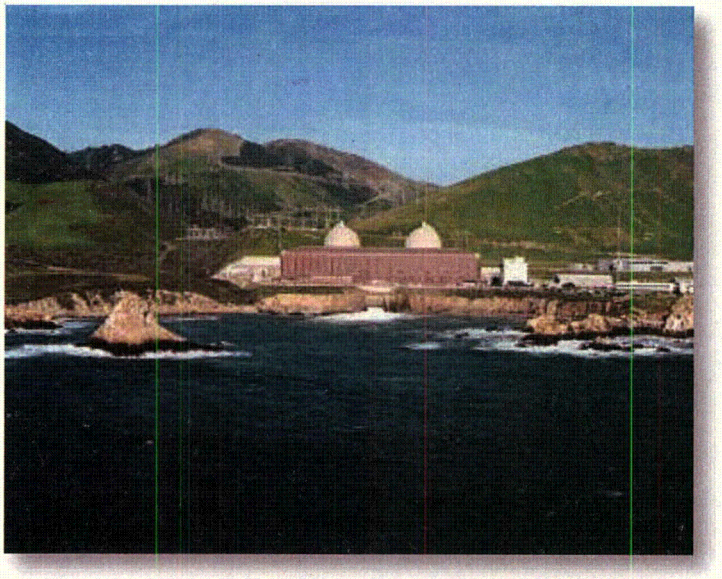
Pacific Gas and Electric Company
Diablo Canyon Power Plant

NPDES RECEIVING WATER MONITORING PROGRAM: 2012 ANNUAL REPORT



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1.0 Introduction

Monitoring of the marine environment near the Diablo Canyon Power Plant (DCPP) is required by WDR Order No. 90-09 (National Pollutant Discharge Elimination System (NPDES) Permit No. CA0003751), as revised in a letter from the Central Coast Regional Water Quality Control Board in December 1998. Changes in the marine environment in the vicinity of DCPP (**Figure 1**) are monitored by the Receiving Water Monitoring Program (RWMP) in accordance with the NPDES Permit.

This report presents seawater temperature and biological data collected in 2012 from the program's intertidal and subtidal monitoring tasks (**Table 1**). The sampling methods for each task are described, and the results are presented in the report's appendices.

The biological monitoring tasks were completed at fixed stations in areas that experience increased seawater temperatures from the DCPP thermal discharge, and in areas outside the influence of the discharge (**Table 1**). With the exception of the habitat-forming kelp survey task, the sampling frequency for the tasks was four surveys per year. A survey consisted of sampling several locations (stations) over a period of time, which varied depending on logistics, staffing resources, weather, sea state, and tide conditions. The survey date listed in the appendix tables for any particular task represents the mean date of the time period the stations were sampled for that survey. All monitoring tasks and surveys were completed in 2012 except for the fourth quarter fish surveys, which were completed in January 2013.

This report does not include analysis or discussion of the results of the biological or temperature monitoring. Comprehensive analyses of changes in the marine environment resulting from the DCPP discharge have been presented in Tenera (1988, 1997, 1999a, 1999b, 2002).

Table 1. Tasks, stations, and frequency of surveys for the DCPP RWMP, 2012. (See text for sampling method descriptions and station locations).

Task and Sampling Frequency	Stations
Temperature Monitoring (measurements every 20 min)	
Intertidal	NC 2, FC 1, FC 2, FC 3, NDC 1, NDC 2, NDC 3, SDC 1, SDC 2, SDC 3, SDP 1, SDP 2, SC 1, and SC 1V
Subtidal	NC 1 -3m, FC 1 -3m, NDC 2 -3m, NDC 3 -3m, NDC 4 -4m, SDC 1 -3m, SDC 4 -4m, SC 1 -3m, and SC 2 -6m
Intertidal Horizontal Band Transects (algae, seagrasses, invertebrates, substrate)	
4 surveys per year	NC 1, NC 2, FC 1, FC 2, FC 3, NDC 1, NDC 2, NDC 3, SDC 1, SDC 2, SDC 3, SDP 1, SDP 2, and SC 1
Intertidal Vertical Band Transects (fishes)	
4 surveys per year	NC 1V, FC 1V, NDC 1V, SDC 2V, and SC 1V
Subtidal Benthic Stations (algae, invertebrates, substrate)	
4 surveys per year	FC 1 -3m, NDC 2 -3m, NDC 3 -3m, NDC 4 -4m, SDC 2 -3m, SDC 3 -4m, SC 1 -3m, and SC 2 -6m
Subtidal Fish Observations (fishes)	
4 surveys per year	FC FO-1, FC FO-2, FC FO-3, NDC FO-1, NDC FO-2, NDC FO-3, SDC FO-1, SDC FO-2, SDC FO-3; SC FO-1, SC FO-2, and SC FO-3
Habitat-Forming Kelp Survey (bull kelp, giant kelp)	
1 survey per year	Diablo Cove

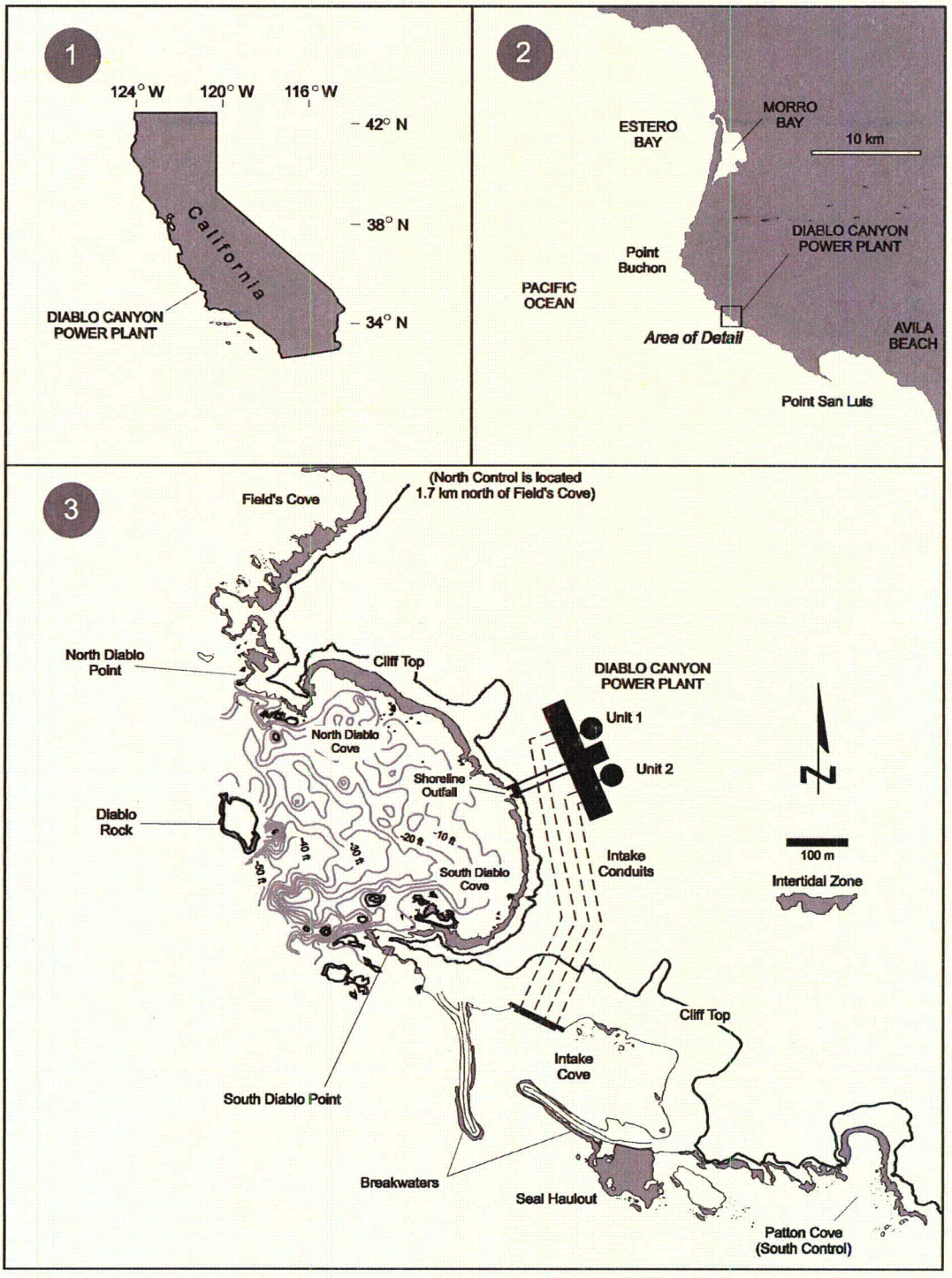

Figure 1. Location of the Diablo Canyon Power Plant.

2.0 Temperature Monitoring

Intertidal and subtidal seawater temperatures were recorded at permanent stations located along the Diablo Canyon coastline. Temperature units at intertidal stations were located along the rocky shore at the +0.6 m (+2.0 ft) mean lower low water (MLLW) elevation (**Figure 2**). Subtidal temperature recorders were located at depths from -3 m to -6 m (-10 ft to -20 ft) MLLW (**Figure 3**). The naming designation of individual stations reflects the area location and station number, and for the subtidal stations includes the station's depth relative to MLLW (e.g., NDC 1 -3 m is north Diablo Cove subtidal Station 1 at a depth of -3 m MLLW).

The following 13 stations were located in Diablo Cove, and were contacted regularly by the discharge plume:

Intertidal: NDC 1, NDC 2, NDC 3, SDC 1, SDC 2, SDC 3, SDP 1, and SDP 2.

Subtidal: NDC 2 -3m, NDC 3 -3m, NDC 4 -4m, SDC 1 -3m, and SDC 4 -4m.

The following four stations were located in Field's Cove, approximately one kilometer upcoast from Diablo Cove, and were contacted intermittently by the discharge plume:

Intertidal: FC 1, FC 2, and FC 3.

Subtidal: FC 1 -3m.

The following six control stations measured ambient ocean temperatures at locations beyond the influence of the discharge:

Intertidal: NC 2, SC 1, and SC 1V.

Subtidal: NC 1 -3m, SC 1 -3m, and SC 2 -6m.

Each instrument synchronously logged temperatures every 20 minutes throughout its deployment period. Instrument precision was 0.025°C with an accuracy of ± 0.05°C. Temperature units were deployed at a station for approximately 60–90 days and then exchanged with a serviced, calibrated unit. Intertidal temperature units recorded water temperatures only when tide levels were higher than about +0.6 m MLLW. Air temperatures were removed from the database by matching the temperature records with the times that the tide level dropped below +0.6 m MLLW, using a tidal height database derived from NOAA tide gauges at Morro Bay and Port San Luis.

Seawater temperatures recorded at the intertidal and subtidal temperature monitoring stations in 2012 are presented in **Appendix A** and **Appendix B**, respectively. Below is a summary of seawater temperatures recorded in the year, based on data from a subset of the temperature recording stations in control areas, north Diablo Cove, south Diablo Cove, and Field's Cove.

Intertidal monthly mean, maximum, and minimum temperatures recorded in 2012 at the +0.6 m (+2.0 ft) (MLLW) elevation in South Control (SC 1), south Diablo Cove (SDC 2), north Diablo Cove (NDC 2), and Field's Cove (FC 2) are shown in **Figure 4a**. Monthly mean ambient seawater temperatures in South Control ranged from a low of 10.4°C (50.7°F) in April to a high of 14.4°C (57.9°F) in October. Intertidal seawater temperatures were generally warmest in Diablo Cove in late summer-early fall. Compared to the control station, intertidal seawater temperatures averaged 4.2°C (7.6°F) warmer in south Diablo Cove and 4.0°C (7.2°F) warmer in north Diablo Cove. Intertidal seawater temperatures at the Field's Cove station were 1.0°C (1.8°F) warmer than the control station, on average.

Subtidal monthly mean, maximum, and minimum temperatures recorded in 2012 at -3 m MLLW in South Control (SC 1 -3m), south Diablo Cove (SDC 1 -3m), north Diablo Cove (NDC 2 -3m), and Field's Cove (FC 1 -3m) are shown in **Figure 4b**. Monthly mean ambient seawater temperatures in South Control ranged from a low of 10.4°C (50.7°F) in April to a high of 14.5°C (58.0°F) in October. Subtidal temperatures were generally warmest in Diablo Cove in summer-early fall. Compared to the control station, subtidal temperatures averaged 2.9°C (5.3°F) warmer in south Diablo Cove and 4.1°C (7.3°F) warmer in north Diablo Cove. Subtidal temperatures at the Field's Cove station were 0.8°C (1.5°F) warmer than the control station on average.

DCPP typically operates at full capacity, but there were several periods in 2012 when one or more of the four main circulating water pumps (CWP) were not in operation because of scheduled and unscheduled outages or curtailments. This resulted in lower volumes of heated seawater flowing into Diablo Cove. These periods can be seen in **Figure 5,** and include such activities as the cleaning of biofouling from the walls of the cooling water conduits (February 13–17, November 12–16, and December 17–21), and removing storm-generated debris from the condensers (April 1 and 2, and December 1). These procedures normally require that only one of the four pumps be removed from service. During a refueling outage (1R17) from April 21 through June 11, both of the CWPs for Unit 1 were out ofservice. This resulted in the total volume of heated seawater flowing into Diablo Cove being reduced by approximately one-half during this period. On April 23, an influx of salps (jellyfish-like organisms) began obstructing the Unit 2 intake and subsequently forced the shutdown of both of the unit's CWPs on April 26. The pumps returned to full operation on April 28. On October 11, a reactor trip caused the Unit 2 pumps to shut down and, although it only reduced the circulating water flow for a short period of time, it reduced the amount of heat rejected by the unit (and the overall plant discharge temperatures) for a period of about five days.

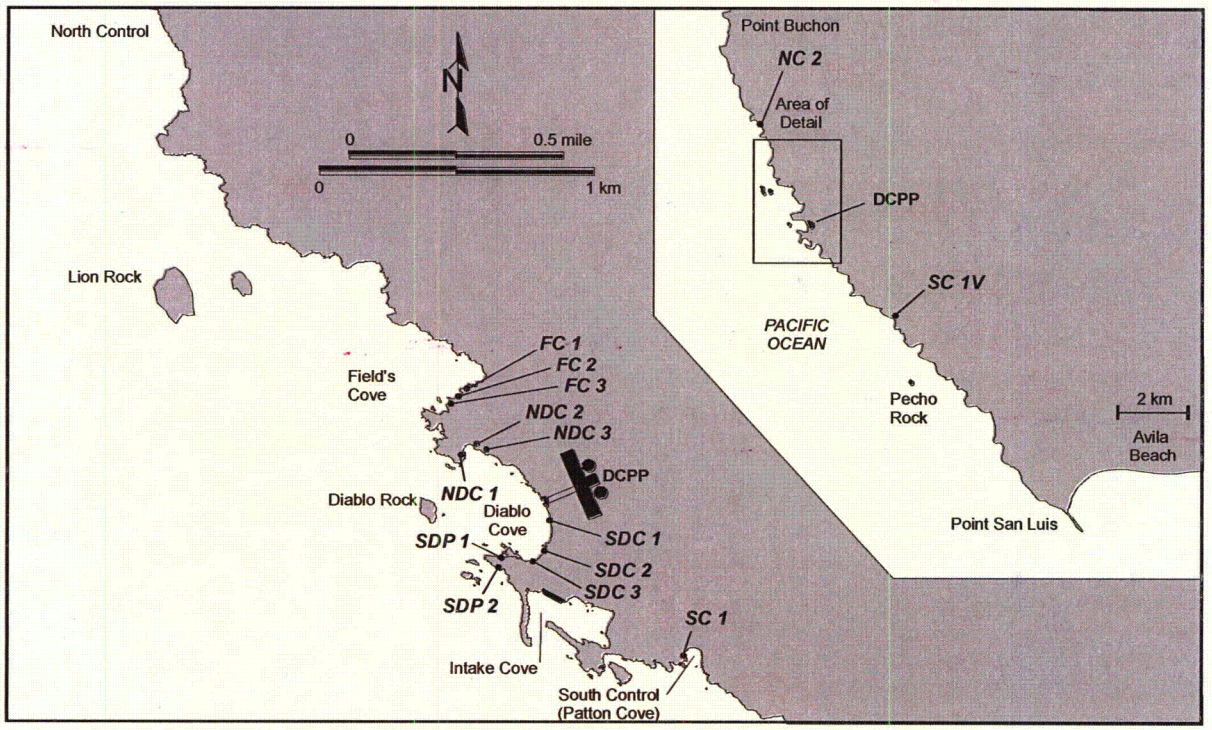

Figure 2. Locations of intertidal temperature monitoring stations.

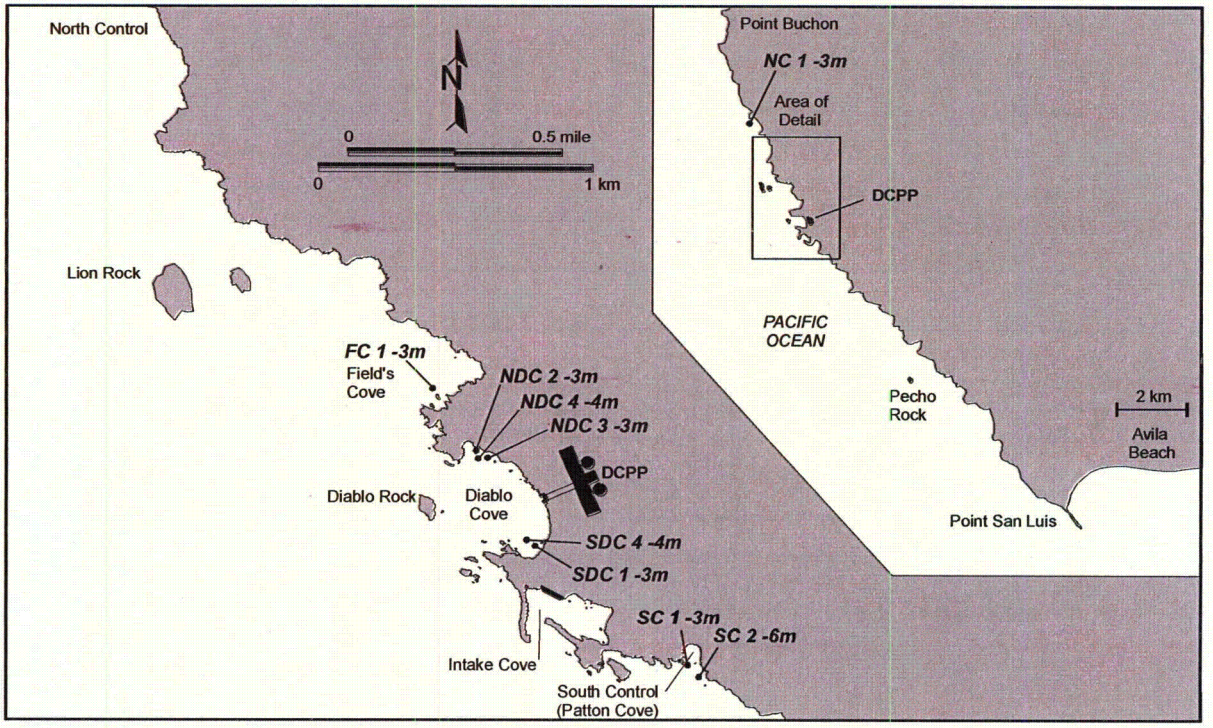

Figure 3. Locations of subtidal temperature monitoring stations.

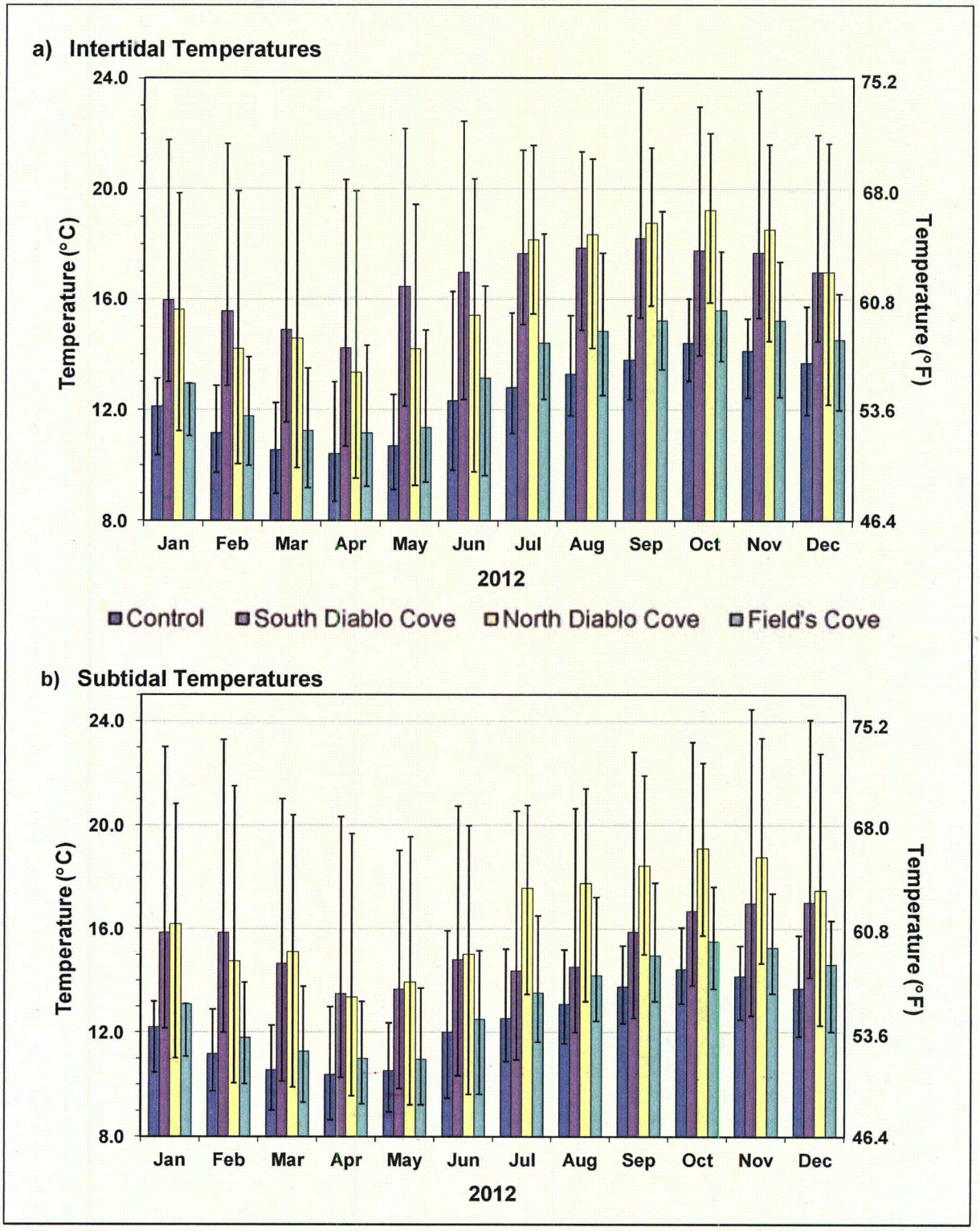

Figure 4. Seawater temperatures in 2012 recorded in South Control, south Diablo Cove, north Diablo Cove, and Field's Cove for: a) intertidal; and b) subtidal. Mean, maximum, and minimum temperatures are shown by month for each area. (See text for temperature recording stations used in this figure).

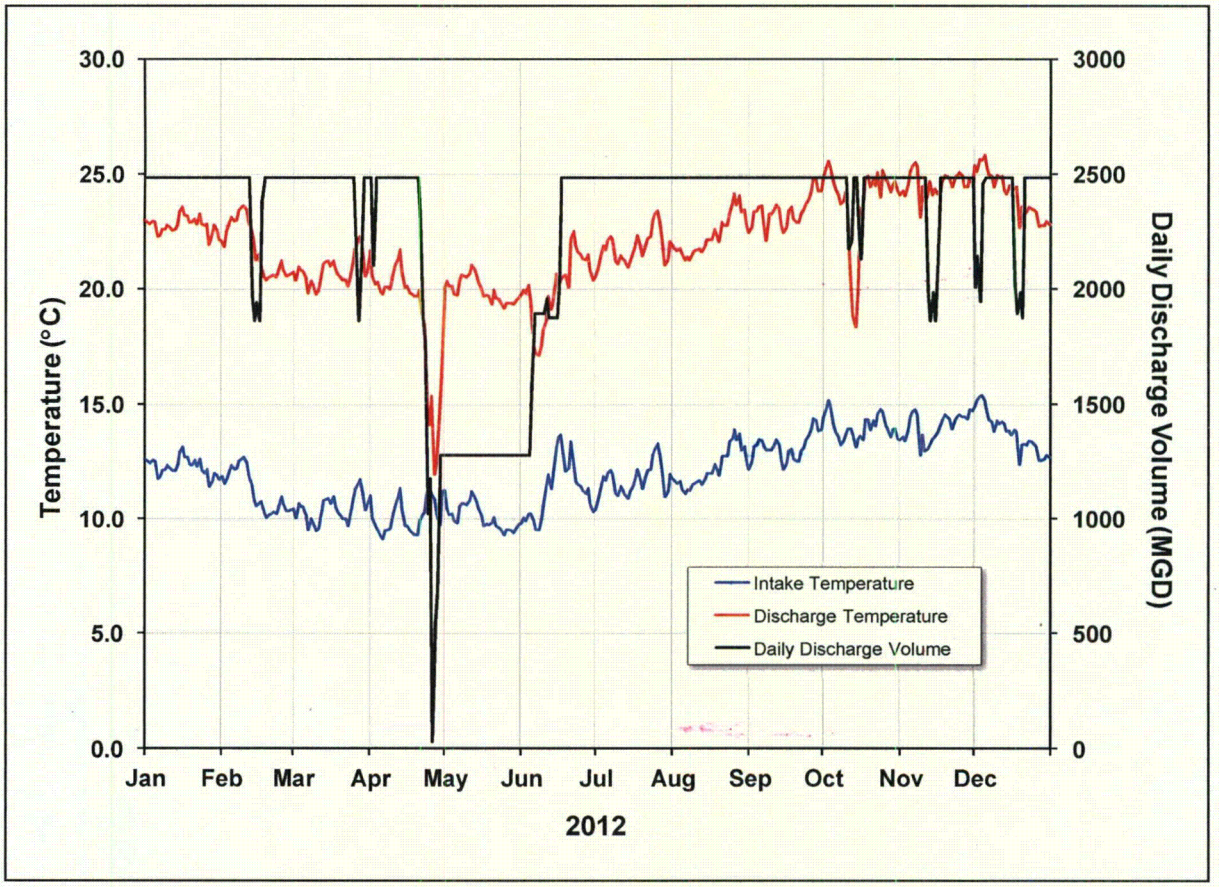

Figure 5. DCPP average daily intake and discharge seawater temperatures (°C) and the daily cooling water discharge volume (MGD).

3.0 Intertidal Algae and Invertebrates

Intertidal algae, seagrasses, and invertebrates were sampled using the horizontal band transect (HBT) sampling method at the locations shown in **Figure 6**. Most HBT stations consisted of two 30 m long transects oriented parallel to the waterline, one at the +0.9 m (+3 ft) MLLW tide level and the other at the +0.3 m (+1 ft) MLLW tide level. Stations SDP-1 and SDP-2 each consisted of one transect at the +0.9 m tide level. The substrate at the +0.9 m MLLW level at Station SDC-1 was mainly uncolonized cobble. Therefore, the upper transect at that station was located at a lower elevation at the +0.6 m MLLW tide level, and on bedrock where intertidal species were more abundant. The sampling area of each transect consisted of ten 1.0 m^2 permanent quadrats. The quadrats were mainly located on bedrock and boulders, but various amounts of cobble and sand that occurred seasonally were also sampled. Three control stations were located beyond the range of thermal discharges from DCPP, while the remaining 11 stations in Field's Cove, Diablo Cove, and on South Diablo Point (south headland of Diablo Cove) received varying levels of contact with warm water from the discharge.

In sampling, visual estimates of percent cover were made for all algal species, seagrasses, and bare substrate. Overstory species were sampled first for coverage estimates, and then the overstory branches and blades were moved aside to allow estimation of the percent cover of the understory species and bare substrates. Species that occupied less than 0.7% of the area of the quadrat were recorded as 'present'. Total algal cover plus bare substrate cover almost always exceeded 100 percent in a quadrat, due to overlapping layers of multiple plant taxa.

Intertidal invertebrates were sampled concurrently in the same quadrats as the algae. In five of the ten quadrats, all species were recorded as either present or absent, except individuals that were larger than 2.5 cm (1 in) in greatest dimension, which were counted. In the remaining five quadrats ('count quadrats'), the same method was used except that select species of invertebrates were counted regardless of size. The percent cover of sessile invertebrates, such as sponges and tunicates, was estimated using the same methods used for the algae. All invertebrates, algae, and seagrasses were identified to the lowest taxonomic level practical. Black abalone of all sizes were counted in the ten permanent quadrats and in five additional quadrats on each transect.

The survey mean and standard deviation, and annual mean abundance for each taxon at each transect level are presented in **Appendix C**. Survey statistics for algae and substrates were calculated from all ten quadrats along the transect, while statistics for the invertebrates were calculated from the five 'count' quadrats. If a taxon was only recorded as present in a quadrat, its abundance was given a value of 0.000001 for calculating summary statistics.

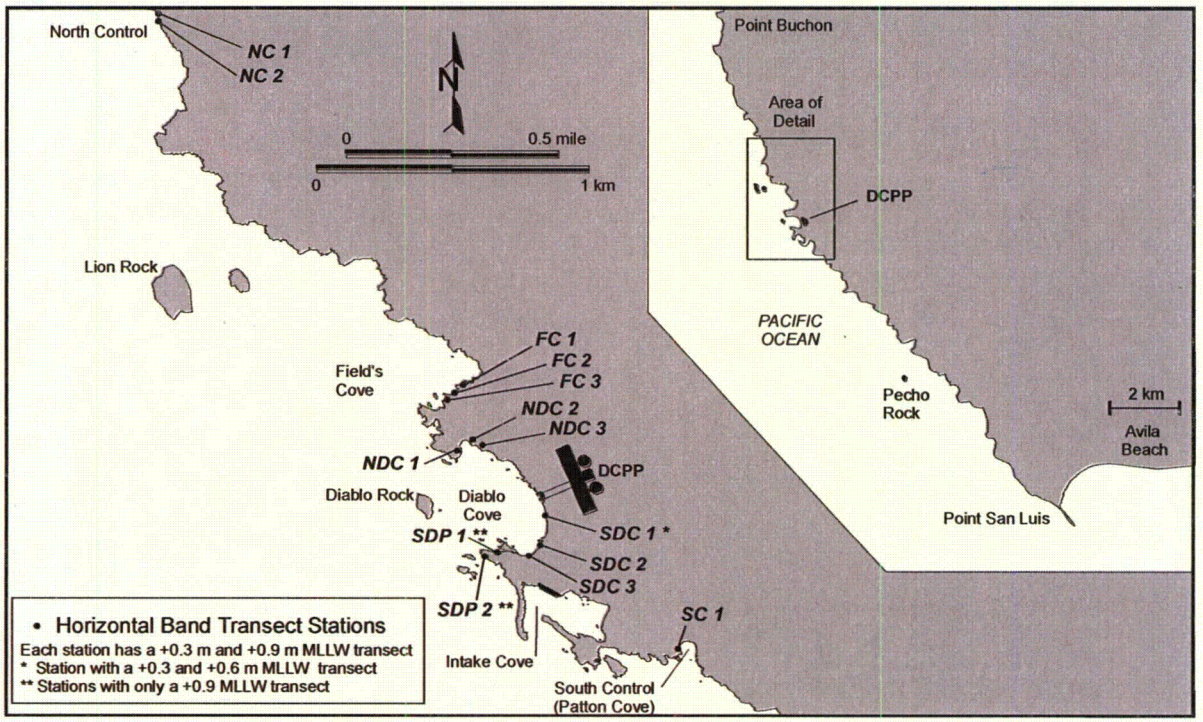

Figure 6. Locations of horizontal band transect stations.

4.0 Intertidal Fishes

Intertidal fishes were sampled using the Vertical Band Transect (VBT) sampling method. At each of five stations (**Figure 7**), three transects were positioned perpendicular to the shoreline at fixed locations. Each transect originated in the high intertidal zone (approximately +1.5 m MLLW) and terminated in the low intertidal zone (approximately -0.2 m MLLW). Transects at each station were separated by approximately 3 m. Each transect was used as a reference line to position twelve 1.0 m^2 permanent sampling quadrats, for a total of thirty-six 1.0 m^2 quadrats per station. Two control stations were located beyond the range of thermal discharges from DCPP, while the remaining three stations in Field's Cove and Diablo Cove received varying amounts of warm water influence from the discharge.

In sampling, moveable rocks were carefully lifted and any fishes seen were captured in small hand nets. Foliose algae were also searched for cryptic fishes. Fishes were identified to the lowest practical taxonomic level, measured, and returned to the quadrat following sampling. Newly settled juvenile fishes were not identified to the species level but were grouped into composite taxa (e.g., Pholididae/Stichaeidae, *Anoplarchus/Cebidichthys*).

The total numbers observed at each station during the four surveys of the year, and annual mean abundance and standard deviation of fishes for each taxon are presented in **Appendix D**.

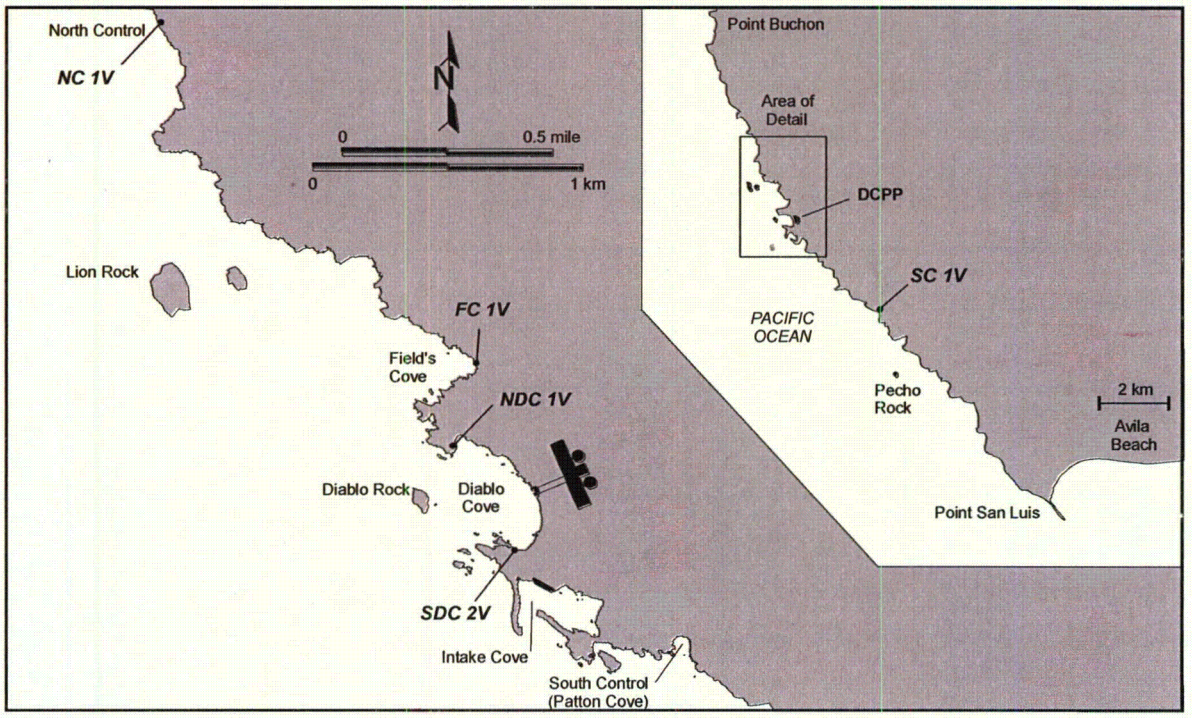

Figure 7. Locations of vertical band transect stations.

5.0 Subtidal Algae and Invertebrates

Eight permanent subtidal benthic sampling stations located in depths ranging from -3 m to -6 m (-10 ft to -20 ft) MLLW were sampled during the year (**Figure 8**). Two control stations were located in Patton Cove, beyond the range of thermal discharges from DCPP, while the remaining six stations received varying amounts of warm water influence from the discharge. Stations were circular with a radius of 3.15 m and a sampling area of 28.0 m^2. The center 3.1 m^2 of each station, which surrounded a mooring anchor (railcar wheel), was not sampled in order to avoid any unnatural algal and invertebrate growth associated with the mooring. Each station was divided into four equal sections, or 'arc quadrants', 7.0 m^2 in area. All stations were established primarily on substrates of mixed bedrock and boulders with small amounts of cobble and sand.

Divers used three sampling methods at each station to sample the benthic algae and invertebrates. In the first method, individual species of kelp (brown algae of the order Laminariales and Fucales) and macroinvertebrates were counted in each subtidal arc quadrant (SAQ sampling method). Kelp plants and individuals of select invertebrate taxa were counted regardless of their size. Individuals of other non-encrusting invertebrates were counted if they were larger than 2.5 cm (1.0 in) (length or width). Juvenile kelp plants that could not be identified to the species level were counted and recorded as 'Laminariales.' Five common species that generally occurred in numbers too high to accurately count in a large area were sampled in the same one-third area (2.33 m^2) of each quadrant, each survey. The count for each of these species was multiplied by three to provide an abundance estimate for the entire quadrant.

In the second sampling method (subtidal line contact or SLC) all understory algal species were quantified at the stations as percent cover using a series of pre-selected random points. A radius line with ten lead markers positioned at decreasing intervals toward the station perimeter was attached to the center of the station and used to locate sampling loci in each quadrant. Fifty random contact points were sampled within each quadrant (total of 200 points per station), and the same pre-selected set of points was used at all stations. Random sampling points were changed for each survey. The presence of all algal species, sessile invertebrates, and substrates observed directly under or over the points was recorded. Holdfasts of kelp species were also included when contacted by the sample points. The percent cover of each species and substrate type was calculated by dividing the number of 'contacts' by the number of points sampled. All algal species on the station were identified to the lowest taxonomic level practical. In each quadrant, algal species that were present but not contacted by the sample points were noted separately as being 'present' in the quadrant.

In the third method, invertebrates were sampled using the subtidal fixed quadrat (SFQ) method in four permanent circular 0.25 m^2 quadrats at each station. The method quantified species composition and abundance of all invertebrate taxa visible to the naked eye. One permanent quadrat was located within each of the four SAQ quadrants, generally on bedrock or boulder substrate. Depending upon the degree of topographical relief, two quadrats were located on

horizontal-aspect surfaces and two quadrats were located on vertical-aspect surfaces. All non-encrusting taxa were identified and counted. The coverage of encrusting taxa (e.g., colonial/social tunicates) was quantified in square inch units if the total equaled or exceeded 1 square inch (6.5 cm^2). Otherwise, the encrusting taxon was recorded as 'present'.

The survey mean and standard deviation for each taxon at each station from the four surveys completed during the year are presented in **Appendices E** (SAQ), **F** (SLC), and **G** (SFQ). The means are based on the data from the four quadrats or quadrants at each station. The tables also list annual mean taxa abundances by station based on the average of all surveys sampled over the year. Algal taxa in the SLC study, and encrusting taxa in the SFQ study, that were recorded as only present (no numeric value) were given a value of 0.000001 for calculating abundance statistics.

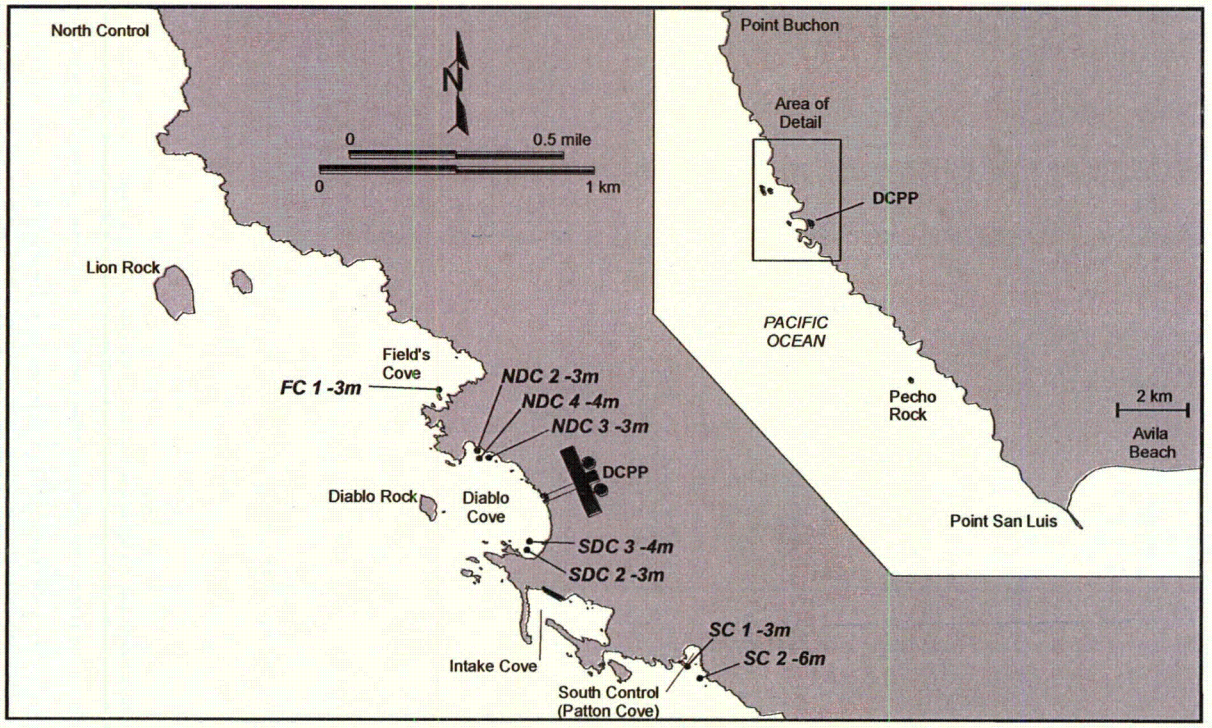

Figure 8. Locations of subtidal benthic stations.

6.0 Surface Canopy Kelps

The locations and extent of the surface kelp canopies of *Nereocystis luetkeana* (bull kelp) and *Macrocystis pyrifera* (giant kelp) in Diablo Cove within and outside the fixed benthic stations were mapped from direct observations. This task has been completed annually since the 1970s to document long-term changes in the annual maximum extent of the surface kelp canopies in Diablo Cove. Near the end of the annual growth cycle in October, nearly all bull kelp plants have reached the surface and can be counted. Surface canopies of giant kelp also tend to be abundant during this period. Two observers at the headland of north Diablo Cove and two observers at the headland of south Diablo Cove (south Diablo Point) counted and mapped the distribution of individual bull kelp plants and mapped the spatial extent of giant kelp canopies (**Figure 9**). Bull kelp plants with bare bulbs only and no attached fronds, indicating senescence in the plants, were noted when possible.

The annual habitat-forming kelp survey was conducted on October 17, 2012. Three bull kelp plants were observed in Diablo Cove during the survey; giant kelp canopies occurred in both north and south Diablo Cove (**Figure 9**). There are no appendix figures or data tables associated with this task.

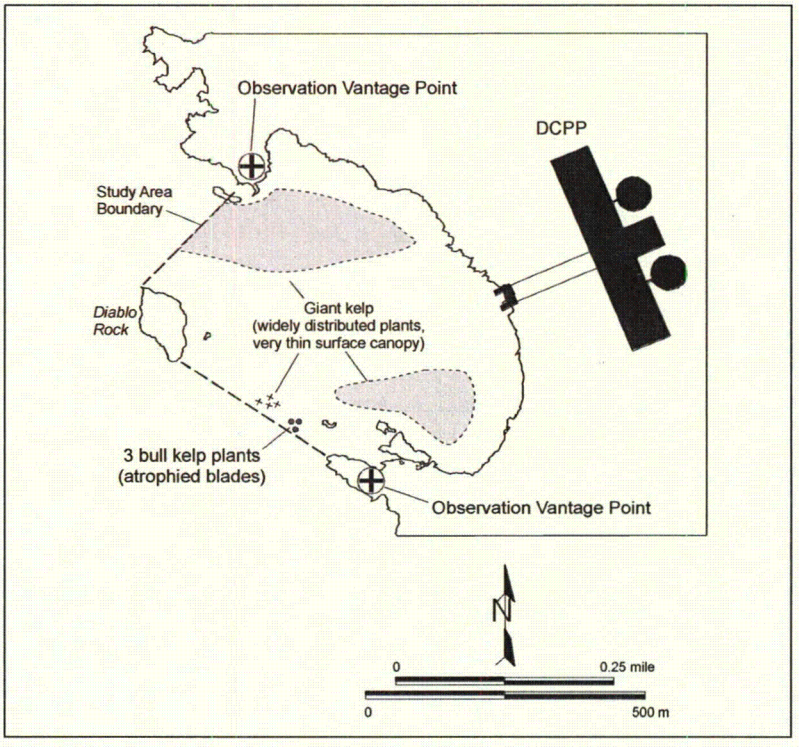

Figure 9. Map of surface kelp in Diablo Cove on October 17, 2012.

7.0 Subtidal Fishes

Visual counts of fishes were conducted by divers at 12 permanent subtidal stations (three stations in each of four areas) located within and outside of Diablo Cove (**Figure 10**). Three control stations located in Patton Cove were beyond the range of thermal discharges from DCPP, while the remaining nine stations in Field's Cove, north Diablo Cove, and south Diablo Cove received varying amounts of warm water influence from the discharge.

Each station consisted of a benthic transect 50 m long by 4 m wide by 1 m above the bottom, and a 50 m long by 4 m diameter midwater transect located above and parallel to the benthic transect approximately midway between the surface and the bottom. A station was sampled by first deploying a fiberglass measuring tape to delineate the centerline of the benthic transect, beginning at a permanent station buoy and extending 50 m away from the buoy along a pre-determined compass course. Some transects crossed over each other where a transect parallel to the depth contour crossed over a transect positioned perpendicular to the depth contour. The area common to both transects in these cases was approximately 2%. This small overlap did not affect the data summaries because the numbers of fish counted were averaged by area, and the mobility of most fish added to the independence of transects.

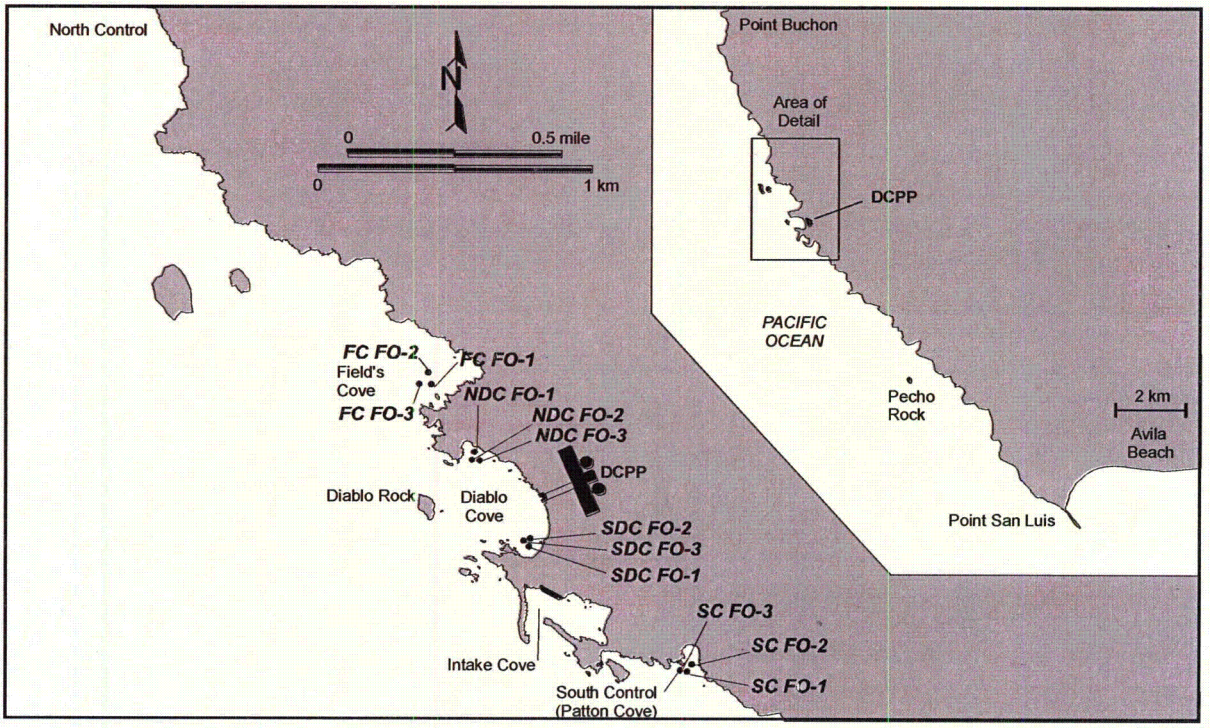

Figure 10. Locations of subtidal fish observation transects.

A survey team consisted of two divers. Each diver counted fish along the benthic and midwater transect sampling areas, swimming in opposite directions along the transects. This sampling technique allowed a more thorough inspection of potential fish habitats from all angles of view than would have been possible by a single diver progressing along a transect in only one direction. Fish were identified to species if possible, but juveniles of some species with similar appearances were combined into broader categories if necessary.

The resulting survey data per transect were the combined species counts of both divers, divided by two. This yielded an average count for each taxon per 50 m by 4 m benthic transect and per 50 m long by 4 m diameter midwater transect. During each survey, the stations (midwater and benthic transects) were usually sampled a second time (replicate 2) within two weeks of the initial sampling effort (replicate 1), unless adverse sea conditions precluded a second replicate. The replicate 1 and 2 data per area were pooled separately for the three midwater transects and the three benthic transects for each survey.

The survey mean abundance and standard deviation for each taxon within each of the four sampling areas for the four surveys during the year are presented in **Appendix H**. The tables are further divided according to midwater and benthic transects in each area. The tables also show overall mean abundances for the entire year. The survey dates shown for each area in the tables represent the average date of the combined stations sampled in replicates 1 and 2.

8.0 RWMP Project Personnel

Project Personnel 2012

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Diablo Canyon Power Plant

Appendix A

Intertidal Temperatures

Table A1. Monthly statistical summary of intertidal temperatures (°C), January–December 2012, North Control Station NC 2 +0.6m (2+2).

Month	Max	Min	**Mean**	Std. Dev	N
Station: NC 2 +0.6m					
Jan	13.15	10.77	**12.03**	0.46	1131
Feb	12.93	9.85	**11.20**	0.94	1054
Mar	12.65	8.95	**10.69**	0.67	1120
Apr	13.48	8.88	**10.82**	0.88	1051
May	13.43	9.43	**11.38**	0.85	1090
Jun	16.17	9.65	**12.84**	1.56	1093
Jul	16.52	11.68	**13.68**	0.91	1202
Aug	16.77	12.18	**14.15**	0.94	1261
Sep	16.08	12.65	**14.27**	0.69	1237
Oct	17.15	13.10	**14.62**	0.69	1269
Nov	15.73	12.20	**14.15**	0.69	1202
Dec	16.13	11.50	**13.61**	1.08	1225

Table A2. Monthly statistical summary of intertidal temperatures (°C), January–December 2012, Field's Cove Stations FC 1 +0.6m (4+2), FC 2 +0.6m (5+2) and FC 3 +0.6m (6+2).

Month	Max	Min	Mean	Std. Dev	N
Station: FC 1 +0.6m					
Jan	15.10	11.00	**12.94**	0.80	1418
Feb	13.98	9.93	**11.74**	0 97	1287
Mar	14.57	9.02	**11.35**	0.90	1342
Apr	15.25	8.98	**11.28**	1.06	1265
May	15.35	9.35	**11.52**	1.04	1311
Jun	17.55	9.55	**13.28**	1.88	1346
Jul	17.88	12.23	**14.53**	1.13	1460
Aug	19.52	12.48	**14.99**	1.15	1469
Sep	17.73	13.30	**15.30**	0.86	1412
Oct	18.00	13.75	**15.62**	0.82	1446
Nov	17.02	8.93	**15.19**	0.75	1403
Dec	17.35	11.82	**14.45**	1.27	1446
Station: FC 2 +0.6m					
Jan	15.05	11.05	**12.94**	0.79	1131
Feb	14.00	9.98	**11.77**	0.99	1054
Mar	14.45	9.18	**11.26**	0.84	1120
Apr	14.65	9.23	**11.15**	0.98	1051
May	14.70	9.40	**11.38**	0.97	1090
Jun	17.13	9.63	**13.14**	1.84	1093
Jul	17.23	12.35	**14.39**	1.04	1202
Aug	18.80	12.52	**14.84**	1.06	1261
Sep	17.38	13.43	**15.22**	0.78	1237
Oct	17.73	13.75	**15.58**	0.78	1269
Nov	16.88	12.45	**15.21**	0.71	1202
Dec	17.38	12.00	**14.52**	1.24	1225
Station: FC 3 +0.6m					
Jan	15.02	11.02	**12.94**	0.79	1131
Feb	13.95	9.98	**11.77**	0.99	1054
Mar	14.05	9.18	**11.25**	0.83	1120
Apr	14.32	8.98	**11.10**	0.94	1051
May	14.35	9.38	**11.26**	0.90	1090
Jun	16.75	9.60	**13.00**	1.78	1093
Jul	17.25	12.27	**14.19**	0.98	1202
Aug	18.25	12.50	**14.68**	1.04	1261
Sep	17.15	13.38	**15.15**	0.75	1237
Oct	17.52	13.75	**15.53**	0.76	1269
Nov	16.77	9.13	**15.19**	0.73	1202
Dec	17.33	11.98	**14.53**	1.24	1225

Table A3. Monthly statistical summary of intertidal temperatures (°C), January–December 2012, North Diablo Cove Stations NDC 1 +0.6m (7+2), NDC 2 +0.6m (8+2) and NDC 3 +0.6m (9+2).

Month	Max	Min	Mean	Std. Dev	N
Station: NDC 1 +0.6m					
Jan	19.73	11.02	**15.58**	2.10	1418
Feb	19.95	9.98	**14.09**	1.97	1287
Mar	19.80	9.90	**14.32**	2.17	1342
Apr	19.10	9.52	**13.01**	2.08	1265
May	19.00	9.23	**13.95**	2.04	1311
Jun	20.35	9.60	**15.07**	2.58	1346
Jul	21.30	15.10	**17.97**	1.21	1460
Aug	21.30	14.30	**18.28**	1.02	1469
Sep	21.50	15.30	**18.61**	1.01	1412
Oct	22.45	15.18	**18.96**	1.08	1446
Nov	21.77	14.35	**18.36**	1.21	1403
Dec	21.60	12.15	**16.80**	2.07	1446
Station: NDC 2 +0.6m					
Jan	19.85	11.23	**15.61**	2.09	1086
Feb	19.92	10.05	**14.21**	2.02	1011
Mar	20.05	9.90	**14.56**	2.25	1070
Apr	19.92	9.52	**13.32**	2.19	1016
May	19.45	9.27	**14.21**	2.15	1046
Jun	20.38	9.75	**15.41**	2.60	1054
Jul	21.58	15.45	**18.16**	1.19	1168
Aug	21.10	14.20	**18.35**	0.95	1230
Sep	21.50	15.73	**18.77**	0.92	1207
Oct	22.00	15.85	**19.22**	0.97	1232
Nov	21.60	14.48	**18.53**	1.20	1168
Dec	21.65	12.20	**16.97**	2.13	1183
Station: NDC 3 +0.6m					
Jan	20.25	11.05	**15.97**	2.22	1448
Feb	21.27	10.07	**14.52**	2.09	1300
Mar	20.10	9.90	**14.95**	2.35	1356
Apr	19.83	9.55	**13.44**	2.18	1282
May	19.55	9.30	**14.28**	2.11	1338
Jun	20.38	9.70	**15.38**	2.57	1359
Jul	21.33	15.38	**18.08**	1.09	1482
Aug	21.27	14.02	**18.25**	1.00	1486
Sep	21.83	15.85	**18.76**	0.99	1426
Oct	22.10	16.23	**19.27**	0.99	1458
Nov	22.65	14.55	**18.72**	1.23	1411
Dec	22.02	12.25	**17.21**	2.14	1465

Table A4. Monthly statistical summary of intertidal temperatures (°C), January–December 2012, South Diablo Cove Stations SDC 1 +0.6m (10+2), SDC 2 +0.6m (11+2) and SDC 3 +0.6m (12+2).

Month	Max	Min	Mean	Std. Dev	N
Station: SDC 1 +0.6m					
Jan	23.20	13.40	**17.30**	2.35	1467
Feb	23.70	12.85	**16.99**	2.70	1318
Mar	22.38	12.00	**15.70**	2.20	1366
Apr	21.58	10.50	**14.85**	2.39	1292
May	22.33	12.05	**16.38**	2.22	1351
Jun	22.35	12.35	**16.93**	1.91	1379
Jul	21.55	14.88	**17.42**	1.32	1502
Aug	21.45	14.68	**17.63**	1.23	1496
Sep	23.90	15.30	**18.12**	1.37	1444
Oct	23.95	13.95	**17.88**	1.72	1474
Nov	24.58	15.18	**18.05**	1.81	1426
Dec	25.08	14.90	**17.87**	1.97	1488
Station: SDC 2 +0.6m					
Jan	21.77	13.00	**15.96**	1.60	965
Feb	21.63	12.85	**15.56**	1.63	1054
Mar	21.17	11.55	**14.90**	1.73	1120
Apr	20.33	10.70	**14.24**	1.76	1051
May	22.20	12.13	**16.44**	2.21	1090
Jun	22.45	12.35	**16.98**	1.96	1093
Jul	21.42	15.07	**17.66**	1.35	1202
Aug	21.35	14.88	**17.88**	1.18	1261
Sep	23.65	15.32	**18.21**	1.23	1237
Oct	22.98	13.95	**17.78**	1.61	1269
Nov	23.55	15.30	**17.70**	1.38	1202
Dec	21.95	14.48	**16.98**	1.39	1225
Station: SDC 3 +0.6m					
Jan	18.35	12.20	**15.23**	1.09	1298
Feb	17.63	12.40	**14.63**	1.09	1188
Mar	17.33	11.15	**13.83**	1.04	1247
Apr	17.95	10.32	**13.02**	1.10	1173
May	18.80	11.68	**14.40**	1.54	1216
Jun	19.50	11.80	**15.55**	1.65	1234
Jul	19.90	14.23	**16.69**	1.15	1348
Aug	20.85	14.48	**17.04**	1.17	1381
Sep	20.90	14.88	**17.41**	1.02	1343
Oct	20.63	13.80	**17.11**	1.28	1370
Nov	20.92	14.52	**17.10**	0.87	1327
Dec	20.05	13.35	**16.52**	1.15	1360

Table A5. Monthly statistical summary of intertidal temperatures (°C), January–December 2012, South Diablo Point Stations SDP 1 +0.6m (22+2) and SDP 2 +0.6m (14+2).

Month	Max	Min	Mean	Std. Dev	N
Station: SDP 1 +0.6m*					
Jan	18.77	12.18	**15.33**	1.12	869
Feb	-	-	-	-	-
Mar	-	-	-	-	-
Apr	17.00	10.35	**12.90**	1.08	901
May	18.17	11.70	**14.25**	1.42	1394
Jun	18.73	11.80	**15.36**	1.55	1434
Jul	19.27	13.73	**16.29**	1.18	1562
Aug	20.65	14.40	**16.72**	1.18	1540
Sep	21.15	14.77	**17.26**	1.05	1482
Oct	20.77	13.80	**17.08**	1.27	1518
Nov	19.75	14.57	**17.08**	0.85	1464
Dec	19.98	13.18	**16.57**	1.17	1533
Station: SDP 2 +0.6m					
Jan	17.08	11.75	**14.46**	1.05	1418
Feb	17.08	10.93	**13.37**	0.95	1287
Mar	15.32	10.38	**12.85**	0.85	1342
Apr	15.30	10.05	**12.13**	0.83	1265
May	15.77	10.40	**12.40**	0.85	1311
Jun	17.85	11.05	**14.39**	1.55	1346
Jul	18.20	12.02	**15.04**	0.97	1460
Aug	19.58	12.10	**15.66**	1.18	1469
Sep	18.60	12.05	**15.96**	1.15	1412
Oct	19.05	13.55	**16.20**	1.06	1446
Nov	18.80	13.75	**16.28**	0.97	1403
Dec	19.30	12.75	**15.81**	1.21	1446

*Note: Unit failed during January – April deployment. No data available.

Table A6. Monthly statistical summary of intertidal temperatures (°C), January–December 2012, South Control Stations SC 1 +0.6m (19+2) and SC 1V.

Month	Max	Min	Mean	Std. Dev	N
Station: SC 1 +0.6m					
Jan	13.10	10.52	**12.12**	0.39	1272
Feb	12.82	9.75	**11.16**	0.88	1165
Mar	12.30	9.05	**10.55**	0.64	1227
Apr	12.93	8.68	**10.41**	0.85	1160
May	12.65	9.00	**10.71**	0.68	1198
Jun	16.00	9.57	**12.33**	1.49	1212
Jul	15.15	11.15	**12.79**	0.78	1323
Aug	16.33	11.57	**13.28**	1.00	1367
Sep	15.35	12.38	**13.80**	0.64	1331
Oct	16.23	13.07	**14.39**	0.65	1348
Nov	15.25	12.32	**14.10**	0.58	1308
Dec	15.88	11.90	**13.68**	1.00	1332
Station: SC 1V					
Jan	13.85	10.57	**12.18**	0.56	1630
Feb	13.40	9.65	**11.37**	0.89	1443
Mar	14.18	8.52	**11.19**	0.99	1495
Apr	15.88	8.20	**11.56**	1.43	1417
May	17.38	9.40	**12.64**	1.57	1488
Jun	17.98	9.68	**13.86**	1.78	1524
Jul	17.60	12.15	**14.70**	1.23	1658
Aug	19.42	12.88	**15.15**	1.24	1639
Sep	17.90	13.10	**15.17**	0.97	1558
Oct	17.52	13.15	**15.14**	0.90	1592
Nov	16.40	11.95	**14.32**	0.78	1541
Dec	16.50	11.25	**13.53**	1.14	1614

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Appendix B

Subtidal Temperatures

Table B1. Monthly statistical summary of subtidal temperatures (°C), January–December 2012, North Control Station NC 1 -3m (1-10).

Month	Max	Min	Mean	Std. Dev	N
Station: NC 1 -3m					
Jan	13.13	10.48	**12.15**	0.46	2232
Feb	13.05	9.77	**11.22**	0.94	2088
Mar	12.57	9.13	**10.67**	0.67	2232
Apr	12.70	8.95	**10.57**	0.78	2160
May	13.02	9.25	**10.82**	0.77	2232
Jun	15.23	9.50	**12.11**	1.46	2160
Jul	15.32	11.25	**12.95**	0.90	2232
Aug	15.82	11.63	**13.48**	0.87	2232
Sep	15.57	12.43	**13.97**	0.64	2160
Oct	16.90	12.90	**14.53**	0.68	2232
Nov	15.40	12.43	**14.20**	0.62	2160
Dec	15.73	11.75	**13.71**	0.97	2232

Table B2. Monthly statistical summary of subtidal temperatures (°C), January–December 2012, Field's Cove Station FC 1 -3m (22-10).

Month	Max	Min	Mean	Std. Dev	N
Station: FC 1 -3m					
Jan	15.23	11.07	**13.09**	0.83	2232
Feb	14.30	10.02	**11.79**	0.99	2086
Mar	13.48	9.32	**11.28**	0.79	2232
Apr	13.75	9.25	**10.98**	0.87	2160
May	13.60	9.23	**10.95**	0.81	2231
Jun	15.50	9.63	**12.50**	1.60	2160
Jul	16.58	11.63	**13.53**	0.88	2232
Aug	16.98	12.43	**14.18**	0.90	2231
Sep	17.08	13.20	**14.97**	0.71	2160
Oct	17.63	13.68	**15.51**	0.75	2232
Nov	17.00	13.50	**15.27**	0.67	2160
Dec	17.48	12.02	**14.61**	1.24	2232

Table B3. Monthly statistical summary of subtidal temperatures (°C), January–December 2012, North Diablo Cove Stations NDC 2 -3m (8-10), NDC 3 -3m (9-10), and NDC 4 -4m (9-15).

Month	Max	Min	Mean	Std. Dev	N
Station: NDC 2 -3m					
Jan	20.83	11.02	**16.20**	2.26	2232
Feb	21.50	10.05	**14.76**	2.22	2088
Mar	20.38	9.90	**15.11**	2.33	2232
Apr	19.67	9.55	**13.35**	2.10	2160
May	19.55	9.23	**13.96**	2.08	2232
Jun	20.00	9.63	**15.01**	2.51	2160
Jul	20.77	13.48	**17.59**	1.16	2232
Aug	21.42	13.20	**17.75**	1.12	2232
Sep	21.90	15.02	**18.45**	1.10	2160
Oct	22.40	15.75	**19.11**	1.10	2232
Nov	23.35	14.68	**18.77**	1.47	2159
Dec	22.75	12.27	**17.48**	2.26	2232
Station: NDC 3 -3m					
Jan	21.30	11.10	**16.54**	2.23	2232
Feb	22.48	10.15	**15.42**	2.33	2088
Mar	20.27	9.93	**15.37**	2.30	2232
Apr	19.65	9.57	**13.50**	2.15	2160
May	19.75	9.27	**13.89**	2.10	2232
Jun	20.08	9.65	**15.02**	2.49	2160
Jul	20.63	12.90	**17.21**	1.28	2232
Aug	21.15	13.27	**17.27**	1.25	2232
Sep	22.15	14.27	**18.25**	1.27	2160
Oct	22.63	15.65	**19.12**	1.17	2232
Nov	24.33	14.32	**18.86**	1.64	2159
Dec	23.63	12.43	**17.72**	2.22	2232
Station: NDC 4 -4m					
Jan	20.50	11.05	**15.96**	2.13	2232
Feb	21.77	9.93	**14.64**	2.14	2088
Mar	20.20	9.88	**14.67**	2.20	2232
Apr	19.25	9.55	**13.08**	2.05	2160
May	19.27	9.23	**13.11**	1.81	2232
Jun	19.45	9.63	**14.50**	2.40	2160
Jul	20.48	11.48	**16.28**	1.51	2232
Aug	20.33	12.45	**16.20**	1.50	2232
Sep	21.83	12.50	**17.44**	1.51	2160
Oct	22.10	15.07	**18.60**	1.20	2232
Nov	23.15	13.63	**18.22**	1.82	2159
Dec	22.38	12.27	**17.19**	2.18	2232

Table B4. Monthly statistical summary of subtidal temperatures (°C), January–December 2012, South Diablo Cove Stations SDC 1 -3m (11-10) and SDC 4 -4m (11-15).

Month	Max	Min	Mean	Std. Dev	N
Station: SDC 1 -3m					
Jan	23.02	12.15	**15.84**	2.15	2231
Feb	23.27	12.00	**15.86**	2.08	2088
Mar	21.00	10.13	**14.65**	2.12	2232
Apr	20.33	10.27	**13.48**	2.04	2159
May	19.05	9.85	**13.68**	1.97	2232
Jun	20.73	10.32	**14.82**	1.79	2160
Jul	20.55	10.95	**14.38**	1.88	2231
Aug	20.63	11.98	**14.52**	1.72	2232
Sep	22.83	12.55	**15.88**	1.93	2160
Oct	23.20	13.82	**16.67**	1.81	2232
Nov	24.45	12.63	**17.00**	2.13	2160
Dec	24.05	14.13	**17.02**	1.79	2232
Station: SDC 4 -4m					
Jan	21.73	10.85	**14.55**	2.01	2231
Feb	21.55	10.10	**15.15**	2.25	2088
Mar	19.83	9.52	**13.49**	2.25	2232
Apr	18.63	9.07	**12.33**	1.95	2159
May	16.00	9.43	**11.85**	1.51	2232
Jun	18.23	9.73	**13.13**	1.57	2159
Jul	18.15	10.18	**12.55**	1.29	2232
Aug	17.80	11.05	**12.84**	1.18	2232
Sep	21.38	11.77	**14.07**	1.62	2160
Oct	21.13	12.90	**14.94**	1.36	2232
Nov	22.02	12.35	**15.59**	2.02	2160
Dec	21.85	13.10	**15.96**	1.68	2232

Table B5. Monthly statistical summary of subtidal temperatures (°C), January–December 2012, South Control Stations SC 1 -3m (19-10) and SC 2 -6m (20-20).

Month	Max	Min	Mean	Std. Dev	N
Station: SC 1 -3m					
Jan	13.18	10.45	**12.20**	0.42	2232
Feb	12.88	9.75	**11.19**	0.89	2088
Mar	12.27	9.00	**10.56**	0.65	2232
Apr	12.98	8.65	**10.38**	0.83	2159
May	12.35	8.95	**10.52**	0.64	2232
Jun	15.93	9.48	**12.00**	1.43	2160
Jul	15.23	10.90	**12.54**	0.79	2232
Aug	15.18	11.57	**13.07**	0.85	2232
Sep	15.35	12.32	**13.75**	0.63	2160
Oct	16.05	13.10	**14.45**	0.64	2232
Nov	15.35	12.48	**14.16**	0.56	2160
Dec	15.75	11.85	**13.71**	0.96	2231
Station: SC 2 -6m					
Jan	13.07	10.38	**12.18**	0.41	2232
Feb	12.80	9.75	**11.15**	0.90	2088
Mar	12.15	9.18	**10.44**	0.63	2232
Apr	12.50	8.85	**10.19**	0.76	2160
May	12.05	9.05	**10.16**	0.60	2232
Jun	15.65	9.13	**11.50**	1.34	2159
Jul	14.73	10.13	**11.93**	0.80	2232
Aug	14.90	10.95	**12.48**	0.88	2232
Sep	15.35	11.85	**13.39**	0.67	2160
Oct	15.93	12.40	**14.18**	0.64	2232
Nov	15.18	12.15	**14.07**	0.56	2160
Dec	15.45	11.95	**13.71**	0.91	2231

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Appendix C

Intertidal Algae, Invertebrates and Substrates

Table C1. Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for North Control Station NC 1+0.3m (1+1).

Survey	168		169		170		171		
Survey Date	3-Feb-12		22-May-12		15-Aug-12		26-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Mazzaella flaccida	20.7	10.3	46.0	10.8	31.9	13.6	12.7	8.9	**27.8**
Phyllospadix spp.	24.1	22.6	18.8	17.5	30.8	31.3	24.2	25.8	**24.5**
non-coralline crust	28.1	17.6	5.2	5.5	17.3	10.1	16.5	13.5	**16.8**
Chondracanthus canaliculatus	11.4	7.4	16.7	11.3	11.7	10.9	12.8	8.2	**13.1**
Mazzaella affinis	12.1	9.8	13.9	10.5	10.9	9.6	14.7	11.0	**12.9**
Mastocarpus papillatus	1.8	1.3	8.7	7.0	5.0	5.7	3.1	2.0	**4.7**
Gastroclonium subarticulatum	4.1	4.2	4.0	3.3	4.0	5.7	6.3	6.5	**4.6**
Gelidium coulteri	4.4	3.4	1.5	1.0	3.0	4.1	4.4	4.1	**3.3**
Codium setchellii	4.9	8.8	1.9	3.7	2.2	5.2	3.6	7.4	**3.1**
Smithora naiadum	<0.1	<0.1	<0.1	0.2	11.1	13.1	<0.1	<0.1	**2.8**
coralline crust	2.7	2.7	1.1	1.3	2.6	2.4	3.7	2.0	**2.5**
filamentous red algae complex	0.3	0.9	5.9	5.5	0.2	0.5	3.1	5.1	**2.4**
Cryptopleura violacea	1.2	1.5	1.2	1.5	1.7	2.5	2.9	3.1	**1.7**
Mastocarpus jardinii	1.6	1.5	1.2	1.9	1.7	2.5	1.3	1.8	**1.4**
Prionitis spp.	0.8	1.6	1.7	3.8	1.5	2.8	1.7	3.5	**1.4**
Corallina vancouveriensis	0.9	2.1	1.7	3.4	0.3	0.7	1.2	2.4	**1.0**
Endocladia muricata	0.6	2.0	1.7	5.5	0.4	0.9	1.3	4.0	**1.0**
Mazzaella oregona	0.3	0.6	2.1	1.1	0.4	0.9	0.9	1.1	**0.9**
Calliarthron/Bossiella spp.-complex	0.5	1.1	0.3	0.9	0.3	0.6	0.8	1.6	**0.5**
Callithamnion pikeanum	<0.1	0.2	1.4	1.9	-	-	-	-	**0.4**
Pterosiphonia dendroidea	0.3	0.5	-	-	0.8	1.5	0.3	0.6	**0.3**
Mazzaella leptorhynchos	0.3	0.5	0.6	1.0	0.3	0.9	0.1	0.4	**0.3**
Ulva spp.	<0.1	<0.1	<0.1	0.2	0.6	1.1	0.3	1.1	**0.3**
Microcladia coulteri	-	-	0.2	0.7	0.5	0.3	<0.1	<0.1	**0.2**
Osmundea spp.	<0.1	0.2	0.4	0.9	0.2	0.7	<0.1	<0.1	**0.2**
Gelidium pusillum	0.6	0.8	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	**0.2**
Porphyra spp.	-	-	-	-	0.4	1.3	<0.1	0.2	**0.1**
Mazzaella splendens	-	-	0.1	0.4	0.3	0.9	-	-	**0.1**
Corallina chilensis	<0.1	<0.1	<0.1	<0.1	0.3	1.1	-	-	**<0.1**
juv. articulated coralline algae	<0.1	<0.1	<0.1	0.2	0.1	0.4	<0.1	<0.1	**<0.1**
Chondracanthus corymbiferus	-	-	-	-	<0.1	0.2	0.1	0.4	**<0.1**
Acrosiphonia spp.	-	-	0.1	0.4	-	-	-	-	**<0.1**
Bryopsis spp.	-	-	-	-	<0.1	0.2	<0.1	<0.1	**<0.1**
Cladophora spp.	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Melobesia mediocris	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Sarcodiotheca gaudichaudii	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Halymenia/Schizymenia spp.-complex	-	-	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
Cystoseira osmundacea	<0.1	<0.1	-	-	-	-	<0.1	<0.1	**<0.1**
Chlorophyta (filamentous)	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Invertebrate Counts									
Chlorostoma funebralis	40.4	42.7	9.0	7.7	4.2	3.8	13.8	18.3	**16.9**
Pagurus spp.	21.0	13.0	9.4	6.6	5.4	2.3	18.6	9.4	**13.6**
Chlorostoma brunnea	2.8	5.2	-	-	3.2	3.6	2.0	2.0	**2.0**
Tetraclita rubescens	-	-	-	-	-	-	3.8	8.5	**1.0**

(table continued)

Table C1 (continued). Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for North Control Station NC 1+0.3m (1+1).

Survey	168		169		170		171		
Survey Date	3-Feb-12		22-May-12		15-Aug-12		26-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts (continued)									
Leptasterias spp.	0.2	0.4	1.2	1.3	0.4	0.5	0.2	0.4	**0.5**
Nemertea	0.4	0.9	-	-	-	-	1.0	1.4	**0.4**
Anthopleura elegantissima	0.4	0.5	0.4	0.5	-	-	0.2	0.4	**0.3**
Pugettia spp.	<0.1	<0.1	0.6	0.9	0.2	0.4	-	-	**0.2**
Mopalia spp.	-	-	0.2	0.4	-	-	0.4	0.5	**0.2**
Lottia limatula	-	-	-	-	-	-	0.4	0.9	**0.1**
Ocinebrina spp.	0.2	0.4	0.2	0.4	-	-	-	-	**0.1**
Hemigrapsus nudus	-	-	0.2	0.4	-	-	-	-	**<0.1**
Pachygrapsus crassipes	-	-	-	-	-	-	0.2	0.4	**<0.1**
Pisaster ochraceus	-	-	-	-	-	-	0.2	0.4	**<0.1**
Cirratulidae/Terebellidae	-	-	0.2	0.4	-	-	-	-	**<0.1**
Eupentacta quinquesemita	-	-	-	-	-	-	0.2	0.4	**<0.1**
Lacuna spp.	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Alia spp.	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Lottiidae	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
Crepidula spp.	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Ischnochitonidae	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
Barleeia spp.	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Heptacarpus spp.	<0.1	<0.1	-	-	-	-	<0.1	<0.1	**<0.1**
Cancridae	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Sipuncula	-	-	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Homolo. luridum/Lirularia succincta	<0.1	<0.1	-	-	-	-	<0.1	<0.1	**<0.1**
Epitonium/Opalia spp.	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Pelecypoda boring	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Pisaster/Henricia spp. (juv.)	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Amphissa spp.	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Grapsidae	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Invertebrate Cover									
Pista spp.	8.5	7.9	0.8	1.5	12.1	15.2	12.7	12.7	**8.5**
tunicates, compound/social	0.1	0.4	<0.1	<0.1	<0.1	<0.1	0.7	1.3	**0.2**
bryozoa (encrusting)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	**<0.1**
Phragmatopoma californica	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	0.2	**<0.1**
Porifera (encrusting)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	**<0.1**
Spirorbidae	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Salmacina tribranchiata	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Chthamalus fissus	<0.1	<0.1	-	-	-	-	<0.1	<0.1	**<0.1**
Haliclona spp.	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Substrate Cover									
sand (shell gravel)	8.5	8.4	5.8	7.1	16.0	9.4	9.4	10.9	**9.9**
rock	3.3	7.9	1.3	1.8	5.6	5.9	4.4	5.7	**3.6**
cobble	1.7	4.1	0.5	0.9	<0.1	<0.1	0.5	1.1	**0.7**

Table C2. Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for North Control Station NC 1+0.9m (1+3).

Survey	168		169		170		171		
Survey Date	3-Feb-12		5-Jun-12		15-Aug-12		26-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Endocladia muricata	31.2	22.0	40.3	29.6	22.4	23.5	21.9	20.0	**28.9**
Mazzaella flaccida	18.3	12.2	30.8	17.2	22.6	18.3	28.1	19.5	**24.9**
Mastocarpus papillatus	10.6	7.8	30.1	16.8	37.6	25.9	15.7	12.8	**23.5**
non-coralline crust	27.4	15.1	11.6	6.3	17.6	12.9	17.6	7.2	**18.5**
coralline crust	9.0	8.4	0.9	1.1	7.2	5.4	9.8	7.6	**6.7**
Silvetia compressa	5.1	11.5	2.8	7.2	8.3	16.8	4.7	10.1	**5.2**
Gelidium coulteri	3.6	2.6	2.5	4.8	2.5	2.3	7.3	7.3	**4.0**
Codium setchellii	3.0	6.3	2.1	4.6	4.2	9.6	4.4	9.5	**3.4**
Mazzaella affinis	3.5	4.5	2.1	5.0	0.3	1.1	3.3	4.1	**2.3**
Mastocarpus jardinii	1.6	2.0	1.0	1.4	1.6	2.2	2.2	2.3	**1.6**
Chondracanthus canaliculatus	2.2	2.1	1.0	1.4	0.7	2.0	1.9	2.8	**1.5**
Corallina vancouveriensis	1.2	1.4	0.5	1.0	1.4	3.1	0.8	1.4	**1.0**
Cryptopleura violacea	1.2	3.1	0.4	1.3	0.6	1.7	1.6	5.1	**1.0**
Gelidium pusillum	1.7	1.6	0.6	1.3	<0.1	<0.1	0.3	0.6	**0.7**
Analipus japonicus	0.6	1.8	<0.1	<0.1	0.1	0.4	1.3	4.0	**0.5**
Phyllospadix spp.	0.6	2.0	0.5	1.5	<0.1	0.2	0.7	1.3	**0.5**
Mazzaella oregona	0.3	0.6	0.2	0.3	0.6	1.0	0.7	1.2	**0.5**
juv. articulated coralline algae	0.2	0.7	<0.1	0.2	0.7	2.0	<0.1	0.2	**0.3**
Prionitis spp.	0.5	1.1	<0.1	<0.1	<0.1	0.2	<0.1	0.2	**0.2**
Porphyra spp.	-	-	0.3	0.5	0.2	0.5	<0.1	<0.1	**0.1**
filamentous red algae complex	-	-	<0.1	<0.1	0.1	0.4	0.2	0.7	**<0.1**
Gastroclonium subarticulatum	-	-	<0.1	<0.1	-	-	0.3	0.6	**<0.1**
Ulva spp.	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	**<0.1**
Mazzaella leptorhynchos	<0.1	0.2	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Calliarthron/Bossiella spp.-complex	-	-	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	**<0.1**
Callithamnion spp./*Pleonosporium* spp.	-	-	-	-	-	-	<0.1	0.2	**<0.1**
Cladophora spp.	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Corallina chilensis	-	-	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
Egregia menziesii	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Callithamnion pikeanum	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Invertebrate Counts									
Chlorostoma funebralis	44.8	38.3	25.0	38.5	53.2	88.1	27.8	17.8	**37.7**
Pagurus spp.	6.0	7.0	14.2	25.0	9.4	15.2	32.4	45.8	**15.5**
Pollicipes polymerus	3.2	7.2	0.6	1.3	3.2	7.2	2.8	6.3	**2.5**
Lottia scabra	-	-	1.6	2.5	0.6	1.3	4.8	9.1	**1.8**
Lottia limatula	0.2	0.4	0.2	0.4	1.2	2.2	2.2	2.7	**1.0**
Tetraclita rubescens	3.4	7.6	-	-	-	-	-	-	**0.9**
Pachygrapsus crassipes	0.6	0.5	0.2	0.4	0.8	0.4	0.6	0.9	**0.6**
Nuttallina californica	1.0	1.4	0.6	0.9	-	-	0.2	0.4	**0.5**
Anthopleura elegantissima	0.6	0.5	0.2	0.4	0.2	0.4	0.6	0.9	**0.4**
Lottia scutum	0.2	0.4	0.4	0.5	0.6	0.5	0.2	0.4	**0.4**
Lottia pelta	0.2	0.4	0.4	0.9	0.6	0.9	-	-	**0.3**
Leptasterias spp.	0.2	0.4	0.4	0.5	-	-	0.6	0.5	**0.3**
Nemertea	0.6	0.9	-	-	-	-	0.6	0.5	**0.3**

(table continued)

Table C2 (continued). Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for North Control Station NC 1+0.9m (1+3).

Survey	168		169		170		171		
Survey Date	3-Feb-12		5-Jun-12		15-Aug-12		26-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts (continued)									
Ocinebrina spp.	0.2	0.4	0.2	0.4	0.2	0.4	0.4	0.5	**0.3**
Fissurella volcano	-	-	0.2	0.4	-	-	0.6	0.9	**0.2**
Pisaster ochraceus	0.2	0.4	-	-	0.2	0.4	-	-	**0.1**
Haliotis spp.	0.1	0.3	0.1	0.3	0.1	0.3	0.1	0.3	**0.1**
Lottiidae	0.2	0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Hemigrapsus nudus	0.2	0.4	-	-	-	-	-	-	**<0.1**
Pugettia spp.	-	-	-	-	-	-	0.2	0.4	**<0.1**
Homolo. luridum/Lirularia succincta	<0.1	<0.1	-	-	-	-	<0.1	<0.1	**<0.1**
Crepidula spp.	-	-	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Sipuncula	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Ischnochitonidae	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Barleeia spp.	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Cyanoplax spp.	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Alia spp.	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Littorina spp.	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Lacuna spp.	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Heptacarpus spp.	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Invertebrate Cover									
Phragmatopoma californica	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.4	1.3	**0.1**
Spirorbidae	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	**<0.1**
Haliclona spp.	<0.1	0.2	-	-	-	-	<0.1	<0.1	**<0.1**
Chthamalus fissus	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Pista spp.	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Porifera (encrusting)	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
bryozoa (encrusting)	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Salmacina tribranchiata	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Substrate Cover									
rock	7.6	7.7	5.0	5.2	15.1	14.4	6.5	7.6	**8.6**
cobble	1.2	3.1	1.2	2.8	1.0	2.3	2.0	5.1	**1.4**
sand (shell gravel)	<0.1	<0.1	<0.1	<0.1	0.7	1.2	0.2	0.5	**0.2**

Table C3. Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for North Control Station NC 2+0.3m (2+1).

Survey	168		169		170		171		
Survey Date	6-Feb-12		22-May-12		16-Aug-12		26-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Mazzaella flaccida	14.0	6.1	35.0	10.1	26.2	9.5	9.9	7.9	**21.3**
non-coralline crust	27.4	13.4	9.4	10.5	14.4	14.1	26.6	12.4	**19.4**
Chondracanthus canaliculatus	15.6	9.3	24.4	10.4	15.1	11.1	14.2	11.4	**17.4**
Phyllospadix spp.	11.8	10.2	14.8	15.3	21.9	18.4	16.0	16.0	**16.1**
Mazzaella affinis	14.9	6.6	11.6	11.6	5.6	6.3	11.5	8.2	**10.9**
Egregia menziesii	2.8	6.6	8.8	11.7	18.9	17.9	1.2	1.6	**7.9**
Gastroclonium subarticulatum	3.1	4.9	5.7	9.0	6.4	5.8	7.7	8.6	**5.7**
Mastocarpus papillatus	3.3	2.0	9.6	6.3	6.7	5.6	1.5	1.5	**5.3**
Codium setchellii	5.6	7.1	3.3	6.0	2.4	3.5	4.4	7.2	**3.9**
coralline crust	3.2	2.2	1.8	1.4	4.1	3.7	3.8	3.4	**3.2**
Gelidium coulteri	1.5	1.4	2.2	1.2	0.8	1.3	4.8	5.3	**2.3**
Porphyra spp.	-	-	3.4	3.1	5.2	6.0	0.5	0.9	**2.3**
filamentous red algae complex	1.9	2.5	3.7	2.6	0.8	1.3	1.7	2.9	**2.1**
Ulva spp.	1.0	1.5	4.4	5.6	1.5	1.8	1.1	1.5	**2.0**
Smithora naiadum	<0.1	<0.1	1.5	3.3	6.0	5.5	-	-	**1.9**
Mastocarpus jardinii	1.2	1.9	1.8	1.9	1.9	3.1	2.2	3.0	**1.8**
Neorhodomela larix	1.5	3.1	1.0	1.9	0.4	1.1	0.9	2.1	**0.9**
Mazzaella oregona	0.6	0.7	2.8	3.4	<0.1	0.2	0.1	0.3	**0.9**
Cryptopleura violacea	<0.1	<0.1	0.6	0.7	0.6	1.7	1.5	1.7	**0.7**
Pterosiphonia dendroidea	-	-	-	-	-	-	2.2	4.4	**0.6**
Prionitis spp.	0.8	1.2	0.5	1.3	0.3	1.1	0.2	0.5	**0.5**
Corallina vancouveriensis	0.9	2.1	0.1	0.3	0.3	0.9	0.4	0.7	**0.4**
Mazzaella leptorhynchos	0.6	1.1	0.8	1.5	<0.1	<0.1	<0.1	0.2	**0.4**
juv. articulated coralline algae	0.4	0.9	0.1	0.4	0.5	1.1	0.1	0.4	**0.3**
Acrosiphonia spp.	-	-	1.0	2.0	0.2	0.5	-	-	**0.3**
Mazzaella splendens	-	-	0.6	1.3	0.6	1.2	-	-	**0.3**
Calliarthron/Bossiella spp.-complex	<0.1	<0.1	0.8	1.9	-	-	0.3	0.9	**0.3**
Gelidium pusillum	0.3	0.6	<0.1	0.2	<0.1	<0.1	0.5	0.6	**0.2**
Microcladia coulteri	-	-	0.7	1.5	0.2	0.5	-	-	**0.2**
Callithamnion pikeanum	<0.1	<0.1	0.5	0.7	0.3	0.9	-	-	**0.2**
Chondracanthus corymbiferus	<0.1	<0.1	0.4	0.9	-	-	<0.1	0.2	**0.1**
Osmundea spp.	-	-	0.3	0.9	<0.1	<0.1	<0.1	<0.1	**<0.1**
Sarcodiotheca gaudichaudii	<0.1	<0.1	0.1	0.3	<0.1	<0.1	-	-	**<0.1**
Halymenia/Schizymenia spp.-complex	-	-	-	-	-	-	0.1	0.4	**<0.1**
Melobesia mediocris	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Endocladia muricata	-	-	<0.1	0.2	-	-	<0.1	<0.1	**<0.1**
Corallina chilensis	<0.1	0.2	-	-	-	-	<0.1	<0.1	**<0.1**
Cladophora spp.	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Chlorophyta (filamentous)	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Invertebrate Counts									
Pagurus spp.	17.4	16.1	10.8	4.7	12.2	14.0	12.6	10.2	**13.3**
Chlorostoma funebralis	6.8	4.9	5.4	3.8	1.2	1.8	9.0	4.8	**5.6**
Tetraclita rubescens	9.2	20.6	5.2	11.6	-	-	0.6	1.3	**3.8**

(table continued)

Table C3 (continued). Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for North Control Station NC 2+0.3m (2+1).

Survey	168		169		170		171		
Survey Date	6-Feb-12		22-May-12		16-Aug-12		26-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts (continued)									
Chlorostoma brunnea	0.8	0.8	4.2	2.6	2.2	2.2	6.2	6.5	**3.4**
Anthopleura elegantissima	2.0	2.9	4.4	6.1	3.8	6.9	2.6	3.8	**3.2**
Lottia scabra	0.2	0.4	4.4	9.8	0.2	0.4	0.4	0.9	**1.3**
Lottia pelta	1.2	1.6	0.8	1.3	0.4	0.9	2.0	4.5	**1.1**
Epiactis prolifera	1.2	2.2	0.8	1.3	-	-	2.2	2.4	**1.1**
Nemertea	0.4	0.9	0.6	0.5	0.4	0.9	2.0	1.2	**0.9**
Lottia scutum	0.8	1.3	0.4	0.5	0.2	0.4	0.6	0.5	**0.5**
Pugettia spp.	0.2	0.4	1.2	1.1	-	-	0.6	0.9	**0.5**
Leptasterias spp.	0.2	0.4	1.2	1.3	-	-	0.4	0.5	**0.5**
Lottia limatula	0.2	0.4	-	-	-	-	0.6	1.3	**0.2**
Calliostoma ligatum	-	-	-	-	-	-	0.2	0.4	**<0.1**
Fissurella volcano	-	-	-	-	-	-	0.2	0.4	**<0.1**
Mopalia spp.	0.2	0.4	-	-	-	-	-	-	**<0.1**
Pachygrapsus crassipes	-	-	-	-	-	-	0.2	0.4	**<0.1**
Strongylocentrotus purpuratus	0.2	0.4	-	-	-	-	-	-	**<0.1**
Ocinebrina spp.	-	-	-	-	-	-	0.2	0.4	**<0.1**
Serpulidae	-	-	0.2	0.4	-	-	-	-	**<0.1**
Ophiactis simplex	-	-	-	-	-	-	0.2	0.4	**<0.1**
Lacuna spp.	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	-	**<0.1**
Alia spp.	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	-	**<0.1**
Crepidula spp.	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	**<0.1**
Ischnochitonidae	-	-	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Lottiidae	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Epitonium/Opalia spp.	-	-	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Heptacarpus spp.	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Lottia instabilis	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Onchidella borealis	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Halcampa decemtentaculata	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Rostanga pulchra	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Lirobittium spp.	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Sipuncula	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Lissothuria nutriens	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Eupentacta quinquesemita	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Homolo. luridum/Lirularia succincta	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Invertebrate Cover									
Pista spp.	5.9	6.2	1.8	2.0	6.5	6.6	10.9	8.5	**6.3**
tunicates, compound/social	0.3	0.9	<0.1	<0.1	0.3	0.9	0.3	1.1	**0.2**
Phragmatopoma californica	<0.1	<0.1	<0.1	<0.1	-	-	0.4	0.7	**0.1**
Porifera (encrusting)	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Salmacina tribranchiata	<0.1	0.2	-	-	-	-	<0.1	<0.1	**<0.1**
Haliclona spp.	<0.1	<0.1	-	-	-	-	<0.1	0.2	**<0.1**
Spirorbidae	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
bryozoa (encrusting)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Chthamalus fissus	<0.1	<0.1	-	-	-	-	<0.1	<0.1	**<0.1**

(table continued)

Table C3 (continued). Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for North Control Station NC 2+0.3m (2+1).

Survey / Survey Date / Taxon	168 6-Feb-12 Mean	168 6-Feb-12 Std. Dev.	169 22-May-12 Mean	169 22-May-12 Std. Dev.	170 16-Aug-12 Mean	170 16-Aug-12 Std. Dev.	171 26-Nov-12 Mean	171 26-Nov-12 Std. Dev.	Annual Mean
Substrate Cover									
sand (shell gravel)	6.0	6.9	3.5	1.8	15.5	9.7	6.5	7.6	**7.8**
rock	2.5	2.4	1.9	3.0	14.2	14.0	4.4	5.9	**5.8**
cobble	2.4	3.5	2.1	3.6	1.0	2.3	0.4	0.7	**1.5**

Table C4. Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for North Control Station NC 2+0.9m (2+3).

Survey	168		169		170		171		
Survey Date	6-Feb-12		5-Jun-12		16-Aug-12		27-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Endocladia muricata	29.7	19.1	34.2	21.5	25.5	19.6	31.5	21.7	**30.2**
non-coralline crust	28.4	11.3	15.3	8.8	18.4	10.7	27.9	16.1	**22.5**
Mastocarpus papillatus	9.4	4.8	26.4	13.9	24.7	11.5	14.0	7.5	**18.6**
Mazzaella flaccida	5.8	3.5	15.9	11.5	18.9	11.8	6.7	5.3	**11.8**
Mazzaella affinis	10.3	9.2	7.1	6.6	5.1	8.2	9.4	8.5	**8.0**
coralline crust	4.7	4.5	0.7	1.3	3.7	3.7	8.3	8.4	**4.4**
Mastocarpus jardinii	4.4	4.2	1.0	1.1	2.9	4.1	1.9	2.4	**2.6**
Gelidium coulteri	0.5	1.1	0.3	0.7	0.8	1.1	4.8	14.7	**1.6**
Chondracanthus canaliculatus	1.6	3.3	1.5	3.3	1.9	5.9	1.2	2.0	**1.5**
Porphyra spp.	<0.1	0.2	1.5	2.3	2.0	2.0	<0.1	0.2	**0.9**
Gelidium pusillum	1.7	1.1	0.1	0.3	0.1	0.3	0.8	1.3	**0.7**
Gastroclonium subarticulatum	-	-	0.6	2.0	1.6	5.1	0.5	1.5	**0.7**
Mazzaella oregona	0.2	0.3	<0.1	0.2	0.5	0.7	0.4	0.5	**0.3**
Corallina vancouveriensis	0.5	0.9	0.1	0.3	-	-	0.4	1.1	**0.3**
Silvetia compressa	<0.1	<0.1	0.2	0.7	0.4	1.3	0.1	0.4	**0.2**
Prionitis spp.	0.3	1.1	-	-	-	-	<0.1	<0.1	**<0.1**
Cryptopleura violacea	<0.1	<0.1	<0.1	0.2	0.1	0.4	-	-	**<0.1**
Hesperophycus californicus	-	-	-	-	<0.1	0.2	-	-	**<0.1**
Cladophora spp.	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
juv. articulated coralline algae	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Ulva spp.	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
Calliarthron/Bossiella spp.-complex	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Mazzaella leptorhynchos	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Corallina chilensis	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Osmundea spp.	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
filamentous red algae complex	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Invertebrate Counts									
Chlorostoma funebralis	57.6	26.0	106.6	68.3	84.2	46.3	88.0	80.6	**84.1**
Pagurus spp.	12.6	13.9	10.0	12.0	9.6	9.9	13.6	27.6	**11.5**
Anthopleura elegantissima	8.2	3.6	8.8	8.2	8.0	5.1	9.8	8.7	**8.7**
Lottia scutum	3.0	2.2	4.6	3.8	4.2	6.7	1.8	1.9	**3.4**
Lottia limatula	2.2	2.9	3.2	2.6	2.0	2.4	1.0	1.2	**2.1**
Lottia scabra	0.6	1.3	2.0	3.4	2.2	1.6	1.0	2.2	**1.5**
Lottia pelta	1.0	1.7	2.2	2.2	0.8	0.8	-	-	**1.0**
Ocinebrina spp.	1.4	1.7	1.0	0.7	-	-	0.8	0.8	**0.8**
Pachygrapsus crassipes	0.6	0.5	0.8	0.4	0.8	0.8	0.6	0.9	**0.7**
Hemigrapsus nudus	0.6	0.9	0.4	0.5	0.2	0.4	-	-	**0.3**
Mopalia spp.	-	-	-	-	-	-	0.6	0.9	**0.2**
Lottiidae	<0.1	<0.1	<0.1	<0.1	<0.1	-	0.2	0.4	**<0.1**
Nemertea	-	-	-	-	0.2	0.4	-	-	**<0.1**
Acanthinucella spp.	-	-	-	-	-	-	0.2	0.4	**<0.1**
Tetraclita rubescens	-	-	0.2	0.4	-	-	-	-	**<0.1**
Leptasterias spp.	-	-	0.2	0.4	-	-	-	-	**<0.1**

(table continued)

Table C4 (continued). Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for North Control Station NC 2+0.9m (2+3).

Survey	168		169		170		171		
Survey Date	6-Feb-12		5-Jun-12		16-Aug-12		27-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts (continued)									
Pisaster ochraceus	-	-	-	-	0.2	0.4	-	-	**<0.1**
Crepidula spp.	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Littorina spp.	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Barleeia spp.	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Pachycheles spp.	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Grapsidae	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Invertebrate Cover									
tunicates, compound/social	<0.1	<0.1	<0.1	<0.1	0.2	0.7	<0.1	<0.1	**<0.1**
Phragmatopoma californica	<0.1	<0.1	<0.1	<0.1	0.1	0.3	<0.1	<0.1	**<0.1**
Haliclona spp.	<0.1	0.2	-	-	-	-	<0.1	<0.1	**<0.1**
Spirorbidae	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	**<0.1**
Chthamalus fissus	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Salmacina tribranchiata	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Porifera (encrusting)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
bryozoa (encrusting)	<0.1	<0.1	-	-	<0.1	<0.1	-	-	**<0.1**
Pista spp.	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Substrate Cover									
rock	4.5	3.8	12.7	8.0	14.2	11.3	9.6	7.5	**10.2**
cobble	9.7	10.7	7.6	7.6	8.4	8.1	5.8	5.1	**7.9**
sand (shell gravel)	1.3	3.9	1.8	5.2	0.4	0.7	0.8	2.0	**1.1**

Table C5. Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for Field's Cove Station FC 1+0.3m (4+1).

Survey	168		169		170		171		
Survey Date	16-Feb-12		26-Apr-12		16-Jul-12		15-Oct-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
non-coralline crust	40.3	11.8	33.5	14.2	30.7	16.0	34.7	14.5	**34.8**
Mazzaella flaccida	11.5	8.9	31.0	15.5	37.9	17.3	12.8	6.5	**23.3**
Gastroclonium subarticulatum	16.0	6.9	15.6	13.1	16.8	10.1	19.6	8.9	**17.0**
Phyllospadix spp.	10.8	10.2	6.2	9.0	16.4	17.2	16.2	22.8	**12.4**
Cryptopleura violacea	9.6	9.5	3.3	4.0	4.3	3.9	7.5	7.3	**6.2**
Endocladia muricata	4.9	7.1	6.4	6.6	6.4	11.1	6.0	8.7	**5.9**
Mazzaella affinis	3.1	3.4	5.1	7.2	8.1	11.0	5.8	7.2	**5.5**
Mastocarpus papillatus	2.0	2.7	4.9	7.6	8.4	12.1	6.0	6.6	**5.3**
Chondracanthus canaliculatus	3.5	4.0	5.8	4.2	4.5	3.3	6.6	3.6	**5.1**
coralline crust	7.4	4.1	2.8	3.6	5.3	4.6	4.0	3.7	**4.9**
Gelidium coulteri	1.5	0.9	3.0	4.2	6.4	6.3	3.7	2.0	**3.6**
Corallina vancouveriensis	4.7	6.9	1.5	2.2	1.3	1.2	4.1	5.9	**2.9**
Egregia menziesii	1.2	1.9	0.3	1.1	1.1	2.4	6.2	13.2	**2.2**
Smithora naiadum	<0.1	<0.1	0.8	1.2	5.3	6.2	0.9	1.1	**1.8**
juv. articulated coralline algae	3.7	4.4	0.3	0.5	<0.1	<0.1	1.5	2.1	**1.4**
Mastocarpus jardinii	1.1	2.0	0.8	1.2	0.4	0.6	1.6	2.1	**1.0**
Mazzaella oregona	0.3	0.5	2.5	2.7	0.7	0.9	0.1	0.3	**0.9**
Prionitis spp.	1.9	3.1	0.3	0.7	0.2	0.7	0.9	1.5	**0.9**
Cryptosiphonia woodii	0.6	1.3	1.5	2.8	-	-	-	-	**0.5**
Mazzaella splendens	0.2	0.7	0.4	1.3	0.5	0.8	-	-	**0.3**
Calliarthron/Bossiella spp.-complex	<0.1	<0.1	<0.1	<0.1	0.2	0.7	0.4	1.3	**0.2**
Microcladia coulteri	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.4	0.7	**0.1**
Callithamnion pikeanum	<0.1	<0.1	<0.1	0.2	0.3	1.1	<0.1	<0.1	**0.1**
Sarcodiotheca gaudichaudii	0.3	0.9	-	-	<0.1	<0.1	-	-	**<0.1**
Gelidium pusillum	0.1	0.4	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	**<0.1**
Mazzaella leptorhynchos	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.1	0.3	**<0.1**
Porphyra spp.	-	-	<0.1	<0.1	0.1	0.4	<0.1	<0.1	**<0.1**
Cryptopleura ruprechtiana	-	-	-	-	-	-	0.1	0.4	**<0.1**
Callophyllis spp.	<0.1	0.2	-	-	-	-	-	-	**<0.1**
Cladophora spp.	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Melobesia mediocris	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Ulva spp.	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Callithamnion spp./*Pleonosporium* spp.	-	-	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
Microcladia borealis	-	-	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
Osmundea spp.	-	-	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
filamentous red algae complex	<0.1	<0.1	-	-	-	-	<0.1	<0.1	**<0.1**
Pterosiphonia dendroidea	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Chlorophyta (filamentous)	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Chrysophyta	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Invertebrate Counts									
Chlorostoma funebralis	98.2	30.6	19.0	15.2	8.8	6.9	11.0	10.9	**34.3**
Tetraclita rubescens	13.0	16.5	2.4	5.4	0.6	0.9	37.6	58.9	**13.4**
Pagurus spp.	9.2	3.5	5.8	8.8	10.6	4.3	7.0	4.4	**8.2**
Chlorostoma brunnea	1.6	1.5	1.4	1.5	8.8	5.6	4.4	4.1	**4.1**

(table continued)

Table C5 (continued). Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for Field's Cove Station FC 1+0.3m (4+1).

Survey	168		169		170		171		
Survey Date	16-Feb-12		26-Apr-12		16-Jul-12		15-Oct-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts (continued)									
Anthopleura elegantissima	4.2	4.6	2.0	2.3	1.4	2.1	3.0	2.5	**2.7**
Strongylocentrotus purpuratus	2.6	3.2	2.6	4.0	4.0	3.4	1.0	2.2	**2.6**
Epiactis prolifera	1.0	1.2	0.8	1.3	2.0	2.3	1.0	1.2	**1.2**
Nuttallina californica	0.8	1.3	1.4	3.1	0.4	0.9	1.0	1.4	**0.9**
Pachygrapsus crassipes	1.2	0.8	0.6	0.5	1.2	1.8	0.6	0.5	**0.9**
Fissurella volcano	0.4	0.9	0.6	0.9	0.4	0.9	1.4	1.7	**0.7**
Lottia scutum	1.0	1.2	0.6	0.5	0.4	0.5	0.8	1.8	**0.7**
Leptasterias spp.	0.6	0.5	0.4	0.5	0.6	0.5	0.8	0.8	**0.6**
Lottia scabra	1.4	3.1	0.8	1.8	-	-	-	-	**0.6**
Ocinebrina spp.	1.0	0.7	0.2	0.4	0.4	0.9	0.4	0.5	**0.5**
Lottia limatula	0.2	0.4	0.2	0.4	1.0	1.2	0.2	0.4	**0.4**
Pugettia spp.	-	-	-	-	0.4	0.5	0.2	0.4	**0.2**
Nemertea	-	-	-	-	0.2	0.4	0.2	0.4	**0.1**
Lottia pelta	0.2	0.4	0.2	0.4	-	-	-	-	**0.1**
Serpulidae	0.2	0.4	-	-	-	-	<0.1	<0.1	**<0.1**
Acmaea mitra	0.2	0.4	-	-	-	-	<0.1	<0.1	**<0.1**
Cyanoplax spp.	-	-	-	-	0.2	0.4	<0.1	<0.1	**<0.1**
Mopalia spp.	0.2	0.4	-	-	-	-	-	-	**<0.1**
Serpulorbis squamigerus	0.2	0.4	-	-	-	-	-	-	**<0.1**
Romaleon antennarius	-	-	-	-	0.2	0.4	-	-	**<0.1**
Diaulula sandiegensis	-	-	-	-	0.2	0.4	-	-	**<0.1**
Mitra idae	0.2	0.4	-	-	-	-	-	-	**<0.1**
Lottiidae	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Lacuna spp.	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Crepidula spp.	<0.1	<0.1	-	-	<0.1	<0.1	-	-	**<0.1**
Heptacarpus spp.	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Homolo. luridum/Lirularia succincta	<0.1	<0.1	-	-	-	-	<0.1	<0.1	**<0.1**
Alia spp.	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Sipuncula	-	-	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Grapsidae	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Lottia instabilis	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Epitonium/Opalia spp.	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Lirobittium spp.	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Pelecypoda boring	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Pisaster/Henricia spp. (juv.)	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Invertebrate Cover									
Pista spp.	2.9	2.6	0.3	1.1	3.5	4.4	3.2	5.1	**2.5**
tunicates, compound/social	<0.1	<0.1	<0.1	<0.1	0.3	1.1	0.3	0.8	**0.2**
Chthamalus fissus	<0.1	-	0.4	1.3	<0.1	<0.1	<0.1	<0.1	**0.1**
Phragmatopoma californica	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.3	0.9	**<0.1**
Salmacina tribranchiata	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	**<0.1**
Spirorbidae	<0.1	-	<0.1	<0.1	<0.1	-	<0.1	-	**<0.1**
bryozoa (encrusting)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Porifera (encrusting)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**

(table continued)

Table C5 (continued). Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for Field's Cove Station FC 1+0.3m (4+1).

Survey	168		169		170		171		
Survey Date	16-Feb-12		26-Apr-12		16-Jul-12		15-Oct-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Substrate Cover									
rock	4.0	2.5	4.2	3.0	10.2	10.3	2.3	1.5	**5.2**
sand (shell gravel)	2.3	2.2	1.0	2.2	<0.1	<0.1	1.7	3.4	**1.2**
cobble	<0.1	<0.1	<0.1	<0.1	0.1	0.4	0.3	0.9	**0.1**

Table C6. Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for Field's Cove Station FC 1+0.9m (4+3).

Survey	168		169		170		171		
Survey Date	16-Feb-12		24-May-12		31-Aug-12		29-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Endocladia muricata	29.3	17.1	44.7	25.0	32.5	21.3	28.3	16.9	**33.7**
non-coralline crust	24.2	10.9	13.7	8.0	14.3	9.3	25.1	11.3	**19.3**
Mastocarpus papillatus	3.1	2.5	10.2	5.3	23.5	13.7	10.9	7.7	**11.9**
coralline crust	1.7	3.1	1.6	3.9	0.9	1.9	3.5	4.7	**1.9**
Mazzaella flaccida	<0.1	<0.1	0.8	1.3	5.6	8.2	1.0	2.0	**1.8**
Gelidium coulteri	0.2	0.3	0.6	1.3	1.3	1.3	1.6	2.0	**0.9**
Calliarthron/Bossiella spp.-complex	0.6	1.8	0.5	1.5	0.6	2.0	1.2	3.7	**0.7**
Corallina vancouveriensis	0.6	1.3	0.1	0.4	0.4	1.3	0.6	2.0	**0.4**
Phyllospadix spp.	<0.1	<0.1	0.6	1.3	0.8	1.6	0.3	1.1	**0.4**
juv. articulated coralline algae	<0.1	0.2	0.5	1.3	0.3	1.1	0.2	0.5	**0.3**
Mazzaella oregona	-	-	-	-	0.8	1.6	<0.1	<0.1	**0.2**
Silvetia compressa	-	-	0.3	0.9	<0.1	0.2	0.4	1.1	**0.2**
Prionitis spp.	<0.1	<0.1	0.3	0.6	0.4	1.1	<0.1	0.2	**0.2**
Mazzaella leptorhynchos	-	-	<0.1	<0.1	0.6	1.1	<0.1	<0.1	**0.1**
Porphyra spp.	-	-	0.3	0.6	0.2	0.7	<0.1	<0.1	**0.1**
Gelidium pusillum	<0.1	-	<0.1	<0.1	<0.1	-	0.2	0.5	**<0.1**
Mazzaella affinis	0.1	0.4	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	**<0.1**
Cladophora spp.	<0.1	-	<0.1	-	0.1	0.3	<0.1	-	**<0.1**
Chondracanthus canaliculatus	<0.1	<0.1	-	-	0.1	0.4	<0.1	<0.1	**<0.1**
Mastocarpus jardinii	0.1	0.4	-	-	-	-	<0.1	<0.1	**<0.1**
Cryptosiphonia woodii	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	**<0.1**
Fucus gardneri	-	-	-	-	<0.1	0.2	-	-	**<0.1**
Hesperophycus californicus	-	-	-	-	<0.1	0.2	-	-	**<0.1**
Cryptopleura violacea	<0.1	<0.1	-	-	<0.1	<0.1	-	-	**<0.1**
Callithamnion pikeanum	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Gastroclonium subarticulatum	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Invertebrate Counts									
Chlorostoma funebralis	202.6	78.8	183.2	101.6	514.4	262.9	359.4	198.0	**314.9**
Anthopleura elegantissima	311.0	386.4	267.0	360.1	242.0	283.0	421.4	384.7	**310.4**
Pagurus spp.	51.4	43.1	15.8	10.1	31.6	33.2	103.6	87.2	**50.6**
Lottia scabra	5.8	3.3	18.8	20.8	35.0	52.3	35.2	38.0	**23.7**
Lottia limatula	1.0	1.7	6.4	5.9	5.4	4.0	2.8	1.3	**3.9**
Tetraclita rubescens	-	-	-	-	-	-	15.6	34.9	**3.9**
Lottia scutum	2.2	3.3	0.8	0.8	5.8	10.3	4.0	3.5	**3.2**
Lottia pelta	2.4	2.8	0.6	1.3	2.4	2.4	1.6	2.5	**1.8**
Acanthinucella spp.	1.8	2.2	2.0	1.2	-	-	1.8	2.5	**1.4**
Ocinebrina spp.	2.4	1.1	0.8	0.8	0.2	0.4	1.8	1.5	**1.3**
Pachygrapsus crassipes	0.6	0.9	0.4	0.5	0.2	0.4	1.4	1.5	**0.7**
Cyanoplax spp.	-	-	0.2	0.4	0.4	0.5	0.2	0.4	**0.2**
Nemertea	-	-	0.2	0.4	-	-	0.4	0.5	**0.2**
Hemigrapsus nudus	-	-	-	-	-	-	0.4	0.9	**0.1**
Leptasterias spp.	-	-	-	-	-	-	0.4	0.5	**0.1**
Strongylocentrotus purpuratus	-	-	-	-	0.2	0.4	0.2	0.4	**0.1**
Haliotis spp.	0.1	0.3	0.1	0.3	0.1	0.3	0.1	0.3	**0.1**

(table continued)

Table C6 (continued). Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for Field's Cove Station FC 1+0.9m (4+3).

Survey	168		169		170		171		
Survey Date	16-Feb-12		24-May-12		31-Aug-12		29-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts (continued)									
Cirratulidae/Terebellidae	-	-	0.4	0.9	-	-	-	-	**0.1**
Mopalia spp.	-	-	0.2	0.4	-	-	-	-	**<0.1**
Nuttallina californica	0.2	0.4	-	-	-	-	-	-	**<0.1**
Pisaster ochraceus	-	-	0.2	0.4	-	-	-	-	**<0.1**
Lottiidae	<0.1	<0.1	<0.1	-	<0.1	-	<0.1	-	**<0.1**
Epitonium/Opalia spp.	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Sipuncula	-	-	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Littorina spp.	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Lacuna spp.	<0.1	<0.1	-	-	<0.1	<0.1	-	-	**<0.1**
Grapsidae	-	-	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Calliostoma ligatum	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Crepidula spp.	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Octopus spp.	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Ischnochitonidae	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Heptacarpus spp.	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Homolo. luridum/Lirularia succincta	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Invertebrate Cover									
Phragmatopoma californica	1.0	1.9	0.4	0.9	<0.1	<0.1	0.7	0.8	**0.5**
Chthamalus fissus	0.3	0.5	0.1	0.4	0.1	0.3	0.3	1.1	**0.2**
Haliclona spp.	0.1	0.4	-	-	-	-	0.1	0.4	**<0.1**
Spirorbidae	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
tunicates, compound/social	<0.1	<0.1	-	-	-	-	<0.1	<0.1	**<0.1**
Substrate Cover									
rock	28.6	9.0	22.2	15.0	27.6	8.8	17.5	10.1	**24.0**
cobble	4.4	8.3	3.2	4.8	4.8	8.9	4.1	6.3	**4.1**
sand (shell gravel)	4.4	3.7	<0.1	<0.1	0.8	1.3	1.6	2.4	**1.7**

Table C7. Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for Field's Cove Station FC 2+0.3m (5+1).

Survey	168		169		170		171		
Survey Date	24-Jan-12		26-Apr-12		16-Jul-12		15-Oct-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
non-coralline crust	35.8	12.6	25.5	11.1	17.0	8.9	32.4	14.5	**27.7**
Mazzaella flaccida	6.5	4.9	15.5	8.2	28.9	11.4	8.7	8.5	**14.9**
Gelidium coulteri	3.5	2.6	6.5	3.5	19.4	10.2	15.8	11.9	**11.3**
Endocladia muricata	10.1	13.5	7.5	10.7	12.2	15.5	10.2	14.5	**10.0**
coralline crust	9.3	4.0	7.2	4.5	11.1	10.1	4.0	3.5	**7.9**
Phyllospadix spp.	7.9	15.2	5.9	14.1	7.5	16.4	7.0	14.2	**7.1**
Gastroclonium subarticulatum	6.0	6.3	5.9	8.0	5.4	6.6	9.1	9.5	**6.6**
Mastocarpus papillatus	3.3	2.1	6.1	6.3	7.4	7.0	5.6	4.6	**5.6**
Corallina vancouveriensis	8.1	7.6	2.4	4.4	3.0	4.7	7.4	9.2	**5.2**
Egregia menziesii	0.6	1.4	1.1	1.8	4.4	8.2	9.4	17.6	**3.9**
juv. articulated coralline algae	3.5	6.2	5.8	7.9	2.8	4.8	1.5	1.8	**3.4**
Cryptopleura violacea	3.8	5.2	2.4	4.1	4.0	5.7	2.4	3.8	**3.2**
Chondracanthus canaliculatus	3.0	2.8	4.7	4.6	2.7	3.1	2.2	2.0	**3.1**
Calliarthron/Bossiella spp.-complex	3.2	5.5	4.0	6.9	3.0	5.8	1.8	4.2	**3.0**
Mazzaella affinis	0.6	1.8	1.5	2.5	2.2	4.0	2.8	2.2	**1.8**
Prionitis spp.	2.1	3.0	1.3	2.1	1.2	1.5	1.4	1.7	**1.5**
Mastocarpus jardinii	1.9	1.9	1.7	2.1	0.8	1.1	0.6	1.6	**1.2**
Smithora naiadum	<0.1	<0.1	1.1	3.1	3.1	7.0	0.4	1.3	**1.1**
Cryptosiphonia woodii	1.2	2.5	1.5	3.1	0.2	0.7	0.3	0.9	**0.8**
Mazzaella oregona	<0.1	0.2	1.9	1.7	0.2	0.5	<0.1	<0.1	**0.5**
Microcladia coulteri	-	-	<0.1	<0.1	1.2	2.9	0.1	0.4	**0.3**
Gelidium pusillum	<0.1	0.2	0.4	1.3	<0.1	<0.1	<0.1	0.2	**0.1**
Acrosiphonia spp.	-	-	-	-	0.5	1.5	-	-	**0.1**
Porphyra spp.	-	-	-	-	<0.1	<0.1	0.3	1.1	**<0.1**
Chondracanthus corymbiferus	-	-	-	-	-	-	0.3	1.1	**<0.1**
filamentous red algae complex	-	-	<0.1	<0.1	0.2	0.5	-	-	**<0.1**
Mazzaella splendens	-	-	0.2	0.7	-	-	-	-	**<0.1**
Cladophora spp.	<0.1	<0.1	<0.1	-	<0.1	<0.1	0.1	0.3	**<0.1**
Osmundea spp.	-	-	<0.1	<0.1	<0.1	<0.1	0.1	0.3	**<0.1**
Mazzaella leptorhynchos	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	**<0.1**
Callithamnion pikeanum	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	**<0.1**
Microcladia borealis	-	-	-	-	<0.1	<0.1	<0.1	0.2	**<0.1**
Callithamnion spp./*Pleonosporium* spp.	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Cystoseira osmundacea	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Corallina chilensis	-	-	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Ulva spp.	-	-	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Halymenia/Schizymenia spp.-complex	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Melobesia mediocris	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Chrysophyta	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Invertebrate Counts									
Chlorostoma funebralis	88.6	65.4	37.4	12.7	33.2	14.3	77.4	114.6	**59.2**
Strongylocentrotus purpuratus	15.0	4.7	33.8	30.6	12.2	4.7	9.2	8.6	**17.6**
Anthopleura elegantissima	16.8	11.5	9.0	7.4	12.6	12.7	23.0	15.8	**15.4**
Pagurus spp.	23.0	7.5	6.6	3.6	13.2	10.3	18.4	9.4	**15.3**

(table continued)

Table C7 (continued). Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for Field's Cove Station FC 2+0.3m (5+1).

Survey	168		169		170		171		
Survey Date	24-Jan-12		26-Apr-12		16-Jul-12		15-Oct-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts (continued)									
Chlorostoma brunnea	2.0	4.5	1.2	1.8	9.0	14.4	0.4	0.9	**3.2**
Fissurella volcano	2.2	0.8	2.2	1.3	0.6	0.9	4.0	3.2	**2.3**
Nuttallina californica	2.4	3.6	3.2	7.2	2.4	3.4	0.0	0.9	**2.2**
Tetraclita rubescens	4.8	6.9	0.8	1.8	1.2	2.7	0.8	1.8	**1.9**
Pachygrapsus crassipes	0.4	0.9	0.4	0.5	3.0	2.9	0.8	0.8	**1.2**
Lottia limatula	0.8	1.3	0.2	0.4	1.0	1.4	0.8	1.1	**0.7**
Lottia scutum	0.6	1.3	0.2	0.4	1.2	1.3	0.6	1.3	**0.7**
Leptasterias spp.	0.4	0.5	-	-	0.4	0.9	0.6	0.5	**0.4**
Pugettia spp.	-	-	-	-	1.2	1.3	-	-	**0.3**
Nemertea	0.2	0.4	-	-	0.6	0.9	0.2	0.4	**0.3**
Nucella spp.	-	-	1.0	2.2	-	-	-	-	**0.3**
Epiactis prolifera	-	-	-	-	0.4	0.9	0.4	0.5	**0.2**
Lottia pelta	-	-	0.2	0.4	0.4	0.9	0.2	0.4	**0.2**
Lottia scabra	-	-	-	-	0.2	0.4	0.6	1.3	**0.2**
Mopalia spp.	0.4	0.9	0.2	0.4	-	-	-	-	**0.2**
Pisaster ochraceus	0.4	0.5	-	-	0.2	0.4	-	-	**0.2**
Ocinebrina spp.	0.2	0.4	0.2	0.4	0.2	0.4	-	-	**0.2**
Serpulidae	-	-	0.2	0.4	-	-	<0.1	<0.1	**<0.1**
Acanthinucella spp.	0.2	0.4	-	-	-	-	-	-	**<0.1**
Acmaea mitra	0.2	0.4	-	-	-	-	-	-	**<0.1**
Serpulorbis squamigerus	-	-	-	-	-	-	0.2	0.4	**<0.1**
Romaleon antennarius	-	-	-	-	0.2	0.4	-	-	**<0.1**
Lottiidae	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	**<0.1**
Sipuncula	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Cyanoplax spp.	-	-	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Ischnochitonidae	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Epitonium/Opalia spp.	<0.1	<0.1	-	-	-	-	<0.1	<0.1	**<0.1**
Lacuna spp.	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Heptacarpus spp.	<0.1	<0.1	-	-	<0.1	<0.1	-	-	**<0.1**
Grapsidae	<0.1	<0.1	-	-	<0.1	<0.1	-	-	**<0.1**
Idotea spp.	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Homolo. luridum/Lirularia succincta	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Invertebrate Cover									
Pista spp.	<0.1	<0.1	<0.1	<0.1	0.2	0.7	-	-	**<0.1**
Chthamalus fissus	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Phragmatopoma californica	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Spirorbidae	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Salmacina tribranchiata	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
tunicates, compound/social	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Porifera (encrusting)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Dodecaceria fewkesi	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
bryozoa (encrusting)	-	-	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**

(table continued)

Table C7 (continued). Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for Field's Cove Station FC 2+0.3m (5+1).

Survey	168		169		170		171		
Survey Date	24-Jan-12		26-Apr-12		16-Jul-12		15-Oct-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Substrate Cover									
rock	7.2	4.9	11.7	13.7	9.0	9.0	8.5	7.9	**9.1**
sand (shell gravel)	2.3	3.5	0.3	0.8	1.5	3.1	1.4	2.5	**1.4**
cobble	0.2	0.5	0.2	0.5	0.1	0.4	-	-	**0.1**

Table C8. Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for Field's Cove Station FC 2+0.9m (5+3).

Survey	168		169		170		171		
Survey Date	2-Feb-12		24-May-12		31-Aug-12		29-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Endocladia muricata	44.6	15.8	40.8	12.2	21.6	10.7	32.6	8.0	**34.9**
non-coralline crust	14.4	12.6	12.8	10.3	12.4	9.7	19.7	11.6	**14.8**
Mastocarpus papillatus	6.0	3.4	11.1	3.3	23.5	6.8	10.2	4.7	**12.7**
Silvetia compressa	1.9	4.1	3.1	6.4	2.0	2.8	1.7	3.4	**2.2**
Mazzaella flaccida	0.2	0.7	1.3	2.5	3.3	4.9	0.5	0.7	**1.3**
Fucus gardneri	-	-	-	-	1.4	2.6	0.6	1.8	**0.5**
Porphyra spp.	-	-	0.3	0.7	0.7	1.2	0.1	0.4	**0.3**
Prionitis spp.	0.2	0.5	<0.1	0.2	0.4	0.9	0.3	0.9	**0.2**
coralline crust	0.1	0.4	<0.1	0.2	<0.1	-	0.4	0.5	**0.2**
Hesperophycus californicus	<0.1	0.2	0.2	0.7	<0.1	<0.1	0.3	1.1	**0.2**
Grateloupia californica	-	-	-	-	0.6	1.5	-	-	**0.1**
Gelidium pusillum	<0.1	<0.1	0.2	0.7	<0.1	-	0.3	0.7	**0.1**
Gelidium coulteri	<0.1	<0.1	<0.1	<0.1	0.4	0.9	<0.1	0.2	**0.1**
Mazzaella oregona	-	-	-	-	0.5	0.9	<0.1	<0.1	**0.1**
Cladophora spp.	<0.1	<0.1	0.2	0.7	0.1	0.3	<0.1	<0.1	**<0.1**
Mazzaella affinis	<0.1	<0.1	<0.1	0.2	0.1	0.3	<0.1	0.2	**<0.1**
Mazzaella leptorhynchos	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	**<0.1**
Mastocarpus jardinii	<0.1	0.2	-	-	-	-	<0.1	<0.1	**<0.1**
juv. articulated coralline algae	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Corallina vancouveriensis	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Cryptosiphonia woodii	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
Chondracanthus canaliculatus	<0.1	<0.1	-	-	-	-	<0.1	<0.1	**<0.1**
Invertebrate Counts									
Chlorostoma funebralis	82.2	52.4	116.4	41.4	214.0	203.9	158.8	91.1	**142.9**
Anthopleura elegantissima	76.0	64.5	67.6	56.4	91.2	59.0	77.2	51.0	**78.0**
Lottia scabra	9.0	6.0	18.0	17.9	38.6	52.1	21.8	21.5	**21.9**
Pagurus spp.	2.0	2.5	5.0	4.5	4.6	6.5	12.0	8.9	**5.9**
Lottia limatula	1.6	1.8	4.8	7.1	6.6	3.2	2.6	1.5	**3.9**
Lottia pelta	3.6	3.3	2.4	3.3	1.8	0.8	2.0	1.9	**2.5**
Pollicipes polymerus	-	-	1.0	2.2	2.8	6.3	3.4	7.6	**1.8**
Lottia scutum	0.2	0.4	1.0	1.7	3.6	3.6	1.8	1.5	**1.7**
Ocinebrina spp.	0.6	0.5	0.2	0.4	0.8	0.8	1.4	0.5	**0.8**
Lottiidae	1.2	2.7	1.0	2.2	0.6	1.3	<0.1	-	**0.7**
Cyanoplax spp.	<0.1	<0.1	0.2	0.4	0.4	0.5	1.8	1.3	**0.6**
Acanthinucella spp.	0.6	0.9	0.4	0.5	0.4	0.9	0.6	0.5	**0.5**
Pachygrapsus crassipes	-	-	-	-	0.6	0.5	0.4	0.5	**0.3**
Cirratulidae/Terebellidae	-	-	0.2	0.4	0.4	0.9	-	-	**0.2**
Nemertea	-	-	-	-	-	-	0.4	0.9	**0.1**
Nucella spp.	0.4	0.5	-	-	-	-	-	-	**0.1**
Pisaster ochraceus	-	-	-	-	0.2	0.4	-	-	**<0.1**
Littorina spp.	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Ischnochitonidae	-	-	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Grapsidae	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Epitonium/Opalia spp.	-	-	<0.1	<0.1	-	-	-	-	**<0.1**

(table continued)

Table C8 (continued). Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for Field's Cove Station FC 2+0.9m (5+3).

Survey	168		169		170		171		
Survey Date	2-Feb-12		24-May-12		31-Aug-12		29-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Cover									
Phragmatopoma californica	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.3	0.7	**<0.1**
Chthamalus fissus	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	**<0.1**
Haliclona spp.	<0.1	<0.1	<0.1	<0.1	-	-	-	-	**<0.1**
Spirorbidae	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Substrate Cover									
rock	38.6	20.2	32.8	17.6	40.4	17.0	26.2	13.6	**34.5**
sand (shell gravel)	3.5	7.3	1.5	3.9	0.6	1.3	5.3	12.0	**2.7**
cobble	<0.1	<0.1	0.2	0.7	-	-	<0.1	0.2	**<0.1**

Table C9. Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for Field's Cove Station FC 3+0.3m (6+1).

Survey	168		169		170		171		
Survey Date	9-Feb-12		23-May-12		29-Aug-12		14-Dec-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
non-coralline crust	50.1	22.5	40.0	17.9	34.6	12.9	39.1	4.8	**40.9**
Mazzaella flaccida	15.8	10.6	43.7	27.7	32.2	19.2	23.6	23.1	**28.8**
Gastroclonium subarticulatum	11.9	9.6	9.9	13.1	20.5	21.0	16.6	13.3	**14.7**
coralline crust	8.3	6.2	6.9	4.7	9.9	8.2	10.0	7.8	**8.8**
Phyllospadix spp.	4.2	8.1	5.8	11.3	3.2	6.1	4.9	9.2	**4.5**
Mastocarpus papillatus	3.0	5.0	7.8	7.7	4.2	2.9	1.7	2.9	**4.2**
Calliarthron/Bossiella spp.-complex	3.9	6.5	4.2	7.0	2.2	3.0	6.2	9.9	**4.1**
Gelidium coulteri	1.7	1.7	4.5	3.4	5.6	4.6	3.0	2.2	**3.7**
Mastocarpus jardinii	4.4	5.4	3.4	3.7	2.9	4.2	3.3	3.0	**3.5**
Cryptopleura violacea	2.9	6.4	1.2	1.3	4.6	2.4	4.4	5.1	**3.3**
Chondracanthus canaliculatus	2.1	2.9	4.0	3.1	2.3	2.1	3.1	2.0	**2.9**
Corallina vancouveriensis	1.3	1.7	0.5	0.7	1.6	2.0	3.3	2.3	**1.7**
Prionitis spp.	1.9	1.9	0.7	1.3	1.3	2.1	2.8	3.2	**1.7**
Mazzaella affinis	0.9	1.9	1.7	3.1	1.5	2.7	2.4	3.6	**1.6**
Mazzaella oregona	0.3	0.6	4.5	3.5	0.5	0.9	0.4	0.7	**1.4**
Endocladia muricata	0.8	1.8	1.2	1.8	1.7	2.7	0.3	0.7	**1.0**
Smithora naiadum	<0.1	0.2	2.2	4.4	1.4	3.1	-	-	**0.9**
juv. articulated coralline algae	0.6	0.8	0.3	0.5	1.9	2.1	<0.1	0.2	**0.7**
Egregia menziesii	-	-	0.3	1.1	1.0	3.1	1.0	3.1	**0.6**
Microcladia coulteri	-	-	0.1	0.4	1.9	1.3	-	-	**0.5**
Mazzaella splendens	-	-	-	-	1.9	3.0	-	-	**0.5**
Mazzaella leptorhynchos	0.5	1.1	0.2	0.5	0.7	1.6	<0.1	<0.1	**0.3**
Chrysophyta	-	-	0.9	2.1	-	-	-	-	**0.2**
Grateloupia californica	-	-	<0.1	<0.1	0.9	1.9	-	-	**0.2**
Callithamnion pikeanum	<0.1	<0.1	0.3	0.9	0.4	1.3	-	-	**0.2**
Cryptosiphonia woodii	0.2	0.7	0.3	0.9	-	-	-	-	**0.1**
Pterosiphonia dendroidea	-	-	0.5	1.0	-	-	<0.1	0.2	**0.1**
filamentous red algae complex	0.3	0.8	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	**0.1**
Gelidium pusillum	0.3	0.4	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	**<0.1**
Halymenia/Schizymenia spp.-complex	-	-	<0.1	<0.1	0.3	1.1	-	-	**<0.1**
Microcladia borealis	-	-	-	-	0.3	1.1	-	-	**<0.1**
Chondracanthus corymbiferus	-	-	-	-	-	-	0.3	0.9	**<0.1**
Osmundea spp.	-	-	-	-	0.1	0.4	<0.1	<0.1	**<0.1**
Sarcodiotheca gaudichaudii	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Cladophora spp.	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Corallina chilensis	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Chlorophyta (filamentous)	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Melobesia mediocris	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
Halicystis ovalis	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Ulva spp.	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Colpomenia spp.	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Bryopsis spp.	-	-	<0.1	<0.1	-	-	-	-	**<0.1**

(table continued)

Table C9 (continued). Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for Station FC 3+0.3m (6+1).

Survey	168		169		170		171		
Survey Date	9-Feb-12		23-May-12		29-Aug-12		14-Dec-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts									
Chlorostoma funebralis	62.6	60.1	8.8	4.8	8.6	11.3	69.4	63.1	**37.4**
Strongylocentrotus purpuratus	24.6	43.9	15.2	30.2	9.0	15.3	21.6	39.8	**17.6**
Pagurus spp.	16.4	9.4	8.0	7.3	21.0	14.9	17.6	20.7	**15.8**
Tetraclita rubescens	-	-	7.0	15.7	1.4	1.3	25.8	29.0	**8.6**
Anthopleura elegantissima	6.4	5.7	4.4	2.3	5.0	2.4	7.0	2.2	**5.7**
Chlorostoma brunnea	1.4	1.5	5.0	4.7	10.2	8.2	0.6	0.9	**4.3**
Fissurella volcano	0.6	0.9	0.4	0.5	1.8	2.5	4.0	1.2	**1.7**
Lottia pelta	0.2	0.4	1.0	1.7	0.8	1.8	1.6	2.3	**0.9**
Pachygrapsus crassipes	-	-	1.2	2.7	2.0	2.5	0.2	0.4	**0.9**
Lottia scutum	-	-	1.4	2.6	0.4	0.5	0.8	0.8	**0.7**
Pugettia spp.	-	-	0.2	0.4	1.8	2.4	-	-	**0.5**
Epiactis prolifera	0.4	0.9	0.6	0.9	-	-	0.2	0.4	**0.3**
Lottia limatula	-	-	-	-	0.4	0.5	0.6	0.5	**0.3**
Leptasterias spp.	-	-	-	-	0.8	0.8	0.2	0.4	**0.3**
Nemertea	0.2	0.4	-	-	0.2	0.4	0.4	0.5	**0.2**
Serpulidae	0.4	0.5	-	-	-	-	0.4	0.5	**0.2**
Tonicella lineata	0.2	0.4	0.2	0.4	-	-	0.2	0.4	**0.2**
Serpulorbis squamigerus	0.4	0.5	0.2	0.4	-	-	-	-	**0.2**
Pisaster ochraceus	0.2	0.4	-	-	-	-	0.4	0.9	**0.2**
Mopalia spp.	-	-	-	-	0.4	0.9	-	-	**0.1**
Ocinebrina spp.	0.2	0.4	-	-	-	-	0.2	0.4	**0.1**
Cirratulidae/Terebellidae	-	-	0.2	0.4	-	-	0.2	0.4	**0.1**
Acmaea mitra	-	-	-	-	-	-	0.2	0.4	**<0.1**
Calliostoma ligatum	0.2	0.4	-	-	-	-	-	-	**<0.1**
Lottia scabra	-	-	0.2	0.4	-	-	-	-	**<0.1**
Nereididae	-	-	-	-	0.2	0.4	-	-	**<0.1**
Hemigrapsus nudus	-	-	-	-	-	-	0.2	0.4	**<0.1**
Lottiidae	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Homolo. luridum/Lirularia succincta	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Ischnochitonidae	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Heptacarpus spp.	-	-	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Lacuna spp.	-	-	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Sipuncula	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Crepidula spp.	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Lottia ochracea	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Onchidella borealis	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Epitonium/Opalia spp.	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Pelecypoda boring	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Amphissa spp.	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Lissothuria nutriens	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Grapsidae	-	-	-	-	<0.1	<0.1	-	-	**<0.1**

(table continued)

Table C9 (continued). Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for Station FC 3+0.3m (6+1).

Survey	168		169		170		171		
Survey Date	9-Feb-12		23-May-12		29-Aug-12		14-Dec-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Cover									
Pista spp.	0.7	1.5	1.5	3.1	5.0	9.2	1.7	3.3	**2.2**
Phragmatopoma californica	0.2	0.7	<0.1	0.2	0.5	1.5	1.7	3.1	**0.6**
tunicates, compound/social	<0.1	<0.1	<0.1	<0.1	0.6	1.2	<0.1	<0.1	**0.2**
bryozoa (encrusting)	-	-	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	**<0.1**
Chthamalus fissus	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Spirorbidae	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Porifera (encrusting)	-	-	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Salmacina tribranchiata	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Substrate Cover									
rock	2.6	2.4	6.6	4.8	5.3	3.7	3.5	2.3	**4.5**
sand (shell gravel)	4.4	6.2	0.6	0.9	6.6	11.2	2.3	3.0	**3.5**
cobble	-	-	-	-	1.3	2.4	0.3	0.7	**0.4**

Table C10. Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for Field's Cove Station FC 3+0.9m (6+3).

Survey	168		169		170		171		
Survey Date	8-Feb-12		24-May-12		29-Aug-12		14-Dec-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Endocladia muricata	35.6	14.2	36.5	13.1	19.4	13.9	31.1	13.6	**30.6**
non-coralline crust	33.7	14.6	21.2	11.5	22.3	8.6	34.5	15.7	**27.9**
Mastocarpus papillatus	17.4	10.5	22.4	7.9	42.4	18.3	23.5	7.7	**26.5**
Mazzaella flaccida	3.3	3.8	11.9	7.9	13.5	6.6	6.2	5.3	**8.7**
Silvetia compressa	4.4	5.9	4.0	6.1	1.9	3.0	3.2	4.9	**3.4**
Gelidium coulteri	0.8	1.3	1.4	1.8	4.0	5.7	0.8	1.3	**1.8**
Gelidium pusillum	0.6	0.7	2.4	4.5	1.5	4.1	0.8	1.3	**1.3**
coralline crust	0.6	0.8	0.3	0.5	1.2	1.2	2.2	2.3	**1.1**
Mastocarpus jardinii	0.2	0.3	0.9	1.1	1.5	1.6	0.3	0.5	**0.7**
Mazzaella affinis	<0.1	<0.1	0.7	1.4	<0.1	<0.1	1.0	2.0	**0.4**
Corallina vancouveriensis	<0.1	<0.1	0.1	0.4	0.1	0.4	0.8	1.3	**0.3**
Chondracanthus canaliculatus	0.1	0.3	<0.1	<0.1	<0.1	0.2	0.6	0.6	**0.2**
Prionitis spp.	<0.1	<0.1	<0.1	<0.1	0.4	0.9	0.3	1.1	**0.2**
Mazzaella oregona	0.3	0.4	<0.1	<0.1	0.3	0.8	<0.1	0.2	**0.2**
Cryptosiphonia woodii	<0.1	<0.1	0.7	1.2	<0.1	<0.1	<0.1	<0.1	**0.2**
Cladophora spp.	<0.1	-	<0.1	-	0.4	1.3	<0.1	<0.1	**0.1**
Mazzaella leptorhynchos	<0.1	<0.1	0.1	0.3	<0.1	<0.1	<0.1	<0.1	**<0.1**
Porphyra spp.	-	-	0.1	0.4	-	-	-	-	**<0.1**
juv. articulated coralline algae	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	**<0.1**
Halosaccion americanum	-	-	-	-	<0.1	0.2	-	-	**<0.1**
Osmundea spp.	-	-	-	-	-	-	<0.1	0.2	**<0.1**
Calliarthron/Bossiella spp.-complex	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Microcladia borealis	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Phyllospadix spp.	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Chlorophyta (filamentous)	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Invertebrate Counts									
Chlorostoma funebralis	143.0	123.6	150.6	51.6	143.0	46.6	202.2	160.8	**159.7**
Pagurus spp.	15.4	16.5	2.0	1.0	14.8	12.5	26.4	22.2	**14.7**
Anthopleura elegantissima	3.4	3.6	4.8	6.1	6.0	4.5	7.2	9.9	**5.4**
Lottia scabra	1.6	2.6	2.8	2.6	2.0	1.6	1.6	2.5	**2.0**
Lottia scutum	0.2	0.4	0.6	1.3	0.6	1.3	0.6	0.5	**0.5**
Pachygrapsus crassipes	-	-	0.4	0.5	1.4	1.5	-	-	**0.5**
Lottia limatula	0.4	0.5	-	-	0.6	1.3	0.4	0.5	**0.4**
Lottia pelta	0.6	0.9	0.2	0.4	0.2	0.4	0.4	0.9	**0.4**
Acanthinucella spp.	-	-	1.0	1.7	-	-	0.2	0.4	**0.3**
Strongylocentrotus purpuratus	-	-	-	-	1.0	2.2	-	-	**0.3**
Ocinebrina spp.	-	-	0.2	0.4	-	-	0.6	0.5	**0.2**
Cyanoplax spp.	0.2	0.4	<0.1	<0.1	0.2	0.4	-	-	**0.1**
Nemertea	-	-	-	-	0.2	0.4	-	-	**<0.1**
Mopalia spp.	-	-	0.2	0.4	-	-	-	-	**<0.1**
Chlorostoma montereyi	-	-	0.2	0.4	-	-	-	-	**<0.1**
Leptasterias spp.	-	-	0.2	0.4	-	-	-	-	**<0.1**
Pugettia spp.	-	-	-	-	0.2	0.4	-	-	**<0.1**
Lottiidae	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	**<0.1**

(table continued)

Table C10 (continued). Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for Field's Cove Station FC 3+0.9m (6+3).

Survey	168		169		170		171		
Survey Date	8-Feb-12		24-May-12		29-Aug-12		14-Dec-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts (continued)									
Littorina spp.	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
Crepidula spp.	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Ischnochitonidae	-	-	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Epitonium/Opalia spp.	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Lirobittium spp.	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Invertebrate Cover									
Chthamalus fissus	0.3	1.1	0.1	0.4	<0.1	<0.1	0.8	2.6	**0.3**
Phragmatopoma californica	<0.1	<0.1	<0.1	<0.1	0.1	0.4	0.7	0.9	**0.2**
Spirorbidae	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Pista spp.	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Porifera (encrusting)	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Substrate Cover									
rock	15.1	15.0	13.2	16.6	15.9	9.9	18.8	12.9	**15.8**
sand (shell gravel)	3.8	6.5	0.6	1.6	<0.1	0.2	2.0	2.7	**1.6**
cobble	0.1	0.4	0.1	0.4	0.1	0.4	0.5	1.3	**0.2**

Table C11. Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for North Diablo Cove Station NDC 1+0.3m (7+1).

Survey	168		169		170		171		
Survey Date	23-Jan-12		23-May-12		28-Aug-12		16-Oct-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
non-coralline crust	53.2	10.2	52.9	15.6	40.3	11.4	53.9	11.4	**50.1**
Mastocarpus papillatus	<0.1	<0.1	2.8	3.1	8.6	8.9	5.8	6.3	**4.3**
filamentous red algae complex	3.3	2.8	0.7	1.2	6.4	7.2	6.0	7.9	**4.1**
coralline crust	3.7	2.6	4.5	5.7	4.1	2.6	2.6	2.5	**3.7**
Chrysophyta	-	-	13.3	6.8	-	-	-	-	**3.3**
Gelidium coulteri	<0.1	<0.1	0.7	0.7	4.4	2.7	5.4	4.8	**2.6**
Ulva spp.	-	-	6.2	2.9	0.9	1.1	<0.1	0.2	**1.8**
Codium fragile subsp. *californicum*	-	-	<0.1	<0.1	0.6	1.0	1.2	1.1	**0.5**
Prionitis spp.	<0.1	0.2	-	-	0.3	0.9	0.6	1.2	**0.2**
Chondracanthus canaliculatus	<0.1	<0.1	0.4	0.9	0.1	0.4	<0.1	<0.1	**0.1**
Colpomenia spp.	-	-	<0.1	0.2	0.4	0.6	<0.1	<0.1	**0.1**
Mazzaella affinis	<0.1	<0.1	<0.1	<0.1	0.1	0.4	0.2	0.5	**<0.1**
juv. articulated coralline algae	<0.1	0.2	<0.1	<0.1	0.3	0.5	<0.1	<0.1	**<0.1**
Corallina vancouveriensis	<0.1	<0.1	<0.1	<0.1	0.3	0.9	-	-	**<0.1**
Cryptopleura violacea	0.1	0.3	-	-	<0.1	0.2	-	-	**<0.1**
Gelidium pusillum	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	0.2	**<0.1**
Chlorophyta (filamentous)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.4	**<0.1**
Pterosiphonia dendroidea	<0.1	0.2	-	-	<0.1	<0.1	-	-	**<0.1**
Endocladia muricata	-	-	<0.1	<0.1	<0.1	0.2	-	-	**<0.1**
Mastocarpus jardinii	-	-	-	-	<0.1	0.2	-	-	**<0.1**
Cladophora spp.	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	-	**<0.1**
Chondracanthus corymbiferus	-	-	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Calliarthron/Bossiella spp.-complex	-	-	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
Cystoseira osmundacea	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Mazzaella leptorhynchos	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Mazzaella oregona	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Porphyra spp.	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Laminariales	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Invertebrate Counts									
Tetraclita rubescens	238.6	169.0	268.4	158.6	203.8	83.7	151.8	90.4	**215.7**
Lottia scabra	42.4	66.5	75.6	63.5	140.6	27.5	62.4	28.3	**80.3**
Pagurus spp.	42.2	35.7	11.8	10.8	36.4	18.7	59.0	44.9	**37.4**
Strongylocentrotus purpuratus	3.4	2.1	15.4	5.7	18.4	7.8	17.2	18.6	**13.6**
Lottia pelta	18.4	10.2	9.2	3.3	5.6	4.3	3.8	3.8	**9.3**
Chlorostoma funebralis	1.0	1.7	9.8	15.3	5.4	4.0	13.4	16.6	**7.4**
Fissurella volcano	2.2	2.3	5.2	2.3	11.6	8.3	3.8	3.0	**5.7**
Anthopleura elegantissima	3.2	1.8	3.0	1.0	4.0	3.2	5.6	3.3	**4.0**
Chlorostoma brunnea	0.8	1.1	2.8	6.3	10.8	9.0	0.6	0.5	**3.8**
Lottia scutum	1.2	1.3	5.2	4.3	3.2	2.4	4.4	3.4	**3.5**
Pachygrapsus crassipes	0.6	0.9	0.4	0.5	8.2	4.7	1.6	1.1	**2.7**
Lottia limatula	2.0	1.9	1.8	1.5	4.0	1.6	2.0	1.2	**2.5**
Lottia gigantea	1.6	2.3	2.2	1.6	0.6	0.9	-	-	**1.1**
Ocinebrina spp.	-	-	1.4	1.7	1.6	1.1	0.2	0.4	**0.8**
Anthopleura xanthogrammica	0.6	0.5	0.6	0.5	0.4	0.5	0.6	0.5	**0.6**

(table continued)

Table C11 (continued). Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for North Diablo Cove Station NDC 1+0.3m (7+1).

Survey	168		169		170		171		
Survey Date	23-Jan-12		23-May-12		28-Aug-12		16-Oct-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts (continued)									
Serpulidae	0.4	0.9	0.8	0.4	0.4	0.9	-	-	**0.4**
Hemigrapsus nudus	-	-	-	-	1.2	1.3	-	-	**0.3**
Pisaster ochraceus	0.2	0.4	-	-	0.6	0.9	-	-	**0.2**
Lottiidae	0.4	0.9	<0.1	-	<0.1	-	<0.1	-	**0.1**
Cyanoplax spp.	0.2	0.4	0.2	0.4	-	-	-	-	**0.1**
Balanus spp.	0.4	0.9	-	-	-	-	-	-	**0.1**
Epiactis prolifera	-	-	0.2	0.4	-	-	-	-	**<0.1**
Acanthinucella spp.	-	-	-	-	-	-	0.2	0.4	**<0.1**
Lottia ochracea	-	-	-	-	0.2	0.4	-	-	**<0.1**
Nuttallina californica	-	-	-	-	-	-	0.2	0.4	**<0.1**
Cirratulidae/Terebellidae	-	-	-	-	0.2	0.4	-	-	**<0.1**
Grapsidae	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
Littorina spp.	-	-	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Ischnochitonidae	<0.1	<0.1	-	-	-	-	<0.1	<0.1	**<0.1**
Acmaea mitra	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Pugettia spp.	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Barleeia spp.	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Homolo. luridum/Lirularia succincta	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Invertebrate Cover									
Phragmatopoma californica	5.1	3.2	4.4	3.4	6.1	5.4	3.8	3.4	**4.9**
Chthamalus fissus	1.9	3.1	0.6	0.9	1.2	2.1	1.5	2.1	**1.3**
Pista spp.	<0.1	<0.1	0.1	0.4	-	-	-	-	**<0.1**
Spirorbidae	<0.1	<0.1	<0.1	-	<0.1	-	<0.1	<0.1	**<0.1**
tunicates, compound/social	-	-	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
Porifera (encrusting)	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
bryozoa (encrusting)	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Salmacina tribranchiata	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Substrate Cover									
rock	20.5	8.9	13.5	10.3	14.6	13.0	10.1	3.8	**14.7**
cobble	8.6	6.0	9.0	6.4	7.6	5.6	7.2	7.0	**8.1**
sand (shell gravel)	8.9	11.7	3.7	2.4	4.2	2.9	3.0	2.1	**4.9**

Table C12. Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for North Diablo Cove Station NDC 1+0.9m (7+3).

Survey	168		169		170		171		
Survey Date	2-Feb-12		7-Jun-12		28-Aug-12		16-Oct-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
non-coralline crust	59.4	24.8	55.6	18.9	50.5	22.5	54.0	24.2	**54.8**
Mastocarpus papillatus	0.9	2.2	2.4	1.9	12.0	7.4	8.3	6.5	**5.9**
Endocladia muricata	3.5	5.2	6.0	11.3	4.4	7.9	1.4	2.7	**3.8**
Gelidium coulteri	<0.1	<0.1	<0.1	0.2	1.5	2.5	0.7	1.5	**0.6**
coralline crust	0.3	0.5	0.1	0.4	0.3	0.9	0.6	0.9	**0.3**
Mazzaella affinis	<0.1	<0.1	<0.1	0.2	0.6	1.0	0.3	0.9	**0.3**
Mazzaella leptorhynchos	<0.1	<0.1	0.3	0.4	0.5	0.6	<0.1	0.2	**0.2**
filamentous red algae complex	-	-	-	-	<0.1	0.2	0.8	1.7	**0.2**
Gelidium pusillum	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.3	**<0.1**
Prionitis spp.	-	-	-	-	0.1	0.4	<0.1	<0.1	**<0.1**
Sarcodiotheca gaudichaudii	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Grateloupia californica	-	-	-	-	<0.1	0.2	-	-	**<0.1**
Cladophora spp.	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Chondracanthus canaliculatus	-	-	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Acrosiphonia spp.	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Ulva spp.	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Gastroclonium subarticulatum	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Porphyra spp.	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Invertebrate Counts									
Chlorostoma funebralis	282.8	163.6	148.8	58.5	167.6	144.7	151.2	71.1	**187.6**
Lottia scabra	23.4	19.3	25.2	15.4	30.2	28.5	38.2	28.5	**29.3**
Anthopleura elegantissima	25.4	27.4	20.8	21.3	19.0	18.8	39.2	39.4	**26.1**
Pagurus spp.	14.6	10.0	3.8	2.9	8.0	4.0	10.2	8.3	**9.2**
Lottia pelta	4.0	4.6	2.4	2.7	2.6	1.3	1.6	1.7	**2.7**
Pachygrapsus crassipes	0.6	0.9	0.2	0.4	3.8	0.8	0.6	1.3	**1.3**
Lottia scutum	0.6	0.9	0.6	0.9	1.4	1.9	1.6	1.8	**1.1**
Lottia limatula	0.6	0.9	1.0	1.7	2.0	2.4	0.2	0.4	**1.0**
Fissurella volcano	0.8	0.8	1.0	1.4	0.6	0.5	0.8	0.8	**0.8**
Ocinebrina spp.	0.6	0.5	0.2	0.4	1.4	2.2	0.8	0.8	**0.8**
Acanthinucella spp.	0.4	0.5	0.2	0.4	0.2	0.4	0.4	0.5	**0.3**
Mopalia spp.	0.6	0.9	0.4	0.9	0.2	0.4	-	-	**0.3**
Tetraclita rubescens	-	-	1.0	2.2	-	-	-	-	**0.3**
Strongylocentrotus purpuratus	-	-	0.2	0.4	0.2	0.4	0.4	0.9	**0.2**
Mytilus spp.	<0.1	<0.1	0.2	0.4	0.2	0.4	0.2	0.4	**0.2**
Cyanoplax spp.	-	-	-	-	0.4	0.5	-	-	**0.1**
Epiactis prolifera	-	-	-	-	-	-	0.2	0.4	**<0.1**
Chlorostoma brunnea	-	-	-	-	-	-	0.2	0.4	**<0.1**
Nereididae	-	-	-	-	0.2	0.4	-	-	**<0.1**
Serpulidae	-	-	-	-	0.2	0.4	-	-	**<0.1**
Lottiidae	<0.1	<0.1	<0.1	-	<0.1	-	<0.1	-	**<0.1**
Littorina spp.	-	-	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
Epitonium/Opalia spp.	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Ischnochitonidae	<0.1	<0.1	-	-	-	-	<0.1	<0.1	**<0.1**
Homolo. luridum/Lirularia succincta	-	-	<0.1	<0.1	-	-	-	-	**<0.1**

(table continued)

Table C12 (continued). Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for North Diablo Cove Station NDC 1+0.9m (7+3).

Survey	168		169		170		171		
Survey Date	2-Feb-12		7-Jun-12		28-Aug-12		16-Oct-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts (continued)									
Crepidula spp.	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Sipuncula	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Grapsidae	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Invertebrate Cover									
Chthamalus fissus	2.8	4.3	5.5	7.1	3.5	5.7	1.0	3.1	**3.2**
Phragmatopoma californica	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	-	**<0.1**
Spirorbidae	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Substrate Cover									
rock	25.3	24.1	25.1	20.3	23.3	28.3	23.9	30.6	**24.4**
sand (shell gravel)	5.8	6.6	3.5	3.9	3.7	4.6	7.6	5.2	**5.1**
cobble	3.9	4.6	3.3	2.8	1.0	2.0	3.0	4.1	**2.8**

Table C13. Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for North Diablo Cove Station NDC 2+0.3m (8+1).

Survey	168		169		170		171		
Survey Date	17-Feb-12		9-May-12		17-Aug-12		14-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
non-coralline crust	39.2	16.4	27.1	13.9	26.1	19.0	36.5	20.6	**32.7**
Phyilospadix spp.	21.3	24.8	28.1	32.9	33.3	39.2	28.7	34.9	**27.9**
filamentous red algae complex	18.7	16.0	19.0	18.6	19.0	14.9	28.5	20.7	**21.3**
Codium fragile subsp. *californicum*	8.3	9.1	12.2	16.7	14.6	15.8	10.7	12.4	**11.4**
coralline crust	7.4	5.1	7.8	8.3	6.0	5.3	2.6	3.6	**5.9**
Ulva spp.	<0.1	0.2	5.8	4.8	3.2	4.3	0.3	0.7	**2.3**
Smithora naiadum	0.2	0.7	6.2	8.6	<0.1	0.2	<0.1	<0.1	**1.6**
Gastroclonium subarticulatum	1.5	3.9	2.0	4.2	1.9	3.5	1.0	2.2	**1.6**
Chrysophyta	-	-	4.7	8.7	0.3	1.1	-	-	**1.3**
Pterosiphonia dendroidea	2.1	2.9	1.1	1.3	0.3	0.6	0.4	0.7	**1.0**
Gelidium coulteri	<0.1	0.2	0.3	0.7	2.1	2.0	1.5	2.5	**1.0**
juv. articulated coralline algae	2.3	4.3	0.7	1.4	0.7	1.8	<0.1	0.2	**0.9**
Corallina vancouveriensis	0.1	0.3	0.3	2.0	0.4	1.3	1.3	3.5	**0.7**
Mastocarpus papillatus	-	-	<0.1	<0.1	1.4	3.1	0.1	0.4	**0.4**
Prionitis spp.	0.1	0.4	0.1	0.3	0.2	0.5	<0.1	0.2	**0.1**
Chondracanthus canaliculatus	-	-	<0.1	<0.1	<0.1	0.2	0.3	0.6	**0.1**
Gelidium pusillum	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.3	0.6	**<0.1**
Calliarthron/Bossiella spp.-complex	<0.1	<0.1	<0.1	<0.1	-	-	0.3	1.1	**<0.1**
Mastocarpus jardinii	-	-	<0.1	0.2	-	-	0.3	0.9	**<0.1**
Mazzaella affinis	-	-	<0.1	0.2	0.1	0.4	<0.1	0.2	**<0.1**
Chlorophyta (filamentous)	<0.1	0.2	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	**<0.1**
Cryptopleura violacea	<0.1	0.2	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	**<0.1**
Mazzaella oregona	<0.1	<0.1	-	-	<0.1	0.2	<0.1	<0.1	**<0.1**
Cladophora spp.	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Mazzaella leptorhynchos	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Melobesia mediocris	<0.1	<0.1	<0.1	<0.1	-	-	-	-	**<0.1**
Osmundea spp.	<0.1	<0.1	-	-	<0.1	<0.1	-	-	**<0.1**
Laminariales	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Sarcodiotheca gaudichaudii	<0.1	<0.1	-	-	-	-	<0.1	<0.1	**<0.1**
Bryopsis spp.	-	-	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
Corallina chilensis	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Colpomenia spp.	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Macrocystis pyrifera	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Invertebrate Counts									
Tetraclita rubescens	68.2	68.6	118.6	175.6	82.6	108.5	57.2	75.5	**81.7**
Lottia scabra	130.8	125.0	57.2	66.8	47.6	48.4	33.0	29.6	**67.2**
Strongylocentrotus purpuratus	45.0	74.5	62.2	84.9	34.2	46.9	17.2	23.7	**39.7**
Lottiidae	14.8	33.1	9.6	21.5	4.8	10.7	5.0	11.2	**8.6**
Fissurella volcano	10.0	3.5	13.0	11.9	5.4	7.5	5.8	6.0	**8.6**
Anthopleura elegantissima	11.4	18.1	4.8	7.1	5.6	7.9	9.6	15.1	**7.9**
Lottia pelta	3.2	0.8	4.6	6.2	7.2	7.5	5.6	4.0	**5.2**
Lottia gigantea	2.6	5.8	1.8	4.0	1.8	3.5	3.4	7.6	**2.4**
Lottia scutum	1.2	1.3	1.4	1.5	4.6	9.7	1.0	1.2	**2.1**

(table continued)

Table C13 (continued). Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for North Diablo Cove Station NDC 2+0.3m (8+1).

Survey	168		169		170		171		
Survey Date	17-Feb-12		9-May-12		17-Aug-12		14-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts (continued)									
Pollicipes polymerus	-	-	2.4	5.4	<0.1	<0.1	2.2	4.9	**1.2**
Lottia limatula	-	-	2.0	3.5	1.0	0.7	1.0	1.0	**1.0**
Chlorostoma brunnea	0.2	0.4	0.2	0.4	0.6	0.9	1.8	3.5	**0.7**
Epiactis prolifera	0.4	0.5	0.8	0.8	0.8	1.3	0.6	0.9	**0.7**
Pagurus spp.	0.2	0.4	1.2	1.6	1.0	2.2	-	-	**0.6**
Cyanoplax spp.	0.4	0.9	0.6	0.9	0.8	1.3	0.4	0.5	**0.6**
Mytilus spp.	1.0	1.4	0.4	0.9	<0.1	<0.1	0.4	0.9	**0.5**
Pachygrapsus crassipes	-	-	-	-	1.4	2.6	-	-	**0.4**
Pugettia spp.	-	-	0.6	0.9	0.2	0.4	0.4	0.5	**0.3**
Ocinebrina spp.	-	-	-	-	0.4	0.9	0.6	1.3	**0.3**
Romaleon antennarius	-	-	-	-	0.4	0.5	0.2	0.4	**0.2**
Ophiothrix spiculata	-	-	-	-	0.4	0.9	0.2	0.4	**0.2**
Serpulidae	-	-	-	-	0.4	0.9	0.2	0.4	**0.2**
Mopalia spp.	-	-	-	-	0.2	0.4	0.2	0.4	**0.1**
Balanus spp.	-	-	-	-	0.4	0.9	-	-	**0.1**
Pisaster ochraceus	-	-	-	-	0.2	0.4	0.2	0.4	**0.1**
Nemertea	0.2	0.4	-	-	-	-	-	-	**<0.1**
Chlorostoma funebralis	0.2	0.4	-	-	-	-	-	-	**<0.1**
Nuttallina californica	-	-	0.2	0.4	-	-	-	-	**<0.1**
Haliotis spp.	-	-	-	-	0.2	0.6	-	-	**<0.1**
Lacuna spp.	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Barleeia spp.	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Homolo. luridum/Lirularia succincta	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Alia spp.	-	-	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Littorina spp.	-	-	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Ischnochitonidae	-	-	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Heptacarpus spp.	-	-	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Lirobittium spp.	<0.1	<0.1	<0.1	<0.1	-	-	-	-	**<0.1**
Sipuncula	-	-	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
Ophiactis simplex	<0.1	<0.1	-	-	<0.1	<0.1	-	-	**<0.1**
Octopus spp.	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Epitonium/Opalia spp.	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Pelecypoda boring	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Lophopanopeus spp.	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Septifer bifurcatus	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Grapsidae	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Invertebrate Cover									
Pista spp.	3.0	4.8	7.2	8.7	5.0	7.1	6.9	11.6	**5.5**
Chthamalus fissus	0.3	0.9	1.3	3.5	<0.1	0.2	<0.1	-	**0.4**
Phragmatopoma californica	0.3	1.1	0.3	0.7	-	-	0.3	0.9	**0.2**
tunicates, compound/social	0.6	2.0	-	-	<0.1	<0.1	<0.1	<0.1	**0.2**
Spirorbidae	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Porifera (encrusting)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
bryozoa (encrusting)	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**

(table continued)

Table C13 (continued). Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for North Diablo Cove Station NDC 2+0.3m (8+1).

Survey	168		169		170		171		
Survey Date	17-Feb-12		9-May-12		17-Aug-12		14-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Substrate Cover									
rock	18.3	10.5	19.4	14.4	20.0	12.7	9.7	12.4	**16.9**
sand (shell gravel)	4.0	7.0	7.3	8.6	9.7	15.3	1.3	2.6	**5.6**
cobble	3.3	4.8	2.6	4.9	2.8	4.0	1.3	2.1	**2.5**

Table C14. Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for North Diablo Cove Station NDC 2+0.9m (8+3).

Survey	168		169		170		171		
Survey Date	8-Feb-12		7-Jun-12		17-Aug-12		24-Dec-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
non-coralline crust	9.4	7.1	17.1	11.7	13.2	14.1	11.4	10.6	**12.8**
Endocladia muricata	5.9	8.2	10.0	17.4	9.7	14.7	9.0	14.6	**8.6**
coralline crust	2.4	2.7	0.9	0.8	2.2	2.0	2.2	3.2	**1.9**
Mastocarpus papillatus	<0.1	<0.1	1.7	3.1	5.2	8.5	0.3	0.9	**1.8**
Gelidium coulteri	<0.1	<0.1	0.1	0.4	2.8	2.3	0.4	0.7	**0.8**
Chrysophyta	-	-	2.2	7.0	-	-	-	-	**0.6**
Ulva spp.	-	-	0.6	1.8	1.0	1.5	<0.1	<0.1	**0.4**
juv. articulated coralline algae	<0.1	<0.1	0.6	1.3	0.4	0.7	0.2	0.7	**0.3**
filamentous red algae complex	-	-	-	-	0.3	0.9	0.4	1.3	**0.2**
Corallina vancouveriensis	<0.1	<0.1	<0.1	<0.1	0.3	0.9	<0.1	0.2	**<0.1**
Calliarthron/Bossiella spp.-complex	<0.1	<0.1	0.2	0.7	<0.1	<0.1	<0.1	0.2	**<0.1**
Gelidium pusillum	<0.1	<0.1	<0.1	0.2	0.1	0.4	<0.1	<0.1	**<0.1**
Mazzaella affinis	-	-	0.1	0.3	<0.1	0.2	-	-	**<0.1**
Porphyra spp.	-	-	0.2	0.3	-	-	-	-	**<0.1**
Chondracanthus canaliculatus	-	-	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	**<0.1**
Gastroclonium subarticulatum	-	-	-	-	<0.1	0.2	-	-	**<0.1**
Colpomenia spp.	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Cladophora spp.	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Prionitis spp.	<0.1	<0.1	-	-	<0.1	<0.1	-	-	**<0.1**
Mazzaella leptorhynchos	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Chlorophyta (filamentous)	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Pterosiphonia dendroidea	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Invertebrate Counts									
Lottia scabra	91.0	88.7	110.2	79.3	100.6	30.3	104.0	83.6	**101.5**
Chlorostoma funebralis	63.0	46.2	73.6	83.0	91.6	44.8	85.8	34.4	**78.5**
Anthopleura elegantissima	27.6	35.6	51.0	73.5	51.4	71.1	35.0	48.1	**41.3**
Mytilus spp.	2.0	2.8	12.0	16.5	6.2	10.0	15.2	24.4	**8.9**
Lottia limatula	7.2	5.0	4.2	3.6	1.8	1.1	6.2	7.2	**4.9**
Pagurus spp.	2.2	3.0	6.4	10.8	2.2	3.2	7.6	10.3	**4.6**
Strongylocentrotus purpuratus	2.0	2.9	4.0	8.9	6.2	13.9	0.8	1.8	**3.3**
Lottia gigantea	2.8	4.4	3.2	5.6	2.6	4.8	3.6	5.7	**3.1**
Lottia scutum	2.0	2.3	2.2	2.4	4.2	4.9	2.0	3.4	**2.6**
Lottia pelta	1.0	2.2	3.0	2.5	5.2	5.5	1.2	1.6	**2.6**
Cyanoplax spp.	1.4	0.9	1.2	1.1	5.4	2.1	0.6	0.9	**2.2**
Lottiidae	2.2	2.6	2.8	4.2	0.4	0.9	1.8	2.5	**1.8**
Fissurella volcano	0.2	0.4	0.6	0.9	0.8	1.1	1.4	2.1	**0.8**
Acanthinucella spp.	0.4	0.9	1.4	1.7	0.6	0.5	0.4	0.9	**0.7**
Pachygrapsus crassipes	0.8	0.4	0.4	0.5	0.8	1.1	0.4	0.5	**0.6**
Mopalia spp.	0.4	0.9	0.8	0.8	-	-	0.6	0.9	**0.5**
Tetraclita rubescens	0.4	0.5	0.6	0.9	-	-	0.2	0.4	**0.3**
Ocinebrina spp.	-	-	0.2	0.4	-	-	0.2	0.4	**0.1**
Sipuncula	-	-	0.4	0.9	-	-	-	-	**0.1**
Epiactis prolifera	-	-	-	-	-	-	0.2	0.4	**<0.1**
Nucella spp.	-	-	-	-	-	-	0.2	0.4	**<0.1**

(table continued)

Table C14 (continued). Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for North Diablo Cove Station NDC 2+0.9m (8+3).

Survey	168		169		170		171		
Survey Date	8-Feb-12		7-Jun-12		17-Aug-12		24-Dec-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts (continued)									
Chlorostoma brunnea	0.2	0.4	-	-	-	-	-	-	**<0.1**
Nuttallina californica	-	-	0.2	0.4	-	-	-	-	**<0.1**
Hemigrapsus nudus	-	-	-	-	0.2	0.4	-	-	**<0.1**
Littorina spp.	<0.1	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Heptacarpus spp.	-	-	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Epitonium/Opalia spp.	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Pycnogonida	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Grapsidae	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Invertebrate Cover									
Chthamalus fissus	11.2	10.4	21.5	13.7	14.9	11.9	14.7	10.5	**15.6**
Phragmatopoma californica	1.0	1.8	0.8	1.3	0.2	0.5	1.0	1.5	**0.8**
Spirorbidae	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Substrate Cover									
rock	70.6	10.3	43.3	12.8	52.2	15.0	61.9	11.4	**57.0**
cobble	1.0	2.1	3.7	4.5	2.2	4.0	0.2	0.3	**1.8**
sand (shell gravel)	<0.1	0.2	<0.1	<0.1	0.3	0.9	0.2	0.5	**0.1**

Table C15. Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for North Diablo Cove Station NDC 3+0.3m (9+1).

Survey	168		169		170		171		
Survey Date	20-Jan-12		9-May-12		17-Jul-12		14-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
non-coralline crust	23.2	16.8	33.5	21.6	26.0	19.5	34.4	27.1	**29.3**
Codium fragile subsp. *californicum*	16.0	14.1	16.7	12.4	26.4	18.6	21.2	18.1	**20.1**
coralline crust	8.7	6.3	6.9	4.8	7.4	4.7	6.2	5.6	**7.3**
Corallina vancouveriensis	6.9	7.3	4.7	8.4	6.1	6.1	6.8	9.3	**6.1**
filamentous red algae complex	2.8	3.7	6.2	7.6	3.1	5.0	6.2	6.2	**4.6**
Ulva spp.	0.2	0.7	4.8	3.7	5.8	6.8	2.4	2.0	**3.3**
Chrysophyta	-	-	7.7	7.2	-	-	-	-	**1.9**
juv. articulated coralline algae	1.6	1.8	1.7	1.4	0.5	1.1	1.6	3.5	**1.3**
Cryptopleura violacea	1.4	2.4	0.7	1.5	0.4	0.9	2.4	4.4	**1.2**
Pterosiphonia dendroidea	<0.1	<0.1	3.3	2.7	<0.1	0.2	0.1	0.4	**0.9**
Gelidium coulteri	<0.1	0.2	0.3	0.5	1.9	2.3	0.9	1.4	**0.8**
Gelidium pusillum	0.8	1.2	<0.1	0.2	<0.1	<0.1	0.3	0.5	**0.3**
Calliarthron/Bossiella spp.-complex	0.2	0.7	0.6	1.3	-	-	0.1	0.4	**0.2**
Chlorophyta (filamentous)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.6	1.1	**0.2**
Mastocarpus papillatus	-	-	<0.1	<0.1	0.5	1.5	<0.1	<0.1	**0.1**
Colpomenia spp.	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	**<0.1**
Laminariales	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Prionitis spp.	-	-	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Cladophora spp.	-	-	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Chondracanthus canaliculatus	-	-	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
Mazzaella leptorhynchos	<0.1	<0.1	<0.1	<0.1	-	-	-	-	**<0.1**
Callophyllis flabellulata	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Neorhodomela larix	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Grateloupia californica	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Chondracanthus corymbiferus	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Macrocystis pyrifera	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Invertebrate Counts									
Tetraclita rubescens	177.0	117.5	244.6	168.0	145.6	74.8	398.2	405.5	**241.4**
Lottia scabra	118.4	83.7	39.2	36.6	118.6	52.7	61.0	44.6	**84.3**
Strongylocentrotus purpuratus	30.6	34.3	43.6	31.9	46.2	43.5	36.4	23.3	**39.2**
Mytilus spp.	20.6	31.7	39.0	72.0	4.2	9.4	30.6	43.5	**23.6**
Fissurella volcano	16.0	7.8	14.4	8.1	17.0	11.5	22.2	12.5	**17.4**
Lottia pelta	10.0	6.1	12.2	16.9	10.8	5.8	8.6	7.9	**10.4**
Lottia gigantea	9.4	11.7	5.4	6.7	4.8	1.9	5.2	2.9	**6.2**
Anthopleura elegantissima	1.8	2.5	15.4	32.8	0.4	0.5	1.0	2.2	**4.7**
Lottia scutum	4.6	2.7	1.6	2.5	4.2	1.3	3.0	2.3	**3.4**
Pachygrapsus crassipes	3.0	1.2	1.8	1.8	3.4	1.7	1.8	1.5	**2.5**
Lottia limatula	0.6	0.9	2.2	2.7	4.0	1.9	1.2	1.3	**2.0**
Balanus spp.	-	-	-	-	-	-	5.2	11.6	**1.3**
Serpulidae	1.8	0.8	0.4	0.9	1.4	1.5	1.4	2.1	**1.3**
Epiactis prolifera	0.4	0.5	1.0	1.2	1.2	2.2	2.0	1.4	**1.2**
Nuttallina californica	1.0	1.4	0.8	0.8	1.0	1.0	1.8	2.5	**1.2**
Pagurus spp.	1.0	1.7	0.2	0.4	-	-	-	-	**0.3**
Cyanoplax spp.	0.4	0.9	0.6	1.3	<0.1	<0.1	-	-	**0.3**

(table continued)

Table C15 (continued). Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for North Diablo Cove Station NDC 3+0.3m (9+1).

Survey	168		169		170		171		
Survey Date	20-Jan-12		9-May-12		17-Jul-12		14-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts (continued)									
Hemigrapsus nudus	0.2	0.4	-	-	0.8	1.3	-	-	**0.3**
Ophiothrix spiculata	-	-	0.4	0.9	0.2	0.4	0.2	0.4	**0.2**
Nemertea	-	-	-	-	0.4	0.5	0.2	0.4	**0.2**
Mopalia spp.	0.6	0.5	-	-	-	-	-	-	**0.2**
Ocinebrina spp.	-	-	-	-	0.4	0.9	-	-	**0.1**
Sipuncula	-	-	0.2	0.4	<0.1	<0.1	-	-	**<0.1**
Pollicipes polymerus	<0.1	<0.1	<0.1	<0.1	-	-	0.2	0.4	**<0.1**
Chlorostoma brunnea	-	-	-	-	-	-	0.2	0.4	**<0.1**
Pisaster ochraceus	-	-	0.2	0.4	-	-	-	-	**<0.1**
Pugettia spp.	-	-	0.2	0.4	-	-	-	-	**<0.1**
Haliotis spp.	-	-	-	-	0.1	0.3	-	-	**<0.1**
Lottiidae	<0.1	-	<0.1	-	<0.1	-	<0.1	-	**<0.1**
Ischnochitonidae	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Grapsidae	-	-	-	-	<0.1	-	-	-	**<0.1**
Pelecypoda boring	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Ophiactis simplex	-	-	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Calliostoma ligatum	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Loxorhynchus spp.	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Heptacarpus spp.	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Trimusculus reticulatus	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Invertebrate Cover									
Phragmatopoma californica	2.8	3.1	3.7	4.7	<0.1	<0.1	1.9	2.5	**2.1**
Chthamalus fissus	0.8	2.0	0.7	1.5	<0.1	-	0.1	0.3	**0.4**
Spirorbidae	<0.1	-	<0.1	<0.1	<0.1	-	<0.1	<0.1	**<0.1**
Porifera (encrusting)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
tunicates, compound/social	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
bryozoa (encrusting)	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Dodecaceria fewkesi	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Substrate Cover									
rock	41.7	21.2	29.4	22.4	44.9	24.4	31.7	27.0	**36.9**
cobble	7.2	6.0	5.2	6.2	2.1	3.9	1.5	3.9	**4.0**
sand (shell gravel)	<0.1	<0.1	<0.1	<0.1	0.1	0.3	-	-	**<0.1**

Table C16. Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for North Diablo Cove Station NDC 3+0.9m (9+3).

Survey	168		169		170		171		
Survey Date	20-Jan-12		10-May-12		17-Jul-12		14-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
non-coralline crust	32.1	21.2	23.7	19.7	28.5	18.3	36.2	23.4	**30.1**
Codium fragile subsp. *californicum*	1.3	4.0	1.7	5.5	3.5	11.0	3.3	8.2	**2.4**
coralline crust	3.2	3.3	2.2	2.2	2.2	1.7	1.5	2.2	**2.3**
Ulva spp.	<0.1	<0.1	1.1	1.6	3.4	5.7	2.4	1.9	**1.7**
Chrysophyta	-	-	3.5	11.5	-	-	-	-	**1.6**
filamentous red algae complex	0.1	0.4	<0.1	0.2	1.7	4.4	2.0	5.5	**1.0**
Gelidium coulteri	<0.1	<0.1	<0.1	<0.1	0.4	0.9	1.5	1.4	**0.5**
Mastocarpus papillatus	<0.1	<0.1	<0.1	<0.1	0.3	0.9	0.4	1.1	**0.2**
Corallina vancouveriensis	0.3	0.7	<0.1	<0.1	0.1	0.4	0.1	0.4	**0.2**
juv. articulated coralline algae	0.3	0.5	0.1	0.3	<0.1	0.2	<0.1	0.2	**0.1**
Pterosiphonia dendroidea	-	-	<0.1	0.2	<0.1	<0.1	0.3	1.1	**0.1**
Cryptopleura violacea	<0.1	<0.1	-	-	-	-	0.2	0.7	**<0.1**
Gelidium pusillum	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Mazzaella affinis	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Chlorophyta (filamentous)	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Cladophora spp.	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Calliarthron/Bossiella spp.-complex	-	-	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Gastroclonium subarticulatum	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Endocladia muricata	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Chondracanthus canaliculatus	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Prionitis spp.	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Chondracanthus corymbiferus	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Colpomenia spp.	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Laminariales	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Invertebrate Counts									
Lottia scabra	133.2	54.7	68.6	20.3	202.4	86.9	83.0	21.9	**121.8**
Tetraclita rubescens	48.2	58.2	34.8	32.2	84.0	76.4	55.4	65.3	**55.6**
Mytilus spp.	47.6	66.6	36.6	60.6	27.2	43.0	31.6	41.9	**35.8**
Chlorostoma funebralis	17.4	26.7	52.2	72.6	45.8	56.4	5.0	10.6	**30.1**
Strongylocentrotus purpuratus	12.4	12.3	27.6	35.1	43.6	51.5	12.8	11.3	**24.1**
Lottia gigantea	26.6	32.7	25.2	32.3	21.4	22.3	19.8	23.5	**23.3**
Fissurella volcano	11.6	13.2	6.0	5.0	11.8	10.9	7.0	9.7	**9.1**
Lottia pelta	9.6	9.0	3.6	4.8	7.0	5.1	0.4	0.9	**5.2**
Pagurus spp.	13.6	17.7	-	-	-	-	2.2	4.9	**4.0**
Lottiidae	2.0	3.5	2.4	5.4	4.2	6.6	2.6	2.2	**2.8**
Lottia scutum	2.6	3.1	1.6	2.1	2.6	2.6	3.6	2.9	**2.6**
Pachygrapsus crassipes	2.0	1.0	1.4	1.7	3.2	1.6	2.8	1.9	**2.4**
Lottia limatula	2.0	2.3	1.0	1.2	3.6	4.8	2.0	1.4	**2.2**
Serpulidae	0.8	0.8	1.2	1.3	0.8	0.8	0.8	0.8	**0.9**
Nemertea	-	-	1.4	3.1	0.6	1.3	-	-	**0.5**
Cyanoplax spp.	0.2	0.4	0.6	0.9	0.4	0.9	0.4	0.9	**0.4**
Anthopleura elegantissima	0.2	0.4	0.8	0.8	0.2	0.4	0.2	0.4	**0.4**
Ocinebrina spp.	-	-	-	-	0.2	0.4	1.2	1.1	**0.4**
Acanthinucella spp.	-	-	-	-	0.4	0.5	0.4	0.9	**0.2**

(table continued)

Table C16 (continued). Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for North Diablo Cove Station NDC 3+0.9m (9+3).

Survey	168		169		170		171		
Survey Date	20-Jan-12		10-May-12		17-Jul-12		14-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts (continued)									
Nuttallina californica	0.2	0.4	0.2	0.4	-	-	-	-	**0.1**
Pelecypoda boring	-	-	-	-	0.2	0.4	-	-	**<0.1**
Epiactis prolifera	-	-	-	-	-	-	0.2	0.4	**<0.1**
Mopalia spp.	-	-	-	-	-	-	0.2	0.4	**<0.1**
Nereididae	-	-	-	-	0.2	0.4	-	-	**<0.1**
Strongylocentrotus franciscanus	-	-	-	-	0.2	0.4	-	-	**<0.1**
Ophiothrix spiculata	-	-	0.2	0.4	-	-	-	-	**<0.1**
Alpheus spp.	-	-	-	-	0.2	0.4	-	-	**<0.1**
Haliotis spp.	0.1	0.3	-	-	-	-	0.1	0.3	**<0.1**
Littorina spp.	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Pollicipes polymerus	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Heptacarpus spp.	-	-	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Ischnochitonidae	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Grapsidae	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Lottia instabilis	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Lottia ochracea	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Ophiuroidea	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Sipuncula	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Lepidozona spp.	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Ophiactis simplex	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Invertebrate Cover									
Chthamalus fissus	5.1	7.8	3.8	3.3	2.3	3.2	5.7	8.0	**4.2**
Phragmatopoma californica	2.5	3.0	0.6	1.1	1.1	1.3	0.6	0.8	**1.2**
Spirorbidae	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
tunicates, compound/social	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Porifera (encrusting)	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
bryozoa (encrusting)	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Substrate Cover									
rock	49.6	25.2	58.5	27.8	54.4	24.4	42.1	26.2	**51.2**
cobble	4.8	9.7	5.3	8.6	1.8	3.5	3.1	5.0	**3.7**
sand (shell gravel)	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	**<0.1**

Table C17. Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for South Diablo Cove Station SDC 1+0.3m (10+1).

Survey	168		169		170		171		
Survey Date	19-Jan-12		8-May-12		2-Jul-12		13-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
filamentous red algae complex	32.2	11.7	38.4	16.5	35.8	18.5	34.7	13.6	**35.3**
non-coralline crust	24.6	15.1	30.3	12.7	23.5	15.9	14.9	13.5	**23.3**
coralline crust	21.0	16.6	10.3	6.4	14.7	10.9	16.5	8.7	**15.6**
Chrysophyta	-	-	3.7	3.0	12.4	10.5	-	-	**4.0**
Pterosiphonia dendroidea	4.0	3.1	0.4	0.4	3.5	3.2	0.2	0.5	**2.0**
Ulva spp.	<0.1	<0.1	1.8	2.7	4.9	10.0	<0.1	<0.1	**1.7**
Gastroclonium subarticulatum	0.7	1.5	1.1	2.4	2.8	4.5	0.9	2.2	**1.4**
Gelidium coulteri	<0.1	0.2	1.5	4.2	0.4	0.6	3.2	6.0	**1.3**
Prionitis spp.	0.9	0.9	1.0	2.2	1.7	2.0	0.6	1.7	**1.1**
Cryptopleura violacea	<0.1	<0.1	0.9	1.1	1.7	2.1	1.0	1.8	**0.9**
Sargassum muticum	0.2	0.7	2.8	7.4	0.3	1.1	0.3	0.9	**0.9**
Chondracanthus canaliculatus	<0.1	<0.1	0.3	0.4	<0.1	0.2	0.3	1.1	**0.2**
Acrosorium ciliolatum	0.7	1.2	-	-	-	-	-	-	**0.2**
Chlorophyta (filamentous)	<0.1	<0.1	0.4	1.3	-	-	<0.1	<0.1	**0.1**
Corallina vancouveriensis	<0.1	<0.1	0.4	1.3	<0.1	<0.1	-	-	**0.1**
Mastocarpus papillatus	-	-	<0.1	0.2	0.1	0.4	-	-	**<0.1**
Farlowia/Pikea spp.-complex	0.1	0.3	-	-	-	-	-	-	**<0.1**
Gelidium pusillum	<0.1	0.2	-	-	<0.1	<0.1	-	-	**<0.1**
juv. articulated coralline algae	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
Mazzaella affinis	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Cladophora spp.	<0.1	<0.1	-	-	<0.1	<0.1	-	-	**<0.1**
Halymenia/Schizymenia spp.-complex	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Mastocarpus jardinii	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Colpomenia spp.	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Codium fragile subsp. *californicum*	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Invertebrate Counts									
Strongylocentrotus purpuratus	16.0	15.6	26.6	21.3	17.4	14.9	22.6	23.6	**20.7**
Anthopleura elegantissima	21.2	7.5	19.6	4.9	12.4	8.8	24.4	7.8	**19.4**
Tetraclita rubescens	6.2	8.2	2.4	3.3	19.0	31.9	21.8	20.1	**12.4**
Fissurella volcano	6.4	5.2	4.4	3.4	3.6	3.6	15.2	7.7	**7.4**
Pagurus spp.	-	-	-	-	1.2	1.8	17.0	21.4	**4.6**
Lottia scabra	1.0	1.7	13.2	13.3	1.6	1.5	0.2	0.4	**4.0**
Lottia pelta	6.4	6.1	2.0	1.2	2.0	2.3	1.8	1.5	**3.1**
Lottia limatula	1.2	2.2	1.6	1.8	1.8	1.6	0.8	0.8	**1.4**
Cirratulidae/Terebellidae	-	-	1.0	1.7	-	-	2.0	3.1	**0.8**
Lottia scutum	0.2	0.4	1.8	1.8	-	-	0.2	0.4	**0.6**
Ophiothrix spiculata	-	-	0.2	0.4	0.8	1.8	0.2	0.4	**0.3**
Pugettia spp.	-	-	1.0	1.0	<0.1	<0.1	-	-	**0.3**
Hermissenda crassicornis	-	-	0.8	1.8	-	-	-	-	**0.2**
Pachygrapsus crassipes	-	-	0.2	0.4	0.6	1.3	-	-	**0.2**
Pisaster ochraceus	0.2	0.4	-	-	0.2	0.4	0.4	0.9	**0.2**
Nemertea	-	-	0.4	0.5	0.2	0.4	-	-	**0.2**
Cyanoplax spp.	-	-	-	-	0.6	0.9	-	-	**0.2**

(table continued)

Table C17 (continued). Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for South Diablo Cove Station SDC 1+0.3m (10+1).

Survey	168		169		170		171		
Survey Date	19-Jan-12		8-May-12		2-Jul-12		13-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts (continued)									
Chaetopteridae	<0.1	<0.1	-	-	-	-	0.4	0.9	**0.1**
Epiactis prolifera	-	-	-	-	-	-	0.4	0.5	**0.1**
Aplysia spp.	0.2	0.4	-	-	-	-	0.2	0.4	**0.1**
Anthopleura artemisia	-	-	-	-	-	-	0.2	0.4	**<0.1**
Mopalia spp.	0.2	0.4	-	-	-	-	-	-	**<0.1**
Chlorostoma funebralis	-	-	-	-	-	-	0.2	0.4	**<0.1**
Nuttallina californica	-	-	-	-	-	-	0.2	0.4	**<0.1**
Strongylocentrotus franciscanus	-	-	-	-	0.2	0.4	-	-	**<0.1**
Serpulidae	-	-	0.2	0.4	-	-	-	-	**<0.1**
Lottiidae	<0.1	-	<0.1	-	<0.1	<0.1	<0.1	-	**<0.1**
Barleeia spp.	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Ischnochitonidae	-	-	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Epitonium/Opalia spp.	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Lacuna spp.	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Ophiactis simplex	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Pelecypoda boring	<0.1	<0.1	-	-	-	-	<0.1	<0.1	**<0.1**
Heptacarpus spp.	-	-	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Alia spp.	-	-	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Octopus spp.	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Sipuncula	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Septifer bifurcatus	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Grapsidae	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Invertebrate Cover									
Phragmatopoma californica	<0.1	<0.1	0.3	0.9	-	-	<0.1	<0.1	**<0.1**
Chthamalus fissus	<0.1	0.2	<0.1	<0.1	<0.1	0.2	<0.1	-	**<0.1**
Pista spp.	<0.1	<0.1	-	-	-	-	<0.1	<0.1	**<0.1**
Spirorbidae	-	-	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
Substrate Cover									
rock	12.6	6.3	7.9	10.2	5.8	4.9	18.7	14.7	**11.2**
cobble	9.7	9.1	8.8	7.7	2.8	2.9	4.5	4.6	**6.4**
sand (shell gravel)	5.7	2.7	1.0	2.1	7.6	4.1	1.5	2.5	**4.0**

Table C18. Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for South Diablo Cove Station SDC 1+0.6m (10+2).

Survey	168		169		170		171		
Survey Date	19-Jan-12		8-May-12		2-Jul-12		13-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
non-coralline crust	35.9	11.0	33.3	9.2	30.9	14.9	33.5	12.8	**33.4**
filamentous red algae complex	21.8	12.3	25.7	14.0	23.5	11.8	33.3	19.5	**26.1**
coralline crust	11.9	9.5	5.3	5.1	11.2	6.1	5.8	4.9	**8.5**
Chrysophyta	-	-	12.1	11.0	14.3	9.8	-	-	**6.6**
Ulva spp.	<0.1	<0.1	4.0	2.1	12.2	10.7	<0.1	<0.1	**4.0**
Gelidium coulteri	1.0	2.0	0.3	0.5	3.7	2.7	6.6	7.3	**2.9**
Gastroclonium subarticulatum	1.5	2.6	2.0	3.3	3.5	3.6	4.2	4.2	**2.8**
Pterosiphonia dendroidea	4.4	6.4	0.4	0.7	4.1	5.8	1.5	1.6	**2.6**
Gelidium pusillum	5.8	6.6	-	-	<0.1	<0.1	-	-	**1.4**
Prionitis spp.	1.4	1.1	0.8	1.3	1.0	1.2	2.2	3.0	**1.4**
Cryptopleura violacea	1.5	2.0	0.9	1.3	1.0	2.0	0.3	0.6	**0.9**
Chondracanthus canaliculatus	<0.1	<0.1	0.3	0.8	0.2	0.5	0.4	1.1	**0.2**
Endocladia muricata	-	-	-	-	0.8	2.2	-	-	**0.2**
Mastocarpus papillatus	-	-	-	-	<0.1	0.2	0.3	0.9	**<0.1**
Acrosorium ciliolatum	0.3	0.8	-	-	-	-	-	-	**<0.1**
Mazzaella affinis	<0.1	<0.1	<0.1	<0.1	0.2	0.7	<0.1	<0.1	**<0.1**
Chlorophyta (filamentous)	<0.1	<0.1	0.1	0.4	-	-	-	-	**<0.1**
Cryptopleura ruprechtiana	-	-	0.1	0.4	-	-	-	-	**<0.1**
juv. articulated coralline algae	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Cladophora spp.	<0.1	<0.1	-	-	<0.1	<0.1	-	-	**<0.1**
Mazzaella leptorhynchos	-	-	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Corallina vancouveriensis	<0.1	<0.1	-	-	-	-	<0.1	<0.1	**<0.1**
Mazzaella oregona	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Colpomenia spp.	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Halicystis ovalis	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Invertebrate Counts									
Anthopleura elegantissima	47.0	20.0	33.4	9.7	27.6	14.9	27.8	10.2	**34.0**
Tetraclita rubescens	13.8	12.1	4.8	8.7	5.6	5.2	34.8	27.0	**14.8**
Strongylocentrotus purpuratus	8.0	7.6	12.2	12.2	12.0	13.6	8.0	6.6	**10.1**
Lottia scabra	2.6	3.3	19.4	14.7	6.0	3.4	0.8	1.8	**7.2**
Lottia pelta	12.8	12.9	5.8	2.5	3.8	1.9	1.8	1.6	**6.1**
Fissurella volcano	3.2	2.5	4.2	1.1	2.4	1.8	10.6	9.2	**5.1**
Lottia limatula	1.0	1.7	6.2	1.6	3.6	2.2	1.8	0.8	**3.2**
Pagurus spp.	-	-	0.4	0.5	1.0	1.4	10.4	7.8	**3.0**
Chlorostoma funebralis	2.0	4.5	-	-	-	-	-	-	**0.5**
Cyanoplax spp.	-	-	<0.1	<0.1	0.8	1.8	0.6	0.9	**0.4**
Pisaster ochraceus	0.2	0.4	0.4	0.9	0.6	0.5	-	-	**0.3**
Pachygrapsus crassipes	-	-	0.2	0.4	0.8	1.3	0.2	0.4	**0.3**
Pugettia spp.	-	-	-	-	-	-	1.0	1.0	**0.3**
Cirratulidae/Terebellidae	-	-	0.4	0.9	0.2	0.4	-	-	**0.2**
Chaetopteridae	<0.1	<0.1	<0.1	<0.1	-	-	0.4	0.9	**0.1**
Acanthinucella spp.	-	-	0.4	0.9	-	-	-	-	**0.1**
Mopalia spp.	0.2	0.4	-	-	-	-	0.2	0.4	**0.1**
Lottia scutum	-	-	0.4	0.9	-	-	-	-	**0.1**

(table continued)

Table C18 (continued). Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for South Diablo Cove Station SDC 1+0.6m (10+2).

Survey	168		169		170		171		
Survey Date	19-Jan-12		8-May-12		2-Jul-12		13-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts (continued)									
Chlorostoma brunnea	-	-	0.2	0.4	-	-	0.2	0.4	**0.1**
Octopus spp.	-	-	-	-	-	-	0.4	0.9	**0.1**
Epitonium/Opalia spp.	-	-	<0.1	<0.1	0.2	0.4	-	-	**<0.1**
Pelecypoda boring	<0.1	<0.1	-	-	0.2	0.4	<0.1	<0.1	**<0.1**
Nemertea	-	-	0.2	0.4	<0.1	<0.1	-	-	**<0.1**
Epiactis prolifera	-	-	-	-	-	-	0.2	0.4	**<0.1**
Strongylocentrotus franciscanus	0.2	0.4	-	-	-	-	-	-	**<0.1**
Ocinebrina spp.	-	-	-	-	-	-	0.2	0.4	**<0.1**
Ophiothrix spiculata	-	-	-	-	-	-	0.2	0.4	**<0.1**
Serpulidae	0.2	0.4	-	-	-	-	-	-	**<0.1**
Sipuncula	-	-	0.2	0.4	-	-	-	-	**<0.1**
Lottiidae	<0.1	-	<0.1	<0.1	<0.1	-	<0.1	-	**<0.1**
Barleeia spp.	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Heptacarpus spp.	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Mytilus spp.	<0.1	<0.1	<0.1	<0.1	-	-	-	-	**<0.1**
Lacuna spp.	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Ophiactis simplex	-	-	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
Alia spp.	-	-	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Ischnochitonidae	-	-	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
Lottia gigantea	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Littorina spp.	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Lirobittium spp.	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Isopoda	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Aeolidia papillosa	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Invertebrate Cover									
Chthamalus fissus	0.6	1.1	0.6	0.7	0.6	1.2	<0.1	0.2	**0.4**
Spirorbidae	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Phragmatopoma californica	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Pista spp.	<0.1	<0.1	-	-	-	-	<0.1	<0.1	**<0.1**
tunicates, compound/social	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Porifera (encrusting)	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Substrate Cover									
rock	12.1	5.4	14.3	9.6	6.3	3.3	8.9	8.1	**10.4**
cobble	9.2	8.0	5.3	7.9	3.1	4.0	2.1	2.2	**4.9**
sand (shell gravel)	6.5	6.9	1.5	1.5	8.3	6.6	3.3	4.3	**4.9**

Table C19. Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for South Diablo Cove Station SDC 2+0.3m (11+1).

Survey	168		169		170		171		
Survey Date	9-Jan-12		7-May-12		3-Jul-12		18-Oct-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
non-coralline crust	53.1	20.8	11.5	6.2	15.5	7.4	37.3	16.5	**29.3**
Ulva spp.	<0.1	<0.1	6.1	3.2	58.7	22.5	1.0	1.2	**16.4**
filamentous red algae complex	7.8	12.5	11.9	19.5	15.8	19.9	16.3	24.3	**13.0**
coralline crust	4.4	4.6	2.7	2.0	5.3	6.3	10.3	8.0	**5.7**
Prionitis spp.	3.3	4.4	4.2	4.4	4.4	7.7	8.3	8.5	**5.1**
Corallina vancouveriensis	1.0	1.5	1.3	1.7	0.7	1.7	1.8	4.3	**1.2**
Mastocarpus papillatus	<0.1	<0.1	<0.1	<0.1	0.3	1.1	3.8	5.4	**1.0**
Cryptopleura violacea	0.4	0.9	0.2	0.5	2.6	2.5	0.8	0.9	**1.0**
Pterosiphonia dendroidea	1.8	2.1	1.7	1.1	0.2	0.7	0.1	0.4	**1.0**
Gelidium pusillum	1.3	2.3	-	-	0.3	0.5	1.5	1.8	**0.8**
Chondracanthus canaliculatus	0.3	0.5	0.7	1.2	0.7	0.9	0.6	0.9	**0.6**
Gastroclonium subarticulatum	0.3	0.5	0.2	0.7	0.8	1.8	0.2	0.7	**0.4**
juv. articulated coralline algae	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.7	1.2	**0.2**
Gelidium coulteri	<0.1	<0.1	<0.1	<0.1	0.3	0.5	0.3	0.6	**0.2**
Chrysophyta	-	-	0.4	0.6	-	-	-	-	**0.1**
Calliarthron/Bossiella spp.-complex	-	-	-	-	<0.1	<0.1	0.2	0.7	**<0.1**
Sargassum muticum	-	-	-	-	-	-	0.2	0.5	**<0.1**
Mazzaella leptorhynchos	-	-	<0.1	<0.1	-	-	<0.1	0.2	**<0.1**
Mazzaella affinis	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Chlorophyta (filamentous)	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Cladophora spp.	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Colpomenia spp.	-	-	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
Mastocarpus jardinii	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Grateloupia californica	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Laminariales	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Invertebrate Counts									
Anthopleura elegantissima	33.8	7.6	43.4	18.4	34.4	6.4	60.8	19.4	**43.1**
Chlorostoma funebralis	137.4	129.4	0.8	1.8	-	-	3.2	5.5	**35.4**
Tetraclita rubescens	25.0	43.7	5.6	10.0	1.0	1.0	66.0	122.6	**24.4**
Pagurus spp.	4.4	7.0	1.6	0.9	2.8	4.4	7.8	4.9	**4.2**
Lottia limatula	0.8	0.8	3.2	2.4	3.2	2.2	1.2	1.8	**2.1**
Lottia scabra	1.4	2.6	3.6	3.2	1.4	1.3	0.6	0.9	**1.8**
Lottia pelta	2.8	2.2	0.2	0.4	0.4	0.5	0.6	0.5	**1.0**
Pachygrapsus crassipes	0.4	0.5	1.6	1.1	1.4	0.5	0.4	0.9	**1.0**
Strongylocentrotus purpuratus	0.4	0.9	1.2	2.7	1.2	2.7	0.6	1.3	**0.9**
Cirratulidae/Terebellidae	-	-	1.0	1.0	1.2	2.7	1.2	1.3	**0.9**
Fissurella volcano	0.6	0.9	0.8	0.8	0.2	0.4	1.8	1.6	**0.9**
Lottia scutum	0.2	0.4	0.6	1.3	0.4	0.9	2.0	2.9	**0.8**
Nemertea	-	-	0.8	1.8	0.2	0.4	0.4	0.5	**0.4**
Nereididae	-	-	-	-	0.6	1.3	0.2	0.4	**0.2**
Pisaster ochraceus	0.4	0.5	0.2	0.4	0.2	0.4	-	-	**0.2**
Leptasterias spp.	0.2	0.4	-	-	0.4	0.5	-	-	**0.2**
Cyanoplax spp.	-	-	<0.1	<0.1	0.4	0.5	<0.1	<0.1	**0.1**
Anthopleura artemisia	-	-	0.2	0.4	-	-	0.2	0.4	**0.1**

(table continued)

Table C19 (continued). Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for South Diablo Cove Station SDC 2+0.3m (11+1).

Survey	168		169		170		171		
Survey Date	9-Jan-12		7-May-12		3-Jul-12		18-Oct-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts (continued)									
Pugettia spp.	-	-	0.4	0.9	-	-	-	-	**0.1**
Acanthinucella spp.	-	-	-	-	-	-	0.4	0.5	**0.1**
Chaetopteridae	<0.1	<0.1	-	-	<0.1	<0.1	0.2	0.4	**<0.1**
Mopalia spp.	-	-	0.2	0.4	-	-	-	-	**<0.1**
Romaleon antennarius	-	-	-	-	-	-	0.2	0.4	**<0.1**
Ophiothrix spiculata	-	-	-	-	0.2	0.4	-	-	**<0.1**
Serpulidae	0.2	0.4	-	-	-	-	-	-	**<0.1**
Aplysia spp.	-	-	-	-	-	-	0.2	0.4	**<0.1**
Lottiidae	<0.1	<0.1	<0.1	-	<0.1	-	<0.1	-	**<0.1**
Pelecypoda boring	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Ischnochitonidae	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Epitonium/Opalia spp.	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
Littorina spp.	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Alia spp.	-	-	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Heptacarpus spp.	-	-	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Sipuncula	-	-	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Ophiactis simplex	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Serpulorbis squamigerus	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Tonicella lineata	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Hermissenda crassicornis	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Lirobittium spp.	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Amphissa spp.	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Aeolidia papillosa	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Grapsidae	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Invertebrate Cover									
Chthamalus fissus	0.2	0.3	<0.1	<0.1	<0.1	<0.1	0.3	1.1	**0.1**
Spirorbidae	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Phragmatopoma californica	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Pista spp.	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Porifera (encrusting)	<0.1	<0.1	<0.1	<0.1	-	-	-	-	**<0.1**
tunicates, compound/social	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Substrate Cover									
rock	20.3	23.4	52.2	16.5	3.4	2.8	15.2	16.5	**22.8**
sand (shell gravel)	5.8	8.0	5.9	7.6	0.7	1.2	4.7	6.1	**4.3**
cobble	1.5	3.1	1.9	3.0	0.1	0.4	0.4	1.3	**1.0**

Table C20. Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for South Diablo Cove Station SDC 2+0.9m (11+3).

Survey	168		169		170		171		
Survey Date	9-Jan-12		7-May-12		3-Jul-12		18-Oct-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
non-coralline crust	27.3	22.5	21.9	23.1	22.0	22.0	29.2	13.1	**25.1**
Mastocarpus papillatus	0.4	0.9	0.3	0.7	0.6	2.0	15.0	8.3	**4.1**
Prionitis spp.	1.9	2.0	0.8	1.5	2.3	4.0	3.0	2.5	**2.0**
Gelidium coulteri	-	-	<0.1	<0.1	2.6	4.3	2.5	2.8	**1.3**
Endocladia muricata	0.7	1.5	0.9	2.1	0.5	0.9	<0.1	<0.1	**0.5**
Corallina vancouveriensis	0.3	0.7	0.3	0.7	0.4	1.1	0.3	0.9	**0.3**
Gelidium pusillum	0.3	0.7	0.4	0.7	0.3	0.8	0.2	0.7	**0.3**
Ulva spp.	-	-	<0.1	<0.1	1.3	4.0	<0.1	<0.1	**0.3**
Grateloupia californica	-	-	-	-	<0.1	<0.1	0.9	2.0	**0.2**
coralline crust	0.1	0.4	0.3	0.4	<0.1	-	<0.1	-	**0.1**
Cladophora spp.	0.2	0.7	<0.1	-	<0.1	<0.1	<0.1	-	**<0.1**
juv. articulated coralline algae	<0.1	<0.1	<0.1	<0.1	0.1	0.4	<0.1	<0.1	**<0.1**
Mazzaella leptorhynchos	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Mazzaella affinis	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Cryptosiphonia woodii	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Mastocarpus jardinii	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Porphyra spp.	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Cryptopleura violacea	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
filamentous red algae complex	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Invertebrate Counts									
Chlorostoma funebralis	109.2	72.7	281.8	132.3	319.2	228.3	167.0	59.9	**219.3**
Anthopleura elegantissima	65.2	64.7	67.0	51.2	130.2	173.3	96.0	99.2	**89.6**
Tetraclita rubescens	0.2	0.4	-	-	-	-	82.6	184.1	**20.7**
Lottia scabra	19.4	18.3	20.4	22.9	24.2	20.6	7.6	8.7	**17.9**
Pagurus spp.	8.0	2.9	3.6	3.2	1.0	1.4	15.4	15.1	**7.0**
Lottia limatula	0.4	0.5	3.4	2.2	3.8	3.0	1.4	1.7	**2.3**
Lottia scutum	1.6	1.7	2.2	1.9	1.8	1.3	2.0	1.9	**1.9**
Lottia pelta	1.4	1.1	0.8	0.8	2.4	2.2	1.2	0.8	**1.5**
Acanthinucella spp.	1.0	0.7	1.2	1.6	1.2	1.6	0.2	0.4	**0.9**
Pachygrapsus crassipes	0.4	0.5	0.6	0.9	1.6	2.5	-	-	**0.7**
Cyanoplax spp.	<0.1	<0.1	0.4	0.9	0.6	0.9	-	-	**0.3**
Ocinebrina spp.	0.2	0.4	0.2	0.4	-	-	0.2	0.4	**0.2**
Pisaster ochraceus	-	-	0.2	0.4	-	-	0.2	0.4	**0.1**
Cirratulidae/Terebellidae	-	-	-	-	0.4	0.9	-	-	**0.1**
Fissurella volcano	-	-	-	-	-	-	0.2	0.4	**<0.1**
Mopalia spp.	-	-	-	-	0.2	0.4	-	-	**<0.1**
Balanus spp.	0.2	0.4	-	-	-	-	-	-	**<0.1**
Strongylocentrotus purpuratus	-	-	-	-	0.2	0.4	-	-	**<0.1**
Lottiidae	<0.1	-	<0.1	-	<0.1	-	<0.1	-	**<0.1**
Littorina spp.	<0.1	-	<0.1	-	<0.1	<0.1	-	-	**<0.1**
Mytilus spp.	<0.1	<0.1	<0.1	<0.1	-	-	-	-	**<0.1**
Epitonium/Opalia spp.	-	-	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**

(table continued)

Table C20 (continued). Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for South Diablo Cove Station SDC 2+0.9m (11+3).

Survey	168		169		170		171		
Survey Date	9-Jan-12		7-May-12		3-Jul-12		18-Oct-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts (continued)									
Heptacarpus spp.	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Septifer bifurcatus	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Chaetopteridae	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Invertebrate Cover									
Chthamalus fissus	1.9	2.0	1.9	2.4	2.4	2.5	0.2	0.5	**1.6**
Phragmatopoma californica	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Spirorbidae	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Substrate Cover									
rock	48.1	17.7	64.1	27.1	57.6	24.4	27.8	13.0	**49.4**
sand (shell gravel)	14.9	17.1	3.9	7.8	8.5	12.5	17.7	17.1	**11.3**
cobble	1.1	2.2	1.6	2.2	1.2	2.1	<0.1	<0.1	**1.0**

Table C21. Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for South Diablo Cove Station SDC 3+0.3m (12+1).

Survey	168		169		170		171		
Survey Date	7-Feb-12		27-Apr-12		30-Aug-12		12-Dec-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
non-coralline crust	67.0	11.7	61.7	18.2	30.5	9.6	58.2	14.3	**54.3**
Mastocarpus papillatus	1.9	1.9	1.0	1.4	25.3	19.1	8.3	9.5	**9.1**
Ulva spp.	-	-	<0.1	<0.1	27.4	15.2	0.1	0.3	**6.9**
Gelidium coulteri	<0.1	<0.1	3.7	7.1	<0.1	<0.1	0.8	0.8	**1.1**
Gastroclonium subarticulatum	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	2.9	6.6	**0.7**
Endocladia muricata	0.6	1.7	0.6	1.8	0.6	1.3	1.1	2.4	**0.7**
Gelidium pusillum	1.9	2.0	<0.1	0.2	<0.1	<0.1	0.8	1.3	**0.7**
Colpomenia spp.	-	-	-	-	1.3	1.9	-	-	**0.3**
Mazzaella affinis	-	-	-	-	1.0	1.9	0.2	0.5	**0.3**
coralline crust	0.9	1.6	<0.1	-	<0.1	0.2	0.1	0.3	**0.3**
Prionitis spp.	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.8	1.8	**0.2**
Chondracanthus canaliculatus	<0.1	<0.1	-	-	-	-	0.3	0.7	**<0.1**
Corallina vancouveriensis	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	**<0.1**
Cryptopleura violacea	-	-	-	-	<0.1	<0.1	0.1	0.3	**<0.1**
Cladophora spp.	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	**<0.1**
juv. articulated coralline algae	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Pterosiphonia dendroidea	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Cystoseira osmundacea	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
filamentous red algae complex	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Invertebrate Counts									
Pagurus spp.	121.2	88.8	48.4	24.0	14.2	9.8	33.4	24.5	**54.3**
Chlorostoma funebralis	48.6	65.8	69.8	98.1	0.4	0.5	48.4	84.5	**41.8**
Tetraclita rubescens	14.4	18.8	23.6	41.6	10.4	10.7	69.2	65.4	**29.4**
Anthopleura elegantissima	11.4	18.8	6.2	6.2	3.0	2.3	6.4	9.4	**6.8**
Lottia limatula	0.8	1.1	1.2	1.6	6.2	4.0	2.4	1.7	**2.7**
Strongylocentrotus purpuratus	-	-	-	-	3.2	3.1	6.4	11.0	**2.4**
Lottia pelta	6.0	4.6	1.4	1.9	1.2	1.3	0.2	0.4	**2.2**
Lottia scutum	1.0	1.4	0.8	1.8	2.2	1.8	3.0	3.1	**1.8**
Lottia scabra	-	-	2.2	1.5	4.4	6.1	-	-	**1.7**
Fissurella volcano	0.8	1.3	0.4	0.5	-	-	1.8	3.5	**0.8**
Pachygrapsus crassipes	0.4	0.5	-	-	0.8	0.8	0.4	0.5	**0.4**
Pisaster ochraceus	-	-	0.2	0.4	0.4	0.5	-	-	**0.2**
Diopatra ornata	-	-	-	-	-	-	0.6	0.5	**0.2**
Ocinebrina spp.	0.6	1.3	-	-	-	-	-	-	**0.2**
Anthopleura artemisia	-	-	-	-	-	-	0.2	0.4	**<0.1**
Chlorostoma brunnea	-	-	-	-	-	-	0.2	0.4	**<0.1**
Lottiidae	<0.1	-	<0.1	-	<0.1	-	<0.1	<0.1	**<0.1**
Sipuncula	<0.1	<0.1	-	-	<0.1	<0.1	-	-	**<0.1**
Alia spp.	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Ischnochitonidae	<0.1	<0.1	-	-	<0.1	<0.1	-	-	**<0.1**
Chaetopteridae	<0.1	<0.1	-	-	-	-	<0.1	<0.1	**<0.1**
Grapsidae	-	-	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Barleeia spp.	-	-	-	-	-	-	<0.1	<0.1	**<0.1**

(table continued)

Table C21 (continued). Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for South Diablo Cove Station SDC 3+0.3m (12+1).

Survey	168		169		170		171		
Survey Date	7-Feb-12		27-Apr-12		30-Aug-12		12-Dec-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Cover									
Chthamalus fissus	0.5	1.3	<0.1	0.2	<0.1	-	0.3	0.9	**0.2**
Spirorbidae	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	**<0.1**
Phragmatopoma californica	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Substrate Cover									
cobble	13.9	5.2	18.5	16.2	6.3	4.6	14.4	10.9	**13.3**
rock	12.4	7.1	12.3	9.0	5.5	3.3	12.9	11.3	**10.8**
sand (shell gravel)	4.8	4.3	3.3	3.0	8.1	5.4	3.7	3.2	**5.0**

Table C22. Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for South Diablo Cove Station SDC 3+0.9m (12+3).

Survey	168		169		170		171		
Survey Date	7-Feb-12		27-Apr-12		30-Aug-12		12-Dec-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
non-coralline crust	38.1	21.4	27.4	20.0	24.9	15.3	42.1	19.3	**33.1**
Mastocarpus papillatus	<0.1	0.2	0.1	0.4	11.7	7.0	12.7	7.1	**6.2**
Endocladia muricata	1.2	3.3	1.5	3.9	1.2	2.4	1.3	2.5	**1.3**
coralline crust	0.1	0.4	<0.1	<0.1	<0.1	<0.1	0.3	0.6	**0.1**
Gelidium coulteri	-	-	-	-	0.3	0.9	<0.1	0.2	**0.1**
Gelidium pusillum	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.2	0.7	**<0.1**
Mazzaella affinis	-	-	-	-	<0.1	<0.1	0.1	0.4	**<0.1**
Corallina vancouveriensis	0.1	0.4	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Cladophora spp.	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
Ulva spp.	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Mazzaella leptorhynchos	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Prionitis spp.	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Invertebrate Counts									
Chlorostoma funebralis	207.8	127.5	118.4	81.6	322.0	246.8	119.2	53.5	**191.9**
Anthopleura elegantissima	47.2	47.5	32.4	28.2	30.6	40.3	29.6	24.7	**35.0**
Lottia scabra	26.0	41.9	15.0	19.2	35.4	34.4	23.0	30.2	**24.9**
Pagurus spp.	14.8	13.2	2.4	3.4	17.4	11.7	20.6	6.7	**13.8**
Lottia limatula	1.8	1.6	3.4	5.0	0.6	0.9	4.6	6.2	**2.6**
Lottia pelta	5.0	9.0	0.4	0.9	2.6	3.6	0.2	0.4	**2.1**
Tetraclita rubescens	<0.1	<0.1	0.2	0.4	-	-	4.6	6.8	**1.2**
Lottia scutum	1.6	2.2	-	-	1.6	2.1	0.4	0.9	**0.9**
Mytilus spp.	1.8	4.0	1.2	2.7	-	-	-	-	**0.8**
Pachygrapsus crassipes	0.4	0.5	0.2	0.4	1.0	1.0	0.4	0.9	**0.5**
Pisaster ochraceus	0.4	0.9	-	-	0.8	1.3	0.2	0.4	**0.4**
Acanthinucella spp.	-	-	0.6	0.9	0.2	0.4	-	-	**0.2**
Ocinebrina spp.	-	-	0.6	1.3	0.2	0.4	-	-	**0.2**
Cyanoplax spp.	-	-	-	-	0.4	0.5	-	-	**0.1**
Lottiidae	<0.1	<0.1	0.2	0.4	<0.1	-	<0.1	<0.1	**<0.1**
Nucella spp.	-	-	0.2	0.4	-	-	-	-	**<0.1**
Romaleon antennarius	-	-	-	-	-	-	0.2	0.4	**<0.1**
Littorina spp.	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Grapsidae	<0.1	<0.1	-	-	<0.1	<0.1	-	-	**<0.1**
Invertebrate Cover									
Chthamalus fissus	1.7	3.8	2.5	2.7	0.5	0.7	1.9	3.0	**1.7**
Spirorbidae	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Phragmatopoma californica	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Pista spp.	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Substrate Cover									
rock	29.5	24.2	41.0	28.1	29.9	27.7	27.6	24.5	**32.0**
cobble	24.9	18.5	24.5	14.4	26.0	14.8	12.0	9.1	**21.9**
sand (shell gravel)	3.2	2.7	2.6	4.2	7.2	3.6	5.1	5.0	**4.5**

Table C23. Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for South Diablo Point Station SDP 1+0.9m (22+3).

Survey	168		169		170		171		
Survey Date	18-Jan-12		25-Apr-12		4-Jul-12		12-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
non-coralline crust	43.5	26.7	51.5	17.9	45.6	23.3	48.1	21.4	**47.2**
coralline crust	12.6	8.1	12.4	7.4	14.9	8.8	11.3	6.0	**12.8**
Gelidium coulteri	0.8	0.5	7.6	4.5	15.0	8.8	12.6	5.6	**9.0**
Corallina vancouveriensis	11.6	9.4	4.6	5.9	3.3	3.8	8.6	10.0	**7.0**
Egregia menziesii	3.0	3.2	2.2	1.9	11.4	8.7	8.7	5.8	**6.3**
Mazzaella flaccida	-	-	1.7	2.3	7.6	3.3	0.4	1.1	**2.4**
juv. articulated coralline algae	1.4	2.1	3.7	3.9	0.5	0.9	4.0	5.7	**2.4**
Mastocarpus jardinii	1.0	1.2	0.8	1.3	3.1	2.6	1.9	2.2	**1.7**
Ulva spp.	-	-	3.3	3.8	1.7	2.0	0.2	0.7	**1.3**
Callithamnion spp./*Pleonosporium* spp.	-	-	0.2	0.7	3.1	6.9	-	-	**0.8**
Calliarthron/Bossiella spp.-complex	0.4	0.9	<0.1	<0.1	0.2	0.5	1.8	3.5	**0.6**
Endocladia muricata	0.3	1.1	0.6	1.8	0.8	2.6	0.3	0.9	**0.5**
Porphyra spp.	-	-	0.3	0.9	1.5	2.1	-	-	**0.5**
Cryptopleura violacea	0.8	1.4	0.3	0.7	<0.1	<0.1	0.3	1.1	**0.4**
Mastocarpus papillatus	<0.1	<0.1	0.2	0.3	0.9	2.1	<0.1	0.2	**0.3**
Chondracanthus canaliculatus	-	-	0.3	0.5	0.3	0.5	<0.1	<0.1	**0.2**
Scytosiphon spp.	-	-	0.6	1.6	-	-	-	-	**0.2**
Prionitis spp.	<0.1	<0.1	<0.1	<0.1	0.1	0.3	0.4	0.6	**0.1**
Mazzaella affinis	-	-	<0.1	<0.1	0.5	0.9	-	-	**0.1**
Gelidium pusillum	<0.1	<0.1	-	-	0.3	0.7	<0.1	0.2	**<0.1**
Pterosiphonia dendroidea	-	-	-	-	-	-	0.3	0.6	**<0.1**
Cladophora spp.	-	-	0.2	0.7	<0.1	<0.1	<0.1	<0.1	**<0.1**
Mazzaella oregona	-	-	<0.1	<0.1	0.1	0.4	<0.1	<0.1	**<0.1**
Codium fragile subsp. *californicum*	-	-	-	-	<0.1	<0.1	<0.1	0.2	**<0.1**
Chlorophyta (filamentous)	-	-	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
Laminaria setchellii	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Gastroclonium subarticulatum	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Osmundea spp.	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Laminariales	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
filamentous red algae complex	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Invertebrate Counts									
Tetraclita rubescens	158.0	160.8	83.4	80.5	114.2	91.7	93.6	56.2	**112.3**
Strongylocentrotus purpuratus	97.2	61.7	33.8	21.4	36.2	12.7	43.0	31.8	**52.6**
Anthopleura elegantissima	61.4	24.9	42.6	20.5	33.6	15.1	58.6	34.8	**49.1**
Lottia scabra	71.4	67.2	19.8	9.6	16.6	7.0	19.8	12.5	**31.9**
Lottia pelta	5.6	6.0	1.2	1.3	14.0	4.4	8.8	5.3	**7.4**
Fissurella volcano	3.6	1.7	0.2	0.4	0.8	0.8	9.6	8.8	**3.6**
Lottia gigantea	3.4	2.7	5.2	5.4	2.2	2.3	3.2	1.8	**3.5**
Nuttallina californica	4.8	1.1	1.6	2.2	-	-	1.4	1.7	**2.0**
Pisaster ochraceus	2.2	1.5	0.8	1.3	1.6	1.8	2.0	2.5	**1.7**
Anthopleura xanthogrammica	1.6	1.8	1.2	1.6	0.8	0.8	0.6	0.5	**1.1**
Mytilus spp.	2.0	4.5	1.4	2.6	<0.1	<0.1	<0.1	<0.1	**0.9**
Nemertea	-	-	0.6	0.9	2.4	2.6	0.2	0.4	**0.8**
Lottia limatula	1.0	0.7	-	-	0.4	0.9	0.4	0.9	**0.5**

(table continued)

Table C23 (continued). Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for South Diablo Point Station SDP 1+0.9m (22+3).

Survey	168		169		170		171		
Survey Date	18-Jan-12		25-Apr-12		4-Jul-12		12-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts (continued)									
Pachygrapsus crassipes	-	-	0.2	0.4	1.2	1.1	0.4	0.5	**0.5**
Pollicipes polymerus	<0.1	<0.1	0.4	0.9	<0.1	<0.1	0.8	1.8	**0.3**
Leptasterias spp.	-	-	-	-	-	-	1.2	1.3	**0.3**
Lottiidae	<0.1	-	<0.1	-	<0.1	-	0.4	0.9	**0.1**
Mopalia spp.	0.2	0.4	0.2	0.4	-	-	-	-	**0.1**
Chlorostoma brunnea	-	-	-	-	-	-	0.4	0.5	**0.1**
Serpulidae	-	-	-	-	0.2	0.4	0.2	0.4	**0.1**
Lottia scutum	-	-	-	-	-	-	0.2	0.4	**<0.1**
Nereididae	-	-	-	-	0.2	0.4	-	-	**<0.1**
Ocinebrina spp.	0.2	0.4	-	-	-	-	-	-	**<0.1**
Haliotis spp.	0.2	0.4	-	-	-	-	-	-	**<0.1**
Sipuncula	-	-	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Pelecypoda boring	-	-	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Littorina spp.	<0.1	<0.1	-	-	-	-	<0.1	<0.1	**<0.1**
Idotea spp.	-	-	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
Pisaster/Henricia spp. (juv.)	<0.1	<0.1	-	-	-	-	<0.1	<0.1	**<0.1**
Cyanoplax spp.	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Lottia instabilis	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Pycnogonida	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Ischnochitonidae	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Invertebrate Cover									
Phragmatopoma californica	6.0	5.3	1.7	3.4	<0.1	0.2	1.4	1.1	**2.3**
Chthamalus fissus	0.1	0.3	0.3	0.5	0.2	0.3	0.4	0.7	**0.3**
Dodecaceria fewkesi	<0.1	<0.1	0.2	0.7	-	-	0.6	1.0	**0.2**
Spirorbidae	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Salmacina tribranchiata	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Porifera (encrusting)	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Substrate Cover									
rock	10.2	5.7	4.7	4.8	5.6	6.1	1.9	1.9	**5.6**
cobble	-	-	-	-	-	-	<0.1	<0.1	**<0.1**

Table C24. Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for South Diablo Point Station SDP 2+0.9m (14+3).

Survey	168		169		170		171		
Survey Date	18-Jan-12		25-Apr-12		4-Jul-12		12-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
coralline crust	26.9	10.2	24.4	14.7	33.4	14.6	25.8	8.9	**27.6**
Corallina vancouveriensis	21.6	9.8	15.7	13.8	8.1	5.9	10.5	10.4	**14.0**
Gelidium coulteri	2.4	1.5	5.7	5.7	9.4	6.9	5.6	5.7	**5.8**
Cryptopleura violacea	3.3	3.1	2.8	3.3	5.6	7.5	9.0	10.2	**5.2**
Prionitis spp.	3.1	5.4	2.5	4.1	6.3	11.1	6.9	8.3	**4.7**
Mazzaella flaccida	2.2	1.3	6.4	5.1	7.0	6.0	1.8	2.3	**4.4**
juv. articulated coralline algae	2.2	1.7	7.4	14.5	<0.1	<0.1	7.6	8.7	**4.3**
Calliarthron/Bossiella spp.-complex	3.7	3.5	2.2	2.0	5.2	7.9	4.4	6.0	**3.9**
non-coralline crust	2.8	2.8	3.7	5.5	2.6	2.1	2.4	2.5	**2.9**
Egregia menziesii	2.6	2.7	0.7	1.4	2.1	4.0	3.3	3.5	**2.2**
Gastroclonium subarticulatum	1.2	2.1	2.0	3.0	1.9	4.5	1.5	2.3	**1.6**
Callithamnion spp./*Pleonosporium* spp.	<0.1	<0.1	2.2	1.4	1.8	1.6	<0.1	<0.1	**1.0**
Chondracanthus canaliculatus	0.5	1.3	1.0	1.2	1.3	2.3	0.3	0.7	**0.8**
Gelidium pusillum	-	-	<0.1	<0.1	1.7	3.9	<0.1	<0.1	**0.4**
Alaria marginata	-	-	<0.1	<0.1	0.6	2.0	-	-	**0.2**
Chrysophyta	-	-	-	-	0.6	1.3	-	-	**0.2**
Osmundea spp.	0.2	0.5	<0.1	0.2	0.1	0.4	0.1	0.4	**0.1**
Mastocarpus jardinii	0.1	0.4	<0.1	<0.1	0.3	0.9	0.1	0.3	**0.1**
Chondracanthus corymbiferus	-	-	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	**<0.1**
Mazzaella affinis	-	-	-	-	<0.1	0.2	-	-	**<0.1**
Pterosiphonia dendroidea	-	-	-	-	<0.1	0.2	-	-	**<0.1**
filamentous red algae complex	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Mazzaella oregona	-	-	-	-	-	-	<0.1	0.2	**<0.1**
Microcladia coulteri	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Mazzaella splendens	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Callithamnion pikeanum	-	-	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
Mastocarpus papillatus	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Bryopsis spp.	-	-	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
Microcladia borealis	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Chlorophyta (filamentous)	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Cladophora spp.	-	-	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Laminaria setchellii	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Desmarestia ligulata	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Ulva spp.	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Cryptosiphonia woodii	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Plocamium violaceum	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Halymenia/Schizymenia spp.-complex	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Invertebrate Counts									
Anthopleura elegantissima	232.0	237.3	309.6	291.6	309.4	281.0	253.0	180.3	**276.0**
Mytilus spp.	130.0	290.7	190.0	424.9	150.4	336.3	145.0	324.2	**153.9**
Strongylocentrotus purpuratus	169.6	82.2	123.2	76.0	148.8	115.8	106.4	69.0	**137.0**
Tetraclita rubescens	34.8	51.8	20.4	31.9	21.4	41.2	44.4	53.4	**30.3**
Lottia pelta	8.6	17.6	2.8	1.9	5.4	12.1	1.2	1.6	**4.5**
Pisaster ochraceus	3.8	2.9	1.4	1.5	2.6	1.8	3.0	2.5	**2.7**

(table continued)

Table C24 (continued). Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for South Diablo Point Station SDP 2+0.9m (14+3).

Survey	168		169		170		171		
Survey Date	18-Jan-12		25-Apr-12		4-Jul-12		12-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts (continued)									
Fissurella volcano	0.8	1.1	3.4	3.4	1.4	1.5	1.8	2.5	**1.9**
Nuttallina californica	0.8	1.8	2.4	4.8	2.6	5.3	0.8	1.8	**1.7**
Nemertea	0.2	0.4	2.6	4.2	2.2	2.3	1.0	1.2	**1.5**
Lottia scabra	-	-	3.6	7.0	1.0	2.2	1.0	2.2	**1.4**
Leptasterias spp.	1.0	1.0	2.4	2.9	1.6	1.1	0.6	0.5	**1.4**
Pollicipes polymerus	1.2	2.7	1.6	3.6	1.6	3.0	0.6	1.3	**1.3**
Nucella spp.	0.8	1.3	3.6	7.5	0.2	0.4	0.4	0.5	**1.3**
Anthopleura xanthogrammica	0.4	0.9	2.0	2.4	1.2	1.6	1.4	1.7	**1.3**
Balanus spp.	-	-	2.4	3.4	0.2	0.4	2.0	4.5	**1.2**
Serpulidae	<0.1	<0.1	1.2	1.6	1.4	1.9	1.6	2.5	**1.1**
Chlorostoma brunnea	0.6	0.5	0.8	1.1	1.8	2.9	0.8	0.8	**1.0**
Pachygrapsus crassipes	0.8	0.4	1.0	0.7	1.2	0.8	0.6	0.5	**0.9**
Tonicella lineata	0.4	0.5	1.0	0.7	1.0	1.7	0.4	0.5	**0.7**
Serpulorbis squamigerus	0.4	0.9	1.2	1.6	0.4	0.5	-	-	**0.5**
Mopalia spp.	-	-	0.2	0.4	0.4	0.5	1.2	1.8	**0.5**
Haliotis spp.	0.1	0.3	0.2	0.4	0.2	0.4	0.1	0.3	**0.2**
Lottia limatula	-	-	-	-	0.2	0.4	0.2	0.4	**0.1**
Nereididae	-	-	-	-	0.4	0.5	-	-	**0.1**
Ocinebrina spp.	0.2	0.4	-	-	-	-	0.2	0.4	**0.1**
Sipuncula	-	-	<0.1	<0.1	0.2	0.4	<0.1	<0.1	**<0.1**
Lottia gigantea	-	-	<0.1	<0.1	<0.1	<0.1	0.2	0.4	**<0.1**
Lacuna spp.	-	-	<0.1	<0.1	-	-	0.2	0.4	**<0.1**
Aeolidia papillosa	-	-	0.2	0.4	<0.1	<0.1	-	-	**<0.1**
Chlorostoma funebralis	-	-	0.2	0.4	-	-	-	-	**<0.1**
Romaleon antennarius	-	-	-	-	0.2	0.4	-	-	**<0.1**
Lottiidae	<0.1	-	<0.1	-	<0.1	-	<0.1	-	**<0.1**
Pelecypoda boring	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Lottia ochracea	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
Alia spp.	-	-	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Pachycheles spp.	-	-	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
Ischnochitonidae	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Acmaea mitra	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Pododesmus cepio	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Lottia instabilis	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Modiolus spp.	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Invertebrate Cover									
Dodecaceria fewkesi	<0.1	<0.1	0.3	0.7	0.1	0.4	-	-	**0.1**
Phragmatopoma californica	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.3	0.9	**<0.1**
Pista spp.	-	-	-	-	-	-	0.2	0.5	**<0.1**
Chthamalus fissus	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	**<0.1**
Porifera (encrusting)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	**<0.1**
Salmacina tribranchiata	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	**<0.1**
Spirorbidae	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	**<0.1**

(table continued)

Table C24 (continued). Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for South Diablo Point Station SDP 2+0.9m (14+3).

Survey	168		169		170		171		
Survey Date	18-Jan-12		25-Apr-12		4-Jul-12		12-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Cover (continued)									
tunicates, compound/social	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
bryozoa (encrusting)	<0.1	<0.1	-	-	<0.1	<0.1	-	-	**<0.1**
Spheciospongia confoederata	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Substrate Cover									
rock	6.6	4.7	6.0	4.5	5.6	6.3	6.6	8.2	**6.2**
cobble	-	-	-	-	-	-	<0.1	<0.1	**<0.1**

Table C25. Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for South Control Station SC 1+0.3m (19+1).

Survey	168		169		170		171		
Survey Date	25-Jan-12		21-May-12		18-Jul-12		28-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Mazzaella flaccida	24.3	12.3	50.1	18.1	54.6	15.9	20.8	11.9	**37.5**
Chondracanthus canaliculatus	15.6	9.8	28.7	15.0	29.7	14.8	18.4	7.1	**23.1**
non-coralline crust	23.8	15.4	9.5	7.6	11.8	8.6	18.4	13.6	**15.9**
Gastroclonium subarticulatum	18.2	11.6	12.1	9.3	6.0	5.4	19.3	11.2	**13.9**
coralline crust	13.9	7.6	4.1	2.9	7.8	6.3	13.4	8.2	**9.8**
Phyllospadix spp.	9.7	13.6	7.2	12.9	7.4	14.1	7.6	10.6	**7.9**
Egregia menziesii	0.2	0.7	5.7	12.1	4.0	5.6	6.6	16.4	**4.1**
Mastocarpus papillatus	1.3	1.0	4.4	4.2	4.2	6.4	1.6	1.7	**2.9**
Prionitis spp.	3.7	2.9	1.2	1.4	3.2	3.5	2.6	3.3	**2.7**
Mastocarpus jardinii	4.1	5.1	2.2	2.7	1.8	2.0	1.7	2.5	**2.5**
Ulva spp.	3.3	3.2	0.8	1.2	1.2	1.1	4.0	2.5	**2.3**
Cryptopleura violacea	4.7	3.7	0.9	1.2	1.5	1.2	2.0	1.8	**2.3**
Mazzaella affinis	1.0	2.0	2.4	2.4	<0.1	0.2	0.7	1.8	**1.0**
Mazzaella splendens	0.2	0.7	2.2	1.8	0.5	0.9	0.6	1.3	**0.9**
Mazzaella oregona	0.4	0.6	1.0	1.0	1.3	1.2	0.5	0.7	**0.8**
Smithora naiadum	0.7	2.0	1.0	3.1	1.3	2.6	-	-	**0.7**
Endocladia muricata	0.6	1.4	1.0	1.8	0.6	1.0	0.1	0.3	**0.6**
Acrosiphonia spp.	-	-	1.6	2.1	0.5	0.8	-	-	**0.5**
Callithamnion pikeanum	<0.1	<0.1	1.1	1.1	0.5	0.9	0.2	0.5	**0.5**
Corallina vancouveriensis	0.9	1.4	<0.1	<0.1	0.2	0.5	0.6	1.3	**0.4**
Chondracanthus corymbiferus	0.1	0.3	0.4	0.9	0.6	1.2	0.1	0.3	**0.3**
Gelidium coulteri	<0.1	0.2	<0.1	<0.1	0.4	0.9	0.3	1.1	**0.2**
juv. articulated coralline algae	0.2	0.7	<0.1	<0.1	<0.1	0.2	0.3	0.8	**0.2**
Gelidium pusillum	0.3	0.7	0.1	0.4	<0.1	<0.1	0.2	0.7	**0.2**
Fucus gardneri	<0.1	0.2	-	-	0.3	1.1	<0.1	<0.1	**0.1**
filamentous red algae complex	-	-	0.2	0.5	<0.1	<0.1	<0.1	0.2	**<0.1**
Halymenia/Schizymenia spp.-complex	-	-	<0.1	<0.1	0.3	0.9	-	-	**<0.1**
Laminaria setchellii	-	-	-	-	0.3	0.9	<0.1	<0.1	**<0.1**
Porphyra spp.	<0.1	<0.1	0.1	0.4	0.1	0.4	-	-	**<0.1**
Microcladia coulteri	<0.1	<0.1	-	-	0.1	0.4	-	-	**<0.1**
Silvetia compressa	-	-	-	-	-	-	0.1	0.4	**<0.1**
Calliarthron/Bossiella spp.-complex	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	**<0.1**
Osmundea spp.	<0.1	<0.1	<0.1	0.2	-	-	<0.1	<0.1	**<0.1**
Cryptosiphonia woodii	<0.1	<0.1	-	-	<0.1	0.2	-	-	**<0.1**
Cladophora spp.	<0.1	<0.1	-	-	-	-	<0.1	<0.1	**<0.1**
Halosaccion americanum	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Mazzaella leptorhynchos	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Sarcodiotheca gaudichaudii	-	-	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
Corallina chilensis	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Microcladia borealis	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Callophyllis spp.	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Melobesia mediocris	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Chondracanthus harveyanus/spinosus	-	-	-	-	-	-	<0.1	<0.1	**<0.1**

(table continued)

Table C25 (continued). Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for South Control Station SC 1+0.3m (19+1).

Survey	168		169		170		171		
Survey Date	25-Jan-12		21-May-12		18-Jul-12		28-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts									
Tetraclita rubescens	91.8	86.7	22.8	16.2	5.0	7.1	40.0	28.9	**39.9**
Pagurus spp.	7.2	4.8	3.8	2.6	15.8	5.5	2.0	1.2	**7.2**
Chlorostoma brunnea	3.0	2.0	5.0	3.7	12.6	10.4	1.8	2.5	**5.6**
Lottia scutum	1.4	1.5	3.0	3.0	1.4	1.3	0.2	0.4	**1.5**
Lottia limatula	1.0	1.2	1.6	2.1	-	-	0.6	1.3	**0.8**
Anthopleura elegantissima	1.6	1.1	1.0	1.4	0.2	0.4	-	-	**0.7**
Lottia pelta	0.4	0.5	1.4	1.7	1.0	1.0	-	-	**0.7**
Lottia scabra	1.6	3.0	-	-	0.2	0.4	-	-	**0.5**
Fissurella volcano	0.6	0.9	0.2	0.4	0.8	1.1	0.2	0.4	**0.5**
Epiactis prolifera	0.8	1.3	0.2	0.4	0.2	0.4	0.4	0.9	**0.4**
Pugettia spp.	0.2	0.4	0.4	0.5	0.6	0.9	<0.1	<0.1	**0.3**
Chlorostoma funebralis	1.0	1.4	-	-	0.2	0.4	-	-	**0.3**
Leptasterias spp.	0.2	0.4	0.4	0.5	0.4	0.5	0.2	0.4	**0.3**
Tonicella lineata	0.4	0.9	-	-	0.2	0.4	0.4	0.9	**0.3**
Pachygrapsus crassipes	0.4	0.9	0.4	0.5	-	-	-	-	**0.2**
Serpulidae	0.2	0.4	0.2	0.4	0.2	0.4	0.2	0.4	**0.2**
Nemertea	0.4	0.5	<0.1	<0.1	<0.1	<0.1	0.2	0.4	**0.2**
Calliostoma ligatum	0.4	0.5	0.2	0.4	-	-	-	-	**0.2**
Ocinebrina spp.	0.2	0.4	0.2	0.4	0.2	0.4	-	-	**0.2**
Hemigrapsus nudus	0.4	0.5	-	-	-	-	-	-	**0.1**
Patiria miniata	0.2	0.4	-	-	-	-	0.2	0.4	**0.1**
Strongylocentrotus purpuratus	0.4	0.5	-	-	-	-	-	-	**0.1**
Lottiidae	<0.1	-	<0.1	<0.1	0.2	0.4	<0.1	<0.1	**<0.1**
Acanthinucella spp.	-	-	-	-	-	-	0.2	0.4	**<0.1**
Polychaeta	-	-	-	-	0.2	0.4	-	-	**<0.1**
Aptyxis luteopictus	0.2	0.4	-	-	-	-	-	-	**<0.1**
Cryptochiton stelleri	-	-	-	-	-	-	0.2	0.4	**<0.1**
Alia spp.	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Ischnochitonidae	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Lirobittium spp.	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Lacuna spp.	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Acmaea mitra	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Hermissenda crassicornis	-	-	-	-	<0.1	<0.1	<0.1	<0.1	**<0.1**
Onchidella borealis	<0.1	<0.1	-	-	<0.1	<0.1	-	-	**<0.1**
Pisaster/Henricia spp. (juv.)	<0.1	<0.1	-	-	<0.1	<0.1	-	-	**<0.1**
Amphissa spp.	-	-	<0.1	<0.1	<0.1	<0.1	-	-	**<0.1**
Homolo. luridum/Lirularia succincta	<0.1	<0.1	<0.1	<0.1	-	-	-	-	**<0.1**
Anthopleura artemisia	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Crepidula spp.	-	-	-	-	<0.1	<0.1	-	-	**<0.1**
Lottia instabilis	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Petrolisthes spp.	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Balanophyllia elegans	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Scyra acutifrons	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Platyhelminthes	-	-	<0.1	<0.1	-	-	-	-	**<0.1**

(table continued)

Table C25 (continued). Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for South Control Station SC 1+0.3m (19+1).

Survey	168		169		170		171		
Survey Date	25-Jan-12		21-May-12		18-Jul-12		28-Nov-12		Annual
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Invertebrate Cover									
Phragmatopoma californica	0.6	1.2	<0.1	<0.1	<0.1	<0.1	5.2	4.6	**1.5**
Pista spp.	1.3	4.0	<0.1	0.2	0.3	0.9	0.1	0.4	**0.4**
tunicates, compound/social	<0.1	<0.1	<0.1	<0.1	<0.1	-	0.3	0.9	**<0.1**
Chthamalus fissus	<0.1	<0.1	0.2	0.5	<0.1	<0.1	<0.1	<0.1	**<0.1**
Spirorbidae	<0.1	-	<0.1	<0.1	<0.1	-	<0.1	<0.1	**<0.1**
Porifera (encrusting)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
bryozoa (encrusting)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	**<0.1**
Salmacina tribranchiata	<0.1	<0.1	-	-	-	-	<0.1	<0.1	**<0.1**
Substrate Cover									
rock	5.6	4.4	4.0	3.0	4.0	2.4	9.4	6.3	**5.7**
cobble	3.1	4.2	3.7	4.4	2.7	2.2	5.7	5.9	**3.8**
sand (shell gravel)	2.2	4.1	5.7	12.8	2.4	3.6	1.1	1.5	**2.9**

Table C26. Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for South Control Station SC 1+0.9m (19+3).

Survey	168		169		170		171		
Survey Date	25-Jan-12		21-May-12		18-Jul-12		28-Nov-12		
Variable	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Silvetia compressa	22.1	10.4	27.6	13.5	24.0	14.0	23.0	13.0	**24.2**
Mastocarpus papillatus	12.6	5.9	17.4	8.8	25.3	15.0	20.3	10.5	**18.9**
non-coralline crust	23.8	14.3	15.1	6.8	12.3	6.1	21.8	10.6	**18.3**
Endocladia muricata	16.0	9.1	20.8	9.2	11.0	5.3	8.7	6.3	**14.1**
Mazzaella flaccida	5.3	5.6	10.3	7.6	13.6	10.8	5.0	6.3	**8.5**
coralline crust	7.9	5.4	5.1	4.2	3.8	3.0	8.5	5.1	**6.3**
Mastocarpus jardinii	4.8	6.7	1.7	1.4	1.5	1.9	4.1	4.7	**3.0**
Fucus gardneri	2.2	3.8	3.3	6.1	3.6	5.2	2.5	1.6	**2.9**
Gelidium pusillum	2.3	2.2	0.9	0.9	0.9	1.3	3.5	2.7	**1.9**
Gelidium coulteri	0.4	0.9	-	-	2.2	3.6	1.2	2.2	**1.0**
Corallina vancouveriensis	1.1	1.5	0.3	0.7	0.6	1.1	1.0	1.4	**0.7**
Porphyra spp.	<0.1	<0.1	0.9	2.1	1.0	2.0	0.4	0.9	**0.6**
Mazzaella oregona	0.4	0.6	1.4	1.9	0.1	0.4	0.1	0.3	**0.5**
Cryptopleura violacea	0.7	1.1	0.3	0.6	0.5	1.3	0.1	0.4	**0.4**
juv. articulated coralline algae	<0.1	<0.1	<0.1	<0.1	0.6	0.9	0.1	0.4	**0.2**
Chondracanthus canaliculatus	<0.1	0.2	<0.1	0.2	0.5	1.3	<0.1	0.2	**0.2**
Mazzaella affinis	<0.1	<0.1	-	-	-	-	0.4	0.9	**0.1**
Callithamnion pikeanum	-	-	0.3	0.9	<0.1	<0.1	-	-	**<0.1**
Cladophora spp.	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	**<0.1**
Ulva spp.	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Halosaccion americanum	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Phyliospadix spp.	<0.1	<0.1	-	-	<0.1	<0.1	-	-	**<0.1**
Analipus japonicus	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Calliarthron/Bossiella spp.-complex	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Prionitis spp.	<0.1	<0.1	-	-	-	-	-	-	**<0.1**
Invertebrate Counts									
Chlorostoma funebralis	88.0	63.9	45.4	43.2	24.6	15.8	33.6	21.1	**47.9**
Tetraclita rubescens	43.4	74.5	47.4	102.1	26.2	34.4	44.8	59.1	**40.5**
Pagurus spp.	7.6	3.8	15.4	12.3	9.4	5.9	50.0	39.1	**20.6**
Lottia scabra	8.0	16.8	-	-	7.0	8.9	12.2	25.6	**6.8**
Lottia scutum	4.6	1.3	8.4	6.6	10.4	5.8	3.2	2.4	**6.7**
Lottia pelta	3.4	3.6	3.8	2.0	2.2	1.8	0.8	1.3	**2.6**
Lottia limatula	1.8	1.5	2.4	2.3	2.4	2.2	1.6	0.9	**2.1**
Amphiporus spp.	-	-	5.4	10.4	-	-	-	-	**1.4**
Anthopleura elegantissima	2.0	2.1	-	-	1.0	1.4	1.2	2.7	**1.1**
Idotea spp.	-	-	2.4	1.8	-	-	-	-	**0.6**
Strongylocentrotus purpuratus	1.2	1.3	0.4	0.9	0.4	0.9	0.2	0.4	**0.6**
Hemigrapsus nudus	0.4	0.5	-	-	0.6	0.9	0.2	0.4	**0.3**
Pachygrapsus crassipes	0.2	0.4	-	-	-	-	1.0	1.2	**0.3**
Pisaster ochraceus	0.4	0.5	0.4	0.5	0.2	0.4	0.2	0.4	**0.3**
Nemertea	-	-	-	-	0.2	0.4	0.4	0.9	**0.2**
Leptasterias spp.	-	-	0.2	0.4	0.4	0.5	-	-	**0.2**
Acanthinucella spp.	-	-	-	-	-	-	0.4	0.9	**0.1**

(table continued)

Table C26 (continued). Intertidal algae, sessile invertebrates, and substrates (percent cover) and motile invertebrates (abundance per 1.0 m^2) survey means, standard deviations and 2012 annual means for South Control Station SC 1+0.9m (19+3).

Survey	168		169		170		171		
Survey Date	25-Jan-12		21-May-12		18-Jul-12		28-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts (continued)									
Anthopleura xanthogrammica	-	-	-	-	-	-	0.2	0.4	**<0.1**
Calliostoma ligatum	-	-	0.2	0.4	-	-	-	-	**<0.1**
Ocinebrina spp.	0.2	0.4	-	-	-	-	-	-	**<0.1**
Pugettia spp.	-	-	-	-	0.2	0.4	-	-	**<0.1**
Lottiidae	<0.1	-	<0.1	-	<0.1	-	<0.1	<0.1	**<0.1**
Littorina spp.	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Ischnochitonidae	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	<0.1	**<0.1**
Cyanoplax spp.	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Crepidula spp.	-	-	-	-	-	-	<0.1	<0.1	**<0.1**
Grapsidae	-	-	<0.1	<0.1	-	-	-	-	**<0.1**
Invertebrate Cover									
Chthamalus fissus	0.3	0.8	<0.1	0.2	0.9	1.9	0.5	1.0	**0.5**
Phragmatopoma californica	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.6	1.3	**0.2**
Spirorbidae	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	**<0.1**
Substrate Cover									
rock	17.4	15.1	13.8	8.2	10.2	7.0	17.6	8.0	**14.7**
cobble	7.4	8.6	14.4	12.2	12.7	12.7	10.3	10.6	**11.2**
sand (shell gravel)	0.6	1.0	3.5	3.9	3.3	5.8	1.9	1.8	**2.3**

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Appendix D

Intertidal Fishes

Table D1. Intertidal fish survey totals, 2012 annual means, and standard deviations, North Control Station NC 1V (N).

Survey / Survey Date / Taxon	128 11-Jan-12 Total	129 5-Jun-12 Total	130 2-Aug-12 Total	131 10-Dec-12 Total	Annual Mean	Std. Dev.
Xiphister mucosus	6	14	36	14	17.5	12.9
Pholidae/Stichaeidae	11	14	5	19	12.3	5.9
Xiphister atropurpureus	8	6	14	2	7.5	5.0
Gobiesox maeandricus	8	5	7	8	7.0	1.4
Cottidae	-	-	-	6	1.5	3.0
Gibbonsia spp.	2	-	-	2	1.0	1.2
Anoplarchus purpurescens	-	-	2	2	1.0	1.2
Apodichthys fucorum	-	1	3	-	1.0	1.4
Oligocottus snyderi	-	4	-	-	1.0	2.0
Cebidichthys violaceus	-	-	-	1	0.3	0.5

Table D2. Intertidal fish survey totals, 2012 annual means, and standard deviations, Field's Cove Station FC 1V (C).

Survey / Survey Date / Taxon	128 24-Jan-12 Total	129 10-May-12 Total	130 30-Jul-12 Total	131 17-Oct-12 Total	Annual Mean	Std. Dev.
Xiphister mucosus	107	36	19	21	45.8	41.5
Pholidae/Stichaeidae	8	4	3	1	4.0	2.9
Cottidae	9	-	-	4	3.3	4.3
Cebidichthys violaceus	2	2	4	2	2.5	1.0
Gobiesox maeandricus	3	5	-	-	2.0	2.5
Xiphister spp.	3	-	-	-	0.8	1.5
Apodichthys fucorum	-	1	-	-	0.3	0.5
Xiphister atropurpureus	-	1	-	-	0.3	0.5
Oligocottus snyderi	1	-	-	-	0.3	0.5

Table D3. Intertidal fish survey totals, 2012 annual means, and standard deviations, North Diablo Cove Station NDC 1V (L).

Survey	128	129	130	131		
Survey Date	23-Jan-12	7-Jun-12	30-Jul-12	16-Oct-12		
Taxon	Total	Total	Total	Total	Annual Mean	Std. Dev.
Xiphister atropurpureus	-	2	1	-	0.8	1.0
Pholidae/Stichaeidae	1	-	1	-	0.5	0.6
Cebidichthys violaceus	1	-	-	1	0.5	0.6
Anoplarchus purpurescens	1	-	-	-	0.3	0.5
Anoplarchus/Cebidichthys spp.	-	1	-	-	0.3	0.5

Table D4. Intertidal fish survey totals, 2012 annual means, and standard deviations, South Diablo Cove Station SDC 2V (H).

Survey	128	129	130	131		
Survey Date	7-Feb-12	4-Jun-12	31-Jul-12	12-Dec-12		
Taxon	Total	Total	Total	Total	Annual Mean	Std. Dev.
Xiphister mucosus	17	9	24	5	13.8	8.5
Cebidichthys violaceus	3	12	21	15	12.8	7.5
Xiphister atropurpureus	1	18	10	12	10.3	7.0
Pholidae/Stichaeidae	6	12	6	5	7.3	3.2
Scytalina cerdale	13	4	4	5	6.5	4.4
Gobiesox maeandricus	1	3	5	3	3.0	1.6
Anoplarchus purpurescens	1	-	2	4	1.8	1.7
Apodichthys fucorum	2	-	-	1	0.8	1.0
Cottidae	1	1	-	-	0.5	0.6
Anoplarchus/Cebidichthys spp.	-	-	-	1	0.3	0.5

Table D5. Intertidal fish survey totals, 2012 annual means, and standard deviations, South Control Station SC 1V (S).

Survey	128	129	130	131		
Survey Date	10-Jan-12	6-Jun-12	1-Aug-12	15-Nov-12		
Taxon	Total	Total	Total	Total	Annual Mean	Std. Dev.
Oligocottus snyderi	-	25	35	6	16.5	16.3
Pholidae/Stichaeidae	21	17	4	15	14.3	7.3
Anoplarchus purpurescens	5	18	5	13	10.3	6.4
Xiphister mucosus	5	12	13	4	8.5	4.7
Cottidae	8	3	3	11	6.3	4.0
Gobiesox maeandricus	5	8	1	1	3.8	3.4
Cebidichthys violaceus	-	8	3	2	3.3	3.4
Xiphister atropurpureus	2	5	-	1	2.0	2.2
Gibbonsia spp.	4	-	-	2	1.5	1.9
Apodichthys fucorum	-	3	-	-	0.8	1.5
Artedius spp.	-	-	-	1	0.3	0.5
Porichthys notatus	-	1	-	-	0.3	0.5
Anoplarchus/Cebidichthys spp.	-	1	-	-	0.3	0.5

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Appendix E

Subtidal Algae and Invertebrates (SAQ Method)

Table E1. Subtidal algae and invertebrates (SAQ Method) survey means (abundance per 7 m^2), standard deviations and annual means, Field's Cove Station FC 1 -3m (22-10).

Survey	156		157		158		159		
Survey Date	8-Mar-12		28-Jun-12		6-Sep-12		12-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae									
Laminaria setchellii	32.5	7.4	58.0	14.2	28.8	8.0	48.5	14.7	**41.9**
Pterygophora californica	27.3	14.2	28.5	12.0	25.8	13.5	18.8	12.2	**25.1**
Cystoseira osmundacea	11.8	10.1	12.8	5.7	7.8	6.7	9.5	8.6	**10.4**
Laminariales	3.8	4.5	0.3	0.5	0.8	1.5	-	-	**1.2**
Macrocystis pyrifera	1.0	0.8	0.5	0.6	0.8	1.0	1.0	1.2	**0.8**
Nereocystis luetkeana	-	-	1.0	1.2	1.0	1.2	0.8	0.5	**0.7**
Invertebrates									
Chlorostoma brunnea	213.0	26.3	26.3	9.0	127.5	72.3	90.8	68.5	**114.4**
Patiria miniata	11.3	2.9	7.5	1.3	6.8	4.0	6.8	2.1	**8.1**
Pagurus spp.	-	-	0.3	0.5	0.3	0.5	12.0	8.3	**3.1**
Acmaea mitra	2.3	2.9	3.0	2.5	3.0	2.5	0.8	1.5	**2.3**
Tonicella lineata	3.8	1.5	2.3	2.9	3.0	-	-	-	**2.3**
Cryptochiton stelleri	1.0	-	2.0	1.4	1.5	1.7	2.5	1.0	**1.8**
Calliostoma ligatum	2.3	2.9	0.8	1.5	2.3	2.9	1.5	3.0	**1.7**
Pugettia spp.	1.8	0.5	1.3	0.5	0.5	0.6	-	-	**0.9**
Chlorostoma montereyi	1.5	1.7	-	-	0.8	1.5	-	-	**0.6**
Leptasterias spp.	0.3	0.5	0.3	0.5	0.3	0.5	1.3	1.0	**0.5**
Pomaulax gibberosa	1.0	0.8	-	-	0.3	0.5	0.5	0.6	**0.4**
Pycnopodia helianthoides	0.8	0.5	0.3	0.5	0.3	0.5	0.5	0.6	**0.4**
Mitra idae	-	-	0.5	1.0	0.8	0.5	-	-	**0.3**
Anthopleura elegantissima	0.3	0.5	0.3	0.5	0.3	0.5	0.3	0.5	**0.3**
Tethya californiana	0.5	1.0	-	-	0.3	0.5	0.3	0.5	**0.3**
Placiphorella velata	0.5	1.0	-	-	0.5	0.6	-	-	**0.3**
Pisaster giganteus	0.3	0.5	0.5	0.6	0.3	0.5	-	-	**0.3**
Scyra acutifrons	0.5	0.6	-	-	-	-	0.5	1.0	**0.3**
Urticina spp.	-	-	-	-	0.3	0.5	0.5	0.6	**0.2**
Cryptolithodes sitchensis	0.5	0.6	0.3	0.5	-	-	-	-	**0.2**
Anthopleura artemisia	-	-	0.3	0.5	-	-	0.3	0.5	**0.1**
Diopatra ornata	0.3	0.5	-	-	-	-	0.3	0.5	**0.1**
Romaleon antennarius	-	-	0.5	0.6	-	-	-	-	**0.1**
Henricia leviuscula	-	-	-	-	0.5	0.6	-	-	**0.1**
Epiactis prolifera	-	-	0.3	0.5	-	-	-	-	**<0.1**
Lottia pelta	-	-	-	-	0.3	0.5	-	-	**<0.1**
Diodora spp.	0.3	0.5	-	-	-	-	-	-	**<0.1**
Serpulorbis squamigerus	0.3	0.5	-	-	-	-	-	-	**<0.1**
Lottia instabilis	-	-	-	-	-	-	0.3	0.5	**<0.1**
Hermissenda crassicornis	-	-	0.3	0.5	-	-	-	-	**<0.1**
Pisaster ochraceus	-	-	-	-	-	-	0.3	0.5	**<0.1**
Strongylocentrotus purpuratus	-	-	0.3	0.5	-	-	-	-	**<0.1**
Diaulula sandiegensis	0.3	0.5	-	-	-	-	-	-	**<0.1**
Doriopsilla albopunctata	-	-	0.3	0.5	-	-	-	-	**<0.1**
Pseudomelatoma torosa	-	-	-	-	0.3	0.5	-	-	**<0.1**
Ophiothrix spiculata	-	-	-	-	-	-	0.3	0.5	**<0.1**

(table continued)

Table E1 (continued). Subtidal algae and invertebrates (SAQ Method) survey means (abundance per 7 m^2), standard deviations and annual means, Field's Cove Station FC 1 -3m (22-10).

Survey	156		157		158		159		
Survey Date	8-Mar-12		28-Jun-12		6-Sep-12		12-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrates									
Mimulus foliatus	-	-	-	-	0.3	0.5	-	-	**<0.1**
Cadlina spp.	0.3	0.5	-	-	-	-	-	-	**<0.1**

Table E2. Subtidal algae and invertebrates (SAQ Method) survey means (abundance per 7 m^2), standard deviations and annual means, North Diablo Cove Station NDC 2 -3m (8-10).

Survey	156		157		158		159		
Survey Date	12-Jan-12		26-Apr-12		10-Aug-12		14-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
invertebrates									
Strongylocentrotus purpuratus	971.3	41.1	943.0	112.0	999.0	-	999.0	-	**978.1**
Ophiothrix spiculata	41.3	14.5	4.5	1.3	3.5	5.7	54.5	9.9	**25.9**
Anthopleura elegantissima	6.5	1.0	4.0	0.8	3.3	1.7	4.5	2.5	**4.6**
Strongylocentrotus franciscanus	2.3	2.2	2.5	1.0	2.3	2.2	4.0	1.4	**2.8**
Acmaea mitra	1.5	3.0	3.8	1.5	2.3	1.5	2.3	2.9	**2.4**
Serpulidae	3.3	3.9	-	-	2.3	0.5	-	-	**1.4**
Epiactis prolifera	0.8	1.0	1.0	0.8	1.0	0.8	0.5	0.6	**0.8**
Pelecypoda boring	1.5	1.7	0.3	0.5	-	-	-	-	**0.4**
Placiphorella velata	1.0	1.4	0.5	1.0	-	-	-	-	**0.4**
Diopatra ornata	0.5	0.6	0.5	1.0	-	-	-	-	**0.3**
Anthozoa	-	-	0.3	0.5	0.5	1.0	-	-	**0.2**
Patiria miniata	0.3	0.5	0.3	0.5	-	-	0.3	0.5	**0.2**
Pisaster giganteus	0.5	0.6	0.3	0.5	-	-	-	-	**0.2**
Parastichopus spp.	-	-	0.3	0.5	0.3	0.5	-	-	**0.1**
Eudistylia polymorpha	-	-	0.3	0.5	0.3	0.5	-	-	**0.1**
Anthopleura artemisia	-	-	0.3	0.5	-	-	-	-	**<0.1**
Octopus spp.	0.3	0.5	-	-	-	-	-	-	**<0.1**
Leucilla nuttingi	0.3	0.5	-	-	-	-	-	-	**<0.1**
Phidiana hiltoni	-	-	0.3	0.5	-	-	-	-	**<0.1**
Majidae	0.3	0.5	-	-	-	-	-	-	**<0.1**
Pugettia spp.	-	-	-	-	-	-	0.3	0.5	**<0.1**
Doris spp.	0.3	0.5	-	-	-	-	-	-	**<0.1**

Table E3. Subtidal algae and invertebrates (SAQ Method) survey means (abundance per 7 m^2), standard deviations and annual means, North Diablo Cove Station NDC 3 -3m (9-10).

Survey	156		157		158		159		
Survey Date	22-Feb-12		17-May-12		13-Aug-12		15-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrates									
Strongylocentrotus purpuratus	960.8	51.5	950.5	67.7	948.0	102.0	999.0	-	**964.6**
Ophiothrix spiculata	37.8	30.4	14.8	7.6	19.8	16.8	96.0	24.9	**42.1**
Strongylocentrotus franciscanus	3.3	2.1	5.0	2.2	2.8	2.2	6.8	4.3	**4.4**
Anthopleura elegantissima	5.3	3.9	3.3	1.7	3.5	3.8	4.0	1.8	**4.0**
Serpulidae	2.8	1.5	1.3	1.5	0.8	1.5	0.8	1.0	**1.4**
Acmaea mitra	1.5	1.7	0.8	1.5	0.8	1.5	2.3	2.9	**1.3**
Eudistylia polymorpha	-	-	0.3	0.5	1.5	1.0	-	-	**0.4**
Epiactis prolifera	1.0	1.4	-	-	0.5	0.6	-	-	**0.4**
Pelecypoda boring	0.8	1.0	-	-	0.3	0.5	-	-	**0.3**
Megathura crenulata	0.3	0.5	0.3	0.5	-	-	0.3	0.5	**0.2**
Anthopleura artemisia	0.5	0.6	-	-	-	-	-	-	**0.1**
Patiria miniata	0.3	0.5	-	-	0.3	0.5	-	-	**0.1**
Pteropurpura festiva	-	-	0.5	0.6	-	-	-	-	**0.1**
Diopatra ornata	0.3	0.5	-	-	-	-	-	-	**<0.1**
Parastichopus spp.	-	-	-	-	0.3	0.5	-	-	**<0.1**
Doriopsilla albopunctata	-	-	-	-	0.3	0.5	-	-	**<0.1**
Placiphorella velata	-	-	-	-	0.3	0.5	-	-	**<0.1**
Ophioplocus esmarki	0.3	0.5	-	-	-	-	-	-	**<0.1**

Table E4. Subtidal algae and invertebrates (SAQ Method) survey means (abundance per 7 m^2), standard deviations and annual means, North Diablo Cove Station NDC 4 -4m (9-15).

Survey	156		157		158		159		
Survey Date	21-Feb-12		4-May-12		14-Aug-12		13-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae									
Cystoseira osmundacea	15.5	13.4	12.0	5.7	5.3	4.0	7.5	4.7	**10.1**
Macrocystis pyrifera	5.5	10.3	3.8	2.2	3.5	2.4	1.5	1.3	**3.6**
Pterygophora californica	1.3	1.5	0.8	0.5	1.5	1.0	1.8	2.2	**1.3**
Laminaria setchellii	-	-	0.5	1.0	0.8	0.5	0.3	0.5	**0.4**
Laminariales	0.3	0.5	-	-	1.3	1.9	-	-	**0.4**
Invertebrates									
Strongylocentrotus purpuratus	108.8	55.3	161.0	170.0	86.8	69.6	40.8	36.5	**99.3**
Anthopleura elegantissima	12.8	5.7	10.0	4.6	7.3	1.0	10.8	3.4	**10.2**
Serpulidae	3.0	2.5	10.5	7.9	13.8	17.7	-	-	**6.8**
Chlorostoma brunnea	-	-	0.8	1.5	1.5	3.0	17.3	7.9	**4.9**
Acmaea mitra	2.3	4.5	4.5	5.2	2.3	1.5	3.8	1.5	**3.2**
Diopatra ornata	2.5	3.3	0.8	1.0	0.8	1.5	0.8	1.0	**1.2**
Ophiothrix spiculata	1.5	1.3	-	-	-	-	1.8	2.4	**0.8**
Tonicella lineata	-	-	1.5	1.7	-	-	1.5	1.7	**0.8**
Tethya californiana	0.5	1.0	0.5	0.6	0.8	1.0	1.3	1.5	**0.8**
Eudistylia polymorpha	-	-	1.0	1.4	1.0	1.4	0.5	0.6	**0.6**
Phidiana hiltoni	1.5	1.7	0.3	0.5	0.5	1.0	-	-	**0.6**
Epiactis prolifera	1.3	1.9	-	-	-	-	0.8	1.0	**0.5**
Patiria miniata	0.8	1.0	0.3	0.5	0.8	1.5	0.3	0.5	**0.5**
Parastichopus spp.	0.3	0.5	1.5	1.3	0.3	0.5	-	-	**0.5**
Urticina spp.	0.3	0.5	0.3	0.5	0.8	1.0	0.3	0.5	**0.4**
Pycnopodia helianthoides	1.0	0.8	-	-	0.5	0.6	-	-	**0.4**
Strongylocentrotus franciscanus	0.5	0.6	1.0	2.0	-	-	-	-	**0.4**
Doriopsilla albopunctata	-	-	0.8	1.0	0.8	1.5	-	-	**0.4**
Doris spp.	1.0	1.4	-	-	0.3	0.5	0.3	0.5	**0.4**
Scyra acutifrons	0.3	0.5	-	-	-	-	1.0	0.8	**0.3**
Anthopleura artemisia	0.5	0.6	-	-	0.3	0.5	0.3	0.5	**0.3**
Serpulorbis squamigerus	-	-	1.0	0.8	-	-	-	-	**0.3**
Pugettia spp.	0.3	0.5	0.3	0.5	0.5	0.6	-	-	**0.3**
Megathura crenulata	-	-	0.3	0.5	0.3	0.5	0.5	0.6	**0.3**
Fissurella volcano	0.3	0.5	-	-	-	-	0.5	0.6	**0.2**
Placiphorella velata	-	-	0.5	1.0	0.3	0.5	-	-	**0.2**
Pisaster giganteus	0.3	0.5	0.5	1.0	-	-	-	-	**0.2**
Dendronotus albus	-	-	-	-	-	-	0.8	1.0	**0.2**
Anthozoa	-	-	-	-	-	-	0.5	0.6	**0.1**
Hermissenda crassicornis	0.5	0.6	-	-	-	-	-	-	**0.1**
Ophioplocus esmarki	-	-	-	-	0.5	1.0	-	-	**0.1**
Cucumaria spp.	-	-	0.3	0.5	0.3	0.5	-	-	**0.1**
Octopus spp.	-	-	-	-	0.3	0.5	-	-	**<0.1**
Halcampa decemtentaculata	-	-	-	-	-	-	0.3	0.5	**<0.1**
Mitra idae	-	-	-	-	-	-	0.3	0.5	**<0.1**
Chlorostoma spp.	-	-	-	-	-	-	0.3	0.5	**<0.1**
Mexichromis porterae	0.3	0.5	-	-	-	-	-	-	**<0.1**
Pteropurpura festiva	-	-	-	-	0.3	0.5	-	-	**<0.1**
Aplysia spp.	-	-	0.3	0.5	-	-	-	-	**<0.1**

Table E5. Subtidal algae and invertebrates (SAQ Method) survey means (abundance per 7 m^2), standard deviations and annual means, South Diablo Cove Station SDC 2 -3m (12-10).

Survey	156		157		158		159		
Survey Date	13-Jan-12		3-May-12		17-Aug-12		26-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae									
Cystoseira osmundacea	5.8	3.6	5.8	3.9	4.5	2.4	2.5	0.6	**4.6**
Pterygophora californica	3.5	3.5	1.3	1.3	2.0	2.0	1.8	1.5	**2.1**
Macrocystis pyrifera	3.5	1.3	1.5	1.7	2.0	1.4	1.0	1.4	**2.0**
Laminaria setchellii	-	-	-	-	0.5	1.0	0.3	0.5	**0.2**
Laminariales	0.3	0.5	-	-	-	-	-	-	**<0.1**
Invertebrates									
Diopatra ornata	41.5	55.1	12.8	16.3	84.3	160.6	37.0	55.4	**43.9**
Anthopleura elegantissima	2.3	1.3	2.5	1.7	1.0	0.8	3.8	1.3	**2.4**
Patiria miniata	1.8	1.5	2.0	1.6	2.8	1.3	1.8	1.7	**2.1**
Pagurus spp.	3.3	2.2	-	-	-	-	1.0	0.8	**1.1**
Acmaea mitra	-	-	-	-	1.5	3.0	1.5	1.7	**0.8**
Chlorostoma brunnea	-	-	-	-	-	-	2.3	1.5	**0.6**
Anthopleura artemisia	1.0	0.8	0.3	0.5	0.3	0.5	0.5	0.6	**0.5**
Pisaster giganteus	0.5	0.6	0.8	0.5	0.5	0.6	0.3	0.5	**0.5**
Ophiothrix spiculata	1.3	2.5	-	-	-	-	0.5	0.6	**0.4**
Pisaster brevispinus	0.8	1.0	-	-	0.5	0.6	0.3	0.5	**0.4**
Strongylocentrotus purpuratus	0.8	1.5	-	-	-	-	0.5	1.0	**0.3**
Tonicella lineata	-	-	-	-	-	-	0.8	1.5	**0.2**
Mitra idae	-	-	-	-	0.5	1.0	0.3	0.5	**0.2**
Pugettia spp.	0.5	0.6	-	-	-	-	-	-	**0.1**
Scyra acutifrons	0.3	0.5	-	-	-	-	0.3	0.5	**0.1**
Pteropurpura festiva	0.3	0.5	-	-	-	-	0.3	0.5	**0.1**
Fissurella volcano	0.3	0.5	-	-	-	-	-	-	**<0.1**
Mopalia spp.	-	-	-	-	-	-	0.3	0.5	**<0.1**
Romaleon antennarius	0.3	0.5	-	-	-	-	-	-	**<0.1**
Pisaster ochraceus	0.3	0.5	-	-	-	-	-	-	**<0.1**
Doriopsilla albopunctata	-	-	-	-	0.3	0.5	-	-	**<0.1**
Phidiana hiltoni	-	-	-	-	-	-	0.3	0.5	**<0.1**
Pelecypoda boring	0.3	0.5	-	-	-	-	-	-	**<0.1**
Podochela hemphilli	0.3	0.5	-	-	-	-	-	-	**<0.1**

Table E6. Subtidal algae and invertebrates (SAQ Method) survey means (abundance per 7 m^2), standard deviations and annual means, South Diablo Cove Station SDC 3 -4m (10-15).

Survey	156		157		158		159		
Survey Date	30-Jan-12		22-May-12		27-Aug-12		27-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae									
Pterygophora californica	3.5	3.1	5.3	7.2	3.8	4.9	5.8	6.2	**4.6**
Cystoseira osmundacea	2.8	1.0	2.3	1.9	2.8	1.5	2.5	0.6	**2.6**
Macrocystis pyrifera	1.0	1.4	0.6	0.5	1.8	1.0	3.8	1.3	**1.8**
Laminaria setchellii	1.3	1.0	1.3	1.5	0.8	1.0	-	-	**0.8**
Laminariales	0.3	0.5	-	-	-	-	-	-	**<0.1**
Invertebrates									
Anthopleura elegantissima	11.5	2.4	25.0	11.3	23.5	5.9	17.3	7.5	**19.3**
Diopatra ornata	22.5	9.7	2.8	2.2	6.5	3.0	10.3	5.3	**10.5**
Patiria miniata	4.5	1.9	12.3	2.2	9.5	4.0	9.5	3.4	**8.9**
Mitra idae	1.5	1.3	6.3	6.2	1.3	0.5	1.5	1.7	**2.6**
Tethya californiana	2.3	1.7	0.8	1.5	2.3	1.7	1.8	1.0	**1.8**
Strongylocentrotus purpuratus	4.0	3.6	2.0	3.4	0.3	0.5	0.5	0.6	**1.7**
Anthopleura artemisia	1.0	1.2	2.8	3.0	2.5	0.6	0.3	0.5	**1.6**
Acmaea mitra	1.5	1.7	3.0	4.2	-	-	-	-	**1.1**
Ophioplocus esmarki	1.8	1.3	1.3	2.5	-	-	0.5	1.0	**0.9**
Pisaster giganteus	1.0	-	0.3	0.5	1.0	1.2	0.5	0.6	**0.7**
Serpulidae	2.5	1.9	-	-	-	-	-	-	**0.6**
Cryptochiton stelleri	-	-	0.8	0.5	0.5	0.6	0.8	1.0	**0.5**
Pisaster brevispinus	0.5	1.0	0.5	0.6	0.5	0.6	-	-	**0.4**
Scyra acutifrons	0.3	0.5	-	-	0.5	0.6	0.8	1.5	**0.4**
Pagurus spp.	1.0	1.2	-	-	-	-	-	-	**0.3**
Pelecypoda boring	-	-	0.5	0.6	-	-	0.3	0.5	**0.2**
Doris spp.	0.3	0.5	0.5	0.6	-	-	-	-	**0.2**
Epiactis prolifera	-	-	0.5	1.0	-	-	-	-	**0.1**
Serpulorbis squamigerus	-	-	0.5	1.0	-	-	-	-	**0.1**
Pycnopodia helianthoides	-	-	0.3	0.5	0.3	0.5	-	-	**0.1**
Parastichopus spp.	0.3	0.5	0.3	0.5	-	-	-	-	**0.1**
Placiphorella velata	-	-	0.5	0.6	-	-	-	-	**0.1**
Pugettia spp.	0.3	0.5	0.3	0.5	-	-	-	-	**0.1**
Megathura crenulata	0.3	0.5	0.3	0.5	-	-	-	-	**0.1**
Anthozoa	-	-	-	-	0.3	0.5	-	-	**<0.1**
Diodora spp.	0.3	0.5	-	-	-	-	-	-	**<0.1**
Pododesmus cepio	-	-	-	-	-	-	0.3	0.5	**<0.1**
Hermissenda crassicornis	-	-	-	-	0.3	0.5	-	-	**<0.1**
Loxorhynchus spp.	0.3	0.5	-	-	-	-	-	-	**<0.1**
Doriopsilla albopunctata	0.3	0.5	-	-	-	-	-	-	**<0.1**
Phidiana hiltoni	-	-	-	-	0.3	0.5	-	-	**<0.1**
Cucumaria spp.	-	-	0.3	0.5	-	-	-	-	**<0.1**
Crassadoma gigantea	0.3	0.5	-	-	-	-	-	-	**<0.1**
Haliotis spp.	0.3	0.5	-	-	-	-	-	-	**<0.1**
Norrisia norrisi	-	-	-	-	-	-	0.3	0.5	**<0.1**

Table E7. Subtidal algae and invertebrates (SAQ Method) survey means (abundance per 7 m^2), standard deviations and annual means, South Control Station SC 1 -3m (19-10).

Survey	156		157		158		159		
Survey Date	5-Mar-12		21-Jun-12		11-Sep-12		11-Dec-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae									
Pterygophora californica	121.3	16.92	85.5	25.09	76	35.28	76.8	25.12	**89.9**
Laminaria setchellii	43.3	31.34	56.5	20.95	44	18.92	36.8	7.93	**45.1**
Cystoseira osmundacea	17.3	1.5	30.5	12.71	37	5.72	22.3	14.01	**26.8**
Laminariales	18.8	14.45	2.5	1	5.8	8.5	-	-	**6.8**
Egregia menziesii	-	-	-	-	0.3	0.5	-	-	**<0.1**
Invertebrates									
Chlorostoma brunnea	172.5	71.27	158.3	59.57	81	26.5	74.3	29.23	**121.5**
Patiria miniata	17.5	4.8	21.8	5.56	18	6.68	21.3	5.38	**19.6**
Pagurus spp.	1.5	1.91	0.3	0.5	11.3	6.29	3.8	3.1	**4.2**
Tonicella lineata	3	2.45	5.3	4.5	1.5	3	4.5	3.87	**3.6**
Anthopleura elegantissima	2.5	2.38	3.8	1.26	3.5	1.73	2.8	2.22	**3.1**
Calliostoma ligatum	4.5	1.73	1.5	1.73	0.8	1.5	1.5	3	**2.1**
Diopatra ornata	0.5	1	0.5	0.58	3.8	1.26	0.5	1	**1.3**
Cryptochiton stelleri	0.3	0.5	2.3	1.89	1.3	0.96	1.3	1.5	**1.3**
Chlorostoma montereyi	2.3	1.5	0.8	1.5	-	-	1.5	1.73	**1.1**
Lottia instabilis	4.3	1.71	-	-	-	-	-	-	**1.1**
Acmaea mitra	1.5	1.73	-	-	1.5	1.73	0.8	1.5	**0.9**
Lottia insessa	0.3	0.5	-	-	3.3	0.96	-	-	**0.9**
Leptasterias spp.	0.8	0.5	0.8	0.96	-	-	0.8	0.96	**0.6**
Pugettia spp.	0.5	0.58	1.3	1.5	-	-	0.3	0.5	**0.5**
Pista spp.	-	-	-	-	1.5	3	-	-	**0.4**
Doriopsilla albopunctata	0.5	0.58	0.8	1.5	-	-	-	-	**0.3**
Urticina spp.	0.5	0.58	0.3	0.5	0.3	0.5	-	-	**0.3**
Mopalia spp.	0.5	0.58	0.5	0.58	-	-	-	-	**0.3**
Pycnopodia helianthoides	0.3	0.5	0.5	0.58	-	-	0.3	0.5	**0.3**
Doris spp.	0.3	0.5	-	-	-	-	0.8	0.96	**0.3**
Epiactis prolifera	0.3	0.5	-	-	-	-	0.5	0.58	**0.2**
Pomaulax gibberosa	0.3	0.5	-	-	-	-	0.5	0.58	**0.2**
Mimulus foliatus	-	-	0.8	0.96	-	-	-	-	**0.2**
Strongylocentrotus purpuratus	-	-	0.3	0.5	0.3	0.5	-	-	**0.1**
Mitra idae	-	-	0.3	0.5	-	-	0.3	0.5	**0.1**
Pisaster giganteus	-	-	-	-	0.3	0.5	0.3	0.5	**0.1**
Cryptolithodes sitchensis	0.3	0.5	-	-	-	-	0.3	0.5	**0.1**
Scyra acutifrons	0.3	0.5	0.3	0.5	-	-	-	-	**0.1**
Okenia rosacea	-	-	0.3	0.5	0.3	0.5	-	-	**0.1**
Cirratulidae/Terebellidae	-	-	-	-	-	-	0.5	1	**0.1**
Anthopleura artemisia	-	-	-	-	-	-	0.3	0.5	**<0.1**
Phidiana hiltoni	-	-	0.3	0.5	-	-	-	-	**<0.1**
Serpulidae	-	-	-	-	-	-	0.3	0.5	**<0.1**
Haliotis spp.	-	-	-	-	0.3	0.5	-	-	**<0.1**

Table E8. Subtidal algae and invertebrates (SAQ Method) survey means (abundance per 7 m^2), standard deviations and annual means, South Control Station SC 2 -6m (20-20).

Survey	156		157		158		159		
Survey Date	9-Mar-12		19-Jun-12		7-Sep-12		10-Dec-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae									
Pterygophora californica	58.0	23.7	29.3	10.3	65.3	14.2	53.8	7.0	**51.6**
Laminaria setchellii	29.8	6.1	27.8	4.1	17.0	11.7	3.0	2.8	**20.6**
Cystoseira osmundacea	11.5	6.8	6.0	1.8	8.0	2.6	8.0	2.9	**8.4**
Laminariales	-	-	1.3	1.3	7.0	10.2	-	-	**2.1**
Nereocystis luetkeana	-	-	1.3	1.3	-	-	-	-	**0.3**
Invertebrates									
Patiria miniata	27.3	11.0	19.8	11.6	27.0	17.3	21.0	6.2	**23.8**
Chlorostoma brunnea	12.0	12.3	49.5	19.7	2.3	4.5	30.0	19.4	**23.4**
Anthopleura elegantissima	4.0	3.2	3.8	1.5	5.8	4.0	6.0	4.3	**4.9**
Chlorostoma montereyi	3.0	2.5	-	-	-	-	15.0	7.8	**4.5**
Calliostoma ligatum	3.8	1.5	3.8	2.9	3.8	3.8	5.3	5.1	**4.1**
Acmaea mitra	3.8	2.9	1.5	1.7	3.8	4.5	6.8	3.8	**3.9**
Pagurus spp.	4.0	4.7	-	-	0.3	0.5	4.0	2.7	**2.1**
Tonicella lineata	1.5	1.7	3.8	3.8	-	-	1.5	3.0	**1.7**
Mitra idae	1.3	0.5	2.5	1.3	1.0	1.4	0.8	1.0	**1.4**
Leptasterias spp.	-	-	0.3	0.5	1.8	1.7	3.0	4.1	**1.3**
Pisaster giganteus	1.5	1.3	0.3	0.5	1.5	1.3	1.8	2.9	**1.3**
Serpulorbis squamigerus	0.3	0.5	1.0	1.4	0.8	1.5	2.3	1.0	**1.1**
Cryptochiton stelleri	2.8	2.2	0.8	1.0	0.5	1.0	0.3	0.5	**1.1**
Anthopleura artemisia	-	-	2.0	2.3	2.0	2.8	-	-	**1.0**
Serpulidae	-	-	0.8	1.5	-	-	2.5	2.4	**0.8**
Urticina spp.	0.3	0.5	0.5	0.6	1.3	1.3	1.0	0.8	**0.8**
Tethya californiana	1.0	2.0	0.5	0.6	0.5	0.6	1.0	1.4	**0.8**
Diopatra ornata	-	-	1.0	1.4	1.5	1.7	0.3	0.5	**0.7**
Pycnopodia helianthoides	0.8	0.5	0.5	0.6	0.5	1.0	0.8	0.5	**0.6**
Doriopsilla albopunctata	-	-	1.3	1.9	1.3	1.9	-	-	**0.6**
Doris spp.	1.3	1.3	-	-	-	-	1.3	1.3	**0.6**
Pomaulax gibberosa	0.8	1.0	-	-	0.3	0.5	0.8	1.5	**0.4**
Haliotis spp.	-	-	1.0	2.0	0.3	0.5	0.5	1.0	**0.4**
Epiactis prolifera	-	-	-	-	-	-	1.5	1.3	**0.4**
Scyra acutifrons	-	-	0.3	0.5	1.3	1.3	-	-	**0.4**
Cucumaria spp.	-	-	0.8	1.0	0.5	1.0	-	-	**0.3**
Henricia leviuscula	0.3	0.5	0.5	0.6	-	-	0.3	0.5	**0.3**
Pisaster ochraceus	1.0	1.4	-	-	-	-	-	-	**0.3**
Phidiana hiltoni	0.3	0.5	-	-	0.8	1.0	-	-	**0.3**
Pugettia spp.	0.3	0.5	-	-	-	-	0.8	1.5	**0.3**
Placiphorella velata	-	-	0.3	0.5	-	-	0.5	0.6	**0.2**
Eudistylia polymorpha	-	-	0.3	0.5	0.3	0.5	0.3	0.5	**0.2**
Mimulus foliatus	-	-	-	-	-	-	0.8	0.5	**0.2**
Strongylocentrotus purpuratus	-	-	-	-	-	-	0.5	0.6	**0.1**
Orthasterias koehleri	0.3	0.5	0.3	0.5	-	-	-	-	**0.1**
Fissurella volcano	0.3	0.5	-	-	-	-	-	-	**<0.1**
Promartynia pulligo	-	-	0.3	0.5	-	-	-	-	**<0.1**

(table continued)

Table E8 (continued). Subtidal algae and invertebrates (SAQ Method) survey means (abundance per 7 m^2), standard deviations and annual means, South Control Station SC 2 -6m (20-20).

Survey	156		157		158		159		
Survey Date	9-Mar-12		19-Jun-12		7-Sep-12		10-Dec-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrates									
Sabellidae	-	-	-	-	0.3	0.5	-	-	**<0.1**
Strongylocentrotus franciscanus	-	-	-	-	0.3	0.5	-	-	**<0.1**
tunicate, solitary	-	-	-	-	0.3	0.5	-	-	**<0.1**
Diaulula sandiegensis	-	-	-	-	-	-	0.3	0.5	**<0.1**
Pseudomelatoma torosa	-	-	-	-	-	-	0.3	0.5	**<0.1**
Ophiothrix spiculata	-	-	-	-	-	-	0.3	0.5	**<0.1**
Pisaster brevispinus	-	-	-	-	0.3	0.5	-	-	**<0.1**
Cryptolithodes sitchensis	-	-	-	-	-	-	0.3	0.5	**<0.1**

Diablo Canyon Power Plant

Appendix F

Subtidal Algae (SLC Method)

Table F1. Subtidal algae (SLC Method) survey means (percent cover), standard deviations and annual means, Field's Cove Station FC 1 -3m (22-10).

Survey / Survey Date / Taxon	156 8-Mar-12 Mean	Std. Dev.	157 28-Jun-12 Mean	Std. Dev.	158 6-Sep-12 Mean	Std. Dev.	159 12-Nov-12 Mean	Std. Dev.	Annual Mean
Algae									
Calliarthron/Bossiella spp.-complex	47.5	11.2	57.5	8.1	48.5	5.7	51.0	8.3	**51.1**
coralline crust	46.5	3.0	19.5	7.2	42.0	3.3	43.5	6.2	**37.9**
Chondracanthus corymbiferus	6.0	1.6	7.0	2.0	9.5	7.4	11.0	3.8	**8.4**
Cryptopleura ruprechtiana	6.5	3.0	6.0	5.2	8.0	7.1	10.5	10.0	**7.8**
Rhodymenia spp.	7.0	2.6	3.5	4.4	8.0	1.6	5.5	4.4	**6.0**
Macrocystis pyrifera	2.5	3.8	6.0	8.5	6.0	7.7	5.0	6.6	**4.9**
Cystoseira osmundacea	3.5	3.4	4.0	3.3	5.5	4.4	3.5	4.1	**4.1**
non-coralline crust	5.0	2.6	2.0	1.6	2.0	1.6	0.5	1.0	**2.4**
Gelidium robustum	2.0	4.0	2.0	2.3	3.0	6.0	2.5	2.5	**2.4**
Prionitis spp.	3.0	2.6	2.5	1.0	0.5	1.0	2.5	3.0	**2.1**
Laminaria setchellii	2.0	1.6	<0.1	-	4.0	2.8	1.5	1.9	**1.9**
Neoptilota spp.	1.0	1.2	1.0	1.2	3.0	1.2	0.5	1.0	**1.4**
Pterygophora californica	2.0	2.3	<0.1	-	<0.1	<0.01	2.0	2.3	**1.0**
Prionitis australis	<0.1	<0.01	-	-	2.0	2.3	1.5	3.0	**0.9**
Microcladia coulteri	1.5	1.9	<0.1	<0.01	1.0	1.2	0.5	1.0	**0.8**
Pterosiphonia dendroidea	0.5	1.0	-	-	-	-	-	-	**0.1**
Farlowia/Pikea spp.-complex	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	**<0.1**
Nereocystis luetkeana	-	-	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	**<0.1**
Ulva spp.	-	-	-	-	<0.1	<0.01	<0.1	<0.01	**<0.1**
Laminariales	-	-	-	-	<0.1	<0.01	-	-	**<0.1**
Ahnfeltiopsis linearis	-	-	-	-	<0.1	<0.01	<0.1	<0.01	**<0.1**
Callophyllis flabellulata	<0.1	<0.01	-	-	-	-	-	-	**<0.1**
Callophyllis spp.	-	-	-	-	-	-	<0.1	<0.01	**<0.1**
Cryptopleura violacea	<0.1	<0.01	-	-	-	-	-	-	**<0.1**
Osmundea spp.	<0.1	<0.01	-	-	-	-	-	-	**<0.1**
Callithamnion spp./*Pleonosporium* spp.	<0.1	<0.01	-	-	-	-	-	-	**<0.1**
Rhodophyta (juv. blades)	<0.1	<0.01	-	-	-	-	-	-	**<0.1**
Desmarestia ligulata	-	-	<0.1	<0.01	-	-	-	-	**<0.1**
Mazzaella splendens	-	-	<0.1	<0.01	-	-	-	-	**<0.1**
Invertebrates									
tunicates, compound/social	-	-	-	-	-	-	0.5	1.0	**0.1**
bryozoa (encrusting)	-	-	-	-	0.5	1.0	-	-	**0.1**
Substrates									
colonized rock	65.0	6.8	69.5	11.6	66.5	7.0	72.0	7.3	**68.3**
colonized cobble	11.0	3.8	6.0	4.3	11.5	4.4	8.0	7.1	**9.1**
cobble	6.0	3.3	6.0	8.2	3.0	1.2	2.0	1.6	**4.3**
sand (shell gravel)	-	-	-	-	1.0	2.0	-	-	**0.3**
rock	-	-	0.5	1.0	-	-	-	-	**0.1**

Table F2. Subtidal algae (SLC Method) survey means (percent cover), standard deviations and annual means, North Diablo Cove Station NDC 2 -3m (8-10).

Survey	156		157		158		159		
Survey Date	12-Jan-12		26-Apr-12		10-Aug-12		14-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae									
coralline crust	47.0	4.8	40.0	8.2	7.0	3.5	46.0	4.0	**35.0**
non-coralline crust	2.0	2.3	4.0	2.8	1.5	1.0	2.0	2.8	**2.4**
Calliarthron/Bossiella spp.-complex	0.5	1.0	<0.1	-	<0.1	-	<0.1	-	**0.1**
Ectocarpales	-	-	-	-	-	-	<0.1	<0.01	**<0.1**
Chlorophyta (filamentous)	<0.1	<0.01	-	-	-	-	<0.1	<0.01	**<0.1**
Substrates									
rock	19.0	7.4	27.5	5.7	42.5	20.1	22.0	2.8	**27.8**
colonized cobble	27.5	9.3	27.0	7.8	2.0	1.6	24.5	11.7	**20.3**
colonized rock	22.5	10.1	17.5	5.7	7.0	5.3	23.5	10.4	**17.6**
cobble	13.0	5.3	8.5	3.0	30.5	18.4	12.0	2.3	**16.0**
sand (shell gravel)	0.5	1.0	1.5	1.0	-	-	-	-	**0.5**

Table F3. Subtidal algae (SLC Method) survey means (percent cover), standard deviations and annual means, North Diablo Cove Station NDC 3 -3m (9-10).

Survey	156		157		158		159		
Survey Date	22-Feb-12		17-May-12		13-Aug-12		15-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae									
coralline crust	46.5	3.4	23.0	7.4	12.5	11.2	50.0	4.3	**33.0**
non-coralline crust	1.5	1.9	1.0	2.0	0.5	1.0	0.5	1.0	**0.9**
Calliarthron/Bossiella spp.-complex	<0.1	-	<0.1	-	<0.1	-	<0.1	-	**<0.1**
Chlorophyta (filamentous)	-	-	-	-	-	-	<0.1	<0.01	**<0.1**
Substrates									
rock	19.0	6.8	41.0	14.7	42.0	13.0	22.5	4.7	**31.1**
colonized rock	22.5	2.5	17.0	8.7	5.5	5.0	25.5	4.7	**17.6**
cobble	15.0	5.0	16.5	5.7	26.0	12.4	8.5	1.9	**16.5**
colonized cobble	25.5	6.4	7.5	5.5	7.5	8.2	25.5	7.6	**16.5**
sand (shell gravel)	-	-	-	-	1.0	1.2	-	-	**0.3**

Table F4. Subtidal algae (SLC Method) survey means (percent cover), standard deviations and annual means, North Diablo Cove Station NDC 4 -4m (9-15).

Survey	156		157		158		159		
Survey Date	21-Feb-12		4-May-12		14-Aug-12		13-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae									
coralline crust	45.5	8.5	31.5	6.2	41.5	11.7	45.5	4.4	**41.0**
Calliarthron/Bossiella spp.-complex	24.0	8.5	28.0	4.3	19.5	11.4	33.0	6.6	**26.1**
Acrosorium ciliolatum	11.5	4.4	24.5	7.6	3.0	3.5	5.0	2.6	**11.0**
Farlowia/Pikea spp.-complex	6.0	3.7	10.0	5.9	7.0	3.8	11.5	3.0	**8.6**
Desmarestia ligulata	-	-	<0.1	<0.01	26.5	16.4	0.5	1.0	**6.8**
Cryptopleura violacea	-	-	12.0	2.8	11.0	11.8	2.0	4.0	**6.3**
Cystoseira osmundacea	4.0	3.7	6.0	4.3	5.0	3.8	5.0	3.5	**5.0**
filamentous red algae complex	3.0	3.5	5.5	3.8	2.5	5.0	8.0	5.7	**4.8**
Prionitis spp.	2.0	-	5.0	3.5	3.5	1.9	8.5	5.5	**4.8**
Rhodymenia spp.	2.0	2.8	5.5	3.0	2.0	1.6	6.0	6.3	**3.9**
Ectocarpales	6.0	5.2	6.0	5.9	-	-	0.5	1.0	**3.1**
Chondracanthus corymbiferus	<0.1	<0.01	2.0	2.8	4.0	4.0	3.5	2.5	**2.4**
Chlorophyta (filamentous)	3.0	3.8	-	-	1.0	2.0	3.5	4.1	**1.9**
Macrocystis pyrifera	<0.1	<0.01	<0.1	-	1.5	1.0	1.0	2.0	**0.6**
Ahnfeltiopsis linearis	<0.1	<0.01	2.0	1.6	0.5	1.0	<0.1	<0.01	**0.6**
Gelidium robustum	<0.1	<0.01	0.5	1.0	0.5	1.0	<0.1	<0.01	**0.3**
non-coralline crust	0.5	1.0	-	-	<0.1	<0.01	<0.1	<0.01	**0.1**
Antithamnion/Pterothamnion spp.	<0.1	<0.01	0.5	1.0	-	-	-	-	**0.1**
Pterygophora californica	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	**<0.1**
Callophyllis flabellulata	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	-	-	**<0.1**
Microcladia coulteri	-	-	<0.1	<0.01	-	-	<0.1	<0.01	**<0.1**
Fauchea laciniata	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	-	-	**<0.1**
Ulva spp.	-	-	<0.1	<0.01	-	-	<0.1	<0.01	**<0.1**
Callophyllis spp.	-	-	<0.1	<0.01	-	-	<0.1	<0.01	**<0.1**
Laminariales	-	-	<0.1	<0.01	-	-	-	-	**<0.1**
Laminaria setchellii	<0.1	<0.01	-	-	-	-	-	-	**<0.1**
Cryptopleura ruprechtiana	-	-	-	-	-	-	<0.1	<0.01	**<0.1**
Dictyota binghamiae	-	-	-	-	-	-	<0.1	<0.01	**<0.1**
Pterosiphonia dendroidea	<0.1	<0.01	-	-	-	-	-	-	**<0.1**
Mazzaella rosea	-	-	-	-	-	-	<0.1	<0.01	**<0.1**
Chrysophyta	-	-	-	-	<0.1	<0.01	-	-	**<0.1**
Invertebrates									
Phragmatopoma californica	4.0	1.6	-	-	-	-	1.0	2.0	**1.3**
Substrates									
colonized rock	62.5	10.0	58.5	5.7	66.5	7.9	60.5	10.3	**62.0**
colonized cobble	13.5	6.0	9.5	3.4	4.5	4.1	11.5	6.0	**9.8**
sand (shell gravel)	2.5	3.0	13.0	6.6	5.5	5.3	9.0	3.8	**7.5**
cobble	3.5	3.4	0.5	1.0	4.5	4.4	1.0	1.2	**2.4**
rock	-	-	0.5	1.0	1.0	1.2	-	-	**0.4**

Table F5. Subtidal algae (SLC Method) survey means (percent cover), standard deviations and annual means, South Diablo Cove Station SDC 2 -3m (12-10).

Survey	156		157		158		159		
Survey Date	13-Jan-12		3-May-12		17-Aug-12		26-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae									
coralline crust	36.5	5.5	11.5	2.5	33.0	5.0	41.0	7.4	**30.5**
Cryptopleura violacea	10.0	5.9	54.5	7.7	21.0	3.5	4.5	5.3	**22.5**
Rhodymenia spp.	12.0	6.3	12.5	1.9	12.5	8.2	16.0	6.3	**13.3**
Calliarthron/Bossiella spp.-complex	14.0	8.2	9.0	7.8	16.5	8.9	12.5	4.1	**13.0**
Prionitis spp.	14.5	6.2	5.0	2.6	7.5	1.9	8.5	7.6	**8.9**
Farlowia/Pikea spp.-complex	6.0	3.7	3.5	2.5	2.5	1.0	5.0	3.5	**4.3**
Cystoseira osmundacea	1.5	3.0	5.0	2.6	4.0	3.7	3.0	3.5	**3.4**
Acrosorium ciliolatum	7.0	3.5	1.5	1.9	2.5	3.0	2.5	1.9	**3.4**
Nienburgia andersoniana	4.5	2.5	1.5	3.0	6.0	6.3	-	-	**3.0**
Macrocystis pyrifera	<0.1	-	3.0	2.6	2.0	4.0	1.0	2.0	**1.5**
Ahnfeltiopsis linearis	-	-	1.0	1.2	3.5	4.7	1.0	2.0	**1.4**
filamentous red algae complex	3.5	4.7	<0.1	<0.01	<0.1	<0.01	1.0	2.0	**1.1**
Corallina chilensis	2.0	2.3	0.5	1.0	<0.1	<0.01	0.5	1.0	**0.8**
Gelidium robustum	<0.1	<0.01	0.5	1.0	0.5	1.0	1.5	1.0	**0.6**
Cryptopleura ruprechtiana	-	-	-	-	1.0	2.0	-	-	**0.3**
Chondracanthus corymbiferus	-	-	<0.1	<0.01	0.5	1.0	<0.1	<0.01	**0.1**
non-coralline crust	<0.1	<0.01	-	-	0.5	1.0	<0.1	<0.01	**0.1**
Sarcodiotheca gaudichaudii	-	-	0.5	1.0	-	-	-	-	**0.1**
Callophyllis flabellulata	<0.1	<0.01	0.5	1.0	-	-	-	-	**0.1**
Osmundea spp.	-	-	0.5	1.0	-	-	-	-	**0.1**
Gelidium spp.	<0.1	<0.01	-	-	<0.1	<0.01	0.5	1.0	**0.1**
Chondracanthus harveyanus/spinosus	-	-	-	-	0.5	1.0	-	-	**0.1**
Prionitis australis	-	-	-	-	-	-	0.5	1.0	**0.1**
Pterygophora californica	<0.1	-	<0.1	<0.01	<0.1	-	<0.1	<0.01	**<0.1**
Antithamnion/Pterothamnion spp.	<0.1	<0.01	-	-	-	-	<0.1	<0.01	**<0.1**
Ulva spp.	-	-	-	-	<0.1	<0.01	-	-	**<0.1**
Laminaria setchellii	-	-	-	-	<0.1	<0.01	<0.1	<0.01	**<0.1**
Desmarestia ligulata	-	-	<0.1	<0.01	-	-	-	-	**<0.1**
Pterosiphonia dendroidea	-	-	<0.1	<0.01	-	-	-	-	**<0.1**
Phycodrys spp.	-	-	<0.1	<0.01	-	-	-	-	**<0.1**
Substrates									
colonized rock	46.0	6.9	47.0	4.2	59.0	9.5	44.5	10.4	**49.1**
sand (shell gravel)	22.0	5.9	29.0	5.3	16.5	10.9	19.5	12.6	**21.8**
cobble	10.5	2.5	5.5	1.9	5.5	1.9	8.5	5.3	**7.5**
colonized cobble	3.5	1.9	0.5	1.0	1.0	1.2	9.5	2.5	**3.6**

Table F6. Subtidal algae (SLC Method) survey means (percent cover), standard deviations and annual means, South Diablo Cove Station SDC 3 -4m (10-15).

Survey	156		157		158		159		
Survey Date	30-Jan-12		22-May-12		27-Aug-12		27-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae									
coralline crust	50.5	10.3	42.5	15.0	38.5	8.7	40.5	5.3	**43.0**
Calliarthron/Bossiella spp.-complex	20.5	4.4	30.0	4.3	26.5	3.4	31.5	5.0	**27.1**
Rhodymenia spp.	11.0	6.6	22.0	9.9	26.5	8.7	20.0	10.3	**19.9**
Farlowia/Pikea spp.-complex	2.0	2.8	6.0	4.3	1.5	1.0	5.5	5.5	**3.8**
Chondracanthus corymbiferus	0.5	1.0	2.5	1.9	2.5	1.9	6.0	1.6	**2.9**
Cryptopleura ruprechtiana	<0.1	<0.01	6.0	1.6	1.0	2.0	3.5	3.0	**2.6**
Cryptopleura violacea	0.5	1.0	3.0	6.0	3.5	4.4	3.0	4.8	**2.5**
Callophyllis flabellulata	<0.1	<0.01	8.5	4.4	0.5	1.0	<0.1	<0.01	**2.3**
Ahnfeltiopsis linearis	1.5	3.0	3.0	6.0	2.5	2.5	1.5	1.9	**2.1**
Cystoseira osmundacea	0.5	1.0	1.0	2.0	3.0	4.8	3.5	1.9	**2.0**
filamentous red algae complex	<0.1	<0.01	7.5	4.7	<0.1	<0.01	<0.1	<0.01	**1.9**
Prionitis spp.	<0.1	<0.01	1.5	3.0	2.0	1.6	1.0	1.2	**1.1**
Macrocystis pyrifera	1.0	2.0	<0.1	<0.01	1.0	1.2	1.5	1.9	**0.9**
Acrosorium ciliolatum	<0.1	<0.01	2.5	3.0	-	-	<0.1	<0.01	**0.6**
Callophyllis spp.	-	-	1.5	1.9	-	-	-	-	**0.4**
Corallina chilensis	0.5	1.0	-	-	<0.1	<0.01	<0.1	<0.01	**0.1**
non-coralline crust	-	-	-	-	<0.1	<0.01	0.5	1.0	**0.1**
Nienburgia andersoniana	<0.1	<0.01	<0.1	<0.01	-	-	0.5	1.0	**0.1**
Pterygophora californica	<0.1	-	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	**<0.1**
Laminaria setchellii	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	**<0.1**
Gelidium robustum	<0.1	<0.01	-	-	<0.1	<0.01	<0.1	<0.01	**<0.1**
Gelidium spp.	<0.1	<0.01	-	-	-	-	-	-	**<0.1**
Ulva spp.	-	-	<0.1	<0.01	-	-	-	-	**<0.1**
Polyneura latissima	-	-	<0.1	<0.01	-	-	-	-	**<0.1**
Rhodoptilum plumosum	-	-	<0.1	<0.01	-	-	-	-	**<0.1**
Desmarestia ligulata	-	-	<0.1	<0.01	-	-	-	-	**<0.1**
Plocamium pacificum	-	-	-	-	-	-	<0.1	<0.01	**<0.1**
Fryeella gardneri	-	-	-	-	-	-	<0.1	<0.01	**<0.1**
Halymenia/Schizymenia spp.-complex	-	-	<0.1	<0.01	-	-	-	-	**<0.1**
Pterosiphonia dendroidea	-	-	<0.1	<0.01	-	-	-	-	**<0.1**
Fauchea laciniata	-	-	<0.1	<0.01	-	-	-	-	**<0.1**
Laminariales	-	-	<0.1	<0.01	-	-	-	-	**<0.1**
Antithamnion/Pterothamnion spp.	-	-	<0.1	<0.01	-	-	-	-	**<0.1**
Substrates									
colonized rock	64.0	2.8	64.0	9.1	65.0	10.1	64.5	9.7	**64.4**
sand (shell gravel)	9.5	5.0	13.5	7.9	14.0	9.5	12.5	10.9	**12.4**
colonized cobble	4.0	3.7	3.5	2.5	2.0	2.3	2.0	1.6	**2.9**
cobble	3.5	4.1	1.0	1.2	0.5	1.0	1.5	1.9	**1.6**
rock	1.0	1.2	-	-	0.5	1.0	1.5	1.0	**0.8**

Table F7. Subtidal algae (SLC Method) survey means (percent cover), standard deviations and annual means, South Control Station SC 1 -3m (19-10).

Survey	156		157		158		159		
Survey Date	5-Mar-12		25-Jun-12		11-Sep-12		11-Dec-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae									
Calliarthron/Bossiella spp.-complex	45.5	10.5	37.0	14.1	49.0	11.6	47.0	7.4	**44.6**
coralline crust	37.0	5.0	38.0	6.9	29.0	13.2	39.0	8.3	**35.8**
Cystoseira osmundacea	14.0	5.4	14.5	4.1	20.0	8.5	12.0	4.3	**15.1**
Rhodymenia spp.	15.0	7.4	10.5	3.8	9.0	6.6	10.5	5.7	**11.3**
Pterygophora californica	4.5	1.9	5.0	2.0	2.0	2.8	3.5	3.4	**3.8**
Laminaria setchellii	1.5	1.0	2.5	1.0	3.0	1.2	3.0	2.6	**2.5**
Gelidium robustum	2.0	2.8	0.5	1.0	0.5	1.0	0.5	1.0	**0.9**
Plocamium pacificum	0.5	1.0	1.0	2.0	0.5	1.0	0.5	1.0	**0.6**
filamentous red algae complex	-	-	2.0	2.3	-	-	-	-	**0.5**
Chondracanthus corymbiferus	0.5	1.0	0.5	1.0	<0.1	<0.01	<0.1	<0.01	**0.3**
Ulva spp.	0.5	1.0	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	**0.1**
Cryptopleura ruprechtiana	<0.1	<0.01	0.5	1.0	<0.1	<0.01	<0.1	-	**0.1**
Corallina chilensis	0.5	1.0	<0.1	<0.01	-	-	<0.1	<0.01	**0.1**
non-coralline crust	-	-	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	**<0.1**
Callophyllis flabellulata	<0.1	<0.01	<0.1	<0.01	-	-	<0.1	<0.01	**<0.1**
Coilodesme californica	-	-	<0.1	-	-	-	-	-	**<0.1**
Callophyllis spp.	<0.1	<0.01	-	-	<0.1	<0.01	<0.1	<0.01	**<0.1**
Microcladia coulteri	<0.1	<0.01	-	-	-	-	<0.1	<0.01	**<0.1**
Prionitis spp.	<0.1	<0.01	<0.1	<0.01	-	-	-	-	**<0.1**
Pugetia firma	<0.1	<0.01	-	-	-	-	-	-	**<0.1**
Laminariales	<0.1	<0.01	<0.1	<0.01	-	-	-	-	**<0.1**
Egregia menziesii	-	-	-	-	<0.1	<0.01	-	-	**<0.1**
Osmundea spp.	-	-	-	-	<0.1	<0.01	-	-	**<0.1**
Pterosiphonia dendroidea	-	-	<0.1	<0.01	-	-	-	-	**<0.1**
Prionitis australis	-	-	-	-	-	-	<0.1	<0.01	**<0.1**
Ahnfeltiopsis linearis	-	-	<0.1	<0.01	-	-	-	-	**<0.1**
Delesseria decipiens	<0.1	<0.01	-	-	-	-	-	-	**<0.1**
Invertebrates									
Phragmatopoma californica	6.0	6.9	6.0	2.8	3.5	4.7	9.0	7.4	**6.1**
tunicates, compound/social	-	-	1.0	1.2	0.5	1.0	-	-	**0.4**
Substrates									
colonized rock	50.0	33.5	67.0	5.3	75.5	5.0	69.0	1.2	**65.4**
sand (shell gravel)	12.0	5.9	8.0	5.9	4.0	3.7	7.0	3.5	**7.8**
rock	16.0	32.0	-	-	-	-	-	-	**4.0**
colonized cobble	2.5	1.9	5.0	2.6	1.5	1.9	6.0	2.8	**3.8**
cobble	1.5	1.0	2.0	2.3	1.0	2.0	-	-	**1.1**

Table F8. Subtidal algae (SLC Method) survey means (percent cover), standard deviations and annual means, South Control Station SC 2 -6m (20-20).

Survey	156		157		158		159		
Survey Date	9-Mar-12		19-Jun-12		7-Sep-12		11-Dec-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae									
coralline crust	43.0	8.4	52.0	5.2	42.5	2.5	46.5	5.0	**46.0**
Calliarthron/Bossiella spp.-complex	32.5	9.2	27.0	10.0	48.5	8.2	33.5	10.4	**35.4**
Cystoseira osmundacea	4.0	5.7	6.5	4.1	9.5	8.2	5.5	5.7	**6.4**
Rhodymenia spp.	4.5	3.8	5.0	2.6	6.5	1.9	0.5	1.0	**4.1**
Pterygophora californica	4.0	1.6	3.0	1.2	3.0	2.6	2.0	2.8	**3.0**
non-coralline crust	0.5	1.0	2.0	1.6	0.5	1.0	2.0	2.3	**1.3**
Laminaria setchellii	1.0	1.2	1.0	1.2	1.5	1.0	1.0	1.2	**1.1**
filamentous red algae complex	<0.1	<0.01	3.0	3.8	0.5	1.0	0.5	1.0	**1.0**
Cryptopleura ruprechtiana	<0.1	<0.01	1.5	3.0	1.5	3.0	1.0	2.0	**1.0**
Callophyllis flabellulata	2.0	1.6	1.5	1.9	<0.1	<0.01	<0.1	<0.01	**0.9**
Dictyota binghamiae	<0.1	<0.01	1.0	1.2	<0.1	<0.01	-	-	**0.3**
Desmarestia ligulata	-	-	0.5	1.0	0.5	1.0	-	-	**0.3**
Chondracanthus corymbiferus	0.5	1.0	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	**0.1**
Pugetia firma	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	**<0.1**
Rhodoptilum plumosum	<0.1	<0.01	<0.1	-	<0.1	<0.01	-	-	**<0.1**
Fauchea laciniata	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	-	-	**<0.1**
Laminariales	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	-	-	**<0.1**
Neoptilota spp.	<0.1	<0.01	-	-	<0.1	<0.01	<0.1	<0.01	**<0.1**
Nereocystis luetkeana	-	-	<0.1	<0.01	-	-	-	-	**<0.1**
Callophyllis spp.	<0.1	<0.01	<0.1	<0.01	-	-	<0.1	<0.01	**<0.1**
Weeksia spp.	-	-	-	-	<0.1	<0.01	<0.1	<0.01	**<0.1**
Fryeella gardneri	-	-	<0.1	<0.01	-	-	-	-	**<0.1**
Ulva spp.	-	-	-	-	<0.1	<0.01	-	-	**<0.1**
Microcladia coulteri	-	-	-	-	<0.1	<0.01	-	-	**<0.1**
Opuntiella californica	<0.1	<0.01	-	-	-	-	-	-	**<0.1**
Porphyra spp.	-	-	<0.1	<0.01	-	-	-	-	**<0.1**
Prionitis spp.	-	-	-	-	<0.1	<0.01	-	-	**<0.1**
Polyneura latissima	-	-	<0.1	<0.01	-	-	-	-	**<0.1**
Halicystis ovalis	-	-	<0.1	<0.01	-	-	-	-	**<0.1**
Callithamnion spp./*Pleonosporium* spp.	<0.1	<0.01	-	-	-	-	-	-	**<0.1**
Membranoptera/Branchioglossum spp.	<0.1	<0.01	-	-	-	-	-	-	**<0.1**
Farlowia/Pikea spp.-complex	<0.1	<0.01	-	-	-	-	-	-	**<0.1**
Invertebrates									
Balanus/Tetraclita spp.	-	-	-	-	16.5	6.8	11.5	4.4	**7.0**
Phragmatopoma californica	8.0	5.9	6.5	5.7	-	-	4.5	3.4	**4.8**
Porifera (encrusting)	4.0	4.9	6.0	2.3	2.0	1.6	4.0	3.3	**4.0**
bryozoa (encrusting)	5.5	2.5	2.0	1.6	1.0	2.0	3.5	2.5	**3.0**
Corynactis californica	3.5	3.0	0.5	1.0	2.0	2.8	1.0	2.0	**1.8**
Abiet./Sertularella/Sertularia spp.	-	-	0.5	1.0	0.5	1.0	-	-	**0.3**
tunicates, compound/social	0.5	1.0	-	-	-	-	-	-	**0.1**
Substrates									
colonized rock	72.5	5.5	73.5	9.4	72.0	7.1	76.5	5.7	**73.6**
colonized cobble	6.5	2.5	5.0	6.2	7.0	5.3	4.5	3.8	**5.8**
sand (shell gravel)	1.5	1.9	3.5	3.4	3.0	2.6	-	-	**2.0**
cobble	1.5	1.9	-	-	-	-	1.0	2.0	**0.6**

Diablo Canyon Power Plant

Appendix G

Subtidal Invertebrates (SFQ Method)

Table G1. Subtidal invertebrates (SFQ Method) survey means (abundance per 0.25 m^2; percent cover) standard deviations and annual means, Field's Cove Station FC 1 -3m (22-10).

Survey	156		157		158		159		
Survey Date	8-Mar-12		28-Jun-12		6-Sep-12		12-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts									
Homalopoma luridum/Lirularia succincta	4.0	5.7	6.3	5.4	13.3	15.5	17.8	11.3	**10.3**
Pagurus spp.	5.5	7.7	3.5	1.3	1.8	2.9	6.8	2.5	**4.4**
Chlorostoma brunnea	4.8	2.5	4.0	1.6	3.0	3.4	1.8	0.5	**3.4**
Pugettia spp.	2.0	0.8	2.0	1.4	0.8	1.0	1.8	1.0	**1.6**
Leptasterias spp.	1.0	0.8	1.5	1.0	1.8	1.0	1.5	1.0	**1.4**
Amphissa spp.	0.3	0.5	2.8	1.5	1.0	1.2	1.0	0.8	**1.3**
Phragmatopoma californica	0.3	0.5	0.3	0.5	2.8	1.0	1.8	1.3	**1.3**
Alia spp.	0.8	1.0	0.5	0.6	1.0	0.8	2.0	2.7	**1.1**
Lissothuria nutriens	0.8	1.5	0.8	1.0	1.3	0.5	0.3	0.5	**0.8**
Anthozoa	0.8	1.5	1.3	1.9	-	-	-	-	**0.5**
Aptyxis luteopictus	0.3	0.5	0.8	0.5	0.3	0.5	0.8	1.0	**0.5**
Pelecypoda boring	0.5	0.6	0.8	1.5	-	-	0.8	1.0	**0.5**
Lirobittium spp.	-	-	0.5	0.6	0.3	0.5	1.0	2.0	**0.4**
Serpulidae	0.3	0.5	0.3	0.5	0.5	0.6	0.8	1.0	**0.4**
Scyra acutifrons	0.3	0.5	0.3	0.5	0.5	0.6	0.8	0.5	**0.4**
Epiactis prolifera	0.3	0.5	1.0	0.8	-	-	0.3	0.5	**0.4**
Lottia instabilis	0.3	0.5	0.3	0.5	0.5	1.0	0.5	1.0	**0.4**
Strongylocentrotus purpuratus	-	-	0.3	0.5	0.8	1.0	0.5	0.6	**0.4**
Ocinebrina spp.	0.3	0.5	0.5	0.6	0.5	0.6	0.3	0.5	**0.4**
Pisaster/Henricia spp. (juv.)	0.3	0.5	0.5	0.6	0.5	0.6	0.3	0.5	**0.4**
Acmaea mitra	0.3	0.5	0.3	0.5	0.5	0.6	0.3	0.5	**0.3**
Calliostoma ligatum	0.3	0.5	0.3	0.5	0.8	1.0	-	-	**0.3**
Mitra idae	0.3	0.5	0.5	0.6	0.3	0.5	0.3	0.5	**0.3**
Ischnochitonidae	0.3	0.5	0.3	0.5	0.3	0.5	0.5	0.6	**0.3**
Mimulus foliatus	0.3	0.5	-	-	0.5	1.0	0.3	0.5	**0.3**
Sipuncula	-	-	0.3	0.5	0.5	0.6	0.3	0.5	**0.3**
Tonicella lineata	0.3	0.5	-	-	0.3	0.5	0.3	0.5	**0.2**
Petrolisthes spp.	0.3	0.5	-	-	0.5	1.0	-	-	**0.2**
Ophiothrix spiculata	0.5	0.6	-	-	-	-	0.3	0.5	**0.2**
Lophopanopeus spp.	0.5	0.6	-	-	0.3	0.5	-	-	**0.2**
Paraxanthias taylori	-	-	0.3	0.5	-	-	0.5	0.6	**0.2**
Diodora spp.	0.3	0.5	-	-	-	-	0.3	0.5	**0.1**
Fissurella volcano	0.5	1.0	-	-	-	-	-	-	**0.1**
Pomaulax gibberosa	0.3	0.5	-	-	0.3	0.5	-	-	**0.1**
Romaleon antennarius	0.3	0.5	-	-	-	-	0.3	0.5	**0.1**
Cirratulidae/Terebellidae	-	-	-	-	0.5	0.6	-	-	**0.1**
Anthopleura elegantissima	-	-	-	-	0.3	0.5	-	-	**<0.1**
Crepidula spp.	-	-	-	-	0.3	0.5	-	-	**<0.1**
Conus californicus	-	-	0.3	0.5	-	-	-	-	**<0.1**
Pycnogonida	-	-	-	-	0.3	0.5	-	-	**<0.1**
Loxorhynchus spp.	-	-	-	-	-	-	0.3	0.5	**<0.1**
Pseudomelatoma torosa	-	-	0.3	0.5	-	-	-	-	**<0.1**
Crangon spp.	0.3	0.5	-	-	-	-	-	-	**<0.1**

(table continued)

Table G1 (continued). Subtidal invertebrates (SFQ Method) survey means (abundance per 0.25 m^2; percent cover) standard deviations and annual means, Field's Cove Station FC 1 -3m (22-10).

Survey	156		157		158		159		
Survey Date	8-Mar-12		28-Jun-12		6-Sep-12		12-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Cover									
Balanus/Tetraclita spp.	-	-	-	-	1.8	3.6	1.6	3.2	**0.9**
Porifera (encrusting)	0.2	0.3	0.5	0.4	<0.1	0.1	<0.1	0.1	**0.2**
tunicates, compound/social	<0.1	0.1	<0.1	-	0.1	0.2	<0.1	0.1	**<0.1**
bryozoa (encrusting)	<0.1	-	0.1	0.3	<0.1	-	<0.1	-	**<0.1**
Acanthancora cyanocrypta	-	-	-	-	-	-	0.1	0.3	**<0.1**
Spirorbidae	<0.1	<0.01	<0.1	<0.01	<0.1	-	<0.1	<0.01	**<0.1**
Hydroidolina	<0.1	<0.01	-	-	<0.1	<0.01	-	-	**<0.1**
Salmacina tribranchiata	-	-	-	-	<0.1	<0.01	-	-	**<0.1**

Table G2. Subtidal invertebrates (SFQ Method) survey means (abundance per 0.25 m^2; percent cover) standard deviations and annual means, North Diablo Cove Station NDC 2 -3m (8-10).

Survey	156		157		158		159		
Survey Date	12-Jan-12		26-Apr-12		10-Aug-12		14-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts									
Strongylocentrotus purpuratus	54.5	25.6	57.8	2.9	41.5	25.2	49.5	10.0	**50.8**
Pelecypoda boring	19.0	18.6	74.8	67.9	26.3	22.6	30.8	30.3	**37.7**
Ophiactis simplex	7.5	5.3	4.5	1.7	6.3	7.9	15.5	7.4	**8.4**
Phragmatopoma californica	5.8	3.9	9.5	5.1	3.5	2.4	7.5	4.2	**6.6**
Sipuncula	2.0	0.8	2.0	0.8	2.8	2.1	4.5	2.7	**2.8**
Serpulidae	1.5	2.4	1.8	2.4	2.3	2.2	1.8	1.0	**1.8**
Polychaeta	-	-	3.3	2.2	-	-	-	-	**0.8**
Ophiothrix spiculata	-	-	0.3	0.5	0.5	1.0	2.0	2.5	**0.7**
Fissurella volcano	0.5	0.6	1.0	2.0	0.3	0.5	0.8	1.0	**0.6**
Cucumaria spp.	-	-	-	-	1.0	2.0	1.5	0.6	**0.6**
Lissothuria nutriens	1.5	1.7	0.5	0.6	0.3	0.5	-	-	**0.6**
Lottia ochracea	0.3	0.5	-	-	0.5	1.0	1.0	1.2	**0.4**
Anthopleura elegantissima	0.8	1.0	0.3	0.5	0.3	0.5	0.3	0.5	**0.4**
Lottiidae	-	-	1.0	2.0	0.3	0.5	-	-	**0.3**
Sabellidae	-	-	0.8	1.0	-	-	0.3	0.5	**0.3**
Eulithidium spp.	-	-	0.3	0.5	-	-	0.8	1.5	**0.3**
Chaetopteridae	1.0	2.0	-	-	-	-	-	-	**0.3**
Epiactis prolifera	-	-	0.5	0.6	0.3	0.5	-	-	**0.2**
Acmaea mitra	0.3	0.5	-	-	-	-	0.5	0.6	**0.2**
Alia spp.	-	-	0.3	0.5	-	-	0.5	1.0	**0.2**
Placiphorella velata	-	-	-	-	0.3	0.5	0.5	0.6	**0.2**
Anthopleura artemisia	0.3	0.5	-	-	-	-	0.3	0.5	**0.1**
Amphissa spp.	-	-	-	-	0.5	1.0	-	-	**0.1**
Anthozoa	-	-	-	-	-	-	0.3	0.5	**<0.1**
Lottia pelta	-	-	-	-	0.3	0.5	-	-	**<0.1**
Strongylocentrotus franciscanus	-	-	0.3	0.5	-	-	-	-	**<0.1**
Ischnochitonidae	0.3	0.5	-	-	-	-	-	-	**<0.1**
Pugettia spp.	-	-	-	-	0.3	0.5	-	-	**<0.1**
Chama spp.	0.3	0.5	-	-	-	-	-	-	**<0.1**
Eupentacta quinquesemita	0.3	0.5	-	-	-	-	-	-	**<0.1**
Homolo. luridum/Lirularia succincta	-	-	-	-	-	-	0.3	0.5	**<0.1**
Invertebrate Cover									
Balanus/Tetraclita spp.	0.1	0.3	0.1	0.3	-	-	0.1	0.3	**<0.1**
tunicates, compound/social	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	-	-	**<0.1**
Porifera (encrusting)	-	-	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	**<0.1**
Spirorbidae	<0.1	<0.01	-	-	-	-	<0.1	<0.01	**<0.1**

Table G3. Subtidal invertebrates (SFQ Method) survey means (abundance per 0.25 m^2; percent cover) standard deviations and annual means, North Diablo Cove Station NDC 3 -3m (9-10).

Survey	156		157		158		159		
Survey Date	22-Feb-12		17-May-12		13-Aug-12		15-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts									
Strongylocentrotus purpuratus	34.5	30.9	28.5	17.5	47.0	42.2	55.5	34.5	**41.4**
Pelecypoda boring	31.0	18.7	30.0	19.8	31.8	27.9	29.0	18.6	**30.4**
Ophiactis simplex	13.0	3.2	8.3	5.8	14.8	6.7	19.5	11.9	**13.9**
Phragmatopoma californica	8.3	9.4	9.5	13.0	1.5	3.0	11.8	16.3	**7.8**
Sipuncula	3.8	2.5	2.0	2.2	4.3	2.1	1.0	0.8	**2.8**
Ophiothrix spiculata	2.0	0.8	1.0	0.8	1.8	1.7	4.3	3.3	**2.3**
Serpulidae	2.0	0.8	2.8	2.5	2.0	1.4	0.8	1.0	**1.9**
Lottia ochracea	1.3	1.3	0.3	0.5	1.0	1.2	1.3	1.0	**0.9**
Fissurella volcano	1.3	1.0	0.3	0.5	0.5	0.6	0.5	0.6	**0.6**
Epiactis prolifera	0.3	0.5	0.8	1.0	0.5	1.0	0.3	0.5	**0.4**
Lottiidae	-	-	0.8	1.0	0.5	0.6	0.3	0.5	**0.4**
Acmaea mitra	-	-	0.3	0.5	0.3	0.5	0.8	1.0	**0.3**
Cucumaria spp.	0.3	0.5	0.3	0.5	-	-	0.8	1.0	**0.3**
Eudistylia polymorpha	0.3	0.5	0.5	0.6	0.3	0.5	0.3	0.5	**0.3**
Eulithidium spp.	-	-	1.3	2.5	-	-	-	-	**0.3**
Anthopleura elegantissima	0.3	0.5	0.3	0.5	0.3	0.5	0.3	0.5	**0.3**
Lissothuria nutriens	0.3	0.5	-	-	0.3	0.5	0.5	0.6	**0.3**
Anthozoa	0.3	0.5	0.3	0.5	0.3	0.5	-	-	**0.2**
Strongylocentrotus franciscanus	-	-	0.3	0.5	-	-	0.5	1.0	**0.2**
Sabellidae	0.3	0.5	0.3	0.5	-	-	-	-	**0.1**
Ophiuroidea	0.5	1.0	-	-	-	-	-	-	**0.1**
Hermissenda crassicornis	-	-	-	-	-	-	0.3	0.5	**<0.1**
Pugettia spp.	-	-	-	-	0.3	0.5	-	-	**<0.1**
Amphissa spp.	-	-	0.3	0.5	-	-	-	-	**<0.1**
Doris spp.	-	-	-	-	-	-	0.3	0.5	**<0.1**
Homolo. luridum/Lirularia succincta	-	-	0.3	0.5	-	-	-	-	**<0.1**
Invertebrate Cover									
Balanus/Tetraclita spp.	<0.1	0.1	-	-	-	-	<0.1	0.1	**<0.1**
Porifera (encrusting)	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	-	-	**<0.1**
Spirorbidae	<0.1	<0.01	<0.1	<0.01	-	-	<0.1	<0.01	**<0.1**
tunicates, compound/social	<0.1	<0.01	-	-	<0.1	<0.01	-	-	**<0.1**
bryozoa (encrusting)	<0.1	<0.01	-	-	-	-	<0.1	<0.01	**<0.1**

Table G4. Subtidal invertebrates (SFQ Method) survey means (abundance per 0.25 m^2; percent cover) standard deviations and annual means, North Diablo Cove Station NDC 4 -4m (9-15).

Survey	156		157		158		159		
Survey Date	21-Feb-12		4-May-12		14-Aug-12		13-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts									
Phragmatopoma californica	59.0	35.7	51.5	39.6	11.3	5.4	86.5	72.5	**52.1**
Strongylocentrotus purpuratus	14.0	13.6	15.3	17.2	11.0	16.7	13.8	18.9	**13.5**
Pelecypoda boring	9.0	17.3	11.5	22.3	7.3	13.8	6.3	6.7	**8.5**
Ophiactis simplex	5.3	6.0	8.0	12.0	4.0	1.4	0.8	1.5	**4.5**
Serpulidae	2.0	2.2	2.3	1.5	4.8	1.7	1.3	1.0	**2.6**
Alia spp.	2.3	2.2	1.5	0.6	2.8	1.9	0.5	0.6	**1.8**
Acmaea mitra	1.8	2.2	1.0	-	1.0	0.8	2.5	1.3	**1.6**
Sipuncula	0.5	1.0	2.0	2.7	1.8	2.9	1.3	1.9	**1.4**
Ophiothrix spiculata	0.3	0.5	-	-	2.5	1.3	1.8	1.5	**1.1**
Epiactis prolifera	1.3	0.5	1.0	1.4	0.8	1.0	-	-	**0.8**
Fissurella volcano	1.0	0.8	0.5	1.0	0.5	0.6	0.5	0.6	**0.6**
Lissothuria nutriens	0.8	1.0	1.0	2.0	0.8	1.0	-	-	**0.6**
Anthopleura elegantissima	0.8	1.0	0.5	1.0	0.5	1.0	0.5	1.0	**0.6**
Amphissa spp.	0.3	0.5	0.5	0.6	1.3	1.3	0.3	0.5	**0.6**
Lottiidae	-	-	-	-	2.0	2.0	-	-	**0.5**
Pugettia spp.	0.5	1.0	-	-	0.3	0.5	1.3	1.3	**0.5**
Scyra acutifrons	0.3	0.5	0.3	0.5	1.3	1.0	-	-	**0.4**
Ischnochitonidae	0.8	1.5	0.3	0.5	0.3	0.5	0.3	0.5	**0.4**
Tonicella lineata	-	-	-	-	0.5	1.0	0.8	1.5	**0.3**
Dendropoma spp.	-	-	-	-	-	-	1.3	2.5	**0.3**
Eulithidium spp.	-	-	0.5	1.0	-	-	0.8	1.5	**0.3**
Cirratulidae/Terebellidae	0.3	0.5	0.5	0.6	0.5	0.6	-	-	**0.3**
Lottia ochracea	0.8	0.5	-	-	0.3	0.5	-	-	**0.3**
Sabellidae	-	-	0.3	0.5	0.5	0.6	0.3	0.5	**0.3**
Pagurus spp.	-	-	-	-	0.8	1.5	0.3	0.5	**0.3**
Cucumaria spp.	0.5	1.0	-	-	0.5	1.0	-	-	**0.3**
Lepidozona spp.	0.3	0.5	0.3	0.5	0.5	1.0	-	-	**0.3**
Chlorostoma brunnea	0.3	0.5	-	-	0.3	0.5	0.3	0.5	**0.2**
Serpulorbis squamigerus	-	-	0.5	1.0	-	-	-	-	**0.1**
Leptasterias spp.	-	-	0.3	0.5	0.3	0.5	-	-	**0.1**
tunicate, solitary	-	-	0.3	0.5	-	-	0.3	0.5	**0.1**
Mopalia spp.	0.3	0.5	-	-	-	-	-	-	**<0.1**
Pododesmus cepio	-	-	-	-	0.3	0.5	-	-	**<0.1**
Hermissenda crassicornis	-	-	-	-	0.3	0.5	-	-	**<0.1**
Pista spp.	0.3	0.5	-	-	-	-	-	-	**<0.1**
Romaleon antennarius	-	-	0.3	0.5	-	-	-	-	**<0.1**
Loxorhynchus spp.	-	-	-	-	0.3	0.5	-	-	**<0.1**
Diaulula sandiegensis	-	-	-	-	0.3	0.5	-	-	**<0.1**
Doriopsilla albopunctata	0.3	0.5	-	-	-	-	-	-	**<0.1**
Placiphorella velata	-	-	0.3	0.5	-	-	-	-	**<0.1**
Ophiuroidea	-	-	0.3	0.5	-	-	-	-	**<0.1**
Mimulus foliatus	-	-	-	-	-	-	0.3	0.5	**<0.1**
Majidae	-	-	-	-	0.3	0.5	-	-	**<0.1**

(table continued)

Table G4 (continued). Subtidal invertebrates (SFQ Method) survey means (abundance per 0.25 m^2; percent cover) standard deviations and annual means, North Diablo Cove Station NDC 4 -4m (9-15).

Survey	156		157		158		159		
Survey Date	21-Feb-12		4-May-12		14-Aug-12		13-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts									
Pisaster/Henricia spp. (juv.)	-	-	-	-	-	-	0.3	0.5	**<0.1**
Cancridae	-	-	-	-	-	-	0.3	0.5	**<0.1**
Eupentacta quinquesemita	-	-	0.3	0.5	-	-	-	-	**<0.1**
Invertebrate Cover									
Balanus/Tetraclita spp.	0.2	0.3	-	-	0.7	0.8	2.4	3.3	**0.8**
Porifera (encrusting)	0.2	0.3	0.2	0.4	<0.1	-	<0.1	0.1	**0.1**
tunicates, compound/social	<0.1	<0.01	<0.1	0.1	0.1	0.3	<0.1	<0.01	**<0.1**
bryozoa (encrusting)	<0.1	-	<0.1	-	<0.1	<0.01	-	-	**<0.1**
Spirorbidae	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	-	-	**<0.1**

Table G5. Subtidal invertebrates (SFQ Method) survey means (abundance per 0.25 m^2; percent cover) standard deviations and annual means, South Diablo Cove Station SDC 2 -3m (12-10).

Survey	156		157		158		159		
Survey Date	13-Jan-12		3-May-12		17-Aug-12		26-Nov-12		Annual
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Invertebrate Counts									
Alia spp.	4.8	2.5	1.0	1.2	0.8	1.5	194.0	190.3	**50.1**
Pista spp.	19.8	25.8	10.5	10.0	-	-	14.0	16.6	**11.1**
Phragmatopoma californica	2.8	3.8	5.5	2.7	4.5	2.7	12.5	4.4	**6.3**
Chaetopteridae	3.0	3.6	2.5	5.0	3.3	3.4	8.8	9.1	**4.4**
Pelecypoda boring	0.3	0.5	3.3	1.5	11.8	9.3	1.3	1.5	**4.1**
Dendropoma spp.	-	-	-	-	11.3	13.2	-	-	**2.8**
Eulithidium spp.	7.8	6.0	1.0	1.4	-	-	1.3	2.5	**2.5**
Ophiothrix spiculata	-	-	2.5	1.3	3.8	4.9	3.5	2.7	**2.4**
Sipuncula	0.8	0.5	2.3	1.5	5.0	5.7	0.8	1.0	**2.2**
Amphissa spp.	2.3	1.3	2.3	1.3	0.5	1.0	2.5	1.3	**1.9**
Serpulidae	0.8	1.0	2.8	1.3	1.5	1.3	1.5	1.0	**1.6**
Ophiactis simplex	-	-	1.5	0.6	1.3	2.5	0.8	1.0	**0.9**
Acmaea mitra	0.8	1.0	0.3	0.5	1.0	1.4	0.8	1.0	**0.7**
Ischnochitonidae	-	-	1.3	1.0	1.5	1.3	-	-	**0.7**
Sabellidae	-	-	-	-	2.5	3.1	-	-	**0.6**
Pagurus spp.	0.3	0.5	1.0	0.8	0.3	0.5	0.8	1.0	**0.6**
Lissothuria nutriens	0.5	0.6	0.3	0.5	1.3	1.9	0.3	0.5	**0.6**
Cirratulidae/Terebellidae	0.3	0.5	0.8	1.0	0.3	0.5	0.3	0.5	**0.4**
Mitra idae	-	-	0.3	0.5	-	-	1.0	1.4	**0.3**
Balanophyllia elegans	0.5	1.0	-	-	0.3	0.5	0.3	0.5	**0.3**
Fissurella volcano	0.3	0.5	0.3	0.5	0.3	0.5	-	-	**0.2**
Chlorostoma brunnea	-	-	0.3	0.5	0.5	0.6	-	-	**0.2**
Lottiidae	-	-	0.8	1.0	-	-	-	-	**0.2**
Lottia ochracea	-	-	-	-	-	-	0.8	1.0	**0.2**
Patiria miniata	0.3	0.5	0.5	0.6	-	-	-	-	**0.2**
Lirobittium spp.	-	-	-	-	-	-	0.8	0.5	**0.2**
Cucumaria spp.	0.3	0.5	-	-	-	-	0.5	0.6	**0.2**
Scyra acutifrons	0.3	0.5	-	-	-	-	0.5	1.0	**0.2**
Diodora spp.	0.3	0.5	-	-	0.3	0.5	-	-	**0.1**
Mopalia spp.	-	-	0.3	0.5	-	-	0.3	0.5	**0.1**
Diopatra ornata	-	-	0.5	1.0	-	-	-	-	**0.1**
Loxorhynchus spp.	-	-	0.3	0.5	-	-	0.3	0.5	**0.1**
Doriopsilla albopunctata	0.3	0.5	-	-	-	-	0.3	0.5	**0.1**
Ocinebrina spp.	-	-	-	-	-	-	0.5	0.6	**0.1**
Mimulus foliatus	-	-	-	-	0.3	0.5	0.3	0.5	**0.1**
Pugettia spp.	0.3	0.5	0.3	0.5	-	-	-	-	**0.1**
Anthopleura artemisia	-	-	-	-	-	-	0.3	0.5	**<0.1**
Epiactis prolifera	-	-	-	-	0.3	0.5	-	-	**<0.1**
Nemertea	-	-	-	-	0.3	0.5	-	-	**<0.1**
Serpulorbis squamigerus	-	-	-	-	0.3	0.5	-	-	**<0.1**
Pycnogonida	-	-	0.3	0.5	-	-	-	-	**<0.1**
Pisaster ochraceus	0.3	0.5	-	-	-	-	-	-	**<0.1**
Diaulula sandiegensis	-	-	0.3	0.5	-	-	-	-	**<0.1**

(table continued)

Table G5 (continued). Subtidal invertebrates (SFQ Method) survey means (abundance per 0.25 m^2, percent cover) standard deviations and annual means, South Diablo Cove Station SDC 2 -3m (12-10).

Survey / Survey Date / Taxon	156 13-Jan-12 Mean	156 13-Jan-12 Std. Dev.	157 3-May-12 Mean	157 3-May-12 Std. Dev.	158 17-Aug-12 Mean	158 17-Aug-12 Std. Dev.	159 26-Nov-12 Mean	159 26-Nov-12 Std. Dev.	Annual Mean
Invertebrate Counts									
Rostanga pulchra	0.3	0.5	-	-	-	-	-	-	**<0.1**
Pisaster brevispinus	0.3	0.5	-	-	-	-	-	-	**<0.1**
Ophiuroidea	0.3	0.5	-	-	-	-	-	-	**<0.1**
Crassadoma gigantea	-	-	0.3	0.5	-	-	-	-	**<0.1**
Heptacarpus spp.	-	-	-	-	-	-	0.3	0.5	**<0.1**
Lophopanopeus spp.	-	-	0.3	0.5	-	-	-	-	**<0.1**
Paracyathus steamsii	0.3	0.5	-	-	-	-	-	-	**<0.1**
Lepidozona spp.	-	-	0.3	0.5	-	-	-	-	**<0.1**
Eupentacta quinquesemita	-	-	-	-	-	-	0.3	0.5	**<0.1**
Invertebrate Cover									
Porifera (encrusting)	<0.1	<0.01	<0.1	<0.01	0.4	0.5	<0.1	<0.01	**<0.1**
Balanus/Tetraclita spp.	-	-	-	-	0.1	0.2	0.3	0.5	**<0.1**
Acanthancora cyanocrypta	<0.1	<0.01	-	-	0.1	0.3	0.1	0.3	**<0.1**
bryozoa (encrusting)	<0.1	<0.01	<0.1	-	<0.1	0.1	<0.1	<0.01	**<0.1**
tunicates, compound/social	<0.1	<0.01	<0.1	-	<0.1	<0.01	<0.1	<0.01	**<0.1**
Spirorbidae	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	**<0.1**
Salmacina tribranchiata	-	-	-	-	<0.1	<0.01	-	-	**<0.1**

Table G6. Subtidal invertebrates (SFQ Method) survey means (abundance per 0.25 m^2; percent cover) standard deviations and annual means, South Diablo Cove Station SDC 3 -4m (10-15).

Survey / Survey Date / Taxon	156 30-Jan-12 Mean	Std. Dev.	157 22-May-12 Mean	Std. Dev.	158 27-Aug-12 Mean	Std. Dev.	159 27-Nov-12 Mean	Std. Dev.	Annual Mean
Invertebrate Counts									
Balanophyllia elegans	28.8	13.3	48.3	34.6	55.8	24.3	25.8	19.2	**39.6**
Pelecypoda boring	0.3	0.5	12.5	14.6	18.8	22.8	-	-	**7.9**
Phragmatopoma californica	3.5	1.3	7.0	2.5	1.3	2.5	1.5	1.3	**3.3**
Chaetopteridae	3.0	3.6	3.8	2.2	3.5	1.3	2.0	1.6	**3.1**
Serpulidae	2.5	1.0	2.8	1.7	2.5	2.7	3.5	1.7	**2.8**
Pista spp.	5.0	5.0	0.3	0.5	-	-	1.8	1.7	**1.8**
Anthopleura elegantissima	1.0	-	2.3	1.9	2.0	1.4	1.0	1.4	**1.6**
Ophiothrix spiculata	0.3	0.5	2.5	3.7	1.5	1.3	1.3	1.9	**1.4**
Sipuncula	0.8	0.5	1.0	1.2	3.3	1.9	0.5	0.6	**1.4**
Pagurus spp.	-	-	1.8	1.0	0.3	0.5	2.5	1.9	**1.1**
Eulithidium spp.	-	-	-	-	-	-	4.5	7.7	**1.1**
Mitra idae	2.0	0.8	0.3	0.5	1.0	0.8	0.8	0.5	**1.0**
Diopatra ornata	1.0	1.4	0.5	1.0	0.5	1.0	1.8	2.9	**0.9**
Pugettia spp.	0.3	0.5	0.8	1.0	1.3	0.5	1.3	1.0	**0.9**
Serpulorbis squamigerus	0.8	1.0	1.0	1.2	1.0	1.2	0.5	0.6	**0.8**
Paracyathus steamsii	0.8	1.5	0.5	1.0	1.3	1.9	0.5	1.0	**0.8**
Sabellidae	0.3	0.5	0.5	1.0	1.8	2.9	-	-	**0.6**
Strongylocentrotus purpuratus	0.5	0.6	0.8	0.5	0.8	1.0	0.3	0.5	**0.6**
Acmaea mitra	0.3	0.5	0.3	0.5	0.8	1.0	0.5	0.6	**0.4**
Tethya californiana	0.3	0.5	0.5	0.6	0.5	0.6	0.5	0.6	**0.4**
Amphissa spp.	1.0	1.4	0.3	0.5	-	-	0.5	0.6	**0.4**
Alia spp.	0.8	1.0	0.8	1.0	-	-	-	-	**0.4**
Scyra acutifrons	0.3	0.5	-	-	-	-	1.3	1.9	**0.4**
Corynactis californica	1.3	2.5	-	-	-	-	-	-	**0.3**
Dendropoma spp.	-	-	-	-	0.5	1.0	0.8	1.5	**0.3**
Doriopsilla albopunctata	0.3	0.5	-	-	0.5	1.0	0.3	0.5	**0.3**
Anthopleura artemisia	-	-	0.5	0.6	0.3	0.5	-	-	**0.2**
Anthozoa	-	-	0.5	0.6	0.3	0.5	-	-	**0.2**
Patiria miniata	0.3	0.5	-	-	-	-	0.5	0.6	**0.2**
Ischnochitonidae	-	-	0.3	0.5	0.5	0.6	-	-	**0.2**
Mimulus foliatus	-	-	-	-	0.5	0.6	0.3	0.5	**0.2**
Lissothuria nutriens	-	-	0.3	0.5	-	-	0.5	0.6	**0.2**
Lottiidae	-	-	-	-	-	-	0.5	0.6	**0.1**
Leucilla nuttingi	-	-	0.5	1.0	-	-	-	-	**0.1**
Cucumaria spp.	-	-	-	-	-	-	0.5	0.6	**0.1**
Cirratulidae/Terebellidae	-	-	0.5	1.0	-	-	-	-	**0.1**
Epiactis prolifera	0.3	0.5	-	-	-	-	-	-	**<0.1**
Diodora spp.	-	-	-	-	0.3	0.5	-	-	**<0.1**
Chlorostoma brunnea	-	-	-	-	-	-	0.3	0.5	**<0.1**
Crepidula spp.	0.3	0.5	-	-	-	-	-	-	**<0.1**
Loxorhynchus spp.	0.3	0.5	-	-	-	-	-	-	**<0.1**
tunicate, solitary	-	-	0.3	0.5	-	-	-	-	**<0.1**
Ocinebrina spp.	-	-	-	-	-	-	0.3	0.5	**<0.1**

(table continued)

Table G6. (continued) Subtidal invertebrates (SFQ Method) survey means (abundance per 0.25 m^2; percent cover) standard deviations and annual means, South Diablo Cove Station SDC 3 -4m (10-15).

Survey	156		157		158		159		
Survey Date	30-Jan-12		22-May-12		27-Aug-12		27-Nov-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts									
Ophioplocus esmarki	0.3	0.5	-	-	-	-	-	-	**<0.1**
Ophiuroidea	0.3	0.5	-	-	-	-	-	-	**<0.1**
Cancridae	-	-	-	-	0.3	0.5	-	-	**<0.1**
Heptacarpus spp.	-	-	-	-	-	-	0.3	0.5	**<0.1**
Haliotis spp.	0.3	0.5	-	-	-	-	-	-	**<0.1**
Rictaxis punctocaelatus	0.3	0.5	-	-	-	-	-	-	**<0.1**
Eupentacta quinquesemita	-	-	-	-	-	-	0.3	0.5	**<0.1**
Invertebrate Cover									
Balanus/Tetraclita spp.	1.4	1.0	1.3	2.6	7.1	4.3	2.1	1.3	**3.0**
Acanthancora cyanocrypta	0.6	0.5	1.0	0.5	1.5	1.0	0.6	0.5	**0.9**
Porifera (encrusting)	0.4	0.5	1.0	1.1	1.6	1.4	<0.1	0.1	**0.8**
bryozoa (encrusting)	0.1	0.3	0.3	0.4	<0.1	0.1	<0.1	-	**0.1**
tunicates, compound/social	<0.1	0.1	<0.1	0.1	0.2	0.4	<0.1	-	**<0.1**
Hydroidolina	<0.1	-	-	-	-	-	<0.1	-	**<0.1**
Spirorbidae	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	**<0.1**

Table G7. Subtidal invertebrates (SFQ Method) survey means (abundance per 0.25 m^2; percent cover) standard deviations and annual means, South Control Station SC 1 -3m (19-10).

Survey / Survey Date / Taxon	156 5-Mar-12 Mean	156 5-Mar-12 Std. Dev.	157 25-Jun-12 Mean	157 25-Jun-12 Std. Dev.	158 11-Sep-12 Mean	158 11-Sep-12 Std. Dev.	159 11-Dec-12 Mean	159 11-Dec-12 Std. Dev.	Annual Mean
Invertebrate Counts									
Phragmatopoma californica	30.0	46.7	4.8	7.1	32.0	52.2	129.3	246.5	**49.0**
Pagurus spp.	1.5	1.3	8.5	5.5	8.5	3.4	7.0	4.7	**6.4**
Homolo. luridum/Lirularia succincta	4.5	2.1	6.0	3.2	3.0	2.2	10.5	5.3	**6.0**
Chlorostoma brunnea	4.0	2.9	3.8	1.3	7.0	3.6	4.8	2.5	**4.9**
Dendropoma spp.	6.0	5.9	3.3	6.5	0.5	1.0	-	-	**2.4**
Lottia instabilis	1.8	1.5	1.5	0.6	2.5	1.7	1.3	1.3	**1.8**
Leptasterias spp.	1.3	1.0	3.0	0.8	1.3	0.5	1.5	1.7	**1.8**
Pista spp.	0.8	1.5	0.8	1.5	1.8	3.5	2.3	4.5	**1.4**
Pugettia spp.	0.5	0.6	1.8	1.0	1.0	1.4	2.3	3.2	**1.4**
Amphissa spp.	0.8	0.5	1.0	0.8	3.0	2.7	0.8	1.0	**1.4**
Crepidula spp.	2.8	3.2	0.8	1.5	0.5	0.6	0.5	1.0	**1.1**
Balanophyllia elegans	1.3	1.5	-	-	1.0	1.4	0.8	1.0	**0.8**
Tonicella lineata	1.5	1.0	0.5	0.6	-	-	0.5	0.6	**0.6**
Alia spp.	0.5	0.6	-	-	1.5	1.3	-	-	**0.5**
Patiria miniata	0.3	0.5	0.3	0.5	1.0	0.8	0.3	0.5	**0.4**
Scyra acutifrons	-	-	1.3	0.5	0.3	0.5	0.3	0.5	**0.4**
Calliostoma ligatum	0.5	0.6	0.5	0.6	0.3	0.5	0.3	0.5	**0.4**
Mitra idae	0.3	0.5	0.5	0.6	0.5	1.0	0.3	0.5	**0.4**
Pseudomelatoma torosa	1.0	0.8	-	-	0.3	0.5	0.3	0.5	**0.4**
Serpulidae	-	-	0.8	1.0	0.5	1.0	0.3	0.5	**0.4**
Anthopleura elegantissima	0.5	0.6	0.5	0.6	-	-	0.3	0.5	**0.3**
Loxorhynchus spp.	-	-	0.8	1.0	0.5	0.6	-	-	**0.3**
Ocinebrina spp.	-	-	0.5	0.6	0.3	0.5	0.5	1.0	**0.3**
Lottiidae	0.3	0.5	0.5	0.6	-	-	0.3	0.5	**0.3**
Aptyxis luteopictus	-	-	0.5	0.6	0.3	0.5	0.3	0.5	**0.3**
Mimulus foliatus	-	-	0.3	0.5	0.3	0.5	0.5	0.6	**0.3**
Lissothuria nutriens	0.5	1.0	0.3	0.5	0.3	0.5	-	-	**0.3**
Chaetopteridae	-	-	-	-	-	-	1.0	2.0	**0.3**
Epiactis prolifera	-	-	-	-	0.3	0.5	0.5	0.6	**0.2**
Urticina spp.	-	-	0.3	0.5	0.5	1.0	-	-	**0.2**
Acmaea mitra	-	-	0.3	0.5	0.5	0.6	-	-	**0.2**
Pomaulax gibberosa	0.3	0.5	-	-	0.3	0.5	0.3	0.5	**0.2**
Diopatra ornata	-	-	-	-	0.3	0.5	0.5	1.0	**0.2**
Ischnochitonidae	-	-	0.5	0.6	-	-	0.3	0.5	**0.2**
Pisaster/Henricia spp. (juv.)	-	-	0.3	0.5	-	-	0.5	0.6	**0.2**
Fissurella volcano	-	-	0.5	0.6	-	-	-	-	**0.1**
Pelecypoda boring	0.3	0.5	-	-	-	-	0.3	0.5	**0.1**
Anthozoa	-	-	-	-	-	-	0.3	0.5	**<0.1**
Mopalia spp.	-	-	0.3	0.5	-	-	-	-	**<0.1**
Serpulorbis squamigerus	-	-	-	-	0.3	0.5	-	-	**<0.1**
Romaleon antennarius	-	-	-	-	0.3	0.5	-	-	**<0.1**
Strongylocentrotus purpuratus	-	-	0.3	0.5	-	-	-	-	**<0.1**
Diaulula sandiegensis	-	-	0.3	0.5	-	-	-	-	**<0.1**

(table continued)

Table G7 (continued). Subtidal invertebrates (SFQ Method) survey means (abundance per 0.25 m^2; percent cover) standard deviations and annual means, South Control Station SC 1 -3m (19-10).

Survey	156		157		158		159		
Survey Date	5-Mar-12		25-Jun-12		11-Sep-12		11-Dec-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts									
Cryptochiton stelleri	-	-	0.3	0.5	-	-	-	-	**<0.1**
Ophiuroidea	-	-	-	-	0.3	0.5	-	-	**<0.1**
Sipuncula	0.3	0.5	-	-	-	-	-	-	**<0.1**
Okenia rosacea	0.3	0.5	-	-	-	-	-	-	**<0.1**
Lepidozona spp.	-	-	-	-	0.3	0.5	-	-	**<0.1**
Invertebrate Cover									
Balanus/Tetraclita spp.	1.0	1.9	-	-	0.9	1.5	0.5	0.5	**0.6**
Porifera (encrusting)	1.2	0.4	0.3	0.2	0.2	0.3	0.3	0.3	**0.5**
bryozoa (encrusting)	0.9	0.6	0.5	0.4	0.2	0.3	0.3	0.4	**0.5**
tunicates, compound/social	0.5	0.9	0.1	0.2	0.2	0.3	0.6	0.7	**0.4**
Dodecaceria fewkesi	-	-	0.2	0.4	-	-	-	-	**<0.1**
Abiet./Seriularella/Sertularia spp.	-	-	-	-	<0.1	0.1	-	-	**<0.1**
Spirorbidae	<0.1	<0.01	<0.1	-	<0.1	-	<0.1	-	**<0.1**
Hydroidolina	-	-	<0.1	-	-	-	-	-	**<0.1**
Salmacina tribranchiata	<0.1	<0.01	<0.1	<0.01	-	-	-	-	**<0.1**

Table G8. Subtidal invertebrates (SFQ Method) survey means (abundance per 0.25 m^2; percent cover) standard deviations and annual means, South Control Station SC 2 -6m (20-20).

Survey	156		157		158		159		
Survey Date	9-Mar-12		19-Jun-12		7-Sep-12		10-Dec-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts									
Corynactis californica	88.8	95.8	28.5	34.1	75.8	90.1	27.5	36.5	**55.1**
Balanophyllia elegans	63.3	68.8	41.0	40.7	62.5	78.7	21.0	33.1	**46.9**
Phragmatopoma californica	20.0	20.4	16.3	17.4	10.0	12.3	10.3	8.8	**14.1**
Homolo. luridum/Lirularia succincta	6.5	4.5	8.3	5.7	2.8	2.8	7.8	4.4	**6.3**
Serpulorbis squamigerus	4.0	4.8	4.3	3.9	8.8	9.5	4.3	3.3	**5.3**
Pagurus spp.	2.3	1.7	1.5	1.3	0.8	1.0	8.0	5.0	**3.1**
Dendropoma spp.	2.5	3.8	1.0	1.2	5.8	6.5	0.5	1.0	**2.4**
Chlorostoma brunnea	0.8	1.0	2.3	1.0	0.3	0.5	4.8	3.6	**2.0**
Serpulidae	0.5	0.6	2.0	1.4	1.3	1.5	3.3	3.9	**1.8**
Epiactis prolifera	1.5	1.7	2.0	1.4	1.0	1.4	1.3	1.0	**1.4**
Amphissa spp.	1.5	1.3	2.3	1.3	1.3	2.5	0.8	1.0	**1.4**
Cucumaria spp.	0.3	0.5	3.0	1.4	1.3	1.9	0.8	0.5	**1.3**
Lottia instabilis	1.5	1.7	0.8	1.0	1.0	0.8	1.8	1.7	**1.3**
Leptasterias spp.	0.5	0.6	1.8	1.0	0.5	0.6	2.0	1.4	**1.2**
Sabellidae	2.0	0.8	1.0	0.8	1.0	1.4	-	-	**1.0**
Pelecypoda boring	0.3	0.5	1.0	0.8	2.3	1.0	0.5	0.6	**1.0**
Pugettia spp.	0.3	0.5	0.3	0.5	1.5	1.3	1.5	1.3	**0.9**
Ocinebrina spp.	0.8	1.5	0.5	0.6	-	-	1.8	1.5	**0.8**
Crepidula spp.	1.3	1.5	0.8	1.0	-	-	0.8	1.0	**0.7**
Patiria miniata	0.5	0.6	0.5	0.6	1.0	2.0	0.5	0.6	**0.6**
Mitra idae	0.8	0.5	0.8	0.5	0.5	0.6	0.5	0.6	**0.6**
Aptyxis luteopictus	-	-	1.5	1.7	-	-	1.0	0.8	**0.6**
Eupentacta quinquesemita	-	-	2.0	1.4	0.3	0.5	-	-	**0.6**
Acmaea mitra	0.5	0.6	1.0	0.8	0.3	0.5	0.3	0.5	**0.5**
Tonicella lineata	0.8	0.5	-	-	0.3	0.5	0.8	0.5	**0.4**
Lottiidae	0.8	1.0	0.8	1.0	-	-	-	-	**0.4**
Anthopleura elegantissima	-	-	0.8	1.0	-	-	0.5	0.6	**0.3**
Ischnochitonidae	0.5	0.6	0.3	0.5	0.3	0.5	0.3	0.5	**0.3**
Mimulus foliatus	0.3	0.5	-	-	0.5	0.6	0.5	0.6	**0.3**
Sipuncula	-	-	0.5	0.6	0.3	0.5	0.5	0.6	**0.3**
Chlorostoma montereyi	-	-	0.3	0.5	0.3	0.5	0.5	0.6	**0.3**
Eudistylia polymorpha	-	-	1.0	2.0	-	-	-	-	**0.3**
Calliostoma ligatum	0.3	0.5	0.3	0.5	0.3	0.5	-	-	**0.2**
Leucilla nuttingi	-	-	-	-	0.8	1.5	-	-	**0.2**
Pisaster/Henricia spp. (juv.)	-	-	0.3	0.5	-	-	0.5	0.6	**0.2**
Alia spp.	-	-	-	-	-	-	0.5	1.0	**0.1**
Tethya californiana	-	-	0.3	0.5	-	-	0.3	0.5	**0.1**
Cryptochiton stelleri	0.3	0.5	0.3	0.5	-	-	-	-	**0.1**
Scyra acutifrons	-	-	0.3	0.5	-	-	0.3	0.5	**0.1**
Doris spp.	0.3	0.5	-	-	0.3	0.5	-	-	**0.1**
Anthopleura artemisia	-	-	0.3	0.5	-	-	-	-	**<0.1**
Anthozoa	-	-	-	-	-	-	0.3	0.5	**<0.1**
Promartynia pulligo	-	-	-	-	0.3	0.5	-	-	**<0.1**

(table continued)

Table G8 (continued). Subtidal invertebrates (SFQ Method) survey means (abundance per 0.25 m^2; percent cover) standard deviations and annual means, South Control Station SC 2 -6m (20-20).

Survey	156		157		158		159		
Survey Date	9-Mar-12		19-Jun-12		7-Sep-12		10-Dec-12		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts									
Pycnopodia helianthoides	0.3	0.5	-	-	-	-	-	-	**<0.1**
Loxorhynchus spp.	-	-	-	-	-	-	0.3	0.5	**<0.1**
tunicate, solitary	-	-	-	-	0.3	0.5	-	-	**<0.1**
Doriopsilla albopunctata	-	-	-	-	-	-	0.3	0.5	**<0.1**
Pseudomelatoma torosa	-	-	-	-	-	-	0.3	0.5	**<0.1**
Orthasterias koehleri	0.3	0.5	-	-	-	-	-	-	**<0.1**
Cancridae	-	-	-	-	0.3	0.5	-	-	**<0.1**
Paracyathus steamsii	-	-	-	-	-	-	0.3	0.5	**<0.1**
Ocinebrina subangulata	-	-	-	-	-	-	0.3	0.5	**<0.1**
Invertebrate Cover									
Balanus/Tetraclita spp.	7.4	10.3	2.1	2.1	194.7	126.3	108.9	99.5	**78.3**
bryozoa (encrusting)	1.1	1.9	1.2	1.2	1.0	1.9	0.6	0.3	**1.0**
Acanthancora cyanocrypta	1.4	1.2	1.4	1.3	-	-	0.8	0.7	**0.9**
Porifera (encrusting)	1.0	0.7	1.0	0.3	0.3	0.3	0.5	0.4	**0.7**
Spheciospongia confoederata	-	-	-	-	2.1	1.9	-	-	**0.5**
tunicates, compound/social	0.1	0.2	0.5	0.7	0.6	0.3	0.1	0.2	**0.3**
Aglaophenia struthionides	0.2	0.4	<0.1	<0.01	0.1	0.3	-	-	**<0.1**
Spirorbidae	<0.1	<0.01	<0.1	<0.01	-	-	<0.1	-	**<0.1**
Hydroidolina	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	**<0.1**
bryozoa (erect)	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	**<0.1**
Abiet./Sertularella/Sertularia spp.	<0.1	<0.01	<0.1	<0.01	-	-	<0.1	<0.01	**<0.1**
Salmacina tribranchiata	-	-	-	-	-	-	<0.1	<0.01	**<0.1**

Diablo Canyon Power Plant

Appendix H

Subtidal Fishes (SFO Method)

Table H1. Subtidal fishes survey means (abundance per 50 x 4 x 2 m transect), standard deviations and annual means, Field's Cove Stations (FC FO-1 (1), FC FO-2 (2), FC FO-3 (3)).

Survey	154		155		156		157		
Survey Date	10-Apr-12		5-Jul-12		28-Sep-12		15-Jan-13		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Midwater									
Oxyjulis californica	18.6	37.2	-	-	14.6	35.7	1.1	1.7	**8.6**
Oxyjulis californica (juv.)	1.1	2.7	-	-	32.4	49.8	-	-	**8.4**
Aulorhynchus flavidus	5.8	8.2	0.4	0.7	4.2	4.9	-	-	**2.6**
Rhacochilus vacca	3.1	6.8	0.3	0.6	-	-	-	-	**0.8**
Sebastes chrysomelas/S. carnatus	-	-	2.8	4.5	-	-	-	-	**0.7**
Sebastes atrovirens	-	-	0.8	1.1	0.2	0.3	0.3	0.4	**0.3**
Brachyistius frenatus	-	-	0.4	0.6	0.2	0.4	-	-	**0.1**
Aulorhynchus flavidus (juv.)	-	-	-	-	0.6	1.4	-	-	**0.1**
Embiotoca lateralis	0.2	0.3	0.3	0.6	-	-	-	-	**0.1**
Embiotoca jacksoni	0.4	1.0	-	-	-	-	-	-	**0.1**
Rhacochilus vacca (juv.)	-	-	0.2	0.3	0.2	0.4	-	-	**<0.1**
Rhacochilus toxotes	<0.1	0.2	-	-	-	-	0.2	0.4	**<0.1**
Sebastes serranoides/S. flavidus (yoy)	-	-	0.2	0.4	<0.1	0.2	-	-	**<0.1**
Sebastes serranoides	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Sebastes mystinus	<0.1	0.2	-	-	-	-	-	-	**<0.1**
Sebastes paucispinis (juv.)	-	-	-	-	<0.1	0.2	-	-	**<0.1**
Benthic									
Oxyjulis californica	10.3	23.4	0.3	0.6	-	-	2.2	5.1	**3.2**
Oxylebius pictus	2.7	1.6	2.0	2.3	3.3	1.4	4.3	2.8	**3.1**
Sebastes atrovirens	0.3	0.5	2.5	2.1	0.8	0.7	1.8	1.9	**1.4**
Embiotoca lateralis	1.4	1.1	1.1	0.5	1.1	0.9	1.2	1.3	**1.2**
Gibbonsia spp.	0.7	0.3	0.8	0.4	1.2	0.4	1.8	0.7	**1.1**
Embiotoca jacksoni	1.5	1.3	0.8	0.7	0.6	0.9	0.8	0.5	**0.9**
Rhacochilus vacca	2.6	4.2	0.3	0.3	0.5	1.0	0.2	0.3	**0.9**
Scorpaenichthys marmoratus	0.8	0.8	0.9	0.6	0.3	0.6	1.3	0.3	**0.8**
Sebastes chrysomelas	0.3	0.5	1.0	1.4	0.9	0.7	1.1	1.5	**0.8**
Sebastes rastrelliger	0.4	0.6	0.3	0.6	0.8	0.9	1.7	1.3	**0.8**
Sebastes chrysomelas (juv.)	0.6	0.6	1.2	1.0	0.6	1.2	0.8	1.1	**0.8**
Aulorhynchus flavidus	0.8	1.8	-	-	2.3	4.1	-	-	**0.8**
Embiotoca lateralis (juv.)	0.2	0.4	0.3	0.3	1.3	0.5	0.9	1.1	**0.6**
Embiotoca jacksoni (juv.)	0.3	0.6	0.5	1.2	0.8	0.8	0.3	0.6	**0.5**
Sebastes chrysomelas/S. carnatus	<0.1	0.2	-	-	0.9	0.9	0.8	1.6	**0.4**
Sebastes mystinus (yoy)	-	-	1.2	2.9	0.4	1.0	<0.1	0.2	**0.4**
Rhacochilus toxotes	0.4	0.7	<0.1	0.2	0.3	0.4	0.4	0.6	**0.3**
Cebidichthys violaceus	0.2	0.3	0.2	0.3	0.3	0.3	0.6	0.5	**0.3**
Orthonopias triacis	0.2	0.3	<0.1	0.2	<0.1	0.2	0.7	0.9	**0.3**
Hexagrammos decagrammus	0.2	0.3	<0.1	0.2	0.3	0.4	0.5	0.3	**0.3**
Oxyjulis californica (juv.)	0.8	2.0	-	-	-	-	-	-	**0.2**
Rhacochilus vacca (juv.)	-	-	0.7	1.6	0.2	0.3	-	-	**0.2**
Ophiodon elongatus	0.3	0.6	-	-	<0.1	0.2	0.3	0.4	**0.1**
Hypsurus caryi	-	-	0.3	0.6	0.3	0.4	-	-	**0.1**
Artedius spp.	0.2	0.3	-	-	<0.1	0.2	0.2	0.4	**0.1**
Sebastes serranoides/S. flavidus (yoy)	-	-	0.2	0.4	<0.1	0.2	-	-	**<0.1**
Brachyistius frenatus	-	-	-	-	<0.1	0.2	<0.1	0.2	**<0.1**

(table continued)

Table H1 (continued). Subtidal fishes survey means (abundance per 50 x 4 x 2 m transect), standard deviations and annual means, Field's Cove Stations (FC FO-1 (1), FC FO-2 (2), FC FO-3 (3)).

Survey	154		155		156		157		
Survey Date	10-Apr-12		5-Jul-12		28-Sep-12		15-Jan-13		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Benthic									
Sebastes mystinus (juv.)	-	-	-	-	-	-	0.2	0.4	**<0.1**
Sebastes melanops (yoy)	-	-	-	-	0.2	0.4	-	-	**<0.1**
Sebastes serranoides	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Sebastes melanops	-	-	-	-	<0.1	0.2	-	-	**<0.1**
Sebastes carnatus	-	-	-	-	-	-	<0.1	0.2	**<0.1**
Ophiodon elongatus (juv.)	-	-	-	-	-	-	<0.1	0.2	**<0.1**
Chirolophis nugator	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Nautichthys oculofasciatus	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Cottidae	-	-	-	-	<0.1	0.2	-	-	**<0.1**

Table H2. Subtidal fishes survey means (abundance per 50 x 4 x 2 m transect), standard deviations and annual means, North Diablo Cove Stations (NDC FO-1 (5), NDC FO-2 (6), NDC FO-3 (7)).

Survey	154		155		156		157		
Survey Date	10-Apr-12		5-Jul-12		25-Sep-12		15-Jan-13		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Midwater									
Atherinopsis californiensis	50.0	122.5	-	-	0.9	1.8	-	-	**12.7**
Atherinopsidae	-	-	43.3	106.1	-	-	-	-	**10.8**
Sebastes chrysomelas/S. carnatus	-	-	9.5	8.1	-	-	-	-	**2.4**
Brachyistius frenatus	0.5	0.8	3.1	5.5	0.7	1.6	0.8	1.8	**1.3**
Embiotoca jacksoni	0.3	0.3	1.5	2.6	<0.1	0.2	0.8	1.4	**0.6**
Brachyistius frenatus (juv.)	-	-	2.3	3.4	-	-	-	-	**0.6**
Rhacochilus vacca	1.6	2.2	0.3	0.4	0.2	0.4	<0.1	0.2	**0.5**
Sebastes serranoides	0.4	0.8	0.5	0.8	<0.1	0.2	0.8	1.2	**0.4**
Oxyjulis californica	-	-	0.3	0.6	<0.1	0.2	0.4	1.0	**0.2**
Sebastes serranoides/S. flavidus (yoy)	0.3	0.6	-	-	0.3	0.8	<0.1	0.2	**0.2**
Girella nigricans	0.2	0.4	0.3	0.6	<0.1	0.2	<0.1	0.2	**0.1**
Sebastes atrovirens	-	-	-	-	0.2	0.3	0.2	0.4	**<0.1**
Rhacochilus vacca (juv.)	-	-	0.3	0.4	-	-	-	-	**<0.1**
Triakis semifasciata	<0.1	0.2	0.2	0.3	-	-	-	-	**<0.1**
Rhacochilus toxotes	-	-	0.2	0.3	-	-	-	-	**<0.1**
Paralabrax clathratus	<0.1	0.2	-	-	-	-	<0.1	0.2	**<0.1**
Embiotoca lateralis	-	-	-	-	<0.1	0.2	-	-	**<0.1**
Embiotoca lateralis (juv.)	-	-	-	-	<0.1	0.2	-	-	**<0.1**
Benthic									
Embiotoca jacksoni	4.3	1.5	4.5	1.9	2.0	1.1	5.3	3.0	**4.0**
Oxylebius pictus	4.3	1.9	3.3	1.4	2.8	3.0	5.4	3.0	**4.0**
Rhacochilus vacca	12.4	16.4	1.0	1.2	0.7	0.8	0.6	0.8	**3.7**
Embiotoca jacksoni (juv.)	2.3	1.8	1.6	1.3	1.3	0.6	2.5	2.1	**1.9**
Sebastes chrysomelas/S. carnatus	0.3	0.4	6.3	6.6	-	-	0.3	0.4	**1.7**
Rhinogobiops nicholsi	2.0	1.0	1.1	1.1	1.2	1.0	2.0	1.6	**1.6**
Rhacochilus vacca (juv.)	3.0	5.2	1.2	1.2	0.7	1.1	0.6	0.9	**1.4**
Oxyjulis californica	0.3	0.4	1.3	1.1	<0.1	0.2	1.8	3.4	**0.9**
Sebastes serranoides/S. flavidus (yoy)	1.3	2.0	1.8	1.6	-	-	0.2	0.4	**0.8**
Sebastes chrysomelas	0.4	0.7	0.8	0.5	0.4	0.7	1.5	1.5	**0.8**
Gibbonsia spp.	0.7	0.5	0.7	0.8	0.2	0.3	1.4	1.9	**0.7**
Embiotoca lateralis	<0.1	0.2	0.8	0.7	1.3	1.4	0.8	0.8	**0.7**
Brachyistius frenatus	1.2	1.8	0.5	0.8	-	-	1.0	1.8	**0.7**
Oxyjulis californica (juv.)	-	-	-	-	-	-	1.9	4.7	**0.5**
Scorpaenichthys marmoratus	0.4	0.4	0.3	0.4	0.2	0.4	0.9	1.1	**0.5**
Girella nigricans	0.3	0.4	0.4	1.0	-	-	1.0	1.3	**0.4**
Sebastes chrysomelas (juv.)	0.3	0.3	0.9	1.2	<0.1	0.2	0.3	0.4	**0.4**
Brachyistius frenatus (juv.)	-	-	0.2	0.3	0.2	0.4	0.8	2.0	**0.3**
Sebastes rastrelliger (juv.)	0.4	1.0	0.4	0.6	0.2	0.3	<0.1	0.2	**0.3**
Sebastes atrovirens	0.3	0.8	0.4	0.6	0.2	0.3	<0.1	0.2	**0.3**
Sebastes rastrelliger	0.2	0.3	-	-	0.4	0.5	0.3	0.8	**0.2**
Sebastes melanops	-	-	0.9	2.3	-	-	-	-	**0.2**
Sebastes serranoides	0.4	0.8	-	-	0.3	0.6	0.2	0.4	**0.2**
Ophiodon elongatus	0.3	0.5	-	-	-	-	0.5	0.6	**0.2**
Orthonopias triacis	<0.1	0.2	-	-	<0.1	0.2	0.5	0.6	**0.2**

(table continued)

Table H2 (continued). Subtidal fishes survey means (abundance per 50 x 4 x 2 m transect), standard deviations and annual means, North Diablo Cove Stations (NDC FO-1 (5), NDC FO-2 (6), NDC FO-3 (7)).

Survey	154		155		156		157		
Survey Date	10-Apr-12		5-Jul-12		25-Sep-12		15-Jan-13		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Benthic									
Hypsypops rubicundus	<0.1	0.2	-	-	<0.1	0.2	0.5	0.5	**0.2**
Embiotoca lateralis (juv.)	-	-	0.3	0.3	-	-	0.3	0.4	**0.1**
Urobatis halleri	0.5	0.6	-	-	-	-	-	-	**0.1**
Semicossyphus pulcher	0.3	0.3	0.2	0.4	<0.1	0.2	-	-	**0.1**
Rhacochilus toxotes	-	-	0.3	0.4	<0.1	0.2	-	-	**0.1**
Artedius spp.	<0.1	0.2	0.2	0.3	-	-	<0.1	0.2	**<0.1**
Sebastes mystinus (yoy)	-	-	0.3	0.5	-	-	-	-	**<0.1**
Sebastes melanops (yoy)	-	-	0.3	0.8	-	-	-	-	**<0.1**
Scorpaenichthys marmoratus (juv.)	-	-	0.3	0.4	-	-	-	-	**<0.1**
Sebastes atrovirens (yoy)	0.3	0.6	-	-	-	-	-	-	**<0.1**
Myliobatis californica	-	-	0.2	0.3	-	-	-	-	**<0.1**
Rhinogobiops nicholsi (juv.)	-	-	0.2	0.3	-	-	-	-	**<0.1**
Gobiesocidae	-	-	-	-	-	-	<0.1	0.2	**<0.1**
Hexagrammos decagrammus (juv.)	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Triakis semifasciata	<0.1	0.2	-	-	-	-	-	-	**<0.1**
Paralabrax clathratus	<0.1	0.2	-	-	-	-	-	-	**<0.1**
Hyperprosopon anale	<0.1	0.2	-	-	-	-	-	-	**<0.1**
Neoclinus uninotatus	-	-	-	-	-	-	<0.1	0.2	**<0.1**

Table H3. Subtidal fishes survey means (abundance per 50 x 4 x 2 m transect), standard deviations and annual means, South Diablo Cove Stations (SDC FO-1 (8), SDC FO-2 (9), SDC FO-3 (10)).

Survey	154		155		156		157		
Survey Date	21-Apr-12		9-Jul-12		25-Sep-12		15-Jan-13		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Midwater									
Atherinopsidae	-	-	-	-	96.8	150.3	3.8	5.9	**25.1**
Brachyistius frenatus	0.3	0.4	1.5	1.8	9.8	15.5	0.2	0.3	**2.9**
Oxyjulis californica (juv.)	-	-	-	-	5.5	12.1	0.3	0.8	**1.5**
Brachyistius frenatus (juv.)	0.4	1.0	1.1	1.7	2.0	4.9	0.2	0.3	**0.9**
Sebastes chrysomelas/S. carnatus	0.2	0.4	3.3	4.1	-	-	-	-	**0.9**
Aulorhynchus flavidus (juv.)	-	-	-	-	2.1	5.1	-	-	**0.5**
Atherinopsis californiensis	-	-	-	-	1.8	1.5	-	-	**0.4**
Rhacochilus vacca	-	-	0.6	1.0	0.3	0.6	0.8	0.8	**0.4**
Embiotoca jacksoni	0.3	0.6	0.5	0.8	-	-	0.4	1.0	**0.3**
Embiotoca lateralis	0.5	0.8	<0.1	0.2	-	-	-	-	**0.1**
Rhacochilus vacca (juv.)	-	-	0.6	1.4	-	-	-	-	**0.1**
Sebastes atrovirens (yoy)	-	-	0.6	1.4	-	-	-	-	**0.1**
Sebastes serranoides/S. flavidus (yoy)	0.3	0.4	0.3	0.8	-	-	-	-	**0.1**
Oxyjulis californica	-	-	-	-	0.2	0.3	-	-	**<0.1**
Sebastes mystinus (yoy)	-	-	0.2	0.4	-	-	-	-	**<0.1**
Aulorhynchus flavidus	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Sebastes atrovirens	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Benthic									
Sebastes serranoides/S. flavidus (yoy)	-	-	5.6	9.1	<0.1	0.2	-	-	**1.4**
Sebastes chrysomelas	0.8	1.2	1.2	1.4	1.7	1.4	1.8	1.6	**1.4**
Oxylebius pictus	0.3	0.5	1.2	1.0	1.8	1.5	1.4	0.6	**1.2**
Citharichthys spp.	0.4	0.6	2.6	2.3	0.4	0.4	0.4	0.8	**1.0**
Aulorhynchus flavidus (juv.)	-	-	-	-	3.5	6.1	-	-	**0.9**
Embiotoca jacksoni	0.9	1.0	0.8	0.8	0.8	0.5	0.9	0.9	**0.9**
Gibbonsia spp.	0.3	0.4	0.5	0.6	0.4	0.5	1.2	0.8	**0.6**
Rhinogobiops nicholsi	0.4	0.5	1.2	1.1	-	-	0.8	0.5	**0.6**
Sebastes chrysomelas/S. carnatus	-	-	2.0	1.9	-	-	-	-	**0.5**
Sebastes rastrelliger	0.8	0.8	<0.1	0.2	-	-	0.5	0.5	**0.4**
Scorpaenichthys marmoratus	0.2	0.4	0.3	0.4	0.3	0.3	0.5	0.5	**0.3**
Rhacochilus vacca	<0.1	0.2	0.2	0.3	0.3	0.6	0.5	0.6	**0.3**
Embiotoca lateralis	0.3	0.3	0.2	0.3	0.4	0.5	0.3	0.4	**0.3**
Brachyistius frenatus	0.3	0.8	0.2	0.3	0.5	1.2	-	-	**0.3**
Ophiodon elongatus	<0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.7	**0.2**
Artedius spp.	0.3	0.3	<0.1	0.2	0.3	0.4	0.2	0.3	**0.2**
Sebastes atrovirens	<0.1	0.2	0.4	0.6	0.2	0.3	<0.1	0.2	**0.2**
Orthonopias triacis	0.2	0.3	0.2	0.4	<0.1	0.2	0.3	0.4	**0.2**
Sebastes mystinus (yoy)	-	-	0.7	0.8	-	-	-	-	**0.2**
Rhacochilus vacca (juv.)	-	-	0.4	0.8	-	-	-	-	**0.1**
Aulorhynchus flavidus	0.3	0.6	-	-	<0.1	0.2	<0.1	0.2	**0.1**
Embiotoca jacksoni (juv.)	-	-	0.3	0.5	<0.1	0.2	-	-	**0.1**
Citharichthys spp. (juv)	-	-	-	-	0.3	0.6	-	-	**<0.1**
Sebastes melanops (yoy)	-	-	0.3	0.6	-	-	-	-	**<0.1**
Sebastes atrovirens (yoy)	-	-	0.3	0.4	-	-	-	-	**<0.1**
Rhacochilus toxotes	-	-	<0.1	0.2	<0.1	0.2	-	-	**<0.1**

(table continued)

Table H3 (continued). Subtidal fishes survey means (abundance per 50 x 4 x 2 m transect), standard deviations and annual means, South Diablo Cove Stations (SDC FO-1 (8), SDC FO-2 (9), SDC FO-3 (10)).

Survey	154		155		156		157		
Survey Date	21-Apr-12		9-Jul-12		25-Sep-12		15-Jan-13		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Benthic									
Pleuronichthys coenosus	-	-	<0.1	0.2	<0.1	0.2	-	-	**<0.1**
Hexagrammos decagrammus (juv.)	-	-	<0.1	0.2	-	-	<0.1	0.2	**<0.1**
Sebastes chrysomelas (juv.)	-	-	-	-	<0.1	0.2	<0.1	0.2	**<0.1**
Brachyistius frenatus (juv.)	-	-	-	-	-	-	0.2	0.3	**<0.1**
Sebastes atrovirens (juv.)	-	-	0.2	0.4	-	-	-	-	**<0.1**
Sebastes miniatus (juv)	-	-	-	-	-	-	0.2	0.3	**<0.1**
Oxyjulis californica	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Sebastes serranoides	-	-	-	-	-	-	<0.1	0.2	**<0.1**
Hexagrammos decagrammus	-	-	-	-	<0.1	0.2	-	-	**<0.1**
Embiotoca lateralis (juv.)	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Heterostichus rostratus (juv.)	-	-	-	-	-	-	<0.1	0.2	**<0.1**
Platyrhinoidis triseriata	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Neoclinus stephensae	<0.1	0.2	-	-	-	-	-	-	**<0.1**
Pleuronichthys coenosus (yoy)	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Rhinogobiops nicholsi (juv.)	<0.1	0.2	-	-	-	-	-	-	**<0.1**

Table H4. Subtidal fishes survey means (abundance per 50 x 4 x 2 m transect), standard deviations and annual means, Patton Cove Stations SC FO-1 (12), SC FO-2 (13), SC FO-3 (14).

Survey / Survey Date / Taxon	154 21-Apr-12 Mean	Std. Dev.	155 9-Jul-12 Mean	Std. Dev.	156 28-Sep-12 Mean	Std. Dev.	157 16-Jan-13 Mean	Std. Dev.	Annual Mean
Midwater									
Aulorhynchus flavidus	0.4	0.8	-	-	-	-	25.0	36.0	**6.4**
Sebastes chrysomelas/S. carnatus	-	-	16.3	18.8	-	-	-	-	**4.1**
Oxyjulis californica	6.8	16.7	-	-	0.4	0.5	6.1	5.1	**3.3**
Sebastes mystinus	-	-	-	-	3.1	6.4	0.2	0.4	**0.8**
Rhacochilus vacca	1.2	1.3	<0.1	0.2	0.3	0.6	1.3	1.2	**0.7**
Sebastes mystinus (yoy)	-	-	-	-	1.4	3.5	0.3	0.8	**0.4**
Oxyjulis californica (juv.)	1.3	3.1	-	-	-	-	-	-	**0.3**
Sebastes serranoides/S. flavidus (yoy)	-	-	1.1	2.2	<0.1	0.2	-	-	**0.3**
Sebastes serranoides	-	-	<0.1	0.2	<0.1	0.2	<0.1	0.2	**<0.1**
Embiotoca lateralis	<0.1	0.2	<0.1	0.2	<0.1	0.2	-	-	**<0.1**
Sebastes serranoides/S. flavidus (juv.)	-	-	0.2	0.3	-	-	-	-	**<0.1**
Brachyistius frenatus	-	-	<0.1	0.2	-	-	<0.1	0.2	**<0.1**
Sebastes mystinus (juv.)	-	-	-	-	-	-	0.2	0.4	**<0.1**
Gibbonsia spp.	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Rhacochilus toxotes	-	-	-	-	<0.1	0.2	-	-	**<0.1**
Embiotoca jacksoni	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Sebastes paucispinis (juv.)	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Sebastes melanops (yoy)	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Benthic									
Oxylebius pictus	1.7	1.6	2.0	0.9	6.0	2.0	5.2	1.6	**3.7**
Sebastes mystinus (yoy)	-	-	4.9	7.4	1.7	3.6	2.2	2.4	**2.2**
Rhacochilus vacca	1.4	2.0	1.2	1.3	0.9	0.9	4.1	3.0	**1.9**
Sebastes chrysomelas	0.8	0.9	1.2	0.8	1.6	1.1	3.4	2.8	**1.7**
Embiotoca lateralis	2.3	2.1	0.8	0.3	1.4	0.7	1.8	1.4	**1.6**
Embiotoca lateralis (juv.)	0.3	0.4	<0.1	0.2	2.1	1.9	3.0	2.4	**1.4**
Embiotoca jacksoni	1.0	0.6	0.6	0.7	1.8	1.0	1.9	1.2	**1.3**
Sebastes atrovirens	1.3	1.2	0.6	0.6	1.5	1.3	1.3	0.8	**1.2**
Hexagrammos decagrammus	0.4	0.4	0.3	0.4	1.1	0.8	1.2	0.5	**0.8**
Orthonopias triacis	<0.1	0.2	<0.1	0.2	0.8	1.0	1.9	1.7	**0.7**
Scorpaenichthys marmoratus	0.4	0.4	0.6	0.4	0.6	0.5	1.1	1.1	**0.7**
Sebastes rastrelliger	0.4	0.4	0.6	0.5	0.4	0.6	1.2	1.0	**0.6**
Sebastes mystinus (juv.)	0.7	1.2	-	-	0.3	0.8	0.9	2.3	**0.5**
Ophiodon elongatus	0.8	1.0	0.5	0.5	<0.1	0.2	0.4	0.4	**0.5**
Gibbonsia spp.	0.3	0.4	0.3	0.3	0.5	0.6	0.8	1.0	**0.5**
Sebastes melanops (yoy)	-	-	1.6	2.3	-	-	-	-	**0.4**
Sebastes chrysomelas (juv.)	0.2	0.3	<0.1	0.2	0.8	1.0	0.4	0.8	**0.4**
Sebastes chrysomelas/S. carnatus	-	-	1.0	2.5	0.3	0.4	<0.1	0.2	**0.4**
Sebastes serranoides/S. flavidus (yoy)	-	-	0.4	0.8	0.3	0.3	-	-	**0.2**
Cebidichthys violaceus	0.2	0.3	-	-	<0.1	0.2	0.4	0.7	**0.2**
Embiotoca jacksoni (juv.)	-	-	<0.1	0.2	0.5	0.8	<0.1	0.2	**0.2**
Artedius spp.	0.4	0.5	<0.1	0.2	<0.1	0.2	<0.1	0.2	**0.2**
Rhacochilus toxotes	0.2	0.4	-	-	-	-	0.4	0.5	**0.1**
Sebastes melanops	-	-	-	-	-	-	0.6	1.0	**0.1**
Rhacochilus vacca (juv.)	-	-	0.3	0.6	0.2	0.3	-	-	**0.1**
Hexagrammos decagrammus (juv.)	-	-	-	-	0.3	0.5	<0.1	0.2	**0.1**

(table continued)

Table H4 (continued). Subtidal fishes survey means (abundance per 50 x 4 x 2 m transect), standard deviations and annual means, Patton Cove Stations SC FO-1 (12), SC FO-2 (13), SC FO-3 (14).

Survey / Survey Date / Taxon	154 21-Apr-12 Mean	Std. Dev.	155 9-Jul-12 Mean	Std. Dev.	156 28-Sep-12 Mean	Std. Dev.	157 16-Jan-13 Mean	Std. Dev.	Annual Mean
Benthic									
Sebastes serranoides	-	-	-	-	-	-	0.3	0.8	**<0.1**
Oxyjulis californica (juv.)	<0.1	0.2	-	-	-	-	0.2	0.4	**<0.1**
Jordania zonope	-	-	-	-	-	-	0.3	0.3	**<0.1**
Brachyistius frenatus	-	-	-	-	-	-	0.2	0.3	**<0.1**
Cottidae	-	-	-	-	0.2	0.3	-	-	**<0.1**
Aulorhynchus flavidus	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Sebastes carnatus	-	-	-	-	-	-	<0.1	0.2	**<0.1**
Scorpaenichthys marmoratus (juv.)	-	-	-	-	-	-	<0.1	0.2	**<0.1**
Brachyistius frenatus (juv.)	<0.1	0.2	-	-	-	-	-	-	**<0.1**
Sebastes atrovirens (juv.)	<0.1	0.2	-	-	-	-	-	-	**<0.1**
Rimicola spp.	<0.1	0.2	-	-	-	-	-	-	**<0.1**