bay	P2	GN	F	5	9-Aug-10	P2-113	AC	553	2,076	1.23	-	X	X	X	6	-
Roberts Bay	P2	GN	F	5	9-Aug-10	P2-114	AC	441	889	1.04	-	X	X	X	7	-
Roberts Bay	P2	GN	F	5	9-Aug-10	P2-115	AC	348	519	1.23	-	X	X	X	5	-
Roberts Bay	P2	GN	F	5	9-Aug-10	P2-116	AC	325	393	1.14	-	X	X	X	5	-
Roberts Bay	P2	GN	S	6	9-Aug-10	P2-117	SC	154	8	0.22	-	-	X	X	2	-
Roberts Bay	P2	GN	S	6	9-Aug-10	P2-118	SC	151	13	0.38	-	-	X	X	2	-
Roberts Bay	P2	GN	S	6	9-Aug-10	P2-119	SC	162	14	0.33	-	-	X	X	2	-
Roberts Bay	P2	GN	S	6	9-Aug-10	P2-120	SC	139	10	0.37	-	-	X	X	2	-
Roberts Bay	P2	GN	S	6	9-Aug-10	P2-121	SC	142	13	0.45	-	-	X	X	2	-
Roberts Bay	P2	GN	S	6	9-Aug-10	P2-122	SC	127	9	0.44	-	-	X	X	2	-
Roberts Bay	P2	GN	S	6	9-Aug-10	P2-123	SC	274	137	0.67	-	-	X	X	4	-
Roberts Bay	P2	GN	S	6	9-Aug-10	P2-124	LD	144	22	0.74	-	-	-	-	-	-
Roberts Bay	P2	GN	S	6	9-Aug-10	P2-125	LD	234	164	1.28	-	-	-	-	-	-
Roberts Bay	P2	BS	-	1	12-Aug-10	P2-200	AF	53	1.3	0.87	-	-	-	-	-	-
Roberts Bay	P2	BS	-	1	12-Aug-10	P2-201	FS	35	0.2	0.47	-	-	-	-	-	-
Roberts Bay	P2	BS	-	1	12-Aug-10	P2-202	FS	123	17.3	0.93	-	-	-	-	-	-
Roberts Bay	P2	GN	S	1	1-Sep-10	P2-203	FS	315	395	1.26	-	-	-	-	-	-
Roberts Bay	P2	GN	S	1	1-Sep-10	P2-204	FS	326	383	1.11	-	-	-	-	-	-
Roberts Bay	P2	GN	S	1	1-Sep-10	P2-205	FS	341	401	1.01	-	-	-	-	-	-
Roberts Bay	P2	GN	S	1	1-Sep-10	P2-206	FS	333	417	1.13	-	-	-	-	-	-
Roberts Bay	P2	GN	S	1	1-Sep-10	P2-207	FS	313	327	1.07	-	-	-	-	-	-
Roberts Bay	P2	GN	S	1	1-Sep-10	P2-208	FS	237	130	0.98	-	-	-	-	-	-
Roberts Bay	P2	GN	S	1	1-Sep-10	P2-209	FS	133	24	1.02	-	-	-	-	-	-
Roberts Bay	P2	GN	S	1	1-Sep-10	P2-210	LD	175	61	1.14	-	-	-	-	-	-
Roberts Bay	P2	GN	S	1	1-Sep-10	P2-211	PH	195	61	0.82	-	-	X	X	4	-
Roberts Bay	P2	GN	S	1	1-Sep-10	P2-212	PH	200	75	0.94	-	-	X	X	4	-

Notes:

Gear: GN = Gillnet; LL = Longline; BS = Beach Seine; MT = Minnow Trap; CT = Crab Trap

Type: S = Sinking; F = Floating

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

Unidentified Fish were Poacher, Sandlance, and Snailfish

Appendix 3.2-7. Biological Data for Fish Sampled in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Location		Gear			Date	Sample #	Species	Length (mm)	Weight (g)	Condition	Stomach Samples	Aging Structures			Age (years)	Comment
Location	Site	Method	Type	#								Otolith	Scales	Fin Clip		
Roberts Bay	P2	GN	S	1	1-Sep-10	P2-213	AF	311	587	1.95	-	-	-	-	-	-
Roberts Bay	P2	GN	S	1	1-Sep-10	P2-214	LD	43	27	33.96	-	-	-	-	-	-
Roberts Bay	P2	GN	S	1	1-Sep-10	P2-215	AC	405	760	1.14	-	-	X	X	4	-
Roberts Bay	P2	GN	S	1	1-Sep-10	P2-216	AC	441	993	1.16	-	-	X	X	5	-
Roberts Bay	P2	GN	S	1	1-Sep-10	P2-217	AC	349	486	1.14	-	-	X	X	3	-
Roberts Bay	P2	GN	S	1	1-Sep-10	P2-218	AC	327	370	1.06	-	-	X	X	5	-
Roberts Bay	P2	GN	S	1	1-Sep-10	P2-219	AC	351	431	1.00	-	-	X	X	4	-
Roberts Bay	P2	GN	S	1	1-Sep-10	P2-220	AC	325	413	1.20	-	-	X	X	4	-
Roberts Bay	P2	GN	S	1	1-Sep-10	P2-221	AC	360	557	1.19	-	-	X	X	4	-
Roberts Bay	P2	CT	-	5	2-Sep-10	P2-222	FS	403	535	0.82	-	-	-	-	-	-
Roberts Bay	P2	GN	S	2	2-Sep-10	P2-223	PH	224	267	2.38	-	-	X	X	11	-
Roberts Bay	P2	GN	S	2	2-Sep-10	P2-224	PH	274	212	1.03	-	-	X	X	8	-
Roberts Bay	P2	GN	S	2	2-Sep-10	P2-225	PH	378	232	0.43	-	-	X	X	8	-
Roberts Bay	P2	GN	S	2	2-Sep-10	P2-226	FS	445	825	0.94	-	-	-	-	-	-
Roberts Bay	P2	GN	S	2	2-Sep-10	P2-227	FS	352	436	1.00	-	-	-	-	-	-
Roberts Bay	P2	GN	S	3	2-Sep-10	P2-233	SC	140	11	0.40	-	-	X	X	1	-
Roberts Bay	P2	GN	S	3	2-Sep-10	P2-234	SC	137	9	0.35	-	-	X	X	1	-
Roberts Bay	P2	GN	S	3	2-Sep-10	P2-237	Fish Unid.	96	3	0.34	-	-	-	-	-	Voucher taken
Roberts Bay	P2	GN	S	4	2-Sep-10	P2-238	GC	410	634	0.92	-	-	X	X	3	-
Roberts Bay	P2	GN	S	4	2-Sep-10	P2-239	SC	124	23	1.21	-	-	X	X	1	-
Roberts Bay	P2	GN	S	5	2-Sep-10	P2-245	FS	459	542	0.56	-	-	-	-	-	-
Roberts Bay	P2	GN	S	5	2-Sep-10	P2-246	FS	480	495	0.45	-	-	-	-	-	-
Roberts Bay	P2	GN	S	5	2-Sep-10	P2-247	LD	211	109	1.16	-	-	-	-	-	-
Roberts Bay	P2	GN	S	5	2-Sep-10	P2-253	PH	247	239	1.59	-	-	X	X	11	-
Roberts Bay	P2	GN	S	5	2-Sep-10	P2-254	PH	269	199	1.02	-	-	X	X	8	-
Roberts Bay	P2	GN	F	5	2-Sep-10	P2-255	AC	240	151	1.09	-	-	X	X	3	-
Roberts Bay	P2	CT	-	7	3-Sep-10	P2-256	FS	361	983	2.09	-	-	-	-	-	-
Roberts Bay	P2	MT	-	15	3-Sep-10	P2-259	FS	105	10	0.86	-	-	-	-	-	-
Roberts Bay	P2	MT	-	27	4-Sep-10	P2-263	FS	104	9	0.80	-	-	-	-	-	-
Roberts Bay	P2	LL	-	5	4-Sep-10	P2-271	GC	466	954	0.94	-	-	X	X	6	-
Roberts Bay	P2	BS	-	5	4-Sep-10	P2-272	FS	60	<1	-	-	-	-	-	-	-
Roberts Bay	P2	BS	-	5	4-Sep-10	P2-273	FS	49	<1	-	-	-	-	-	-	-
Roberts Bay	P2	BS	-	6	4-Sep-10	P2-274	FS	51	<1	-	-	-	-	-	-	-
Roberts Bay	P2	BS	-	6	4-Sep-10	P2-275	AF	69	3	0.91	-	-	-	-	-	-
Roberts Bay	P2	BS	-	6	4-Sep-10	P2-276	AF	69	3	0.91	-	-	-	-	-	-
Roberts Bay	P3	LL	-	1	9-Aug-10	P3-001	FS	367	530	1.07	-	-	-	-	-	-
Roberts Bay	P3	LL	-	3	9-Aug-10	P3-006	GC	463	1,093	1.10	-	-	X	X	-	-
Roberts Bay	P3	GN	F	1	9-Aug-10	P3-007	PH	274	204	0.99	-	-	X	X	11	-
Roberts Bay	P3	GN	F	1	9-Aug-10	P3-008	PH	273	193	0.95	-	-	X	X	10	-
Roberts Bay	P3	GN	F	1	9-Aug-10	P3-009	AC	436	702	0.85	-	X	X	X	7	-

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Unidentified Fish were Poacher, Sandlance, and Snailfish

Appendix 3.2-7. Biological Data for Fish Sampled in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Location		Gear			Date	Sample #	Species	Length (mm)	Weight (g)	Condition	Stomach Samples	Aging Structures			Age (years)	Comment
Location	Site	Method	Type	#								Otolith	Scales	Fin Clip		
Roberts Bay	P3	GN	F	1	9-Aug-10	P3-010	AC	302	252	0.91	-	X	X	X	5	-
Roberts Bay	P3	GN	S	1	9-Aug-10	P3-011	FS	289	183	0.76	-	-	-	-	-	-
Roberts Bay	P3	GN	S	2	9-Aug-10	P3-013	AF	111	7	0.51	-	-	-	-	-	-
Roberts Bay	P3	GN	S	2	9-Aug-10	P3-014	PH	258	198	1.15	-	-	X	X	11	-
Roberts Bay	P3	GN	S	2	9-Aug-10	P3-015	PH	282	204	0.91	-	-	X	X	10	-
Roberts Bay	P3	GN	S	2	9-Aug-10	P3-016	PH	274	164	0.80	-	-	X	X	11	-
Roberts Bay	P3	GN	S	2	9-Aug-10	P3-017	PH	254	144	0.88	-	-	X	X	11	-
Roberts Bay	P3	GN	S	2	9-Aug-10	P3-018	PH	272	162	0.81	-	-	X	X	11	-
Roberts Bay	P3	GN	S	2	9-Aug-10	P3-019	SC	231	70	0.57	-	-	X	X	3	-
Roberts Bay	P3	GN	S	2	9-Aug-10	P3-020	GC	434	838	1.03	-	-	X	X	4	-
Roberts Bay	P3	GN	S	2	9-Aug-10	P3-021	GC	448	1,030	1.15	-	-	X	X	-	-
Roberts Bay	P3	GN	S	2	9-Aug-10	P3-022	GC	411	621	0.89	-	-	X	X	-	-
Roberts Bay	P3	GN	S	2	9-Aug-10	P3-023	GC	374	505	0.97	-	-	X	X	3	-
Roberts Bay	P3	GN	S	2	9-Aug-10	P3-024	GC	379	498	0.91	-	-	X	X	-	-
Roberts Bay	P3	GN	S	3	10-Aug-10	P3-025	AC	785	-	-	-	-	X	-	6	Recent Pelvic Fin Clip
Roberts Bay	P3	GN	S	3	10-Aug-10	P3-026	AC	429	865	1.10	-	X	X	X	6	-
Roberts Bay	P3	GN	S	3	10-Aug-10	P3-027	GC	349	428	1.01	-	-	X	X	-	-
Roberts Bay	P3	GN	S	3	10-Aug-10	P3-028	GC	430	795	1.00	-	-	X	X	-	-
Roberts Bay	P3	GN	S	3	10-Aug-10	P3-029	GC	350	449	1.05	-	-	X	X	3	-
Roberts Bay	P3	GN	S	3	10-Aug-10	P3-030	GC	414	760	1.07	-	-	X	X	4	-
Roberts Bay	P3	GN	S	3	10-Aug-10	P3-031	GC	326	346	1.00	-	-	X	X	3	-
Roberts Bay	P3	GN	S	3	10-Aug-10	P3-032	GC	412	758	1.08	-	-	X	X	-	-
Roberts Bay	P3	GN	S	3	10-Aug-10	P3-033	GC	390	557	0.94	-	-	X	X	4	-
Roberts Bay	P3	GN	S	3	10-Aug-10	P3-034	GC	397	679	1.09	-	-	X	X	4	-
Roberts Bay	P3	GN	S	3	10-Aug-10	P3-035	GC	416	695	0.97	-	-	X	X	4	-
Roberts Bay	P3	GN	S	3	10-Aug-10	P3-036	GC	484	1199	1.06	-	-	X	X	4	-
Roberts Bay	P3	GN	S	3	10-Aug-10	P3-037	GC	402	657	1.01	-	-	X	X	5	-
Roberts Bay	P3	GN	S	3	10-Aug-10	P3-038	LD	127	11	0.54	-	-	-	-	-	-
Roberts Bay	P3	GN	S	4	10-Aug-10	P3-040	AC	620	-	-	-	-	X	X	13	Maxed out scale
Roberts Bay	P3	GN	S	4	10-Aug-10	P3-041	GC	343	434	1.08	-	-	X	X	3	-
Roberts Bay	P3	GN	S	4	10-Aug-10	P3-042	GC	443	897	1.03	-	-	X	X	-	-
Roberts Bay	P3	GN	S	4	10-Aug-10	P3-043	GC	378	563	1.04	-	-	X	X	4	-
Roberts Bay	P3	GN	S	4	10-Aug-10	P3-044	GC	427	810	1.04	-	X	X	X	3	-
Roberts Bay	P3	GN	S	4	10-Aug-10	P3-045	FS	412	709	1.01	-	-	-	-	-	-
Roberts Bay	P3	GN	S	4	10-Aug-10	P3-046	FS	215	107	1.08	-	-	-	-	-	-
Roberts Bay	P3	GN	S	4	10-Aug-10	P3-047	FS	247	168	1.11	-	-	-	-	-	-
Roberts Bay	P3	GN	S	4	10-Aug-10	P3-048	LD	107	13	1.06	-	-	-	-	-	-
Roberts Bay	P3	CT	-	7	10-Aug-10	P3-052	FS	391	613	1.03	-	-	-	-	-	-
Roberts Bay	P3	GN	S	5	10-Aug-10	P3-055	SF	539	1,858	1.19	-	-	-	-	-	-
Roberts Bay	P3	GN	S	5	10-Aug-10	P3-056	LD	149	61	1.84	-	-	-	-	-	-

Notes:

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Appendix 3.2-7. Biological Data for Fish Sampled in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Location		Gear			Date	Sample #	Species	Length (mm)	Weight (g)	Condition	Stomach Samples	Aging Structures			Age (years)	Comment
Location	Site	Method	Type	#								Otolith	Scales	Fin Clip		
Roberts Bay	P3	GN	S	5	10-Aug-10	P3-057	LD	158	114	2.89	-	-	-	-	-	-
Roberts Bay	P3	GN	S	5	10-Aug-10	P3-058	SS	332	469	1.28	-	-	-	-	-	-
Roberts Bay	P3	GN	S	5	10-Aug-10	P3-059	GC	399	427	0.67	-	X	X	X	4	-
Roberts Bay	P3	GN	S	5	10-Aug-10	P3-060	AC	431	987	1.23	-	X	X	X	7	-
Roberts Bay	P3	GN	S	5	10-Aug-10	P3-061	AC	334	332	0.89	-	X	X	X	6	-
Roberts Bay	P3	GN	S	5	10-Aug-10	P3-062	PH	266	212	1.13	X	-	X	X	10	-
Roberts Bay	P3	GN	S	5	10-Aug-10	P3-063	PH	288	156	0.65	X	-	X	X	10	-
Roberts Bay	P3	GN	S	5	10-Aug-10	P3-064	PH	254	126	0.77	X	-	X	X	9	-
Roberts Bay	P3	GN	S	5	10-Aug-10	P3-065	PH	274	159	0.77	X	-	X	X	12	-
Roberts Bay	P3	GN	S	5	10-Aug-10	P3-066	PH	277	103	0.48	X	-	X	X	11	-
Roberts Bay	P3	GN	S	5	10-Aug-10	P3-067	PH	282	164	0.73	X	-	X	X	11	-
Roberts Bay	P3	GN	S	6	10-Aug-10	P3-068	AC	714	>3,000	-	-	-	X	X	11	-
Roberts Bay	P3	GN	S	6	10-Aug-10	P3-069	AC	612	2,257	0.98	-	-	X	X	7	-
Roberts Bay	P3	GN	S	6	10-Aug-10	P3-070	AC	410	792	1.15	-	-	X	X	4	-
Roberts Bay	P3	GN	S	6	10-Aug-10	P3-071	AC	358	610	1.33	-	X	X	X	4	-
Roberts Bay	P3	GN	S	6	10-Aug-10	P3-072	AC	423	878	1.16	-	X	X	X	5	-
Roberts Bay	P3	GN	S	6	10-Aug-10	P3-073	AC	347	478	1.14	-	X	X	X	4	-
Roberts Bay	P3	GN	S	6	10-Aug-10	P3-074	GC	428	589	0.75	-	X	X	X	-	-
Roberts Bay	P3	GN	S	6	10-Aug-10	P3-075	GC	414	834	1.18	-	X	X	X	-	-
Roberts Bay	P3	GN	S	6	10-Aug-10	P3-076	FS	380	329	0.60	-	-	-	-	-	-
Roberts Bay	P3	CT	-	11	10-Aug-10	P3-082	SS	296	254	0.98	-	-	-	-	-	-
Roberts Bay	P3	MT	-	6	10-Aug-10	P3-087	AS	62	<1	-	-	-	-	-	-	-
Roberts Bay	P3	MT	-	6	10-Aug-10	P3-088	AS	53	<1	-	-	-	-	-	-	-
Roberts Bay	P3	MT	-	6	10-Aug-10	P3-089	AS	112	6	0.43	-	-	-	-	-	-
Roberts Bay	P3	MT	-	9	10-Aug-10	P3-090	FS	101	8	0.78	-	-	-	-	-	-
Roberts Bay	P3	BS	-	1	9-Aug-10	P3-200	FS	96	3	0.34	-	-	-	-	-	-
Roberts Bay	P3	BS	-	1	9-Aug-10	P3-201	FS	32	-	-	-	-	-	-	-	-
Roberts Bay	P3	BS	-	1	9-Aug-10	P3-202	FS	33	-	-	-	-	-	-	-	-
Roberts Bay	P3	BS	-	1	9-Aug-10	P3-203	FS	39	-	-	-	-	-	-	-	-
Roberts Bay	P3	BS	-	1	9-Aug-10	P3-204	AF	179	85	1.48	-	-	-	-	-	-
Roberts Bay	P3	BS	-	1	9-Aug-10	P3-206	FS	35	-	-	-	-	-	-	-	-
Roberts Bay	P3	BS	-	1	9-Aug-10	P3-207	FS	31	-	-	-	-	-	-	-	-
Roberts Bay	P3	BS	-	2	9-Aug-10	P3-208	AF	51	1	0.75	-	-	-	-	-	-
Roberts Bay	P3	BS	-	2	9-Aug-10	P3-209	FS	36	-	-	-	-	-	-	-	-
Roberts Bay	P3	BS	-	2	9-Aug-10	P3-210	FS	27	-	-	-	-	-	-	-	-
Roberts Bay	P3	BS	-	2	9-Aug-10	P3-211	FS	35	-	-	-	-	-	-	-	-
Roberts Bay	P3	BS	-	2	9-Aug-10	P3-212	FS	37	-	-	-	-	-	-	-	-
Roberts Bay	P3	BS	-	2	9-Aug-10	P3-213	NS	32	-	-	-	-	-	-	-	-
Roberts Bay	P3	BS	-	3	9-Aug-10	P3-214	FS	96	-	-	-	-	-	-	-	-
Roberts Bay	P3	BS	-	3	9-Aug-10	P3-215	FS	37	-	-	-	-	-	-	-	-

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Location	Site	Method	Type	#								Otolith	Scales	Fin Clip		
Roberts Bay	P3	BS	-	3	9-Aug-10	P3-216	FS	41	-	-	-	-	-	-	-	-
Roberts Bay	P3	BS	-	3	9-Aug-10	P3-217	NS	54	-	-	-	-	-	-	-	-
Roberts Bay	P3	BS	-	3	9-Aug-10	P3-218	NS	40	-	-	-	-	-	-	-	-
Roberts Bay	P3	BS	-	4	12-Aug-10	P3-219	FS	89	4.2	0.60	-	-	-	-	-	-
Roberts Bay	P3	GN	S	1	8-Sep-10	P3-220	GC	594	2,658	1.27	-	-	X	X	-	-
Roberts Bay	P3	GN	S	1	8-Sep-10	P3-221	SS	346	468	1.13	-	-	-	-	-	-
Roberts Bay	P3	GN	S	1	8-Sep-10	P3-222	SC	128	14	0.67	-	-	-	-	-	-
Roberts Bay	P3	GN	S	1	8-Sep-10	P3-223	FS	111	8	0.58	-	-	-	-	-	-
Roberts Bay	P3	GN	F	1	8-Sep-10	P3-224	AC	284	264	1.15	-	X	X	X	5	Dead
Roberts Bay	P3	GN	F	1	8-Sep-10	P3-225	AC	249	156	1.01	-	X	X	X	5	Dead
Roberts Bay	P3	GN	S	2	9-Sep-10	P3-226	SC	266	159	0.84	-	-	X	X	3	-
Roberts Bay	P3	GN	S	2	9-Sep-10	P3-227	SC	297	184	0.70	-	-	X	X	4	-
Roberts Bay	P3	GN	S	2	9-Sep-10	P3-228	SC	289	195	0.81	-	-	X	X	4	-
Roberts Bay	P3	GN	F	2	9-Sep-10	P3-234	AC	-	-	-	-	-	-	-	-	Fell off GN before measured
Roberts Bay	P3	GN	F	3	9-Sep-10	P3-235	PH	180	154	2.64	X	X	X	X	4	-
Roberts Bay	P3	GN	S	3	9-Sep-10	P3-236	PH	285	255	1.10	X	X	X	X	9	-
Roberts Bay	P3	GN	S	3	9-Sep-10	P3-237	PH	275	230	1.11	X	X	X	X	11	-
Roberts Bay	P3	GN	S	3	9-Sep-10	P3-238	PH	277	265	1.25	X	X	X	X	11	-
Roberts Bay	P3	GN	S	3	9-Sep-10	P3-239	SC	267	140	0.74	-	-	X	X	4	Y-RBay10-0191
Roberts Bay	P3	GN	S	3	9-Sep-10	P3-240	SS	275	215	1.03	-	-	-	-	-	-
Roberts Bay	P3	GN	S	3	9-Sep-10	P3-241	AF	236	161	1.22	-	-	-	-	-	-
Roberts Bay	P3	GN	S	3	9-Sep-10	P3-243	AF	139	26	0.97	-	-	-	-	-	-
Roberts Bay	P3	BS	-	1	10-Sep-10	P3-246	FS	173	49	0.95	-	-	-	-	-	-
Roberts Bay	P3	BS	-	2	10-Sep-10	P3-247	FS	207	79	0.89	-	-	-	-	-	-
Roberts Bay	P3	BS	-	2	10-Sep-10	P3-248	SF	237	201	1.51	-	-	-	-	-	-
Roberts Bay	P3	BS	-	2	10-Sep-10	P3-250	FS	125	17	0.87	-	-	-	-	-	-
Roberts Bay	P3	BS	-	2	10-Sep-10	P3-251	FS	100	8	0.80	-	-	-	-	-	-
Roberts Bay	P3	BS	-	2	10-Sep-10	P3-252	NS	27	-	-	-	-	-	-	-	-
Roberts Bay	P3	BS	-	2	10-Sep-10	P3-253	FS	96	4	0.45	-	-	-	-	-	-
Roberts Bay	P3	BS	-	2	10-Sep-10	P3-254	FS	98	8	0.85	-	-	-	-	-	-
Roberts Bay	P3	BS	-	2	10-Sep-10	P3-255	FS	98	9	0.96	-	-	-	-	-	-
Roberts Bay	P3	BS	-	2	10-Sep-10	P3-256	FS	103	8	0.73	-	-	-	-	-	-
Roberts Bay	P3	BS	-	2	10-Sep-10	P3-257	FS	53	2	1.34	-	-	-	-	-	-
Roberts Bay	P3	BS	-	2	10-Sep-10	P3-258	Fish Unid.	72	7	1.88	-	-	-	-	-	Voucher Specimen; Photo 4457-4464
Roberts Bay	P3	GN	S	4	12-Sep-10	P3-266	GC	478	1,519	1.39	-	-	-	-	-	Recent Pelvic Fin Clip
Roberts Bay	P3	GN	S	4	12-Sep-10	P3-267	FS	425	869	1.13	-	-	-	-	-	-
Roberts Bay	P3	GN	S	4	12-Sep-10	P3-268	SC	268	145	0.75	-	-	X	X	4	Y-RobBay10-0190
Roberts Bay	P3	GN	S	4	12-Sep-10	P3-269	SC	304	212	0.75	-	-	X	X	4	Y-RobBay10-0189
Roberts Bay	P3	GN	S	4	12-Sep-10	P3-270	SC	298	203	0.77	-	-	X	X	4	Y-RobBay10-0188
Roberts Bay	P3	GN	S	4	12-Sep-10	P3-271	SC	235	100	0.77	-	-	X	X	3	-

Notes:

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AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

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Appendix 3.2-7. Biological Data for Fish Sampled in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Location		Gear			Date	Sample #	Species	Length (mm)	Weight (g)	Condition	Stomach Samples	Aging Structures			Age (years)	Comment
Location	Site	Method	Type	#								Otolith	Scales	Fin Clip		
Roberts Bay	P3	GN	S	4	12-Sep-10	P3-272	SC	180	39	0.67	-	-	-	-	-	-
Roberts Bay	P3	GN	S	4	12-Sep-10	P3-273	SC	142	19	0.66	-	-	-	-	-	-
Roberts Bay	P3	GN	S	4	12-Sep-10	P3-274	SC	137	15	0.58	-	-	-	-	-	-
Roberts Bay	P3	GN	S	4	12-Sep-10	P3-275	SC	200	51	0.64	-	-	-	-	-	-
Roberts Bay	P3	GN	S	4	12-Sep-10	P3-276	SC	138	18	0.68	-	-	-	-	-	-
Roberts Bay	P3	GN	S	4	12-Sep-10	P3-277	SC	176	42	0.77	-	-	-	-	-	-
Roberts Bay	P3	GN	S	4	12-Sep-10	P3-278	SC	123	14	0.75	-	-	-	-	-	Dead
Roberts Bay	P3	GN	S	4	12-Sep-10	P3-279	PH	135	22	0.89	-	-	-	-	-	Dead
Roberts Bay	P3	GN	S	4	12-Sep-10	P3-280	PH	269	215	1.10	X	X	X	X	10	Dead
Roberts Bay	P3	GN	S	4	12-Sep-10	P3-281	PH	259	201	1.16	X	X	X	X	12	Dead
Roberts Bay	P3	GN	S	4	12-Sep-10	P3-282	AF	154	35	0.96	-	-	-	-	-	-
Roberts Bay	P3	GN	F	5	12-Sep-10	P3-287	AC	310	355	1.19	-	-	X	X	6	Y-RobBay10-0187
Roberts Bay	P3	GN	S	5	12-Sep-10	P3-288	PH	169	226	4.68	X	X	X	X	11	-
Roberts Bay	P3	GN	S	5	12-Sep-10	P3-289	SC	292	184	0.74	-	-	X	X	4	Y-RobBay10-0186
Roberts Bay	P3	GN	S	5	12-Sep-10	P3-290	GC	395	663	1.08	-	-	-	-	-	-
Roberts Bay	P3	GN	S	5	12-Sep-10	P3-291	AF	205	108	1.25	-	-	-	-	-	Photo #4501
Roberts Bay	P3	GN	S	5	12-Sep-10	P3-292	FS	360	564	1.21	-	-	-	-	-	-
Roberts Bay	P3	GN	S	5	12-Sep-10	P3-293	FS	350	411	0.96	-	-	-	-	-	-
Roberts Bay	P3	GN	S	5	12-Sep-10	P3-294	FS	345	420	1.02	-	-	-	-	-	-
Roberts Bay	P3	GN	S	5	12-Sep-10	P3-295	FS	287	262	1.11	-	-	-	-	-	-
Roberts Bay	P3	GN	S	5	12-Sep-10	P3-296	FS	338	433	1.12	-	-	-	-	-	Photo #4502
Roberts Bay	P3	GN	S	5	12-Sep-10	P3-297	FS	318	347	1.08	-	-	-	-	-	-
Roberts Bay	P3	GN	F	6	17-Sep-10	P3-336	PH	172	46	0.90	X	X	X	X	-	-
Roberts Bay	P3	GN	S	6	17-Sep-10	P3-337	PH	194	58	0.79	X	X	-	-	-	-
Roberts Bay	P3	GN	S	6	17-Sep-10	P3-338	PH	282	246	1.10	X	X	X	X	9	-
Roberts Bay	P3	GN	S	6	17-Sep-10	P3-339	SC	138	18	0.68	-	-	X	X	1	-
Roberts Bay	P3	GN	S	6	17-Sep-10	P3-340	SC	135	16	0.65	-	-	-	-	-	-
Roberts Bay	P3	GN	S	6	17-Sep-10	P3-341	SC	146	19	0.61	-	-	-	-	-	-
Roberts Bay	P3	GN	S	6	17-Sep-10	P3-344	SC	138	16	0.61	-	-	-	-	-	-
Roberts Bay	P4	GN	S	1	10-Aug-10	P4-001	Fish Unid.	149	27	0.82	-	-	-	-	-	Poacher? Voucher specimen
Roberts Bay	P4	GN	S	1	10-Aug-10	P4-002	FS	180	56	0.96	-	-	-	-	-	-
Roberts Bay	P4	GN	F	1	10-Aug-10	P4-005	AC	231	126.6	1.03	-	-	X	X	4	-
Roberts Bay	P4	GN	S	2	10-Aug-10	P4-038	GC	374	>300	-	-	-	X	X	3	-
Roberts Bay	P4	GN	S	2	10-Aug-10	P4-039	GC	311	>300	-	-	-	X	X	3	-
Roberts Bay	P4	GN	S	2	10-Aug-10	P4-040	FS	383	>300	-	-	-	-	-	-	-
Roberts Bay	P4	GN	F	2	10-Aug-10	P4-047	AC	220	118.9	1.12	-	-	X	X	3	-
Roberts Bay	P4	LL	-	1	11-Aug-10	P4-048	GC	579	>300	-	-	-	-	-	-	Recent Pelvic Fin Clip
Roberts Bay	P4	GN	S	3	11-Aug-10	P4-049	AC	452	1,236	1.34	-	-	X	X	-	-
Roberts Bay	P4	GN	S	3	11-Aug-10	P4-050	AC	472	1,350	1.28	-	X	X	X	6	-
Roberts Bay	P4	GN	F	4	11-Aug-10	P4-054	AC	297	259	0.99	-	X	X	X	6	-

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Location		Gear			Date	Sample #	Species	Length (mm)	Weight (g)	Condition	Stomach Samples	Aging Structures			Age (years)	Comment
Location	Site	Method	Type	#								Otolith	Scales	Fin Clip		
Roberts Bay	P4	GN	S	5	11-Aug-10	P4-086	AC	491	1,477	1.25	-	-	X	X	8	-
Roberts Bay	P4	GN	S	5	11-Aug-10	P4-088	FS	198	62	0.80	-	-	-	-	-	-
Roberts Bay	P4	LL	-	3	12-Aug-10	P4-125	GC	562	1,451	0.82	-	-	X	-	-	Recent Pelvic Fin Clip
Roberts Bay	P4	MT	-	7	12-Aug-10	P4-126	FS	86	5	0.79	-	-	-	-	-	-
Roberts Bay	P4	MT	-	7	12-Aug-10	P4-127	FS	64	3	1.14	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-200	FS	59	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-201	FS	41	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-202	FS	37	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-203	FS	29	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-204	FS	94	-	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-205	FS	73	-	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-206	FS	87	-	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-207	FS	42	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-208	FS	32	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-209	FS	34	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-210	FS	36	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-211	FS	30	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-212	FS	36	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-213	FS	33	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-214	FS	29	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-215	FS	31	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-216	FS	28	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-217	FS	99	-	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-218	FS	84	-	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-219	FS	39	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-220	FS	37	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-221	FS	33	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-222	FS	37	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-223	FS	33	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-224	FS	35	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-225	FS	38	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-226	FS	42	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-227	FS	35	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-228	FS	38	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-229	FS	33	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-230	FS	40	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-231	FS	39	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-232	FS	95	-	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-233	FS	31	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-234	FS	86	-	-	-	-	-	-	-	-

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Location		Gear			Date	Sample #	Species	Length (mm)	Weight (g)	Condition	Stomach Samples	Aging Structures			Age (years)	Comment
Location	Site	Method	Type	#								Otolith	Scales	Fin Clip		
Roberts Bay	P4	BS	-	-	13-Aug-10	P4-235	FS	38	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	5	13-Aug-10	P4-236	AF	52	-	-	-	-	-	-	-	-
Roberts Bay	P4	MT	-	3	5-Sep-10	P4-256	FS	107	8	0.65	-	-	-	-	-	-
Roberts Bay	P4	MT	-	15	5-Sep-10	P4-257	FS	93	5	0.62	-	-	-	-	-	-
Roberts Bay	P4	LL	-	3	5-Sep-10	P4-258	GC	379	589	1.08	-	-	X	X	3	-
Roberts Bay	P4	MT	-	23	7-Sep-10	P4-271	FS	106	9.3	0.78	-	-	-	-	-	-
Roberts Bay	P4	MT	-	28	7-Sep-10	P4-272	FS	102	8.3	0.78	-	-	-	-	-	-
Roberts Bay	P4	MT	-	29	7-Sep-10	P4-273	FS	85	6.1	0.99	-	-	-	-	-	-
Roberts Bay	P4	GN	F	3	7-Sep-10	P4-274	AC	190	101	1.47	-	-	X	X	3	-
Roberts Bay	P4	GN	F	3	7-Sep-10	P4-275	AC	176	116	2.13	-	-	X	X	3	-
Roberts Bay	P4	GN	S	3	7-Sep-10	P4-276	SC	133	9	0.38	-	-	-	-	-	-
Roberts Bay	P4	GN	S	3	7-Sep-10	P4-277	SC	127	10	0.49	-	-	-	-	-	-
Roberts Bay	P4	GN	S	4	7-Sep-10	P4-279	PH	181	31	0.52	X	X	X	X	4	-
Roberts Bay	P4	GN	S	4	7-Sep-10	P4-280	PH	280	224	1.02	X	X	X	-	13	-
Roberts Bay	P4	GN	S	4	7-Sep-10	P4-281	GC	310	528	1.77	-	-	X	X	3	-
Roberts Bay	P4	GN	S	4	7-Sep-10	P4-282	GC	429	903	1.14	-	-	-	-	4	-
Roberts Bay	P4	LL	-	3	8-Sep-10	P4-289	GC	492	1,465	1.23	-	-	X	X	4	-
Roberts Bay	P4	BS	-	2	8-Sep-10	P4-290	FS	42	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	2	8-Sep-10	P4-291	FS	51	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	3	8-Sep-10	P4-292	FS	50	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	3	8-Sep-10	P4-293	FS	52	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	3	8-Sep-10	P4-294	FS	51	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	3	8-Sep-10	P4-295	FS	47	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	3	8-Sep-10	P4-296	FS	42	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	3	8-Sep-10	P4-297	FS	51	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	3	8-Sep-10	P4-298	FS	55	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	3	8-Sep-10	P4-299	FS	54	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	3	8-Sep-10	P4-300	FS	57	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	3	8-Sep-10	P4-301	FS	46	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	3	8-Sep-10	P4-302	FS	50	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	3	8-Sep-10	P4-303	FS	47	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	3	8-Sep-10	P4-304	FS	45	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	4	8-Sep-10	P4-305	FS	96	6	0.68	-	-	-	-	-	-
Roberts Bay	P4	BS	-	4	8-Sep-10	P4-306	FS	48	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	4	8-Sep-10	P4-307	NS	36	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	5	8-Sep-10	P4-308	FS	40	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	5	8-Sep-10	P4-309	FS	106	7	0.59	-	-	-	-	-	-
Roberts Bay	P4	BS	-	5	8-Sep-10	P4-310	FS	109	8	0.62	-	-	-	-	-	-
Roberts Bay	P4	BS	-	5	8-Sep-10	P4-311	FS	49	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	5	8-Sep-10	P4-312	FS	147	16	0.50	-	-	-	-	-	-

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Location	Site	Method	Type	#								Otolith	Scales	Fin Clip		
Roberts Bay	P4	BS	-	5	8-Sep-10	P4-313	FS	107	4	0.33	-	-	-	-	-	-
Roberts Bay	P4	BS	-	5	8-Sep-10	P4-314	FS	61	2	0.88	-	-	-	-	-	-
Roberts Bay	P4	BS	-	5	8-Sep-10	P4-315	FS	46	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	5	8-Sep-10	P4-316	FS	47	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	5	8-Sep-10	P4-317	FS	46	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	6	8-Sep-10	P4-318	FS	47	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	6	8-Sep-10	P4-319	FS	53	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	6	8-Sep-10	P4-320	FS	45	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	6	8-Sep-10	P4-321	FS	51	<1	-	-	-	-	-	-	-
Roberts Bay	P4	BS	-	6	8-Sep-10	P4-322	FS	48	<1	-	-	-	-	-	-	-
Roberts Bay	P4	GN	S	4	18-Sep-10	P4-323	FS	365	519	1.07	-	-	-	-	-	-
Roberts Bay	P4	GN	S	4	18-Sep-10	P4-325	PH	178	48	0.85	X	-	-	-	-	-
Roberts Bay	P4	GN	S	5	18-Sep-10	P4-326	GC	470	935	0.90	-	-	-	-	-	Recent Fin Clip
Roberts Bay	P4	GN	S	5	18-Sep-10	P4-327	GC	371	537	1.05	-	-	-	-	-	-
Roberts Bay	P4	GN	S	5	18-Sep-10	P4-328	GC	335	408	1.09	-	-	-	-	-	-
Roberts Bay	P4	GN	S	6	19-Sep-10	P4-329	SC	312	243	0.80	-	-	-	-	-	-
Roberts Bay	P4	GN	S	6	19-Sep-10	P4-330	SC	307	232	0.80	-	-	-	-	-	-
Roberts Bay	P4	GN	S	6	19-Sep-10	P4-331	PH	271	200	1.00	-	-	-	-	-	-
Roberts Bay	P4	GN	S	6	19-Sep-10	P4-332	PH	185	55	0.87	X	-	-	-	-	-
Roberts Bay	P4	GN	S	6	19-Sep-10	P4-333	PH	267	237	1.25	-	-	-	-	-	-
Roberts Bay	P4	GN	S	6	19-Sep-10	P4-334	PH	179	53	0.92	-	-	-	-	-	-
Roberts Bay	P4	GN	S	6	19-Sep-10	P4-335	PH	191	61	0.88	-	-	-	-	-	-
Roberts Bay	P4	GN	S	6	19-Sep-10	P4-336	AF	140	29	1.06	-	-	-	-	-	-
Roberts Bay	P4	GN	S	6	19-Sep-10	P4-337	PH	279	55	0.25	-	-	-	-	-	-
Roberts Bay	P5	GN	F	3	18-Aug-10	P5-032	AC	172	46	0.90	-	-	X	X	2	-
Roberts Bay	P5	GN	F	3	18-Aug-10	P5-033	PH	267	232	1.22	X	X	X	X	10	-
Roberts Bay	P5	GN	F	3	18-Aug-10	P5-034	PH	260	180	1.02	X	X	X	X	10	-
Roberts Bay	P5	GN	F	3	18-Aug-10	P5-035	PH	263	179	0.98	X	X	X	X	11	-
Roberts Bay	P5	GN	F	3	18-Aug-10	P5-036	PH	257	189	1.11	X	X	X	X	8	-
Roberts Bay	P5	GN	F	3	18-Aug-10	P5-037	PH	152	27	0.77	X	-	-	X	10	-
Roberts Bay	P5	GN	F	3	18-Aug-10	P5-038	PH	182	54	0.90	X	X	X	X	4	-
Roberts Bay	P5	GN	F	4	19-Aug-10	P5-048	PH	283	233	1.03	X	X	X	X	9	-
Roberts Bay	P5	GN	S	4	19-Aug-10	P5-049	SS	277	257	1.21	-	-	-	-	-	-
Roberts Bay	P5	GN	F	6	19-Aug-10	P5-064	AC	246	170	1.14	-	-	X	X	4	-
Roberts Bay	P5	MT	-	-	19-Aug-10	P5-066	BG	213	41	0.42	-	-	-	-	-	-
Roberts Bay	P5	MT	-	-	19-Aug-10	P5-067	AS	113	11	0.76	-	-	-	-	-	-
Roberts Bay	P5	GN	S	1	18-Sep-10	P5-073	GC	297	276	1.05	-	-	-	-	-	-
Roberts Bay	P5	GN	S	1	18-Sep-10	P5-074	FS	225	105	0.92	-	-	-	-	-	-
Roberts Bay	P5	LL	-	1	18-Sep-10	P5-076	GC	420	896	1.21	-	-	-	-	-	-
Roberts Bay	P5	MT	-	10	20-Sep-10	P5-077	AS	118	7	0.43	-	-	-	-	-	-

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AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

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Appendix 3.2-7. Biological Data for Fish Sampled in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Location		Gear			Date	Sample #	Species	Length (mm)	Weight (g)	Condition	Stomach Samples	Aging Structures			Age (years)	Comment
Location	Site	Method	Type	#								Otolith	Scales	Fin Clip		
Roberts Bay	P5	MT	-	8	21-Sep-10	P5-107	AS	86	5	0.79	-	-	-	-	-	-
Roberts Bay	P5	MT	-	8	21-Sep-10	P5-108	AS	144	19	0.64	-	-	-	-	-	-
Roberts Bay	P5	MT	-	8	21-Sep-10	P5-109	AS	106	8	0.67	-	-	-	-	-	-
Reference Bay	REF	GN	F	1	13-Aug-10	Ref-001	AC	389	604	1.03	-	X	X	X	4	-
Reference Bay	REF	GN	S	1	13-Aug-10	Ref-002	LT	557	-	-	-	-	X	X	24	-
Reference Bay	REF	GN	S	1	13-Aug-10	Ref-003	PH	277	229	1.08	-	-	X	X	10	-
Reference Bay	REF	GN	S	1	13-Aug-10	Ref-004	PH	249	175	1.13	-	-	X	X	7	-
Reference Bay	REF	GN	S	1	13-Aug-10	Ref-005	SS	330	358	1.00	-	-	-	-	-	-
Reference Bay	REF	GN	S	1	13-Aug-10	Ref-006	FS	317	237	0.74	-	-	-	-	-	-
Reference Bay	REF	GN	S	1	13-Aug-10	Ref-007	FS	300	165	0.61	-	-	-	-	-	-
Reference Bay	REF	GN	S	1	13-Aug-10	Ref-008	FS	229	64	0.53	-	-	-	-	-	-
Reference Bay	REF	GN	S	1	13-Aug-10	Ref-009	FS	202	68	0.83	-	-	-	-	-	-
Reference Bay	REF	GN	S	1	13-Aug-10	Ref-010	FS	233	131	1.04	-	-	-	-	-	-
Reference Bay	REF	GN	S	1	13-Aug-10	Ref-011	FS	213	89	0.92	-	-	-	-	-	-
Reference Bay	REF	GN	S	1	13-Aug-10	Ref-012	FS	211	61	0.65	-	-	-	-	-	-
Reference Bay	REF	GN	S	1	13-Aug-10	Ref-013	FS	308	275	0.94	-	-	-	-	-	-
Reference Bay	REF	GN	S	1	13-Aug-10	Ref-014	FS	309	174	0.59	-	-	-	-	-	-
Reference Bay	REF	GN	S	1	13-Aug-10	Ref-015	FS	233	103	0.81	-	-	-	-	-	-
Reference Bay	REF	GN	S	1	13-Aug-10	Ref-016	FS	240	94	0.68	-	-	-	-	-	-
Reference Bay	REF	GN	S	1	13-Aug-10	Ref-017	LD	129	11	0.51	-	-	-	-	-	-
Reference Bay	REF	GN	S	1	13-Aug-10	Ref-018	AC	495	1,348	1.11	-	X	X	X	6	-
Reference Bay	REF	GN	S	1	13-Aug-10	Ref-019	AC	462	1,089	1.10	-	X	X	X	6	-
Reference Bay	REF	GN	S	2	13-Aug-10	Ref-020	SC	149	12	0.36	-	-	-	-	3	-
Reference Bay	REF	GN	S	2	13-Aug-10	Ref-021	SC	282	106	0.47	-	-	-	-	-	-
Reference Bay	REF	GN	S	2	13-Aug-10	Ref-022	AC	326	338	0.98	-	X	X	X	5	-
Reference Bay	REF	GN	S	2	13-Aug-10	Ref-023	AC	351	373	0.86	-	X	X	X	4	-
Reference Bay	REF	GN	S	2	13-Aug-10	Ref-024	PH	289	267	1.11	-	-	-	-	-	-
Reference Bay	REF	GN	S	2	13-Aug-10	Ref-025	SS	345	348	0.85	-	-	-	-	-	-
Reference Bay	REF	GN	S	2	13-Aug-10	Ref-026	FS	267	138	0.73	-	-	-	-	-	-
Reference Bay	REF	GN	S	2	13-Aug-10	Ref-027	FS	177	36	0.65	-	-	-	-	-	-
Reference Bay	REF	GN	S	2	13-Aug-10	Ref-028	FS	255	105	0.63	-	-	-	-	-	-
Reference Bay	REF	GN	S	2	13-Aug-10	Ref-029	SS	318	235	0.73	-	-	-	-	-	-
Reference Bay	REF	GN	S	2	13-Aug-10	Ref-030	SS	283	195	0.86	-	-	-	-	-	-
Reference Bay	REF	GN	S	3	13-Aug-10	Ref-032	SS	390	747	1.26	-	-	-	-	-	-
Reference Bay	REF	GN	S	3	13-Aug-10	Ref-033	FS	297	188	0.72	-	-	-	-	-	-
Reference Bay	REF	GN	S	3	13-Aug-10	Ref-034	PH	252	91	0.57	-	-	X	X	9	-
Reference Bay	REF	GN	S	3	13-Aug-10	Ref-035	PH	262	105	0.58	-	-	X	X	9	-
Reference Bay	REF	GN	S	3	13-Aug-10	Ref-036	PH	276	140	0.67	-	-	X	X	10	-
Reference Bay	REF	GN	S	3	13-Aug-10	Ref-037	PH	272	142	0.71	-	-	X	X	11	-
Reference Bay	REF	GN	S	3	13-Aug-10	Ref-038	PH	241	137	0.98	-	-	X	X	9	-

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Appendix 3.2-7. Biological Data for Fish Sampled in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Location		Gear			Date	Sample #	Species	Length (mm)	Weight (g)	Condition	Stomach Samples	Aging Structures			Age (years)	Comment
Location	Site	Method	Type	#								Otolith	Scales	Fin Clip		
Reference Bay	REF	GN	F	4	13-Aug-10	Ref-039	AC	279	280	1.29	-	-	X	X	4	-
Reference Bay	REF	BS	-	1	14-Aug-10	Ref-041	AF	54	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	1	14-Aug-10	Ref-042	AF	47	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	1	14-Aug-10	Ref-043	AF	49	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	1	14-Aug-10	Ref-044	FS	30	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	1	14-Aug-10	Ref-045	FS	29	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	1	14-Aug-10	Ref-046	FS	37	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	1	14-Aug-10	Ref-047	FS	36	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	1	14-Aug-10	Ref-048	FS	31	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	1	14-Aug-10	Ref-049	FS	35	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	1	14-Aug-10	Ref-050	FS	37	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	1	14-Aug-10	Ref-051	FS	40	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	1	14-Aug-10	Ref-052	FS	33	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	1	14-Aug-10	Ref-053	FS	37	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	1	14-Aug-10	Ref-054	FS	33	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	1	14-Aug-10	Ref-055	FS	35	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	1	14-Aug-10	Ref-056	FS	30	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	1	14-Aug-10	Ref-057	FS	34	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	2	14-Aug-10	Ref-058	FS	74	4.6	1.14	-	-	-	-	-	-
Reference Bay	REF	BS	-	2	14-Aug-10	Ref-059	FS	73	3.6	0.93	-	-	-	-	-	-
Reference Bay	REF	BS	-	2	14-Aug-10	Ref-060	FS	37	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	2	14-Aug-10	Ref-061	FS	30	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	2	14-Aug-10	Ref-062	FS	36	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	2	14-Aug-10	Ref-063	FS	32	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	2	14-Aug-10	Ref-064	FS	30	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	2	14-Aug-10	Ref-065	FS	36	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	2	14-Aug-10	Ref-066	FS	36	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	2	14-Aug-10	Ref-067	FS	35	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	2	14-Aug-10	Ref-068	FS	34	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	2	14-Aug-10	Ref-069	FS	33	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	2	14-Aug-10	Ref-070	FS	31	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	2	14-Aug-10	Ref-071	FS	34	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	3	14-Aug-10	Ref-072	FS	39	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	3	14-Aug-10	Ref-073	FS	30	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	3	14-Aug-10	Ref-074	FS	36	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	3	14-Aug-10	Ref-075	FS	28	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	3	14-Aug-10	Ref-076	FS	33	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	3	14-Aug-10	Ref-077	FS	32	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	3	14-Aug-10	Ref-078	FS	36	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	4	14-Aug-10	Ref-079	FS	33	-	-	-	-	-	-	-	-

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Appendix 3.2-7. Biological Data for Fish Sampled in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Location		Gear			Date	Sample #	Species	Length (mm)	Weight (g)	Condition	Stomach Samples	Aging Structures			Age (years)	Comment
Location	Site	Method	Type	#								Otolith	Scales	Fin Clip		
Reference Bay	REF	BS	-	4	14-Aug-10	Ref-080	AF	50	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	4	14-Aug-10	Ref-081	FS	35	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	4	14-Aug-10	Ref-082	FS	32	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	4	14-Aug-10	Ref-083	FS	32	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	4	14-Aug-10	Ref-084	FS	46	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	4	14-Aug-10	Ref-085	FS	32	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	4	14-Aug-10	Ref-086	FS	31	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	4	14-Aug-10	Ref-087	FS	30	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	4	14-Aug-10	Ref-088	FS	34	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	4	14-Aug-10	Ref-089	FS	32	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	4	14-Aug-10	Ref-090	FS	36	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	4	14-Aug-10	Ref-091	FS	29	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	5	14-Aug-10	Ref-092	AF	53	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	5	14-Aug-10	Ref-093	AF	54	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	5	14-Aug-10	Ref-094	AF	50	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	5	14-Aug-10	Ref-095	AF	53	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	5	14-Aug-10	Ref-096	AF	51	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	5	14-Aug-10	Ref-097	AF	52	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	5	14-Aug-10	Ref-098	AF	44	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	5	14-Aug-10	Ref-099	SF	143	41.8	1.43	-	-	-	-	-	-
Reference Bay	REF	BS	-	5	14-Aug-10	Ref-100	FS	34	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	5	14-Aug-10	Ref-101	FS	31	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	5	14-Aug-10	Ref-102	FS	31	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	5	14-Aug-10	Ref-103	FS	33	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	5	14-Aug-10	Ref-104	FS	33	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	5	14-Aug-10	Ref-105	FS	30	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	5	14-Aug-10	Ref-106	FS	34	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	5	14-Aug-10	Ref-107	FS	35	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	5	14-Aug-10	Ref-108	FS	36	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	5	14-Aug-10	Ref-109	AF	19	-	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	5	14-Aug-10	Ref-110	AF	17	-	-	-	-	-	-	-	-
Reference Bay	REF	AN	-	1	14-Aug-10	Ref-111	SF	388	465	0.80	-	-	-	-	-	-
Reference Bay	REF	CT	-	4	14-Aug-10	Ref-126	FS	240	92	0.67	-	-	-	-	-	-
Reference Bay	REF	CT	-	5	14-Aug-10	Ref-127	FS	288	133	0.56	-	-	-	-	-	-
Reference Bay	REF	CT	-	6	14-Aug-10	Ref-128	FS	291	137	0.56	-	-	-	-	-	-
Reference Bay	REF	GN	S	5	14-Aug-10	Ref-129	PH	262	175	0.97	-	-	-	-	-	-
Reference Bay	REF	GN	S	5	14-Aug-10	Ref-130	PH	268	131	0.68	-	-	-	-	-	-
Reference Bay	REF	GN	S	5	14-Aug-10	Ref-131	SS	331	334	0.92	-	-	-	-	-	-
Reference Bay	REF	GN	S	6	14-Aug-10	Ref-133	PH	262	215	1.20	-	-	-	-	-	-
Reference Bay	REF	GN	S	6	14-Aug-10	Ref-134	FS	237	150	1.13	-	-	-	-	-	-

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Location	Site	Method	Type	#								Otolith	Scales	Fin Clip		
Reference Bay	REF	GN	S	6	14-Aug-10	Ref-135	SS	288	349	1.46	-	-	-	-	-	-
Reference Bay	REF	GN	S	6	14-Aug-10	Ref-136	FS	260	223	1.27	-	-	-	-	-	-
Reference Bay	REF	GN	S	6	14-Aug-10	Ref-137	FS	214	-	-	-	-	-	-	-	-
Reference Bay	REF	GN	S	6	14-Aug-10	Ref-138	FS	229	-	-	-	-	-	-	-	-
Reference Bay	REF	GN	S	6	14-Aug-10	Ref-139	FS	208	-	-	-	-	-	-	-	-
Reference Bay	REF	GN	S	6	14-Aug-10	Ref-140	SS	342	-	-	-	-	-	-	-	-
Reference Bay	REF	GN	F	3	22-Sep-10	Ref-183	PH	-	-	-	-	-	-	-	-	Fell off GN before measured
Reference Bay	REF	GN	S	3	22-Sep-10	Ref-184	SC	275	150	0.72	-	-	-	-	-	-
Reference Bay	REF	GN	S	3	22-Sep-10	Ref-185	PH	323	350	1.04	X	-	X	X	10	-
Reference Bay	REF	GN	S	3	22-Sep-10	Ref-186	FS	275	187	0.90	-	-	-	-	-	-
Reference Bay	REF	GN	S	3	22-Sep-10	Ref-187	FS	262	178	0.99	-	-	-	-	-	-
Reference Bay	REF	GN	S	3	22-Sep-10	Ref-188	FS	235	130	1.00	-	-	-	-	-	-
Reference Bay	REF	GN	S	2	22-Sep-10	Ref-189	FS	270	231	1.17	-	-	-	-	-	-
Reference Bay	REF	GN	S	2	22-Sep-10	Ref-190	FS	332	394	1.08	-	-	-	-	-	-
Reference Bay	REF	GN	S	2	22-Sep-10	Ref-191	FS	290	278	1.14	-	-	-	-	-	-
Reference Bay	REF	GN	S	2	22-Sep-10	Ref-192	FS	300	310	1.15	-	-	-	-	-	-
Reference Bay	REF	GN	S	2	22-Sep-10	Ref-193	FS	315	322	1.03	-	-	-	-	-	-
Reference Bay	REF	GN	S	2	22-Sep-10	Ref-194	SS	255	229	1.38	-	-	-	-	-	-
Reference Bay	REF	GN	S	3	22-Sep-10	Ref-195	SC	170	36	0.73	-	-	-	-	-	-
Reference Bay	REF	GN	S	3	23-Sep-10	Ref-196	FS	288	296	1.24	-	-	-	-	-	-
Reference Bay	REF	GN	S	3	23-Sep-10	Ref-197	FS	300	290	1.07	-	-	-	-	-	-
Reference Bay	REF	GN	S	3	23-Sep-10	Ref-198	FS	256	192	1.14	-	-	-	-	-	-
Reference Bay	REF	GN	S	4	23-Sep-10	Ref-199	FS	292	321	1.29	-	-	-	-	-	-
Reference Bay	REF	GN	S	4	23-Sep-10	Ref-200	FS	255	190	1.15	-	-	-	-	-	-
Reference Bay	REF	GN	S	4	23-Sep-10	Ref-201	FS	254	178	1.09	-	-	-	-	-	-
Reference Bay	REF	GN	S	4	23-Sep-10	Ref-202	FS	198	80	1.03	-	-	-	-	-	-
Reference Bay	REF	GN	S	4	23-Sep-10	Ref-203	SS	372	580	1.13	-	-	-	-	-	-
Reference Bay	REF	GN	F	5	23-Sep-10	Ref-204	AC	268	210	1.09	-	-	X	X	4	-
Reference Bay	REF	GN	F	5	23-Sep-10	Ref-205	SC	123	16	0.86	-	-	-	-	-	-
Reference Bay	REF	GN	F	5	23-Sep-10	Ref-206	FS	195	92	1.24	-	-	-	-	-	-
Reference Bay	REF	GN	F	5	23-Sep-10	Ref-207	FS	258	180	1.05	-	-	-	-	-	-
Reference Bay	REF	CT	-	1	23-Sep-10	Ref-208	SC	155	24	0.64	-	-	-	-	-	-
Reference Bay	REF	BS	-	4	24-Sep-10	Ref-210A	FS	55	<1	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	4	24-Sep-10	Ref-210B	AF	51	<1	-	-	-	-	-	-	-
Reference Bay	REF	BS	-	6	24-Sep-10	Ref-211	NS	56	<1	-	-	-	-	-	-	-
Reference Bay	REF	MT	-	22	24-Sep-10	Ref-221	FS	54	2	1.27	-	-	-	-	-	-
Reference Bay	P4	MT	-	3	17-Aug-10	-	AS	74	-	-	-	-	-	-	-	Traps lost and found at later date
Reference Bay	P4	MT	-	4	17-Aug-10	-	AS	115	-	-	-	-	-	-	-	Traps lost and found at later date
Reference Bay	REF	CT	-	12	15-Aug-10	-	AS	-	-	-	-	-	-	-	-	-
Reference Bay	P4	MT	-	0	12-Aug-10	-	FS	-	-	-	-	-	-	-	-	-
Reference Bay	P4	MT	-	10	12-Aug-10	-	FS	-	-	-	-	-	-	-	-	-

Notes:

Gear: GN = Gillnet; LL = Longline; BS = Beach Seine; MT = Minnow Trap; CT = Crab Trap

Type: S = Sinking; F = Floating

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

Unidentified Fish were Poacher, Sandlance, and Snailfish

Appendix 3.2-8

Summary Statistics of Effort, Catch, and Catch-per-Unit-Effort used in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Appendix 3.2-8(a). Summary Statistics of Effort, Catch, and Catch-per-Unit-Effort for Floating Gillnets used in Roberts and Reference Bay, Hope Bay Belt Project, 2010

Location	Site	Sampling Period	Number Gillnets Set	Total Effort (hrs)	Total Species Catch																
					AC	AF	AS	BG	CP	FL	GC	LD	LT	PH	SC	SF	FS	SS	NS	Unid.	All Species
Roberts Bay	P1	Early	5	8.03	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
Roberts Bay	P1	Late	6	11.78	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Roberts Bay	P2	Early	5	10.95	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Roberts Bay	P2	Late	6	31.77	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Roberts Bay	P3	Early	5	9.03	2	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	4
Roberts Bay	P3	Late	6	14.32	4	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	6
Roberts Bay	P4	Early	5	12.67	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Roberts Bay	P4	Late	6	8.63	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Roberts Bay	P5	Early	6	8.83	2	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	9
Roberts Bay	P5	Late	6	12.73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reference Bay	REF	Early	6	12.58	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Reference Bay	REF	Late	5	13.67	1	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	5

Appendix 3.2-8(a). Summary Statistics of Effort, Catch, and Catch-per-Unit-Effort for Floating Gillnets used in Roberts and Reference Bay, Hope Bay Belt Project, 2010

		Mean CPUE (fish/100m ² /hr)																																	
Location	Site	AC		AF		AS		BF		CP		FL		GC		LD		LT		PH		SC		SF		FS		SS		NS		Unid.		All Species	
		Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE		
Roberts Bay	P1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08	
Roberts Bay	P1	0.22	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.10		
Roberts Bay	P2	0.17	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.13		
Roberts Bay	P2	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04		
Roberts Bay	P3	0.12	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.06	0.11	0.11	0.00	0.00	0.12	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.25		
Roberts Bay	P3	0.15	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.06		
Roberts Bay	P4	0.14	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.06		
Roberts Bay	P4	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10		
Roberts Bay	P5	0.06	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.25		
Roberts Bay	P5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Reference Bay	REF	0.06	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.04		
Reference Bay	REF	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.03	0.03	0.00	0.00	0.06	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.12	

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

SE = Standard error of the mean.

Appendix 3.2-8(b). Summary Statistics of Effort, Catch, and Catch-per-Unit-Effort for Sinking Gillnets used in Roberts and Reference Bay, Hope Bay Belt Project, 2010

Location	Site	Sampling Period	Number Gillnets Set	Total Effort (hrs)	Total Species Catch																
					AC	AF	AS	BG	CP	FL	GC	LD	LT	PH	SC	SF	FS	SS	NS	Unid.	All Species
Roberts Bay	P1	Early	6	7.03	1	3	0	0	0	0	3	3	0	0	6	0	9	2	0	0	27
Roberts Bay	P1	Late	6	9.48	0	0	0	0	0	0	10	0	0	0	2	1	10	2	0	0	25
Roberts Bay	P2	Early	6	10.08	5	0	0	0	0	0	5	7	1	32	15	1	11	1	1	0	79
Roberts Bay	P2	Late	6	8.78	7	1	0	0	0	0	1	3	0	7	3	0	11	0	0	1	34
Roberts Bay	P3	Early	6	9.68	11	1	0	0	0	0	23	4	0	11	1	1	5	1	0	0	58
Roberts Bay	P3	Late	6	13.80	0	4	0	0	0	0	3	0	0	9	21	0	8	2	0	0	47
Roberts Bay	P4	Early	5	13.17	3	0	0	0	0	0	2	0	0	0	0	0	3	0	0	1	9
Roberts Bay	P4	Late	6	8.28	0	1	0	0	0	0	5	0	0	9	4	0	1	0	0	0	20
Roberts Bay	P5	Early	6	9.88	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Roberts Bay	P5	Late	6	13.02	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	2
Reference Bay	REF	Early	6	12.35	4	0	0	0	0	0	0	2	1	11	2	0	22	5	0	0	47
Reference Bay	REF	Late	5	13.55	0	0	0	0	0	0	0	0	0	1	2	0	15	2	0	0	20

Appendix 3.2-8(b). Summary Statistics of Effort, Catch, and Catch-per-Unit-Effort for Sinking Gillnets used in Roberts and Reference Bay, Hope Bay Belt Project, 2010

		Mean CPUE (fish/100m ² /hr)																																	
Location	Site	AC		AF		AS		BF		CP		FL		GC		LD		LT		PH		SC		SF		FS		SS		NS		Unid.		All Species	
		Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE		
Roberts Bay	P1	0.05	0.05	0.14	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.08	0.16	0.10	0.00	0.00	0.00	0.00	0.27	0.12	0.00	0.00	0.41	0.15	0.10	0.06	0.00	0.00	0.00	0.00	1.24	0.36
Roberts Bay	P1	0.25	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.05	0.03	0.03	0.37	0.12	0.08	0.08	0.00	0.00	0.00	0.00	0.94	0.27
Roberts Bay	P2	0.16	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.07	0.26	0.09	0.03	0.03	1.25	0.68	0.64	0.32	0.05	0.05	0.43	0.15	0.03	0.03	0.05	0.05	0.00	0.00	3.04	0.94
Roberts Bay	P2	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.15	0.11	0.00	0.00	0.31	0.14	0.13	0.09	0.00	0.00	0.56	0.38	0.00	0.00	0.00	0.00	0.05	0.05	1.70	0.98
Roberts Bay	P3	0.45	0.22	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.93	0.42	0.16	0.08	0.00	0.00	0.44	0.28	0.04	0.04	0.04	0.19	0.10	0.04	0.04	0.00	0.00	0.00	0.00	2.32	0.50	
Roberts Bay	P3	0.15	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.05	0.00	0.00	0.00	0.00	0.22	0.09	0.59	0.18	0.00	0.00	0.19	0.10	0.08	0.05	0.00	0.00	0.00	0.00	1.25	0.11
Roberts Bay	P4	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.05	0.00	0.00	0.00	0.00	0.05	0.05	0.34	0.10
Roberts Bay	P4	0.18	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.17	0.00	0.00	0.00	0.00	0.52	0.37	0.22	0.14	0.00	0.00	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00	1.11	0.52
Roberts Bay	P5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.00	0.00	0.00	0.00	0.04	0.04
Roberts Bay	P5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.06
Reference Bay	REF	0.11	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.05	0.03	0.03	0.34	0.13	0.05	0.05	0.00	0.00	0.64	0.31	0.15	0.08	0.00	0.00	0.00	0.00	1.36	0.41
Reference Bay	REF	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.00	0.00	0.52	0.21	0.08	0.05	0.00	0.00	0.00	0.00	0.68	0.28

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

SE = Standard error of the mean.

Appendix 3.2-8(c). Summary Statistics of Effort, Catch, and Catch-per-Unit-Effort for Long Lines used in Roberts and Reference Bay, Hope Bay Belt Project, 2010

Location	Site	Sampling Period	Number Long Line Set	Total Effort (hrs)	Total Species Catch																
					AC	AF	AS	BG	CP	FL	GC	LD	LT	PH	SC	SF	FS	SS	NS	Unid.	All Species
Roberts Bay	P1	Early	5	9.80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Roberts Bay	P1	Late	6	51.12	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Roberts Bay	P2	Early	5	14.13	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Roberts Bay	P2	Late	6	112.82	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Roberts Bay	P3	Early	6	19.70	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	2
Roberts Bay	P3	Late	6	20.98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Roberts Bay	P4	Early	5	88.58	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
Roberts Bay	P4	Late	6	119.75	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
Roberts Bay	P5	Early	3	63.83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Roberts Bay	P5	Late	6	18.33	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Reference Bay	REF	Early	4	102.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reference Bay	REF	Late	6	15.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Appendix 3.2-8(c). Summary Statistics of Effort, Catch, and Catch-per-Unit-Effort for Long Lines used in Roberts and Reference Bay, Hope Bay Belt Project, 2010

Location		Mean CPUE (fish/100m ² /hr)																																	
		AC		AF		AS		BF		CP		FL		GC		LD		LT		PH		SC		SF		FS		SS		NS		Unid.		All Species	
		Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE		
Roberts Bay	P1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Roberts Bay	P1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.47
Roberts Bay	P2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.12	
Roberts Bay	P2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.06	
Roberts Bay	P3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.06	0.00	0.00	0.00	0.00	0.00	0.12	0.12	
Roberts Bay	P3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Roberts Bay	P4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.27	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.27	0.79	
Roberts Bay	P4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84	0.84		
Roberts Bay	P5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Roberts Bay	P5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08		
Reference Bay	REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Reference Bay	REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

SE = Standard error of the mean.

Appendix 3.2-8(d). Summary Statistics of Effort, Catch, and Catch-per-Unit-Effort for Beach Seines used in Roberts and Reference Bay, Hope Bay Belt Project, 2010

Location	Site	Sampling Period	Number Beach Seine Set	Total Effort (hrs)	Total Species Catch																
					AC	AF	AS	BG	CP	FL	GC	LD	LT	PH	SC	SF	FS	SS	NS	Unid.	All Species
Roberts Bay	P1	Early	5		0	3	0	0	0	0	0	0	0	0	2	1	19	0	0	0	25
Roberts Bay	P1	Late	6		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Roberts Bay	P2	Early	2		0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3
Roberts Bay	P2	Late	6		0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
Roberts Bay	P3	Early	5		0	2	0	0	0	0	0	0	0	0	0	0	14	0	3	0	19
Roberts Bay	P3	Late	2		0	0	0	0	0	0	0	0	0	0	0	1	9	0	1	1	12
Roberts Bay	P4	Early	5		0	0	0	0	0	0	0	0	0	0	0	0	36	0	0	1	37
Roberts Bay	P4	Late	6		0	0	0	0	0	0	0	0	0	0	0	0	27	0	1	0	28
Roberts Bay	P5	Early	0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roberts Bay	P5	Late	0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reference Bay	REF	Early	5		0	13	0	0	0	0	0	0	0	0	0	1	56	0	0	0	70
Reference Bay	REF	Late	6		0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3

Appendix 3.2-8(d). Summary Statistics of Effort, Catch, and Catch-per-Unit-Effort for Beach Seines used in Roberts and Reference Bay, Hope Bay Belt Project, 2010

		Mean CPUE (fish/100m ² /hr)																																	
Location	Site	AC		AF		AS		BF		CP		FL		GC		LD		LT		PH		SC		SF		FS		SS		NS		All Species			
		Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE		
Roberts Bay	P1	0.00	0.00	0.42	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.17	0.28	0.17	2.64	0.74	0.00	0.00	0.00	0.00	0.00	0.00	3.47	0.69
Roberts Bay	P1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Roberts Bay	P2	0.00	0.00	0.35	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0.69	0.00	0.00	0.00	0.00	0.00	1.04	1.04	
Roberts Bay	P2	0.00	0.00	0.12	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.24	0.00	0.00	0.00	0.00	0.00	0.58	0.38	
Roberts Bay	P3	0.00	0.00	0.28	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.94	0.74	0.00	0.00	0.42	0.28	0.00	2.64	0.97	
Roberts Bay	P3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.35	3.13	2.43	0.00	0.00	0.35	0.35	0.35	4.17	3.47		
Roberts Bay	P4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	1.96	0.00	0.00	0.00	0.14	0.14	5.14	2.06	
Roberts Bay	P4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.70	1.45	0.00	0.12	0.12	0.00	3.82	1.42		
Roberts Bay	P5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Roberts Bay	P5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Reference Bay	REF	0.00	0.00	1.81	1.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	2.00	0.14	0.14	7.78	0.97	0.00	0.00	0.00	0.00	9.72	1.42		
Reference Bay	REF	0.00	0.00	0.12	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.12	0.00	0.12	0.12	0.00	0.35	0.24		

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

SE = Standard error of the mean.

Appendix 3.2-8(e). Summary Statistics of Effort, Catch, and Catch-per-Unit-Effort for Minnow Traps used in Roberts and Reference Bay, Hope Bay Belt Project, 2010

Location	Site	Sampling Period	Number Minnow Traps Set	Total Effort (hrs)	Total Species Catch																
					AC	AF	AS	BG	CP	FL	GC	LD	LT	PH	SC	SF	FS	SS	NS	Unid.	All Species
Roberts Bay	P1	Early	30	1181.87	0	0	0	0	0	0	0	0	0	0	7	0	1	0	0	0	8
Roberts Bay	P1	Late	30	767.28	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	4
Roberts Bay	P2	Early	10	674.60	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Roberts Bay	P2	Late	30	701.85	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
Roberts Bay	P3	Early	20	1097.30	0	0	3	0	0	0	0	0	0	0	0	0	1	0	0	0	4
Roberts Bay	P3	Late	30	706.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Roberts Bay	P4	Early	10	705.13	0	0	2	0	0	0	0	0	0	0	0	0	3	0	0	0	5
Roberts Bay	P4	Late	30	699.62	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5
Roberts Bay	P5	Early	6	564.75	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2
Roberts Bay	P5	Late	18	387.62	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Reference Bay	REF	Early	17	759.10	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3
Reference Bay	REF	Late	30	730.98	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1

Appendix 3.2-8(e). Summary Statistics of Effort, Catch, and Catch-per-Unit-Effort for Minnow Traps used in Roberts and Reference Bay, Hope Bay Belt Project, 2010

Location		Site		Mean CPUE (fish/100m ² /hr)																																	
				AC		AF		AS		BF		CP		FL		GC		LD		LT		PH		SC		SF		FS		SS		NS		Unid.		All Species	
				Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Roberts Bay	P1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.15	0.00	0.00	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.15		
Roberts Bay	P1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.05	0.00	0.00	0.07	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.07		
Roberts Bay	P2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.28		
Roberts Bay	P2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.05		
Roberts Bay	P3	0.00	0.00	0.00	0.00	0.42	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.43		
Roberts Bay	P3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Roberts Bay	P4	0.00	0.00	0.00	0.00	1.44	0.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.40	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.95		
Roberts Bay	P4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.06		
Roberts Bay	P5	0.00	0.00	0.00	0.00	0.38	0.38	0.38	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.75		
Roberts Bay	P5	0.00	0.00	0.00	0.00	0.23	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.18			
Reference Bay	REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.18		
Reference Bay	REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03		

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

SE = Standard error of the mean.

Appendix 3.2-8(f). Summary Statistics of Effort, Catch, and Catch-per-Unit-Effort for Crab Traps used in Roberts and Reference Bay, Hope Bay Belt Project, 2010

Location	Site	Sampling Period	Number Crab Traps Set	Total Effort (hrs)	Total Species Catch																
					AC	AF	AS	BG	CP	FL	GC	LD	LT	PH	SC	SF	FS	SS	NS	Unid.	All Species
Roberts Bay	P1	Early	15	555.67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Roberts Bay	P1	Late	15	326.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Roberts Bay	P2	Early	5	343.48	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Roberts Bay	P2	Late	15	341.78	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
Roberts Bay	P3	Early	15	335.93	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2
Roberts Bay	P3	Late	16	315.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Roberts Bay	P4	Early	15	330.97	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Roberts Bay	P4	Late	15	441.47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Roberts Bay	P5	Early	10	444.18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Roberts Bay	P5	Late	17	303.62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reference Bay	REF	Early	16	477.40	0	0	1	0	0	0	0	0	0	0	0	3	0	0	0	0	4
Reference Bay	REF	Late	17	350.83	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1

Appendix 3.2-8(f). Summary Statistics of Effort, Catch, and Catch-per-Unit-Effort for Crab Traps used in Roberts and Reference Bay, Hope Bay Belt Project, 2010

Location		Mean CPUE (fish/100m ² /hr)																																	
		AC		AF		AS		BF		CP		FL		GC		LD		LT		PH		SC		SF		FS		SS		NS		Unid.		All Species	
		Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE		
Roberts Bay	P1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Roberts Bay	P1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Roberts Bay	P2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57	0.57
Roberts Bay	P2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.08
Roberts Bay	P3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.06	0.05	0.05	0.00	0.00	0.00	0.00	0.12	0.08
Roberts Bay	P3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Roberts Bay	P4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Roberts Bay	P4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Roberts Bay	P5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Roberts Bay	P5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Reference Bay	REF	0.00	0.00	0.00	0.00	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.17	0.35
Reference Bay	REF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

SE = Standard error of the mean.

Appendix 3.2-9

Biological Data for Fish Sampled in Roberts Bay Trap
Net 1, Hope Bay Belt Project, 2010

Appendix 3.2-9. Biological Data for Fish Sampled in Roberts Bay Trap Net 1, Hope Bay Belt Project, 2010

Location			Water		Length					Aging Structures			Age		Tag Information		Comment
Location	Trap Net #	Fish Crew	Temp.	Date	Time	Sample #	Species	(mm)	Weight (g)	Condition	Otolith	Scales			Fin Clip	Previous Tag	
Roberts Bay	1	EG, EL, KM	-	09/08/2010	7:22 AM	T1-001	AF	240	190	1.37	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	09/08/2010	7:22 AM	T1-002	SC	86	6	0.94	-	X	X	1	-	-	-
Roberts Bay	1	EG, EL, KM	-	09/08/2010	7:22 AM	T1-003	SC	147	19	0.60	-	X	X	2	-	-	-
Roberts Bay	1	EG, EL, KM	-	09/08/2010	7:22 AM	T1-004	SC	102	6	0.57	-	X	X	1	-	-	-
Roberts Bay	1	EG, EL, KM	-	09/08/2010	7:22 AM	T1-005	SC	275	116	0.56	-	X	X	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	09/08/2010	7:22 AM	T1-006	GC	552	2,104	1.25	-	X	X	7	-	-	-
Roberts Bay	1	EG, EL, KM	-	10/08/2010	7:26 AM	T1-007	LT	385	589	1.03	-	X	X	10	N	-	Rob Bay Y10-0001
Roberts Bay	1	EG, EL, KM	-	10/08/2010	7:26 AM	T1-008	LT	300	222	0.82	-	X	X	9	N	-	Rob Bay Y10-0002
Roberts Bay	1	EG, EL, KM	-	10/08/2010	7:26 AM	T1-009	SC	282	135	0.60	-	X	X	2	N	-	Rob Bay Y10-0004
Roberts Bay	1	EG, EL, KM	-	10/08/2010	7:26 AM	T1-010	SC	164	22	0.50	-	X	X	-	N	-	-
Roberts Bay	1	EG, EL, KM	-	10/08/2010	7:26 AM	T1-011	SC	174	24	0.46	-	X	X	-	N	-	-
Roberts Bay	1	EG, EL, KM	-	10/08/2010	7:26 AM	T1-012	SC	82	4	0.73	-	X	X	-	N	-	-
Roberts Bay	1	EG, EL, KM	-	10/08/2010	7:26 AM	T1-013	AF	208	130	1.44	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	10/08/2010	7:26 AM	T1-014	AF	163	54	1.25	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	11/08/2010	8:05 AM	T1-015	SC	96	7.2	0.81	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	11/08/2010	8:05 AM	T1-016	SC	84	2.9	0.49	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	11/08/2010	8:05 AM	T1-017	SC	84	3.2	0.54	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	11/08/2010	8:05 AM	T1-018	SC	99	4.6	0.47	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	11/08/2010	8:05 AM	T1-019	SC	84	2.3	0.39	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	11/08/2010	8:05 AM	T1-020	SC	88	4.1	0.60	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	11/08/2010	8:05 AM	T1-021	SC	87	4.5	0.68	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	11/08/2010	8:05 AM	T1-022	SC	86	4.6	0.72	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	11/08/2010	8:05 AM	T1-023	SC	95	6	0.70	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	11/08/2010	8:05 AM	T1-024	SC	94	6.1	0.73	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	11/08/2010	8:05 AM	T1-025	SC	89	4.1	0.58	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	11/08/2010	8:05 AM	T1-026	SC	106	6.9	0.58	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	11/08/2010	8:05 AM	T1-027	SC	103	5.8	0.53	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	11/08/2010	8:05 AM	T1-028	SC	102	5.9	0.56	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	11/08/2010	8:05 AM	T1-029	SC	103	5	0.46	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	11/08/2010	8:05 AM	T1-030	SC	111	7.8	0.57	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	11/08/2010	8:05 AM	T1-031	SC	85	4.1	0.67	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	11/08/2010	8:05 AM	T1-032	SC	111	8.1	0.59	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	11/08/2010	8:05 AM	T1-033	SC	99	5.2	0.54	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	11/08/2010	8:05 AM	T1-034	SC	106	7.1	0.60	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	11/08/2010	8:05 AM	T1-035	SC	102	6.5	0.61	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	11/08/2010	8:05 AM	T1-036	SC	102	6.5	0.61	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	11/08/2010	8:05 AM	T1-037	SC	95	5.9	0.69	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	11/08/2010	8:05 AM	T1-038	SC	98	6.8	0.72	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	11/08/2010	8:05 AM	T1-039	SC	111	6	0.44	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	11/08/2010	8:05 AM	T1-040	SC	97	5.8	0.64	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	11/08/2010	8:05 AM	T1-041	SC	240	97	0.70	-	X	X	-	N	-	Rob Bay Y10-0005
Roberts Bay	1	EG, EL, KM	-	11/08/2010	8:05 AM	T1-042	SC	164	29.9	0.68	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	11/08/2010	8:05 AM	T1-043	SC	136	14.3	0.57	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	11/08/2010	8:05 AM	T1-044	SC	139	16.8	0.63	-	X	X	1	-	-	-
Roberts Bay	1	EG, EL, KM	-	11/08/2010	8:05 AM	T1-045	FS	148	28.8	0.89	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	11/08/2010	8:05 AM	T1-046	AF	164	51.9	1.18	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	11/08/2010	9:48 AM	T1-047	AF	166	63.8	1.39	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	13/08/2010	5:00 PM	T1-048	SC	211	-	-	-	-	-	-	-	-	-

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

Appendix 3.2-9. Biological Data for Fish Sampled in Roberts Bay Trap Net 1, Hope Bay Belt Project, 2010

Location			Water				Length				Aging Structures					Tag Information		Comment
Location	Trap Net #	Fish Crew	Temp.	Date	Time	Sample #	Species	(mm)	Weight (g)	Condition	Otolith	Scales	Fin Clip	Age	Recap.	Previous Tag	New Tag	
Roberts Bay	1	EG, EL, KM	-	13/08/2010	5:00 PM	T1-049	SC	304	-	-	-	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	13/08/2010	5:00 PM	T1-050	SC	159	-	-	-	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	13/08/2010	5:00 PM	T1-051	SC	168	-	-	-	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	13/08/2010	5:00 PM	T1-052	SC	91	-	-	-	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	13/08/2010	5:00 PM	T1-053	SC	90	-	-	-	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	13/08/2010	5:00 PM	T1-054	SC	94	-	-	-	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	13/08/2010	5:00 PM	T1-055	SC	76	-	-	-	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	13/08/2010	5:00 PM	T1-056	SC	104	-	-	-	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	13/08/2010	5:00 PM	T1-057	SC	74	-	-	-	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	13/08/2010	5:00 PM	T1-058	SC	140	-	-	-	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	13/08/2010	5:00 PM	T1-059	SC	119	-	-	-	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	13/08/2010	5:00 PM	T1-060	LT	334	-	-	-	X	X	12	-	-	Rob Bay Y10-0009	-
Roberts Bay	1	EG, EL, KM	-	13/08/2010	5:00 PM	T1-061	SC	239	-	-	-	-	-	-	-	-	Rob Bay Y10-0011	-
Roberts Bay	1	EG, EL, KM	-	13/08/2010	5:00 PM	T1-062	SC	247	-	-	-	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	13/08/2010	5:00 PM	T1-063	GC	566	-	-	-	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	13/08/2010	5:00 PM	T1-064	SC	268	-	-	-	-	-	-	-	-	Rob Bay Y10-0014	-
Roberts Bay	1	EG, EL, KM	-	13/08/2010	5:00 PM	T1-065	SC	265	-	-	-	-	-	-	-	-	Rob Bay Y10-0015	-
Roberts Bay	1	EG, EL, KM	-	13/08/2010	5:00 PM	T1-066	LT	332	-	-	-	X	X	10	-	-	Rob Bay Y10-0016	-
Roberts Bay	1	EG, EL, KM	-	14/08/2010	10:00 AM	T1-067	AC	503	-	-	-	X	X	-	N	-	Rob Bay Y10-0031	-
Roberts Bay	1	EG, EL, KM	-	14/08/2010	10:00 AM	T1-068	GC	549	-	-	-	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	14/08/2010	10:00 AM	T1-069	FS	257	-	-	-	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	14/08/2010	10:00 AM	T1-070	LT	198	-	-	-	X	X	4	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	14/08/2010	10:00 AM	T1-071	SC	333	-	-	-	X	X	5	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	14/08/2010	10:00 AM	T1-072	SC	326	-	-	-	X	X	-	-	-	Rob Bay Y10-0032	-
Roberts Bay	1	EG, EL, KM	-	14/08/2010	10:00 AM	T1-073	SC	309	-	-	-	X	X	-	-	-	Rob Bay Y10-0033	-
Roberts Bay	1	EG, EL, KM	-	14/08/2010	10:00 AM	T1-074	SC	263	-	-	-	X	X	4	-	-	Rob Bay Y10-0034	-
Roberts Bay	1	EG, EL, KM	-	14/08/2010	10:00 AM	T1-075	SC	253	-	-	-	X	X	-	-	-	Rob Bay Y10-0035	-
Roberts Bay	1	EG, EL, KM	-	14/08/2010	10:00 AM	T1-076	SC	275	-	-	-	X	X	-	-	-	Rob Bay Y10-0036	-
Roberts Bay	1	EG, EL, KM	-	14/08/2010	10:00 AM	T1-077	SC	296	-	-	-	X	X	4	-	-	Rob Bay Y10-0037	-
Roberts Bay	1	EG, EL, KM	-	14/08/2010	10:00 AM	T1-078	SC	248	-	-	-	X	X	4	-	-	Rob Bay Y10-0038	-
Roberts Bay	1	EG, EL, KM	-	14/08/2010	10:00 AM	T1-079	SC	247	-	-	-	X	X	-	-	-	Rob Bay Y10-0039	-
Roberts Bay	1	EG, EL, KM	-	14/08/2010	10:00 AM	T1-080	SC	275	-	-	-	X	X	-	-	-	Rob Bay Y10-0040	-
Roberts Bay	1	EG, EL, KM	-	14/08/2010	10:00 AM	T1-081	SC	263	-	-	-	X	X	-	-	-	Rob Bay Y10-0041	-
Roberts Bay	1	EG, EL, KM	-	14/08/2010	10:00 AM	T1-082	SC	259	-	-	-	X	X	-	-	-	Rob Bay Y10-0042	-
Roberts Bay	1	EG, EL, KM	-	14/08/2010	10:00 AM	T1-083	SC	256	-	-	-	X	X	-	-	-	Rob Bay Y10-0043	-
Roberts Bay	1	EG, EL, KM	-	14/08/2010	10:00 AM	T1-084	SC	193	-	-	-	X	X	2	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	14/08/2010	10:00 AM	T1-085	SC	167	-	-	-	-	-	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	15/08/2010	3:00 PM	T1-093	GC	586	2,390	1.19	-	X	X	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	15/08/2010	3:00 PM	T1-094	SC	66	8	2.78	-	X	X	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	15/08/2010	3:00 PM	T1-095	SC	113	10	0.69	-	X	X	-	-	-	-	-
Roberts Bay	1	EG, EL, KM	-	15/08/2010	3:00 PM	T1-096	SC	85	8	1.30	-	X	X	-	-	-	-	-
Roberts Bay	1	KM, MV, BP	-	16/08/2010	9:45 AM	T1-097	GC	597	-	-	-	X	X	5	Y	-	-	too big for scale
Roberts Bay	1	KM, MV, BP	-	16/08/2010	9:45 AM	T1-098	GC	460	1279	1.31	-	X	X	-	N	-	-	-
Roberts Bay	1	KM, MV, BP	-	16/08/2010	9:45 AM	T1-099	AF	279	364	1.68	-	X	X	-	-	-	-	-
Roberts Bay	1	KM, MV, BP	-	16/08/2010	9:45 AM	T1-100	AF	210	149	1.61	-	X	X	-	-	-	-	-
Roberts Bay	1	KM, MV, BP	-	16/08/2010	9:45 AM	T1-101	LT	382	616	1.11	-	X	X	9	N	-	Rob Bay Y10-0044	-
Roberts Bay	1	KM, MV, BP	-	16/08/2010	9:45 AM	T1-102	SC	243	98	0.68	-	X	X	4	N	-	-	Too small to tag
Roberts Bay	1	KM, MV, BP	-	16/08/2010	9:45 AM	T1-103	FS	170	41	0.83	-	X	X	-	-	-	-	-

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

Appendix 3.2-9. Biological Data for Fish Sampled in Roberts Bay Trap Net 1, Hope Bay Belt Project, 2010

Location			Water		Length					Aging Structures			Age	Recap.	Tag Information		Comment	
Location	Trap Net #	Fish Crew	Temp.	Date	Time	Sample #	Species	(mm)	Weight (g)	Condition	Otolith	Scales			Fin Clip	Previous Tag		New Tag
Roberts Bay	1	KM, MV, BP	-	16/08/2010	9:45 AM	T1-104	AF	160	60	1.46	-	X	X	-	-	-	-	-
Roberts Bay	1	KM, MV, BP	-	16/08/2010	9:45 AM	T1-105	AF	176	76	1.39	-	X	X	-	-	-	-	-
Roberts Bay	1	KM, MV, BP	-	16/08/2010	9:45 AM	T1-106	AF	166	62	1.36	-	X	X	-	-	-	-	-
Roberts Bay	1	KM, MV, BP	-	16/08/2010	9:45 AM	T1-107	SC	238	98	0.73	-	X	X	3	N	-	-	Too small to tag
Roberts Bay	1	KM, MV, BP	-	16/08/2010	9:45 AM	T1-108	SC	260	119	0.68	-	X	X	-	N	-	Rob Bay Y10-0045	-
Roberts Bay	1	KM, MV, BP	-	18/08/2010	12:00 PM	T1-109	GC	562	1,630	0.92	-	-	-	-	Y	-	-	Recent Pelvic Fin Clip
Roberts Bay	1	KM, MV, BP	-	18/08/2010	12:00 PM	T1-110	SC	238	85	0.63	-	X	X	3	N	-	-	-
Roberts Bay	1	KM, MV, BP	-	18/08/2010	12:00 PM	T1-111	SC	258	111	0.65	-	X	X	-	N	-	Rob Bay Y10-0049	-
Roberts Bay	1	KM, MV, BP	-	18/08/2010	12:00 PM	T1-112	SC	245	113	0.77	-	X	X	-	N	-	Rob Bay Y10-0050	-
Roberts Bay	1	KM, MV, BP	-	19/08/2010	3:15 PM	T1-113	AC	502	1,598	1.26	-	X	X	5	Y	-	Rob Bay Y10-0212	-
Roberts Bay	1	KM, MV, BP	-	19/08/2010	3:15 PM	T1-114	AC	474	1,574	1.48	-	X	X	-	N	-	Rob Bay Y10-0213	-
Roberts Bay	1	KM, MV, BP	-	19/08/2010	3:15 PM	T1-115	SC	272	174	0.86	-	X	X	-	N	-	Rob Bay Y10-0214	-
Roberts Bay	1	KM, MV, BP	-	19/08/2010	3:15 PM	T1-116	SC	241	136	0.97	-	X	X	-	N	-	Rob Bay Y10-0215	-
Roberts Bay	1	KM, MV, BP	-	19/08/2010	3:15 PM	T1-117	SC	264	129	0.70	-	X	X	4	N	-	Rob Bay Y10-0216	-
Roberts Bay	1	KM, MV, BP	-	19/08/2010	3:15 PM	T1-118	AC	308	372	1.27	-	X	X	-	N	-	Rob Bay Y10-0217	-
Roberts Bay	1	KM, MV, BP	-	19/08/2010	3:15 PM	T1-119	SC	242	112	0.79	-	X	X	-	N	-	Rob Bay Y10-0218	-
Roberts Bay	1	KM, MV, BP	-	19/08/2010	3:15 PM	T1-120	SC	172	51	1.00	-	X	X	-	N	-	-	-
Roberts Bay	1	KM, MV, BP	-	19/08/2010	3:15 PM	T1-121	SC	120	24	1.39	-	X	X	1	N	-	-	1 SC escaped
Roberts Bay	1	MS, MV	-	21/08/2010	3:30 PM	T1-122	SC	249	40	0.26	-	X	X	4	N	-	Rob Bay Y10-0219	-
Roberts Bay	1	MS, MV	-	21/08/2010	3:30 PM	T1-123	FS	214	46	0.47	-	-	-	-	-	-	-	-
Roberts Bay	1	MS, MV	-	21/08/2010	3:30 PM	T1-124	FS	98	4	0.42	-	-	-	-	-	-	-	-
Roberts Bay	1	MS, MV	-	21/08/2010	3:30 PM	T1-125	FS	99	4	0.41	-	-	-	-	-	-	-	-
Roberts Bay	1	MS, MV	12	22/08/2010	10:15 AM	T1-126	AC	610	3,000	1.32	-	X	X	6	N	-	Rob Bay Y10-0226	-
Roberts Bay	1	MS, MV	12	22/08/2010	10:15 AM	T1-127	AC	468	976	0.95	-	X	X	6	N	-	Rob Bay Y10-0227	-
Roberts Bay	1	MS, MV	12	22/08/2010	10:15 AM	T1-128	AC	464	865	0.87	-	X	X	-	N	-	Rob Bay Y10-0228	-
Roberts Bay	1	MS, MV	12	22/08/2010	10:15 AM	T1-129	AC	510	1,056	0.80	-	X	X	-	N	-	Rob Bay Y10-0229	-
Roberts Bay	1	MS, MV	12	22/08/2010	10:15 AM	T1-130	AC	494	1,550	1.29	-	X	X	7	N	-	Rob Bay Y10-0230	-
Roberts Bay	1	MS, MV	12	22/08/2010	10:15 AM	T1-131	AC	378	360	0.67	-	X	X	-	Y	Y10-0225	-	Captured August 21 @ T2
Roberts Bay	1	MS, MV	12	22/08/2010	10:15 AM	T1-132	AC	420	581	0.78	-	X	X	5	N	-	Rob Bay Y10-0231	-
Roberts Bay	1	MS, MV	12	22/08/2010	10:15 AM	T1-132B	AC	332	241	0.66	-	X	X	5	N	-	Rob Bay Y10-0234	-
Roberts Bay	1	MS, MV	12	22/08/2010	10:15 AM	T1-133	AC	456	490	0.52	-	X	X	-	N	-	Rob Bay Y10-0232	-
Roberts Bay	1	MS, MV	12	22/08/2010	10:15 AM	T1-133B	AC	419	636	0.86	-	X	X	6	N	-	Rob Bay Y10-0235	-
Roberts Bay	1	MS, MV	12	22/08/2010	10:15 AM	T1-134	AC	456	860	0.91	-	X	X	-	N	-	Rob Bay Y10-0233	-
Roberts Bay	1	MS, MV	12	22/08/2010	10:15 AM	T1-134B	AC	405	476	0.72	-	X	X	-	N	-	Rob Bay Y10-0236	-
Roberts Bay	1	MS, MV	12	22/08/2010	10:15 AM	T1-135	AC	464	867	0.87	-	X	X	-	N	-	Rob Bay Y10-0237	-
Roberts Bay	1	MS, MV	12	22/08/2010	10:15 AM	T1-136	AC	399	330	0.52	-	X	X	4	N	-	Rob Bay Y10-0238	-
Roberts Bay	1	MS, MV	12	22/08/2010	10:15 AM	T1-137	AC	490	1,160	0.99	-	X	X	5	N	-	Rob Bay Y10-0239	-
Roberts Bay	1	MS, MV	12	22/08/2010	10:15 AM	T1-138	AC	446	710	0.80	-	X	X	-	N	-	Rob Bay Y10-0240	-
Roberts Bay	1	MS, MV	12	22/08/2010	10:15 AM	T1-140	AC	526	1,236	0.85	-	X	X	6	N	-	Rob Bay Y10-0241	-
Roberts Bay	1	MS, MV	12	22/08/2010	10:15 AM	T1-141	AC	475	1,096	1.02	-	X	X	5	N	-	Rob Bay Y10-0242	-
Roberts Bay	1	MS, MV	12	22/08/2010	10:15 AM	T1-142	AC	545	1,413	0.87	-	X	X	-	N	-	Rob Bay Y10-0243	-
Roberts Bay	1	MS, SK	12	23/08/2010	10:30 AM	T1-143	GC	557	1,256	0.73	-	-	-	-	Y	-	-	Recent Pelvic Fin Clip
Roberts Bay	1	MS, SK	12	23/08/2010	10:30 AM	T1-144	AC	274	140	0.68	-	X	X	-	N	-	-	Too small to tag
Roberts Bay	1	MS, SK	12	23/08/2010	10:30 AM	T1-145	AC	327	450	1.29	-	X	X	-	N	-	Rob Bay Y10-0245	-
Roberts Bay	1	MS, SK	12	23/08/2010	10:30 AM	T1-146	AC	459	750	0.78	-	X	X	5	N	-	Rob Bay Y10-0246	-
Roberts Bay	1	MS, SK	12	23/08/2010	10:30 AM	T1-147	AC	408	654	0.96	-	X	X	-	N	-	Rob Bay Y10-0247	-
Roberts Bay	1	MS, SK	12	23/08/2010	10:30 AM	T1-148	AC	414	709	1.00	-	X	X	5	N	-	Rob Bay Y10-0248	-
Roberts Bay	1	MS, SK	12	23/08/2010	10:30 AM	T1-149	AC	494	1,024	0.85	-	X	X	6	N	-	Rob Bay Y10-0249	-

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin;

SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

Appendix 3.2-9. Biological Data for Fish Sampled in Roberts Bay Trap Net 1, Hope Bay Belt Project, 2010

Location			Water		Length						Aging Structures			Age		Tag Information		Comment
Location	Trap Net #	Fish Crew	Temp.	Date	Time	Sample #	Species	(mm)	Weight (g)	Condition	Otolith	Scales	Fin Clip			Previous Tag	New Tag	
Roberts Bay	1	MS, SK	12	23/08/2010	10:30 AM	T1-150	AC	322	186	0.56	-	X	X	-	N	-	Rob Bay Y10-0250	-
Roberts Bay	1	MS, SK	12	23/08/2010	10:30 AM	T1-151	AC	594	2,593	1.24	-	X	X	7	N	-	Rob Bay Y10-0401	-
Roberts Bay	1	MS, SK	12	23/08/2010	10:30 AM	T1-152	AC	475	1,136	1.06	-	X	X	-	N	-	Rob Bay Y10-0402	-
Roberts Bay	1	MS, SK	12	23/08/2010	10:30 AM	T1-153	AC	260	123	0.70	-	X	X	-	N	-	-	Too small to tag
Roberts Bay	1	MS, SK	12	23/08/2010	10:30 AM	T1-154	AC	439	571	0.67	-	X	X	-	N	-	Rob Bay Y10-0403	-
Roberts Bay	1	MS, SK	12	23/08/2010	10:30 AM	T1-155	AC	336	252	0.66	-	X	X	-	N	-	Rob Bay Y10-0404	-
Roberts Bay	1	MS, SK	12	23/08/2010	10:30 AM	T1-156	AC	505	1,236	0.96	-	X	-	8	Y	-	Rob Bay Y10-0405	Recent Pelvic Fin Clip
Roberts Bay	1	MS, SK	12	23/08/2010	10:30 AM	T1-157	SC	290	89	0.36	-	X	X	-	N	-	-	Too small to tag
Roberts Bay	1	MS, SK	12	23/08/2010	10:30 AM	T1-158	AC	436	630	0.76	-	X	X	5	N	-	Rob Bay Y10-0406	-
Roberts Bay	1	MS, SK	12	23/08/2010	10:30 AM	T1-159	AC	402	610	0.94	-	X	X	-	N	-	Rob Bay Y10-0407	-
Roberts Bay	1	MS, SK	12	23/08/2010	10:30 AM	T1-160	AC	286	196	0.84	-	X	X	-	N	-	-	Too small to tag
Roberts Bay	1	MS, SK	12	23/08/2010	10:30 AM	T1-161	AC	290	162	0.66	-	X	X	-	N	-	-	Too small to tag
Roberts Bay	1	MS, SK	12	23/08/2010	10:30 AM	T1-162	AC	484	1,060	0.93	-	X	X	6	N	-	Rob Bay Y10-0408	-
Roberts Bay	1	MS, SK	12	23/08/2010	10:30 AM	T1-163	SC	255	71	0.43	-	X	X	-	N	-	-	Too small to tag
Roberts Bay	1	MS, SK	12	23/08/2010	10:30 AM	T1-164	AC	265	82	0.44	-	X	X	-	N	-	-	Too small to tag
Roberts Bay	1	MS, MV, GM	11	24/08/2010	10:15 AM	T1-165	AC	470	1,100	1.06	-	X	X	-	N	-	Rob Bay Y10-0417	-
Roberts Bay	1	MS, MV, GM	11	24/08/2010	10:15 AM	T1-166	SF	562	1,100	0.62	-	-	-	-	-	-	-	-
Roberts Bay	1	MS, MV, GM	11	24/08/2010	10:15 AM	T1-167	SC	304	227	0.81	-	X	X	4	N	-	Rob Bay Y10-0418	-
Roberts Bay	1	MS, MV, GM	11	24/08/2010	10:15 AM	T1-168	SC	174	12	0.23	-	X	-	-	N	-	-	Too small to tag
Roberts Bay	1	MS, MV, GM	11	24/08/2010	10:15 AM	T1-169	SC	260	146	0.83	-	X	X	4	N	-	Rob Bay Y10-0419	-
Roberts Bay	1	MS, MV, GM	11	24/08/2010	10:15 AM	T1-170	SC	248	117	0.77	-	X	X	-	N	-	Rob Bay Y10-0420	-
Roberts Bay	1	MS, MV, GM	11	24/08/2010	10:15 AM	T1-171	SC	88	4	0.59	-	X	-	1	-	-	-	-
Roberts Bay	1	MS, MV, GM	11	24/08/2010	10:15 AM	T1-172	SC	137	11	0.43	-	X	-	-	-	-	-	-
Roberts Bay	1	MS, MV, GM	11	24/08/2010	10:15 AM	T1-173	SC	85	4	0.65	-	X	-	1	-	-	-	-
Roberts Bay	1	MS, MV, GM	11	24/08/2010	10:15 AM	T1-174	SC	248	-	-	-	-	-	-	-	-	-	-
Roberts Bay	1	GM, MF, CM	11	25/08/2010	12:15 PM	T1-175	LT	586	1,800	0.89	-	X	X	-	N	-	Rob Bay Y10-0430	-
Roberts Bay	1	GM, MF, CM	11	25/08/2010	12:15 PM	T1-176	AC	389	662	1.12	-	X	X	-	N	-	Rob Bay Y10-0431	-
Roberts Bay	1	GM, MF, CM	11	25/08/2010	12:15 PM	T1-177	AC	394	640	1.05	-	X	X	-	N	-	Rob Bay Y10-0432	-
Roberts Bay	1	GM, MF, CM	11	25/08/2010	12:15 PM	T1-178	AC	357	499	1.10	-	X	X	4	N	-	Rob Bay Y10-0433	-
Roberts Bay	1	GM, MF, CM	11	25/08/2010	12:15 PM	T1-179	AC	297	356	1.36	-	X	X	5	N	-	Rob Bay Y10-0434	-
Roberts Bay	1	GM, MF, CM	11	25/08/2010	12:15 PM	T1-180	FS	227	112	0.96	-	-	-	-	-	-	-	-
Roberts Bay	1	MS, MF, CM	11	27/08/2010	9:55 AM	T1-181	GC	564	1,582	0.88	-	-	-	-	Y	-	-	Recent Pelvic Fin Clip
Roberts Bay	1	MS, MF, CM	11	27/08/2010	9:55 AM	T1-182	AC	465	958	0.95	-	X	X	10	N	-	Rob Bay Y10-0436	gillnet scars
Roberts Bay	1	MS, MF, CM	11	27/08/2010	9:55 AM	T1-183	AF	330	629	1.75	-	-	-	-	-	-	-	-
Roberts Bay	1	MS, MF, CM	11	27/08/2010	9:55 AM	T1-184	AF	341	554	1.40	-	-	-	-	-	-	-	-
Roberts Bay	1	MS, MF, CM	11	27/08/2010	9:55 AM	T1-185	SC	108	7	0.56	-	X	X	1	N	-	-	-
Roberts Bay	1	EG, SK	-	28/08/2010	2:40 PM	T1-186	AC	447	1,099	1.23	-	-	-	-	N	-	Rob Bay Y10-0448	-
Roberts Bay	1	EG, SK	-	28/08/2010	2:40 PM	T1-187	FS	255	156	0.94	-	-	-	-	-	-	-	-
Roberts Bay	1	EG, SK	-	28/08/2010	2:40 PM	T1-188	SC	270	135	0.69	-	-	-	-	N	-	-	-
Roberts Bay	1	EG, SK	-	28/08/2010	2:40 PM	T1-189	SC	189	49	0.73	-	-	-	-	N	-	-	-
Roberts Bay	1	EG, SK	-	28/08/2010	2:40 PM	T1-190	AF	166	72	1.57	-	-	-	-	N	-	-	-
Roberts Bay	1	EG, SK	-	28/08/2010	2:40 PM	T1-191	AF	162	63	1.48	-	-	-	-	N	-	-	-
Roberts Bay	1	EG, SK	-	28/08/2010	2:40 PM	T1-192	AC	236	387	2.94	-	-	-	-	N	-	Rob Bay Y10-0447	-
Roberts Bay	1	EG, SK, CB, BP	10.5	29/08/2010	3:25 PM	T1-193	AC	337	-	-	-	X	X	4	N	-	Rob Bay Y10-0151	-
Roberts Bay	1	EG, SK, CB, BP	10.5	29/08/2010	3:25 PM	T1-194	AC	402	842	1.30	-	X	X	-	N	-	Rob Bay Y10-0153	-
Roberts Bay	1	EG, SK, CB, BP	10.5	29/08/2010	3:25 PM	T1-195	AC	419	869	1.18	-	X	X	5	N	-	-	-
Roberts Bay	1	EG, SK, CB, BP	10.5	29/08/2010	3:25 PM	T1-196	AC	274	270	1.31	-	X	X	-	N	-	Rob Bay Y10-0154	-
Roberts Bay	1	EG, SK, CB, BP	10.5	29/08/2010	3:25 PM	T1-197	GC	571	1,925	1.03	-	X	-	4	Y	-	-	-

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

Appendix 3.2-9. Biological Data for Fish Sampled in Roberts Bay Trap Net 1, Hope Bay Belt Project, 2010

Location			Water		Length			Aging Structures			Tag Information		Comment					
Location	Trap Net #	Fish Crew	Temp.	Date	Time	Sample #	Species	(mm)	Weight (g)	Condition	Otolith	Scales		Fin Clip	Age	Recap.	Previous Tag	New Tag
Roberts Bay	1	EG, SK, CB, BP	10.5	29/08/2010	3:25 PM	T1-198	GC	501	1,585	1.26	-	X	X	4	N	-	-	-
Roberts Bay	1	EG, SK, CB, BP	10.5	29/08/2010	3:25 PM	T1-199	GC	516	1,610	1.17	-	X	X	4	N	-	-	-
Roberts Bay	1	EG, SK, CB, BP	10.5	29/08/2010	3:25 PM	T1-200	AC	366	540	1.10	-	X	X	-	N	-	Rob Bay Y10-0155	-
Roberts Bay	1	EG, SK, CB, BP	8.7	30/08/2010	2:00 PM	T1-201	AF	320	518	1.58	-	-	-	-	-	-	-	-
Roberts Bay	1	EG, SK, CB, BP	8.7	30/08/2010	2:00 PM	T1-202	AF	181	94	1.59	-	-	-	-	-	-	-	-
Roberts Bay	1	EG, SK, CB, BP	8.7	30/08/2010	2:00 PM	T1-203	SC	165	128	2.85	-	-	-	-	-	-	-	-
Roberts Bay	1	EG, SK, CB, BP	8.7	30/08/2010	2:00 PM	T1-204	SC	325	231	0.67	-	X	X	-	N	-	Rob Bay Y10-0183	-
Roberts Bay	1	EG, SK, CB, BP	8.7	30/08/2010	2:00 PM	T1-205	SC	280	160	0.73	-	X	X	-	N	-	-	-
Roberts Bay	1	EG, SK, CB, BP	8.7	30/08/2010	2:00 PM	T1-206	SC	245	99	0.67	-	X	X	-	N	-	-	-
Roberts Bay	1	EG, SK, CB, BP	8.7	30/08/2010	2:00 PM	T1-207	SC	185	45	0.71	-	X	X	2	N	-	-	-
Roberts Bay	1	EG, SK, CB, BP	8.7	30/08/2010	2:00 PM	T1-208	SC	165	28	0.62	-	X	X	-	N	-	-	-
Roberts Bay	1	EG, SK, CB, BP	8.7	30/08/2010	2:00 PM	T1-209	SC	100	7	0.70	-	-	-	-	N	-	-	-
Roberts Bay	1	EG, SK, CB, BP	8.7	30/08/2010	2:00 PM	T1-210	SC	94	-	-	-	-	-	-	N	-	-	-
Roberts Bay	1	EG, SK, CB, BP	8.5	30/08/2010	2:00 PM	T1-211	SC	110	8	0.60	-	-	-	-	N	-	-	-
Roberts Bay	1	EG, SK, CB, BP	8.4	31/08/2010	10:45 AM	T1-212	AF	319	539	1.66	-	-	-	-	N	-	-	-
Roberts Bay	1	EG, SK, CB, BP	8.7	31/08/2010	10:45 AM	T1-213	BG	228	31	0.26	-	-	-	-	N	-	-	-
Roberts Bay	1	EG, SK, CB, BP	9.7	02/09/2010	3:20 PM	T1-214	SC	277	171	0.80	-	X	X	-	N	-	-	Too small to tag
Roberts Bay	1	EG, SK, CB, BP	9.2	03/09/2010	2:05 PM	T1-215	AF	224	161	1.43	-	-	-	-	N	-	-	-
Roberts Bay	1	EL, MVD, SL, JA	9	05/09/2010	10:35 AM	T1-216	GC	535	1820	1.19	-	X	X	4	N	-	-	-
Roberts Bay	1	EL, MVD, SL, JA	9	05/09/2010	10:35 AM	T1-217	AF	178	84	1.49	-	-	-	-	-	-	-	-
Roberts Bay	1	GM, SL, IK	7	07/09/2010	10:11 AM	T1-218	SF	347	614	1.47	-	-	-	-	-	-	-	-
Roberts Bay	1	GM, SL, IK	7	08/09/2010	11:00 AM	T1-219	SF	474	1583	1.49	-	-	-	-	-	-	-	-
Roberts Bay	1	MVD, EL, JA	6.5	12/09/2010	11:55 AM	T1-220	AC	417	713	0.98	-	X	X	-	N	-	Rob Bay Y10-0097	-
Roberts Bay	1	MVD, EL, JA	6.5	12/09/2010	11:55 AM	T1-221	AC	232	155	1.24	-	X	X	-	N	-	-	Too small to tag
Roberts Bay	1	MVD, EL, JA	6.5	12/09/2010	11:55 AM	T1-222	AC	326	284	0.82	-	X	X	-	N	-	Rob Bay Y10-0098	-
Roberts Bay	1	MVD, EL, JA	6.5	12/09/2010	11:55 AM	T1-223	GC	465	905	0.90	-	X	X	-	N	-	-	-
Roberts Bay	1	MVD, EL, JA	6	14/09/2010	11:17 AM	T1-224	Unid.	85	1	0.16	-	-	-	-	-	-	-	Sandlance? Voucher Specimen
Roberts Bay	1	MVD, SL, JA	-	16/09/2010	11:30 AM	T1-225	FS	225	149	1.31	-	-	-	-	-	-	-	TN1 removed Sept. 16, 2010
Roberts Bay	1	MS, MV	-	22/08/2010	12:00 PM	T-142B	AC	480	765	0.69	-	X	X	-	N	-	Rob Bay Y10-0244	-

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

Appendix 3.2-10

Biological Data for Fish Sampled in Roberts Bay Trap
Net 2, Hope Bay Belt Project, 2010

Appendix 3.2-10. Biological Data for Fish Sampled in Roberts Bay Trap Net 2, Hope Bay Belt Project, 2010

Location			Water		Length		Aging Structures			Tag Information		Comment						
Location	Trap Net #	Fish Crew	Temp.	Date	Time	Sample #	Species	(mm)	Weight (g)	Condition	Otolith		Scales	Fin Clip	Age	Recap.	Previous Tag	New Tag
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-100	GC	397	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-101	GC	415	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-102	GC	397	-	-	-	-	-	-	Y	-	-	Recent Pelvic Fin Clip
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-103	LD	244	-	-	-	-	-	-	-	-	-	
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-104	AF	214	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-105	AF	222	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-106	FS	157	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-107	FS	199	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-108	FS	185	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-109	FS	234	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-110	FS	147	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-111	FS	121	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-112	SC	101	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-113	SC	89	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-114	SC	93	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-115	SC	97	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-116	SC	105	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-117	SC	89	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-118	SC	106	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-119	SC	103	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-120	SC	99	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-121	SC	97	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-122	SC	108	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-123	SC	94	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-124	SC	118	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-125	SC	114	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-126	SC	97	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-127	SC	94	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-128	SC	96	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-129	SC	104	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-130	SC	101	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-131	SC	109	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-132	SC	98	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-133	SC	97	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-134	SC	102	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-135	SC	89	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-136	SC	97	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-137	SC	107	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-138	SC	108	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-139	SC	97	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-140	SC	98	-	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-141	SC	104	-	-	-	-	-	-	-	-	-	11 more SC < 120mm not measured
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-142	SC	313	-	-	-	X	X	-	N	-	Rob Bay Y10-0017	
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-143	SC	312	-	-	-	X	X	-	N	-	Rob Bay Y10-0018	
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-144	SC	282	-	-	-	X	X	5	N	-	Rob Bay Y10-0019	
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-145	SC	272	-	-	-	X	X	-	N	-	Rob Bay Y10-0020	
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-146	AC	201	-	-	-	X	X	-	N	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-147	SC	330	-	-	-	X	X	5	N	-	Rob Bay Y10-0021	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-148	SC	302	-	-	-	X	X	-	N	-	Rob Bay Y10-0022	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-149	SC	246	-	-	-	X	X	-	N	-	Rob Bay Y10-0023	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-150	SC	267	-	-	-	X	X	-	N	-	Rob Bay Y10-0024	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-151	SC	249	-	-	-	X	X	4	N	-	Rob Bay Y10-0025	-

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

Appendix 3.2-10. Biological Data for Fish Sampled in Roberts Bay Trap Net 2, Hope Bay Belt Project, 2010

Location			Water		Length				Aging Structures					Tag Information				
Location	Trap Net #	Fish Crew	Temp.	Date	Time	Sample #	Species	(mm)	Weight (g)	Condition	Otolith	Scales	Fin Clip	Age	Recap.	Previous Tag	New Tag	Comment
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-152	SC	250	-	-	-	X	X	-	N	-	Rob Bay Y10-0026	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-153	SC	239	-	-	-	X	X	4	N	-	Rob Bay Y10-0027	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-154	SC	232	-	-	-	X	X	4	N	-	Rob Bay Y10-0028	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-155	SC	157	-	-	-	X	X	2	N	-	Rob Bay Y10-0029	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-156	SC	166	-	-	-	X	X	-	N	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-157	SC	159	-	-	-	X	X	2	N	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-158	SC	177	-	-	-	X	X	-	N	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-159	SC	148	-	-	-	X	X	2	N	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-160	SC	177	-	-	-	X	X	2	N	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-161	SC	167	-	-	-	X	X	2	N	-	-	-
Roberts Bay	2	EG, EL	-	14/08/2010	8:00 AM	T2-162	SC	198	-	-	-	X	X	-	N	-	-	5 more SC no measured 120-230mm
Roberts Bay	2	KM, MV, BP	-	16/08/2010	10:55 AM	T2-163	AF	314	471	1.52	-	-	-	-	N	-	-	-
Roberts Bay	2	KM, MV, BP	-	16/08/2010	10:55 AM	T2-164	SC	142	15	0.52	-	-	-	-	-	-	-	-
Roberts Bay	2	KM, MV, BP	-	16/08/2010	10:55 AM	T2-165	SC	109	6	0.46	-	-	-	-	-	-	-	-
Roberts Bay	2	KM, MV, BP	-	16/08/2010	10:55 AM	T2-166	SC	155	24	0.64	-	-	-	-	-	-	-	-
Roberts Bay	2	KM, MV, BP	-	16/08/2010	10:55 AM	T2-167	SC	163	27	0.62	-	-	-	-	-	-	-	-
Roberts Bay	2	KM, MV, BP	-	16/08/2010	10:55 AM	T2-168	SC	147	24	0.76	-	-	-	-	-	-	-	-
Roberts Bay	2	KM, MV, BP	-	16/08/2010	10:55 AM	T2-169	SC	157	25	0.65	-	X	X	-	N	-	-	-
Roberts Bay	2	KM, MV, BP	-	16/08/2010	10:55 AM	T2-170	SC	176	33	0.61	-	X	X	-	N	-	-	-
Roberts Bay	2	KM, MV, BP	-	16/08/2010	10:55 AM	T2-171	SC	153	23	0.64	-	X	X	-	N	-	-	-
Roberts Bay	2	KM, MV, BP	-	16/08/2010	10:55 AM	T2-172	SC	154	23	0.63	-	X	X	-	N	-	-	-
Roberts Bay	2	KM, MV, BP	-	16/08/2010	10:55 AM	T2-173	SC	172	32	0.63	-	X	X	-	N	-	-	-
Roberts Bay	2	KM, MV, BP	-	16/08/2010	10:55 AM	T2-174	SC	119	12	0.71	-	X	X	-	N	-	-	-
Roberts Bay	2	KM, MV, BP	-	16/08/2010	10:55 AM	T2-175	SC	143	18	0.62	-	X	X	-	N	-	-	-
Roberts Bay	2	KM, MV, BP	-	16/08/2010	10:55 AM	T2-176	SC	153	22	0.61	-	X	X	-	N	-	-	-
Roberts Bay	2	KM, MV, BP	-	16/08/2010	10:55 AM	T2-177	SC	184	38	0.61	-	X	X	-	N	-	-	-
Roberts Bay	2	KM, MV, BP	-	16/08/2010	10:55 AM	T2-178	SC	158	23	0.58	-	X	X	-	N	-	-	-
Roberts Bay	2	KM, MV, BP	-	16/08/2010	10:55 AM	T2-179	SC	160	26	0.63	-	X	X	2	N	-	-	-
Roberts Bay	2	KM, MV, BP	-	16/08/2010	10:55 AM	T2-180	SC	106	9	0.76	-	-	-	-	-	-	-	-
Roberts Bay	2	KM, MV, BP	-	16/08/2010	10:55 AM	T2-181	SC	113	10	0.69	-	-	-	-	-	-	-	-
Roberts Bay	2	KM, MV, BP	-	16/08/2010	10:55 AM	T2-182	SC	116	12	0.77	-	-	-	-	-	-	-	-
Roberts Bay	2	KM, MV, BP	-	16/08/2010	10:55 AM	T2-183	SC	93	6	0.75	-	-	-	-	-	-	-	-
Roberts Bay	2	KM, MV, BP	-	16/08/2010	10:55 AM	T2-184	SC	99	7	0.72	-	-	-	-	-	-	-	-
Roberts Bay	2	KM, MV, BP	-	16/08/2010	10:55 AM	T2-185	SC	112	8	0.57	-	-	-	-	-	-	-	-
Roberts Bay	2	KM, MV, BP	-	16/08/2010	10:55 AM	T2-186	SC	110	9	0.68	-	-	-	-	-	-	-	-
Roberts Bay	2	KM, MV, BP	-	16/08/2010	10:55 AM	T2-187	SC	116	11	0.70	-	-	-	-	-	-	-	-
Roberts Bay	2	KM, MV, BP	-	16/08/2010	10:55 AM	T2-188	SC	99	7	0.72	-	-	-	-	-	-	-	-
Roberts Bay	2	KM, MV, BP	-	16/08/2010	10:55 AM	T2-189	GC	119	13	0.77	-	X	X	1	N	-	-	-
Roberts Bay	2	KM, MV, BP	-	16/08/2010	10:55 AM	T2-190	SC	114	11	0.74	-	-	-	-	-	-	-	-
Roberts Bay	2	KM, MV, BP	-	16/08/2010	10:55 AM	T2-191	SC	120	13	0.75	-	-	-	-	-	-	-	-
Roberts Bay	2	KM, MV, BP	-	16/08/2010	10:55 AM	T2-192	SC	109	10	0.77	-	-	-	-	-	-	-	-
Roberts Bay	2	KM, MV, BP	-	16/08/2010	10:55 AM	T2-193	SC	114	12	0.81	-	-	-	-	-	-	-	-
Roberts Bay	2	KM, MV, BP	-	16/08/2010	10:55 AM	T2-194	SC	98	9	0.96	-	-	-	-	-	-	-	100 SC 90-150mm not measured weight estimated at 7000g
Roberts Bay	2	KM, MV, BP	8	18/08/2010	12:30 PM	T2-195	AC	750	-	-	-	X	X	9	N	-	Rob Bay Y10-0201	-
Roberts Bay	2	KM, MV, BP	8	18/08/2010	12:30 PM	T2-196	LW	492	1,475	1.24	-	X	X	-	N	-	-	-
Roberts Bay	2	KM, MV, BP	8	18/08/2010	12:30 PM	T2-197	GC	492	1,435	1.20	-	X	X	4	N	-	-	-
Roberts Bay	2	KM, MV, BP	8	18/08/2010	12:30 PM	T2-198	GC	450	1,309	1.44	-	X	X	-	N	-	-	-
Roberts Bay	2	KM, MV, BP	8	18/08/2010	12:30 PM	T2-199	GC	402	780	1.20	-	X	X	3	N	-	-	-
Roberts Bay	2	KM, MV, BP	8	18/08/2010	12:30 PM	T2-200	SF	475	1,493	1.39	-	-	-	-	-	-	-	-
Roberts Bay	2	KM, MV, BP	8	18/08/2010	12:30 PM	T2-201	SC	274	150	0.73	-	X	X	-	N	-	Rob Bay Y10-0202	-
Roberts Bay	2	KM, MV, BP	8	18/08/2010	12:30 PM	T2-202	AF	230	160	1.32	-	-	-	-	-	-	-	-
Roberts Bay	2	KM, MV, BP	8	18/08/2010	12:30 PM	T2-203	SC	331	247	0.68	-	X	X	6	N	-	Rob Bay Y10-0203	-

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

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Location			Water		Length					Aging Structures			Age		Tag Information		Comment	
Location	Trap Net #	Fish Crew	Temp.	Date	Time	Sample #	Species	(mm)	Weight (g)	Condition	Otolith	Scales	Fin Clip	Age	Recap.	Previous Tag		New Tag
Roberts Bay	2	KM, MV, BP	8	18/08/2010	12:30 PM	T2-204	SC	259	116	0.67	-	X	X	-	N	-	Rob Bay Y10-0204	-
Roberts Bay	2	KM, MV, BP	8	18/08/2010	12:30 PM	T2-205	SC	163	135	3.12	-	X	X	-	N	-	Rob Bay Y10-0205	-
Roberts Bay	2	KM, MV, BP	8	18/08/2010	12:30 PM	T2-206	SC	218	68	0.66	-	X	X	4	N	-	-	-
Roberts Bay	2	KM, MV, BP	8	18/08/2010	12:30 PM	T2-207	SC	243	107	0.75	-	X	X	4	N	-	Rob Bay Y10-0206	-
Roberts Bay	2	KM, MV, BP	8	18/08/2010	12:30 PM	T2-208	SC	270	136	0.69	-	X	X	-	N	-	Rob Bay Y10-0208	-
Roberts Bay	2	KM, MV, BP	8	18/08/2010	12:30 PM	T2-209	SC	175	32	0.60	-	X	X	-	N	-	-	-
Roberts Bay	2	KM, MV, BP	8	18/08/2010	12:30 PM	T2-210	SC	253	110	0.68	-	X	X	-	N	-	Rob Bay Y10-0209	-
Roberts Bay	2	KM, MV, BP	8	18/08/2010	12:30 PM	T2-211	SC	93	5	0.62	-	-	-	-	-	-	-	-
Roberts Bay	2	MS, MV	-	21/08/2010	4:15 PM	T2-212	AC	565	-	-	-	X	X	7	N	-	Rob Bay Y10-0220	-
Roberts Bay	2	MS, MV	-	21/08/2010	4:15 PM	T2-213	SF	392	772	1.28	-	-	-	-	-	-	-	-
Roberts Bay	2	MS, MV	-	21/08/2010	4:15 PM	T2-214	SC	326	111	0.32	-	X	X	-	-	-	Rob Bay Y10-0221	-
Roberts Bay	2	MS, MV	-	21/08/2010	4:15 PM	T2-215	GC	464	1,038	1.04	-	-	-	-	-	-	-	Recent Pelvic Fin Clip
Roberts Bay	2	MS, MV	-	21/08/2010	4:15 PM	T2-216	GC	463	1,152	1.16	-	X	X	-	Y	-	-	-
Roberts Bay	2	MS, MV	-	21/08/2010	4:15 PM	T2-217	SC	251	180	1.14	-	X	X	-	N	-	-	-
Roberts Bay	2	MS, MV	-	21/08/2010	4:15 PM	T2-218	GC	420	1,227	1.66	-	-	-	-	Y	-	-	Recent Pelvic Fin Clip
Roberts Bay	2	MS, MV	-	21/08/2010	4:15 PM	T2-219	AC	511	1,674	1.25	-	X	X	6	N	-	Rob Bay Y10-0222	-
Roberts Bay	2	MS, MV	-	21/08/2010	4:15 PM	T2-220	AC	428	1,088	1.39	-	X	X	-	N	-	Rob Bay Y10-0223	-
Roberts Bay	2	MS, MV	-	21/08/2010	4:15 PM	T2-221	AC	442	1,063	1.23	-	X	X	-	N	-	Rob Bay Y10-0224	-
Roberts Bay	2	MS, MV	-	21/08/2010	4:15 PM	T2-222	AC	374	521	1.00	-	X	X	6	N	-	Rob Bay Y10-0225	-
Roberts Bay	2	MS, MV	-	21/08/2010	4:15 PM	T2-223	CP	96	2	0.23	-	-	-	-	N	-	-	Too small to tag
Roberts Bay	2	MS, MV	-	21/08/2010	4:15 PM	T2-224	SC	118	6	0.37	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV	-	21/08/2010	4:15 PM	T2-225	SC	119	6	0.36	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV	-	21/08/2010	4:15 PM	T2-226	SC	108	4	0.32	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV	-	21/08/2010	4:15 PM	T2-227	SC	111	3	0.22	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV	-	21/08/2010	4:15 PM	T2-228	SC	108	12	0.95	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV	-	21/08/2010	4:15 PM	T2-229	SC	112	7	0.50	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV	-	21/08/2010	4:15 PM	T2-230	SC	113	9	0.62	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV	-	21/08/2010	4:15 PM	T2-231	SC	128	11	0.52	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV	-	21/08/2010	4:15 PM	T2-232	SC	137	12	0.47	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV	-	21/08/2010	4:15 PM	T2-233	SC	100	4	0.40	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV	-	21/08/2010	4:15 PM	T2-234	SC	123	11	0.59	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, CM	12	23/08/2010	2:10 PM	T2-235	SC	119	9	0.53	-	-	-	-	-	-	-	Too small to tag
Roberts Bay	2	MS, CM	12	23/08/2010	2:10 PM	T2-236	SC	106	1	0.08	-	-	-	-	-	-	-	Too small to tag
Roberts Bay	2	MS, CM	12	23/08/2010	2:10 PM	T2-237	SC	113	9	0.62	-	-	-	-	-	-	-	Too small to tag
Roberts Bay	2	MS, CM	12	23/08/2010	2:10 PM	T2-238	SC	105	5	0.43	-	-	-	-	-	-	-	Too small to tag
Roberts Bay	2	MS, CM	12	23/08/2010	2:10 PM	T2-239	SC	91	3	0.40	-	-	-	-	-	-	-	Too small to tag
Roberts Bay	2	MS, CM	12	23/08/2010	2:10 PM	T2-240	SC	118	10	0.61	-	-	-	-	-	-	-	Too small to tag
Roberts Bay	2	MS, CM	12	23/08/2010	2:10 PM	T2-241	SC	115	9	0.59	-	-	-	-	-	-	-	Too small to tag
Roberts Bay	2	MS, CM	12	23/08/2010	2:10 PM	T2-242	SC	88	4	0.59	-	-	-	-	-	-	-	Too small to tag
Roberts Bay	2	MS, CM	12	23/08/2010	2:10 PM	T2-243	SC	108	5	0.40	-	-	-	-	-	-	-	Too small to tag
Roberts Bay	2	MS, CM	12	23/08/2010	2:10 PM	T2-244	SC	129	7	0.33	-	-	-	-	-	-	-	Too small to tag
Roberts Bay	2	MS, CM	12	23/08/2010	2:10 PM	T2-245	SC	112	8	0.57	-	-	-	-	-	-	-	Too small to tag
Roberts Bay	2	MS, CM	12	23/08/2010	2:10 PM	T2-246	SC	114	6	0.40	-	-	-	-	-	-	-	Too small to tag
Roberts Bay	2	MS, CM	12	23/08/2010	2:10 PM	T2-247	SC	109	5	0.39	-	-	-	-	-	-	-	Too small to tag
Roberts Bay	2	MS, CM	12	23/08/2010	2:10 PM	T2-248	SC	114	9	0.61	-	-	-	-	-	-	-	Too small to tag
Roberts Bay	2	MS, CM	12	23/08/2010	2:10 PM	T2-249	SC	110	6	0.45	-	-	-	-	-	-	-	Too small to tag
Roberts Bay	2	MS, CM	12	23/08/2010	2:10 PM	T2-250	SC	113	4	0.28	-	-	-	-	-	-	-	Too small to tag
Roberts Bay	2	MS, CM	12	23/08/2010	2:10 PM	T2-251	SC	104	4	0.36	-	-	-	-	-	-	-	Too small to tag
Roberts Bay	2	MS, CM	12	23/08/2010	2:10 PM	T2-252	SC	102	4	0.38	-	-	-	-	-	-	-	Too small to tag
Roberts Bay	2	MS, CM	12	23/08/2010	2:10 PM	T2-253	SC	118	7	0.43	-	-	-	-	-	-	-	Too small to tag
Roberts Bay	2	MS, CM	12	23/08/2010	2:10 PM	T2-254	SC	101	4	0.39	-	-	-	-	-	-	-	Too small to tag
Roberts Bay	2	MS, CM	12	23/08/2010	2:10 PM	T2-255	SC	96	4	0.45	-	-	-	-	-	-	-	Too small to tag

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

Appendix 3.2-10. Biological Data for Fish Sampled in Roberts Bay Trap Net 2, Hope Bay Belt Project, 2010

Location			Water		Length					Aging Structures			Tag Information		Comment			
Location	Trap Net #	Fish Crew	Temp.	Date	Time	Sample #	Species	(mm)	Weight (g)	Condition	Otolith	Scales	Fin Clip	Age		Recap.	Previous Tag	New Tag
Roberts Bay	2	MS, CM	12	23/08/2010	2:10 PM	T2-256	FS	48	-	-	-	-	-	-	-	-	-	Too small to tag
Roberts Bay	2	MS, CM	12	23/08/2010	2:10 PM	T2-257	SC	132	8	0.35	-	-	-	-	-	-	-	Too small to tag
Roberts Bay	2	MS, CM	12	23/08/2010	2:10 PM	T2-258	SC	107	5	0.41	-	-	-	-	-	-	-	Too small to tag
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-259	SC	248	144	0.94	-	X	X	-	N	-	Rob Bay Y10-0421	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-260	SC	294	186	0.73	-	X	X	-	N	-	Rob Bay Y10-0422	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-261	SC	130	6	0.27	-	X	X	1	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-262	SC	121	11	0.62	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-263	SC	116	9	0.58	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-264	SC	122	12	0.66	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-265	SC	109	8	0.62	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-266	SC	109	9	0.69	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-267	SC	115	10	0.66	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-268	SC	123	11	0.59	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-269	SC	158	22	0.56	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-270	SC	127	13	0.63	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-271	SC	115	10	0.66	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-272	SC	110	8	0.60	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-273	SC	106	8	0.67	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-274	SC	110	7	0.53	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-275	SC	106	8	0.67	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-276	SC	177	38	0.69	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-277	SC	107	8	0.65	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-278	SC	126	12	0.60	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-279	SC	135	20	0.81	-	X	-	1	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-280	SC	111	8	0.58	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-281	SC	119	9	0.53	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-282	SC	108	8	0.64	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-283	SC	120	11	0.64	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-284	SC	122	12	0.66	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-285	SC	101	8	0.78	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-286	SC	106	8	0.67	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-287	SC	131	14	0.62	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-288	SC	127	13	0.63	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-289	SC	110	11	0.83	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-290	SC	107	8	0.65	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-291	SC	95	7	0.82	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-292	SC	103	7	0.64	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-293	SC	102	8	0.75	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-294	SC	108	7	0.56	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-295	SC	103	7	0.64	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-296	SC	113	10	0.69	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-297	SC	-	-	-	-	-	-	-	N	-	-	Unmeasured SC
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-298	SC	-	-	-	-	-	-	-	N	-	-	Unmeasured SC
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-299	SC	-	-	-	-	-	-	-	N	-	-	Unmeasured SC
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-300	SC	-	-	-	-	-	-	-	N	-	-	Unmeasured SC
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-301	SC	-	-	-	-	-	-	-	N	-	-	Unmeasured SC
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-302	SC	-	-	-	-	-	-	-	N	-	-	Unmeasured SC
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-303	SC	-	-	-	-	-	-	-	N	-	-	Unmeasured SC
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-304	SC	-	-	-	-	-	-	-	N	-	-	Unmeasured SC
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-305	SC	-	-	-	-	-	-	-	N	-	-	Unmeasured SC
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-306	SC	-	-	-	-	-	-	-	N	-	-	Unmeasured SC
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-307	SC	-	-	-	-	-	-	-	N	-	-	Unmeasured SC

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

Appendix 3.2-10. Biological Data for Fish Sampled in Roberts Bay Trap Net 2, Hope Bay Belt Project, 2010

Location			Water	Length						Aging Structures			Tag Information		Comment			
Location	Trap Net #	Fish Crew	Temp.	Date	Time	Sample #	Species	(mm)	Weight (g)	Condition	Otolith	Scales	Fin Clip	Age		Recap.	Previous Tag	New Tag
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-308	SC	-	-	-	-	-	-	-	N	-	-	Unmeasured SC
Roberts Bay	2	MS, MV, JM	-	24/08/2010	3:20 PM	T2-309	FS	102	8	0.75	-	-	-	-	N	-	-	-
Roberts Bay	2	MS, SK, BK	12	25/08/2010	3:30 PM	T2-310	SC	245	95	0.65	-	X	X	-	N	-	Rob Bay Y10-0435	-
Roberts Bay	2	MS, SK, BK	12	25/08/2010	3:30 PM	T2-311	SC	168	28	0.59	-	X	X	2	N	-	-	-
Roberts Bay	2	MS, SK, BK	12	25/08/2010	3:30 PM	T2-312	SC	119	15	0.89	-	-	-	-	-	-	-	-
Roberts Bay	2	MF, MS, CM	10	27/08/2010	10:46 AM	T2-313	SC	251	110	0.70	-	X	X	-	N	-	Rob Bay Y10-0437	-
Roberts Bay	2	MF, MS, CM	10	27/08/2010	10:46 AM	T2-314	SC	112	11	0.78	-	X	-	1	-	-	-	-
Roberts Bay	2	MF, MS, CM	10	27/08/2010	10:46 AM	T2-315	GC	434	954	1.17	-	-	-	-	-	-	-	Recent Pelvic Fin Clip
Roberts Bay	2	MF, MS, CM	10	27/08/2010	10:46 AM	T2-316	AS	170	15	0.31	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, SK	-	28/08/2010	3:00 PM	T2-317	GC	409	697	1.02	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, SK	-	28/08/2010	3:00 PM	T2-318	GC	561	2,484	1.41	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, SK, CB, BP	10	30/08/2010	10:35 AM	T2-319	AC	555	2,394	1.40	-	X	X	5	-	-	Rob Bay Y10-0180	-
Roberts Bay	2	EG, SK, CB, BP	10	30/08/2010	10:35 AM	T2-320	AC	345	76	0.19	-	X	X	4	-	-	Rob Bay Y10-0156	-
Roberts Bay	2	EG, SK, CB, BP	10	30/08/2010	10:35 AM	T2-321	AC	384	591	1.04	-	X	X	6	-	-	Rob Bay Y10-0157	-
Roberts Bay	2	EG, SK, CB, BP	10	31/08/2010	10:00 AM	T2-322	SC	115	11	0.72	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, SK, CB, BP	10	31/08/2010	10:00 AM	T2-323	SC	119	10	0.59	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, SL, CB, SK	10	31/08/2010	10:00 AM	T2-324	SC	122	13	0.72	-	-	-	-	-	-	-	-
Roberts Bay	2	EG, SL, CB, SK	9.4	01/09/2010	2:00 PM	T2-325	GC	475	1,051	0.98	-	X	X	4	N	-	-	-
Roberts Bay	2	EG, IK, CK	9	04/09/2010	11:06 AM	T2-326	AC	254	165	1.01	-	X	X	3	N	-	-	too small to tag
Roberts Bay	2	EG, SL, CK, IK	9	04/09/2010	11:06 AM	T2-327	SC	105	8	0.69	-	-	-	-	-	-	-	-
Roberts Bay	2	EL, MVD, SL, JA	9	05/09/2010	11:31 AM	T2-328	AC	280	307	1.40	-	X	X	-	N	-	Rob Bay Y10-0326	Wing pulled out, unlikely to be fishing 100%
Roberts Bay	2	EL, MVD, SL, JA	9	05/09/2010	11:31 AM	T2-329	AC	239	215	1.57	-	X	X	-	N	-	-	-
Roberts Bay	2	GM, EL, IK	6	07/09/2010	10:45 AM	T2-330	GC	538	1,995	1.28	-	X	X	-	N	-	-	-
Roberts Bay	2	GM, EL, IK	6	07/09/2010	10:45 AM	T2-331	GC	248	153	1.00	-	X	X	1	N	-	-	-
Roberts Bay	2	GM, EL, IK	6	07/09/2010	10:45 AM	T2-332	AC	223	114	1.03	-	X	X	3	N	-	-	-
Roberts Bay	2	GM, EL, IK	6	07/09/2010	10:45 AM	T2-333	AC	233	132	1.04	-	X	X	-	N	-	-	-
Roberts Bay	2	GM, EL, IK	6	07/09/2010	10:45 AM	T2-334	SC	135	16	0.65	-	-	-	-	N	-	-	-
Roberts Bay	2	GM, SL, IK	6	07/09/2010	10:45 AM	T2-335	SC	138	18	0.68	-	-	-	-	N	-	-	-
Roberts Bay	2	GM, SL, IK	6	07/09/2010	10:45 AM	T2-336	SC	124	14	0.73	-	-	-	-	N	-	-	-
Roberts Bay	2	GM, SL, IK	6	07/09/2010	10:45 AM	T2-337	SC	92	5	0.64	-	-	-	-	N	-	-	-
Roberts Bay	2	GM, SL, IK	6	07/09/2010	10:45 AM	T2-338	SC	128	13	0.62	-	-	-	-	N	-	-	-
Roberts Bay	2	GM, SL, IK	6	07/09/2010	10:45 AM	T2-339	SC	127	12	0.59	-	-	-	-	N	-	-	-
Roberts Bay	2	GM, SL, IK	6	07/09/2010	10:45 AM	T2-340	SC	119	7	0.42	-	-	-	-	N	-	-	-
Roberts Bay	2	GM, SL, IK	6	07/09/2010	10:45 AM	T2-341	SC	115	8	0.53	-	-	-	-	N	-	-	-
Roberts Bay	2	GM, SL, IK	6	07/09/2010	10:45 AM	T2-342	SC	121	9	0.51	-	-	-	-	N	-	-	-
Roberts Bay	2	GM, SL, IK	6	07/09/2010	10:45 AM	T2-343	SC	118	10	0.61	-	-	-	-	N	-	-	-
Roberts Bay	2	GM, SL, IK	6	07/09/2010	10:45 AM	T2-344	SC	133	12	0.51	-	-	-	-	N	-	-	-
Roberts Bay	2	GM, SL, LK	5	08/09/2010	12:00 PM	T2-345	AC	612	2,295	1.00	-	X	X	8	N	-	Rob Bay Y10-0197	-
Roberts Bay	2	GM, SL, LK	5	08/09/2010	12:00 PM	T2-346	AC	527	1,630	1.11	-	X	X	7	N	-	Rob Bay Y10-0196	-
Roberts Bay	2	GM, SL, LK	5	08/09/2010	12:00 PM	T2-347	GC	411	770	1.11	-	-	-	-	Y	-	-	Recent Pelvic Fin Clip
Roberts Bay	2	GM, SL, LK	5	08/09/2010	12:00 PM	T2-348	BG	172	12	0.24	-	-	-	-	N	-	-	-
Roberts Bay	2	GM, SL, LK	5	08/09/2010	12:00 PM	T2-349	BG	263	58	0.32	-	-	-	-	N	-	-	-
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-350	AC	537	1,734	1.12	-	X	X	6	N	-	Rob Bay Y10-0327	-
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-351	AC	509	1,575	1.19	-	X	X	-	N	-	Rob Bay Y10-0328	-
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-352	AC	603	3,000	1.37	-	X	X	14	N	-	Rob Bay Y10-0329	maxed out scale, best estimate
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-353	AC	437	1,034	1.24	-	X	X	5	N	-	Rob Bay Y10-0330	-
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-354	AC	374	645	1.23	-	X	X	-	N	-	Rob Bay Y10-0331	-
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-355	AC	359	552	1.19	-	X	X	5	N	-	Rob Bay Y10-0332	-
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-356	AC	271	267	1.34	-	X	X	-	N	-	Rob Bay Y10-0333	-
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-357	AC	304	272	0.97	-	X	X	-	N	-	Rob Bay Y10-0335	-
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-358	AC	249	147	0.95	-	X	X	-	N	-	Rob Bay Y10-0336	-
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-359	AC	193	39	0.54	-	X	X	3	N	-	-	Too small to tag

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

Appendix 3.2-10. Biological Data for Fish Sampled in Roberts Bay Trap Net 2, Hope Bay Belt Project, 2010

Location			Water	Length							Aging Structures			Age		Recap.		Tag Information		Comment
Location	Trap Net #	Fish Crew	Temp.	Date	Time	Sample #	Species	(mm)	Weight (g)	Condition	Otolith	Scales	Fin Clip					Previous Tag	New Tag	
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-360	AC	247	156	1.04	-	X	X	-	N	-	-	Rob Bay Y10-0337	-	
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-361	AC	234	68	0.53	-	X	X	-	N	-	-	-	Too small to tag	
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-362	AC	211	47	0.50	-	X	X	3	N	-	-	-	Too small to tag	
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-363	AC	235	104	0.80	-	X	X	-	N	-	-	Rob Bay Y10-0338	-	
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-364	AC	216	46	0.46	-	X	X	2	N	-	-	-	Too small to tag	
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-365	AC	199	51	0.65	-	X	X	3	N	-	-	-	-	
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-366	GC	377	617	1.15	-	X	X	3	N	-	-	-	-	
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-367	SC	301	80	0.29	-	X	X	6	N	-	-	Rob Bay Y10-0339	-	
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-368	SC	272	96	0.48	-	X	X	-	N	-	-	Rob Bay Y10-0340	-	
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-369	SC	361	329	0.70	-	X	X	4	N	-	-	Rob Bay Y10-0341	-	
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-370	SC	272	51	0.25	-	X	X	-	N	-	-	Rob Bay Y10-0343	-	
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-371	SC	247	53	0.35	-	X	X	-	N	-	-	Rob Bay Y10-0344	-	
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-372	SC	282	77	0.34	-	X	X	-	N	-	-	Rob Bay Y10-0346	-	
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-373	SC	286	83	0.35	-	X	X	-	N	-	-	Rob Bay Y10-0347	-	
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-374	SC	270	76	0.39	-	X	X	4	N	-	-	Rob Bay Y10-0348	-	
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-375	SC	279	105	0.48	-	X	X	-	N	-	-	Rob Bay Y10-0349	-	
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-376	SC	286	100	0.43	-	X	X	4	N	-	-	Rob Bay Y10-0350	-	
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-377	SC	281	121	0.55	-	X	X	-	N	-	-	Rob Bay Y10-0351	-	
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-378	SC	283	100	0.44	-	X	X	-	N	-	-	Rob Bay Y10-0352	-	
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-379	SC	124	5	0.26	-	X	X	1	N	-	-	-	Too small to tag	
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-380	SC	134	9	0.37	-	X	X	1	N	-	-	-	Too small to tag	
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-381	BG	206	12	0.14	-	-	-	-	-	-	-	-	-	
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-382	PH	162	20	0.47	X	X	X	4	N	-	-	-	Stomach sample taken	
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-383	PH	181	28	0.47	X	X	X	4	N	-	-	-	Stomach sample taken	
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-384	PH	170	20	0.41	X	X	X	5	N	-	-	-	Stomach sample taken	
Roberts Bay	2	EL, MVD, LK	6	09/09/2010	10:50 AM	T2-385	FS	60	<1	-	-	-	-	-	-	-	-	-	-	
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-386	GC	495	1,650	1.36	-	X	X	-	N	-	-	-	Small AC tail seen down throat	
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-387	GC	487	1,617	1.40	-	-	-	-	Y	-	-	-	Small AC (240mm) in throat; Poor pelvic fin clip	
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-388	GC	487	1,219	1.06	-	-	-	-	Y	-	-	-	Recent Pelvic Fin Clip	
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-389	AC	511	1,240	0.93	-	X	X	12	N	-	-	Rob Bay Y10-0461	-	
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-390	AC	369	1,134	2.26	-	X	X	10	N	-	-	Rob Bay Y10-0462	-	
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-391	AC	412	890	1.27	-	X	X	-	N	-	-	Rob Bay Y10-0464	-	
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-392	AC	392	606	1.01	-	X	X	-	N	-	-	Rob Bay Y10-0465	-	
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-393	AC	449	975	1.08	-	X	X	5	N	-	-	Rob Bay Y10-0466	-	
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-394	AC	251	112	0.71	-	X	X	4	N	-	-	Rob Bay Y10-0467	-	
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-395	AC	275	183	0.88	-	X	X	-	N	-	-	Rob Bay Y10-0468	-	
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-396	AC	271	192	0.96	-	X	X	4	N	-	-	Rob Bay Y10-0469	-	
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-397	AC	225	110	0.97	-	X	X	4	N	-	-	-	Too small to tag	
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-398	AC	381	677	1.22	-	X	X	5	N	-	-	Rob Bay Y10-0470	-	
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-399	AC	379	530	0.97	-	X	X	-	N	-	-	Rob Bay Y10-0471	-	
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-400	AC	234	112	0.87	-	X	X	-	N	-	-	-	Too small to tag	
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-401	AC	269	186	0.96	-	X	X	-	N	-	-	Rob Bay Y10-0475	-	
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-402	AC	311	349	1.16	-	X	X	-	N	-	-	Rob Bay Y10-0053	-	
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-403	AC	289	217	0.90	-	X	X	5	N	-	-	Rob Bay Y10-0054	-	
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-404	AC	309	370	1.25	-	X	X	-	N	-	-	Rob Bay Y10-0055	-	
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-405	AC	259	219	1.26	-	X	X	-	N	-	-	Rob Bay Y10-0056	-	
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-406	AC	282	229	1.02	-	X	X	-	N	-	-	Rob Bay Y10-0057	-	
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-407	AC	241	122	0.87	-	X	X	-	N	-	-	Rob Bay Y10-0058	-	
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-408	AC	309	350	1.19	-	X	X	4	N	-	-	Rob Bay Y10-0059	-	
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-409	AC	243	200	1.39	-	X	X	-	N	-	-	Rob Bay Y10-0060	-	
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-410	AC	234	168	1.31	-	X	X	-	N	-	-	-	Too small to tag	
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-411	AC	256	148	0.88	-	X	X	4	N	-	-	Rob Bay Y10-0061	-	

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin;
SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

Appendix 3.2-10. Biological Data for Fish Sampled in Roberts Bay Trap Net 2, Hope Bay Belt Project, 2010

Location			Water		Length					Aging Structures			Age		Tag Information		Comment		
Location	Trap Net #	Fish Crew	Temp.	Date	Time	Sample #	Species	(mm)	Weight (g)	Condition	Otolith	Scales			Fin Clip	Previous Tag		New Tag	
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-412	AC	302	352	1.28	-	X	X	-	N	-	Rob Bay Y10-0062	-	-
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-413	AC	236	119	0.91	-	X	X	3	N	-	-	-	Too small to tag
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-414	AC	241	159	1.14	-	X	X	-	N	-	Rob Bay Y10-0064	-	-
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-415	AC	304	249	0.89	-	X	X	4	N	-	Rob Bay Y10-0065	-	-
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-416	AC	308	274	0.94	-	X	X	-	N	-	Rob Bay Y10-0066	-	-
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-417	AC	266	126	0.67	-	X	X	-	N	-	Rob Bay Y10-0068	-	-
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-418	AC	330	298	0.83	-	X	X	4	N	-	Rob Bay Y10-0071	-	-
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-419	AC	262	241	1.34	-	X	X	-	N	-	Rob Bay Y10-0072	-	-
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-420	AC	273	168	0.83	-	X	X	-	N	-	Rob Bay Y10-0073	-	-
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-421	AC	214	78	0.80	-	X	X	-	N	-	-	-	Too small to tag
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-422	AC	230	96	0.79	-	X	X	4	N	-	-	-	Too small to tag
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-423	AC	252	147	0.92	-	X	X	-	N	-	Rob Bay Y10-0075	-	-
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-424	AC	244	160	1.10	-	X	X	-	N	-	Rob Bay Y10-0076	-	-
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-425	AC	259	135	0.78	-	X	X	-	N	-	Rob Bay Y10-0077	-	-
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-426	AC	202	94	1.14	-	X	X	-	N	-	-	-	Too small to tag
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-427	AC	273	227	1.12	-	X	X	-	N	-	Rob Bay Y10-0078	-	-
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-428	AC	377	444	0.83	-	-	-	-	Y	RLAKE 10-0320	-	-	-
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-429	AC	287	193	0.82	-	X	X	-	N	-	Rob Bay Y10-0079	-	-
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-430	AC	256	150	0.89	-	X	X	-	N	-	Rob Bay Y10-0080	-	-
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-431	AC	272	160	0.80	-	X	X	-	N	-	Rob Bay Y10-0081	-	-
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-432	AC	304	293	1.04	-	X	X	-	N	-	Rob Bay Y10-0082	-	-
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-433	AC	297	295	1.13	-	X	X	-	N	-	Rob Bay Y10-0083	-	-
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-434	AC	226	135	1.17	-	X	X	-	N	-	-	-	Too small to tag
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-435	AC	213	82	0.85	-	X	X	4	N	-	-	-	Too small to tag
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-436	AC	211	103	1.10	-	X	X	-	N	-	-	-	Too small to tag
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-437	SC	330	137	0.38	-	X	X	3	N	-	Rob Bay Y10-0084	-	-
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-438	SC	259	99	0.57	-	X	X	-	N	-	Rob Bay Y10-0088	-	-
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-439	SC	292	127	0.51	-	X	X	-	N	-	Rob Bay Y10-0089	-	-
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-440	SC	236	89	0.68	-	X	X	4	N	-	-	-	Too small to tag
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-441	SC	291	130	0.53	-	X	X	-	N	-	Rob Bay Y10-0091	-	-
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-442	SC	265	85	0.46	-	X	X	-	N	-	Rob Bay Y10-0092	-	-
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-443	SC	306	161	0.56	-	X	X	5	N	-	Rob Bay Y10-0093	-	-
Roberts Bay	2	EL, MVD	6	10/09/2010	11:55 AM	T2-444	SC	286	125	0.53	-	X	X	-	N	-	Rob Bay Y10-0094	-	-
Roberts Bay	2	EL, MVD, JA	6	12/09/2010	1:47 PM	T2-445	GC	475	1,218	1.14	-	X	X	-	N	-	-	-	-
Roberts Bay	2	EL, MVD, JA	6	12/09/2010	1:47 PM	T2-446	GC	450	834	0.92	-	X	X	5	N	-	-	-	-
Roberts Bay	2	EL, MVD, JA	6	12/09/2010	1:47 PM	T2-447	AC	362	321	0.68	-	X	X	5	N	-	Rob Bay Y10-0100	-	-
Roberts Bay	2	EL, MVD, JA	6	12/09/2010	1:47 PM	T2-448	AC	282	169	0.75	-	X	X	-	N	-	Rob Bay Y10-0551	-	-
Roberts Bay	2	EL, MVD, JA	6	12/09/2010	1:47 PM	T2-449	AC	266	139	0.74	-	X	X	5	N	-	Rob Bay Y10-0552	-	-
Roberts Bay	2	EL, MVD, JA	6	12/09/2010	1:47 PM	T2-450	SC	322	126	0.38	-	X	X	-	N	-	Rob Bay Y10-0553	-	-
Roberts Bay	2	EL, MVD, JA	6	12/09/2010	1:47 PM	T2-451	SC	296	152	0.59	-	X	X	-	N	-	Rob Bay Y10-0554	-	-
Roberts Bay	2	EL, MVD, JA	6	12/09/2010	1:47 PM	T2-452	SC	316	190	0.60	-	X	X	4	N	-	Rob Bay Y10-0555	-	-
Roberts Bay	2	EL, MVD, JA	6	12/09/2010	1:47 PM	T2-453	SC	282	125	0.56	-	X	X	-	N	-	Rob Bay Y10-0556	-	-
Roberts Bay	2	EL, MVD, JA	6	12/09/2010	1:47 PM	T2-454	SC	272	130	0.65	-	X	X	-	N	-	Rob Bay Y10-0557	-	-
Roberts Bay	2	EL, MVD, JA	6	12/09/2010	1:47 PM	T2-455	SC	268	109	0.57	-	X	X	-	N	-	Rob Bay Y10-0558	-	-
Roberts Bay	2	EL, MVD, JA	6	12/09/2010	1:47 PM	T2-456	SC	250	60	0.38	-	X	X	-	N	-	Rob Bay Y10-0559	-	-
Roberts Bay	2	EL, MVD, JA	6	12/09/2010	1:47 PM	T2-457	SC	280	101	0.46	-	X	X	-	N	-	Rob Bay Y10-0560	-	-
Roberts Bay	2	EL, MVD, JA	6	12/09/2010	1:47 PM	T2-458	SC	277	98	0.46	-	X	X	4	N	-	Rob Bay Y10-0561	-	-
Roberts Bay	2	EL, MVD, JA	6	12/09/2010	1:47 PM	T2-459	SC	281	110	0.50	-	X	X	4	N	-	Rob Bay Y10-0562	-	-
Roberts Bay	2	EL, MVD, JA	6	12/09/2010	1:47 PM	T2-460	SC	262	82	0.46	-	X	X	3	N	-	Rob Bay Y10-0563	-	-
Roberts Bay	2	EL, MVD, JA	6	12/09/2010	1:47 PM	T2-461	SC	250	83	0.53	-	X	X	-	N	-	Rob Bay Y10-0564	-	-
Roberts Bay	2	EL, MVD, JA	6	12/09/2010	1:47 PM	T2-462	FS	202	38	0.46	-	-	-	-	-	-	-	-	-
Roberts Bay	2	EL, MVD, JA	6	12/09/2010	1:47 PM	T2-463	FS	352	206	0.47	-	-	-	-	-	-	-	-	-

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

Appendix 3.2-10. Biological Data for Fish Sampled in Roberts Bay Trap Net 2, Hope Bay Belt Project, 2010

Location			Water				Length			Aging Structures					Tag Information			
Location	Trap Net #	Fish Crew	Temp.	Date	Time	Sample #	Species	(mm)	Weight (g)	Condition	Otolith	Scales	Fin Clip	Age	Recap.	Previous Tag	New Tag	Comment
Roberts Bay	2	EL, MVD, JA	6	12/09/2010	1:47 PM	T2-464	BG	229	20	0.17	-	-	-	-	-	-	-	-
Roberts Bay	2	MVD, EL, JA	6	13/09/2010	11:27 AM	T2-465	GC	595	2066	0.98	-	-	-	-	Y	-	-	Missing eye. Same fish as caught in TN2 Sept 12
Roberts Bay	2	MVD, EL, JA	6	13/09/2010	11:27 AM	T2-466	SC	256	72	0.43	-	X	X	-	N	-	Rob Bay Y10-0575	
Roberts Bay	2	MVD, EL, JA	6	13/09/2010	11:27 AM	T2-467	SC	115	7	0.46	-	X	X	1	N	-	-	Too small to tag
Roberts Bay	2	MVD, EL, JA	6	13/09/2010	11:27 AM	T2-468	GC	145	25	0.82	-	X	X	1	N	-	-	-
Roberts Bay	2	MVD, EL, JA	6	13/09/2010	11:27 AM	T2-469	BG	210	27	0.29	-	-	-	-	-	-	-	-
Roberts Bay	2	MVD, EL, JA	6.5	14/09/2010	12:05 PM	T2-470	SC	296	143	0.55	-	X	X	-	N	-	Rob Bay Y10-0478	-
Roberts Bay	2	MVD, EL, JA	6.5	14/09/2010	12:05 PM	T2-471	SC	295	165	0.64	-	X	X	4	N	-	Rob Bay Y10-0479	-
Roberts Bay	2	MVD, EL, JA	6.5	14/09/2010	12:05 PM	T2-472	SC	298	205	0.77	-	X	X	-	N	-	Rob Bay Y10-0480	-
Roberts Bay	2	MVD, EL, JA	6.5	14/09/2010	12:05 PM	T2-473	SC	284	202	0.88	-	X	X	-	N	-	Rob Bay Y10-0481	-
Roberts Bay	2	MVD, EL, JA	6.5	14/09/2010	12:05 PM	T2-474	SC	241	120	0.86	-	X	X	-	N	-	Rob Bay Y10-0482	-
Roberts Bay	2	MVD, EL, JA	6.5	14/09/2010	12:05 PM	T2-475	SC	281	130	0.59	-	X	X	-	N	-	Rob Bay Y10-0483	-
Roberts Bay	2	MVD, EL, JA	6.5	14/09/2010	12:05 PM	T2-476	SC	271	138	0.69	-	X	X	-	N	-	Rob Bay Y10-0484	-
Roberts Bay	2	MVD, EL, JA	6.5	14/09/2010	12:05 PM	T2-477	SC	140	22	0.80	-	X	X	1	N	-	-	Too small too tag
Roberts Bay	2	MVD, EL, JA	6.5	14/09/2010	12:05 PM	T2-478	SC	130	20	0.91	-	X	X	-	N	-	-	Too small too tag
Roberts Bay	2	MVD, EL, JA	6.5	14/09/2010	12:05 PM	T2-479	SC	152	25	0.71	-	X	X	-	N	-	-	Too small too tag
Roberts Bay	2	MVD, EL, JA	6.5	14/09/2010	12:05 PM	T2-480	SC	134	22	0.91	-	X	X	1	N	-	-	Too small too tag
Roberts Bay	2	MVD, EL, JA	6.5	14/09/2010	12:05 PM	T2-481	SC	154	26	0.71	-	X	X	1	N	-	-	Too small too tag
Roberts Bay	2	MVD, EL, JA	6.5	14/09/2010	12:05 PM	T2-482	SC	146	20	0.64	-	X	X	1	N	-	-	Too small too tag
Roberts Bay	2	MVD, EL, JA	6.5	14/09/2010	12:05 PM	T2-483	FS	148	32	0.99	-	-	-	-	-	-	-	-
Roberts Bay	2	MVD, EL, JA	6.5	14/09/2010	12:05 PM	T2-484	GC	610	2,247	0.99	-	X	X	7	N	-	-	-
Roberts Bay	2	MVD, EL, JA	6.5	14/09/2010	12:05 PM	T2-485	GC	497	1,576	1.28	-	X	X	-	N	-	-	-
Roberts Bay	2	MVD, EL, JA	6.5	14/09/2010	12:05 PM	T2-486	AC	265	192	1.03	-	X	X	3	N	-	-	TN2 pulled out of water Sept. 16, 2010

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

Appendix 3.2-11

Biological Data for Fish Sampled in Roberts Bay Trap
Net 3, Hope Bay Belt Project, 2010

Appendix 3.2-11. Biological Data for Fish Sampled in Roberts Bay Trap Net 3, Hope Bay Belt Project, 2010

Location			Water	Length							Aging Structures			Age		Tag Information		Comment
Location	Trap Net #	Fish Crew	Temp.	Date	Time	Sample #	Species	(mm)	Weight (g)	Condition	Otolith	Scales	Fin Clip			Previous Tag	New Tag	
Roberts Bay	3	EG, EL	-	14/08/2010	10:45 AM	T3-001	SC	172	-	-	-	X	X	-	-	-	-	-
Roberts Bay	3	EG, EL	-	14/08/2010	10:45 AM	T3-002	SC	110	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	EG, EL	-	14/08/2010	10:45 AM	T3-003	SC	92	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	EG, EL	-	14/08/2010	10:45 AM	T3-004	SC	272	-	-	-	-	-	-	-	-	Rob Bay Y10-0030	-
Roberts Bay	3	EG, EL	-	14/08/2010	10:45 AM	T3-005	FS	343	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	KM, MV, BP	-	16/08/2010	1:00 PM	T3-006	AF	327	554	1.58	-	-	-	-	-	-	-	-
Roberts Bay	3	KM, MV, BP	-	16/08/2010	1:00 PM	T3-007	FS	135	15	0.61	-	-	-	-	-	-	-	-
Roberts Bay	3	KM, MV, BP	-	16/08/2010	1:00 PM	T3-008	SC	157	18	0.47	-	-	-	-	-	-	-	-
Roberts Bay	3	KM, MV, BP	-	16/08/2010	1:00 PM	T3-009	SC	108	12	0.95	-	-	-	-	-	-	-	-
Roberts Bay	3	KM, MV, BP	-	16/08/2010	1:00 PM	T3-010	SC	86	13	2.04	-	-	-	-	-	-	-	-
Roberts Bay	3	KM, MV, BP	-	16/08/2010	1:00 PM	T3-011	SC	98	16	1.70	-	-	-	-	-	-	-	-
Roberts Bay	3	KM, MV, BP	-	16/08/2010	1:00 PM	T3-012	SC	88	10	1.47	-	-	-	-	-	-	-	-
Roberts Bay	3	KM, MV, BP	-	18/08/2010	2:05 PM	T3-013	GC	520	1,910	1.36	-	X	X	-	N	-	-	-
Roberts Bay	3	KM, MV, BP	-	19/08/2010	2:20 PM	T3-014	GC	510	1,551	1.17	-	X	X	4	N	-	-	-
Roberts Bay	3	KM, MV, BP	-	19/08/2010	2:20 PM	T3-015	GC	651	2,023	0.73	-	X	X	6	N	-	-	-
Roberts Bay	3	MS, CM	12	23/08/2010	2:40 PM	T3-016	GC	523	1,650	1.15	-	X	X	-	N	-	-	-
Roberts Bay	3	MS, CM	12	23/08/2010	2:40 PM	T3-017	GC	468	843	0.82	-	X	X	4	N	-	-	-
Roberts Bay	3	MS, CM	12	23/08/2010	2:40 PM	T3-018	GC	362	283	0.60	-	X	X	4	N	-	-	-
Roberts Bay	3	MS, CM	12	23/08/2010	2:40 PM	T3-019	SC	294	97	0.38	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, CM	12	23/08/2010	2:40 PM	T3-020	SC	253	52	0.32	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, CM	12	23/08/2010	2:40 PM	T3-021	GC	455	1,450	1.54	-	-	-	-	Y	-	-	Recent Fin Clip
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-022	SC	289	170	0.70	-	X	X	-	N	-	Rob Bay Y10-0023	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-023	SC	255	117	0.71	-	X	X	-	N	-	Rob Bay Y10-0024	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-024	SC	127	12	0.59	-	-	-	-	-	-	-	voucher specimen
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-025	SC	258	109	0.63	-	X	X	-	N	-	Rob Bay Y10-0425	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-026	SC	243	89	0.62	-	X	X	-	N	-	Rob Bay Y10-0450	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-027	SC	299	175	0.65	-	X	X	-	N	-	Rob Bay Y10-0449	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-028	SC	256	105	0.63	-	X	X	-	N	-	Rob Bay Y10-0426	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-028B	SC	293	203	0.81	-	X	X	-	N	-	Rob Bay Y10-0427	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-029	SC	245	103	0.70	-	-	-	-	-	-	Rob Bay Y10-0428	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-030	SC	191	45	0.65	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-031	SC	252	108	0.67	-	-	-	-	-	-	Rob Bay Y10-0429	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-032	SC	176	35	0.64	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-033	SC	201	53	0.65	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-034	SC	160	25	0.61	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-035	SC	170	25	0.51	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-036	SC	133	12	0.51	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-037	SC	121	11	0.62	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-038	SC	110	8	0.60	-	-	-	-	N	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-039	SC	110	7	0.53	-	-	-	-	N	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-040	SC	115	9	0.59	-	-	-	-	N	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-041	SC	109	8	0.62	-	-	-	-	N	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-042	SC	120	10	0.58	-	-	-	-	N	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-043	SC	116	10	0.64	-	-	-	-	N	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-044	SC	169	27	0.56	-	-	-	-	N	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-045	SC	-	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-046	SC	-	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-047	SC	-	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-048	SC	-	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-049	SC	-	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-050	SC	-	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-051	SC	-	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-052	SC	-	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-053	SC	-	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-054	SC	-	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-055	SC	-	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-056	SC	-	-	-	-	-	-	-	-	-	-	-

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

Appendix 3.2-11. Biological Data for Fish Sampled in Roberts Bay Trap Net 3, Hope Bay Belt Project, 2010

Location			Water			Length			Condition	Aging Structures			Age	Recap.	Tag Information		Comment
Location	Trap Net #	Fish Crew	Temp.	Date	Time	Sample #	Species	(mm)	Weight (g)	Otolith	Scales	Fin Clip			Previous Tag	New Tag	
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-057	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-058	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-059	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-060	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-061	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-062	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-063	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-064	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-065	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-066	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-067	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-068	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-069	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-070	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-071	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-072	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-073	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-074	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-075	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-076	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-077	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-078	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-079	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-080	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-081	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-082	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-083	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-084	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-085	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-086	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-087	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-088	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	11.5	24/08/2010	4:35 PM	T3-089	SC	-	-	-	-	-	-	-	-	-	-
Roberts Bay	3	MS, MV, GM	12	25/08/2010	4:00 PM	T3-090	AS	225	-	-	-	-	-	N	-	-	-
Roberts Bay	3	MF, MS, CM	10	27/08/2010	11:00 AM	T3-091	AS	152	10	0.28	-	-	-	-	-	-	-
Roberts Bay	3	MF, MS, CM	10	27/08/2010	11:00 AM	T3-092	GC	478	1,058	0.97	-	X	X	N	-	-	-
Roberts Bay	3	MF, MS, CM	10	27/08/2010	11:00 AM	T3-093	GC	531	1,723	1.15	-	-	-	Y	-	-	Recent Fin Clip
Roberts Bay	3	MF, MS, CM	10	27/08/2010	11:00 AM	T3-094	GC	552	2,193	1.30	-	X	X	N	-	-	-
Roberts Bay	3	EG, SK, CB, BP	10.1	30/08/2010	10:45 AM	T3-095	GC	477	1,346	1.24	-	X	-	Y	-	-	-
Roberts Bay	3	EG, SK, CB, BP	10.1	30/08/2010	10:45 AM	T3-096	GC	385	649	1.14	-	X	X	N	-	-	-
Roberts Bay	3	EG, SK, CB, BP	10.1	30/08/2010	10:45 AM	T3-097	GC	345	412	1.00	-	X	X	N	-	-	-
Roberts Bay	3	EG, SK, CB, BP	10.1	30/08/2010	10:45 AM	T3-098	SC	357	269	0.59	-	X	X	N	-	Rob Bay Y10-0182	-
Roberts Bay	3	EG, SK, CB, BP	10.1	30/08/2010	10:45 AM	T3-099	SC	350	314	0.73	-	X	X	N	-	Rob Bay Y10-0158	-
Roberts Bay	3	EG, SK, CB, BP	10.1	30/08/2010	10:45 AM	T3-100	SC	257	126	0.74	-	X	X	N	-	-	Too small to tag
Roberts Bay	3	EG, SK, CB, BP	10.1	30/08/2010	10:45 AM	T3-101	SC	258	125	0.73	-	X	X	N	-	-	Too small to tag
Roberts Bay	3	EG, SK, CB, BP	10	31/08/2010	10:15 AM	T3-102	SC	105	9	0.78	-	-	-	-	-	-	-
Roberts Bay	3	EG, SL	9.4	01/09/2010	2:00 PM	T3-103	SC	105	7	0.60	-	-	-	-	-	-	-
Roberts Bay	3	EG, SL	9.4	01/09/2010	2:00 PM	T3-104	SC	126	12	0.60	-	-	-	-	-	-	-
Roberts Bay	3	EG, SL	9.4	01/09/2010	2:00 PM	T3-105	SC	106	7	0.59	-	-	-	-	-	-	-
Roberts Bay	3	EG, SL	9.4	01/09/2010	2:00 PM	T3-106	SC	106	7	0.59	-	-	-	-	-	-	-
Roberts Bay	3	EG, SL	9.4	01/09/2010	2:00 PM	T3-107	SC	103	6	0.55	-	-	-	-	-	-	-
Roberts Bay	3	EG, SL	9.4	01/09/2010	2:00 PM	T3-108	SC	97	5	0.55	-	-	-	-	-	-	-
Roberts Bay	3	EG, SL, CB, IK	9.3	02/09/2010	4:15 PM	T3-109	GC	536	1,506	0.98	-	-	-	Y	-	-	-
Roberts Bay	3	EG, SL, CB, IK	9.3	02/09/2010	4:15 PM	T3-110	SC	309	215	0.73	-	X	X	N	-	Rob Bay Y10-0160	-
Roberts Bay	3	EG, SL, CB, IK	9	04/09/2010	11:00 AM	T3-111	BG	165	11	0.24	-	-	-	-	-	-	-
Roberts Bay	3	EL, MVD, SL, JA	9	05/09/2010	11:55 AM	T3-112	FS	228	74	0.62	-	-	-	N	-	-	-
Roberts Bay	3	EL, MVD, SL, JA	9	05/09/2010	11:55 AM	T3-113	GC	381	555	1.00	-	X	X	N	-	-	-

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

Appendix 3.2-11. Biological Data for Fish Sampled in Roberts Bay Trap Net 3, Hope Bay Belt Project, 2010

Location			Water		Length					Aging Structures			Tag Information		Comment			
Location	Trap Net #	Fish Crew	Temp.	Date	Time	Sample #	Species	(mm)	Weight (g)	Condition	Otolith	Scales	Fin Clip	Age		Recap.	Previous Tag	New Tag
Roberts Bay	3	EL, MVD, SL, JA	9	05/09/2010	11:55 AM	T3-114	GC	435	974	1.18	-	X	X	4	N	-	-	-
Roberts Bay	3	EL, MVD, SL, JA	9	05/09/2010	11:55 AM	T3-115	GC	526	1,489	1.02	-	X	X	6	N	-	-	-
Roberts Bay	3	GM, SL, IK	5	07/09/2010	12:55 PM	T3-116	GC	548	1,674	1.02	-	X	X	6	N	-	-	-
Roberts Bay	3	GM, SL, IK	5	07/09/2010	12:55 PM	T3-117	GC	475	1,385	1.29	-	-	-	-	Y	-	-	Recent Fin Clip
Roberts Bay	3	GM, SL, IK	5	07/09/2010	12:55 PM	T3-118	GC	480	1,116	1.01	-	X	X	-	N	-	-	-
Roberts Bay	3	GM, SL, IK	5	07/09/2010	12:55 PM	T3-119	GC	475	1,257	1.17	-	-	-	-	Y	-	-	Recent Fin Clip
Roberts Bay	3	GM, SL, IK	5	07/09/2010	12:55 PM	T3-120	GC	513	1,439	1.07	-	-	-	-	Y	-	-	Recent Fin Clip
Roberts Bay	3	GM, SL, IK	5	07/09/2010	12:55 PM	T3-121	FS	300	310	1.15	-	-	-	-	N	-	-	-
Roberts Bay	3	GM, SL, IK	5	07/09/2010	12:55 PM	T3-122	SC	300	201	0.74	-	X	X	-	N	-	Rob Bay Y10-0199	-
Roberts Bay	3	GM, SL, IK	5	07/09/2010	12:55 PM	T3-123	FS	322	269	0.81	-	-	-	-	N	-	-	-
Roberts Bay	3	GM, SL, LK	5	08/09/2010	11:15 AM	T3-124	SC	322	239	0.72	-	X	X	4	N	-	Rob Bay Y10-0198	-
Roberts Bay	3	GM, SL, LK	5	08/09/2010	11:15 AM	T3-125	FS	98	6	0.64	-	-	-	-	N	-	-	-
Roberts Bay	3	MVD, EL, LK	5	09/09/2010	4:07 PM	T3-126	GC	462	1,265	1.28	-	X	-	4	Y	-	-	Recent Fin Clip
Roberts Bay	3	MVD, EL, LK	5	09/09/2010	4:07 PM	T3-127	GC	482	1,336	1.19	-	-	-	-	Y	-	-	Recent Fin Clip
Roberts Bay	3	MVD, EL, LK	5	09/09/2010	4:07 PM	T3-128	GC	479	1,323	1.20	-	X	X	4	N	-	-	-
Roberts Bay	3	MVD, EL, LK	5	09/09/2010	4:07 PM	T3-129	GC	224	63	0.56	-	X	X	2	N	-	-	-
Roberts Bay	3	MVD, EL, LK	5	09/09/2010	4:07 PM	T3-130	SC	273	130	0.64	-	X	X	-	N	-	Rob Bay Y10-0453	-
Roberts Bay	3	MVD, EL, LK	5	09/09/2010	4:07 PM	T3-131	SC	386	372	0.65	-	X	X	6	N	-	Rob Bay Y10-0454	-
Roberts Bay	3	MVD, EL, LK	5	09/09/2010	4:07 PM	T3-132	SC	302	223	0.81	-	X	X	-	N	-	Rob Bay Y10-0455	-
Roberts Bay	3	MVD, EL, LK	5	09/09/2010	4:07 PM	T3-133	SC	280	123	0.56	-	X	X	-	N	-	Rob Bay Y10-0456	-
Roberts Bay	3	MVD, EL, LK	5	09/09/2010	4:07 PM	T3-134	SC	279	127	0.58	-	X	X	-	N	-	Rob Bay Y10-0457	-
Roberts Bay	3	MVD, EL, LK	5	09/09/2010	4:07 PM	T3-135	SF	369	560	1.11	-	-	-	-	-	-	-	-
Roberts Bay	3	MVD, EL, LK	5	09/09/2010	4:07 PM	T3-136	AC	265	138	0.74	-	-	-	-	N	-	Rob Bay Y10-0458	-
Roberts Bay	3	MVD, EL, LK	5	09/09/2010	4:07 PM	T3-137	AC	360	405	0.87	-	X	X	-	N	-	Rob Bay Y10-0459	-
Roberts Bay	3	EL, MVD	6	10/09/2010	5:23 PM	T3-138	GC	551	2,025	1.21	-	-	-	-	Y	-	-	Recent Fin Clip
Roberts Bay	3	EL, MVD	6	10/09/2010	5:23 PM	T3-139	GC	494	1,088	0.90	-	X	X	4	N	-	-	-
Roberts Bay	3	EL, MVD	6	10/09/2010	5:23 PM	T3-140	FS	223	66	0.60	-	-	-	-	-	-	-	-
Roberts Bay	3	EL, MVD	6	10/09/2010	5:23 PM	T3-141	SC	286	145	0.62	-	X	X	-	N	-	Rob Bay Y10-0095	Rotten Tail
Roberts Bay	3	EL, MVD	6	10/09/2010	5:23 PM	T3-142	GC	252	92	0.57	-	X	X	1	N	-	-	-
Roberts Bay	3	MVD, EL, JA	6	12/09/2010	3:27 PM	T3-143	GC	595	2,064	0.98	-	-	-	-	Y	-	-	Missing eye, recent pelvic fin clip
Roberts Bay	3	MVD, EL, JA	6	12/09/2010	3:27 PM	T3-144	GC	440	748	0.88	-	X	X	4	N	-	-	-
Roberts Bay	3	MVD, EL, JA	6	12/09/2010	3:27 PM	T3-145	GC	480	1,150	1.04	-	-	-	-	Y	-	-	Recent Fin Clip
Roberts Bay	3	MVD, EL, JA	6	12/09/2010	3:27 PM	T3-146	GC	510	1,475	1.11	-	-	-	-	Y	-	-	Recent Fin Clip
Roberts Bay	3	MVD, EL, JA	6	12/09/2010	3:27 PM	T3-147	GC	495	1,257	1.04	-	-	-	-	Y	-	-	Recent Fin Clip
Roberts Bay	3	MVD, EL, JA	6	12/09/2010	3:27 PM	T3-148	AF	258	155	0.90	-	-	-	-	-	-	-	-
Roberts Bay	3	MVD, EL, JA	6	12/09/2010	3:27 PM	T3-149	AF	185	69	1.09	-	-	-	-	-	-	-	-
Roberts Bay	3	MVD, EL, JA	6	13/09/2010	12:17 PM	T3-150	BG	223	15	0.14	-	-	-	-	-	-	-	-
Roberts Bay	3	MVD, EL, JA	6	13/09/2010	12:17 PM	T3-151	GC	350	264	0.62	-	-	-	-	Y	-	-	Recent Fin Clip
Roberts Bay	3	MVD, EL, JA	6	13/09/2010	12:17 PM	T3-152	GC	410	437	0.63	-	-	-	-	Y	-	-	-
Roberts Bay	3	MVD, EL, JA	6	13/09/2010	12:17 PM	T3-153	SC	323	247	0.73	-	X	X	4	N	-	Rob Bay Y10-0476	-
Roberts Bay	3	MVD, EL, JA	6	13/09/2010	12:17 PM	T3-154	FS	340	234	0.60	-	-	-	-	-	-	-	-
Roberts Bay	3	MVD, EL, JA	6	13/09/2010	12:17 PM	T3-155	SC	322	287	0.86	-	X	X	5	N	-	Rob Bay Y10-0477	-
Roberts Bay	3	MVD, EL, JA	6.5	14/09/2010	1:53 PM	T3-156	GC	466	975	0.96	-	-	-	-	Y	-	-	Recent Fin Clip
Roberts Bay	3	MVD, EL, JA	6.5	14/09/2010	1:53 PM	T3-157	SC	277	156	0.73	-	X	X	-	N	-	Rob Bay Y10-0485	-
Roberts Bay	3	MVD, EL, JA	6.5	14/09/2010	1:53 PM	T3-158	SC	295	-	-	-	-	-	-	Y	-	Rob Bay Y10-0479	-
Roberts Bay	3	MVD, EL, JA	6.5	14/09/2010	1:53 PM	T3-159	SC	280	165	0.75	-	X	X	-	N	-	Rob Bay Y10-0486	-
Roberts Bay	3	MVD, EL, JA	6.5	14/09/2010	1:53 PM	T3-160	SC	135	14	0.57	-	-	-	1	N	-	-	Too small to tag
Roberts Bay	3	MVD, SL, JA	6	16/09/2010	2:00 PM	T3-161	FS	305	311	1.10	-	-	-	-	N	-	-	-
Roberts Bay	3	MVD, SL, JA	6	16/09/2010	2:00 PM	T3-162	SF	421	1,208	1.62	-	-	-	-	N	-	-	TN3 pulled on Sept. 16, 2010

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin;
SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

Appendix 3.2-12

Biological Data for Fish Sampled in Roberts Bay Trap
Net 4, Hope Bay Belt Project, 2010

Appendix 3.2-12. Biological Data for Fish Sampled in Roberts Bay Trap Net 4, Hope Bay Belt Project, 2010

Location			Water					Length			Aging Structures					Tag Information		
Location	Trap Net #	Fish Crew	Temp.	Date	Time	Sample #	Species	(mm)	Weight (g)	Condition	Otolith	Scales	Fin Clip	Age	Recap.	Previous Tag	New Tag	Comment
Roberts Bay	4	EG, EL	-	13/08/2010	1:25 PM	T4-001	LT	333	-	-	-	X	X	8	N	-	Rob Bay Y10-0006	-
Roberts Bay	4	EG, EL	-	13/08/2010	1:25 PM	T4-002	GC	579	-	-	-	X	X	7	N	-	-	-
Roberts Bay	4	EG, EL	-	13/08/2010	1:25 PM	T4-003	GC	496	-	-	-	X	X	4	N	-	-	-
Roberts Bay	4	EG, EL	-	13/08/2010	1:25 PM	T4-004	GC	434	-	-	-	X	X	4	N	-	-	-
Roberts Bay	4	EG, EL	-	13/08/2010	1:25 PM	T4-005	GC	432	-	-	-	X	X	4	N	-	-	-
Roberts Bay	4	EG, EL	-	13/08/2010	1:25 PM	T4-006	GC	396	-	-	-	X	X	4	N	-	-	-
Roberts Bay	4	EG, EL	-	13/08/2010	1:25 PM	T4-007	GC	397	-	-	-	X	X	4	N	-	-	-
Roberts Bay	4	EG, EL	-	13/08/2010	1:25 PM	T4-008	GC	356	-	-	-	X	X	3	N	-	-	-
Roberts Bay	4	EG, EL	-	14/08/2010	8:00 AM	T4-009	GC	493	-	-	-	X	X	4	N	-	-	-
Roberts Bay	4	EG, EL	-	14/08/2010	8:00 AM	T4-010	GC	537	-	-	-	X	X	-	N	-	-	-
Roberts Bay	4	EG, EL	-	14/08/2010	8:00 AM	T4-011	GC	462	-	-	-	X	X	4	N	-	-	-
Roberts Bay	4	EG, EL	-	14/08/2010	8:00 AM	T4-012	GC	493	-	-	-	X	X	-	N	-	-	-
Roberts Bay	4	EG, EL	-	16/08/2010	10:30 AM	T4-013	AC	778	-	-	-	X	X	9	N	-	Rob Bay Y10-0046	Estimated weight at 3500g
Roberts Bay	4	EG, EL	-	16/08/2010	10:30 AM	T4-014	LT	596	1728	0.82	-	X	X	13	N	-	Rob Bay Y10-0048	
Roberts Bay	4	EG, EL	-	16/08/2010	10:30 AM	T4-015	GC	578	2023	1.05	-	X	X	8	N	-	-	-
Roberts Bay	4	EG, EL	-	16/08/2010	10:30 AM	T4-016	GC	454	1089	1.16	-	X	X	4	N	-	-	-
Roberts Bay	4	EG, EL	-	16/08/2010	10:30 AM	T4-017	GC	565	1886	1.05	-	X	X	5	N	-	-	-
Roberts Bay	4	EG, EL	-	16/08/2010	10:30 AM	T4-018	GC	537	1634	1.06	-	-	-	-	-	-	-	-
Roberts Bay	4	EG, EL	-	16/08/2010	10:30 AM	T4-019	GC	531	1618	1.08	-	-	-	-	-	-	-	-
Roberts Bay	4	EG, EL	-	16/08/2010	10:30 AM	T4-020	GC	465	958	0.95	-	-	-	-	-	-	-	-
Roberts Bay	4	EG, EL	-	16/08/2010	10:30 AM	T4-021	GC	416	789	1.10	-	-	-	-	-	-	-	-
Roberts Bay	4	EG, EL	-	16/08/2010	10:30 AM	T4-022	GC	354	447	1.01	-	-	-	-	-	-	-	-
Roberts Bay	4	EG, EL	-	16/08/2010	10:30 AM	T4-023	AC	472	1233	1.17	-	X	X	-	N	-	Rob Bay Y10-0047	-
Roberts Bay	4	EG, EL	-	18/08/2010	2:00 PM	T4-024	LT	246	160	1.07	-	X	X	5	N	-	Rob Bay Y10-0210	-
Roberts Bay	4	EG, EL	-	18/08/2010	2:00 PM	T4-025	GC	413	791	1.12	-	X	X	4	N	-	-	-
Roberts Bay	4	EG, EL	-	18/08/2010	2:00 PM	T4-026	GC	371	675	1.32	-	X	X	3	N	-	-	-
Roberts Bay	4	EG, EL	-	19/08/2010	1:10 PM	T4-027	AC	442	1135	1.31	-	X	X	5	N	-	Rob Bay Y10-0211	-
Roberts Bay	4	MC, CM	12	23/08/2010	3:20 PM	T4-028	AC	445	814	0.92	-	X	X	-	N	-	Rob Bay Y10-0409	-
Roberts Bay	4	MC, CM	12	23/08/2010	3:20 PM	T4-029	AC	405	486	0.73	-	X	X	4	N	-	Rob Bay Y10-0410	-
Roberts Bay	4	MC, CM	12	23/08/2010	3:20 PM	T4-030	AC	384	549	0.97	-	X	X	-	N	-	Rob Bay Y10-0411	-
Roberts Bay	4	MC, CM	12	23/08/2010	3:20 PM	T4-031	AC	615	2592	1.11	-	X	X	8	N	-	Rob Bay Y10-0412	-
Roberts Bay	4	MC, CM	12	23/08/2010	3:20 PM	T4-032	AC	474	1004	0.94	-	X	X	5	N	-	Rob Bay Y10-0413	-
Roberts Bay	4	MC, CM	12	23/08/2010	3:20 PM	T4-033	AC	393	434	0.72	-	X	X	5	N	-	Rob Bay Y10-0414	-
Roberts Bay	4	MC, CM	12	23/08/2010	3:20 PM	T4-034	GC	439	439	0.52	-	X	X	4	N	-	-	-
Roberts Bay	4	MC, CM	12	23/08/2010	3:20 PM	T4-035	GC	430	657	0.83	-	-	-	-	Y	-	-	Gillnet scars
Roberts Bay	4	MC, CM	12	23/08/2010	3:20 PM	T4-036	GC	395	597	0.97	-	X	X	3	N	-	-	-
Roberts Bay	4	MC, CM	12	23/08/2010	3:20 PM	T4-037	AC	748	-	-	-	X	-	10	N	-	Rob Bay Y10-0415	estimated weight at 6000g
Roberts Bay	4	MC, CM	12	23/08/2010	3:20 PM	T4-038	AC	630	-	-	-	X	X	-	N	-	Rob Bay Y10-0416	estimated weight at 4000g
Roberts Bay	4	MS, MV, GM	12	24/08/2010	6:00 PM	T4-039	SC	172	33	0.65	-	-	-	-	-	-	-	-
Roberts Bay	4	MS, MV, GM	12	24/08/2010	6:00 PM	T4-040	SC	118	11	0.67	-	-	-	-	-	-	-	-
Roberts Bay	4	MS, MV, GM	12	24/08/2010	6:00 PM	T4-041	SC	108	7	0.56	-	-	-	-	-	-	-	-
Roberts Bay	4	MS, MV, GM	12	24/08/2010	6:00 PM	T4-042	SC	101	5	0.49	-	-	-	-	-	-	-	-
Roberts Bay	4	MS, MV, GM	12	24/08/2010	6:00 PM	T4-043	SC	115	10	0.66	-	-	-	-	-	-	-	-
Roberts Bay	4	MS, MV, GM	12	24/08/2010	6:00 PM	T4-044	SC	88	5	0.73	-	-	-	-	-	-	-	-
Roberts Bay	4	MS, S	12	25/08/2010	4:40 PM	T4-045	GC	535	2145	1.40	-	X	X	7	N	-	-	-
Roberts Bay	4	MS, S	12	25/08/2010	4:40 PM	T4-046	GC	434	830	1.02	-	-	-	-	Y	-	-	-
Roberts Bay	4	MF, MS, CM	10	27/08/2010	11:50 AM	T4-047	GC	566	1897	1.05	-	-	-	-	Y	-	-	Recent Pelvic Fin Clip
Roberts Bay	4	MF, MS, CM	10	27/08/2010	11:50 AM	T4-048	GC	568	1931	1.05	-	X	X	7	N	-	-	-
Roberts Bay	4	MF, MS, CM	10	27/08/2010	11:50 AM	T4-049	GC	386	568	0.99	-	-	-	-	Y	-	-	Recent Pelvic Fin Clip
Roberts Bay	4	MF, MS, CM	10	27/08/2010	11:50 AM	T4-050	GC	348	400	0.95	-	X	X	3	N	-	-	-
Roberts Bay	4	MF, MS, CM	10	27/08/2010	11:50 AM	T4-051	AC	296	311	1.20	-	X	X	-	N	-	Rob Bay Y10-0438	-
Roberts Bay	4	MF, MS, CM	10	27/08/2010	11:50 AM	T4-052	AC	339	383	0.98	-	X	X	4	N	-	Rob Bay Y10-0439	-
Roberts Bay	4	MF, MS, CM	10	27/08/2010	11:50 AM	T4-053	AC	294	300	1.18	-	X	X	-	N	-	Rob Bay Y10-0440	-
Roberts Bay	4	MF, MS, CM	10	27/08/2010	11:50 AM	T4-054	AC	300	292	1.08	-	X	X	-	N	-	Rob Bay Y10-0441	-
Roberts Bay	4	MF, MS, CM	10	27/08/2010	11:50 AM	T4-055	AC	312	359	1.18	-	X	X	-	N	-	Rob Bay Y10-0442	-
Roberts Bay	4	EG, SK	-	28/08/2010	3:30 PM	T4-056	GC	582	2259	1.15	-	-	-	-	N	-	-	-
Roberts Bay	4	EG, SK	-	28/08/2010	3:30 PM	T4-057	GC	532	1439	0.96	-	-	-	-	N	-	-	-

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin; SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

Appendix 3.2-12. Biological Data for Fish Sampled in Roberts Bay Trap Net 4, Hope Bay Belt Project, 2010

Location			Water					Length		Aging Structures					Tag Information			
Location	Trap Net #	Fish Crew	Temp.	Date	Time	Sample #	Species	(mm)	Weight (g)	Condition	Otolith	Scales	Fin Clip	Age	Recap.	Previous Tag	New Tag	Comment
Roberts Bay	4	EG, SK	-	28/08/2010	3:30 PM	T4-058	GC	429	898	1.14	-	-	-	-	N	-	-	-
Roberts Bay	4	EG, SK	-	28/08/2010	3:30 PM	T4-059	GC	468	-	-	-	-	-	-	N	-	-	-
Roberts Bay	4	EG, SK	-	28/08/2010	3:30 PM	T4-060	AC	748	>3000	-	-	-	-	-	N	-	Rob Bay Y10-0443	-
Roberts Bay	4	EG, SK	-	28/08/2010	3:30 PM	T4-061	AC	374	619	1.18	-	-	-	-	N	-	Rob Bay Y10-0444	-
Roberts Bay	4	EG, SK	-	28/08/2010	3:30 PM	T4-062	AC	469	909	0.88	-	-	-	-	N	-	Rob Bay Y10-0445	-
Roberts Bay	4	EG, SK	-	28/08/2010	3:30 PM	T4-063	AC	357	562	1.24	-	-	-	-	N	-	Rob Bay Y10-0446	-
Roberts Bay	4	EG, SK, CB, BP	10.4	29/08/2010	2:41 PM	T4-064	GC	564	>3000	-	-	X	X	-	Y	-	-	-
Roberts Bay	4	EG, SK, CB, BP	10.4	29/08/2010	2:41 PM	T4-065	GC	549	2268	1.37	-	X	X	4	N	-	-	-
Roberts Bay	4	EG, SK, CB, BP	10.4	29/08/2010	2:41 PM	T4-066	GC	541	1923	1.21	-	X	X	-	N	-	-	-
Roberts Bay	4	EG, SK, CB, BP	10.4	29/08/2010	2:41 PM	T4-067	GC	392	651	1.08	-	X	X	3	N	-	-	-
Roberts Bay	4	EG, SK, CB, BP	10.4	29/08/2010	2:41 PM	T4-068	GC	455	1223	1.30	-	X	X	-	N	-	-	-
Roberts Bay	4	EG, SK, CB, BP	10.4	29/08/2010	2:41 PM	T4-069	SF	379	821	1.51	-	-	-	-	-	-	-	-
Roberts Bay	4	EG, SK, CB, BP	10.4	29/08/2010	2:41 PM	T4-070	AF	380	907	1.65	-	-	-	-	-	-	-	-
Roberts Bay	4	EG, SK, CB, BP	10.4	29/08/2010	2:41 PM	T4-071	SF	382	632	1.13	-	-	-	-	-	-	-	-
Roberts Bay	4	EG, SK, CB, BP	9.5	30/08/2010	1:30 PM	T4-072	SC	275	147	0.71	-	X	X	-	N	-	-	-
Roberts Bay	4	EG, SK, CB, BP	9.5	30/08/2010	1:30 PM	T4-073	SC	140	25	0.91	-	-	-	-	N	-	-	-
Roberts Bay	4	EG, SK, CB, BP	9.5	30/08/2010	1:30 PM	T4-074	GC	372	640	1.24	-	X	X	3	N	-	-	-
Roberts Bay	4	EG, SK, CB, BP	9.5	30/08/2010	1:30 PM	T4-075	SC	111	10	0.73	-	-	-	-	N	-	-	-
Roberts Bay	4	EG, SK, CB, BP	9	31/08/2010	9:45 AM	T4-076	GC	389	653	1.11	-	X	-	3	Y	-	-	-
Roberts Bay	4	EG, SK, CB, BP	8.1	01/09/2010	1:34 PM	T4-077	GC	534	1491	0.98	-	-	-	-	Y	-	-	-
Roberts Bay	4	EG, SK, CB, BP	8.1	01/09/2010	1:34 PM	T4-078	GC	542	1830	1.15	-	-	-	-	Y	-	-	-
Roberts Bay	4	EG, CB, IK, SL	9.3	02/09/2010	11:25 AM	T4-079	GC	535	1603	1.05	-	X	X	6	N	-	-	-
Roberts Bay	4	EG, CB, IK, SL	9.3	02/09/2010	11:25 AM	T4-080	AC	540	1354	0.86	-	X	X	6	N	-	Rob Bay Y10-0159	-
Roberts Bay	4	EG, CB, IK, SL	9.3	02/09/2010	11:25 AM	T4-081	SF	367	694	1.40	-	-	-	-	-	-	-	-
Roberts Bay	4	EG, IK, CK	9.5	03/09/2010	11:10 AM	T4-082	GC	466	960	0.95	-	X	X	-	N	-	-	-
Roberts Bay	4	EG, SL, IK, CK	9.2	04/09/2010	10:35 AM	T4-083	GC	369	573	1.14	-	-	-	-	N	-	-	-
Roberts Bay	4	EG, SL, IK, CK	9.2	04/09/2010	10:35 AM	T4-084	GC	365	443	0.91	-	X	X	-	N	-	-	-
Roberts Bay	4	EG, SL, IK, CK	9.2	04/09/2010	10:35 AM	T4-085	GC	257	231	1.36	-	X	X	2	N	-	-	-
Roberts Bay	4	MVD, EL, SL, JA	9	05/09/2010	1:08 PM	T4-086	GC	402	997	1.53	-	X	X	3	N	-	-	-
Roberts Bay	4	GM, SL, IK	-	07/09/2010	3:16 PM	T4-087	GC	423	833	1.10	-	-	-	-	Y	-	-	Already aged, char in mouth
Roberts Bay	4	GM, SL, IK	-	07/09/2010	3:16 PM	T4-088	GC	535	2115	1.38	-	-	-	-	Y	-	-	Already aged, char in mouth
Roberts Bay	4	GM, SL, IK	-	07/09/2010	3:16 PM	T4-089	GC	500	1608	1.29	-	X	X	4	N	-	-	Herring in mouth
Roberts Bay	4	GM, SL, IK	-	07/09/2010	3:16 PM	T4-090	GC	403	709	1.08	-	-	-	-	Y	-	-	Recent Pelvic Fin Clip
Roberts Bay	4	GM, SL, IK	-	07/09/2010	3:16 PM	T4-091	GC	482	1097	0.98	-	X	X	-	N	-	-	-
Roberts Bay	4	GM, SL, IK	-	07/09/2010	3:16 PM	T4-092	GC	316	309	0.98	-	X	X	3	N	-	-	-
Roberts Bay	4	GM, SL, IK	-	07/09/2010	3:16 PM	T4-093	AC	225	112	0.98	-	X	X	-	N	-	-	Dead, pulled from mouth of GC #T4-237
Roberts Bay	4	GM, SL, IK	-	07/09/2010	3:16 PM	T4-094	PH	280	208	0.95	X	X	-	10	N	-	-	Dead, pulled from mouth of GC #T4-239
Roberts Bay	4	GM, SL, LK	-	08/09/2010	2:20 PM	T4-095	GC	373	590	1.14	X	X	-	-	Y	-	-	Recent Pelvic Fin Clip
Roberts Bay	4	EL, MVD	6.5	10/09/2010	10:50 AM	T4-096	AC	420	935	1.26	-	X	X	6	N	-	Rob Bay Y10-0460	-
Roberts Bay	4	EL, MVD	6.5	10/09/2010	10:50 AM	T4-097	GC	530	2145	1.44	-	-	-	-	Y	-	-	Recent Pelvic Fin Clip
Roberts Bay	4	EL, MVD	6.5	10/09/2010	10:50 AM	T4-098	GC	397	715	1.14	-	-	-	-	Y	-	-	Recent Pelvic Fin Clip
Roberts Bay	4	EL, MVD	6.5	10/09/2010	10:50 AM	T4-099	GC	397	756	1.21	-	-	-	-	Y	-	-	Recent Pelvic Fin Clip
Roberts Bay	4	EL, MVD	6.5	10/09/2010	10:50 AM	T4-100	GC	420	825	1.11	-	-	-	-	Y	-	-	Recent Pelvic Fin Clip
Roberts Bay	4	EL, MVD	6.5	10/09/2010	10:50 AM	T4-101	FS	340	368	0.94	-	-	-	-	N	-	-	-
Roberts Bay	4	EL, MVD	6.5	10/09/2010	10:50 AM	T4-102	BG	250	22	0.14	-	-	-	-	N	-	-	-
Roberts Bay	4	EL, MVD, JA	6.5	12/09/2010	4:11 PM	T4-103	AC	319	235	0.72	-	X	X	-	N	-	Rob Bay Y10-0565	-
Roberts Bay	4	EL, MVD, JA	6.5	12/09/2010	4:11 PM	T4-104	AC	366	345	0.70	-	X	X	5	N	-	Rob Bay Y10-0566	-
Roberts Bay	4	EL, MVD, JA	6.5	12/09/2010	4:11 PM	T4-105	AC	293	229	0.91	-	X	X	-	N	-	Rob Bay Y10-0567	-
Roberts Bay	4	EL, MVD, JA	6.5	12/09/2010	4:11 PM	T4-106	AC	282	187	0.83	-	X	X	4	N	-	Rob Bay Y10-0568	-
Roberts Bay	4	EL, MVD, JA	6.5	12/09/2010	4:11 PM	T4-107	AC	307	281	0.97	-	X	X	4	N	-	Rob Bay Y10-0569	-
Roberts Bay	4	EL, MVD, JA	6.5	12/09/2010	4:11 PM	T4-108	AC	263	163	0.90	-	X	X	4	N	-	Rob Bay Y10-0571	Possible regen of right pelvic fin
Roberts Bay	4	EL, MVD, JA	6.5	12/09/2010	4:11 PM	T4-109	AC	251	122	0.77	-	X	X	4	N	-	Rob Bay Y10-0572	-
Roberts Bay	4	EL, MVD, JA	6.5	12/09/2010	4:11 PM	T4-110	AC	282	181	0.81	-	X	X	-	N	-	Rob Bay Y10-0573	-
Roberts Bay	4	EL, MVD, JA	6.5	12/09/2010	4:11 PM	T4-111	AC	222	59	0.54	-	X	X	-	N	-	-	Blue dorsal marks
Roberts Bay	4	EL, MVD, JA	6.5	12/09/2010	4:11 PM	T4-112	AC	212	68	0.71	-	X	X	3	N	-	-	Too small to tag
Roberts Bay	4	EL, MVD, JA	6.5	12/09/2010	4:11 PM	T4-113	AC	212	73	0.77	-	X	X	-	N	-	-	Too small to tag
Roberts Bay	4	EL, MVD, JA	6.5	12/09/2010	4:11 PM	T4-114	BG	194	9	0.12	-	-	-	-	-	-	-	-

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin;
SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

Appendix 3.2-12. Biological Data for Fish Sampled in Roberts Bay Trap Net 4, Hope Bay Belt Project, 2010

Location			Water		Length					Aging Structures					Tag Information			
Location	Trap Net #	Fish Crew	Temp.	Date	Time	Sample #	Species	(mm)	Weight (g)	Condition	Otolith	Scales	Fin Clip	Age	Recap.	Previous Tag	New Tag	Comment
Roberts Bay	4	EL, MVD, JA	6.5	12/09/2010	4:11 PM	T4-115	SC	293	182	0.72	-	X	X	-	N	-	Rob Bay Y10-0574	-
Roberts Bay	4	EL, MVD, JA	6.5	12/09/2010	4:11 PM	T4-116	AS	120	7	0.41	-	-	-	-	-	-	-	voucher specimen
Roberts Bay	4	EL, MVD, JA	6.5	13/09/2010	2:07 PM	T4-117	GC	490	1335	1.13	-	X	X	-	N	-	-	-
Roberts Bay	4	EL, MVD, JA	6.5	13/09/2010	2:07 PM	T4-118	FS	220	62	0.58	-	-	-	-	-	-	-	-
Roberts Bay	4	EL, MVD, JA	6.5	14/09/2010	4:11 PM	T4-119	GC	455	883	0.94	-	X	X	4	N	-	-	-
Roberts Bay	4	MVD, EL	6.5	14/09/2010	4:11 PM	T4-120	GC	401	785	1.22	-	-	-	-	Y	-	-	Recent Pelvic Fin Clip
Roberts Bay	4	MVD, EL	6.5	14/09/2010	4:11 PM	T4-121	GC	271	200	1.00	-	-	-	2	N	-	-	-
Roberts Bay	4	MVD	6	16/09/2010	3:30 PM	T4-122	GC	422	907	1.21	-	-	-	-	Y	-	-	-
Roberts Bay	4	MVD	6	16/09/2010	3:30 PM	T4-123	AC	307	365	1.26	-	X	X	-	N	-	Rob Bay Y10-0488	-
Roberts Bay	4	MVD	6	16/09/2010	3:30 PM	T4-124	AC	310	339	1.14	-	X	X	4	N	-	Rob Bay Y10-0490	-
Roberts Bay	4	MVD	6	16/09/2010	3:30 PM	T4-125	AC	255	237	1.43	-	X	X	-	N	-	Rob Bay Y10-0491	-
Roberts Bay	4	MVD	6	16/09/2010	3:30 PM	T4-126	AC	280	255	1.16	-	X	X	4	N	-	Rob Bay Y10-0492	-
Roberts Bay	4	MVD	6	16/09/2010	3:30 PM	T4-127	AC	235	168	1.29	-	X	X	-	N	-	-	-
Roberts Bay	4	MVD	6	16/09/2010	3:30 PM	T4-128	SS	190	79	1.15	-	-	-	-	-	-	-	-
Roberts Bay	4	MVD	6	16/09/2010	3:30 PM	T4-129	FS	143	22	0.75	-	-	-	-	-	-	-	-
Roberts Bay	4	MVD	6	16/09/2010	3:30 PM	T4-130	FS	102	9	0.85	-	-	-	-	-	-	-	-
Roberts Bay	4	MVD	6	16/09/2010	3:30 PM	T4-131	FS	98	8	0.85	-	-	-	-	-	-	-	TN4 pulled Sept. 16, 2010

AC = Arctic char; AF = Arctic flounder; AS = Arctic shanny; BG = banded gunnel; GC = Greenland cod; LD = longhead dab; LT = lake trout; PH = Pacific herring; SC = saffron cod; SF = starry flounder; FS = fourhorn sculpin;

SS = Shorthorn Sculpin; NS = Ninespine stickleback; Unid. = unidentified fish.

Appendix 3.2-13

Pacific Herring Diet by Number, Hope Bay Belt Project,
2010

Appendix 3.2-13. Pacific Herring Diet by Number, Hope Bay Belt Project, 2010

Stomach Number			137	138	139	140	141	142	235	236	237	238
Location			P3	P3	P3	P3	P3	P3	P3	P3	P3	P3
Date			10-Aug-10	10-Aug-10	10-Aug-10	8-Oct-10	10-Aug-10	10-Aug-10	9-Sep-10	9-Sep-10	9-Sep-10	9-Sep-10
Length			-	-	-	-	-	-	180	285	275	277
Weight			-	-	-	-	-	-	154	255	230	265
Age			-	-	-	-	-	-	4	9	11	11
Sample No.			100452	100453	100454	100455	100456	100457	100458	100459	100460	100461
Fullness (%)			10	90	25	25	50	20	2	90	75	0
Digestion (%)			90	75	75	75	90	95	75	50	90	100
Actual Weight (mg)			96	1880	431	565	918	343	19	2673	987	0
Comments			empty									
Species/Group	Stage	Origin										
POLYCHAETA												
Syllidae	juv	M										
CRUSTACEA	eggs	M										
Crustacea	parts											
CLADOCERA												
Daphnia sp.	ephippus	FW										
CIRRIPEDIA												
Cirripedia	cypris	M										
COPEPODA												
Calanoida		M										
Pseudocalanidae												
Pseudocalanus minutus		M										
Acartiidae												
Acartia sp.		M										
Centropagidae												
Centropages hamata		M										
Cyclopoida	damaged											
Harpacticoida												
Harpacticus uniremis		M										
CUMACEA												
Diastylis	juv	M										
ISOPODA												
Planktonic isopod		M										
AMPHIPODA	damaged											
Gammaridae		M										
Gammaracanthus loricatus		M										
Haustoridae												
Pontoporeia femorata		M										
Lysianassidae	damaged											
MYSIDACEA												
Mysis litoralis		M										
DECAPODA												
Brachyura	megalops	M										
INSECTA												
DIPTERA	A											
Chironomidae	A	FW										
MOLLUSCA												
Gastropoda		M										
FISH	juv	M										
Clupeidae	juv	M										
Pacific herring?		M										
NON-FOOD ITEMS												
Pebble												
TOTAL			14	3	8	2	23	14	61	8	38	0

Notes:

A = adult

juv = juvenile

N* = nymph too small to be identified further

TERR = Terrestrial

cop = copepodite (juvenile copepod)

L* = larva too small to be identified further

P = pupa

Estimated Weight = used when sample heavily digested

dam = damaged

M = male

I to V = copepodite stages 1 to 5

X = present in fish diet studies

E = egg

N = nymph

FW = freshwater

M = marine

Appendix 3.2-13. Pacific Herring Diet by Number, Hope Bay Belt Project, 2010

Stomach Number			280	281	288	336	337	338	279	280	325	332
Location			P3	P3	P3	P3	P3	P3	P4	P4	P4	P4
Date			12-Sep-10	12-Sep-10	12-Sep-10	17-Sep-10	17-Sep-10	17-Sep-10	7-Sep-10	7-Sep-10	18-Sep-10	19-Sep-10
Length			269	259	169	172	194	282	181	280	178	185
Weight			215	201	226	46	58	246	31	224	48	55
Age			10	12	11	-	-	9	4	13	-	-
Sample No.			100462	100463	100464	100465	100466	100467	100468	100469	100470	100471
Fullness (%)			0	50	0	50	20	1	75	2	5	0
Digestion (%)			100	50	100	50	90	99	50	90	10	100
Actual Weight (mg)			0	1205	0	394	210	1	529	72	35	0
Comments			empty		empty		empty					
Species/Group	Stage	Origin										
POLYCHAETA												
Syllidae	juv	M										
CRUSTACEA	eggs	M										
Crustacea	parts											
CLADOCERA												
Daphnia sp.	ephippus	FW										
CIRRIPEDIA												
Cirripedia	cypris	M										
COPEPODA												
Calanoida		M										
Pseudocalanidae												
Pseudocalanus minutus		M										
Acartiidae												
Acartia sp.		M										
Centropagidae												
Centropages hamata		M										
Cyclopoida	damaged											
Harpacticoida												
Harpacticus uniremis		M										
CUMACEA												
Diastylis	juv	M										
ISOPODA												
Planktonic isopod		M										
AMPHIPODA	damaged											
Gammaridae		M										
Gammaracanthus loricatus		M										
Haustoriidae												
Pontoporeia femorata		M										
Lysianassidae	damaged											
MYSIDACEA												
Mysis litoralis		M										
DECAPODA												
Brachyura	megalops	M										
INSECTA												
DIPTERA	A											
Chironomidae	A	FW										
MOLLUSCA												
Gastropoda		M										
FISH	juv	M										
Clupeidae	juv	M										
Pacific herring?		M										
NON-FOOD ITEMS												
Pebble												
TOTAL												

Notes:

A = adult

juv = juvenile

N* = nymph too small to be identified further

TERR = Terrestrial

L = larva

Estimated Weight = used when sample heavily digested

cop = copepodite (juvenile copepod)

L* = larva too small to be identified further

P = pupa

X = present in fish diet studies

dam = damaged

M = male

I to V = copepodite stages 1 to 5

E = egg

N = nymph

FW = freshwater

F = female

M = marine

Appendix 3.2-13. Pacific Herring Diet by Number, Hope Bay Belt Project, 2010

Stomach Number	33	34	035A	035B	37	38	56	185		
Location	P5	P5	P5	P5	P5	P5	P5	Ref		
Date	18-Aug-10	18-Aug-10	18-Aug-10	18-Aug-10	18-Aug-10	18-Aug-10	19-Aug-10	22-Sep-10		
Length	267	260	263	257	152	182	-	323		
Weight	232	180	179	189	27	54	-	350		
Age	10	10	11	8	10	4	-	10		
Sample No.	100472	100473	100474	100475	100476	100477	100478	100479		
Fullness (%)	75	75	1	50	5	40	75	0		
Digestion (%)	50	25	50	50	90	50	50	100		
Actual Weight (mg)	854	887	6	440	90	354	888	0		
Comments										
Species/Group	Stage	Origin								
POLYCHAETA										
Syllidae	juv	M								
CRUSTACEA	eggs	M								
Crustacea	parts									
CLADOCERA										
Daphnia sp.	ephippus	FW								
CIRRIPEDIA										
Cirripedia	cypris	M								
COPEPODA										
Calanoida		M								
Pseudocalanidae										
Pseudocalanus minutus		M								
Acartiidae										
Acartia sp.		M								
Centropagidae										
Centropages hamata		M								
Cyclopoida	damaged									
Harpacticoida										
Harpacticus uniremis		M								
CUMACEA										
Diastylis	juv	M					4			
ISOPODA										
Planktonic isopod		M								
AMPHIPODA	damaged									
Gammaridae		M								
Gammaracanthus loricatus		M								
Haustoriidae										
Pontoporeia femorata		M								
Lysianassidae	damaged									
MYSIDACEA										
Mysis litoralis		M	1	1						
DECAPODA										
Brachyura	megalops	M	147	215	2	112	21	29	155	
INSECTA										
DIPTERA	A									
Chironomidae	A	FW								
MOLLUSCA										
Gastropoda		M								
FISH	juv	M	1					1	1	
Clupeidae	juv	M								
Pacific herring?		M								
NON-FOOD ITEMS										
Pebble										
TOTAL			149	217	2	112	21	30	160	0

Notes:

A = adult

juv = juvenile

N* = nymph too small to be identified further

TERR = Terrestrial

cop = copepodite (juvenile copepod)

L* = larva too small to be identified further

P = pupa

Estimated Weight = used when sample heavily digested

dam = damaged

M = male

I to V = copepodite stages 1 to 5

X = present in fish diet studies

E = egg

N = nymph

FW = freshwater

M = marine

F = female

Appendix 3.2-14

Pacific Herring Diet by Weight, Hope Bay Belt Project,
2010

Appendix 3.2-14. Pacific Herring Diet by Weight, Hope Bay Belt Project, 2010

Stomach Number	137	138	139	140	141	142	235	236	237		
Location	P3	P3	P3	P3	P3	P3	P3	P3	P3		
Date	10-Aug-10	10-Aug-10	10-Aug-10	8-Oct-10	10-Aug-10	10-Aug-10	9-Sep-10	9-Sep-10	9-Sep-10		
Length	-	-	-	-	-	-	180	285	275		
Weight	-	-	-	-	-	-	154	255	230		
Age	-	-	-	-	-	-	4	9	11		
Sample No.	100452	100453	100454	100455	100456	100457	100458	100459	100460		
Fullness (%)	10	90	25	25	50	20	2	90	75		
Digestion (%)	90	75	75	75	90	95	75	50	90		
Actual Weight (mg)	96	1880	431	565	918	343	19	2673	987		
Comments											
Species/Group	Stage	Origin									
POLYCHAETA											
Syllidae	juv	M									
CRUSTACEA	eggs	M									
Crustacea	parts										
CLADOCERA											
Daphnia sp.	ephippus	FW									
CIRRIPEDIA											
Cirripedia	cypris	M									
COPEPODA											
Calanoida		M									
Pseudocalanidae											
Pseudocalanus minutus		M									
Acartiidae											
Acartia sp.		M									
Centropagidae											
Centropages hamata		M									
Cyclopoida	damaged										
Harpacticoida											
Harpacticus uniremis		M									
CUMACEA											
Diastylis	juv	M									
ISOPODA											
Planktonic isopod		M									
AMPHIPODA	damaged										
Gammaridae		M									
Gammaracanthus loricatus		M									
Haustoridae											
Pontoporeia femorata		M									
Lysianassidae	damaged										
MYSIDACEA											
Mysis litoralis		M	86	153	50	877			985		
DECAPODA											
Brachyura	megalops	M									
INSECTA											
DIPTERA	A										
Chironomidae	A	FW									
MOLLUSCA											
Gastropoda		M	10			10	295				
FISH	juv	M		1,727	600	562	16				
Clupeidae	juv	M									
Pacific herring?		M									
NON-FOOD ITEMS											
Pebble											
TOTAL			96	1,880	664	565	918	343	19	2,673	987

Notes:

Weights reported in milligrams (mg)

A = adult

cop = copepodite (juvenile copepod)

dam = damaged

E = egg

F = female

juv = juvenile

L = larva

L* = larva too small to be identified further

M = male

N = nymph

N* = nymph too small to be identified further

P = pupa

I to V = copepodite stages 1 to 5

FW = freshwater

M = marine

TERR = Terrestrial

Estimated Weight = used when sample heavily digested

X = present in fish diet studies

Appendix 3.2-14. Pacific Herring Diet by Weight, Hope Bay Belt Project, 2010

Stomach Number			238	280	281	288	336	337	338	279	280
Location			P3	P3	P3	P3	P3	P3	P3	P4	P4
Date			9-Sep-10	12-Sep-10	12-Sep-10	12-Sep-10	17-Sep-10	17-Sep-10	17-Sep-10	7-Sep-10	7-Sep-10
Length			277	269	259	169	172	194	282	181	280
Weight			265	215	201	226	46	58	246	31	224
Age			11	10	12	11	-	-	9	4	13
Sample No.			100461	100462	100463	100464	100465	100466	100467	100468	100469
Fullness (%)			0	0	50	0	50	20	1	75	2
Digestion (%)			100	100	50	100	50	90	99	50	90
Actual Weight (mg)			0	0	1205	0	394	210	1	529	72
Comments			empty	empty		empty					
Species/Group	Stage	Origin									
POLYCHAETA											
Syllidae	juv	M									
CRUSTACEA	eggs	M									
Crustacea	parts		1								
CLADOCERA											
Daphnia sp.	ephippus	FW									
CIRRIPEDIA											
Cirripedia	cypris	M									
COPEPODA											
Calanoida		M									
Pseudocalanidae											
Pseudocalanus minutus		M									
Acartiidae											
Acartia sp.		M									
Centropagidae											
Centropages hamata		M									
Cyclopoida	damaged										
Harpacticoida											
Harpacticus uniremis		M									
CUMACEA											
Diastylis	juv	M	6								
ISOPODA											
Planktonic isopod		M									
AMPHIPODA	damaged										
Gammaridae		M									
Gammaracanthus loricatus		M	100								
Haustoriidae											
Pontoporeia femorata		M									
Lysianassidae	damaged										
MYSIDACEA											
Mysis litoralis		M									
DECAPODA											
Brachyura	megalops	M	384 63								
INSECTA											
DIPTERA	A										
Chironomidae	A	FW									
MOLLUSCA											
Gastropoda		M									
FISH	juv	M	1,205				210		145 25		
Clupeidae	juv	M									
Pacific herring?		M	394								
NON-FOOD ITEMS											
Pebble											
TOTAL			0	0	1,205	0	394	210	1	529	194

Notes:

Weights reported in milligrams (mg)

A = adult

cop = copepodite (juvenile copepod)

dam = damaged

E = egg

F = female

juv = juvenile

L = larva

L* = larva too small to be identified further

M = male

N = nymph

N* = nymph too small to be identified further

P = pupa

I to V = copepodite stages 1 to 5

FW = freshwater

M = marine

TERR = Terrestrial

Estimated Weight = used when sample heavily digested

X = present in fish diet studies

Appendix 3.2-14. Pacific Herring Diet by Weight, Hope Bay Belt Project, 2010

Stomach Number	325	332	33	34	035A	035B	37	38	56	185
Location	P4	P4	P5	P5	P5	P5	P5	P5	P5	Ref
Date	18-Sep-10	19-Sep-10	18-Aug-10	18-Aug-10	18-Aug-10	18-Aug-10	18-Aug-10	18-Aug-10	19-Aug-10	22-Sep-10
Length	178	185	267	260	263	257	152	182	-	323
Weight	48	55	232	180	179	189	27	54	-	350
Age	-	-	10	10	11	8	10	4	-	10
Sample No.	100470	100471	100472	100473	100474	100475	100476	100477	100478	100479
Fullness (%)	5	0	75	75	1	50	5	40	75	0
Digestion (%)	10	100	50	25	50	50	90	50	50	100
Actual Weight (mg)	35	0	854	887	6	440	90	354	888	0
Comments	empty									
Species/Group	Stage	Origin								
POLYCHAETA										
Syllidae	juv	M								
CRUSTACEA	eggs	M								
Crustacea	parts									
CLADOCERA										
Daphnia sp.	ephippus	FW								
CIRRIPEDIA										
Cirripedia	cypris	M								
COPEPODA										
Calanoida		M								
Pseudocalanidae										
Pseudocalanus minutus		M								
Acartiidae										
Acartia sp.		M								
Centropagidae										
Centropages hamata		M								
Cyclopoida	damaged									
Harpacticoida										
Harpacticus uniremis		M								
CUMACEA										
Diastylis	juv	M								
ISOPODA										
Planktonic isopod		M								
AMPHIPODA	damaged									
Gammaridae		M								
Gammaracanthus loricatus		M								
Haustoridae										
Pontoporeia femorata		M								
Lysianassidae	damaged									
MYSIDACEA										
Mysis litoralis		M								
DECAPODA										
Brachyura	megalops	M								
INSECTA										
DIPTERA	A									
Chironomidae	A	FW								
MOLLUSCA										
Gastropoda		M								
FISH	juv	M								
Clupeidae	juv	M								
Pacific herring?		M								
NON-FOOD ITEMS										
Pebble										
TOTAL	35	0	854	887	6	440	90	354	888	0

Notes:

Weights reported in milligrams (mg)

A = adult

cop = copepodite (juvenile copepod)

dam = damaged

E = egg

F = female

juv = juvenile

L = larva

L* = larva too small to be identified further

M = male

N = nymph

N* = nymph too small to be identified further

P = pupa

I to V = copepodite stages 1 to 5

FW = freshwater

M = marine

TERR = Terrestrial

Estimated Weight = used when sample heavily digested

X = present in fish diet studies

Appendix 3.3-1

Biological Data for Macrobenthos Sampled in Roberts Bay
and Reference Bay, Hope Bay Belt Project, 2010

Appendix 3.3-1. Biological Data for Macrobenthos Sampled in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Location		Gear			Date	Individual #	Sample #	Species	Length (mm)	Weight (g)	Comments
Location	Site	Method	Type	#							
Roberts Bay	P1	CT	-	4	31-Jul-10	1	-	Snail	35	-	-
Roberts Bay	P1	CT	-	9	31-Jul-10	2	-	Snail	-	-	-
Roberts Bay	P1	CT	-	9	31-Jul-10	3	-	Snail	-	-	-
Roberts Bay	P1	MT	-	23	04-Aug-10	4	-	Amphipod	-	-	-
Roberts Bay	P1	MT	-	26	04-Aug-10	5	-	Amphipod	-	-	-
Roberts Bay	P1	MT	-	24	04-Aug-10	6	-	Isopod	-	-	-
Roberts Bay	P1	MT	-	24	04-Aug-10	7	-	Isopod	-	-	-
Roberts Bay	P1	MT	-	25	04-Aug-10	8	-	Isopod	-	-	-
Roberts Bay	P1	CT	-	13	04-Aug-10	9	P1-022	Snail	34	-	photo 21
Roberts Bay	P1	CT	-	13	04-Aug-10	10	P1-023	Snail	37	7	photo 22
Roberts Bay	P1	GN	S	6	04-Aug-10	11	P1-038	Mussel	64	-	photo 38, 39
Roberts Bay	P2	GN	S	1	05-Aug-10	12	P2-020	Sea Urchin	37	17	photo 51
Roberts Bay	P2	CT	-	1	08-Aug-10	13	P2-026	Sea Urchin	51	36	-
Roberts Bay	P2	CT	-	1	08-Aug-10	14	P2-027	Sea Urchin	43	26	-
Roberts Bay	P2	CT	-	1	08-Aug-10	15	P2-028	Sea Urchin	52	32	-
Roberts Bay	P2	CT	-	1	08-Aug-10	16	P2-029	Sea Urchin	48	31	-
Roberts Bay	P2	CT	-	1	08-Aug-10	17	P2-030	Sea Urchin	64	70	-
Roberts Bay	P2	CT	-	1	08-Aug-10	18	P2-031	Sea Urchin	52	43	-
Roberts Bay	P2	CT	-	1	08-Aug-10	19	P2-032	Sea Urchin	46	35	-
Roberts Bay	P2	CT	-	1	08-Aug-10	20	P2-033	Sea Urchin	52	38	-
Roberts Bay	P2	CT	-	1	08-Aug-10	21	P2-034	Sea Urchin	44	32	-
Roberts Bay	P2	CT	-	2	08-Aug-10	22	P2-035	Sea Urchin	46	44	-
Roberts Bay	P2	CT	-	2	08-Aug-10	23	P2-036	Sea Urchin	58	39	-
Roberts Bay	P2	CT	-	2	08-Aug-10	24	P2-037	Sea Urchin	52	34	-
Roberts Bay	P2	CT	-	2	08-Aug-10	25	P2-038	Sea Urchin	49	42	Photo 60
Roberts Bay	P2	CT	-	3	08-Aug-10	26	P2-039	Sea Urchin	42	37	-
Roberts Bay	P2	CT	-	3	08-Aug-10	27	P2-040	Sea Urchin	49	38	-
Roberts Bay	P2	CT	-	3	08-Aug-10	28	P2-041	Sea Urchin	40	28	-
Roberts Bay	P2	CT	-	3	08-Aug-10	29	P2-042	Sea Urchin	49	41	-
Roberts Bay	P2	CT	-	2	08-Aug-10	30	P2-044	Snail	36	10	-
Roberts Bay	P2	CT	-	2	08-Aug-10	31	P2-045	Snail	40	9	-
Roberts Bay	P2	CT	-	3	08-Aug-10	32	P2-046	Snail	35	6	Photo 64
Roberts Bay	P2	CT	-	3	08-Aug-10	33	P2-047	Snail	26	2	-
Roberts Bay	P2	CT	-	3	08-Aug-10	34	P2-048	Snail	36	6	-
Roberts Bay	P2	GN	S	2	08-Aug-10	35	P2-058	Sea Urchin	43	29	-
Roberts Bay	P2	GN	S	3	08-Aug-10	36	P2-082	Sea Star	116	37	-
Roberts Bay	P2	GN	S	4	09-Aug-10	37	P2-092	Sea Star	168	28	-
Roberts Bay	P2	GN	S	4	09-Aug-10	38	P2-093	Sea Star	159	58	-
Roberts Bay	P2	GN	S	5	09-Aug-10	39	P2-108	Sea Star	120	30	-
Roberts Bay	P3	CT	-	4	09-Aug-10	40	P3-002	Sea Urchin	48	39	-
Roberts Bay	P3	CT	-	2	09-Aug-10	41	P3-004	Sea Star	72	<1	-
Roberts Bay	P3	CT	-	4	09-Aug-10	42	P3-005	Sea Star	84	<1	-
Roberts Bay	P3	GN	S	2	09-Aug-10	43	P3-012	Sea Star	191	35	-
Roberts Bay	P3	CT	-	6	10-Aug-10	44	-	Brittlestar	-	-	-
Roberts Bay	P3	CT	-	8	10-Aug-10	45	-	Brittlestar	-	-	-
Roberts Bay	P3	CT	-	8	10-Aug-10	46	-	Brittlestar	-	-	-
Roberts Bay	P4	CT	-	-	10-Aug-10	47	-	Snail	-	-	-
Roberts Bay	P4	CT	-	-	10-Aug-10	48	-	Snail	-	-	-
Roberts Bay	P4	CT	-	-	10-Aug-10	49	-	Snail	-	-	-
Roberts Bay	P4	CT	-	-	10-Aug-10	50	-	Snail	-	-	-
Roberts Bay	P4	CT	-	-	10-Aug-10	51	-	Snail	-	-	-
Roberts Bay	P4	CT	-	-	10-Aug-10	52	-	Snail	-	-	-
Roberts Bay	P4	CT	-	-	10-Aug-10	53	-	Snail	-	-	-
Roberts Bay	P4	CT	-	-	10-Aug-10	54	-	Snail	-	-	-

Notes:

Gear: GN = Gillnet; LL = Longline; BS = Beach Seine; MT = Minnow Trap; CT = Crab Trap

Type: S = Sinking; F = Floating

Length measurements taken as follows: Crab = carapace width, Isopods = total length, sea stars = maximum length from one arm tip to another, sea urchins = diameter of test

Appendix 3.3-1. Biological Data for Macrobenthos Sampled in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Location		Gear			Date	Individual #	Sample #	Species	Length (mm)	Weight (g)	Comments
Location	Site	Method	Type	#							
Roberts Bay	P4	CT	-	-	10-Aug-10	55	-	Snail	-	-	-
Roberts Bay	P4	CT	-	-	10-Aug-10	56	-	Snail	-	-	-
Roberts Bay	P4	CT	-	-	10-Aug-10	57	-	Snail	-	-	-
Roberts Bay	P4	CT	-	-	10-Aug-10	58	-	Snail	-	-	-
Roberts Bay	P4	CT	-	-	10-Aug-10	59	-	Snail	-	-	-
Roberts Bay	P4	CT	-	-	10-Aug-10	60	-	Snail	-	-	-
Roberts Bay	P4	CT	-	-	10-Aug-10	61	-	Snail	-	-	-
Roberts Bay	P3	GN	S	3	10-Aug-10	62	P3-039	Sea Urchin	45	21	-
Roberts Bay	P3	GN	S	4	10-Aug-10	63	P3-049	Sea Urchin	38	14	-
Roberts Bay	P3	GN	S	4	10-Aug-10	64	P3-050	Sea Urchin	45	16	-
Roberts Bay	P3	GN	S	4	10-Aug-10	65	P3-051	Sea Urchin	42	37	-
Roberts Bay	P3	CT	-	6	10-Aug-10	66	P3-053	Sea Urchin	51	11	-
Roberts Bay	P3	CT	-	6	10-Aug-10	67	P3-054	Sea Star	126	11	-
Roberts Bay	P3	CT	-	12	10-Aug-10	68	P3-077	Snail	39	<1	-
Roberts Bay	P3	CT	-	12	10-Aug-10	69	P3-078	Snail	37	<1	-
Roberts Bay	P3	CT	-	12	10-Aug-10	70	P3-079	Snail	49	<1	-
Roberts Bay	P3	CT	-	12	10-Aug-10	71	P3-080	Snail	27	<1	-
Roberts Bay	P3	CT	-	12	10-Aug-10	72	P3-081	Snail	28	<1	-
Roberts Bay	P3	CT	-	-	10-Aug-10	73	P3-083	Brittlestar	60	<1	-
Roberts Bay	P3	CT	-	-	10-Aug-10	74	P3-084	Brittlestar	72	<1	-
Roberts Bay	P3	CT	-	-	10-Aug-10	75	P3-085	Brittlestar	79	<1	-
Roberts Bay	P3	CT	-	15	10-Aug-10	76	P3-091	Crab	82	250	-
Roberts Bay	P4	GN	S	1	10-Aug-10	77	P4-003	Crab	78	248	-
Roberts Bay	P4	GN	S	1	10-Aug-10	78	P4-004	Crab	46	52	-
Roberts Bay	P4	CT	-	-	10-Aug-10	79	P4-006	Crab	61	161.0	-
Roberts Bay	P4	CT	-	-	10-Aug-10	80	P4-007	Crab	76	>300	-
Roberts Bay	P4	CT	-	-	10-Aug-10	81	P4-008	Crab	70	185.9	-
Roberts Bay	P4	CT	-	-	10-Aug-10	82	P4-009	Crab	58	83.0	-
Roberts Bay	P4	CT	-	-	10-Aug-10	83	P4-010	Crab	50	60.2	-
Roberts Bay	P4	CT	-	-	10-Aug-10	84	P4-011	Crab	78	>300	-
Roberts Bay	P4	CT	-	-	10-Aug-10	85	P4-012	Crab	63	133.0	-
Roberts Bay	P4	CT	-	-	10-Aug-10	86	P4-013	Crab	71	161.3	-
Roberts Bay	P4	CT	-	-	10-Aug-10	87	P4-014	Crab	56	94.0	-
Roberts Bay	P4	CT	-	-	10-Aug-10	88	P4-015	Sea Star	139	39.0	-
Roberts Bay	P4	CT	-	-	10-Aug-10	89	P4-016	Sea Star	100	10.0	-
Roberts Bay	P4	CT	-	1	10-Aug-10	90	P4-017	Sea Urchin	49	28.6	-
Roberts Bay	P4	CT	-	1	10-Aug-10	91	P4-018	Sea Urchin	55	42.0	-
Roberts Bay	P4	CT	-	1	10-Aug-10	92	P4-019	Sea Urchin	50	42.6	-
Roberts Bay	P4	CT	-	1	10-Aug-10	93	P4-020	Sea Urchin	40	20.0	-
Roberts Bay	P4	CT	-	1	10-Aug-10	94	P4-021	Sea Urchin	48	34.2	-
Roberts Bay	P4	CT	-	1	10-Aug-10	95	P4-022	Sea Urchin	42	20.0	-
Roberts Bay	P4	CT	-	1	10-Aug-10	96	P4-023	Sea Urchin	43	20.6	-
Roberts Bay	P4	CT	-	1	10-Aug-10	97	P4-024	Sea Urchin	48	30.9	-
Roberts Bay	P4	CT	-	1	10-Aug-10	98	P4-025	Sea Urchin	48	29.9	-
Roberts Bay	P4	CT	-	1	10-Aug-10	99	P4-026	Sea Urchin	38	17.0	-
Roberts Bay	P4	CT	-	1	10-Aug-10	100	P4-027	Sea Urchin	30	10.0	-
Roberts Bay	P4	CT	-	-	10-Aug-10	101	P4-028	Snail	53	18.5	Sea Anemone attached
Roberts Bay	P4	CT	-	-	10-Aug-10	102	P4-029	Snail	50	29.0	Sea Anemone attached
Roberts Bay	P4	CT	-	-	10-Aug-10	103	P4-030	Snail	60	22.0	Sea Anemone attached
Roberts Bay	P4	CT	-	-	10-Aug-10	104	P4-031	Snail	46	8.8	Sea Anemone attached
Roberts Bay	P4	CT	-	-	10-Aug-10	105	P4-032	Snail	58	21.0	Sea Anemone attached
Roberts Bay	P4	CT	-	-	10-Aug-10	106	P4-033	Snail	55	23.0	Sea Anemone attached
Roberts Bay	P4	CT	-	-	10-Aug-10	107	P4-034	Snail	51	22.9	Sea Anemone attached
Roberts Bay	P4	CT	-	-	10-Aug-10	108	P4-035	Snail	64	24.9	Sea Anemone attached

Notes:

Gear: GN = Gillnet; LL = Longline; BS = Beach Seine; MT = Minnow Trap; CT = Crab Trap

Type: S = Sinking; F = Floating

Length measurements taken as follows: Crab = carapace width, Isopods = total length, sea stars = maximum length from one arm tip to another, sea urchins = diameter of test

Appendix 3.3-1. Biological Data for Macrobenthos Sampled in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Location		Gear			Date	Individual #	Sample #	Species	Length (mm)	Weight (g)	Comments
Location	Site	Method	Type	#							
Roberts Bay	P4	CT	-	-	10-Aug-10	109	P4-036	Snail	54	22.4	Sea Anemone attached
Roberts Bay	P4	CT	-	-	10-Aug-10	110	P4-037	Snail	53	18.0	Sea Anemone attached
Roberts Bay	P4	GN	S	2	10-Aug-10	111	P4-041	Sea Star	195	82.5	-
Roberts Bay	P4	GN	S	2	10-Aug-10	112	P4-042	Sea Star	165	60.0	-
Roberts Bay	P4	GN	S	2	10-Aug-10	113	P4-043	Sea Star	104	20.0	-
Roberts Bay	P4	GN	S	2	10-Aug-10	114	P4-044	Sea Star	153	60.0	-
Roberts Bay	P4	GN	S	2	10-Aug-10	115	P4-045	Sea Star	152	52.0	-
Roberts Bay	P4	GN	S	2	10-Aug-10	116	P4-046	Sea Star	171	70.0	-
Roberts Bay	P4	GN	S	3	11-Aug-10	117	P4-051	Sea Star	88	3.0	-
Roberts Bay	P4	GN	S	3	11-Aug-10	118	P4-052	Crab	50	68.0	-
Roberts Bay	P4	GN	S	4	11-Aug-10	119	P4-053	Sea Star	94	11.0	-
Roberts Bay	P4	CT	-	-	11-Aug-10	120	P4-055	Crab	75	245	-
Roberts Bay	P4	CT	-	-	11-Aug-10	121	P4-056	Crab	57	120	-
Roberts Bay	P4	CT	-	-	11-Aug-10	122	P4-057	Crab	70	202	-
Roberts Bay	P4	CT	-	-	11-Aug-10	123	P4-058	Crab	65	187	-
Roberts Bay	P4	CT	-	-	11-Aug-10	124	P4-059	Crab	65	141	-
Roberts Bay	P4	CT	-	-	11-Aug-10	125	P4-060	Crab	53	95	-
Roberts Bay	P4	CT	-	-	11-Aug-10	126	P4-061	Crab	44	55	-
Roberts Bay	P4	CT	-	-	11-Aug-10	127	P4-062	Sea Star	132	29	-
Roberts Bay	P4	CT	-	-	11-Aug-10	128	P4-063	Sea Star	121	15	-
Roberts Bay	P4	CT	-	-	11-Aug-10	129	P4-064	Snail	50	28	Sea Anemone attached
Roberts Bay	P4	CT	-	-	11-Aug-10	130	P4-065	Snail	53	30	Sea Anemone attached
Roberts Bay	P4	CT	-	-	11-Aug-10	131	P4-066	Snail	59	18	-
Roberts Bay	P4	CT	-	-	11-Aug-10	132	P4-067	Snail	58	22	Sea Anemone attached
Roberts Bay	P4	CT	-	-	11-Aug-10	133	P4-068	Snail	50	20	Sea Anemone attached
Roberts Bay	P4	CT	-	-	11-Aug-10	134	P4-069	Snail	47	15	Sea Anemone attached
Roberts Bay	P4	CT	-	-	11-Aug-10	135	P4-070	Snail	40	16	Sea Anemone attached
Roberts Bay	P4	CT	-	-	11-Aug-10	136	P4-071	Snail	42	12	Sea Anemone attached
Roberts Bay	P4	CT	-	-	11-Aug-10	137	P4-072	Snail	47	19	Sea Anemone attached
Roberts Bay	P4	CT	-	-	11-Aug-10	138	P4-073	Snail	47	25	Sea Anemone attached
Roberts Bay	P4	CT	-	-	11-Aug-10	139	P4-074	Snail	35	7	Sea Anemone attached
Roberts Bay	P4	CT	-	-	11-Aug-10	140	P4-075	Snail	49	17	Sea Anemone attached
Roberts Bay	P4	CT	-	-	11-Aug-10	141	P4-076	Snail	46	13	-
Roberts Bay	P4	CT	-	-	11-Aug-10	142	P4-077	Snail	51	11	-
Roberts Bay	P4	CT	-	-	11-Aug-10	143	P4-078	Snail	54	26	Sea Anemone attached
Roberts Bay	P4	CT	-	-	11-Aug-10	144	P4-079	Snail	34	4	-
Roberts Bay	P4	CT	-	-	11-Aug-10	145	P4-080	Snail	41	6	-
Roberts Bay	P4	CT	-	-	11-Aug-10	146	P4-081	Snail	41	12	Sea Anemone attached
Roberts Bay	P4	GN	S	5	11-Aug-10	147	P4-083	Sea Urchin	37	17	-
Roberts Bay	P4	GN	S	5	11-Aug-10	148	P4-084	Sea Urchin	39	22	-
Roberts Bay	P4	GN	S	5	11-Aug-10	149	P4-085	Sea Urchin	41	25	-
Roberts Bay	P4	GN	S	5	11-Aug-10	150	P4-087	Sea Urchin	50	38	-
Roberts Bay	P4	GN	S	5	11-Aug-10	151	P4-089	Sea Urchin	47	29	-
Roberts Bay	P4	GN	S	5	11-Aug-10	152	P4-090	Sea Urchin	48	35	-
Roberts Bay	P4	GN	S	5	11-Aug-10	153	P4-091	Sea Urchin	43	22	-
Roberts Bay	P4	GN	S	5	11-Aug-10	154	P4-092	Sea Urchin	45	28	-
Roberts Bay	P4	GN	S	5	11-Aug-10	155	P4-093	Sea Urchin	44	36	-
Roberts Bay	P4	GN	S	5	11-Aug-10	156	P4-094	Sea Urchin	38	24	-
Roberts Bay	P4	GN	S	5	11-Aug-10	157	P4-095	Sea Urchin	41	26	-
Roberts Bay	P4	GN	S	5	11-Aug-10	158	P4-096	Sea Urchin	34	18	-
Roberts Bay	P4	GN	S	5	11-Aug-10	159	P4-097	Sea Urchin	30	11	-
Roberts Bay	P4	GN	S	5	11-Aug-10	160	P4-098	Sea Urchin	28	11	-
Roberts Bay	P4	GN	S	5	11-Aug-10	161	P4-099	Sea Urchin	34	12	-
Roberts Bay	P4	GN	S	5	11-Aug-10	162	P4-100	Sea Urchin	32	9	-

Notes:

Gear: GN = Gillnet; LL = Longline; BS = Beach Seine; MT = Minnow Trammel Net; CT = Crab Trap

Type: S = Sinking; F = Floating

Length measurements taken as follows: Crab = carapace width, Isopods = total length, sea stars = maximum length from one arm tip to another, sea urchins = diameter of test

Appendix 3.3-1. Biological Data for Macrobenthos Sampled in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Location		Gear			Date	Individual #	Sample #	Species	Length (mm)	Weight (g)	Comments
Location	Site	Method	Type	#							
Roberts Bay	P4	GN	S	5	11-Aug-10	163	P4-101	Sea Urchin	26	5	-
Roberts Bay	P4	GN	S	5	11-Aug-10	164	P4-102	Sea Urchin	27	7	-
Roberts Bay	P4	GN	S	5	11-Aug-10	165	P4-103	Sea Urchin	30	11	-
Roberts Bay	P4	GN	S	5	11-Aug-10	166	P4-104	Sea Urchin	25	8	-
Roberts Bay	P4	GN	S	5	11-Aug-10	167	P4-105	Sea Urchin	28	10	-
Roberts Bay	P4	MT	-	8	12-Aug-10	168	-	Isopod	-	-	-
Roberts Bay	P4	MT	-	9	12-Aug-10	169	-	Isopod	-	-	-
Roberts Bay	P4	CT	-	-	12-Aug-10	170	P4-106	Sea Star	109	22	-
Roberts Bay	P4	CT	-	-	12-Aug-10	171	P4-107	Sea Star	132	28	-
Roberts Bay	P4	CT	-	-	12-Aug-10	172	P4-108	Sea Star	105	17	-
Roberts Bay	P4	CT	-	-	12-Aug-10	173	P4-109	Sea Star	115	22	-
Roberts Bay	P4	CT	-	-	12-Aug-10	174	P4-110	Sea Star	122	31	-
Roberts Bay	P4	CT	-	-	12-Aug-10	175	P4-111	Sea Star	154	44	-
Roberts Bay	P4	CT	-	-	12-Aug-10	176	P4-112	Sea Star	105	22	-
Roberts Bay	P4	CT	-	-	12-Aug-10	177	P4-113	Sea Star	98	14	-
Roberts Bay	P4	CT	-	-	12-Aug-10	178	P4-114	Sea Star	89	10	-
Roberts Bay	P4	CT	-	15	12-Aug-10	179	P4-115	Sea Urchin	50	37	-
Roberts Bay	P4	CT	-	15	12-Aug-10	180	P4-116	Sea Urchin	32	12	-
Roberts Bay	P4	CT	-	15	12-Aug-10	181	P4-117	Sea Urchin	26	5	-
Roberts Bay	P4	CT	-	-	12-Aug-10	182	P4-118	Snail	45	17	Sea Anemone attached
Roberts Bay	P4	CT	-	-	12-Aug-10	183	P4-119	Snail	43	7	-
Roberts Bay	P4	CT	-	-	12-Aug-10	184	P4-120	Snail	44	6	-
Roberts Bay	P4	CT	-	-	12-Aug-10	185	P4-121	Snail	32	4	-
Roberts Bay	P4	CT	-	-	12-Aug-10	186	P4-122	Snail	41	7	-
Roberts Bay	P4	CT	-	-	12-Aug-10	187	P4-123	Snail	33	4	-
Roberts Bay	P4	CT	-	11	12-Aug-10	188	P4-124	Crab	52	70	Barnacles on carapace
Reference Bay	REF	GN	S	2	13/08/2010	189	Ref-031	Sea Star	110	13	-
Reference Bay	REF	GN	S	4	13/08/2010	190	Ref-040	Sea Star	105	47	-
Reference Bay	REF	CT	-	-	14/08/2010	191	Ref-112	Crab	66	141	-
Reference Bay	REF	CT	-	-	14/08/2010	192	Ref-113	Crab	59	127	-
Reference Bay	REF	CT	-	-	14/08/2010	193	Ref-114	Crab	78	163	-
Reference Bay	REF	CT	-	-	14/08/2010	194	Ref-115	Crab	63	62	-
Reference Bay	REF	CT	-	-	14/08/2010	195	Ref-116	Crab	56	64	-
Reference Bay	REF	CT	-	-	14/08/2010	196	Ref-117	Sea Star	161	37	-
Reference Bay	REF	CT	-	-	14/08/2010	197	Ref-118	Sea Star	98	15	-
Reference Bay	REF	CT	-	-	14/08/2010	198	Ref-119	Sea Star	120	21	-
Reference Bay	REF	CT	-	-	14/08/2010	199	Ref-120	Snail	51	19	Sea Anemone attached
Reference Bay	REF	CT	-	-	14/08/2010	200	Ref-121	Snail	39	17	Sea Anemone attached
Reference Bay	REF	CT	-	-	14/08/2010	201	Ref-122	Snail	59	31	Sea Anemone attached
Reference Bay	REF	CT	-	-	14/08/2010	202	Ref-123	Snail	43	3	-
Reference Bay	REF	CT	-	-	14/08/2010	203	Ref-124	Snail	50	17	Sea Anemone attached
Reference Bay	REF	CT	-	-	14/08/2010	204	Ref-125	Snail	43	10	Sea Anemone attached
Reference Bay	REF	GN	S	5	14/08/2010	205	Ref-132	Snail	40	8	Sea Anemone attached
Reference Bay	REF	CT	-	-	15/08/2010	206	Ref-141	Crab	83	263	-
Reference Bay	REF	CT	-	-	15/08/2010	207	Ref-142	Crab	64	117	-
Reference Bay	REF	CT	-	-	15/08/2010	208	Ref-143	Crab	61	143	-
Reference Bay	REF	CT	-	-	15/08/2010	209	Ref-144	Crab	62	139	-
Reference Bay	REF	CT	-	-	15/08/2010	210	Ref-145	Crab	64	122	-
Reference Bay	REF	CT	-	-	15/08/2010	211	Ref-146	Crab	68	185	-
Reference Bay	REF	CT	-	-	15/08/2010	212	Ref-147	Crab	54	82	-
Reference Bay	REF	CT	-	-	15/08/2010	213	Ref-148	Crab	65	140	-
Reference Bay	REF	CT	-	-	15/08/2010	214	Ref-149	Crab	72	204	-
Reference Bay	REF	CT	-	-	15/08/2010	215	Ref-150	Sea Star	104	15	-
Reference Bay	REF	CT	-	-	15/08/2010	216	Ref-151	Sea Star	92	12	-

Notes:

Gear: GN = Gillnet; LL = Longline; BS = Beach Seine; MT = Minnow Trap CT = Crab Trap

Type: S = Sinking; F = Floating

Length measurements taken as follows: Crab = carapace width, Isopods = total length, sea stars = maximum length from one arm tip to another, sea urchins = diameter of test

Appendix 3.3-1. Biological Data for Macrobenthos Sampled in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Location		Gear			Date	Individual #	Sample #	Species	Length (mm)	Weight (g)	Comments
Location	Site	Method	Type	#							
Reference Bay	REF	CT	-	-	15/08/2010	217	Ref-152	Sea Star	94	18	-
Reference Bay	REF	CT	-	-	15/08/2010	218	Ref-153	Sea Star	131	17	-
Reference Bay	REF	CT	-	-	15/08/2010	219	Ref-154	Sea Urchin	64	65	-
Reference Bay	REF	CT	-	-	15/08/2010	220	Ref-155	Sea Urchin	53	47	-
Reference Bay	REF	CT	-	-	15/08/2010	221	Ref-156	Sea Urchin	58	54	-
Reference Bay	REF	CT	-	-	15/08/2010	222	Ref-157	Snail	33	15	Sea Anemone attached
Reference Bay	REF	CT	-	-	15/08/2010	223	Ref-158	Snail	47	22	Sea Anemone attached
Reference Bay	REF	CT	-	-	15/08/2010	224	Ref-159	Snail	41	13	Sea Anemone attached
Reference Bay	REF	CT	-	-	15/08/2010	225	Ref-160	Snail	40	12	Sea Anemone attached
Reference Bay	REF	CT	-	-	15/08/2010	226	Ref-161	Snail	38	15	Sea Anemone attached
Reference Bay	REF	CT	-	-	15/08/2010	227	Ref-162	Snail	39	12	Sea Anemone attached
Reference Bay	REF	CT	-	-	15/08/2010	228	Ref-163	Snail	44	21	Sea Anemone attached
Reference Bay	REF	CT	-	-	15/08/2010	229	Ref-164	Snail	45	14	Sea Anemone attached
Reference Bay	REF	CT	-	-	15/08/2010	230	Ref-165	Snail	54	13	-
Reference Bay	REF	CT	-	-	15/08/2010	231	Ref-166	Snail	48	22	Sea Anemone attached
Reference Bay	REF	CT	-	-	15/08/2010	232	Ref-167	Snail	42	13	Sea Anemone attached
Reference Bay	REF	CT	-	-	15/08/2010	233	Ref-168	Snail	40	19	Sea Anemone attached
Reference Bay	REF	CT	-	-	15/08/2010	234	Ref-169	Snail	50	22	Sea Anemone attached
Reference Bay	REF	CT	-	-	15/08/2010	235	Ref-170	Snail	45	17	Sea Anemone attached
Reference Bay	REF	CT	-	-	15/08/2010	236	Ref-171	Snail	46	17	Sea Anemone attached
Reference Bay	REF	CT	-	-	15/08/2010	237	Ref-172	Snail	39	10	Sea Anemone attached
Reference Bay	REF	CT	-	-	15/08/2010	238	Ref-173	Snail	39	14	Sea Anemone attached
Reference Bay	REF	CT	-	-	15/08/2010	239	Ref-174	Snail	47	25	Sea Anemone attached
Roberts Bay	P5	CT	-	-	17/08/2010	240	P5-001	Crab	62	132	-
Roberts Bay	P5	CT	-	-	17/08/2010	241	P5-002	Crab	71	188	-
Roberts Bay	P5	CT	-	-	17/08/2010	242	P5-003	Crab	68	161	-
Roberts Bay	P5	CT	-	-	17/08/2010	243	P5-004	Crab	68	166	-
Roberts Bay	P5	CT	-	-	17/08/2010	244	P5-005	Crab	58	122	-
Roberts Bay	P5	CT	-	-	17/08/2010	245	P5-006	Crab	54	94	-
Roberts Bay	P5	CT	-	-	17/08/2010	246	P5-007	Crab	65	153	-
Roberts Bay	P5	CT	-	-	17/08/2010	247	P5-008	Crab	72	220	-
Roberts Bay	P5	CT	-	-	17/08/2010	248	P5-009	Crab	59	129	-
Roberts Bay	P5	CT	-	-	17/08/2010	249	P5-010	Crab	48	76	-
Roberts Bay	P5	CT	-	-	17/08/2010	250	P5-011	Crab	60	149	-
Roberts Bay	P5	CT	-	-	17/08/2010	251	P5-012	Crab	69	197	-
Roberts Bay	P5	CT	-	-	17/08/2010	252	P5-013	Crab	65	156	-
Roberts Bay	P5	CT	-	-	17/08/2010	253	P5-014	Crab	68	188	-
Roberts Bay	P5	CT	-	-	17/08/2010	254	P5-015	Crab	55	91	-
Roberts Bay	P5	CT	-	-	17/08/2010	255	P5-016	Crab	51	70	-
Roberts Bay	P5	CT	-	-	17/08/2010	256	P5-017	Snail	60	30	Sea Anemone attached
Roberts Bay	P5	CT	-	-	17/08/2010	257	P5-018	Snail	55	35	Sea Anemone attached
Roberts Bay	P5	CT	-	-	17/08/2010	258	P5-019	Snail	40	13	Sea Anemone attached
Roberts Bay	P5	CT	-	-	17/08/2010	259	P5-020	Snail	48	20	Sea Anemone attached
Roberts Bay	P5	CT	-	-	17/08/2010	260	P5-021	Snail	50	32	Sea Anemone attached
Roberts Bay	P5	CT	-	-	17/08/2010	261	P5-022	Snail	41	15	Sea Anemone attached
Roberts Bay	P5	CT	-	-	17/08/2010	262	P5-023	Snail	45	17	Sea Anemone attached
Roberts Bay	P5	CT	-	-	17/08/2010	263	P5-024	Snail	54	33	Sea Anemone attached
Roberts Bay	P5	CT	-	-	17/08/2010	264	P5-025	Snail	50	34	Sea Anemone attached
Roberts Bay	P5	CT	-	-	17/08/2010	265	P5-026	Snail	52	17	Sea Anemone attached
Roberts Bay	P5	CT	-	-	17/08/2010	266	P5-027	Snail	44	20	Sea Anemone attached
Roberts Bay	P5	CT	-	-	17/08/2010	267	P5-028	Snail	57	27	Sea Anemone attached
Roberts Bay	P5	CT	-	-	17/08/2010	268	P5-029	Sea Star	58	3	-
Roberts Bay	P5	GN	S	2	17/08/2010	269	P5-030	Crab	58	130	-
Roberts Bay	P5	GN	S	2	17/08/2010	270	P5-031	Sea Star	62	3	-

Notes:

Gear: GN = Gillnet; LL = Longline; BS = Beach Seine; MT = Minnow Trap; CT = Crab Trap

Type: S = Sinking; F = Floating

Length measurements taken as follows: Crab = carapace width, Isopods = total length, sea stars = maximum length from one arm tip to another, sea urchins = diameter of test

Appendix 3.3-1. Biological Data for Macrobenthos Sampled in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Location		Gear			Date	Individual #	Sample #	Species	Length (mm)	Weight (g)	Comments
Location	Site	Method	Type	#							
Roberts Bay	P5	MT	-	-	19/08/2010	271	-	Sea Urchin	-	-	-
Roberts Bay	P5	MT	-	-	19/08/2010	272	-	Sea Urchin	-	-	-
Roberts Bay	P5	MT	-	-	19/08/2010	273	-	Sea Urchin	-	-	-
Roberts Bay	P5	MT	-	-	19/08/2010	274	-	Sea Urchin	-	-	-
Roberts Bay	P5	MT	-	-	19/08/2010	275	-	Sea Urchin	-	-	-
Roberts Bay	P5	MT	-	-	19/08/2010	276	-	Sea Urchin	-	-	-
Roberts Bay	P5	MT	-	-	19/08/2010	277	-	Sea Urchin	-	-	-
Roberts Bay	P5	MT	-	-	19/08/2010	278	-	Sea Urchin	-	-	-
Roberts Bay	P5	CT	-	-	19/08/2010	279	P5-039	Crab	66	158	-
Roberts Bay	P5	CT	-	-	19/08/2010	280	P5-040	Crab	77	236	-
Roberts Bay	P5	CT	-	-	19/08/2010	281	P5-041	Crab	65	157	-
Roberts Bay	P5	CT	-	-	19/08/2010	282	P5-042	Crab	69	203	-
Roberts Bay	P5	CT	-	-	19/08/2010	283	P5-043	Crab	60	113	-
Roberts Bay	P5	CT	-	-	19/08/2010	284	P5-044	Crab	66	155	-
Roberts Bay	P5	CT	-	-	19/08/2010	285	P5-045	Crab	70	203	-
Roberts Bay	P5	CT	-	-	19/08/2010	286	P5-046	Crab	68	152	-
Roberts Bay	P5	CT	-	-	19/08/2010	287	P5-047	Snail	56	31	Sea Anemone attached
Roberts Bay	P5	GN	S	4	19/08/2010	288	P5-050	Sea Urchin	50	23	-
Roberts Bay	P5	GN	S	4	19/08/2010	289	P5-051	Sea Urchin	30	7	-
Roberts Bay	P5	GN	S	4	19/08/2010	290	P5-052	Sea Urchin	28	10	-
Roberts Bay	P5	GN	S	4	19/08/2010	291	P5-053	Sea Urchin	32	9	-
Roberts Bay	P5	GN	S	4	19/08/2010	292	P5-054	Sea Urchin	28	5	-
Roberts Bay	P5	GN	S	4	19/08/2010	293	P5-055	Sea Urchin	25	9	-
Roberts Bay	P5	GN	S	4	19/08/2010	294	P5-056	Brittlestar	84	-	-
Roberts Bay	P5	GN	S	5	19/08/2010	295	P5-057	Sea Star	136	19	-
Roberts Bay	P5	GN	S	5	19/08/2010	296	P5-058	Sea Star	149	40	-
Roberts Bay	P5	GN	S	5	19/08/2010	297	P5-059	Sea Star	63	4	-
Roberts Bay	P5	GN	S	5	19/08/2010	298	P5-060	Sea Star	110	12	-
Roberts Bay	P5	GN	S	5	19/08/2010	299	P5-061	Sea Star	86	12	-
Roberts Bay	P5	GN	S	5	19/08/2010	300	P5-062	Sea Star	65	3	-
Roberts Bay	P5	GN	S	5	19/08/2010	301	P5-063	Snail	50	12	Sea Anemone attached
Roberts Bay	P5	MT	-	-	19/08/2010	302	P5-068	Sea Urchin	32	15	-
Roberts Bay	P5	MT	-	-	19/08/2010	303	P5-069	Sea Urchin	22	7	-
Roberts Bay	P5	MT	-	-	19/08/2010	304	P5-070	Sea Urchin	22	9	-
Roberts Bay	P2	GN	S	2	02/09/2010	305	P2-228	Sea Star	205	-	-
Roberts Bay	P2	GN	S	2	02/09/2010	306	P2-229	Sea Star	165	66	-
Roberts Bay	P2	GN	S	2	02/09/2010	307	P2-230	Sea Star	150	50	-
Roberts Bay	P2	GN	S	2	02/09/2010	308	P2-231	Sea Star	185	74	-
Roberts Bay	P2	GN	F	3	02/09/2010	309	P2-232	Sea Star	170	61	-
Roberts Bay	P2	GN	S	3	02/09/2010	310	P2-235	Sea Urchin	60	23	-
Roberts Bay	P2	GN	S	3	02/09/2010	311	P2-236	Sea Urchin	61	27	-
Roberts Bay	P2	GN	S	4	02/09/2010	312	P2-240	Sea Urchin	61	20	-
Roberts Bay	P2	GN	S	4	02/09/2010	313	P2-241	Sea Urchin	34	3	-
Roberts Bay	P2	GN	S	4	02/09/2010	314	P2-242	Sea Urchin	35	3	-
Roberts Bay	P2	GN	S	4	02/09/2010	315	P2-243	Mussel	69	29	-
Roberts Bay	P2	GN	S	4	02/09/2010	316	P2-244	Mussel	22	2	-
Roberts Bay	P2	GN	S	5	02/09/2010	317	P2-248	Sea Urchin	151	39	-
Roberts Bay	P2	GN	S	5	02/09/2010	318	P2-249	Sea Urchin	75	35	-
Roberts Bay	P2	GN	S	5	02/09/2010	319	P2-250	Sea Urchin	74	27	-
Roberts Bay	P2	GN	S	5	02/09/2010	320	P2-251	Sea Urchin	73	33	-
Roberts Bay	P2	GN	S	5	02/09/2010	321	P2-252	Sea Urchin	74	40	-
Roberts Bay	P2	CT	-	7	03/09/2010	322	P2-257	Sea Urchin	56	35	-
Roberts Bay	P2	CT	-	7	03/09/2010	323	P2-258	Sea Urchin	55	18	-
Roberts Bay	P2	GN	S	6	03/09/2010	324	P2-260	Sea Star	149	36	-

Notes:

Gear: GN = Gillnet; LL = Longline; BS = Beach Seine; MT = Minnow Trap; CT = Crab Trap

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Length measurements taken as follows: Crab = carapace width, Isopods = total length, sea stars = maximum length from one arm tip to another, sea urchins = diameter of test

Appendix 3.3-1. Biological Data for Macrobenthos Sampled in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Location		Gear			Date	Individual #	Sample #	Species	Length (mm)	Weight (g)	Comments
Location	Site	Method	Type	#							
Roberts Bay	P2	GN	S	6	03/09/2010	325	P2-261	Sea Urchin	45	27	-
Roberts Bay	P2	GN	S	6	03/09/2010	326	P2-262	Sea Urchin	43	25	-
Roberts Bay	P2	CT	-	14	04/09/2010	327	P2-264	Sea Urchin	75	32	-
Roberts Bay	P2	CT	-	14	04/09/2010	328	P2-265	Sea Urchin	74	32	-
Roberts Bay	P2	CT	-	14	04/09/2010	329	P2-266	Sea Urchin	76	45	-
Roberts Bay	P2	CT	-	12	04/09/2010	330	P2-267	Sea Urchin	74	47	-
Roberts Bay	P2	CT	-	15	04/09/2010	331	P2-268	Sea Urchin	57	14	-
Roberts Bay	P2	CT	-	15	04/09/2010	332	P2-269	Sea Urchin	41	3	-
Roberts Bay	P2	CT	-	15	04/09/2010	333	P2-270	Sea Urchin	41	-	-
Roberts Bay	P4	CT	-	4	05/09/2010	334	P4-237	Sea Star	124	32	-
Roberts Bay	P4	CT	-	2	05/09/2010	335	P4-238	Crab	64	174	-
Roberts Bay	P4	CT	-	1	05/09/2010	336	P4-239	Crab	75	294	-
Roberts Bay	P4	CT	-	7	05/09/2010	337	P4-240	Crab	64	130	-
Roberts Bay	P4	CT	-	7	05/09/2010	338	P4-241	Crab	57	138	-
Roberts Bay	P4	CT	-	7	05/09/2010	339	P4-242	Crab	66	74	-
Roberts Bay	P4	CT	-	7	05/09/2010	340	P4-243	Sea Star	63	32	-
Roberts Bay	P4	CT	-	7	05/09/2010	341	P4-244	Snail	52	9	-
Roberts Bay	P4	CT	-	3	05/09/2010	342	P4-245	Crab	52	77	-
Roberts Bay	P4	CT	-	3	05/09/2010	343	P4-246	Crab	60	56	-
Roberts Bay	P4	CT	-	3	05/09/2010	344	P4-247	Sea Star	106	11	-
Roberts Bay	P4	CT	-	5	05/09/2010	345	P4-248	Crab	71	160	-
Roberts Bay	P4	CT	-	8	05/09/2010	346	P4-250	Crab	54	39	-
Roberts Bay	P4	CT	-	8	05/09/2010	347	P4-251	Crab	62	127	-
Roberts Bay	P4	CT	-	8	05/09/2010	348	P4-252	Crab	55	63	-
Roberts Bay	P4	CT	-	9	05/09/2010	349	P4-253	Crab	69	197	-
Roberts Bay	P4	CT	-	9	05/09/2010	350	P4-254	Crab	62	105	-
Roberts Bay	P4	CT	-	9	05/09/2010	351	P4-255	Sea Urchin	47	19	-
Roberts Bay	P4	CT	-	-	05/09/2010	352	P4-259	Crab	63	156	-
Roberts Bay	P4	CT	-	-	05/09/2010	353	P4-260	Crab	68	155	-
Roberts Bay	P4	CT	-	-	05/09/2010	354	P4-261	Crab	67	136	-
Roberts Bay	P4	CT	-	-	07/09/2010	355	P4-262	Crab	48	46	-
Roberts Bay	P4	CT	-	-	07/09/2010	356	P4-263	Sea Star	140	27	-
Roberts Bay	P4	CT	-	-	07/09/2010	357	P4-264	Sea Star	130	10	-
Roberts Bay	P4	CT	-	-	07/09/2010	358	P4-265	Sea Star	124	5	-
Roberts Bay	P4	CT	-	-	07/09/2010	359	P4-266	Sea Star	128	9	-
Roberts Bay	P4	CT	-	-	07/09/2010	360	P4-267	Sea Star	132	11	-
Roberts Bay	P4	CT	-	-	07/09/2010	361	P4-268	Sea Star	104	7	-
Roberts Bay	P4	CT	-	-	07/09/2010	362	P4-269	Sea Star	110	6	-
Roberts Bay	P4	CT	-	-	07/09/2010	363	P4-270	Sea Urchin	50	-	-
Roberts Bay	P4	GN	S	3	07/09/2010	364	P4-278	Sea Star	89	3	-
Roberts Bay	P4	GN	S	4	07/09/2010	365	P4-283	Sea Star	114	24	-
Roberts Bay	P4	GN	S	4	07/09/2010	366	P4-284	Sea Star	146	36	-
Roberts Bay	P4	GN	S	4	07/09/2010	367	P4-285	Sea Star	116	11	-
Roberts Bay	P4	GN	S	4	07/09/2010	368	P4-286	Sea Star	100	8	-
Roberts Bay	P4	GN	S	-	07/09/2010	369	P4-287	Sea Star	89	4	-
Roberts Bay	P4	GN	S	-	07/09/2010	370	P4-288	Sea Urchin	42	7	-
Roberts Bay	P3	GN	S	2	09/09/2010	371	P3-229	Sea Star	170	64	-
Roberts Bay	P3	GN	S	2	09/09/2010	372	P3-230	Sea Urchin	36	15	-
Roberts Bay	P3	GN	S	2	09/09/2010	373	P3-231	Sea Urchin	42	31	-
Roberts Bay	P3	GN	S	2	09/09/2010	374	P3-232	Sea Urchin	-	-	Fell off GN before measured
Roberts Bay	P3	GN	S	2	09/09/2010	375	P3-233	Sea Urchin	-	-	Fell off GN before measured
Roberts Bay	P3	GN	S	3	09/09/2010	376	P3-242	Sea Star	168	58	-
Roberts Bay	P3	GN	S	3	09/09/2010	377	P3-244	Sea Urchin	42	35	-
Roberts Bay	P3	GN	S	3	09/09/2010	378	P3-245	Sea Urchin	30	14	-

Notes:

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Type: S = Sinking; F = Floating

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Appendix 3.3-1. Biological Data for Macrobenthos Sampled in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Location		Gear			Date	Individual #	Sample #	Species	Length (mm)	Weight (g)	Comments
Location	Site	Method	Type	#							
Roberts Bay	P3	CT	-	10	11/09/2010	379	P3-259	Brittlestar	90	1	-
Roberts Bay	P3	CT	-	10	11/09/2010	380	P3-260	Brittlestar	62	<1	Lost off trap before measured
Roberts Bay	P3	CT	-	8	11/09/2010	381	P3-261	Sea Urchin	-	-	
Roberts Bay	P3	CT	-	9	11/09/2010	382	P3-262	Brittlestar	90	1	-
Roberts Bay	P3	CT	-	9	11/09/2010	383	P3-263	Brittlestar	80	-	-
Roberts Bay	P3	CT	-	9	11/09/2010	384	P3-264	Brittlestar	40	-	Dead; Photo #4498
Roberts Bay	P3	CT	-	6	11/09/2010	385	P3-265	Brittlestar	84	<1	
Roberts Bay	P3	GN	S	4	12/09/2010	386	P3-283	Sea Urchin	28	14	-
Roberts Bay	P3	GN	S	4	12/09/2010	387	P3-284	Sea Star	172	58	-
Roberts Bay	P3	GN	S	4	12/09/2010	388	P3-285	Sea Star	145	37	-
Roberts Bay	P3	GN	S	4	12/09/2010	389	P3-286	Sea Star	151	46	-
Roberts Bay	P3	CT	-	-	14/09/2010	390	P3-298	Crab	68	165.4	-
Roberts Bay	P3	CT	-	-	14/09/2010	391	P3-299	Sea Star	165	51.5	-
Roberts Bay	P3	CT	-	-	14/09/2010	392	P3-300	Sea Star	149	34	-
Roberts Bay	P3	CT	-	-	14/09/2010	393	P3-301	Sea Star	146	40.7	-
Roberts Bay	P3	CT	-	-	14/09/2010	394	P3-302	Sea Star	134	31.4	-
Roberts Bay	P3	CT	-	-	14/09/2010	395	P3-303	Sea Star	147	46	-
Roberts Bay	P3	CT	-	-	14/09/2010	396	P3-304	Sea Star	128	27	-
Roberts Bay	P3	CT	-	-	14/09/2010	397	P3-305	Sea Star	138	33.8	-
Roberts Bay	P3	CT	-	-	14/09/2010	398	P3-306	Sea Star	131	27.8	-
Roberts Bay	P3	CT	-	-	14/09/2010	399	P3-307	Sea Star	109	19.3	-
Roberts Bay	P3	CT	-	-	14/09/2010	400	P3-308	Sea Star	121	26.2	-
Roberts Bay	P3	CT	-	-	14/09/2010	401	P3-309	Sea Star	120	27.3	-
Roberts Bay	P3	CT	-	-	14/09/2010	402	P3-310	Sea Star	189	78.1	-
Roberts Bay	P3	CT	-	-	14/09/2010	403	P3-311	Brittlestar	86	0.7	-
Roberts Bay	P3	CT	-	-	14/09/2010	404	P3-312	Brittlestar	76	0.6	-
Roberts Bay	P3	CT	-	-	14/09/2010	405	P3-313	Snail	32	3.6	-
Roberts Bay	P3	CT	-	-	14/09/2010	406	P3-314	Snail	41	11	-
Roberts Bay	P3	CT	-	-	14/09/2010	407	P3-315	Snail	36	5.3	-
Roberts Bay	P3	CT	-	-	14/09/2010	408	P3-316	Snail	37	5.6	-
Roberts Bay	P3	CT	-	-	14/09/2010	409	P3-317	Snail	32	4.8	-
Roberts Bay	P3	CT	-	-	14/09/2010	410	P3-318	Snail	33	4.8	-
Roberts Bay	P3	CT	-	-	14/09/2010	411	P3-319	Snail	33	4.6	-
Roberts Bay	P3	CT	-	-	14/09/2010	412	P3-320	Snail	40	7.8	-
Roberts Bay	P3	CT	-	-	14/09/2010	413	P3-321	Snail	44	12.2	-
Roberts Bay	P3	CT	-	-	14/09/2010	414	P3-322	Snail	33	5.3	-
Roberts Bay	P3	CT	-	-	14/09/2010	415	P3-323	Snail	36	5.2	-
Roberts Bay	P3	CT	-	-	14/09/2010	416	P3-324	Snail	47	11.9	-
Roberts Bay	P3	CT	-	-	14/09/2010	417	P3-325	Snail	41	6.7	-
Roberts Bay	P3	CT	-	-	14/09/2010	418	P3-326	Snail	38	5.8	-
Roberts Bay	P3	CT	-	-	14/09/2010	419	P3-327	Snail	30	3..5	-
Roberts Bay	P3	CT	-	-	14/09/2010	420	P3-328	Brittlestar	61	0.5	-
Roberts Bay	P3	CT	-	-	14/09/2010	421	P3-329	Snail	34	4.5	-
Roberts Bay	P3	GN	S	6	17/09/2010	422	P3-342	Sea Urchin	45	30	-
Roberts Bay	P3	GN	S	6	17/09/2010	423	P3-343	Sea Urchin	41	24	-
Roberts Bay	P4	GN	S	4	18/09/2010	424	P4-324	Sea Star	164	57	-
Roberts Bay	P5	GN	S	1	18/09/2010	425	P5-071	Sea Urchin	40	22	-
Roberts Bay	P5	GN	S	1	18/09/2010	426	P5-072	Sea Urchin	40	30	-
Roberts Bay	P5	GN	S	2	18/09/2010	427	P5-075	Crab	40	50	-
Roberts Bay	P4	GN	S	6	19/09/2010	428	P4-338	Sea Urchin	45	36	-
Roberts Bay	P4	GN	S	6	19/09/2010	429	P4-339	Sea Urchin	50	41	-
Roberts Bay	P5	CT	-	1	20/09/2010	430	P5-078	Crab	55	98	-
Roberts Bay	P5	CT	-	1	20/09/2010	431	P5-079	Crab	67	168	-
Roberts Bay	P5	CT	-	4	20/09/2010	432	P5-080	Crab	73	225	-

Notes:

Gear: GN = Gillnet; LL = Longline; BS = Beach Seine; MT = Minnow Trap CT = Crab Trap

Type: S = Sinking; F = Floating

Length measurements taken as follows: Crab = carapace width, Isopods = total length, sea stars = maximum length from one arm tip to another, sea urchins = diameter of test

Appendix 3.3-1. Biological Data for Macrobenthos Sampled in Roberts Bay and Reference Bay, Hope Bay Belt Project, 2010

Location		Gear			Date	Individual #	Sample #	Species	Length (mm)	Weight (g)	Comments
Location	Site	Method	Type	#							
Roberts Bay	P5	CT	-	4	20/09/2010	433	P5-081	Crab	58	96	-
Roberts Bay	P5	CT	-	11	20/09/2010	434	P5-082	Sea Urchin	10	1	-
Roberts Bay	P5	CT	-	-	21/09/2010	435	P5-083	Crab	80	305	-
Roberts Bay	P5	CT	-	-	21/09/2010	436	P5-084	Crab	47	58	-
Roberts Bay	P5	CT	-	-	21/09/2010	437	P5-085	Sea Star	94	12	-
Roberts Bay	P5	CT	-	-	21/09/2010	438	P5-086	Sea Star	68	5	-
Roberts Bay	P5	CT	-	-	21/09/2010	439	P5-087	Sea Urchin	40	21	-
Roberts Bay	P5	CT	-	-	21/09/2010	440	P5-088	Sea Urchin	49	36	-
Roberts Bay	P5	CT	-	-	21/09/2010	441	P5-089	Sea Urchin	39	20	-
Roberts Bay	P5	CT	-	-	21/09/2010	442	P5-090	Sea Urchin	36	11	-
Roberts Bay	P5	CT	-	-	21/09/2010	443	P5-091	Sea Urchin	52	44	-
Roberts Bay	P5	CT	-	-	21/09/2010	444	P5-092	Sea Urchin	33	15	-
Roberts Bay	P5	CT	-	-	21/09/2010	445	P5-093	Sea Urchin	25	6	-
Roberts Bay	P5	CT	-	-	21/09/2010	446	P5-094	Sea Urchin	26	7	-
Roberts Bay	P5	CT	-	-	21/09/2010	447	P5-095	Sea Urchin	29	10	-
Roberts Bay	P5	CT	-	-	21/09/2010	448	P5-096	Sea Urchin	27	6	-
Roberts Bay	P5	CT	-	-	21/09/2010	449	P5-097	Sea Urchin	16	3	-
Roberts Bay	P5	CT	-	-	21/09/2010	450	P5-098	Sea Urchin	23	5	-
Roberts Bay	P5	CT	-	-	21/09/2010	451	P5-099	Sea Urchin	36	12	-
Roberts Bay	P5	GN	S	5	21/09/2010	452	P5-100	Crab	61	121	-
Roberts Bay	P5	GN	S	5	21/09/2010	453	P5-101	Sea Star	93	9	-
Roberts Bay	P5	GN	S	5	21/09/2010	454	P5-102	Sea Star	95	8	-
Roberts Bay	P5	GN	S	5	21/09/2010	455	P5-103	Sea Urchin	26	7	-
Roberts Bay	P5	GN	S	5	21/09/2010	456	P5-104	Sea Urchin	31	12	-
Roberts Bay	P5	GN	S	6	21/09/2010	457	P5-105	Sea Urchin	43	24	-
Roberts Bay	P5	GN	S	6	21/09/2010	458	P5-106	Brittlestar	-	-	-
Reference Bay	REF	CT	-	-	23/09/2010	459	Ref-209	Crab	45	55	-
Reference Bay	REF	CT	-	-	24/09/2010	460	Ref-212	Crab	67	174	-
Reference Bay	REF	CT	-	-	24/09/2010	461	Ref-213	Crab	60	118	-
Reference Bay	REF	CT	-	-	24/09/2010	462	Ref-214	Crab	59	116	-
Reference Bay	REF	CT	-	-	24/09/2010	463	Ref-215	Crab	62	153	-
Reference Bay	REF	CT	-	-	24/09/2010	464	Ref-216	Sea Star	50	4	-
Reference Bay	REF	CT	-	-	24/09/2010	465	Ref-217	Sea Star	73	10	-
Reference Bay	REF	CT	-	-	24/09/2010	466	Ref-218	Sea Star	65	8	-
Reference Bay	REF	CT	-	-	24/09/2010	467	Ref-219	Snail	40	8	-
Reference Bay	REF	CT	-	-	25/09/2010	468	Ref-220	Snail	42	12	-

Notes:

Gear: GN = Gillnet; LL = Longline; BS = Beach Seine; MT = Minnow Trap; CT = Crab Trap

Type: S = Sinking; F = Floating

Length measurements taken as follows: Crab = carapace width, Isopods = total length, sea stars = maximum length from one arm tip to another, sea urchins = diameter of test