Diablo Canyon Power Plant

Receiving Water Monitoring Program:
2001 Annual Report

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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 (CCRWQCB) in December 1998. Special studies completed in 1999 were not performed in 2000 or 2001, and are not included in this report. 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 through December 2001 from the program's intertidal and subtidal monitoring tasks (**Table 1**). The report sections are divided according to the program's individual tasks. Sampling methods for the intertidal and subtidal studies are followed by the results for the surveys completed in 2001. This report does not include any analysis or discussion of results.

Table 1. Tasks, stations, and frequency of surveys for the DCPP Receiving Water Monitoring Program, 2001.

Task and Sampling Frequency	Stations
Temperature Monitoring (continuous readings 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 1-V
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 Assessment (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

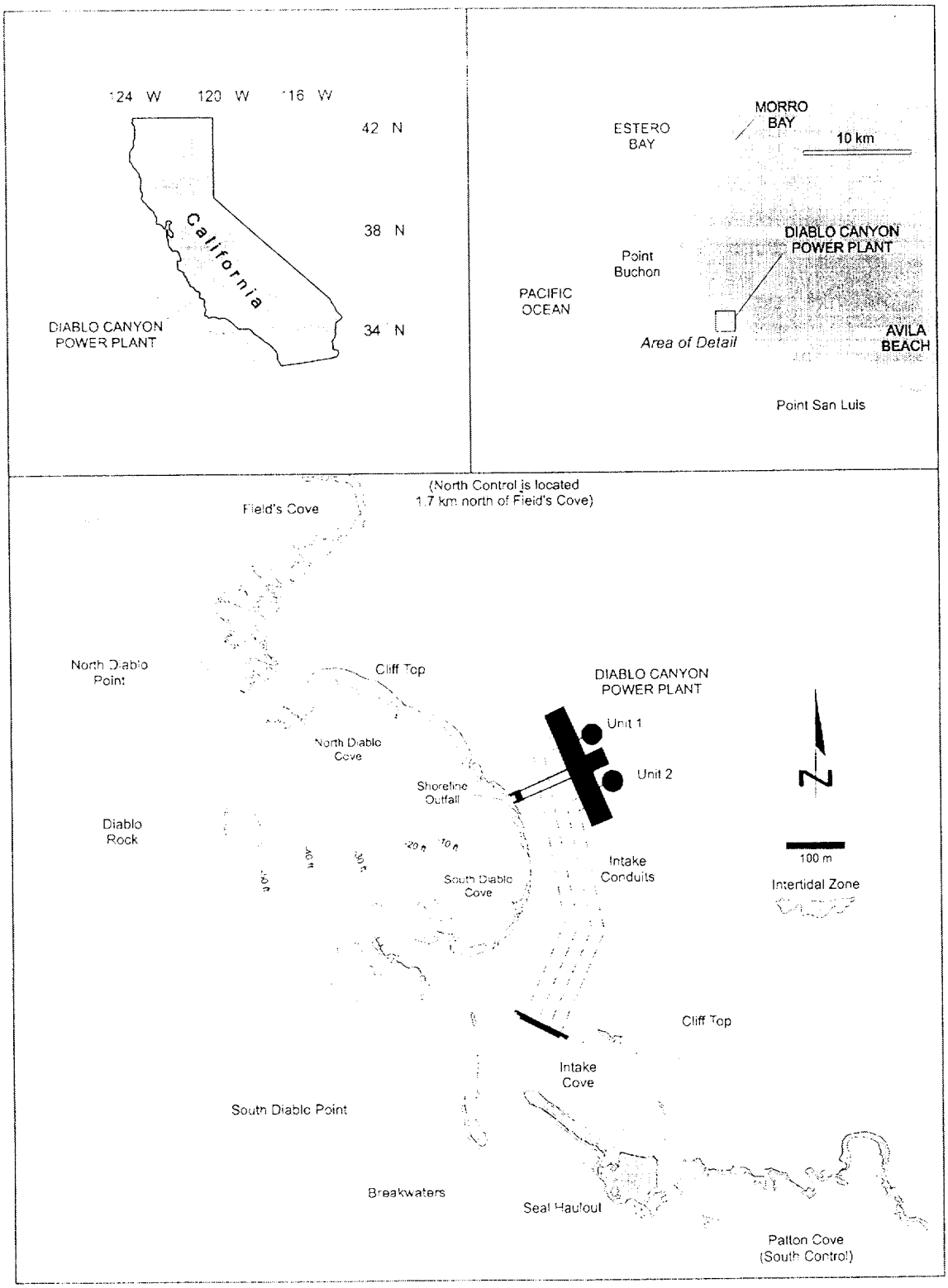


Figure 1. Location of the Diablo Canyon Power Plant.

2.0 TEMPERATURE MONITORING

Intertidal and subtidal seawater temperatures were recorded at permanent stations located along the Diablo 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 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 nearest to the point of discharge in Diablo Cove, and were contacted regularly by the discharge plume:

- Intertidal (NDC-1, NDC-2, NDC-3, SDC-1, SDC-2, SDC-3, SDP-1, and SDP-2)
- Subtidal (NDC 2 -3m, NDC 3 -3m, NDC 4 -4m, SDC 1 -3m, and SDC 4 -4m)

The following four stations were located in Field's Cove, approximately one kilometer upcoast from Diablo Cove:

- Intertidal (FC-1, FC-2, and FC-3)
- Subtidal (FC 1 -3m)

The following six control stations measure ambient ocean temperatures at sites beyond the influence of the discharge:

- Intertidal (NC-2, SC-1, and SC-1V)
- Subtidal (NC 1 -3m, SC 1 -3m, and SC 2 -6m)

Each instrument synchronously logged temperatures every 20 minutes throughout its deployment period. Instrument precision was 0.01°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.

Results

Results from the temperature monitoring are summarized monthly for each station. No monthly means are presented for subtidal station SC 1 -3m because the temperature unit deployed on December 1, 2001 was lost sometime during the month. The metal canister containing the unit was also lost. Several large swell events during the month probably broke the canister off from the station base. Air temperatures recorded by the intertidal temperature units were not analyzed and were removed from the database by referencing tidal height measurements 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 intertidal and subtidal temperature recording stations are included in the appendices.

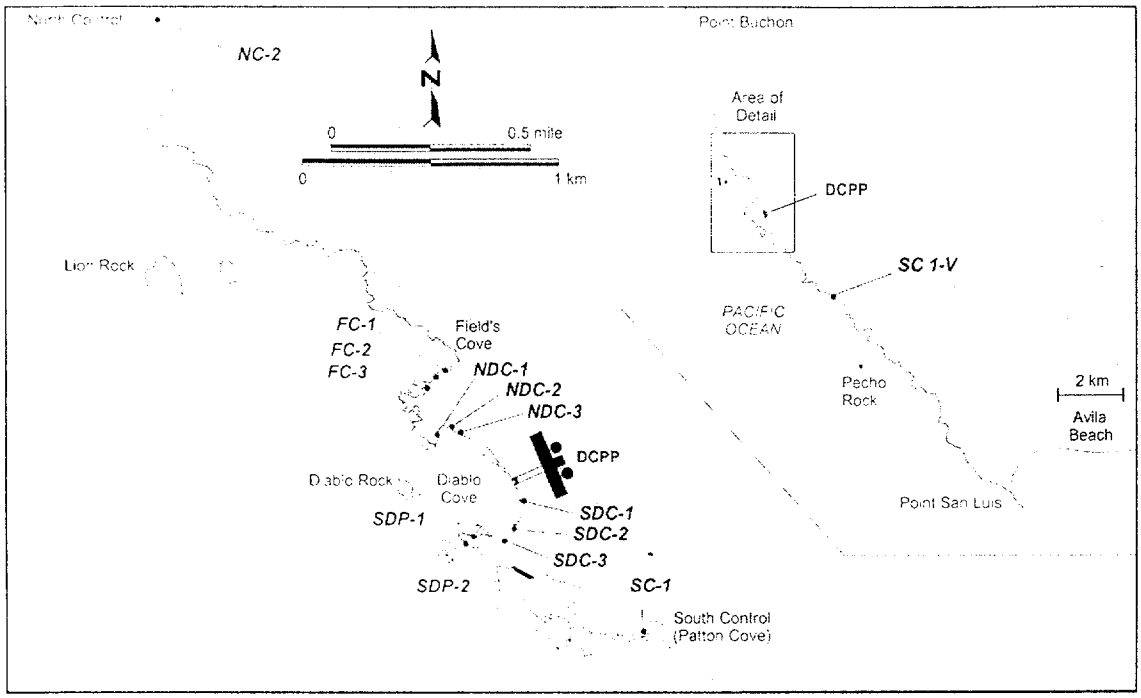


Figure 2. Locations of intertidal temperature monitoring stations.

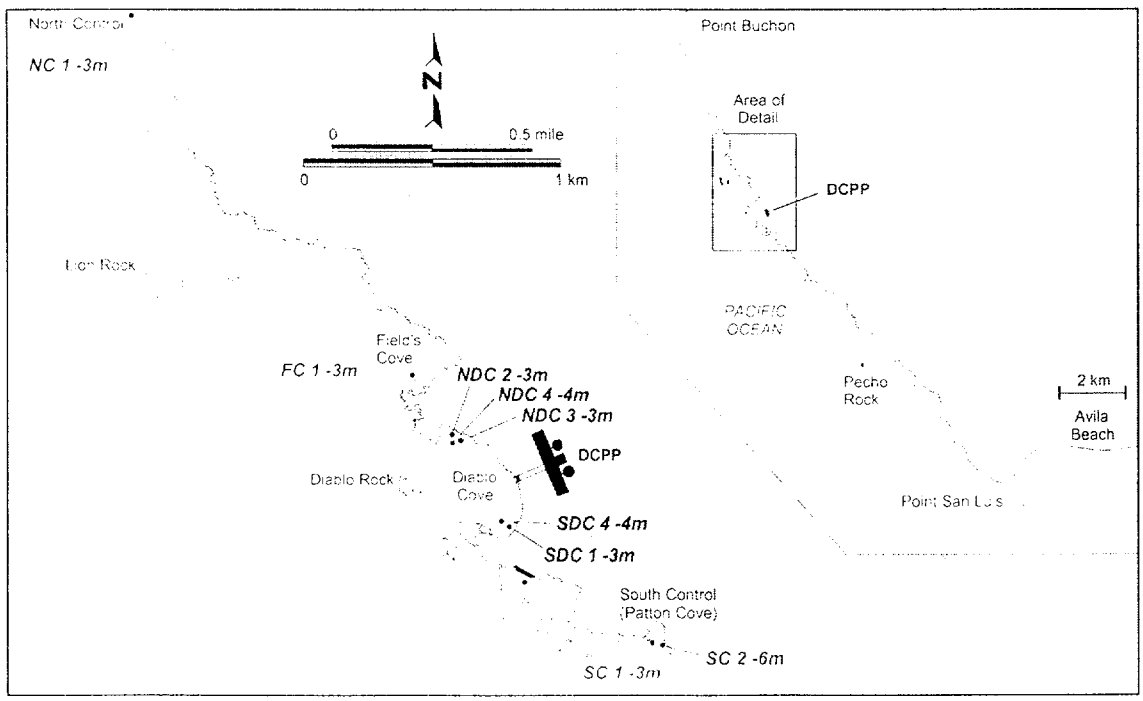


Figure 3. Locations of subtidal temperature monitoring stations.

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 their branches and blades were brushed 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 often exceeded 100 percent in a quadrat due to layering of multiple algal taxa on the rocks.

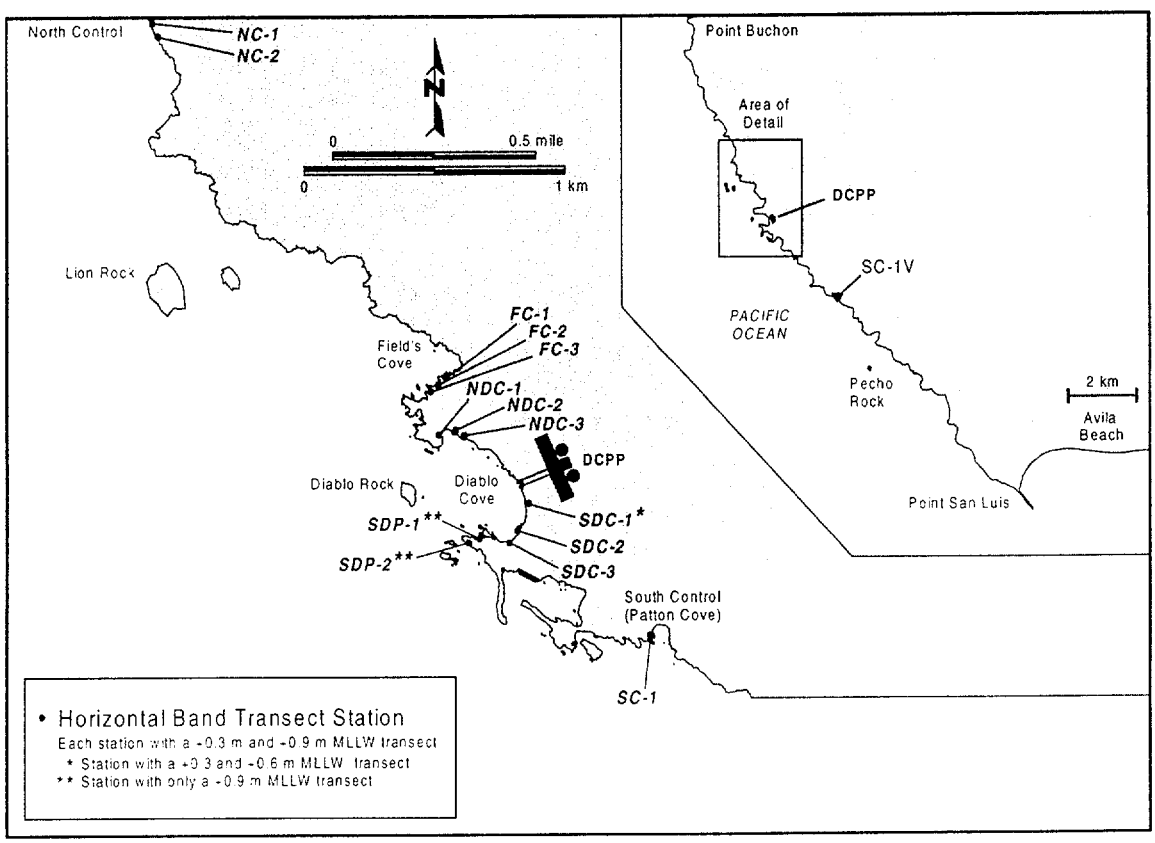


Figure 4. Horizontal band transect stations.

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.

Results

Results from the four surveys completed during the year are presented in the appendix tables showing the survey mean and standard deviation for each taxon at each transect level. The mean and standard deviation for the entire year across the four surveys was also calculated. 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. We also searched for cryptic fishes among the foliose algae. 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., *Anoplarchus/Cebidichthys*).

Results

Results from the four surveys completed during the year are presented in the appendix tables showing the total number of fishes of each taxon by survey at each station. The tables also show the mean survey abundance and standard deviation for each taxon for the entire year.

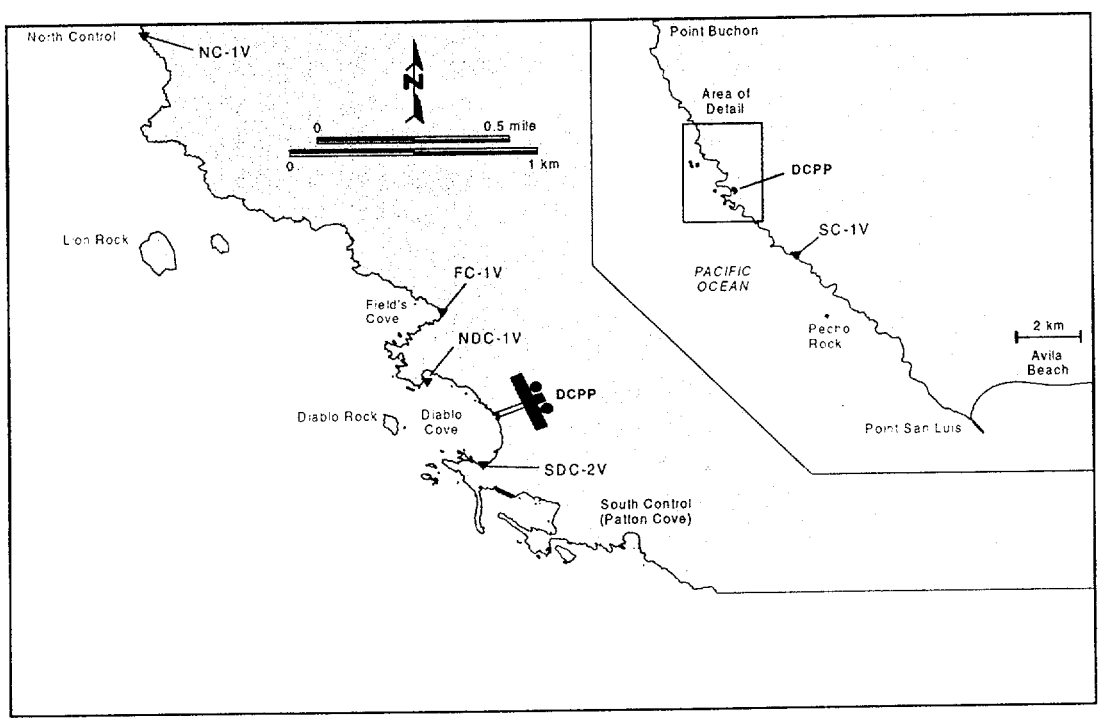


Figure 5. Vertical band transect stations

5.0 SUBTIDAL ALGAE AND INVERTEBRATES

Benthic Algae and Invertebrates

Subtidal algae and invertebrates were sampled at fixed stations (**Figure 6**) using three sampling methods. Each station was circular with a radius of 3.15 m and a sampling area of 28 m^2. The center 3.1 m^2 area, which contained a mooring wheel, was not sampled to avoid any unnatural algal and invertebrate growth associated with the mooring. Each station was divided into four equal sections, or "arc quadrants", 7 m^2 in area. All stations were established primarily on substrates of mixed bedrock and boulders with small amounts of cobble and sand. Depths ranged from -3 m to -6 m (-10 ft to -20 ft) MLLW.

Counts of individual species of kelp (brown algae of the order Laminariales and Fucales) and macroinvertebrates were estimated in each 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.

Other subtidal algal species are more difficult to count because they are usually small or occur as dense clumps. These species are often collectively referred to as the algal understory as they occur beneath kelp fronds. We quantified all understory species at the stations in percent cover using a random point contact (RPC) sampling method. A line with ten points positioned at

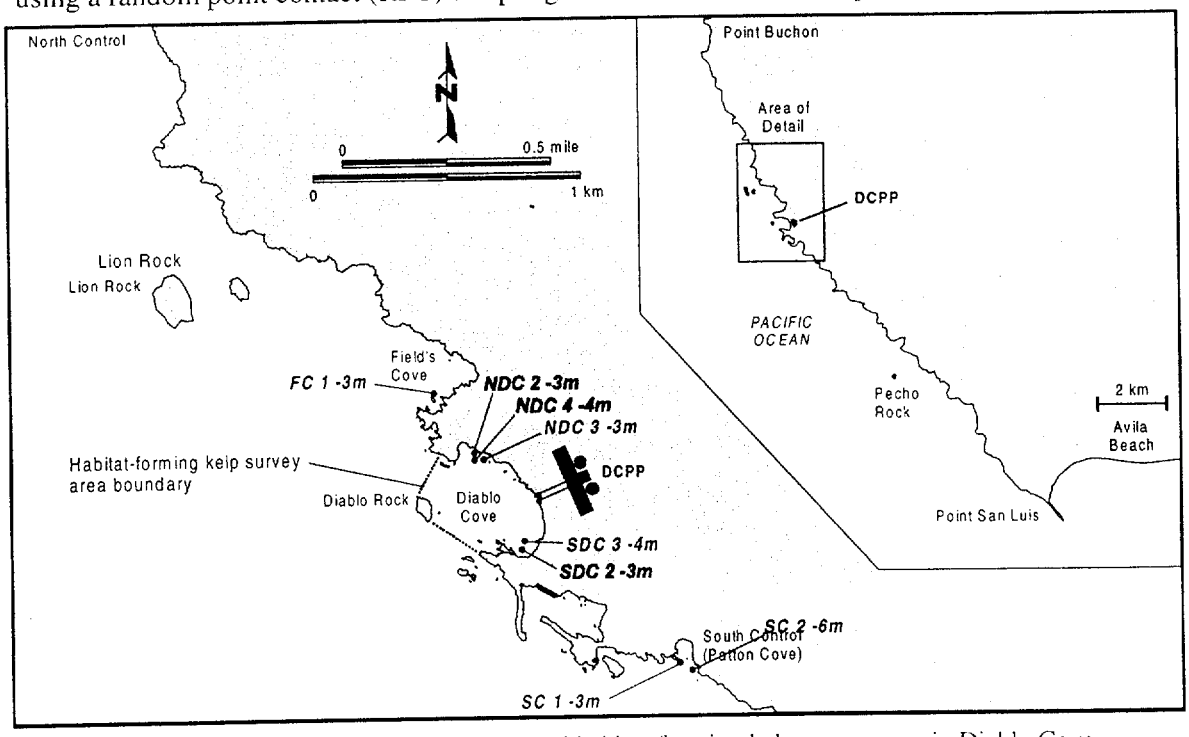


Figure 6. Subtidal benthic stations and habitat-forming kelp survey area in Diablo Cove.

used to locate sampling loci in each quadrant. Fifty points within each quadrant, or 200 points per station, were randomly selected (using a random numbers table) before sampling. For each survey we sampled a new set of randomly selected points. 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.

Smaller motile or attached invertebrates were sampled using the subtidal fixed quadrat (SFQ) method. This task sampled four circular quadrats with an area of 0.25 m^2 at fixed locations within each subtidal station to determine the species composition and abundance of the smaller, cryptic, subtidal invertebrates. 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. Non-encrusting taxa were identified and counted regardless of size. 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, or was recorded as "present" if coverage was less.

Results

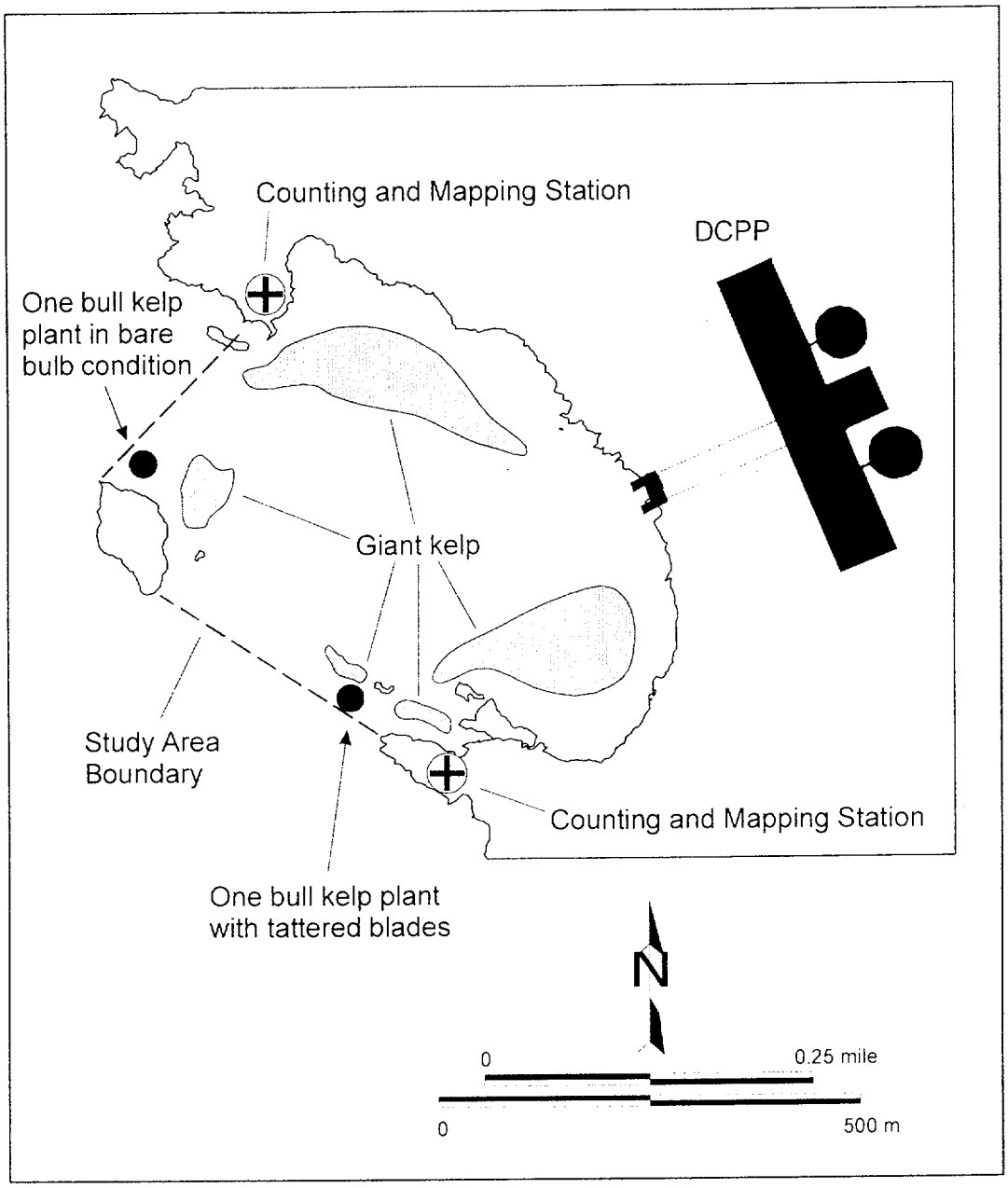
Results from the four surveys completed during the year are presented in the appendix tables showing the survey mean and standard deviation for each taxon at each station. The means are based on the data from the four quadrats or quadrants at each station. The tables also show the mean for all the surveys for the entire year by station. If an algal taxon was only recorded as present in the RPC study, its abundance was given a value of 0.000001 for calculating statistics for the station.

Surface Canopy Kelps

Maps 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.

Results

We conducted the annual habitat-forming kelp survey for *Nereocystis luetkeana* (bull kelp) and *Macrocystis pyrifera* (giant kelp) on October 30, 2001 for North and South Diablo Cove. The results from the survey showing two bull kelp plants in Diablo Cove are presented in **Figure 7**. There are no appendix figures or tables for this task.


Counting and Mapping Station
DCPP
One bull kelp plant in bare bulb condition
Giant kelp
Study Area Boundary
Counting and Mapping Station
One bull kelp plant with tattered blades
N
0
0.25 mile
0
500 m

Appendix Tables

Subtidal Temperature Results

Station NC 1 -3m monthly temperature (°C) summaries for January 2001 through December 2001.

Month	High	Low	Mean	Std.Dev.	N
Jan	13.7	11.3	12.8	0.44	2232
Feb	13.8	10.3	11.8	0.59	2016
Mar	14.5	10.2	12.1	0.82	2232
Apr	12.5	9.5	10.6	0.59	2160
May	15.0	9.4	12.4	1.27	2232
Jun	17.1	10.4	13.2	1.49	2160
Jul	15.9	11.6	13.4	0.79	2232
Aug	15.0	11.1	13.2	0.69	2232
Sep	16.1	11.1	14.0	1.05	2160
Oct	15.6	11.9	14.1	0.70	2231
Nov	16.0	12.2	14.1	0.95	2160
Dec	13.3	10.2	11.8	0.69	2232

Station FC 1 -3m monthly temperature (°C) summaries for January 2001 through December 2001.

Month	High	Low	Mean	Std. Dev.	N
Jan	15.6	11.8	13.4	0.63	2232
Feb	14.6	10.8	12.8	0.81	2016
Mar	16.1	10.5	12.8	1.07	2232
Apr	13.9	9.4	11.4	0.90	2160
May	16.1	9.2	12.7	1.47	2232
Jun	18.3	10.5	14.0	1.62	2160
Jul	16.5	12.4	14.4	0.84	2232
Aug	16.1	12.1	14.3	0.77	2232
Sep	17.4	11.9	15.3	1.30	2160
Oct	17.7	12.6	15.5	0.86	2231
Nov	17.5	12.6	15.0	1.19	2160
Dec	15.5	10.3	12.6	0.93	2232

Station NDC 2 -3m monthly temperature (°C) summaries for January 2001 through December 2001.

Month	High	Low	Mean	Std. Dev.	N
Jan	21.2	12.1	15.6	2.12	2202
Feb	20.7	10.8	15.5	2.07	1904
Mar	21.1	10.7	15.8	2.00	2232
Apr	19.8	10.4	14.9	1.84	2160
May	22.5	9.2	16.0	2.60	2232
Jun	23.3	11.4	17.1	2.12	2160
Jul	22.8	14.0	17.9	1.33	2232
Aug	21.9	13.2	17.9	1.40	2232
Sep	23.2	11.9	18.9	1.96	2160
Oct	24.0	14.2	19.0	1.59	2232
Nov	23.3	12.6	18.0	2.48	2160
Dec	21.0	10.3	15.1	2.37	2232

Station NDC 3 -3m monthly temperature (°C) summaries for January 2001 through December 2001.

Month	High	Low	Mean	Std. Dev.	N
Jan	23.2	12.3	16.3	2.45	2232
Feb	21.4	10.9	16.0	2.07	1741
Mar	21.9	10.8	16.2	2.11	2232
Apr	20.3	10.4	15.1	1.97	2160
May	22.3	9.3	15.8	2.67	2232
Jun	22.6	11.5	17.0	2.10	2159
Jul	22.9	13.9	17.6	1.56	2232
Aug	21.8	13.0	17.6	1.58	2232
Sep	23.9	12.1	18.8	2.06	2160
Oct	24.5	14.4	19.1	1.78	2232
Nov	24.6	12.6	18.3	2.59	2160
Dec	22.6	10.3	15.5	2.55	2232

Station NDC 4 -4m monthly temperature (°C) summaries for January 2001 through December 2001.

Month	High	Low	Mean	Std. Dev.	N
Jan	21.4	12.2	15.7	2.11	2202
Feb	20.6	10.9	15.5	2.04	1904
Mar	21.0	10.6	15.7	1.95	2232
Apr	19.9	10.2	14.5	1.83	2160
May	21.5	9.2	14.6	2.30	2232
Jun	21.8	11.2	16.1	2.00	2160
Jul	22.0	12.7	16.5	1.68	2232
Aug	21.3	12.6	16.7	1.72	2232
Sep	22.9	11.9	17.8	2.08	2160
Oct	23.8	13.0	18.2	1.78	2231
Nov	23.1	12.7	17.9	2.37	2160
Dec	21.0	10.5	15.0	2.32	2232

Station SDC 1 -3m monthly temperature (°C) summaries for January 2001 through December 2001.

Month	High	Low	Mean	Std. Dev.	N
Jan	23.6	12.9	16.6	1.95	2232
Feb	22.9	12.0	15.4	1.97	1742
Mar	23.5	11.9	16.0	2.03	2232
Apr	21.0	11.0	14.3	2.08	2160
May	21.3	10.0	14.2	1.99	2232
Jun	23.4	11.0	14.8	2.22	2160
Jul	22.9	11.3	14.7	2.20	2231
Aug	21.7	11.6	15.1	2.13	2232
Sep	22.3	12.1	16.1	2.08	2160
Oct	23.9	12.8	16.6	2.26	2231
Nov	25.1	13.2	17.8	2.22	2160
Dec	23.1	12.3	15.9	1.94	2232

Station SDC 4 -4m monthly temperature (°C) summaries for January 2001 through December 2001.

Month	High	Low	Mean	Std. Dev.	N
Jan	23.4	11.7	16.1	1.87	2203
Feb	22.2	11.0	14.5	2.01	1906
Mar	22.9	9.7	14.9	2.27	2232
Apr	17.7	9.6	12.4	1.84	2160
May	18.2	9.7	12.9	1.53	2232
Jun	20.0	9.9	12.9	1.74	2160
Jul	19.7	10.7	13.0	1.52	2232
Aug	19.9	10.9	13.1	1.62	2232
Sep	20.1	10.7	14.3	1.69	2160
Oct	21.7	12.1	14.8	2.02	2232
Nov	23.9	12.4	16.7	2.24	2160
Dec	21.5	11.0	14.8	1.69	2232

Station SC 1 -3m monthly temperature (°C) summaries for January 2001 through December 2001.

Month	High	Low	Mean	Std. Dev.	N
Jan	13.6	11.2	12.8	0.40	2231
Feb	13.0	10.2	11.7	0.54	2016
Mar	13.8	9.8	11.9	0.82	2232
Apr	12.1	9.1	10.4	0.59	2159
May	15.4	9.2	12.2	1.36	2232
Jun	17.0	10.0	12.9	1.65	2160
Jul	15.8	11.3	12.9	0.81	2232
Aug	14.7	11.3	12.9	0.66	2232
Sep	16.1	11.3	13.9	1.11	2160
Oct	15.6	12.0	14.1	0.73	2232
Nov	15.2	14.6	14.8	0.17	41
Dec	temperature recorder and canister lost from station				

Station SC 2 -6m monthly temperature (°C) summaries for January 2001 through December 2001.

Month	High	Low	Mean	Std. Dev.	N
Jan	13.6	11.6	12.8	0.37	2205
Feb	12.6	10.2	11.7	0.51	1908
Mar	13.4	9.6	11.8	0.86	2232
Apr	11.8	9.0	10.2	0.53	2159
May	14.8	9.1	11.9	1.29	2232
Jun	16.7	9.9	12.4	1.54	2160
Jul	15.4	10.5	12.3	0.83	2232
Aug	14.2	10.5	12.3	0.72	2232
Sep	15.8	10.8	13.5	1.10	2159
Oct	15.5	11.8	13.9	0.81	2232
Nov	15.8	12.2	14.2	0.95	2160
Dec	13.2	10.3	11.8	0.65	2232

Intertidal Temperature Results

Station NC 2 +.6m monthly temperature (°C) summaries for January 2001 through December 2001.

Month	High	Low	Mean	Std. Dev	N
Jan	13.7	10.9	12.7	0.46	1199
Feb	13.4	10.2	11.8	0.61	1029
Mar	14.1	10.4	12.2	0.76	1111
Apr	13.5	7.1	10.8	0.67	1094
May	15.7	9.6	12.8	1.45	1154
Jun	17.7	10.2	13.9	1.61	1135
Jul	15.9	11.7	13.9	0.83	1249
Aug	15.4	11.4	13.8	0.77	1290
Sep	16.2	11.3	14.3	1.09	1255
Oct	15.3	12.1	14.1	0.68	1281
Nov	16.0	11.9	14.1	0.98	1231

Station FC 1 +.6m monthly temperature (°C) summaries for January 2001 through December 2001.

Month	High	Low	Mean	Std. Dev	N
Jan	15.1	11.6	13.3	0.65	1487
Feb	14.7	10.5	12.7	0.79	1254
Mar	15.9	10.6	12.8	1.07	1333
Apr	14.4	7.9	11.3	1.01	1273
May	17.5	9.3	13.2	1.83	1341
Jun	19.5	9.6	14.9	2.00	1353
Jul	18.4	10.8	15.3	1.17	1485
Aug	17.8	12.0	15.1	1.04	1532
Sep	18.6	11.8	15.6	1.44	1432
Oct	17.6	12.4	15.6	0.89	1443
Nov	17.2	10.1	14.9	1.22	1398
Dec	15.1	10.2	12.5	0.92	1477

Station FC 2 +.6m monthly temperature (°C) summaries for January 2001 through December 2001.

Month	High	Low	Mean	Std. Dev	N
Jan	15.2	11.8	13.4	0.62	1199
Feb	14.7	10.7	12.7	0.77	1029
Mar	15.9	10.6	12.8	1.10	1111
Apr	14.4	7.6	11.4	1.00	1094
May	21.5	9.3	13.3	2.09	1154
Jun	23.3	9.2	12.1	1.71	1135
Jul	26.4	9.4	14.4	2.40	1249
Aug	22.1	8.8	15.3	2.37	1290
Sep	26.0	13.9	18.5	2.16	209
Oct	17.7	12.7	15.6	0.90	1239
Nov	17.2	12.6	14.9	1.21	1231
Dec	15.2	10.3	12.5	0.91	1288

Station FC 3 +.6m monthly temperature (°C) summaries for January 2001 through December 2001.

Month	High	Low	Mean	Std. Dev	N
Jan	15.3	11.4	13.4	0.62	1199
Feb	14.5	10.6	12.7	0.76	1029
Mar	16.0	10.7	12.8	1.06	1111
Apr	14.7	6.6	11.3	1.04	1094
May	17.5	8.5	13.1	1.79	1154
Jun	19.5	9.5	14.6	1.94	1135
Jul	18.0	10.7	15.1	1.11	1249
Aug	19.2	12.2	14.9	0.98	1290
Sep	18.9	11.8	15.6	1.42	1255
Oct	17.7	12.6	15.6	0.90	1281
Nov	17.2	10.1	14.9	1.22	1231
Dec	15.2	10.2	12.5	0.91	1288

Station NDC 1 +.6m monthly temperature (°C) summaries for January 2001 through December 2001.

Month	High	Low	Mean	Std. Dev	N
Jan	19.9	12.1	15.1	1.81	1487
Feb	19.3	10.9	15.1	1.81	1254
Mar	19.6	10.6	15.3	1.76	1333
Apr	18.2	9.9	13.9	1.81	1273
May	22.1	9.3	15.9	2.49	1341
Jun	24.2	11.1	17.4	2.51	1353
Jul	22.3	14.1	18.5	1.29	1485
Aug	22.1	13.4	18.4	1.37	1532
Sep	22.8	11.8	19.1	2.14	1432
Oct	22.6	13.7	18.8	1.41	1443
Nov	22.7	12.5	17.4	2.24	1398
Dec	19.8	10.3	14.4	2.05	1477

Station NDC 2 +.6m monthly temperature (°C) summaries for January 2001 through December 2001.

Month	High	Low	Mean	Std. Dev	N
Jan	19.3	12.1	15.4	1.61	646
Feb	19.8	10.7	15.4	1.80	1062
Mar	18.6	7.8	14.2	1.98	1066
Apr	22.1	9.1	16.1	2.50	1113
May	24.3	9.7	17.2	2.53	1102
Jun	22.7	10.9	18.7	1.36	1196
Jul	21.6	12.0	18.5	1.49	1243
Aug	23.2	11.9	19.3	2.09	1222
Sep	22.6	13.0	18.9	1.47	1253
Oct	22.5	12.6	17.5	2.28	1205
Nov	19.4	10.2	14.6	2.07	1249
Dec	19.3	12.1	15.4	1.61	646

Station NDC 3+.6m monthly temperature (°C) summaries for January 2001 through December 2001.

Month	High	Low	Mean	Std. Dev	N
Jan	20.4	12.1	15.3	1.94	1509
Feb	20.1	11.0	15.4	1.90	1270
Mar	20.4	10.7	15.6	1.84	1352
Apr	18.9	8.1	14.5	1.87	1290
May	22.2	9.3	16.2	2.44	1358
Jun	24.2	11.7	17.5	2.38	1363
Jul	22.6	14.0	18.7	1.27	1498
Aug	21.7	13.9	18.5	1.34	1540
Sep	23.0	11.9	19.2	2.05	1442
Oct	23.4	14.4	19.0	1.42	1462
Nov	22.7	12.6	17.7	2.36	1410
Dec	20.0	10.3	14.8	2.21	1491

Station SDC 1 +.6m monthly temperature (°C) summaries for January 2001 through December 2001.

Month	High	Low	Mean	Std. Dev	N
Jan	23.9	14.3	18.6	2.52	1532
Feb	22.9	12.8	16.6	2.67	1286
Mar	23.2	12.4	17.2	2.37	1368
Apr	21.0	11.8	15.0	1.99	1305
May	22.5	11.0	15.9	2.02	1370
Jun	24.7	12.7	17.1	2.22	1375
Jul	22.7	14.6	17.4	1.35	1511
Aug	21.9	14.7	17.8	1.27	1557
Sep	23.0	14.6	18.4	1.54	1455
Oct	25.3	15.6	18.2	1.51	1471
Nov	25.5	14.5	19.0	2.18	1420
Dec	23.6	13.1	17.2	2.55	1501

Station SDC 2 +.6m monthly temperature (°C) summaries for January 2001 through December 2001.

Month	High	Low	Mean	Std. Dev	N
Jan	22.3	12.9	16.1	1.47	1199
Feb	22.1	12.7	15.4	1.55	1029
Mar	21.7	12.4	16.1	1.67	1111
Apr	20.3	8.3	14.7	1.91	1094
May	22.3	10.4	15.8	2.08	1154
Jun	23.9	11.9	17.2	2.17	1135
Jul	22.7	13.9	17.4	1.35	1249
Aug	20.1	14.5	17.0	0.98	1290
Sep	21.9	14.2	17.6	1.35	1255
Oct	24.0	15.3	17.5	1.14	1281
Nov	23.7	13.6	17.7	1.78	1231
Dec	20.9	12.5	15.4	1.47	1288

Station SDC 3 +.6m monthly temperature (°C) summaries for January 2001 through December 2001.

Month	High	Low	Mean	Std. Dev	N
Jan	18.6	12.8	15.4	1.10	1359
Feb	17.6	12.3	14.6	0.99	1156
Mar	18.6	12.1	15.3	1.20	1251
Apr	16.9	10.0	13.6	1.04	1200
May	20.5	10.2	15.0	1.59	1255
Jun	22.1	12.5	16.2	1.78	1257
Jul	20.3	14.2	16.7	0.96	1383
Aug	20.3	14.1	17.1	1.03	1429
Sep	21.9	14.2	17.7	1.37	1345
Oct	21.0	15.3	17.4	1.03	1374
Nov	20.5	13.3	17.2	1.56	1325
Dec	18.0	11.9	14.8	1.10	1395

Station SDP 1 +.6m monthly temperature (°C) summaries for January 2001 through December 2001.

Month	High	Low	Mean	Std. Dev	N
Jan	18.5	12.8	15.4	1.10	1569
Feb	17.6	12.2	14.6	1.01	1318
Mar	18.3	12.1	15.3	1.17	1411
Apr	17.0	11.5	13.6	0.99	1337
May	20.8	10.1	14.9	1.65	1398
Jun	20.7	12.5	16.0	1.66	1409
Jul	20.4	14.4	16.4	0.94	1554
Aug	19.1	14.6	16.8	0.97	1597
Sep	21.7	14.0	17.6	1.35	1496
Oct	21.0	15.1	17.3	1.03	1502
Nov	20.5	13.3	17.2	1.56	1456
Dec	18.0	11.9	14.7	1.16	1536

Station SDP 2 +.6m monthly temperature (°C) summaries for January 2001 through December 2001.

Month	High	Low	Mean	Std. Dev	N
Jan	16.9	12.5	14.6	0.97	1487
Feb	16.4	11.6	13.9	0.94	1211
Mar	16.5	10.7	14.0	1.09	1333
Apr	16.3	10.1	12.9	0.90	1273
May	16.7	9.5	13.1	1.35	1341
Jun	20.7	12.5	15.3	1.59	1353
Jul	18.1	11.5	15.0	1.12	1485
Aug	18.6	12.5	15.7	0.98	1532
Sep	19.7	12.2	15.7	1.42	1432
Oct	19.1	12.8	16.2	1.10	1443
Nov	18.9	12.8	16.1	1.36	1398
Dec	16.9	11.2	13.9	1.06	1477

Station SC 1 +.6m monthly temperature (°C) summaries for January 2001 through December 2001.

Month	High	Low	Mean	Std. Dev	N
Jan	13.6	11.3	12.8	0.39	1337
Feb	12.9	10.1	11.7	0.52	1099
Mar	13.1	9.8	11.8	0.79	1228
Apr	11.9	8.9	10.4	0.59	1185
May	15.8	9.2	12.3	1.46	1237
Jun	17.0	10.1	13.3	1.71	1245
Jul	15.8	11.3	13.1	0.84	1361
Aug	14.7	11.2	13.1	0.68	1412
Sep	16.4	11.2	14.0	1.15	1336
Oct	15.6	12.0	14.1	0.74	1361
Nov	15.9	12.4	14.2	0.95	1318
Dec	13.2	10.4	11.8	0.70	1378

Station SC 1 -V monthly temperature (°C) summaries for January 2001 through December 2001.

Month	High	Low	Mean	Std. Dev	N
Jan	18.3	7.9	12.6	0.90	2232
Feb	22.5	8.0	12.0	1.66	2016
Mar	24.0	8.7	12.8	1.52	2231
Apr	25.6	4.5	12.0	2.51	2160
May	30.9	8.0	14.3	2.69	2232
Jun	26.7	8.9	15.5	2.31	2160
Jul	19.9	11.5	14.7	1.37	2232
Aug	17.5	11.1	14.5	1.12	2232
Sep	18.8	10.6	15.1	1.37	2160
Oct	18.1	11.2	14.6	0.90	2232
Nov	18.1	10.1	14.3	1.14	2160
Dec	16.0	6.9	11.7	0.99	2229

Intertidal Horizontal Band Transect Results

Horizontal Band Transects Station NC 1 +.3m Survey Means and Std. Deviations

Taxon	Survey Date	124 22-Jan-01 Mean	Std. Dev.	125 25-Jun-01 Mean	Std. Dev.	126 16-Aug-01 Mean	Std. Dev.	127 12-Dec-01 Mean	Std. Dev.	Annual Mean
Algae										
Mazzaella flaccida		18.5	9.87	52.2	14.17	31.0	12.57	13.7	10.56	28.8
Phyllospadix spp.		26.9	21.69	17.9	19.87	19.8	20.40	27.3	27.30	23.0
Mazzaella affinis		10.1	9.72	14.9	14.60	17.4	9.28	11.0	9.17	13.4
non-coralline crust		14.2	7.21	5.9	6.44	4.0	3.29	17.7	13.33	10.5
Gastroclonium subarticulatum		6.3	5.61	6.7	5.77	6.9	6.91	5.8	4.40	6.4
Chondracanthus canaliculatus		5.6	4.37	6.9	5.16	7.6	5.09	5.5	5.24	6.4
Mastocarpus papillatus		3.4	3.10	10.3	7.40	6.8	7.54	3.4	3.52	6.0
Gelidium coulteri		4.2	3.32	6.9	4.61	5.3	2.74	1.9	1.22	4.6
Cryptopleura violacea		2.2	2.08	1.8	1.68	5.6	3.72	2.9	2.55	3.1
Mazzaella leptorhynchos		0.2	0.34	3.3	3.73	4.5	5.55	0.3	0.67	2.1
Endocladia muricata		1.5	3.10	2.6	5.37	2.5	5.58	1.1	2.37	1.9
coralline crust		0.7	1.09	1.7	1.58	3.3	3.70	1.6	1.57	1.8
Codium setchellii (prostrate)		1.1	2.08	1.3	2.51	1.1	2.37	2.1	5.05	1.4
Mastocarpus jardinii		0.8	0.95	2.3	3.12	1.0	1.32	1.3	1.46	1.3
Mazzaella heterocarpa		0.6	0.91	2.4	2.30	1.6	1.18	0.6	1.12	1.3
Smithora naiadum		< .1	0.22	< .1	< .01	4.2	4.33	< .1	0.22	1.1
Corallina vancouveriensis		1.7	1.61	0.5	0.87	0.8	1.46	0.8	1.02	1.0
filamentous red algae-complex		< .1	0.22	2.1	2.68	1.1	2.08	< .1	< .01	0.8
Calliarthron/Bossiella spp.-complex		0.8	0.97	< .1	< .01	0.7	1.22	0.7	0.93	0.6
Ulva/Enteromorpha spp.		0.1	0.29	< .1	< .01	1.1	1.97	0.6	1.22	0.5
Gelidium pusillum		1.3	3.93	< .1	0.22	0.0	0.00	< .1	< .01	0.3
Prionitis spp.		0.3	0.59	0.1	0.44	< .1	0.22	0.7	1.46	0.3
Osmundea spp.		< .1	0.22	< .1	0.22	0.3	0.67	0.6	1.30	0.3
juv. articulated coralline algae		0.1	0.44	0.2	0.66	< .1	0.22	0.4	1.10	0.2
Pterosiphonia dendroidea		0.2	0.47	0.0	0.00	0.0	0.00	0.3	0.49	0.1
Corallina officinalis		0.1	0.44	< .1	< .01	0.0	0.00	0.2	0.47	< .1
Chrysophyta unid.		< .1	< .01	0.0	0.00	0.2	0.47	0.1	0.44	< .1
Callithamnion pikeanum		< .1	< .01	0.1	0.44	< .1	0.22	0.0	0.00	< .1
Egregia menziesii		0.2	0.66	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Cryptopleura ruprechtiana		< .1	0.22	0.0	0.00	0.0	0.00	< .1	0.22	< .1
Porphyra spp.		< .1	< .01	< .1	0.22	0.0	0.00	< .1	< .01	< .1
Microcladia borealis		0.0	0.00	< .1	< .01	< .1	0.22	0.0	0.00	< .1
Cladophora spp.		< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Melobesia mediocris		< .1	< .01	< .1	< .01	0.0	0.00	< .1	< .01	< .1
Microcladia coulteri		< .1	< .01	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Spongomorpha/Acrosiphonia-complex		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Neoptilota densa		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Callophyllis flabellulata		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Invertebrates										
Tegula funebralis		77.4	35.68	13.6	7.44	22.4	11.55	33.6	27.95	36.8
Pagurus spp.		14.8	9.12	5.4	2.41	8.6	2.70	12.2	6.42	10.3
Pista spp.		4.3	4.11	2.4	2.56	5.8	6.29	7.8	6.77	5.1
Anthopleura elegantissima		1.6	1.52	0.4	0.55	1.4	2.19	0.6	0.89	1.0
Leptasterias spp.		0.6	0.55	1.0	0.71	0.2	0.45	0.4	0.55	0.6
Tegula brunnea		0.6	0.89	0.0	0.00	0.8	0.84	0.0	0.00	0.4
Pugettia spp.		0.6	1.34	0.0	0.00	0.6	0.55	0.2	0.45	0.4
Epiactis prolifera		0.6	1.34	0.2	0.45	0.0	0.00	0.0	0.00	0.2
Tectura scutum		0.2	0.45	0.2	0.45	0.4	0.89	0.0	0.00	0.2
Pachygrapsus crassipes		0.2	0.45	0.0	0.00	0.2	0.45	0.2	0.45	0.2
Nemertea unid.		0.0	0.00	0.2	0.45	0.2	0.45	0.0	0.00	< .1
Mopalia spp.		0.0	0.00	0.2	0.45	0.2	0.45	0.0	0.00	< .1
Cancer antennarius		0.0	0.00	0.0	0.00	0.4	0.89	0.0	0.00	< .1
Ocenebra spp.		0.2	0.45	0.0	0.00	0.0	0.00	0.2	0.45	< .1
Alia spp.		0.0	0.00	0.0	0.00	0.2	0.45	0.0	0.00	< .1
Calliostoma ligatum		0.0	0.00	0.2	0.45	0.0	0.00	0.0	0.00	< .1
Lottia limatula		0.0	0.00	0.0	0.00	0.0	0.00	0.2	0.45	< .1
Lottia pelta		0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Serpulorbis squamigerus		0.0	0.00	0.0	0.00	0.0	0.00	0.2	0.45	< .1
Tonicella lineata		0.0	0.00	0.0	0.00	0.0	0.00	0.2	0.45	< .1

(*continued*)

Horizontal Band Transects Station NC 1 +.3m Survey Means and Std. Deviations (continued)

Taxon	Survey Date	124 22-Jan-01 Mean	Std. Dev.	125 25-Jun-01 Mean	Std. Dev.	126 16-Aug-01 Mean	Std. Dev.	127 12-Dec-01 Mean	Std. Dev.	Annual Mean
Invertebrates (continued)										
Nereididae unid.		0.0	0.00	0.0	0.00	0.2	0.45	0.0	0.00	< .1
Pycnopodia helianthoides		0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Strongylocentrotus purpuratus		0.0	0.00	0.2	0.45	0.0	0.00	0.0	0.00	< .1
Phidiana hiltoni		0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
tunicates, colonial/social unid.		< .1	0.22	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Lacuna spp.		< .1	0.00	< .1	< .01	< .1	0.00	< .1	< .01	< .1
Crepidula spp.		< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Porifera unid. (encrusting)		< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Spirorbidae		0.0	0.00	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Lottia asmi		< .1	< .01	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Bryozoa, unid. (encrusting)		0.0	0.00	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Tricolia spp.		< .1	< .01	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Lissothuria nutriens		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Chthamalus fissus		< .1	< .01	< .1	< .01	0.0	0.00	< .1	< .01	< .1
Phragmatopoma californica		< .1	< .01	< .1	< .01	0.0	0.00	< .1	< .01	< .1
Loxorhynchus spp.		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Bittium spp.		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Sipuncula unid.		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Salmacina tribranchiata		0.0	0.00	0.0	0.00	< .1	< .01	< .1	< .01	< .1
Haliclona spp.		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Substrate										
sand (shell gravel)		16.6	8.24	3.3	2.97	6.7	7.92	15.3	10.82	10.5
rock		2.5	2.58	2.0	1.81	1.6	1.70	3.0	2.56	2.3
cobble		0.6	0.55	0.9	1.09	0.5	1.31	0.6	0.97	0.6

Horizontal Band Transects Station NC 1 +.9m Survey Means and Std. Deviations

Survey	124		125		126		127		
Date	22-Jan-01		25-Jun-01		16-Aug-01		12-Dec-01		Annual
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae									
Endocladia muricata	34.0	24.41	38.5	25.39	29.7	25.45	32.4	24.87	33.6
non-coralline crust	21.3	9.11	21.7	11.45	8.8	5.47	30.8	7.90	20.6
Mazzaella flaccida	13.3	10.71	16.7	18.10	15.1	13.90	20.0	16.16	16.3
Mastocarpus papillatus	10.2	7.29	15.7	13.92	20.8	11.98	14.0	10.03	15.2
coralline crust	10.0	4.51	4.0	2.22	4.7	2.47	4.8	3.91	5.9
Pelvetia compressa	5.6	12.10	5.9	12.82	5.2	10.62	6.0	9.98	5.7
Codium setchellii (prostrate)	2.8	7.09	1.8	4.14	1.9	4.15	4.2	12.93	2.7
Mazzaella affinis	1.0	1.77	1.9	2.22	3.8	6.86	1.7	1.97	2.1
Corallina vancouveriensis	2.6	2.75	1.7	2.10	1.7	2.52	1.5	2.00	1.9
Mastocarpus jardinii	0.7	0.87	1.3	1.65	2.2	2.48	0.7	1.04	1.2
Mazzaella heterocarpa	0.8	0.64	0.7	1.22	0.5	0.81	1.5	0.95	0.9
Gelidium coulteri	0.5	0.66	0.4	0.94	0.8	1.22	1.1	0.99	0.7
Chondracanthus canaliculatus	0.6	0.91	< .1	0.22	0.3	0.67	0.8	1.20	0.4
Cryptopleura violacea	0.5	1.54	0.2	0.47	1.0	2.15	0.0	0.00	0.4
Phyllospadix spp.	0.6	1.98	0.6	1.98	0.0	0.00	0.0	0.00	0.3
Mazzaella leptorhynchos	0.2	0.66	0.0	0.00	0.2	0.66	0.8	1.98	0.3
Prionitis spp.	0.3	0.75	< .1	0.22	0.3	0.67	0.3	0.75	0.3
juv. articulated coralline algae	0.2	0.34	0.1	0.44	0.3	0.88	0.2	0.47	0.2
Porphyra spp.	< .1	< .01	0.4	0.75	0.4	0.88	< .1	< .01	0.2
Analipus japonicus	0.2	0.66	< .1	< .01	0.1	0.44	0.5	1.54	0.2
Spongomorpha/Acrosiphonia-complex	0.0	0.00	0.0	0.00	0.8	1.62	0.0	0.00	0.2
Gelidium pusillum	0.1	0.29	< .1	0.00	< .1	0.00	0.2	0.34	< .1
Gastroclonium subarticulatum	< .1	< .01	0.0	0.00	0.0	0.00	0.2	0.66	< .1
Cladophora spp.	< .1	0.00	0.1	0.44	< .1	0.00	< .1	0.00	< .1
Ulva/Enteromorpha spp.	0.0	0.00	0.0	0.00	0.1	0.44	0.0	0.00	< .1
Calliarthron/Bossiella spp.-complex	< .1	0.22	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Callithamnion pikeanum	< .1	< .01	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Callithamnion spp./*Pleonosporium* spp.	< .1	< .01	0.0	0.00	< .1	< .01	0.0	0.00	< .1
filamentous red algae-complex	< .1	< .01	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Invertebrates									
Tegula funebralis	72.0	48.84	103.0	87.45	121.0	59.38	75.2	25.07	92.8
Anthopleura elegantissima	13.4	23.35	12.0	22.49	7.8	7.76	9.0	17.35	10.6
Pagurus spp.	4.2	5.22	11.8	15.07	15.8	13.37	9.4	13.65	10.3
Pollicipes polymerus	7.6	16.99	8.0	17.89	1.0	2.24	11.0	24.60	6.9
Macclintockia scabra	4.2	7.82	0.4	0.89	5.0	6.00	0.6	0.89	2.6
Nuttallina californica	1.8	2.68	1.2	2.68	3.6	4.10	0.8	1.10	1.9
Mytilus californianus	2.2	4.92	0.0	0.00	0.0	0.00	3.4	7.06	1.4
Lottia limatula	0.2	0.45	1.8	1.79	1.0	1.41	0.4	0.55	0.9
Leptasterias spp.	0.0	0.00	1.0	0.71	1.4	1.67	0.2	0.45	0.7
Mopalia spp.	1.0	0.71	0.8	0.84	0.2	0.45	0.4	0.55	0.6
Tectura scutum	0.6	1.34	0.6	1.34	1.2	1.64	0.0	0.00	0.6
Pachygrapsus crassipes	0.0	0.00	1.6	1.34	0.6	0.55	0.0	0.00	0.6
Tetraclita rubescens	0.0	0.00	0.2	0.45	1.0	2.24	1.0	1.73	0.6
Mytilus spp.	0.0	0.00	0.6	1.34	1.6	3.58	0.0	0.00	0.6
Strongylocentrotus purpuratus	0.4	0.89	0.0	0.00	0.4	0.55	1.2	1.64	0.5
Lottia pelta	0.2	0.45	0.4	0.89	0.2	0.45	0.6	0.89	0.4
Nemertea unid.	0.0	0.00	0.2	0.45	0.4	0.89	0.6	0.55	0.3
Fissurella volcano	0.0	0.00	0.4	0.89	0.0	0.00	0.2	0.45	0.2
Ocenebra spp.	0.4	0.55	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Haliotis spp.	0.2	0.42	0.0	0.00	< .1	0.32	0.0	0.00	< .1
Cyanoplax spp.	0.0	0.00	0.2	0.45	0.0	0.00	0.0	0.00	< .1
Haliclona spp.	< .1	< .01	< .1	< .01	0.0	0.00	0.1	0.44	< .1
Phragmatopoma californica	< .1	< .01	< .1	< .01	< .1	< .01	< .1	0.22	< .1
Acmaeidae unid.	< .1	< .01	< .1	< .01	< .1	0.00	< .1	< .01	< .1
Chthamalus fissus	< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Crepidula spp.	< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Spirorbidae	0.0	0.00	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Lottia asmi	< .1	< .01	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Lacuna spp.	< .1	< .01	0.0	0.00	< .1	< .01	< .1	< .01	< .1

(*continued*)

Horizontal Band Transects Station NC 1 +.9m Survey Means and Std. Deviations (continued)

Taxon	Survey Date	124 22-Jan-01 Mean	Std. Dev.	125 25-Jun-01 Mean	Std. Dev.	126 16-Aug-01 Mean	Std. Dev.	127 12-Dec-01 Mean	Std. Dev.	Annual Mean
Invertebrates (continued)										
Isopoda unid.		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Acmaea mitra		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Littorina spp.		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Ischnochitonidae		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Bittium spp.		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Sipuncula unid.		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Cirratulidae/Terebellidae unid.		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Pista spp.		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Porifera unid. (encrusting)		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Substrate										
rock		9.7	8.59	13.6	13.54	9.7	8.24	8.2	5.49	10.3
cobble		2.5	6.04	4.2	12.93	0.9	2.07	0.8	2.64	2.1
sand (shell gravel)		0.7	1.50	0.8	1.44	0.7	1.46	1.3	2.64	0.9

Horizontal Band Transects Station NC 2 +.3m Survey Means and Std. Deviations

Taxon	Survey	124		125		126		127		Annual
	Date	21-Jan-01		25-Jun-01		16-Aug-01		12-Dec-01		
		Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae										
Mazzaella flaccida		11.1	12.16	39.2	20.91	20.8	12.41	13.2	9.35	21.1
Phyllospadix spp.		16.6	16.27	14.8	18.04	18.5	17.15	23.0	22.15	18.2
non-coralline crust		20.4	11.12	8.8	4.57	9.2	5.04	24.4	15.55	15.7
Mazzaella affinis		10.3	8.66	10.7	5.43	12.0	10.00	8.1	7.65	10.3
Chondracanthus canaliculatus		9.4	8.92	10.2	5.97	10.7	7.28	9.2	6.93	9.9
Gastroclonium subarticulatum		7.7	6.53	7.9	6.91	6.9	5.03	10.6	11.48	8.3
Mastocarpus papillatus		2.2	1.24	9.2	5.55	8.6	4.68	4.0	7.19	6.0
Porphyra spp.		0.0	0.00	10.9	12.85	7.5	8.35	< .1	< .01	4.6
Gelidium coulteri		3.5	3.09	4.4	4.14	5.1	2.93	1.2	0.87	3.5
Smithora naiadum		< .1	< .01	0.8	1.37	9.9	8.43	< .1	< .01	2.7
coralline crust		4.1	1.68	1.4	1.57	2.8	2.12	2.2	2.09	2.6
Codium setchellii (prostrate)		3.0	5.92	0.8	1.98	1.3	2.26	1.9	3.35	1.8
Ulva/Enteromorpha spp.		1.5	2.19	1.0	1.97	3.3	2.47	0.8	1.11	1.6
Mazzaella leptorhynchos		1.1	1.19	2.6	1.76	2.6	1.60	< .1	0.22	1.6
Egregia menziesii		0.0	0.00	1.3	3.93	4.4	8.10	0.6	1.16	1.6
Mazzaella heterocarpa		1.6	1.18	2.9	2.33	1.2	1.47	0.3	0.67	1.5
Neorhodomela larix		1.9	3.43	1.3	1.79	1.9	3.03	0.6	0.76	1.4
Mastocarpus jardinii		1.0	2.02	1.7	3.75	1.2	1.50	1.1	1.71	1.3
filamentous red algae-complex		0.3	0.67	1.9	4.27	2.8	3.11	< .1	< .01	1.2
Corallina vancouveriensis		2.1	4.18	0.5	0.87	0.3	0.49	0.6	1.53	0.9
Cryptopleura violacea		0.6	1.22	0.6	1.02	1.4	1.73	0.6	0.95	0.8
Calliarthron/Bossiella spp.-complex		1.0	1.54	0.3	0.49	0.8	0.97	0.6	0.89	0.7
Endocladia muricata		< .1	0.22	0.4	0.75	0.4	0.94	0.3	1.10	0.3
juv. articulated coralline algae		0.3	1.10	0.3	0.49	0.4	0.88	< .1	< .01	0.3
Microcladia coulteri		< .1	< .01	< .1	< .01	1.1	1.36	< .1	< .01	0.3
Prionitis spp.		0.2	0.47	0.4	0.67	0.0	0.00	0.3	0.59	0.2
Colpomenia spp.		0.0	0.00	0.6	1.76	< .1	< .01	0.0	0.00	0.1
Pterosiphonia dendroidea		< .1	< .01	0.0	0.00	0.0	0.00	0.4	0.59	0.1
Spongomorpha/Acrosiphonia-complex		0.0	0.00	0.2	0.47	0.2	0.47	< .1	< .01	0.1
Gelidium pusillum		< .1	0.22	< .1	< .01	0.0	0.00	0.2	0.66	< .1
Osmundea spp.		< .1	< .01	< .1	< .01	< .1	0.22	0.1	0.29	< .1
Laminaria setchellii		0.1	0.44	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Halymenia/Schizymenia spp.-complex		< .1	0.22	< .1	0.22	0.0	0.00	0.0	0.00	< .1
Cladophora spp.		< .1	< .01	< .1	< .01	< .1	0.22	< .1	< .01	< .1
Sarcodiotheca gaudichaudii		< .1	< .01	< .1	0.22	0.0	0.00	0.0	0.00	< .1
Grateloupia doryphora		< .1	0.22	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Chondracanthus corymbiferus		0.0	0.00	< .1	0.22	0.0	0.00	0.0	0.00	< .1
Schizymenia epiphytica		< .1	0.22	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Melobesia mediocris		< .1	< .01	< .1	< .01	< .1	0.00	< .1	< .01	< .1
Corallina officinalis		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Callithamnion pikeanum		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Callithamnion spp./*Pleonosporium* spp.		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Bryopsis spp.		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Invertebrates										
Tegula funebralis		39.2	22.79	7.4	4.16	7.8	3.03	35.2	32.10	22.4
Pagurus spp.		17.6	13.11	17.2	17.38	13.8	13.44	9.8	6.83	14.6
Pista spp.		5.5	3.70	3.7	2.29	10.6	5.74	2.8	3.67	5.6
Tegula brunnea		0.8	1.79	3.0	1.87	7.0	3.32	1.4	1.67	3.1
Anthopleura elegantissima		2.4	3.36	5.0	6.20	1.2	2.17	0.2	0.45	2.2
Tectura scutum		3.2	4.09	3.0	2.00	0.8	1.30	1.6	3.05	2.2
Lottia limatula		0.0	0.00	0.8	0.84	4.0	6.82	0.0	0.00	1.2
Lottia pelta		0.4	0.89	0.2	0.45	2.8	5.72	0.6	0.89	1.0
Macclintockia scabra		1.8	2.17	0.6	0.89	0.0	0.00	1.4	3.13	1.0
Leptasterias spp.		0.8	0.84	1.4	0.89	0.2	0.45	0.0	0.00	0.6
Nemertea unid.		0.0	0.00	0.6	0.89	1.6	1.52	0.0	0.00	0.6
Pugettia spp.		0.0	0.00	0.2	0.45	1.4	2.07	0.4	0.55	0.5
Epiactis prolifera		0.8	1.30	0.4	0.89	0.2	0.45	0.4	0.89	0.5
Tetraclita rubescens		0.8	0.84	0.6	1.34	0.0	0.00	0.0	0.00	0.4
Porifera unid. (encrusting)		< .1	< .01	< .1	< .01	1.1	2.08	< .1	< .01	0.3
Fissurella volcano		0.2	0.45	0.0	0.00	0.4	0.89	0.4	0.89	0.3

(*continued*)

Horizontal Band Transects Station NC 2 +.3m Survey Means and Std. Deviations (continued)

Taxon	Survey Date	124 21-Jan-01 Mean	Std. Dev.	125 25-Jun-01 Mean	Std. Dev.	126 16-Aug-01 Mean	Std. Dev.	127 12-Dec-01 Mean	Std. Dev.	Annual Mean
Invertebrates (continued)										
Pycnogonida unid.		0.0	0.00	0.0	0.00	1.0	1.41	0.0	0.00	0.3
Ocenebra spp.		0.4	0.55	0.0	0.00	0.0	0.00	0.2	0.45	0.2
Lottia gigantea		0.0	0.00	0.4	0.89	0.0	0.00	0.0	0.00	< .1
Pseudomelatoma torosa		0.0	0.00	0.0	0.00	< .1	< .01	0.2	0.45	< .1
Acanthina spp.		0.0	0.00	0.0	0.00	0.0	0.00	0.2	0.45	< .1
Mopalia spp.		0.0	0.00	0.0	0.00	0.2	0.45	0.0	0.00	< .1
Tonicella lineata		0.0	0.00	0.0	0.00	0.2	0.45	0.0	0.00	< .1
Pachygrapsus crassipes		0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Loxorhynchus spp.		0.0	0.00	0.0	0.00	0.2	0.45	0.0	0.00	< .1
Chthamalus fissus		< .1	< .01	< .1	< .01	< .1	< .01	< .1	0.22	< .1
Lacuna spp.		< .1	< .01	< .1	0.00	< .1	< .01	< .1	0.00	< .1
tunicates, colonial/social unid.		< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Crepidula spp.		< .1	< .01	< .1	< .01	0.0	0.00	< .1	< .01	< .1
Acmaeidae unid.		< .1	< .01	0.0	0.00	< .1	0.00	< .1	< .01	< .1
Spirorbidae		< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Phragmatopoma californica		< .1	< .01	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Bryozoa, unid. (encrusting)		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Lottia asmi		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Ischnochitonidae		0.0	0.00	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Lottia ochracea		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Nereididae unid.		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Serpulidae unid.		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Tectura paleacea		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Substrate										
sand (shell gravel)		5.3	5.32	4.6	3.39	7.0	4.19	13.0	11.83	7.5
rock		11.3	8.00	4.8	4.43	3.8	3.92	9.5	6.65	7.3
cobble		1.9	3.93	1.9	3.43	1.3	3.10	1.5	2.39	1.6

Horizontal Band Transects Station NC 2 +.9m Survey Means and Std. Deviations

Taxon	Survey	124		125		126		127		Annual
	Date	22-Jan-01		25-Jun-01		16-Aug-01		12-Dec-01		
		Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae										
Endocladia muricata		42.6	24.98	42.8	27.96	37.5	26.78	35.9	25.72	39.7
Mastocarpus papillatus		9.4	5.68	21.4	10.79	25.9	14.90	16.8	10.30	18.4
non-coralline crust		14.8	7.42	10.2	6.21	5.5	2.97	14.3	5.52	11.2
Mazzaella flaccida		4.0	4.94	7.2	7.81	8.1	8.22	8.3	8.08	6.9
Mazzaella affinis		6.0	6.87	6.6	6.88	5.6	9.76	6.9	6.34	6.3
coralline crust		9.4	8.13	2.8	2.54	1.9	2.17	4.9	7.72	4.8
Mastocarpus jardinii		0.7	1.50	1.5	1.48	0.8	1.81	1.7	3.11	1.1
Gelidium coulteri		0.8	1.55	1.0	3.06	0.3	0.88	0.3	1.10	0.6
Mazzaella heterocarpa		0.4	0.36	1.2	1.76	0.5	0.87	0.2	0.66	0.6
Corallina vancouveriensis		0.6	1.98	0.8	1.98	< .1	< .01	0.1	0.44	0.4
Calliarthron/Bossiella spp.-complex		0.1	0.29	0.6	1.98	0.4	1.10	< .1	< .01	0.3
Gelidium pusillum		0.5	1.14	0.2	0.66	< .1	0.22	< .1	< .01	0.2
Mazzaella leptorhynchos		0.3	1.10	0.1	0.29	0.3	0.49	< .1	< .01	0.2
Chondracanthus canaliculatus		0.3	1.10	0.3	1.10	< .1	< .01	< .1	0.22	0.2
juv. articulated coralline algae		0.4	0.88	< .1	0.22	0.2	0.66	< .1	< .01	0.2
Porphyra spp.		0.0	0.00	< .1	0.22	0.5	0.74	< .1	< .01	0.1
Cryptopleura violacea		0.0	0.00	0.0	0.00	0.4	0.94	< .1	0.22	0.1
Gastroclonium subarticulatum		0.3	1.10	0.0	0.00	0.0	0.00	< .1	0.22	0.1
Cladophora spp.		< .1	< .01	< .1	< .01	< .1	0.22	< .1	< .01	< .1
Callithamnion pikeanum		< .1	0.22	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Prionitis spp.		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Halymenia/Schizymenia spp.-complex		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Pelvetia compressa		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Phyllospadix spp.		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Invertebrates										
Tegula funebralis		197.8	106.72	73.4	33.00	150.6	64.56	86.8	38.58	127.2
Pagurus spp.		12.0	10.15	25.2	18.13	60.6	44.18	6.8	5.97	26.2
Anthopleura elegantissima		19.0	4.69	15.2	9.28	20.4	19.30	13.6	7.50	17.1
Macclintockia scabra		7.6	13.72	8.8	7.76	21.4	16.99	7.6	9.13	11.4
Lottia limatula		2.4	1.14	2.6	1.14	8.4	8.41	1.0	1.00	3.6
Tectura scutum		3.2	2.28	5.4	4.04	0.0	0.00	1.4	2.19	2.5
Lottia pelta		0.6	0.89	1.6	2.30	5.4	7.47	0.2	0.45	2.0
Ocenebra spp.		1.6	0.89	2.0	1.22	1.8	1.64	1.4	1.67	1.7
Pachygrapsus crassipes		0.6	0.89	1.6	1.14	0.6	0.55	0.2	0.45	0.8
Pollicipes polymerus		1.2	2.68	0.8	1.79	0.8	1.79	0.0	0.00	0.7
Chthamalus fissus		< .1	< .01	0.3	0.67	1.1	2.00	0.6	1.12	0.5
Nuttallina californica		0.6	0.89	0.4	0.55	0.0	0.00	0.8	1.30	0.5
Leptasterias spp.		0.2	0.45	0.4	0.89	0.6	0.89	0.0	0.00	0.3
Mopalia spp.		0.4	0.55	0.2	0.45	0.0	0.00	< .1	< .01	0.2
Acanthina spp.		0.0	0.00	0.0	0.00	0.0	0.00	0.6	1.34	0.2
Cyanoplax spp.		0.0	0.00	0.0	0.00	0.6	0.55	0.0	0.00	0.2
Tegula brunnea		0.0	0.00	0.0	0.00	0.4	0.89	0.0	0.00	< .1
Mytilus spp.		0.0	0.00	0.0	0.00	0.4	0.89	0.0	0.00	< .1
Serpulidae unid.		< .1	< .01	0.2	0.45	0.0	0.00	< .1	< .01	< .1
Epiactis prolifera		0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Nemertea unid.		0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Lottia digitalis		0.0	0.00	0.2	0.45	0.0	0.00	0.0	0.00	< .1
Pisaster ochraceus		0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Haliotis spp.		0.0	0.00	0.0	0.00	< .1	0.32	0.0	0.00	< .1
Acmaeidae unid.		< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Spirorbidae		< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Lottia asmi		< .1	< .01	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Crepidula spp.		< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Phragmatopoma californica		< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Littorina spp.		< .1	< .01	0.0	0.00	< .1	< .01	< .1	< .01	< .1
tunicates, colonial/social unid.		< .1	< .01	< .1	< .01	0.0	0.00	< .1	< .01	< .1
Porifera unid. (encrusting)		0.0	0.00	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Lacuna spp.		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1

(*continued*)

Horizontal Band Transects Station NC 2 +.9m Survey Means and Std. Deviations (continued)

Taxon	Survey Date	124 22-Jan-01 Mean	 Std. Dev.	125 25-Jun-01 Mean	 Std. Dev.	126 16-Aug-01 Mean	 Std. Dev.	127 12-Dec-01 Mean	 Std. Dev.	Annual Mean
Invertebrates ***(continued)***										
Amphissa spp.		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Haliclona spp.		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Substrate										
rock		18.6	11.40	13.3	10.85	5.9	5.20	18.1	8.74	14.0
cobble		9.0	7.70	8.5	7.92	14.2	14.69	10.3	8.90	10.5
sand (shell gravel)		2.2	1.82	0.4	1.10	< .1	< .01	0.8	0.89	0.9

Horizontal Band Transects Station FC 1 +.3m Survey Means and Std. Deviations

Survey	124		125		126		127		
Date	09-Jan-01		25-May-01		02-Aug-01		14-Nov-01		Annual
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae									
Mazzaella flaccida	7.4	3.69	39.7	21.57	38.0	14.52	15.1	11.52	25.0
non-coralline crust	27.9	13.11	16.7	8.04	13.3	8.27	24.9	13.23	20.7
Gastroclonium subarticulatum	5.5	5.23	10.3	8.76	11.7	9.37	20.5	17.61	12.0
Cryptopleura violacea	10.8	8.01	5.8	4.98	7.9	5.50	13.8	13.27	9.6
Chondracanthus canaliculatus	5.7	4.47	11.0	6.97	9.0	9.06	6.5	5.64	8.1
Corallina vancouveriensis	12.9	8.78	3.5	3.69	5.1	3.97	7.2	7.07	7.2
Egregia menziesii	3.5	4.92	10.3	15.68	5.7	5.61	6.8	11.73	6.6
Endocladia muricata	5.5	7.75	7.5	9.44	4.8	8.58	4.7	7.94	5.6
Phyllospadix spp.	3.1	5.16	3.7	4.90	8.3	9.53	4.9	5.97	5.0
coralline crust	5.4	3.90	4.7	3.84	4.5	3.60	5.0	2.59	4.9
Gelidium coulteri	2.9	2.24	4.8	3.52	5.8	4.21	5.1	2.72	4.7
Mastocarpus papillatus	2.4	2.84	7.2	5.83	3.8	3.62	3.1	4.18	4.1
Ulva/Enteromorpha spp.	4.7	10.10	1.6	3.26	4.0	6.42	2.2	4.43	3.1
Mazzaella affinis	1.3	1.30	3.5	6.39	2.6	4.30	2.5	2.88	2.5
Calliarthron/Bossiella spp.-complex	4.0	2.29	2.1	1.67	2.4	2.41	1.0	1.97	2.4
Mastocarpus jardinii	3.0	4.58	1.5	1.92	2.8	2.22	1.8	1.23	2.3
juv. articulated coralline algae	3.9	2.39	0.5	0.66	1.3	1.49	1.8	2.10	1.9
Mazzaella heterocarpa	1.1	1.19	2.4	1.94	1.0	0.59	0.5	1.09	1.3
Porphyra spp.	< .1	0.22	1.6	1.85	2.8	5.17	0.1	0.44	1.2
Prionitis spp.	1.8	2.50	0.2	0.34	1.5	2.19	0.6	1.16	1.0
Corallina officinalis	2.0	4.16	0.0	0.00	< .1	0.22	0.8	1.46	0.7
Spongomorpha/Acrosiphonia-complex	0.0	0.00	2.2	6.79	0.2	0.66	0.0	0.00	0.6
Smithora naiadum	< .1	0.22	0.0	0.00	2.2	3.96	< .1	< .01	0.6
Chondracanthus corymbiferus	0.0	0.00	0.1	0.44	1.9	5.93	< .1	0.22	0.5
Cryptosiphonia woodii	0.0	0.00	1.4	3.91	< .1	0.22	0.0	0.00	0.4
Osmundea spp.	0.5	1.31	0.1	0.44	0.4	1.32	0.2	0.66	0.3
Mazzaella lilacina	< .1	< .01	1.0	1.47	0.2	0.66	0.0	0.00	0.3
filamentous red algae-complex	< .1	0.22	0.3	0.67	0.5	0.81	< .1	< .01	0.2
Microcladia coulteri	0.0	0.00	0.0	0.00	0.6	0.95	< .1	< .01	0.2
Mazzaella leptorhynchos	< .1	< .01	0.2	0.66	< .1	0.22	0.2	0.34	0.1
Gelidium pusillum	< .1	0.22	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Callithamnion pikeanum	0.0	0.00	< .1	0.22	< .1	< .01	0.0	0.00	< .1
Callithamnion spp./*Pleonosporium* spp.	0.0	0.00	< .1	< .01	< .1	0.22	0.0	0.00	< .1
Sarcodiotheca gaudichaudii	0.0	0.00	0.0	0.00	0.0	0.00	< .1	0.22	< .1
Laminariales	0.0	0.00	0.0	0.00	< .1	0.22	0.0	0.00	< .1
Cladophora spp.	< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Melobesia mediocris	< .1	< .01	0.0	0.00	< .1	< .01	< .1	< .01	< .1
Colpomenia spp.	< .1	< .01	0.0	0.00	< .1	< .01	< .1	< .01	< .1
Chrysophyta unid.	0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Microcladia borealis	0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Callophyllis spp.	0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Invertebrates									
Tegula brunnea	20.4	10.36	34.4	33.58	22.4	10.01	20.8	19.28	24.5
Strongylocentrotus purpuratus	17.6	16.83	26.4	28.92	19.8	13.77	2.8	3.11	16.7
Pagurus spp.	13.0	10.37	6.0	2.83	11.6	6.11	16.6	11.41	11.8
Anthopleura elegantissima	7.2	6.22	12.6	14.38	6.4	6.11	10.2	9.31	9.1
Macclintockia scabra	19.4	28.53	3.8	6.87	0.8	0.84	7.0	15.10	7.8
Nuttallina californica	8.6	9.56	3.8	5.22	4.0	6.28	5.4	6.99	5.5
Tectura scutum	2.4	3.36	3.8	2.28	3.4	4.72	1.0	1.41	2.7
Tegula funebralis	2.0	1.00	3.0	4.80	3.0	3.46	2.4	4.34	2.6
Lottia limatula	5.4	4.83	2.2	1.48	1.0	1.22	1.2	1.30	2.5
Pista spp.	1.1	2.13	< .1	0.22	1.9	2.87	3.5	3.95	1.6
Pachygrapsus crassipes	1.6	1.14	2.4	3.36	1.6	2.07	0.6	0.89	1.6
Leptasterias spp.	2.0	2.12	1.4	1.67	1.2	1.30	0.6	1.34	1.3
Nemertea unid.	0.8	1.30	0.8	0.84	2.4	2.07	0.8	1.10	1.2
Tetraclita rubescens	2.6	3.71	1.0	1.73	1.2	1.79	0.0	0.00	1.2
Lottia pelta	0.4	0.55	2.2	2.77	0.6	0.89	0.6	0.89	1.0
Serpulidae unid.	1.0	1.00	0.8	0.84	0.2	0.45	1.4	1.95	0.9
Fissurella volcano	1.2	0.84	0.6	0.55	0.4	0.55	1.0	1.22	0.8

(*continued*)

Horizontal Band Transects Station FC 1 +.3m Survey Means and Std. Deviations (continued)

Taxon	Survey	124		125		126		127		Annual
	Date	09-Jan-01		25-May-01		02-Aug-01		14-Nov-01		
		Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Invertebrates ***(continued)***										
Epiactis prolifera		0.6	0.89	0.0	0.00	0.6	0.89	1.0	1.22	0.6
Ocenebra spp.		0.6	0.89	0.2	0.45	0.6	0.55	0.2	0.45	0.4
Serpulorbis squamigerus		0.2	0.45	0.6	0.89	0.0	0.00	0.6	0.89	0.4
Pugettia spp.		0.0	0.00	0.0	0.00	0.6	0.89	0.6	0.89	0.3
Chthamalus fissus		1.2	2.10	< .1	< .01	< .1	< .01	< .1	< .01	0.3
Phragmatopoma californica		0.8	1.44	0.2	0.66	< .1	< .01	0.1	0.44	0.3
Acmaea mitra		0.8	1.10	0.0	0.00	0.0	0.00	0.0	0.00	0.2
Lottia gigantea		0.4	0.55	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Pisaster ochraceus		0.0	0.00	0.2	0.45	0.0	0.00	0.2	0.45	< .1
Acanthina spp.		0.0	0.00	0.0	0.00	0.0	0.00	0.2	0.45	< .1
Cyanoplax spp.		0.0	0.00	0.0	0.00	0.2	0.45	0.0	0.00	< .1
Nereididae unid.		0.0	0.00	0.0	0.00	0.0	0.00	0.2	0.45	< .1
Heptacarpus spp.		0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Aeolidia papillosa		0.0	0.00	0.0	0.00	0.2	0.45	0.0	0.00	< .1
Lacuna spp.		< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Spirorbidae		< .1	< .01	0.0	0.00	< .1	< .01	< .1	< .01	< .1
tunicates, colonial/social unid.		< .1	< .01	0.0	0.00	< .1	< .01	< .1	0.00	< .1
Porifera unid. (encrusting)		< .1	< .01	0.0	0.00	< .1	< .01	< .1	< .01	< .1
Acmaeidae unid.		0.0	0.00	0.0	0.00	< .1	< .01	< .1	< .01	< .1
Discurria insessa		< .1	< .01	< .1	< .01	0.0	0.00	< .1	< .01	< .1
Bryozoa. unid. (encrusting)		< .1	< .01	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Sipuncula unid.		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Crepidula spp.		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Lottia asmi		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Pelecypoda unid. boring		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Platyhelminthes unid.		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Tricolia spp.		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Lissothuria nutriens		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Grapsidae (juv.)		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Salmacina tribranchiata		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Substrate										
rock		7.9	5.02	9.6	7.25	7.2	5.44	4.7	3.00	7.3
sand (shell gravel)		2.2	2.55	0.6	1.16	0.8	1.38	1.2	1.64	1.2
cobble		0.7	2.20	0.5	0.81	0.6	1.33	0.2	0.47	0.5

Horizontal Band Transects Station FC 1 +.9m Survey Means and Std. Deviations

Survey	124		125		126		127		
Date	09-Jan-01		25-May-01		02-Aug-01		13-Nov-01		Annual
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae									
Endocladia muricata	34.9	24.20	43.1	21.03	37.0	23.08	32.8	19.80	37.0
non-coralline crust	13.4	12.85	14.2	6.58	17.2	9.62	18.2	13.77	15.8
Mastocarpus papillatus	3.1	2.62	8.8	7.55	10.7	8.64	10.9	7.97	8.4
Mazzaella flaccida	0.5	1.09	0.6	1.52	1.8	3.37	3.4	4.19	1.6
coralline crust	1.7	1.47	1.3	1.90	0.9	1.23	1.0	1.23	1.2
Gelidium coulteri	0.1	0.44	0.2	0.47	1.9	2.38	2.6	2.80	1.2
Pelvetia compressa	0.6	1.98	1.1	3.28	1.0	2.62	1.0	3.07	0.9
Phyllospadix spp.	0.0	0.00	0.3	0.88	0.8	1.46	1.2	2.62	0.6
Calliarthron/Bossiella spp.-complex	0.5	1.54	0.6	1.98	0.3	1.10	0.4	1.32	0.5
Mazzaella leptorhynchos	< .1	< .01	< .1	< .01	0.7	1.13	< .1	< .01	0.2
Mazzaella affinis	0.3	0.67	< .1	< .01	0.1	0.29	0.1	0.29	0.2
Corallina vancouveriensis	0.2	0.66	0.2	0.66	< .1	< .01	0.2	0.66	0.2
juv. articulated coralline algae	< .1	0.22	< .1	< .01	0.3	0.88	< .1	0.22	0.1
Porphyra spp.	0.0	0.00	0.2	0.47	0.1	0.29	0.0	0.00	< .1
Mazzaella heterocarpa	0.1	0.29	< .1	< .01	< .1	< .01	< .1	0.22	< .1
Prionitis spp.	< .1	0.22	< .1	0.22	< .1	0.22	< .1	< .01	< .1
Chondracanthus canaliculatus	0.0	0.00	0.0	0.00	< .1	0.22	< .1	0.22	< .1
Fucus gardneri	< .1	0.22	< .1	0.22	0.0	0.00	0.0	0.00	< .1
Cryptopleura violacea	0.0	0.00	0.0	0.00	0.0	0.00	0.1	0.44	< .1
Cladophora spp.	< .1	< .01	< .1	< .01	< .1	0.22	< .1	0.00	< .1
Gastroclonium subarticulatum	0.0	0.00	0.0	0.00	< .1	0.22	< .1	< .01	< .1
Spongomorpha/Acrosiphonia-complex	0.0	0.00	0.0	0.00	< .1	0.22	0.0	0.00	< .1
Mastocarpus jardinii	0.0	0.00	0.0	0.00	0.0	0.00	< .1	0.22	< .1
filamentous red algae-complex	0.0	0.00	0.0	0.00	0.0	0.00	< .1	0.22	< .1
Gelidium pusillum	< .1	0.00	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Ulva/Enteromorpha spp.	0.0	0.00	< .1	< .01	0.0	0.00	< .1	< .01	< .1
Invertebrates									
Tegula funebralis	157.2	94.21	196.4	76.14	277.8	128.37	389.4	203.04	255.2
Anthopleura elegantissima	173.6	209.60	164.8	123.56	235.4	177.31	225.2	233.67	199.8
Pagurus spp.	103.0	196.35	8.4	4.28	11.0	7.07	32.2	14.82	38.7
Macclintockia scabra	12.4	12.52	10.6	15.66	35.6	36.77	34.0	39.06	23.2
Lottia limatula	4.0	4.64	3.0	3.16	3.6	2.30	1.4	1.52	3.0
Tectura scutum	2.2	2.05	1.6	1.52	6.0	5.24	1.4	1.67	2.8
Cyanoplax spp.	1.4	2.19	1.4	1.52	3.0	1.87	0.0	0.00	1.5
Ocenebra spp.	0.8	0.84	0.6	0.89	0.2	0.45	1.0	1.00	0.7
Strongylocentrotus purpuratus	0.8	1.10	1.4	3.13	0.0	0.00	0.0	0.00	0.6
Phragmatopoma californica	0.8	1.26	0.3	0.49	0.2	0.34	0.1	0.44	0.4
Acanthina spp.	0.0	0.00	1.4	0.89	0.0	0.00	< .1	< .01	0.4
Lottia pelta	0.6	0.89	0.6	0.55	0.0	0.00	0.2	0.45	0.4
Pachygrapsus crassipes	0.2	0.45	0.4	0.89	0.2	0.45	0.6	0.89	0.4
Haliotis spp.	0.2	0.63	0.2	0.63	0.4	1.26	0.3	0.95	0.3
Chthamalus fissus	< .1	< .01	0.2	0.47	0.3	0.59	0.3	0.75	0.2
Mopalia spp.	0.2	0.45	0.2	0.45	0.0	0.00	0.0	0.00	< .1
Pisaster ochraceus	0.0	0.00	0.0	0.00	0.4	0.55	0.0	0.00	< .1
Serpulidae unid.	0.4	0.89	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Nuttallina californica	0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Sipuncula unid.	0.0	0.00	0.2	0.45	0.0	0.00	0.0	0.00	< .1
Stenoplax spp.	0.0	0.00	0.2	0.45	0.0	0.00	0.0	0.00	< .1
Acmaeidae unid.	< .1	< .01	< .1	< .01	< .1	0.00	< .1	< .01	< .1
Lottia asmi	< .1	< .01	< .1	< .01	< .1	0.00	< .1	0.00	< .1
Littorina spp.	< .1	< .01	0.0	0.00	< .1	< .01	< .1	< .01	< .1
Spirorbidae	< .1	< .01	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Nemertea unid.	< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Lacuna spp.	0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Tricolia spp.	0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Grapsidae (juv.)	< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1

(*continued*)

Horizontal Band Transects Station FC 1 +.9m Survey Means and Std. Deviations (continued)

Taxon	Survey Date	124 09-Jan-01 Mean	Std. Dev.	125 25-May-01 Mean	Std. Dev.	126 02-Aug-01 Mean	Std. Dev.	127 13-Nov-01 Mean	Std. Dev.	Annual Mean
Substrate										
rock		23.3	16.69	29.0	17.12	32.8	12.78	35.3	14.88	30.1
sand (shell gravel)		18.0	25.85	0.7	1.04	0.1	0.44	2.0	2.50	5.2
cobble		3.0	6.88	5.2	8.60	4.9	9.19	2.6	4.44	3.9

Horizontal Band Transects Station FC 2 +.3m Survey Means and Std. Deviations

Survey	124		125		126		127		
Date	09-Jan-01		29-May-01		03-Aug-01		13-Nov-01		Annual
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae									
non-coralline crust	27.8	13.24	21.5	11.02	11.5	5.39	19.7	11.30	20.1
Mazzaella flaccida	4.7	4.10	16.9	12.60	19.2	12.78	4.1	3.62	11.2
Corallina vancouveriensis	8.5	7.04	6.6	8.23	9.2	9.82	6.9	5.74	7.8
Gelidium coulteri	3.3	3.57	7.2	5.36	9.7	5.03	9.7	4.63	7.5
Cryptopleura violacea	5.1	5.50	2.8	5.00	7.7	9.24	11.5	15.21	6.8
Endocladia muricata	5.0	10.64	7.9	14.42	6.3	11.31	7.0	12.69	6.6
coralline crust	5.8	4.21	6.0	3.60	5.8	2.23	7.5	5.11	6.3
Phyllospadix spp.	6.0	15.69	7.2	21.66	1.8	3.13	7.2	17.52	5.5
Egregia menziesii	4.0	7.86	5.5	9.26	6.1	7.98	6.0	9.43	5.4
Gastroclonium subarticulatum	3.2	4.62	3.1	5.12	5.7	5.84	6.6	8.54	4.6
Calliarthron/Bossiella spp.-complex	6.5	7.13	2.7	3.91	3.3	2.57	5.3	4.13	4.4
Chondracanthus canaliculatus	2.7	3.28	3.5	5.88	8.0	7.37	3.5	2.56	4.4
Mastocarpus papillatus	1.1	1.10	4.9	5.31	4.9	4.38	3.3	2.56	3.5
Prionitis spp.	2.2	4.89	0.7	1.76	1.5	2.11	5.6	7.62	2.5
juv. articulated coralline algae	1.5	1.99	1.2	1.43	1.7	1.51	2.8	2.24	1.8
Mastocarpus jardinii	0.6	0.85	1.3	1.37	2.8	2.98	2.4	2.56	1.8
Mazzaella affinis	0.4	0.94	1.1	2.37	1.0	1.74	3.3	5.01	1.5
Mazzaella heterocarpa	< .1	0.22	0.5	1.14	1.9	1.39	1.7	3.18	1.0
Ulva/Enteromorpha spp.	< .1	< .01	0.8	2.19	1.9	3.05	1.0	1.47	0.9
Porphyra spp.	< .1	< .01	< .1	0.22	3.0	5.29	< .1	0.22	0.8
Smithora naiadum	0.0	0.00	0.0	0.00	1.7	3.96	< .1	0.22	0.4
Cryptosiphonia woodii	0.2	0.34	0.4	0.67	0.4	0.94	0.3	0.88	0.3
Spongomorpha/Acrosiphonia- complex	< .1	< .01	0.4	1.10	0.5	0.93	0.0	0.00	0.2
Microcladia coulteri	0.0	0.00	0.0	0.00	0.2	0.47	0.7	1.09	0.2
Microcladia borealis	0.0	0.00	< .1	< .01	0.4	0.75	0.4	1.10	0.2
Osmundea spp.	< .1	< .01	0.0	0.00	< .1	< .01	0.4	0.75	0.1
Corallina officinalis	0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.59	< .1
Chrysophyta unid.	0.0	0.00	0.0	0.00	0.3	0.88	0.0	0.00	< .1
Mazzaella lilacina	0.0	0.00	0.0	0.00	0.3	0.88	0.0	0.00	< .1
Mazzaella leptorhynchos	< .1	< .01	< .1	0.22	0.1	0.44	0.0	0.00	< .1
Gelidium pusillum	0.0	0.00	< .1	< .01	< .1	0.22	< .1	0.22	< .1
Cladophora spp.	< .1	< .01	< .1	< .01	< .1	0.22	< .1	< .01	< .1
Chondracanthus corymbiferus	< .1	< .01	0.0	0.00	< .1	0.22	0.0	0.00	< .1
Laminaria setchellii	0.0	0.00	< .1	< .01	< .1	0.22	0.0	0.00	< .1
Callithamnion spp./*Pleonosporium* spp.	< .1	< .01	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Melobesia mediocris	0.0	0.00	0.0	0.00	< .1	< .01	< .1	< .01	< .1
Callithamnion pikeanum	< .1	< .01	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Colpomenia spp.	0.0	0.00	< .1	< .01	< .1	< .01	0.0	0.00	< .1
filamentous red algae-complex	0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Invertebrates									
Tegula funebralis	130.4	112.07	7.6	10.11	43.6	79.39	97.4	80.92	69.8
Strongylocentrotus purpuratus	38.6	27.95	87.6	48.07	43.0	15.44	28.4	17.64	49.4
Macclintockia scabra	24.2	50.80	18.2	37.43	44.4	93.25	35.4	65.60	30.6
Anthopleura elegantissima	24.4	20.42	25.0	21.00	27.8	23.17	18.8	14.39	24.0
Pagurus spp.	11.4	14.33	17.0	10.42	21.8	14.99	26.4	17.73	19.2
Nuttallina californica	10.0	14.58	16.2	22.54	22.8	40.98	27.0	32.70	19.0
Tetraclita rubescens	1.2	1.79	3.2	4.87	4.2	7.22	3.4	4.77	3.0
Lottia limatula	1.6	3.05	0.8	0.84	7.2	7.40	1.0	1.41	2.7
Serpulorbis squamigerus	1.4	1.95	3.4	3.97	5.4	9.53	0.4	0.89	2.7
Tegula brunnea	6.2	6.72	0.4	0.89	1.2	2.17	0.8	1.79	2.2
Leptasterias spp.	0.6	0.89	0.0	0.00	4.2	4.44	1.4	2.19	1.6
Fissurella volcano	1.4	0.89	1.0	1.41	1.2	2.17	1.6	2.19	1.3
Chthamalus fissus	0.8	2.42	0.1	0.44	1.5	4.61	2.1	4.50	1.1
Pachygrapsus crassipes	0.4	0.55	1.0	0.71	2.0	2.55	1.0	1.41	1.1
Nemertea unid.	0.4	0.55	< .1	< .01	3.0	2.24	0.6	0.89	1.0
Tectura scutum	1.2	1.64	0.2	0.45	1.4	1.67	0.8	1.30	0.9
Serpulidae unid.	0.6	0.89	0.6	1.34	0.8	0.84	1.4	1.67	0.9
Ocenebra spp.	0.6	0.89	0.0	0.00	0.0	0.00	1.4	1.95	0.5
Lottia pelta	0.0	0.00	0.0	0.00	0.4	0.55	1.2	1.30	0.4

(*continued*)

Horizontal Band Transects Station FC 2 +.3m Survey Means and Std. Deviations (continued)

Taxon	Survey Date	124 09-Jan-01 Mean	Std. Dev.	125 29-May-01 Mean	Std. Dev.	126 03-Aug-01 Mean	Std. Dev.	127 13-Nov-01 Mean	Std. Dev.	Annual Mean
Invertebrates (continued)										
Cyanoplax spp.		0.2	0.45	0.2	0.45	1.0	1.41	0.0	0.00	0.4
Pista spp.		< .1	< .01	< .1	< .01	0.6	1.22	0.6	1.34	0.3
Epiactis prolifera		0.4	0.89	0.2	0.45	0.2	0.45	0.2	0.45	0.3
Acmaea mitra		0.2	0.45	0.0	0.00	0.6	1.34	0.0	0.00	0.2
Phragmatopoma californica		0.3	0.88	0.2	0.47	< .1	< .01	< .1	< .01	0.1
Tonicella lineata		0.0	0.00	0.0	0.00	0.2	0.45	0.2	0.45	< .1
Balanus spp.		0.0	0.00	0.4	0.89	0.0	0.00	0.0	0.00	< .1
Pugettia spp.		0.0	0.00	0.0	0.00	0.4	0.55	0.0	0.00	< .1
Sipuncula unid.		< .1	< .01	< .1	< .01	0.2	0.45	< .1	< .01	< .1
Calliostoma ligatum		0.0	0.00	0.0	0.00	0.2	0.45	0.0	0.00	< .1
Pisaster ochraceus		0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
tunicates, colonial/social unid.		< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Acmaeidae unid.		< .1	< .01	< .1	0.00	< .1	< .01	0.0	0.00	< .1
Porifera unid. (encrusting)		< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Lottia asmi		< .1	< .01	0.0	0.00	< .1	< .01	< .1	< .01	< .1
Spirorbidae		< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Pelecypoda unid. boring		< .1	< .01	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Mytilus spp.		< .1	< .01	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Discurria insessa		0.0	0.00	0.0	0.00	< .1	< .01	< .1	< .01	< .1
Haliclona spp.		< .1	< .01	0.0	0.00	< .1	< .01	< .1	< .01	< .1
Lacuna spp.		0.0	0.00	0.0	0.00	< .1	< .01	< .1	< .01	< .1
Bryozoa, unid. (encrusting)		0.0	0.00	0.0	0.00	< .1	< .01	< .1	< .01	< .1
Alia spp.		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Littorina spp.		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Pollicipes polymerus		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Ischnochitonidae		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Pisaster/Henricia (juv.)		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Grapsidae (juv.)		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Tectura paleacea		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Dodecaceria fewkesi		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Substrate										
rock		18.7	16.06	26.0	17.58	10.1	10.60	6.6	10.34	15.3
sand (shell gravel)		6.4	11.01	0.8	1.01	0.6	1.06	3.1	3.39	2.7
cobble		0.7	1.35	1.5	2.26	1.6	2.29	1.7	2.30	1.4

Horizontal Band Transects Station FC 2 +.9m Survey Means and Std. Deviations

Taxon	Survey	124		125		126		127		Annual
	Date	09-Jan-01		26-Jun-01		03-Aug-01		13-Nov-01		
		Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae										
Endocladia muricata		32.8	11.72	36.8	10.35	32.4	10.39	38.4	11.64	35.1
non-coralline crust		14.4	12.92	14.2	12.39	11.9	8.66	10.1	6.48	12.7
Mastocarpus papillatus		6.0	5.01	10.9	6.80	11.2	5.65	9.2	8.40	9.3
Pelvetia compressa		4.0	6.49	2.8	5.09	3.5	5.67	5.3	7.91	3.9
Mastocarpus jardinii		0.0	0.00	0.0	0.00	0.0	0.00	2.4	1.77	0.6
Fucus gardneri		< .1	< .01	0.6	1.12	0.5	1.04	0.5	1.14	0.4
Gelidium coulteri		0.0	0.00	< .1	0.22	0.2	0.47	1.1	1.43	0.3
Mazzaella flaccida		0.1	0.44	< .1	0.22	0.6	1.30	0.5	0.74	0.3
Porphyra spp.		0.0	0.00	0.2	0.47	0.7	1.04	0.2	0.47	0.3
Cladophora spp.		< .1	< .01	0.2	0.66	< .1	0.22	0.3	0.59	0.1
Mazzaella heterocarpa		< .1	0.22	< .1	< .01	0.1	0.29	0.3	0.67	0.1
Mazzaella leptorhynchos		0.0	0.00	< .1	< .01	0.2	0.47	0.2	0.47	0.1
Hesperophycus californicus		0.3	0.59	0.0	0.00	0.0	0.00	< .1	0.22	0.1
coralline crust		< .1	< .01	< .1	0.00	< .1	0.00	0.3	0.59	< .1
Corallina vancouveriensis		< .1	< .01	< .1	0.22	0.3	0.49	0.0	0.00	< .1
Prionitis spp.		< .1	< .01	0.1	0.44	0.1	0.29	< .1	0.22	< .1
Mazzaella affinis		< .1	< .01	< .1	< .01	< .1	< .01	0.3	0.49	< .1
Spongomorpha/Acrosiphonia-complex		0.0	0.00	0.0	0.00	0.2	0.66	0.0	0.00	< .1
Chondracanthus canaliculatus		< .1	< .01	0.0	0.00	0.0	0.00	0.1	0.29	< .1
juv. articulated coralline algae		0.0	0.00	< .1	< .01	< .1	0.22	0.0	0.00	< .1
Gastroclonium subarticulatum		0.0	0.00	0.0	0.00	0.0	0.00	< .1	0.22	< .1
filamentous red algae-complex		0.0	0.00	0.0	0.00	< .1	0.22	< .1	< .01	< .1
Gelidium pusillum		0.0	0.00	< .1	< .01	< .1	< .01	< .1	0.00	< .1
Cryptosiphonia woodii		< .1	< .01	< .1	< .01	0.0	0.00	< .1	< .01	< .1
Calliarthron/Bossiella spp.-complex		0.0	0.00	0.0	0.00	< .1	< .01	< .1	< .01	< .1
Cryptopleura violacea		0.0	0.00	0.0	0.00	< .1	< .01	< .1	< .01	< .1
Phyllospadix spp.		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Ulva/Enteromorpha spp.		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Invertebrates										
Tegula funebralis		104.4	25.32	86.4	33.03	227.4	94.34	107.0	71.40	131.3
Anthopleura elegantissima		45.4	11.80	82.2	61.92	115.4	85.07	52.0	34.34	73.8
Macclintockia scabra		20.6	11.17	19.2	7.05	47.6	42.86	49.0	20.21	34.1
Pagurus spp.		6.2	10.64	3.2	4.09	19.6	18.64	10.6	8.32	9.9
Lottia limatula		2.0	1.41	2.4	1.82	13.2	7.60	3.6	2.07	5.3
Cyanoplax spp.		5.0	5.83	1.6	1.52	4.6	2.41	0.0	0.00	2.8
Pollicipes polymerus		8.6	19.23	0.0	0.00	1.0	2.24	0.8	1.79	2.6
Lottia pelta		1.2	1.30	0.2	0.45	2.0	3.94	3.4	0.89	1.7
Pachygrapsus crassipes		0.2	0.45	1.4	1.52	1.4	1.14	0.6	0.89	0.9
Ocenebra spp.		0.8	1.79	0.2	0.45	0.8	0.84	1.4	1.52	0.8
Tectura scutum		0.4	0.89	0.2	0.45	1.2	1.64	0.8	0.84	0.7
Acanthina spp.		1.4	1.14	0.4	0.55	0.0	0.00	0.2	0.45	0.5
Lottia asmi		0.0	0.00	< .1	< .01	< .1	< .01	0.8	1.79	0.2
Chthamalus fissus		< .1	0.00	< .1	0.00	0.3	1.10	0.4	1.32	0.2
Lottia digitalis		0.4	0.89	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Haliotis spp.		< .1	0.32	< .1	0.32	< .1	0.32	0.0	0.00	< .1
Nemertea unid.		0.0	0.00	0.0	0.00	0.2	0.45	0.0	0.00	< .1
Mopalia spp.		0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Nuttallina californica		0.0	0.00	0.0	0.00	0.0	0.00	0.2	0.45	< .1
Cirratulidae/Terebellidae unid.		0.0	0.00	0.0	0.00	0.2	0.45	0.0	0.00	< .1
Mytilus spp.		0.0	0.00	0.0	0.00	0.2	0.45	0.0	0.00	< .1
Phragmatopoma californica		< .1	< .01	< .1	0.22	< .1	0.22	< .1	< .01	< .1
Acmaeidae unid.		< .1	0.00	< .1	< .01	< .1	< .01	< .1	0.00	< .1
Littorina spp.		< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Alia spp.		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Nitidiscala/Opalia spp.		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Lacuna spp.		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Serpulidae unid.		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1

(*continued*)

Horizontal Band Transects Station FC 2 +.9m Survey Means and Std. Deviations

Taxon	Survey Date	124 09-Jan-01 Mean	Std. Dev.	125 26-Jun-01 Mean	Std. Dev.	126 03-Aug-01 Mean	Std. Dev.	127 13-Nov-01 Mean	Std. Dev.	Annual Mean
Substrate										
rock		42.7	20.05	42.1	16.29	39.8	14.67	26.0	13.69	37.6
sand (shell gravel)		6.6	13.35	0.6	1.12	1.7	1.97	7.8	19.33	4.1
cobble		0.5	0.81	0.2	0.47	2.5	2.78	0.0	0.00	0.8

Horizontal Band Transects Station FC 3 +.3m Survey Means and Std. Deviations

Survey	124		125		126		127		
Date	24-Jan-01		08-Jun-01		18-Aug-01		13-Nov-01		Annual
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae									
Mazzaella flaccida	21.2	18.95	47.3	27.91	31.0	19.53	22.6	19.35	30.5
non-coralline crust	33.9	14.67	17.1	6.78	11.6	4.77	21.0	7.77	20.9
Gastroclonium subarticulatum	8.3	7.67	11.2	13.40	9.4	9.37	15.4	13.43	11.1
Phyllospadix spp.	9.0	15.50	5.6	10.81	6.5	14.05	11.7	20.41	8.2
Chondracanthus canaliculatus	2.4	2.23	6.1	5.03	7.8	4.76	6.3	5.49	5.7
Cryptopleura violacea	2.4	1.92	1.3	1.79	9.2	6.66	5.8	4.73	4.7
Gelidium coulteri	1.6	0.87	4.9	4.29	9.3	6.19	2.6	2.33	4.6
coralline crust	7.1	5.18	2.6	1.64	4.6	2.99	4.2	4.56	4.6
Mastocarpus jardinii	2.7	2.67	5.9	8.10	5.5	4.85	4.0	4.60	4.5
Mastocarpus papillatus	2.4	2.74	4.9	3.50	6.8	5.60	2.6	2.36	4.2
Calliarthron/Bossiella spp.-complex	3.9	6.41	2.8	4.78	3.8	7.02	5.0	7.33	3.9
Egregia menziesii	4.0	7.08	0.8	2.17	5.0	6.65	3.5	8.20	3.3
Corallina vancouveriensis	3.8	3.54	2.8	3.70	2.7	2.18	2.8	3.13	3.0
Ulva/Enteromorpha spp.	1.3	2.19	1.0	1.94	2.8	3.46	4.4	3.51	2.4
Mazzaella affinis	0.8	1.12	2.7	3.95	2.4	4.07	1.6	2.62	1.9
Porphyra spp.	< .1	< .01	2.5	5.91	2.4	6.08	< .1	0.22	1.3
Mazzaella heterocarpa	0.3	0.67	2.3	2.93	0.9	1.18	0.8	1.20	1.1
Endocladia muricata	1.1	1.91	1.5	1.59	0.9	2.22	0.8	1.41	1.1
Smithora naiadum	< .1	< .01	< .1	< .01	3.5	7.86	0.8	1.98	1.1
Prionitis spp.	0.9	1.35	0.3	0.67	0.9	1.50	0.8	1.06	0.7
juv. articulated coralline algae	0.7	1.09	0.4	0.67	0.8	1.22	0.5	1.09	0.6
Spongomorpha/Acrosiphonia-complex	0.0	0.00	1.3	2.40	0.9	1.64	0.0	0.00	0.5
filamentous red algae-complex	< .1	< .01	1.1	1.83	< .1	< .01	0.0	0.00	0.3
Chrysophyta unid.	0.0	0.00	0.5	1.54	0.5	1.14	0.0	0.00	0.2
Mazzaella leptorhynchos	< .1	< .01	0.6	0.91	< .1	0.22	0.3	0.59	0.2
Microcladia coulteri	0.0	0.00	0.1	0.44	0.1	0.29	0.2	0.34	0.1
Osmundea spp.	< .1	< .01	0.0	0.00	0.1	0.29	0.3	0.36	0.1
Callithamnion pikeanum	< .1	< .01	0.3	0.49	< .1	0.22	0.0	0.00	< .1
Gelidium pusillum	< .1	< .01	0.1	0.44	0.0	0.00	< .1	< .01	< .1
Cryptosiphonia woodii	< .1	< .01	0.1	0.29	0.0	0.00	0.0	0.00	< .1
Chondracanthus corymbiferus	0.1	0.29	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Sarcodiotheca gaudichaudii	< .1	< .01	0.0	0.00	0.0	0.00	< .1	0.22	< .1
Corallina officinalis	0.0	0.00	0.0	0.00	0.0	0.00	< .1	0.22	< .1
Cladophora spp.	< .1	< .01	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Colpomenia spp.	0.0	0.00	0.0	0.00	< .1	< .01	< .1	< .01	< .1
Melobesia mediocris	0.0	0.00	0.0	0.00	< .1	< .01	< .1	< .01	< .1
Halymenia/Schizymenia spp.-complex	0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Callithamnion spp./*Pleonosporium* spp.	< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Invertebrates									
Strongylocentrotus purpuratus	33.6	57.43	44.2	75.52	62.2	85.25	26.6	47.55	41.7
Pagurus spp.	20.6	16.64	11.6	7.89	23.8	14.55	7.2	10.47	15.8
Tegula brunnea	11.4	9.45	8.2	7.63	21.8	15.48	2.0	1.87	10.9
Tegula funebralis	11.6	11.55	21.8	34.71	4.0	4.95	5.2	8.53	10.7
Anthopleura elegantissima	8.0	6.44	7.2	2.68	9.2	11.12	6.4	5.22	7.7
Tetraclita rubescens	10.4	10.16	2.2	2.59	1.0	2.24	3.4	6.54	4.3
Pista spp.	2.5	4.67	2.6	7.87	2.2	5.22	4.5	7.14	3.0
Macclintockia scabra	3.6	3.65	3.0	4.06	1.6	3.58	1.8	3.49	2.5
Serpulorbis squamigerus	2.4	3.58	1.2	2.68	1.8	2.68	2.4	5.37	2.0
Tectura scutum	1.6	2.30	0.6	0.55	2.6	2.61	0.8	1.10	1.4
Leptasterias spp.	1.0	1.00	1.2	1.10	1.0	1.00	0.8	0.84	1.0
Fissurella volcano	1.2	1.30	0.4	0.55	1.0	1.00	1.0	2.24	0.9
Nuttallina californica	2.6	3.58	0.2	0.45	0.2	0.45	0.4	0.89	0.9
Nemertea unid.	0.0	0.00	0.0	0.00	1.4	1.14	1.4	3.13	0.7
Lottia limatula	0.4	0.89	0.6	0.55	0.6	0.89	0.8	1.30	0.6
Chthamalus fissus	1.0	2.15	0.4	1.10	< .1	< .01	< .1	< .01	0.3
Phragmatopoma californica	1.0	2.05	< .1	< .01	0.3	0.88	< .1	< .01	0.3
Serpulidae unid.	0.6	0.89	0.4	0.89	< .1	< .01	0.2	0.45	0.3
Pugettia spp.	0.0	0.00	0.2	0.45	0.6	0.89	0.0	0.00	0.2
Acmaea mitra	< .1	< .01	0.2	0.45	0.0	0.00	0.4	0.89	0.2

(*continued*)

Horizontal Band Transects Station FC 3 +.3m Survey Means and Std. Deviations (continued)

Taxon	Survey Date	124 24-Jan-01 Mean	Std. Dev.	125 08-Jun-01 Mean	Std. Dev.	126 18-Aug-01 Mean	Std. Dev	127 13-Nov-01 Mean	Std. Dev.	Annual Mean
Invertebrates (continued)										
Tonicella lineata		0.2	0.45	0.0	0.00	0.2	0.45	0.2	0.45	0.2
Pachygrapsus crassipes		0.0	0.00	0.0	0.00	0.4	0.89	0.2	0.45	0.2
Cancer antennarius		0.0	0.00	0.2	0.45	0.4	0.55	0.0	0.00	0.2
Ocenebra spp.		0.2	0.45	0.2	0.45	0.2	0.45	0.0	0.00	0.2
Lottia pelta		0.0	0.00	0.6	0.55	0.0	0.00	0.0	0.00	0.2
Nitidiscala/Opalia spp.		0.0	0.00	0.2	0.45	0.0	0.00	< .1	< .01	< .1
Spirorbidae		< .1	< .01	0.0	0.00	< .1	0.00	< .1	< .01	< .1
Lacuna spp.		< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Acmaeidae unid.		< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
tunicates, colonial/social unid.		0.0	0.00	0.0	0.00	< .1	< .01	< .1	< .01	< .1
Discurria insessa		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Crepidula spp.		< .1	< .01	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Ischnochitonidae		0.0	0.00	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Sipuncula unid.		0.0	0.00	0.0	0.00	< .1	< .01	< .1	< .01	< .1
Porifera unid. (encrusting)		< .1	< .01	< .1	< .01	0.0	0.00	< .1	< .01	< .1
Alia spp.		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Bryozoa, unid. (encrusting)		< .1	< .01	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Pisaster/Henricia (juv.)		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Heptacarpus spp.		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Tricolia spp.		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Substrate										
rock		7.8	6.56	5.7	5.40	3.7	2.05	3.3	2.87	5.1
sand (shell gravel)		2.0	1.24	1.5	1.66	0.8	1.01	3.2	4.63	1.9
cobble		0.5	1.14	1.2	2.20	1.0	2.05	0.4	0.94	0.8

Horizontal Band Transects Station FC 3 +.9m Survey Means and Std. Deviations

Taxon	Survey	124		125		126		127		Annual
	Date	24-Jan-01		08-Jun-01		18-Aug-01		12-Nov-01		
		Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae										
Endocladia muricata		26.0	11.90	40.6	25.64	28.1	13.97	27.7	12.11	30.6
Mastocarpus papillatus		15.8	12.28	17.0	14.90	39.4	25.56	33.6	17.61	26.4
non-coralline crust		28.7	18.39	16.7	13.42	10.3	6.05	12.2	4.69	17.0
Mazzaella flaccida		1.7	1.68	6.0	6.36	5.1	3.71	3.8	3.18	4.1
Gelidium coulteri		0.4	0.88	0.5	1.09	1.7	3.86	6.9	8.45	2.4
Pelvetia compressa		0.8	1.44	6.5	19.70	0.8	1.62	1.0	1.89	2.2
coralline crust		1.0	1.83	1.7	3.88	1.2	2.32	2.6	2.04	1.6
Mazzaella affinis		0.1	0.29	0.2	0.34	< .1	0.22	4.8	3.78	1.3
Mastocarpus jardinii		0.0	0.00	< .1	< .01	0.1	0.44	4.0	2.85	1.0
Cladophora spp.		< .1	0.00	0.2	0.47	3.1	5.17	0.6	0.91	1.0
Mazzaella heterocarpa		0.2	0.34	0.9	1.67	0.2	0.47	2.3	3.12	0.9
Corallina vancouveriensis		0.4	0.49	1.4	2.76	< .1	< .01	0.8	1.38	0.7
Chondracanthus canaliculatus		< .1	0.22	< .1	0.22	< .1	< .01	1.0	1.51	0.3
Porphyra spp.		< .1	0.22	0.2	0.47	0.7	1.31	0.1	0.44	0.3
Cryptosiphonia woodii		0.3	0.88	0.2	0.47	0.0	0.00	0.2	0.47	0.2
Gelidium pusillum		0.2	0.34	0.4	0.67	< .1	< .01	< .1	< .01	0.2
Mazzaella leptorhynchos		< .1	< .01	0.0	0.00	< .1	0.22	0.6	1.22	0.2
Hesperophycus californicus		< .1	0.22	0.0	0.00	< .1	< .01	0.5	1.04	0.1
Fucus gardneri		0.0	0.00	0.2	0.66	< .1	0.22	0.0	0.00	< .1
Calliarthron/Bossiella spp.-complex		< .1	< .01	0.0	0.00	0.2	0.66	< .1	< .01	< .1
Prionitis spp.		< .1	0.22	< .1	0.22	< .1	< .01	< .1	< .01	< .1
juv. articulated coralline algae		< .1	< .01	< .1	0.22	< .1	< .01	< .1	< .01	< .1
Spongomorpha/Acrosiphonia-complex		0.0	0.00	< .1	0.22	< .1	< .01	0.0	0.00	< .1
Cryptopleura violacea		< .1	< .01	< .1	0.22	0.0	0.00	0.0	0.00	< .1
Ulva/Enteromorpha spp.		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Gastroclonium subarticulatum		0.0	0.00	< .1	< .01	0.0	0.00	< .1	< .01	< .1
Corallina officinalis		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Invertebrates										
Tegula funebralis		171.6	133.74	113.0	64.25	243.8	147.89	87.6	50.03	154.0
Anthopleura elegantissima		17.0	12.57	27.0	23.03	6.6	7.77	8.0	6.78	14.7
Pagurus spp.		11.0	14.30	13.2	11.30	12.0	9.08	18.6	15.69	13.7
Macclintockia scabra		5.6	5.86	4.4	4.88	13.0	10.05	9.4	7.50	8.1
Lottia limatula		0.6	0.89	1.8	2.05	0.4	0.89	0.8	1.30	0.9
Tectura scutum		0.6	0.55	1.4	2.07	0.6	0.89	0.2	0.45	0.7
Ocenebra spp.		0.2	0.45	0.6	0.55	0.0	0.00	0.2	0.45	0.3
Nemertea unid.		0.0	0.00	0.0	0.00	0.4	0.89	0.4	0.89	0.2
Acanthina spp.		0.0	0.00	0.2	0.45	0.4	0.55	0.2	0.45	0.2
Lottia pelta		0.2	0.45	0.0	0.00	0.6	0.89	0.0	0.00	0.2
Pisaster ochraceus		0.0	0.00	0.4	0.55	0.2	0.45	0.0	0.00	0.2
Chthamalus fissus		< .1	0.22	< .1	0.22	< .1	< .01	0.4	1.32	0.1
Phragmatopoma californica		< .1	< .01	< .1	< .01	< .1	< .01	0.4	1.32	0.1
Cyanoplax spp.		0.0	0.00	0.2	0.45	0.2	0.45	0.0	0.00	< .1
Nuttallina californica		0.2	0.45	0.0	0.00	0.0	0.00	0.2	0.45	< .1
Pachygrapsus crassipes		0.0	0.00	0.4	0.55	0.0	0.00	0.0	0.00	< .1
Leptasterias spp.		0.0	0.00	0.0	0.00	0.0	0.00	0.2	0.45	< .1
Lottia asmi		< .1	< .01	< .1	< .01	< .1	0.00	< .1	0.00	< .1
Acmaeidae unid.		< .1	< .01	0.0	0.00	< .1	< .01	< .1	< .01	< .1
Littorina spp.		< .1	< .01	0.0	0.00	< .1	< .01	< .1	< .01	< .1
Lacuna spp.		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Serpulidae unid.		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Grapsidae (juv.)		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Substrate										
rock		27.7	15.80	19.0	13.01	16.7	12.05	12.4	8.03	19.0
sand (shell gravel)		8.3	14.53	2.2	2.59	0.8	1.16	5.1	8.43	4.1
cobble		< .1	< .01	0.3	0.88	< .1	0.22	0.2	0.66	0.2

Horizontal Band Transects Station NDC 1 +.3m Survey Means and Std. Deviations

Taxon	Survey	124		125		126		127		Annual
	Date	08-Feb-01		20-Jun-01		20-Aug-01		15-Nov-01		
		Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae										
non-coralline crust		27.8	12.21	36.7	11.22	25.6	9.03	37.3	11.41	31.9
Mastocarpus papillatus		< .1	< .01	1.4	2.10	7.1	4.91	4.9	3.63	3.3
coralline crust		3.5	2.51	2.6	2.62	3.3	2.36	1.9	2.72	2.8
Gelidium coulteri		< .1	< .01	0.7	1.13	4.9	4.15	1.7	1.68	1.8
Corallina vancouveriensis		1.1	0.82	0.0	0.00	0.0	0.00	0.7	1.96	0.5
Mazzaella affinis		0.0	0.00	< .1	< .01	1.0	1.44	0.5	0.87	0.4
juv. articulated coralline algae		0.5	0.74	< .1	< .01	0.1	0.44	0.7	1.13	0.3
Mazzaella leptorhynchos		0.0	0.00	< .1	< .01	0.3	0.67	< .1	< .01	< .1
filamentous red algae-complex		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.88	< .1
Chondracanthus canaliculatus		< .1	< .01	< .1	< .01	< .1	< .01	0.1	0.29	< .1
Mazzaella heterocarpa		< .1	0.22	0.0	0.00	< .1	< .01	< .1	< .01	< .1
Prionitis spp.		0.0	0.00	0.0	0.00	< .1	< .01	< .1	0.22	< .1
Gastroclonium subarticulatum		< .1	< .01	0.0	0.00	0.0	0.00	< .1	0.22	< .1
Gelidium pusillum		< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Cladophora spp.		< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Calliarthron/Bossiella spp.-complex		< .1	< .01	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Grateloupia doryphora		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Ulva/Enteromorpha spp.		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Mastocarpus jardinii		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Cryptopleura violacea		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Chondracanthus corymbiferus		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Osmundea spp.		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Pterosiphonia dendroidea		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Bryopsis spp.		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Invertebrates										
Macclintockia scabra		221.4	149.26	217.8	87.42	209.2	131.09	237.6	120.24	221.5
Tegula funebralis		71.0	25.21	83.2	83.56	76.6	77.25	4.8	10.18	58.9
Pagurus spp.		11.6	8.35	17.8	14.53	21.8	21.57	27.6	34.30	19.7
Lottia limatula		13.0	5.96	14.6	6.11	19.0	4.30	11.0	8.37	14.4
Strongylocentrotus purpuratus		3.6	1.14	22.0	23.16	10.0	12.51	1.6	2.51	9.3
Chthamalus fissus		6.0	6.84	5.8	6.61	9.7	8.24	10.6	8.64	8.0
Lottia pelta		2.2	1.92	3.0	2.24	19.6	10.43	3.8	1.48	7.2
Tegula brunnea		6.4	4.39	13.6	14.36	0.0	0.00	1.8	2.68	5.5
Tetraclita rubescens		5.6	5.86	6.6	5.50	5.6	4.56	3.2	3.42	5.3
Tectura scutum		6.6	6.02	6.8	3.90	5.2	3.42	1.4	0.89	5.0
Lottia digitalis		8.4	7.30	0.0	0.00	10.8	17.05	0.0	0.00	4.8
Anthopleura elegantissima		2.8	1.48	3.6	3.29	3.2	1.48	2.2	2.28	3.0
Pachygrapsus crassipes		0.2	0.45	1.8	0.45	3.0	1.22	0.4	0.89	1.4
Fissurella volcano		0.2	0.45	1.8	2.49	0.6	0.89	2.6	2.51	1.3
Serpulidae unid.		1.2	0.84	1.0	1.41	1.8	1.79	0.6	0.89	1.2
Phragmatopoma californica		2.0	2.13	0.2	0.66	0.9	1.50	0.6	1.76	0.9
Cyanoplax spp.		0.2	0.45	0.4	0.55	1.2	0.84	1.6	1.67	0.9
Ocenebra spp.		1.2	1.79	0.6	0.55	0.8	1.30	0.4	0.55	0.8
Anthopleura xanthogrammica		0.4	0.55	0.8	0.45	0.4	0.55	0.8	0.45	0.6
Nuttallina californica		0.6	0.89	1.2	1.79	0.0	0.00	0.4	0.89	0.6
Acanthina spp.		0.0	0.00	0.2	0.45	0.2	0.45	0.0	0.00	< .1
Mytilus spp.		0.2	0.45	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Diodora spp.		0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Lottia gigantea		0.0	0.00	0.0	0.00	0.0	0.00	0.2	0.45	< .1
Mopalia spp.		0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Spirorbidae		< .1	0.22	< .1	< .01	< .1	< .01	< .1	0.22	< .1
Acmaeidae unid.		< .1	0.00	< .1	0.00	< .1	< .01	< .1	0.00	< .1
Lottia asmi		< .1	< .01	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Littorina spp.		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Ischnochitonidae		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Substrate										
rock		35.3	11.82	34.7	8.02	28.7	8.88	26.9	10.72	31.4
cobble		22.8	8.90	15.5	5.95	17.2	7.71	12.2	7.28	16.9
sand (shell gravel)		3.1	3.63	5.3	4.00	6.0	5.23	8.2	8.20	5.7

Horizontal Band Transects Station NDC 1 +.9m Survey Means and Std. Deviations

Taxon	Survey Date	124 07-Feb-01 Mean	Std. Dev.	125 20-Jun-01 Mean	Std. Dev.	126 20-Aug-01 Mean	Std. Dev.	127 29-Nov-01 Mean	Std. Dev.	Annual Mean
Algae										
non-coralline crust		36.3	19.91	41.7	18.41	37.6	21.55	38.4	18.77	38.5
Endocladia muricata		4.7	7.38	5.8	8.66	6.5	8.56	5.1	6.89	5.5
Mastocarpus papillatus		0.7	1.04	1.4	2.64	1.9	1.88	1.0	1.28	1.3
coralline crust		0.5	0.57	0.2	0.47	0.6	0.83	0.3	0.59	0.4
Gelidium coulteri		< .1	< .01	< .1	< .01	0.2	0.66	< .1	< .01	< .1
filamentous red algae-complex		0.0	0.00	0.0	0.00	0.0	0.00	0.1	0.29	< .1
Mazzaella leptorhynchos		< .1	< .01	< .1	< .01	< .1	0.22	< .1	< .01	< .1
Mazzaella affinis		< .1	< .01	< .1	< .01	< .1	< .01	< .1	0.22	< .1
Chondracanthus canaliculatus		0.0	0.00	0.0	0.00	< .1	0.22	< .1	< .01	< .1
Corallina vancouveriensis		< .1	0.22	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Gastroclonium subarticulatum		0.0	0.00	0.0	0.00	0.0	0.00	< .1	0.22	< .1
Ulva/Enteromorpha spp.		0.0	0.00	0.0	0.00	< .1	0.22	< .1	< .01	< .1
Cladophora spp.		< .1	0.00	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Gelidium pusillum		< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
juv. articulated coralline algae		< .1	< .01	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Grateloupia doryphora		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Pterosiphonia dendroidea		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Invertebrates										
Tegula funebralis		100.2	25.00	353.4	122.49	218.2	66.43	157.6	81.34	207.4
Macclintockia scabra		179.8	86.88	128.0	43.49	134.4	69.89	96.2	65.41	134.6
Anthopleura elegantissima		43.4	53.24	22.4	25.48	29.6	37.86	38.6	46.54	33.5
Pagurus spp.		3.8	2.28	5.2	7.92	3.4	6.07	13.2	5.54	6.4
Lottia limatula		2.6	1.34	4.4	1.14	3.0	2.55	2.6	2.88	3.2
Chthamalus fissus		1.1	2.00	1.3	3.08	3.2	4.12	2.1	3.90	1.9
Lottia pelta		0.8	0.84	2.2	1.79	2.6	2.30	0.8	0.84	1.6
Tectura scutum		1.4	1.67	1.0	1.00	1.8	0.84	0.4	0.55	1.2
Ocenebra spp.		1.2	1.30	0.6	0.89	1.0	1.73	1.4	1.52	1.1
Cyanoplax spp.		1.6	0.89	0.8	0.84	0.8	0.84	0.4	0.89	0.9
Pachygrapsus crassipes		0.0	0.00	0.6	0.89	1.6	1.67	1.2	1.79	0.9
Acanthina spp.		0.6	1.34	0.2	0.45	1.2	0.84	0.4	0.55	0.6
Lottia digitalis		0.0	0.00	0.0	0.00	1.8	2.49	0.0	0.00	0.5
Fissurella volcano		0.0	0.00	0.6	1.34	0.8	1.30	0.4	0.55	0.5
Mopalia spp.		0.2	0.45	0.0	0.00	0.2	0.45	0.6	0.89	0.3
Tegula brunnea		0.0	0.00	0.8	1.79	0.0	0.00	0.0	0.00	0.2
Strongylocentrotus purpuratus		0.0	0.00	0.0	0.00	0.2	0.45	0.2	0.45	< .1
Serpulidae unid.		0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Haliotis spp.		0.0	0.00	< .1	0.32	0.0	0.00	0.0	0.00	< .1
Acmaeidae unid.		< .1	0.00	< .1	0.00	< .1	0.00	< .1	< .01	< .1
Phragmatopoma californica		< .1	0.00	< .1	< .01	< .1	< .01	< .1	0.00	< .1
Lottia asmi		0.0	0.00	< .1	0.00	< .1	0.00	< .1	< .01	< .1
Littorina spp.		< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Spirorbidae		0.0	0.00	0.0	0.00	< .1	< .01	< .1	< .01	< .1
Nitidiscala/Opalia spp.		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Ischnochitonidae		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Substrate										
rock		45.9	23.06	39.4	23.67	38.1	25.67	36.0	19.91	39.9
cobble		9.2	8.09	5.9	6.98	10.3	9.02	9.0	8.95	8.6
sand (shell gravel)		4.4	4.31	5.5	7.19	5.8	5.52	8.1	8.12	5.9

Horizontal Band Transects Station NDC 2 +.3m Survey Means and Std. Deviations

Survey	124		125		126		127		Annual
Date	06-Feb-01		23-May-01		17-Aug-01		15-Nov-01		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae									
non-coralline crust	33.5	18.10	20.1	14.27	10.8	12.61	23.4	15.53	21.9
Phyllospadix spp.	19.0	25.81	15.9	23.09	23.5	28.51	25.1	31.26	20.9
filamentous red algae-complex	7.8	10.50	13.5	16.37	20.2	20.29	12.7	15.35	13.5
Gastroclonium subarticulatum	8.4	4.97	8.7	6.20	9.9	7.83	8.1	7.77	8.8
Pterosiphonia dendroidea	7.2	5.66	4.9	7.82	< .1	< .01	6.0	4.59	4.5
coralline crust	7.0	6.98	5.2	6.43	1.3	3.08	2.7	3.20	4.1
Chondracanthus canaliculatus	2.4	2.15	2.8	1.98	1.8	2.27	3.7	4.71	2.7
Mazzaella affinis	2.2	1.85	3.2	2.52	1.1	2.23	1.1	1.10	1.9
Corallina vancouveriensis	2.7	4.62	1.7	5.03	0.0	0.00	0.5	1.54	1.2
Ulva/Enteromorpha spp.	0.4	0.59	0.8	1.16	2.2	2.73	1.0	1.00	1.1
Mazzaella leptorhynchos	0.8	1.81	2.9	4.71	< .1	0.22	0.1	0.29	1.0
Prionitis spp.	1.9	2.20	0.8	1.06	< .1	< .01	1.2	1.09	1.0
Mastocarpus papillatus	0.2	0.47	1.8	3.83	1.3	1.84	0.3	0.59	0.9
juv. articulated coralline algae	1.0	1.32	0.3	1.10	0.1	0.44	0.6	0.55	0.5
Gelidium coulteri	0.1	0.44	1.0	1.74	0.5	0.93	0.4	0.67	0.5
Calliarthron/Bossiella spp.-complex	1.1	3.06	< .1	< .01	0.0	0.00	0.6	1.01	0.4
Cryptopleura violacea	0.3	0.49	0.1	0.44	< .1	0.22	0.6	1.98	0.3
Chrysophyta unid.	0.6	1.98	< .1	< .01	0.0	0.00	0.0	0.00	0.2
Bryopsis spp.	0.3	0.59	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Spongomorpha/Acrosiphonia-complex	0.0	0.00	0.3	0.88	0.0	0.00	0.0	0.00	< .1
Endocladia muricata	< .1	0.22	< .1	0.22	< .1	0.22	0.1	0.44	< .1
Smithora naiadum	0.0	0.00	0.0	0.00	< .1	< .01	0.3	0.88	< .1
Halymenia/Schizymenia spp.-complex	< .1	0.22	< .1	0.22	0.0	0.00	0.1	0.29	< .1
Mastocarpus jardinii	0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.67	< .1
Sargassum muticum	0.2	0.47	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Osmundea spp.	0.1	0.29	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Sarcodiotheca gaudichaudii	< .1	< .01	0.1	0.44	0.0	0.00	0.0	0.00	< .1
Corallina officinalis	0.0	0.00	< .1	< .01	0.0	0.00	< .1	0.22	< .1
Chondracanthus corymbiferus	< .1	0.22	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Melobesia mediocris	0.0	0.00	0.0	0.00	< .1	< .01	< .1	< .01	< .1
Cladophora spp.	< .1	< .01	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Mazzaella heterocarpa	< .1	< .01	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Gelidium pusillum	0.0	0.00	0.0	0.00	< .1	< .01	< .1	< .01	< .1
Grateloupia doryphora	0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Microcladia coulteri	< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Colpomenia spp.	0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Callithamnion spp./*Pleonosporium* spp.	0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Ectocarpales	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Invertebrates									
Macclintockia scabra	135.8	89.19	177.4	276.80	57.2	99.71	224.2	225.06	148.7
Tetraclita rubescens	18.8	37.12	164.6	342.57	66.0	98.39	81.4	95.80	82.7
Strongylocentrotus purpuratus	68.0	71.07	88.2	93.18	77.6	117.22	32.6	42.51	66.6
Lottia pelta	13.6	16.91	11.4	13.94	118.8	178.38	21.2	34.01	41.3
Lottia limatula	7.0	9.54	31.6	33.97	32.8	63.07	4.6	5.55	19.0
Fissurella volcano	12.2	15.83	19.8	28.40	11.4	17.94	10.2	13.92	13.4
Tegula funebralis	37.6	54.22	1.0	2.24	0.0	0.00	0.0	0.00	9.7
Pagurus spp.	16.6	14.93	7.0	8.31	1.6	3.58	1.0	1.00	6.6
Anthopleura elegantissima	11.4	14.81	5.2	6.83	1.4	1.67	7.6	12.30	6.4
Lottia digitalis	14.8	27.84	0.0	0.00	0.0	0.00	4.2	9.39	4.8
Cyanoplax spp.	2.2	1.30	4.8	6.14	2.6	3.97	0.2	0.45	2.5
Chthamalus fissus	2.4	4.96	0.8	2.01	0.9	1.94	3.1	9.17	1.8
Mytilus californianus	0.0	0.00	1.4	3.13	1.0	1.41	2.6	5.81	1.3
Pachygrapsus crassipes	0.2	0.45	2.0	2.12	1.6	1.82	1.2	2.17	1.3
Tectura scutum	0.6	1.34	0.0	0.00	2.6	3.44	0.4	0.55	0.9
Pista spp.	0.4	1.10	< .1	< .01	0.2	0.66	2.6	4.70	0.8
Lottia gigantea	0.2	0.45	0.6	1.34	0.4	0.89	1.2	2.68	0.6
Tegula brunnea	0.0	0.00	0.0	0.00	0.0	0.00	2.4	3.36	0.6
Nuttallina californica	0.0	0.00	0.0	0.00	0.8	1.79	0.8	1.10	0.4
Serpulidae unid.	1.2	1.30	0.4	0.55	0.0	0.00	0.0	0.00	0.4

(*continued*)

Horizontal Band Transects Station NDC 2 +.3m Survey Means and Std. Deviations (continued)

Taxon	Survey Date	124 06-Feb-01 Mean	Std. Dev.	125 23-May-01 Mean	Std. Dev.	126 17-Aug-01 Mean	Std. Dev.	127 15-Nov-01 Mean	Std. Dev.	Annual Mean
Invertebrates (continued)										
Epiactis prolifera		0.6	0.89	0.2	0.45	0.4	0.55	0.0	0.00	0.3
Mopalia spp.		0.0	0.00	0.6	0.89	0.0	0.00	0.4	0.55	0.3
Phragmatopoma californica		0.3	1.10	0.4	1.10	< .1	< .01	0.1	0.44	0.2
Mytilus spp.		0.6	1.34	0.0	0.00	0.0	0.00	0.0	0.00	0.2
Lottia ochracea		0.0	0.00	0.6	1.34	0.0	0.00	0.0	0.00	0.2
Acanthina spp.		0.4	0.89	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Hermissenda crassicornis		0.0	0.00	0.4	0.89	0.0	0.00	0.0	0.00	< .1
Ocenebra spp.		0.2	0.45	0.2	0.45	0.0	0.00	0.0	0.00	< .1
Pugettia spp.		0.2	0.45	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Ophiothrix spp.		0.0	0.00	< .1	< .01	0.2	0.45	0.0	0.00	< .1
Nemertea unid.		0.0	0.00	0.0	0.00	0.2	0.45	0.0	0.00	< .1
Acmaea mitra		0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Diodora spp.		0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Nereididae unid.		0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Pisaster ochraceus		0.0	0.00	0.2	0.45	0.0	0.00	0.0	0.00	< .1
Cirratulidae/Terebellidae unid.		0.0	0.00	0.2	0.45	0.0	0.00	0.0	0.00	< .1
Archidoris spp.		0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Acmaeidae unid.		< .1	0.00	< .1	0.00	< .1	0.00	< .1	0.00	< .1
Spirorbidae		< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Grapsidae (juv.)		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Heptacarpus spp.		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Sipuncula unid.		< .1	< .01	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Nuttallina spp.		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Ischnochitonidae		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Lacuna spp.		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Cancer spp.		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Lissothuria nutriens		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Porifera unid. (encrusting)		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Substrate										
rock		13.3	4.89	13.5	7.94	14.7	17.58	15.5	20.35	14.3
sand (shell gravel)		4.2	6.36	13.6	12.19	15.8	13.98	4.4	5.62	9.5
cobble		7.7	7.26	9.9	9.55	8.6	7.84	6.4	7.46	8.1

Horizontal Band Transects Station NDC 2 +.9m Survey Means and Std. Deviations

Survey	124		125		126		127		Annual
Date	06-Feb-01		23-May-01		17-Aug-01		15-Nov-01		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae									
Endocladia muricata	11.8	10.07	18.1	19.81	13.4	13.82	20.5	18.23	16.0
non-coralline crust	4.4	4.01	3.3	4.44	3.8	4.07	5.8	3.37	4.3
coralline crust	1.5	1.55	2.2	3.08	0.6	1.06	3.3	1.82	1.9
Mastocarpus papillatus	0.3	0.49	1.3	1.87	1.3	1.82	1.5	1.48	1.1
Gelidium coulteri	0.0	0.00	< .1	0.22	0.2	0.66	1.0	1.19	0.3
filamentous red algae-complex	< .1	< .01	0.0	0.00	0.0	0.00	1.1	1.47	0.3
Corallina vancouveriensis	0.1	0.44	0.1	0.44	0.0	0.00	0.8	1.22	0.3
Mazzaella affinis	< .1	0.22	< .1	< .01	< .1	< .01	0.8	1.20	0.2
juv. articulated coralline algae	0.2	0.47	< .1	0.22	< .1	< .01	0.5	0.87	0.2
Gastroclonium subarticulatum	0.0	0.00	< .1	< .01	< .1	0.22	0.6	0.85	0.2
Prionitis spp.	< .1	0.22	0.2	0.66	0.0	0.00	< .1	0.22	< .1
Calliarthron/Bossiella spp.-complex	0.0	0.00	< .1	0.22	0.0	0.00	0.2	0.47	< .1
Mazzaella leptorhynchos	0.0	0.00	0.0	0.00	< .1	< .01	0.3	0.67	< .1
Ulva/Enteromorpha spp.	0.0	0.00	< .1	< .01	< .1	< .01	0.2	0.34	< .1
Chondracanthus canaliculatus	0.0	0.00	0.0	0.00	< .1	< .01	0.1	0.29	< .1
Corallina officinalis	0.0	0.00	0.0	0.00	0.0	0.00	0.1	0.44	< .1
Cladophora spp.	< .1	< .01	< .1	< .01	< .1	< .01	< .1	0.00	< .1
Gelidium pusillum	< .1	< .01	< .1	< .01	< .1	0.00	< .1	0.00	< .1
Invertebrates									
Macclintockia scabra	169.2	95.95	199.4	156.77	211.0	164.20	158.0	104.98	184.4
Tegula funebralis	100.6	52.23	251.0	214.31	227.2	248.78	148.0	133.87	181.7
Anthopleura elegantissima	48.4	56.41	59.0	59.55	97.0	113.45	32.4	42.62	59.2
Lottia limatula	13.0	15.39	9.4	3.91	18.4	14.98	6.4	4.98	11.8
Cyanoplax spp.	5.6	4.28	11.0	8.12	17.8	8.38	9.4	5.32	11.0
Pagurus spp.	3.6	5.41	5.6	7.64	5.0	5.10	14.6	13.45	7.2
Chthamalus fissus	1.8	2.60	3.5	4.55	7.2	9.07	12.4	8.82	6.3
Lottia pelta	6.0	4.12	1.2	1.79	3.4	2.70	10.8	14.58	5.4
Lottia digitalis	2.2	4.92	3.8	5.50	0.0	0.00	4.6	5.27	2.7
Pachygrapsus crassipes	0.4	0.89	1.6	1.34	2.2	1.30	2.0	1.22	1.6
Strongylocentrotus purpuratus	0.6	1.34	2.0	4.47	0.8	1.79	0.0	0.00	0.9
Mytilus spp.	< .1	< .01	1.4	2.19	0.0	0.00	0.8	1.30	0.6
Acanthina spp.	0.2	0.45	0.6	1.34	0.8	1.30	0.4	0.55	0.5
Tectura scutum	0.4	0.89	0.2	0.45	0.0	0.00	1.4	0.89	0.5
Mytilus californianus	1.0	2.24	0.0	0.00	0.6	0.89	0.0	0.00	0.4
Tetraclita rubescens	0.6	0.89	0.2	0.45	0.4	0.89	0.0	0.00	0.3
Lottia gigantea	0.6	1.34	0.0	0.00	0.4	0.55	0.0	0.00	0.3
Nuttallina californica	0.2	0.45	0.0	0.00	0.6	1.34	0.2	0.45	0.3
Fissurella volcano	0.0	0.00	0.6	1.34	0.0	0.00	0.2	0.45	0.2
Mopalia spp.	0.2	0.45	0.4	0.89	0.0	0.00	0.2	0.45	0.2
Phragmatopoma californica	0.1	0.29	< .1	0.22	< .1	< .01	0.3	0.88	0.1
Ocenebra spp.	0.0	0.00	0.0	0.00	0.4	0.55	0.0	0.00	< .1
Anthopleura xanthogrammica	0.0	0.00	0.2	0.45	0.0	0.00	0.0	0.00	< .1
Serpulidae unid.	0.0	0.00	0.2	0.45	0.0	0.00	0.0	0.00	< .1
Acmaeidae unid.	< .1	< .01	< .1	< .01	< .1	0.00	< .1	0.00	< .1
Littorina spp.	< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Lottia asmi	0.0	0.00	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Spirorbidae	< .1	< .01	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Sipuncula unid.	< .1	< .01	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Grapsidae (juv.)	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Substrate									
rock	74.6	15.56	68.1	18.74	68.8	8.43	50.7	21.23	65.5
cobble	5.2	11.59	2.4	4.26	5.3	7.88	4.2	5.59	4.3
sand (shell gravel)	0.0	0.00	1.7	4.08	0.1	0.44	0.6	1.22	0.6

Horizontal Band Transects Station NDC 3 +.3m Survey Means and Std. Deviations

Survey	124		125		126		127		
Date	06-Feb-01		23-May-01		17-Aug-01		01-Dec-01		Annual
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae									
non-coralline crust	41.9	13.79	23.0	17.45	9.4	10.42	9.5	13.21	21.0
coralline crust	9.7	6.45	10.3	4.96	3.5	2.47	4.7	3.24	7.0
Corallina vancouveriensis	4.5	4.83	1.3	2.03	0.0	0.00	2.8	5.80	2.2
filamentous red algae-complex	2.0	2.63	2.4	5.01	2.2	5.48	0.4	1.32	1.8
Gelidium coulteri	0.4	0.88	3.8	8.74	2.5	2.56	0.2	0.66	1.7
Calliarthron/Bossiella spp.-complex	1.7	3.04	2.4	3.31	1.3	2.09	1.5	3.93	1.7
juv. articulated coralline algae	1.7	2.93	2.2	2.85	1.0	1.23	0.8	1.12	1.4
Gastroclonium subarticulatum	1.6	4.81	1.7	5.25	0.6	1.98	0.3	0.88	1.1
Prionitis spp.	1.2	2.56	< .1	< .01	0.0	0.00	< .1	< .01	0.3
Chondracanthus canaliculatus	< .1	< .01	0.8	1.62	< .1	0.22	0.2	0.66	0.3
Mazzaella affinis	0.0	0.00	0.1	0.44	0.6	1.53	0.0	0.00	0.2
Bryopsis spp.	0.6	1.20	< .1	< .01	0.0	0.00	< .1	< .01	0.2
Mastocarpus papillatus	0.0	0.00	0.2	0.47	0.2	0.66	< .1	< .01	0.1
Ulva/Enteromorpha spp.	< .1	< .01	0.1	0.29	< .1	0.22	< .1	< .01	< .1
Cladophora spp.	0.1	0.29	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Gelidium pusillum	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Spongomorpha/Acrosiphonia-complex	0.0	0.00	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Porphyra spp.	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Cryptopleura violacea	< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Invertebrates									
Macclintockia scabra	232.8	193.27	331.8	91.75	182.6	87.75	289.4	233.46	259.2
Tetraclita rubescens	110.8	116.58	246.4	137.43	152.0	136.83	123.0	101.73	158.1
Strongylocentrotus purpuratus	50.6	45.95	102.4	53.24	136.2	83.20	60.6	20.98	87.5
Lottia pelta	25.6	8.79	56.2	38.98	55.8	36.03	8.2	3.49	36.5
Fissurella volcano	9.0	6.36	32.6	10.11	13.4	9.99	24.6	18.04	19.9
Lottia limatula	7.8	3.11	13.6	15.63	27.8	14.69	9.6	7.70	14.7
Tectura scutum	1.4	2.19	24.0	14.47	17.6	10.55	7.4	5.27	12.6
Mytilus californianus	0.0	0.00	2.6	3.71	10.6	15.03	31.8	54.19	11.3
Nuttallina californica	1.8	2.05	5.0	2.12	3.6	2.30	5.6	3.91	4.0
Lottia digitalis	0.0	0.00	0.0	0.00	4.6	4.98	7.8	15.30	3.1
Pachygrapsus crassipes	0.0	0.00	9.2	12.76	1.6	1.67	0.6	0.89	2.9
Chthamalus fissus	2.2	7.03	2.6	5.72	2.2	5.01	0.7	1.96	1.9
Mytilus spp.	7.2	9.23	< .1	< .01	0.0	0.00	0.0	0.00	1.8
Anthopleura elegantissima	1.0	1.00	1.8	2.49	3.0	3.74	1.0	1.41	1.7
Cyanoplax spp.	2.6	2.19	0.0	0.00	2.8	3.70	1.2	1.30	1.7
Lottia gigantea	0.0	0.00	1.8	4.02	2.0	3.94	2.4	3.78	1.6
Pagurus spp.	3.0	6.16	1.0	2.24	0.6	1.34	0.0	0.00	1.2
Mopalia spp.	1.4	1.14	0.8	0.84	0.0	0.00	0.0	0.00	0.6
Phragmatopoma californica	0.1	0.44	0.6	1.02	0.4	0.94	0.8	1.12	0.5
Serpulidae unid.	0.8	0.84	0.4	0.89	0.0	0.00	0.6	1.34	0.5
Nemertea unid.	0.0	0.00	0.8	1.79	0.2	0.45	0.0	0.00	0.3
Pollicipes polymerus	0.4	0.89	0.6	1.34	0.0	0.00	< .1	< .01	0.3
Ocenebra spp.	0.4	0.55	0.0	0.00	0.4	0.55	0.0	0.00	0.2
Tegula brunnea	0.0	0.00	0.0	0.00	0.4	0.89	0.0	0.00	< .1
Tegula funebralis	0.2	0.45	0.0	0.00	0.2	0.45	0.0	0.00	< .1
Acmaeidae unid.	< .1	< .01	< .1	0.00	< .1	0.00	< .1	0.00	< .1
Spirorbidae	< .1	< .01	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Dodecaceria fewkesi	< .1	< .01	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Sipuncula unid.	0.0	0.00	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Acanthina spp.	0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Lottia asmi	< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Ophiactis simplex	0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
tunicates, colonial/social unid.	< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Substrate									
rock	24.7	8.15	46.7	18.38	70.4	18.44	71.9	20.14	53.4
cobble	9.7	6.25	6.4	7.61	7.8	9.43	3.7	7.74	6.9
sand (shell gravel)	0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1

Horizontal Band Transects Station NDC 3 +.9m Survey Means and Std. Deviations

Taxon	Survey	124		125		126		127		Annual
	Date	06-Feb-01		23-May-01		17-Aug-01		15-Nov-01		
		Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae										
non-coralline crust		19.9	17.05	17.8	13.94	10.1	6.14	13.8	8.30	15.4
Endocladia muricata		2.4	5.14	3.9	8.35	3.0	5.83	4.0	7.99	3.3
coralline crust		2.1	1.60	1.4	1.22	1.0	1.14	0.4	0.75	1.2
Ulva/Enteromorpha spp.		0.0	0.00	< .1	< .01	1.5	2.61	< .1	< .01	0.4
Gelidium coulteri		0.3	0.36	0.0	0.00	0.6	0.76	0.4	0.88	0.3
Corallina vancouveriensis		0.6	0.91	0.0	0.00	0.0	0.00	0.0	0.00	0.1
Prionitis spp.		0.1	0.44	< .1	< .01	0.0	0.00	0.4	1.32	0.1
Porphyra spp.		0.0	0.00	0.2	0.47	0.1	0.29	0.0	0.00	< .1
Cladophora spp.		0.0	0.00	< .1	< .01	0.3	0.88	< .1	< .01	< .1
juv. articulated coralline algae		0.1	0.44	< .1	0.22	< .1	< .01	< .1	< .01	< .1
Calliarthron/Bossiella spp.-complex		0.0	0.00	0.0	0.00	< .1	0.22	0.1	0.44	< .1
Mastocarpus papillatus		0.0	0.00	< .1	< .01	< .1	< .01	0.1	0.29	< .1
Mazzaella affinis		0.0	0.00	0.0	0.00	< .1	0.22	< .1	< .01	< .1
Gelidium pusillum		< .1	< .01	< .1	0.00	< .1	< .01	< .1	< .01	< .1
Spongomorpha/Acrosiphonia-complex		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Chondracanthus canaliculatus		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Mazzaella leptorhynchos		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
filamentous red algae-complex		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Invertebrates										
Macclintockia scabra		261.0	157.93	279.6	85.35	237.4	50.27	294.8	148.74	268.2
Tegula funebralis		49.6	46.50	16.2	28.59	58.4	126.71	7.0	11.31	32.8
Strongylocentrotus purpuratus		3.2	3.11	24.8	21.99	31.4	30.52	20.6	13.89	20.0
Lottia limatula		15.0	12.04	15.0	10.65	10.2	7.79	32.0	35.78	18.1
Chthamalus fissus		15.4	8.40	16.4	8.82	17.3	9.00	21.3	12.49	17.6
Lottia digitalis		18.4	23.39	11.8	14.29	19.8	16.84	14.4	14.36	16.1
Lottia pelta		5.8	8.32	13.4	18.22	19.6	17.10	7.6	10.55	11.6
Tectura scutum		3.0	6.71	4.2	3.77	19.4	18.24	1.6	2.30	7.1
Tetraclita rubescens		0.2	0.45	8.4	7.77	5.6	7.13	6.8	9.76	5.3
Lottia gigantea		6.2	6.50	1.6	2.61	4.2	4.09	5.6	7.44	4.4
Fissurella volcano		0.6	1.34	4.6	5.08	4.6	4.39	3.8	4.02	3.4
Pagurus spp.		4.2	6.38	5.4	7.16	0.8	1.30	0.0	0.00	2.6
Pachygrapsus crassipes		0.6	0.89	3.0	1.58	4.6	2.97	2.2	1.92	2.6
Cyanoplax spp.		1.2	1.10	2.8	2.28	3.0	3.00	1.2	1.64	2.1
Mytilus californianus		4.2	5.31	1.2	1.79	1.0	1.41	1.6	2.30	2.0
Tegula brunnea		0.0	0.00	3.8	6.94	0.0	0.00	0.0	0.00	1.0
Nuttallina californica		2.6	5.81	0.0	0.00	0.2	0.45	0.2	0.45	0.8
Acanthina spp.		0.0	0.00	1.0	1.41	1.2	2.17	0.0	0.00	0.6
Mopalia spp.		0.4	0.89	0.2	0.45	0.8	0.84	0.6	0.89	0.5
Pollicipes polymerus		1.4	1.95	0.6	1.34	0.0	0.00	0.0	0.00	0.5
Ocenebra spp.		0.2	0.45	0.4	0.55	1.2	1.64	0.2	0.45	0.5
Serpulidae unid.		0.8	1.10	0.2	0.45	0.6	0.89	0.0	0.00	0.4
Phragmatopoma californica		0.4	1.32	0.2	0.66	0.6	1.98	0.2	0.47	0.4
Anthopleura elegantissima		0.2	0.45	0.2	0.45	0.2	0.45	0.4	0.55	0.3
Littorina spp.		0.0	0.00	< .1	< .01	0.2	0.45	< .1	< .01	< .1
Mytilus spp.		< .1	< .01	0.0	0.00	0.2	0.45	0.0	0.00	< .1
Serpulorbis squamigerus		0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Tonicella lineata		0.0	0.00	0.2	0.45	0.0	0.00	0.0	0.00	< .1
Octopus spp.		0.0	0.00	0.2	0.45	0.0	0.00	0.0	0.00	< .1
Acmaeidae unid.		< .1	0.00	< .1	< .01	< .1	< .01	< .1	0.00	< .1
Spirorbidae		< .1	< .01	0.0	0.00	< .1	< .01	< .1	< .01	< .1
Lottia asmi		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Sipuncula unid.		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Dodecaceria fewkesi		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
tunicates, colonial/social unid.		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Substrate										
rock		54.6	16.53	56.2	20.55	63.9	16.96	54.8	19.62	57.4
cobble		5.2	7.32	5.9	11.26	4.1	7.29	6.9	11.78	5.5

Horizontal Band Transects Station SDC 1 +.3m Survey Means and Std. Deviations

Survey	124		125		126		127		
Date	08-Jan-01		25-May-01		23-Jul-01		30-Nov-01		Annual
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae									
non-coralline crust	38.2	22.99	32.2	11.68	35.4	13.55	35.6	14.96	35.4
coralline crust	7.2	5.68	9.2	8.23	5.1	7.35	12.4	11.62	8.5
filamentous red algae-complex	4.2	4.93	5.4	3.32	15.3	6.08	6.7	11.31	7.9
Ulva/Enteromorpha spp.	< .1	< .01	6.8	6.08	11.5	6.11	< .1	0.22	4.6
Sargassum muticum	6.7	9.91	6.3	14.50	0.6	0.72	2.3	4.89	4.0
juv. articulated coralline algae	3.7	1.94	6.3	5.07	1.3	1.11	3.4	3.47	3.7
Cryptopleura violacea	0.2	0.34	3.5	5.59	9.2	9.68	< .1	0.22	3.2
Corallina vancouveriensis	0.0	0.00	4.3	5.70	2.3	1.43	< .1	< .01	1.6
Calliarthron/Bossiella spp.-complex	0.1	0.29	0.0	0.00	2.7	1.11	1.5	1.65	1.1
Prionitis spp.	0.1	0.44	0.3	1.10	1.9	5.20	0.6	0.97	0.7
Gelidium coulteri	0.0	0.00	< .1	< .01	2.6	1.82	< .1	< .01	0.6
Chrysophyta unid.	0.0	0.00	1.3	3.95	0.0	0.00	0.0	0.00	0.3
Acrosorium uncinatum	< .1	< .01	0.0	0.00	0.0	0.00	0.5	0.66	0.1
Halymenia/Schizymenia spp.-complex	0.0	0.00	< .1	< .01	0.3	0.67	0.0	0.00	< .1
Mazzaella affinis	0.0	0.00	0.0	0.00	0.3	0.67	0.0	0.00	< .1
Colpomenia spp.	< .1	< .01	0.1	0.29	< .1	0.22	0.0	0.00	< .1
Chondracanthus canaliculatus	0.0	0.00	< .1	< .01	< .1	0.22	< .1	0.22	< .1
Callophyllis spp.	0.0	0.00	0.0	0.00	< .1	0.22	0.0	0.00	< .1
Mastocarpus papillatus	0.0	0.00	< .1	0.22	0.0	0.00	0.0	0.00	< .1
Cryptosiphonia woodii	< .1	0.22	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Pterosiphonia dendroidea	< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Spongomorpha/Acrosiphonia-complex	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Cladophora spp.	< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Gastroclonium subarticulatum	0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Grateloupia doryphora	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Phaeostrophion irregulare	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Invertebrates									
Tetraclita rubescens	81.0	56.58	206.8	178.31	114.4	35.89	272.0	149.46	168.6
Macclintockia scabra	117.4	121.93	57.0	42.85	128.2	90.00	92.2	90.02	98.7
Mytilus californianus	0.0	0.00	42.6	43.59	0.0	0.00	170.4	246.60	53.3
Mytilus spp.	116.6	185.97	0.0	0.00	71.0	102.21	0.0	0.00	46.9
Strongylocentrotus purpuratus	10.6	5.32	20.6	20.18	12.6	10.43	16.8	13.35	15.2
Fissurella volcano	4.8	3.42	11.2	6.02	17.4	9.86	20.0	11.79	13.4
Lottia pelta	6.8	4.21	8.2	12.28	25.4	19.42	11.8	5.36	13.1
Lottia limatula	3.0	3.08	21.6	17.94	5.8	5.81	12.6	12.16	10.8
Anthopleura elegantissima	7.2	3.83	9.0	4.06	12.8	10.13	10.2	5.12	9.8
Pagurus spp.	1.2	1.79	2.6	2.51	3.8	2.39	2.6	1.52	2.6
Mytilus galloprovincialis	0.0	0.00	0.6	1.34	0.0	0.00	6.4	5.90	1.8
Mopalia spp.	1.0	0.71	1.0	1.00	2.0	1.58	2.2	0.84	1.6
Cyanoplax spp.	2.0	3.46	1.0	1.73	1.0	1.73	2.0	1.87	1.5
Tegula funebralis	4.6	10.29	0.0	0.00	0.0	0.00	0.0	0.00	1.2
Pista spp.	0.2	0.66	3.0	6.01	0.3	0.88	1.0	2.15	1.1
Lottia gigantea	1.4	2.07	0.4	0.55	0.8	1.30	1.2	1.79	1.0
Serpulorbis squamigerus	0.8	1.10	0.4	0.89	2.0	2.83	0.2	0.45	0.9
Phragmatopoma californica	1.6	3.98	< .1	0.22	0.6	1.06	0.5	1.14	0.7
Chthamalus fissus	< .1	0.22	0.3	0.49	1.9	2.17	0.3	0.75	0.6
Pachygrapsus crassipes	0.2	0.45	1.8	1.64	0.4	0.89	0.0	0.00	0.6
Tectura scutum	0.0	0.00	0.0	0.00	1.8	2.05	0.4	0.89	0.6
Ophiothrix spp.	0.0	0.00	0.4	0.55	0.0	0.00	0.0	0.00	0.1
Anthopleura artemisia	0.0	0.00	0.0	0.00	0.0	0.00	0.2	0.45	< .1
Nuttallina californica	0.0	0.00	0.0	0.00	0.0	0.00	0.2	0.45	< .1
Balanus spp.	0.0	0.00	0.0	0.00	0.0	0.00	0.2	0.45	< .1
Pisaster/Henricia (juv.)	0.0	0.00	0.0	0.00	0.0	0.00	0.2	0.45	< .1
Serpulidae unid.	0.0	0.00	0.2	0.45	0.0	0.00	0.0	0.00	< .1
Septifer bifurcatus	0.0	0.00	0.2	0.45	0.0	0.00	0.0	0.00	< .1
Acmaeidae unid.	< .1	0.00	< .1	0.00	< .1	< .01	< .1	0.00	< .1
Spirorbidae	0.0	0.00	< .1	< .01	0.0	0.00	< .1	< .01	< .1
Littorina spp.	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Nitidiscala/Opalia spp.	0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1

(*continued*)

Horizontal Band Transects Station SDC 1 +.3m Survey Means and Std. Deviations (continued)

Taxon	Survey Date	124 08-Jan-01 Mean	Std. Dev.	125 25-May-01 Mean	Std. Dev.	126 23-Jul-01 Mean	Std. Dev.	127 30-Nov-01 Mean	Std. Dev.	Annual Mean
Invertebrates (continued)										
Pelecypoda unid. boring		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Modiolus spp.		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Grapsidae (juv.)		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Dodecaceria fewkesi		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Substrate										
rock		28.0	13.91	21.7	13.32	16.0	7.99	28.1	8.47	23.5
cobble		8.9	10.19	5.9	5.19	4.7	5.67	5.2	7.21	6.2
sand (shell gravel)		3.5	3.75	0.3	0.75	1.6	2.34	1.6	1.76	1.8

Horizontal Band Transects Station SDC 1 +.6m Survey Means and Std. Deviations

Survey	124		125		126		127		
Date	08-Jan-01		25-May-01		23-Jul-01		30-Nov-01		Annual
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae									
non-coralline crust	38.6	12.73	73.1	13.89	37.9	11.21	43.3	10.60	48.2
coralline crust	5.7	5.16	5.3	5.56	2.4	2.18	6.8	5.30	5.1
Ulva/Enteromorpha spp.	< .1	< .01	4.1	4.97	8.6	7.12	< .1	< .01	3.2
filamentous red algae-complex	0.1	0.44	2.1	3.27	7.2	5.97	1.0	1.51	2.6
juv. articulated coralline algae	4.2	3.62	3.8	5.17	1.0	0.75	0.7	0.73	2.4
Sargassum muticum	3.2	7.76	3.0	7.88	0.8	1.98	2.7	4.95	2.4
Gelidium coulteri	< .1	< .01	2.1	4.06	6.6	8.30	0.8	1.11	2.4
Cryptopleura violacea	< .1	0.22	1.6	3.89	3.8	9.73	0.7	1.31	1.5
Calliarthron/Bossiella spp.-complex	0.3	1.10	0.7	1.96	2.2	1.48	0.8	1.26	1.0
Prionitis spp.	0.3	1.10	0.7	1.96	0.4	0.67	1.0	1.91	0.6
Chrysophyta unid.	0.0	0.00	2.2	2.95	0.0	0.00	0.0	0.00	0.5
Corallina vancouveriensis	0.0	0.00	0.8	1.66	0.9	1.39	< .1	0.22	0.5
Mazzaella affinis	0.0	0.00	< .1	0.22	0.7	1.04	0.0	0.00	0.2
Halymenia/Schizymenia spp.-complex	0.0	0.00	0.1	0.29	0.4	0.75	0.0	0.00	0.1
Acrosorium uncinatum	0.0	0.00	0.0	0.00	0.0	0.00	0.5	1.14	0.1
Pterosiphonia dendroidea	< .1	0.22	0.0	0.00	< .1	0.22	0.2	0.34	< .1
Mastocarpus papillatus	0.0	0.00	< .1	0.22	0.2	0.47	< .1	< .01	< .1
Gastroclonium subarticulatum	< .1	< .01	0.0	0.00	0.2	0.66	< .1	0.22	< .1
Grateloupia doryphora	0.0	0.00	0.2	0.47	< .1	0.22	0.0	0.00	< .1
Chondracanthus canaliculatus	< .1	< .01	< .1	0.22	0.1	0.44	< .1	< .01	< .1
Gelidium pusillum	< .1	0.22	< .1	< .01	0.0	0.00	< .1	< .01	< .1
Colpomenia spp.	< .1	< .01	< .1	0.22	< .1	< .01	0.0	0.00	< .1
Mazzaella leptorhynchos	0.0	0.00	< .1	0.22	< .1	< .01	0.0	0.00	< .1
Cladophora spp.	< .1	< .01	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Spongomorpha/Acrosiphonia-complex	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Mazzaella heterocarpa	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Corallina officinalis	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Mastocarpus jardinii	0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Porphyra spp.	< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Invertebrates									
Tetraclita rubescens	190.8	112.15	324.6	235.12	114.8	59.11	198.0	147.39	207.1
Macclintockia scabra	138.8	118.95	152.2	103.63	126.6	34.37	168.8	105.13	146.6
Mytilus californianus	0.0	0.00	44.2	61.47	0.0	0.00	234.6	215.93	69.7
Tegula funebralis	9.8	14.79	20.0	43.61	15.8	35.33	139.4	136.27	46.3
Anthopleura elegantissima	32.4	23.07	28.0	21.01	37.8	27.05	59.6	66.95	39.5
Mytilus spp.	67.6	66.11	6.4	9.74	57.2	65.14	0.0	0.00	32.8
Lottia pelta	15.6	3.97	7.0	4.53	29.8	10.66	13.0	10.27	16.4
Fissurella volcano	9.4	4.67	2.4	1.82	12.0	6.12	16.6	8.08	10.1
Strongylocentrotus purpuratus	10.6	10.45	10.4	14.74	7.4	4.72	7.4	7.09	9.0
Lottia limatula	1.8	2.05	9.4	8.41	9.6	8.88	11.8	11.63	8.2
Pagurus spp.	4.8	7.66	1.0	1.00	2.6	1.82	9.8	5.31	4.6
Chthamalus fissus	1.1	1.28	4.4	6.37	8.1	7.34	2.2	3.39	3.9
Mytilus galloprovincialis	0.0	0.00	3.8	5.50	0.0	0.00	4.6	8.71	2.1
Lottia gigantea	2.2	2.05	0.6	0.89	1.8	1.79	1.6	2.07	1.6
Pachygrapsus crassipes	0.2	0.45	1.8	1.48	2.0	1.22	1.0	2.24	1.3
Mopalia spp.	1.0	1.73	1.8	1.92	1.4	0.89	0.4	0.55	1.2
Cyanoplax spp.	0.6	0.89	0.6	0.89	2.2	1.92	0.6	0.55	1.0
Tectura scutum	0.0	0.00	0.0	0.00	1.4	3.13	2.6	4.34	1.0
Serpulorbis squamigerus	1.4	1.34	1.6	2.07	0.0	0.00	0.2	0.45	0.8
Lottia digitalis	3.0	6.71	0.0	0.00	0.0	0.00	0.0	0.00	0.8
Balanus spp.	0.0	0.00	0.0	0.00	0.0	0.00	1.8	4.02	0.5
Nuttallina californica	0.8	1.10	0.0	0.00	0.0	0.00	0.6	0.55	0.4
Phragmatopoma californica	0.1	0.44	< .1	< .01	< .1	< .01	0.4	1.10	0.1
Acanthina spp.	0.2	0.45	0.0	0.00	0.2	0.45	0.0	0.00	< .1
Modiolus spp.	< .1	< .01	0.2	0.45	0.0	0.00	0.0	0.00	< .1
Anthopleura artemisia	0.0	0.00	0.0	0.00	0.0	0.00	0.2	0.45	< .1
Octopus spp.	0.0	0.00	0.2	0.45	0.0	0.00	0.0	0.00	< .1
Nereididae unid.	0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Pugettia spp.	0.0	0.00	0.2	0.45	0.0	0.00	0.0	0.00	< .1

(*continued*)

Horizontal Band Transects Station SDC 1 +.6m Survey Means and Std. Deviations (continued)

Taxon	Survey Date	124 08-Jan-01 Mean	Std. Dev.	125 25-May-01 Mean	Std. Dev.	126 23-Jul-01 Mean	Std. Dev.	127 30-Nov-01 Mean	Std. Dev.	Annual Mean
Invertebrates (continued)										
Sipuncula unid.		0.0	0.00	0.0	0.00	0.2	0.45	0.0	0.00	< .1
Pista spp.		< .1	< .01	< .1	0.22	< .1	< .01	< .1	< .01	< .1
Acmaeidae unid.		< .1	0.00	< .1	0.00	< .1	< .01	< .1	0.00	< .1
Spirorbidae		< .1	< .01	< .1	< .01	0.0	0.00	< .1	< .01	< .1
Littorina spp.		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Lottia asmi		0.0	0.00	< .1	< .01	0.0	0.00	< .1	< .01	< .1
Ophiactis simplex		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Ischnochitonidae		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Grapsidae (juv.)		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Substrate										
rock		28.0	8.88	27.0	13.31	16.4	6.61	28.3	8.52	24.9
cobble		10.6	12.48	10.1	10.34	7.8	9.69	6.9	8.14	8.9
sand (shell gravel)		3.3	4.09	0.8	1.53	3.8	4.47	2.5	3.57	2.6

Horizontal Band Transects Station SDC 2 +.3m Survey Means and Std. Deviations

Survey	124		125		126		127		
Date	08-Jan-01		22-May-01		24-Jul-01		30-Nov-01		Annual
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae									
non-coralline crust	62.7	13.01	40.4	14.60	39.2	17.64	55.8	11.10	49.5
coralline crust	4.4	4.23	9.6	8.14	4.6	4.59	3.6	2.66	5.5
Prionitis spp.	4.2	4.00	6.1	8.65	5.4	7.32	5.2	4.92	5.2
Gelidium coulteri	0.2	0.47	2.7	2.77	8.9	9.02	1.2	1.31	3.2
filamentous red algae-complex	0.8	2.64	4.0	8.36	4.4	11.80	0.3	0.59	2.4
Mastocarpus papillatus	< .1	0.22	0.1	0.29	6.1	5.54	1.0	1.40	1.8
Cryptopleura violacea	1.0	1.19	2.6	3.88	2.8	7.32	0.5	1.04	1.8
Ulva/Enteromorpha spp.	< .1	0.22	2.6	4.76	4.2	8.28	0.2	0.34	1.8
Corallina vancouveriensis	0.8	1.46	2.1	1.76	0.3	1.10	3.1	4.85	1.6
juv. articulated coralline algae	1.7	1.47	0.1	0.29	0.7	1.22	2.0	2.03	1.1
Pterosiphonia dendroidea	1.6	3.00	< .1	0.22	0.0	0.00	1.4	3.00	0.8
Calliarthron/Bossiella spp.-complex	1.8	2.32	0.6	1.53	0.3	1.10	0.0	0.00	0.7
Chondracanthus canaliculatus	0.6	0.79	0.6	1.01	0.7	1.46	0.7	0.87	0.6
Mazzaella affinis	0.1	0.44	0.8	1.33	1.4	2.12	< .1	< .01	0.6
Gastroclonium subarticulatum	0.3	0.49	0.3	0.75	0.5	1.09	0.7	0.93	0.5
Sargassum muticum	0.3	0.88	1.1	2.37	< .1	< .01	0.3	0.88	0.4
Chondria decipiens	0.3	0.88	0.1	0.29	0.8	1.38	0.1	0.44	0.3
Mazzaella leptorhynchos	0.0	0.00	< .1	0.22	0.8	1.59	0.0	0.00	0.2
Halymenia/Schizymenia spp.-complex	0.0	0.00	0.6	1.08	0.0	0.00	0.0	0.00	0.1
Mastocarpus jardinii	0.3	0.88	< .1	< .01	< .1	0.22	0.0	0.00	0.1
Endocladia muricata	0.0	0.00	0.0	0.00	0.3	1.10	0.0	0.00	< .1
Grateloupia doryphora	0.0	0.00	< .1	0.22	0.2	0.66	0.0	0.00	< .1
Cladophora spp.	< .1	< .01	< .1	0.00	< .1	< .01	0.1	0.44	< .1
Mazzaella heterocarpa	0.0	0.00	< .1	0.22	< .1	< .01	0.0	0.00	< .1
Gelidium pusillum	< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Spongomorpha/Acrosiphonia-complex	< .1	< .01	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Cryptosiphonia woodii	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Invertebrates									
Tegula funebralis	111.4	47.55	189.4	124.77	229.8	57.72	328.2	214.85	214.7
Anthopleura elegantissima	59.4	32.70	67.0	56.02	68.2	64.35	62.0	31.38	64.2
Macclintockia scabra	27.8	11.99	30.8	22.25	31.6	20.74	27.6	15.98	29.5
Tetraclita rubescens	56.2	104.69	15.0	7.52	25.8	23.26	7.0	5.83	26.0
Lottia limatula	3.4	1.52	9.6	9.07	10.8	5.85	1.4	0.89	6.3
Lottia pelta	0.8	0.84	5.8	3.77	11.6	9.53	2.6	2.97	5.2
Pagurus spp.	3.8	3.63	4.6	2.88	4.2	4.38	3.8	4.92	4.1
Tectura scutum	1.0	1.22	6.4	5.81	7.0	2.74	0.8	1.10	3.8
Chthamalus fissus	0.8	1.46	5.1	5.90	3.4	2.81	1.6	2.07	2.7
Pachygrapsus crassipes	0.2	0.45	2.0	0.71	2.2	1.92	0.4	0.55	1.2
Serpulorbis squamigerus	2.4	2.61	0.0	0.00	1.2	1.30	0.8	1.30	1.1
Mopalia spp.	1.8	1.92	1.0	1.22	0.4	0.55	0.6	0.89	1.0
Cyanoplax spp.	< .1	< .01	2.0	2.00	1.2	2.17	0.4	0.55	0.9
Fissurella volcano	0.8	1.30	0.4	0.89	0.2	0.45	1.8	1.48	0.8
Acanthina spp.	0.6	0.89	1.0	1.73	1.0	1.73	0.0	0.00	0.7
Serpulidae unid.	0.0	0.00	2.0	2.55	0.0	0.00	< .1	< .01	0.5
Mytilus californianus	1.4	3.13	0.0	0.00	0.0	0.00	0.0	0.00	0.4
Strongylocentrotus purpuratus	0.0	0.00	1.0	2.24	0.0	0.00	0.0	0.00	0.3
Mytilus spp.	< .1	< .01	0.4	0.89	< .1	< .01	0.2	0.45	0.2
Anthopleura artemisia	0.0	0.00	0.4	0.89	0.0	0.00	0.2	0.45	0.2
Nuttallina californica	0.0	0.00	0.0	0.00	0.6	1.34	0.0	0.00	0.2
Tegula brunnea	0.0	0.00	0.0	0.00	0.0	0.00	0.2	0.45	< .1
Pisaster ochraceus	0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Cirratulidae/Terebellidae unid.	0.0	0.00	0.2	0.45	0.0	0.00	0.0	0.00	< .1
Pista spp.	< .1	0.22	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Acmaeidae unid.	< .1	< .01	< .1	0.00	< .1	0.00	< .1	0.00	< .1
Lottia asmi	< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Phragmatopoma californica	< .1	< .01	< .1	0.00	< .1	< .01	< .1	< .01	< .1
Littorina spp.	0.0	0.00	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Spirorbidae	< .1	< .01	0.0	0.00	< .1	< .01	< .1	< .01	< .1
Crepidula spp.	0.0	0.00	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Nitidiscala/Opalia spp.	0.0	0.00	< .1	< .01	< .1	< .01	0.0	0.00	< .1

(*continued*)

Horizontal Band Transects Station SDC 2 +.3m Survey Means and Std. Deviations (continued)

Survey	124		125		126		127		
Date	08-Jan-01		22-May-01		24-Jul-01		30-Nov-01		Annual
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Invertebrates (continued)									
Sipuncula unid.	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Modiolus spp.	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Homolo. luridum/Lirularia succincta	< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Dodecaceria fewkesi	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Bryozoa. unid. (foliose)	0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Substrate									
rock	19.2	13.80	21.3	19.66	16.8	18.94	14.8	10.30	18.0
sand (shell gravel)	3.3	4.78	3.3	5.01	4.7	6.99	6.1	5.83	4.4
cobble	1.5	3.08	2.5	5.27	1.5	3.08	1.3	3.10	1.7

Horizontal Band Transects Station SDC 2 +.9m Survey Means and Std. Deviations

Taxon	Survey	124		125		126		127		Annual
	Date	08-Jan-01		22-May-01		24-Jul-01		30-Nov-01		
		Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae										
non-coralline crust		16.5	29.74	10.5	18.35	13.0	17.83	18.0	19.04	14.5
Endocladia muricata		0.4	1.32	0.6	1.98	0.6	1.76	0.4	0.88	0.5
Prionitis spp.		0.3	0.88	< .1	0.22	0.2	0.34	0.3	0.59	0.2
Mastocarpus papillatus		0.1	0.29	0.2	0.66	0.1	0.44	0.3	0.59	0.2
coralline crust		< .1	0.22	0.1	0.44	0.1	0.44	0.3	0.88	0.2
juv. articulated coralline algae		< .1	< .01	< .1	< .01	< .1	0.22	< .1	< .01	< .1
Gelidium pusillum		< .1	0.00	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Cladophora spp.		< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Corallina vancouveriensis		0.0	0.00	< .1	< .01	0.0	0.00	< .1	< .01	< .1
Mazzaella leptorhynchos		< .1	< .01	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Gelidium coulteri		0.0	0.00	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Calliarthron/Bossiella spp.-complex		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	
Invertebrates										
Anthopleura elegantissima		179.0	82.08	196.0	127.33	312.4	198.42	171.4	92.89	214.7
Tegula funebralis		122.6	68.56	223.4	151.97	255.8	85.95	102.8	56.34	176.2
Macclintockia scabra		42.0	32.36	54.2	36.22	43.4	28.55	35.8	24.28	43.9
Lottia limatula		7.8	8.26	7.2	6.87	18.0	8.60	1.0	2.24	8.5
Pagurus spp.		4.4	6.27	3.2	2.17	6.0	6.12	8.0	12.14	5.4
Lottia pelta		1.0	1.73	0.0	0.00	7.4	6.07	4.2	4.60	3.2
Chthamalus fissus		0.3	0.49	0.6	0.91	4.0	4.60	3.5	5.19	2.1
Mytilus californianus		2.8	4.66	1.8	4.02	0.0	0.00	0.0	0.00	1.2
Tectura scutum		1.4	1.14	0.8	1.79	0.8	1.30	0.8	1.10	1.0
Pachygrapsus crassipes		0.0	0.00	1.0	1.22	2.0	1.22	0.0	0.00	0.8
Mytilus spp.		< .1	< .01	0.6	1.34	1.2	2.68	0.6	1.34	0.6
Acanthina spp.		0.2	0.45	0.6	1.34	0.6	0.89	0.2	0.45	0.4
Cyanoplax spp.		0.2	0.45	0.8	0.84	0.0	0.00	0.0	0.00	0.3
Mopalia spp.		0.4	0.55	0.4	0.55	0.2	0.45	0.0	0.00	0.3
Tectura persona		0.0	0.00	1.0	1.41	0.0	0.00	0.0	0.00	0.3
Tetraclita rubescens		0.2	0.45	0.0	0.00	0.4	0.55	0.0	0.00	0.2
Lottia digitalis		0.6	1.34	0.0	0.00	0.0	0.00	0.0	0.00	0.2
Hemigrapsus nudus		0.0	0.00	0.0	0.00	0.0	0.00	0.2	0.45	< .1
Epiactis prolifera		0.0	0.00	0.0	0.00	0.2	0.45	0.0	0.00	< .1
Ocenebra spp.		0.0	0.00	0.0	0.00	0.2	0.45	0.0	0.00	< .1
Mytilus galloprovincialis		0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Littorina spp.		< .1	0.00	< .1	0.00	< .1	0.00	< .1	0.00	< .1
Acmaeidae unid.		< .1	0.00	< .1	0.00	< .1	< .01	< .1	0.00	< .1
Lottia asmi		< .1	< .01	< .1	< .01	< .1	0.00	< .1	< .01	< .1
Nitidiscala/Opalia spp.		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Sipuncula unid.		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Grapsidae (juv.)		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Phragmatopoma californica		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Substrate										
rock		56.8	27.28	52.6	21.49	44.6	19.75	51.4	21.64	51.3
sand (shell gravel)		8.4	12.79	18.5	17.41	13.5	15.13	8.5	10.99	12.2
cobble		10.1	16.46	9.1	18.51	11.7	20.55	7.8	10.55	9.7

Horizontal Band Transects Station SDC 3 +.3m Survey Means and Std. Deviations

Taxon	Survey Date	124 08-Feb-01 Mean	Std. Dev.	125 11-Jun-01 Mean	Std. Dev.	126 13-Sep-01 Mean	Std. Dev.	127 28-Nov-01 Mean	Std. Dev.	Annual Mean
Algae										
non-coralline crust		32.1	14.01	35.7	16.82	35.5	24.23	35.9	13.80	34.8
Mastocarpus papillatus		10.0	7.69	5.6	4.29	33.6	17.62	21.2	10.91	17.6
Endocladia muricata		0.2	0.47	0.7	1.39	0.3	0.88	0.4	1.10	0.4
coralline crust		0.3	0.37	0.6	0.69	< .1	0.22	0.4	0.75	0.4
Mazzaella affinis		< .1	< .01	< .1	< .01	0.1	0.29	0.8	1.20	0.2
Gelidium coulteri		0.1	0.29	0.0	0.00	0.3	0.59	0.1	0.44	0.2
Prionitis spp.		< .1	0.22	< .1	< .01	< .1	< .01	0.6	1.34	0.2
Cryptopleura violacea		0.0	0.00	0.0	0.00	< .1	< .01	0.6	1.33	0.2
Mazzaella leptorhynchos		0.2	0.47	< .1	< .01	< .1	< .01	0.1	0.44	< .1
juv. articulated coralline algae		< .1	< .01	0.1	0.29	0.0	0.00	0.0	0.00	< .1
Mastocarpus jardinii		0.0	0.00	0.0	0.00	0.0	0.00	0.1	0.44	< .1
Chondracanthus canaliculatus		< .1	< .01	< .1	0.22	< .1	< .01	0.0	0.00	< .1
Mazzaella heterocarpa		< .1	< .01	0.0	0.00	< .1	0.22	0.0	0.00	< .1
Gastroclonium subarticulatum		0.0	0.00	< .1	0.22	0.0	0.00	0.0	0.00	< .1
Grateloupia doryphora		0.0	0.00	0.0	0.00	< .1	0.22	0.0	0.00	< .1
Gelidium pusillum		< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Cladophora spp.		< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Corallina vancouveriensis		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Calliarthron/Bossiella spp.-complex		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Pterosiphonia dendroidea		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
filamentous red algae-complex		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Invertebrates										
Tegula funebralis		193.6	112.40	125.4	59.52	301.6	197.96	164.6	136.52	196.3
Macclintockia scabra		64.2	53.10	166.2	246.72	278.2	408.38	84.4	95.75	148.3
Pagurus spp.		12.6	6.19	30.4	51.87	9.4	8.23	55.2	38.33	26.9
Anthopleura elegantissima		15.4	30.02	18.4	31.79	26.6	53.98	29.0	62.62	22.4
Lottia limatula		8.2	5.36	6.6	6.84	9.2	5.72	3.2	1.79	6.8
Tectura scutum		5.0	4.90	2.0	2.35	16.2	12.85	2.2	1.64	6.4
Tetraclita rubescens		12.8	13.29	3.0	2.65	3.8	7.40	2.6	4.77	5.6
Chthamalus fissus		2.4	3.72	2.7	3.77	4.2	5.31	6.0	8.29	3.8
Lottia digitalis		5.2	11.08	2.2	3.35	6.0	13.42	0.0	0.00	3.4
Lottia pelta		0.4	0.89	3.6	4.16	0.8	0.84	2.2	1.30	1.8
Tegula brunnea		2.2	3.49	0.0	0.00	2.2	3.19	0.2	0.45	1.2
Strongylocentrotus purpuratus		0.2	0.45	0.4	0.55	2.6	2.51	0.0	0.00	0.8
Ocenebra spp.		0.0	0.00	2.4	4.34	0.0	0.00	0.2	0.45	0.7
Pachygrapsus crassipes		0.4	0.55	0.2	0.45	1.8	1.30	0.0	0.00	0.6
Diopatra ornata		1.2	2.68	0.2	0.45	0.0	0.00	0.0	0.00	0.4
Cyanoplax spp.		0.4	0.89	0.0	0.00	0.2	0.45	0.0	0.00	0.2
Pisaster ochraceus		0.0	0.00	0.0	0.00	0.4	0.55	0.2	0.45	0.2
Balanus spp.		0.0	0.00	0.0	0.00	0.4	0.89	0.0	0.00	< .1
Anthopleura xanthogrammica		0.0	0.00	0.0	0.00	0.0	0.00	0.2	0.45	< .1
Fissurella volcano		0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Serpulorbis squamigerus		0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Asterina miniata		0.0	0.00	0.0	0.00	0.0	0.00	0.2	0.45	< .1
Serpulidae unid.		0.0	0.00	0.2	0.45	0.0	0.00	0.0	0.00	< .1
Acmaeidae unid.		< .1	0.00	< .1	< .01	< .1	0.00	< .1	0.00	< .1
Phragmatopoma californica		< .1	0.00	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Spirorbidae		< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Lottia asmi		0.0	0.00	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Littorina spp.		< .1	< .01	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Pista spp.		< .1	< .01	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Mytilus spp.		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Substrate										
rock		23.8	10.53	30.3	21.35	18.8	13.94	15.3	11.10	22.0
cobble		28.9	13.93	21.8	10.40	11.8	6.11	14.9	9.16	19.3
sand (shell gravel)		5.4	4.27	3.1	4.03	6.0	4.00	8.5	6.13	5.8

Horizontal Band Transects Station SDC 3 +.9m Survey Means and Std. Deviations

Taxon	Survey	124		125		126		127		Annual
	Date	08-Feb-01		11-Jun-01		13-Sep-01		28-Nov-01		
		Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae										
non-coralline crust		17.8	14.31	22.2	13.42	20.1	14.98	23.9	16.80	21.0
Mastocarpus papillatus		3.5	5.54	0.7	1.39	5.0	4.22	3.8	3.04	3.2
coralline crust		0.3	0.49	< .1	0.22	< .1	0.22	0.3	0.67	0.2
Mazzaella leptorhynchos		0.0	0.00	0.0	0.00	0.2	0.34	< .1	0.22	< .1
Gelidium coulteri		0.0	0.00	< .1	< .01	< .1	0.22	< .1	0.22	< .1
Endocladia muricata		< .1	0.22	< .1	< .01	< .1	< .01	< .1	< .01	< .1
juv. articulated coralline algae		< .1	< .01	< .1	< .01	0.0	0.00	< .1	0.22	< .1
Gelidium pusillum		< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Cladophora spp.		< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Mazzaella affinis		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Corallina vancouveriensis		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Mastocarpus jardinii		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Chondracanthus canaliculatus		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Invertebrates										
Tegula funebralis		63.2	43.08	72.8	33.19	423.0	201.16	167.8	169.20	181.7
Anthopleura elegantissima		66.2	91.55	51.4	77.88	138.2	194.52	86.0	95.78	85.5
Macclintockia scabra		45.6	28.46	52.8	30.01	131.6	60.31	56.2	21.04	71.6
Pagurus spp.		19.8	15.16	7.4	7.80	10.8	7.01	23.4	18.41	15.4
Pollicipes polymerus		4.0	8.94	7.6	16.99	7.4	16.55	5.4	12.07	6.1
Lottia limatula		2.8	2.39	4.8	3.42	5.8	2.77	4.2	4.38	4.4
Mytilus californianus		0.2	0.45	3.6	7.50	5.2	11.63	3.8	6.94	3.2
Chthamalus fissus		0.8	0.76	1.5	1.99	2.2	2.51	5.3	7.64	2.4
Tectura scutum		2.0	2.00	1.4	0.55	5.4	6.62	0.6	0.89	2.4
Mytilus spp.		3.4	7.60	0.0	0.00	0.0	0.00	0.0	0.00	0.9
Lottia pelta		0.2	0.45	0.2	0.45	0.6	0.89	1.4	1.14	0.6
Lottia digitalis		0.0	0.00	2.0	4.47	0.0	0.00	0.0	0.00	0.5
Pachygrapsus crassipes		0.4	0.55	0.4	0.89	1.0	1.00	0.2	0.45	0.5
Acanthina spp.		0.6	0.89	0.8	0.84	0.2	0.45	0.2	0.45	0.5
Cyanoplax spp.		0.0	0.00	0.2	0.45	1.4	1.67	0.0	0.00	0.4
Ocenebra spp.		0.4	0.89	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Tetraclita rubescens		0.0	0.00	0.2	0.45	0.0	0.00	0.0	0.00	< .1
Cirratulidae/Terebellidae unid.		0.0	0.00	0.0	0.00	0.2	0.45	0.0	0.00	< .1
Phragmatopoma californica		0.1	0.44	< .1	< .01	< .1	< .01	< .1	0.00	< .1
Acmaeidae unid.		< .1	0.00	< .1	< .01	< .1	0.00	< .1	0.00	< .1
Littorina spp.		< .1	0.00	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Spirorbidae		< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Lottia asmi		0.0	0.00	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Nitidiscala/Opalia spp.		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Substrate										
rock		39.6	29.33	38.8	27.39	40.7	26.29	35.5	22.07	38.6
cobble		30.8	15.56	31.2	18.79	23.1	15.40	22.1	12.28	26.8
sand (shell gravel)		6.3	7.30	4.4	5.51	7.9	6.77	9.3	5.83	7.0

Horizontal Band Transects Station SDP 1 +.9m Survey Means and Std. Deviations

Survey	124		125		126		127		
Date	05-Feb-01		24-May-01		24-Jul-01		28-Nov-01		Annual
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae									
non-coralline crust	35.1	19.28	28.8	20.98	37.4	25.05	43.3	28.69	36.2
coralline crust	10.8	5.83	11.9	6.07	9.0	5.87	8.5	5.74	10.1
Corallina vancouveriensis	4.5	5.27	1.0	1.05	0.9	1.09	2.2	2.01	2.2
juv. articulated coralline algae	1.6	2.05	3.8	3.50	1.9	1.39	1.2	1.54	2.1
Gelidium coulteri	1.3	1.79	0.8	1.30	2.4	2.88	1.1	1.51	1.4
Calliarthron/Bossiella spp.-complex	2.2	3.30	1.2	1.35	0.6	0.79	0.8	0.76	1.2
Mastocarpus jardinii	0.2	0.34	0.1	0.29	0.2	0.34	0.4	0.75	0.2
Endocladia muricata	< .1	0.22	0.6	1.22	< .1	0.22	< .1	0.22	0.2
Corallina officinalis	0.7	1.46	0.0	0.00	0.0	0.00	0.0	0.00	0.2
Callithamnion spp./*Pleonosporium* spp.	0.0	0.00	0.3	0.67	< .1	< .01	0.0	0.00	< .1
Prionitis spp.	0.0	0.00	< .1	< .01	< .1	< .01	< .1	0.22	< .1
Chondracanthus canaliculatus	< .1	0.22	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Mazzaella flaccida	0.0	0.00	< .1	0.22	0.0	0.00	0.0	0.00	< .1
Cladophora spp.	0.0	0.00	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Gelidium pusillum	< .1	< .01	< .1	< .01	0.0	0.00	< .1	< .01	< .1
Mastocarpus papillatus	0.0	0.00	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Ulva/Enteromorpha spp.	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
filamentous red algae-complex	0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Invertebrates									
Mytilus californianus	544.8	435.35	636.4	342.34	561.6	400.31	567.6	407.77	577.6
Tetraclita rubescens	104.8	81.48	131.2	70.02	120.2	65.95	109.6	98.51	116.5
Anthopleura elegantissima	61.4	45.73	117.0	105.38	109.6	68.97	168.0	128.98	114.0
Macclintockia scabra	91.2	71.07	89.6	72.66	138.2	91.64	101.0	63.64	105.0
Strongylocentrotus purpuratus	46.8	25.38	26.6	10.53	31.0	24.03	35.2	29.73	34.9
Lottia pelta	7.6	5.68	19.6	10.24	35.8	29.22	8.8	6.87	18.0
Nuttallina californica	15.6	10.95	10.8	8.73	8.8	6.91	7.4	5.13	10.7
Lottia gigantea	7.4	6.43	7.4	4.98	9.6	5.73	15.0	12.77	9.9
Pollicipes polymerus	9.2	13.74	5.6	6.27	1.8	4.02	2.8	3.11	4.9
Tegula funebralis	2.2	2.49	7.4	10.85	6.4	8.68	0.6	0.89	4.2
Fissurella volcano	6.4	10.69	0.2	0.45	3.6	2.30	0.4	0.55	2.7
Balanus spp.	< .1	< .01	4.2	6.57	4.0	8.94	1.2	2.68	2.4
Phragmatopoma californica	4.0	5.59	1.3	0.97	0.6	0.79	1.3	2.21	1.8
Lottia limatula	1.2	0.84	0.2	0.45	3.4	3.29	0.8	0.84	1.4
Anthopleura xanthogrammica	1.0	1.73	1.2	0.84	1.8	1.48	1.4	0.55	1.4
Tegula brunnea	0.6	0.89	2.2	2.28	1.0	2.24	1.0	1.41	1.2
Cyanoplax spp.	0.4	0.89	3.0	3.00	0.0	0.00	0.6	1.34	1.0
Pachygrapsus crassipes	0.6	0.89	1.6	1.67	0.6	0.89	0.6	0.89	0.9
Pagurus spp.	1.2	1.79	0.4	0.89	0.2	0.45	1.0	2.24	0.7
Chthamalus fissus	< .1	0.00	0.3	0.59	2.2	2.95	< .1	0.00	0.6
Nucella emarginata	0.8	0.84	0.6	1.34	0.4	0.55	0.2	0.45	0.5
Ocenebra spp.	0.2	0.45	0.6	0.89	0.6	0.89	0.4	0.89	0.5
Serpulidae unid.	0.2	0.45	0.2	0.45	0.6	1.34	< .1	< .01	0.3
Epiactis prolifera	1.0	2.24	0.0	0.00	0.0	0.00	0.0	0.00	0.3
Lottia digitalis	0.0	0.00	0.0	0.00	1.0	2.24	0.0	0.00	0.3
Acmaea mitra	0.6	1.34	0.0	0.00	0.0	0.00	0.0	0.00	0.2
Nemertea unid.	0.0	0.00	0.4	0.89	0.0	0.00	0.0	0.00	< .1
Mopalia spp.	0.4	0.89	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Sipuncula unid.	< .1	< .01	< .1	< .01	< .1	< .01	0.2	0.45	< .1
Nereididae unid.	0.0	0.00	0.2	0.45	0.0	0.00	0.0	0.00	< .1
Acmaeidae unid.	< .1	< .01	< .1	0.00	< .1	< .01	< .1	0.00	< .1
Lottia asmi	< .1	< .01	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Dodecaceria fewkesi	< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Spirorbidae	< .1	< .01	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Ischnochitonidae	0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Pelecypoda unid. boring	0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Nassarius spp.	0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Cirratulidae/Terebellidae unid.	< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Bryozoa, unid. (encrusting)	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Substrate									
rock	8.3	6.94	14.4	5.89	12.5	5.30	4.6	3.33	9.9
sand (shell gravel)	0.0	0.00	0.0	0.00	0.0	0.00	0.2	0.66	< .1

Horizontal Band Transects Station SDP 2 +.9m Survey Means and Std. Deviations

Survey	124		125		126		127		Annual
Date	05-Feb-01		24-May-01		24-Jul-01		28-Nov-01		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae									
coralline crust	21.7	7.57	28.0	11.28	17.6	8.01	22.1	9.92	22.4
Corallina vancouveriensis	22.8	12.66	16.1	12.11	8.5	7.10	15.8	11.33	15.8
Mazzaella flaccida	1.9	2.07	12.2	16.48	13.1	15.92	6.5	10.44	8.4
Gelidium coulteri	3.4	4.55	6.4	3.49	13.7	10.04	7.8	8.03	7.8
Cryptopleura violacea	4.0	3.68	5.7	6.16	6.9	6.25	12.0	7.79	7.2
Calliarthron/Bossiella spp.-complex	3.3	3.95	2.4	4.14	8.2	5.86	9.6	8.24	5.9
non-coralline crust	7.8	6.18	5.1	2.56	1.9	2.38	7.2	4.18	5.5
Egregia menziesii	1.5	2.47	1.5	1.99	3.1	3.93	9.9	14.10	4.0
Prionitis spp.	4.2	2.59	2.4	3.78	2.5	2.93	6.1	5.67	3.8
Gastroclonium subarticulatum	1.3	1.90	1.1	1.68	2.4	4.18	2.0	2.46	1.7
Callithamnion spp./*Pleonosporium* spp.	0.0	0.00	0.0	0.00	6.5	3.82	0.1	0.29	1.6
Chondracanthus canaliculatus	0.7	0.93	2.2	3.34	2.8	4.10	0.7	1.09	1.6
Chrysophyta unid.	0.0	0.00	< .1	0.22	6.0	7.26	0.0	0.00	1.5
juv. articulated coralline algae	0.8	1.17	2.0	2.46	1.2	0.74	1.7	0.88	1.4
filamentous red algae-complex	0.0	0.00	2.4	1.51	< .1	< .01	0.0	0.00	0.6
Mazzaella heterocarpa	0.7	1.18	0.0	0.00	0.9	1.39	0.1	0.29	0.4
Mazzaella affinis	1.3	2.12	0.0	0.00	0.2	0.34	0.2	0.66	0.4
Mastocarpus jardinii	0.3	0.49	0.2	0.47	0.6	1.53	0.6	1.33	0.4
Mastocarpus papillatus	0.1	0.44	0.2	0.66	0.7	1.60	0.0	0.00	0.3
Bryopsis spp.	0.1	0.29	0.3	0.49	< .1	0.22	< .1	< .01	0.1
Chondracanthus corymbiferus	0.0	0.00	< .1	0.22	0.2	0.47	0.1	0.44	0.1
Osmundea spp.	< .1	0.22	0.0	0.00	< .1	< .01	0.3	0.67	0.1
Ulva/Enteromorpha spp.	< .1	< .01	< .1	< .01	0.2	0.34	0.0	0.00	< .1
Codium fragile	0.0	0.00	0.0	0.00	< .1	< .01	0.1	0.44	< .1
Halymenia/Schizymenia spp.-complex	< .1	0.22	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Spongomorpha/Acrosiphonia-complex	0.0	0.00	< .1	0.22	0.0	0.00	0.0	0.00	< .1
Laminaria setchellii	0.0	0.00	< .1	0.22	0.0	0.00	0.0	0.00	< .1
Microcladia coulteri	0.0	0.00	< .1	< .01	0.0	0.00	< .1	< .01	< .1
Microcladia borealis	0.0	0.00	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Laminariales	0.0	0.00	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Rhodophyta (juv. blades)	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Callithamnion pikeanum	0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Endocladia muricata	0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Porphyra spp.	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Plocamium violaceum	0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Chondria decipiens	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Invertebrates									
Strongylocentrotus purpuratus	200.8	26.97	199.0	116.49	162.6	116.28	215.6	203.49	194.5
Anthopleura elegantissima	63.0	53.89	64.0	71.54	144.8	140.77	149.0	134.91	105.2
Tetraclita rubescens	5.8	3.96	55.6	77.37	28.0	51.00	21.8	20.12	27.8
Pollicipes polymerus	70.6	157.87	6.0	8.22	1.8	4.02	0.2	0.45	19.7
Lottia pelta	0.8	0.84	2.6	2.30	20.0	44.16	8.0	12.73	7.9
Serpulorbis squamigerus	2.6	4.22	4.8	3.96	3.6	2.88	9.4	5.55	5.1
Pisaster ochraceus	3.2	1.92	5.8	3.63	5.0	4.53	6.0	6.44	5.0
Serpulidae unid.	3.0	1.87	2.4	2.61	3.4	2.41	6.4	7.30	3.8
Fissurella volcano	3.4	4.72	1.0	1.00	1.0	1.00	5.0	3.16	2.6
Leptasterias spp.	0.0	0.00	2.4	1.95	2.6	1.95	3.6	2.19	2.2
Pachygrapsus crassipes	1.2	1.10	1.4	1.34	1.8	1.48	2.6	1.52	1.8
Nemertea unid.	0.4	0.89	0.6	0.89	3.0	3.94	2.4	2.19	1.6
Tegula brunnea	3.0	1.87	0.8	1.10	0.0	0.00	1.4	0.55	1.3
Anthopleura xanthogrammica	0.0	0.00	1.6	2.61	0.8	1.30	2.0	3.94	1.1
Acmaea mitra	1.8	2.68	0.4	0.89	0.0	0.00	1.8	1.48	1.0
Macclintockia scabra	2.2	4.92	1.2	1.64	0.0	0.00	0.6	0.89	1.0
Lottia limatula	0.2	0.45	0.0	0.00	0.0	0.00	3.6	7.50	1.0
Anthopleura artemisia	0.0	0.00	0.0	0.00	0.0	0.00	2.0	2.12	0.5
Tonicella lineata	0.2	0.45	0.4	0.89	0.2	0.45	1.2	1.79	0.5
Pagurus spp.	0.6	1.34	0.0	0.00	0.2	0.45	0.8	1.30	0.4
Chthamalus fissus	1.3	3.03	< .1	< .01	< .1	< .01	< .1	< .01	0.3
Phragmatopoma californica	< .1	< .01	< .1	< .01	< .1	< .01	1.0	2.08	0.2

(*continued*)

Horizontal Band Transects Station SDP 2 +.9m Survey Means and Std. Deviations (continued)

Taxon	Survey Date	124 05-Feb-01 Mean	Std. Dev.	125 24-May-01 Mean	Std. Dev.	126 24-Jul-01 Mean	Std. Dev.	127 28-Nov-01 Mean	Std. Dev.	Annual Mean
Invertebrates (continued)										
Mytilus californianus		0.0	0.00	0.2	0.45	0.2	0.45	0.2	0.45	0.2
Diodora spp.		0.6	0.89	0.0	0.00	0.0	0.00	0.0	0.00	0.2
Dodecaceria fewkesi		< .1	< .01	0.3	0.67	< .1	< .01	0.2	0.47	0.1
Calliostoma ligatum		0.0	0.00	0.2	0.45	0.2	0.45	0.0	0.00	< .1
Cyanoplax spp.		0.0	0.00	0.0	0.00	0.4	0.55	0.0	0.00	< .1
Mopalia spp.		0.0	0.00	0.2	0.45	0.0	0.00	0.2	0.45	< .1
Nucella emarginata		0.2	0.45	0.0	0.00	0.0	0.00	0.2	0.45	< .1
Pododesmus cepio		0.0	0.00	0.0	0.00	0.0	0.00	0.2	0.45	< .1
Nuttallina californica		0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Nereididae unid.		0.0	0.00	0.0	0.00	0.2	0.45	0.0	0.00	< .1
Doriopsilla albopunctata		0.0	0.00	0.0	0.00	0.2	0.45	0.0	0.00	< .1
Ocenebra spp.		0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Pisaster giganteus		0.0	0.00	0.0	0.00	0.2	0.45	0.0	0.00	< .1
Cucumaria spp.		0.0	0.00	0.0	0.00	0.2	0.45	0.0	0.00	< .1
Haliotis spp.		0.0	0.00	0.0	0.00	0.0	0.00	0.2	0.42	< .1
Porifera unid. (encrusting)		< .1	< .01	< .1	< .01	< .1	0.22	< .1	< .01	< .1
Acmaeidae unid.		< .1	< .01	< .1	0.00	< .1	0.00	< .1	0.00	< .1
Pelecypoda unid. boring		< .1	< .01	< .1	< .01	< .1	< .01	< .1	0.00	< .1
Spirorbidae		0.0	0.00	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Sipuncula unid.		< .1	< .01	< .1	0.00	< .1	< .01	< .1	< .01	< .1
Grapsidae (juv.)		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Corynactis californica		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Lottia ochracea		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Amphissa spp.		< .1	< .01	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Epiactis prolifera		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Discurria insessa		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Conus californicus		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Lacuna spp.		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Salmacina tribranchiata		0.0	0.00	< .1	< .01	0.0	0.00	< .1	< .01	< .1
Elysia hedgpethi		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Eupentacta quinquesemita		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Mytilus spp.		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Homolo. luridum/Lirularia succincta		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
tunicates, colonial/social unid.		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Substrate										
rock		5.1	1.04	9.8	7.67	7.0	6.23	7.0	3.47	7.2
cobble		0.0	0.00	< .1	< .01	0.0	0.00	< .1	< .01	< .1

Horizontal Band Transects Station SC 1 +.3m Survey Means and Std. Deviations

Taxon	Survey	124		125		126		127		Annual
	Date	23-Jan-01		07-Jun-01		18-Aug-01		16-Nov-01		
		Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae										
Mazzaella flaccida		33.5	18.13	63.5	15.83	52.4	20.12	29.7	16.82	44.8
Chondracanthus canaliculatus		21.2	11.49	34.0	18.34	35.4	17.14	28.2	14.78	29.7
Gastroclonium subarticulatum		11.5	6.55	7.2	6.40	7.8	7.11	22.5	14.18	12.3
non-coralline crust		12.6	9.19	9.2	9.85	6.5	7.30	9.3	4.89	9.4
Phyllospadix spp.		8.1	14.13	3.3	5.40	8.0	16.28	4.7	8.08	6.0
coralline crust		10.8	5.45	4.4	4.39	2.9	4.03	5.2	3.60	5.8
Mastocarpus papillatus		1.9	2.01	5.8	5.87	3.5	5.61	2.4	3.33	3.4
Cryptopleura violacea		3.6	1.93	2.0	1.65	1.3	2.16	6.4	4.75	3.3
Mazzaella heterocarpa		2.1	3.02	3.5	3.69	0.7	1.13	1.5	1.34	1.9
Ulva/Enteromorpha spp.		0.5	0.74	0.4	1.10	2.3	2.84	3.5	2.29	1.7
Mastocarpus jardinii		1.7	2.45	2.2	2.70	0.6	1.53	1.5	2.21	1.5
Prionitis spp.		1.3	1.22	0.4	0.59	0.3	0.88	1.8	2.54	1.0
Calliarthron/Bossiella spp.-complex		1.9	3.48	0.4	0.67	0.1	0.29	1.0	2.84	0.9
Endocladia muricata		0.7	0.93	2.1	3.50	0.3	0.75	0.3	0.59	0.9
Mazzaella affinis		0.9	0.74	1.8	2.08	0.3	0.88	0.3	0.49	0.8
Corallina vancouveriensis		1.5	1.29	0.5	0.66	0.3	0.49	0.7	1.31	0.7
Chondracanthus corymbiferus		0.7	0.93	0.8	1.06	< .1	< .01	0.7	0.98	0.5
juv. articulated coralline algae		1.2	0.87	0.1	0.29	< .1	0.22	0.5	0.74	0.5
Egregia menziesii		0.0	0.00	< .1	0.22	0.8	1.98	0.4	1.10	0.3
Gelidium pusillum		0.3	0.49	0.6	0.91	0.1	0.29	0.1	0.44	0.3
Osmundea spp.		0.6	0.72	< .1	0.22	< .1	< .01	0.3	1.10	0.2
Gelidium coulteri		0.5	0.57	0.2	0.47	0.0	0.00	0.2	0.34	0.2
Smithora naiadum		0.0	0.00	0.0	0.00	0.7	1.96	< .1	0.22	0.2
Polyneura latissima		< .1	< .01	< .1	< .01	0.0	0.00	0.6	1.98	0.2
Spongomorpha/Acrosiphonia-complex		0.0	0.00	0.6	1.98	0.0	0.00	0.0	0.00	0.2
Sarcodiotheca gaudichaudii		< .1	0.22	< .1	0.22	0.0	0.00	0.3	0.67	0.1
filamentous red algae-complex		< .1	< .01	0.3	0.88	< .1	< .01	0.0	0.00	< .1
Erythrophyllum delesserioides		0.0	0.00	0.3	0.88	0.0	0.00	0.0	0.00	< .1
Mazzaella lilacina		0.0	0.00	0.3	0.88	0.0	0.00	0.0	0.00	< .1
Chondracanthus harveyanus/spinosus		0.0	0.00	0.0	0.00	0.3	0.88	0.0	0.00	< .1
Halosaccion americanum		< .1	0.22	0.1	0.29	0.0	0.00	< .1	< .01	< .1
Microcladia coulteri		< .1	< .01	< .1	< .01	0.1	0.29	< .1	0.00	< .1
Corallina officinalis		< .1	< .01	0.0	0.00	0.0	0.00	0.1	0.29	< .1
Callithamnion pikeanum		0.0	0.00	0.1	0.29	0.0	0.00	< .1	< .01	< .1
Halymenia/Schizymenia spp.-complex		0.0	0.00	< .1	0.22	0.0	0.00	< .1	< .01	< .1
Analipus japonicus		< .1	0.22	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Mazzaella leptorhynchos		0.0	0.00	< .1	0.22	0.0	0.00	0.0	0.00	< .1
Pterosiphonia dendroidea		0.0	0.00	< .1	0.22	0.0	0.00	0.0	0.00	< .1
Cladophora spp.		< .1	< .01	< .1	< .01	0.0	0.00	< .1	< .01	< .1
Melobesia mediocris		0.0	0.00	0.0	0.00	< .1	< .01	< .1	< .01	< .1
Rhodymenia spp.		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Callithamnion spp./*Pleonosporium* spp.		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Porphyra spp.		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Colpomenia spp.		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Invertebrates										
Tetraclita rubescens		12.8	11.88	6.0	7.04	0.0	0.00	61.4	41.70	20.1
Pagurus spp.		8.4	3.78	5.2	3.96	5.8	6.87	6.2	2.39	6.4
Macclintockia scabra		7.8	10.28	5.2	6.98	5.4	6.54	1.4	2.61	5.0
Tegula brunnea		4.0	3.39	6.4	3.65	3.8	2.17	2.4	3.78	4.2
Lottia limatula		0.4	0.89	1.0	1.22	1.4	1.67	2.6	5.81	1.4
Phragmatopoma californica		2.1	3.29	0.3	0.88	0.6	1.20	2.2	5.22	1.3
Lottia pelta		1.0	0.71	1.6	2.61	1.0	0.71	1.4	1.34	1.3
Tegula funebralis		4.6	4.16	0.0	0.00	0.0	0.00	0.2	0.45	1.2
Anthopleura elegantissima		1.6	1.14	0.8	1.79	0.6	0.89	1.6	1.14	1.2
Tectura scutum		0.6	1.34	2.2	2.17	1.0	1.00	0.0	0.00	1.0
Fissurella volcano		2.0	1.58	1.0	1.00	0.4	0.55	0.0	0.00	0.9
Nemertea unid.		0.0	0.00	0.4	0.55	0.2	0.45	0.6	0.89	0.3
Pugettia spp.		0.0	0.00	0.6	1.34	0.4	0.55	0.0	0.00	0.3
Ophiuroidea unid.		0.8	1.79	0.0	0.00	0.0	0.00	0.0	0.00	0.2

(*continued*)

Horizontal Band Transects Station SC 1 +.3m Survey Means and Std. Deviations (continued)

Survey	124		125		126		127		Annual
Date	23-Jan-01		07-Jun-01		18-Aug-01		16-Nov-01		
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Invertebrates (continued)									
Calliostoma ligatum	0.4	0.55	0.2	0.45	0.0	0.00	0.0	0.00	0.2
Leptasterias spp.	0.2	0.45	0.0	0.00	0.0	0.00	0.4	0.89	0.2
Serpulidae unid.	0.0	0.00	0.0	0.00	0.2	0.45	0.2	0.45	0.1
Nereididae unid.	0.0	0.00	< .1	< .01	< .1	< .01	0.4	0.55	0.1
Mopalia spp.	0.0	0.00	0.0	0.00	0.2	0.45	0.2	0.45	< .1
Nucella emarginata	0.0	0.00	0.0	0.00	0.4	0.89	0.0	0.00	< .1
Pycnopodia helianthoides	0.4	0.89	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Ocenebra spp.	0.2	0.45	0.2	0.45	0.0	0.00	0.0	0.00	< .1
Lepidozona spp.	0.4	0.55	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Ischnochitonidae	0.0	0.00	0.2	0.45	< .1	< .01	< .1	< .01	< .1
Cyanoplax spp.	0.0	0.00	0.2	0.45	< .1	< .01	0.0	0.00	< .1
Anthopleura artemisia	0.0	0.00	0.0	0.00	0.0	0.00	0.2	0.45	< .1
Anthopleura xanthogrammica	0.0	0.00	0.0	0.00	0.0	0.00	0.2	0.45	< .1
Epiactis prolifera	0.0	0.00	0.0	0.00	0.2	0.45	0.0	0.00	< .1
Serpulorbis squamigerus	0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Lottia ochracea	0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Diopatra ornata	0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Hemigrapsus nudus	0.0	0.00	0.2	0.45	0.0	0.00	0.0	0.00	< .1
Pachygrapsus crassipes	0.0	0.00	0.2	0.45	0.0	0.00	0.0	0.00	< .1
Asterina miniata	0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Strongylocentrotus purpuratus	0.0	0.00	0.0	0.00	0.2	0.45	0.0	0.00	< .1
Orthasterias koehleri	0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Stenoplax spp.	0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Spirorbidae	< .1	< .01	0.1	0.29	< .1	< .01	< .1	0.00	< .1
tunicates, colonial/social unid.	< .1	< .01	< .1	0.22	< .1	< .01	< .1	0.00	< .1
Acmaeidae unid.	< .1	< .01	< .1	0.00	< .1	< .01	< .1	0.00	< .1
Bryozoa, unid. (encrusting)	< .1	< .01	< .1	< .01	< .1	< .01	< .1	0.00	< .1
Lacuna spp.	< .1	0.00	< .1	< .01	0.0	0.00	< .1	< .01	< .1
Chthamalus fissus	< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Porifera unid. (encrusting)	< .1	< .01	< .1	< .01	< .1	< .01	< .1	0.00	< .1
Homolo. luridum/Lirularia succincta	< .1	< .01	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Crepidula spp.	0.0	0.00	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Alia spp.	0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Mytilus californianus	0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Lottia asmi	0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Amphissa spp.	< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Tricolia spp.	< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Lissothuria nutriens	< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Substrate									
rock	5.6	2.96	4.1	3.10	7.4	6.56	5.5	3.47	5.6
cobble	3.3	2.54	4.8	3.93	2.1	2.45	7.8	5.05	4.5
sand (shell gravel)	4.6	3.93	2.8	3.64	4.9	6.06	2.8	3.18	3.8

Horizontal Band Transects Station SC 1 +.9m Survey Means and Std. Deviations

Taxon	Survey	124		125		126		127		Annual
	Date	23-Jan-01		07-Jun-01		18-Aug-01		16-Nov-01		
		Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae										
Endocladia muricata		16.8	6.75	24.7	15.40	16.3	8.05	16.8	9.50	18.6
non-coralline crust		24.7	21.34	15.4	14.26	16.2	15.11	13.1	10.86	17.3
Mastocarpus papillatus		9.6	6.06	11.5	9.26	14.5	11.50	16.4	8.40	13
Pelvetia compressa		7.4	7.76	8.2	8.16	10.3	10.74	11.3	11.52	9.3
coralline crust		4.3	3.22	2.2	1.62	2.5	2.97	4.8	3.59	3.4
Mastocarpus jardinii		1.5	1.79	1.4	1.99	1.4	1.85	4.9	6.98	2.3
Mazzaella flaccida		1.7	1.94	1.5	2.01	2.6	3.26	3.4	2.61	2.3
Mazzaella heterocarpa		1.0	0.88	0.8	1.26	1.3	1.76	1.5	1.34	1.1
Corallina vancouveriensis		0.6	1.20	0.6	0.85	0.3	0.59	1.2	2.10	0.7
Porphyra spp.		0.2	0.66	0.7	0.73	0.3	0.49	0.2	0.34	0.3
Gelidium coulteri		0.3	0.49	< .1	< .01	< .1	< .01	0.5	0.87	0.2
Cryptopleura violacea		0.1	0.44	0.0	0.00	0.0	0.00	0.6	1.98	0.2
Chondracanthus canaliculatus		< .1	0.22	0.0	0.00	< .1	< .01	0.5	0.74	0.1
Gelidium pusillum		0.2	0.34	< .1	0.22	< .1	0.22	0.1	0.44	0.1
Ulva/Enteromorpha spp.		< .1	0.22	0.0	0.00	0.0	0.00	0.1	0.44	< .1
Fucus gardneri		0.2	0.66	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Mazzaella leptorhynchos		< .1	< .01	< .1	< .01	0.0	0.00	0.1	0.29	< .1
Mazzaella affinis		< .1	0.22	0.0	0.00	< .1	< .01	< .1	0.22	< .1
Cladophora spp.		< .1	0.00	< .1	< .01	< .1	0.22	< .1	< .01	< .1
Gastroclonium subarticulatum		< .1	0.22	0.0	0.00	0.0	0.00	0.0	0.00	< .1
juv. articulated coralline algae		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Callithamnion pikeanum		< .1	< .01	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Phyllospadix spp.		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Invertebrates										
Tegula funebralis		138.6	35.15	89.4	24.57	143.2	93.68	109.8	60.26	120.3
Macclintockia scabra		27.4	20.09	32.2	40.16	27.0	16.40	14.0	11.45	25.2
Pagurus spp.		16.6	12.80	4.6	2.88	4.8	4.97	11.0	15.12	9.3
Tectura scutum		7.6	3.44	8.8	4.32	7.0	4.00	5.6	2.88	7.3
Lottia limatula		2.0	1.22	3.8	4.09	3.8	2.49	9.4	10.09	4.8
Anthopleura elegantissima		4.0	4.18	6.2	5.97	2.0	2.00	4.0	2.55	4.1
Lottia pelta		2.8	2.77	4.6	4.39	4.6	3.05	3.4	2.07	3.9
Chthamalus fissus		0.5	1.04	0.3	0.67	1.4	2.34	4.3	5.10	1.6
Ocenebra spp.		0.6	0.89	1.0	1.41	1.0	1.73	0.2	0.45	0.7
Pachygrapsus crassipes		0.6	0.89	1.6	1.82	0.2	0.45	0.2	0.45	0.7
Acanthina spp.		0.0	0.00	1.6	1.52	0.0	0.00	0.0	0.00	0.4
Tegula brunnea		1.6	2.07	0.0	0.00	0.0	0.00	0.0	0.00	0.4
Phragmatopoma californica		0.2	0.66	0.3	0.88	< .1	0.22	1.0	2.15	0.4
Anthopleura xanthogrammica		0.8	1.30	0.4	0.55	0.0	0.00	0.0	0.00	0.3
Tetraclita rubescens		0.2	0.45	1.0	2.24	0.0	0.00	0.0	0.00	0.3
Leptasterias spp.		1.0	1.00	0.0	0.00	0.0	0.00	0.0	0.00	0.3
Cyanoplax spp.		0.0	0.00	0.2	0.45	0.2	0.45	0.2	0.45	0.2
Hemigrapsus nudus		0.0	0.00	0.4	0.55	0.0	0.00	0.0	0.00	< .1
Pisaster ochraceus		0.0	0.00	0.0	0.00	0.2	0.45	0.2	0.45	< .1
Strongylocentrotus purpuratus		0.4	0.89	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Fusinus luteopictus		0.2	0.45	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Acmaeidae unid.		< .1	< .01	< .1	0.00	< .1	0.00	< .1	0.00	< .1
Littorina spp.		< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Lottia asmi		< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Crepidula spp.		< .1	< .01	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Mytilus californianus		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Grapsidae (juv.)		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Spirorbidae		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Homolo. luridum/Lirularia succincta		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Substrate										
rock		23.3	9.11	26.9	10.08	34.8	10.92	21.3	9.19	26.6
cobble		17.6	12.92	22.9	20.43	16.6	12.29	14.4	9.22	17.9
sand (shell gravel)		3.8	3.53	1.4	2.02	2.5	2.62	2.8	3.50	2.6

Intertidal Vertical Transect Results

Vertical Fish Transect Station NC-1V Survey Totals, Annual Means and Std. Deviations

Survey	84	85	86	87		
Date	07-Mar-01	10-May-01	31-Jul-01	12-Dec-01	Annual	Annual
	Total	Total	Total	Total	Mean	Std. Dev.
Gobiesox maeandricus	14	0	0	5	4.8	6.60
Pholididae/Stichaeidae unid.	13	0	0	3	4.0	6.16
Xiphister mucosus	9	0	0	7	4.0	4.69
Xiphister atropurpureus	6	0	0	9	3.8	4.50
Anoplarchus purpurescens	6	0	0	5	2.8	3.20
Xererpes fucorum	1	0	0	3	1.0	1.41
Gibbonsia spp.	1	0	0	2	0.8	0.96
Oligocottus snyderi	2	0	0	0	0.5	1.00
Apodichthys flavidus	1	0	0	0	0.3	0.50
Artedius spp.	1	0	0	0	0.3	0.50

Vertical Fish Transect Station FC-1V Survey Totals, Annual Means and Std. Deviations

Survey	84	85	86	87		
Date	05-Mar-01	11-May-01	21-Aug-01	29-Nov-01	Annual	Annual
	Total	Total	Total	Total	Mean	Std. Dev.
Xiphister mucosus	3	7	0	11	5.3	4.79
Cebidichthys violaceus	3	7	0	10	5.0	4.40
Gobiesox maeandricus	9	4	0	2	3.8	3.86
Pholididae/Stichaeidae unid.	2	10	0	2	3.5	4.43
Oligocottus snyderi	4	5	0	3	3.0	2.16
Cottidae unid.	0	0	0	5	1.3	2.50
Xiphister atropurpureus	0	2	0	1	0.8	0.96
Gibbonsia spp.	0	1	0	0	0.3	0.50
Anoplarchus purpurescens	0	1	0	0	0.3	0.50

Vertical Fish Transect Station NDC-1V Survey Totals, Annual Means and Std. Deviations

Survey	84	85	86	87		
Date	22-Feb-01	21-Jun-01	14-Sep-01	01-Dec-01	Annual	Annual
	Total	Total	Total	Total	Mean	Std. Dev.
Pholididae/Stichaeidae unid.	0	12	0	1	3.3	5.85
Cebidichthys violaceus	0	0	0	2	0.5	1.00
Xiphister mucosus	0	0	0	2	0.5	1.00
Gobiesox maeandricus	0	0	0	1	0.3	0.50
Anoplarchus purpurescens	0	0	0	1	0.3	0.50

Vertical Fish Transect Station SDC-2V Survey Totals, Annual Means and Std. Deviations

Survey	84	85	86	87		
Date	21-Feb-01	22-Jun-01	17-Sep-01	30-Nov-01	Annual	Annual
	Total	Total	Total	Total	Mean	Std. Dev.
Cebidichthys violaceus	0	8	0	13	5.3	6.40
Scytalina cerdale	11	7	0	2	5.0	4.97
Xiphister mucosus	0	9	0	2	2.8	4.27
Pholididae/Stichaeidae unid.	4	3	0	2	2.3	1.71
Anoplarchus purpurescens	0	9	0	0	2.3	4.50
Xiphister atropurpureus	0	6	0	1	1.8	2.87
Gobiesox maeandricus	0	0	0	1	0.3	0.50
Cottidae unid.	0	0	0	1	0.3	0.50

Vertical Fish Transect Station SC-1V Survey Totals, Annual Means and Std. Deviations

Survey	84	85	86	87		
Date	06-Mar-01	09-May-01	01-Aug-01	11-Dec-01	Annual	Annual
	Total	Total	Total	Total	Mean	Std. Dev.
Anoplarchus purpurescens	53	51	0	13	29.3	26.81
Pholididae/Stichaeidae unid.	26	39	0	16	20.3	16.46
Cebidichthys violaceus	21	17	0	32	17.5	13.28
Xiphister mucosus	17	14	0	17	12.0	8.12
Gobiesox maeandricus	17	20	0	10	11.8	8.88
Xiphister atropurpureus	9	7	0	2	4.5	4.20
Gibbonsia spp.	3	1	0	0	1.0	1.41
Xererpes fucorum	0	3	0	0	0.8	1.50
Cottidae unid.	0	1	0	1	0.5	0.58
Typhlogobius californiensis	0	1	0	0	0.3	0.50

Subtidal Arc

Quadrant Results

Subtidal Arc Quadrant Station FC 1 -3m Survey Means and Std. Deviations

Taxon	Survey	112		113		114		115		Annual
	Date	12-Apr-01		27-Jun-01		04-Sep-01		25-Jan-02		
		Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae										
Laminaria setchellii		86.0	25.18	71.3	23.54	63.3	21.87	169.5	60.69	97.5
Pterygophora californica		7.8	7.09	6.0	1.41	7.5	5.20	2.5	3.79	5.9
Cystoseira osmundacea		3.0	2.00	3.8	2.87	3.0	2.83	4.0	1.41	3.4
Nereocystis luetkeana		0.0	0.00	4.8	3.59	3.0	2.58	0.3	0.50	2.0
Laminariales		3.8	1.71	0.0	0.00	0.0	0.00	0.0	0.00	0.9
Invertebrates										
Tegula brunnea		60.8	40.50	130.5	22.78	39.0	7.75	658.5	238.92	222.2
Pagurus spp.		1.0	1.41	8.8	2.75	6.8	2.63	11.3	7.14	6.9
Acmaea mitra		9.0	2.45	3.0	2.45	3.8	2.87	6.8	3.77	5.6
Tonicella lineata		3.0	2.45	3.8	2.87	2.3	1.50	13.5	1.73	5.6
Asterina miniata		3.0	2.16	1.0	0.00	2.3	1.71	3.3	1.26	2.4
Calliostoma ligatum		2.3	2.87	1.5	3.00	0.0	0.00	3.8	1.50	1.9
Anthopleura elegantissima		1.0	0.82	1.0	2.00	2.3	1.26	1.5	0.58	1.4
Strongylocentrotus purpuratus		2.8	3.77	0.0	0.00	0.3	0.50	1.8	2.36	1.2
Cryptochiton stelleri		0.8	0.96	0.0	0.00	1.5	1.73	1.0	1.41	0.8
Serpulorbis squamigerus		0.8	0.96	0.0	0.00	1.5	3.00	0.0	0.00	0.6
Tegula montereyi		0.0	0.00	0.0	0.00	0.0	0.00	2.3	2.87	0.6
Leptasterias spp.		0.3	0.50	0.0	0.00	0.0	0.00	2.0	0.82	0.6
Lithopoma gibberosum		1.3	1.50	0.0	0.00	0.5	0.58	0.3	0.50	0.5
Mitra idae		0.3	0.50	0.3	0.50	0.3	0.50	1.3	0.50	0.5
Lottia instabilis		0.0	0.00	0.0	0.00	0.0	0.00	1.8	0.96	0.4
Pycnopodia helianthoides		0.5	0.58	0.8	0.96	0.3	0.50	0.3	0.50	0.4
Loxorhynchus spp.		0.5	0.58	0.0	0.00	0.3	0.50	1.0	1.41	0.4
Pseudomelatoma torosa		0.0	0.00	0.0	0.00	0.0	0.00	1.8	0.50	0.4
Epiactis prolifera		0.8	0.96	0.0	0.00	0.0	0.00	0.5	1.00	0.3
Diopatra ornata		0.8	0.96	0.0	0.00	0.5	1.00	0.0	0.00	0.3
Diodora spp.		1.0	1.41	0.0	0.00	0.0	0.00	0.0	0.00	0.3
Pisaster ochraceus		0.0	0.00	0.0	0.00	0.8	0.96	0.0	0.00	0.2
Doriopsilla albopunctata		0.3	0.50	0.0	0.00	0.5	1.00	0.0	0.00	0.2
Pugettia spp.		0.3	0.50	0.0	0.00	0.3	0.50	0.3	0.50	0.2
Fissurella volcano		0.5	0.58	0.0	0.00	0.0	0.00	0.0	0.00	0.1
Hermissenda crassicornis		0.0	0.00	0.3	0.50	0.3	0.50	0.0	0.00	0.1
Tethya aurantia		0.3	0.50	0.0	0.00	0.0	0.00	0.3	0.50	0.1
Pisaster giganteus		0.0	0.00	0.0	0.00	0.0	0.00	0.5	0.58	0.1
Ophiothrix spp.		0.5	0.58	0.0	0.00	0.0	0.00	0.0	0.00	0.1
Haliotis spp.		0.5	0.58	0.0	0.00	0.0	0.00	0.0	0.00	0.1
Anthopleura artemisia		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Cancer antennarius		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Parastichopus spp.		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Diaulula sandiegensis		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Pisaster brevispinus		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Cryptolithodes sitchensis		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Megathura crenulata		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Archidoris spp.		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1

Subtidal Arc Quadrant Station NDC 2 -3m Survey Means and Std. Deviations

Taxon	Survey Date	112 03-Apr-01 Mean	Std. Dev.	113 19-Jun-01 Mean	Std. Dev.	114 30-Aug-01 Mean	Std. Dev.	115 15-Jan-02 Mean	Std. Dev.	Annual Mean
Algae										
Cystoseira osmundacea		3.0	5.35	5.3	1.71	7.0	2.83	4.3	1.71	4.9
Macrocystis spp.		2.3	0.96	7.3	4.57	4.0	2.58	3.0	0.82	4.1
Sargassum muticum		1.5	3.00	0.8	0.50	0.0	0.00	0.0	0.00	0.6
Invertebrates										
Strongylocentrotus purpuratus		28.5	11.39	26.5	6.76	53.5	29.98	65.8	15.11	43.6
Acmaea mitra		0.0	0.00	6.0	8.12	5.3	3.77	3.0	4.24	3.6
Anthopleura elegantissima		2.0	1.83	2.5	2.38	2.3	1.26	3.5	1.29	2.6
Tegula brunnea		0.0	0.00	0.0	0.00	6.0	4.24	0.0	0.00	1.5
Serpulorbis squamigerus		0.0	0.00	0.0	0.00	0.0	0.00	2.5	1.73	0.6
Diodora spp.		0.0	0.00	0.5	0.58	0.8	0.96	0.5	1.00	0.4
Ophiothrix spp.		1.0	0.82	0.0	0.00	0.8	1.50	0.0	0.00	0.4
Fissurella volcano		0.0	0.00	0.0	0.00	0.8	0.96	0.8	0.96	0.4
Phidiana hiltoni		0.0	0.00	0.3	0.50	0.0	0.00	1.0	0.82	0.3
Archidoris spp.		0.3	0.50	0.0	0.00	0.3	0.50	0.5	1.00	0.3
Tonicella lineata		0.8	1.50	0.0	0.00	0.0	0.00	0.0	0.00	0.2
Haliotis spp.		0.0	0.00	0.0	0.00	0.3	0.50	0.5	1.00	0.2
Diopatra ornata		0.5	1.00	0.0	0.00	0.0	0.00	0.0	0.00	0.1
Pagurus spp.		0.0	0.00	0.0	0.00	0.5	0.58	0.0	0.00	0.1
Parastichopus spp.		0.0	0.00	0.3	0.50	0.3	0.50	0.0	0.00	0.1
Pelecypoda unid. boring		0.0	0.00	0.0	0.00	0.0	0.00	0.5	0.58	0.1
Pectinidae		0.0	0.00	0.0	0.00	0.3	0.50	0.3	0.50	0.1
Lithopoma undosa		0.0	0.00	0.0	0.00	0.5	1.00	0.0	0.00	0.1
Asterina miniata		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Porifera unid. (encrusting)		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Diaulula sandiegensis		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Ophiuroidea unid.		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Natantia unid.		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Megathura crenulata		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1

Subtidal Arc Quadrant Station NDC 3 -3m Survey Means and Std. Deviations

Taxon	Survey Date	112 23-Mar-01 Mean	Std. Dev.	113 01-Jun-01 Mean	Std. Dev.	114 28-Aug-01 Mean	Std. Dev.	115 21-Jan-02 Mean	Std. Dev.	Annual Mean
Algae										
Cystoseira osmundacea		11.0	5.10	14.0	7.39	4.8	2.06	24.5	12.18	13.6
Sargassum muticum		2.0	2.45	0.0	0.00	0.0	0.00	41.8	20.56	10.9
Macrocystis spp.		2.5	1.29	1.5	2.38	0.8	0.96	0.5	0.58	1.3
Invertebrates										
Strongylocentrotus purpuratus		236.3	124.99	228.8	136.17	114.0	80.90	442.5	205.87	255.4
Ophiothrix spp.		13.0	3.92	9.5	5.00	0.3	0.50	0.0	0.00	5.7
Acmaea mitra		2.3	2.87	3.0	4.24	2.3	2.87	9.8	6.18	4.3
Anthopleura elegantissima		4.0	0.82	4.5	2.65	3.0	1.41	4.0	2.94	3.9
Serpulorbis squamigerus		0.3	0.50	3.5	2.08	0.0	0.00	2.5	1.29	1.6
Diodora spp.		0.8	0.50	0.3	0.50	1.3	0.50	1.0	0.82	0.8
Fissurella volcano		0.0	0.00	0.0	0.00	0.5	0.58	1.5	0.58	0.5
Archidoris spp.		0.5	1.00	0.0	0.00	0.3	0.50	1.3	1.26	0.5
Epiactis prolifera		0.5	1.00	0.8	1.50	0.0	0.00	0.0	0.00	0.3
Megathura crenulata		0.3	0.50	0.3	0.50	0.0	0.00	0.5	0.58	0.3
Tegula brunnea		0.8	1.50	0.0	0.00	0.0	0.00	0.0	0.00	0.2
Asterina miniata		0.0	0.00	0.3	0.50	0.3	0.50	0.0	0.00	0.1
Pisaster ochraceus		0.0	0.00	0.5	1.00	0.0	0.00	0.0	0.00	0.1
Pisaster giganteus		0.0	0.00	0.0	0.00	0.5	0.58	0.0	0.00	0.1
Haliotis spp.		0.0	0.00	0.3	0.50	0.3	0.50	0.0	0.00	0.1
Pododesmus cepio		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Parastichopus spp.		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Diaulula sandiegensis		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Pisaster brevispinus		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Kelletia kelletii		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Pectinidae		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1

Subtidal Arc Quadrant Station NDC 4 -4m Survey Means and Std. Deviations

Taxon	Survey Date	112 24-Mar-01 Mean	Std. Dev.	113 15-Jun-01 Mean	Std. Dev.	114 30-Aug-01 Mean	Std. Dev.	115 14-Dec-01 Mean	Std. Dev.	Annual Mean
Algae										
Macrocystis spp.		4.3	2.87	9.5	3.70	2.5	2.38	1.8	2.36	4.5
Cystoseira osmundacea		3.8	3.10	6.3	3.77	3.5	2.38	3.0	2.00	4.1
Invertebrates										
Strongylocentrotus purpuratus		101.0	30.41	48.0	30.50	35.5	26.74	74.3	36.94	64.7
Tegula brunnea		9.0	4.24	0.0	0.00	12.8	15.56	7.5	15.00	7.3
Anthopleura elegantissima		9.3	3.59	2.5	1.29	5.3	0.96	5.3	1.26	5.6
Acmaea mitra		6.0	4.24	0.0	0.00	3.0	2.45	5.3	2.87	3.6
Tethya aurantia		1.5	1.00	1.0	1.41	1.8	0.96	4.8	3.77	2.3
Diopatra ornata		2.0	2.83	0.8	0.96	2.3	1.50	3.3	2.99	2.1
Serpulorbis squamigerus		2.0	2.45	0.0	0.00	0.0	0.00	4.3	3.95	1.6
Ophiothrix spp.		0.0	0.00	1.0	1.41	2.3	3.86	0.5	0.58	0.9
Parastichopus spp.		1.5	1.29	0.5	0.58	1.0	0.00	0.0	0.00	0.8
Diodora spp.		0.5	0.58	0.0	0.00	0.5	0.58	1.5	1.73	0.6
Phidiana hiltoni		2.0	1.41	0.3	0.50	0.0	0.00	0.3	0.50	0.6
Pisaster giganteus		0.8	0.96	0.0	0.00	1.3	1.26	0.5	0.58	0.6
Ophioplocus spp.		0.0	0.00	1.8	1.50	0.3	0.50	0.5	1.00	0.6
Asterina miniata		0.3	0.50	0.3	0.50	1.5	1.00	0.0	0.00	0.5
Archidoris spp.		0.5	0.58	0.0	0.00	0.3	0.50	1.0	0.82	0.4
Tonicella lineata		0.0	0.00	0.0	0.00	0.8	1.50	0.8	1.50	0.4
Anthopleura artemisia		0.0	0.00	0.0	0.00	0.0	0.00	1.3	1.26	0.3
Doriopsilla albopunctata		0.0	0.00	0.0	0.00	0.0	0.00	1.3	1.50	0.3
Mitra idae		0.5	1.00	0.3	0.50	0.5	0.58	0.0	0.00	0.3
Pagurus spp.		0.0	0.00	1.0	1.15	0.0	0.00	0.0	0.00	0.3
Loxorhynchus spp.		0.0	0.00	0.0	0.00	0.0	0.00	0.8	0.50	0.2
Megathura crenulata		0.5	0.58	0.0	0.00	0.3	0.50	0.0	0.00	0.2
Epiactis prolifera		0.0	0.00	0.0	0.00	0.0	0.00	0.5	1.00	0.1
Hermissenda crassicornis		0.0	0.00	0.0	0.00	0.3	0.50	0.3	0.50	0.1
Pycnopodia helianthoides		0.0	0.00	0.0	0.00	0.3	0.50	0.3	0.50	0.1
Halcampa decemtentaculata		0.0	0.00	0.0	0.00	0.0	0.00	0.5	0.58	0.1
Pectinidae		0.3	0.50	0.0	0.00	0.0	0.00	0.3	0.50	0.1
Fissurella volcano		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Lithopoma gibberosum		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Pisaster ochraceus		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Diaulula sandiegensis		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Triopha catalinae		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Pelecypoda unid. boring		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Eudistylia polymorpha		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Ceratostoma foliatum		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Lepidozona spp.		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Lithopoma undosa		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1

Subtidal Arc Quadrant Station SDC 2 -3m Survey Means and Std. Deviations

Survey	112		113		114		115		
Date	22-Mar-01		30-May-01		15-Aug-01		31-Dec-01		Annual
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae									
Cystoseira osmundacea	12.5	4.43	9.0	2.16	6.3	2.87	13.0	6.16	10.2
Macrocystis spp.	17.3	13.15	5.0	3.56	2.5	1.29	3.5	2.38	7.1
Sargassum muticum	1.3	1.50	0.8	1.50	0.0	0.00	0.0	0.00	0.5
Laminariales	0.0	0.00	0.0	0.00	0.8	0.50	1.0	2.00	0.4
Laminaria setchellii	0.5	1.00	0.3	0.50	0.0	0.00	0.0	0.00	0.2
Pterygophora californica	0.0	0.00	0.0	0.00	0.0	0.00	0.5	1.00	0.1
Invertebrates									
Pista spp.	53.5	17.75	0.0	0.00	0.0	0.00	0.0	0.00	13.4
Strongylocentrotus purpuratus	22.3	16.24	3.5	1.91	1.3	1.26	5.0	1.41	8.0
Diopatra ornata	3.5	1.91	0.0	0.00	0.0	0.00	8.5	13.00	3.0
Acmaea mitra	3.0	2.45	1.5	1.73	2.3	2.87	3.0	3.46	2.4
Ophiothrix spp.	9.0	4.55	0.3	0.50	0.0	0.00	0.0	0.00	2.3
Anthopleura elegantissima	3.3	2.22	0.5	0.58	0.8	0.50	3.3	0.50	1.9
Mitra idae	0.8	0.96	0.3	0.50	2.3	1.50	2.3	2.50	1.4
Pisaster giganteus	1.0	0.82	0.0	0.00	0.5	0.58	0.8	0.50	0.6
Pagurus spp.	0.8	0.96	0.3	0.50	0.3	0.50	0.8	0.96	0.5
Loxorhynchus spp.	0.0	0.00	0.0	0.00	0.3	0.50	1.8	1.26	0.5
Anthopleura artemisia	0.3	0.50	0.3	0.50	0.0	0.00	1.3	0.96	0.4
Asterina miniata	1.5	1.29	0.0	0.00	0.0	0.00	0.3	0.50	0.4
Halcampa decemtentaculata	0.8	1.50	0.0	0.00	0.0	0.00	1.0	2.00	0.4
Tegula brunnea	0.0	0.00	0.0	0.00	1.5	3.00	0.0	0.00	0.4
Doriopsilla albopunctata	0.0	0.00	0.0	0.00	0.0	0.00	1.0	0.82	0.3
Serpulorbis squamigerus	0.0	0.00	0.8	1.50	0.0	0.00	0.0	0.00	0.2
Parastichopus spp.	0.3	0.50	0.5	0.58	0.0	0.00	0.0	0.00	0.2
Aplysia californica	0.5	0.58	0.3	0.50	0.0	0.00	0.0	0.00	0.2
Fissurella volcano	0.3	0.50	0.0	0.00	0.0	0.00	0.3	0.50	0.1
Leptasterias spp.	0.0	0.00	0.0	0.00	0.0	0.00	0.5	1.00	0.1
Pisaster brevispinus	0.0	0.00	0.0	0.00	0.3	0.50	0.3	0.50	0.1
Urticina spp.	0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Pycnopodia helianthoides	0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Cancer productus	0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Tethya aurantia	0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Chromodoris macfarlandi	0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1

Subtidal Arc Quadrant Station SDC 3 -4m Survey Means and Std. Deviations

Taxon	Survey Date	112 23-Mar-01 Mean	Std. Dev.	113 31-May-01 Mean	Std. Dev.	114 06-Sep-01 Mean	Std. Dev.	115 13-Dec-01 Mean	Std. Dev.	Annual Mean
Algae										
Macrocystis spp.		2.0	2.16	3.5	2.38	6.5	1.91	3.0	2.45	3.8
Cystoseira osmundacea		1.8	1.71	5.3	4.03	2.3	1.50	2.8	2.22	3.0
Laminariales		1.3	1.89	6.3	8.50	0.0	0.00	2.3	1.89	2.4
Laminaria setchellii		1.3	2.50	2.5	3.79	0.5	0.58	0.3	0.50	1.1
Pterygophora californica		0.0	0.00	0.0	0.00	1.3	1.89	0.8	1.50	0.5
Invertebrates										
Strongylocentrotus purpuratus		26.0	15.12	14.3	11.84	10.8	7.41	10.8	9.00	15.4
Diopatra ornata		20.8	12.53	8.3	6.65	11.8	4.03	19.8	12.04	15.1
Anthopleura elegantissima		18.8	5.38	11.5	2.08	13.3	2.06	9.3	2.99	13.2
Tegula brunnea		3.0	2.45	0.0	0.00	0.8	1.50	36.0	15.30	9.9
Acmaea mitra		0.8	1.50	1.5	3.00	3.8	1.50	10.5	5.74	4.1
Mitra idae		4.8	2.63	3.0	2.16	1.0	0.82	3.3	0.96	3.0
Asterina miniata		3.0	1.41	1.8	1.50	1.0	0.82	1.8	0.50	1.9
Halcampa decemtentaculata		0.0	0.00	0.0	0.00	2.3	1.71	4.5	3.87	1.7
Pagurus spp.		0.0	0.00	1.0	1.15	0.5	1.00	3.8	1.26	1.3
Ophioplocus spp.		0.3	0.50	3.3	3.30	0.5	1.00	1.0	1.41	1.3
Anthopleura artemisia		0.5	0.58	0.8	0.96	1.5	1.29	1.3	0.50	1.0
Pisaster giganteus		0.5	0.58	0.3	0.50	1.3	1.89	1.3	1.89	0.8
Loxorhynchus spp.		0.0	0.00	0.0	0.00	0.0	0.00	3.0	2.16	0.8
Cryptochiton stelleri		0.0	0.00	1.0	0.00	0.5	0.58	1.0	0.82	0.6
Hermissenda crassicornis		0.0	0.00	1.5	1.73	0.5	1.00	0.0	0.00	0.5
Pycnopodia helianthoides		0.8	0.96	0.8	0.50	0.3	0.50	0.3	0.50	0.5
Parastichopus spp.		0.8	0.96	0.5	0.58	0.3	0.50	0.5	0.58	0.5
Leucilla nuttingi		0.0	0.00	0.0	0.00	0.0	0.00	1.8	3.50	0.4
Tonicella lineata		0.0	0.00	0.0	0.00	0.8	1.50	0.8	1.50	0.4
Ophiothrix spp.		0.0	0.00	0.0	0.00	1.5	1.73	0.0	0.00	0.4
Pisaster brevispinus		0.3	0.50	0.3	0.50	0.0	0.00	0.5	1.00	0.3
Urticina spp.		0.5	1.00	0.0	0.00	0.0	0.00	0.3	0.50	0.2
Serpulorbis squamigerus		0.5	0.58	0.0	0.00	0.0	0.00	0.0	0.00	0.1
Tethya aurantia		0.0	0.00	0.0	0.00	0.0	0.00	0.5	0.58	0.1
Eudistylia polymorpha		0.0	0.00	0.5	1.00	0.0	0.00	0.0	0.00	0.1
Megathura crenulata		0.5	0.58	0.0	0.00	0.0	0.00	0.0	0.00	0.1
Pectinidae		0.0	0.00	0.0	0.00	0.0	0.00	0.5	0.58	0.1
Lithopoma gibberosum		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Octopus spp.		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Doriopsilla albopunctata		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Phidiana hiltoni		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Pugettia spp.		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Aplysia californica		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Archidoris spp.		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Lithopoma undosa		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1

Subtidal Arc Quadrant Station SC 1 -3m Survey Means and Std. Deviations

Taxon	Survey	112		113		114		115		Annual
	Date	04-Apr-01		28-Jun-01		03-Oct-01		27-Nov-01		
		Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae										
Pterygophora californica		81.5	27.81	160.0	49.93	87.3	25.72	176.3	49.73	126.3
Laminaria setchellii		19.5	8.35	47.3	16.52	18.3	12.01	76.5	33.77	40.4
Laminariales		29.0	24.71	37.3	23.74	21.5	7.85	12.0	8.91	24.9
Nereocystis luetkeana		0.3	0.50	17.3	13.55	3.5	6.35	0.5	1.00	5.4
Cystoseira osmundacea		2.5	4.36	3.8	4.79	2.0	1.63	2.3	2.63	2.6
Invertebrates										
Tegula brunnea		120.0	63.64	68.3	8.96	71.3	8.96	131.3	67.54	97.7
Tonicella lineata		15.0	8.83	6.0	3.46	2.3	2.87	4.5	1.73	6.9
Pagurus spp.		3.8	2.22	2.5	2.08	3.3	0.96	16.0	8.29	6.4
Asterina miniata		3.5	1.73	6.3	1.50	3.5	1.29	11.5	2.38	6.2
Anthopleura elegantissima		2.5	1.91	5.0	0.82	2.8	1.26	11.8	0.96	5.5
Calliostoma ligatum		15.0	8.83	1.5	1.73	0.8	1.50	4.5	1.73	5.4
Acmaea mitra		6.0	6.93	3.0	2.45	0.8	1.50	3.0	2.45	3.2
Halcampa decemtentaculata		0.0	0.00	0.0	0.00	2.3	2.63	5.8	2.06	2.0
Lottia instabilis		0.8	0.96	0.0	0.00	1.3	0.96	2.0	0.82	1.0
Diopatra ornata		1.8	2.36	1.5	3.00	0.5	1.00	0.0	0.00	0.9
Anthopleura artemisia		0.0	0.00	0.0	0.00	0.5	0.58	2.3	1.89	0.7
Pycnopodia helianthoides		0.0	0.00	0.8	0.96	1.3	1.26	0.8	0.96	0.7
Leptasterias spp.		0.5	0.58	0.0	0.00	0.3	0.50	1.3	1.26	0.5
Pisaster giganteus		0.5	1.00	0.3	0.50	0.8	0.50	0.5	0.58	0.5
Cryptochiton stelleri		0.3	0.50	0.0	0.00	0.5	0.58	0.8	0.96	0.4
Urticina spp.		0.8	0.50	0.0	0.00	0.3	0.50	0.3	0.50	0.3
Pugettia spp.		0.0	0.00	0.0	0.00	0.0	0.00	1.3	1.50	0.3
Mopalia spp.		0.5	1.00	0.3	0.50	0.0	0.00	0.3	0.50	0.3
Mitra idae		0.0	0.00	0.0	0.00	0.0	0.00	0.8	0.96	0.2
Pisaster ochraceus		0.0	0.00	0.0	0.00	0.0	0.00	0.5	0.58	0.1
Doriopsilla albopunctata		0.3	0.50	0.0	0.00	0.3	0.50	0.0	0.00	0.1
Orthasterias koehleri		0.0	0.00	0.0	0.00	0.5	0.58	0.0	0.00	0.1
Ophiothrix spp.		0.0	0.00	0.0	0.00	0.0	0.00	0.5	1.00	0.1
Loxorhynchus spp.		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Diaulula sandiegensis		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Pseudomelatoma torosa		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Haliotis spp.		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1

Subtidal Arc Quadrant Station SC 2 -6m Survey Means and Std. Deviations

Taxon	Survey Date	112 06-Apr-01 Mean	Std. Dev.	113 29-Jun-01 Mean	Std. Dev.	114 07-Sep-01 Mean	Std. Dev.	115 19-Nov-01 Mean	Std. Dev.	Annual Mean
Algae										
Nereocystis luetkeana		0.0	0.00	84.8	59.53	33.5	11.96	10.0	12.00	32.1
Pterygophora californica		12.5	10.54	22.3	10.24	15.0	14.40	18.5	9.00	17.1
Laminaria setchellii		9.0	6.22	15.0	5.89	13.3	6.55	15.0	9.06	13.1
Laminariales		0.0	0.00	5.8	7.23	14.8	6.08	16.8	14.73	9.3
Invertebrates										
Tegula brunnea		36.8	12.09	51.8	37.10	82.5	25.28	88.5	21.42	64.9
Calliostoma ligatum		24.0	12.73	9.8	10.21	16.5	1.73	5.3	1.50	13.9
Asterina miniata		11.3	7.72	11.0	2.58	5.5	0.58	11.0	2.58	9.7
Anthopleura elegantissima		5.0	1.63	8.8	3.95	5.5	1.73	9.3	1.71	7.1
Tonicella lineata		5.3	1.50	6.0	2.45	6.8	3.77	9.8	2.87	6.9
Pagurus spp.		7.0	3.46	7.3	1.26	1.3	0.96	2.8	0.96	4.6
Acmaea mitra		3.8	1.50	3.0	2.45	1.5	1.73	4.5	1.73	3.2
Diopatra ornata		2.3	2.63	2.3	2.63	1.5	1.91	3.3	2.50	2.3
Tegula montereyi		0.8	1.50	0.0	0.00	2.3	1.50	6.0	2.45	2.3
Pisaster giganteus		1.0	0.82	3.8	2.36	0.5	0.58	3.8	4.92	2.3
Epiactis prolifera		1.8	2.87	2.0	1.41	1.3	0.50	0.8	1.50	1.4
Serpulorbis squamigerus		4.5	5.69	1.0	2.00	0.0	0.00	0.0	0.00	1.4
Mitra idae		1.5	0.58	1.0	0.00	1.0	0.82	0.8	0.96	1.1
Pycnopodia helianthoides		0.8	0.96	1.0	2.00	0.5	0.58	0.8	0.96	0.8
Pisaster ochraceus		0.3	0.50	0.8	1.50	1.0	0.82	0.8	0.96	0.7
Doriopsilla albopunctata		1.8	2.22	0.3	0.50	0.8	0.96	0.0	0.00	0.7
Leptasterias spp.		1.0	0.00	0.8	0.96	0.3	0.50	0.5	0.58	0.6
Cryptochiton stelleri		0.8	0.50	1.0	0.82	0.3	0.50	0.5	1.00	0.6
Tethya aurantia		0.5	1.00	0.5	0.58	0.5	0.58	0.5	1.00	0.5
Anthopleura artemisia		0.5	0.58	0.0	0.00	1.3	0.50	0.0	0.00	0.4
Calliostoma annulatum		1.5	0.58	0.0	0.00	0.0	0.00	0.0	0.00	0.4
Haliotis spp.		0.0	0.00	0.5	1.00	1.0	2.00	0.0	0.00	0.4
Archidoris spp.		0.5	0.58	1.0	0.82	0.0	0.00	0.0	0.00	0.4
Loxorhynchus spp.		0.8	0.50	0.0	0.00	0.5	0.58	0.0	0.00	0.3
Urticina spp.		0.0	0.00	0.5	0.58	0.0	0.00	0.3	0.50	0.2
Orthasterias koehleri		0.0	0.00	0.3	0.50	0.3	0.50	0.3	0.50	0.2
Mopalia spp.		0.5	0.58	0.0	0.00	0.0	0.00	0.0	0.00	0.1
Porifera unid. (encrusting)		0.3	0.50	0.0	0.00	0.0	0.00	0.3	0.50	0.1
Pugettia spp.		0.0	0.00	0.0	0.00	0.5	1.00	0.0	0.00	0.1
Ceratostoma foliatum		0.0	0.00	0.0	0.00	0.3	0.50	0.3	0.50	0.1
Ophiothrix spp.		0.5	1.00	0.0	0.00	0.0	0.00	0.0	0.00	0.1
Diodora spp.		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Lithopoma gibberosum		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Hermissenda crassicornis		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Balanus spp.		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Henricia leviuscula		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Cucumaria spp.		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Mimulus foliatus		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Pisaster/Henricia (juv.)		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Lepidozona spp.		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Eupentacta quinquesemita		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1

Subtidal Line Contact Results

Subtidal Line Contact Station FC 1 -3m Survey Means and Std. Deviations

Survey	112		113		114		115		
Date	12-Apr-01		27-Jun-01		04-Sep-01		25-Jan-02		Annual
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae									
coralline crust	82.0	5.89	28.5	2.52	86.5	1.91	70.0	5.89	66.8
Calliarthron/Bossiella spp.-complex	33.5	4.43	59.0	8.41	31.5	4.12	51.0	11.02	43.8
Chondracanthus corymbiferus	8.5	4.12	11.0	7.75	11.0	2.58	6.5	5.74	9.3
Laminaria setchellii	10.5	3.00	6.0	2.83	9.5	5.00	8.0	6.32	8.5
Cryptopleura ruprechtiana	5.0	4.16	9.0	4.76	8.5	3.79	9.0	5.77	7.9
Rhodymenia spp.	6.0	1.63	5.5	3.79	7.5	1.91	4.5	1.00	5.9
non-coralline crust	8.0	4.32	3.5	2.52	< .1	0.00	9.0	5.03	5.1
Prionitis spp.	0.0	0.00	5.0	2.58	2.5	1.91	12.0	3.65	4.9
Farlowia/Pikea spp.-complex	3.5	2.52	< .1	0.00	6.0	2.83	2.0	2.83	2.9
Prionitis australis	6.0	3.27	0.0	0.00	4.5	1.00	0.0	0.00	2.6
Neoptilota densa	2.5	1.91	2.0	2.31	< .1	0.00	1.0	2.00	1.4
Gelidium robustum	1.5	3.00	0.5	1.00	2.5	3.79	1.0	2.00	1.4
Cystoseira osmundacea	0.5	1.00	0.5	1.00	3.0	2.58	0.5	1.00	1.1
Pterygophora californica	< .1	0.00	< .1	0.00	3.0	4.76	< .1	< .01	0.8
Ahnfeltiopsis linearis	1.0	2.00	< .1	< .01	0.5	1.00	0.5	1.00	0.5
Desmarestia spp.	0.0	0.00	1.0	2.00	1.0	1.15	0.0	0.00	0.5
Cryptopleura violacea	0.0	0.00	0.0	0.00	1.5	1.00	0.0	0.00	0.4
Mazzaella lilacina	0.0	0.00	1.0	1.15	0.0	0.00	0.0	0.00	0.3
Callophyllis spp.	1.0	2.00	0.0	0.00	0.0	0.00	0.0	0.00	0.3
Osmundea spp.	0.0	0.00	< .1	< .01	0.5	1.00	0.0	0.00	0.1
Gelidium spp.	0.5	1.00	0.0	0.00	0.0	0.00	0.0	0.00	0.1
Microcladia coulteri	< .1	< .01	< .1	< .01	< .1	< .01	< .1	0.00	< .1
Nereocystis luetkeana	0.0	0.00	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Ulva/Enteromorpha spp.	< .1	< .01	< .1	< .01	< .1	0.00	0.0	0.00	< .1
Callophyllis flabellulata	< .1	< .01	< .1	< .01	0.0	0.00	< .1	< .01	< .1
Laminariales	0.0	0.00	0.0	0.00	< .1	0.00	0.0	0.00	< .1
Egregia menziesii	0.0	0.00	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Scinaia confusa	0.0	0.00	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Pterosiphonia dendroidea	0.0	0.00	0.0	0.00	< .1	< .01	< .1	< .01	< .1
Substrate									
colonized rock	86.0	7.30	69.5	6.61	91.5	3.00	63.5	12.15	77.6
colonized cobble	14.5	7.00	14.0	7.30	8.5	3.00	26.0	6.32	15.8
cobble	0.0	0.00	16.5	4.73	0.0	0.00	10.0	7.12	6.6
rock	0.0	0.00	0.0	0.00	0.0	0.00	0.5	1.00	0.1

Subtidal Line Contact Station NDC 2 -3m Survey Means and Std. Deviations

Survey	112		113		114		115		
Date	03-Apr-01		19-Jun-01		30-Aug-01		15-Jan-02		Annual
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae									
coralline crust	21.0	12.49	28.0	11.66	27.0	10.00	90.0	1.63	41.5
Calliarthron/Bossiella spp.-complex	24.0	10.33	38.5	14.18	29.0	14.28	27.5	8.23	29.8
Farlowia/Pikea spp.-complex	16.0	5.89	14.5	6.19	9.0	7.75	12.5	6.19	13.0
Chrysophyta unid.	34.5	10.63	2.0	2.83	0.5	1.00	0.0	0.00	9.3
Desmarestia spp.	0.0	0.00	19.5	3.79	14.5	8.23	0.0	0.00	8.5
Prionitis spp.	4.5	2.52	5.5	3.79	4.0	3.65	4.5	2.52	4.6
Gelidium robustum	4.0	2.31	1.0	1.15	7.0	6.63	5.0	2.58	4.3
Cryptopleura violacea	2.0	2.83	7.0	2.58	1.0	1.15	6.0	3.65	4.0
Macrocystis spp.	4.0	5.66	1.5	1.91	7.0	6.22	1.0	2.00	3.4
Cystoseira osmundacea	1.5	1.00	2.0	2.31	2.5	2.52	2.0	2.83	2.0
Chondracanthus corymbiferus	1.0	2.00	3.0	2.58	1.0	1.15	1.5	1.91	1.6
non-coralline crust	< .1	< .01	0.5	1.00	1.5	3.00	2.5	1.91	1.1
Rhodymenia spp.	0.5	1.00	< .1	< .01	0.5	1.00	2.0	1.63	0.8
Sargassum muticum	< .1	< .01	1.0	2.00	0.5	1.00	1.0	2.00	0.6
Prionitis australis	0.0	0.00	0.0	0.00	0.0	0.00	1.5	1.00	0.4
Acrosorium uncinatum	0.0	0.00	0.5	1.00	< .1	< .01	0.5	1.00	0.3
filamentous red algae-complex	1.0	1.15	0.0	0.00	0.0	0.00	< .1	0.00	0.3
Nienburgia andersoniana	0.0	0.00	0.0	0.00	1.0	2.00	0.0	0.00	0.3
Callophyllis spp.	< .1	< .01	< .1	< .01	0.5	1.00	0.0	0.00	0.1
Osmundea spp.	0.0	0.00	0.0	0.00	0.5	1.00	0.0	0.00	0.1
Pterosiphonia dendroidea	0.0	0.00	< .1	< .01	< .1	< .01	< .1	0.00	< .1
Corallina officinalis	< .1	< .01	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Colpomenia spp.	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Ulva/Enteromorpha spp.	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Callophyllis flabellulata	0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Mazzaella rosea	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Bryopsis spp.	0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Cladophora spp.	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Laminaria setchellii	0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Sarcodiotheca gaudichaudii	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Scinaia confusa	0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Ahnfeltiopsis linearis	< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Chondracanthus harveyanus/spinosus	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Invertebrates									
Phragmatopoma californica	4.5	3.79	0.0	0.00	3.5	3.00	0.5	1.00	2.1
Substrate									
colonized rock	66.0	20.20	58.0	15.14	59.0	17.47	78.5	8.70	65.4
cobble	19.5	13.80	13.5	6.81	20.0	10.95	1.0	1.15	13.5
colonized cobble	9.5	2.52	10.5	6.81	10.5	9.00	15.5	7.55	11.5
rock	1.0	1.15	7.5	5.00	8.0	4.32	2.5	1.91	4.8
sand (shell gravel)	4.0	5.42	10.5	3.42	2.0	1.63	2.5	3.79	4.8

Subtidal Line Contact Station NDC 3 -3m Survey Means and Std. Deviations

Survey	112		113		114		115		
Date	23-Mar-01		01-Jun-01		28-Aug-01		21-Jan-02		Annual
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae									
coralline crust	73.5	7.90	86.5	5.97	98.0	1.63	93.0	5.03	87.8
Chrysophyta unid.	37.5	3.00	26.0	4.90	23.0	9.59	8.5	5.26	23.8
Calliarthron/Bossiella spp.-complex	17.0	7.02	20.5	9.15	19.5	5.00	20.0	7.48	19.3
Farlowia/Pikea spp.-complex	18.5	4.43	10.5	3.42	12.0	8.16	8.0	3.27	12.3
Cryptopleura violacea	13.0	2.00	12.5	3.42	10.0	2.83	5.0	3.83	10.1
Prionitis spp.	7.0	2.00	5.0	2.58	11.0	1.15	4.0	2.83	6.8
Gelidium robustum	7.5	3.00	5.0	2.00	4.0	2.83	7.5	3.42	6.0
Cystoseira osmundacea	3.0	2.00	6.0	3.65	5.5	3.42	4.0	3.27	4.6
filamentous red algae-complex	9.5	3.42	4.0	6.73	< .1	< .01	< .1	0.00	3.4
Chondracanthus corymbiferus	2.5	1.00	4.0	4.32	4.5	1.91	< .1	0.00	2.8
Rhodymenia spp.	< .1	< .01	0.0	0.00	5.0	2.00	5.5	4.12	2.6
Sargassum muticum	0.5	1.00	2.5	1.91	1.0	2.00	6.0	1.63	2.5
Pterosiphonia dendroidea	1.0	1.15	1.0	1.15	< .1	< .01	5.0	1.15	1.8
Acrosorium uncinatum	0.5	1.00	< .1	0.00	< .1	< .01	4.5	3.42	1.3
Desmarestia spp.	0.0	0.00	4.5	3.00	0.5	1.00	0.0	0.00	1.3
non-coralline crust	0.0	0.00	1.0	2.00	< .1	< .01	2.0	1.63	0.8
Macrocystis spp.	1.0	1.15	< .1	< .01	0.5	1.00	0.5	1.00	0.5
Callophyllis spp.	0.5	1.00	1.0	1.15	0.5	1.00	< .1	< .01	0.5
Prionitis australis	0.0	0.00	0.0	0.00	1.0	2.00	1.0	1.15	0.5
Ahnfeltiopsis linearis	< .1	< .01	< .1	< .01	1.0	2.00	< .1	< .01	0.3
Halymenia/Schizymenia spp.-complex	< .1	< .01	0.0	0.00	0.5	1.00	0.0	0.00	0.1
Nienburgia andersoniana	0.0	0.00	0.0	0.00	0.0	0.00	0.5	1.00	0.1
Ulva/Enteromorpha spp.	< .1	< .01	< .1	0.00	< .1	0.00	< .1	< .01	< .1
Colpomenia spp.	< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Callophyllis flabellulata	< .1	< .01	< .1	< .01	0.0	0.00	< .1	< .01	< .1
Antithamnion/Platytham. spp.-complex	< .1	< .01	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Spongomorpha/Acrosiphonia-complex	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Laminariales	< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Laminaria setchellii	0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Gastroclonium subarticulatum	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Sarcodiotheca gaudichaudii	0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Osmundea spp.	0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Bryopsis spp.	0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Invertebrates									
Phragmatopoma californica	0.0	0.00	0.0	0.00	1.0	1.15	0.0	0.00	0.3
Substrate									
colonized rock	91.0	4.16	83.5	3.00	93.5	4.43	90.0	5.42	89.5
colonized cobble	7.0	4.16	13.0	3.83	6.5	4.43	6.0	2.83	8.1
sand (shell gravel)	0.0	0.00	3.5	1.91	0.0	0.00	3.0	2.58	1.6
cobble	1.5	1.00	0.0	0.00	0.0	0.00	1.0	1.15	0.6
rock	0.5	1.00	0.0	0.00	0.0	0.00	0.0	0.00	0.1

Subtidal Line Contact Station NDC 4 -4m Survey Means and Std. Deviations

Survey	112		113		114		115		
Date	24-Mar-01		15-Jun-01		30-Aug-01		14-Dec-01		Annual
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae									
coralline crust	80.5	4.73	93.5	3.00	92.0	5.16	39.5	14.82	76.4
Calliarthron/Bossiella spp.-complex	20.0	6.32	33.0	6.22	27.5	7.55	25.0	8.87	26.4
Farlowia/Pikea spp.-complex	17.0	1.15	12.0	5.16	9.0	2.58	12.0	1.63	12.5
Chrysophyta unid.	16.5	5.00	7.0	4.76	3.5	3.00	0.0	0.00	6.8
Cryptopleura violacea	5.0	1.15	13.0	2.58	5.0	3.46	2.0	1.63	6.3
Rhodymenia spp.	8.5	4.43	4.5	1.00	5.0	1.15	3.5	3.00	5.4
Desmarestia spp.	0.0	0.00	10.0	1.63	10.0	1.63	0.0	0.00	5.0
Chondracanthus corymbiferus	5.0	2.00	5.0	2.00	5.0	1.15	3.5	1.91	4.6
Cystoseira osmundacea	3.5	3.00	3.5	3.00	7.5	1.00	2.0	2.31	4.1
Prionitis spp.	0.0	0.00	1.0	1.15	3.5	3.42	8.5	1.00	3.3
Prionitis australis	5.0	2.58	3.0	2.58	2.0	1.63	0.0	0.00	2.5
Gelidium robustum	2.0	2.31	1.0	1.15	4.0	2.83	1.5	1.91	2.1
Callophyllis spp.	1.5	1.91	3.0	2.58	1.5	1.91	0.5	1.00	1.6
Macrocystis spp.	1.5	1.00	1.0	1.15	2.0	2.83	0.5	1.00	1.3
Pterosiphonia dendroidea	0.5	1.00	0.5	1.00	< .1	< .01	3.0	2.58	1.0
non-coralline crust	1.0	2.00	1.0	1.15	< .1	0.00	1.0	1.15	0.8
Acrosorium uncinatum	1.5	1.91	< .1	0.00	< .1	< .01	1.0	1.15	0.6
Callophyllis flabellulata	< .1	< .01	0.5	1.00	1.0	2.00	0.0	0.00	0.4
Chondracanthus harveyanus/spinosus	0.0	0.00	0.0	0.00	0.0	0.00	1.5	1.00	0.4
Nereocystis luetkeana	1.0	2.00	0.0	0.00	0.0	0.00	0.0	0.00	0.3
filamentous red algae-complex	0.5	1.00	< .1	< .01	< .1	< .01	0.0	0.00	0.1
Ahnfeltiopsis linearis	< .1	< .01	0.0	0.00	< .1	< .01	0.5	1.00	0.1
Gastroclonium subarticulatum	0.5	1.00	< .1	< .01	0.0	0.00	0.0	0.00	0.1
Laminaria setchellii	0.0	0.00	0.5	1.00	0.0	0.00	0.0	0.00	0.1
Hymenena spp.	0.0	0.00	0.5	1.00	0.0	0.00	0.0	0.00	0.1
Ulva/Enteromorpha spp.	< .1	< .01	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Cryptopleura ruprechtiana	0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Colpomenia spp.	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Antithamnion/Platytham. spp.-complex	< .1	< .01	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Halymenia/Schizymenia spp.-complex	< .1	< .01	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Laminariales	< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Scinaia confusa	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Osmundea spp.	0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Sargassum muticum	< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Invertebrates									
Phragmatopoma californica	2.5	1.91	0.0	0.00	0.0	0.00	29.5	11.47	8.0
Substrate									
colonized rock	82.5	7.37	90.0	4.90	89.0	2.00	81.5	16.60	85.8
colonized cobble	16.5	6.61	6.0	2.83	5.5	3.79	3.5	4.73	7.9
sand (shell gravel)	1.5	1.91	4.0	3.27	5.5	4.43	1.5	1.91	3.1
cobble	0.0	0.00	0.0	0.00	0.0	0.00	11.0	8.08	2.8
rock	0.0	0.00	0.0	0.00	0.0	0.00	2.5	3.79	0.6

Subtidal Line Contact Station SDC 2 -3m Survey Means and Std. Deviations

Survey	112		113		114		115		
Date	22-Mar-01		30-May-01		15-Aug-01		31-Dec-01		Annual
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae									
coralline crust	18.0	7.30	17.0	3.83	83.0	4.76	83.5	3.42	50.4
Cryptopleura violacea	42.0	17.05	23.0	12.49	10.5	1.91	12.5	1.00	22.0
Rhodymenia spp.	8.0	7.48	15.5	7.00	10.5	4.43	10.0	3.65	11.0
Calliarthron/Bossiella spp.-complex	4.5	1.91	13.5	8.39	16.5	5.26	6.5	1.91	10.3
Cystoseira osmundacea	4.5	2.52	5.5	5.26	14.5	5.00	6.0	4.90	7.6
Pterosiphonia dendroidea	15.0	6.00	6.0	1.63	< .1	0.00	6.5	1.91	6.9
Acrosorium uncinatum	0.0	0.00	16.0	4.62	4.5	3.00	6.5	1.00	6.8
Prionitis spp.	5.5	2.52	9.5	5.74	8.0	5.89	1.0	1.15	6.0
Spongomorpha/Acrosiphonia-complex	19.0	8.08	0.0	0.00	0.0	0.00	0.0	0.00	4.8
Chondracanthus corymbiferus	< .1	< .01	3.5	2.52	7.5	1.91	6.0	1.63	4.3
Farlowia/Pikea spp.-complex	3.5	1.91	0.5	1.00	4.5	3.00	4.5	1.91	3.3
Chondracanthus harveyanus/spinosus	1.0	1.15	6.0	6.32	0.0	0.00	0.0	0.00	1.8
Prionitis australis	0.0	0.00	0.0	0.00	0.5	1.00	6.0	1.63	1.6
Nienburgia andersoniana	< .1	< .01	1.5	3.00	2.5	1.91	2.0	2.83	1.5
Gelidium robustum	0.0	0.00	0.0	0.00	0.5	1.00	4.0	3.65	1.1
Macrocystis spp.	< .1	< .01	1.5	1.91	1.0	2.00	0.5	1.00	0.8
non-coralline crust	1.0	1.15	< .1	< .01	0.0	0.00	1.5	1.91	0.6
Callophyllis spp.	0.0	0.00	< .1	< .01	2.0	0.00	0.0	0.00	0.5
Callophyllis flabellulata	0.0	0.00	0.0	0.00	0.5	1.00	< .1	< .01	0.1
Ahnfeltiopsis linearis	0.0	0.00	< .1	< .01	< .1	< .01	0.5	1.00	0.1
Sargassum muticum	0.5	1.00	0.0	0.00	0.0	0.00	< .1	< .01	0.1
Corallina officinalis	0.5	1.00	< .1	< .01	0.0	0.00	0.0	0.00	0.1
Desmarestia spp.	0.0	0.00	0.0	0.00	0.5	1.00	0.0	0.00	0.1
Cryptopleura ruprechtiana	0.0	0.00	0.0	0.00	0.5	1.00	0.0	0.00	0.1
Phyllospadix spp.	0.0	0.00	0.5	1.00	0.0	0.00	0.0	0.00	0.1
Scinaia confusa	0.0	0.00	< .1	< .01	< .1	< .01	< .1	0.00	< .1
Ulva/Enteromorpha spp.	< .1	< .01	< .1	< .01	< .1	0.00	0.0	0.00	< .1
Gelidium spp.	< .1	< .01	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Osmundea spp.	0.0	0.00	0.0	0.00	< .1	< .01	< .1	< .01	< .1
filamentous red algae-complex	0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Laminaria setchellii	< .1	< .01	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Ahnfeltiopsis leptophylla	< .1	< .01	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Laminariales	0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Sarcodiotheca gaudichaudii	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Ectocarpales	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Endarachne/Petalonia-complex	0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Invertebrates									
Phragmatopoma californica	0.5	1.00	0.0	0.00	0.0	0.00	0.0	0.00	0.1
Substrate									
colonized rock	53.5	7.00	55.0	11.60	81.5	5.26	74.5	8.54	66.1
sand (shell gravel)	25.0	8.87	30.5	9.00	11.5	2.52	5.0	1.15	18.0
cobble	8.0	4.32	8.5	7.00	0.0	0.00	7.0	2.58	5.9
colonized cobble	1.5	1.91	1.5	1.00	7.0	3.83	11.5	8.54	5.4
rock	11.5	6.40	4.5	1.91	0.0	0.00	2.0	2.83	4.5

Subtidal Line Contact Station SDC 3 -4m Survey Means and Std. Deviations

Survey	112		113		114		115		
Date	23-Mar-01		31-May-01		06-Sep-01		13-Dec-02		Annual
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae									
coralline crust	59.0	4.76	73.5	5.97	64.5	8.23	92.0	5.89	72.3
Calliarthron/Bossiella spp.-complex	36.0	6.73	37.5	6.40	41.5	10.25	25.5	1.00	35.1
Cryptopleura violacea	4.5	1.00	9.0	3.83	26.5	7.55	1.0	2.00	10.3
Chondracanthus corymbiferus	3.5	2.52	8.5	5.00	14.0	5.89	8.5	4.43	8.6
Rhodymenia spp.	8.0	1.63	8.5	7.00	7.0	7.39	11.0	4.16	8.6
Acrosorium uncinatum	13.0	6.00	9.5	1.00	0.5	1.00	0.5	1.00	5.9
Cryptopleura ruprechtiana	1.0	1.15	0.0	0.00	8.5	1.00	7.0	1.15	4.1
Chrysophyta unid.	< .1	0.00	10.0	3.65	0.0	0.00	0.0	0.00	2.5
Cystoseira osmundacea	1.5	1.91	3.5	4.43	3.0	3.46	2.0	1.63	2.5
Prionitis spp.	3.5	3.42	1.0	2.00	5.0	6.00	0.0	0.00	2.4
Farlowia/Pikea spp.-complex	2.0	1.63	2.0	1.63	2.0	1.63	2.5	1.91	2.1
Prionitis australis	1.5	1.91	1.0	2.00	0.5	1.00	4.0	4.90	1.8
filamentous red algae-complex	2.0	1.63	< .1	< .01	4.5	3.00	< .1	0.00	1.6
Nienburgia andersoniana	3.0	2.58	< .1	0.00	3.0	1.15	0.5	1.00	1.6
Pterosiphonia dendroidea	4.5	5.26	1.0	1.15	< .1	< .01	0.5	1.00	1.5
Macrocystis spp.	1.0	1.15	1.5	1.91	1.0	2.00	2.0	4.00	1.4
Ahnfeltiopsis linearis	< .1	< .01	2.0	1.63	2.5	5.00	0.0	0.00	1.1
Callophyllis flabellulata	< .1	< .01	0.5	1.00	3.5	3.42	< .1	< .01	1.0
Desmarestia spp.	< .1	< .01	1.5	1.91	0.5	1.00	0.0	0.00	0.5
Callophyllis spp.	< .1	< .01	2.0	1.63	< .1	< .01	< .1	< .01	0.5
non-coralline crust	< .1	< .01	0.0	0.00	< .1	< .01	1.5	1.00	0.4
Laminaria setchellii	< .1	< .01	0.0	0.00	0.5	1.00	0.5	1.00	0.3
Gelidium robustum	< .1	< .01	0.0	0.00	< .1	< .01	1.0	2.00	0.3
Pterygophora californica	< .1	< .01	0.0	0.00	0.5	1.00	0.0	0.00	0.1
Laminariales	0.0	0.00	< .1	< .01	0.0	0.00	< .1	< .01	< .1
Antithamnion/Platytham. spp.-complex	< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Corallina officinalis	0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Sarcodiotheca gaudichaudii	0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Sargassum muticum	< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Invertebrates									
Diopatra ornata	2.0	1.63	0.0	0.00	0.0	0.00	0.5	1.00	0.6
Substrate									
colonized rock	85.0	2.58	83.5	4.12	88.5	4.43	91.0	4.16	87.0
colonized cobble	6.5	5.00	11.0	2.58	0.5	1.00	4.0	2.83	5.5
sand (shell gravel)	3.0	2.58	5.5	1.91	10.0	4.62	2.5	3.00	5.3
cobble	4.0	2.83	0.0	0.00	1.0	2.00	1.0	2.00	1.5
rock	1.5	1.00	0.0	0.00	0.0	0.00	1.5	1.91	0.8

Subtidal Line Contact Station SC 1 -3m Survey Means and Std. Deviations

Survey	112		113		114		115		
Date	04-Apr-01		28-Jun-01		03-Oct-01		27-Nov-02		Annual
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae									
coralline crust	48.5	7.55	34.5	5.74	80.5	1.91	34.0	8.16	49.4
Calliarthron/Bossiella spp.-complex	12.0	8.16	27.0	20.69	17.5	7.00	24.5	22.47	20.3
Rhodymenia spp.	8.5	5.26	27.0	5.29	14.0	4.32	19.5	9.29	17.3
Chondracanthus corymbiferus	11.5	8.23	10.0	8.49	11.0	2.00	10.0	5.16	10.6
Cryptopleura ruprechtiana	6.5	1.00	10.5	7.90	15.5	1.91	5.0	2.00	9.4
Pterygophora californica	7.0	2.58	8.5	2.52	9.0	3.83	5.5	3.00	7.5
Laminaria setchellii	1.5	1.00	2.0	1.63	7.0	2.00	2.5	1.91	3.3
Gelidium robustum	1.0	2.00	4.0	4.90	5.5	3.79	1.5	1.91	3.0
Callophyllis spp.	1.5	1.91	2.5	1.91	2.0	2.31	1.5	1.91	1.9
Prionitis spp.	1.0	1.15	1.5	1.91	2.0	1.63	1.0	1.15	1.4
Cystoseira osmundacea	1.0	2.00	0.5	1.00	1.0	1.15	0.5	1.00	0.8
Osmundea spp.	0.5	1.00	1.0	1.15	0.5	1.00	0.5	1.00	0.6
Halymenia/Schizymenia spp.-complex	0.0	0.00	1.5	1.91	0.0	0.00	0.0	0.00	0.4
Polyneura latissima	1.0	1.15	< .1	< .01	0.0	0.00	0.0	0.00	0.3
Mazzaella lilacina	0.5	1.00	< .1	< .01	0.0	0.00	0.5	1.00	0.3
non-coralline crust	< .1	< .01	0.5	1.00	0.0	0.00	< .1	0.00	0.1
Nereocystis luetkeana	< .1	< .01	0.5	1.00	< .1	< .01	< .1	< .01	0.1
Erythrophyllum delesserioides	0.0	0.00	< .1	< .01	0.5	1.00	0.0	0.00	0.1
Nienburgia andersoniana	0.0	0.00	0.5	1.00	< .1	< .01	0.0	0.00	0.1
Ahnfeltiopsis linearis	< .1	< .01	0.5	1.00	0.0	0.00	0.0	0.00	0.1
Dictyoneurum californicum	0.0	0.00	0.0	0.00	0.5	1.00	0.0	0.00	0.1
Sarcodiotheca gaudichaudii	0.5	1.00	0.0	0.00	0.0	0.00	0.0	0.00	0.1
Laminariales	< .1	0.00	< .1	0.00	< .1	< .01	< .1	0.00	< .1
Ulva/Enteromorpha spp.	< .1	< .01	< .1	< .01	< .1	0.00	< .1	< .01	< .1
Microcladia coulteri	< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Farlowia/Pikea spp.-complex	< .1	< .01	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Neoptilota densa	0.0	0.00	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Callophyllis flabellulata	0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Gastroclonium subarticulatum	< .1	< .01	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Egregia menziesii	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Corallina officinalis	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Rhodoptilum plumosum	0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Phyllospadix spp.	< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Pikea robusta	< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Prionitis australis	0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Mazzaella rosea	0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Invertebrates									
Phragmatopoma californica	12.5	7.00	0.5	1.00	3.5	3.42	4.0	4.90	5.1
Substrate									
colonized rock	82.5	7.00	83.5	7.00	93.5	4.43	80.0	15.32	84.9
rock	12.0	5.66	12.0	9.09	0.0	0.00	10.0	9.93	8.5
sand (shell gravel)	4.0	2.83	2.5	1.91	0.0	0.00	6.5	5.00	3.3
colonized cobble	0.0	0.00	0.0	0.00	6.5	4.43	1.5	3.00	2.0
cobble	1.5	1.00	2.0	2.31	0.0	0.00	2.0	2.31	1.4

Subtidal Line Contact Station SC 2 -6m Survey Means and Std. Deviations

Taxon	Survey	112		113		114		115		Annual
	Date	06-Apr-01		29-Jun-01		07-Sep-01		19-Nov-01		
		Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Algae										
coralline crust		62.5	10.50	75.5	14.18	81.5	7.00	64.5	12.48	71.0
Calliarthron/Bossiella spp.-complex		37.0	16.12	26.0	17.51	16.0	4.00	17.5	11.24	24.1
Chondracanthus corymbiferus		21.5	9.98	14.0	3.65	16.5	3.42	13.5	3.79	16.4
Cryptopleura ruprechtiana		14.5	6.61	25.0	21.76	9.0	6.63	3.5	5.74	13.0
Rhodymenia spp.		15.0	3.46	5.5	5.26	12.5	5.74	13.5	11.82	11.6
Desmarestia spp.		0.0	0.00	32.5	23.35	13.0	6.22	< .1	< .01	11.4
Nereocystis luetkeana		0.0	0.00	3.0	2.58	6.5	3.00	3.5	2.52	3.3
Laminaria setchellii		1.0	1.15	2.5	3.79	4.5	1.00	< .1	0.00	2.0
Pterygophora californica		3.0	3.83	1.0	1.15	2.5	3.00	< .1	0.00	1.6
non-coralline crust		1.5	1.00	0.5	1.00	1.0	2.00	1.0	2.00	1.0
Dictyota binghamiae		2.0	4.00	1.5	3.00	0.5	1.00	0.0	0.00	1.0
Callophyllis spp.		< .1	< .01	3.0	2.58	0.0	0.00	< .1	< .01	0.8
Mazzaella lilacina		0.0	0.00	0.5	1.00	0.5	1.00	1.5	1.91	0.6
Callophyllis flabellulata		1.0	2.00	1.0	2.00	< .1	< .01	0.0	0.00	0.5
Farlowia/Pikea spp.-complex		0.5	1.00	1.5	3.00	< .1	< .01	< .1	< .01	0.5
Erythrophyllum delesserioides		0.5	1.00	0.5	1.00	< .1	< .01	0.0	0.00	0.3
Polyneura latissima		0.0	0.00	1.0	1.15	0.0	0.00	0.0	0.00	0.3
Halymenia/Schizymenia spp.-complex		0.0	0.00	1.0	2.00	0.0	0.00	0.0	0.00	0.3
filamentous red algae-complex		< .1	< .01	0.5	1.00	< .1	< .01	0.0	0.00	0.1
Scinaia confusa		0.0	0.00	< .1	< .01	0.5	1.00	0.0	0.00	0.1
Plocamium cartilagineum		0.0	0.00	0.5	1.00	0.0	0.00	0.0	0.00	0.1
Rhodophyta (juv. blades)		0.0	0.00	0.0	0.00	0.0	0.00	0.5	1.00	0.1
Nienburgia andersoniana		0.0	0.00	0.0	0.00	0.5	1.00	0.0	0.00	0.1
Microcladia coulteri		< .1	< .01	< .1	< .01	< .1	0.00	0.0	0.00	< .1
Rhodoptilum plumosum		< .1	< .01	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Osmundea spp.		0.0	0.00	< .1	< .01	< .1	0.00	0.0	0.00	< .1
Ulva/Enteromorpha spp.		< .1	0.00	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Neoptilota densa		0.0	0.00	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Gelidium robustum		< .1	< .01	< .1	< .01	< .1	< .01	< .1	< .01	< .1
Prionitis spp.		< .1	< .01	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Cystoseira osmundacea		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Pterosiphonia dendroidea		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Opuntiella californica		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Laminariales		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Weeksia spp.		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Invertebrates										
Bryozoa, unid. (encrusting)		8.0	5.89	0.0	0.00	0.0	0.00	3.5	3.00	2.9
Porifera unid. (encrusting)		2.5	1.91	0.0	0.00	0.0	0.00	1.0	1.15	0.9
Balanus spp.		0.0	0.00	0.0	0.00	3.0	2.58	0.0	0.00	0.8
Barnacle scar unid.		0.0	0.00	0.0	0.00	0.0	0.00	1.5	1.91	0.4
Phragmatopoma californica		1.0	2.00	0.0	0.00	0.0	0.00	0.0	0.00	0.3
Substrate										
colonized rock		91.5	8.06	94.5	3.00	94.0	3.65	87.0	6.63	91.8
colonized cobble		7.0	6.83	2.5	3.00	4.0	1.63	1.5	1.91	3.8
rock		0.5	1.00	2.0	1.63	1.0	2.00	9.0	5.29	3.1
cobble		1.0	1.15	0.0	0.00	1.0	2.00	2.5	3.79	1.1
sand (shell gravel)		0.0	0.00	1.0	2.00	0.0	0.00	0.0	0.00	0.3

Subtidal Fixed Quadrat Results

Subtidal Fixed Quadrat Station FC 1 -3m Survey Means and Std. Deviations

Survey	112		113		114		115		
Date	12-Apr-01		27-Jun-01		04-Sep-01		25-Jan-02		Annual
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Invertebrates									
Tonicella lineata	25.5	51.00	0.3	0.50	0.3	0.50	0.5	0.58	6.6
Pelecypoda unid. boring	7.8	7.85	4.8	4.65	7.0	5.35	7.0	4.83	6.6
Tegula brunnea	4.3	4.03	4.5	4.43	4.8	6.85	11.5	4.04	6.3
Homolo. luridum/Lirularia succincta	2.5	1.73	7.3	1.26	11.3	4.57	3.8	2.22	6.2
Phragmatopoma californica	9.8	10.72	1.0	1.15	1.0	1.41	7.8	7.23	4.9
Pagurus spp.	1.3	1.50	1.5	1.29	2.3	0.96	5.8	4.99	2.7
Porifera unid. (encrusting)	1.8	2.36	1.8	1.71	1.0	0.82	3.0	1.83	1.9
Strongylocentrotus purpuratus	1.0	1.41	3.5	3.11	2.3	1.71	0.0	0.00	1.7
Sipuncula unid.	2.3	2.63	2.0	4.00	1.3	2.50	0.5	1.00	1.5
tunicates, colonial/social unid.	< .1	< .01	2.3	1.50	2.0	2.45	1.3	0.50	1.4
Bryozoa, unid. (encrusting)	1.3	0.50	2.0	0.82	1.8	0.96	0.5	0.58	1.4
Pugettia spp.	0.5	0.58	1.0	0.00	3.0	0.82	1.0	0.82	1.4
Serpulidae unid.	0.3	0.50	0.0	0.00	2.0	2.83	1.3	0.96	0.9
Leptasterias spp.	0.3	0.50	0.5	0.58	1.0	1.41	1.5	1.29	0.8
Balanus/Tetraclita spp.	0.0	0.00	0.0	0.00	0.0	0.00	3.0	6.00	0.8
Acmaea mitra	0.5	0.58	0.5	0.58	0.5	0.58	1.0	0.82	0.6
Calliostoma ligatum	0.0	0.00	0.8	0.96	0.8	0.96	0.8	0.96	0.6
Henricia leviuscula	0.0	0.00	0.5	1.00	1.0	1.15	0.8	0.96	0.6
Amphissa spp.	0.0	0.00	0.5	0.58	0.8	0.96	1.0	0.82	0.6
Chaetopteridae	0.0	0.00	0.8	1.50	0.0	0.00	1.5	1.91	0.6
Epiactis prolifera	0.3	0.50	0.3	0.50	0.0	0.00	1.5	1.91	0.5
Lissothuria nutriens	0.5	0.58	0.0	0.00	0.8	0.96	0.8	0.96	0.5
Fissurella volcano	0.5	0.58	0.3	0.50	0.3	0.50	0.3	0.50	0.3
Pista spp.	0.5	1.00	0.0	0.00	0.8	0.50	0.0	0.00	0.3
Cryptolithodes sitchensis	0.3	0.50	0.0	0.00	0.8	0.50	0.3	0.50	0.3
Cadlina spp.	0.0	0.00	0.5	1.00	0.0	0.00	0.8	0.96	0.3
Serpulorbis squamigerus	0.3	0.50	0.0	0.00	0.0	0.00	0.8	0.96	0.3
Fusinus luteopictus	0.0	0.00	1.0	1.41	0.0	0.00	0.0	0.00	0.3
Anthozoa unid.	0.3	0.50	0.0	0.00	0.0	0.00	0.5	1.00	0.2
Lottia instabilis	0.3	0.50	0.5	1.00	0.0	0.00	0.0	0.00	0.2
Lottia ochracea	0.3	0.50	0.0	0.00	0.3	0.50	0.3	0.50	0.2
Hermissenda crassicornis	0.0	0.00	0.0	0.00	0.8	0.96	0.0	0.00	0.2
Asterina miniata	0.0	0.00	0.5	0.58	0.3	0.50	0.0	0.00	0.2
Ocenebra spp.	0.3	0.50	0.3	0.50	0.0	0.00	0.3	0.50	0.2
Salmacina tribranchiata	0.0	0.00	0.0	0.00	0.3	0.50	0.5	1.00	0.2
Anthopleura elegantissima	0.3	0.50	0.0	0.00	0.0	0.00	0.3	0.50	0.1
Lithopoma gibberosum	0.0	0.00	0.0	0.00	0.3	0.50	0.3	0.50	0.1
Doriopsilla albopunctata	0.0	0.00	0.5	1.00	0.0	0.00	0.0	0.00	0.1
Mitra idae	0.0	0.00	0.3	0.50	0.0	0.00	0.3	0.50	0.1
Spirorbidae	< .1	0.00	< .1	< .01	< .1	< .01	0.3	0.50	< .1
Eurystomella bilabiata	0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Alia spp.	0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Mopalia spp.	0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Tegula pulligo	0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Nereididae unid.	0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Pseudomelatoma torosa	0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Ischnochitonidae	0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Pisaster/Henricia (juv.)	0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Cancer spp.	0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Lophopanopeus spp.	0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Ophiothrix spp.	0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Pectinidae	0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1

Subtidal Fixed Quadrat Station NDC 2 -3m Survey Means and Std. Deviations

Taxon	Survey Date	112 03-Apr-01 Mean	Std. Dev.	113 19-Jun-01 Mean	Std. Dev.	114 30-Aug-01 Mean	Std. Dev.	115 15-Jan-02 Mean	Std. Dev.	Annual Mean
Invertebrates										
Phragmatopoma californica		111.3	116.17	22.3	24.23	99.8	106.80	119.8	77.83	88.3
Ophiactis simplex		12.0	10.61	7.3	6.60	21.3	4.79	36.3	11.09	19.2
Strongylocentrotus purpuratus		10.5	6.86	7.3	5.74	12.3	4.92	15.8	7.41	11.4
Pelecypoda unid. boring		4.8	5.68	5.3	4.57	7.8	10.01	4.3	6.65	5.5
Pista spp.		1.3	1.50	0.5	1.00	0.0	0.00	5.3	7.85	1.8
Fissurella volcano		2.3	2.63	0.5	0.58	0.8	0.96	1.8	2.87	1.3
Serpulidae unid.		2.5	3.11	0.5	1.00	0.8	0.96	0.8	0.96	1.1
Acmaea mitra		0.0	0.00	2.5	2.38	0.8	0.96	0.5	0.58	0.9
Lissothuria nutriens		0.5	1.00	0.3	0.50	0.5	1.00	2.0	3.37	0.8
Ophiothrix spp.		1.3	1.50	0.5	0.58	0.0	0.00	1.0	1.15	0.7
Anthopleura elegantissima		0.5	0.58	0.5	0.58	0.3	0.50	0.3	0.50	0.4
Serpulorbis squamigerus		0.3	0.50	0.3	0.50	0.3	0.50	0.5	0.58	0.3
Tegula brunnea		0.8	1.50	0.0	0.00	0.5	1.00	0.0	0.00	0.3
Lottia ochracea		0.0	0.00	0.5	1.00	0.0	0.00	0.8	1.50	0.3
Porifera unid. (encrusting)		< .1	< .01	0.0	0.00	0.8	0.50	< .1	< .01	0.2
Pugettia spp.		0.0	0.00	0.3	0.50	0.5	0.58	0.0	0.00	0.2
Sipuncula unid.		0.8	1.50	0.0	0.00	0.0	0.00	0.0	0.00	0.2
Diodora spp.		0.0	0.00	0.0	0.00	0.5	1.00	0.0	0.00	0.1
Leucilla nuttingi		0.0	0.00	0.0	0.00	0.5	0.58	0.0	0.00	0.1
Phidiana hiltoni		0.0	0.00	0.0	0.00	0.3	0.50	0.3	0.50	0.1
Dendropoma spp.		0.0	0.00	0.5	1.00	0.0	0.00	0.0	0.00	0.1
Ophioplocus spp.		0.0	0.00	0.3	0.50	0.3	0.50	0.0	0.00	0.1
Epiactis prolifera		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Acmaeidae unid.		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Tonicella lineata		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Sabellidae		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Pagurus spp.		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Diaulula sandiegensis		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Doriopsilla albopunctata		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Ischnochitonidae		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Chaetopteridae		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Spirorbidae		< .1	< .01	0.0	0.00	0.0	0.00	< .1	0.00	< .1
tunicates, colonial/social unid.		0.0	0.00	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Bryozoa, unid. (encrusting)		< .1	< .01	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Salmacina tribranchiata		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1

Subtidal Fixed Quadrat Station NDC 3 -3m Survey Means and Std. Deviations

Taxon	Survey Date	112 23-Mar-01 Mean	Std. Dev.	113 01-Jun-01 Mean	Std. Dev.	114 28-Aug-01 Mean	Std. Dev.	115 21-Jan-02 Mean	Std. Dev.	Annual Mean
Invertebrates										
Phragmatopoma californica		146.5	98.59	112.8	70.01	194.5	57.47	282.8	97.87	184.1
Ophiactis simplex		83.8	33.01	83.8	30.38	76.3	41.51	51.3	32.76	73.8
Strongylocentrotus purpuratus		13.3	5.56	13.3	5.91	12.3	3.20	17.8	13.60	14.1
Pelecypoda unid. boring		7.5	5.80	3.3	4.72	1.5	1.91	0.8	0.96	3.3
Ophiothrix spp.		3.3	3.77	1.0	2.00	5.0	2.31	2.5	2.38	2.9
Fissurella volcano		1.3	1.26	0.5	1.00	3.8	4.99	6.0	2.71	2.9
Serpulidae unid.		0.5	0.58	2.5	1.29	3.3	2.75	0.8	0.96	1.8
Tetraclita rubescens		0.0	0.00	0.0	0.00	3.5	3.87	0.3	0.50	0.9
Lottia ochracea		0.0	0.00	1.0	1.15	2.5	4.36	0.0	0.00	0.9
Acmaea mitra		0.8	0.50	0.8	1.50	0.5	1.00	1.3	1.50	0.8
Anthopleura elegantissima		0.5	0.58	0.5	0.58	0.8	0.96	0.8	0.96	0.6
Epiactis prolifera		1.5	1.91	0.5	1.00	0.3	0.50	0.0	0.00	0.6
Spirorbidae		1.3	2.50	0.0	0.00	0.5	0.58	< .1	0.00	0.4
Pista spp.		0.5	1.00	0.3	0.50	0.3	0.50	0.8	0.96	0.4
Lissothuria nutriens		0.5	1.00	0.8	0.96	0.3	0.50	0.3	0.50	0.4
Serpulorbis squamigerus		0.5	1.00	0.3	0.50	0.0	0.00	0.8	0.96	0.4
Pugettia spp.		0.0	0.00	1.0	1.41	0.3	0.50	0.3	0.50	0.4
Sipuncula unid.		0.3	0.50	0.8	1.50	0.3	0.50	0.0	0.00	0.3
Diodora spp.		0.0	0.00	0.3	0.50	0.3	0.50	0.0	0.00	0.1
Tonicella lineata		0.0	0.00	0.5	0.58	0.0	0.00	0.0	0.00	0.1
Dendropoma spp.		0.5	1.00	0.0	0.00	0.0	0.00	0.0	0.00	0.1
tunicates, colonial/social unid.		0.0	0.00	< .1	< .01	0.3	0.50	< .1	< .01	< .1
Tegula brunnea		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Sabellidae		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Pisaster ochraceus		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Doriopsilla albopunctata		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Phidiana hiltoni		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Cucumaria spp.		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Majidae		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Pisaster/Henricia (juv.)		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Cancer spp.		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Platyhelminthes unid.		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Lophopanopeus spp.		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Balanus/Tetraclita spp.		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Eupentacta quinquesemita		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Chaetopteridae		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Archidoris spp.		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Porifera unid. (encrusting)		< .1	< .01	0.0	0.00	< .1	< .01	< .1	0.00	< .1
Bryozoa, unid. (encrusting)		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1
Lepidozona spp.		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1

Subtidal Fixed Quadrat Station NDC 4 -4m Survey Means and Std. Deviations

Taxon	Survey Date	112 24-Mar-01 Mean	112 Std. Dev.	113 27-Jun-01 Mean	113 Std. Dev.	114 30-Aug-01 Mean	114 Std. Dev.	115 14-Dec-01 Mean	115 Std. Dev.	Annual Mean
Invertebrates										
Phragmatopoma californica		162.5	97.17	57.5	44.70	73.3	39.53	289.8	148.09	145.8
Ophiactis simplex		30.8	19.00	7.8	3.30	23.0	12.62	0.0	0.00	15.4
Strongylocentrotus purpuratus		8.8	5.25	9.5	7.68	6.0	2.94	8.8	9.91	8.3
Pelecypoda unid. boring		2.3	3.30	7.8	8.38	6.3	6.13	1.3	1.50	4.4
Serpulidae unid.		4.3	2.06	3.8	2.63	4.3	2.22	2.0	2.00	3.6
Tegula brunnea		0.5	1.00	0.0	0.00	3.3	3.40	0.5	1.00	1.1
Balanus spp.		0.0	0.00	0.0	0.00	0.0	0.00	3.5	7.00	0.9
Acmaea mitra		0.0	0.00	1.3	1.50	1.0	1.15	1.0	1.41	0.8
Alia spp.		1.0	2.00	0.0	0.00	2.3	2.63	0.0	0.00	0.8
Serpulorbis squamigerus		0.8	0.96	0.5	1.00	1.0	1.41	0.8	0.96	0.8
Anthopleura elegantissima		0.8	0.96	0.5	0.58	0.8	0.96	0.8	0.96	0.7
Epiactis prolifera		0.3	0.50	1.0	2.00	0.5	1.00	0.8	0.96	0.6
Ophiothrix spp.		0.5	1.00	1.3	0.96	0.5	0.58	0.0	0.00	0.6
Balanus/Tetraclita spp.		0.5	1.00	0.0	0.00	1.8	2.36	0.0	0.00	0.6
Pagurus spp.		0.0	0.00	0.3	0.50	1.8	2.87	0.0	0.00	0.5
Fissurella volcano		1.0	1.15	0.3	0.50	0.3	0.50	0.0	0.00	0.4
Lissothuria nutriens		0.0	0.00	1.3	1.89	0.3	0.50	0.0	0.00	0.4
Tonicella lineata		0.3	0.50	0.3	0.50	0.5	0.58	0.3	0.50	0.3
Tetraclita rubescens		0.0	0.00	1.0	2.00	0.0	0.00	0.0	0.00	0.3
Entoprocta unid. a		0.0	0.00	0.8	1.50	0.0	0.00	0.0	0.00	0.2
Doriopsilla albopunctata		0.3	0.50	0.3	0.50	0.0	0.00	0.3	0.50	0.2
Mitra idae		0.0	0.00	0.3	0.50	0.3	0.50	0.3	0.50	0.2
Porifera unid. (encrusting)		< .1	< .01	< .1	< .01	< .1	< .01	0.5	0.58	0.1
Pododesmus cepio		0.0	0.00	0.0	0.00	0.0	0.00	0.5	0.58	0.1
Lottia ochracea		0.0	0.00	0.0	0.00	0.0	0.00	0.5	1.00	0.1
Cactosoma arenaria		0.0	0.00	0.0	0.00	0.5	1.00	0.0	0.00	0.1
Loxorhynchus spp.		0.0	0.00	0.0	0.00	0.5	0.58	0.0	0.00	0.1
Bittium spp.		0.5	1.00	0.0	0.00	0.0	0.00	0.0	0.00	0.1
Pugettia spp.		0.0	0.00	0.3	0.50	0.3	0.50	0.0	0.00	0.1
Aeolidia papillosa		0.0	0.00	0.5	1.00	0.0	0.00	0.0	0.00	0.1
Anthozoa unid.		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Nemertea unid.		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Acmaeidae unid.		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Nitidiscala/Opalia spp.		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Petrolisthes spp.		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Diaulula sandiegensis		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Phidiana hiltoni		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Majidae		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Ophioplocus spp.		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Aegires albopunctatus		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Megathura crenulata		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Lithopoma undosa		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
tunicates, colonial/social unid.		< .1	< .01	< .1	< .01	< .1	0.00	< .1	< .01	< .1
Spirorbidae		< .1	< .01	< .1	< .01	< .1	< .01	0.0	0.00	< .1
Bryozoa, unid. (encrusting)		0.0	0.00	0.0	0.00	< .1	< .01	< .1	< .01	< .1
Hydroida		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1
Abiet./Sertularella/Sertularia spp.		< .1	< .01	0.0	0.00	0.0	0.00	0.0	0.00	< .1

Subtidal Fixed Quadrat Station SDC 2 -3m Survey Means and Std. Deviations

Taxon	Survey Date	112 22-Mar-01 Mean	Std. Dev.	113 30-May-01 Mean	Std. Dev.	114 15-Aug-01 Mean	Std. Dev.	115 31-Dec-01 Mean	Std. Dev.	Annual Mean
Invertebrates										
Phragmatopoma californica		25.8	14.77	11.3	10.21	2.0	4.00	50.0	36.72	22.3
Ophiactis simplex		11.3	14.36	18.8	20.97	2.0	3.37	38.8	31.72	17.7
Pelecypoda unid. boring		11.3	21.19	10.8	12.37	0.8	1.50	7.0	13.34	7.4
Pista spp.		4.8	2.75	2.3	1.26	0.5	1.00	9.8	4.86	4.3
Balanus/Tetraclita spp.		0.0	0.00	0.0	0.00	13.8	21.36	0.8	1.50	3.6
Pagurus spp.		0.8	1.50	0.5	0.58	9.0	11.49	0.5	0.58	2.7
Ophiothrix spp.		2.5	5.00	1.8	1.71	2.3	3.86	2.5	1.29	2.3
Chaetopteridae		0.5	1.00	4.5	5.92	0.5	1.00	3.3	2.22	2.2
Alia spp.		4.0	2.45	0.0	0.00	1.0	2.00	0.5	0.58	1.4
Serpulorbis squamigerus		1.5	2.38	2.0	4.00	0.0	0.00	1.3	2.50	1.2
Serpulidae unid.		0.8	0.96	0.5	0.58	1.3	0.96	1.8	1.26	1.1
Strongylocentrotus purpuratus		1.5	3.00	1.0	1.41	0.3	0.50	0.5	1.00	0.8
Sipuncula unid.		0.0	0.00	1.5	1.00	0.0	0.00	0.8	0.50	0.6
Mitra idae		0.5	0.58	0.0	0.00	0.5	1.00	0.5	1.00	0.4
Acmaea mitra		0.5	0.58	0.0	0.00	0.3	0.50	0.3	0.50	0.3
Fissurella volcano		0.8	0.96	0.0	0.00	0.0	0.00	0.3	0.50	0.3
Spirorbidae		0.5	0.58	< .1	0.00	< .1	< .01	0.3	0.50	0.2
Bryozoa, unid. (encrusting)		0.5	0.58	0.0	0.00	0.3	0.50	< .1	< .01	0.2
Lottia ochracea		0.3	0.50	0.0	0.00	0.0	0.00	0.5	1.00	0.2
Rictaxis punctocaelatus		0.0	0.00	0.0	0.00	0.8	0.96	0.0	0.00	0.2
Balanus spp.		0.0	0.00	0.0	0.00	0.0	0.00	0.5	0.58	0.1
Pugettia spp.		0.0	0.00	0.3	0.50	0.3	0.50	0.0	0.00	0.1
Hydroida		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Anthopleura elegantissima		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Urticina spp.		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Anthozoa unid.		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Conus californicus		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Nitidiscala/Opalia spp.		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Polychaeta unid.		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Pycnopodia helianthoides		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Loxorhynchus spp.		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
tunicate, solitary unid.		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Parastichopus spp.		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Bryozoa, unid. (foliose)		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Phidiana hiltoni		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Pseudomelatoma torosa		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Ischnochitonidae		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Eudistylia polymorpha		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Cryptolithodes sitchensis		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Crangon spp.		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Flabellina trilineata		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Modiolus spp.		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Pteropurpura festiva		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Porifera unid. (encrusting)		0.0	0.00	0.0	0.00	0.0	0.00	< .1	< .01	< .1
Salmacina tribranchiata		0.0	0.00	< .1	< .01	0.0	0.00	0.0	0.00	< .1

Subtidal Fixed Quadrat Station SDC 3 -4m Survey Means and Std. Deviations

Taxon	Survey Date	112 23-Mar-01 Mean	Std. Dev.	113 30-May-01 Mean	Std. Dev.	114 06-Sep-01 Mean	Std. Dev.	115 13-Dec-01 Mean	Std. Dev.	Annual Mean
Invertebrates										
Ophiactis simplex		35.0	10.80	36.3	11.09	42.5	31.22	4.5	3.00	29.6
Pelecypoda unid. boring		13.5	14.15	16.3	15.13	9.8	15.20	1.5	3.00	10.3
Balanophyllia elegans		10.5	5.97	6.8	3.40	6.3	4.57	7.0	10.10	7.6
Pista spp.		1.5	1.91	1.0	0.82	5.5	3.70	4.0	3.16	3.0
Strongylocentrotus purpuratus		2.0	2.45	4.8	2.99	1.5	1.91	2.5	2.38	2.7
Chaetopteridae		0.3	0.50	4.0	0.82	1.0	1.41	2.8	2.50	2.0
Pagurus spp.		0.5	1.00	0.8	0.96	4.3	2.63	1.5	1.91	1.8
Phragmatopoma californica		1.5	3.00	1.8	3.50	0.5	1.00	2.0	4.00	1.4
Serpulidae unid.		1.5	1.29	0.5	1.00	1.3	1.50	2.0	1.41	1.3
Pugettia spp.		0.5	0.58	0.0	0.00	2.0	2.16	1.8	2.87	1.1
Bryozoa, unid. (encrusting)		1.0	0.82	0.3	0.50	1.3	0.50	1.5	1.91	1.0
Anthopleura elegantissima		1.0	0.00	1.3	0.50	1.0	0.00	0.5	0.58	0.9
Diopatra ornata		1.3	0.96	0.5	0.58	0.3	0.50	1.3	1.50	0.8
Mitra idae		1.3	1.89	1.0	0.82	0.5	0.58	0.3	0.50	0.8
Dendropoma spp.		1.5	2.38	1.5	3.00	0.0	0.00	0.0	0.00	0.8
Acmaea mitra		0.5	1.00	0.3	0.50	0.8	0.96	1.0	0.82	0.6
Serpulorbis squamigerus		0.5	1.00	0.5	1.00	0.5	0.58	1.0	0.82	0.6
Ophiothrix spp.		0.0	0.00	0.0	0.00	1.5	1.00	0.5	1.00	0.5
Porifera unid. (encrusting)		0.3	0.50	< .1	< .01	1.0	1.15	0.5	1.00	0.4
Doriopsilla albopunctata		0.8	0.96	0.3	0.50	0.8	0.96	0.0	0.00	0.4
tunicates, colonial/social unid.		0.3	0.50	0.3	0.50	1.0	0.00	< .1	< .01	0.4
Tegula brunnea		0.3	0.50	0.0	0.00	0.5	1.00	0.8	1.50	0.4
Eudistylia polymorpha		0.3	0.50	0.3	0.50	1.0	1.15	0.0	0.00	0.4
Alia spp.		1.3	1.50	0.0	0.00	0.0	0.00	0.0	0.00	0.3
Balanus/Tetraclita spp.		0.0	0.00	0.0	0.00	0.8	1.50	0.5	1.00	0.3
Anthopleura artemisia		0.0	0.00	0.0	0.00	0.3	0.50	0.8	0.96	0.3
Amphissa spp.		0.3	0.50	0.0	0.00	0.8	1.50	0.0	0.00	0.3
Hymenamphiastra cyanocrypta		0.3	0.50	0.0	0.00	0.5	0.58	0.0	0.00	0.2
Anthozoa unid.		0.3	0.50	0.3	0.50	0.3	0.50	0.0	0.00	0.2
Sabellidae		0.3	0.50	0.5	0.58	0.0	0.00	0.0	0.00	0.2
Mimulus foliatus		0.0	0.00	0.0	0.00	0.8	0.96	0.0	0.00	0.2
Paracyathus stearnsii		0.3	0.50	0.3	0.50	0.3	0.50	0.0	0.00	0.2
Ophioplocus spp.		0.0	0.00	0.0	0.00	0.0	0.00	0.8	1.50	0.2
Corynactis californica		0.0	0.00	0.0	0.00	0.0	0.00	0.5	1.00	0.1
Tonicella lineata		0.3	0.50	0.0	0.00	0.0	0.00	0.3	0.50	0.1
Hermissenda crassicornis		0.0	0.00	0.5	0.58	0.0	0.00	0.0	0.00	0.1
Cancer antennarius		0.3	0.50	0.3	0.50	0.0	0.00	0.0	0.00	0.1
Asterina miniata		0.3	0.50	0.3	0.50	0.0	0.00	0.0	0.00	0.1
Loxorhynchus spp.		0.0	0.00	0.0	0.00	0.0	0.00	0.5	0.58	0.1
Leucilla nuttingi		0.5	1.00	0.0	0.00	0.0	0.00	0.0	0.00	0.1
Cucumaria spp.		0.0	0.00	0.0	0.00	0.5	0.58	0.0	0.00	0.1
Cirratulidae/Terebellidae unid.		0.3	0.50	0.3	0.50	0.0	0.00	0.0	0.00	0.1
Spirorbidae		< .1	< .01	< .1	< .01	0.3	0.50	< .1	< .01	< .1
Bryozoa, unid. (foliose)		0.0	0.00	< .1	< .01	0.3	0.50	0.0	0.00	< .1
Entoprocta unid. a		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Fissurella volcano		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Lithopoma gibberosum		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Cactosoma arenaria		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Leptasterias spp.		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Parastichopus spp.		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Fusinus luteopictus		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Ocenebra spp.		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Cryptochiton stelleri		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Majidae		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Ceratostoma foliatum		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Sipuncula unid.		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Lepidozona spp.		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Trivia spp.		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Aegires albopunctatus		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Eupentacta quinquesemita		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Cadlina spp.		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1

Subtidal Fixed Quadrat Station SC 1 -3m Survey Means and Std. Deviations

Survey	112		113		114		115		
Date	04-Apr-01		28-Jun-01		03-Oct-01		27-Nov-01		Annual
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Invertebrates									
Phragmatopoma californica	42.8	28.18	16.8	15.31	41.0	20.07	54.0	28.86	38.6
Homolo. luridum/Lirularia succincta	10.3	2.50	10.5	2.38	8.3	4.57	14.5	7.33	10.9
Tetraclita rubescens	10.8	21.50	21.5	43.00	0.0	0.00	0.0	0.00	8.1
Tegula brunnea	5.0	1.83	6.5	1.73	5.5	4.43	7.8	6.55	6.2
Pagurus spp.	3.5	1.73	5.3	1.71	3.8	2.22	2.8	2.75	3.8
Dendropoma spp.	13.8	12.07	0.0	0.00	0.0	0.00	0.0	0.00	3.4
Balanus/Tetraclita spp.	0.0	0.00	0.0	0.00	9.0	18.00	4.8	9.50	3.4
tunicates, colonial/social unid.	1.8	1.26	2.0	1.63	1.3	1.89	1.5	1.29	1.6
Bryozoa, unid. (encrusting)	1.8	0.96	1.3	0.96	2.3	1.50	0.8	0.50	1.5
Pista spp.	1.3	0.96	1.3	1.50	0.8	0.96	2.0	3.37	1.3
Porifera unid. (encrusting)	1.3	1.26	0.5	0.58	1.3	0.96	1.3	0.50	1.1
Pugettia spp.	0.8	1.50	1.3	1.26	1.5	2.38	0.8	0.96	1.1
Leptasterias spp.	1.0	1.15	1.3	1.26	1.0	0.82	0.5	0.58	0.9
Crepidula spp.	0.8	0.96	1.5	1.73	0.0	0.00	1.3	1.89	0.9
Calliostoma ligatum	1.3	1.26	0.8	0.50	0.3	0.50	1.0	1.15	0.8
Anthopleura elegantissima	0.5	1.00	0.5	0.58	1.0	1.15	0.8	0.96	0.7
Tonicella lineata	1.0	0.82	0.3	0.50	0.8	0.50	0.5	1.00	0.6
Amphissa spp.	0.3	0.50	0.8	0.96	1.3	1.50	0.0	0.00	0.6
Halcampa decemtentaculata	0.3	0.50	0.3	0.50	0.8	1.50	0.8	1.50	0.5
Pelecypoda unid. boring	0.8	1.50	1.3	1.50	0.0	0.00	0.0	0.00	0.5
Epiactis prolifera	0.5	0.58	0.8	0.96	0.5	0.58	0.0	0.00	0.4
Asterina miniata	0.3	0.50	0.5	0.58	0.5	0.58	0.5	0.58	0.4
Salmacina tribranchiata	0.0	0.00	0.0	0.00	1.3	1.50	0.3	0.50	0.4
Acmaea mitra	0.5	0.58	0.3	0.50	0.3	0.50	0.5	0.58	0.4
tunicate, solitary unid.	0.3	0.50	0.3	0.50	1.0	0.82	0.0	0.00	0.4
Lottia ochracea	0.8	0.96	0.3	0.50	0.0	0.00	0.0	0.00	0.3
Balanus spp.	0.0	0.00	0.0	0.00	0.0	0.00	1.0	2.00	0.3
Pycnopodia helianthoides	0.3	0.50	0.3	0.50	0.3	0.50	0.3	0.50	0.3
Alia spp.	0.0	0.00	0.8	0.96	0.0	0.00	0.0	0.00	0.2
Mopalia spp.	0.5	0.58	0.0	0.00	0.0	0.00	0.3	0.50	0.2
Balanophyllia elegans	0.0	0.00	0.3	0.50	0.3	0.50	0.3	0.50	0.2
Doriopsilla albopunctata	0.0	0.00	0.3	0.50	0.3	0.50	0.3	0.50	0.2
Mitra idae	0.0	0.00	0.5	0.58	0.0	0.00	0.3	0.50	0.2
Hydroida	0.0	0.00	0.5	1.00	0.0	0.00	0.0	0.00	0.1
Bryozoa, unid. (foliose)	0.0	0.00	0.0	0.00	0.0	0.00	0.5	0.58	0.1
Ocenebra spp.	0.0	0.00	0.3	0.50	0.0	0.00	0.3	0.50	0.1
Pseudomelatoma torosa	0.3	0.50	0.3	0.50	0.0	0.00	0.0	0.00	0.1
Lissothuria nutriens	0.0	0.00	0.0	0.00	0.0	0.00	0.5	1.00	0.1
Anthopleura artemisia	0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Diodora spp.	0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Lottia instabilis	0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Octopus spp.	0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Diopatra ornata	0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Henricia leviuscula	0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Eurystomella bilabiata	0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Fusinus luteopictus	0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Pisaster giganteus	0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Cucumaria spp.	0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Cryptolithodes sitchensis	0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Mimulus foliatus	0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Pisaster/Henricia (juv.)	0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Serpulidae unid.	0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Sipuncula unid.	0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Flabellina trilineata	0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Lophopanopeus spp.	0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Lepidozona spp.	0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Cirratulidae/Terebellidae unid.	0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Chaetopteridae	0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Spirorbidae	< .1	< .01	< .1	< .01	0.0	0.00	< .1	< .01	< .1

Subtidal Fixed Quadrat Station SC 2 -6m Survey Means and Std. Deviations

Taxon	Survey	112		113		114		115		Annual
	Date	05-Apr-01		29-Jun-01		07-Sep-01		19-Nov-01		
		Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Invertebrates										
Balanus/Tetraclita spp.		1.3	1.50	0.0	0.00	753.3	491.50	0.0	0.00	188.6
Balanophyllia elegans		37.0	27.80	27.3	12.34	11.8	10.75	33.3	21.33	27.3
Corynactis californica		24.8	20.02	20.5	15.95	14.3	17.06	41.3	45.98	25.2
Bryozoa, unid. (encrusting)		5.0	2.16	3.5	1.29	3.8	0.96	7.3	4.43	4.9
Homolopoma luridum/Lirularia succincta		5.8	1.71	7.0	4.83	1.8	0.50	4.8	2.22	4.8
Tegula brunnea		3.3	2.22	6.3	3.20	2.0	0.82	6.3	2.22	4.4
Phragmatopoma californica		4.3	4.03	2.0	4.00	0.0	0.00	11.3	13.60	4.4
Serpulorbis squamigerus		6.0	6.06	5.3	4.99	2.3	1.26	3.5	1.73	4.3
Hymenamphiastra cyanocrypta		4.3	3.50	5.3	3.86	4.0	5.66	0.0	0.00	3.4
Porifera unid. (encrusting)		2.0	0.82	2.0	0.82	0.3	0.50	7.5	5.20	2.9
Pagurus spp.		1.5	0.58	3.8	0.96	4.3	8.50	1.5	1.73	2.8
Dendropoma spp.		4.8	3.77	5.8	8.02	0.0	0.00	0.0	0.00	2.6
Balanus spp.		0.5	0.58	4.0	4.08	0.0	0.00	3.3	3.95	1.9
Serpulidae unid.		2.5	3.00	2.5	2.65	2.0	0.82	0.8	0.96	1.9
Chaetopteridae		3.0	6.00	0.0	0.00	0.0	0.00	2.8	5.50	1.4
Bryozoa, unid. (erect)		1.3	0.96	0.8	0.96	0.8	0.96	2.8	0.96	1.4
Pelecypoda unid. boring		2.0	2.31	0.5	1.00	2.5	3.00	0.0	0.00	1.3
Calliostoma ligatum		2.3	1.50	0.0	0.00	1.3	1.26	1.3	1.26	1.2
Tonicella lineata		1.3	0.50	0.5	0.58	1.8	1.26	1.3	0.96	1.2
tunicates, colonial/social unid.		1.3	0.50	1.8	0.96	0.8	0.96	0.8	0.96	1.1
Epiactis prolifera		1.3	1.26	1.5	1.29	0.3	0.50	0.8	0.96	0.9
tunicate, solitary unid.		1.8	0.96	1.8	1.71	0.0	0.00	0.0	0.00	0.9
Ocenebra spp.		1.3	1.26	0.0	0.00	1.0	2.00	0.8	0.96	0.8
Pista spp.		0.5	1.00	1.3	1.50	0.8	0.96	0.3	0.50	0.7
Leptasterias spp.		0.5	0.58	1.5	2.38	0.0	0.00	0.8	0.96	0.7
Asterina miniata		0.5	1.00	0.3	0.50	0.5	0.58	1.0	1.15	0.6
Cucumaria spp.		0.8	0.50	0.8	0.96	0.5	0.58	0.3	0.50	0.6
Acmaea mitra		0.3	0.50	0.3	0.50	0.5	0.58	1.0	1.41	0.5
Anthopleura elegantissima		0.5	0.58	0.3	0.50	0.3	0.50	0.8	0.96	0.4
Mitra idae		0.5	0.58	0.8	0.96	0.3	0.50	0.3	0.50	0.4
Fusinus luteopictus		1.0	1.41	0.3	0.50	0.0	0.00	0.5	1.00	0.4
Calliostoma annulatum		0.0	0.00	1.5	1.29	0.0	0.00	0.0	0.00	0.4
Pugettia spp.		0.5	1.00	0.0	0.00	1.0	1.41	0.0	0.00	0.4
Salmacina tribranchiata		0.0	0.00	1.0	0.82	< .1	< .01	0.3	0.50	0.3
Tegula montereyi		0.3	0.50	0.0	0.00	0.0	0.00	1.0	2.00	0.3
Tegula pulligo		0.0	0.00	0.0	0.00	0.5	0.58	0.8	0.96	0.3
Bryozoa, unid. (foliose)		0.3	0.50	0.0	0.00	0.5	1.00	0.5	0.58	0.3
Crepidula spp.		0.3	0.50	0.0	0.00	0.0	0.00	0.8	1.50	0.3
Amphissa spp.		0.0	0.00	0.8	0.96	0.3	0.50	0.0	0.00	0.3
Sabellidae		0.5	0.58	0.3	0.50	0.0	0.00	0.0	0.00	0.2
Tethya aurantia		0.3	0.50	0.3	0.50	0.0	0.00	0.3	0.50	0.2
Doriopsilla albopunctata		0.3	0.50	0.3	0.50	0.3	0.50	0.0	0.00	0.2
Sipuncula unid.		0.8	0.96	0.0	0.00	0.0	0.00	0.0	0.00	0.2
Hydroida		0.0	0.00	0.5	0.58	0.0	0.00	0.0	0.00	0.1
Lithopoma gibberosum		0.0	0.00	0.0	0.00	0.0	0.00	0.5	0.58	0.1
Lottia instabilis		0.3	0.50	0.0	0.00	0.0	0.00	0.3	0.50	0.1
Rostanga pulchra		0.0	0.00	0.0	0.00	0.5	1.00	0.0	0.00	0.1
Pisaster/Henricia (juv.)		0.0	0.00	0.0	0.00	0.3	0.50	0.3	0.50	0.1
Cadlina spp.		0.5	1.00	0.0	0.00	0.0	0.00	0.0	0.00	0.1
Fissurella volcano		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Hermissenda crassicornis		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Diopatra ornata		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Henricia leviuscula		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Pycnopodia helianthoides		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Leucandra heathi		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Cryptolithodes sitchensis		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Mimulus foliatus		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Lacuna spp.		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1
Ceratostoma foliatum		0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.50	< .1
Natantia unid.		0.0	0.00	0.0	0.00	0.3	0.50	0.0	0.00	< .1

(continued)

Subtidal Fixed Quadrat Station SC 2 -6m Survey Means and Std. Deviations (continued)

Taxon	Survey Date	112 05-Apr-01 Mean	Std. Dev.	113 29-Jun-01 Mean	Std. Dev.	114 07-Sep-01 Mean	Std. Dev.	115 19-Nov-01 Mean	Std. Dev.	Annual Mean
Invertebrates ***(continued)***										
Eupentacta quinquesemita		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Aldisa sanguinea		0.0	0.00	0.3	0.50	0.0	0.00	0.0	0.00	< .1
Archidoris spp.		0.3	0.50	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Spirorbidae		0.0	0.00	0.0	0.00	< .1	< .01	< .1	< .01	< .1
Abiet./Sertularella/Sertularia spp.		0.0	0.00	0.0	0.00	< .1	< .01	0.0	0.00	< .1

Subtidal Fish

Transect Results

Subtidal Fish Transects Field's Cove Area Survey Means and Std. Deviations

Survey	110		111		112		113		
Date	02-May-01		18-Jul-01		21-Oct-01		08-Jan-02		Annual
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Midwater									
Oxyjulis californica	13.3	17.03	3.6	1.06	4.0	3.95	24.5	33.47	11.4
Sebastes serranoides/S. flavidus (yoy)	0.1	0.18	13.8	18.15	0.1	0.18	0.0	0.00	3.5
Aulorhynchus flavidus	5.4	2.95	0.3	0.47	0.0	0.00	0.0	0.00	1.4
Brachyistius frenatus	3.8	5.30	1.5	0.24	0.3	0.35	0.0	0.00	1.4
Aulorhynchus flavidus (juv.)	3.5	0.29	0.0	0.00	1.3	1.77	0.0	0.00	1.2
Oxyjulis californica (juv.)	3.1	4.42	0.8	1.18	0.0	0.00	0.3	0.47	1.1
Sebastes chrysomelas/S. carnatus (yoy)	0.0	0.00	3.7	3.06	0.0	0.00	0.0	0.00	0.9
Sebastes atrovirens (yoy)	0.0	0.00	2.4	3.42	0.0	0.00	0.0	0.00	0.6
Sebastes melanops (yoy)	0.0	0.00	0.6	0.82	0.0	0.00	0.0	0.00	0.1
Damalichthys vacca	0.5	0.41	0.0	0.00	0.0	0.00	0.0	0.00	0.1
Sebastes serranoides	0.0	0.00	0.3	0.12	0.0	0.00	0.0	0.00	< .1
Damalichthys vacca (juv.)	0.0	0.00	0.3	0.35	0.0	0.00	0.0	0.00	< .1
Sebastes serranoides/S. flavidus (juv.)	0.0	0.00	0.0	0.00	< .1	0.12	0.0	0.00	< .1
Rhacochilus toxotes	0.0	0.00	0.0	0.00	< .1	0.12	0.0	0.00	< .1
Embiotoca jacksoni	0.0	0.00	< .1	0.12	0.0	0.00	0.0	0.00	< .1
Sebastes mystinus	< .1	0.12	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Embiotoca lateralis	0.0	0.00	< .1	0.12	0.0	0.00	0.0	0.00	< .1
Girella nigricans	0.0	0.00	0.0	0.00	0.0	0.00	< .1	0.12	< .1
Triakis semifasciata	0.0	0.00	< .1	0.12	0.0	0.00	0.0	0.00	< .1
Benthic									
Oxyjulis californica	9.2	10.61	1.3	0.59	1.9	2.47	3.8	2.83	4.0
Oxylebius pictus	1.8	0.71	2.3	0.47	2.3	0.24	3.6	1.06	2.5
Oxyjulis californica (juv.)	6.9	3.65	0.0	0.00	0.0	0.00	0.0	0.00	1.7
Damalichthys vacca	0.8	0.24	2.0	0.00	1.0	0.47	0.9	0.12	1.2
Embiotoca jacksoni	0.4	0.12	1.3	0.82	1.7	0.47	1.2	0.00	1.1
Embiotoca lateralis	0.7	0.47	0.6	0.12	1.2	1.18	1.4	0.12	1.0
Sebastes chrysomelas	0.3	0.24	1.4	0.35	0.3	0.24	1.2	0.71	0.8
Sebastes serranoides/S. flavidus (yoy)	< .1	0.12	2.2	2.83	0.3	0.47	< .1	0.12	0.7
Embiotoca lateralis (juv.)	0.0	0.00	0.6	0.12	0.7	0.00	1.4	0.35	0.7
Aulorhynchus flavidus (juv.)	0.4	0.59	2.1	2.95	0.0	0.00	0.0	0.00	0.6
Damalichthys vacca (juv.)	< .1	0.12	1.2	0.71	< .1	0.12	0.3	0.24	0.4
Aulorhynchus flavidus	1.4	0.35	0.0	0.00	0.0	0.00	0.0	0.00	0.4
Brachyistius frenatus	0.3	0.24	0.0	0.00	0.0	0.00	1.1	1.53	0.4
Cebidichthys violaceus	0.6	0.35	0.3	0.12	0.0	0.00	0.2	0.24	0.3
Scorpaenichthys marmoratus	0.3	0.24	0.2	0.00	0.2	0.00	0.3	0.12	0.2
Hexagrammos decagrammus	0.2	0.00	< .1	0.12	0.3	0.12	0.3	0.24	0.2
Sebastes rastrelliger	0.2	0.24	0.4	0.59	< .1	0.12	< .1	0.12	0.2
Gibbonsia spp.	0.0	0.00	0.3	0.00	0.0	0.00	0.3	0.35	0.1
Sebastes mystinus (yoy)	0.0	0.00	< .1	0.12	< .1	0.12	0.3	0.24	0.1
Coryphopterus nicholsi	0.0	0.00	0.0	0.00	0.4	0.59	0.0	0.00	0.1
Sebastes atrovirens	0.0	0.00	0.0	0.00	0.2	0.24	0.3	0.12	0.1
Ophiodon elongatus	0.2	0.24	< .1	0.12	< .1	0.12	< .1	0.12	0.1
Embiotoca jacksoni (juv.)	0.0	0.00	0.3	0.12	< .1	0.12	< .1	0.12	0.1
Semicossyphus pulcher	0.0	0.00	0.3	0.35	< .1	0.12	< .1	0.12	0.1
Cottidae unid. a	< .1	0.12	0.0	0.00	0.0	0.00	0.3	0.35	< .1
Sebastes chrysomelas (juv.)	< .1	0.12	< .1	0.12	< .1	0.12	< .1	0.12	< .1
Sebastes melanops (yoy)	0.0	0.00	0.3	0.00	0.0	0.00	0.0	0.00	< .1
Hypsurus caryi	0.0	0.00	0.2	0.24	< .1	0.12	0.0	0.00	< .1
Rhacochilus toxotes	0.0	0.00	0.0	0.00	< .1	0.12	< .1	0.12	< .1
Girella nigricans	0.0	0.00	0.0	0.00	< .1	0.12	< .1	0.12	< .1
Hypsurus caryi (juv.)	< .1	0.12	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Orthonopias triacis	< .1	0.12	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Triakis semifasciata	0.0	0.00	< .1	0.12	0.0	0.00	0.0	0.00	< .1
Stichaeidae unid.	0.0	0.00	< .1	0.12	0.0	0.00	0.0	0.00	< .1
Urolophus halleri	0.0	0.00	0.0	0.00	< .1	0.12	0.0	0.00	< .1
Sebastes atrovirens (yoy)	0.0	0.00	< .1	0.12	0.0	0.00	0.0	0.00	< .1

Subtidal Fish Transects North Diablo Cove Area Survey Means and Std. Deviations

Survey	110		111		112		113		
Date	01-May-01		18-Jul-01		15-Oct-01		03-Jan-02		Annual
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Midwater									
Oxyjulis californica	5.5	2.59	7.5	5.42	5.6	2.00	9.8	8.96	7.1
Sebastes serranoides/S. flavidus (yoy)	1.3	1.77	13.0	4.71	0.8	0.35	0.2	0.24	3.8
Oxyjulis californica (juv.)	11.3	16.03	2.2	0.47	0.3	0.47	0.5	0.71	3.6
Sebastes atrovirens (yoy)	0.0	0.00	6.4	5.30	1.6	1.53	0.0	0.00	2.0
Atherinidae unid.	0.0	0.00	0.0	0.00	0.0	0.00	5.8	8.25	1.5
Brachyistius frenatus	< .1	0.12	2.0	1.18	1.9	1.06	1.0	0.94	1.3
Sebastes chrysomelas/S. carnatus (yoy)	0.0	0.00	3.8	2.59	0.0	0.00	0.0	0.00	1.0
Damalichthys vacca	1.5	0.00	1.0	1.18	0.2	0.24	< .1	0.12	0.7
Sebastes spp. (juv.)	0.0	0.00	2.5	3.54	0.0	0.00	0.0	0.00	0.6
Atherinopsis californiensis	0.0	0.00	0.0	0.00	1.0	1.41	1.1	1.53	0.5
Embiotoca jacksoni	< .1	0.12	< .1	0.12	0.2	0.00	0.3	0.00	0.2
Paralabrax clathratus	0.0	0.00	0.2	0.00	0.3	0.24	0.2	0.00	0.2
Damalichthys vacca (juv.)	0.0	0.00	0.5	0.24	0.0	0.00	0.0	0.00	0.1
Brachyistius frenatus (juv.)	0.0	0.00	0.4	0.59	0.0	0.00	0.0	0.00	0.1
Embiotoca lateralis	< .1	0.12	0.0	0.00	0.0	0.00	0.3	0.47	0.1
Semicossyphus pulcher	0.0	0.00	< .1	0.12	0.0	0.00	0.3	0.12	< .1
Girella nigricans	0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.35	< .1
Embiotoca jacksoni (juv.)	0.0	0.00	0.0	0.00	0.0	0.00	0.2	0.24	< .1
Rhacochilus toxotes	< .1	0.12	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Sebastes atrovirens	0.0	0.00	< .1	0.12	0.0	0.00	0.0	0.00	< .1
Sebastes paucispinis (juv.)	0.0	0.00	< .1	0.12	0.0	0.00	0.0	0.00	< .1
Triakis semifasciata	0.0	0.00	0.0	0.00	0.0	0.00	< .1	0.12	< .1
Myliobatis californica	0.0	0.00	< .1	0.12	0.0	0.00	0.0	0.00	< .1
Benthic									
Oxyjulis californica	8.2	6.36	10.4	10.72	5.6	3.65	18.4	8.84	10.6
Sebastes chrysomelas/S. carnatus (yoy)	< .1	0.12	30.1	9.55	0.3	0.35	0.0	0.00	7.6
Embiotoca jacksoni	7.5	0.71	7.0	0.47	4.2	0.47	6.9	0.35	6.4
Coryphopterus nicholsi	2.8	2.00	4.3	1.06	7.6	0.35	7.8	3.89	5.6
Sebastes serranoides/S. flavidus (yoy)	0.0	0.00	17.1	8.13	3.1	2.24	1.2	1.18	5.3
Oxyjulis californica (juv.)	5.5	7.78	1.1	1.53	5.5	6.36	1.8	0.94	3.5
Damalichthys vacca	8.0	0.00	3.9	2.95	0.4	0.59	0.3	0.24	3.2
Oxylebius pictus	1.8	0.47	2.4	0.12	3.4	2.47	2.8	0.59	2.6
Embiotoca jacksoni (juv.)	0.5	0.47	2.8	0.82	4.1	0.59	2.7	0.24	2.5
Damalichthys vacca (juv.)	0.8	0.82	7.4	2.95	0.6	0.59	0.0	0.00	2.2
Sebastes atrovirens (yoy)	0.0	0.00	1.2	0.47	6.4	2.95	0.2	0.24	1.9
Girella nigricans	1.7	0.24	0.7	0.47	2.0	2.36	1.3	0.94	1.4
Embiotoca lateralis	1.3	0.00	1.4	0.59	0.8	0.24	0.8	0.94	1.1
Brachyistius frenatus	0.0	0.00	0.3	0.35	0.8	0.00	2.3	1.77	0.8
Rhacochilus toxotes	1.6	0.82	0.3	0.24	0.3	0.12	0.2	0.24	0.6
Sebastes chrysomelas	0.4	0.12	0.4	0.35	0.8	0.59	0.3	0.12	0.5
Semicossyphus pulcher	0.6	0.35	0.2	0.00	0.3	0.24	0.4	0.12	0.4
Gibbonsia spp.	0.2	0.00	0.0	0.00	0.4	0.59	0.4	0.59	0.3
Scorpaenichthys marmoratus	0.2	0.24	< .1	0.12	0.3	0.12	0.4	0.35	0.2
Sebastes chrysomelas (juv.)	0.2	0.24	0.0	0.00	0.4	0.59	0.3	0.12	0.2
Paralabrax clathratus	0.3	0.35	0.0	0.00	< .1	0.12	0.5	0.24	0.2
Myliobatis californica	0.0	0.00	0.8	0.59	0.0	0.00	0.0	0.00	0.2
Aulorhynchus flavidus (juv.)	0.0	0.00	0.8	1.06	0.0	0.00	0.0	0.00	0.2
Sebastes rastrelliger	0.3	0.12	0.2	0.24	0.2	0.24	< .1	0.12	0.2
Sebastes melanops (yoy)	0.0	0.00	0.7	0.47	0.0	0.00	0.0	0.00	0.2
Embiotoca lateralis (juv.)	0.0	0.00	0.2	0.24	0.0	0.00	0.4	0.59	0.1
Triakis semifasciata	0.3	0.47	< .1	0.12	0.2	0.24	0.0	0.00	0.1
Ophiodon elongatus	0.3	0.35	< .1	0.12	< .1	0.12	< .1	0.12	0.1
Hexagrammos decagrammus	0.0	0.00	< .1	0.12	0.2	0.00	0.2	0.24	0.1
Sebastes paucispinis (juv.)	0.0	0.00	0.3	0.12	0.0	0.00	0.0	0.00	< .1
Cebidichthys violaceus	< .1	0.12	< .1	0.12	< .1	0.12	0.0	0.00	< .1
Cottidae unid. a	0.0	0.00	0.0	0.00	0.2	0.24	0.0	0.00	< .1
Hypsurus caryi	0.0	0.00	0.2	0.24	0.0	0.00	0.0	0.00	< .1
Sebastes serranoides	0.0	0.00	0.0	0.00	0.0	0.00	0.2	0.24	< .1
Artedius spp.	< .1	0.12	0.0	0.00	0.0	0.00	< .1	0.12	< .1

(continued)

Subtidal Fish Transects North Diablo Cove Area Survey Means and Std. Deviations (continued)

Taxon	Survey Date	110 01-May-01 Mean	Std. Dev.	111 18-Jul-01 Mean	Std. Dev.	112 15-Oct-01 Mean	Std. Dev.	113 03-Jan-02 Mean	Std. Dev.	Annual Mean
Benthic *(continued)*										
Medialuna californiensis		0.0	0.00	0.0	0.00	0.2	0.24	0.0	0.00	< .1
Sebastes mystinus		0.0	0.00	< .1	0.12	0.0	0.00	0.0	0.00	< .1
Sebastes atrovirens		0.0	0.00	0.0	0.00	0.0	0.00	< .1	0.12	< .1
Phanerodon furcatus		< .1	0.12	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Sebastes rastrelliger (juv.)		0.0	0.00	< .1	0.12	0.0	0.00	0.0	0.00	< .1
Paralabrax clathratus (juv.)		< .1	0.12	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Scorpaenichthys marmoratus (juv.)		0.0	0.00	< .1	0.12	0.0	0.00	0.0	0.00	< .1
Sebastes mystinus (yoy)		0.0	0.00	< .1	0.12	0.0	0.00	0.0	0.00	< .1
Coryphopterus nicholsi (juv.)		0.0	0.00	0.0	0.00	< .1	0.12	0.0	0.00	< .1

Subtidal Fish Transects South Diablo Cove Area Survey Means and Std. Deviations

Taxon	Survey	110		111		112		113		Annual
	Date	01-May-01		19-Jul-01		16-Oct-01		10-Jan-02		
		Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Midwater										
Sebastes chrysomelas/S. carnatus (yoy)		0.0	< .01	30.8	30.99	0.0	0.00	0.0	0.00	7.7
Atherinidae unid.		0.0	< .01	2.5	3.54	21.7	16.50	0.0	0.00	6.0
Sebastes serranoides/S. flavidus (yoy)		0.0	< .01	14.9	6.95	< .1	0.12	0.0	0.00	3.8
Oxyjulis californica		0.5	< .01	5.7	5.42	6.2	8.49	0.5	0.71	3.2
Aulorhynchus flavidus		0.0	< .01	5.3	2.71	4.2	5.89	0.0	0.00	2.4
Sebastes atrovirens (yoy)		0.0	< .01	7.6	4.60	0.8	0.71	0.0	0.00	2.1
Damalichthys vacca		0.0	< .01	5.5	5.89	0.5	0.47	0.3	0.35	1.6
Brachyistius frenatus		1.5	< .01	2.0	1.41	1.2	0.47	0.6	0.53	1.3
Atherinopsis californiensis		0.0	< .01	0.0	0.00	2.6	3.65	0.0	0.00	0.6
Oxyjulis californica (juv.)		0.0	< .01	0.3	0.35	0.5	0.47	0.0	0.00	0.2
Brachyistius frenatus (juv.)		0.0	< .01	0.3	0.24	0.0	0.00	0.0	0.00	< .1
Embiotoca jacksoni		0.0	< .01	0.2	0.24	< .1	0.12	0.0	0.00	< .1
Sebastes paucispinis (juv.)		0.0	< .01	0.3	0.12	0.0	0.00	0.0	0.00	< .1
Damalichthys vacca (juv.)		0.0	< .01	0.3	0.35	0.0	0.00	0.0	0.00	< .1
Semicossyphus pulcher		0.0	< .01	0.0	0.00	0.0	0.00	0.3	0.35	< .1
Sebastes serranoides/S. flavidus (juv.)		0.0	< .01	0.2	0.24	0.0	0.00	0.0	0.00	< .1
Embiotoca lateralis		0.0	< .01	< .1	0.12	0.0	0.00	0.0	0.00	< .1
Triakis semifasciata		0.0	< .01	0.0	0.00	< .1	0.12	0.0	0.00	< .1
Sebastes caurinus (yoy)		0.0	< .01	< .1	0.12	0.0	0.00	0.0	0.00	< .1
Benthic										
Aulorhynchus flavidus		0.0	0.00	17.3	3.89	20.1	27.46	0.3	0.47	9.4
Sebastes chrysomelas/S. carnatus (yoy)		0.0	0.00	22.0	3.06	0.0	0.00	0.0	0.00	5.5
Citharichthys spp.		0.4	0.59	13.0	4.01	5.3	4.01	< .1	0.12	4.7
Sebastes serranoides/S. flavidus (yoy)		0.0	0.00	15.4	11.20	0.3	0.12	0.0	0.00	3.9
Oxyjulis californica		0.2	0.24	0.5	0.71	7.7	10.84	3.0	3.06	2.8
Aulorhynchus flavidus (juv.)		4.2	5.89	4.4	0.12	0.4	0.59	0.0	0.00	2.3
Damalichthys vacca		< .1	0.12	5.5	7.54	0.8	0.47	1.3	0.24	1.9
Oxyjulis californica (juv.)		0.0	0.00	0.0	0.00	5.9	8.37	0.0	0.00	1.5
Coryphopterus nicholsi		0.8	0.47	0.8	0.24	1.8	0.00	1.8	2.36	1.3
Oxylebius pictus		0.9	0.12	0.3	0.35	2.1	1.30	1.8	0.59	1.3
Sebastes atrovirens (yoy)		0.0	0.00	1.1	0.35	2.3	0.82	0.0	0.00	0.8
Embiotoca jacksoni		0.5	0.24	1.1	0.82	0.9	0.12	0.6	0.35	0.8
Atherinopsis californiensis		0.0	0.00	0.0	0.00	2.5	3.54	0.0	0.00	0.6
Sebastes chrysomelas		0.3	0.00	0.3	0.47	0.5	0.24	0.7	0.47	0.5
larval/post-larval fish, unid.		1.7	2.36	0.0	0.00	0.0	0.00	0.0	0.00	0.4
Embiotoca lateralis		0.2	0.24	0.6	0.82	0.4	0.12	0.4	0.35	0.4
Ophiodon elongatus		< .1	0.12	0.5	0.24	0.2	0.24	0.2	0.24	0.2
Sebastes melanops (yoy)		0.0	0.00	0.8	0.47	0.0	0.00	0.0	0.00	0.2
Citharicthys spp. (juv)		0.0	0.00	0.8	1.06	0.0	0.00	0.0	0.00	0.2
Sebastes rastrelliger		0.2	0.24	0.0	0.00	0.3	0.35	0.3	0.12	0.2
Brachyistius frenatus		0.0	0.00	0.0	0.00	0.4	0.59	0.2	0.24	0.1
Gibbonsia spp.		< .1	0.12	< .1	0.12	< .1	0.12	0.3	0.35	0.1
Coryphopterus nicholsi (juv.)		0.0	0.00	0.0	0.00	0.5	0.71	0.0	0.00	0.1
Embiotoca jacksoni (juv.)		< .1	0.12	< .1	0.12	< .1	0.12	0.2	0.24	0.1
Scorpaenichthys marmoratus		0.0	0.00	0.0	0.00	0.3	0.12	< .1	0.12	< .1
Sebastes atrovirens		0.0	0.00	0.0	0.00	< .1	0.12	0.2	0.24	< .1
Pleuronichthys coenosus		0.0	0.00	0.2	0.24	< .1	0.12	0.0	0.00	< .1
Rhacochilus toxotes		0.0	0.00	0.0	0.00	0.0	0.00	0.2	0.24	< .1
Damalichthys vacca (juv.)		0.0	0.00	0.2	0.24	0.0	0.00	0.0	0.00	< .1
Artedius spp.		0.0	0.00	0.0	0.00	< .1	0.12	< .1	0.12	< .1
Triakis semifasciata		< .1	0.12	0.0	0.00	< .1	0.12	0.0	0.00	< .1
Paralabrax clathratus		0.0	0.00	0.0	0.00	0.2	0.24	0.0	0.00	< .1
Orthonopias triacis		0.0	0.00	0.0	0.00	< .1	0.12	0.0	0.00	< .1
Neoclinus stephensae		0.0	0.00	0.0	0.00	< .1	0.12	0.0	0.00	< .1
Paralichthys californicus		0.0	0.00	0.0	0.00	< .1	0.12	0.0	0.00	< .1
Semicossyphus pulcher		0.0	0.00	0.0	0.00	0.0	0.00	< .1	0.12	< .1
Sebastes mystinus (yoy)		0.0	0.00	< .1	0.12	0.0	0.00	0.0	0.00	< .1

Subtidal Fish Transects Patton Cove Area Survey Means and Std. Deviations

Survey	110		111		112		113		
Date	03-May-01		18-Jul-01		26-Oct-01		04-Jan-02		Annual
Taxon	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean
Midwater									
Oxyjulis californica	24.3	31.47	16.5	3.95	11.7	7.31	2.5	3.54	13.7
larval/post-larval fish, unid.	42.9	57.16	1.7	2.36	0.0	0.00	0.0	0.00	11.1
Aulorhynchus flavidus	3.1	4.42	0.7	0.94	6.5	8.72	0.0	0.00	2.6
Sebastes serranoides/S. flavidus (yoy)	0.3	0.35	2.8	4.01	1.3	1.53	0.0	0.00	1.1
Damalichthys vacca	0.0	0.00	0.3	0.35	2.8	4.01	0.3	< .01	0.8
Aulorhynchus flavidus (juv.)	0.0	0.00	3.3	4.71	0.0	0.00	0.0	0.00	0.8
Sebastes atrovirens (yoy)	0.0	0.00	1.6	1.59	< .1	0.12	0.0	0.00	0.4
Embiotoca jacksoni	0.0	0.00	0.0	0.00	< .1	0.12	1.2	1.36	0.3
Sebastes serranoides	0.0	0.00	0.9	1.30	0.0	0.00	0.0	0.00	0.2
Sebastes mystinus (yoy)	0.0	0.00	0.0	0.00	0.6	0.82	0.3	0.35	0.2
Oxyjulis californica (juv.)	0.0	0.00	0.6	0.82	0.0	0.00	0.0	0.00	0.1
Brachyistius frenatus	0.1	0.18	0.0	0.00	0.3	0.24	0.0	0.00	0.1
Embiotoca lateralis	0.0	0.00	0.3	0.35	0.0	0.00	0.2	< .01	0.1
Sebastes atrovirens	0.0	0.00	0.4	0.18	0.0	0.00	0.0	0.00	< .1
Sebastes chrysomelas/S. carnatus (yoy)	0.0	0.00	0.4	0.53	0.0	0.00	0.0	0.00	< .1
Sebastes mystinus	< .1	0.12	0.3	< .01	0.0	0.00	0.0	0.00	< .1
Rhacochilus toxotes	0.0	0.00	0.0	0.00	0.0	0.00	0.3	0.35	< .1
Sebastes serranoides/S. flavidus (juv.)	0.0	0.00	0.0	0.00	< .1	0.12	0.0	0.00	< .1
Oxylebius pictus	0.0	0.00	0.0	0.00	0.0	0.00	< .1	0.12	< .1
Sebastes rastrelliger	0.0	0.00	0.0	0.00	0.0	0.00	< .1	0.12	< .1
Sebastes melanops	0.0	0.00	0.0	0.00	0.0	0.00	< .1	0.12	< .1
Hexagrammos decagrammus	0.0	0.00	0.0	0.00	0.0	0.00	< .1	0.12	< .1
Embiotoca lateralis (juv.)	0.0	0.00	0.0	0.00	0.0	0.00	< .1	0.12	< .1
Sebastes chrysomelas	0.0	0.00	0.0	0.00	0.0	0.00	< .1	0.12	< .1
Damalichthys vacca (juv.)	0.0	0.00	< .1	0.12	0.0	0.00	0.0	0.00	< .1
Embiotoca jacksoni (juv.)	0.0	0.00	0.0	0.00	0.0	0.00	< .1	0.12	< .1
Platyrhinoidis triseriata	0.0	0.00	< .1	0.12	0.0	0.00	0.0	0.00	< .1
Sebastes melanops (yoy)	0.0	0.00	0.0	0.00	< .1	0.12	0.0	0.00	< .1
Benthic									
Oxyjulis californica	5.1	7.19	2.5	3.54	10.3	3.65	0.0	0.00	4.5
Oxylebius pictus	1.8	0.59	2.4	0.12	3.8	1.89	1.7	< .01	2.4
Sebastes chrysomelas/S. carnatus (yoy)	0.0	0.00	8.4	7.90	0.2	0.24	0.0	0.00	2.1
Embiotoca lateralis	0.6	0.12	1.4	0.35	1.6	0.59	3.2	< .01	1.7
Embiotoca jacksoni	1.0	0.94	1.5	0.24	2.7	0.24	1.3	< .01	1.6
Sebastes chrysomelas	1.5	0.00	1.8	0.94	2.0	1.18	1.1	0.53	1.6
Embiotoca lateralis (juv.)	0.2	0.24	1.3	0.59	1.1	0.12	0.8	0.65	0.8
Sebastes serranoides/S. flavidus (yoy)	0.2	0.24	1.4	1.77	1.4	1.30	< .1	0.12	0.8
Aulorhynchus flavidus (juv.)	2.7	3.77	0.0	0.00	0.0	0.00	0.0	0.00	0.7
Damalichthys vacca	0.0	0.00	1.0	0.47	0.5	0.00	0.5	0.71	0.5
Embiotoca jacksoni (juv.)	0.3	0.24	0.9	0.59	0.5	0.47	0.2	0.24	0.5
Sebastes rastrelliger	0.3	0.24	0.3	0.00	0.5	0.71	0.6	0.18	0.4
Coryphopterus nicholsi	0.3	0.47	0.3	0.35	0.9	0.35	0.3	0.35	0.4
Sebastes atrovirens	0.8	0.12	0.3	0.35	0.5	0.24	0.1	0.18	0.4
Sebastes melanops (yoy)	0.2	0.24	1.0	0.71	0.4	0.59	0.0	0.00	0.4
Hexagrammos decagrammus	0.3	0.12	0.3	0.00	0.8	0.47	< .1	0.12	0.4
Sebastes mystinus (yoy)	0.0	0.00	< .1	0.12	0.8	1.06	0.5	0.41	0.3
Orthonopias triacis	0.0	0.00	0.4	0.12	0.7	0.00	0.2	0.24	0.3
Scorpaenichthys marmoratus	0.5	0.24	< .1	0.12	0.2	0.24	0.4	0.12	0.3
Sebastes mystinus	0.3	0.35	0.0	0.00	0.8	0.47	0.0	0.00	0.3
Sebastes spp. (juv.)	0.0	0.00	1.0	1.41	0.0	0.00	0.0	0.00	0.3
Artedius spp.	0.0	0.00	< .1	0.12	0.5	0.71	0.4	0.53	0.2
Ophiodon elongatus	0.3	0.24	< .1	0.12	0.3	0.24	0.0	0.00	0.2
Aulorhynchus flavidus	0.0	0.00	0.0	0.00	0.7	0.47	0.0	0.00	0.2
Cephaloscyllium ventriosum	0.0	0.00	0.3	0.12	0.4	0.35	0.0	0.00	0.2
Brachyistius frenatus	0.5	0.71	0.0	0.00	0.0	0.00	0.0	0.00	0.1
Cebidichthys violaceus	< .1	0.12	0.2	0.24	0.2	0.24	0.0	0.00	0.1
Sebastes serranoides	< .1	0.12	< .1	0.12	< .1	0.12	0.0	0.00	< .1
Sebastes atrovirens (yoy)	0.0	0.00	0.2	0.24	< .1	0.12	0.0	0.00	< .1
Rhacochilus toxotes	0.0	0.00	0.0	0.00	< .1	0.12	0.1	0.18	< .1

(continued)

Subtidal Fish Transects Patton Cove Area Survey Means and Std. Deviations (continued)

Taxon	Survey Date	110 03-May-01 Mean	Std. Dev.	111 18-Jul-01 Mean	Std. Dev.	112 26-Oct-01 Mean	Std. Dev.	113 04-Jan-02 Mean	Std. Dev.	Annual Mean
Benthic *(continued)*										
Gibbonsia spp.		0.2	0.24	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Sebastes melanops		0.0	0.00	0.0	0.00	< .1	0.12	< .1	0.12	< .1
Sebastes carnatus		0.2	0.24	0.0	0.00	0.0	0.00	0.0	0.00	< .1
Sebastes chrysomelas (juv.)		0.0	0.00	0.2	0.24	0.0	0.00	0.0	0.00	< .1
Semicossyphus pulcher		0.0	0.00	< .1	0.12	< .1	0.12	0.0	0.00	< .1
Stichaeidae unid.		0.0	0.00	0.0	0.00	0.0	0.00	0.1	0.18	< .1
Sebastes paucispinis (juv.)		0.0	0.00	< .1	0.12	0.0	0.00	0.0	0.00	< .1
Damalichthys vacca (juv.)		0.0	0.00	< .1	0.12	0.0	0.00	0.0	0.00	< .1
Brachyistius frenatus (juv.)		< .1	0.12	0.0	0.00	0.0	0.00	0.0	0.00	< .1