Pacific Gas and Electric Company®

Diablo Canyon Power Plant
P. O. Box 56
Avila Beach, CA 93424

April 28, 2006

Certified/Return Receipt
#7003-3110-0005-7002-5444

PG&E Letter DCL-2006-522

Mr. Roger Briggs, Executive Officer
Central Coast Regional Water Quality Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401-7906

Re: PG&E Diablo Canyon Power Plant (DCPP) Submittal -
Receiving Water Monitoring Program 2005 Annual Report

Dear Mr. Briggs:

Enclosed is a copy of the Receiving Water Monitoring Program 2005 Annual Report for DCPP. This report presents the physical and biological data collected in the Receiving Water Monitoring Program during 2005. Per our agreement, no analysis or interpretation of the data were performed. Tables in the appendices provide summary statistics for each task.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions regarding this report, please contact Bryan Cunningham of my staff at (805) 545-4439.

Sincerely,

James R. Becker
Vice President-Diablo Canyon Operations and Station Director

2006522/JLK/kmo

IE25

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Diablo Canyon Power Plant

NPDES Receiving Water Monitoring Program: 2005 Annual Report

April 27, 2006

Prepared for:

Pacific Gas and Electric Company
Diablo Canyon Power Plant
Avila Beach, CA 93424

Prepared by:

TENERA Environmental
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ESLO2006-021

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1.0 Introduction

Monitoring of the marine environment near the Diablo Canyon Power Plant (DCPP) is required by National Pollutant Discharge Elimination System (NPDES) Permit Order No. 90-09 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 water temperature and biological data collected from January 2005 through December 2005 from the RWMP intertidal and subtidal monitoring tasks (**Table 1**). The report sections are divided according to the program's individual study tasks. Sampling methods for the intertidal and subtidal studies are followed by the results for the surveys. This report is mainly a data presentation, and does not include any analysis or discussion of results. Most results are presented in the accompanying appendices. Comprehensive analyses of changes in the marine environment resulting from the DCPP discharge have been presented in previous reports (Tenera Environmental 1988, 1997, 1999a, 1999b and 2002; see Section 7.0 – *Literature Cited*).

Table 1. Tasks, stations, and frequency of surveys for the DCPP Receiving Water Monitoring Program, 2005.

Task and Sampling Frequency	Stations
Temperature Monitoring (continuous 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, 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

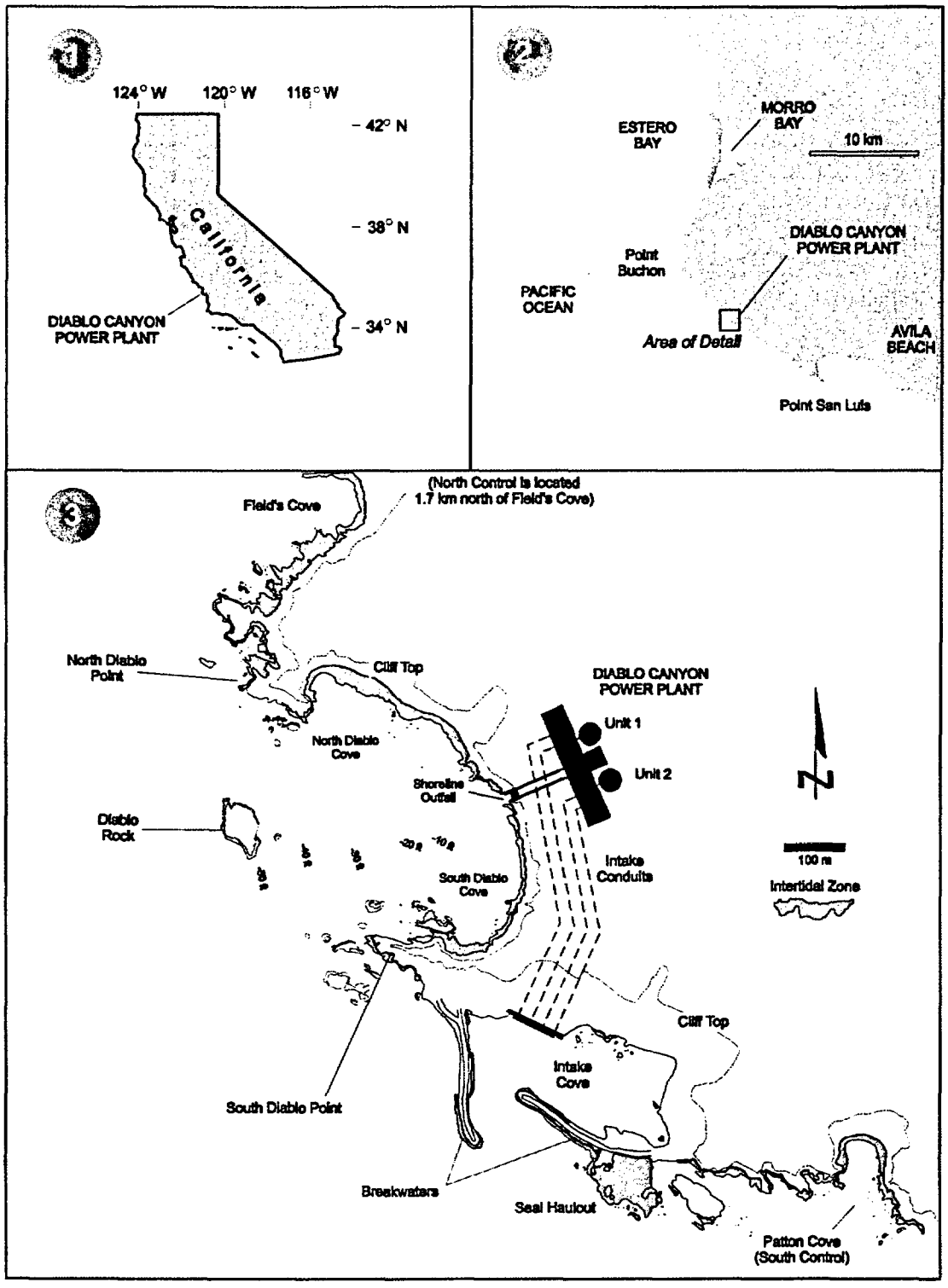

Figure 1. Location of the Diablo Canyon Power Plant.

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 mean lower low water (MLLW) elevation (**Figure 2**). Subtidal temperature recorders were located at depths from -3 to -6 m MLLW (**Figure 3**). The naming designation of individual subtidal stations reflects the area location and number, followed by the station depth relative to MLLW (e.g., NDC 1 -3m is North Diablo Cove subtidal Station 1 at a depth of -3 m MLLW).

The following 13 stations were in close proximity to the point of cooling water discharge in Diablo Cove, and were contacted regularly by the thermal 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 4 stations were located in Field's Cove, approximately one kilometer upcoast from Diablo Cove and were contacted intermittently by the thermal plume:

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

Subtidal: FC 1 -3m.

The following 6 control stations measured ambient ocean temperatures at sites beyond the influence of the DCPP cooling water 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 0.01°C with an accuracy of ± 0.2°C. Temperature units were deployed at a station for approximately 60 days and then exchanged with a serviced, calibrated unit. Intertidal temperature units recorded air temperatures when tidal levels receded below about +0.6 m MLLW. Air temperatures recorded by the intertidal temperature units were identified and removed from the database by referencing tidal height measurements that were calculated as the average tidal height from local NOAA tide stations at Morro Bay to the north and Port San Luis to the south.

Results for all subtidal and intertidal temperature recording stations are presented in **Appendix A** and **Appendix B**

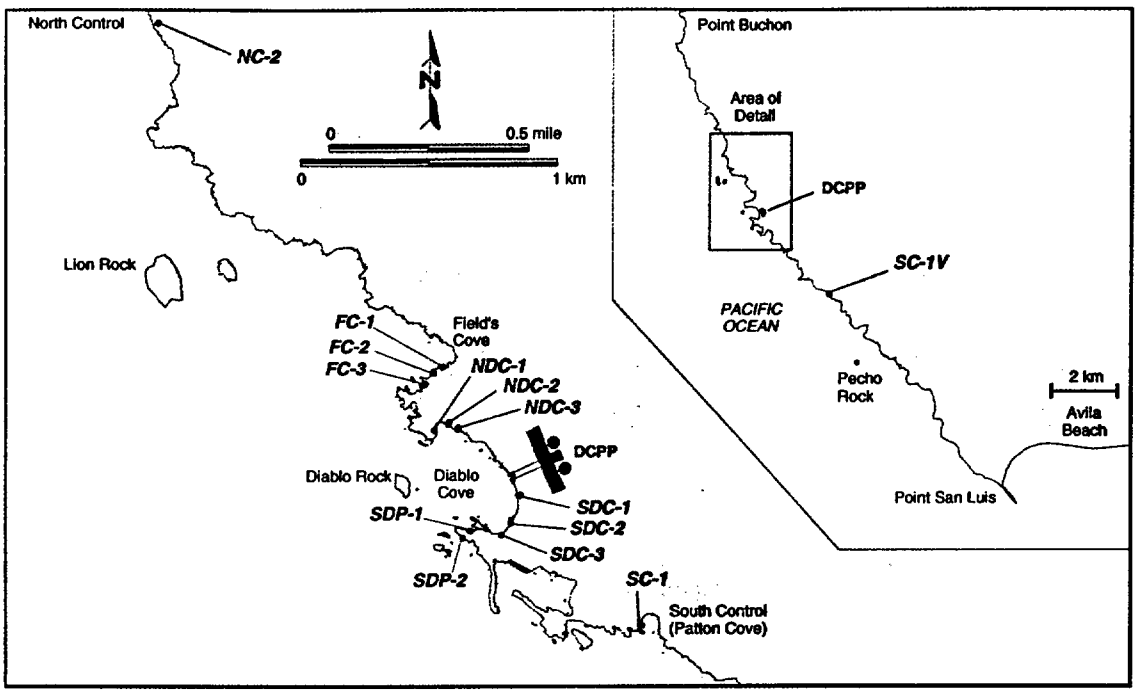

Figure 2. Locations of intertidal temperature monitoring stations.

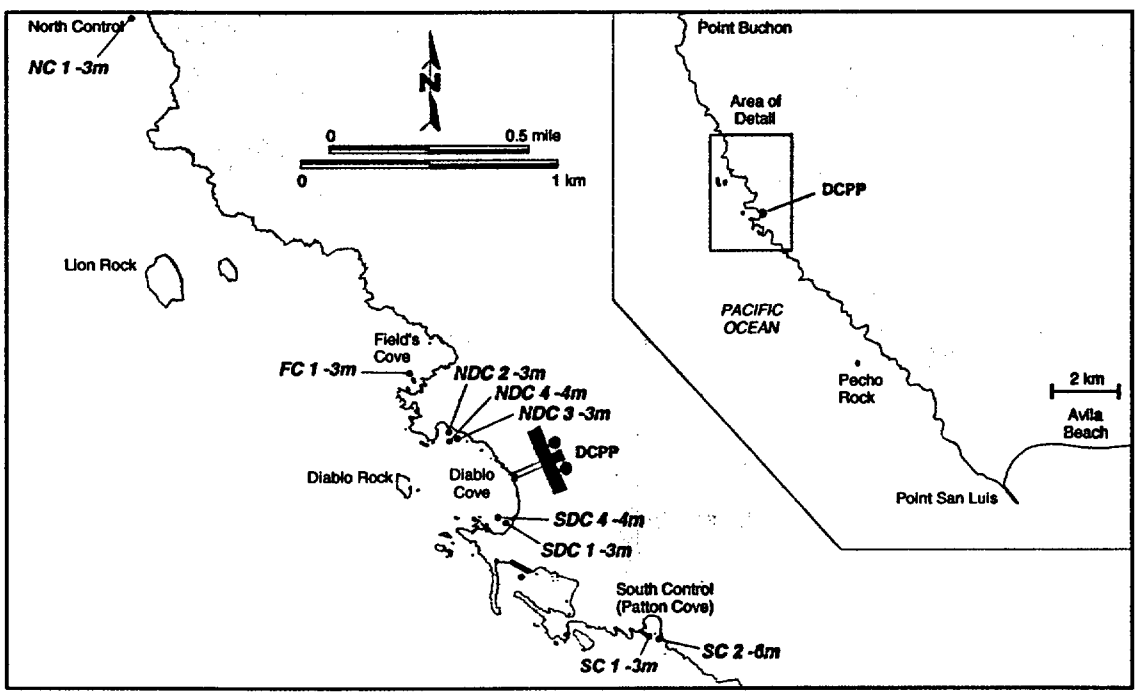

Figure 3. Locations of subtidal temperature monitoring stations.

3.0 Intertidal Algae and Invertebrates

Intertidal algae and invertebrates were sampled using the horizontal band transect (HBT) sampling method at the locations shown in **Figure 4**. 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. Only one transect at the +0.9 m (3 ft) MLLW tide level was sampled at stations SDP-1 and SDP-2. The sampling area of each transect consisted of ten 1 m^2 fixed quadrats. Stations were mainly on bedrock and boulders, but various amounts of cobble and sand also occurred at the stations. The substrate at the +0.9 m MLLW level at Station SDC-1 near the discharge was mainly barren cobble. Therefore, the upper transect at that station was located lower at the +0.6 m MLLW tide level where the intertidal biota was more abundant.

Visual estimates of percent cover were made for all algal species and bare substrate. Overstory species were sampled first for coverage estimates, and then the overstory branches and blades were moved aside to allow estimates of understory and crustose species cover. Species with less than one percent cover were recorded as "present" on the data sheet. Total algal cover plus bare substrate cover almost always exceeded 100 percent in a quadrat due to layering of multiple algal taxa on the rocks.

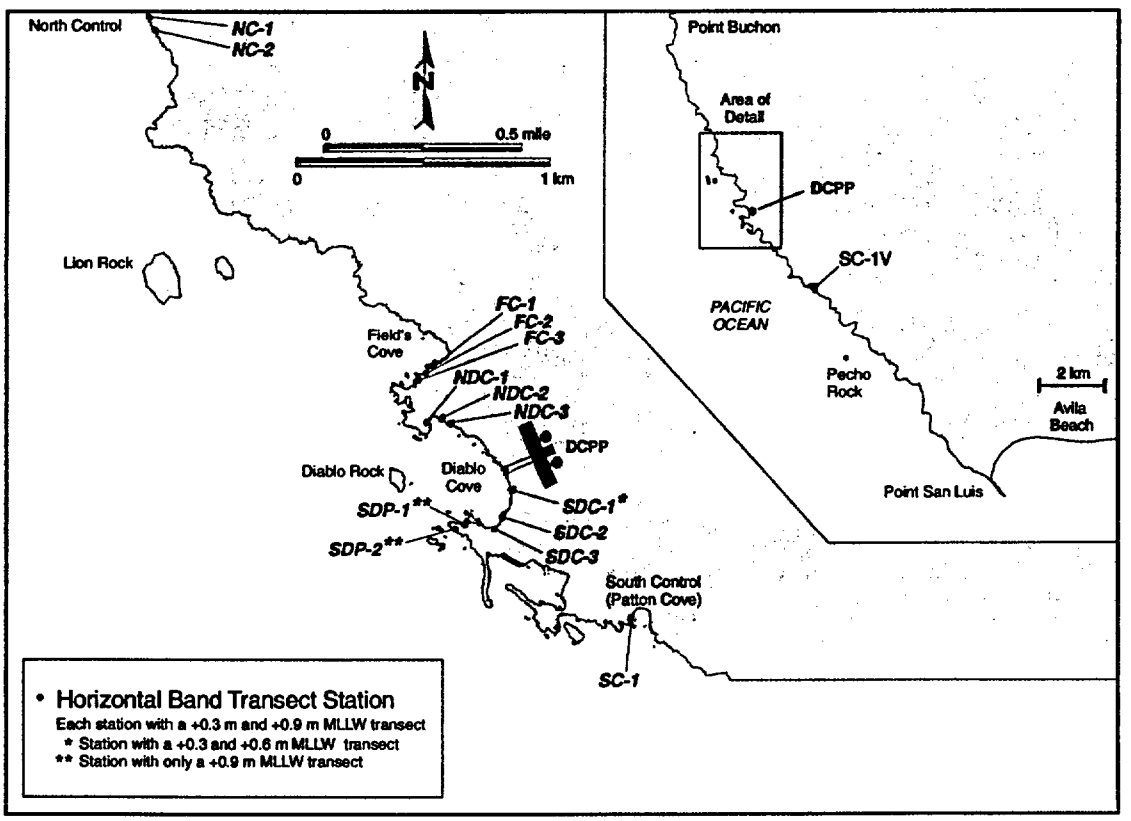

Figure 4. Horizontal band transect stations

Intertidal invertebrates were sampled in the same quadrats as the algae. In five of the ten quadrats, all species were recorded as either present or absent, and individuals larger than 2.5 cm in greatest dimension 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 algae and invertebrates were identified to the lowest taxonomic level practical. All sizes of black abalone were counted within these ten quadrats and within an additional five quadrats on the transect. The additional five quadrats had been sampled for algae and invertebrates during historical surveys in the 1980s, but are now retained only for providing additional replicate quadrats for sampling intertidal abalone.

The survey mean and standard deviation for each taxon at each transect level for the four surveys completed during the year are presented in **Appendix C**. The mean for the entire year across the four surveys was also calculated and presented. Survey statistics for algae and substrates are calculated from all ten quadrats along a transect, while statistics for the invertebrates are calculated from the data for 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.

4.0 Intertidal Fishes

Intertidal fishes were sampled using the Vertical Band Transect (VBT) sampling method. At each of five stations (**Figure 5**), three fixed 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 m^2 permanent sampling quadrats, for a total of thirty-six 1 m^2 quadrats per station. 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. Newly settled juvenile fishes were not identified to the species level but were grouped into composite taxa (e.g., Pholid/Stichaeid, *Anoplarchus/Cebidichthys*).

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

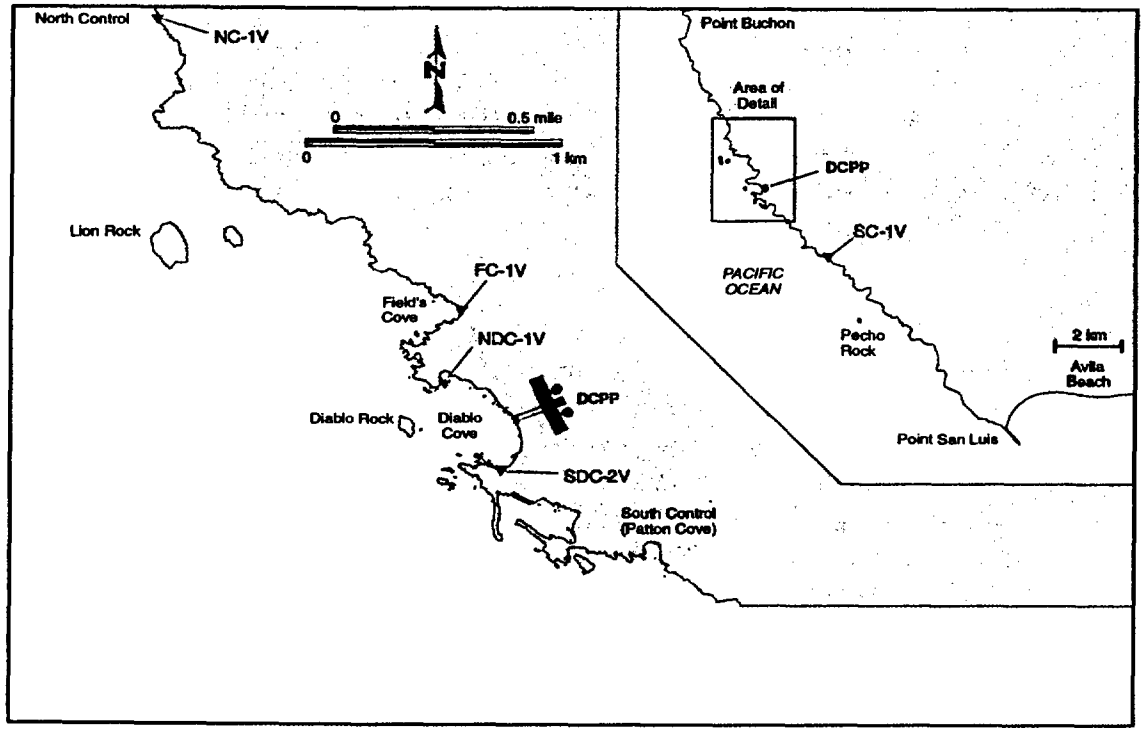

Figure 5. Vertical band transect stations.

5.0 Subtidal Algae and Invertebrates

5.1 Benthic Algae and Invertebrates

Eight permanent subtidal benthic sampling stations were located in depths ranging from -3 m to -6 m (-10 ft to -20 ft) MLLW (**Figure 6**). 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 heat 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 contained a railcar mooring 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.

Benthic algae and invertebrates were sampled by divers using three sampling methods at each fixed station. 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 (length or width). Juvenile kelp plants that could not be identified to the species level were counted and recorded as 'Laminariales.' A few common species that generally occurred in numbers too high to accurately count were sampled only in the first one-third (2.33 m^2) of each quadrant, and abundances multiplied by three to provide an estimated abundance for the entire quadrant.

In the second sampling method, all understory algal species were quantified at the stations as percent cover using a random point contact (RPC) sampling method. A radius line with ten points 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 points within each quadrant, for a total of 200 points per station, were randomly selected before sampling using a random number table. For each survey the same unique set of random points were used at all stations. The presence of all algal species, sessile invertebrates, and substrates observed directly under the points was recorded. Holdfasts of kelp species were also included when contacted by the sample points. Percent cover of the understory algae was calculated by dividing the number of 'contacts' by the number of points sampled. Species were identified to the lowest taxonomic level practical. Unknown taxa were collected outside the sampling area, if possible, and returned to the laboratory for identification.

In the third method, invertebrates were sampled using the subtidal fixed quadrat (SFQ) method in four circular quadrats, each with an area of 0.25 m^2, at fixed locations within each subtidal station. The method quantified the species composition and abundance of all invertebrate taxa regardless of size. A fixed quadrat was located within each of the four SAQ quadrants at a subtidal station, generally on bedrock or boulder substrate.

Depending upon the degree of topographical relief, two quadrats were located on horizontal-aspect substrate and two quadrats were located on vertical-aspect substrate. All non-encrusting taxa were identified and counted, and the coverage of encrusting taxa (e.g., colonial/social tunicates) was quantified in square centimeters if the total equaled or exceeded 6.5 square centimeters (1 square inch), or was recorded as "present" if coverage was less.

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). (Field's Cove Station FC1 –3m was not sampled in the fourth quarter 2005 due to poor diving conditions that prevented completion of the survey). The means are based on the data from the four quadrats or quadrants at each station. The tables also show the mean taxa abundances for all the surveys by station. If an algal taxon was recorded as only present in the RPC study, with no numeric value, it was given a value of 0.000001 for calculating statistics for the station.

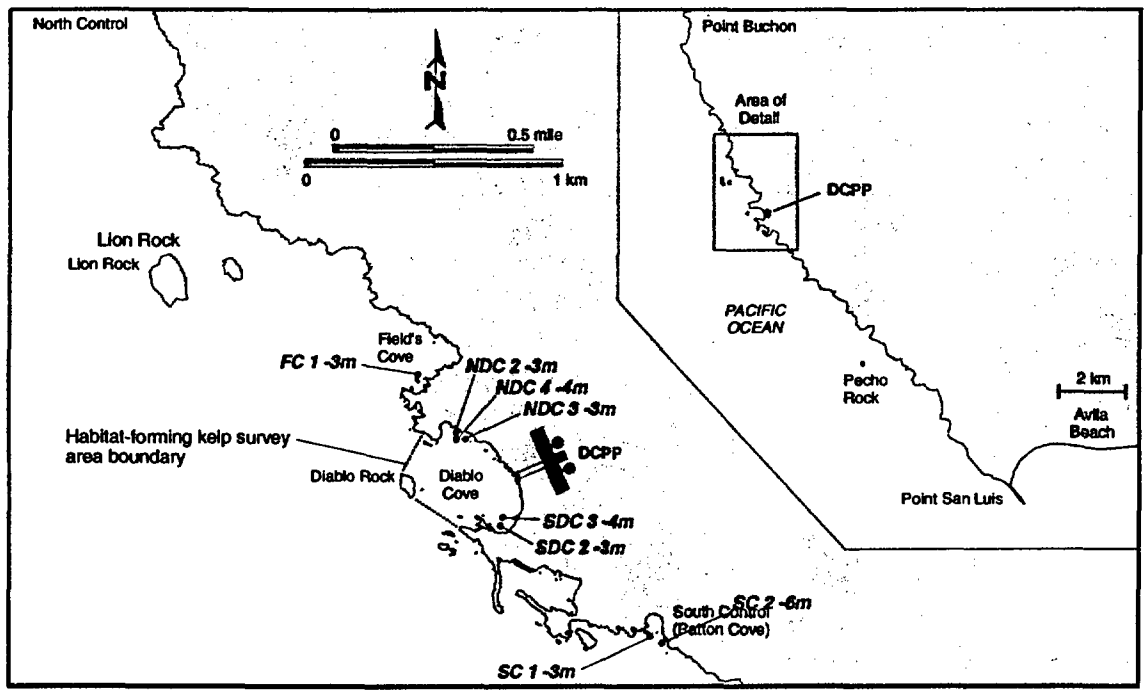

Figure 6. Subtidal benthic stations and habitat-forming kelp survey area in Diablo Cove

5.2 Surface Canopy Kelps

Hand-drawn maps based on direct observations of surface kelp canopies in Diablo Cove were used to document the distribution and abundance of surface canopy-forming kelp species outside the fixed benthic stations. Near the end of the annual growth cycle in October, nearly all bull kelp plants have reached the surface and can be counted. Two observers at the headland of north Diablo Cove and two observers at the headland of

south Diablo Cove (south Diablo Point) were used to count and map the extent of bull kelp plants and giant kelp canopies. The occurrence of bull kelp plants with bare bulbs, indicating early senescence in plants, are also noted when possible.

The annual habitat-forming kelp survey for *Nereocystis luetkeana* (bull kelp) and *Macrocystis pyrifera* (giant kelp) was done on October 14, 2005 for North and South Diablo Cove. No bull kelp was observed in Diablo Cove during the survey. The distribution of giant kelp surface canopy in Diablo Cove is shown in **Figure 7**. There are no appendix figures or data tables presented for this task.

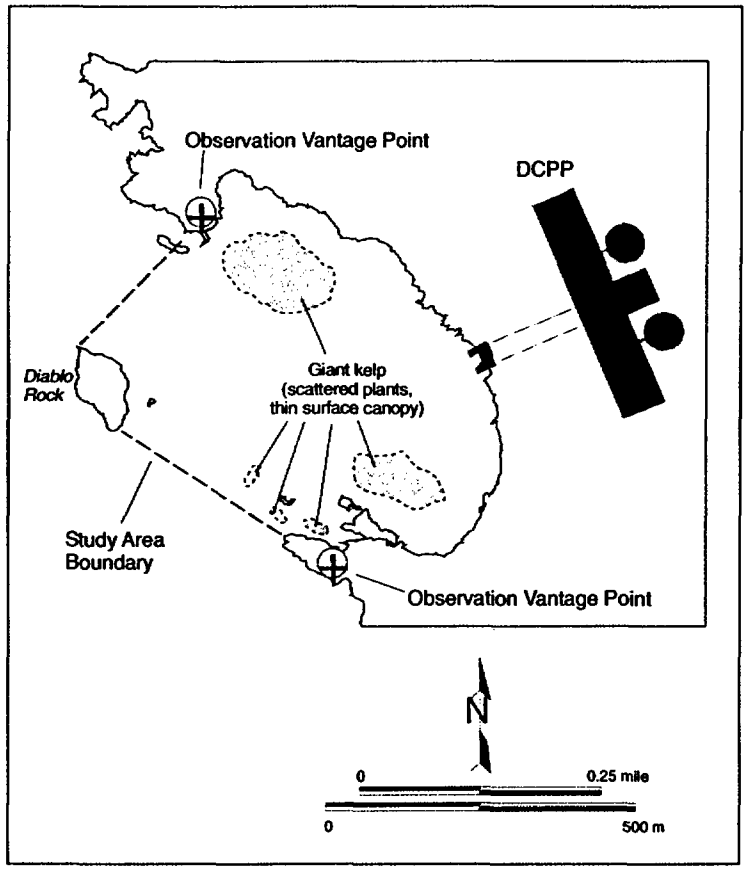

Figure 7. Map of surface kelp in Diablo Cove from the habitat-forming kelp survey completed in October 2005.

6.0 Subtidal Fishes

Visual counts of fishes were conducted by divers at 12 fixed subtidal stations located within and outside of the thermal discharge area (**Figure 8**). 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. A station was sampled by first deploying a fiberglass measuring tape to mark the benthic transect centerline, beginning at a permanent station buoy and extending 50 m away from the buoy along a pre-determined compass course. Some transects crossed each other in the same area because some were positioned parallel to depth contours, and others were positioned perpendicular to depth contours. 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.

A survey team consisted of two divers, each counting fish along the benthic and midwater portions of a transect independently, but in opposite directions. 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.

The resulting survey data were the combined species counts of both divers, divided by two. This yielded an average count for each taxon per 50 m benthic or midwater transect.

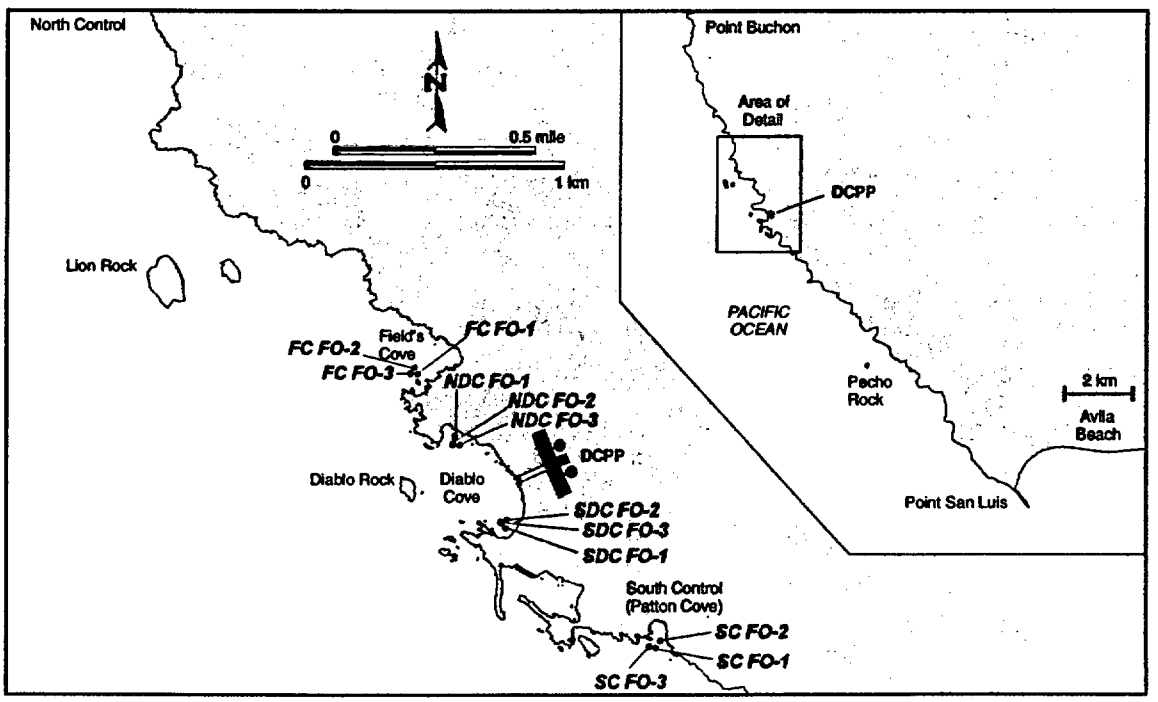

Figure 8. Subtidal fish observation transects.

During each survey, the stations were usually sampled a second time within approximately one to two weeks of the initial sampling effort, unless adverse sea conditions precluded a second replicate. Replicate transects were pooled by survey and area. The areas were Field's Cove, north Diablo Cove, south Diablo Cove, and South Control.

The survey mean and standard deviation for each taxon within each sampling area from the four surveys completed during the year are presented in **Appendix H**. The dates shown for the surveys represent the average date among the stations and replicates sampled in each area. The means are based on the data from the three transects within each area. The tables also show the overall mean for the entire year.

7.0 Literature Cited

Tenera Environmental, Inc. 1988. Diablo Canyon Power Plant, Final Report, Thermal Effects Monitoring Program, Volume 1. Pacific Gas and Electric Company, San Francisco, CA.

Tenera Environmental, Inc. 1997. Thermal effects monitoring program, analysis report: Chapter 1 – Changes in the marine environment resulting from the Diablo Canyon Power Plant discharge. Pacific Gas and Electric Company, San Francisco, CA.

Tenera Environmental, Inc. 1999a. Receiving Water Monitoring Program – 1995-1997 Progress Report. Pacific Gas and Electric Company, San Francisco, CA.

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Tenera Environmental, Inc. 2002. Diablo Canyon Power Plant, Receiving Water Monitoring Program – 1995-2002 Analysis Report. Pacific Gas and Electric Company, San Francisco, CA.

RWMP Project Personnel

Key Project Personnel 2005 (Tenera Environmental):

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Project Scientists:	Mr. Ernesto Calix
	Mr. Jay Carroll
	Mr. Joel Carter
	Mr. Gery Cox
	Mr. Chris Ehrler
	Mr. Andrew Harmer
	Mr. Scott Kimura
	Mr. Steve Pengilley
	Ms. Shelly Peters
	Ms. Tawnie Sawyer
	Mr. Jim Strampe
Project Staff:	Ms. Susan Helberg

Program Manager (PG&E) Mr. Jim Kelly

Appendix A

Subtidal Temperatures

Table A1. Monthly Statistical Summary of Subtidal Temperature (°C) Data, January – December 2005, North Control Station NC 1 -3m.

Month	Max	Min	Mean	Std. Dev	N
Station: NC 1 -3m					
Jan	15.50	12.98	**14.07**	0.38	2,232
Feb	15.45	12.35	**13.91**	0.67	2,016
Mar	15.70	10.75	**13.67**	0.98	2,232
Apr	13.68	9.02	**11.10**	1.09	2,160
May	14.20	9.48	**11.78**	0.97	2,232
Jun	13.68	10.05	**11.73**	0.83	2,160
Jul	15.13	11.18	**13.06**	0.82	2,232
Aug	16.40	12.10	**14.74**	0.75	2,232
Sep	15.30	12.07	**13.59**	0.72	2,160
Oct	14.02	10.88	**12.40**	0.65	2,232
Nov	14.98	11.55	**13.34**	0.85	2,160
Dec	14.18	11.13	**13.11**	0.73	2,232

Table A2. Monthly Statistical Summary of Subtidal Temperature (°C) Data, January – December 2005, Field's Cove Station FC 1 -3m.

Month	Max	Min	Mean	Std. Dev	N
Station: FC 1 -3m					
Jan	17.77	13.63	**15.12**	0.75	2,232
Feb	17.67	12.95	**15.02**	0.75	2,016
Mar	16.60	10.77	**14.51**	1.08	2,232
Apr	15.20	9.18	**11.89**	1.41	2,160
May	15.52	9.90	**12.50**	1.23	2,232
Jun	15.05	10.07	**12.47**	0.87	2,160
Jul	16.20	11.23	**13.61**	0.99	2,232
Aug	17.92	12.82	**15.49**	0.84	2,232
Sep	16.38	11.95	**14.41**	0.92	2,160
Oct	14.80	11.07	**13.07**	0.79	2,231
Nov	15.77	11.80	**13.94**	0.99	2,160
Dec	16.13	12.25	**13.82**	0.67	2,232

Table A3. Monthly Statistical Summary of Subtidal Temperature (°C) Data, January – December 2005, North Diablo Cove Stations NDC 2 -3m, NDC 3 -3m, and NDC 4 -4m.

Month	Max	Min	Mean	Std. Dev	N
Station: NDC 2 -3m					
Jan	23.45	13.80	**17.90**	1.95	2,232
Feb	22.75	13.98	**18.22**	1.50	2,016
Mar	22.75	12.15	**17.36**	2.05	2,232
Apr	21.58	9.77	**14.98**	2.39	2,160
May	20.63	10.27	**15.38**	2.06	2,232
Jun	20.27	10.88	**15.83**	1.77	2,159
Jul	21.13	12.90	**17.12**	1.45	2,232
Aug	22.75	14.43	**18.91**	1.30	2,232
Sep	21.55	14.02	**18.07**	1.35	2,160
Oct	21.92	11.27	**16.99**	2.00	2,232
Nov	22.85	12.18	**17.44**	2.29	2,160
Dec	21.33	12.48	**15.85**	2.00	2,232
Station: NDC 3 -3m					
Jan	24.40	13.95	**18.14**	1.97	2,232
Feb	23.77	13.93	**18.43**	1.60	2,016
Mar	23.70	12.88	**17.80**	2.24	2,232
Apr	21.63	9.75	**15.11**	2.44	2,160
May	20.48	10.38	**15.47**	2.10	2,232
Jun	19.95	10.85	**15.89**	1.82	2,160
Jul	20.60	12.75	**16.83**	1.52	2,232
Aug	23.10	14.30	**18.24**	1.53	2,232
Sep	21.50	13.85	**17.78**	1.47	2,160
Oct	22.25	11.50	**17.08**	1.98	2,232
Nov	23.27	12.18	**17.47**	2.43	2,160
Dec	24.05	12.48	**16.43**	2.29	2,232
Station: NDC 4 -4m					
Jan	23.67	13.93	**17.74**	1.91	2,232
Feb	23.08	13.50	**18.08**	1.55	2,016
Mar	22.73	12.55	**17.30**	1.99	2,232
Apr	21.52	9.70	**14.68**	2.35	2,160
May	20.15	9.93	**14.92**	2.06	2,232
Jun	19.55	10.80	**15.28**	1.72	2,160
Jul	20.15	11.65	**15.96**	1.60	2,232
Aug	22.27	13.18	**17.09**	1.75	2,232
Sep	21.02	13.07	**16.90**	1.58	2,160
Oct	21.52	11.25	**16.33**	1.88	2,232
Nov	22.38	12.00	**16.49**	2.15	2,160
Dec	21.30	12.43	**15.78**	1.95	2,232

Table A4. Monthly Statistical Summary of Subtidal Temperature (°C) Data, January – December 2005, South Diablo Cove Stations SDC 1 -3m and SDC 4 -4m.

Month	Max	Min	Mean	Std. Dev	N
Station: SDC 1 -3m					
Jan	23.63	14.07	**17.60**	1.82	2,232
Feb	23.25	12.68	**17.30**	1.92	2,016
Mar	24.92	12.23	**17.47**	2.08	2,232
Apr	21.85	11.90	**15.00**	2.06	2,160
May	22.77	10.38	**14.77**	1.87	2,232
Jun	20.13	11.25	**14.74**	1.87	2,160
Jul	21.40	11.07	**14.08**	1.92	2,232
Aug	23.98	11.60	**15.18**	2.08	2,232
Sep	21.98	11.85	**15.24**	2.11	2,160
Oct	22.88	12.07	**15.90**	1.92	2,232
Nov	21.33	12.70	**16.42**	1.95	2,160
Dec	24.75	12.05	**16.66**	2.23	2,232
Station: SDC 4 -4m					
Jan	22.73	13.60	**16.36**	1.96	2,232
Feb	21.55	11.98	**15.75**	2.08	2,016
Mar	24.17	10.60	**16.42**	2.27	2,232
Apr	20.30	10.10	**13.18**	1.71	2,160
May	19.00	9.98	**12.48**	1.75	2,232
Jun	18.05	9.77	**12.53**	1.76	2,160
Jul	18.42	10.23	**12.38**	1.29	2,232
Aug	20.45	11.27	**13.74**	1.31	2,232
Sep	19.20	11.07	**13.41**	1.50	2,160
Oct	20.85	10.82	**14.42**	2.12	2,232
Nov	19.70	11.88	**14.95**	1.70	2,160
Dec	23.63	11.60	**15.72**	2.21	2,232

Table A5. Monthly Statistical Summary of Subtidal Temperature (°C) Data, January – December 2005, South Control Cove Stations SC 1 -3m and SC 2 -6m.

Month	Max	Min	Mean	Std. Dev	N
Station: SC 1 -3m					
Jan	14.57	12.98	**13.91**	0.30	2,232
Feb	15.27	11.95	**13.81**	0.64	2,016
Mar	15.50	10.13	**13.71**	1.11	2,232
Apr	13.45	9.18	**10.96**	1.00	2,160
May	13.95	9.32	**11.22**	0.95	2,232
Jun	13.43	9.68	**11.29**	0.74	2,160
Jul	14.68	10.57	**12.24**	0.84	2,232
Aug	15.57	11.95	**14.18**	0.68	2,232
Sep	15.48	11.40	**13.27**	0.81	2,160
Oct	13.88	10.70	**12.36**	0.66	2,232
Nov	14.93	11.48	**13.37**	0.80	2,160
Dec	14.18	11.35	**13.15**	0.72	2,232
Station: SC 2 -6m					
Jan	14.57	13.27	**13.93**	0.25	2,232
Feb	15.20	11.68	**13.75**	0.66	2,016
Mar	15.32	10.05	**13.60**	1.16	2,232
Apr	13.27	9.15	**10.73**	0.96	2,160
May	13.57	9.30	**10.89**	0.92	2,232
Jun	13.10	9.45	**10.85**	0.70	2,160
Jul	14.13	9.85	**11.61**	0.86	2,232
Aug	15.20	11.50	**13.48**	0.75	2,232
Sep	14.88	10.82	**12.71**	0.81	2,160
Oct	13.45	10.63	**12.07**	0.65	2,232
Nov	14.85	11.40	**13.28**	0.80	2,160
Dec	14.15	11.43	**13.16**	0.71	2,232

Appendix B

Intertidal Temperatures

Table B1. Monthly Statistical Summary of Intertidal Temperature (°C) Data, January – December 2005, North Control Station NC 2 +0.6m.

Month	Max	Min	Mean	Std. Dev	N
Station: NC 2 +0.6m					
Jan	15.48	12.82	**14.03**	0.43	1,227
Feb	15.55	12.35	**13.86**	0.69	1,065
Mar	15.35	10.93	**13.69**	0.88	1,143
Apr	13.75	9.02	**11.26**	1.12	1,112
May	14.05	9.68	**12.32**	0.95	1,159
Jun	14.25	10.20	**12.24**	0.84	1,161
Jul	16.20	11.82	**13.75**	0.88	1,308
Aug	17.08	12.48	**15.20**	0.91	1,340
Sep	16.08	12.05	**13.89**	0.91	1,262
Oct	14.23	10.93	**12.54**	0.66	1,276
Nov	15.30	11.40	**13.38**	0.88	1,231
Dec	14.23	11.00	**13.05**	0.80	1,287

Table B2. Monthly Statistical Summary of Intertidal Temperature (°C) Data, January – December 2005, Field's Cove Stations FC 1 +0.6m, FC 2 +0.6m and FC 2 +0.6m.

Month	Max	Min	Mean	Std. Dev	N
Station: FC 1 +0.6m					
Jan	17.33	13.43	**14.92**	0.66	1,475
Feb	17.35	12.88	**14.93**	0.77	1,258
Mar	16.60	10.93	**14.52**	1.03	1,350
Apr	16.05	9.43	**12.12**	1.53	1,291
May	17.70	10.05	**13.28**	1.53	1,355
Jun	17.20	10.20	**13.31**	1.22	1,373
Jul	18.33	11.40	**14.69**	1.23	1,503
Aug	19.88	13.02	**16.35**	1.12	1,530
Sep	17.17	11.98	**14.79**	1.06	1,435
Oct	15.20	11.02	**13.16**	0.81	1,429
Nov	16.20	11.65	**13.88**	1.00	1,384
Dec	15.57	12.02	**13.72**	0.68	1,474
Station: FC 2 +0.6m					
Jan	17.38	13.55	**14.97**	0.64	1,227
Feb	17.38	13.02	**14.96**	0.76	1,065
Mar	16.70	10.95	**14.53**	1.01	1,141
Apr	15.82	9.45	**12.02**	1.48	1,112
May	17.25	10.02	**13.19**	1.53	1,159
Jun	17.08	10.15	**13.17**	1.21	1,161
Jul	17.90	11.35	**14.61**	1.21	1,308
Aug	19.42	13.00	**16.18**	1.07	1,340
Sep	17.02	12.07	**14.70**	1.04	1,262
Oct	15.00	11.05	**13.13**	0.81	1,276
Nov	16.23	11.75	**13.94**	1.03	1,231
Dec	15.70	11.93	**13.78**	0.70	1,237
Station: FC 3 +0.6m					
Jan	17.45	13.57	**14.95**	0.63	1,227
Feb	17.33	13.00	**14.95**	0.76	1,065
Mar	16.73	10.77	**14.51**	1.04	1,143
Apr	15.68	9.25	**11.93**	1.45	1,112
May	17.08	9.95	**13.00**	1.46	1,159
Jun	16.52	10.13	**13.02**	1.16	1,161
Jul	17.75	11.32	**14.46**	1.19	1,308
Aug	19.40	13.10	**16.13**	1.11	1,340
Sep	16.67	12.02	**14.60**	1.02	1,262
Oct	14.88	10.98	**13.08**	0.81	1,276
Nov	16.10	11.70	**13.89**	1.03	1,231
Dec	15.70	11.73	**13.74**	0.69	1,287

Table B3. Monthly Statistical Summary of Intertidal Temperature (°C) Data, January – December 2005, North Diablo Cove Stations NDC 1 +0.6m, NDC 2 +0.6m and NDC 3 +0.6m.

Month	Max	Min	Mean	Std. Dev	N
Station: NDC 1 +0.6m					
Jan	21.58	13.75	**17.40**	1.63	1,475
Feb	20.95	13.90	**17.73**	1.32	1,258
Mar	21.25	12.00	**16.75**	1.77	1,350
Apr	20.10	9.82	**14.38**	2.38	1,291
May	20.20	10.05	**15.22**	2.16	1,355
Jun	20.38	10.98	**15.67**	2.09	1,373
Jul	21.70	13.88	**17.57**	1.60	1,503
Aug	22.88	14.95	**19.59**	1.17	1,530
Sep	21.63	13.95	**18.37**	1.35	1,435
Oct	20.98	11.05	**16.38**	1.87	1,429
Nov	21.38	12.02	**16.86**	2.01	1,384
Dec	21.15	12.45	**15.45**	1.76	1,474
Station: NDC 2 +0.6m					
Jan	21.27	13.80	**17.48**	1.62	1,180
Feb	20.63	14.05	**17.87**	1.24	1,029
Mar	21.38	12.63	**16.99**	1.78	1,110
Apr	21.10	9.88	**14.68**	2.41	1,089
May	20.75	10.27	**15.44**	2.10	1,122
Jun	21.08	11.00	**16.05**	2.08	1,116
Jul	21.70	14.18	**17.69**	1.51	1,261
Aug	22.60	14.77	**19.70**	1.07	1,306
Sep	21.50	14.13	**18.53**	1.24	1,242
Oct	20.63	11.32	**16.76**	1.91	1,248
Nov	21.30	12.05	**17.20**	1.96	1,195
Dec	20.67	12.50	**15.51**	1.74	1,254
Station: NDC 3 +0.6m					
Jan	22.05	13.77	**17.66**	1.71	1,496
Feb	21.15	13.93	**18.01**	1.31	1,272
Mar	22.10	12.75	**17.12**	1.89	1,369
Apr	21.33	9.85	**14.86**	2.41	1,303
May	20.73	10.32	**15.49**	2.05	1,369
Jun	20.83	10.93	**16.18**	1.92	1,382
Jul	21.67	14.35	**17.73**	1.40	1,517
Aug	22.58	14.75	**19.66**	1.09	1,545
Sep	21.55	14.18	**18.57**	1.25	1,447
Oct	21.42	11.43	**17.04**	1.95	1,441
Nov	21.88	12.18	**17.42**	2.01	1,398
Dec	21.02	12.48	**15.65**	1.88	1,491

Table B4. Monthly Statistical Summary of Intertidal Temperature (°C) Data, January – December 2005, South Diablo Cove Stations SDC 1 +0.6m, SDC 2 +0.6m and SDC 3 +0.6m.

Month	Max	Min	Mean	Std. Dev	N
Station: SDC 1 +0.6m					
Jan	24.85	15.95	**18.96**	2.29	1,513
Feb	25.63	15.25	**18.27**	2.10	1,288
Mar	25.58	12.38	**18.74**	2.62	1,376
Apr	23.73	12.10	**15.84**	2.39	1,314
May	23.15	12.75	**16.36**	2.30	1,378
Jun	22.73	13.07	**16.91**	2.05	1,392
Jul	22.70	13.35	**17.56**	1.51	1,532
Aug	23.75	15.43	**19.06**	1.20	1,560
Sep	22.58	14.43	**18.04**	1.44	1,460
Oct	22.48	13.00	**17.02**	1.84	1,452
Nov	24.05	14.70	**18.09**	1.82	1,410
Dec	24.52	14.27	**18.91**	2.82	1,505
Station: SDC 2 +0.6m					
Jan	22.27	15.43	**17.66**	1.10	1,227
Feb	23.13	15.23	**17.58**	1.22	1,065
Mar	23.95	12.43	**17.33**	1.64	1,143
Apr	22.90	12.07	**15.45**	2.09	1,112
May	22.80	12.90	**16.20**	2.05	1,159
Jun	22.00	13.05	**16.67**	1.84	1,161
Jul	22.55	13.27	**17.64**	1.52	1,308
Aug	23.75	15.50	**19.09**	1.19	1,340
Sep	22.45	14.68	**18.02**	1.39	1,262
Oct	22.02	12.60	**16.56**	1.67	1,276
Nov	22.75	14.43	**17.65**	1.66	1,231
Dec	22.92	14.00	**16.60**	1.39	1,287
Station: SDC 3 +0.6m					
Jan	20.90	14.60	**17.21**	0.98	1,379
Feb	20.20	14.73	**17.07**	0.85	1,180
Mar	19.50	12.27	**16.62**	1.27	1,254
Apr	19.25	11.68	**14.26**	1.28	1,211
May	20.80	12.27	**14.96**	1.40	1,274
Jun	20.00	12.60	**15.35**	1.27	1,283
Jul	20.65	13.10	**16.56**	1.26	1,427
Aug	22.42	15.07	**18.32**	1.07	1,451
Sep	20.35	13.50	**17.06**	1.23	1,362
Oct	19.00	12.55	**15.69**	1.14	1,366
Nov	20.50	13.75	**16.91**	1.30	1,314
Dec	19.35	13.85	**15.79**	1.06	1,406

Table B5. Monthly Statistical Summary of Intertidal Temperature (°C) Data, January – December 2005, South Diablo Point Stations SDP 1 +0.6m and SDP 2 +0.6m.

Month	Max	Min	Mean	Std. Dev	N
Station: SDP 1 +0.6m					
Jan	17.77	13.63	**15.12**	0.75	2,232
Feb	17.67	12.95	**15.02**	0.75	2,016
Mar	16.60	10.77	**14.51**	1.08	2,232
Apr	15.20	9.18	**11.89**	1.41	2,160
May	15.52	9.90	**12.50**	1.23	2,232
Jun	15.05	10.07	**12.47**	0.87	2,160
Jul	16.20	11.23	**13.61**	0.99	2,232
Aug	17.92	12.82	**15.49**	0.84	2,232
Sep	16.38	11.95	**14.41**	0.92	2,160
Oct	14.80	11.07	**13.07**	0.79	2,231
Nov	15.77	11.80	**13.94**	0.99	2,160
Dec	16.13	12.25	**13.82**	0.67	2,232
Station: SDP 2 +0.6m					
Jan	18.10	13.75	**16.08**	0.86	1,475
Feb	18.23	13.70	**15.65**	0.90	1,258
Mar	18.38	11.95	**15.60**	1.21	1,350
Apr	16.58	10.80	**13.25**	0.94	1,291
May	17.13	10.85	**13.58**	1.05	1,355
Jun	16.75	10.63	**13.76**	1.13	1,371
Jul	17.70	10.98	**14.76**	1.06	1,503
Aug	19.02	12.07	**16.48**	1.29	1,530
Sep	19.02	10.93	**15.40**	1.55	1,435
Oct	16.98	11.52	**14.57**	0.91	1,429
Nov	18.25	12.73	**15.00**	0.91	1,384
Dec	17.27	13.02	**14.90**	0.87	1,474

Table B6. Monthly Statistical Summary of Intertidal Temperature (°C) Data, January – December 2005, South Control Stations SC 1 +0.6m and SC 1-V.

Month	Max	Min	Mean	Std. Dev	N
Station: SC 1 +0.6m					
Jan	14.52	12.68	**13.87**	0.32	1,352
Feb	15.45	11.98	**13.78**	0.66	1,166
Mar	15.57	10.38	**13.72**	1.03	1,238
Apr	13.45	9.25	**10.95**	1.01	1,202
May	13.77	9.35	**11.32**	0.90	1,257
Jun	13.82	9.75	**11.47**	0.78	1,271
Jul	15.23	10.57	**12.63**	0.87	1,406
Aug	16.42	11.90	**14.41**	0.79	1,438
Sep	15.68	11.43	**13.38**	0.84	1,338
Oct	13.82	10.75	**12.37**	0.65	1,349
Nov	14.98	11.57	**13.36**	0.81	1,301
Dec	14.13	11.45	**13.13**	0.72	1,388
Station: SC 1-V					
Jan	15.25	12.00	**13.74**	0.54	1,639
Feb	16.50	12.23	**13.99**	0.66	1,406
Mar	16.13	10.80	**14.17**	0.93	1,508
Apr	16.30	8.95	**11.96**	1.44	1,419
May	17.45	9.95	**13.22**	1.56	1,495
Jun	17.13	10.27	**13.33**	1.43	1,507
Jul	17.95	11.40	**14.70**	1.31	1,650
Aug	19.23	13.25	**16.34**	1.11	1,665
Sep	17.50	12.38	**14.57**	1.16	1,577
Oct	15.43	10.93	**12.90**	0.84	1,571
Nov	15.80	11.18	**13.52**	0.86	1,532
Dec	14.38	10.60	**13.05**	0.86	1,592

Appendix C

Intertidal Algae and Invertebrates (HBT Method)

Table C1. Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ;percent cover) Survey Means, Standard Deviations and 2005 Annual Means, North Control Station NC 1+0.3m.

Survey	140		141		142		143		
Survey Date	8-Mar-05		23-Jun-05		17-Aug-05		3-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Mazzaella flaccida	25.8	14.1	55.1	19.3	33.1	15.7	15.8	4.8	**32.5**
Phyllospadix spp.	20.1	23.4	14.4	19.7	23.3	27.2	23.3	28.4	**20.2**
Chondracanthus canaliculatus	6.7	4.0	11.7	7.1	12.9	5.7	12.4	12.1	**10.9**
Gastroclonium subarticulatum	9.2	7.3	6.2	4.8	10.7	10.7	15.8	8.9	**10.5**
Mazzaella affinis	10.3	10.3	9.7	9.1	6.9	8.4	9.2	11.8	**9.0**
Non-coralline crust	7.8	6.9	2.5	3.3	6.4	6.5	11.8	11.6	**7.1**
Cryptopleura violacea	3.5	4.0	3.2	2.0	4.4	4.8	4.5	5.5	**3.9**
Gelidium coulteri	3.3	2.3	3.9	4.3	1.2	1.3	3.2	3.1	**2.9**
filamentous red algae-complex	3.1	3.3	5.5	6.1	1.7	2.8	-	-	**2.6**
Mastocarpus papillatus	1.3	1.5	3.0	3.8	2.1	3.7	1.2	1.2	**1.9**
coralline crust	2.2	2.6	1.9	1.8	2.0	2.7	1.0	1.4	**1.8**
Codium setchellii	1.6	3.3	1.3	2.4	1.0	2.6	2.0	4.2	**1.5**
Smithora naiadum	-	-	<0.1	<.01	4.2	6.8	0.6	0.8	**1.2**
Mastocarpus jardinii	1.7	2.3	1.2	1.5	0.6	1.1	0.8	1.5	**1.1**
Endocladia muricata	1.3	3.5	0.8	2.6	0.3	1.1	<0.1	0.2	**0.6**
Corallina vancouveriensis	1.4	1.9	<0.1	0.2	0.1	0.4	0.2	0.5	**0.5**
Mazzaella leptorhynchos	0.6	0.8	0.8	0.8	0.4	0.7	<0.1	<.01	**0.5**
Mazzaella heterocarpa	0.5	0.9	0.8	0.7	0.3	0.8	0.2	0.7	**0.5**
Ulva/Enteromorpha spp.	<0.1	<.01	0.5	0.8	0.3	0.6	0.5	0.7	**0.3**
Calliarthron/Bossiella spp.-complex	0.6	1.8	0.3	0.5	<0.1	<.01	<0.1	<.01	**0.2**
Prionitis spp.	0.3	0.5	<0.1	<.01	<0.1	0.2	0.4	1.3	**0.2**
Cryptosiphonia woodii	0.6	1.5	-	-	-	-	-	-	**0.1**
Halymenia/Schizymenia complex	0.3	0.6	-	-	-	-	<0.1	0.2	**0.1**
Corallina officinalis	-	-	-	-	-	-	0.3	0.9	**<0.1**
Sarcodiotheca gaudichaudii	0.1	0.3	<0.1	0.2	<0.1	0.2	-	-	**<0.1**
juv. articulated coralline algae	<0.1	0.2	<0.1	<.01	<0.1	<.01	0.1	0.3	**<0.1**
Gelidium pusillum	<0.1	0.2	<0.1	<.01	<0.1	<.01	0.1	0.4	**<0.1**
Osmundea spp.	-	-	<0.1	<.01	<0.1	0.2	0.1	0.4	**<0.1**
Egregia menziesii	-	-	-	-	-	-	0.2	0.5	**<0.1**
Cladophora spp.	<0.1	0.2	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Grateloupia doryphora	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Callithamnion pikeanum	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Pterosiphonia dendroidea	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Microcladia coulteri	-	-	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Melobesia mediocris	<0.1	<.01	-	-	<0.1	<.01	-	-	**<0.1**
Spongomorpha/Acrosiphonia-cmplx	-	-	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Porphyra spp.	-	-	<0.1	<.01	-	-	<0.1	<.01	**<0.1**
Callithamnion/Pleonosporium	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Invertebrate Counts									
Tegula funebralis	44.8	53.8	21.4	21.6	9.4	14.9	34.6	64.6	**27.6**
Pagurus spp.	11.0	6.1	2.2	0.8	12.8	13.3	2.0	1.9	**7.0**
Anthopleura elegantissima	1.6	3.6	1.0	1.7	0.2	0.5	1.4	1.1	**1.1**
Tegula brunnea	0.2	0.5	0.2	0.5	1.2	1.1	0.4	0.6	**0.5**
Leptasterias spp.	0.4	0.6	0.2	0.5	0.4	0.6	0.8	0.5	**0.5**

(continued)

Table C1 (continued). Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, North Control Station NC 1+0.3m.

Survey	140		141		142		143		
Survey Date	8-Mar-05		23-Jun-05		17-Aug-05		3-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts (continued)									
Epiactis prolifera	0.2	0.5	-	-	-	-	0.2	0.5	**<0.1**
Fissurella volcano	0.2	0.5	0.2	0.5	-	-	-	-	**<0.1**
Ocenebra spp.	0.2	0.5	0.2	0.5	-	-	-	-	**<0.1**
Lepidozona spp.	-	-	-	-	0.4	0.9	-	-	**<0.1**
Lottia limatula	-	-	0.2	0.5	-	-	-	-	**<0.1**
Lottia pelta	-	-	-	-	-	-	0.2	0.5	**<0.1**
Nereididae unid.	-	-	-	-	-	-	0.2	0.5	**<0.1**
Pachygrapsus crassipes	-	-	-	-	-	-	0.2	0.5	**<0.1**
Serpulidae unid.	0.2	0.5	-	-	-	-	-	-	**<0.1**
Crepidula spp.	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Lottia asmi	<0.1	<.01	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Lacuna spp.	-	-	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Acmaeidae unid.	-	-	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Pycnogonida unid.	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Pisaster/Henricia (juv.)	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Alia spp.	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Nitidiscala/Opalia spp.	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Balanus spp.	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Petrolisthes spp.	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Bittium spp.	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Pugettia spp.	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Cancer spp.	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Heptacarpus spp.	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Lophopanopeus spp.	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Tricolia spp.	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Lissothuria nutriens	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Tectura paleacea	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Homolopoma/Lirularia	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Invertebrate Cover									
Pista spp.	0.6	0.8	0.3	0.7	2.2	3.0	8.6	9.0	**2.9**
tunicates, colonial/social unid.	<0.1	<.01	<0.1	0.2	0.8	1.8	<0.1	<.01	**0.2**
Porifera unid. (encrusting)	<0.1	0.2	<0.1	<.01	-	-	0.3	0.9	**<0.1**
Spirorbidae	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Bryozoa, unid. (encrusting)	-	-	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Chthamalus fissus	<0.1	<.01	<0.1	<.01	<0.1	<.01	-	-	**<0.1**
Phragmatopoma californica	-	-	<0.1	<.01	-	-	<0.1	<.01	**<0.1**
Substrate Cover									
sand (shell gravel)	15.1	9.6	16.9	16.4	10.6	11.7	19.7	13.4	**15.6**
rock	3.2	5.7	2.6	3.0	2.4	2.8	1.4	1.6	**2.4**
cobble	0.3	0.9	0.2	0.7	0.5	1.1	0.3	0.9	**0.3**

Table C2. Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, North Control Station NC 1+0.9m.

Survey	140		141		142		143		
Survey Date	8-Mar-05		23-Jun-05		17-Aug-05		3-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Endocladia muricata	27.1	17.2	26.9	16.4	22.9	21.9	31.4	25.3	**27.1**
Mastocarpus papillatus	19.2	11.8	26.9	10.1	36.6	15.1	23.1	15.3	**26.4**
Mazzaella flaccida	27.2	16.6	26.1	18.1	33.3	17.9	18.5	13.1	**26.3**
Non-coralline crust	24.7	14.5	12.4	6.1	7.9	6.1	13.7	8.3	**14.7**
Pelvetia compressa	7.4	12.5	6.2	11.1	7.1	11.6	6.7	10.9	**6.8**
coralline crust	8.9	5.6	4.7	4.2	4.2	2.2	5.1	4.8	**5.7**
Codium setchellii	2.8	5.9	3.5	7.9	4.0	8.4	3.4	8.0	**3.4**
Corallina vancouveriensis	2.2	2.0	1.2	1.4	1.3	1.3	3.1	3.1	**1.9**
Mazzaella affinis	1.9	2.3	2.2	3.8	0.8	1.5	2.2	5.4	**1.8**
Gelidium coulteri	1.0	1.3	3.5	4.2	1.0	1.5	1.3	2.0	**1.7**
Mastocarpus jardinii	2.8	2.7	1.2	1.2	0.8	1.2	2.0	2.5	**1.7**
Porphyra spp.	<0.1	<.01	1.0	2.0	1.9	3.8	0.2	0.5	**0.8**
Gelidium pusillum	1.3	1.0	0.4	0.8	<0.1	0.2	1.0	1.3	**0.7**
Chondracanthus canaliculatus	1.0	0.8	0.3	0.6	0.5	0.7	1.0	1.4	**0.7**
Mazzaella heterocarpa	0.8	1.3	<0.1	0.2	0.3	0.4	0.2	0.5	**0.4**
juv. articulated coralline algae	0.3	0.4	0.3	0.5	0.3	0.5	0.4	0.7	**0.3**
Prionitis spp.	0.4	0.9	0.1	0.3	0.3	0.7	0.2	0.7	**0.3**
Cryptopleura violacea	<0.1	0.2	<0.1	0.2	0.3	0.9	0.6	2.0	**0.3**
Analipus japonicus	0.1	0.3	0.2	0.7	0.3	1.1	0.2	0.7	**0.2**
Mazzaella leptorhynchos	<0.1	0.2	<0.1	<.01	<0.1	0.2	<0.1	0.2	**<0.1**
Spongomorpha/Acrosiphonia	-	-	-	-	0.2	0.5	-	-	**<0.1**
Calliarthron/Bossiella spp.-complex	<0.1	0.2	<0.1	<.01	<0.1	<.01	<0.1	0.2	**<0.1**
Ulva/Enteromorpha spp.	<0.1	<.01	<0.1	<.01	<0.1	0.2	<0.1	<.01	**<0.1**
Microcladia coulteri	-	-	-	-	<0.1	0.2	-	-	**<0.1**
Phyllospadix spp.	-	-	-	-	-	-	<0.1	0.2	**<0.1**
Cladophora spp.	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Gastroclonium subarticulatum	<0.1	<.01	-	-	-	-	<0.1	<.01	**<0.1**
Callithamnion pikeanum	<0.1	<.01	-	-	<0.1	<.01	-	-	**<0.1**
Invertebrate Counts									
Tegula funebralis	56.4	19.3	99.2	89.6	85.6	75.1	113.2	133.7	**88.6**
Pagurus spp.	8.8	15.6	13.6	19.4	26.8	28.2	45.8	67.3	**23.8**
Pollicipes polymerus	6.0	13.4	6.6	14.8	3.0	6.7	3.6	8.1	**4.8**
Anthopleura elegantissima	3.0	6.7	1.2	2.7	4.8	7.5	7.2	15.0	**4.1**
Lottia limatula	0.8	1.3	0.8	1.3	4.6	8.7	1.0	1.4	**1.8**
Nuttallina californica	1.2	1.3	2.2	3.5	1.4	2.0	0.6	0.9	**1.4**
Pachygrapsus crassipes	0.4	0.6	1.2	1.3	0.8	0.8	0.8	0.8	**0.8**
Tectura scutum	0.2	0.5	0.2	0.5	1.6	3.1	0.2	0.5	**0.6**
Leptasterias spp.	0.6	0.9	0.6	0.9	0.2	0.5	0.6	0.9	**0.5**
Lottia scabra	0.2	0.5	-	-	1.2	2.7	0.2	0.5	**0.4**
Tetraclita rubescens	0.2	0.5	0.8	1.8	-	-	0.2	0.5	**0.3**
Lottia pelta	0.2	0.5	0.6	0.6	0.2	0.5	-	-	**0.3**
Fissurella volcano	-	-	-	-	0.8	0.8	0.2	0.5	**0.3**
Ocenebra spp.	0.4	0.9	0.2	0.5	0.2	0.5	-	-	**0.2**
Haliotis spp.	<0.1	0.3	0.2	0.6	0.2	0.6	-	-	**0.1**
Mopalia spp.	0.4	0.6	-	-	-	-	-	-	**<0.1**
Tegula brunnea	-	-	-	-	0.4	0.9	-	-	**<0.1**
Hemigrapsus nudus	0.2	0.5	0.2	0.5	-	-	-	-	**<0.1**

(continued)

Table C2 (continued). Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, North Control Station NC 1+0.9m.

Survey	140		141		142		143		
Survey Date	8-Mar-05		23-Jun-05		17-Aug-05		3-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts (continued)									
Nemertea unid.	-	-	-	-	0.2	0.5	-	-	**<0.1**
Pisaster ochraceus	-	-	-	-	-	-	0.2	0.5	**<0.1**
Sipuncula unid.	-	-	-	-	0.2	0.5	-	-	**<0.1**
Acmaeidae unid.	<0.1	<.01	<0.1	-	<0.1	<.01	<0.1	<.01	**<0.1**
Lottia asmi	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Crepidula spp.	-	-	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Ischnochitonidae	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Grapsidae (juv.)	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Mytilus galloprovincialis	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Mytilus californianus	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Nitidiscala/Opalia spp.	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Lacuna spp.	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Invertebrate Cover									
Spirorbidae	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Chthamalus fissus	-	-	<0.1	<.01	<0.1	<.01	-	-	**<0.1**
Phragmatopoma californica	<0.1	<.01	<0.1	<.01	-	-	<0.1	<.01	**<0.1**
Haliclona spp.	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Porifera unid. (encrusting)	-	-	<0.1	<.01	-	-	<0.1	<.01	**<0.1**
tunicates, colonial/social unid.	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Bryozoa, unid. (encrusting)	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Substrate Cover									
rock	2.8	2.6	4.9	2.5	3.6	4.7	4.1	3.2	**3.9**
cobble	3.7	9.8	2.6	7.4	1.3	2.2	4.7	13.3	**3.1**
sand (shell gravel)	0.3	0.9	1.0	2.1	2.1	3.4	0.5	0.9	**1.0**

Table C3. Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, North Control Station NC 2+0.3m.

Survey	140		141		142		143		
Survey Date	8-Mar-05		23-Jun-05		17-Aug-05		3-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Mazzaella flaccida	23.3	10.0	42.9	12.7	28.8	13.8	10.0	5.8	**26.3**
Chondracanthus canaliculatus	17.7	11.1	19.8	12.3	12.7	7.8	9.0	5.0	**14.8**
Phyllospadix spp.	12.6	15.5	9.0	11.9	14.8	14.9	20.3	17.1	**14.2**
Non-coralline crust	13.5	13.4	5.0	5.1	12.5	7.4	23.8	7.9	**13.7**
Gastroclonium subarticulatum	9.9	9.5	10.7	9.9	14.3	8.3	12.4	6.8	**11.8**
Egregia menziesii	-	-	15.3	12.7	14.1	14.7	1.9	4.2	**7.8**
Mazzaella affinis	9.9	8.6	8.3	8.2	4.6	6.8	4.9	6.9	**6.9**
Mastocarpus papillatus	4.6	5.3	5.3	4.7	4.9	6.2	2.5	2.2	**4.3**
Codium setchellii	2.7	4.4	1.7	3.1	2.3	3.2	5.0	7.2	**2.9**
Gelidium coulteri	1.6	1.2	3.3	3.1	4.0	2.3	2.2	2.2	**2.7**
coralline crust	1.5	1.3	0.6	0.6	3.8	2.2	3.2	2.3	**2.2**
filamentous red algae-complex	4.6	7.1	1.5	1.7	-	-	0.1	0.4	**1.5**
Mastocarpus jardinii	1.7	2.2	2.4	3.2	1.5	2.0	<0.1	0.2	**1.4**
Mazzaella heterocarpa	0.7	0.7	2.3	1.8	2.4	1.9	<0.1	0.2	**1.4**
Ulva/Enteromorpha spp.	0.3	0.8	0.8	0.9	2.8	2.1	0.3	0.7	**1.1**
Cryptopleura violacea	1.0	2.8	1.2	1.2	0.9	1.2	1.0	1.1	**1.0**
Prionitis spp.	0.7	1.0	0.6	1.0	1.4	2.1	0.4	1.1	**0.8**
Neorhodomela larix	1.9	3.1	0.6	1.0	0.1	0.3	-	-	**0.6**
Corallina vancouveriensis	1.3	1.7	0.2	0.5	0.3	0.9	0.3	1.1	**0.5**
Mazzaella leptorhynchos	1.1	1.6	0.5	0.7	0.4	0.7	<0.1	<.01	**0.5**
Porphyra spp.	-	-	<0.1	0.2	1.5	2.1	0.1	0.4	**0.4**
Smithora naiadum	-	-	<0.1	<.01	1.3	2.2	0.2	0.7	**0.4**
Gelidium pusillum	0.3	0.5	<0.1	<.01	0.3	0.4	0.6	0.7	**0.3**
Microcladia coulteri	<0.1	<.01	<0.1	<.01	1.0	1.5	<0.1	0.2	**0.3**
Osmundea spp.	<0.1	0.2	<0.1	0.2	0.4	0.8	0.3	1.1	**0.2**
Sarcodiotheca gaudichaudii	0.1	0.4	0.3	0.9	-	-	0.3	0.9	**0.2**
juv. articulated coralline algae	0.1	0.4	<0.1	0.2	<0.1	<.01	0.3	0.7	**0.1**
Laminaria setchellii	-	-	-	-	0.6	1.8	-	-	**0.1**
Calliarthron/Bossiella spp.-complex	0.3	0.5	0.1	0.4	<0.1	0.2	<0.1	<.01	**0.1**
Callithamnion pikeanum	<0.1	<.01	<0.1	<.01	0.5	0.9	-	-	**0.1**
Corallina officinalis	<0.1	<.01	-	-	<0.1	<.01	0.4	1.1	**0.1**
Mazzaella lilacina	0.2	0.7	0.2	0.7	-	-	-	-	**0.1**
Cryptosiphonia woodii	-	-	<0.1	<.01	-	-	0.3	1.1	**<0.1**
Pterosiphonia dendroidea	<0.1	<.01	<0.1	0.2	0.1	0.4	<0.1	<.01	**<0.1**
Endocladia muricata	<0.1	<.01	0.1	0.4	<0.1	0.2	<0.1	<.01	**<0.1**
Grateloupia doryphora	<0.1	0.2	-	-	0.1	0.4	-	-	**<0.1**
Spongomorpha/Acrosiphonia	-	-	-	-	0.1	0.3	<0.1	<.01	**<0.1**
Chondracanthus corymbiferus	-	-	-	-	-	-	<0.1	0.2	**<0.1**
Cladophora spp.	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Melobesia mediocris	<0.1	<.01	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Bryopsis corticulans	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Soranthera ulvoidea	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Erythrophyllum delesserioides	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Microcladia borealis	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Halymenia/Schizymenia	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Chrysophyta unid.	-	-	<0.1	<.01	-	-	-	-	**<0.1**

(continued)

Table C3 (continued). Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, North Control Station NC 2+0.3m.

Survey	140		141		142		143		
Survey Date	8-Mar-05		23-Jun-05		17-Aug-05		3-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts									
Tegula funebralis	73.8	28.7	21.4	7.4	19.2	14.6	24.2	6.4	**34.7**
Pagurus spp.	6.6	6.5	12.0	5.3	14.2	8.9	20.0	15.2	**13.2**
Tegula brunnea	0.4	0.9	6.2	6.5	10.4	8.7	2.8	1.9	**5.0**
Anthopleura elegantissima	3.2	5.1	3.4	7.1	0.6	0.9	1.6	3.1	**2.2**
Lottia pelta	0.4	0.9	0.8	1.3	2.2	2.2	1.2	1.3	**1.2**
Fissurella volcano	0.4	0.9	-	-	2.2	4.4	1.6	3.1	**1.1**
Tectura scutum	0.8	1.3	1.4	3.1	-	-	1.2	1.6	**0.9**
Lottia scabra	1.2	2.7	1.2	2.7	0.2	0.5	-	-	**0.7**
Tetraclita rubescens	0.6	1.3	1.6	3.6	-	-	-	-	**0.6**
Epiactis prolifera	1.0	1.4	0.2	0.5	0.2	0.5	0.6	0.9	**0.5**
Pugettia spp.	-	-	0.2	0.5	0.4	0.9	0.8	0.8	**0.4**
Nemertea unid.	-	-	-	-	1.2	1.3	0.2	0.5	**0.4**
Leptasterias spp.	0.2	0.5	0.4	0.6	0.2	0.5	0.4	0.6	**0.3**
Cancer spp.	-	-	-	-	1.0	1.0	-	-	**0.3**
Lottia limatula	0.2	0.5	-	-	0.4	0.6	-	-	**0.2**
Pachygrapsus crassipes	-	-	-	-	0.2	0.5	0.4	0.9	**0.2**
Nereididae unid.	-	-	-	-	0.6	0.6	-	-	**0.2**
Cancer antennarius	-	-	0.2	0.5	0.2	0.5	-	-	**<0.1**
Alia spp.	-	-	-	-	-	-	0.2	0.5	**<0.1**
Conus californicus	-	-	-	-	0.2	0.5	-	-	**<0.1**
Kelletia kelletii	-	-	-	-	-	-	0.2	0.5	**<0.1**
Crepidula spp.	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Acmaeidae unid.	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Lacuna spp.	<0.1	<.01	<0.1	<.01	-	-	<0.1	<.01	**<0.1**
Lottia asmi	<0.1	<.01	<0.1	<.01	-	-	<0.1	<.01	**<0.1**
Ischnochitonidae	-	-	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Bittium spp.	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Ophiuroidea unid.	<0.1	<.01	-	-	-	-	<0.1	<.01	**<0.1**
Lottia instabilis	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Pseudomelatoma torosa	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Heptacarpus spp.	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Grapsidae (juv.)	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Invertebrate Cover									
Pista spp.	1.7	1.7	1.0	1.4	3.5	2.5	10.0	7.7	**4.0**
tunicates, colonial/social unid.	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Spirorbidae	-	-	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Chthamalus fissus	<0.1	<.01	<0.1	<.01	-	-	<0.1	<.01	**<0.1**
Porifera unid. (encrusting)	<0.1	<.01	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Bryozoa, unid. (encrusting)	-	-	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Phragmatopoma californica	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Substrate Cover									
sand (shell gravel)	7.7	6.3	13.1	4.4	5.2	4.3	3.8	4.6	**7.4**
rock	2.6	3.1	2.2	4.9	3.1	1.9	6.7	5.8	**3.6**
cobble	-	-	0.9	1.9	0.3	0.9	2.9	5.9	**1.0**

Table C4. Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, North Control Station NC 2+0.9m.

Survey	140		141		142		143		
Survey Date	8-Mar-05		23-Jun-05		17-Aug-05		3-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Endocladia muricata	34.4	24.5	38.1	28.2	32.9	29.1	37.6	27.7	**35.7**
Mastocarpus papillatus	16.5	10.5	26.0	14.0	30.6	15.1	17.6	9.8	**22.7**
Non-coralline crust	17.7	6.5	10.0	4.7	10.5	5.8	22.6	10.7	**15.2**
Mazzaella flaccida	8.4	9.8	15.9	14.6	18.1	13.6	6.5	4.8	**12.2**
Mazzaella affinis	8.1	7.0	7.6	6.4	3.5	3.7	4.7	6.7	**6.0**
coralline crust	5.2	6.9	1.3	1.3	3.4	3.7	4.9	5.2	**3.7**
Mastocarpus jardinii	0.3	0.5	0.9	1.4	1.5	1.8	1.0	3.1	**0.9**
Mazzaella heterocarpa	1.5	2.3	0.8	1.0	1.0	1.3	<0.1	<.01	**0.8**
Gelidium pusillum	0.9	0.9	<0.1	0.2	0.9	1.9	0.3	0.5	**0.6**
Gelidium coulteri	0.3	0.8	0.5	0.9	0.8	1.7	0.3	1.1	**0.5**
Porphyra spp.	<0.1	<.01	0.3	0.5	1.6	3.2	-	-	**0.5**
Gastroclonium subarticulatum	0.6	1.8	0.2	0.7	0.6	1.8	0.3	1.1	**0.4**
Chondracanthus canaliculatus	0.5	1.5	<0.1	0.2	0.8	2.0	<0.1	0.2	**0.4**
Cryptopleura violacea	0.3	1.1	-	-	-	-	0.8	2.0	**0.3**
Corallina vancouveriensis	0.6	1.5	0.2	0.5	0.3	1.1	<0.1	<.01	**0.3**
juv. articulated coralline algae	<0.1	<.01	<0.1	<.01	<0.1	<.01	0.6	1.1	**0.1**
Ulva/Enteromorpha spp.	<0.1	<.01	<0.1	<.01	<0.1	<.01	0.5	1.3	**0.1**
Mazzaella leptorhynchos	<0.1	<.01	<0.1	0.2	0.1	0.3	<0.1	<.01	**<0.1**
Cladophora spp.	<0.1	0.2	<0.1	<.01	<0.1	-	<0.1	<.01	**<0.1**
Pelvetia compressa	<0.1	<.01	-	-	<0.1	0.2	<0.1	<.01	**<0.1**
Calliarthron/Bossiella spp.-complex	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Prionitis spp.	<0.1	<.01	-	-	-	-	<0.1	<.01	**<0.1**
Callithamnion pikeanum	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Phyllospadix spp.	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Osmundea spp.	<0.1	<.01	-	-	-	-	-	-	**<0.1**
filamentous red algae-complex	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Invertebrate Counts									
Tegula funebralis	123.6	44.1	85.6	45.3	74.2	36.8	90.2	46.1	**93.4**
Anthopleura elegantissima	16.8	8.3	9.6	5.1	5.2	3.3	9.0	7.5	**10.2**
Pagurus spp.	5.6	6.2	9.6	7.8	14.6	12.2	5.2	5.0	**8.8**
Lottia scabra	1.8	1.8	4.6	7.0	5.2	6.1	13.0	14.8	**6.2**
Ocenebra spp.	1.6	1.1	2.4	3.3	1.6	2.1	5.0	7.5	**2.7**
Tectura scutum	0.6	0.9	2.0	3.5	4.2	4.2	1.4	1.7	**2.1**
Lottia limatula	0.6	0.6	1.0	1.7	2.6	3.2	1.0	1.2	**1.3**
Acanthina spp.	2.2	4.9	0.4	0.9	-	-	-	-	**0.7**
Lottia pelta	0.6	1.3	0.2	0.5	-	-	1.6	2.6	**0.6**
Tetraclita rubescens	0.2	0.5	1.6	2.3	0.2	0.5	-	-	**0.5**
Pachygrapsus crassipes	0.8	1.1	0.4	0.6	0.4	0.6	-	-	**0.4**
Leptasterias spp.	0.2	0.5	0.4	0.6	-	-	0.8	1.3	**0.4**
Lottia digitalis	-	-	-	-	-	-	1.0	2.2	**0.3**
Nemertea unid.	-	-	-	-	0.4	0.6	0.2	0.5	**0.2**
Fissurella volcano	-	-	-	-	0.2	0.5	0.2	0.5	**<0.1**
Mopalia spp.	0.2	0.5	-	-	-	-	0.2	0.5	**<0.1**
Pugettia spp.	-	-	-	-	0.4	0.9	-	-	**<0.1**
Crepidula spp.	-	-	0.2	0.5	<0.1	<.01	<0.1	<.01	**<0.1**
Cyanoplax spp.	0.2	0.5	-	-	-	-	-	-	**<0.1**
Nucella emarginata	0.2	0.5	-	-	-	-	-	-	**<0.1**

(continued)

Table C4 (continued). Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, North Control Station NC 2+0.9m.

Survey	140		141		142		143		
Survey Date	8-Mar-05		23-Jun-05		17-Aug-05		3-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Invertebrate Counts (continued)									
Nuttallina californica	0.2	0.5	-	-	-	-	-	-	**<0.1**
Acmaeidae unid.	<0.1	<.01	<0.1	-	<0.1	-	<0.1	<.01	**<0.1**
Lottia asmi	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Grapsidae (juv.)	<0.1	<.01	<0.1	<.01	<0.1	<.01	-	-	**<0.1**
Ischnochitonidae	-	-	<0.1	<.01	<0.1	<.01	-	-	**<0.1**
Littorina spp.	-	-	<0.1	<.01	<0.1	<.01	-	-	**<0.1**
Pollicipes polymerus	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Invertebrate Cover									
Chthamalus fissus	0.4	1.1	0.1	0.3	0.9	1.0	1.3	1.9	**0.7**
tunicates, colonial/social unid.	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	0.2	**<0.1**
Spirorbidae	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Phragmatopoma californica	<0.1	<.01	<0.1	<.01	<0.1	<.01	-	-	**<0.1**
Porifera unid. (encrusting)	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Pista spp.	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Haliclona spp.	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Substrate Cover									
rock	17.7	10.7	12.6	12.6	6.0	4.5	8.0	7.7	**11.1**
cobble	8.3	9.2	5.6	5.2	6.0	5.4	5.3	6.4	**6.3**
sand (shell gravel)	1.4	1.9	0.2	0.5	<0.1	<.01	<0.1	0.2	**0.4**

Table C5. Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, Field's Cove Station FC 1+0.3m.

Survey	140		141		142		143		
Survey Date	26-Jan-05		29-Apr-05		18-Jul-05		1-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Non-coralline crust	29.7	10.7	27.6	6.9	11.5	5.5	20.8	7.3	**22.4**
Gastroclonium subarticulatum	19.2	11.0	20.6	13.4	19.9	10.8	28.1	12.2	**21.9**
Mazzaella flaccida	11.3	7.1	23.5	11.9	31.0	11.6	12.9	4.1	**19.7**
Chondracanthus canaliculatus	5.4	3.9	10.1	9.3	14.1	8.6	9.3	3.7	**9.7**
coralline crust	14.9	10.6	4.5	3.7	4.5	3.6	4.9	3.7	**7.2**
Cryptopleura violacea	4.0	3.7	5.1	6.2	5.8	5.9	9.0	10.5	**6.0**
Endocladia muricata	4.8	7.9	7.1	10.5	5.1	8.3	4.8	6.2	**5.5**
Gelidium coulteri	2.2	2.2	4.0	2.5	6.0	3.8	5.6	4.3	**4.4**
Corallina vancouveriensis	5.6	7.4	4.4	7.2	1.4	2.0	4.5	5.5	**4.0**
Mazzaella affinis	0.6	1.3	2.6	4.6	7.9	6.8	4.6	3.9	**3.9**
Phyllospadix spp.	2.9	4.4	1.9	2.8	2.2	3.2	6.4	8.5	**3.4**
Egregia menziesii	1.7	2.7	1.9	2.4	3.9	4.8	5.5	8.5	**3.2**
Mastocarpus papillatus	1.6	2.4	3.1	4.4	6.2	5.4	<0.1	<.01	**2.7**
Mastocarpus jardinii	1.0	2.0	1.5	1.3	2.4	3.8	2.4	4.9	**1.8**
juv. articulated coralline algae	1.3	1.1	4.1	4.2	0.8	1.0	0.9	1.1	**1.8**
Ulva/Enteromorpha spp.	0.1	0.4	<0.1	<.01	<0.1	0.2	2.2	2.8	**0.6**
Calliarthron/Bossiella spp.-complex	1.1	1.7	0.3	1.1	0.3	0.6	<0.1	0.2	**0.5**
Porphyra spp.	-	-	<0.1	0.2	1.3	1.3	<0.1	<.01	**0.3**
Prionitis spp.	0.3	0.9	0.4	1.1	0.2	0.5	0.4	0.9	**0.3**
Cryptosiphonia woodii	0.4	1.3	0.7	2.0	-	-	-	-	**0.3**
Osmundea spp.	<0.1	<.01	<0.1	<.01	-	-	1.0	3.3	**0.3**
Mazzaella heterocarpa	0.1	0.3	0.1	0.3	0.3	0.8	<0.1	<.01	**0.2**
filamentous red algae-complex	-	-	<0.1	<.01	0.6	1.2	-	-	**0.2**
Mazzaella leptorhynchos	<0.1	0.2	<0.1	0.2	0.3	0.9	<0.1	0.2	**0.1**
Pterosiphonia dendroidea	-	-	0.3	1.1	-	-	<0.1	0.2	**0.1**
Corallina officinalis	<0.1	<.01	-	-	<0.1	<.01	0.2	0.5	**<0.1**
Callithamnion/Pleonosporium	<0.1	<.01	0.2	0.7	<0.1	<.01	-	-	**<0.1**
Cladophora spp.	-	-	<0.1	0.2	<0.1	0.2	<0.1	<.01	**<0.1**
Microcladia coulteri	-	-	-	-	<0.1	<.01	<0.1	0.2	**<0.1**
Smithora naiadum	-	-	-	-	<0.1	<.01	<0.1	0.2	**<0.1**
Colpomenia spp.	-	-	-	-	-	-	<0.1	0.2	**<0.1**
Analipus japonicus	-	-	-	-	<0.1	0.2	-	-	**<0.1**
Gelidium pusillum	-	-	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Callithamnion pikeanum	<0.1	<.01	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Melobesia mediocris	-	-	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Neorhodomela larix	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Spongomorpha/Acrosiphonia	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Sarcodiotheca gaudichaudii	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Invertebrate Counts									
Tegula funebralis	77.2	24.1	58.4	45.5	22.2	26.9	9.4	11.4	**41.8**
Strongylocentrotus purpuratus	14.0	14.2	19.8	27.4	11.0	14.6	2.6	3.7	**11.9**
Pagurus spp.	22.6	20.4	5.2	10.0	2.6	2.1	9.2	13.4	**9.9**
Anthopleura elegantissima	8.6	8.9	11.4	13.4	6.2	5.1	3.8	2.1	**7.5**
Tetraclita rubescens	-	-	20.0	33.7	2.0	3.1	0.6	1.3	**5.7**
Tegula brunnea	3.2	2.3	4.2	6.7	9.2	9.0	4.8	2.8	**5.4**
Pachygrapsus crassipes	0.8	1.1	2.8	3.0	1.8	1.6	0.6	0.9	**1.5**
Lottia limatula	0.4	0.6	1.8	3.0	1.8	3.0	1.4	0.6	**1.4**

(continued)

Table C5 (continued). Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, Field's Cove Station FC 1+0.3m.

Survey	140		141		142		143		
Survey Date	26-Jan-05		29-Apr-05		18-Jul-05		1-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts (continued)									
Epiactis prolifera	1.0	2.2	2.4	2.8	0.4	0.6	1.0	1.0	**1.2**
Nuttallina californica	0.2	0.5	0.4	0.9	1.8	2.2	1.6	2.6	**1.0**
Fissurella volcano	0.8	1.3	1.6	1.5	0.6	0.9	-	-	**0.8**
Tectura scutum	0.6	0.6	0.4	0.9	1.2	1.3	0.4	0.9	**0.7**
Nemertea unid.	-	-	0.2	0.5	2.2	1.8	-	-	**0.6**
Leptasterias spp.	1.0	1.7	-	-	0.4	0.6	0.8	0.8	**0.6**
Ocenebra spp.	1.0	1.2	0.8	1.8	0.2	0.5	<0.1	<.01	**0.5**
Lottia scabra	1.2	1.8	-	-	-	-	0.8	1.8	**0.5**
Pugettia spp.	-	-	0.6	0.9	0.4	0.6	0.2	0.5	**0.3**
Serpulorbis squamigerus	0.2	0.5	0.8	1.8	-	-	-	-	**0.3**
Pisaster ochraceus	-	-	0.6	0.6	0.2	0.5	-	-	**0.2**
Serpulidae unid.	0.4	0.6	0.2	0.5	-	-	0.2	0.5	**0.2**
Lottia pelta	-	-	0.2	0.5	-	-	0.4	0.6	**0.2**
Mopalia spp.	0.2	0.5	-	-	-	-	0.4	0.9	**0.2**
Sipuncula unid.	-	-	0.2	0.5	0.2	0.5	<0.1	<.01	**0.1**
Ophiothrix spiculata	-	-	-	-	0.2	0.5	0.2	0.5	**<0.1**
Acmaea mitra	<0.1	<.01	-	-	-	-	0.2	0.5	**<0.1**
Pseudomelatoma torosa	0.2	0.5	-	-	-	-	-	-	**<0.1**
Acmaeidae unid.	<0.1	<.01	-	-	<0.1	-	<0.1	<.01	**<0.1**
Crepidula spp.	-	-	<0.1	<.01	<0.1	<.01	-	-	**<0.1**
Lottia asmi	<0.1	<.01	<0.1	<.01	-	-	-	-	**<0.1**
Lacuna spp.	<0.1	<.01	-	-	-	-	<0.1	<.01	**<0.1**
Cyanoplax spp.	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Lottia ochracea	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Ischnochitonidae	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Lissothuria nutriens	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Invertebrate Cover									
Pista spp.	0.7	1.2	0.2	0.7	<0.1	<.01	0.6	1.0	**0.4**
Phragmatopoma californica	<0.1	-	-	-	<0.1	<.01	0.1	0.4	**<0.1**
tunicates, colonial/social unid.	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Spirorbidae	<0.1	<.01	<0.1	<.01	-	-	<0.1	<.01	**<0.1**
Chthamalus fissus	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Porifera unid. (encrusting)	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Bryozoa, unid. (encrusting)	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Substrate Cover									
rock	8.1	4.1	5.8	6.7	3.5	3.0	3.9	4.6	**5.3**
sand (shell gravel)	0.6	1.0	0.8	1.6	0.8	1.6	1.3	2.6	**0.9**
cobble	0.1	0.4	0.3	0.6	0.6	1.3	<0.1	<.01	**0.2**

Table C6. Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, Field's Cove Station FC 1+0.9m.

Survey	140		141		142		143		
Survey Date	26-Jan-05		29-Apr-05		17-Jul-05		1-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Endocladia muricata	33.6	19.2	40.6	25.9	44.3	23.3	42.9	23.0	**40.3**
Non-coralline crust	28.8	10.3	17.3	13.1	15.9	7.2	19.5	10.3	**20.4**
Mastocarpus papillatus	5.1	5.7	4.0	3.5	9.9	6.7	10.4	8.2	**7.3**
coralline crust	1.3	1.9	1.5	2.6	1.9	3.0	1.4	1.4	**1.5**
Pelvetia compressa	1.3	3.9	1.4	3.9	1.3	4.2	1.3	3.9	**1.3**
Phyllospadix spp.	0.6	2.0	0.6	2.0	1.4	3.0	1.5	3.2	**1.0**
Mazzaella flaccida	<0.1	0.2	<0.1	<.01	1.3	3.3	1.6	1.4	**0.7**
Calliarthron/Bossiella spp.-complex	0.6	2.0	0.7	2.2	-	-	0.6	2.0	**0.5**
Corallina vancouveriensis	0.5	1.1	0.2	0.7	0.2	0.7	0.8	2.0	**0.4**
juv. articulated coralline algae	0.1	0.4	0.9	2.0	0.1	0.4	0.4	1.1	**0.4**
Gelidium coulteri	<0.1	<.01	<0.1	<.01	<0.1	0.2	1.5	1.4	**0.4**
Mazzaella leptorhynchos	<0.1	<.01	<0.1	0.2	0.8	1.0	0.1	0.3	**0.2**
Mazzaella heterocarpa	<0.1	<.01	<0.1	<.01	<0.1	0.2	0.2	0.5	**<0.1**
Prionitis spp.	<0.1	<.01	<0.1	0.2	0.2	0.7	<0.1	<.01	**<0.1**
Mazzaella affinis	<0.1	<.01	-	-	-	-	0.2	0.3	**<0.1**
Gelidium pusillum	<0.1	<.01	<0.1	<.01	<0.1	-	0.1	0.3	**<0.1**
Cladophora spp.	<0.1	<.01	<0.1	-	<0.1	-	<0.1	0.2	**<0.1**
Cryptosiphonia woodii	<0.1	<.01	<0.1	<.01	<0.1	0.2	<0.1	<.01	**<0.1**
Osmundea spp.	-	-	-	-	-	-	<0.1	0.2	**<0.1**
Porphyra spp.	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Mastocarpus jardinii	<0.1	<.01	<0.1	<.01	-	-	-	-	**<0.1**
Chondracanthus canaliculatus	<0.1	<.01	-	-	-	-	<0.1	<.01	**<0.1**
Ulva/Enteromorpha spp.	<0.1	<.01	-	-	-	-	-	-	**<0.1**
filamentous red algae-complex	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Invertebrate Counts									
Tegula funebralis	228.0	62.3	102.4	38.4	241.8	109.6	153.8	109.0	**181.5**
Anthopleura elegantissima	215.0	116.0	167.2	175.6	161.6	107.2	124.4	141.4	**167.1**
Pagurus spp.	21.4	9.0	15.2	10.2	15.2	19.8	102.2	125.9	**38.5**
Lottia scabra	10.6	11.0	12.4	14.0	5.4	6.7	19.8	20.2	**12.1**
Lottia limatula	1.0	1.2	1.6	0.9	4.4	3.0	3.2	3.8	**2.6**
Ocenebra spp.	1.6	0.6	2.8	1.3	0.8	0.5	0.8	0.8	**1.5**
Acanthina spp.	1.6	0.9	2.2	2.5	0.6	0.9	1.4	1.3	**1.5**
Cyanoplax spp.	1.2	0.8	0.4	0.6	2.8	2.6	0.2	0.5	**1.2**
Tectura scutum	1.2	1.8	0.8	1.3	0.6	0.9	0.6	0.9	**0.8**
Pachygrapsus crassipes	0.8	0.5	0.4	0.6	1.2	1.6	0.6	0.9	**0.8**
Lottia asmi	<0.1	<.01	2.8	6.3	<0.1	<.01	<0.1	<.01	**0.7**
Lottia pelta	0.6	0.6	-	-	-	-	1.6	2.3	**0.6**
Haliotis spp.	0.3	1.0	0.4	1.3	0.3	1.0	-	-	**0.3**
Lottia digitalis	-	-	-	-	-	-	0.8	1.8	**0.2**
Mopalia spp.	0.4	0.6	-	-	-	-	0.2	0.5	**0.2**
Nemertea unid.	-	-	-	-	0.4	0.9	-	-	**<0.1**
Lottia gigantea	-	-	0.2	0.5	-	-	-	-	**<0.1**
Nuttallina californica	-	-	0.2	0.5	-	-	-	-	**<0.1**
Hemigrapsus nudus	-	-	0.2	0.5	-	-	-	-	**<0.1**
Leptasterias spp.	-	-	0.2	0.5	-	-	-	-	**<0.1**
Pisaster ochraceus	-	-	-	-	0.2	0.5	-	-	**<0.1**
Pseudomelatoma torosa	0.2	0.5	-	-	-	-	-	-	**<0.1**

(continued)

Table C6 (continued). Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, Field's Cove Station FC 1+0.9m.

Survey	140		141		142		143		
Survey Date	26-Jan-05		29-Apr-05		17-Jul-05		1-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Invertebrate Counts (continued)									
Acmaeidae unid.	<0.1	<.01	<0.1	-	<0.1	-	-	-	**<0.1**
Littorina spp.	<0.1	<.01	-	-	<0.1	<.01	-	-	**<0.1**
Nitidiscala/Opalia spp.	<0.1	<.01	-	-	<0.1	<.01	-	-	**<0.1**
Ischnochitonidae	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Serpulidae unid.	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Grapsidae (juv.)	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Cirratulidae/Terebellidae unid.	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Invertebrate Cover									
Chthamalus fissus	0.3	0.9	0.7	1.2	<0.1	<.01	0.4	0.7	**0.4**
Phragmatopoma californica	<0.1	0.2	0.6	0.9	<0.1	<.01	<0.1	<.01	**0.2**
Haliclona spp.	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Spirorbidae	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Substrate Cover									
rock	24.6	14.1	22.6	13.7	19.9	9.6	15.3	14.0	**20.6**
cobble	2.3	5.1	2.2	3.9	3.5	6.1	1.4	3.0	**2.3**
sand (shell gravel)	2.7	2.7	2.4	3.0	0.8	2.0	0.8	1.1	**1.7**

Table C7. Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, Field's Cove Station FC 2+0.3m.

Survey	140		141		142		143		
Survey Date	6-Mar-05		29-Apr-05		18-Jul-05		1-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Non-coralline crust	27.8	13.2	23.0	13.8	12.6	10.8	20.8	10.0	**21.0**
Gelidium coulteri	1.3	1.4	9.7	5.3	13.9	13.5	21.6	11.8	**11.6**
Mazzaella flaccida	3.5	3.5	12.2	10.9	16.5	11.2	6.0	5.3	**9.5**
Endocladia muricata	8.2	14.5	7.9	13.2	6.7	12.4	9.2	14.1	**8.0**
Corallina vancouveriensis	9.7	10.1	11.7	9.7	5.3	5.9	5.1	5.1	**7.9**
coralline crust	11.5	8.1	11.0	5.2	3.3	3.1	3.4	1.6	**7.3**
Gastroclonium subarticulatum	5.4	5.2	3.8	5.8	7.4	13.2	5.8	7.3	**5.6**
Egregia menziesii	2.2	2.6	0.6	1.0	9.6	13.4	9.0	8.8	**5.3**
Mastocarpus papillatus	1.1	1.5	5.4	3.3	9.4	11.3	3.4	3.8	**4.8**
Cryptopleura violacea	2.4	4.5	5.8	8.4	4.5	7.6	6.1	9.4	**4.7**
Chondracanthus canaliculatus	5.1	6.2	2.8	4.8	6.7	8.4	3.4	5.6	**4.5**
juv. articulated coralline algae	7.2	8.6	2.4	1.4	2.6	5.8	4.0	4.5	**4.0**
Calliarthron/Bossiella spp.-complex	3.4	6.3	2.0	2.6	2.7	7.9	5.0	9.5	**3.3**
Phyllospadix spp.	3.2	8.5	3.3	8.4	3.0	9.0	2.7	5.5	**3.0**
Mazzaella affinis	3.3	5.2	1.0	2.2	2.9	6.2	1.2	2.2	**2.1**
Prionitis spp.	-	-	1.5	2.9	2.4	4.7	4.4	11.7	**2.1**
Mastocarpus jardinii	1.9	2.2	1.5	1.3	0.3	0.6	1.7	2.1	**1.4**
Mazzaella heterocarpa	0.3	0.4	0.2	0.7	0.8	2.0	1.0	2.6	**0.6**
Porphyra spp.	<0.1	0.2	0.2	0.5	0.3	0.6	0.1	0.3	**0.2**
filamentous red algae-complex	-	-	0.5	1.5	<0.1	0.2	<0.1	0.2	**0.2**
Cryptosiphonia woodii	-	-	0.2	0.3	0.3	0.5	0.1	0.4	**0.2**
Ulva/Enteromorpha spp.	<0.1	<.01	<0.1	0.2	<0.1	0.2	0.3	0.6	**0.1**
Analipus japonicus	-	-	-	-	0.4	1.1	-	-	**0.1**
Osmundea spp.	<0.1	0.2	<0.1	<.01	<0.1	<.01	0.1	0.3	**<0.1**
Mazzaella lilacina	-	-	-	-	0.2	0.7	-	-	**<0.1**
Mazzaella leptorhynchos	<0.1	<.01	<0.1	0.2	<0.1	<.01	<0.1	0.2	**<0.1**
Gelidium pusillum	<0.1	0.2	-	-	-	-	<0.1	0.2	**<0.1**
Chondracanthus corymbiferus	-	-	0.1	0.3	-	-	-	-	**<0.1**
Cladophora spp.	<0.1	<.01	<0.1	<.01	<0.1	0.2	<0.1	<.01	**<0.1**
Microcladia borealis	-	-	<0.1	<.01	-	-	<0.1	0.2	**<0.1**
Microcladia coulteri	-	-	<0.1	<.01	-	-	<0.1	0.2	**<0.1**
Callithamnion/Pleonosporium	-	-	<0.1	<.01	-	-	<0.1	<.01	**<0.1**
Spongomorpha/Acrosiphonia	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Melobesia mediocris	-	-	<0.1	<.01	<0.1	<.01	-	-	**<0.1**
Codium setchellii	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Cryptopleura ruprechtiana	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Callithamnion pikeanum	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Colpomenia spp.	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Chrysophyta unid.	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Invertebrate Counts									
Tegula funebralis	105.8	82.6	123.8	106.3	51.2	34.5	123.0	90.7	**101.0**
Strongylocentrotus purpuratus	23.4	5.8	57.6	30.8	21.6	13.0	16.0	11.9	**29.7**
Anthopleura elegantissima	14.0	14.0	50.4	45.5	11.2	8.8	17.8	12.1	**23.4**
Pagurus spp.	15.8	10.9	29.8	32.2	9.2	14.7	8.8	10.4	**15.9**
Lottia scabra	8.0	17.9	16.2	33.5	9.0	20.1	3.4	6.1	**9.2**
Tetraclita rubescens	1.0	1.4	10.6	14.7	2.0	4.5	1.4	2.6	**3.8**
Tegula brunnea	2.0	1.9	2.0	4.5	5.0	6.6	1.2	1.3	**2.6**

(continued)

Table C7 (continued). Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, Field's Cove Station FC 2+0.3m.

Survey	140		141		142		143		
Survey Date	6-Mar-05		29-Apr-05		18-Jul-05		1-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts (continued)									
Fissurella volcano	2.4	1.8	0.8	0.8	0.6	0.9	3.2	5.0	**1.8**
Nuttallina californica	1.6	2.6	1.8	2.1	1.4	2.0	1.2	1.1	**1.5**
Mopalia spp.	3.6	8.1	-	-	0.2	0.5	0.6	0.9	**1.1**
Pachygrapsus crassipes	0.6	1.3	0.2	0.5	1.6	1.1	1.0	1.4	**0.9**
Lottia limatula	0.6	0.6	0.2	0.5	0.8	0.8	1.4	1.3	**0.8**
Leptasterias spp.	0.2	0.5	0.6	0.6	1.2	1.1	1.0	1.2	**0.8**
Ocenebra spp.	1.6	1.5	0.4	0.9	-	-	0.4	0.6	**0.6**
Tectura scutum	-	-	0.4	0.9	0.2	0.5	1.2	2.7	**0.5**
Serpulorbis squamigerus	-	-	0.2	0.5	1.2	2.7	0.4	0.9	**0.5**
Serpulidae unid.	1.2	2.2	0.2	0.5	-	-	-	-	**0.4**
Lottia pelta	-	-	0.2	0.5	0.8	1.3	-	-	**0.3**
Nemertea unid.	-	-	-	-	0.8	0.8	0.2	0.5	**0.3**
Acmaea mitra	0.6	0.6	<0.1	<.01	0.2	0.5	<0.1	<.01	**0.2**
Pugettia spp.	-	-	0.2	0.5	0.2	0.5	<0.1	<.01	**0.1**
Tonicella lineata	0.4	0.6	-	-	-	-	-	-	**<0.1**
Nereididae unid.	0.2	0.5	-	-	0.2	0.5	-	-	**<0.1**
Pisaster ochraceus	-	-	0.2	0.5	-	-	0.2	0.5	**<0.1**
Heptacarpus spp.	-	-	-	-	0.4	0.9	-	-	**<0.1**
Epiactis prolifera	0.2	0.5	-	-	-	-	-	-	**<0.1**
Cyanoplax spp.	-	-	-	-	-	-	0.2	0.5	**<0.1**
Nucella emarginata	0.2	0.5	-	-	-	-	-	-	**<0.1**
Cirratulidae/Terebellidae unid.	-	-	-	-	-	-	0.2	0.5	**<0.1**
Haliotis spp.	-	-	<0.1	0.3	-	-	-	-	**<0.1**
Acmaeidae unid.	-	-	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Littorina spp.	<0.1	<.01	-	-	-	-	<0.1	<.01	**<0.1**
Lottia asmi	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Pelecypoda unid. boring	-	-	<0.1	<.01	<0.1	<.01	-	-	**<0.1**
Pisaster/Henricia (juv.)	-	-	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Grapsidae (juv.)	<0.1	<.01	-	-	-	-	<0.1	<.01	**<0.1**
Mytilus californianus	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Crepidula spp.	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Ischnochitonidae	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Lacuna spp.	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Sipuncula unid.	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Invertebrate Cover									
Chthamalus fissus	0.2	0.5	0.4	1.1	0.2	0.7	0.2	0.7	**0.3**
Phragmatopoma californica	0.1	0.3	<0.1	<.01	<0.1	0.2	<0.1	<.01	**<0.1**
Pista spp.	0.2	0.7	<0.1	<.01	-	-	-	-	**<0.1**
Porifera unid. (encrusting)	<0.1	0.2	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Dodecaceria fewkesi	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Bryozoa, unid. (encrusting)	<0.1	0.2	-	-	<0.1	<.01	-	-	**<0.1**
tunicates, colonial/social unid.	-	-	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Spirorbidae	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Substrate Cover									
rock	9.9	7.5	12.8	15.9	11.5	18.1	8.9	11.6	**10.8**
sand (shell gravel)	1.0	1.7	0.3	0.9	2.0	3.7	3.2	5.7	**1.6**
cobble	0.2	0.7	0.8	1.0	1.9	3.9	0.6	0.7	**0.9**

Table C8. Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, Field's Cove Station FC 2+0.9m.

Survey	140		141		142		143		
Survey Date	27-Jan-05		29-Apr-05		18-Jul-05		1-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Endocladia muricata	33.2	11.8	38.0	18.2	40.4	17.1	36.2	7.5	**36.9**
Non-coralline crust	15.0	12.5	12.8	9.5	8.9	6.5	16.7	13.3	**13.3**
Pelvetia compressa	6.4	12.3	3.9	7.2	4.3	9.0	4.7	7.4	**4.8**
Mastocarpus papillatus	2.4	1.9	2.6	2.3	7.8	6.0	5.7	4.4	**4.6**
Hesperophycus californicus	0.5	1.5	0.6	1.8	<0.1	0.2	-	-	**0.3**
Gelidium coulteri	<0.1	<.01	-	-	0.3	0.9	0.4	0.9	**0.2**
coralline crust	0.3	0.5	<0.1	0.2	<0.1	0.2	<0.1	0.2	**0.1**
Fucus gardneri	-	-	-	-	-	-	0.4	0.9	**0.1**
Cladophora spp.	<0.1	<.01	<0.1	<.01	<0.1	-	0.3	0.5	**<0.1**
Prionitis spp.	<0.1	0.2	0.1	0.4	<0.1	<.01	<0.1	0.2	**<0.1**
Corallina vancouveriensis	-	-	-	-	0.2	0.7	-	-	**<0.1**
juv. articulated coralline algae	<0.1	<.01	0.1	0.4	<0.1	<.01	<0.1	<.01	**<0.1**
Porphyra spp.	-	-	<0.1	<.01	<0.1	<.01	<0.1	0.2	**<0.1**
Chondracanthus canaliculatus	-	-	-	-	-	-	<0.1	0.2	**<0.1**
Gelidium pusillum	-	-	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Mazzaella leptorhynchos	-	-	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Mazzaella heterocarpa	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Mazzaella affinis	-	-	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Ulva/Enteromorpha spp.	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Mazzaella flaccida	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Gastroclonium subarticulatum	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Cryptopleura violacea	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Invertebrate Counts									
Tegula funebralis	91.0	33.7	116.2	62.1	208.6	115.1	75.6	44.4	**122.9**
Anthopleura elegantissima	82.0	48.0	60.2	37.7	147.4	139.9	122.2	69.4	**103.0**
Lottia scabra	14.8	4.0	8.2	4.3	21.6	30.7	53.0	61.9	**24.4**
Lottia limatula	2.0	2.1	1.4	1.7	4.6	3.1	2.8	2.6	**2.7**
Pagurus spp.	2.0	2.6	-	-	2.0	2.1	5.6	9.8	**2.4**
Pollicipes polymerus	<0.1	<.01	<0.1	<.01	3.6	8.1	4.6	9.7	**2.1**
Lottia pelta	4.8	5.5	0.8	1.3	0.8	1.3	1.4	2.6	**2.0**
Cyanoplax spp.	1.6	1.5	1.2	0.8	1.6	1.8	1.6	1.5	**1.5**
Tectura scutum	-	-	3.6	1.8	0.4	0.6	0.8	1.8	**1.2**
Acanthina spp.	0.8	1.3	1.0	1.4	1.0	0.7	0.2	0.5	**0.8**
Ocenebra spp.	0.4	0.9	0.6	0.9	0.6	0.6	0.8	0.8	**0.6**
Lottia digitalis	0.2	0.5	1.6	3.6	-	-	0.4	0.9	**0.6**
Nuttallina californica	-	-	-	-	1.2	1.6	-	-	**0.3**
Pachygrapsus crassipes	-	-	0.4	0.6	0.4	0.6	0.2	0.5	**0.3**
Mopalia spp.	0.8	0.8	-	-	0.2	0.5	-	-	**0.3**
Pelecypoda unid. boring	<0.1	<.01	-	-	0.4	0.9	-	-	**0.1**
Sipuncula unid.	-	-	-	-	0.4	0.6	<0.1	<.01	**0.1**
Nitidiscala/Opalia spp.	-	-	-	-	<0.1	<.01	0.2	0.5	**<0.1**
Anthopleura xanthogrammica	-	-	-	-	-	-	0.2	0.5	**<0.1**
Leptasterias spp.	0.2	0.5	-	-	-	-	-	-	**<0.1**
Acmaeidae unid.	<0.1	<.01	<0.1	-	<0.1	<.01	<0.1	-	**<0.1**
Lottia asmi	<0.1	<.01	<0.1	<.01	<0.1	<.01	-	-	**<0.1**
Littorina spp.	<0.1	<.01	<0.1	<.01	-	-	<0.1	<.01	**<0.1**
Ischnochitonidae	-	-	-	-	<0.1	<.01	<0.1	<.01	**<0.1**

(continued)

Table C8 (continued). Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, Field's Cove Station FC 2+0.9m.

Survey	140		141		142		143		
Survey Date	27-Jan-05		29-Apr-05		18-Jul-05		1-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Invertebrate Counts (continued)									
Epiactis prolifera	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Nucella emarginata	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Grapsidae (juv.)	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Cirratulidae/Terebellidae unid.	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Invertebrate Cover									
Chthamalus fissus	0.1	0.3	<0.1	0.2	<0.1	-	<0.1	<.01	**<0.1**
Phragmatopoma californica	<0.1	0.2	0.1	0.3	<0.1	<.01	<0.1	<.01	**<0.1**
Substrate Cover									
rock	43.1	9.3	40.6	13.4	39.8	16.6	41.7	12.3	**41.3**
sand (shell gravel)	4.4	13.1	6.5	12.8	6.0	10.0	1.2	2.0	**4.5**
cobble	0.8	1.7	0.4	0.9	0.7	1.6	0.3	0.7	**0.6**

Table C9. Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, Field's Cove Station FC 3+0.3m.

Survey	140		141		142		143		
Survey Date	24-Feb-05		23-May-05		18-Jul-05		1-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Mazzaella flaccida	21.4	17.0	43.7	27.1	37.0	31.5	25.4	23.9	**31.9**
Non-coralline crust	22.0	9.2	14.7	5.3	14.4	9.0	16.9	7.4	**17.0**
Gastroclonium subarticulatum	15.6	16.2	13.3	15.9	16.3	18.7	13.4	11.1	**14.7**
Phyllospadix spp.	7.2	12.8	9.0	18.0	6.9	13.4	12.6	24.0	**8.9**
Chondracanthus canaliculatus	9.8	8.8	9.0	6.7	7.9	8.6	6.0	6.1	**8.2**
coralline crust	7.8	5.2	4.0	3.4	3.1	2.0	5.3	4.9	**5.1**
Mastocarpus papillatus	1.3	1.8	7.5	7.5	7.0	10.0	2.6	4.1	**4.6**
Mastocarpus jardinii	4.8	5.2	6.0	7.5	4.0	6.1	2.8	4.8	**4.4**
Gelidium coulteri	0.6	0.8	3.6	2.7	8.6	8.7	4.1	4.0	**4.2**
Calliarthron/Bossiella spp.-complex	4.7	6.7	2.7	4.2	3.0	4.7	5.0	9.7	**3.8**
Cryptopleura violacea	2.8	3.4	1.3	2.1	0.8	0.9	10.3	12.4	**3.8**
Corallina vancouveriensis	3.1	2.9	0.8	1.1	1.6	1.9	2.7	4.5	**2.0**
Mazzaella affinis	1.9	3.0	1.7	2.1	2.4	4.9	1.8	3.1	**1.9**
Egregia menziesii	1.0	3.3	0.5	1.5	1.6	4.0	3.4	6.1	**1.6**
juv. articulated coralline algae	0.2	0.3	1.0	1.3	0.9	1.0	3.8	3.9	**1.5**
Endocladia muricata	1.6	2.5	1.5	2.2	2.1	2.9	0.7	1.1	**1.5**
Ulva/Enteromorpha spp.	<0.1	0.2	0.5	1.3	1.4	2.3	3.0	5.1	**1.2**
Mazzaella heterocarpa	0.6	1.1	1.9	1.5	1.7	1.7	<0.1	<.01	**1.1**
filamentous red algae-complex	<0.1	<.01	1.3	3.9	0.8	2.0	<0.1	0.2	**0.6**
Prionitis spp.	0.2	0.7	0.3	0.7	0.3	1.1	1.0	1.1	**0.5**
Porphyra spp.	-	-	0.4	1.3	0.8	1.5	<0.1	<.01	**0.3**
Mazzaella leptorhynchos	0.1	0.4	0.4	0.9	0.3	0.9	0.3	0.7	**0.3**
Chrysophyta unid.	-	-	-	-	1.1	2.7	<0.1	<.01	**0.3**
Spongomorpha/Acrosiphonia	-	-	0.6	2.0	-	-	-	-	**0.2**
Halymenia/Schizymenia	-	-	0.3	0.7	0.3	0.9	-	-	**0.1**
Corallina officinalis	-	-	-	-	0.3	0.7	0.2	0.7	**0.1**
Cryptosiphonia woodii	-	-	0.5	1.1	-	-	-	-	**0.1**
Cladophora spp.	<0.1	<.01	<0.1	<.01	0.4	1.1	<0.1	<.01	**0.1**
Gelidium pusillum	<0.1	0.2	-	-	-	-	0.3	1.1	**0.1**
Callithamnion pikeanum	<0.1	<.01	<0.1	0.2	0.3	0.9	<0.1	<.01	**<0.1**
Microcladia coulteri	-	-	-	-	0.2	0.5	<0.1	0.2	**<0.1**
Smithora naiadum	-	-	-	-	<0.1	0.2	<0.1	0.2	**<0.1**
Chondracanthus corymbiferus	<0.1	<.01	0.1	0.4	-	-	<0.1	<.01	**<0.1**
Osmundea spp.	<0.1	<.01	<0.1	<.01	-	-	0.1	0.3	**<0.1**
Analipus japonicus	-	-	-	-	0.1	0.4	-	-	**<0.1**
Mazzaella lilacina	-	-	0.1	0.4	-	-	-	-	**<0.1**
Sarcodiotheca gaudichaudii	<0.1	<.01	<0.1	0.2	-	-	<0.1	<.01	**<0.1**
Colpomenia spp.	-	-	<0.1	0.2	-	-	<0.1	<.01	**<0.1**
Callithamnion/Pleonosporium	-	-	-	-	-	-	<0.1	0.2	**<0.1**
Laminaria setchellii	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Microcladia borealis	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Melobesia mediocris	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Invertebrate Counts									
Tegula funebralis	61.2	43.9	45.6	61.3	11.8	25.8	6.4	12.1	**31.3**
Strongylocentrotus purpuratus	32.8	58.9	32.6	53.0	14.0	28.6	29.2	60.9	**27.2**
Pagurus spp.	16.4	12.0	10.6	8.9	8.6	7.0	13.2	10.5	**12.2**
Tegula brunnea	8.4	9.4	15.0	15.4	8.6	18.7	6.4	4.3	**9.6**

(continued)

Table C9 (continued). Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, Field's Cove Station FC 3+0.3m.

Survey	140		141		142		143		
Survey Date	24-Feb-05		23-May-05		18-Jul-05		1-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts (continued)									
Anthopleura elegantissima	9.0	6.6	3.4	4.8	5.0	3.2	5.0	4.1	**5.6**
Tetraclita rubescens	12.8	27.5	0.8	1.8	0.2	0.5	3.0	6.7	**4.2**
Fissurella volcano	1.4	1.3	1.4	0.9	0.4	0.6	0.8	0.8	**1.0**
Pachygrapsus crassipes	0.4	0.9	0.6	0.9	0.6	0.9	0.4	0.9	**0.5**
Lottia scabra	1.4	3.1	0.4	0.9	-	-	0.2	0.5	**0.5**
Nemertea unid.	-	-	0.2	0.5	0.2	0.5	0.6	1.3	**0.3**
Acmaea mitra	0.2	0.5	-	-	0.6	0.6	0.2	0.5	**0.3**
Lottia pelta	0.4	0.9	0.2	0.5	0.4	0.6	-	-	**0.3**
Tectura scutum	0.2	0.5	0.2	0.5	0.4	0.6	0.2	0.5	**0.3**
Serpulorbis squamigerus	-	-	0.4	0.9	0.2	0.5	0.4	0.9	**0.3**
Leptasterias spp.	0.2	0.5	0.4	0.6	0.2	0.5	0.2	0.5	**0.3**
Heptacarpus spp.	0.8	1.8	-	-	-	-	-	-	**0.2**
Serpulidae unid.	0.2	0.5	<0.1	<.01	0.2	0.5	0.2	0.5	**0.2**
Ocenebra spp.	-	-	0.2	0.5	-	-	0.2	0.5	**0.1**
Lottia limatula	0.2	0.5	0.2	0.5	-	-	-	-	**<0.1**
Epiactis prolifera	0.2	0.5	-	-	-	-	-	-	**<0.1**
Calliostoma ligatum	0.2	0.5	-	-	-	-	-	-	**<0.1**
Nereididae unid.	-	-	-	-	0.2	0.5	-	-	**<0.1**
Pseudomelatoma torosa	0.2	0.5	-	-	-	-	-	-	**<0.1**
Pisaster/Henricia (juv.)	-	-	-	-	-	-	0.2	0.5	**<0.1**
Pugettia spp.	-	-	0.2	0.5	-	-	-	-	**<0.1**
Sipuncula unid.	-	-	-	-	0.2	0.5	-	-	**<0.1**
Stenoplax spp.	-	-	-	-	-	-	0.2	0.5	**<0.1**
Cadlina spp.	-	-	-	-	-	-	0.2	0.5	**<0.1**
Acmaeidae unid.	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Lacuna spp.	<0.1	<.01	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Ischnochitonidae	-	-	<0.1	<.01	<0.1	<.01	-	-	**<0.1**
Homolopoma/Lirularia	-	-	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Crepidula spp.	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Lottia asmi	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Amphissa spp.	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Grapsidae (juv.)	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Invertebrate Cover									
Pista spp.	5.1	8.7	0.2	0.5	<0.1	<.01	2.8	5.0	**2.0**
Phragmatopoma californica	0.1	0.4	0.2	0.7	<0.1	<.01	<0.1	<.01	**<0.1**
tunicates, colonial/social unid.	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Spirorbidae	<0.1	<.01	<0.1	<.01	-	-	<0.1	<.01	**<0.1**
Chthamalus fissus	<0.1	<.01	<0.1	<.01	-	-	<0.1	<.01	**<0.1**
Bryozoa, unid. (encrusting)	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Porifera unid. (encrusting)	<0.1	<.01	<0.1	<.01	-	-	<0.1	<.01	**<0.1**
Salmacina tribranchiata	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Substrate Cover									
rock	5.8	3.9	2.6	2.1	1.8	1.2	3.8	3.6	**3.5**
sand (shell gravel)	2.8	4.6	6.0	14.2	1.0	1.7	0.8	1.4	**2.7**
cobble	1.5	3.9	0.6	1.3	-	-	1.0	1.8	**0.8**

Table C10. Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, Field's Cove Station FC 3+0.9m.

Survey	140		141		142		143		
Survey Date	24-Feb-05		23-May-05		18-Jul-05		14-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Endocladia muricata	40.7	15.1	48.3	22.1	36.5	17.8	28.3	6.3	**38.4**
Mastocarpus papillatus	15.9	9.4	25.3	22.6	39.7	30.2	23.5	10.3	**26.1**
Non-coralline crust	28.8	10.9	11.9	7.9	13.3	6.3	31.4	3.5	**21.4**
Mazzaella flaccida	4.2	4.5	2.9	3.6	5.2	3.1	7.0	3.3	**4.8**
Pelvetia compressa	3.4	6.0	1.7	4.2	3.2	8.3	2.9	7.4	**2.8**
coralline crust	1.0	1.4	0.3	0.4	0.8	0.8	2.9	2.2	**1.3**
Mazzaella affinis	2.6	7.4	-	-	-	-	1.3	1.1	**1.0**
Gelidium pusillum	1.7	3.3	0.2	0.7	0.2	0.3	<0.1	-	**0.5**
Gelidium coulteri	0.3	0.9	0.2	0.5	0.2	0.3	0.6	1.0	**0.3**
Corallina vancouveriensis	1.2	2.3	<0.1	0.2	<0.1	<.01	-	-	**0.3**
Mastocarpus jardinii	0.3	0.8	0.1	0.3	0.3	0.7	0.3	0.6	**0.3**
juv. articulated coralline algae	<0.1	<.01	<0.1	<.01	0.1	0.3	0.3	0.6	**0.1**
Porphyra spp.	<0.1	<.01	<0.1	0.2	0.4	0.8	<0.1	<.01	**0.1**
Mazzaella heterocarpa	<0.1	0.2	0.3	0.5	<0.1	0.2	<0.1	<.01	**0.1**
Cladophora spp.	<0.1	<.01	<0.1	<.01	0.2	0.3	0.1	0.3	**<0.1**
Gastroclonium subarticulatum	-	-	<0.1	0.2	0.2	0.3	<0.1	<.01	**<0.1**
Cryptosiphonia woodii	<0.1	0.2	<0.1	0.2	-	-	-	-	**<0.1**
Prionitis spp.	<0.1	<.01	-	-	<0.1	0.2	<0.1	0.2	**<0.1**
Fucus gardneri	-	-	-	-	-	-	0.1	0.4	**<0.1**
Mazzaella leptorhynchos	<0.1	<.01	-	-	<0.1	<.01	<0.1	0.2	**<0.1**
Chondracanthus canaliculatus	<0.1	0.2	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Ulva/Enteromorpha spp.	<0.1	<.01	-	-	-	-	<0.1	<.01	**<0.1**
Phyllospadix spp.	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Invertebrate Counts									
Tegula funebralis	141.8	58.7	171.4	78.5	396.6	110.6	122.8	68.7	**208.2**
Anthopleura elegantissima	25.8	43.0	5.2	4.2	6.2	9.3	30.6	29.1	**17.0**
Pagurus spp.	26.2	18.6	-	-	2.8	2.8	32.2	14.7	**15.3**
Lottia scabra	0.4	0.6	2.8	5.7	6.6	9.4	14.6	19.0	**6.1**
Lottia limatula	-	-	0.2	0.5	1.6	2.6	1.4	2.0	**0.8**
Cyanoplax spp.	<0.1	<.01	0.6	1.3	1.2	1.8	0.4	0.6	**0.6**
Ocenebra spp.	1.0	1.2	-	-	0.2	0.5	1.0	1.4	**0.6**
Tectura scutum	-	-	0.6	1.3	0.8	1.3	0.6	0.9	**0.5**
Pachygrapsus crassipes	0.8	1.3	0.2	0.5	0.6	0.9	0.2	0.5	**0.5**
Nemertea unid.	0.2	0.5	-	-	-	-	0.8	1.1	**0.3**
Acanthina spp.	0.2	0.5	-	-	0.6	0.9	-	-	**0.2**
Lottia pelta	0.6	0.9	-	-	-	-	0.2	0.5	**0.2**
Fissurella volcano	-	-	-	-	0.4	0.9	-	-	**<0.1**
Lottia digitalis	-	-	-	-	0.2	0.5	-	-	**<0.1**
Leptasterias spp.	-	-	-	-	0.2	0.5	-	-	**<0.1**
Pisaster ochraceus	-	-	-	-	-	-	0.2	0.5	**<0.1**
Strongylocentrotus purpuratus	-	-	-	-	-	-	0.2	0.5	**<0.1**
Lottia asmi	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Acmaeidae unid.	<0.1	<.01	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Crepidula spp.	<0.1	<.01	-	-	<0.1	<.01	-	-	**<0.1**
Grapsidae (juv.)	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Littorina spp.	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Nitidiscala/Opalia spp.	-	-	-	-	<0.1	<.01	-	-	**<0.1**

(continued)

Table C10 (continued). Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, Field's Cove Station FC 3+0.9m.

Survey	140		141		142		143		
Survey Date	24-Feb-05		23-May-05		18-Jul-05		14-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Invertebrate Counts (continued)									
Ischnochitonidae	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Serpulidae unid.	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Amphissa spp.	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Heptacarpus spp.	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Invertebrate Cover									
Chthamalus fissus	<0.1	0.2	<0.1	<.01	<0.1	<.01	0.2	0.7	**<0.1**
Phragmatopoma californica	0.1	0.4	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Substrate Cover									
rock	13.6	14.2	16.4	16.9	13.7	14.2	10.2	8.1	**13.5**
sand (shell gravel)	3.7	4.9	7.4	12.3	3.4	4.1	0.5	1.0	**3.8**
cobble	<0.1	0.2	0.3	0.9	0.3	0.8	0.3	0.9	**0.2**

Table C11. Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, North Diablo Cove Station NDC 1+0.3m.

Survey	140		141		142		143		
Survey Date	4-Mar-05		21-Jun-05		19-Jul-05		2-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Non-coralline crust	26.9	9.2	33.3	14.1	26.9	6.7	34.2	11.9	**30.3**
coralline crust	6.2	4.1	3.9	4.1	1.5	2.6	5.1	3.6	**4.1**
Mastocarpus papillatus	0.7	2.0	1.0	2.0	1.5	2.7	9.9	6.9	**3.3**
Ulva/Enteromorpha spp.	<0.1	<.01	1.5	3.1	8.7	10.5	1.5	1.0	**2.9**
Gelidium coulteri	<0.1	0.2	0.6	1.1	2.1	2.0	5.0	3.3	**1.9**
juv. articulated coralline algae	3.0	2.2	0.1	0.3	0.2	0.7	1.1	1.0	**1.1**
filamentous red algae-complex	<0.1	0.2	<0.1	<.01	<0.1	<.01	2.7	3.3	**0.7**
Corallina vancouveriensis	<0.1	<.01	0.9	2.9	<0.1	<.01	0.7	1.5	**0.4**
Mazzaella affinis	<0.1	<.01	<0.1	<.01	<0.1	0.2	0.8	0.9	**0.2**
Prionitis spp.	<0.1	<.01	-	-	-	-	0.4	0.8	**0.1**
Cladophora spp.	0.1	0.4	<0.1	<.01	<0.1	0.2	-	-	**<0.1**
Gelidium pusillum	<0.1	<.01	<0.1	<.01	-	-	0.2	0.7	**<0.1**
Colpomenia spp.	-	-	<0.1	<.01	<0.1	0.2	<0.1	0.2	**<0.1**
Spongomorpha/Acrosiphonia	-	-	<0.1	<.01	-	-	0.1	0.4	**<0.1**
Chrysophyta unid.	0.1	0.4	<0.1	<.01	-	-	-	-	**<0.1**
Mazzaella leptorhynchos	<0.1	0.2	<0.1	<.01	-	-	-	-	**<0.1**
Calliarthron/Bossiella spp.-complex	<0.1	0.2	-	-	-	-	-	-	**<0.1**
Sarcodiotheca gaudichaudii	-	-	-	-	-	-	<0.1	0.2	**<0.1**
Cumagloia andersonii	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Chondracanthus canaliculatus	<0.1	<.01	-	-	<0.1	<.01	-	-	**<0.1**
Grateloupia doryphora	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Porphyra spp.	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Phyllospadix spp.	<0.1	<.01	-	-	<0.1	<.01	-	-	**<0.1**
Endarachne/Petalonia-complex	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Gastroclonium subarticulatum	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Mazzaella heterocarpa	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Smithora naiadum	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Halymenia/Schizymenia	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Osmundea spp.	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Invertebrate Counts									
Lottia scabra	68.6	39.0	248.0	57.1	231.0	161.0	169.2	85.7	**179.2**
Tetraclita rubescens	23.0	18.1	29.0	15.6	16.0	20.3	19.4	19.3	**21.9**
Tegula brunnea	12.6	12.4	20.0	8.3	35.2	21.8	7.0	8.0	**18.7**
Tegula funebralis	6.4	8.7	14.2	6.2	1.4	2.6	45.4	61.4	**16.9**
Pagurus spp.	30.4	24.7	2.0	3.5	3.6	2.7	9.6	9.8	**11.4**
Strongylocentrotus purpuratus	7.6	9.5	8.4	9.9	20.8	13.5	7.2	6.7	**11.0**
Lottia limatula	18.6	19.2	2.8	3.0	15.2	10.3	1.6	1.5	**9.6**
Lottia pelta	1.2	1.6	6.8	7.9	9.0	3.1	9.6	3.4	**6.7**
Lottia digitalis	1.4	2.6	15.4	17.3	3.6	8.1	3.0	6.7	**5.9**
Tectura scutum	-	-	-	-	7.6	10.0	9.4	10.7	**4.3**
Anthopleura elegantissima	7.4	8.4	3.6	1.5	3.0	2.2	2.4	1.8	**4.1**
Fissurella volcano	3.0	1.4	4.8	3.0	1.6	1.1	5.8	2.2	**3.8**
Pachygrapsus crassipes	1.8	1.9	1.0	0.7	2.6	2.1	0.2	0.5	**1.4**
Ocenebra spp.	0.2	0.5	1.2	1.8	0.6	0.6	2.6	2.6	**1.2**
Nuttallina californica	0.4	0.6	2.4	2.2	0.4	0.6	1.2	1.1	**1.1**
Serpulidae unid.	-	-	0.8	1.3	1.4	2.1	0.6	0.9	**0.7**
Anthopleura xanthogrammica	0.6	0.6	0.6	0.9	0.6	0.6	0.2	0.5	**0.5**

(continued)

Table C11 (continued). Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, North Diablo Cove Station NDC 1+0.3m.

Survey	140		141		142		143		
Survey Date	4-Mar-05		21-Jun-05		19-Jul-05		2-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Invertebrate Counts (continued)									
Lottia gigantea	0.6	0.9	0.2	0.5	-	-	1.0	1.2	**0.5**
Cyanoplax spp.	0.4	0.9	-	-	0.4	0.6	0.6	0.9	**0.4**
Mytilus californianus	0.2	0.5	-	-	<0.1	<.01	0.6	1.3	**0.2**
Ophiothrix spiculata	-	-	-	-	0.2	0.5	0.2	0.5	**<0.1**
Littorina spp.	-	-	<0.1	<.01	-	-	0.2	0.5	**<0.1**
Octopus spp.	-	-	0.2	0.5	-	-	-	-	**<0.1**
Pollicipes polymerus	0.2	0.5	-	-	-	-	-	-	**<0.1**
Acmaeidae unid.	<0.1	<.01	<0.1	-	<0.1	-	<0.1	-	**<0.1**
Mytilus galloprovincialis	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Ophiuroidea unid.	-	-	<0.1	<.01	<0.1	<.01	-	-	**<0.1**
Lottia asmi	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Ischnochitonidae	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Invertebrate Cover									
Chthamalus fissus	16.4	13.0	12.8	10.0	10.9	9.7	14.1	7.8	**13.5**
Phragmatopoma californica	5.0	7.7	3.7	4.8	0.6	1.1	3.6	3.9	**3.2**
Spirorbidae	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Porifera unid. (encrusting)	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Bryozoa, unid. (encrusting)	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Substrate Cover									
rock	29.8	9.1	24.6	9.5	20.7	9.8	16.6	7.3	**22.9**
cobble	12.8	6.8	16.3	7.1	22.0	7.8	11.5	7.1	**15.6**
sand (shell gravel)	3.5	3.8	2.9	4.8	8.1	7.6	2.3	1.9	**4.2**

Table C12. Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, North Diablo Cove Station NDC 1+0.9m.

Survey	140		141		142		143		
Survey Date	4-Mar-05		21-Jun-05		19-Jul-05		2-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Non-coralline crust	32.9	12.1	41.3	16.7	34.0	16.0	37.6	15.3	**36.4**
Endocladia muricata	9.9	16.2	7.4	11.7	6.4	10.5	9.1	14.3	**8.2**
Mastocarpus papillatus	1.3	2.7	2.4	3.8	1.9	3.0	6.0	3.8	**2.9**
coralline crust	1.4	1.5	0.2	0.7	0.6	1.2	1.2	1.4	**0.8**
Gelidium coulteri	-	-	<0.1	0.2	0.3	0.9	0.7	1.0	**0.3**
Mazzaella leptorhynchos	<0.1	<.01	0.2	0.5	0.1	0.3	0.5	1.1	**0.2**
Mazzaella affinis	<0.1	<.01	-	-	<0.1	<.01	0.8	1.1	**0.2**
Gelidium pusillum	<0.1	<.01	<0.1	<.01	<0.1	<.01	0.2	0.3	**<0.1**
Chondracanthus canaliculatus	-	-	-	-	-	-	0.1	0.4	**<0.1**
Osmundea spp.	-	-	-	-	<0.1	0.2	-	-	**<0.1**
Cladophora spp.	<0.1	<.01	<0.1	-	<0.1	-	<0.1	-	**<0.1**
Ulva/Enteromorpha spp.	-	-	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Gastroclonium subarticulatum	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Invertebrate Counts									
Tegula funebralis	170.6	138.8	136.2	79.9	240.2	120.5	204.8	34.7	**188.0**
Lottia scabra	66.0	25.8	100.6	52.0	50.8	25.6	72.8	32.8	**72.6**
Anthopleura elegantissima	42.8	52.8	67.2	69.6	86.2	125.8	59.2	58.1	**63.9**
Pagurus spp.	3.2	6.6	2.2	2.9	3.2	2.8	7.6	4.6	**4.1**
Lottia limatula	3.0	3.1	0.8	0.8	1.2	0.8	1.0	1.7	**1.5**
Tectura scutum	-	-	1.8	2.1	1.8	2.2	2.2	1.6	**1.5**
Acanthina spp.	1.0	1.7	3.0	2.9	-	-	0.6	0.9	**1.2**
Ocenebra spp.	0.6	1.3	0.8	1.3	0.8	1.1	1.8	1.1	**1.0**
Fissurella volcano	2.0	1.6	0.2	0.5	0.6	0.9	1.0	1.0	**1.0**
Lottia pelta	0.2	0.5	0.4	0.9	1.8	1.6	1.2	1.3	**0.9**
Lottia digitalis	-	-	2.0	4.5	1.0	2.2	0.4	0.9	**0.9**
Pachygrapsus crassipes	0.6	0.9	1.2	1.1	1.0	1.0	-	-	**0.7**
Mytilus californianus	1.0	1.7	0.2	0.5	0.2	0.5	0.8	0.8	**0.6**
Mopalia spp.	0.8	1.1	-	-	0.4	0.6	-	-	**0.3**
Tetraclita rubescens	0.2	0.5	0.4	0.9	-	-	-	-	**0.2**
Tegula brunnea	0.6	0.6	-	-	-	-	-	-	**0.2**
Lottia gigantea	-	-	0.2	0.5	-	-	<0.1	<.01	**<0.1**
Anthopleura xanthogrammica	-	-	-	-	-	-	0.2	0.5	**<0.1**
Nemertea unid.	-	-	-	-	0.2	0.5	-	-	**<0.1**
Cyanoplax spp.	-	-	0.2	0.5	-	-	-	-	**<0.1**
Tonicella lineata	-	-	-	-	0.2	0.5	-	-	**<0.1**
Nuttallina californica	-	-	-	-	0.2	0.5	-	-	**<0.1**
Acmaeidae unid.	<0.1	<.01	<0.1	-	<0.1	-	<0.1	-	**<0.1**
Littorina spp.	-	-	<0.1	<.01	-	-	<0.1	<.01	**<0.1**
Nitidiscala/Opalia spp.	<0.1	<.01	<0.1	<.01	<0.1	<.01	-	-	**<0.1**
Lottia asmi	<0.1	<.01	<0.1	<.01	-	-	-	-	**<0.1**
Ischnochitonidae	<0.1	<.01	-	-	<0.1	<.01	-	-	**<0.1**
Sipuncula unid.	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Mytilus spp.	-	-	<0.1	<.01	-	-	-	-	**<0.1**

(continued)

Table C12 (continued). Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, North Diablo Cove Station NDC 1+0.9m.

Survey	140		141		142		143		
Survey Date	4-Mar-05		21-Jun-05		19-Jul-05		2-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Invertebrate Cover									
Chthamalus fissus	8.8	13.6	8.8	13.0	6.7	9.9	5.8	7.1	**7.5**
Phragmatopoma californica	0.3	0.5	<0.1	0.2	<0.1	<.01	<0.1	0.2	**0.1**
Spirorbidae	-	-	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Porifera unid. (encrusting)	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Substrate Cover									
rock	29.9	13.9	27.8	12.3	33.9	20.7	28.5	15.2	**30.0**
cobble	8.1	4.2	10.1	6.0	10.4	7.9	7.8	6.7	**9.1**
sand (shell gravel)	8.3	10.1	2.0	2.3	7.6	8.1	3.8	4.2	**5.4**

Table C13. Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, North Diablo Cove Station NDC 2+0.3m.

Survey	140		141		142		143		
Survey Date	8-Feb-05		28-Apr-05		19-Jul-05		2-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae									
Non-coralline crust	31.8	13.7	33.3	19.9	19.7	22.6	24.4	14.2	**27.3**
Phyllospadix spp.	14.8	23.3	19.2	30.6	20.8	29.2	24.9	31.9	**19.9**
filamentous red algae-complex	15.6	17.5	11.8	16.3	10.8	15.3	0.8	2.0	**9.7**
Chrysophyta unid.	<0.1	<.01	7.1	10.8	8.7	10.1	-	-	**3.9**
coralline crust	4.4	5.3	2.6	2.9	2.7	2.3	5.9	3.7	**3.9**
Gastroclonium subarticulatum	1.6	2.6	2.6	2.4	5.3	4.8	3.7	3.9	**3.3**
Mazzaella affinis	0.6	1.0	5.4	6.4	3.5	4.2	2.4	2.4	**3.0**
Chondracanthus canaliculatus	1.6	2.5	2.1	1.8	4.3	4.5	2.8	2.8	**2.7**
juv. articulated coralline algae	1.8	1.7	2.5	2.9	0.6	1.3	4.0	7.0	**2.2**
Gelidium coulteri	0.2	0.5	2.0	4.4	4.6	4.1	1.7	2.1	**2.1**
Pterosiphonia dendroidea	4.8	3.9	-	-	-	-	1.8	2.2	**1.6**
Mastocarpus papillatus	0.7	1.5	0.3	0.7	4.2	6.5	1.0	2.4	**1.5**
Ulva/Enteromorpha spp.	<0.1	<.01	3.3	3.5	2.5	2.6	<0.1	-	**1.4**
Prionitis spp.	1.0	1.6	0.7	2.0	1.6	2.4	2.1	3.2	**1.3**
Smithora naiadum	<0.1	<.01	2.8	5.1	0.4	0.6	0.1	0.4	**0.9**
Corallina vancouveriensis	0.4	0.9	<0.1	0.2	<0.1	<.01	1.9	5.9	**0.6**
Calliarthron/Bossiella spp.-complex	0.1	0.3	0.2	0.5	0.2	0.5	0.9	2.2	**0.4**
Spongomorpha/Acrosiphonia	-	-	-	-	1.0	2.4	-	-	**0.2**
Sargassum muticum	0.1	0.4	0.5	1.5	-	-	<0.1	0.2	**0.2**
Mazzaella flaccida	<0.1	<.01	0.3	0.5	-	-	-	-	**<0.1**
Endocladia muricata	0.2	0.7	<0.1	0.2	-	-	<0.1	<.01	**<0.1**
Mazzaella leptorhynchos	<0.1	<.01	0.2	0.5	-	-	<0.1	<.01	**<0.1**
Codium fragile	<0.1	<.01	0.1	0.4	<0.1	0.2	<0.1	<.01	**<0.1**
Gelidium pusillum	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	0.2	**<0.1**
Mazzaella heterocarpa	<0.1	0.2	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Cryptopleura violacea	<0.1	<.01	-	-	-	-	<0.1	0.2	**<0.1**
Halymenia/Schizymenia	-	-	-	-	<0.1	<.01	<0.1	0.2	**<0.1**
Cladophora spp.	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Melobesia mediocris	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Sarcodiotheca gaudichaudii	<0.1	<.01	-	-	<0.1	<.01	-	-	**<0.1**
Colpomenia spp.	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Grateloupia doryphora	<0.1	<.01	-	-	-	-	<0.1	<.01	**<0.1**
Osmundea spp.	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Endarachne/Petalonia-complex	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Corallina officinalis	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Bryopsis corticulans	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Invertebrates									
Lottia scabra	154.8	137.1	78.0	29.5	223.8	299.9	102.2	87.7	**139.7**
Strongylocentrotus purpuratus	66.8	82.9	19.4	24.5	36.2	43.0	14.2	30.1	**34.2**
Tetraclita rubescens	27.2	31.0	11.0	14.5	26.2	27.9	22.2	26.7	**21.7**
Anthopleura elegantissima	13.6	25.1	12.0	12.9	6.6	11.0	36.0	76.7	**17.1**
Fissurella volcano	23.0	12.4	2.0	2.9	6.4	7.2	22.0	15.0	**13.4**
Lottia limatula	3.6	5.1	4.6	4.8	9.8	8.7	8.8	8.4	**6.7**
Lottia pelta	3.0	2.7	0.2	0.5	2.8	2.6	11.4	14.6	**4.4**
Lottia gigantea	-	-	5.8	13.0	5.2	11.6	4.0	6.9	**3.8**
Serpulidae unid.	14.2	29.6	-	-	-	-	<0.1	<.01	**3.6**
Tectura scutum	4.4	9.8	0.4	0.9	7.2	8.2	2.2	2.5	**3.6**

(continued)

Table C13 (continued). Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, North Diablo Cove Station NDC 2+0.3m.

Survey	140		141		142		143		
Survey Date	8-Feb-05		28-Apr-05		19-Jul-05		2-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Invertebrates (continued)									
Mytilus californianus	1.6	3.6	1.6	3.6	-	-	8.2	10.8	**2.9**
Lottia digitalis	-	-	-	-	9.0	20.1	-	-	**2.3**
Cyanoplax spp.	0.8	1.1	1.2	1.8	1.6	1.1	2.6	5.8	**1.6**
Epiactis prolifera	0.2	0.5	-	-	2.6	3.7	1.2	2.2	**1.0**
Nuttallina californica	0.4	0.9	0.4	0.9	0.8	1.8	1.8	3.5	**0.9**
Pollicipes polymerus	-	-	<0.1	<.01	2.4	5.4	<0.1	<.01	**0.6**
Pachygrapsus crassipes	0.6	0.9	0.4	0.9	0.2	0.5	0.6	1.3	**0.5**
Pagurus spp.	1.2	1.8	0.2	0.5	-	-	0.4	0.9	**0.5**
Tegula funebralis	0.6	0.9	0.8	1.3	-	-	-	-	**0.4**
Mopalia spp.	-	-	-	-	-	-	1.0	2.2	**0.3**
Tegula brunnea	-	-	-	-	-	-	1.0	1.2	**0.3**
Serpulorbis squamigerus	-	-	-	-	0.4	0.9	-	-	**<0.1**
Pugettia spp.	0.2	0.5	-	-	<0.1	<.01	-	-	**<0.1**
Ophiothrix spiculata	-	-	-	-	0.2	0.5	-	-	**<0.1**
Aplysia californica	-	-	0.2	0.5	-	-	-	-	**<0.1**
Acmaeidae unid.	<0.1	-	<0.1	-	<0.1	-	<0.1	<.01	**<0.1**
Ischnochitonidae	<0.1	<.01	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Lacuna spp.	-	-	<0.1	<.01	<0.1	<.01	-	-	**<0.1**
Grapsidae (juv.)	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Nemertea unid.	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Alia spp.	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Mytilus spp.	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Invertebrate Cover									
Chthamalus fissus	<0.1	0.2	1.6	5.1	<0.1	-	<0.1	0.2	**0.4**
Phragmatopoma californica	<0.1	0.2	0.9	2.1	<0.1	<.01	<0.1	0.2	**0.3**
Pista spp.	0.2	0.7	0.3	0.9	<0.1	<.01	-	-	**0.1**
Spirorbidae	<0.1	<.01	-	-	-	-	<0.1	<.01	**<0.1**
tunicates, colonial/social unid.	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Porifera unid. (encrusting)	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Substrate Cover									
rock	21.0	13.5	9.3	14.6	17.1	17.1	31.0	18.1	**19.6**
sand (shell gravel)	7.4	7.0	3.5	8.9	15.6	11.3	5.2	8.3	**7.9**
cobble	6.0	7.2	5.9	8.2	6.1	8.7	3.3	4.7	**5.3**

Table C14. Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, North Diablo Cove Station NDC 2+0.9m.

Survey	140		141		142		143		
Survey Date	8-Feb-05		28-Apr-05		19-Jul-05		2-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Endocladia muricata	16.2	16.0	20.2	17.4	18.3	16.2	16.5	11.9	**17.8**
Non-coralline crust	9.5	7.8	10.0	6.9	6.9	6.0	13.9	10.7	**10.1**
Mastocarpus papillatus	1.0	0.9	1.4	1.6	6.3	7.3	5.3	4.8	**3.5**
coralline crust	3.2	2.3	3.8	2.8	0.9	0.9	3.1	1.7	**2.7**
Ulva/Enteromorpha spp.	<0.1	0.2	0.1	0.4	7.0	7.5	0.2	0.3	**1.9**
Gelidium coulteri	<0.1	<.01	0.1	0.4	2.4	4.6	4.0	4.9	**1.6**
Chrysophyta unid.	-	-	0.1	0.4	4.4	13.8	-	-	**1.1**
juv. articulated coralline algae	1.1	1.3	1.1	1.4	0.1	0.3	1.1	1.5	**0.9**
filamentous red algae-complex	<0.1	<.01	0.5	1.5	2.7	8.3	0.1	0.3	**0.8**
Mazzaella affinis	0.3	0.5	<0.1	0.2	0.6	0.5	1.8	1.7	**0.7**
Corallina vancouveriensis	0.5	1.3	0.6	1.2	<0.1	<.01	<0.1	<.01	**0.3**
Gelidium pusillum	<0.1	0.2	<0.1	<.01	0.1	0.4	0.3	0.5	**0.1**
Calliarthron/Bossiella spp.-complex	0.3	1.1	-	-	<0.1	0.2	<0.1	<.01	**0.1**
Chondracanthus canaliculatus	<0.1	<.01	<0.1	0.2	0.2	0.5	<0.1	0.2	**<0.1**
Mazzaella leptorhynchos	<0.1	<.01	<0.1	<.01	<0.1	<.01	0.2	0.7	**<0.1**
Gastroclonium subarticulatum	<0.1	0.2	-	-	<0.1	<.01	0.1	0.4	**<0.1**
Porphyra spp.	-	-	<0.1	<.01	<0.1	0.2	-	-	**<0.1**
Cladophora spp.	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Spongomorpha/Acrosiphonia	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Prionitis spp.	<0.1	<.01	<0.1	<.01	<0.1	<.01	-	-	**<0.1**
Pterosiphonia dendroidea	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Mazzaella flaccida	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Mastocarpus jardinii	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Colpomenia spp.	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Bryopsis corticulans	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Invertebrate Counts									
Lottia scabra	207.8	47.1	124.8	69.7	196.2	104.3	145.2	47.0	**168.5**
Tegula funebralis	78.4	80.3	154.0	160.6	58.8	76.0	57.2	39.9	**87.1**
Anthopleura elegantissima	91.2	84.6	95.8	101.2	61.2	57.0	89.6	99.1	**84.5**
Tectura scutum	3.0	2.9	15.4	16.4	9.4	5.8	17.4	11.1	**11.3**
Pagurus spp.	6.0	10.7	11.4	17.3	4.8	9.2	7.6	8.4	**7.5**
Lottia limatula	16.6	16.9	1.0	1.4	3.4	0.9	6.6	5.4	**6.9**
Lottia digitalis	0.4	0.9	2.8	3.4	18.2	38.0	4.4	7.4	**6.5**
Cyanoplax spp.	1.0	2.2	4.2	2.4	6.6	6.0	5.4	3.9	**4.3**
Lottia gigantea	3.0	3.7	7.0	14.5	2.0	3.1	2.6	4.8	**3.7**
Mytilus californianus	3.8	5.8	3.8	5.5	1.8	2.7	3.8	4.9	**3.3**
Strongylocentrotus purpuratus	2.8	3.9	5.8	12.4	1.6	2.1	0.6	1.3	**2.7**
Pachygrapsus crassipes	0.6	0.9	1.0	1.0	5.4	7.8	0.8	0.8	**2.0**
Acanthina spp.	0.4	0.9	4.2	5.7	0.6	0.9	0.4	0.6	**1.4**
Fissurella volcano	0.4	0.9	1.2	1.8	-	-	2.4	3.8	**1.0**
Lottia pelta	0.8	0.8	0.6	1.3	-	-	1.8	1.8	**0.8**
Tetraclita rubescens	0.6	0.9	0.4	0.9	0.4	0.9	0.8	1.1	**0.6**
Lottia asmi	-	-	-	-	<0.1	<.01	0.8	1.8	**0.2**
Mopalia spp.	0.2	0.5	0.4	0.6	-	-	0.2	0.5	**0.2**
Nuttallina californica	-	-	<0.1	<.01	-	-	0.4	0.9	**0.1**
Ocenebra spp.	-	-	0.2	0.5	-	-	0.2	0.5	**<0.1**
Sipuncula unid.	-	-	-	-	0.4	0.9	-	-	**<0.1**

(continued)

Table C14 (continued). Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, North Diablo Cove Station NDC 2+0.9m.

Survey	140		141		142		143		
Survey Date	8-Feb-05		28-Apr-05		19-Jul-05		2-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Invertebrate Counts (continued)									
Acmaeidae unid.	<0.1	-	<0.1	-	<0.1	-	<0.1	<.01	**<0.1**
Littorina spp.	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Pollicipes polymerus	-	-	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Serpulidae unid.	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Heptacarpus spp.	-	-	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Grapsidae (juv.)	-	-	<0.1	<.01	<0.1	<.01	-	-	**<0.1**
Nitidiscala/Opalia spp.	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Invertebrate Cover									
Chthamalus fissus	8.7	6.5	16.3	16.1	10.1	7.7	13.9	9.8	**12.2**
Phragmatopoma californica	0.2	0.3	0.2	0.3	<0.1	<.01	0.2	0.3	**0.2**
Spirorbidae	<0.1	0.2	-	-	-	-	-	-	**<0.1**
Substrate Cover									
rock	58.1	14.0	45.3	15.0	44.3	13.2	40.6	12.2	**47.1**
cobble	1.9	2.6	1.9	2.5	0.6	1.0	2.8	4.2	**1.8**
sand (shell gravel)	<0.1	<.01	<0.1	<.01	0.5	1.1	<0.1	<.01	**0.1**

Table C15. Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, North Diablo Cove Station NDC 3+0.3m.

Survey	140		141		142		143		
Survey Date	8-Feb-05		27-Apr-05		19-Jul-05		2-Dec-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Non-coralline crust	21.7	13.6	29.8	21.8	21.1	13.5	27.3	16.7	**25.0**
coralline crust	8.1	4.6	4.5	2.6	10.5	5.6	11.1	5.2	**8.5**
Ulva/Enteromorpha spp.	<0.1	<.01	3.5	4.3	15.1	7.0	-	-	**4.7**
filamentous red algae-complex	0.8	1.5	1.5	3.2	5.0	7.6	4.4	3.9	**2.9**
juv. articulated coralline algae	4.4	3.8	3.5	2.6	0.6	0.6	2.2	1.4	**2.7**
Gelidium coulteri	<0.1	0.2	2.2	3.3	5.8	4.1	2.5	2.1	**2.6**
Corallina vancouveriensis	1.7	1.8	2.1	4.2	1.7	2.5	2.4	4.5	**2.0**
Mastocarpus papillatus	-	-	<0.1	0.2	1.9	3.7	1.2	2.7	**0.8**
Calliarthron/Bossiella spp.-complex	<0.1	0.2	0.3	0.6	<0.1	0.2	1.5	2.0	**0.5**
Codium fragile	0.1	0.4	<0.1	0.2	1.4	2.6	<0.1	<.01	**0.4**
Chrysophyta unid.	-	-	0.6	1.5	1.0	2.1	<0.1	<.01	**0.4**
Colpomenia spp.	-	-	<0.1	0.2	0.8	1.1	0.2	0.3	**0.3**
Gelidium pusillum	<0.1	<.01	-	-	0.1	0.3	<0.1	0.2	**<0.1**
Gastroclonium subarticulatum	-	-	0.2	0.7	-	-	-	-	**<0.1**
Chondracanthus corymbiferus	-	-	-	-	0.2	0.5	-	-	**<0.1**
Endarachne/Petalonia-complex	-	-	0.1	0.4	-	-	-	-	**<0.1**
Callithamnion/Pleonosporium	-	-	0.1	0.3	-	-	-	-	**<0.1**
Pterosiphonia dendroidea	-	-	<0.1	<.01	<0.1	0.2	<0.1	<.01	**<0.1**
Endocladia muricata	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Mastocarpus jardinii	-	-	-	-	-	-	<0.1	0.2	**<0.1**
Cladophora spp.	<0.1	<.01	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Chondracanthus canaliculatus	<0.1	<.01	-	-	-	-	<0.1	<.01	**<0.1**
Porphyra spp.	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Bryopsis corticulans	<0.1	<.01	-	-	-	-	<0.1	<.01	**<0.1**
Spongomorpha/Acrosiphonia	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Cystoseira osmundacea	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Mazzaella leptorhynchos	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Mazzaella affinis	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Prionitis spp.	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Cryptopleura violacea	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Invertebrate Counts									
Lottia scabra	107.0	17.7	105.6	63.0	118.0	67.1	123.0	59.9	**113.4**
Mytilus californianus	76.6	146.4	87.2	186.2	40.6	79.1	43.4	76.9	**62.0**
Tetraclita rubescens	61.0	102.1	41.4	42.3	42.2	30.3	41.0	43.5	**46.4**
Strongylocentrotus purpuratus	26.0	13.7	53.6	55.7	39.0	23.4	13.8	5.1	**33.1**
Fissurella volcano	13.8	13.3	18.2	10.0	9.0	5.6	15.4	12.3	**14.1**
Lottia gigantea	9.4	7.7	10.0	7.7	10.2	4.3	12.6	7.6	**10.6**
Lottia pelta	9.0	6.4	4.0	4.5	10.2	7.2	5.8	3.4	**7.3**
Tectura scutum	0.4	0.6	1.6	2.1	11.0	9.7	1.4	2.0	**3.6**
Nuttallina californica	9.0	14.4	1.4	2.2	0.4	0.9	2.0	2.6	**3.2**
Lottia limatula	0.8	0.5	0.4	0.9	6.8	6.0	4.4	2.7	**3.1**
Epiactis prolifera	0.8	0.5	0.2	0.5	1.2	1.1	0.6	1.3	**0.7**
Pachygrapsus crassipes	0.6	0.9	-	-	2.2	1.3	-	-	**0.7**
Anthopleura elegantissima	0.4	0.9	0.6	0.9	0.2	0.5	1.0	2.2	**0.6**
Lottia digitalis	-	-	0.2	0.5	-	-	1.6	3.6	**0.5**
Serpulidae unid.	0.4	0.6	0.2	0.5	0.2	0.5	0.2	0.5	**0.3**
Cyanoplax spp.	0.2	0.5	-	-	0.4	0.9	0.2	0.5	**0.2**

(continued)

Table C15 (continued). Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, North Diablo Cove Station NDC 3+0.3m.

Survey	140		141		142		143		
Survey Date	8-Feb-05		27-Apr-05		19-Jul-05		2-Dec-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Invertebrate Counts (continued)									
Ocenebra spp.	0.2	0.5	0.2	0.5	-	-	0.4	0.6	**0.2**
Mopalia spp.	0.2	0.5	-	-	-	-	0.2	0.5	**<0.1**
Grapsidae (juv.)	0.2	0.5	-	-	<0.1	<.01	-	-	**<0.1**
Urticina spp.	-	-	-	-	0.2	0.5	-	-	**<0.1**
Ophiothrix spiculata	-	-	-	-	0.2	0.5	-	-	**<0.1**
Haliotis spp.	<0.1	0.3	-	-	-	-	<0.1	0.3	**<0.1**
Stenoplax spp.	-	-	-	-	0.2	0.5	-	-	**<0.1**
Acmaeidae unid.	<0.1	-	<0.1	-	<0.1	-	<0.1	-	**<0.1**
Ischnochitonidae	-	-	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Pollicipes polymerus	<0.1	<.01	-	-	-	-	<0.1	<.01	**<0.1**
Nemertea unid.	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Pelecypoda unid. boring	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Chaetopteridae	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Invertebrate Cover									
Phragmatopoma californica	1.5	2.5	0.3	1.1	0.6	1.1	1.3	1.2	**1.0**
Chthamalus fissus	<0.1	<.01	0.2	0.5	0.7	1.6	0.3	0.6	**0.3**
Spirorbidae	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Porifera unid. (encrusting)	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Substrate Cover									
rock	54.6	21.3	49.9	24.8	29.8	12.9	42.2	17.5	**44.1**
cobble	8.9	9.1	1.6	2.6	8.8	6.8	7.8	7.2	**6.8**
sand (shell gravel)	-	-	-	-	<0.1	0.2	-	-	**<0.1**

Table C16. Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, North Diablo Cove Station NDC 3+0.9m.

Survey	140		141		142		143		
Survey Date	8-Feb-05		27-Apr-05		19-Jul-05		2-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Non-coralline crust	20.1	14.9	22.5	13.6	22.3	13.5	20.9	16.6	**21.4**
Endocladia muricata	3.0	6.9	5.8	10.9	2.1	3.1	5.8	12.8	**4.1**
Ulva/Enteromorpha spp.	<0.1	<.01	2.0	4.2	12.9	15.9	0.3	0.5	**3.8**
coralline crust	2.1	1.9	1.3	1.7	3.0	2.8	0.8	1.1	**1.8**
Mastocarpus papillatus	<0.1	<.01	0.6	0.8	2.9	3.5	1.4	3.9	**1.2**
Gelidium coulteri	<0.1	<.01	0.5	0.7	1.9	1.9	1.2	1.2	**0.9**
filamentous red algae-complex	<0.1	<.01	<0.1	<.01	0.1	0.4	1.6	2.3	**0.4**
Mazzaella affinis	<0.1	<.01	<0.1	<.01	0.8	0.9	0.8	1.9	**0.4**
juv. articulated coralline algae	0.2	0.3	0.3	0.7	0.2	0.5	<0.1	0.2	**0.2**
Chrysophyta unid.	-	-	0.6	2.0	0.1	0.4	-	-	**0.2**
Gelidium pusillum	0.3	0.6	<0.1	<.01	<0.1	<.01	0.2	0.5	**0.1**
Corallina vancouveriensis	0.2	0.7	-	-	-	-	<0.1	0.2	**<0.1**
Gastroclonium subarticulatum	-	-	<0.1	0.2	-	-	0.2	0.7	**<0.1**
Colpomenia spp.	-	-	-	-	0.2	0.7	<0.1	<.01	**<0.1**
Chondracanthus canaliculatus	0.1	0.4	-	-	-	-	-	-	**<0.1**
Prionitis spp.	<0.1	<.01	-	-	-	-	<0.1	0.2	**<0.1**
Calliarthron/Bossiella spp.-complex	-	-	-	-	-	-	<0.1	0.2	**<0.1**
Fucus gardneri	-	-	-	-	-	-	<0.1	0.2	**<0.1**
Macrocystis spp.	-	-	-	-	-	-	<0.1	0.2	**<0.1**
Cladophora spp.	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Porphyra spp.	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Codium setchellii	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Bryopsis corticulans	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Codium fragile	-	-	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Mastocarpus jardinii	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Mazzaella leptorhynchos	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Sarcodiotheca gaudichaudii	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Chondracanthus corymbiferus	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Pterosiphonia dendroidea	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Invertebrate Counts									
Lottia scabra	94.4	86.6	186.6	126.2	136.8	94.1	146.0	40.2	**141.0**
Tegula funebralis	22.6	21.8	2.6	5.3	32.4	43.8	12.2	17.2	**17.5**
Strongylocentrotus purpuratus	15.2	18.9	24.4	17.8	14.2	11.4	12.8	13.6	**16.7**
Lottia digitalis	26.8	23.7	4.0	8.9	5.4	12.1	16.8	22.4	**13.3**
Lottia gigantea	8.4	9.3	14.2	10.5	14.6	11.5	9.2	13.8	**11.6**
Lottia pelta	15.8	15.8	-	-	5.6	3.1	11.4	10.1	**8.2**
Mytilus californianus	4.6	6.3	5.8	6.7	10.0	13.2	10.0	12.7	**7.6**
Tetraclita rubescens	5.2	5.0	9.8	13.7	11.4	6.7	2.6	3.3	**7.3**
Fissurella volcano	3.0	3.7	8.8	16.9	4.4	2.6	2.2	0.8	**4.6**
Lottia limatula	1.0	1.4	4.2	8.8	2.6	4.3	6.2	5.9	**3.5**
Pachygrapsus crassipes	0.6	0.6	0.8	1.8	3.4	0.9	2.8	1.9	**1.9**
Tectura scutum	0.6	0.9	3.6	5.0	1.4	2.2	-	-	**1.4**
Cyanoplax spp.	0.4	0.6	1.2	1.3	2.8	1.3	0.2	0.5	**1.2**
Pagurus spp.	4.4	9.8	-	-	-	-	-	-	**1.1**
Pollicipes polymerus	<0.1	<.01	<0.1	<.01	0.6	1.3	1.0	2.2	**0.4**
Ocenebra spp.	0.4	0.9	-	-	0.2	0.5	0.8	1.3	**0.4**
Anthopleura elegantissima	0.4	0.6	0.2	0.5	0.4	0.6	0.4	0.6	**0.4**

(continued)

Table C16 (continued). Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, North Diablo Cove Station NDC 3+0.9m.

Survey	140		141		142		143		
Survey Date	8-Feb-05		27-Apr-05		19-Jul-05		2-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts (continued)									
Littorina spp.	<0.1	<.01	<0.1	<.01	<0.1	<.01	1.2	2.7	**0.3**
Mopalia spp.	0.4	0.9	0.2	0.5	-	-	-	-	**0.2**
Serpulidae unid.	<0.1	<.01	0.2	0.5	0.2	0.5	<0.1	<.01	**0.1**
Balanus spp.	-	-	-	-	-	-	0.4	0.9	**<0.1**
Sipuncula unid.	-	-	-	-	0.2	0.5	<0.1	<.01	**<0.1**
Epiactis prolifera	-	-	-	-	0.2	0.5	-	-	**<0.1**
Nuttallina californica	0.2	0.5	-	-	-	-	-	-	**<0.1**
Haliotis spp.	-	-	<0.1	0.3	-	-	-	-	**<0.1**
Acmaeidae unid.	<0.1	-	<0.1	-	<0.1	-	<0.1	-	**<0.1**
Ischnochitonidae	<0.1	<.01	-	-	<0.1	<.01	-	-	**<0.1**
Polychaeta unid.	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Invertebrate Cover									
Chthamalus fissus	12.6	10.8	13.7	12.8	14.7	15.2	15.9	14.7	**14.2**
Phragmatopoma californica	0.8	1.9	<0.1	<.01	0.3	0.9	0.3	0.8	**0.4**
Spirorbidae	<0.1	<.01	<0.1	<.01	-	-	<0.1	<.01	**<0.1**
Porifera unid. (encrusting)	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Substrate Cover									
rock	57.8	13.1	51.4	13.1	39.4	13.7	49.0	18.4	**49.4**
cobble	4.9	7.7	4.7	8.5	2.6	4.8	5.6	10.8	**4.5**
sand (shell gravel)	-	-	-	-	<0.1	<.01	-	-	**<0.1**

Table C17. Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, South Diablo Cove Station SDC 1+0.3m.

Survey	140		141		142		143		
Survey Date	7-Feb-05		25-Apr-05		20-Jul-05		15-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Non-coralline crust	26.0	23.8	18.7	8.4	14.7	9.2	11.2	7.0	**17.6**
filamentous red algae-complex	2.8	7.0	14.5	14.5	35.2	16.2	0.3	0.8	**13.2**
Gelidium coulteri	0.7	2.0	7.1	11.4	9.8	11.2	16.5	11.0	**8.5**
Corallina vancouveriensis	21.3	10.0	1.0	1.6	0.3	0.6	1.4	1.5	**6.0**
coralline crust	7.6	4.7	6.9	9.9	4.0	3.6	5.1	4.1	**5.9**
Ulva/Enteromorpha spp.	<0.1	<.01	1.5	1.9	18.0	7.9	0.1	0.3	**4.9**
juv. articulated coralline algae	3.0	2.7	5.6	6.6	0.8	1.1	7.3	6.5	**4.2**
Sargassum muticum	0.4	1.1	1.4	3.9	3.5	7.8	0.1	0.4	**1.4**
Calliarthron/Bossiella spp.-complex	-	-	-	-	-	-	5.1	5.5	**1.3**
Mastocarpus papillatus	<0.1	<.01	0.1	0.4	4.2	3.3	<0.1	<.01	**1.1**
Grateloupia doryphora	<0.1	<.01	1.3	2.6	2.3	5.0	<0.1	<.01	**0.9**
Colpomenia spp.	-	-	1.9	3.0	0.4	0.7	-	-	**0.6**
Cryptopleura violacea	<0.1	<.01	<0.1	<.01	0.1	0.4	1.7	2.6	**0.5**
Prionitis spp.	<0.1	<.01	0.1	0.3	0.9	1.2	0.6	1.2	**0.4**
Mazzaella affinis	<0.1	<.01	<0.1	0.2	1.4	2.6	<0.1	<.01	**0.4**
Chrysophyta unid.	-	-	1.0	1.7	<0.1	0.2	-	-	**0.3**
Pterosiphonia dendroidea	<0.1	0.2	-	-	0.5	0.9	0.1	0.3	**0.2**
Acrosorium uncinatum	0.3	0.9	-	-	-	-	0.3	0.7	**0.1**
Gastroclonium subarticulatum	<0.1	<.01	<0.1	<.01	0.4	1.3	0.1	0.4	**0.1**
Endocladia muricata	-	-	-	-	0.6	1.8	-	-	**0.1**
Halymenia/Schizymenia	-	-	0.6	1.1	-	-	-	-	**0.1**
Corallina officinalis	-	-	0.2	0.5	0.3	0.9	-	-	**0.1**
Bryopsis corticulans	0.5	1.1	-	-	-	-	-	-	**0.1**
Gelidium pusillum	0.1	0.4	-	-	-	-	<0.1	<.01	**<0.1**
Farlowia/Pikea spp.-complex	-	-	-	-	-	-	0.1	0.4	**<0.1**
Cladophora spp.	<0.1	<.01	-	-	<0.1	<.01	<0.1	0.2	**<0.1**
Chondracanthus canaliculatus	-	-	<0.1	<.01	<0.1	<.01	<0.1	0.2	**<0.1**
Mazzaella leptorhynchos	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Mazzaella heterocarpa	-	-	<0.1	<.01	-	-	<0.1	<.01	**<0.1**
Chondracanthus corymbiferus	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Invertebrate Counts									
Tetraclita rubescens	88.6	67.4	70.4	74.0	29.2	28.2	110.2	68.6	**74.6**
Fissurella volcano	66.2	46.4	8.8	10.6	11.8	11.1	24.4	14.2	**27.8**
Lottia scabra	2.8	2.8	19.8	27.1	48.0	29.9	11.0	11.5	**20.4**
Anthopleura elegantissima	15.4	10.4	18.8	15.5	14.6	5.9	24.2	16.6	**18.3**
Lottia limatula	6.0	11.8	2.0	3.9	9.6	3.9	5.6	4.8	**5.8**
Lottia pelta	1.8	2.1	1.0	1.0	4.8	1.9	3.8	3.0	**2.9**
Pagurus spp.	-	-	-	-	3.4	5.0	1.8	2.5	**1.3**
Mytilus californianus	3.4	5.3	0.2	0.5	-	-	<0.1	<.01	**0.9**
Strongylocentrotus purpuratus	1.0	1.4	-	-	0.6	1.3	1.6	3.6	**0.8**
Eupentacta quinquesemita	-	-	-	-	2.0	2.4	0.2	0.5	**0.6**
Tegula funebralis	-	-	2.0	3.9	-	-	-	-	**0.5**
Pachygrapsus crassipes	0.2	0.5	0.2	0.5	1.6	0.6	-	-	**0.5**
Cyanoplax spp.	0.4	0.9	0.2	0.5	0.8	0.8	-	-	**0.4**
Modiolus spp.	1.2	2.2	-	-	-	-	-	-	**0.3**
Mopalia spp.	0.2	0.5	0.2	0.5	-	-	0.6	0.9	**0.3**
Ophiothrix spiculata	-	-	-	-	0.8	1.1	-	-	**0.2**

(continued)

Table C17 (continued). Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, South Diablo Cove Station SDC 1+0.3m.

Survey	140		141		142		143		
Survey Date	7-Feb-05		25-Apr-05		20-Jul-05		15-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts (continued)									
Pugettia spp.	-	-	-	-	0.4	0.6	0.2	0.5	**0.2**
Aplysia californica	0.6	1.3	-	-	-	-	-	-	**0.2**
Cirratulidae/Terebellidae unid.	0.2	0.5	-	-	0.2	0.5	<0.1	<.01	**0.1**
Mytilus spp.	-	-	-	-	0.4	0.9	-	-	**0.1**
Nemertea unid.	-	-	0.4	0.6	-	-	-	-	**<0.1**
Tectura scutum	-	-	-	-	0.4	0.9	-	-	**<0.1**
Lottia ochracea	-	-	-	-	0.4	0.6	-	-	**<0.1**
Sipuncula unid.	-	-	-	-	0.4	0.9	-	-	**<0.1**
Septifer bifurcatus	0.2	0.5	0.2	0.5	-	-	-	-	**<0.1**
Serpulidae unid.	-	-	0.2	0.5	-	-	<0.1	<.01	**<0.1**
Hermissenda crassicornis	-	-	-	-	0.2	0.5	-	-	**<0.1**
Acmaea mitra	-	-	0.2	0.5	-	-	-	-	**<0.1**
Lottia gigantea	-	-	0.2	0.5	-	-	-	-	**<0.1**
Serpulorbis squamigerus	-	-	-	-	-	-	0.2	0.5	**<0.1**
Littorina spp.	-	-	0.2	0.5	-	-	-	-	**<0.1**
Octopus spp.	-	-	0.2	0.5	-	-	-	-	**<0.1**
Nuttallina californica	-	-	-	-	-	-	0.2	0.5	**<0.1**
Pycnogonida unid.	-	-	0.2	0.5	-	-	-	-	**<0.1**
Pisaster ochraceus	-	-	-	-	0.2	0.5	-	-	**<0.1**
Acmaeidae unid.	<0.1	-	<0.1	-	<0.1	-	<0.1	-	**<0.1**
Lacuna spp.	-	-	-	-	-	-	<0.1	-	**<0.1**
Ophiuroidea unid.	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Heptacarpus spp.	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Lissothuria nutriens	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Nitidiscala/Opalia spp.	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Ischnochitonidae	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Invertebrate Cover									
Chthamalus fissus	0.9	1.9	4.3	7.7	1.3	1.5	1.9	1.9	**2.1**
Phragmatopoma californica	2.8	2.4	<0.1	0.2	0.3	0.9	0.6	1.3	**1.0**
Pista spp.	0.6	1.1	<0.1	<.01	-	-	<0.1	<.01	**0.2**
Spirorbidae	<0.1	<.01	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
tunicates, colonial/social unid.	<0.1	<.01	-	-	-	-	<0.1	<.01	**<0.1**
Substrate Cover									
rock	29.7	14.9	22.6	11.6	8.6	5.0	36.1	7.2	**24.3**
cobble	5.6	6.1	12.6	17.9	5.7	7.8	6.8	8.5	**7.7**
sand (shell gravel)	1.1	1.4	2.1	3.2	5.1	4.9	1.0	2.0	**2.3**

Table C18. Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, South Diablo Cove Station SDC 1+.6m.

Survey	140		141		142		143		
Survey Date	7-Feb-05		25-Apr-05		20-Jul-05		15-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Non-coralline crust	34.6	17.1	19.6	6.2	17.1	7.1	21.9	4.5	**23.3**
Gelidium coulteri	3.5	5.2	14.7	15.3	<0.1	<.01	22.8	10.3	**10.3**
Endocladia muricata	<0.1	<.01	-	-	38.9	15.5	-	-	**9.7**
Ulva/Enteromorpha spp.	<0.1	<.01	2.6	5.0	21.3	13.9	<0.1	0.2	**6.0**
juv. articulated coralline algae	3.1	2.5	9.2	11.2	0.2	0.7	1.6	2.6	**3.5**
Corallina vancouveriensis	8.5	5.7	1.6	4.3	1.0	2.1	0.6	0.9	**2.9**
coralline crust	5.3	5.0	0.7	1.1	1.9	3.1	3.7	3.0	**2.9**
filamentous red algae-complex	0.3	0.8	<0.1	0.2	8.8	10.4	0.1	0.4	**2.3**
Sargassum muticum	1.8	5.0	2.5	7.9	2.9	4.9	1.2	3.1	**2.1**
Mastocarpus papillatus	<0.1	<.01	0.1	0.3	4.4	4.0	<0.1	<.01	**1.1**
Prionitis spp.	<0.1	0.2	-	-	0.8	1.2	1.3	0.9	**0.5**
Grateloupia doryphora	-	-	1.0	1.9	0.8	1.3	<0.1	<.01	**0.5**
Mazzaella affinis	-	-	0.1	0.4	1.2	1.8	<0.1	0.2	**0.3**
Cryptopleura violacea	<0.1	<.01	-	-	0.1	0.4	1.0	2.5	**0.3**
Calliarthron/Bossiella spp.-complex	<0.1	<.01	-	-	<0.1	<.01	0.9	1.6	**0.2**
Gelidium pusillum	0.8	1.0	-	-	-	-	<0.1	<.01	**0.2**
Chondracanthus canaliculatus	0.1	0.3	<0.1	0.2	0.4	0.9	<0.1	0.2	**0.2**
Gastroclonium subarticulatum	0.3	0.8	<0.1	<.01	0.1	0.4	0.1	0.3	**0.2**
Pterosiphonia dendroidea	<0.1	<.01	-	-	0.6	1.0	<0.1	<.01	**0.1**
Chrysophyta unid.	-	-	0.2	0.7	0.3	0.6	-	-	**0.1**
Colpomenia spp.	-	-	0.1	0.4	0.3	0.9	-	-	**0.1**
Cladophora spp.	0.3	0.9	<0.1	<.01	-	-	<0.1	<.01	**<0.1**
Mazzaella heterocarpa	-	-	<0.1	<.01	0.1	0.4	-	-	**<0.1**
Acrosorium uncinatum	<0.1	0.2	-	-	-	-	-	-	**<0.1**
Halymenia/Schizymenia	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Mazzaella leptorhynchos	-	-	<0.1	<.01	-	-	<0.1	<.01	**<0.1**
Mastocarpus jardinii	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Chondracanthus corymbiferus	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Invertebrate Counts									
Tetraclita rubescens	92.6	68.3	72.4	60.1	6.6	8.1	62.6	63.1	**58.6**
Anthopleura elegantissima	65.2	35.9	51.2	33.9	15.6	6.0	29.2	9.3	**40.3**
Mytilus californianus	75.8	159.1	8.4	18.8	-	-	10.8	24.2	**23.8**
Lottia scabra	24.0	18.8	11.8	12.5	19.6	6.4	23.8	6.9	**19.8**
Fissurella volcano	60.4	39.3	1.6	1.5	4.4	3.4	6.8	5.2	**18.3**
Tegula funebralis	52.4	113.3	8.0	9.1	-	-	1.0	2.2	**15.4**
Lottia limatula	10.6	10.1	2.2	2.5	2.4	2.8	3.4	2.2	**4.7**
Lottia pelta	2.0	2.4	2.6	1.5	2.2	0.5	3.0	2.2	**2.5**
Balanus spp.	9.6	21.5	-	-	-	-	-	-	**2.4**
Strongylocentrotus purpuratus	3.8	3.8	0.8	1.8	-	-	1.2	2.2	**1.5**
Pagurus spp.	1.2	1.8	-	-	-	-	2.2	3.0	**0.9**
Serpulorbis squamigerus	1.4	1.7	0.2	0.5	-	-	-	-	**0.4**
Mytilus spp.	-	-	-	-	1.2	2.7	-	-	**0.3**
Pisaster ochraceus	0.2	0.5	0.4	0.6	0.4	0.9	0.2	0.5	**0.3**
Eupentacta quinquesemita	-	-	0.2	0.5	1.0	1.4	-	-	**0.3**
Pachygrapsus crassipes	0.8	1.8	0.2	0.5	-	-	-	-	**0.3**
Heptacarpus spp.	0.6	0.9	-	-	<0.1	<.01	<0.1	<.01	**0.2**
Sipuncula unid.	-	-	-	-	0.4	0.9	<0.1	<.01	**0.1**

(continued)

Table C18 (continued). Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, South Diablo Cove Station SDC 1+.6m.

Survey	140		141		142		143		
Survey Date	7-Feb-05		25-Apr-05		20-Jul-05		15-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Invertebrate Counts (continued)									
Serpulidae unid.	<0.1	<.01	0.4	0.9	-	-	-	-	**0.1**
Epiactis prolifera	-	-	-	-	-	-	0.4	0.9	**<0.1**
Lottia gigantea	-	-	0.2	0.5	-	-	0.2	0.5	**<0.1**
Pugettia spp.	-	-	-	-	0.4	0.9	-	-	**<0.1**
Modiolus spp.	0.2	0.5	-	-	-	-	-	-	**<0.1**
Nuttallina californica	-	-	0.2	0.5	-	-	-	-	**<0.1**
Ocenebra spp.	-	-	-	-	-	-	0.2	0.5	**<0.1**
Ophiothrix spiculata	-	-	-	-	0.2	0.5	-	-	**<0.1**
Aplysia californica	-	-	0.2	0.5	-	-	-	-	**<0.1**
Acmaeidae unid.	<0.1	-	<0.1	-	<0.1	<.01	<0.1	-	**<0.1**
Ophiuroidea unid.	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Lacuna spp.	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Crepidula spp.	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Littorina spp.	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Nitidiscala/Opalia spp.	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Nereididae unid.	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Pycnogonida unid.	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Ischnochitonidae	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Grapsidae (juv.)	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Septifer bifurcatus	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Invertebrate Cover									
Chthamalus fissus	1.3	0.8	4.2	3.8	0.3	0.4	2.4	4.2	**2.0**
Phragmatopoma californica	1.7	2.6	<0.1	0.2	<0.1	<.01	<0.1	<.01	**0.5**
Spirorbidae	<0.1	<.01	-	-	-	-	<0.1	<.01	**<0.1**
Pista spp.	<0.1	<.01	<0.1	<.01	-	-	<0.1	<.01	**<0.1**
tunicates, colonial/social unid.	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Bryozoa, unid. (encrusting)	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Substrate Cover									
rock	28.8	14.0	28.9	13.8	8.2	6.4	34.9	11.6	**25.2**
cobble	8.3	8.6	11.2	14.1	3.2	3.4	8.6	10.3	**7.8**
sand (shell gravel)	2.4	3.4	4.1	9.7	3.5	5.1	1.0	2.0	**2.8**

Table C19. Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, South Diablo Cove Station SDC 2+0.3m.

Survey	140		141		142		143		
Survey Date	11-Jan-05		26-Apr-05		20-Jul-05		15-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Non-coralline crust	54.0	23.0	39.8	22.1	16.5	9.2	48.8	24.9	**39.8**
coralline crust	9.6	6.8	11.6	8.8	6.3	8.5	8.4	8.4	**9.0**
Ulva/Enteromorpha spp.	<0.1	<.01	3.4	8.3	30.7	15.3	<0.1	0.2	**8.5**
Mastocarpus papillatus	<0.1	0.2	1.4	2.0	14.3	13.1	1.0	1.4	**4.2**
filamentous red algae-complex	0.3	0.9	3.0	9.4	10.1	23.6	0.1	0.4	**3.4**
Corallina vancouveriensis	2.5	4.5	6.5	9.3	0.6	1.3	2.0	3.0	**2.9**
Gelidium coulteri	<0.1	<.01	0.5	1.1	6.5	6.8	3.7	5.2	**2.7**
Prionitis spp.	2.7	4.8	0.3	0.5	1.7	4.4	2.4	3.7	**1.8**
juv. articulated coralline algae	0.7	1.1	2.2	5.0	<0.1	<.01	0.9	1.3	**0.9**
Grateloupia doryphora	-	-	<0.1	<.01	1.9	5.0	-	-	**0.5**
Chondracanthus canaliculatus	<0.1	<.01	0.5	0.9	0.1	0.4	0.2	0.5	**0.2**
Gelidium pusillum	0.1	0.4	<0.1	<.01	<0.1	<.01	0.6	1.2	**0.2**
Gastroclonium subarticulatum	<0.1	<.01	<0.1	<.01	0.3	1.1	0.3	0.9	**0.2**
Mazzaella affinis	-	-	<0.1	<.01	0.5	0.7	-	-	**0.1**
Mazzaella leptorhynchos	-	-	<0.1	0.2	0.3	0.5	-	-	**<0.1**
Calliarthron/Bossiella spp.-complex	-	-	<0.1	<.01	0.2	0.7	-	-	**<0.1**
Colpomenia spp.	-	-	0.2	0.7	<0.1	<.01	-	-	**<0.1**
Endocladia muricata	-	-	-	-	-	-	0.2	0.5	**<0.1**
Chondria decipiens	0.1	0.4	-	-	-	-	-	-	**<0.1**
Cryptopleura violacea	<0.1	0.2	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Sargassum muticum	<0.1	<.01	-	-	-	-	<0.1	0.2	**<0.1**
Cladophora spp.	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Pterosiphonia dendroidea	<0.1	<.01	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Spongomorpha/Acrosiphonia	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Mazzaella heterocarpa	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Invertebrate Counts									
Tegula funebralis	373.0	205.8	275.6	206.4	44.2	48.6	175.2	203.7	**217.0**
Anthopleura elegantissima	41.0	8.9	62.0	17.7	56.0	30.2	41.0	9.2	**50.0**
Lottia scabra	3.6	6.5	2.0	2.8	7.4	13.2	12.4	7.6	**6.4**
Tetraclita rubescens	11.2	15.2	10.8	14.9	1.4	3.1	2.0	2.0	**6.4**
Lottia pelta	0.2	0.5	0.8	1.1	1.4	2.1	12.0	9.0	**3.6**
Lottia limatula	0.8	1.1	0.8	0.8	9.6	8.1	0.2	0.5	**2.9**
Strongylocentrotus purpuratus	1.8	2.1	5.4	11.5	2.2	3.4	0.2	0.5	**2.4**
Pagurus spp.	0.2	0.5	2.4	4.8	1.0	1.7	4.6	2.7	**2.1**
Fissurella volcano	3.8	2.7	1.4	3.1	0.6	1.3	1.4	1.5	**1.8**
Serpulorbis squamigerus	1.8	2.5	2.8	3.7	-	-	-	-	**1.2**
Cyanoplax spp.	-	-	0.6	0.9	2.4	0.9	-	-	**0.8**
Tectura scutum	-	-	-	-	-	-	3.0	3.5	**0.8**
Pachygrapsus crassipes	-	-	-	-	2.2	2.5	0.4	0.9	**0.7**
Acanthina spp.	1.0	0.7	0.6	1.3	0.4	0.6	-	-	**0.5**
Pisaster ochraceus	-	-	0.4	0.6	0.2	0.5	-	-	**0.2**
Cancer spp.	-	-	-	-	-	-	0.2	0.5	**<0.1**
Septifer bifurcatus	-	-	-	-	-	-	0.2	0.5	**<0.1**
Aplysia californica	-	-	-	-	0.2	0.5	-	-	**<0.1**
Acmaeidae unid.	<0.1	<.01	<0.1	-	<0.1	-	<0.1	-	**<0.1**
Littorina spp.	<0.1	<.01	<0.1	<.01	<0.1	<.01	-	-	**<0.1**
Lottia asmi	<0.1	<.01	<0.1	<.01	-	-	<0.1	<.01	**<0.1**

(continued)

Table C19 (continued). Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, South Diablo Cove Station SDC 2+0.3m.

Survey	140		141		142		143		
Survey Date	11-Jan-05		26-Apr-05		20-Jul-05		15-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts (continued)									
Mytilus californianus	<0.1	<.01	-	-	-	-	-	-	<0.1
Nitidiscala/Opalia spp.	-	-	-	-	-	-	<0.1	<.01	<0.1
Ischnochitonidae	-	-	-	-	<0.1	<.01	<0.1	<.01	<0.1
Ocenebra spp.	-	-	-	-	-	-	<0.1	<.01	<0.1
Pelecypoda unid. boring	<0.1	<.01	-	-	-	-	-	-	<0.1
Invertebrate Cover									
Chthamalus fissus	2.4	2.2	3.1	3.5	1.1	1.7	0.3	0.6	1.7
Phragmatopoma californica	<0.1	<.01	<0.1	<.01	<0.1	<.01	-	-	<0.1
Spirorbidae	<0.1	<.01	-	-	-	-	<0.1	<.01	<0.1
Pista spp.	<0.1	<.01	-	-	-	-	-	-	<0.1
Porifera unid. (encrusting)	-	-	-	-	-	-	<0.1	<.01	<0.1
Substrate Cover									
rock	25.2	27.4	20.8	19.8	14.8	5.7	24.0	23.8	21.2
sand (shell gravel)	0.1	0.4	4.3	6.0	5.3	7.5	5.1	7.8	3.7
cobble	1.3	2.5	3.1	6.2	1.3	1.8	1.4	2.6	1.8

Table C20. Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, South Diablo Cove Station SDC 2+0.9m.

Survey	140		141		142		143		
Survey Date	11-Jan-05		26-Apr-05		20-Jul-05		15-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Non-coralline crust	16.0	26.6	17.4	26.1	13.1	21.5	20.1	31.4	**16.6**
Mastocarpus papillatus	<0.1	<.01	0.3	0.6	8.6	6.0	0.8	0.6	**2.4**
Grateloupia doryphora	-	-	-	-	2.1	3.1	<0.1	<.01	**0.5**
Endocladia muricata	0.1	0.4	0.4	1.3	0.4	1.3	0.6	1.8	**0.4**
Prionitis spp.	0.3	0.9	<0.1	0.2	0.5	1.5	0.5	0.9	**0.3**
Gelidium coulteri	<0.1	<.01	<0.1	0.2	0.6	0.8	0.5	0.7	**0.3**
coralline crust	<0.1	<.01	0.2	0.7	0.5	1.3	0.1	0.3	**0.2**
Mastocarpus jardinii	-	-	-	-	-	-	0.3	0.9	**<0.1**
Gelidium pusillum	-	-	<0.1	0.2	<0.1	0.2	0.1	0.3	**<0.1**
Mazzaella leptorhynchos	-	-	<0.1	<.01	0.2	0.7	<0.1	<.01	**<0.1**
juv. articulated coralline algae	<0.1	<.01	<0.1	<.01	<0.1	<.01	0.1	0.4	**<0.1**
Cladophora spp.	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Mazzaella affinis	-	-	<0.1	<.01	<0.1	<.01	-	-	**<0.1**
Ulva/Enteromorpha spp.	-	-	<0.1	<.01	<0.1	<.01	-	-	**<0.1**
Chondracanthus canaliculatus	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Invertebrate Counts									
Tegula funebralis	133.2	176.2	313.4	226.3	502.0	280.2	259.8	193.2	**302.1**
Anthopleura elegantissima	97.6	76.6	158.8	102.8	162.6	125.9	109.4	70.8	**132.1**
Lottia scabra	18.2	27.5	6.2	5.7	41.8	26.5	28.4	16.6	**23.7**
Pagurus spp.	-	-	0.2	0.5	6.8	11.1	19.6	19.9	**6.7**
Lottia pelta	0.2	0.5	2.4	3.2	0.6	0.9	8.4	9.5	**2.9**
Tectura scutum	0.6	0.9	0.4	0.9	0.6	1.3	6.6	5.2	**2.1**
Lottia limatula	-	-	2.2	2.2	4.8	9.1	0.2	0.5	**1.8**
Fissurella volcano	0.8	1.3	1.0	1.4	-	-	-	-	**0.5**
Mytilus californianus	-	-	0.4	0.9	<0.1	<.01	1.2	2.7	**0.4**
Pachygrapsus crassipes	-	-	-	-	1.2	1.8	0.4	0.6	**0.4**
Tetraclita rubescens	0.2	0.5	-	-	-	-	0.6	1.3	**0.2**
Strongylocentrotus purpuratus	0.2	0.5	0.2	0.5	0.2	0.5	0.2	0.5	**0.2**
Acanthina spp.	-	-	0.4	0.6	-	-	<0.1	<.01	**0.1**
Cyanoplax spp.	-	-	-	-	0.4	0.6	-	-	**<0.1**
Mopalia spp.	0.2	0.5	-	-	-	-	0.2	0.5	**<0.1**
Pisaster ochraceus	-	-	-	-	0.2	0.5	-	-	**<0.1**
Acmaeidae unid.	<0.1	<.01	<0.1	-	<0.1	<.01	<0.1	-	**<0.1**
Littorina spp.	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	-	**<0.1**
Lottia asmi	-	-	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Nitidiscala/Opalia spp.	<0.1	<.01	<0.1	<.01	-	-	-	-	**<0.1**
Grapsidae (juv.)	<0.1	<.01	-	-	-	-	<0.1	<.01	**<0.1**
Cirratulidae/Terebellidae unid.	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Invertebrate Cover									
Chthamalus fissus	5.0	5.0	5.9	5.7	6.5	6.8	6.1	6.9	**5.9**
Spirorbidae	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Substrate Cover									
rock	38.8	35.7	58.2	27.3	52.8	20.3	51.4	27.9	**50.3**
sand (shell gravel)	34.4	44.6	7.7	7.7	12.0	11.8	14.4	16.5	**17.1**
cobble	4.7	6.2	7.1	10.7	4.0	6.8	2.2	5.0	**4.5**

Table C21. Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, South Diablo Cove Station SDC 3+0.3m.

Survey	140		141		142		143		
Survey Date	10-Mar-05		10-Jun-05		19-Aug-05		16-Dec-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Non-coralline crust	45.6	10.7	26.7	13.5	31.5	8.4	47.0	14.0	**37.7**
Mastocarpus papillatus	14.7	8.0	26.0	12.3	23.2	7.8	23.5	11.9	**21.9**
Ulva/Enteromorpha spp.	<0.1	<.01	1.5	1.6	16.4	6.5	0.1	0.3	**4.5**
Mazzaella affinis	<0.1	0.2	5.5	4.5	3.1	2.3	0.6	1.0	**2.3**
Chondracanthus canaliculatus	0.8	1.6	2.2	3.9	1.5	2.1	1.1	1.3	**1.4**
Gelidium coulteri	<0.1	0.2	2.1	2.8	0.3	0.5	0.8	1.1	**0.8**
coralline crust	0.3	0.5	1.0	2.0	0.5	0.5	0.5	0.9	**0.6**
Gelidium pusillum	0.6	1.1	1.2	1.6	0.2	0.3	0.3	0.5	**0.6**
Chrysophyta unid.	-	-	2.0	4.6	-	-	-	-	**0.5**
Endocladia muricata	0.8	1.8	-	-	<0.1	0.2	0.4	0.7	**0.3**
juv. articulated coralline algae	<0.1	0.2	0.8	2.6	0.1	0.4	<0.1	0.2	**0.3**
filamentous red algae-complex	-	-	-	-	0.1	0.3	0.3	0.5	**0.1**
Mazzaella leptorhynchos	-	-	<0.1	<.01	<0.1	0.2	0.1	0.3	**<0.1**
Cryptopleura violacea	-	-	-	-	0.2	0.5	<0.1	<.01	**<0.1**
Halosaccion americanum	-	-	-	-	0.2	0.3	-	-	**<0.1**
Mastocarpus jardinii	<0.1	<.01	0.2	0.7	-	-	<0.1	<.01	**<0.1**
Prionitis spp.	<0.1	<.01	-	-	0.1	0.3	-	-	**<0.1**
Calliarthron/Bossiella spp.-complex	<0.1	<.01	-	-	-	-	0.1	0.3	**<0.1**
Corallina vancouveriensis	0.1	0.4	-	-	-	-	-	-	**<0.1**
Gastroclonium subarticulatum	-	-	<0.1	0.2	<0.1	<.01	-	-	**<0.1**
Sargassum muticum	<0.1	0.2	-	-	-	-	-	-	**<0.1**
Cladophora spp.	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Mazzaella heterocarpa	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Osmundea spp.	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Invertebrate Counts									
Tegula funebralis	100.6	87.7	78.6	56.9	79.8	165.1	183.0	114.5	**110.5**
Tetraclita rubescens	64.4	97.9	29.4	54.7	64.0	64.2	53.2	49.5	**52.8**
Pagurus spp.	93.4	70.6	5.2	6.3	13.6	7.9	24.2	15.7	**34.1**
Anthopleura elegantissima	31.2	58.5	18.2	34.6	8.8	8.0	49.8	88.6	**27.0**
Lottia scabra	10.8	18.8	13.0	8.1	45.6	29.1	8.8	5.1	**19.6**
Lottia limatula	-	-	10.8	12.1	45.0	7.1	7.2	11.7	**15.8**
Fissurella volcano	11.8	23.1	0.6	0.9	4.0	3.2	1.0	1.4	**4.4**
Strongylocentrotus purpuratus	-	-	1.6	2.6	5.2	10.0	0.8	1.8	**1.9**
Lottia pelta	0.2	0.5	2.4	3.4	4.4	3.2	-	-	**1.8**
Tectura scutum	-	-	3.0	5.2	-	-	1.2	2.2	**1.1**
Tegula brunnea	-	-	0.6	1.3	0.6	0.9	1.8	3.0	**0.8**
Serpulidae unid.	-	-	0.2	0.5	0.2	0.5	0.8	1.1	**0.3**
Pisaster ochraceus	-	-	0.4	0.9	0.6	0.9	-	-	**0.3**
Cyanoplax spp.	-	-	-	-	0.8	1.1	-	-	**0.2**
Pugettia spp.	-	-	-	-	0.8	0.8	-	-	**0.2**
Pachygrapsus crassipes	-	-	0.4	0.6	0.2	0.5	-	-	**0.2**
Sipuncula unid.	-	-	-	-	0.6	0.9	-	-	**0.2**
Epiactis prolifera	0.2	0.5	-	-	-	-	0.2	0.5	**<0.1**
Chaetopteridae	-	-	0.2	0.5	<0.1	<.01	-	-	**<0.1**
Nemertea unid.	-	-	0.2	0.5	-	-	-	-	**<0.1**
Diopatra ornata	0.2	0.5	-	-	-	-	-	-	**<0.1**
Patiria miniata	0.2	0.5	-	-	-	-	-	-	**<0.1**

(continued)

Table C21 (continued). Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, South Diablo Cove Station SDC 3+0.3m.

Survey	140		141		142		143		
Survey Date	10-Mar-05		10-Jun-05		19-Aug-05		16-Dec-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts (continued)									
Ocenebra spp.	0.2	0.5	-	-	-	-	-	-	**<0.1**
Aplysia californica	-	-	-	-	-	-	0.2	0.5	**<0.1**
Acmaeidae unid.	<0.1	<.01	<0.1	-	<0.1	-	<0.1	<.01	**<0.1**
Littorina spp.	<0.1	<.01	<0.1	<.01	-	-	<0.1	<.01	**<0.1**
Lottia asmi	<0.1	<.01	-	-	<0.1	<.01	-	-	**<0.1**
Serpulorbis squamigerus	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Nereididae unid.	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Ischnochitonidae	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Tricolia spp.	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Invertebrate Cover									
Chthamalus fissus	0.4	0.5	0.6	0.8	0.3	0.7	0.8	0.8	**0.5**
Spirorbidae	<0.1	<.01	<0.1	<.01	0.3	0.7	<0.1	<.01	**<0.1**
Phragmatopoma californica	-	-	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Bryozoa, unid. (encrusting)	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Pista spp.	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Substrate Cover									
cobble	16.6	11.8	19.0	20.1	9.2	7.3	14.2	10.8	**14.8**
rock	11.0	8.1	13.1	6.4	14.0	8.5	11.1	6.6	**12.3**
sand (shell gravel)	11.6	9.5	4.1	2.6	7.4	5.0	4.1	4.4	**6.8**

Table C22. Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, South Diablo Cove Station SDC 3+0.9m.

Survey	140		141		142		143		
Survey Date	18-Feb-05		10-Jun-05		19-Aug-05		16-Dec-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Non-coralline crust	36.7	20.7	31.2	22.5	40.6	23.3	24.9	17.3	**33.4**
Mastocarpus papillatus	4.4	6.7	3.4	4.2	15.1	6.9	14.0	8.0	**9.3**
coralline crust	<0.1	0.2	0.1	0.4	<0.1	<.01	2.4	7.0	**0.6**
Gelidium coulteri	-	-	-	-	<0.1	0.2	1.3	1.7	**0.3**
Mazzaella affinis	-	-	-	-	0.8	1.5	-	-	**0.2**
Gelidium pusillum	<0.1	<.01	<0.1	-	0.2	0.3	0.3	0.8	**0.1**
Endocladia muricata	<0.1	<.01	0.1	0.4	<0.1	<.01	<0.1	<.01	**<0.1**
Mazzaella leptorhynchos	-	-	-	-	<0.1	<.01	<0.1	0.2	**<0.1**
Cladophora spp.	-	-	<0.1	-	<0.1	<.01	<0.1	<.01	**<0.1**
Ulva/Enteromorpha spp.	-	-	<0.1	<.01	<0.1	<.01	-	-	**<0.1**
Gastroclonium subarticulatum	-	-	-	-	<0.1	<.01	-	-	**<0.1**
juv. articulated coralline algae	<0.1	<.01	-	-	-	-	<0.1	<.01	**<0.1**
Calliarthron/Bossiella spp.-complex	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Invertebrate Counts									
Tegula funebralis	149.6	81.1	212.0	105.8	219.4	94.0	200.4	114.5	**195.4**
Anthopleura elegantissima	24.8	23.3	41.6	48.3	110.0	119.2	118.0	129.4	**73.6**
Lottia scabra	11.6	14.2	6.8	5.8	92.8	73.4	18.0	11.9	**32.3**
Pagurus spp.	25.6	13.9	0.4	0.9	12.8	10.4	21.2	18.3	**15.0**
Mytilus californianus	4.6	10.3	1.8	4.0	4.0	8.9	4.8	10.7	**3.8**
Lottia limatula	0.2	0.5	0.4	0.9	8.8	7.5	2.4	3.7	**3.0**
Pollicipes polymerus	0.2	0.5	<0.1	<.01	2.2	4.9	1.2	2.7	**0.9**
Acanthina spp.	0.6	1.3	0.8	0.8	0.4	0.9	1.2	1.6	**0.8**
Tetraclita rubescens	-	-	0.6	0.9	1.2	2.7	1.0	2.2	**0.7**
Pachygrapsus crassipes	-	-	1.0	0.7	1.6	1.5	-	-	**0.7**
Tectura scutum	-	-	-	-	1.2	1.3	1.0	1.0	**0.6**
Lottia pelta	0.2	0.5	0.2	0.5	0.8	1.3	0.8	1.3	**0.5**
Cyanoplax spp.	-	-	-	-	1.4	0.6	-	-	**0.4**
Tegula brunnea	1.0	2.2	-	-	-	-	0.2	0.5	**0.3**
Ocenebra spp.	1.0	2.2	-	-	-	-	0.2	0.5	**0.3**
Pisaster ochraceus	0.2	0.5	0.2	0.5	0.2	0.5	-	-	**0.2**
Lottia digitalis	-	-	-	-	0.4	0.9	-	-	**<0.1**
Fissurella volcano	0.4	0.9	-	-	-	-	-	-	**<0.1**
Sipuncula unid.	-	-	<0.1	<.01	0.2	0.5	-	-	**<0.1**
Acmaeidae unid.	<0.1	<.01	<0.1	-	<0.1	-	<0.1	<.01	**<0.1**
Littorina spp.	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Lottia asmi	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Nitidiscala/Opalia spp.	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Invertebrate Cover									
Chthamalus fissus	8.5	11.9	8.3	10.2	3.4	4.6	5.3	7.8	**6.4**
Spirorbidae	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Phragmatopoma californica	<0.1	<.01	-	-	-	-	<0.1	<.01	**<0.1**
Dodecaceria fewkesi	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Substrate Cover									
rock	21.1	16.3	21.6	18.7	21.7	20.9	24.0	21.8	**22.1**
cobble	23.9	13.7	26.3	18.5	9.7	7.9	18.5	15.3	**19.6**
sand (shell gravel)	6.9	8.0	2.1	2.7	7.4	8.2	10.8	7.8	**6.8**

Table C23. Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, South Diablo Point Station SDP 1+0.9m.

Survey	140		141		142		143		
Survey Date	12-Jan-05		26-Apr-05		21-Jul-05		29-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Non-coralline crust	68.5	18.4	44.9	15.4	63.7	15.8	51.3	19.0	**57.1**
Gelidium coulteri	4.4	2.6	12.4	5.4	19.7	8.6	14.5	6.4	**12.7**
coralline crust	11.5	6.7	8.2	8.6	6.5	7.5	7.4	5.0	**8.4**
Corallina vancouveriensis	10.6	9.6	13.6	9.8	4.9	4.1	4.0	2.6	**8.3**
Mastocarpus jardinii	0.8	1.0	1.7	1.5	4.9	4.1	3.3	2.4	**2.7**
Prionitis spp.	1.3	2.1	1.8	2.3	1.7	2.8	3.8	5.3	**2.2**
Ulva/Enteromorpha spp.	<0.1	<.01	6.3	6.4	1.8	1.9	<0.1	0.2	**2.0**
juv. articulated coralline algae	1.2	1.6	3.0	4.3	0.8	1.0	2.4	1.6	**1.8**
Gelidium pusillum	<0.1	<.01	<0.1	<.01	0.2	0.5	6.0	5.9	**1.6**
Calliarthron/Bossiella spp.-complex	0.3	0.8	0.1	0.4	0.3	1.1	3.3	5.8	**1.0**
Cryptopleura violacea	0.3	0.6	<0.1	<.01	-	-	3.5	3.4	**1.0**
Mastocarpus papillatus	<0.1	0.2	1.6	2.1	0.8	0.9	0.2	0.3	**0.7**
filamentous red algae-complex	-	-	0.5	0.7	0.7	1.2	<0.1	<.01	**0.3**
Endocladia muricata	0.2	0.7	0.3	0.9	-	-	0.5	1.5	**0.2**
Callithamnion/Pleonosporium	-	-	<0.1	<.01	0.8	1.1	-	-	**0.2**
Mazzaella heterocarpa	<0.1	<.01	0.1	0.4	<0.1	<.01	0.3	0.9	**0.1**
Mazzaella affinis	<0.1	<.01	<0.1	<.01	0.2	0.3	<0.1	<.01	**<0.1**
Porphyra spp.	-	-	0.2	0.7	-	-	-	-	**<0.1**
Chondracanthus canaliculatus	-	-	0.1	0.4	<0.1	0.2	-	-	**<0.1**
Mazzaella flaccida	<0.1	<.01	<0.1	<.01	0.1	0.4	<0.1	<.01	**<0.1**
Colpomenia spp.	-	-	<0.1	<.01	<0.1	0.2	-	-	**<0.1**
Endarachne/Petalonia-complex	-	-	<0.1	-	-	-	-	-	**<0.1**
Chondracanthus corymbiferus	<0.1	<.01	<0.1	<.01	-	-	<0.1	<.01	**<0.1**
Cladophora spp.	-	-	<0.1	<.01	<0.1	<.01	-	-	**<0.1**
Chrysophyta unid.	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Mazzaella leptorhynchos	-	-	<0.1	<.01	-	-	<0.1	<.01	**<0.1**
Halymenia/Schizymenia	-	-	<0.1	<.01	-	-	<0.1	<.01	**<0.1**
Bryopsis corticulans	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Scytosiphon spp.	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Callithamnion pikeanum	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Invertebrate Counts									
Tetraclita rubescens	129.2	89.2	24.0	29.5	91.6	85.4	142.4	123.8	**96.8**
Anthopleura elegantissima	116.2	42.3	89.6	51.6	69.0	63.4	94.0	22.9	**92.2**
Lottia scabra	70.4	37.5	15.6	10.1	80.2	55.7	108.4	64.2	**68.7**
Strongylocentrotus purpuratus	14.4	11.8	34.2	21.0	15.0	14.1	17.6	18.2	**20.3**
Lottia pelta	1.0	1.4	0.2	0.5	14.4	8.4	2.6	2.6	**4.6**
Lottia limatula	-	-	0.6	0.9	0.4	0.9	9.6	2.9	**2.7**
Fissurella volcano	4.8	5.9	-	-	0.2	0.5	3.2	2.5	**2.1**
Mytilus californianus	<0.1	-	<0.1	<.01	<0.1	<.01	7.4	16.6	**1.9**
Lottia gigantea	1.4	2.0	2.2	1.5	1.2	1.8	2.4	2.5	**1.8**
Anthopleura xanthogrammica	1.2	0.8	2.8	1.3	1.2	1.3	0.8	1.3	**1.5**
Pisaster ochraceus	1.6	0.9	0.8	0.8	0.8	0.8	2.2	1.6	**1.4**
Pagurus spp.	-	-	-	-	-	-	3.0	3.1	**0.8**
Nuttallina californica	1.2	1.8	-	-	-	-	0.8	0.8	**0.5**
Sipuncula unid.	0.2	0.5	1.0	1.4	-	-	0.6	1.3	**0.5**
Pachygrapsus crassipes	0.2	0.5	0.2	0.5	0.6	1.3	0.2	0.5	**0.3**
Nemertea unid.	0.4	0.6	-	-	-	-	0.6	0.6	**0.3**

(continued)

Table C23 (continued). Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, South Diablo Point Station SDP 1+0.9m.

Survey	140		141		142		143		
Survey Date	12-Jan-05		26-Apr-05		21-Jul-05		29-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Invertebrate Counts (continued)									
Tectura scutum	-	-	0.2	0.5	-	-	0.6	1.3	**0.2**
Cyanoplax spp.	0.2	0.5	-	-	-	-	0.4	0.6	**0.2**
Nucella emarginata	-	-	0.6	1.3	-	-	-	-	**0.2**
Serpulidae unid.	-	-	0.4	0.6	-	-	<0.1	<.01	**0.1**
Tegula brunnea	-	-	-	-	-	-	0.4	0.6	**<0.1**
Pollicipes polymerus	<0.1	<.01	<0.1	<.01	0.2	0.5	<0.1	<.01	**<0.1**
Serpulorbis squamigerus	-	-	-	-	-	-	0.2	0.5	**<0.1**
Nereididae unid.	-	-	-	-	-	-	0.2	0.5	**<0.1**
Ocenebra spp.	0.2	0.5	-	-	-	-	-	-	**<0.1**
Cirratulidae/Terebellidae unid.	-	-	-	-	-	-	0.2	0.5	**<0.1**
Acmaeidae unid.	<0.1	<.01	<0.1	-	<0.1	-	<0.1	-	**<0.1**
Lottia ochracea	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Littorina spp.	<0.1	<.01	-	-	-	-	<0.1	<.01	**<0.1**
Ischnochitonidae	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Pelecypoda unid. boring	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Aeolidia papillosa	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Grapsidae (juv.)	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Invertebrate Cover									
Chthamalus fissus	0.5	0.7	0.6	1.2	0.9	1.4	0.1	0.4	**0.5**
Phragmatopoma californica	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	0.2	**<0.1**
Spirorbidae	<0.1	<.01	<0.1	<.01	-	-	<0.1	<.01	**<0.1**
Dodecaceria fewkesi	<0.1	<.01	<0.1	<.01	<0.1	<.01	-	-	**<0.1**
Porifera unid. (encrusting)	<0.1	<.01	-	-	-	-	<0.1	<.01	**<0.1**
Bryozoa, unid. (encrusting)	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Substrate Cover									
rock	2.6	2.5	5.3	7.9	3.1	3.8	3.1	1.8	**3.5**

Table C24. Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, South Diablo Point Station SDP 2+0.9m.

Survey	140		141		142		143		
Survey Date	10-Jan-05		27-Apr-05		21-Jul-05		29-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Corallina vancouveriensis	14.3	8.1	18.3	12.0	30.1	19.3	16.0	9.4	**19.7**
coralline crust	19.0	12.0	20.9	8.6	16.7	17.3	16.5	8.9	**18.3**
Prionitis spp.	11.7	12.4	13.8	8.7	10.8	14.5	11.4	10.7	**11.9**
Gelidium coulteri	1.7	1.8	7.5	7.6	11.5	11.4	10.8	4.8	**7.9**
Non-coralline crust	4.0	2.5	8.9	5.7	10.2	7.2	7.1	3.4	**7.6**
Cryptopleura violacea	16.3	8.6	1.9	2.6	0.8	0.7	7.6	6.4	**6.7**
Mazzaella flaccida	2.7	3.7	6.9	6.9	9.6	7.0	4.7	4.7	**6.0**
Calliarthron/Bossiella spp.-complex	6.0	7.3	2.6	6.2	2.5	6.3	11.9	15.1	**5.7**
juv. articulated coralline algae	1.2	1.0	9.3	12.9	2.4	1.6	3.8	3.3	**4.1**
Gastroclonium subarticulatum	2.2	3.6	1.9	2.1	2.7	3.6	1.0	1.0	**1.9**
Chondracanthus canaliculatus	1.0	2.4	2.6	4.8	1.7	2.3	1.5	1.6	**1.7**
Egregia menziesii	1.7	1.9	0.1	0.3	1.9	2.5	1.9	3.9	**1.4**
Mastocarpus jardinii	1.1	2.5	2.0	4.6	0.7	1.5	0.7	1.5	**1.1**
Callithamnion/Pleonosporium	<0.1	<.01	1.2	2.1	0.9	1.0	0.3	0.7	**0.6**
Chrysophyta unid.	-	-	1.0	1.9	<0.1	<.01	-	-	**0.3**
Gelidium pusillum	-	-	-	-	-	-	0.9	0.9	**0.2**
Osmundea spp.	0.1	0.4	0.2	0.5	0.1	0.4	0.1	0.4	**0.2**
Bryopsis corticulans	0.1	0.3	0.3	0.7	<0.1	<.01	<0.1	<.01	**0.1**
Endocladia muricata	<0.1	<.01	0.1	0.4	0.3	0.9	-	-	**0.1**
Mastocarpus papillatus	<0.1	<.01	0.3	0.9	-	-	-	-	**<0.1**
Corallina officinalis	0.2	0.7	-	-	0.1	0.4	-	-	**<0.1**
Pterosiphonia dendroidea	-	-	-	-	0.3	0.9	-	-	**<0.1**
Ulva/Enteromorpha spp.	-	-	<0.1	<.01	0.2	0.7	-	-	**<0.1**
Chondracanthus corymbiferus	<0.1	<.01	0.1	0.4	<0.1	<.01	-	-	**<0.1**
Codium fragile	-	-	-	-	0.1	0.4	-	-	**<0.1**
Cladophora spp.	-	-	-	-	<0.1	0.2	-	-	**<0.1**
Microcladia coulteri	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Callithamnion pikeanum	-	-	-	-	<0.1	0.2	-	-	**<0.1**
Mazzaella lilacina	-	-	-	-	<0.1	0.2	-	-	**<0.1**
Mazzaella affinis	-	-	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Gelidium robustum	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Mazzaella heterocarpa	-	-	<0.1	<.01	<0.1	<.01	-	-	**<0.1**
Halymenia/Schizymenia	-	-	<0.1	<.01	-	-	-	-	**<0.1**
filamentous red algae-complex	<0.1	<.01	<0.1	<.01	-	-	-	-	**<0.1**
Mazzaella leptorhynchos	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Colpomenia spp.	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Halicystis ovalis	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Rhodymenia spp.	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Invertebrate Counts									
Strongylocentrotus purpuratus	170.6	118.1	101.6	54.0	67.2	32.5	123.0	65.6	**115.6**
Anthopleura elegantissima	43.2	39.5	67.2	67.2	39.8	41.5	79.4	71.3	**57.4**
Mytilus californianus	2.0	4.5	<0.1	<.01	33.0	73.8	4.6	10.3	**9.9**
Tetraclita rubescens	12.4	23.9	7.6	11.0	3.4	6.5	14.8	21.5	**9.6**
Fissurella volcano	1.8	0.8	4.4	4.4	5.4	4.9	12.2	4.8	**6.0**
Lottia pelta	1.6	3.6	4.4	6.1	7.6	4.3	0.4	0.9	**3.5**
Pisaster ochraceus	2.0	1.0	3.6	2.3	2.4	2.1	5.0	3.3	**3.3**
Lottia scabra	0.4	0.9	0.2	0.5	-	-	9.8	21.9	**2.6**

(continued)

Table C24 (continued). Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, South Diablo Point Station SDP 2+0.9m.

Survey	140		141		142		143		
Survey Date	10-Jan-05		27-Apr-05		21-Jul-05		29-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Invertebrate Counts (continued)									
Serpulorbis squamigerus	1.2	1.1	1.2	2.2	1.0	1.2	4.4	4.1	**2.0**
Serpulidae unid.	0.6	0.9	3.2	5.0	1.4	1.3	1.2	1.1	**1.6**
Pachygrapsus crassipes	0.4	0.9	1.0	1.0	3.0	1.7	1.6	1.8	**1.5**
Leptasterias spp.	1.6	1.1	0.6	0.6	0.6	0.9	1.0	0.7	**1.0**
Anthopleura xanthogrammica	0.4	0.9	1.4	2.6	1.4	2.6	-	-	**0.8**
Nemertea unid.	2.2	3.4	0.2	0.5	0.6	0.9	-	-	**0.8**
Pollicipes polymerus	1.0	2.2	<0.1	<.01	0.8	1.8	1.0	2.2	**0.7**
Tonicella lineata	0.6	0.6	0.6	0.6	0.6	0.6	1.0	1.0	**0.7**
Nuttallina californica	2.0	2.4	0.4	0.9	0.2	0.5	0.2	0.5	**0.7**
Acmaea mitra	<0.1	<.01	0.2	0.5	0.8	1.3	0.6	0.9	**0.4**
Tegula brunnea	1.4	1.5	<0.1	<.01	-	-	0.2	0.5	**0.4**
Lottia limatula	-	-	1.6	3.1	-	-	-	-	**0.4**
Sipuncula unid.	<0.1	<.01	1.2	2.2	0.2	0.5	<0.1	<.01	**0.4**
Pelecypoda unid. boring	<0.1	<.01	<0.1	<.01	1.0	2.2	<0.1	<.01	**0.3**
Balanus spp.	-	-	-	-	1.0	1.7	-	-	**0.3**
Epiactis prolifera	-	-	0.2	0.5	0.2	0.5	0.4	0.6	**0.2**
Cyanoplax spp.	0.2	0.5	-	-	0.6	0.9	-	-	**0.2**
Tectura scutum	-	-	-	-	0.8	1.3	-	-	**0.2**
Lepidozona spp.	0.4	0.6	-	-	-	-	0.4	0.6	**0.2**
Nereididae unid.	-	-	-	-	0.4	0.6	0.2	0.5	**0.2**
Lottia ochracea	-	-	-	-	0.4	0.9	-	-	**0.1**
Calliostoma ligatum	0.2	0.5	-	-	-	-	0.2	0.5	**<0.1**
Cancer antennarius	0.4	0.9	-	-	-	-	-	-	**<0.1**
Pugettia spp.	0.2	0.5	-	-	-	-	0.2	0.5	**<0.1**
Megatebennus bimaculatus	-	-	<0.1	<.01	0.2	0.5	-	-	**<0.1**
Nucella emarginata	0.2	0.5	-	-	-	-	-	-	**<0.1**
Pododesmus cepio	0.2	0.5	-	-	-	-	-	-	**<0.1**
Octopus spp.	-	-	0.2	0.5	-	-	-	-	**<0.1**
Ocenebra spp.	-	-	-	-	-	-	0.2	0.5	**<0.1**
Grapsidae (juv.)	-	-	0.2	0.5	-	-	-	-	**<0.1**
Haliotis spp.	-	-	-	-	-	-	<0.1	0.3	**<0.1**
Acmaeidae unid.	<0.1	-	<0.1	-	<0.1	-	<0.1	-	**<0.1**
Ischnochitonidae	-	-	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Amphissa spp.	-	-	<0.1	<.01	-	-	<0.1	<.01	**<0.1**
Corynactis californica	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Hermissenda crassicornis	-	-	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Lacuna spp.	<0.1	<.01	-	-	-	-	<0.1	<.01	**<0.1**
Discurria insessa	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Isopoda unid.	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Cirratulidae/Terebellidae unid.	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Invertebrate Cover									
Porifera unid. (encrusting)	<0.1	<.01	0.1	0.4	<0.1	<.01	<0.1	<.01	**<0.1**
Dodecaceria fewkesi	<0.1	<.01	<0.1	0.2	<0.1	<.01	<0.1	<.01	**<0.1**
Spirorbidae	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Chthamalus fissus	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**

(continued)

Table C24 (continued). Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, South Diablo Point Station SDP 2+0.9m.

Survey	140		141		142		143		
Survey Date	10-Jan-05		27-Apr-05		21-Jul-05		29-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Cover (continued)									
Phragmatopoma californica	<0.1	<.01	<0.1	<.01	-	-	<0.1	<.01	**<0.1**
tunicates, colonial/social unid.	<0.1	<.01	<0.1	<.01	-	-	<0.1	<.01	**<0.1**
Abiet./Sertularella/Sertularia	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Bryozoa, unid. (encrusting)	<0.1	<.01	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Hydroida	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Salmacina tribranchiata	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Substrate Cover									
rock	9.0	4.1	2.8	3.0	7.6	5.5	6.3	2.3	**6.4**

Table C25. Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, South Control Station SC 1+0.3m.

Survey	140		141		142		143		
Survey Date	23-Feb-05		2-May-05		27-Jul-05		4-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Chondracanthus canaliculatus	34.5	17.6	46.4	16.6	52.2	20.3	29.2	13.4	**40.6**
Mazzaella flaccida	19.7	11.6	33.5	14.9	42.2	18.3	19.9	12.5	**28.8**
Non-coralline crust	13.5	8.2	12.1	7.2	5.1	5.8	16.5	6.3	**11.8**
Gastroclonium subarticulatum	12.8	8.6	8.5	11.3	3.1	4.9	13.8	10.0	**9.5**
coralline crust	12.0	9.2	7.1	8.8	5.5	6.0	8.3	7.4	**8.2**
Phyllospadix spp.	3.5	5.7	3.5	5.9	4.5	8.8	7.2	11.8	**4.7**
Cryptopleura violacea	6.2	4.3	1.2	1.6	1.5	1.8	2.5	3.1	**2.8**
Mastocarpus jardinii	2.7	4.0	2.4	2.9	3.1	3.7	1.6	2.1	**2.4**
Mastocarpus papillatus	1.0	1.3	2.4	1.4	3.8	4.7	1.7	2.3	**2.2**
Ulva/Enteromorpha spp.	0.5	1.5	0.6	1.8	1.0	2.1	3.8	3.2	**1.4**
Mazzaella heterocarpa	1.7	1.9	1.3	1.0	0.6	0.8	0.3	0.7	**0.9**
Prionitis spp.	0.3	0.4	0.7	0.9	0.6	1.1	1.8	3.1	**0.8**
Endocladia muricata	0.9	1.5	1.0	1.7	0.6	0.9	0.2	0.3	**0.7**
Corallina vancouveriensis	0.8	1.7	0.1	0.3	<0.1	0.2	0.6	1.1	**0.4**
Chondracanthus corymbiferus	-	-	0.3	0.5	0.6	0.9	0.8	2.0	**0.4**
Osmundea spp.	<0.1	0.2	0.1	0.4	<0.1	<.01	1.3	1.9	**0.4**
juv. articulated coralline algae	0.1	0.3	1.0	2.4	<0.1	<.01	0.2	0.3	**0.3**
Mazzaella affinis	0.1	0.3	0.5	0.7	0.3	0.5	0.3	0.5	**0.3**
Egregia menziesii	-	-	-	-	1.3	4.0	<0.1	<.01	**0.3**
Mazzaella lilacina	-	-	0.9	1.7	0.3	1.1	-	-	**0.3**
Sarcodiotheca gaudichaudii	0.1	0.3	0.8	1.2	0.1	0.4	<0.1	<.01	**0.3**
Spongomorpha/Acrosiphonia	-	-	<0.1	<.01	0.8	2.4	-	-	**0.2**
filamentous red algae-complex	0.1	0.4	0.3	0.9	0.2	0.5	<0.1	<.01	**0.2**
Gelidium pusillum	0.6	1.5	<0.1	<.01	<0.1	0.2	<0.1	-	**0.2**
Callithamnion pikeanum	0.3	0.8	<0.1	0.2	0.1	0.4	<0.1	<.01	**0.1**
Calliarthron/Bossiella spp.-complex	0.2	0.7	0.1	0.3	<0.1	<.01	0.1	0.4	**0.1**
Halosaccion americanum	<0.1	<.01	<0.1	<.01	0.3	0.9	<0.1	0.2	**<0.1**
Microcladia coulteri	-	-	-	-	<0.1	0.2	0.2	0.5	**<0.1**
Gelidium coulteri	0.1	0.4	<0.1	0.2	<0.1	<.01	<0.1	0.2	**<0.1**
Polyneura latissima	-	-	<0.1	<.01	<0.1	<.01	0.3	0.9	**<0.1**
Smithora naiadum	<0.1	<.01	-	-	0.1	0.4	0.1	0.3	**<0.1**
Halymenia/Schizymenia	<0.1	<.01	0.2	0.5	<0.1	<.01	-	-	**<0.1**
Chrysophyta unid.	-	-	-	-	0.2	0.7	-	-	**<0.1**
Analipus japonicus	-	-	<0.1	<.01	<0.1	0.2	-	-	**<0.1**
Farlowia/Pikea spp.-complex	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Melobesia mediocris	-	-	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Corallina officinalis	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Cladophora spp.	-	-	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Callophyllis spp.	-	-	<0.1	<.01	<0.1	<.01	-	-	**<0.1**
Bryopsis corticulans	<0.1	<.01	-	-	-	-	<0.1	<.01	**<0.1**
Erythrophyllum delesserioides	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Microcladia borealis	-	-	<0.1	<.01	<0.1	<.01	-	-	**<0.1**
Porphyra spp.	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Rhodymenia spp.	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Pterosiphonia dendroidea	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Mazzaella leptorhynchos	<0.1	<.01	-	-	-	-	-	-	**<0.1**

(continued)

Table C25 (continued). Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, South Control Station SC 1+0.3m.

Survey	140		141		142		143		
Survey Date	23-Feb-05		2-May-05		27-Jul-05		4-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts									
Tetraclita rubescens	256.4	417.2	669.8	387.4	137.2	87.4	283.2	410.0	**336.7**
Lottia scabra	7.4	8.4	9.8	10.1	5.2	4.7	5.0	5.7	**6.9**
Tegula funebralis	12.2	8.9	0.4	0.9	0.2	0.5	-	-	**3.2**
Tegula brunnea	5.4	7.3	0.6	0.9	5.0	6.0	1.6	2.1	**3.2**
Pagurus spp.	4.0	5.5	2.0	3.9	2.2	2.5	4.0	3.0	**3.1**
Lottia limatula	0.6	0.6	5.4	9.0	0.6	1.3	4.0	5.9	**2.7**
Tectura scutum	-	-	1.6	2.3	7.4	8.4	1.0	1.4	**2.5**
Lottia pelta	-	-	4.0	3.9	1.2	2.2	2.0	1.9	**1.8**
Anthopleura elegantissima	2.8	2.2	2.8	2.6	0.4	0.6	0.8	0.8	**1.7**
Fissurella volcano	-	-	2.6	3.2	0.8	0.8	0.6	0.9	**1.0**
Leptasterias spp.	1.4	3.1	0.2	0.5	0.4	0.9	0.2	0.5	**0.6**
Epiactis prolifera	0.2	0.5	-	-	0.4	0.6	0.4	0.6	**0.3**
Pisaster ochraceus	0.2	0.5	0.4	0.6	0.2	0.5	0.2	0.5	**0.3**
Serpulidae unid.	-	-	0.8	1.8	0.2	0.5	-	-	**0.3**
Pugettia spp.	0.2	0.5	0.2	0.5	0.2	0.5	-	-	**0.2**
Nuttallina californica	-	-	0.2	0.5	0.4	0.6	-	-	**0.2**
Patiria miniata	0.2	0.5	0.2	0.5	0.2	0.5	-	-	**0.2**
Mopalia spp.	0.2	0.5	0.2	0.5	-	-	-	-	**<0.1**
Tonicella lineata	-	-	<0.1	<.01	-	-	0.2	0.5	**<0.1**
Nemertea unid.	-	-	-	-	0.2	0.5	-	-	**<0.1**
Serpulorbis squamigerus	-	-	0.2	0.5	-	-	-	-	**<0.1**
Hemigrapsus nudus	-	-	-	-	0.2	0.5	-	-	**<0.1**
Ocenebra spp.	-	-	-	-	-	-	0.2	0.5	**<0.1**
Acmaeidae unid.	<0.1	-	<0.1	-	<0.1	<.01	<0.1	<.01	**<0.1**
Ischnochitonidae	<0.1	<.01	<0.1	<.01	<0.1	-	<0.1	<.01	**<0.1**
Acmaea mitra	<0.1	<.01	<0.1	<.01	-	-	-	-	**<0.1**
Lacuna spp.	<0.1	<.01	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Cyanoplax spp.	-	-	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Bittium spp.	<0.1	<.01	-	-	<0.1	<.01	-	-	**<0.1**
Mytilus californianus	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Crepidula spp.	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Littorina spp.	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Lottia asmi	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Nitidiscala/Opalia spp.	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Pelecypoda unid. boring	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Amphissa spp.	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Heptacarpus spp.	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Kelletia kelletii	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Invertebrate Cover									
Chthamalus fissus	2.5	3.8	<0.1	<.01	<0.1	<.01	<0.1	<.01	**0.6**
Phragmatopoma californica	0.3	0.5	0.1	0.4	<0.1	<.01	0.4	1.3	**0.2**
Pista spp.	0.3	1.1	<0.1	<.01	-	-	-	-	**<0.1**
tunicates, colonial/social unid.	<0.1	<.01	<0.1	-	<0.1	<.01	0.2	0.5	**<0.1**
Porifera unid. (encrusting)	<0.1	<.01	<0.1	<.01	<0.1	<.01	0.2	0.3	**<0.1**
Spirorbidae	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	0.2	**<0.1**
Bryozoa, unid. (encrusting)	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**

(continued)

Table C25 (continued). Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, South Control Station SC 1+0.3m.

	Survey	140		141		142		143		
	Survey Date	23-Feb-05		2-May-05		27-Jul-05		4-Nov-05		
Taxon		Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Substrate Cover										
rock		6.3	4.7	9.7	6.7	2.9	2.3	9.7	6.8	**7.2**
cobble		6.2	4.7	3.9	2.7	4.2	2.3	1.7	2.3	**4.0**
sand (shell gravel)		4.1	7.6	5.6	5.3	1.9	2.6	2.6	2.5	**3.6**

Table C26. Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, South Control Station SC 1+0.9m.

Survey	140		141		142		143		
Survey Date	23-Feb-05		2-May-05		22-Jul-05		4-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae Cover									
Endocladia muricata	21.1	10.5	19.2	8.1	23.9	12.2	16.9	8.9	**20.3**
Non-coralline crust	23.2	9.7	16.1	10.0	13.7	11.5	19.5	8.8	**18.1**
Pelvetia compressa	13.6	12.9	12.1	13.6	15.1	15.1	13.6	14.9	**13.6**
Mastocarpus papillatus	6.4	5.8	7.5	6.3	16.5	8.7	14.7	8.7	**11.3**
coralline crust	5.6	4.5	7.9	5.8	5.1	6.0	6.8	10.3	**6.4**
Mazzaella flaccida	3.2	3.5	1.6	2.4	4.4	4.3	7.5	4.1	**4.2**
Mastocarpus jardinii	1.7	3.5	0.2	0.5	1.6	2.1	3.8	3.2	**1.8**
Porphyra spp.	<0.1	<.01	-	-	0.8	1.9	2.7	3.1	**0.9**
Gelidium pusillum	1.5	2.0	0.3	0.7	0.4	0.6	0.8	1.2	**0.7**
Corallina vancouveriensis	1.5	2.4	0.5	0.7	0.5	0.7	0.4	0.9	**0.7**
Fucus gardneri	0.3	1.1	0.5	1.1	1.0	2.2	0.7	1.6	**0.6**
Mazzaella heterocarpa	1.3	2.6	0.1	0.4	0.3	0.9	0.3	0.5	**0.5**
Ulva/Enteromorpha spp.	<0.1	<.01	-	-	0.3	0.9	1.2	2.1	**0.4**
Chondracanthus canaliculatus	0.3	0.9	-	-	-	-	0.5	1.0	**0.2**
Mazzaella affinis	-	-	<0.1	0.2	-	-	0.7	1.0	**0.2**
Gelidium coulteri	0.5	1.3	<0.1	<.01	-	-	0.1	0.4	**0.2**
juv. articulated coralline algae	<0.1	<.01	<0.1	<.01	<0.1	0.2	0.3	0.6	**0.1**
Cladophora spp.	<0.1	0.2	<0.1	<.01	<0.1	<.01	<0.1	0.2	**<0.1**
Halosaccion americanum	<0.1	<.01	<0.1	<.01	0.1	0.4	-	-	**<0.1**
Osmundea spp.	-	-	<0.1	<.01	<0.1	<.01	<0.1	0.2	**<0.1**
Mazzaella leptorhynchos	-	-	-	-	-	-	<0.1	0.2	**<0.1**
Analipus japonicus	-	-	<0.1	<.01	-	-	<0.1	<.01	**<0.1**
Codium setchellii	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Calliarthron/Bossiella spp.-complex	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Callithamnion pikeanum	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Corallina officinalis	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Prionitis spp.	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Cryptopleura violacea	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Phyllospadix spp.	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Invertebrate Counts									
Tegula funebralis	149.0	54.9	98.6	108.9	36.4	28.5	72.6	78.9	**89.2**
Tetraclita rubescens	100.4	152.7	95.4	133.0	49.4	69.0	57.8	70.6	**75.8**
Lottia scabra	8.8	7.6	23.4	34.7	4.8	3.0	11.4	11.7	**12.1**
Pagurus spp.	11.0	5.9	1.0	1.4	1.4	1.3	20.0	25.1	**8.4**
Anthopleura elegantissima	6.0	6.3	5.0	5.8	3.2	2.5	7.4	7.6	**5.4**
Tectura scutum	1.6	2.1	1.8	3.0	4.2	3.5	7.0	4.0	**3.7**
Lottia pelta	2.4	2.9	4.2	4.6	2.4	3.4	2.4	3.4	**2.9**
Lottia limatula	2.8	5.7	0.8	1.3	0.8	0.8	2.6	3.3	**1.8**
Balanus spp.	-	-	1.4	2.1	-	-	-	-	**0.4**
Nemertea unid.	-	-	-	-	-	-	1.2	2.2	**0.3**
Cyanoplax spp.	0.2	0.5	<0.1	<.01	0.2	0.5	0.2	0.5	**0.2**
Anthopleura xanthogrammica	-	-	0.2	0.5	-	-	0.4	0.6	**0.2**
Hemigrapsus nudus	-	-	-	-	0.2	0.5	0.4	0.6	**0.2**
Pachygrapsus crassipes	0.2	0.5	-	-	0.4	0.6	-	-	**0.2**
Acanthina spp.	-	-	0.6	0.9	-	-	-	-	**0.2**
Leptasterias spp.	-	-	-	-	0.4	0.6	-	-	**<0.1**
Pisaster ochraceus	-	-	-	-	0.2	0.5	0.2	0.5	**<0.1**

(continued)

Table C26 (continued). Intertidal Algae (percent cover) and Invertebrates (abundance per 1.0 m^2 ; percent cover) Survey Means, Standard Deviations and 2005 Annual Means, South Control Station SC 1+0.9m.

Survey	140		141		142		143		
Survey Date	23-Feb-05		2-May-05		22-Jul-05		4-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Invertebrate Counts (continued)									
Lottia digitalis	0.2	0.5	-	-	-	-	-	-	**<0.1**
Mopalia spp.	-	-	-	-	-	-	0.2	0.5	**<0.1**
Petrolisthes spp.	0.2	0.5	-	-	-	-	-	-	**<0.1**
Ocenebra spp.	-	-	-	-	-	-	0.2	0.5	**<0.1**
Acmaeidae unid.	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	-	**<0.1**
Littorina spp.	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Lottia asmi	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Mytilus californianus	-	-	<0.1	<.01	-	-	<0.1	<.01	**<0.1**
Ischnochitonidae	-	-	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Grapsidae (juv.)	<0.1	<.01	-	-	<0.1	<.01	-	-	**<0.1**
Amphissa spp.	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Invertebrate Cover									
Chthamalus fissus	1.8	2.5	1.0	1.7	0.7	0.7	2.2	2.6	**1.4**
Phragmatopoma californica	0.2	0.7	0.3	0.7	<0.1	<.01	0.2	0.5	**0.2**
Spirorbidae	-	-	<0.1	<.01	-	-	<0.1	<.01	**<0.1**
Substrate Cover									
rock	24.3	6.8	31.5	16.2	16.0	17.1	18.7	9.5	**22.6**
cobble	10.9	10.0	14.2	12.9	19.9	17.1	6.7	6.1	**12.9**
sand (shell gravel)	5.0	4.5	5.8	6.1	2.2	2.5	2.8	2.5	**3.9**

Appendix D

Intertidal Fishes
(VBT Method)

Table D1. Intertidal Fish Survey Totals, 2005 Annual Means, and Standard Deviations, North Control Station NC-1V.

Survey	100	101	102	103		
Survey Date	10-Feb-05	25-May-05	18-Aug-05	15-Dec-05		
Taxon	Total	Total	Total	Total	Annual Mean	Std. Dev.
Pholididae/Stichaeidae unid.	8	5	15	8	**9.0**	4.24
Xiphister mucosus	6	6	12	5	**7.3**	3.20
Xiphister atropurpureus	1	–	6	16	**5.8**	7.32
Gobiesox maeandricus	4	2	1	7	**3.5**	2.65
Apodichthys fucorum	2	–	4	–	**1.5**	1.91
Anoplarchus/Cebidichthys spp.	–	–	–	4	**1.0**	2.00
Oligocottus snyderi	–	–	3	1	**1.0**	1.41
Anoplarchus purpurescens	1	–	1	–	**0.5**	0.58
Pholididae unid.	–	1	–	–	**0.3**	0.50
Cebidichthys violaceus	–	–	–	1	**0.3**	0.50

Table D2. Intertidal Fish Survey Totals, 2005 Annual Means, and Standard Deviations, Field's Cove Station FC-1V.

Survey	100	101	102	103		
Survey Date	7-Mar-05	24-May-05	22-Jul-05	14-Nov-05		
Taxon	Total	Total	Total	Total	Annual Mean	Std. Dev.
Xiphister mucosus	18	11	4	17	**12.5**	6.45
Gobiesox maeandricus	14	1	–	11	**6.5**	7.05
Pholididae/Stichaeidae unid.	9	3	2	1	**3.8**	3.59
Anoplarchus purpurescens	9	1	–	5	**3.8**	4.11
Gibbonsia spp.	14	–	–	–	**3.5**	7.00
Oligocottus snyderi	–	–	–	14	**3.5**	7.00
Anoplarchus/Cebidichthys spp.	1	–	–	11	**3.0**	5.35
Xiphister atropurpureus	4	–	–	5	**2.3**	2.63
Apodichthys flavidus	3	–	–	–	**0.8**	1.50
Cebidichthys violaceus	–	–	–	2	**0.5**	1.00

Table D3. Intertidal Fish Survey Totals, 2005 Annual Means, and Standard Deviations, South Diablo Cove Station SDC-2V.

Survey	100	101	102	103		
Survey Date	4-Mar-05	26-May-05	19-Jul-05	2-Dec-05		
Taxon	Total	Total	Total	Total	**Annual Mean**	Std. Dev.
Cebidichthys violaceus	–	–	–	11	**2.8**	5.5
Xiphister atropurpureus	3	1	–	–	**1**	1.41
Pholididae/Stichaeidae unid.	–	–	1	1	**0.5**	0.58
Gobiesox maeandricus	–	1	–	–	**0.3**	0.5
Anoplarchus/Cebidichthys spp.	–	–	1	–	**0.3**	0.5

Table D4. Intertidal Fish Survey Totals, 2005 Annual Means, and Standard Deviations, North Diablo Cove Station NDC-1V.

Survey	100	101	102	103		
Survey Date	9-Mar-05	22-Jun-05	19-Jul-05	1-Dec-05		
Taxon	Total	Total	Total	Total	**Annual Mean**	Std. Dev.
Cebidichthys violaceus	19	23	23	20	**21.3**	2.06
Xiphister mucosus	–	10	22	10	**10.5**	9.00
Scytalina cerdale	3	8	9	9	**7.3**	2.87
Pholididae/Stichaeidae unid.	2	11	4	10	**6.8**	4.43
Xiphister atropurpureus	11	2	–	–	**3.3**	5.25
Anoplarchus purpurescens	4	1	3	–	**2**	1.83
Gobiesox maeandricus	–	2	2	–	**1**	1.15
Anoplarchus/Cebidichthys spp.	–	3	–	–	**0.8**	1.50
Cottidae unid.	–	–	–	1	**0.3**	0.50
Apodichthys fucorum	–	–	–	1	**0.3**	0.50
Artedius spp.	–	–	–	1	**0.3**	0.50
Ulvicola sanctaerosae	1	–	–	–	**0.3**	0.50

Table D5. Intertidal Fish Survey Totals, 2005 Annual Means, and Standard Deviations, South Control Station SC-1V.

Survey	100	101	102	103		
Survey Date	9-Feb-05	9-Jun-05	21-Jul-05	30-Nov-05		
Taxon	Total	Total	Total	Total	**Annual Mean**	Std. Dev.
Anoplarchus purpurescens	42	11	9	76	**34.5**	31.52
Cebidichthys violaceus	26	30	20	13	**22.3**	7.41
Pholididae/Stichaeidae unid.	12	17	31	28	**22.0**	8.98
Xiphister mucosus	7	19	26	31	**20.8**	10.40
Gobiesox maeandricus	3	12	5	10	**7.5**	4.20
Anoplarchus/Cebidichthys spp.	–	–	–	19	**4.8**	9.50
Xiphister atropurpureus	6	–	5	–	**2.8**	3.20
Xererpes fucorum	2	–	5	–	**1.8**	2.36
Oligocottus snyderi	–	–	3	3	**1.5**	1.73
Gibbonsia spp.	1	–	–	–	**0.3**	0.50
Xiphister spp.	–	–	1	–	**0.3**	0.50
Apodichthys flavidus	–	–	1	–	**0.3**	0.50
Microметrus aurora	–	–	1	–	**0.3**	0.50
Porichthys notatus	–	1	–	–	**0.3**	0.50

Appendix E

Subtidal Invertebrates and Kelps
(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.

Survey	128		129		130		131		
Survey Date	06-Apr-05		16-Jun-05		08-Aug-05		(not sampled)		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Algae									
Laminaria setchellii	56.5	9.3	111.5	37.3	69.0	6.8			**79.0**
Nereocystis luetkeana	-	-	61.0	64.3	17.0	16.2			**26.0**
Laminariales	-	-	19.3	5.4	16.3	3.8			**11.8**
Cystoseira osmundacea	7.3	2.9	14.8	6.6	8.5	2.4			**10.2**
Macrocystis spp.	0.3	0.5	2.3	1.9	1.3	1.5			**1.3**
Pterygophora californica	0.5	1.0	-	-	-	-			**0.2**
Invertebrates									
Tegula brunnea	12.8	2.9	75.0	46.2	303.8	76.7			**130.5**
Acmaea mitra	3.0	3.5	8.3	2.9	8.3	8.6			**6.5**
Patiria miniata	5.0	1.8	6.5	2.4	4.3	2.6			**5.3**
Pagurus spp.	7.8	3.8	5.5	4.7	1.5	1.7			**4.9**
Tonicella lineata	3.0	4.2	6.0	2.5	0.8	1.5			**3.3**
Cryptochiton stelleri	2.8	2.2	3.0	1.2	1.3	0.5			**2.3**
Mitra idae	0.5	0.6	3.3	2.2	0.3	0.5			**1.3**
Calliostoma ligatum	-	-	0.8	1.5	3.0	2.5			**1.3**
Lottia instabilis	-	-	-	-	2.0	0.8			**0.7**
Anthopleura elegantissima	0.3	0.5	1.0	0.8	0.5	1.0			**0.6**
Tegula montereyi	-	-	0.8	1.5	0.8	1.5			**0.5**
Leptasterias spp.	-	-	0.8	1.0	0.5	1.0			**0.4**
Pycnopodia helianthoides	0.3	0.5	-	-	1.0	0.8			**0.4**
Epiactis prolifera	-	-	0.8	1.0	-	-			**0.3**
Loxorhynchus spp.	-	-	0.3	0.5	0.5	1.0			**0.3**
Pelecypoda unid. boring	0.8	1.5	-	-	-	-			**0.3**
Lithopoma gibberosum	-	-	0.3	0.5	0.3	0.5			**0.2**
Hermissenda crassicornis	-	-	-	-	0.5	0.6			**0.2**
Diopatra ornata	0.5	1.0	-	-	-	-			**0.2**
Parastichopus spp.	-	-	0.5	1.0	-	-			**0.2**
Tethya aurantia	0.3	0.5	0.3	0.5	-	-			**0.2**
Halcampa decemtentaculata	-	-	-	-	0.5	1.0			**0.2**
Phidiana hiltoni	-	-	-	-	0.5	0.6			**0.2**
Pisaster giganteus	-	-	0.5	1.0	-	-			**0.2**
Pugettia spp.	-	-	0.3	0.5	0.3	0.5			**0.2**
Cancer antennarius	-	-	-	-	0.3	0.5			**<0.1**
Strongylocentrotus purpuratus	-	-	-	-	0.3	0.5			**<0.1**
Doriopsilla albopunctata	-	-	0.3	0.5	-	-			**<0.1**
Cancer 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.

Survey	128		129		130		131		
Survey Date	25-Mar-05		09-Jun-05		05-Aug-05		29-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Algae									
Cystoseira osmundacea	10.5	1.7	11.3	1.5	11.5	2.9	26.0	12.3	**14.8**
Sargassum muticum	1.3	1.9	1.8	1.5	-	-	12.0	10.5	**3.8**
Macrocystis spp.	0.3	0.5	2.0	1.4	1.8	1.0	2.0	-	**1.5**
Laminariales	-	-	1.3	0.5	-	-	-	-	**0.3**
Invertebrates									
Strongylocentrotus purpuratus	121.3	58.7	104.8	37.2	50.5	42.8	91.0	56.6	**91.9**
Acmaea mitra	5.3	2.9	0.8	1.5	8.3	7.1	29.3	18.4	**10.9**
Anthopleura elegantissima	7.5	1.7	4.0	1.6	3.3	1.7	3.3	1.0	**4.5**
Ophiothrix spp.	-	-	1.0	1.4	5.8	3.9	10.8	8.4	**4.4**
Epiactis prolifera	0.8	1.0	2.8	2.1	1.5	1.3	3.3	1.0	**2.1**
Diodora spp.	0.5	0.6	0.3	0.5	0.3	0.5	0.5	0.6	**0.4**
Archidoris montereyensis	0.3	0.5	0.3	0.5	-	-	0.5	0.6	**0.3**
Fissurella volcano	-	-	-	-	0.5	0.6	0.3	0.5	**0.2**
Serpulorbis squamigerus	-	-	0.3	0.5	-	-	0.5	0.6	**0.2**
Tonicella lineata	-	-	-	-	-	-	0.8	1.5	**0.2**
Diaulula sandiegensis	-	-	-	-	0.8	0.5	-	-	**0.2**
Nemertea unid.	-	-	-	-	0.5	0.6	-	-	**0.1**
Pelecypoda unid. boring	-	-	0.3	0.5	-	-	0.3	0.5	**0.1**
Haliotis spp.	0.3	0.5	-	-	-	-	0.3	0.5	**0.1**
Megathura crenulata	-	-	0.5	0.6	-	-	-	-	**0.1**
Pectinidae	-	-	0.3	0.5	-	-	0.3	0.5	**0.1**
Pelecypoda unid.	-	-	-	-	0.3	0.5	-	-	**<0.1**
Diopatra ornata	-	-	-	-	-	-	0.3	0.5	**<0.1**
Pagurus spp.	-	-	0.3	0.5	-	-	-	-	**<0.1**
Patiria miniata	-	-	0.3	0.5	-	-	-	-	**<0.1**
Loxorhynchus spp.	-	-	-	-	-	-	0.3	0.5	**<0.1**
Parastichopus spp.	0.3	0.5	-	-	-	-	-	-	**<0.1**
Phidiana hiltoni	-	-	0.3	0.5	-	-	-	-	**<0.1**
Placiphorella velata	-	-	-	-	0.3	0.5	-	-	**<0.1**
Eudistylia polymorpha	0.3	0.5	-	-	-	-	-	-	**<0.1**
Mimulus foliatus	-	-	-	-	0.3	0.5	-	-	**<0.1**
Cancer spp.	-	-	-	-	0.3	0.5	-	-	**<0.1**
Crangon spp.	-	-	-	-	-	-	0.3	0.5	**<0.1**
Lissothuria nutriens	-	-	0.3	0.5	-	-	-	-	**<0.1**
Eupentacta quinquesemita	-	-	-	-	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.

Survey	128		129		130		131		
Survey Date	25-Apr-05		15-Jun-05		04-Aug-05		28-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae									
Sargassum muticum	38.3	10.1	39.3	28.0	32.0	9.8	120.5	63.5	**57.5**
Cystoseira osmundacea	27.0	9.7	23.8	9.0	18.5	8.1	30.8	6.1	**25.0**
Macrocystis spp.	-	-	-	-	-	-	0.5	0.6	**0.1**
Invertebrates									
Strongylocentrotus purpuratus	217.8	162.0	377.0	119.8	234.3	164.1	222.0	145.7	**262.8**
Acmaea mitra	1.5	3.0	6.0	2.5	3.0	-	30.0	13.2	**10.1**
Ophiothrix spp.	2.0	2.8	1.0	1.2	13.0	8.1	-	-	**4.0**
Anthopleura elegantissima	2.0	0.8	4.0	2.2	2.5	1.3	2.8	1.7	**2.8**
Epiactis prolifera	-	-	0.5	0.6	1.0	1.4	1.0	0.8	**0.6**
Tonicella lineata	-	-	0.8	1.5	-	-	1.5	1.7	**0.6**
Serpulorbis squamigerus	-	-	0.8	1.0	-	-	-	-	**0.2**
Parastichopus spp.	0.3	0.5	0.3	0.5	0.3	0.5	-	-	**0.2**
Pelecypoda unid. boring	-	-	0.3	0.5	0.5	1.0	-	-	**0.2**
Pisaster giganteus	0.3	0.5	-	-	0.3	0.5	0.3	0.5	**0.2**
Fissurella volcano	-	-	-	-	-	-	0.5	0.6	**0.1**
Doriopsilla albopunctata	-	-	0.5	1.0	-	-	-	-	**0.1**
Megathura crenulata	0.3	0.5	-	-	-	-	0.3	0.5	**0.1**
Anthopleura artemisia	-	-	-	-	0.3	0.5	-	-	**<0.1**
Diodora aspera	-	-	0.3	0.5	-	-	-	-	**<0.1**
Patiria miniata	0.3	0.5	-	-	-	-	-	-	**<0.1**
Diaulula sandiegensis	-	-	-	-	-	-	0.3	0.5	**<0.1**
Ophioplocus esmarki	-	-	0.3	0.5	-	-	-	-	**<0.1**
Lissothuria nutriens	-	-	-	-	-	-	0.3	0.5	**<0.1**
Haliotis spp.	-	-	-	-	-	-	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.

Survey	128		129		130		131		
Survey Date	05-Apr-05		01-Jun-05		28-Jul-05		23-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Algae									
Cystoseira osmundacea	13.5	4.4	17.0	9.0	11.3	7.1	40.0	19.4	**20.4**
Macrocystis spp.	-	-	2.5	1.3	3.3	0.5	3.0	1.4	**2.2**
Laminariales	-	-	-	-	0.8	1.0	1.0	0.8	**0.4**
Laminaria setchellii	-	-	0.3	0.5	-	-	-	-	**<0.1**
Invertebrates									
Strongylocentrotus purpuratus	68.3	43.2	108.5	100.2	36.0	37.3	73.8	59.9	**71.6**
Anthopleura elegantissima	9.5	6.2	8.3	3.6	6.5	3.4	8.8	4.1	**8.3**
Acmaea mitra	3.8	1.5	2.3	1.5	-	-	4.5	1.7	**2.6**
Epiactis prolifera	0.3	0.5	2.8	3.6	2.3	3.3	2.0	2.2	**1.8**
Tethya aurantia	1.8	1.0	2.0	0.8	1.3	1.3	1.0	0.8	**1.5**
Parastichopus spp.	2.0	1.6	0.5	0.6	1.3	0.5	0.3	0.5	**1.0**
Patiria miniata	0.5	0.6	0.3	0.5	0.3	0.5	1.8	1.0	**0.7**
Diopatra ornata	0.5	1.0	1.3	1.5	-	-	0.8	1.0	**0.6**
Tegula brunnea	-	-	-	-	-	-	2.3	2.9	**0.6**
Halcampa decemtentaculata	-	-	1.0	1.2	-	-	1.3	1.5	**0.6**
Pisaster giganteus	1.0	1.4	0.3	0.5	0.3	0.5	0.3	0.5	**0.4**
Serpulorbis squamigerus	-	-	0.8	1.0	0.5	0.6	0.3	0.5	**0.4**
Aplysia californica	1.0	1.4	0.5	1.0	-	-	-	-	**0.4**
Doriopsilla albopunctata	0.3	0.5	0.5	0.6	0.5	1.0	-	-	**0.3**
Eudistylia polymorpha	-	-	0.3	0.5	0.8	1.0	0.3	0.5	**0.3**
Ophiothrix spp.	-	-	0.5	0.6	-	-	0.8	1.0	**0.3**
Ophioplocus esmarki	0.3	0.5	0.8	1.0	-	-	0.3	0.5	**0.3**
Megathura crenulata	0.8	1.0	0.3	0.5	-	-	0.3	0.5	**0.3**
Anthopleura artemisia	0.3	0.5	-	-	0.3	0.5	0.3	0.5	**0.2**
Tonicella lineata	-	-	-	-	0.8	1.5	-	-	**0.2**
Loxorhynchus spp.	0.3	0.5	-	-	-	-	0.5	1.0	**0.2**
Archidoris montereyensis	0.5	0.6	-	-	-	-	0.3	0.5	**0.2**
Pectinidae	-	-	0.5	1.0	-	-	0.3	0.5	**0.2**
Phidiana hiltoni	0.3	0.5	0.3	0.5	-	-	-	-	**0.1**
Cucumaria spp.	-	-	-	-	0.5	1.0	-	-	**0.1**
Urticina spp.	-	-	-	-	-	-	0.3	0.5	**<0.1**
Hermissenda crassicornis	-	-	-	-	0.3	0.5	-	-	**<0.1**
Pycnopodia helianthoides	-	-	-	-	-	-	0.3	0.5	**<0.1**
Mitra idae	-	-	-	-	-	-	0.3	0.5	**<0.1**
Pelecypoda unid. boring	-	-	0.3	0.5	-	-	-	-	**<0.1**
Scyra acutifrons	-	-	-	-	-	-	0.3	0.5	**<0.1**
Eupentacta quinquesemita	-	-	0.3	0.5	-	-	-	-	**<0.1**
Pteropurpura festiva	-	-	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.

Survey	128		129		130		131		
Survey Date	17-Mar-05		27-May-05		02-Aug-05		01-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Algae									
Cystoseira osmundacea	23.8	5.0	23.8	6.0	9.3	2.2	18.0	8.8	**18.7**
Macrocystis spp.	0.5	1.0	6.5	2.1	7.8	1.5	10.5	3.7	**6.3**
Sargassum muticum	3.0	2.5	3.5	2.9	2.5	1.7	-	-	**2.3**
Pterygophora californica	0.3	0.5	-	-	-	-	-	-	**<0.1**
Laminariales	0.3	0.5	-	-	-	-	-	-	**<0.1**
Invertebrates									
Diopatra ornata	5.0	9.4	0.8	1.0	2.5	2.5	4.3	2.1	**3.1**
Anthopleura elegantissima	2.5	2.4	1.0	1.4	3.3	1.5	1.3	1.0	**2.0**
Pisaster brevispinus	0.5	0.6	1.3	0.5	2.3	1.9	0.8	0.5	**1.2**
Aplysia californica	3.5	1.9	-	-	-	-	0.3	0.5	**0.9**
Pista spp.	2.8	3.2	-	-	-	-	-	-	**0.7**
Patiria miniata	0.5	0.6	-	-	1.8	1.0	0.5	0.6	**0.7**
Pisaster giganteus	0.5	1.0	0.5	1.0	1.0	0.8	0.5	0.6	**0.6**
Anthopleura artemisia	0.3	0.5	0.3	0.5	1.8	1.0	-	-	**0.6**
Acmaea mitra	-	-	-	-	0.8	1.5	1.5	1.7	**0.6**
Mitra idae	-	-	-	-	1.8	1.5	-	-	**0.4**
Strongylocentrotus purpuratus	0.5	0.6	1.0	1.4	-	-	-	-	**0.4**
Pycnopodia helianthoides	0.3	0.5	0.3	0.5	-	-	0.5	0.6	**0.3**
Aplysia vaccaria	-	-	1.0	0.8	-	-	-	-	**0.3**
Doriopsilla albopunctata	0.8	1.5	-	-	-	-	-	-	**0.2**
Phidiana hiltoni	0.8	1.0	-	-	-	-	-	-	**0.2**
Hopkinsia rosacea	0.5	1.0	-	-	-	-	-	-	**0.1**
Navanax inermis	-	-	0.3	0.5	0.3	0.5	-	-	**0.1**
Pteropurpura festiva	0.5	1.0	-	-	-	-	-	-	**0.1**
Octopus spp.	0.3	0.5	-	-	-	-	-	-	**<0.1**
Diaulula sandiegensis	0.3	0.5	-	-	-	-	-	-	**<0.1**
Serpulidae unid.	0.3	0.5	-	-	-	-	-	-	**<0.1**
Haliotis spp.	-	-	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.

Survey	128		129		130		131		
Survey Date	18-Mar-05		31-May-05		03-Aug-05		17-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Algae									
Cystoseira osmundacea	4.3	3.9	9.8	2.6	6.8	4.1	4.8	1.7	**6.4**
Macrocystis spp.	4.5	2.7	4.8	1.9	6.8	1.0	6.0	1.4	**5.5**
Pterygophora californica	5.3	7.4	5.5	2.5	3.3	1.3	5.8	3.6	**4.9**
Laminariales	0.8	1.5	1.8	0.5	5.3	1.3	-	-	**1.9**
Laminaria setchellii	0.3	0.5	1.5	0.6	1.0	0.8	1.5	0.6	**1.1**
Nereocystis luetkeana	-	-	-	-	-	-	1.8	3.5	**0.4**
Sargassum muticum	-	-	-	-	0.3	0.5	-	-	**<0.1**
Invertebrates									
Diopatra ornata	15.3	6.9	8.0	5.4	13.8	2.8	23.8	17.7	**15.2**
Anthopleura elegantissima	13.0	4.9	17.0	5.5	18.8	11.9	8.5	3.8	**14.3**
Strongylocentrotus purpuratus	17.5	5.1	2.3	2.1	8.3	6.6	7.3	6.4	**8.8**
Patiria miniata	3.3	1.5	4.8	1.3	2.3	1.5	3.8	1.0	**3.5**
Mitra idae	3.3	1.7	3.5	1.3	3.3	1.0	2.5	1.0	**3.1**
Acmaea mitra	3.8	5.7	3.0	2.5	4.5	3.0	0.8	1.5	**3.0**
Halcampa decemtentaculata	-	-	1.3	1.5	4.8	2.8	1.8	1.3	**1.9**
Corynactis californica	-	-	-	-	7.3	14.5	-	-	**1.8**
Pisaster giganteus	1.5	1.0	2.0	0.8	3.0	1.4	0.8	1.0	**1.8**
Hermissenda crassicornis	-	-	1.8	1.0	3.3	1.9	0.3	0.5	**1.3**
Anthopleura artemisia	0.5	1.0	1.5	1.3	2.3	1.0	0.3	0.5	**1.1**
Tethya aurantia	0.5	0.6	0.8	1.0	1.5	1.3	0.8	0.5	**0.9**
Doriopsilla albopunctata	0.3	0.5	0.8	0.5	1.3	1.9	1.0	-	**0.8**
Pycnopodia helianthoides	0.5	0.6	0.3	0.5	1.3	1.0	1.0	0.8	**0.8**
Pisaster brevispinus	1.0	0.8	0.3	0.5	1.0	0.8	0.5	0.6	**0.7**
Parastichopus spp.	0.5	0.6	1.5	1.3	0.3	0.5	0.3	0.5	**0.6**
Ophioplocus esmarki	-	-	0.3	0.5	-	-	2.3	2.1	**0.6**
Cryptochiton stelleri	1.5	1.3	0.3	0.5	0.3	0.5	0.3	0.5	**0.6**
Cucumaria spp.	-	-	-	-	0.5	0.6	0.5	0.6	**0.3**
Archidoris montereyensis	-	-	-	-	0.3	0.5	0.8	1.0	**0.3**
Epiactis prolifera	-	-	0.5	0.6	-	-	0.3	0.5	**0.2**
Urticina spp.	0.3	0.5	0.3	0.5	0.3	0.5	-	-	**0.2**
Phidiana hiltoni	0.3	0.5	0.3	0.5	0.3	0.5	-	-	**0.2**
Acanthodoris rhodoceras	-	-	-	-	0.8	1.0	-	-	**0.2**
Pelecypoda unid. boring	-	-	0.3	0.5	-	-	0.3	0.5	**0.1**
Serpulidae unid.	-	-	-	-	-	-	0.5	0.6	**0.1**
Aplysia californica	0.3	0.5	0.3	0.5	-	-	-	-	**0.1**
Navanax inermis	0.3	0.5	-	-	0.3	0.5	-	-	**0.1**
Pectinidae	0.3	0.5	-	-	0.3	0.5	-	-	**0.1**
Nemertea unid.	0.3	0.5	-	-	-	-	-	-	**<0.1**
Crepidula spp.	-	-	-	-	-	-	0.3	0.5	**<0.1**
Leptasterias spp.	-	-	-	-	0.3	0.5	-	-	**<0.1**
Pisaster ochraceus	-	-	-	-	-	-	0.3	0.5	**<0.1**
Idotea spp.	-	-	-	-	-	-	0.3	0.5	**<0.1**
Orthasterias koehleri	-	-	0.3	0.5	-	-	-	-	**<0.1**
Crangon spp.	-	-	-	-	0.3	0.5	-	-	**<0.1**
Haliotis spp.	-	-	-	-	-	-	0.3	0.5	**<0.1**
Aldisa sanguinea	-	-	-	-	-	-	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.

Survey	128		129		130		131		
Survey Date	12-May-05		24-Jun-05		09-Aug-05		09-Dec-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae									
Laminaria setchellii	106.0	73.6	104.3	53.2	184.5	75.2	86.8	30.6	**120.4**
Pterygophora californica	68.0	33.1	65.5	42.7	66.3	34.1	40.3	18.2	**60.0**
Laminariales	22.8	7.1	32.3	16.3	34.3	16.4	46.0	44.5	**33.8**
Nereocystis luetkeana	29.0	44.7	53.5	72.3	19.0	19.0	3.0	4.7	**26.1**
Cystoseira osmundacea	19.0	7.8	22.8	4.9	20.8	5.0	11.8	6.2	**18.6**
Invertebrates									
Tegula brunnea	399.8	223.2	231.0	72.3	641.3	92.8	50.3	14.6	**330.6**
Patiria miniata	11.5	1.3	7.0	2.9	12.0	0.8	6.8	2.4	**9.3**
Tonicella lineata	7.5	7.1	7.5	1.7	4.5	3.0	2.3	2.9	**5.4**
Anthopleura elegantissima	3.5	1.9	6.3	1.0	2.3	1.3	2.8	1.5	**3.7**
Lottia instabilis	1.3	0.5	1.8	1.0	2.0	0.8	4.0	2.2	**2.3**
Acmaea mitra	3.0	2.5	4.5	1.7	0.8	1.5	-	-	**2.1**
Calliostoma ligatum	2.3	1.5	2.3	2.9	2.3	2.9	0.8	1.5	**1.9**
Cryptochiton stelleri	2.3	1.9	1.3	1.0	0.5	0.6	1.8	1.5	**1.4**
Epiactis prolifera	1.0	0.8	1.5	1.7	1.5	0.6	-	-	**1.0**
Pagurus spp.	2.0	0.8	0.5	1.0	0.5	0.6	0.5	0.6	**0.9**
Pycnopodia helianthoides	1.3	0.5	0.3	0.5	1.3	0.5	0.8	0.5	**0.9**
Tegula montereyi	0.8	1.5	1.5	1.7	0.8	1.5	-	-	**0.8**
Diopatra ornata	1.3	1.0	1.0	0.8	0.5	1.0	0.3	0.5	**0.8**
Pisaster giganteus	0.3	0.5	0.3	0.5	0.8	1.0	0.3	0.5	**0.4**
Mitra idae	-	-	0.8	1.0	0.5	0.6	-	-	**0.3**
Phidiana hiltoni	-	-	0.3	0.5	1.0	1.2	-	-	**0.3**
Anthopleura artemisia	0.3	0.5	0.3	0.5	0.3	0.5	-	-	**0.2**
Urticina spp.	-	-	0.3	0.5	0.5	1.0	-	-	**0.2**
Leptasterias spp.	0.3	0.5	0.3	0.5	0.3	0.5	-	-	**0.2**
Halcampa decemtentaculata	-	-	-	-	0.8	1.0	-	-	**0.2**
Pseudomelatoma torosa	0.3	0.5	-	-	0.3	0.5	-	-	**0.1**
Diodora spp.	-	-	-	-	0.3	0.5	-	-	**<0.1**
Serpulorbis squamigerus	-	-	-	-	0.3	0.5	-	-	**<0.1**
Loxorhynchus spp.	-	-	-	-	0.3	0.5	-	-	**<0.1**
Diaulula sandiegensis	0.3	0.5	-	-	-	-	-	-	**<0.1**
Pelecypoda unid. boring	0.3	0.5	-	-	-	-	-	-	**<0.1**
Eudistylia polymorpha	0.3	0.5	-	-	-	-	-	-	**<0.1**
Orthasterias koehleri	0.3	0.5	-	-	-	-	-	-	**<0.1**
Hopkinsia rosacea	-	-	-	-	0.3	0.5	-	-	**<0.1**
Haliotis spp.	-	-	-	-	0.3	0.5	-	-	**<0.1**
Eupentacta quinquesemita	-	-	-	-	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.

Survey	128		129		130		131		
Survey Date	13-May-05		22-Jun-05		10-Aug-05		07-Dec-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Algae									
Pterygophora californica	44.8	20.4	70.8	30.4	54.8	15.6	24.3	8.0	**48.6**
Laminaria setchellii	39.0	20.2	47.5	19.4	37.5	8.4	41.8	14.2	**41.4**
Laminariales	15.3	7.1	82.0	43.4	29.8	12.6	6.3	7.5	**33.3**
Nereocystis luetkeana	6.0	9.5	29.3	23.6	47.0	21.5	8.5	5.3	**22.7**
Cystoseira osmundacea	1.8	0.5	2.3	2.9	5.3	1.0	3.0	2.2	**3.1**
Invertebrates									
Tegula brunnea	10.5	7.9	9.0	5.5	117.0	20.5	9.8	2.9	**36.6**
Patiria miniata	23.5	16.5	18.0	9.3	14.3	3.3	20.5	5.8	**19.1**
Anthopleura elegantissima	10.0	5.9	12.5	8.7	11.0	5.5	7.5	4.7	**10.3**
Calliostoma ligatum	9.0	8.8	1.5	1.7	6.0	4.2	5.3	3.8	**5.4**
Pisaster giganteus	2.5	2.7	1.5	1.0	4.5	4.5	4.3	3.9	**3.2**
Corynactis californica	-	-	-	-	12.0	8.8	-	-	**3.0**
Acmaea mitra	0.8	1.5	1.5	1.7	6.8	1.5	3.0	4.2	**3.0**
Tonicella lineata	3.0	2.5	3.0	2.5	3.0	-	0.8	1.5	**2.4**
Serpulorbis squamigerus	-	-	6.3	10.0	0.8	1.0	1.3	2.5	**2.1**
Diopatra ornata	-	-	2.0	2.8	0.8	1.0	5.5	6.0	**2.1**
Cryptochiton stelleri	3.5	3.1	1.5	1.0	0.8	1.0	0.8	1.0	**1.6**
Lottia instabilis	3.3	1.5	-	-	1.0	0.8	-	-	**1.1**
Pycnopodia helianthoides	0.8	1.0	1.3	1.9	1.3	1.5	0.8	1.0	**1.0**
Tethya aurantia	0.5	0.6	0.8	1.0	0.8	1.5	1.5	1.9	**0.9**
Mitra idae	1.5	1.0	1.3	1.3	0.8	1.0	-	-	**0.9**
Tegula montereyi	1.5	1.7	-	-	1.5	1.7	-	-	**0.8**
Pista spp.	-	-	2.5	3.3	-	-	-	-	**0.6**
Epiactis prolifera	1.3	1.3	-	-	0.8	1.0	-	-	**0.5**
Anthopleura artemisia	0.3	0.5	1.0	1.2	-	-	-	-	**0.3**
Urticina spp.	-	-	0.8	1.0	0.3	0.5	0.3	0.5	**0.3**
Pisaster/Henricia (juv.)	0.5	1.0	0.3	0.5	0.5	1.0	-	-	**0.3**
Ceratostoma foliatum	0.5	0.6	0.5	0.6	0.3	0.5	-	-	**0.3**
Archidoris montereyensis	0.5	0.6	0.3	0.5	-	-	0.5	1.0	**0.3**
Pectinidae	0.3	0.5	-	-	1.0	2.0	-	-	**0.3**
Pagurus spp.	0.8	1.0	-	-	0.3	0.5	-	-	**0.3**
Pisaster ochraceus	-	-	-	-	0.8	1.0	0.3	0.5	**0.3**
Halcampa decemtentaculata	-	-	1.0	2.0	-	-	-	-	**0.3**
Haliotis spp.	-	-	-	-	-	-	1.0	2.0	**0.3**
Orthasterias koehleri	-	-	0.3	0.5	0.5	1.0	-	-	**0.2**
Scyra acutifrons	0.5	1.0	-	-	-	-	0.3	0.5	**0.2**
Leptasterias spp.	-	-	-	-	0.5	0.6	-	-	**0.1**
Placiphorella velata	-	-	0.5	1.0	-	-	-	-	**0.1**
Anthozoa unid.	0.3	0.5	-	-	-	-	-	-	**<0.1**
Mopalia spp.	0.3	0.5	-	-	-	-	-	-	**<0.1**
Acmaeidae unid.	0.3	0.5	-	-	-	-	-	-	**<0.1**
Henricia leviuscula	-	-	0.3	0.5	-	-	-	-	**<0.1**
Porifera unid. (encrusting)	-	-	-	-	0.3	0.5	-	-	**<0.1**
Pisaster brevispinus	-	-	-	-	-	-	0.3	0.5	**<0.1**
Eudistylia polymorpha	-	-	-	-	0.3	0.5	-	-	**<0.1**
Mimulus foliatus	-	-	-	-	0.3	0.5	-	-	**<0.1**
Serpulidae unid.	-	-	0.3	0.5	-	-	-	-	**<0.1**
Cadlina spp.	-	-	-	-	-	-	0.3	0.5	**<0.1**

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.

Survey	128		129		130				
Survey Date	6-Apr-05		16-Jun-05		8-Aug-05				
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae									
Calliarthron/Bossiella spp.-complex	65.5	20.3	62.0	9.1	60.0	8.6			**62.5**
coralline crust	16.0	4.9	32.0	4.3	35.0	8.1			**27.7**
Cryptopleura ruprechtiana	4.0	3.7	14.5	5.0	15.5	4.4			**11.3**
Chondracanthus corymbiferus	5.0	4.8	14.0	5.9	12.0	4.3			**10.3**
Desmarestia spp.	-	-	13.5	8.7	17.5	7.2			**10.3**
Rhodymenia spp.	9.0	3.8	9.5	1.0	8.0	1.6			**8.8**
Laminaria setchellii	2.0	1.6	3.5	1.9	8.0	2.3			**4.5**
Non-coralline crust	4.0	4.3	3.0	3.5	3.0	2.0			**3.3**
Neoptilota densa	1.5	1.9	6.5	5.0	1.5	1.0			**3.2**
Prionitis spp.	0.5	1.0	2.5	1.0	5.0	2.6			**2.7**
Cystoseira osmundacea	<0.1	-	4.0	4.9	1.5	1.9			**1.8**
Gelidium robustum	1.0	1.2	1.5	1.9	1.5	1.9			**1.3**
Nereocystis luetkeana	-	-	2.5	3.8	1.0	2.0			**1.2**
Prionitis australis	<0.1	-	1.0	2.0	0.5	1.0			**0.5**
Callophyllis spp.	<0.1	<.01	0.5	1.0	1.0	2.0			**0.5**
Macrocystis spp.	<0.1	<.01	1.5	3.0	<0.1	<.01			**0.5**
Osmundea spp.	0.5	1.0	-	-	<0.1	<.01			**0.2**
Farlowia/Pikea spp.-complex	<0.1	-	<0.1	<.01	<0.1	<.01			**<0.1**
Microcladia coulteri	<0.1	<.01	<0.1	<.01	<0.1	-			**<0.1**
Porphyra spp.	-	-	<0.1	<.01	<0.1	<.01			**<0.1**
Ahnfeltiopsis linearis	<0.1	<.01	<0.1	<.01	<0.1	<.01			**<0.1**
Ulva/Enteromorpha spp.	-	-	<0.1	<.01	<0.1	<.01			**<0.1**
Halymenia/Schizymenia spp.-complex	<0.1	<.01	<0.1	<.01	-	-			**<0.1**
Laminariales	-	-	<0.1	<.01	<0.1	<.01			**<0.1**
Callophyllis flabellulata	<0.1	<.01	<0.1	<.01	<0.1	<.01			**<0.1**
Sarcodiotheca gaudichaudii	-	-	<0.1	<.01	-	-			**<0.1**
Corallina officinalis	-	-	<0.1	<.01	-	-			**<0.1**
Scinaia confusa	-	-	-	-	<0.1	<.01			**<0.1**
Dictyota binghamiae	-	-	<0.1	<.01	-	-			**<0.1**
filamentous red algae-complex	-	-	<0.1	<.01	-	-			**<0.1**
Invertebrates									
Tetraclita rubescens	1.0	2.0	-	-	-	-			**0.3**
Substrate									
colonized rock	72.5	11.7	84.0	6.3	83.5	8.1			**80.0**
colonized cobble	5.0	2.6	14.0	5.9	13.5	8.4			**10.8**
cobble	16.0	9.5	2.0	1.6	3.0	2.0			**7.0**
rock	6.5	5.5	-	-	-	-			**2.2**

Table F2. Subtidal Algae (SLC Method) Survey Means (percent cover), Standard Deviations and Annual Means, North Diablo Cove Station NDC 2 -3m.

Survey	128		129		130		131		
Survey Date	25-Mar-05		9-Jun-05		11-Aug-05		29-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Algae									
coralline crust	38.5	4.1	38.5	4.4	36.0	9.9	58.0	4.3	**42.8**
Calliarthron/Bossiella spp.-complex	28.0	5.4	31.0	5.8	29.0	11.4	25.5	4.1	**28.4**
Chrysophyta unid.	10.0	5.9	25.5	7.9	27.0	12.9	1.5	3.0	**16.0**
Farlowia/Pikea spp.-complex	15.0	7.6	13.0	4.2	2.0	2.8	12.0	5.4	**10.5**
Acrosorium uncinatum	18.5	7.4	-	-	1.0	1.2	17.5	8.4	**9.3**
Cystoseira osmundacea	2.5	1.9	6.5	3.4	10.0	5.4	7.5	4.4	**6.6**
Prionitis spp.	1.5	3.0	5.5	2.5	9.5	6.0	9.0	5.0	**6.4**
Non-coralline crust	0.5	1.0	3.0	2.0	2.0	2.3	8.5	2.5	**3.5**
Colpomenia spp.	<0.1	< .01	7.0	1.2	5.5	2.5	<0.1	< .01	**3.1**
Cryptopleura violacea	-	-	1.0	1.2	1.5	1.9	7.5	8.2	**2.5**
Macrocystis spp.	-	-	<0.1	< .01	2.0	1.6	4.0	5.4	**1.5**
Chondracanthus corymbiferus	-	-	1.0	1.2	2.0	2.8	<0.1	< .01	**0.8**
Halymenia/Schizymenia spp.-complex	-	-	2.5	3.0	-	-	-	-	**0.6**
filamentous red algae-complex	1.5	3.0	-	-	0.5	1.0	<0.1	-	**0.5**
Gelidium robustum	0.5	1.0	<0.1	< .01	0.5	1.0	1.0	2.0	**0.5**
Sargassum muticum	<0.1	< .01	0.5	1.0	<0.1	< .01	1.0	2.0	**0.4**
Ahnfeltiopsis linearis	<0.1	< .01	0.5	1.0	1.0	1.2	<0.1	< .01	**0.4**
Rhodymenia spp.	<0.1	< .01	-	-	1.0	1.2	0.5	1.0	**0.4**
Callophyllis spp.	-	-	0.5	1.0	1.0	1.2	<0.1	< .01	**0.4**
Mazzaella rosea	-	-	<0.1	< .01	1.0	2.0	-	-	**0.3**
Corallina officinalis	<0.1	< .01	<0.1	< .01	-	-	0.5	1.0	**0.1**
Ulva/Enteromorpha spp.	-	-	<0.1	< .01	0.5	1.0	<0.1	< .01	**0.1**
Desmarestia spp.	-	-	<0.1	< .01	0.5	1.0	-	-	**0.1**
Sarcodiotheca gaudichaudii	-	-	-	-	0.5	1.0	<0.1	< .01	**0.1**
Cladophora spp.	<0.1	< .01	<0.1	< .01	-	-	<0.1	< .01	**<0.1**
Pterosiphonia dendroidea	<0.1	< .01	-	-	-	-	<0.1	< .01	**<0.1**
Neoptilota densa	-	-	-	-	-	-	<0.1	< .01	**<0.1**
Callophyllis flabellulata	-	-	<0.1	< .01	-	-	-	-	**<0.1**
Halicystis ovalis	-	-	-	-	-	-	<0.1	< .01	**<0.1**
Nienburgia andersoniana	-	-	<0.1	< .01	-	-	-	-	**<0.1**
Antitham./Platytham. spp.-complex	<0.1	< .01	-	-	-	-	-	-	**<0.1**
Invertebrates									
Phragmatopoma californica	-	-	-	-	-	-	1.0	1.2	**0.3**
Substrate									
colonized rock	56.5	8.4	57.5	4.1	76.5	9.2	63.5	6.0	**63.5**
colonized cobble	24.0	6.3	24.5	1.0	8.5	3.4	26.0	2.8	**20.8**
sand (shell gravel)	6.5	1.9	15.0	6.2	7.5	8.4	4.0	2.3	**8.3**
cobble	11.0	9.6	3.0	2.6	6.5	4.4	6.5	3.4	**6.8**
rock	2.0	2.3	-	-	1.0	1.2	-	-	**0.8**

Table F3. Subtidal Algae (SLC Method) Survey Means (percent cover), Standard Deviations and Annual Means, North Diablo Cove Station NDC 3 -3m.

Survey	128		129		130		131		
Survey Date	25-Apr-05		15-Jun-05		11-Aug-05		28-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae									
coralline crust	35.5	7.0	53.0	10.9	32.0	5.2	54.5	11.9	**43.8**
Chrysophyta unid.	27.5	9.3	24.5	3.4	44.5	6.6	2.5	3.8	**24.8**
Calliarthron/Bossiella spp.-complex	19.0	11.9	21.0	8.3	21.0	12.9	6.0	4.9	**16.8**
Sargassum muticum	9.5	1.9	9.0	5.3	16.5	12.8	9.5	6.0	**11.1**
Cystoseira osmundacea	7.0	5.3	8.5	1.9	14.0	8.6	9.0	5.0	**9.6**
filamentous red algae-complex	30.5	4.4	4.0	1.6	-	-	<0.1	-	**8.6**
Cryptopleura violacea	5.5	1.9	8.0	1.6	6.5	3.4	10.0	-	**7.5**
Prionitis spp.	<0.1	< .01	5.0	5.3	11.5	5.5	5.5	3.8	**5.5**
Colpomenia spp.	<0.1	< .01	6.0	4.0	14.5	4.4	0.5	1.0	**5.3**
Acrosorium uncinatum	<0.1	-	<0.1	< .01	1.0	2.0	15.0	1.2	**4.0**
Farlowia/Pikea spp.-complex	2.5	3.0	2.0	2.3	0.5	1.0	5.5	3.0	**2.6**
Non-coralline crust	1.5	3.0	0.5	1.0	0.5	1.0	6.5	6.8	**2.3**
Chondracanthus corymbiferus	<0.1	< .01	<0.1	< .01	2.0	2.8	0.5	1.0	**0.6**
Nienburgia andersoniana	-	-	2.5	1.9	-	-	-	-	**0.6**
Halymenia/Schizymenia spp.-complex	<0.1	< .01	2.0	2.8	<0.1	< .01	<0.1	< .01	**0.5**
Mazzaella rosea	-	-	<0.1	< .01	<0.1	< .01	2.0	2.8	**0.5**
Gelidium robustum	<0.1	< .01	<0.1	< .01	1.0	2.0	0.5	1.0	**0.4**
Ahnfeltiopsis linearis	-	-	<0.1	< .01	1.5	3.0	-	-	**0.4**
Ulva/Enteromorpha spp.	<0.1	< .01	0.5	1.0	<0.1	-	<0.1	-	**0.1**
Corallina officinalis	-	-	<0.1	< .01	0.5	1.0	<0.1	< .01	**0.1**
Rhodymenia spp.	0.5	1.0	-	-	<0.1	< .01	-	-	**0.1**
Pterosiphonia dendroidea	-	-	-	-	0.5	1.0	-	-	**0.1**
Gastroclonium subarticulatum	-	-	-	-	0.5	1.0	-	-	**0.1**
Callophyllis spp.	-	-	-	-	-	-	0.5	1.0	**0.1**
Desmarestia spp.	-	-	<0.1	< .01	-	-	-	-	**<0.1**
Macrocystis spp.	-	-	-	-	<0.1	< .01	<0.1	< .01	**<0.1**
Osmundea spp.	-	-	<0.1	< .01	-	-	-	-	**<0.1**
Dictyota binghamiae	-	-	-	-	<0.1	< .01	-	-	**<0.1**
Chondracanthus harveyanus/spinosus	-	-	-	-	-	-	<0.1	< .01	**<0.1**
Cladophora spp.	-	-	<0.1	< .01	-	-	-	-	**<0.1**
Sarcodiotheca gaudichaudii	-	-	<0.1	< .01	-	-	-	-	**<0.1**
Antitham./Platytham. spp.-complex	-	-	-	-	<0.1	< .01	-	-	**<0.1**
Substrate									
colonized rock	63.5	1.0	63.5	9.6	69.5	6.6	71.0	5.3	**66.9**
colonized cobble	20.5	6.0	21.5	8.2	18.5	9.2	8.0	4.3	**17.1**
sand (shell gravel)	10.5	7.7	10.0	7.3	11.0	5.8	2.5	3.8	**8.5**
cobble	2.0	2.8	2.5	3.0	1.0	1.2	9.5	6.6	**3.8**
rock	3.0	2.6	2.5	3.0	-	-	9.0	2.6	**3.6**

Table F4. Subtidal Algae (SLC Method) Survey Means (percent cover), Standard Deviations and Annual Means, North Diablo Cove Station NDC 4 -4m.

Survey	128		129		130		131		
Survey Date	5-Apr-05		1-Jun-05		28-Jul-05		23-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae									
Calliarthron/Bossiella spp.-complex	38.5	5.0	43.5	12.2	35.0	12.9	21.5	9.7	**34.6**
coralline crust	26.5	4.4	35.0	7.8	23.5	10.8	34.0	15.2	**29.8**
Farlowia/Pikea spp.-complex	17.5	3.4	15.5	3.4	13.0	5.3	9.5	1.9	**13.9**
Acrosorium uncinatum	33.5	5.7	10.0	7.5	-	-	4.5	4.1	**12.0**
Chrysophyta unid.	22.5	6.6	15.0	3.5	10.0	4.0	0.5	1.0	**12.0**
Cryptopleura violacea	2.0	1.6	19.0	3.8	10.5	5.0	2.5	3.8	**8.5**
Cystoseira osmundacea	3.0	3.8	6.5	6.6	9.5	9.0	5.5	8.5	**6.1**
Chondracanthus corymbiferus	1.5	1.9	10.0	3.7	6.5	5.5	1.5	3.0	**4.9**
filamentous red algae-complex	13.0	2.6	2.0	1.6	2.5	3.0	1.5	3.0	**4.8**
Rhodymenia spp.	4.0	2.8	4.0	3.3	2.0	1.6	8.5	7.4	**4.6**
Prionitis spp.	1.5	1.9	5.5	3.8	4.0	3.7	6.0	4.3	**4.3**
Desmarestia spp.	-	-	3.0	2.6	6.5	5.5	-	-	**2.4**
Non-coralline crust	<0.1	< .01	<0.1	< .01	1.5	1.9	4.5	4.1	**1.5**
Gelidium robustum	1.0	1.2	<0.1	< .01	2.0	1.6	1.0	1.2	**1.0**
Ahnfeltiopsis linearis	0.5	1.0	2.0	4.0	1.5	1.9	<0.1	< .01	**1.0**
Prionitis australis	2.0	1.6	0.5	1.0	-	-	1.0	2.0	**0.9**
Macrocystis spp.	<0.1	< .01	0.5	1.0	1.0	1.2	1.5	1.9	**0.8**
Chondracanthus harveyanus/spinosus	<0.1	< .01	1.5	3.0	-	-	1.5	1.9	**0.8**
Callophyllis spp.	<0.1	< .01	<0.1	< .01	1.0	2.0	<0.1	< .01	**0.3**
Plocamium cartilagineum	-	-	-	-	-	-	0.5	1.0	**0.1**
Colpomenia spp.	-	-	<0.1	-	<0.1	-	-	-	**<0.1**
Callophyllis flabellulata	<0.1	< .01	<0.1	< .01	-	-	<0.1	< .01	**<0.1**
Halymenia/Schizymenia spp.-complex	-	-	<0.1	-	<0.1	< .01	-	-	**<0.1**
Ulva/Enteromorpha spp.	-	-	<0.1	< .01	<0.1	< .01	<0.1	< .01	**<0.1**
Cladophora spp.	<0.1	< .01	<0.1	< .01	<0.1	< .01	-	-	**<0.1**
Corallina officinalis	<0.1	< .01	-	-	<0.1	< .01	-	-	**<0.1**
Mazzaella rosea	-	-	<0.1	< .01	-	-	<0.1	< .01	**<0.1**
Osmundea spp.	-	-	-	-	<0.1	< .01	-	-	**<0.1**
Pterosiphonia dendroidea	-	-	-	-	<0.1	< .01	-	-	**<0.1**
Sargassum muticum	-	-	<0.1	< .01	-	-	-	-	**<0.1**
Invertebrates									
Phragmatopoma californica	0.5	1.0	1.5	1.9	-	-	35.5	22.8	**9.4**
Substrate									
colonized rock	68.5	6.6	74.0	2.8	79.0	10.5	79.5	7.6	**75.3**
sand (shell gravel)	14.5	7.7	17.5	4.1	9.5	4.4	5.0	3.8	**11.6**
colonized cobble	16.5	4.4	7.0	1.2	4.0	5.7	4.5	4.4	**8.0**
cobble	0.5	1.0	1.5	1.9	4.0	3.3	7.0	5.3	**3.3**
rock	-	-	-	-	3.5	1.0	4.0	3.3	**1.9**

Table F5. Subtidal Algae (SLC Method) Survey Means (percent cover), Standard Deviations and Annual Means, South Diablo Cove Station SDC 2 -3m.

Survey	128		129		130		131		
Survey Date	17-Mar-05		27-May-05		2-Aug-05		1-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Algae									
coralline crust	43.5	6.61	24	4	23.5	3	56.5	5.97	**36.9**
Calliarthron/Bossiella spp.-complex	6.5	1.91	18.5	6.61	11.5	6.19	5.5	1.91	**10.5**
Rhodymenia spp.	2	2.83	6.5	5.26	23	12.7	5	3.46	**9.1**
Cystoseira osmundacea	7.5	2.52	13.5	1.91	11	4.76	4	1.63	**9**
Prionitis spp.	10.5	5.51	12	5.89	7.5	1	5	2.58	**8.8**
Chrysophyta unid.	0.5	1	5	4.76	24	14.14	-	-	**7.4**
filamentous red algae-complex	-	-	19.5	3	-	-	0.5	1	**5**
Ahnfeltiopsis linearis	1	1.15	10	6.93	1.5	1	4.5	7.72	**4.3**
Macrocystis spp.	1	1.15	3	3.46	5.5	5.26	4.5	4.43	**3.5**
Cryptopleura violacea	-	-	-	-	-	-	6.5	3.42	**1.6**
Corallina officinalis	1.5	1.91	3.5	2.52	<0.1	< .01	1	1.15	**1.5**
Acrosorium uncinatum	1	2	4.5	4.43	0.5	1	-	-	**1.5**
Sargassum muticum	2.5	2.52	<0.1	< .01	0.5	1	<0.1	< .01	**0.8**
Gelidium robustum	0.5	1	1.5	1.91	0.5	1	<0.1	< .01	**0.6**
Chondracanthus corymbiferus	0.5	1	<0.1	-	0.5	1	1	1.15	**0.5**
Chondracanthus harveyanus/spinosus	-	-	0.5	1	0.5	1	0.5	1	**0.4**
Non-coralline crust	<0.1	-	<0.1	< .01	<0.1	< .01	1	2	**0.3**
Gelidium spp.	<0.1	-	<0.1	< .01	<0.1	< .01	1	2	**0.3**
Polyneura latissima	-	-	-	-	-	-	1	2	**0.3**
Ulva/Enteromorpha spp.	-	-	0.5	1	<0.1	< .01	-	-	**0.1**
Nienburgia andersoniana	-	-	-	-	-	-	0.5	1	**0.1**
Colpomenia spp.	-	-	<0.1	-	<0.1	< .01	-	-	**<0.1**
Cladophora spp.	<0.1	< .01	<0.1	< .01	-	-	-	-	**<0.1**
Microcladia coulteri	-	-	<0.1	< .01	-	-	-	-	**<0.1**
Antitham./Platytham. spp.-complex	-	-	<0.1	< .01	-	-	-	-	**<0.1**
Callophyllis flabellulata	-	-	-	-	-	-	<0.1	< .01	**<0.1**
Pterosiphonia dendroidea	-	-	-	-	-	-	<0.1	< .01	**<0.1**
Gymnogongrus chiton	-	-	-	-	-	-	<0.1	< .01	**<0.1**
Substrate									
colonized rock	50	7.83	54.5	10.12	51	34.51	62	1.63	**54.4**
sand (shell gravel)	17.5	7.55	41	11.94	31.5	5.51	15.5	9.43	**26.4**
rock	16	5.89	0.5	1	17.5	32.35	11.5	8.39	**11.4**
cobble	14	7.48	3.5	1.91	-	-	7	3.46	**6.1**
colonized cobble	2.5	2.52	0.5	1	-	-	3	1.15	**1.5**

Table F6. Subtidal Algae (SLC Method) Survey Means (percent cover), Standard Deviations and Annual Means, South Diablo Cove Station SDC 3 -4m.

Survey	128		129		130		131		
Survey Date	18-Mar-05		31-May-05		3-Aug-05		17-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Algae									
coralline crust	56.0	8.5	47.5	7.2	48.5	6.6	50.5	6.2	**50.6**
Calliarthron/Bossiella spp.-complex	13.5	9.6	37.5	7.7	18.5	3.8	31.0	3.5	**25.1**
Rhodymenia spp.	8.0	11.3	7.5	3.4	10.0	6.7	11.5	7.0	**9.3**
Macrocystis spp.	1.5	1.9	8.5	3.4	6.0	4.3	4.0	2.8	**5.0**
Chondracanthus corymbiferus	1.0	1.2	6.0	5.4	2.0	1.6	8.0	4.3	**4.3**
Cystoseira osmundacea	1.5	1.0	1.5	1.9	7.5	7.6	3.5	4.1	**3.5**
Prionitis spp.	1.0	1.2	3.5	4.1	0.5	1.0	3.5	4.1	**2.1**
Acrosorium uncinatum	<0.1	-	7.0	2.6	-	-	1.0	1.2	**2.0**
Chrysophyta unid.	-	-	1.0	2.0	6.0	3.7	-	-	**1.8**
Non-coralline crust	1.5	1.9	<0.1	<.01	2.5	1.9	1.5	1.9	**1.4**
Farlowia/Pikea spp.-complex	1.0	1.2	0.5	1.0	0.5	1.0	2.5	3.8	**1.1**
filamentous red algae-complex	-	-	2.0	4.0	-	-	2.5	1.0	**1.1**
Ahnfeltiopsis linearis	-	-	<0.1	-	-	-	2.5	3.8	**0.6**
Cryptopleura violacea	<0.1	<.01	-	-	0.5	1.0	2.0	2.8	**0.6**
Nienburgia andersoniana	-	-	<0.1	<.01	-	-	2.5	2.5	**0.6**
Cryptopleura ruprechtiana	<0.1	<.01	1.0	2.0	<0.1	<.01	1.0	1.2	**0.5**
Callophyllis flabellulata	-	-	<0.1	<.01	-	-	1.0	2.0	**0.3**
Pterygophora californica	<0.1	<.01	<0.1	<.01	<0.1	<.01	0.5	1.0	**0.1**
Gelidium robustum	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Laminaria setchellii	-	-	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Laminariales	-	-	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Pterosiphonia dendroidea	<0.1	<.01	<0.1	<.01	-	-	<0.1	<.01	**<0.1**
Antitham./Platytham. spp.-complex	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Desmarestia spp.	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Corallina officinalis	-	-	<0.1	<.01	-	-	<0.1	<.01	**<0.1**
Gelidium spp.	<0.1	<.01	-	-	-	-	-	-	**<0.1**
Neoptilota densa	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Microcladia coulteri	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Callophyllis spp.	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Rhodoptilum plumosum	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Colpomenia spp.	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Dictyota binghamiae	-	-	<0.1	<.01	-	-	-	-	**<0.1**
Invertebrates									
Bryozoa, unid. (encrusting)	-	-	-	-	-	-	1.5	1.9	**0.4**
Diopatra ornata	-	-	0.5	1.0	-	-	0.5	1.0	**0.3**
Porifera unid. (encrusting)	-	-	-	-	-	-	0.5	1.0	**0.1**
Phragmatopoma californica	-	-	-	-	-	-	0.5	1.0	**0.1**
Substrate									
colonized rock	67.0	8.4	82.5	6.6	73.0	9.3	77.0	8.1	**74.9**
cobble	15.5	13.6	2.5	2.5	10.5	8.5	6.0	3.7	**8.6**
sand (shell gravel)	5.0	5.3	10.0	7.5	11.0	11.9	8.5	6.8	**8.6**
rock	11.0	4.2	1.0	1.2	3.5	4.4	3.5	5.7	**4.8**
colonized cobble	1.5	1.0	4.0	3.3	2.0	2.3	5.0	1.2	**3.1**

Table F7. Subtidal Algae (SLC Method) Survey Means (percent cover), Standard Deviations and Annual Means, South Control Station SC 1 -3m.

Survey	128		129		130		131		
Survey Date	12-May-05		24-Jun-05		9-Aug-05		9-Dec-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Algae									
coralline crust	48.0	11.8	31.5	12.6	46.0	6.3	31.0	5.8	**39.1**
Calliarthron/Bossiella spp.-complex	34.5	14.4	35.0	17.5	29.0	11.6	33.0	11.9	**32.9**
Rhodymenia spp.	16.5	4.1	26.0	2.3	16.5	6.4	18.0	2.8	**19.3**
Desmarestia spp.	8.0	5.4	18.0	19.3	12.5	11.6	1.0	2.0	**9.9**
Laminaria setchellii	3.0	3.8	5.5	1.9	6.5	2.5	2.5	2.5	**4.4**
Cystoseira osmundacea	3.5	4.7	3.0	2.0	6.0	2.8	5.0	3.5	**4.4**
Pterygophora californica	6.0	1.6	3.5	3.0	2.5	1.9	4.5	3.0	**4.1**
Gelidium robustum	4.5	5.3	4.0	3.7	1.0	2.0	1.5	3.0	**2.8**
Chondracanthus corymbiferus	5.5	4.4	<0.1	< .01	2.0	4.0	3.0	3.8	**2.6**
Nereocystis luetkeana	1.5	3.0	1.5	3.0	2.0	2.8	<0.1	< .01	**1.3**
Ulva/Enteromorpha spp.	3.5	4.7	-	-	<0.1	< .01	<0.1	< .01	**0.9**
Non-coralline crust	1.0	2.0	0.5	1.0	2.0	2.3	<0.1	< .01	**0.9**
Porphyra spp.	3.0	3.8	-	-	<0.1	< .01	-	-	**0.8**
filamentous red algae-complex	1.5	3.0	-	-	-	-	-	-	**0.4**
Cryptopleura ruprechtiana	1.0	2.0	-	-	0.5	1.0	<0.1	< .01	**0.4**
Corallina officinalis	0.5	1.0	0.5	1.0	-	-	<0.1	< .01	**0.3**
Mazzaella lilacina	1.0	2.0	-	-	-	-	-	-	**0.3**
Laminariales	0.5	1.0	<0.1	-	<0.1	< .01	<0.1	< .01	**0.1**
Ahnfeltiopsis linearis	<0.1	< .01	0.5	1.0	<0.1	< .01	-	-	**0.1**
Farlowia/Pikea spp.-complex	<0.1	< .01	<0.1	< .01	<0.1	< .01	<0.1	< .01	**<0.1**
Plocamium cartilagineum	<0.1	< .01	-	-	<0.1	< .01	-	-	**<0.1**
Osmundea spp.	<0.1	< .01	<0.1	< .01	<0.1	< .01	<0.1	< .01	**<0.1**
Prionitis spp.	-	-	-	-	<0.1	< .01	<0.1	< .01	**<0.1**
Callophyllis spp.	<0.1	< .01	-	-	<0.1	< .01	<0.1	< .01	**<0.1**
Microcladia coulteri	<0.1	< .01	<0.1	< .01	<0.1	< .01	-	-	**<0.1**
Delesseria decipiens	<0.1	< .01	-	-	-	-	-	-	**<0.1**
Neoptilota densa	<0.1	< .01	-	-	-	-	<0.1	< .01	**<0.1**
Phyllospadix spp.	<0.1	< .01	<0.1	< .01	-	-	-	-	**<0.1**
Scinaia confusa	<0.1	< .01	-	-	<0.1	< .01	-	-	**<0.1**
Pterosiphonia dendroidea	<0.1	< .01	-	-	-	-	<0.1	< .01	**<0.1**
Gastroclonium subarticulatum	-	-	<0.1	< .01	-	-	-	-	**<0.1**
Callophyllis firma	-	-	-	-	-	-	<0.1	< .01	**<0.1**
Prionitis australis	<0.1	< .01	-	-	-	-	-	-	**<0.1**
Invertebrates									
Phragmatopoma californica	6.5	3.8	2.5	1.9	10.5	3.4	11.5	7.7	**7.8**
tunicates, colonial/social unid.	1.0	2.0	-	-	-	-	-	-	**0.3**
Porifera unid. (encrusting)	-	-	-	-	1.0	2.0	-	-	**0.3**
Substrate									
colonized rock	87.0	5.3	82.5	6.2	84.0	1.6	73.0	6.8	**81.6**
sand (shell gravel)	7.5	2.5	5.0	2.0	5.5	4.1	14.5	4.7	**8.1**
colonized cobble	2.5	3.0	1.5	3.0	8.0	1.6	6.0	3.7	**4.5**
rock	1.0	1.2	9.0	6.2	2.5	3.0	2.5	3.0	**3.8**
cobble	2.0	-	2.0	-	-	-	4.0	1.6	**2.0**

Table F8. Subtidal Algae (SLC Method) Survey Means (percent cover), Standard Deviations and Annual Means, South Control Station SC 2 -6m.

Survey	128		129		130		131		
Survey Date	13-May-05		21-Jun-05		10-Aug-05		7-Dec-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Algae									
coralline crust	42.5	8.1	50.0	6.3	44.5	6.4	68.5	4.7	**51.4**
Calliarthron/Bossiella spp.-complex	36.5	8.2	33.0	3.8	30.0	5.2	20.0	17.7	**29.9**
Desmarestia spp.	9.5	6.8	21.0	5.8	20.0	11.9	<0.1	< .01	**12.6**
Rhodymenia spp.	6.0	4.9	7.5	5.0	2.0	2.8	3.0	3.8	**4.6**
Laminaria setchellii	4.5	5.3	3.5	4.1	5.5	1.9	4.0	1.6	**4.4**
Pterygophora californica	5.0	5.0	2.5	3.0	5.5	4.4	4.5	1.0	**4.4**
Non-coralline crust	2.0	1.6	1.0	2.0	6.0	4.3	4.5	7.7	**3.4**
Nereocystis luetkeana	0.5	1.0	1.0	2.0	2.0	4.0	2.0	2.8	**1.4**
Laminariales	3.5	3.4	1.5	3.0	<0.1	< .01	-	-	**1.3**
filamentous red algae-complex	2.5	5.0	1.5	3.0	-	-	-	-	**1.0**
Cystoseira osmundacea	1.5	1.9	0.5	1.0	0.5	1.0	0.5	1.0	**0.8**
Chondracanthus corymbiferus	2.5	3.0	<0.1	< .01	<0.1	< .01	<0.1	< .01	**0.6**
Dictyota binghamiae	0.5	1.0	1.0	1.2	0.5	1.0	-	-	**0.5**
Cryptopleura ruprechtiana	-	-	1.0	1.2	<0.1	< .01	-	-	**0.3**
Prionitis spp.	<0.1	< .01	1.0	2.0	<0.1	< .01	<0.1	< .01	**0.3**
Rhodoptilum plumosum	<0.1	-	<0.1	< .01	<0.1	< .01	-	-	**<0.1**
Ulva/Enteromorpha spp.	<0.1	< .01	<0.1	< .01	<0.1	< .01	-	-	**<0.1**
Callophyllis flabellulata	<0.1	< .01	<0.1	< .01	-	-	<0.1	< .01	**<0.1**
Fryeella gardneri	<0.1	< .01	<0.1	< .01	-	-	-	-	**<0.1**
Farlowia/Pikea spp.-complex	<0.1	< .01	<0.1	< .01	-	-	<0.1	< .01	**<0.1**
Polyneura latissima	<0.1	< .01	-	-	-	-	<0.1	< .01	**<0.1**
Callophyllis firma	-	-	<0.1	< .01	<0.1	< .01	<0.1	< .01	**<0.1**
Gelidium robustum	<0.1	< .01	<0.1	< .01	-	-	-	-	**<0.1**
Callophyllis spp.	-	-	<0.1	< .01	<0.1	< .01	-	-	**<0.1**
Scinaia confusa	-	-	<0.1	< .01	<0.1	< .01	-	-	**<0.1**
Pterosiphonia dendroidea	<0.1	< .01	<0.1	< .01	-	-	-	-	**<0.1**
Mazzaella rosea	<0.1	< .01	-	-	-	-	-	-	**<0.1**
Phycodrys spp.	<0.1	< .01	-	-	-	-	-	-	**<0.1**
Porphyra spp.	-	-	<0.1	< .01	-	-	-	-	**<0.1**
Plocamium cartilagineum	<0.1	< .01	-	-	-	-	-	-	**<0.1**
Fauchea laciniata	-	-	-	-	<0.1	< .01	-	-	**<0.1**
Invertebrates									
Bryozoa, unid. (encrusting)	6.0	4.0	6.0	4.3	4.5	2.5	10.0	1.6	**6.6**
Phragmatopoma californica	9.5	5.3	7.0	6.8	8.0	7.1	1.5	1.9	**6.5**
Porifera unid. (encrusting)	6.5	4.7	5.5	3.4	2.5	3.0	1.5	1.9	**4.0**
tunicates, colonial/social unid.	1.5	1.0	-	-	0.5	1.0	0.5	1.0	**0.6**
Balanus/Tetraclita spp.	-	-	-	-	2.0	2.3	0.5	1.0	**0.6**
Tetraclita rubescens	-	-	-	-	-	-	1.0	1.2	**0.3**
Corynactis californica	-	-	-	-	0.5	1.0	-	-	**0.1**
Substrate									
colonized rock	90.5	9.2	80.0	12.1	88.0	8.8	93.0	6.6	**87.9**
colonized cobble	6.5	5.5	13.0	5.8	9.5	6.0	5.0	5.3	**8.5**
sand (shell gravel)	2.5	3.0	4.5	4.4	2.5	3.0	1.0	1.2	**2.6**
cobble	-	-	3.0	2.6	-	-	1.0	1.2	**1.0**
rock	0.5	1.0	-	-	-	-	-	-	**0.1**

Appendix G

Subtidal Invertebrate Results
(SFQ Method)

Table G1. Subtidal Invertebrates (SFQ Method) Survey Means (abundance per 0.25 m^2 ; percent cover) Standard Deviations and Annual Mean, Field's Cove Station FC 1 -3m. (Station was not sampled in fourth quarter).

Survey	128		129		130		131		
Survey Date	6-Apr-05		16-Jun-05		8-Aug-05		(not sampled)		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts									
Tetraclita rubescens	33.8	67.5	9.3	14.0	16.3	32.5			**19.8**
Pelecypoda unid. boring	14.3	19.8	7.5	12.5	4.8	5.6			**8.8**
Tegula brunnea	5.0	4.2	2.8	2.5	5.3	6.7			**4.3**
Phragmatopoma californica	2.8	2.1	6.8	9.1	1.0	1.2			**3.5**
Sipuncula unid.	3.8	7.5	2.0	3.4	0.5	0.6			**2.1**
Lissothuria nutriens	2.5	2.1	2.0	1.8	1.8	1.5			**2.1**
Homolopoma/Lirularia	2.0	0.8	0.5	1.0	3.0	2.2			**1.8**
Amphissa spp.	1.3	1.0	1.8	1.7	0.5	0.6			**1.2**
Serpulidae unid.	1.0	1.4	0.3	0.5	1.8	2.4			**1.0**
Epiactis prolifera	1.8	1.0	0.3	0.5	0.8	0.5			**0.9**
Pugettia spp.	0.8	0.5	0.3	0.5	1.5	0.6			**0.8**
Leptasterias spp.	1.3	1.0	0.5	0.6	0.5	0.6			**0.8**
Ischnochitonidae	1.0	1.4	0.3	0.5	0.3	0.5			**0.5**
Pisaster/Henricia (juv.)	0.5	0.6	0.8	1.0	0.3	0.5			**0.5**
Fissurella volcano	0.8	0.5	0.3	0.5	0.3	0.5			**0.4**
Tonicella lineata	-	-	0.5	1.0	0.8	1.0			**0.4**
Lottia instabilis	0.3	0.5	0.8	1.0	0.3	0.5			**0.4**
Pagurus spp.	0.3	0.5	1.0	2.0	-	-			**0.4**
Alia spp.	0.3	0.5	0.3	0.5	0.5	1.0			**0.3**
Strongylocentrotus purpuratus	0.3	0.5	0.3	0.5	0.5	0.6			**0.3**
Pseudomelatoma torosa	0.3	0.5	0.5	0.6	0.3	0.5			**0.3**
Cadlina spp.	0.3	0.5	0.5	0.6	-	-			**0.3**
Acmaea mitra	0.3	0.5	-	-	0.3	0.5			**0.2**
Calliostoma ligatum	0.3	0.5	-	-	0.3	0.5			**0.2**
Lottia ochracea	-	-	0.3	0.5	0.3	0.5			**0.2**
Hermissenda crassicornis	-	-	0.5	0.6	-	-			**0.2**
Pista spp.	0.5	1.0	-	-	-	-			**0.2**
Fusinus luteopictus	0.5	1.0	-	-	-	-			**0.2**
Ocenebra spp.	0.5	0.6	-	-	-	-			**0.2**
Mimulus foliatus	0.3	0.5	-	-	0.3	0.5			**0.2**
Anthopleura elegantissima	-	-	0.3	0.5	-	-			**<0.1**
Anthozoa unid.	0.3	0.5	-	-	-	-			**<0.1**
Octopus spp.	0.3	0.5	-	-	-	-			**<0.1**
Nitidiscala/Opalia spp.	-	-	-	-	0.3	0.5			**<0.1**
Sabellidae	0.3	0.5	-	-	-	-			**<0.1**
Patiria miniata	-	-	-	-	0.3	0.5			**<0.1**
Loxorhynchus spp.	-	-	0.3	0.5	-	-			**<0.1**
Leucandra heathi	-	-	-	-	0.3	0.5			**<0.1**
Phidiana hiltoni	0.3	0.5	-	-	-	-			**<0.1**
Rostanga pulchra	0.3	0.5	-	-	-	-			**<0.1**
Triopha maculata	-	-	0.3	0.5	-	-			**<0.1**
Majidae	-	-	0.3	0.5	-	-			**<0.1**
Ophiothrix spp.	-	-	-	-	0.3	0.5			**<0.1**
Haliotis spp.	-	-	-	-	0.3	0.5			**<0.1**
Aeolidiella oliviae	-	-	0.3	0.5	-	-			**<0.1**
Mytilus spp.	0.3	0.5	-	-	-	-			**<0.1**

(continued)

Table G1 (continued). Subtidal Invertebrates (SFQ Method) Survey Means (abundance per 0.25 m^2 ; percent cover) Standard Deviations and Annual Mean, Field's Cove Station FC 1 -3m.

Survey	128		129		130				
Survey Date	6-Apr-05		16-Jun-05		8-Aug-05				
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Invertebrate Cover									
tunicates, colonial/social unid.	1.1	1.7	0.9	1.2	1.5	2.3			1.2
Bryozoa, unid. (encrusting)	1.1	0.6	1.1	0.3	0.7	0.5			1.0
Porifera unid. (encrusting)	0.6	0.5	0.5	0.3	1.0	0.9			0.7
Eurystomella bilabiata	0.5	0.9	0.3	0.7	1.0	1.4			0.6
Salmacina tribranchiata	-	-	-	-	<0.1	0.1			<0.1
Spirorbidae	<0.1	-	<0.1	<.01	<0.1	-			<0.1

Table G2. Subtidal Invertebrates (SFQ Method) Survey Means (abundance per 0.25 m^2 ; percent cover) Standard Deviations and Annual Mean, North Diablo Cove Station NDC 2 -3m.

Survey	128		129		130		131		
Survey Date	5-Apr-05		1-Jun-05		28-Jul-05		23-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Invertebrate Counts									
Phragmatopoma californica	66.3	56.2	88.8	59.2	110.0	91.9	94.5	59.0	**89.9**
Ophiactis simplex	19.5	27.9	2.8	2.5	8.8	14.4	10.8	2.2	**10.4**
Strongylocentrotus purpuratus	8.5	9.0	6.3	9.8	6.5	9.7	6.8	8.3	**7.0**
Pelecypoda unid. boring	7.5	8.8	5.3	7.9	3.8	6.2	3.8	3.8	**5.1**
Lissothuria nutriens	1.0	1.4	2.3	3.9	4.8	6.3	0.5	1.0	**2.1**
Ophiothrix spp.	1.8	1.7	4.0	4.8	2.0	2.2	0.3	0.5	**2.0**
Serpulidae unid.	1.5	1.3	2.5	1.3	2.0	0.8	1.5	1.3	**1.9**
Tetraclita rubescens	1.5	3.0	0.8	1.5	0.8	1.5	1.0	2.0	**1.0**
Acmaea mitra	0.3	0.5	0.3	0.5	0.8	1.0	1.8	1.3	**0.8**
Pagurus spp.	0.3	0.5	1.5	3.0	-	-	1.0	2.0	**0.7**
Chaetopteridae	-	-	1.3	1.5	1.5	1.9	-	-	**0.7**
Anthopleura elegantissima	0.8	1.5	0.5	1.0	0.5	1.0	0.8	1.5	**0.6**
Dendropoma spp.	0.5	1.0	1.8	3.5	-	-	-	-	**0.6**
Serpulorbis squamigerus	0.5	0.6	0.8	0.5	0.3	0.5	0.3	0.5	**0.4**
Ischnochitonidae	0.3	0.5	0.8	1.5	0.8	1.5	-	-	**0.4**
Sipuncula unid.	1.3	1.9	-	-	0.3	0.5	0.3	0.5	**0.4**
Fissurella volcano	0.5	1.0	-	-	0.8	0.5	-	-	**0.3**
Lottia ochracea	-	-	-	-	1.0	1.4	0.3	0.5	**0.3**
Leucandra heathi	0.3	0.5	-	-	0.8	1.5	-	-	**0.3**
Doriopsilla albopunctata	0.3	0.5	0.3	0.5	0.3	0.5	-	-	**0.2**
Pododesmus cepio	-	-	-	-	0.5	1.0	-	-	**0.1**
Sabellidae	0.5	0.6	-	-	-	-	-	-	**0.1**
Mitra idae	-	-	-	-	0.3	0.5	0.3	0.5	**0.1**
Pugettia spp.	-	-	-	-	-	-	0.5	0.6	**0.1**
Epiactis prolifera	-	-	-	-	-	-	0.3	0.5	**<0.1**
Alia spp.	-	-	0.3	0.5	-	-	-	-	**<0.1**
Mopalia spp.	-	-	-	-	0.3	0.5	-	-	**<0.1**
Mytilus californianus	-	-	-	-	-	-	0.3	0.5	**<0.1**
Tegula brunnea	-	-	-	-	0.3	0.5	-	-	**<0.1**
Loxorhynchus spp.	-	-	-	-	-	-	0.3	0.5	**<0.1**
Heptacarpus spp.	-	-	-	-	-	-	0.3	0.5	**<0.1**
Lophopanopeus spp.	-	-	0.3	0.5	-	-	-	-	**<0.1**
Tricolia spp.	-	-	-	-	0.3	0.5	-	-	**<0.1**
Ophioplocus spp.	0.3	0.5	-	-	-	-	-	-	**<0.1**
Lebbeus lagunae	-	-	-	-	-	-	0.3	0.5	**<0.1**
Crepipatella lingulata	-	-	-	-	-	-	0.3	0.5	**<0.1**
Invertebrate Cover									
Porifera unid. (encrusting)	0.4	0.5	0.5	0.9	0.3	0.7	0.1	0.2	**0.3**
Bryozoa, unid. (encrusting)	0.3	0.4	<0.1	0.1	0.2	0.3	0.4	0.5	**0.2**
tunicates, colonial/social unid.	0.1	0.2	<0.1	0.1	0.1	0.2	<0.1	-	**<0.1**
Salmacina tribranchiata	-	-	<0.1	0.1	0.1	0.3	-	-	**<0.1**
Spirorbidae	<0.1	<.01	<0.1	<.01	<0.1	<.01	-	-	**<0.1**
Hydroida	-	-	-	-	-	-	<0.1	<.01	**<0.1**

Table G3. Subtidal Invertebrates (SFQ Method) Survey Means (abundance per 0.25 m^2 ; percent cover) Standard Deviations and Annual Mean, North Diablo Cove Station NDC 3 -3m.

Survey	128		129		130		131		
Survey Date	25-Apr-05		15-Jun-05		4-Aug-05		28-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts									
Ophiactis simplex	39.3	57.1	27.5	10.4	30.0	14.7	7.5	2.7	**26.1**
Phragmatopoma californica	2.8	3.4	20.0	13.5	9.5	5.2	5.3	2.8	**9.4**
Strongylocentrotus purpuratus	6.3	1.7	13.3	7.3	6.8	4.1	7.3	3.3	**8.4**
Pelecypoda unid. boring	5.0	4.2	13.0	15.8	4.0	2.6	3.3	2.8	**6.3**
Lissothuria nutriens	5.0	1.4	4.5	4.4	5.3	3.8	3.8	2.5	**4.6**
Acmaea mitra	0.3	0.5	0.8	0.5	2.3	0.5	4.0	1.8	**1.8**
Fissurella volcano	1.0	0.8	1.0	1.4	1.5	0.6	1.5	1.3	**1.3**
Lottia ochracea	1.5	1.3	2.0	0.8	1.3	1.5	0.3	0.5	**1.3**
Dendropoma spp.	-	-	2.3	2.9	2.8	3.2	-	-	**1.3**
Chaetopteridae	3.3	2.8	-	-	1.8	1.0	-	-	**1.3**
Serpulidae unid.	0.8	1.0	1.5	2.4	1.5	1.7	0.5	0.6	**1.1**
Ophiothrix spp.	0.3	0.5	1.0	0.8	2.8	1.3	-	-	**1.0**
Sipuncula unid.	0.5	0.6	0.3	0.5	0.3	0.5	1.3	1.0	**0.6**
Balanus/Tetraclita spp.	1.5	2.4	-	-	0.3	0.5	-	-	**0.4**
Epiactis prolifera	0.8	1.0	0.5	0.6	0.3	0.5	-	-	**0.4**
Ischnochitonidae	-	-	-	-	1.0	0.8	0.3	0.5	**0.3**
Anthopleura elegantissima	0.5	1.0	0.3	0.5	-	-	0.3	0.5	**0.3**
Serpulorbis squamigerus	0.3	0.5	0.3	0.5	0.3	0.5	0.3	0.5	**0.3**
Tricolia spp.	-	-	0.5	0.6	0.3	0.5	-	-	**0.2**
Pista spp.	0.5	1.0	-	-	-	-	-	-	**0.1**
Leucilla nuttingi	-	-	-	-	0.5	1.0	-	-	**0.1**
Bittium spp.	0.3	0.5	-	-	0.3	0.5	-	-	**0.1**
Pisaster/Henricia (juv.)	0.5	1.0	-	-	-	-	-	-	**0.1**
Grapsidae (juv.)	-	-	0.5	1.0	-	-	-	-	**0.1**
Eupentacta quinquesemita	0.3	0.5	0.3	0.5	-	-	-	-	**0.1**
Diodora spp.	0.3	0.5	-	-	-	-	-	-	**<0.1**
Mytilus californianus	0.3	0.5	-	-	-	-	-	-	**<0.1**
Pododesmus cepio	-	-	0.3	0.5	-	-	-	-	**<0.1**
Hermissenda crassicornis	0.3	0.5	-	-	-	-	-	-	**<0.1**
Polychaeta unid.	-	-	-	-	0.3	0.5	-	-	**<0.1**
Pycnogonida unid.	-	-	-	-	-	-	0.3	0.5	**<0.1**
Tetraclita rubescens	-	-	0.3	0.5	-	-	-	-	**<0.1**
Doriopsilla albopunctata	-	-	0.3	0.5	-	-	-	-	**<0.1**
Mitra idae	-	-	-	-	0.3	0.5	-	-	**<0.1**
Cucumaria spp.	-	-	0.3	0.5	-	-	-	-	**<0.1**
Mimulus foliatus	0.3	0.5	-	-	-	-	-	-	**<0.1**
Pugettia spp.	-	-	-	-	-	-	0.3	0.5	**<0.1**
Crangon spp.	-	-	-	-	-	-	0.3	0.5	**<0.1**
Lepidozona spp.	-	-	-	-	-	-	0.3	0.5	**<0.1**
Cirratulidae/Terebellidae unid.	0.3	0.5	-	-	-	-	-	-	**<0.1**
Invertebrate Cover									
Porifera unid. (encrusting)	<0.1	<.01	0.2	0.3	<0.1	<.01	<0.1	<.01	**<0.1**
tunicates, colonial/social unid.	<0.1	0.1	-	-	<0.1	-	-	-	**<0.1**
Spirorbidae	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	<.01	**<0.1**
Hydroida	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Salmacina tribranchiata	-	-	-	-	<0.1	<.01	-	-	**<0.1**

Table G4. Subtidal Invertebrates (SFQ Method) Survey Means (abundance per 0.25 m^2 ; percent cover) Standard Deviations and Annual Mean, North Diablo Cove Station NDC 4 -4m.

Survey	128		129		130		131		
Survey Date	5-Apr-05		1-Jun-05		28-Jul-05		23-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Invertebrate Counts									
Phragmatopoma californica	66.3	56.2	88.8	59.2	110.0	91.9	94.5	59.0	**89.9**
Ophiactis simplex	19.5	27.9	2.8	2.5	8.8	14.4	10.8	2.2	**10.4**
Strongylocentrotus purpuratus	8.5	9.0	6.3	9.8	6.5	9.7	6.8	8.3	**7.0**
Pelecypoda unid. boring	7.5	8.8	5.3	7.9	3.8	6.2	3.8	3.8	**5.1**
Lissothuria nutriens	1.0	1.4	2.3	3.9	4.8	6.3	0.5	1.0	**2.1**
Ophiothrix spp.	1.8	1.7	4.0	4.8	2.0	2.2	0.3	0.5	**2.0**
Serpulidae unid.	1.5	1.3	2.5	1.3	2.0	0.8	1.5	1.3	**1.9**
Tetraclita rubescens	1.5	3.0	0.8	1.5	0.8	1.5	1.0	2.0	**1.0**
Acmaea mitra	0.3	0.5	0.3	0.5	0.8	1.0	1.8	1.3	**0.8**
Pagurus spp.	0.3	0.5	1.5	3.0	-	-	1.0	2.0	**0.7**
Chaetopteridae	-	-	1.3	1.5	1.5	1.9	-	-	**0.7**
Anthopleura elegantissima	0.8	1.5	0.5	1.0	0.5	1.0	0.8	1.5	**0.6**
Dendropoma spp.	0.5	1.0	1.8	3.5	-	-	-	-	**0.6**
Serpulorbis squamigerus	0.5	0.6	0.8	0.5	0.3	0.5	0.3	0.5	**0.4**
Ischnochitonidae	0.3	0.5	0.8	1.5	0.8	1.5	-	-	**0.4**
Sipuncula unid.	1.3	1.9	-	-	0.3	0.5	0.3	0.5	**0.4**
Fissurella volcano	0.5	1.0	-	-	0.8	0.5	-	-	**0.3**
Lottia ochracea	-	-	-	-	1.0	1.4	0.3	0.5	**0.3**
Leucandra heathi	0.3	0.5	-	-	0.8	1.5	-	-	**0.3**
Doriopsilla albopunctata	0.3	0.5	0.3	0.5	0.3	0.5	-	-	**0.2**
Pododesmus cepio	-	-	-	-	0.5	1.0	-	-	**0.1**
Sabellidae	0.5	0.6	-	-	-	-	-	-	**0.1**
Mitra idae	-	-	-	-	0.3	0.5	0.3	0.5	**0.1**
Pugettia spp.	-	-	-	-	-	-	0.5	0.6	**0.1**
Epiactis prolifera	-	-	-	-	-	-	0.3	0.5	**<0.1**
Alia spp.	-	-	0.3	0.5	-	-	-	-	**<0.1**
Mopalia spp.	-	-	-	-	0.3	0.5	-	-	**<0.1**
Mytilus californianus	-	-	-	-	-	-	0.3	0.5	**<0.1**
Tegula brunnea	-	-	-	-	0.3	0.5	-	-	**<0.1**
Loxorhynchus spp.	-	-	-	-	-	-	0.3	0.5	**<0.1**
Heptacarpus spp.	-	-	-	-	-	-	0.3	0.5	**<0.1**
Lophopanopeus spp.	-	-	0.3	0.5	-	-	-	-	**<0.1**
Tricolia spp.	-	-	-	-	0.3	0.5	-	-	**<0.1**
Ophioplocus spp.	0.3	0.5	-	-	-	-	-	-	**<0.1**
Lebbeus lagunae	-	-	-	-	-	-	0.3	0.5	**<0.1**
Crepipatella lingulata	-	-	-	-	-	-	0.3	0.5	**<0.1**
Invertebrate Cover									
Porifera unid. (encrusting)	0.4	0.5	0.5	0.9	0.3	0.7	0.1	0.2	**0.3**
Bryozoa, unid. (encrusting)	0.3	0.4	<0.1	0.1	0.2	0.3	0.4	0.5	**0.2**
tunicates, colonial/social unid.	0.1	0.2	<0.1	0.1	0.1	0.2	<0.1	-	**<0.1**
Salmacina tribranchiata	-	-	<0.1	0.1	0.1	0.3	-	-	**<0.1**
Spirorbidae	<0.1	<.01	<0.1	<.01	<0.1	<.01	-	-	**<0.1**
Hydroida	-	-	-	-	-	-	<0.1	<.01	**<0.1**

Table G5. Subtidal Invertebrates (SFQ Method) Survey Means (abundance per 0.25 m^2 ; percent cover) Standard Deviations and Annual Mean, South Diablo Cove Station SDC 2 -3m.

Survey	128		129		130		131		
Survey Date	17-Mar-05		27-May-05		2-Aug-05		1-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts									
Pelecypoda unid. boring	3.8	1.7	8.0	1.4	11.0	7.0	19.0	8.3	**10.4**
Sipuncula unid.	1.5	1.7	6.0	3.4	8.0	7.6	10.3	5.1	**6.4**
Phragmatopoma californica	7.5	6.0	4.5	4.2	1.8	2.4	12.0	5.9	**6.4**
Pista spp.	10.5	4.4	2.8	2.5	3.0	2.6	6.0	7.4	**5.6**
Chaetopteridae	-	-	4.8	8.2	7.3	7.6	1.0	1.2	**3.3**
Ophiactis simplex	4.3	3.3	0.3	0.5	0.5	1.0	3.0	6.0	**2.0**
Serpulidae unid.	0.5	0.6	0.8	0.5	3.3	1.3	2.0	2.2	**1.6**
Ophiothrix spp.	0.8	1.0	1.5	3.0	2.3	2.2	-	-	**1.1**
Balanus/Tetraclita spp.	-	-	-	-	2.3	4.5	2.3	3.9	**1.1**
Ophiuroidea unid.	1.0	0.8	1.5	0.6	-	-	1.3	1.0	**0.9**
Fissurella volcano	0.8	1.0	0.5	0.6	0.8	1.0	0.3	0.5	**0.6**
Serpulorbis squamigerus	0.3	0.5	0.3	0.5	0.5	1.0	0.5	1.0	**0.4**
Strongylocentrotus purpuratus	0.5	0.6	0.3	0.5	0.3	0.5	0.5	0.6	**0.4**
Lissothuria nutriens	0.3	0.5	0.5	1.0	0.5	1.0	0.3	0.5	**0.4**
Mitra idae	-	-	0.3	0.5	0.8	1.0	0.3	0.5	**0.3**
Alia spp.	-	-	0.3	0.5	0.3	0.5	0.5	1.0	**0.3**
Mopalia spp.	0.3	0.5	-	-	-	-	0.8	1.0	**0.3**
Sabellidae	-	-	0.8	1.0	0.3	0.5	-	-	**0.3**
Ischnochitonidae	-	-	0.5	0.6	0.3	0.5	0.3	0.5	**0.3**
Acmaea mitra	0.5	0.6	-	-	-	-	0.3	0.5	**0.2**
Patiria miniata	-	-	-	-	0.3	0.5	0.5	0.6	**0.2**
Cirratulidae/Terebellidae unid.	-	-	-	-	0.5	0.6	0.3	0.5	**0.2**
Balanophyllia elegans	0.3	0.5	-	-	-	-	0.3	0.5	**0.1**
Bittium spp.	-	-	-	-	0.5	1.0	-	-	**0.1**
Cucumaria spp.	-	-	0.5	1.0	-	-	-	-	**0.1**
Lophopanopeus spp.	-	-	0.3	0.5	0.3	0.5	-	-	**0.1**
Anthopleura artemisia	-	-	-	-	0.3	0.5	-	-	**<0.1**
Anthopleura elegantissima	-	-	0.3	0.5	-	-	-	-	**<0.1**
Epiactis prolifera	-	-	0.3	0.5	-	-	-	-	**<0.1**
Nemertea unid.	-	-	-	-	-	-	0.3	0.5	**<0.1**
Diodora spp.	-	-	-	-	0.3	0.5	-	-	**<0.1**
Acmaeidae unid.	0.3	0.5	-	-	-	-	-	-	**<0.1**
Pagurus spp.	-	-	0.3	0.5	-	-	-	-	**<0.1**
Pycnopodia helianthoides	-	-	-	-	-	-	0.3	0.5	**<0.1**
tunicate, solitary unid.	-	-	-	-	-	-	0.3	0.5	**<0.1**
Parastichopus spp.	-	-	-	-	-	-	0.3	0.5	**<0.1**
Halcampa decemtentaculata	0.3	0.5	-	-	-	-	-	-	**<0.1**
Diaulula sandiegensis	0.3	0.5	-	-	-	-	-	-	**<0.1**
Phidiana hiltoni	0.3	0.5	-	-	-	-	-	-	**<0.1**
Pseudomelatoma torosa	0.3	0.5	-	-	-	-	-	-	**<0.1**
Cryptochiton stelleri	-	-	-	-	-	-	0.3	0.5	**<0.1**
Majidae	-	-	-	-	0.3	0.5	-	-	**<0.1**
Pugettia spp.	-	-	-	-	-	-	0.3	0.5	**<0.1**
Paracyathus stearnsii	-	-	-	-	0.3	0.5	-	-	**<0.1**
Doridacea unid.	0.3	0.5	-	-	-	-	-	-	**<0.1**
Hopkinsia rosacea	-	-	-	-	0.3	0.5	-	-	**<0.1**
Haliotis spp.	-	-	0.3	0.5	-	-	-	-	**<0.1**

(continued)

Table G5. (continued) Subtidal Invertebrates (SFQ Method) Survey Means (abundance per 0.25 m^2 ; percent cover) Standard Deviations and Annual Mean, South Diablo Cove Station SDC 2 -3m.

Survey	128		129		130		131		
Survey Date	17-Mar-05		27-May-05		2-Aug-05		1-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Invertebrate Cover									
Bryozoa, unid. (encrusting)	0.4	0.2	<0.1	0.1	0.8	0.3	0.6	0.7	**0.5**
Porifera unid. (encrusting)	<0.1	<.01	-	-	0.2	0.4	0.1	0.3	**<0.1**
Spirorbidae	-	-	<0.1	<.01	<0.1	0.1	<0.1	-	**<0.1**
tunicates, colonial/social unid.	<0.1	<.01	-	-	<0.1	<.01	<0.1	<.01	**<0.1**
Eurystomella bilabiata	-	-	-	-	-	-	<0.1	<.01	**<0.1**

Table G6. Subtidal Invertebrates (SFQ Method) Survey Means (abundance per 0.25 m^2 ; percent cover) Standard Deviations and Annual Mean, South Diablo Cove Station SDC 3 -4m.

Survey	128		129		130		131		
Survey Date	18-Mar-05		31-May-05		3-Aug-05		17-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts									
Pelecypoda unid. boring	21.5	25.7	21.3	19.0	40.5	22.7	27.5	27.3	**27.7**
Balanophyllia elegans	17.5	11.0	11.0	9.5	13.8	11.4	20.5	17.4	**15.7**
Phragmatopoma californica	2.8	4.9	2.5	2.9	3.8	4.8	43.0	78.1	**13.0**
Strongylocentrotus purpuratus	4.8	2.9	3.8	3.4	2.3	2.6	1.3	1.5	**3.0**
Ophiactis simplex	6.3	4.5	0.5	1.0	1.8	2.4	2.3	2.9	**2.7**
Chaetopteridae	1.0	0.8	2.0	1.6	4.8	1.3	-	-	**1.9**
Serpulidae unid.	0.5	0.6	1.3	1.0	2.3	2.1	3.0	2.5	**1.8**
Dendropoma spp.	1.5	3.0	1.8	2.4	-	-	3.3	4.0	**1.6**
Sabellidae	0.3	0.5	1.5	1.7	1.5	1.3	2.3	2.1	**1.4**
Anthopleura elegantissima	1.5	1.3	2.5	1.9	-	-	0.5	0.6	**1.1**
Diopatra ornata	2.3	3.3	1.0	1.2	0.5	1.0	0.8	1.0	**1.1**
Pista spp.	1.0	0.8	-	-	1.0	2.0	1.5	1.7	**0.9**
Serpulorbis squamigerus	0.5	0.6	0.5	0.6	1.5	2.4	0.8	1.0	**0.8**
Paracyathus stearnsii	0.8	1.0	0.3	0.5	1.3	1.9	0.8	1.5	**0.8**
Mitra idae	1.3	1.0	0.8	0.5	0.5	0.6	0.3	0.5	**0.7**
Sipuncula unid.	0.8	1.0	0.8	0.5	0.8	0.5	0.5	0.6	**0.7**
Acmaea mitra	0.8	1.0	0.8	1.0	0.5	1.0	-	-	**0.5**
Anthopleura xanthogrammica	-	-	-	-	1.8	1.7	-	-	**0.4**
Tethya aurantia	0.3	0.5	0.8	1.0	0.5	1.0	0.3	0.5	**0.4**
Anthozoa unid.	-	-	-	-	1.3	1.3	0.3	0.5	**0.4**
Hermissenda crassicornis	-	-	0.5	0.6	1.0	0.8	-	-	**0.4**
Ophiothrix spp.	-	-	-	-	1.5	2.4	-	-	**0.4**
Cirratulidae/Terebellidae unid.	0.3	0.5	0.3	0.5	0.8	0.5	0.3	0.5	**0.4**
Ophiuroidea unid.	-	-	1.0	1.2	-	-	0.3	0.5	**0.3**
Lissothuria nutriens	0.5	1.0	-	-	0.5	0.6	0.3	0.5	**0.3**
Epiactis prolifera	-	-	-	-	0.5	0.6	0.5	0.6	**0.3**
Crepidula spp.	0.5	0.6	0.3	0.5	0.3	0.5	-	-	**0.3**
Pagurus spp.	0.5	0.6	-	-	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**
Alia spp.	0.8	1.0	-	-	-	-	-	-	**0.2**
Patiria miniata	-	-	-	-	0.5	1.0	0.3	0.5	**0.2**
Ophioplocus spp.	0.5	1.0	0.3	0.5	-	-	-	-	**0.2**
Eupentacta quinquesemita	-	-	0.5	0.6	0.3	0.5	-	-	**0.2**
Nemertea unid.	0.5	0.6	-	-	-	-	-	-	**0.1**
Pododesmus cepio	0.3	0.5	0.3	0.5	-	-	-	-	**0.1**
Tegula brunnea	0.5	1.0	-	-	-	-	-	-	**0.1**
Cucumaria spp.	0.3	0.5	-	-	-	-	0.3	0.5	**0.1**
Mimulus foliatus	-	-	-	-	0.5	1.0	-	-	**0.1**
Pugettia spp.	-	-	0.3	0.5	0.3	0.5	-	-	**0.1**
Pelecypoda unid.	-	-	-	-	-	-	0.3	0.5	**<0.1**
Nitidiscala/Opalia spp.	0.3	0.5	-	-	-	-	-	-	**<0.1**
Balanus spp.	-	-	0.3	0.5	-	-	-	-	**<0.1**
tunicate, solitary unid.	0.3	0.5	-	-	-	-	-	-	**<0.1**
Doriopsilla albopunctata	-	-	-	-	-	-	0.3	0.5	**<0.1**
Phidiana hiltoni	-	-	0.3	0.5	-	-	-	-	**<0.1**
Ischnochitonidae	0.3	0.5	-	-	-	-	-	-	**<0.1**
Amphissa spp.	-	-	-	-	0.3	0.5	-	-	**<0.1**
Cadlina spp.	0.3	0.5	-	-	-	-	-	-	**<0.1**

(continued)

Table G6. (continued) Subtidal Invertebrates (SFQ Method) Survey Means (abundance per 0.25 m^2 ; percent cover) Standard Deviations and Annual Mean, South Diablo Cove Station SDC 3 -4m.

Survey	128		129		130		131		
Survey Date	18-Mar-05		31-May-05		3-Aug-05		17-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Invertebrate Cover									
Bryozoa, unid. (encrusting)	0.7	0.1	0.5	0.6	1.3	0.6	3.0	1.7	**1.4**
Porifera unid. (encrusting)	0.5	0.5	0.5	0.5	0.5	0.6	0.1	0.3	**0.4**
Hymenamphiastra cyanocrypta	0.3	0.2	0.3	0.3	0.3	0.2	0.3	0.5	**0.3**
tunicates, colonial/social unid.	0.1	0.2	0.1	0.3	0.2	0.3	<0.1	<.01	**0.1**
Eurystomella bilabiata	-	-	-	-	<0.1	0.1	-	-	**<0.1**
Spirorbidae	<0.1	<.01	-	-	<0.1	<.01	<0.1	-	**<0.1**
Hydroida	<0.1	<.01	-	-	-	-	<0.1	<.01	**<0.1**
Bryozoa, unid. (erect)	-	-	-	-	-	-	<0.1	<.01	**<0.1**
Bryozoa, unid. (foliose)	-	-	-	-	<0.1	<.01	-	-	**<0.1**
Salmacina tribranchiata	-	-	<0.1	<.01	-	-	-	-	**<0.1**

Table G7. Subtidal Invertebrates (SFQ Method) Survey Means (abundance per 0.25 m^2 ; percent cover) Standard Deviations and Annual Mean, South Control Station SC 1 -3m.

Survey	128		129		130		131		
Survey Date	12-May-05		24-Jun-05		9-Aug-05		9-Dec-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Invertebrate Counts									
Phragmatopoma californica	21.8	17.1	6.3	4.8	52.5	52.4	30.0	21.6	**27.6**
Dendropoma spp.	6.3	7.2	11.0	10.7	29.8	32.2	18.0	20.1	**16.3**
Tetraclita rubescens	6.3	6.8	0.5	1.0	10.0	12.3	5.5	6.9	**5.6**
Pagurus spp.	8.8	6.5	4.3	5.3	1.8	2.9	0.8	1.5	**3.9**
Homolopoma/Lirularia	2.3	1.3	2.5	0.6	5.5	5.6	3.8	1.7	**3.5**
Tegula brunnea	5.3	2.8	1.0	1.2	1.3	1.5	2.3	2.1	**2.4**
Balanophyllia elegans	1.3	1.3	2.0	1.8	1.3	2.5	1.0	1.4	**1.4**
Epiactis prolifera	1.3	1.3	1.5	1.9	1.3	1.0	0.3	0.5	**1.1**
Pugettia spp.	1.3	1.3	-	-	0.8	1.0	1.5	1.3	**0.9**
Serpulidae unid.	0.3	0.5	1.0	1.4	1.5	1.0	0.5	0.6	**0.8**
Tonicella lineata	0.5	1.0	1.5	1.3	0.5	0.6	0.5	0.6	**0.8**
Pisaster/Henricia (juv.)	1.0	1.4	0.3	0.5	0.3	0.5	0.3	0.5	**0.4**
Amphissa spp.	-	-	1.3	1.0	0.3	0.5	0.3	0.5	**0.4**
Lottia instabilis	-	-	0.3	0.5	0.8	1.5	0.5	0.6	**0.4**
Patiria miniata	0.3	0.5	0.3	0.5	0.5	0.6	0.3	0.5	**0.3**
Ischnochitonidae	0.3	0.5	0.5	0.6	0.3	0.5	0.3	0.5	**0.3**
Anthopleura elegantissima	0.3	0.5	0.5	0.6	-	-	0.3	0.5	**0.3**
Urticina spp.	0.3	0.5	0.3	0.5	0.3	0.5	0.3	0.5	**0.3**
Mopalia spp.	0.3	0.5	0.5	0.6	0.3	0.5	-	-	**0.3**
Pista spp.	0.8	1.0	0.3	0.5	-	-	-	-	**0.3**
Leptasterias spp.	0.5	0.6	-	-	-	-	0.5	0.6	**0.3**
tunicate, solitary unid.	0.8	0.5	-	-	0.3	0.5	-	-	**0.3**
Halcampa decemtentaculata	-	-	-	-	0.3	0.5	0.8	1.0	**0.3**
Pseudomelatoma torosa	-	-	1.0	0.8	-	-	-	-	**0.3**
Anthopleura artemisia	-	-	0.5	1.0	0.3	0.5	-	-	**0.2**
Ocenebra spp.	0.3	0.5	-	-	-	-	0.5	0.6	**0.2**
Cryptolithodes sitchensis	-	-	-	-	0.8	0.5	-	-	**0.2**
Brachyuran unid.	0.3	0.5	-	-	0.5	0.6	-	-	**0.2**
Acmaea mitra	-	-	-	-	0.5	0.6	-	-	**0.1**
Calliostoma ligatum	0.3	0.5	-	-	0.3	0.5	-	-	**0.1**
Lottia ochracea	-	-	0.3	0.5	-	-	0.3	0.5	**0.1**
Pycnopodia helianthoides	-	-	0.3	0.5	-	-	0.3	0.5	**0.1**
Mitra idae	0.5	0.6	-	-	-	-	-	-	**0.1**
Fusinus luteopictus	-	-	-	-	0.5	1.0	-	-	**0.1**
Triopha maculata	0.3	0.5	0.3	0.5	-	-	-	-	**0.1**
Pelecypoda unid. boring	-	-	0.5	1.0	-	-	-	-	**0.1**
Majidae	0.5	0.6	-	-	-	-	-	-	**0.1**
Sipuncula unid.	-	-	-	-	0.5	0.6	-	-	**0.1**
Lophopanopeus spp.	0.5	0.6	-	-	-	-	-	-	**0.1**
Balanus/Tetraclita spp.	-	-	-	-	0.5	1.0	-	-	**0.1**
Chaetopteridae	0.3	0.5	-	-	-	-	0.3	0.5	**0.1**
Diodora spp.	-	-	-	-	-	-	0.3	0.5	**<0.1**
Crepidula spp.	0.3	0.5	-	-	-	-	-	-	**<0.1**
Tegula montereyi	-	-	0.3	0.5	-	-	-	-	**<0.1**
Sabellidae	-	-	-	-	-	-	0.3	0.5	**<0.1**
Cancer antennarius	-	-	-	-	-	-	0.3	0.5	**<0.1**
Strongylocentrotus purpuratus	0.3	0.5	-	-	-	-	-	-	**<0.1**

(continued)

Table G7 (continued). Subtidal Invertebrates (SFQ Method) Survey Means (abundance per 0.25 m^2 ; percent cover) Standard Deviations and Annual Mean, South Control Station SC 1 -3m.

Survey	128		129		130		131		
Survey Date	12-May-05		24-Jun-05		9-Aug-05		9-Dec-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Invertebrate Counts (continued)									
Cancer productus	-	-	-	-	-	-	0.3	0.5	**<0.1**
Idotea spp.	0.3	0.5	-	-	-	-	-	-	**<0.1**
Diaulula sandiegensis	0.3	0.5	-	-	-	-	-	-	**<0.1**
Mimulus foliatus	0.3	0.5	-	-	-	-	-	-	**<0.1**
Cancer spp.	-	-	-	-	-	-	0.3	0.5	**<0.1**
Flabellina trilineata	-	-	-	-	0.3	0.5	-	-	**<0.1**
Tricolia spp.	-	-	-	-	0.3	0.5	-	-	**<0.1**
Ophiothrix spp.	-	-	-	-	0.3	0.5	-	-	**<0.1**
Invertebrate Cover									
Porifera unid. (encrusting)	1.2	1.0	0.7	0.8	1.0	0.8	1.0	0.7	**1.0**
Bryozoa, unid. (encrusting)	0.6	0.3	0.7	0.3	0.5	0.2	1.0	0.7	**0.7**
Eurystomella bilabiata	0.6	0.8	0.8	0.6	0.4	0.5	0.2	0.1	**0.5**
tunicates, colonial/social unid.	0.1	0.2	0.3	0.2	0.5	0.4	<0.1	0.1	**0.2**
Salmacina tribranchiata	-	-	-	-	<0.1	0.1	<0.1	0.1	**<0.1**
Spirorbidae	-	-	<0.1	<.01	-	-	<0.1	<.01	**<0.1**

Table G8. Subtidal Invertebrates (SFQ Method) Survey Means (abundance per 0.25 m^2 ; percent cover) Standard Deviations and Annual Mean, South Control Station SC 2 -6m.

Survey	128		129		130		131		
Survey Date	13-May-05		21-Jun-05		10-Aug-05		7-Dec-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Invertebrate Counts									
Balanus/Tetraclita spp.	-	-	-	-	324.8	456.9	25.0	50.0	**87.4**
Tetraclita rubescens	69.8	133.6	58.5	114.4	55.8	109.5	67.5	135.0	**62.9**
Balanophyllia elegans	63.5	48.8	63.3	47.4	51.8	43.0	63.0	48.1	**60.4**
Corynactis californica	35.8	49.7	44.5	50.7	55.8	50.8	42.8	43.5	**44.7**
Phragmatopoma californica	30.0	27.4	22.5	22.6	62.5	49.4	35.0	50.2	**37.5**
Serpulorbis squamigerus	5.5	5.8	6.5	9.8	7.5	11.0	5.3	7.9	**6.2**
Serpulidae unid.	4.0	2.7	4.3	2.8	4.8	4.4	0.8	1.0	**3.4**
Dendropoma spp.	1.5	3.0	3.0	2.9	5.0	7.1	2.8	3.2	**3.1**
Homolopoma/Lirularia	1.8	2.1	2.0	3.4	4.3	3.3	1.5	2.4	**2.4**
Lottia instabilis	2.0	2.5	1.8	1.5	1.0	1.4	0.8	1.0	**1.4**
Pelecypoda unid. boring	1.3	1.0	2.0	1.6	1.3	1.3	1.0	0.8	**1.4**
Sabellidae	1.3	1.9	-	-	1.5	1.3	2.5	2.7	**1.3**
Tonicella lineata	1.3	1.0	1.8	1.0	1.5	1.3	0.5	0.6	**1.3**
Cucumaria spp.	2.8	1.0	0.8	1.0	1.5	1.3	-	-	**1.3**
Tegula brunnea	0.5	1.0	1.8	2.1	1.8	2.9	0.8	1.0	**1.2**
Ocenebra spp.	2.5	1.7	1.3	1.3	0.8	1.0	0.3	0.5	**1.2**
Calliostoma ligatum	0.3	0.5	1.0	0.8	2.3	2.2	0.8	0.5	**1.1**
Lottia ochracea	3.0	2.6	0.5	1.0	0.5	1.0	-	-	**1.0**
Epiactis prolifera	0.5	0.6	0.5	0.6	1.0	0.8	1.5	1.0	**0.9**
Patiria miniata	1.0	2.0	1.5	2.4	0.3	0.5	0.8	1.0	**0.9**
Pisaster/Henricia (juv.)	0.8	1.0	1.3	1.0	0.3	0.5	-	-	**0.6**
Amphissa spp.	1.0	0.8	0.8	1.0	0.3	0.5	-	-	**0.5**
tunicate, solitary unid.	0.3	0.5	-	-	0.5	0.6	1.0	1.2	**0.4**
Eupentacta quinquesemita	0.3	0.5	0.5	1.0	0.5	0.6	0.5	1.0	**0.4**
Acmaea mitra	0.3	0.5	0.8	1.0	0.5	1.0	-	-	**0.4**
Pagurus spp.	0.3	0.5	-	-	1.3	1.5	-	-	**0.4**
Fusinus luteopictus	-	-	0.5	1.0	0.5	0.6	0.5	0.6	**0.4**
Pseudomelatoma torosa	-	-	0.5	0.6	1.0	1.2	-	-	**0.4**
Anthopleura elegantissima	0.5	1.0	0.5	1.0	-	-	0.3	0.5	**0.3**
Pugettia spp.	-	-	0.3	0.5	0.8	0.5	-	-	**0.3**
Sipuncula unid.	-	-	0.8	1.5	0.3	0.5	-	-	**0.3**
Cryptochiton stelleri	0.5	0.6	-	-	-	-	0.3	0.5	**0.2**
Paracyathus stearnsii	-	-	0.5	1.0	-	-	0.3	0.5	**0.2**
Nemertea unid.	0.3	0.5	-	-	-	-	-	-	**<0.1**
Diodora spp.	0.3	0.5	-	-	-	-	-	-	**<0.1**
Alia spp.	-	-	-	-	-	-	0.3	0.5	**<0.1**
Mopalia spp.	0.3	0.5	-	-	-	-	-	-	**<0.1**
Crepidula spp.	-	-	-	-	0.3	0.5	-	-	**<0.1**
Tegula pulligo	-	-	0.3	0.5	-	-	-	-	**<0.1**
Polychaeta unid.	0.3	0.5	-	-	-	-	-	-	**<0.1**
Pista spp.	-	-	-	-	-	-	0.3	0.5	**<0.1**
Strongylocentrotus purpuratus	-	-	-	-	0.3	0.5	-	-	**<0.1**
Tethya aurantia	-	-	0.3	0.5	-	-	-	-	**<0.1**
Mitra idae	-	-	0.3	0.5	-	-	-	-	**<0.1**
Pisaster giganteus	-	-	-	-	-	-	0.3	0.5	**<0.1**
Flabellina trilineata	-	-	-	-	0.3	0.5	-	-	**<0.1**
Tricolia spp.	-	-	-	-	0.3	0.5	-	-	**<0.1**
Chaetopteridae	0.3	0.5	-	-	-	-	-	-	**<0.1**

(continued)

Table G8 (continued). Subtidal Invertebrates (SFQ Method) Survey Means (abundance per 0.25 m^2 ; percent cover) Standard Deviations and Annual Mean, South Control Station SC 2 -6m.

Survey	128		129		130		131		
Survey Date	13-May-05		21-Jun-05		10-Aug-05		7-Dec-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Invertebrate Cover									
Hymenamphiastra cyanocrypta	3.4	4.3	1.7	2.1	1.9	2.6	2.5	3.0	**2.4**
Bryozoa, unid. (encrusting)	0.9	0.5	2.3	1.0	1.4	0.7	4.1	3.0	**2.1**
Bryozoa, unid. (erect)	1.0	0.8	0.4	0.5	1.0	0.7	1.7	1.0	**1.0**
Porifera unid. (encrusting)	1.0	1.1	0.6	0.3	0.8	0.4	0.6	0.5	**0.7**
tunicates, colonial/social unid.	0.6	0.5	0.3	0.1	0.3	0.4	<0.1	0.1	**0.3**
Aglaophenia spp.	0.3	0.2	0.3	0.2	<0.1	0.1	0.4	0.6	**0.2**
Salmacina tribranchiata	<0.1	<.01	<0.1	0.1	0.1	0.3	<0.1	0.1	**<0.1**
Bryozoa, unid. (foliose)	<0.1	<.01	<0.1	<.01	<0.1	<.01	<0.1	0.1	**<0.1**
Hydroida	-	-	-	-	-	-	<0.1	0.1	**<0.1**
Spirorbidae	<0.1	<.01	-	-	<0.1	<.01	<0.1	<.01	**<0.1**

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, FC FO-2, FC FO-3).

Survey	126		127		128		129		
Survey Date	15-May-05		1-Jul-05		24-Aug-05		18-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Midwater									
Oxyjulis californica	1.7	1.5	1.9	2.9	6.8	16.5	10.9	5.3	**5.3**
Oxyjulis californica (juv.)	6.1	9.4	8.3	12.9	1.0	2.5	0.2	0.4	**3.9**
larval/post-larval fish, unid.	2.7	4.3	8.3	20.4	-	-	-	-	**2.8**
Aulorhynchus flavidus (juv.)	-	-	5.0	12.3	-	-	-	-	**1.3**
Sebastes atrovirens (yoy)	-	-	-	-	1.2	2.0	-	-	**0.3**
Sebastes mystinus	0.3	0.8	0.5	0.6	<0.1	0.2	-	-	**0.2**
Rhacochilus vacca	0.2	0.3	-	-	0.3	0.5	<0.1	0.2	**0.1**
Triakis semifasciata	-	-	<0.1	0.2	0.3	0.3	-	-	**<0.1**
Sebastes atrovirens	-	-	0.2	0.3	<0.1	0.2	-	-	**<0.1**
Aulorhynchus flavidus	-	-	<0.1	0.2	<0.1	0.2	-	-	**<0.1**
Brachyistius frenatus	-	-	<0.1	0.2	<0.1	0.2	-	-	**<0.1**
Sebastes serranoides	<0.1	0.2	<0.1	0.2	-	-	-	-	**<0.1**
Embiotoca jacksoni	-	-	<0.1	0.2	-	-	<0.1	0.2	**<0.1**
Rhacochilus toxotes	<0.1	0.2	-	-	-	-	-	-	**<0.1**
Embiotoca lateralis	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Rhacochilus vacca (juv.)	-	-	-	-	<0.1	0.2	-	-	**<0.1**
Benthic									
Oxyjulis californica	3.7	6.2	0.8	1.6	0.2	0.4	16.8	19.2	**5.4**
Oxylebius pictus	1.4	1.3	0.6	0.7	1.6	1.5	1.5	1.2	**1.3**
Oxyjulis californica (juv.)	4.9	11.3	-	-	-	-	<0.1	0.2	**1.3**
Sebastes chrysomelas	0.9	0.7	0.5	0.3	1.0	0.8	0.8	0.5	**0.8**
Embiotoca jacksoni	0.8	0.6	0.4	0.6	0.3	0.5	1.1	0.5	**0.6**
Embiotoca lateralis	0.8	0.5	0.4	0.5	0.5	0.5	0.8	0.8	**0.6**
Aulorhynchus flavidus (juv.)	-	-	1.0	2.5	1.3	3.1	-	-	**0.6**
Scorpaenichthys marmoratus	0.4	0.4	0.4	0.4	0.5	0.6	0.5	0.3	**0.5**
Sebastes rastrelliger	0.7	0.5	0.2	0.3	0.3	0.3	0.6	0.5	**0.4**
Rhacochilus vacca	0.8	0.6	<0.1	0.2	0.4	0.5	-	-	**0.3**
Hypsurus caryi	-	-	-	-	1.3	2.4	-	-	**0.3**
Embiotoca lateralis (juv.)	0.3	0.3	0.2	0.4	0.3	0.5	0.3	0.5	**0.3**
Cebidichthys violaceus	0.2	0.4	0.4	0.6	0.3	0.4	-	-	**0.2**
Gibbonsia spp.	0.2	0.3	0.2	0.3	0.2	0.3	0.3	0.3	**0.2**
Sebastes chrysomelas (juv.)	0.4	0.5	<0.1	0.2	0.2	0.3	<0.1	0.2	**0.2**
Embiotoca jacksoni (juv.)	-	-	<0.1	0.2	0.4	0.7	<0.1	0.2	**0.1**
Artedius spp.	-	-	<0.1	0.2	-	-	0.5	0.5	**0.1**
Hexagrammos decagrammus	0.2	0.3	<0.1	0.2	0.2	0.3	0.2	0.3	**0.1**
Ophiodon elongatus	0.2	0.3	<0.1	0.2	-	-	0.3	0.3	**0.1**
Rhacochilus vacca (juv.)	<0.1	0.2	-	-	0.3	0.6	<0.1	0.2	**0.1**
Rhacochilus toxotes	-	-	<0.1	0.2	-	-	0.3	0.4	**<0.1**
Sebastes atrovirens	-	-	-	-	-	-	0.2	0.3	**<0.1**
Sebastes atrovirens (yoy)	-	-	-	-	0.2	0.3	-	-	**<0.1**
Aulorhynchus flavidus	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Brachyistius frenatus	-	-	-	-	-	-	<0.1	0.2	**<0.1**
Sebastes serranoides	-	-	-	-	<0.1	0.2	-	-	**<0.1**
Orthonopias triacis	-	-	-	-	<0.1	0.2	-	-	**<0.1**
Sebastes mystinus	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Triakis semifasciata	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Brachyistius frenatus (juv.)	<0.1	0.2	-	-	-	-	-	-	**<0.1**
Myliobatis californica	<0.1	0.2	-	-	-	-	-	-	**<0.1**
Sebastes miniatus (yoy)	-	-	-	-	<0.1	0.2	-	-	**<0.1**
Sebastes chrysomelas/S. carnatus (yoy)	-	-	-	-	<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, NDC FO-2, NDC FO-3).

Survey	126		127		128		129		
Survey Date	5-May-05		1-Jul-05		24-Aug-05		18-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Annual Mean
Midwater									
Engraulis mordax	-	-	-	-	5.0	12.3	-	-	**1.3**
Oxyjulis californica	1.5	1.8	0.9	0.7	1.2	1.1	0.2	0.3	**0.9**
Oxyjulis californica (juv.)	2.7	2.5	-	-	0.2	0.4	-	-	**0.7**
Girella nigricans	0.9	2.3	<0.1	0.2	-	-	<0.1	0.2	**0.3**
Brachyistius frenatus	0.2	0.4	-	-	0.5	0.8	0.3	0.6	**0.3**
Embiotoca jacksoni	0.3	0.3	0.3	0.4	-	-	0.3	0.6	**0.2**
Rhacochilus vacca	0.4	1.0	<0.1	0.2	-	-	<0.1	0.2	**0.1**
Triakis semifasciata	-	-	-	-	0.4	0.5	<0.1	0.2	**0.1**
Myliobatis californica	-	-	0.4	0.7	<0.1	0.2	-	-	**0.1**
Sebastes serranoides	<0.1	0.2	<0.1	0.2	<0.1	0.2	-	-	**<0.1**
Paralabrax clathratus	-	-	<0.1	0.2	-	-	0.2	0.3	**<0.1**
Atherinopsis californiensis	0.3	0.6	-	-	-	-	-	-	**<0.1**
Brachyistius frenatus (juv.)	-	-	0.2	0.4	-	-	-	-	**<0.1**
Aulorhynchus flavidus	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Semicossyphus pulcher	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Benthic									
Oxyjulis californica (juv.)	21.7	14.8	-	-	0.2	0.4	-	-	**5.5**
Oxyjulis californica	4.6	3.4	1.7	2.2	6.5	5.3	5.6	4.9	**4.6**
Embiotoca jacksoni	3.1	2.3	2.3	1.9	2.7	1.8	4.0	2.3	**3.0**
Rhinogobiops nicholsi	1.3	1.1	0.6	0.7	2.2	3.0	1.2	0.5	**1.3**
Girella nigricans	1.0	2.2	1.1	2.7	1.0	2.2	0.3	0.4	**0.8**
Rhacochilus vacca	0.8	0.7	1.0	1.0	<0.1	0.2	1.0	0.6	**0.7**
Oxylebius pictus	0.7	0.9	0.2	0.3	0.9	0.9	0.5	0.6	**0.6**
Gibbonsia spp.	0.3	0.3	0.2	0.3	0.6	0.5	0.8	0.6	**0.5**
Rhacochilus vacca (juv.)	-	-	0.2	0.4	<0.1	0.2	1.4	3.0	**0.4**
Embiotoca jacksoni (juv.)	0.3	0.4	0.5	0.8	0.7	1.0	0.3	0.3	**0.4**
Embiotoca lateralis	0.2	0.4	0.6	0.9	0.2	0.3	0.6	0.8	**0.4**
Myliobatis californica	0.3	0.4	0.8	1.0	-	-	-	-	**0.3**
Sebastes chrysomelas	0.4	0.7	0.2	0.4	<0.1	0.2	0.3	0.4	**0.3**
Scorpaenichthys marmoratus	0.3	0.3	0.3	0.4	0.2	0.3	0.3	0.4	**0.3**
Sebastes chrysomelas/S. carnatus (yoy)	-	-	-	-	0.9	2.0	-	-	**0.2**
Rhacochilus toxotes	0.2	0.4	0.2	0.4	-	-	0.4	0.6	**0.2**
Sebastes rastrelliger	-	-	0.4	0.8	<0.1	0.2	-	-	**0.1**
Sebastes atrovirens	-	-	<0.1	0.2	0.2	0.3	0.2	0.4	**0.1**
Embiotoca lateralis (juv.)	-	-	0.2	0.4	0.3	0.4	-	-	**0.1**
Ophiodon elongatus	-	-	-	-	-	-	0.3	0.4	**<0.1**
Semicossyphus pulcher (juv.)	-	-	-	-	0.3	0.4	<0.1	0.2	**<0.1**
Semicossyphus pulcher	0.2	0.3	-	-	-	-	0.2	0.4	**<0.1**
Brachyistius frenatus	0.2	0.4	-	-	-	-	<0.1	0.2	**<0.1**
Sebastes chrysomelas (juv.)	<0.1	0.2	-	-	0.2	0.4	-	-	**<0.1**
Atherinopsis californiensis	0.3	0.6	-	-	-	-	-	-	**<0.1**
Artedius spp.	-	-	-	-	<0.1	0.2	<0.1	0.2	**<0.1**
Triakis semifasciata	<0.1	0.2	-	-	-	-	<0.1	0.2	**<0.1**
Paralabrax clathratus	0.2	0.4	-	-	-	-	-	-	**<0.1**
Sebastes serranoides	<0.1	0.2	-	-	-	-	-	-	**<0.1**
Orthonopias triacis	<0.1	0.2	-	-	-	-	-	-	**<0.1**
Cebidichthys violaceus	-	-	-	-	-	-	<0.1	0.2	**<0.1**
Brachyistius frenatus (juv.)	-	-	-	-	<0.1	0.2	-	-	**<0.1**
Urolophus halleri	<0.1	0.2	-	-	-	-	-	-	**<0.1**
Sebastes atrovirens (yoy)	-	-	-	-	-	-	<0.1	0.2	**<0.1**
Rhinogobiops nicholsi (juv.)	-	-	<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, SDC FO-2, SDC FO-3).

Survey	126		127		128		129		
Survey Date	9-May-05		4-Jul-05		23-Aug-05		17-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Midwater									
Atherinopsis californiensis	18.3	44.9	-	-	-	-	10.0	24.5	**7.1**
Atherinopsidae unid.	6.3	14.1	1.7	4.1	15.8	30.1	-	-	**5.9**
Oxyjulis californica	0.3	0.6	<0.1	0.2	1.9	1.9	6.6	9.7	**2.2**
Rhacochilus vacca	5.8	14.3	1.8	1.8	0.5	0.6	0.8	0.8	**2.2**
Brachyistius frenatus	-	-	2.0	3.6	1.2	1.9	0.4	0.5	**0.9**
Brachyistius frenatus (juv.)	-	-	-	-	1.1	2.7	-	-	**0.3**
Embiotoca lateralis	0.5	1.2	0.3	0.6	-	-	-	-	**0.2**
Triakis semifasciata	<0.1	0.2	<0.1	0.2	0.2	0.3	0.4	0.5	**0.2**
Embiotoca jacksoni	-	-	-	-	-	-	0.5	0.8	**0.1**
Myliobatis californica	0.3	0.4	-	-	-	-	<0.1	0.2	**0.1**
Paralabrax clathratus	0.2	0.4	-	-	<0.1	0.2	-	-	**<0.1**
Aulorhynchus flavidus	-	-	-	-	-	-	0.2	0.4	**<0.1**
Sebastes chrysomelas/S. carnatus (yoy)	-	-	0.2	0.4	-	-	-	-	**<0.1**
Girella nigricans	-	-	-	-	-	-	<0.1	0.2	**<0.1**
Oxyjulis californica (juv.)	-	-	-	-	<0.1	0.2	-	-	**<0.1**
Rhacochilus vacca (juv.)	-	-	-	-	<0.1	0.2	-	-	**<0.1**
Atractoscion nobilis	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Benthic									
larval/post-larval fish, unid.	84.2	206.2	-	-	-	-	1.3	3.1	**21.4**
Oxyjulis californica	1.0	2.0	-	-	1.4	2.8	19.5	17.4	**5.5**
Aulorhynchus flavidus (juv.)	0.2	0.4	2.4	5.9	5.8	6.0	0.7	1.6	**2.3**
Rhacochilus vacca	2.8	6.2	1.3	2.6	1.5	0.9	1.6	0.7	**1.8**
Embiotoca jacksoni	0.3	0.6	0.8	0.9	1.0	1.1	1.5	1.1	**0.9**
Oxylebius pictus	0.5	0.6	-	-	0.8	0.6	0.9	0.5	**0.5**
Embiotoca lateralis	-	-	1.2	1.6	0.6	0.6	0.4	1.0	**0.5**
Aulorhynchus flavidus	<0.1	0.2	-	-	-	-	1.8	4.3	**0.5**
Rhinogobiops nicholsi	<0.1	0.2	0.2	0.3	0.3	0.3	1.1	0.7	**0.4**
Sebastes chrysomelas	<0.1	0.2	0.8	0.7	0.3	0.3	0.4	0.5	**0.4**
Ophiodon elongatus	<0.1	0.2	0.3	0.3	0.7	0.8	0.3	0.6	**0.3**
Citharichthys spp.	0.6	0.8	0.6	0.9	<0.1	0.2	-	-	**0.3**
Citharichthys stigmaeus	-	-	0.8	1.4	-	-	-	-	**0.2**
Oxyjulis californica (juv.)	-	-	-	-	-	-	0.8	1.6	**0.2**
Gibbonsia spp.	0.2	0.3	-	-	<0.1	0.2	0.4	0.5	**0.2**
Myliobatis californica	0.5	0.8	-	-	-	-	0.2	0.3	**0.2**
Sebastes rastrelliger	<0.1	0.2	<0.1	0.2	0.3	0.4	<0.1	0.2	**0.1**
Brachyistius frenatus	-	-	-	-	0.2	0.4	0.4	0.5	**0.1**
Scorpaenichthys marmoratus	0.2	0.4	0.3	0.4	<0.1	0.2	<0.1	0.2	**0.1**
Embiotoca jacksoni (juv.)	-	-	-	-	0.4	1.0	<0.1	0.2	**0.1**
Artedius spp.	-	-	<0.1	0.2	0.2	0.3	0.2	0.3	**0.1**
Triakis semifasciata	0.2	0.3	-	-	<0.1	0.2	<0.1	0.2	**<0.1**
Sebastes atrovirens (yoy)	-	-	-	-	-	-	0.3	0.6	**<0.1**
Orthonopias triacis	<0.1	0.2	<0.1	0.2	-	-	<0.1	0.2	**<0.1**
Hexagrammos decagrammus	<0.1	0.2	0.2	0.4	-	-	-	-	**<0.1**
Girella nigricans	0.2	0.4	-	-	-	-	<0.1	0.2	**<0.1**
Sebastes chrysomelas/S. carnatus (yoy)	-	-	-	-	-	-	0.3	0.6	**<0.1**
Sebastes atrovirens	-	-	-	-	<0.1	0.2	-	-	**<0.1**
Pleuronichthys coenosus	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Sebastes chrysomelas (juv.)	-	-	-	-	-	-	<0.1	0.2	**<0.1**
Scorpaenichthys marmoratus (juv.)	<0.1	0.2	-	-	-	-	-	-	**<0.1**
Paralabrax clathratus	<0.1	0.2	-	-	-	-	-	-	**<0.1**

(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, SDC FO-2, SDC FO-3).

Survey	126		127		128		129		
Survey Date	9-May-05		4-Jul-05		23-Aug-05		17-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Benthic (continued)									
Urolophus halleri	<0.1	0.2	-	-	-	-	-	-	**<0.1**
Semicossyphus pulcher	-	-	-	-	-	-	<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, South Control Stations (SC FO-1, SC FO-2, SC FO-3).

Survey	126		127		128		129		
Survey Date	11-May-05		6-Jul-05		27-Aug-05		23-Nov-05		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	**Annual Mean**
Midwater									
Oxyjulis californica	17.6	20.9	6.5	15.2	24.8	48.2	3.2	3.8	**13.0**
larval/post-larval fish, unid.	25.0	61.2	-	-	-	-	-	-	**6.3**
Atherinopsidae unid.	-	-	-	-	-	-	2.9	4.6	**0.7**
Sebastes chrysomelas/S. carnatus (yoy)	-	-	1.2	1.6	<0.1	0.2	-	-	**0.3**
Sebastes mystinus	-	-	0.5	0.6	0.3	0.6	0.4	1.0	**0.3**
Oxyjulis californica (juv.)	-	-	1.0	2.5	-	-	-	-	**0.3**
Brachyistius frenatus	0.4	0.6	0.2	0.4	<0.1	0.2	<0.1	0.2	**0.2**
Embiotoca lateralis	<0.1	0.2	<0.1	0.2	0.4	1.0	0.2	0.3	**0.2**
Sebastes atrovirens (yoy)	-	-	-	-	0.7	1.1	-	-	**0.2**
Aulorhynchus flavidus	-	-	-	-	0.6	0.7	-	-	**0.1**
Rhacochilus vacca	-	-	<0.1	0.2	-	-	0.4	0.5	**0.1**
Sebastes serranoides	0.3	0.4	0.2	0.3	<0.1	0.2	-	-	**0.1**
Sebastes atrovirens	-	-	0.3	0.3	<0.1	0.2	-	-	**0.1**
Sebastes mystinus (juv.)	-	-	-	-	0.3	0.6	-	-	**<0.1**
Embiotoca jacksoni	-	-	<0.1	0.2	<0.1	0.2	-	-	**<0.1**
Rhacochilus toxotes	-	-	-	-	-	-	<0.1	0.2	**<0.1**
Embiotoca lateralis (juv.)	<0.1	0.2	-	-	-	-	-	-	**<0.1**
Rimicola spp.	-	-	-	-	-	-	<0.1	0.2	**<0.1**
Benthic									
Oxyjulis californica (juv.)	7.9	19.4	-	-	-	-	-	-	**2.0**
Oxyjulis californica	-	-	2.9	5.8	-	-	3.3	2.7	**1.6**
Oxylebius pictus	1.3	1.2	1.3	1.7	1.4	0.7	1.9	1.2	**1.5**
Embiotoca lateralis	0.3	0.4	1.0	0.7	1.0	1.0	3.3	1.1	**1.4**
Embiotoca jacksoni	0.7	0.4	1.0	0.6	1.3	1.0	2.1	0.9	**1.3**
Sebastes chrysomelas	1.6	1.3	1.3	0.8	0.8	0.5	1.0	0.9	**1.1**
Sebastes atrovirens	1.6	1.7	0.3	0.4	0.2	0.3	0.6	0.7	**0.6**
Orthonopias triacis	0.7	0.5	0.6	0.6	0.4	0.4	0.5	0.6	**0.5**
Hypsurus caryi	-	-	<0.1	0.2	1.9	4.5	<0.1	0.2	**0.5**
Artedius spp.	0.7	0.5	<0.1	0.2	0.3	0.4	0.3	0.5	**0.3**
Sebastes rastrelliger	0.9	0.7	<0.1	0.2	<0.1	0.2	0.2	0.4	**0.3**
Scorpaenichthys marmoratus	0.3	0.6	0.3	0.3	0.3	0.4	0.3	0.3	**0.3**
Hexagrammos decagrammus	0.5	0.5	<0.1	0.2	<0.1	0.2	0.4	0.4	**0.3**
Aulorhynchus flavidus (juv.)	0.3	0.8	-	-	0.5	1.2	0.3	0.6	**0.3**
Ophiodon elongatus	0.3	0.4	0.3	0.4	0.3	0.5	<0.1	0.2	**0.3**
Rhacochilus vacca	0.3	0.4	<0.1	0.2	0.3	0.6	0.3	0.4	**0.2**
Embiotoca lateralis (juv.)	-	-	0.4	0.6	-	-	0.4	0.5	**0.2**
Rhacochilus toxotes	0.3	0.4	0.3	0.3	<0.1	0.2	<0.1	0.2	**0.2**
Gibbonsia spp.	0.2	0.3	-	-	0.3	0.6	0.2	0.3	**0.1**
Brachyistius frenatus	0.3	0.4	-	-	0.3	0.4	-	-	**0.1**
Sebastes mystinus	-	-	<0.1	0.2	<0.1	0.2	0.3	0.5	**0.1**
Sebastes mystinus (juv.)	0.2	0.4	-	-	0.3	0.4	-	-	**0.1**
Embiotoca jacksoni (juv.)	0.2	0.4	-	-	-	-	0.2	0.3	**<0.1**
Cebidichthys violaceus	<0.1	0.2	0.2	0.3	-	-	-	-	**<0.1**
Sebastes chrysomelas (juv.)	-	-	<0.1	0.2	<0.1	0.2	-	-	**<0.1**
Sebastes chrysomelas/S. carnatus (yoy)	-	-	<0.1	0.2	<0.1	0.2	-	-	**<0.1**
Atherinopsidae unid.	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Sebastes serranoides	-	-	-	-	-	-	<0.1	0.2	**<0.1**
Sebastes melanops	<0.1	0.2	-	-	-	-	-	-	**<0.1**
Cephaloscyllium ventriosum	-	-	<0.1	0.2	-	-	-	-	**<0.1**
Apodichthys flavidus	-	-	-	-	<0.1	0.2	-	-	**<0.1**
Rhacochilus vacca (juv.)	-	-	-	-	<0.1	0.2	-	-	**<0.1**
Triakis semifasciata	<0.1	0.2	-	-	-	-	-	-	**<0.1**
Semicossyphus pulcher	-	-	-	-	-	-	<0.1	0.2	**<0.1**