

TEXT TABLES

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TABLE 1. Abundance of Numerically Dominant Nonmollusk Taxa, Sand Island Ocean Outfall Sampling Stations, O'ahu, Hawaii, August 2002

Taxon	Number of Individuals														Total	
	Station															
	C1A	C2A	C3A	C5A	C6	D1	D2	D3A	D5	D6	E1	E2	E3	E5	E6	
<i>Leptochelia dubia</i>	2		1	2	1	9	62*	215*	215*	88*	9		79*	12*	4	699
<i>Euchone</i> sp. B						106*	22	1	216*	9	11			5	6	376
<i>Aspidosiphon muelleri</i>			1	2	1	11*	52*	85*	8	36*	31*	4	27*	23*	42*	323
<i>Synelmis acuminata</i>	1	3		6	31*	18	18	145*	39*	28*	10	1	13	7	7	309
<i>Pionosyllis heterocirrata</i>	3	11*	30*	16*	23*	49*	91*	36*	11	5		12*	30*	14*	5	245
<i>Myriochele oculata</i>			1			33*	91*	21	57*	30*	1		3	2	4	243
<i>Dipolydora normalis</i>						5		161*								166
<i>Prionospio cirrifera</i>		2	5*	9*	2	10*	24	14	26	12	16*	3	12	11*	7	153
<i>Eriopisella sechellensis</i>				11*			22	8	20	67*			3			131
<i>Prionospio cirrobranchiata</i>	1		1			8	5	11	12		9	9*	34*	9	14*	113
<i>Ophiiodromus angustifrons</i>	3	1	4*	4	5*		25	11	11	16		1	22	2	5	110
<i>Taraiissus</i> sp. A					1			2	1		26*		58*		3	91
<i>Branchiostoma</i> sp. A			2	12*		5	18	21	3	17	1	1	9	1	2	89
<i>Konatopus paao</i>							6	11	5	23	16*	4	15			83
Spionidae sp. D							9	18	6	2	4		9	6	1	72
<i>Sphaerosyllis</i> sp. G			1	15*	1		5	6	13	3	2	1	12	3		65
<i>Micropodarke</i> sp. A	3	6*		7		4	1	4	41*	7			5			58
<i>Nereis</i> sp. B											5			10	36*	51
<i>Acrocirrus</i> sp. A									3		12		7	3	16*	41
<i>Aphelochaeta marioni</i>							26*	1			3	2	2			34
<i>Ophryotrocha adherens</i>							5	2	1	1		2	3	2	3	28
<i>Spiro blakei</i>	4*	1	2	3	1	2						15*	4	2	1	27
<i>Protodorvillea biarticulata</i>		1									3	8*	7			18
<i>Mooreonuphis</i> sp. A								2	1	2			2			16
<i>Processa aequimana</i>		7*		1		1		2		2			3			15
<i>Pisione</i> sp. A		5*	2	3				2								10
<i>Ophiiodromus</i> sp. B								2	1	2		9*	1			5
<i>Saccocirrus waianaensis</i>																

*Ranked among the five most abundant nonmollusk taxa at individual stations. Taxa with three or fewer individuals per station were not eligible to be classified as a dominant.

TABLE 2. Summary of Statistical Comparisons Among Transects C, D, and E for the Number of Individuals and Number of Taxa of Nonmollusks, Crustaceans, and Mollusks, Sand Island Ocean Outfall Sampling Stations, O'ahu, Hawaii'i, August 2002

Taxon	Parameter	Mean Untransformed Values			ANOVA Transformation	Statistic	P	Significant Differences
		Transect C	Transect D	Transect E				
Nonmollusks ^a	No. of Individuals	55.27	442.00	231.80	Log	28.74 ^b	0.0003	D>C, D>E, E>C
Nonmollusks ^a	No. of Taxa	16.27	41.53	38.13	Square Root	26.01 ^b	<0.0001	D>C, E>C
Crustaceans	No. of Individuals	7.13	102.00	67.47	Log	18.65 ^b	<0.0001	D>C, D>E, E>C
Crustaceans	No. of Taxa	3.07	9.00	7.13	Square Root	12.58 ^b	<0.0001	D>C, E>C
Mollusks	No. of Individuals	264.80	290.80	415.47	None	1.88 ^c	0.3913	None
Mollusks	No. of Taxa	38.73	34.00	34.33	None	0.44 ^c	0.6474	None

^aIncluding crustaceans.

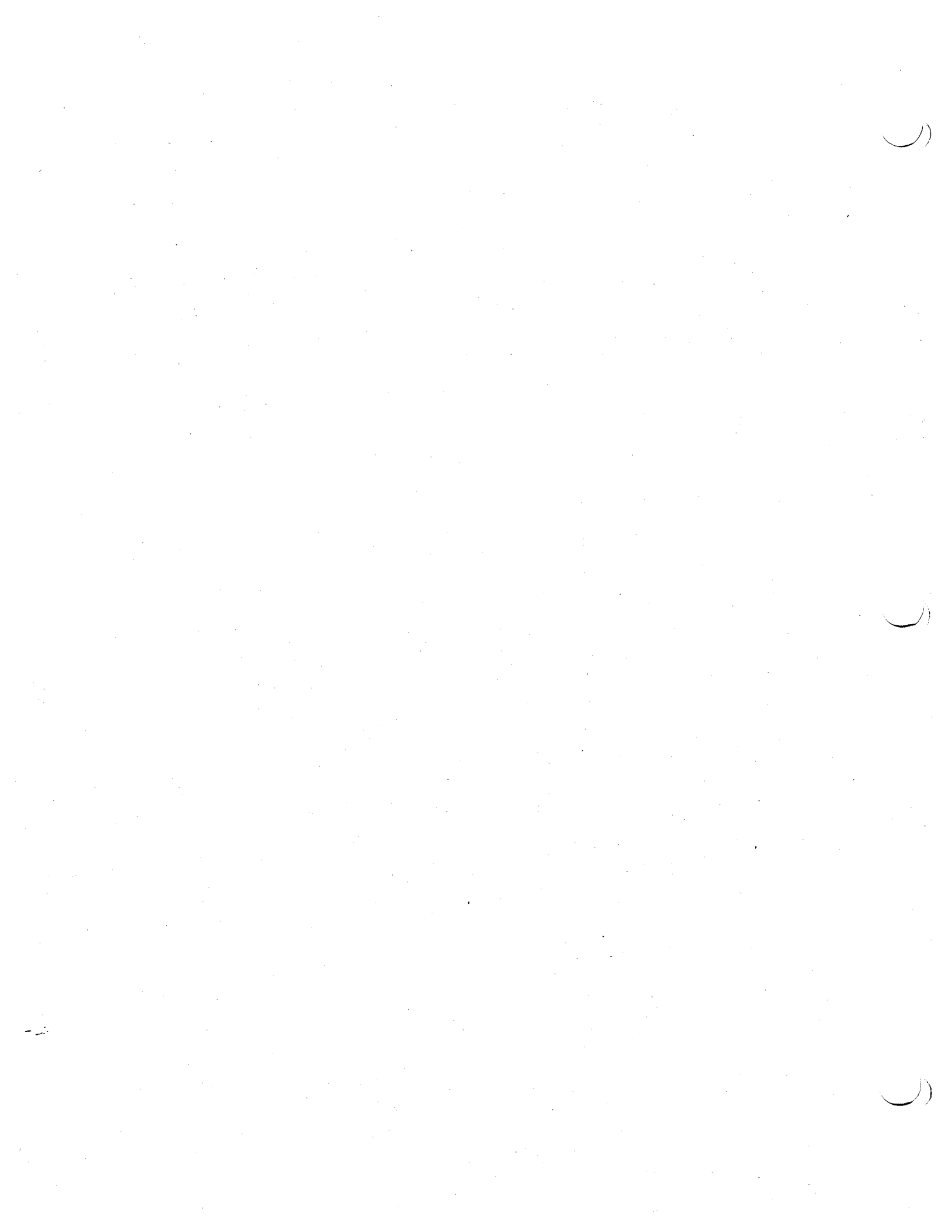
^bANOVA F statistic and Student-Newman-Keuls comparison.

^cKruskal-Wallis statistic and pairwise comparison.

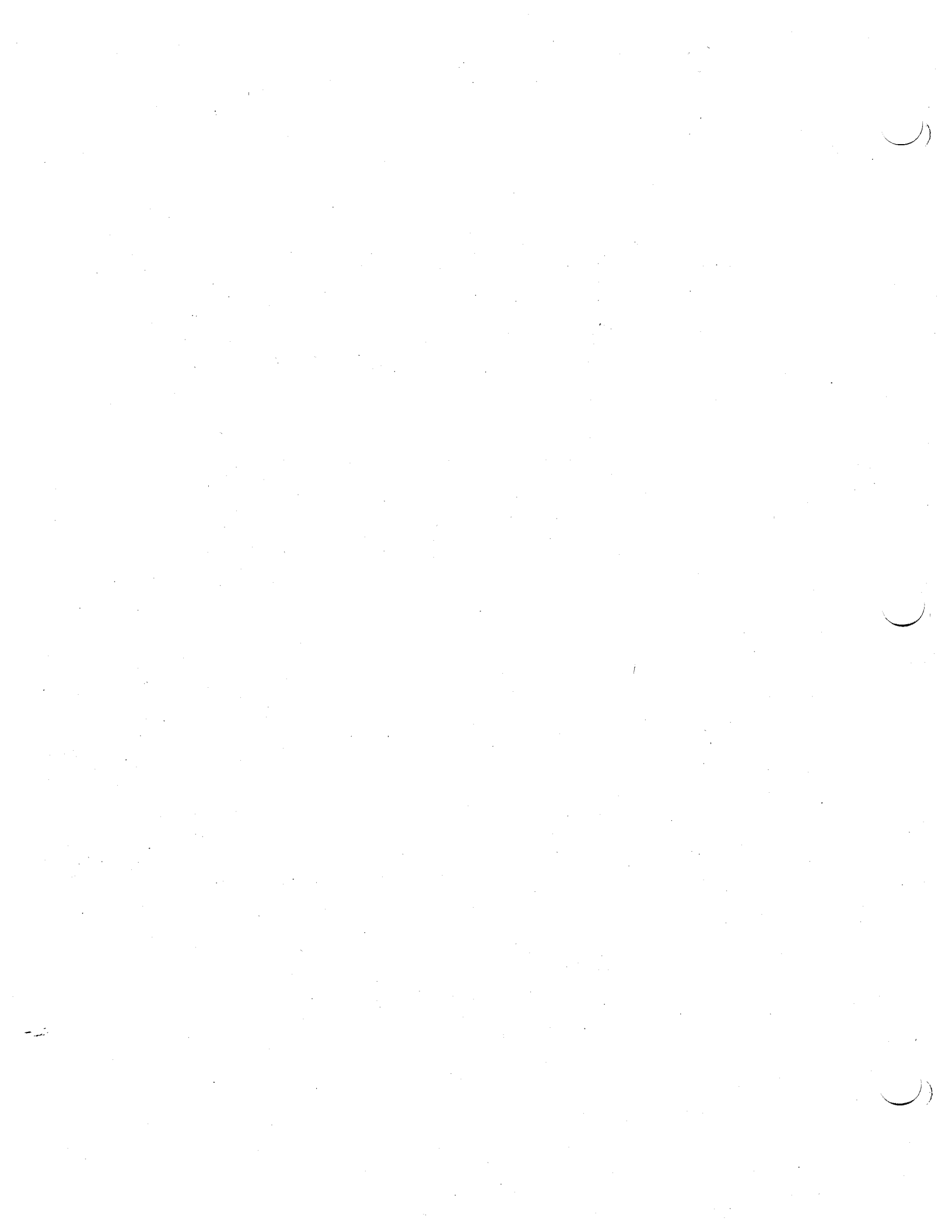
TABLE 3. Abundance of Numerically Dominant Mollusk Taxa, Sand Island Ocean Outfall Sampling Stations, O'ahu, Hawai'i, August 2002

Taxon	Number of Individuals														Total	
	Station															
	C1A	C2A	C3A	C5A	C6	D1	D2	D3A	D5	D6	E1	E2	E3	E5	E6	
<i>Diäla scopulorum</i>	1	12		8	1	69*		44*	49*	33	243*	398*	725*	1,137*	70*	2,790
<i>Cerithidium perparvulum</i>	55*	56*	100*	176*	132*	49*	311*	51*	47*	93*	18*	143*	240*	147*	4*	1,622
<i>Pusillina marmorata</i>	39*	49*	230*	203*	87*	70*	36	36*	28	35	20*	52	174*	242*	3	1,304
<i>Finella pupoides</i>				3		346*	210*	31	283*	184*	2	2	6	9	3	1,079
<i>Scälitola</i> spp.	9	9	54	42	39	12	77*	20	18	13	5	245*	194*	75*	4*	816
<i>Diäla semistriata</i>	3	49*	37	113*	69*	18	67*	25	26	50*	9	203*	94*	44		807
<i>Balcis</i> spp.	12	18	2	16	2	88*	92*	32	77*	77*	41*	81*		130*	22*	690
<i>Tricolia variabilis</i>	18*	50*	97*	152*	133*	15		77*	22	10		17	67	4		662
<i>Parashiela beetsi</i>	29*	11	84*	75*	70*	12	58	21	15	26	17*	45	26	17	2	508
<i>Orbitestella regina</i>	34*	9	61	38	36	3	5	43*	17	7	1	16	20	10	1	301
<i>Lophocochlias minutissimus</i>	9	14	89*	55	47	6	13	9	4	2		16	21	4		289
<i>Ervilia bisculpta</i>	1		1	1	1	42	17	11	44*	15		1	16	3	6*	148
<i>Acteocina</i> sp.	1			5		22	36	11	10	36*	4	13	9			147
<i>Triphora</i> spp.	4	20*	13	19	19	1	1	13	4	4		14	13	11		132
<i>Natica gualteriana</i>			1	5	3					27			10	6	4*	56
<i>Omalogyra japonica</i>	2	1	2	1	1			14	4	2		3		8	4*	42

*Ranked among the five most abundant mollusk taxa at individual stations.



APPENDIXES



Appendix A. Sediment Data and Sample Locations

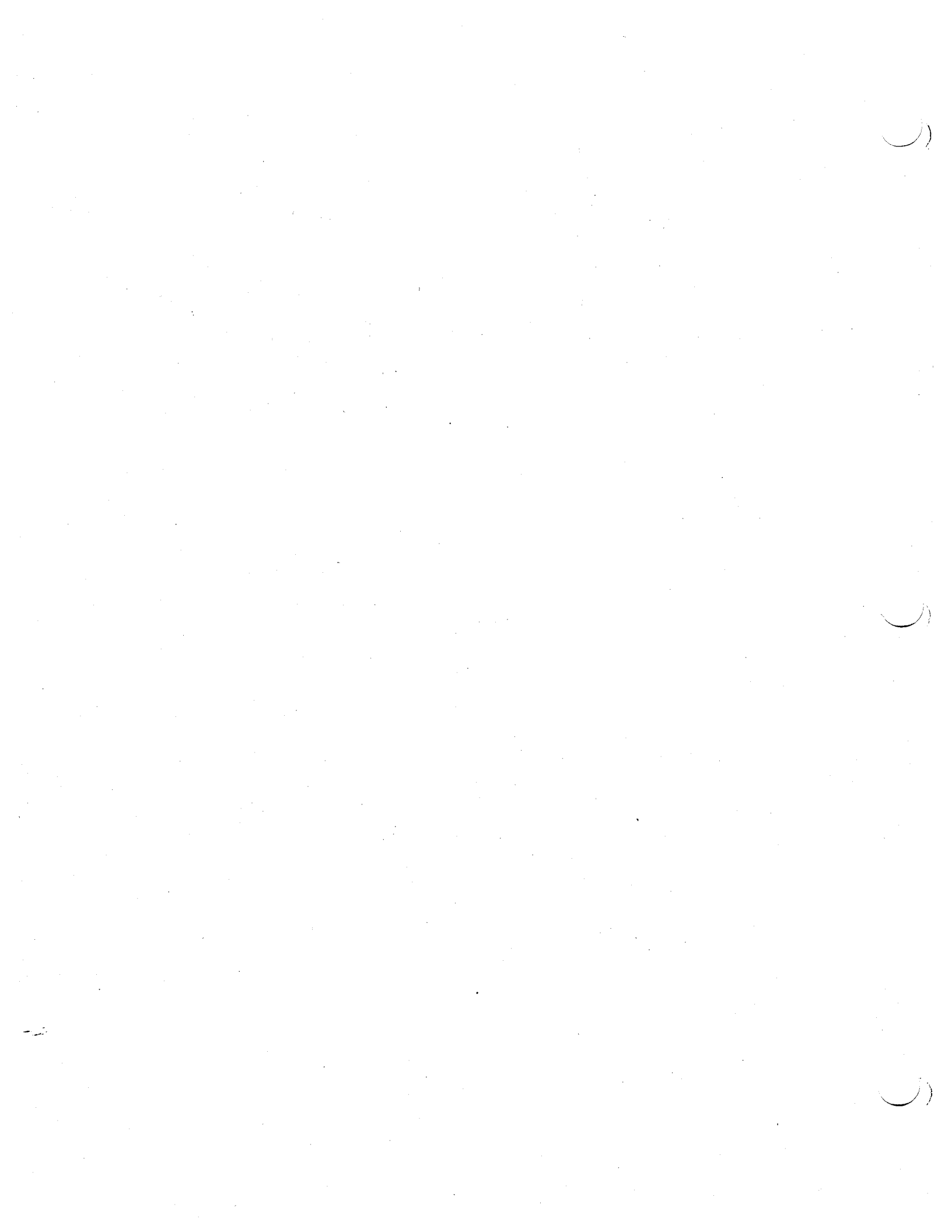


TABLE A.1. Position and Depth for Replicate Grab Samples, Sand Island Ocean Outfall Sampling Stations, O'ahu, Hawai'i, August 2002

Station	Sampling Date	Replicate	Position		Depth (m)
			Latitude	Longitude	
C1A	29 August	1	21°17'39.2"	157°55'28.0"	19.8
		2	21°17'39.2"	157°55'27.8"	19.5
		3	21°17'38.9"	157°55'28.1"	19.5
C2A	30 August	1	21°17'21.7"	157°54'36.5"	18.9
		2	21°17'21.8"	157°54'36.2"	18.6
		3	21°17'21.9"	157°54'36.5"	18.6
C3A	29 August	1	21°17'16.9"	157°53'35.1"	18.6
		2	21°17'16.9"	157°53'34.9"	18.9
		3	21°17'17.0"	157°53'34.8"	18.6
C5A	29 August	1	21°16'53.5"	157°51'24.0"	20.7
		2	21°16'53.4"	157°51'24.3"	21.0
		3	21°16'53.5"	157°51'24.3"	20.7
C6	29 August	1	21°16'11.4"	157°50'31.0"	18.9
		2	21°16'11.4"	157°50'30.8"	18.9
		3	21°16'11.4"	157°50'30.8"	18.9
D1	30 August	1	21°17'23.2"	157°55'30.3"	49.4
		2	21°17'23.2"	157°55'30.1"	49.4
		3	21°17'22.8"	157°55'30.0"	49.1
D2	30 August	1	21°16'56.5"	157°54'35.5"	53.3
		2	21°16'56.7"	157°54'35.5"	53.0
		3	21°16'56.6"	157°54'35.6"	53.3
D3A	30 August	1	21°16'55.2"	157°53'49.3"	50.9
		2	21°16'55.2"	157°53'49.1"	51.2
		3	21°16'55.0"	157°53'49.1"	51.2
D5	29 August	1	21°16'37.3"	157°51'31.6"	49.4
		2	21°16'37.3"	157°51'31.7"	49.1
		3	21°16'37.3"	157°51'31.4"	49.4
D6	29 August	1	21°16'02.1"	157°50'45.8"	49.4
		2	21°16'02.2"	157°50'45.9"	49.1
		3	21°16'02.3"	157°50'46.0"	49.1
E1	29 August	1	21°17'10.4"	157°55'32.7"	101.2
		2	21°17'10.5"	157°55'32.7"	100.9
		3	21°17'10.5"	157°55'32.6"	100.6
E2	29 August	1	21°16'43.1"	157°54'39.0"	100.6
		2	21°16'43.0"	157°54'39.0"	100.6
		3	21°16'42.9"	157°54'38.7"	100.9
E3	29 August	1	21°16'43.4"	157°53'49.8"	83.8
		2	21°16'43.2"	157°53'49.7"	83.8
		3	21°16'43.1"	157°53'49.6"	84.1
E5	30 August	1	21°16'22.8"	157°51'40.9"	100.6
		2	21°16'22.7"	157°51'40.7"	100.9
		3	21°16'22.8"	157°51'40.8"	100.9
E6	29 August	1	21°15'50.7"	157°50'57.8"	101.8
		2	21°15'50.7"	157°50'57.7"	101.5
		3	21°15'50.8"	157°50'58.1"	101.2

SOURCE: Oceanographic Team, Department of Environmental Services, City and County of Honolulu.

TABLE A.2. Sediment Chemical Characterization of Sand Island Ocean Outfall Sampling Stations, O'ahu, Hawai'i, August 2002

Station (Replicate)	PD (cm)	ORP (+mV)	TKN (mg/dry kg)	TOC (% dry weight)
C1A-1	10.5	35	271	0.36
C1A-2	8.5	120	239	0.44
C1A-3	6.0	155		
C2A-1	14.5	175	248	0.31
C2A-2	8.0	175		
C2A-3	7.5	195	263	0.24
C3A-1	10.5	195	300	0.37
C3A-2	6.5	200		
C3A-3	7.5	195	297	0.59
C5A-1	8.5	190	218	0.50
C5A-2	8.5	190		
C5A-3	9.0	195	282	0.56
C6-1	14.0	180	204	0.35
C6-2	14.5	195	223	0.40
C6-3	12.0	195		
D1-1	6.5	195	295	0.48
D1-2	7.0	120	286	0.32
D1-3	7.5	75		
D2-1	7.5	195	195	0.38
D2-2	7.5	205	204	0.31
D2-3	7.5	200		
D3A-1	7.5	175	236	0.34
D3A-2	6.5	190		
D3A-3	7.5	165	236	0.36
D5-1	6.5	195		
D5-2	7.5	200	133	0.23
D5-3	8.0	190	218	0.29
D6-1	7.0	140	241	0.33
D6-2	8.0	175	284	0.28
D6-3	7.0	170		
E1-1	10.5	110	249	0.42
E1-2	7.5	55		
E1-3	6.5	25		
E2-1	10.5	150	141	0.32
E2-2	13.5	145		
E2-3	9.5	160		
E3-1	7.0	160		
E3-2	7.0	165	203	0.36
E3-3	7.5	165		
E5-1	8.5	210	303	0.38
E5-2	7.0	70		
E5-3	10.0	160		
E6-1	7.5	140	336	0.34
E6-2	8.0	30		
E6-3	13.0	35		

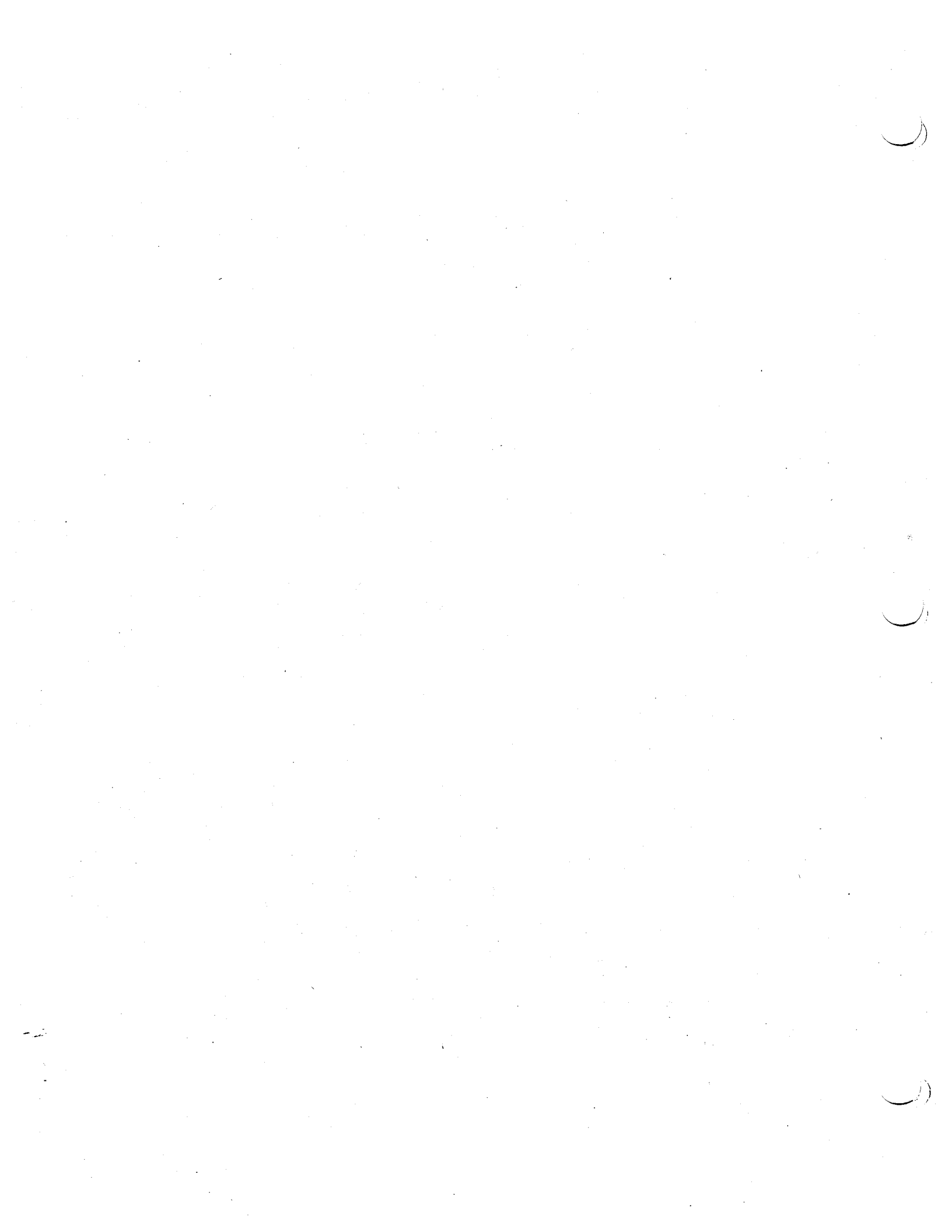
SOURCE: PD (penetration depth) and ORP (oxidation-reduction potential) data from Oceanographic Team, Department of Environmental Services, City and County of Honolulu; TKN (total Kjeldahl nitrogen) data from Environmental Laboratory, Department of Environmental Services, City and County of Honolulu; TOC (total organic carbon) data from Columbia Analytical Services, Inc., Kelso, Washington.

TABLE A.3. Sediment Grain-Size Analysis of Sand Island Ocean Outfall Sampling Stations, Oahu, Hawaii, August 2002

Station-Replicate	Sample Dry Weight Distribution (%)							
	Phi Size							
	-2	-1	0	1	2	3	4	>4 to 12
C1A-1	0.00	0.30	1.34	8.93	34.79	34.73	14.64	2.03
C1A-2	0.00	0.48	0.92	4.63	18.09	41.98	31.74	2.43
C2A-1	0.00	0.46	15.35	63.68	12.15	6.30	1.29	0.94
C2A-2	1.19	4.74	20.63	47.89	9.78	8.81	2.31	1.63
C3A-1	0.00	0.28	1.87	26.95	52.92	14.11	0.53	1.81
C3A-2	0.45	2.98	6.93	26.21	40.56	16.93	1.06	2.04
C3A-2 (duplicate)	0.42	2.66	7.91	28.59	41.22	16.47	1.06	2.16
C5A-1	5.52	9.69	22.34	29.06	19.47	8.70	1.23	1.87
C5A-2	3.91	9.61	15.60	22.46	27.39	15.87	2.92	1.97
C6-1	0.00	0.18	0.83	8.64	54.00	32.49	0.54	1.85
C6-2	0.00	0.28	1.78	17.42	45.25	31.62	0.83	1.46
D1-1	0.00	0.36	1.46	4.03	9.09	20.09	54.45	9.29
D1-2	0.00	1.02	2.72	5.69	10.29	19.07	49.37	9.29
D2-1	0.27	1.93	7.04	13.28	25.80	35.69	11.18	3.21
D2-2	0.11	1.12	4.48	11.82	27.81	39.48	11.56	3.11
D3A-1	0.34	0.86	4.39	11.66	36.69	28.30	13.36	3.02
D3A-2	0.00	1.70	6.35	14.43	35.61	24.04	13.38	2.62
D5-1	0.00	0.64	1.40	5.70	15.92	36.33	31.66	7.23
D5-2	0.00	0.51	2.01	5.93	15.08	33.94	34.56	7.15
D6-1	1.45	2.31	7.85	13.91	16.68	25.51	26.40	5.35
D6-2	0.04	2.11	6.18	12.87	16.71	26.82	28.63	5.00
D6-2 (duplicate)	0.98	3.03	7.01	14.34	17.66	26.22	26.76	4.95
E1-1	0.31	1.31	1.92	3.67	6.53	19.46	49.64	13.78
E1-2	0.00	0.18	0.71	1.65	4.69	18.98	55.51	15.16
E2-1	0.06	0.46	2.07	14.31	50.40	28.44	0.52	1.87
E2-2	0.00	0.42	3.17	15.47	46.66	30.94	0.58	1.46
E3-1	3.62	4.65	12.65	21.94	26.71	20.75	5.43	2.83
E3-2	0.12	0.53	4.24	16.89	31.01	30.45	9.99	4.05
E5-1	0.83	2.96	7.71	12.72	14.91	27.32	24.43	7.17
E5-2	0.29	1.98	5.83	12.48	15.94	29.51	26.00	7.59
E6-1	0.00	0.07	0.18	0.80	3.05	37.05	48.89	7.33
E6-2	0.00	0.01	0.13	0.36	1.79	28.82	56.83	10.67
E6-2 (duplicate)	0.28	0.04	0.10	0.41	1.89	29.20	56.75	10.13

SOURCE: Environmental Quality Laboratory, Department of Environmental Services, City and County of Honolulu.

NOTE: The values listed indicate the fraction percentage of the estimated dry weight of the sediment samples. The coarse fraction (-2 to +4) was analyzed by the sieve method. The fine fraction (greater than +4 to +12) was analyzed by the pipette method.



Appendix B. Basic Statistics and Variances for Nonmollusk Data

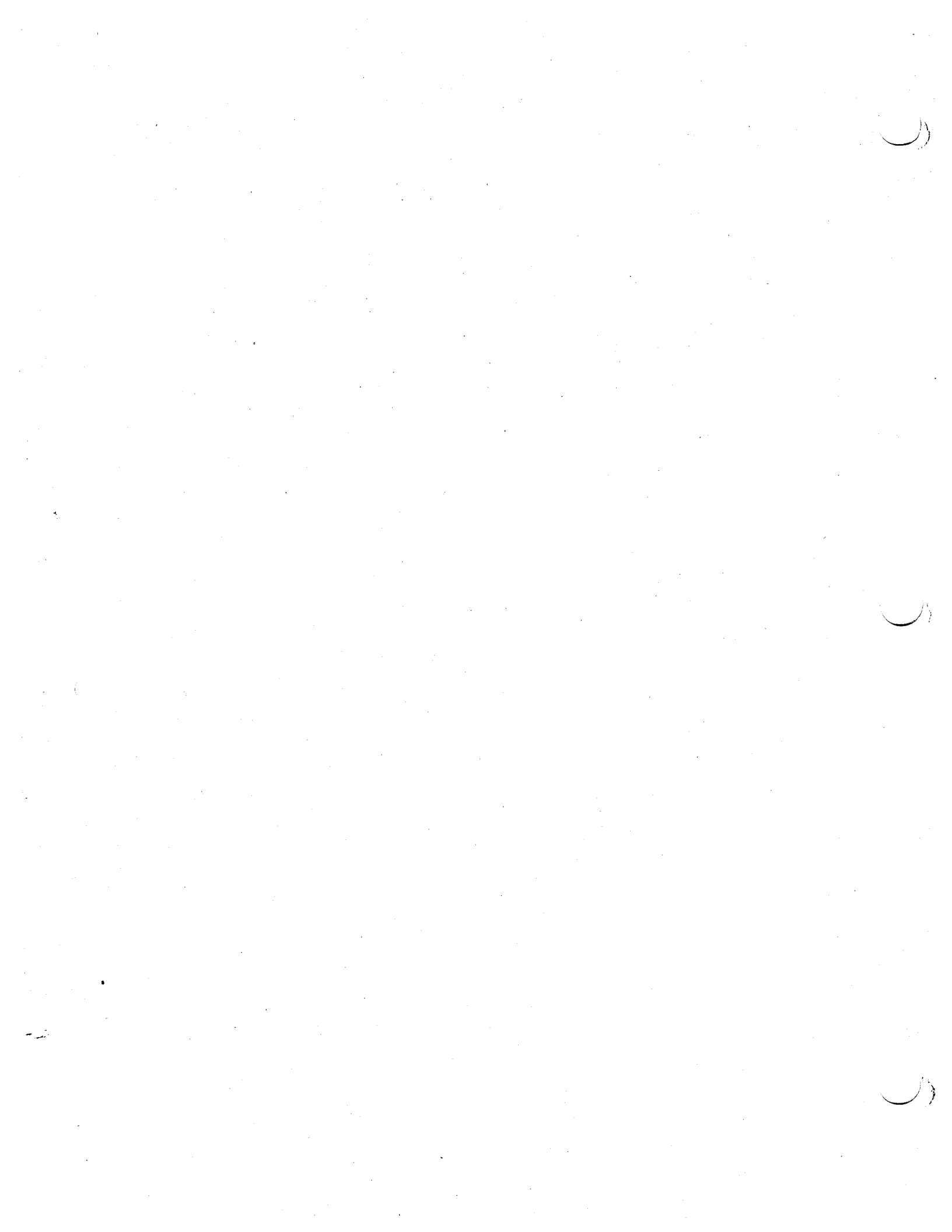


TABLE B.1. Basic Statistics for Untransformed Nonmollusk Abundance, Sand Island Ocean Outfall Sampling Stations, O'ahu, Hawaii, August 2002

Statistic	Station														
	C1A	C2A	C3A	C5A	C6	D1	D2	D3A	D5	D6	E1	E2	E3	E5	E6
Mean	55.000	32.000	48.333	103.000	38.333	250.667	368.333	456.000	825.667	309.333	168.333	57.667	490.667	180.667	261.667
Median	36.000	33.000	56.000	108.000	42.000	153.000	426.000	351.000	733.000	308.000	159.000	62.000	193.000	83.000	132.000
Standard Deviation	35.539	9.539	15.948	27.839	23.714	225.930	117.628	212.897	524.180	62.011	61.533	19.858	556.773	175.261	278.173
Standard Error of Mean	20.518	5.508	9.207	16.073	13.691	130.441	67.913	122.916	302.635	35.802	35.526	11.465	321.453	101.187	160.603
95% of CI Mean	88.290	23.699	39.620	69.161	58.913	561.287	292.228	528.908	1302.240	154.056	152.869	49.334	1383.213	435.407	691.077
Skewness	1.718	-0.467	-1.663	-0.782	-0.679	1.582	-1.676	1.680	0.771	0.097	0.667	-0.935	1.718	1.729	1.642
Normality Test (D)	0.370ns	0.181ns	0.351ns	0.238ns	0.228ns	0.334ns	0.355ns	0.356ns	0.237ns	0.177ns	0.227ns	0.253ns	0.370ns	0.378ns	0.346ns

NOTE: CI = confidence interval. Normality was assessed with the Kolmogorov-Smirnov D statistic of goodness of fit to a normal distribution, $D_{.05} > 0.4$; ns = not significant.

TABLE B.2. Basic Statistics for Untransformed Nonmollusk Taxa Number, Sand Island Ocean Outfall Sampling Stations, O'ahu, Hawaii'i, August 2002

Statistic	Station														
	C1A	C2A	C3A	C5A	C6	D1	D2	D3A	D5	D6	E1	E2	E3	E5	E6
Mean	13.667	11.667	15.667	27.000	13.333	24.667	47.667	46.667	51.667	37.000	35.000	23.333	61.333	37.000	34.000
Median	13.000	13.000	12.000	30.000	13.000	23.000	48.000	42.000	51.000	40.000	33.000	22.000	57.000	34.000	29.000
Standard Deviation	1.155	3.215	8.145	7.000	5.508	6.658	7.506	10.786	4.041	8.888	3.464	4.163	15.948	6.083	9.539
Standard Error of Mean	0.667	1.856	4.702	4.041	3.180	3.844	4.333	6.227	2.333	5.132	2.000	2.404	9.207	3.512	5.508
95% of CI Mean	2.869	7.986	20.234	17.390	13.683	16.542	18.646	26.796	10.040	22.081	8.606	10.343	39.620	15.112	23.699
Skewness	1.732	-1.545	1.615	-1.574	0.271	1.056	-0.199	1.583	0.722	-1.346	1.732	1.293	1.132	1.680	1.711
Normality Test (D)	0.385ns	0.328ns	0.340ns	0.333ns	0.191ns	0.267ns	0.184ns	0.334ns	0.232ns	0.298ns	0.385ns	0.292ns	0.274ns	0.356ns	0.367ns

NOTE: CI = confidence interval. Normality was assessed with the Kolmogorov-Smirnov D statistic of goodness of fit to a normal distribution, $D_{.05} > 0.4$; ns = not significant.

TABLE B.3. Analysis of Variance and A Posteriori Comparison of Means of Square Root Transformed Nonmollusk Abundance, Sand Island Ocean Outfall Sampling Stations, O'ahu, Hawai'i, August 2002

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F Ratio	P
Among Stations	1,804.27	14	128.876	4.39	0.0003
Experimental Error	880.78	30	29.359		
Total	2,685.05	44			

Square Root Transformed Data															
Station	C1A	C2A	C3A	C5A	C6	D1	D2	D3A	D5	D6	E1	E2	E3	E5	E6
Number	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Mean	7.181	5.583	6.881	10.083	5.944	14.806	19.008	20.996	27.724	17.528	12.830	7.511	19.879	12.466	14.693
Standard Deviation	2.270	0.859	1.219	1.410	2.122	6.869	3.251	4.770	9.251	1.770	2.365	1.367	11.969	6.156	8.288

F_{max} test for equal variance: Square root transformed data, F_{max} = 194.291, not significant at p > 0.05.

Untransformed Data															
Station	C1A	C2A	C3A	C5A	C6	D1	D2	D3A	D5	D6	E1	E2	E3	E5	E6
Number	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Mean	55.000	32.000	48.333	103.000	38.333	250.667	368.333	456.000	825.667	309.333	168.333	57.667	490.667	180.667	261.667
Standard Deviation	35.539	9.539	15.948	27.839	23.714	225.930	117.628	212.897	524.180	62.011	61.533	19.858	556.773	175.261	278.173

F_{max} test for equal variance: Untransformed data, F_{max} = 3.431.694 significant at p < 0.05.

Conclusion: There are significant differences in mean nonmollusk abundance between the following station pairs, as determined by Student-Newman-Keuls tests:

C6	C3A	C1A	E2	C5A	E5	E1	E6	D1	D6	D2	E3	D3A	D5
-	-	-	-	-	-	-	-	-	-	-	-	-	*
C6	-	-	-	-	-	-	-	-	-	-	-	-	*
C3A	-	-	-	-	-	-	-	-	-	-	-	-	*
C1A	-	-	-	-	-	-	-	-	-	-	-	-	*
E2	-	-	-	-	-	-	-	-	-	-	-	-	*
C5A	-	-	-	-	-	-	-	-	-	-	-	-	*
E5	-	-	-	-	-	-	-	-	-	-	-	-	*
E1	-	-	-	-	-	-	-	-	-	-	-	-	*
E6	-	-	-	-	-	-	-	-	-	-	-	-	*
D1	-	-	-	-	-	-	-	-	-	-	-	-	-
D6	-	-	-	-	-	-	-	-	-	-	-	-	-
D2	-	-	-	-	-	-	-	-	-	-	-	-	-
E3	-	-	-	-	-	-	-	-	-	-	-	-	-
D3A	-	-	-	-	-	-	-	-	-	-	-	-	-

*p < 0.05.

TABLE B.4. Analysis of Variance and A Posteriori Comparison of Means of Untransformed Nonmollusk Taxa Number, Sand Island Ocean Outfall Sampling Stations, O'ahu, Hawai'i, August 2002

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F Ratio	p
Among Stations	9,868.31	14	704.879	11.997	<0.0001
Experimental Error	1,762.67	30	58.756		
Total	11,630.98	44			

Station	C1A	C2A	C3A	C5A	C6	D1	D2	D3A	D5	D6	E1	E2	E3	E5	E6
Number	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Mean	13.667	11.667	15.667	27.000	13.333	24.667	47.667	46.667	51.667	37.000	35.000	23.333	61.333	37.000	34.000
Standard Deviation	1.155	3.215	8.145	7.000	5.508	6.658	7.506	10.786	4.041	8.888	3.464	4.163	15.948	6.083	9.539

F_{max} test for equal variance: Untransformed data, F_{max} = 190.750, not significant at p > 0.05.

Conclusion: There are significant differences in mean nonmollusk taxa number between the following station pairs, as determined by Student-Newman-Keuls tests:

	C6	C1A	C3A	E2	D1	C5A	E6	E1	D6	E5	D3A	D2	D5	E3
C2A	-	-	-	-	-	-	*	*	*	*	*	*	*	*
C6	-	-	-	-	-	-	*	*	*	*	*	*	*	*
C1A	-	-	-	-	-	-	*	*	*	*	*	*	*	*
C3A	-	-	-	-	-	-	*	*	*	*	*	*	*	*
E2	-	-	-	-	-	-	-	-	-	-	-	*	*	*
D1	-	-	-	-	-	-	-	-	-	-	-	*	*	*
C5A	-	-	-	-	-	-	-	-	-	-	-	*	*	*
E6	-	-	-	-	-	-	-	-	-	-	-	*	*	*
E1	-	-	-	-	-	-	-	-	-	-	-	*	*	*
D6	-	-	-	-	-	-	-	-	-	-	-	*	*	*
E5	-	-	-	-	-	-	-	-	-	-	-	*	*	*
D3A	-	-	-	-	-	-	-	-	-	-	-	*	*	*
D2	-	-	-	-	-	-	-	-	-	-	-	*	*	*
D5	-	-	-	-	-	-	-	-	-	-	-	*	*	*

*p < 0.05.

TABLE B.5. Basic Statistics for Untransformed Crustacean Abundance, Sand Island Ocean Outfall Sampling Stations, O'ahu, Hawaii, August 2002

Statistic	Station														
	C1A	C2A	C3A	C5A	C6	D1	D2	D3A	D5	D6	E1	E2	E3	E5	E6
Mean	8.667	3.667	6.000	13.000	4.333	56.000	45.000	126.333	201.667	81.000	44.000	5.667	204.000	45.000	38.667
Median	3.000	0.000	6.000	10.000	4.000	12.000	32.000	59.000	217.000	82.000	45.000	6.000	41.000	11.000	9.000
Standard Deviation	10.693	6.351	3.000	8.888	1.528	80.579	24.269	145.222	123.715	25.515	22.517	2.517	294.532	60.630	51.384
Standard Error of Mean	6.173	3.667	1.732	5.132	0.882	46.522	14.012	83.844	71.427	14.731	13.000	1.453	170.048	35.005	29.667
95% of CI Mean	26.564	15.778	7.453	22.081	3.795	200.186	60.293	360.780	307.349	63.387	55.939	6.252	731.717	150.626	127.656
Skewness	1.715	1.732	0.000	1.346	0.935	1.725	1.719	1.638	-0.549	-0.176	-0.199	-0.586	1.728	1.730	1.732
Normality Test (D)	0.369ns	0.385ns	0.175ns	0.299ns	0.253ns	0.374ns	0.371ns	0.345ns	0.216ns	0.182ns	0.184ns	0.219ns	0.377ns	0.379ns	0.385ns

NOTE: CI = confidence interval. Normality was assessed with the Kolmogorov-Smirnov D statistic of goodness of fit to a normal distribution, $D_{0.05} > 0.4$; ns = not significant.

TABLE B.6. Basic Statistics for Untransformed Crustacean Taxa Number, Sand Island Ocean Outfall Sampling Stations, O'ahu, Hawaii, August 2002

Statistic	Station														
	C1A	C2A	C3A	C5A	C6	D1	D2	D3A	D5	D6	E1	E2	E3	E5	E6
Mean	2.333	1.333	2.667	6.000	3.000	4.000	7.667	11.667	12.333	9.333	7.333	3.000	13.667	6.667	5.000
Median	2.000	0.000	2.000	7.000	2.000	5.000	7.000	9.000	11.000	9.000	7.000	3.000	10.000	7.000	5.000
Standard Deviation	1.528	2.309	2.082	2.646	1.732	1.732	3.055	5.508	2.309	1.528	2.517	1.000	7.234	0.577	1.000
Standard Error of Mean	0.882	1.333	1.202	1.528	1.000	1.000	1.764	3.180	1.333	0.882	1.453	0.577	4.177	0.333	0.577
95% of CI Mean	3.795	5.737	5.172	6.573	4.303	4.303	7.590	13.683	5.737	3.795	6.252	2.484	17.972	1.434	2.484
Skewness	0.935	1.732	1.293	-1.458	1.732	-1.732	0.935	1.668	1.732	0.935	0.586	0.000	1.695	-1.732	0.000
Normality Test (D)	0.253ns	0.385ns	0.292ns	0.314ns	0.385ns	0.385ns	0.253ns	0.352ns	0.385ns	0.253ns	0.219ns	0.175ns	0.360ns	0.385ns	0.175ns

NOTE: CI = confidence interval. Normality was assessed with the Kolmogorov-Smirnov D statistic of goodness of fit to a normal distribution, $D_{0.05} > 0.4$; ns = not significant.

TABLE B.7. Analysis of Variance and A Posteriori Comparison of Means of Square Root Transformed Crustacean Abundance, Sand Island Ocean Outfall Sampling Stations, O'ahu, Hawai'i, August 2002

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F Ratio	P
Among Stations	601.169	14	42.941	2.628	0.0129
Experimental Error	490.190	30	16.340		
Total	1,091.359	44			

Station	C1A	C2A	C3A	C5A	C6	D1	D2	D3A	D5	D6	E1	E2	E3	E5	E6
Number	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Mean	2.576	1.106	2.394	3.469	2.061	6.105	6.559	9.998	13.654	8.922	6.472	2.337	11.641	5.680	5.300
Standard Deviation	1.745	1.915	0.636	1.203	0.363	5.300	1.721	6.289	4.781	1.444	1.783	0.557	10.136	4.371	3.983

F_{max} test for equal variance: Square root transformed data, F_{max} = 781.654, not significant at $p > 0.05$.

Station	C1A	C2A	C3A	C5A	C6	D1	D2	D3A	D5	D6	E1	E2	E3	E5	E6
Number	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Mean	8.667	3.667	6.000	13.000	4.333	56.000	45.000	126.333	201.667	81.000	44.000	5.667	204.000	45.000	38.667
Standard Deviation	10.693	6.351	3.000	8.888	1.528	80.579	24.269	145.222	123.715	25.515	22.517	2.517	294.532	60.630	51.384

F_{max} test for equal variance: Untransformed data, F_{max} = 37,178.143, significant at $p < 0.05$.

Conclusion: There are significant differences in mean crustacean abundance between the following station pairs, as determined by Student-Newman-Keuls tests:

	C6	E2	C3	C1	C5	E6	E5	D1	E1	D2	D6	D3	E3	D5
C2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C6	-	-	-	-	-	-	-	-	-	-	-	-	-	*
E2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
E6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
E5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
E1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
E3	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* $p < 0.05$.

TABLE B.8. Analysis of Variance and A Posteriori Comparison of Means of Untransformed Crustacean Taxa Number, Sand Island Ocean Outfall Sampling Stations, O'ahu, Hawai'i, August 2002

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F Ratio	P
Among Stations	642.133	14	45.867	5.160	<0.0001
Experimental Error	266.667	30	8.889		
Total	908.800	44			

Station	C1A	C2A	C3A	C5A	C6	D1	D2	D3A	D5	D6	E1	E2	E3	E5	E6
Number	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Mean	2.333	1.333	2.667	6.000	3.000	4.000	7.667	11.667	12.333	9.333	7.333	3.000	13.667	6.667	5.000
Standard Deviation	1.528	2.309	2.082	2.646	1.732	1.732	3.055	5.508	2.309	1.528	2.517	1.000	7.234	0.577	1.000

F_{max} test for equal variance: Untransformed data, F_{max} = 157.000, not significant at p > 0.05.

Conclusion: There are significant differences in mean crustacean taxa number between the following station pairs, as determined by Student-Newman-Keuls tests:

	C1A	C3A	C6	E2	D1	E6	C5A	E5	E1	D2	D6	D3A	D5	E3
C2A	-	-	-	-	-	-	-	-	-	-	-	*	*	*
C1A	-	-	-	-	-	-	-	-	-	-	-	*	*	*
C3A	-	-	-	-	-	-	-	-	-	-	-	*	*	*
C6	-	-	-	-	-	-	-	-	-	-	-	*	*	*
E2	-	-	-	-	-	-	-	-	-	-	-	*	*	*
D1	-	-	-	-	-	-	-	-	-	-	-	*	*	*
E6	-	-	-	-	-	-	-	-	-	-	-	*	*	*
C5A	-	-	-	-	-	-	-	-	-	-	-	-	-	-
E5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
E1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D3A	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D5	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*p < 0.05.

Appendix C. Basic Statistics and Variances for Mollusk Data

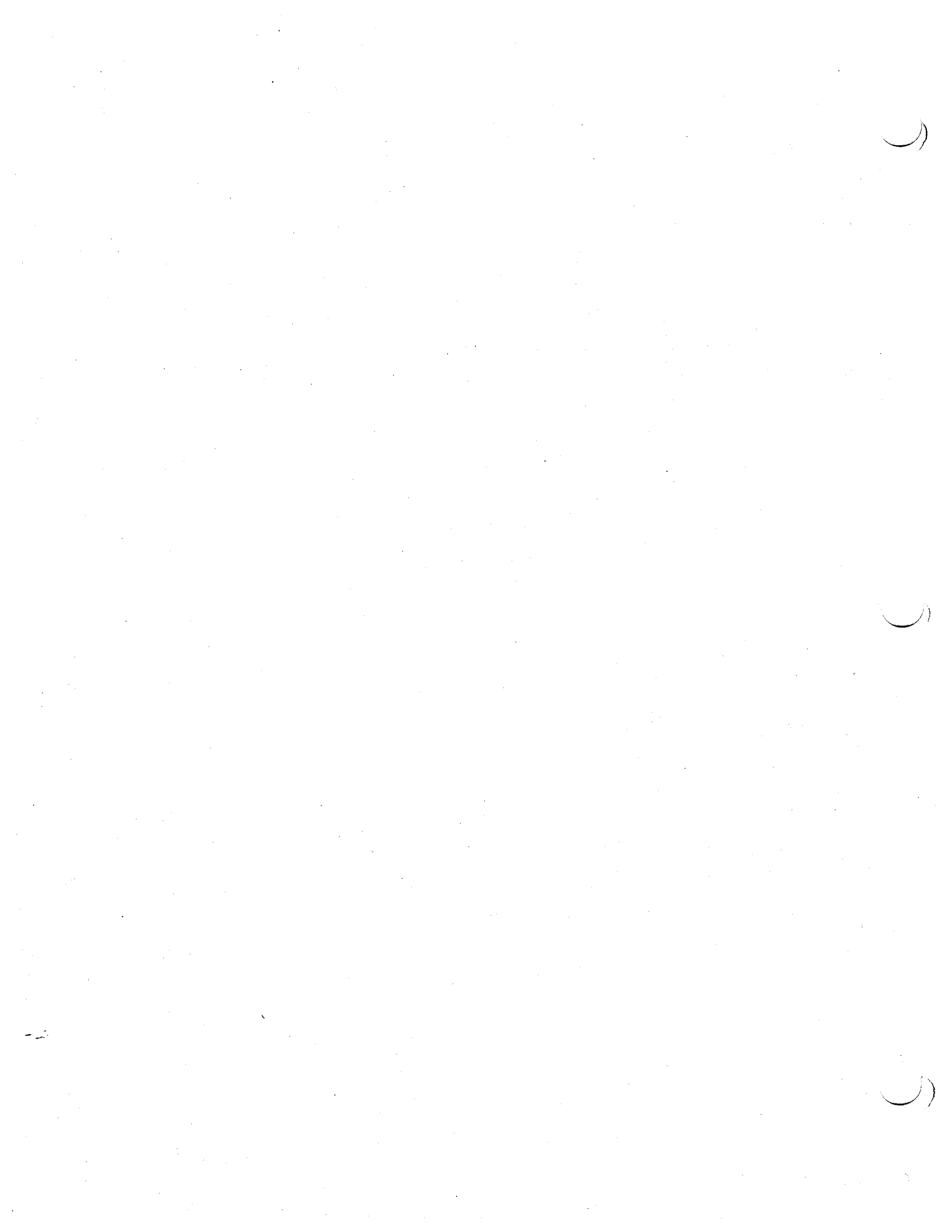


TABLE C.1. Basic Statistics for Untransformed Mollusk Abundance, Sand Island Ocean Outfall Sampling Stations, O'ahu, Hawaii, August 2002

Statistic	Station														
	C1A	C2A	C3A	C5A	C6	D1	D2	D3A	D5	D6	E1	E2	E3	E5	E6
Mean	89,000	134,667	400,000	391,333	309,000	309,333	376,333	178,333	308,667	281,333	139,667	469,000	701,000	718,333	49,333
Median	66,000	133,000	383,000	382,000	336,000	252,000	385,000	178,000	317,000	285,000	148,000	498,000	705,000	751,000	48,000
Standard Deviation	48,754	34,530	65,184	27,227	53,842	164,664	31,896	26,502	36,226	21,733	43,108	75,783	74,081	57,449	3,215
Standard Error of Mean	28,148	19,936	37,634	15,720	31,086	95,069	18,415	15,301	20,915	12,548	24,889	43,753	42,771	33,168	1,856
95% of CI Mean	121,123	85,785	161,940	67,642	133,763	409,082	79,240	65,839	89,998	53,993	107,096	188,270	184,042	142,722	7,986
Skewness	1.650	0.217	1.094	1.361	-1.689	1.377	-1.132	0.057	-0.980	-0.738	-0.837	-1.470	-0.242	-1.731	1.545
Normality Test (D)	0.348ns	0.186ns	0.270ns	0.301ns	0.359ns	0.303ns	0.274ns	0.176ns	0.258ns	0.234ns	0.243ns	0.316ns	0.188ns	0.382ns	0.328ns

NOTE: CI = confidence interval. Normality was assessed with the Kolmogorov-Smirnov D statistic of goodness of fit to a normal distribution, $D_{.05} > 0.4$; ns = not significant.

TABLE C.2. Basic Statistics for Untransformed Mollusk Taxa Number, Sand Island Ocean Outfall Sampling Stations, O'ahu, Hawaii, August 2002

Statistic	Station														
	C1A	C2A	C3A	C5A	C6	D1	D2	D3A	D5	D6	E1	E2	E3	E5	E6
Mean	19,667	25,000	59,333	38,333	51,333	29,333	26,000	27,000	50,333	37,333	16,333	32,667	57,333	49,333	16,000
Median	21,000	27,000	53,000	41,000	51,000	31,000	28,000	25,000	52,000	33,000	16,000	31,000	63,000	50,000	16,000
Standard Deviation	3,215	4,359	11,846	4,619	6,506	5,686	3,464	4,359	3,786	10,214	1,528	3,786	10,693	3,055	1,000
Standard Error of Mean	1,856	2,517	6,839	2,667	3,756	3,283	2,000	2,517	2,186	5,897	0,882	2,186	6,173	1,764	0,577
95% of CI Mean	7,986	10,829	29,430	11,475	16,164	14,127	8,606	10,829	9,406	25,376	3,795	9,406	26,564	7,590	2,484
Skewness	-1.545	-1.630	1.718	-1.732	0.230	-1.206	-1.732	1.630	-1.597	1.565	0.935	1.597	-1.715	-0.935	0.000
Normality Test (D)	0.328ns	0.344ns	0.370ns	0.385ns	0.187ns	0.282ns	0.385ns	0.344ns	0.337ns	0.331ns	0.253ns	0.337ns	0.369ns	0.253ns	0.175ns

NOTE: CI = confidence interval. Normality was assessed with the Kolmogorov-Smirnov D statistic of goodness of fit to a normal distribution, $D_{.05} > 0.4$; ns = not significant.

TABLE C.3. Analysis of Variance and A Posteriori Comparison of Means of Square Root Transformed Mollusk Abundance, Sand Island Ocean Outfall Sampling Stations, O'ahu, Hawai'i, August 2002

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F Ratio	P
Among Stations	1,381.394	14	98.671	31.047	<0.0001
Experimental Error	95.344	30	3.178		
Total	1,476.738	44			

Station	C1A	C2A	C3A	C5A	C6	D1	D2	D3A	D5	D6	E1	E2	E3	E5	E6
Number	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Mean	9.216	11.540	19.957	19.774	17.531	17.192	19.387	13.329	17.548	16.765	11.717	21.607	26.452	26.787	7.021
Standard Deviation	2.468	1.494	1.611	0.683	1.576	4.543	0.829	0.995	1.043	0.651	1.889	1.791	1.404	1.085	0.227

F_{max} test for equal variance: Square root transformed data, F_{max} = 400.439, not significant at p > 0.05.

Station	C1A	C2A	C3A	C5A	C6	D1	D2	D3A	D5	D6	E1	E2	E3	E5	E6
Number	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Mean	89.000	134.667	400.000	391.333	309.000	309.333	376.333	178.333	308.667	281.333	139.667	469.000	701.000	718.333	49.333
Standard Deviation	48.754	34.530	65.184	27.227	53.842	164.664	31.896	26.502	36.226	21.733	43.108	75.783	74.081	57.449	3.215

F_{max} test for equal variance: Untransformed data, F_{max} = 2.623.968, significant at p < 0.05.

Conclusion: There are significant differences in mean mollusk abundance between the following station pairs, as determined by Student-Newman-Keuls tests:

	C1	C2	E1	D3	D6	D1	C6	D5	D2	C5	C3	E2	E3	E5
E6	-	*	*	*	*	*	*	*	*	*	*	*	*	*
C1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
E1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
E2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
E3	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*p < 0.05.

TABLE C.4. Analysis of Variance and A Posteriori Comparison of Means of Untransformed Mollusk Taxa Number, Sand Island Ocean Outfall Sampling Stations, O'ahu, Hawai'i, August 2002

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F Ratio	p
Among Stations	9,104.311	14	650.308	17.523	<0.0001
Experimental Error	1,113.333	30	37.111		
Total	10,217.644	44			

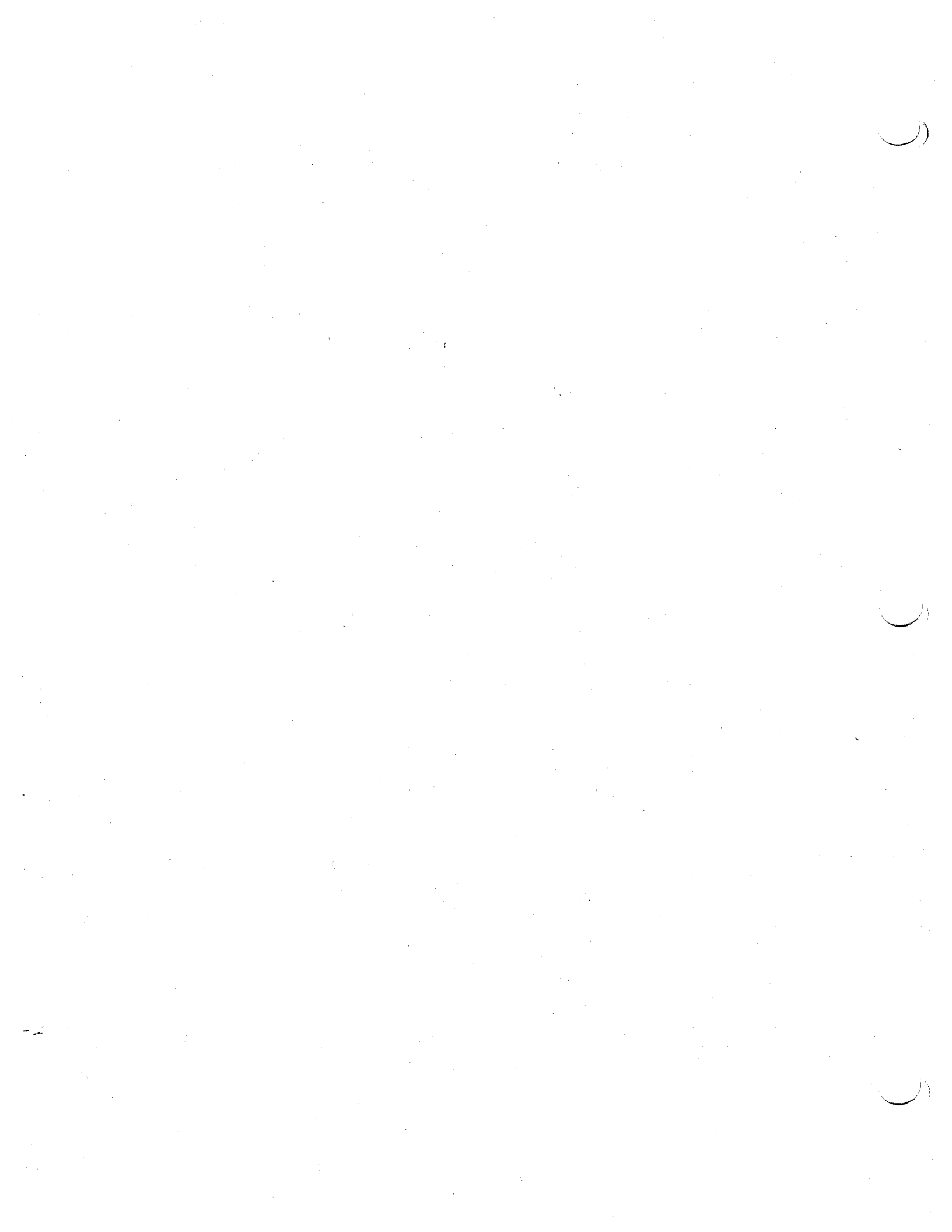
Untransformed Data Station	C1A	C2A	C3A	C5A	C6	D1	D2	D3A	D5	D6	E1	E2	E3	E5	E6
Number	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Mean	19.667	25.000	59.333	38.333	51.333	29.333	26.000	27.000	50.333	37.333	16.333	32.667	57.333	49.333	16.000
Standard Deviation	3.215	4.359	11.846	4.619	6.506	5.686	3.464	4.359	3.786	10.214	1.528	3.786	10.693	3.055	1.000

F_{max} test for equal variance: Untransformed data, F_{max} = 140.333, not significant at p > 0.05.

Conclusion: There are significant differences in mean mollusk taxa number between the following station pairs, as determined by Student-Newman-Keuls tests:

	E1	C1A	C2A	D2	D3A	D1	E2	C3A	D6	C5A	E5	D5	C6	E3	C3A
E6	-	-	-	-	-	-	*	*	*	*	*	*	*	*	*
E1	-	-	-	-	-	-	*	*	*	*	*	*	*	*	*
C1A	-	-	-	-	-	-	*	*	*	*	*	*	*	*	*
C2A	-	-	-	-	-	-	*	*	*	*	*	*	*	*	*
D2	-	-	-	-	-	-	*	*	*	*	*	*	*	*	*
D3A	-	-	-	-	-	-	*	*	*	*	*	*	*	*	*
D1	-	-	-	-	-	-	*	*	*	*	*	*	*	*	*
E2	-	-	-	-	-	-	*	*	*	*	*	*	*	*	*
D6	-	-	-	-	-	-	*	*	*	*	*	*	*	*	*
C5A	-	-	-	-	-	-	*	*	*	*	*	*	*	*	*
E5	-	-	-	-	-	-	*	*	*	*	*	*	*	*	*
D5	-	-	-	-	-	-	*	*	*	*	*	*	*	*	*
C6	-	-	-	-	-	-	*	*	*	*	*	*	*	*	*
E3	-	-	-	-	-	-	*	*	*	*	*	*	*	*	*

*p < 0.05.



Appendix D. Taxon Abundance for Nonmollusks

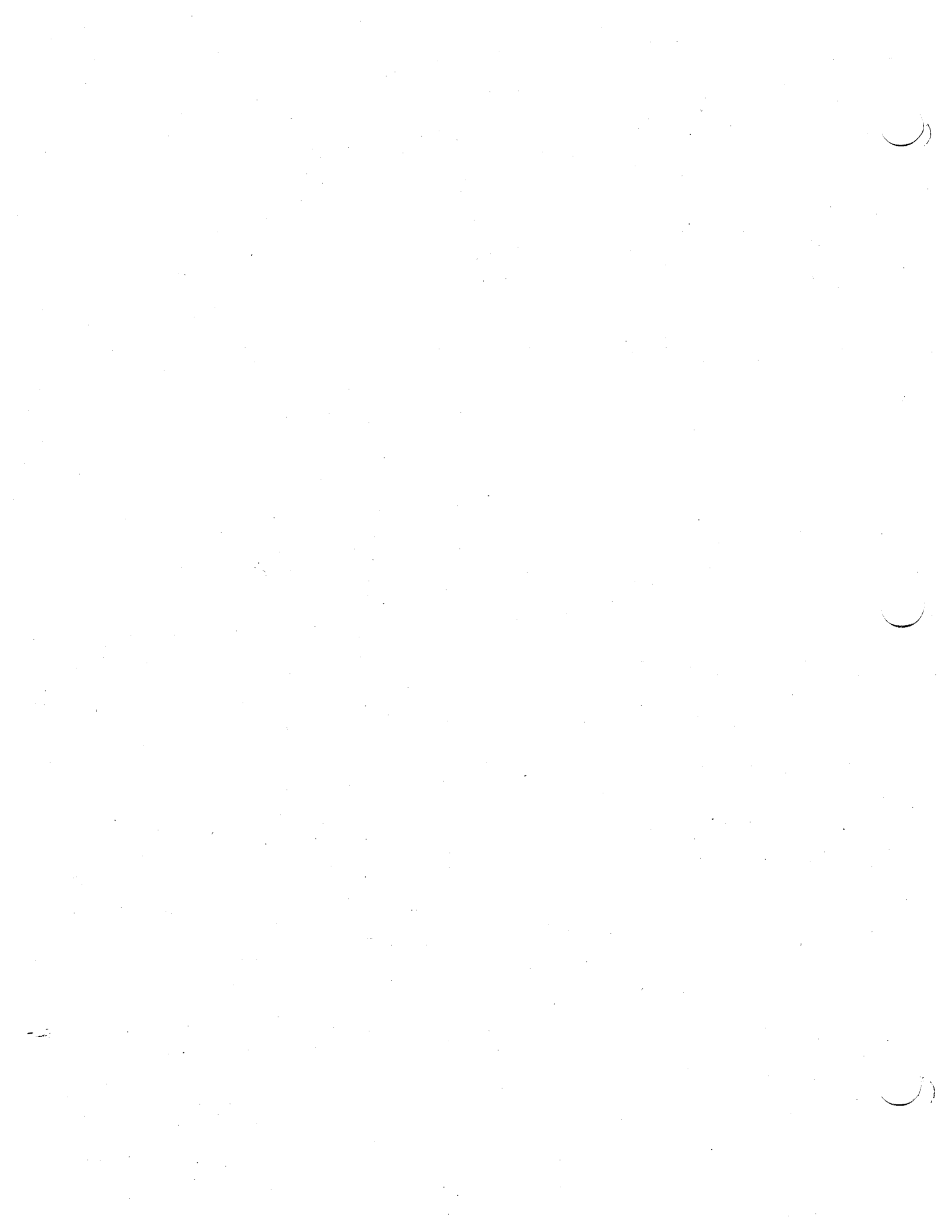


TABLE D.1. Taxon Abundance from Three Replicates for Nonmollusk Components (Excluding Crustaceans), Sand Island Ocean Outfall Sampling Stations C1A and C2A, O'ahu, Hawai'i, August 2002

Taxon	No. of Individuals at C1A				No. of Individuals at C2A			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
POLYCHAETA								
<i>Acrocirrus</i> sp. A								
<i>Aglaophamus circinata</i>								
<i>Amphicorina</i> sp. B	0	0	0	0	0	0	0	0
<i>Amphicteis gunneri</i>								
<i>Amphiduros</i> sp. A								
<i>Amphiglena mediterranea</i>								
<i>Amphiglena</i> sp. A								
<i>Aonides oxycephala</i>								
<i>Aonides</i> sp. A	0	0	1	1	0	0	1	1
<i>Aphelochaeta marioni</i>								
Aphroditidae sp. A								
<i>Arabella</i> cf. <i>multidentata</i>								
<i>Aricidea catherinae</i>								
<i>Aricidea</i> (<i>Aedicira</i>) sp. A								
<i>Armandia intermedia</i>	0	0	0	0	0	0	0	0
<i>Augeneriella dubia</i>								
<i>Axiothella quadrimaculata</i>								
<i>Bispira</i> sp. A								
<i>Branchiomma nigromaculata</i>								
<i>Branchiosyllis exilis</i>								
<i>Brania rhopalophora</i>	0	0	0	0	0	0	0	0
<i>Brania</i> sp. B								
<i>Capitella capitata</i>	1	0	0	1	0	0	0	0
Capitellidae sp.	0	0	0	0	0	0	0	0
<i>Caulleriella acicula</i>								
<i>Caulleriella bioculatus</i>								
<i>Caulleriella zetlandica</i>								
<i>Caulleriella</i> sp. A								
<i>Caulleriella</i> sp. B								
Chaetopteridae sp. A								
Cirratulidae sp. A								
<i>Cirratulus africanus</i>								
<i>Cirratulus</i> sp. B								
<i>Cirriformia punctata</i>								
<i>Cossura</i> sp. A								
<i>Dipolydora normalis</i>								
<i>Dipolydora pilikia</i>								
<i>Dipolydora</i> sp. B								
<i>Dodecaceria</i> sp. A								
<i>Dorvillea</i> sp. B								
<i>Euchone</i> cf. <i>rosea</i>								
<i>Euchone</i> sp. B								
<i>Eumida sanguinea</i>								
<i>Eumida</i> sp. B								
<i>Eunice antennata</i>								
<i>Eunice australis</i>								
<i>Eunice havaica</i>								
<i>Eunice vittata</i>								
<i>Euthalenessa</i> sp. A								

TABLE D.1—Continued

Taxon	No. of Individuals at C1A				No. of Individuals at C2A			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Exogone longicornis</i>								
<i>Exogone</i> sp. C								
<i>Exogone</i> sp. E	0	0	0	0	0	0	0	0
<i>Fabricia</i> sp. A								
<i>Glycera tessellata</i>								
<i>Goniada emerita</i>								
<i>Goniada maculata</i>								
<i>Grubeosyllis mediudentata</i>	0	0	1	1	0	0	0	0
<i>Haplosyllis spongicola</i>								
<i>Harmothoe</i> sp. A								
Hesionidae sp. G								
Hesionidae sp. H								
<i>Hesionura australiensis</i>	0	0	0	0	0	0	1	1
<i>Hydroides bannerorum</i>								
<i>Jasmineira caudata</i>								
<i>Josephella marenzelleri</i>								
<i>Laonice cirrata</i>	0	0	0	0	0	0	1	1
<i>Laonome</i> sp. A								
<i>Lepidasthenia</i> sp. A								
<i>Linopherus microcephala</i>	0	0	0	0	0	0	0	0
<i>Loimia</i> sp. A								
<i>Lumbrineriopsis</i> sp. A								
<i>Lumbrineris latreilli</i>								
<i>Lumbrineris tetraura</i>	0	0	1	1	0	0	0	0
<i>Lumbrineris</i> sp. A								
<i>Lygdamis nesiotis</i>								
<i>Lysidice ninetta</i>								
<i>Lysidice</i> sp. A								
<i>Lysippe</i> sp. A								
<i>Magelona capensis</i>								
<i>Magelona cincta</i>								
<i>Magelona</i> sp. A								
<i>Malacoceros</i> sp. A								
Maldanidae sp. A								
<i>Marphysa</i> cf. <i>conferta</i>								
<i>Marphysa depressa</i>								
<i>Megalomma intermedium</i>								
<i>Melinna monoceroides</i>								
<i>Mesochaetopterus sagittarius</i>								
<i>Micronereis</i> sp. A								
<i>Micropthalmus</i> sp.	0	0	0	0	0	0	0	0
<i>Micropodarke</i> sp. A	1	0	2	3	0	2	4	6
<i>Micropodarke</i> sp. B								
<i>Microspio granulata</i>								
<i>Monticellina</i> cf. <i>dorsobranchialis</i>								
<i>Monticellina</i> sp. A								
<i>Monticellina</i> sp. B								
<i>Mooreonuphis</i> sp. A								
<i>Myriochele oculata</i>	0	0	0	0	0	0	0	0
<i>Myriochele pygidialis</i>								
<i>Myriochele</i> sp. A								
<i>Mystides</i> nr. <i>caeca</i>								

TABLE D.1—Continued

Taxon	No. of Individuals at C1A				No. of Individuals at C2A			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Naineris</i> sp. A								
<i>Neanthes arenaceodentata</i>								
<i>Nematonereis unicornis</i>								
<i>Neodexiospira preacuta</i>								
<i>Nereis</i> sp. B								
<i>Nothria</i> sp. B								
<i>Notomastus tenuis</i>	1	1	1	3	0	0	0	0
<i>Odontosyllis maculata</i>								
<i>Odontosyllis</i> sp. A								
<i>Odontosyllis</i> sp. B								
<i>Ophiodromus angustifrons</i>	2	1	0	3	0	0	1	1
<i>Ophiodromus</i> sp. A								
<i>Ophiodromus</i> sp. B								
<i>Ophryotrocha adherens</i>								
<i>Paleanotus</i> sp. B								
<i>Palmyra</i> sp. A								
<i>Paramphinome</i> sp. A	0	0	0	0	0	0	0	0
<i>Paraonella</i> sp. A	0	0	0	0	0	0	0	0
<i>Pareulepis malayana</i>								
<i>Pholoe</i> sp. A								
<i>Pholoe</i> sp. B								
<i>Pholoe</i> sp. C								
<i>Pholoe</i> sp. D								
<i>Pholoe</i> sp. F								
<i>Phyllochaetopterus socialis</i>								
<i>Phyllochaetopterus verrilli</i>								
<i>Phyllochaetopterus</i> sp. A								
<i>Phyllodoce madeirensis</i>	0	0	0	0	0	1	0	1
<i>Phyllodoce parva</i>								
<i>Phyllodoce</i> sp. A								
<i>Phyllodoce</i> sp. C								
<i>Phyllodoce</i> sp. F								
Phyllodocidae sp. A								
Phyllodocidae sp. C								
Phyllodocidae sp. G								
<i>Pionosyllis heterocirrata</i>	0	0	3	3	2	1	8	11
<i>Pionosyllis spinisetosa</i>	0	0	0	0	0	0	0	0
<i>Pionosyllis weismanni</i>								
<i>Pionosyllis</i> sp. C								
<i>Pisione remota</i>	0	0	0	0	0	0	0	0
<i>Pisione</i> sp. A	0	0	0	0	1	1	3	5
<i>Pisionidens</i> sp. A								
<i>Poecilochaetus johnsoni</i>								
<i>Poecilochaetus serpens</i>								
<i>Polycirrus plumosus</i>								
<i>Polycirrus</i> sp. A								
<i>Polycirrus</i> sp. C								
Polynoidae sp. B								
Polynoidae sp. C								
<i>Polyophthalmus pictus</i>	0	0	0	0	0	1	0	1
<i>Potamilla</i> sp. A								
<i>Prionospio cirrifera</i>	0	0	0	0	1	1	0	2

TABLE D.1—Continued

Taxon	No. of Individuals at C1A				No. of Individuals at C2A			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Prionospio cirrobranchiata</i>	1	0	0	1	0	0	0	0
<i>Prionospio steenstrupi</i>	0	0	0	0	0	0	0	0
<i>Progoniada</i> sp. A	0	0	0	0	0	0	0	0
<i>Progoniada</i> sp. C								
<i>Protodorvillea biarticulata</i>	0	0	0	0	1	0	0	1
<i>Protodorvillea egena</i>	0	0	0	0	0	0	0	0
<i>Protodriloides</i> sp. A								
<i>Protodrilus</i> sp. A.	0	0	0	0	0	0	0	0
<i>Psamathe</i> sp. A								
<i>Pseudopolydora corallicola</i>								
<i>Pseudopotamilla reniformis</i>								
<i>Pseudovermilia occidentalis</i>								
<i>Questa caudicirra</i>								
<i>Questa</i> sp. A	1	1	0	2	0	0	0	0
<i>Questa</i> sp. B								
<i>Rhodine</i> sp. A								
<i>Rhynchospio</i> sp. B								
<i>Sabella</i> sp. A								
<i>Sabellastarte spectabilis</i>								
<i>Saccocirrus oahuensis</i>	0	0	0	0	0	0	1	1
<i>Saccocirrus waianaensis</i>	0	0	0	0	0	0	0	0
<i>Salmacina dysteri</i>								
<i>Samythella</i> sp. A								
Scalibregmidae sp. B								
<i>Scalisetosus</i> sp. A								
<i>Schistomeringos macilenta</i>								
<i>Schistomeringos rudolphi</i>	0	1	0	1	0	0	0	0
<i>Scolecopsis victoriensis</i>	0	0	0	0	0	0	0	0
<i>Scolecopsis</i> sp. B	0	0	0	0	0	0	0	0
<i>Scyphoproctus djiboutiensis</i>								
<i>Sigalion</i> sp. A								
<i>Sigambra tentaculata</i>	0	0	0	0	0	0	0	0
<i>Sphaerodoropsis</i> sp. C								
<i>Sphaerosyllis riseri</i>	0	0	0	0	0	0	0	0
<i>Sphaerosyllis sublaevis</i>								
<i>Sphaerosyllis</i> sp. D								
<i>Sphaerosyllis</i> sp. E								
<i>Sphaerosyllis</i> sp. G	0	0	0	0	0	0	0	0
<i>Spio blakei</i>	1	3	0	4	0	0	1	1
<i>Spio filicornis</i>								
<i>Spiochaetopterus</i> sp. A								
Spionidae sp. B								
Spionidae sp. D								
<i>Spiophanes bombyx</i>								
<i>Streptosyllis</i> sp. A	0	0	0	0	0	0	0	0
<i>Syllides bansei</i>	0	0	0	0	0	0	0	0
<i>Syllis gracilis</i>								
<i>Synelmis acuminata</i>	1	0	0	1	2	0	1	3
<i>Synelmis albini</i>								
<i>Synelmis</i> sp. A								
<i>Synelmis</i> sp. B								
Terebellidae sp. A								

TABLE D.1—Continued

Taxon	No. of Individuals at C1A				No. of Individuals at C2A			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
Terebellidae sp. B								
Travisia sp. A								
Trichobranchus glacialis								
Typosyllis aciculata orientalis								
Typosyllis cornuta	0	0	0	0	0	0	0	0
Typosyllis variegata								
Typosyllis sp. A								
Typosyllis sp. G								
Vermiliopsis torquata								
OLIGOCHAETA	4	3	4	11	7	2	5	14
NEMATODA	5	17	61	83	7	7	10	24
PLATYHELMINTHES	0	0	0	0	0	0	0	0
PORIFERA								
ECHINODERMATA								
Asteroidea								
Echinoidea	0	1	0	1	0	0	0	0
Holothuroidea	1	0	0	1	0	0	0	0
Ophiuroidea	0	1	0	1	0	0	0	0
ANTHOZOA	1	0	0	1	0	0	0	0
HYDROZOA								
SCYPHOZOA								
KINORHYNCHA								
Echinoderes sp. A	0	0	0	0	0	0	0	0
NEMERTEA	10	3	1	14	0	5	4	9
INSECTA								
SIPUNCULA								
Apionsoma misakianum	0	0	0	0	0	0	0	0
Aspidosiphon muelleri	0	0	0	0	0	0	0	0
Lithacrosiphon cristatus								
Phascolosoma nigrescens								
Siphonosoma cumanense								
Sipunculus nudus								
Sipuncula sp. G	0	0	0	0	0	0	0	0
Sipuncula spp.	0	0	0	0	0	0	0	0
PRIAPULIDA	0	1	0	1	0	0	0	0
CHAETOGNATHA	0	0	0	0	1	1	0	2

TABLE D.1—Continued

Taxon	No. of Individuals at C1A				No. of Individuals at C2A			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
PHORONIDA								
<i>Phoronis psammophila</i>	1	0	0	1	0	0	0	0
BRYOZOA								
ECHIURA								
HEMICHORDATA								
CHORDATA								
Urochordata								
<i>Branchiostoma</i> sp. A	0	0	0	0	0	0	0	0
Osteichthyes								
Total No. of Individuals/Replicate	31	33	75		22	22	41	
Total No. of Taxa/Replicate	14	11	9		8	10	13	
Total No. of Individuals Sampled				139				85
Total No. of Taxa Sampled				22				18

TABLE D.2. Taxon Abundance from Three Replicates for Nonmollusk Components (Excluding Crustaceans), Sand Island Ocean Outfall Sampling Stations C3A and C5A, O'ahu, Hawai'i, August 2002

Taxon	No. of Individuals at C3A				No. of Individuals at C5A			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
POLYCHAETA								
<i>Acrocirrus</i> sp. A								
<i>Aglaophamus circinata</i>								
<i>Amphicorina</i> sp. B	0	0	0	0	1	0	0	1
<i>Amphicteis gunneri</i>								
<i>Amphiduros</i> sp. A								
<i>Amphiglena mediterranea</i>								
<i>Amphiglena</i> sp. A								
<i>Aonides oxycephala</i>								
<i>Aonides</i> sp. A	0	1	0	1	1	0	0	1
<i>Aphelochaeta marioni</i>								
Aphroditidae sp. A								
<i>Arabella</i> cf. <i>multidentata</i>								
<i>Aricidea catherinae</i>								
<i>Aricidea</i> (<i>Aedicira</i>) sp. A								
<i>Arandia intermedia</i>	0	0	0	0	1	0	0	1
<i>Augeneriella dubia</i>								
<i>Axiothella quadrimaculata</i>								
<i>Bispira</i> sp. A								
<i>Branchiomma nigromaculata</i>								
<i>Branchiosyllis exilis</i>								
<i>Brania rhopalophora</i>	0	0	0	0	0	0	0	0
<i>Brania</i> sp. B								
<i>Capitella capitata</i>	0	0	0	0	0	0	0	0
Capitellidae sp.	0	0	0	0	0	0	0	0
<i>Caulleriella acicula</i>								
<i>Caulleriella bioculatus</i>								
<i>Caulleriella zetlandica</i>								
<i>Caulleriella</i> sp. A								
<i>Caulleriella</i> sp. B								
Chaetopteridae sp. A								
Cirratulidae sp. A								
<i>Cirratulus africanus</i>								
<i>Cirratulus</i> sp. B								
<i>Cirriformia punctata</i>								
<i>Cossura</i> sp. A								
<i>Dipolydora normalis</i>								
<i>Dipolydora pilikia</i>								
<i>Dipolydora</i> sp. B								
<i>Dodecaceria</i> sp. A								
<i>Dorvillea</i> sp. B								
<i>Euchone</i> cf. <i>rosea</i>								
<i>Euchone</i> sp. B								
<i>Eumida sanguinea</i>								
<i>Eumida</i> sp. B								
<i>Eunice antennata</i>								
<i>Eunice australis</i>								
<i>Eunice havaica</i>								
<i>Eunice vittata</i>								
<i>Euthalenessa</i> sp. A								

TABLE D.2—Continued

Taxon	No. of Individuals at C3A				No. of Individuals at C5A			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Exogone longicornis</i>								
<i>Exogone</i> sp. C								
<i>Exogone</i> sp. E	0	0	0	0	1	0	0	1
<i>Fabricia</i> sp. A								
<i>Glycera tessellata</i>								
<i>Goniada emerita</i>								
<i>Goniada maculata</i>								
<i>Grubeosyllis mediudentata</i>	0	0	0	0	0	0	0	0
<i>Haplosyllis spongicola</i>								
<i>Harmothoe</i> sp. A								
Hesionidae sp. G								
Hesionidae sp. H								
<i>Hesionura australiensis</i>	0	0	0	0	0	0	1	1
<i>Hydroides bannerorum</i>								
<i>Jasmineira caudata</i>								
<i>Josephella marenzelleri</i>								
<i>Laonice cirrata</i>	0	0	0	0	1	1	0	2
<i>Laonome</i> sp. A								
<i>Lepidasthenia</i> sp. A								
<i>Linopherus microcephala</i>	0	0	0	0	0	2	0	2
<i>Loimia</i> sp. A								
<i>Lumbrineriopsis</i> sp. A								
<i>Lumbrineris latreilli</i>								
<i>Lumbrineris tetraura</i>	0	0	0	0	0	0	0	0
<i>Lumbrineris</i> sp. A								
<i>Lygdamis nesiotis</i>								
<i>Lysidice ninetta</i>								
<i>Lysidice</i> sp. A								
<i>Lysippe</i> sp. A								
<i>Magelona capensis</i>								
<i>Magelona cincta</i>								
<i>Magelona</i> sp. A								
<i>Malacoceros</i> sp. A								
Maldanidae sp. A								
<i>Marphysa</i> cf. <i>conferta</i>								
<i>Marphysa depressa</i>								
<i>Megalomma intermedium</i>								
<i>Melinna monoceroides</i>								
<i>Mesochaetopterus sagittarius</i>								
<i>Micronereis</i> sp. A								
<i>Microphthalmus</i> sp.	0	0	1	1	0	0	0	0
<i>Micropodarke</i> sp. A	0	0	0	0	1	6	0	7
<i>Micropodarke</i> sp. B								
<i>Microspio granulata</i>								
<i>Monticellina</i> cf. <i>dorsobranchialis</i>								
<i>Monticellina</i> sp. A								
<i>Monticellina</i> sp. B								
<i>Mooreonuphis</i> sp. A								
<i>Myriochele oculata</i>	0	1	0	1	0	0	0	0
<i>Myriochele pygidialis</i>								
<i>Myriochele</i> sp. A								
<i>Mystides</i> nr. <i>caeca</i>								

TABLE D.2—Continued

Taxon	No. of Individuals at C3A				No. of Individuals at C5A			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Naineris</i> sp. A								
<i>Neanthes arenaceodentata</i>								
<i>Nematonereis unicornis</i>								
<i>Neodexiospira preacuta</i>								
<i>Nereis</i> sp. B								
<i>Nothria</i> sp. B								
<i>Notomastus tenuis</i>	0	0	0	0	1	1	0	2
<i>Odontosyllis maculata</i>								
<i>Odontosyllis</i> sp. A								
<i>Odontosyllis</i> sp. B								
<i>Ophiodromus angustifrons</i>	0	2	2	4	1	1	2	4
<i>Ophiodromus</i> sp. A								
<i>Ophiodromus</i> sp. B								
<i>Ophryotrocha adherens</i>								
<i>Paleanotus</i> sp. B								
<i>Palmyra</i> sp. A								
<i>Paramphinome</i> sp. A	0	0	1	1	0	0	1	1
<i>Paraonella</i> sp. A	0	0	0	0	0	0	0	0
<i>Pareulepis malayana</i>								
<i>Pholoe</i> sp. A								
<i>Pholoe</i> sp. B								
<i>Pholoe</i> sp. C								
<i>Pholoe</i> sp. D								
<i>Pholoe</i> sp. F								
<i>Phyllochaetopterus socialis</i>								
<i>Phyllochaetopterus verrilli</i>								
<i>Phyllochaetopterus</i> sp. A								
<i>Phyllodoce madeirensis</i>	0	0	0	0	0	1	0	1
<i>Phyllodoce parva</i>								
<i>Phyllodoce</i> sp. A								
<i>Phyllodoce</i> sp. C								
<i>Phyllodoce</i> sp. F								
<i>Phyllodocidae</i> sp. A								
<i>Phyllodocidae</i> sp. C								
<i>Phyllodocidae</i> sp. G								
<i>Pionosyllis heterocirrata</i>	4	10	16	30	7	8	1	16
<i>Pionosyllis spinisetosa</i>	0	0	0	0	0	0	0	0
<i>Pionosyllis weismanni</i>								
<i>Pionosyllis</i> sp. C								
<i>Pisione remota</i>	0	1	0	1	0	0	0	0
<i>Pisione</i> sp. A	1	0	1	2	0	3	0	3
<i>Pisionidens</i> sp. A								
<i>Poecilochaetus johnsoni</i>								
<i>Poecilochaetus serpens</i>								
<i>Polycirrus plumosus</i>								
<i>Polycirrus</i> sp. A								
<i>Polycirrus</i> sp. C								
<i>Polynoidae</i> sp. B								
<i>Polynoidae</i> sp. C								
<i>Polyophthalmus pictus</i>	0	0	0	0	0	1	1	2
<i>Potamilla</i> sp. A								
<i>Prionospio cirrifera</i>	0	5	0	5	4	5	0	9

TABLE D.2—Continued

Taxon	No. of Individuals at C3A				No. of Individuals at C5A			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Prionospio cirrobranchiata</i>	0	1	0	1	0	0	0	0
<i>Prionospio steenstrupi</i>	0	2	0	2	1	1	0	2
<i>Progoniada</i> sp. A	0	0	0	0	1	0	0	1
<i>Progoniada</i> sp. C								
<i>Protodorvillea biarticulata</i>	0	0	0	0	0	3	0	3
<i>Protodorvillea egena</i>	0	3	0	3	0	0	0	0
<i>Protodriloides</i> sp. A								
<i>Protodrilus</i> sp. A	0	0	0	0	1	0	1	2
<i>Psamathe</i> sp. A								
<i>Pseudopolydora corallicola</i>								
<i>Pseudopotamilla reniformis</i>								
<i>Pseudovermilia occidentalis</i>								
<i>Questa caudicirra</i>								
<i>Questa</i> sp. A	0	0	0	0	0	2	0	2
<i>Questa</i> sp. B								
<i>Rhodine</i> sp. A								
<i>Rhynchospio</i> sp. B								
<i>Sabella</i> sp. A								
<i>Sabellastarte spectabilis</i>								
<i>Saccocirrus oahuensis</i>	0	0	0	0	0	0	0	0
<i>Saccocirrus waianaensis</i>	3	0	2	5	0	0	0	0
<i>Salmacina dysteri</i>								
<i>Samythella</i> sp. A								
<i>Scalibregmidae</i> sp. B								
<i>Scalisetosus</i> sp. A								
<i>Schistomeringos macilenta</i>								
<i>Schistomeringos rudolphi</i>	0	0	0	0	0	0	0	0
<i>Scolecopsis victoriensis</i>	0	1	0	1	0	0	0	0
<i>Scolecopsis</i> sp. B	0	0	0	0	0	0	1	1
<i>Scyphoproctus djiboutiensis</i>								
<i>Sigalion</i> sp. A								
<i>Sigambra tentaculata</i>	0	0	0	0	1	0	0	1
<i>Sphaerodoropsis</i> sp. C								
<i>Sphaerosyllis riseri</i>	3	0	0	3	0	1	0	1
<i>Sphaerosyllis sublaevis</i>								
<i>Sphaerosyllis</i> sp. D								
<i>Sphaerosyllis</i> sp. E								
<i>Sphaerosyllis</i> sp. G	0	1	0	1	2	12	1	15
<i>Spio blakei</i>	1	1	0	2	0	0	0	0
<i>Spio filicornis</i>								
<i>Spiochaetopterus</i> sp. A								
Spionidae sp. B								
Spionidae sp. D								
<i>Spiophanes bombyx</i>								
<i>Streptosyllis</i> sp. A	0	0	0	0	0	3	1	4
<i>Syllides bansei</i>	0	0	1	1	0	0	0	0
<i>Syllis gracilis</i>								
<i>Synelmis acuminata</i>	0	0	0	0	4	1	1	6
<i>Synelmis albini</i>								
<i>Synelmis</i> sp. A								
<i>Synelmis</i> sp. B								
Terebellidae sp. A								

TABLE D.2—Continued

Taxon	No. of Individuals at C3A				No. of Individuals at C5A			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
Terebellidae sp. B								
<i>Travisia</i> sp. A								
<i>Trichobranchus glacialis</i>								
<i>Typosyllis aciculata orientalis</i>	0	0	0	0	0	1	0	1
<i>Typosyllis cornuta</i>								
<i>Typosyllis variegata</i>								
<i>Typosyllis</i> sp. A								
<i>Typosyllis</i> sp. G								
<i>Vermiliopsis torquata</i>								
OLIGOCHAETA	2	2	12	16	16	14	17	47
NEMATODA	7	10	17	34	40	22	31	93
PLATYHELMINTHES	0	1	0	1	0	0	3	3
PORIFERA								
ECHINODERMATA								
Asteroidea								
Echinoidea	0	0	0	0	0	0	0	0
Holothuroidea	0	0	0	0	0	0	0	0
Ophiuroidea	0	1	0	1	0	1	0	1
ANTHOZOA	0	0	0	0	0	0	0	0
HYDROZOA								
SCYPHOZOA								
KINORHYNCHA								
<i>Echinoderes</i> sp. A	0	0	0	0	2	0	0	2
NEMERTEA	1	3	0	4	5	7	1	13
INSECTA								
SIPUNCULA								
<i>Apionsoma misakianum</i>	1	0	0	1	2	0	0	2
<i>Aspidosiphon muelleri</i>	0	1	0	1	0	0	2	2
<i>Lithacrosiphon cristatus</i>								
<i>Phascolosoma nigrescens</i>								
<i>Siphonosoma cumanense</i>								
<i>Sipunculus nudus</i>								
<i>Sipuncula</i> sp. G	0	0	0	0	0	1	0	1
<i>Sipuncula</i> spp.	1	0	0	1	1	0	0	1
PRIAPULIDA	0	0	0	0	0	0	0	0
CHAETOGNATHA	0	1	0	1	0	0	0	0

TABLE D.2—Continued

Taxon	No. of Individuals at C3A				No. of Individuals at C5A			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
PHORONIDA								
<i>Phoronis psammophila</i>	0	0	0	0	0	0	0	0
BRYOZOA								
ECHIURA								
HEMICHORDATA								
CHORDATA								
Urochordata								
<i>Branchiostoma</i> sp. A	0	2	0	2	3	7	2	12
Osteichthyes								
Total No. of Individuals/Replicate	24	50	53		98	105	67	
Total No. of Taxa/Replicate	10	20	9		23	24	16	
Total No. of Individuals Sampled				127				270
Total No. of Taxa Sampled				28				39

TABLE D.3. Taxon Abundance from Three Replicates for Nonmollusk Components (Excluding Crustaceans), Sand Island Ocean Outfall Sampling Station C6, O'ahu, Hawai'i, August 2002

Taxon	No. of Individuals at C6			Total	Transect C Total
	1	2	3		
POLYCHAETA					
<i>Acrocirrus</i> sp. A					
<i>Aglaophamus circinata</i>					
<i>Amphicorina</i> sp. B	0	0	0	0	1
<i>Amphicteis gunneri</i>					
<i>Amphiduros</i> sp. A					
<i>Amphiglena mediterranea</i>					
<i>Amphiglena</i> sp. A					
<i>Aonides oxycephala</i>					
<i>Aonides</i> sp. A	0	0	0	0	4
<i>Aphelochaeta marioni</i>					
Aphroditidae sp. A					
<i>Arabella</i> cf. <i>multidentata</i>					
<i>Aricidea catherinae</i>					
<i>Aricidea</i> (<i>Aedicira</i>) sp. A	0	0	0	0	1
<i>Armandia intermedia</i>					
<i>Augeneriella dubia</i>					
<i>Axiothella quadrimaculata</i>					
<i>Bispira</i> sp. A					
<i>Branchiomma nigromaculata</i>					
<i>Branchiosyllis exilis</i>	0	1	0	1	1
<i>Brania rhopalophora</i>					
<i>Brania</i> sp. B	0	0	0	0	1
<i>Capitella capitata</i>	1	0	0	1	1
Capitellidae sp.					
<i>Caulleriella acicula</i>					
<i>Caulleriella bioculatus</i>					
<i>Caulleriella zetlandica</i>					
<i>Caulleriella</i> sp. A					
<i>Caulleriella</i> sp. B					
Chaetopteridae sp. A					
Cirratulidae sp. A					
<i>Cirratulus africanus</i>					
<i>Cirratulus</i> sp. B					
<i>Cirriformia punctata</i>					
<i>Cossura</i> sp. A					
<i>Dipolydora normalis</i>					
<i>Dipolydora pilikia</i>					
<i>Dipolydora</i> sp. B					
<i>Dodecaceria</i> sp. A					
<i>Dorvillea</i> sp. B					
<i>Euchone</i> cf. <i>rosea</i>					
<i>Euchone</i> sp. B					
<i>Eumida sanguinea</i>					
<i>Eumida</i> sp. B					
<i>Eunice antennata</i>					
<i>Eunice australis</i>					
<i>Eunice havaica</i>					
<i>Eunice vittata</i>					
<i>Euthalenessa</i> sp. A					
<i>Exogone longicornis</i>					

TABLE D.3—Continued

Taxon	No. of Individuals at C6				Transect C Total
	Replicate			Total	
	1	2	3		
<i>Exogone</i> sp. C					
<i>Exogone</i> sp. E	0	0	0	0	1
<i>Fabricia</i> sp. A					
<i>Glycera tessellata</i>					
<i>Goniada emerita</i>					
<i>Goniada maculata</i>					
<i>Grubeosyllis mediudentata</i>	0	0	0	0	1
<i>Haplosyllis spongicola</i>					
<i>Harmothoe</i> sp. A					
Hesionidae sp. G					
Hesionidae sp. H					
<i>Hesionura australiensis</i>	0	0	2	2	4
<i>Hydroides bannerorum</i>					
<i>Jasmineira caudata</i>					
<i>Josephella marenzelleri</i>					
<i>Laonice cirrata</i>	0	0	0	0	3
<i>Laonome</i> sp. A					
<i>Lepidasthenia</i> sp. A					
<i>Linopherus microcephala</i>	0	0	0	0	2
<i>Loimia</i> sp. A					
<i>Lumbrineriopsis</i> sp. A					
<i>Lumbrineris latreilli</i>					
<i>Lumbrineris tetraura</i>	0	0	0	0	1
<i>Lumbrineris</i> sp. A					
<i>Lygdamis nesiotis</i>					
<i>Lysidice ninetta</i>					
<i>Lysidice</i> sp. A					
<i>Lysippe</i> sp. A					
<i>Magelona capensis</i>					
<i>Magelona cincta</i>					
<i>Magelona</i> sp. A					
<i>Malacoceros</i> sp. A					
Maldanidae sp. A					
<i>Marphysa</i> cf. <i>conferta</i>					
<i>Marphysa depressa</i>					
<i>Megalomma intermedium</i>					
<i>Melinna monoceroides</i>					
<i>Mesochaetopterus sagittarius</i>					
<i>Micronereis</i> sp. A					
<i>Microphthalmus</i> sp.	1	0	0	1	2
<i>Micropodarke</i> sp. A	0	0	0	0	16
<i>Micropodarke</i> sp. B					
<i>Microspio granulata</i>					
<i>Monticellina</i> cf. <i>dorsobranchialis</i>					
<i>Monticellina</i> sp. A					
<i>Monticellina</i> sp. B					
<i>Mooreonuphis</i> sp. A					
<i>Myriochele oculata</i>	0	0	0	0	1
<i>Myriochele pygidialis</i>					
<i>Myriochele</i> sp. A					
<i>Mystides</i> nr. <i>caeca</i>					
<i>Naineris</i> sp. A					

TABLE D.3—Continued

Taxon	No. of Individuals at C6			Total	Transect C Total
	1	2	3		
<i>Neanthes arenaceodentata</i>					
<i>Nematonereis unicornis</i>					
<i>Neodexiospira preacuta</i>					
<i>Nereis</i> sp. B					
<i>Nothria</i> sp. B					
<i>Notomastus tenuis</i>	0	0	0	0	5
<i>Odontosyllis maculata</i>					
<i>Odontosyllis</i> sp. A					
<i>Odontosyllis</i> sp. B					
<i>Ophiodromus angustifrons</i>	2	0	3	5	17
<i>Ophiodromus</i> sp. A					
<i>Ophiodromus</i> sp. B					
<i>Ophryotrocha adherens</i>					
<i>Paleanotus</i> sp. B					
<i>Palmyra</i> sp. A					
<i>Paramphinome</i> sp. A	0	0	0	0	2
<i>Paraonella</i> sp. A	0	0	1	1	1
<i>Pareulepis malayana</i>					
<i>Pholoe</i> sp. A					
<i>Pholoe</i> sp. B					
<i>Pholoe</i> sp. C					
<i>Pholoe</i> sp. D					
<i>Pholoe</i> sp. F					
<i>Phyllochaetopterus socialis</i>					
<i>Phyllochaetopterus verrilli</i>					
<i>Phyllochaetopterus</i> sp. A					
<i>Phyllodoce madeirensis</i>	0	0	0	0	2
<i>Phyllodoce parva</i>					
<i>Phyllodoce</i> sp. A					
<i>Phyllodoce</i> sp. C					
<i>Phyllodoce</i> sp. F					
<i>Phyllodocidae</i> sp. A					
<i>Phyllodocidae</i> sp. C					
<i>Phyllodocidae</i> sp. G					
<i>Pionosyllis heterocirrata</i>	8	3	12	23	83
<i>Pionosyllis spinisetosa</i>	0	0	1	1	1
<i>Pionosyllis weismanni</i>					
<i>Pionosyllis</i> sp. C					
<i>Pisione remota</i>	0	0	2	2	3
<i>Pisione</i> sp. A	0	0	0	0	10
<i>Pisionidens</i> sp. A					
<i>Poecilochaetus johnsoni</i>					
<i>Poecilochaetus serpens</i>					
<i>Polycirrus plumosus</i>					
<i>Polycirrus</i> sp. A					
<i>Polycirrus</i> sp. C					
<i>Polynoidae</i> sp. B					
<i>Polynoidae</i> sp. C					
<i>Polyophthalmus pictus</i>	0	0	0	0	3
<i>Potamilla</i> sp. A					
<i>Prionospio cirrifera</i>	0	0	2	2	18
<i>Prionospio cirrobranchiata</i>	0	0	0	0	2

TABLE D.3—Continued

Taxon	No. of Individuals at C6				Transect C Total
	Replicate			Total	
	1	2	3		
<i>Prionospio steenstrupi</i>	0	0	0	0	4
<i>Progoniada</i> sp. A	0	0	0	0	1
<i>Progoniada</i> sp. C					
<i>Protodorvillea biarticulata</i>	1	0	0	1	5
<i>Protodorvillea egena</i>	0	0	0	0	3
<i>Protodriloides</i> sp. A					
<i>Protodrilus</i> sp. A	0	0	0	0	2
<i>Psamathe</i> sp. A					
<i>Pseudopolydora corallicola</i>					
<i>Pseudopotamilla reniformis</i>					
<i>Pseudovermilia occidentalis</i>					
<i>Questa caudicirra</i>					
<i>Questa</i> sp. A	0	0	0	0	4
<i>Questa</i> sp. B					
<i>Rhodine</i> sp. A					
<i>Rhynchospio</i> sp. B					
<i>Sabella</i> sp. A					
<i>Sabellastarte spectabilis</i>					
<i>Saccocirrus oahuensis</i>	0	0	0	0	1
<i>Saccocirrus waianaensis</i>	0	0	0	0	5
<i>Salmacina dysteri</i>					
<i>Samythella</i> sp. A					
Scalibregmidae sp. B					
<i>Scalisetosus</i> sp. A					
<i>Schistomeringos macilenta</i>					
<i>Schistomeringos rudolphi</i>	0	0	0	0	1
<i>Scoelepis victoriensis</i>	0	0	0	0	1
<i>Scoelepis</i> sp. B	0	0	0	0	1
<i>Scyphoproctus djiboutiensis</i>					
<i>Sigalion</i> sp. A					
<i>Sigambra tentaculata</i>	0	0	0	0	1
<i>Sphaerodoropsis</i> sp. C					
<i>Sphaerosyllis riseri</i>	1	0	0	1	5
<i>Sphaerosyllis sublaevis</i>					
<i>Sphaerosyllis</i> sp. D					
<i>Sphaerosyllis</i> sp. E					
<i>Sphaerosyllis</i> sp. G	0	0	1	1	17
<i>Spio blakei</i>	0	0	0	0	7
<i>Spio filicornis</i>					
<i>Spiochaetopterus</i> sp. A					
Spionidae sp. B					
Spionidae sp. D					
<i>Spiophanes bombyx</i>					
<i>Streptosyllis</i> sp. A	1	0	1	2	6
<i>Syllides bansei</i>	0	0	0	0	1
<i>Syllis gracilis</i>					
<i>Synelmis acuminata</i>	0	0	0	0	10
<i>Synelmis albini</i>					
<i>Synelmis</i> sp. A					
<i>Synelmis</i> sp. B					
Terebellidae sp. A					
Terebellidae sp. B					

TABLE D.3—Continued

Taxon	No. of Individuals at C6				Transect C Total
	Replicate 1	2	3	Total	
<i>Travisia</i> sp. A					
<i>Trichobranchus glacialis</i>					
<i>Typosyllis aciculata orientalis</i>					
<i>Typosyllis cornuta</i>	0	0	0	0	1
<i>Typosyllis variegata</i>					
<i>Typosyllis</i> sp. A					
<i>Typosyllis</i> sp. G					
<i>Vermiliopsis torquata</i>					
OLIGOCHAETA	1	0	9	10	98
NEMATODA	14	2	9	25	259
PLATYHELMINTHES	0	0	2	2	6
PORIFERA					
ECHINODERMATA					
Asteroidea					
Echinoidea	0	0	0	0	1
Holothuroidea	0	0	0	0	1
Ophiuroidea	0	0	2	2	5
ANTHOZOA	0	0	0	0	1
HYDROZOA					
SCYPHOZOA					
KINORHYNCHA					
<i>Echinoderes</i> sp. A	1	0	0	1	3
NEMERTEA	8	1	7	16	56
INSECTA					
SIPUNCULA					
<i>Apionsoma misakianum</i>	0	1	0	1	4
<i>Aspidosiphon muelleri</i>	0	1	0	1	4
<i>Lithacrosiphon cristatus</i>					
<i>Phascolosoma nigrescens</i>					
<i>Siphonosoma cumanense</i>					
<i>Sipunculus nudus</i>					
Sipuncula sp. G	0	0	0	0	1
Sipuncula spp.	0	0	0	0	2
PRIAPULIDA	0	0	0	0	1
CHAETOGNATHA	0	0	0	0	3
PHORONIDA					
<i>Phoronis psammophila</i>	0	0	0	0	1

TABLE D.3—Continued

Taxon	No. of Individuals at C6			Total	Transect C Total
	Replicate 1	Replicate 2	Replicate 3		
BRYOZOA					
ECHIURA					
HEMICHORDATA					
CHORDATA					
Urochordata					
<i>Branchiostoma</i> sp. A	0	0	0	0	14
Osteichthyes					
Total No. of Individuals/Replicate	39	9	54		
Total No. of Taxa/Replicate	11	5	14		
Total No. of Individuals Sampled				102	723
Total No. of Taxa Sampled				22	63

TABLE D.4. Taxon Abundance from Three Replicates for Nonmollusk Components (Excluding Crustaceans), Sand Island Ocean Outfall Sampling Stations D1 and D2, O'ahu, Hawai'i, August 2002

Taxon	No. of Individuals at D1				No. of Individuals at D2			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
POLYCHAETA								
<i>Acrocirrus</i> sp. A								
<i>Aglaophamus circinata</i>								
<i>Amphicorina</i> sp. B								
<i>Amphicteis gunneri</i>								
<i>Amphiduros</i> sp. A								
<i>Amphiglena mediterranea</i>	0	0	0	0	0	1	0	1
<i>Amphiglena</i> sp. A	0	0	0	0	0	5	0	5
<i>Aonides oxycephala</i>								
<i>Aonides</i> sp. A	1	0	0	1	0	0	0	0
<i>Aphelochaeta marioni</i>	0	0	0	0	0	0	0	0
Aphroditidae sp. A								
<i>Arabella</i> cf. <i>multidentata</i>								
<i>Aricidea catherinae</i>	0	1	0	1	0	0	0	0
<i>Aricidea</i> (<i>Aedicira</i>) sp. A								
<i>Armandia intermedia</i>	0	0	1	1	2	1	3	6
<i>Augeneriella dubia</i>	0	0	0	0	5	5	9	19
<i>Axiothella quadrimaculata</i>								
<i>Bispira</i> sp. A	0	0	0	0	0	0	0	0
<i>Branchiomma nigromaculata</i>	0	0	0	0	0	1	0	1
<i>Branchiosyllis exilis</i>								
<i>Brania rhopalophora</i>	0	0	0	0	0	1	0	1
<i>Brania</i> sp. B								
<i>Capitella capitata</i>	0	0	0	0	1	0	0	1
Capitellidae sp.	0	0	0	0	0	0	0	0
<i>Caulleriella acicula</i>	0	0	0	0	1	0	0	1
<i>Caulleriella bioculatus</i>								
<i>Caulleriella zetlandica</i>								
<i>Caulleriella</i> sp. A								
<i>Caulleriella</i> sp. B	0	1	0	1	0	0	0	0
Chaetopteridae sp. A								
Cirratulidae sp. A								
<i>Cirratulus africanus</i>	0	0	0	0	1	0	0	1
<i>Cirratulus</i> sp. B								
<i>Cirriformia punctata</i>								
<i>Cossura</i> sp. A								
<i>Dipolydora normalis</i>	0	3	2	5	0	0	0	0
<i>Dipolydora pilikia</i>								
<i>Dipolydora</i> sp. B								
<i>Dodecaceria</i> sp. A								
<i>Dorvillea</i> sp. B								
<i>Euchone</i> cf. <i>rosea</i>								
<i>Euchone</i> sp. B	62	41	3	106	6	16	0	22
<i>Eumida sanguinea</i>	0	0	0	0	0	0	0	0
<i>Eumida</i> sp. B								
<i>Eunice antennata</i>								
<i>Eunice australis</i>								
<i>Eunice havaica</i>								
<i>Eunice vittata</i>								
<i>Euthalenessa</i> sp. A	0	0	0	0	0	0	0	0

TABLE D.4—Continued

Taxon	No. of Individuals at D1				No. of Individuals at D2			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Exogone longicornis</i>	0	0	0	0	1	5	0	6
<i>Exogone</i> sp. C	0	2	0	2	2	0	1	3
<i>Exogone</i> sp. E	0	0	0	0	0	0	0	0
<i>Fabricia</i> sp. A	0	1	1	2	6	9	1	16
<i>Glycera tessellata</i>								
<i>Goniada emerita</i>	0	0	1	1	0	0	1	1
<i>Goniada maculata</i>	0	0	0	0	0	0	0	0
<i>Grubeosyllis mediudentata</i>	0	0	0	0	2	0	0	2
<i>Haplosyllis spongicola</i>								
<i>Harmothoe</i> sp. A	0	0	0	0	0	0	0	0
Hesionidae sp. G	0	0	0	0	0	0	0	0
Hesionidae sp. H	0	0	0	0	1	0	0	1
<i>Hesionura australiensis</i>								
<i>Hydroides bannerorum</i>	0	0	0	0	0	0	0	0
<i>Jasmineira caudata</i>	1	0	0	1	0	0	0	0
<i>Josephella marenzelleri</i>	0	0	0	0	1	0	0	1
<i>Laonice cirrata</i>	0	0	0	0	0	0	0	0
<i>Laonome</i> sp. A	0	2	0	2	0	0	4	4
<i>Lepidasthenia</i> sp. A								
<i>Linopherus microcephala</i>	0	0	0	0	0	1	0	1
<i>Loimia</i> sp. A								
<i>Lumbrineriopsis</i> sp. A								
<i>Lumbrineris latreilli</i>	1	1	2	4	1	0	1	2
<i>Lumbrineris tetraura</i>	0	0	1	1	3	3	0	6
<i>Lumbrineris</i> sp. A								
<i>Lygdamis nesiotis</i>								
<i>Lysidice ninetta</i>								
<i>Lysidice</i> sp. A								
<i>Lysippe</i> sp. A	0	0	0	0	1	0	1	2
<i>Magelona capensis</i>								
<i>Magelona cincta</i>								
<i>Magelona</i> sp. A	0	0	0	0	0	0	0	0
<i>Malacoceros</i> sp. A	1	0	0	1	0	0	0	0
Maldanidae sp. A	0	0	0	0	0	1	0	1
<i>Marphysa</i> cf. <i>conferta</i>								
<i>Marphysa depressa</i>								
<i>Megalomma intermedium</i>	0	0	1	1	0	0	0	0
<i>Melinna monoceroides</i>								
<i>Mesochaetopterus sagittarius</i>								
<i>Micronereis</i> sp. A								
<i>Micropthalmus</i> sp.								
<i>Micropodarke</i> sp. A	4	0	0	4	2	1	2	5
<i>Micropodarke</i> sp. B	0	0	0	0	0	0	0	0
<i>Microspio granulata</i>								
<i>Monticellina</i> cf. <i>dorsobranchialis</i>	0	0	0	0	0	0	0	0
<i>Monticellina</i> sp. A								
<i>Monticellina</i> sp. B	0	0	0	0	0	0	0	0
<i>Mooreonuphis</i> sp. A								
<i>Myriochele oculata</i>	8	14	11	33	34	37	20	91
<i>Myriochele pygidialis</i>								
<i>Myriochele</i> sp. A	0	1	0	1	4	3	1	8
<i>Mystides</i> nr. <i>caeca</i>								

TABLE D.4—Continued

Taxon	No. of Individuals at D1				No. of Individuals at D2			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Naineris</i> sp. A								
<i>Neanthes arenaceodentata</i>								
<i>Nematonereis unicornis</i>								
<i>Neodexiospira preacuta</i>								
<i>Nereis</i> sp. B	0	0	0	0	1	0	0	1
<i>Nothria</i> sp. B								
<i>Notomastus tenuis</i>	1	0	0	1	1	4	0	5
<i>Odontosyllis maculata</i>								
<i>Odontosyllis</i> sp. A								
<i>Odontosyllis</i> sp. B	0	0	0	0	0	0	0	0
<i>Ophiodromus angustifrons</i>	0	0	0	0	10	8	7	25
<i>Ophiodromus</i> sp. A								
<i>Ophiodromus</i> sp. B								
<i>Ophryotrocha adherens</i>	0	0	0	0	9	9	8	26
<i>Paleanotus</i> sp. B				0				0
<i>Palmyra</i> sp. A	0	0	0	0	0	0	0	0
<i>Paramphinome</i> sp. A				0				0
<i>Paraonella</i> sp. A	0	0	0	0	2	1	0	3
<i>Pareulepis malayana</i>								
<i>Pholoe</i> sp. A								
<i>Pholoe</i> sp. B								
<i>Pholoe</i> sp. C								
<i>Pholoe</i> sp. D								
<i>Pholoe</i> sp. F								
<i>Phyllochaetopterus socialis</i>								
<i>Phyllochaetopterus verrilli</i>								
<i>Phyllochaetopterus</i> sp. A								
<i>Phyllodoce madeirensis</i>	0	0	0	0	0	0	1	1
<i>Phyllodoce parva</i>								
<i>Phyllodoce</i> sp. A								
<i>Phyllodoce</i> sp. C								
<i>Phyllodoce</i> sp. F	0	0	0	0	0	1	0	1
Phyllococidae sp. A								
Phyllococidae sp. C								
Phyllococidae sp. G								
<i>Pionosyllis heterocirrata</i>	0	0	0	0	30	3	16	49
<i>Pionosyllis spinisetosa</i>								
<i>Pionosyllis weismanni</i>								
<i>Pionosyllis</i> sp. C								
<i>Pisione remota</i>								
<i>Pisione</i> sp. A	0	0	0	0	0	0	0	0
<i>Pisionidens</i> sp. A								
<i>Poecilochaetus johnsoni</i>								
<i>Poecilochaetus serpens</i>								
<i>Polycirrus plumosus</i>	0	0	0	0	0	0	0	0
<i>Polycirrus</i> sp. A								
<i>Polycirrus</i> sp. C								
Polynoidae sp. B								
Polynoidae sp. C								
<i>Polyophthalmus pictus</i>	0	0	0	0	0	2	1	3
<i>Potamilla</i> sp. A								
<i>Prionospio cirrifera</i>	0	9	1	10	5	5	14	24

TABLE D.4—Continued

Taxon	No. of Individuals at D1				No. of Individuals at D2			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Prionospio cirrobranchiata</i>	2	5	1	8	2	1	2	5
<i>Prionospio steenstrupi</i>	0	3	0	3	0	3	1	4
<i>Progoniada</i> sp. A								
<i>Progoniada</i> sp. C								
<i>Protodorvillea biarticulata</i>								
<i>Protodorvillea egena</i>	0	2	0	2	0	0	0	0
<i>Protodriloides</i> sp. A								
<i>Protodrilus</i> sp. A								
<i>Psamathe</i> sp. A								
<i>Pseudopolydora corallicola</i>								
<i>Pseudopotamilla reniformis</i>								
<i>Pseudovermilia occidentalis</i>								
<i>Questa caudicirra</i>								
<i>Questa</i> sp. A	0	0	0	0	0	0	0	0
<i>Questa</i> sp. B								
<i>Rhodine</i> sp. A								
<i>Rhynchospio</i> sp. B								
<i>Sabella</i> sp. A	0	1	0	1	0	0	0	0
<i>Sabellastarte spectabilis</i>								
<i>Saccocirrus oahuensis</i>								
<i>Saccocirrus waianaensis</i>								
<i>Salmacina dysteri</i>	0	0	0	0	0	0	0	0
<i>Samythella</i> sp. A								
Scalibregmidae sp. B								
<i>Scalisetosus</i> sp. A								
<i>Schistomeringos macilenta</i>	0	1	0	1	0	0	0	0
<i>Schistomeringos rudolphi</i>	0	0	0	0	2	0	0	2
<i>Scoletepis victoriensis</i>								
<i>Scoletepis</i> sp. B								
<i>Scyphoproctus djiboutiensis</i>								
<i>Sigalion</i> sp. A								
<i>Sigambra tentaculata</i>	0	0	0	0	1	0	0	1
<i>Sphaerodoropsis</i> sp. C								
<i>Sphaerosyllis riseri</i>	0	0	0	0	0	0	0	0
<i>Sphaerosyllis sublaevis</i>								
<i>Sphaerosyllis</i> sp. D								
<i>Sphaerosyllis</i> sp. E								
<i>Sphaerosyllis</i> sp. G	0	0	0	0	6	2	1	9
<i>Spio blakei</i>	1	1	0	2	0	3	2	5
<i>Spio filicornis</i>								
<i>Spiochaetopterus</i> sp. A	0	0	0	0	0	0	0	0
Spionidae sp. B								
Spionidae sp. D								
<i>Spiophanes bombyx</i>	0	0	0	0	0	0	0	0
<i>Streptosyllis</i> sp. A								
<i>Syllides bansei</i>								
<i>Syllis gracilis</i>								
<i>Synelmis acuminata</i>	9	18	4	31	5	10	3	18
<i>Synelmis albini</i>								
<i>Synelmis</i> sp. A								
<i>Synelmis</i> sp. B								
Terebellidae sp. A								

TABLE D.4—Continued

Taxon	No. of Individuals at D1				No. of Individuals at D2			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
Terebellidae sp. B								
<i>Travisia</i> sp. A								
<i>Trichobranchus glacialis</i>	0	0	0	0	0	0	0	0
<i>Typosyllis aciculata orientalis</i>	0	0	0	0	0	1	0	1
<i>Typosyllis cornuta</i>	0	0	0	0	1	4	2	7
<i>Typosyllis variegata</i>								
<i>Typosyllis</i> sp. A								
<i>Typosyllis</i> sp. G								
<i>Vermiliopsis torquata</i>								
OLIGOCHAETA	7	23	13	43	96	33	16	145
NEMATODA	29	215	31	275	109	69	51	229
PLATYHELMINTHES	0	0	0	0	1	1	1	3
PORIFERA								
ECHINODERMATA								
Asteroidea	0	0	0	0	1	0	0	1
Echinoidea	0	0	0	0	7	43	0	50
Holothuroidea	1	1	0	2	1	4	1	6
Ophiuroidea								
ANTHOZOA	0	1	0	1	0	1	5	6
HYDROZOA	0	0	0	0	0	1	0	1
SCYPHOZOA								
KINORHYNCHA								
<i>Echinoderes</i> sp. A	0	0	0	0	0	0	0	0
NEMERTEA	6	4	6	16	24	17	4	45
INSECTA	0	0	0	0	0	1	0	1
SIPUNCULA								
<i>Apionsoma misakianum</i>	0	1	0	1	0	2	1	3
<i>Aspidosiphon muelleri</i>	5	3	3	11	14	25	13	52
<i>Lithacrosiphon cristatus</i>								
<i>Phascolosoma nigrescens</i>								
<i>Siphonosoma cumanense</i>								
<i>Sipunculus nudus</i>								
<i>Sipuncula</i> sp. G								
<i>Sipuncula</i> spp.	0	0	0	0	4	3	0	7
PRIAPULIDA	0	1	0	1	0	1	0	1
CHAETOGNATHA	1	0	0	1	0	0	0	0

TABLE D.4—Continued

Taxon	No. of Individuals at D1				No. of Individuals at D2			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
PHORONIDA								
<i>Phoronis psammophila</i>	0	0	1	1	1	0	2	3
BRYOZOA	0	0	0	0	0	0	0	0
ECHIURA								
HEMICHORDATA								
CHORDATA								
Urochordata	0	0	0	0	1	0	0	1
<i>Branchiostoma</i> sp. A	1	4	0	5	8	5	5	18
Osteichthyes								
Total No. of Individuals/Replicate	141	360	83		416	353	201	
Total No. of Taxa/Replicate	18	27	17		43	44	33	
Total No. of Individuals Sampled				584				970
Total No. of Taxa Sampled				38				62

TABLE D.5. Taxon Abundance from Three Replicates for Nonmollusk Components (Excluding Crustaceans), Sand Island Ocean Outfall Sampling Stations D3A and D5, O'ahu, Hawai'i, August 2002

Taxon	No. of Individuals at D3A				No. of Individuals at D5			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
POLYCHAETA								
<i>Acrocirrus</i> sp. A								
<i>Aglaophamus circinata</i>								
<i>Amphicorina</i> sp. B								
<i>Amphicteis gunneri</i>								
<i>Amphiduros</i> sp. A								
<i>Amphiglena mediterranea</i>	0	0	0	0	0	0	0	0
<i>Amphiglena</i> sp. A	0	0	0	0	0	0	0	0
<i>Aonides oxycephala</i>								
<i>Aonides</i> sp. A	0	0	0	0	0	0	0	0
<i>Aphelochaeta marioni</i>	0	0	0	0	0	3	0	3
Aphroditidae sp. A								
<i>Arabella</i> cf. <i>multidentata</i>								
<i>Aricidea catherinae</i>	0	0	0	0	2	1	0	3
<i>Aricidea</i> (<i>Aedicira</i>) sp. A								
<i>Armandia intermedia</i>	4	3	2	9	1	2	0	3
<i>Augeneriella dubia</i>	0	1	0	1	8	3	0	11
<i>Axiothella quadrimaculata</i>								
<i>Bispira</i> sp. A	0	0	0	0	0	0	0	0
<i>Branchiomma nigromaculata</i>	0	0	0	0	0	0	0	0
<i>Branchiosyllis exilis</i>								
<i>Brania rhopalophora</i>	0	0	0	0	0	0	0	0
<i>Brania</i> sp. B								
<i>Capitella capitata</i>	1	0	0	1	0	1	1	2
Capitellidae sp.	0	0	0	0	1	0	0	1
<i>Caulleriella acicula</i>	0	0	0	0	0	0	0	0
<i>Caulleriella bioculatus</i>								
<i>Caulleriella zelandica</i>								
<i>Caulleriella</i> sp. A								
<i>Caulleriella</i> sp. B	0	0	0	0	0	0	0	0
Chaetopteridae sp. A								
Cirratulidae sp. A								
<i>Cirratulus africanus</i>	0	0	0	0	0	0	0	0
<i>Cirratulus</i> sp. B								
<i>Cirriformia punctata</i>								
<i>Cossura</i> sp. A								
<i>Dipolydora normalis</i>	108	52	1	161	0	0	0	0
<i>Dipolydora pilikia</i>								
<i>Dipolydora</i> sp. B								
<i>Dodecaceria</i> sp. A								
<i>Dorvillea</i> sp. B								
<i>Euchone</i> cf. <i>rosea</i>								
<i>Euchone</i> sp. B	0	1	0	1	66	119	31	216
<i>Eumida sanguinea</i>	0	1	0	1	0	0	0	0
<i>Eumida</i> sp. B								
<i>Eunice antennata</i>								
<i>Eunice australis</i>								
<i>Eunice havaica</i>								
<i>Eunice vittata</i>								
<i>Euthalenessa</i> sp. A	1	0	0	1	0	0	0	0

TABLE D.5—Continued

Taxon	No. of Individuals at D3A				No. of Individuals at D5			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Exogone longicornis</i>	7	0	0	7	0	0	0	0
<i>Exogone</i> sp. C	0	0	0	0	1	0	4	5
<i>Exogone</i> sp. E	0	0	0	0	1	0	0	1
<i>Fabricia</i> sp. A	0	0	0	0	5	6	8	19
<i>Glycera tessellata</i>								
<i>Goniada emerita</i>	0	0	0	0	0	0	1	1
<i>Goniada maculata</i>	0	0	0	0	0	0	0	0
<i>Grubeosyllis mediodentata</i>	2	1	0	3	1	0	4	5
<i>Haplosyllis spongicola</i>								
<i>Harmothoe</i> sp. A	1	0	0	1	0	0	0	0
Hesionidae sp. G	0	0	1	1	2	0	1	3
Hesionidae sp. H	0	0	0	0	0	0	1	1
<i>Hesionura australiensis</i>								
<i>Hydroides bannerorum</i>	1	0	0	1	0	0	0	0
<i>Jasmineira caudata</i>	0	0	0	0	0	1	0	1
<i>Josephella marenzelleri</i>	0	0	0	0	0	0	0	0
<i>Laonice cirrata</i>	0	0	0	0	0	0	0	0
<i>Laonome</i> sp. A	0	0	1	1	1	0	0	1
<i>Lepidasthenia</i> sp. A								
<i>Linopherus microcephala</i>	0	0	0	0	0	0	0	0
<i>Loimia</i> sp. A								
<i>Lumbrineriopsis</i> sp. A								
<i>Lumbrineris latreilli</i>	1	0	0	1	5	2	1	8
<i>Lumbrineris tetraura</i>	1	0	0	1	9	13	10	32
<i>Lumbrineris</i> sp. A								
<i>Lygdamis nesiotis</i>								
<i>Lysidice ninetta</i>								
<i>Lysidice</i> sp. A								
<i>Lysippe</i> sp. A	1	0	0	1	0	2	1	3
<i>Magelona capensis</i>								
<i>Magelona cincta</i>								
<i>Magelona</i> sp. A	0	0	0	0	0	2	2	4
<i>Malacoceros</i> sp. A	0	0	0	0	0	0	0	0
<i>Maldanidae</i> sp. A	1	0	0	1	0	2	0	2
<i>Marphysa</i> cf. <i>conferta</i>								
<i>Marphysa depressa</i>								
<i>Megalomma intermedium</i>	0	0	0	0	0	0	0	0
<i>Melinna monoceroides</i>								
<i>Mesochaetopterus sagittarius</i>								
<i>Micronereis</i> sp. A								
<i>Microphthalmus</i> sp.								
<i>Micropodarke</i> sp. A	2	1	3	6	3	5	5	13
<i>Micropodarke</i> sp. B	0	0	0	0	0	0	2	2
<i>Microspio granulata</i>								
<i>Monticellina</i> cf. <i>dorsobranchialis</i>	0	1	0	1	0	0	0	0
<i>Monticellina</i> sp. A								
<i>Monticellina</i> sp. B	1	0	0	1	0	0	0	0
<i>Mooreonuphis</i> sp. A								
<i>Myriochele oculata</i>	16	1	4	21	19	26	12	57
<i>Myriochele pygidialis</i>								
<i>Myriochele</i> sp. A	4	0	4	8	2	0	0	2
<i>Mystides</i> nr. <i>caeca</i>								

TABLE D.5—Continued

Taxon	No. of Individuals at D3A				No. of Individuals at D5			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Naineris</i> sp. A								
<i>Neanthes arenaceodentata</i>								
<i>Nematonereis unicornis</i>								
<i>Neodexiospira preacuta</i>								
<i>Nereis</i> sp. B	1	1	2	4	12	17	12	41
<i>Nothria</i> sp. B								
<i>Notomastus tenuis</i>	0	0	0	0	3	1	2	6
<i>Odontosyllis maculata</i>								
<i>Odontosyllis</i> sp. A								
<i>Odontosyllis</i> sp. B	1	0	0	1	0	2	0	2
<i>Ophiodromus angustifrons</i>	5	2	4	11	5	3	3	11
<i>Ophiodromus</i> sp. A								
<i>Ophiodromus</i> sp. B								
<i>Ophryotrocha adherens</i>	1	0	0	1	0	0	0	0
<i>Paleanotus</i> sp. B								
<i>Palmyra</i> sp. A	0	0	0	0	1	0	0	1
<i>Paramphinome</i> sp. A								
<i>Paraonella</i> sp. A	0	0	0	0	0	0	0	0
<i>Pareulepis malayana</i>								
<i>Pholoe</i> sp. A								
<i>Pholoe</i> sp. B								
<i>Pholoe</i> sp. C								
<i>Pholoe</i> sp. D								
<i>Pholoe</i> sp. F								
<i>Phyllochaetopterus socialis</i>								
<i>Phyllochaetopterus verrilli</i>								
<i>Phyllochaetopterus</i> sp. A								
<i>Phyllodoce madeirensis</i>	0	0	0	0	0	1	0	1
<i>Phyllodoce parva</i>								
<i>Phyllodoce</i> sp. A								
<i>Phyllodoce</i> sp. C								
<i>Phyllodoce</i> sp. F	0	0	0	0	0	0	0	0
<i>Phyllodocidae</i> sp. A								
<i>Phyllodocidae</i> sp. C								
<i>Phyllodocidae</i> sp. G								
<i>Pionosyllis heterocirrata</i>	6	18	12	36	2	2	7	11
<i>Pionosyllis spinisetosa</i>								
<i>Pionosyllis weismanni</i>								
<i>Pionosyllis</i> sp. C								
<i>Pisione remota</i>								
<i>Pisione</i> sp. A	0	0	2	2	0	0	0	0
<i>Pisionidens</i> sp. A								
<i>Poecilochaetus johnsoni</i>								
<i>Poecilochaetus serpens</i>								
<i>Polycirrus plumosus</i>	1	1	0	2	0	0	0	0
<i>Polycirrus</i> sp. A								
<i>Polycirrus</i> sp. C								
<i>Polynoidae</i> sp. B								
<i>Polynoidae</i> sp. C								
<i>Polyophthalmus pictus</i>	0	0	1	1	0	0	0	0
<i>Potamilla</i> sp. A								
<i>Prionospio cirrifera</i>	5	2	7	14	6	11	9	26

TABLE D.5—Continued

Taxon	No. of Individuals at D3A				No. of Individuals at D5			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Prionospio cirrobranchiata</i>	4	5	2	11	6	3	3	12
<i>Prionospio steenstrupi</i>	4	1	1	6	4	3	1	8
<i>Progoniada</i> sp. A								
<i>Progoniada</i> sp. C								
<i>Protodorvillea biarticulata</i>								
<i>Protodorvillea egena</i>	0	2	0	2	0	3	0	3
<i>Protodriloides</i> sp. A								
<i>Protodrilus</i> sp. A								
<i>Psamathe</i> sp. A								
<i>Pseudopolydora corallicola</i>								
<i>Pseudopotamilla reniformis</i>								
<i>Pseudovermilia occidentalis</i>								
<i>Questa caudicirra</i>								
<i>Questa</i> sp. A	0	3	3	6	0	0	0	0
<i>Questa</i> sp. B								
<i>Rhodine</i> sp. A								
<i>Rhynchospio</i> sp. B								
<i>Sabella</i> sp. A	0	0	0	0	0	0	0	0
<i>Sabellastarte spectabilis</i>								
<i>Saccocirrus oahuensis</i>								
<i>Saccocirrus waianaensis</i>								
<i>Salmacina dysteri</i>	1	0	0	1	2	17	6	25
<i>Samythella</i> sp. A								
Scalibregmidae sp. B								
<i>Scalisetosus</i> sp. A								
<i>Schistomeringos macilenta</i>	0	0	0	0	0	0	0	0
<i>Schistomeringos rudolphi</i>	8	4	2	14	0	0	0	0
<i>Scoelepis victoriensis</i>								
<i>Scoelepis</i> sp. B								
<i>Scyphoproctus djiboutiensis</i>								
<i>Sigalion</i> sp. A								
<i>Sigambra tentaculata</i>	1	0	1	2	0	0	0	0
<i>Sphaerodoropsis</i> sp. C								
<i>Sphaerosyllis riseri</i>	0	2	0	2	1	3	0	4
<i>Sphaerosyllis sublaevis</i>								
<i>Sphaerosyllis</i> sp. D								
<i>Sphaerosyllis</i> sp. E								
<i>Sphaerosyllis</i> sp. G	6	5	7	18	2	4	0	6
<i>Spio blakei</i>	0	0	2	2	1	0	0	1
<i>Spio filicornis</i>								
<i>Spiochaetopterus</i> sp. A	0	0	0	0	0	1	0	1
Spionidae sp. B								
Spionidae sp. D								
<i>Spiophanes bombyx</i>	0	0	0	0	3	3	1	7
<i>Streptosyllis</i> sp. A								
<i>Syllides bansei</i>								
<i>Syllis gracilis</i>								
<i>Synelmis acuminata</i>	72	22	51	145	15	17	7	39
<i>Synelmis albini</i>								
<i>Synelmis</i> sp. A								
<i>Synelmis</i> sp. B								
Terebellidae sp. A								

TABLE D.5—Continued

Taxon	No. of Individuals at D3A				No. of Individuals at D5			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
Terebellidae sp. B								
<i>Travisia</i> sp. A								
<i>Trichobranchus glacialis</i>	0	0	0	0	1	0	0	1
<i>Typosyllis aciculata orientalis</i>	0	0	0	0	0	0	0	0
<i>Typosyllis cornuta</i>	0	0	2	2	0	0	0	0
<i>Typosyllis variegata</i>								
<i>Typosyllis</i> sp. A								
<i>Typosyllis</i> sp. G								
<i>Vermiliopsis torquata</i>								
OLIGOCHAETA	45	74	41	160	11	23	18	52
NEMATODA	46	62	34	142	66	179	834	1079
PLATYHELMINTHES	1	0	0	1	0	0	0	0
PORIFERA								
ECHINODERMATA								
Asteroidea								
Echinoidea	0	1	1	2	0	0	0	0
Holothuroidea	0	1	0	1	0	6	0	6
Ophiuroidea	5	2	2	9	0	1	1	2
ANTHOZOA	0	0	1	1	1	0	0	1
HYDROZOA	0	0	0	0	2	0	1	3
SCYPHOZOA								
KINORHYNCHA								
<i>Echinoderes</i> sp. A	0	0	0	0	1	8	1	10
NEMERTEA	14	7	13	34	3	13	28	44
INSECTA	1	1	0	2	0	2	2	4
SIPUNCULA								
<i>Apionsoma misakianum</i>	3	7	1	11	0	0	0	0
<i>Aspidosiphon muelleri</i>	12	31	42	85	3	2	3	8
<i>Lithacrosiphon cristatus</i>								
<i>Phascolosoma nigrescens</i>								
<i>Siphonosoma cumanense</i>								
<i>Sipunculus nudus</i>								
<i>Sipuncula</i> sp. G								
<i>Sipuncula</i> spp.	5	0	0	5	2	2	1	5
PRIAPULIDA	0	0	0	0	3	0	45	48
CHAETOGNATHA	0	0	0	0	0	1	0	1

TABLE D.5—Continued

Taxon	No. of Individuals at D3A				No. of Individuals at D5			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
PHORONIDA								
<i>Phoronis psammophila</i>	1	1	0	2	0	0	0	0
BRYOZOA	0	0	0	0	0	0	1	1
ECHIURA								
HEMICHORDATA								
CHORDATA								
Urochordata	0	0	0	0	0	0	0	0
<i>Branchiostoma</i> sp. A	7	7	7	21	0	0	3	3
Osteichthyes								
Total No. of Individuals/Replicate	408	324	257		283	516	1,073	
Total No. of Taxa/Replicate	41	33	21		40	41	37	
Total No. of Individuals Sampled				989				1,872
Total No. of Taxa Sampled				57				59

TABLE D.6. Taxon Abundance from Three Replicates for Nonmollusk Components (Excluding Crustaceans), Sand Island Ocean Outfall Sampling Station D6, O'ahu, Hawai'i, August 2002

Taxon	No. of Individuals at D6				Transect D Total
	1	2	3	Total	
POLYCHAETA					
<i>Acrocirrus</i> sp. A					
<i>Aglaophamus circinata</i>					
<i>Amphicorina</i> sp. B					
<i>Amphicteis gunneri</i>					
<i>Amphiduros</i> sp. A					
<i>Amphiglena mediterranea</i>	0	0	0	0	1
<i>Amphiglena</i> sp. A	1	0	0	1	6
<i>Aonides oxycephala</i>					
<i>Aonides</i> sp. A	0	0	0	0	1
<i>Aphelochaeta marioni</i>	0	0	0	0	3
Aphroditidae sp. A					
<i>Arabella</i> cf. <i>multidentata</i>					
<i>Aricidea catherinae</i>	0	0	1	1	5
<i>Aricidea</i> (<i>Aedicira</i>) sp. A					
<i>Armandia intermedia</i>	1	0	1	2	21
<i>Augeneriella dubia</i>	1	8	3	12	43
<i>Axiothella quadrimaculata</i>					
<i>Bispira</i> sp. A	1	0	0	1	1
<i>Branchiomma nigromaculata</i>	0	0	0	0	1
<i>Branchiosyllis exilis</i>					
<i>Brania rhopalophora</i>	0	0	0	0	1
<i>Brania</i> sp. B					
<i>Capitella capitata</i>	0	0	0	0	4
Capitellidae sp.	0	0	0	0	1
<i>Cautleriella acicula</i>	0	0	0	0	1
<i>Cautleriella bioculatus</i>					
<i>Cautleriella zetlandica</i>					
<i>Cautleriella</i> sp. A					
<i>Cautleriella</i> sp. B	0	0	0	0	1
Chaetopteridae sp. A					
Cirratulidae sp. A					
<i>Cirratulus africanus</i>	0	0	0	0	1
<i>Cirratulus</i> sp. B					
<i>Cirriformia punctata</i>					
<i>Cossura</i> sp. A					
<i>Dipolydora normalis</i>	0	0	0	0	166
<i>Dipolydora pilikia</i>					
<i>Dipolydora</i> sp. B					
<i>Dodecaceria</i> sp. A					
<i>Dorvillea</i> sp. B					
<i>Euchone</i> cf. <i>rosea</i>					
<i>Euchone</i> sp. B	7	0	2	9	354
<i>Eumida sanguinea</i>	0	0	0	0	1
<i>Eumida</i> sp. B					
<i>Eunice antennata</i>					
<i>Eunice australis</i>					
<i>Eunice havaica</i>					
<i>Eunice vittata</i>					
<i>Euthalenessa</i> sp. A	0	0	0	0	1
<i>Exogone longicornis</i>	0	0	0	0	13

TABLE D.6—Continued

Taxon	No. of Individuals at D6				Transect D Total
	Replicate			Total	
	1	2	3		
<i>Exogone</i> sp. C	3	0	0	3	13
<i>Exogone</i> sp. E	1	0	2	3	4
<i>Fabricia</i> sp. A	0	0	0	0	37
<i>Glycera tessellata</i>					
<i>Goniada emerita</i>	0	0	0	0	3
<i>Goniada maculata</i>	0	0	1	1	1
<i>Grubeosyllis mediudentata</i>	0	0	0	0	10
<i>Haplosyllis spongicola</i>					
<i>Harmothoe</i> sp. A	0	0	0	0	1
Hesionidae sp. G	0	1	0	1	5
Hesionidae sp. H	1	0	0	1	3
<i>Hesionura australiensis</i>					
<i>Hydroides bannerorum</i>	0	0	0	0	1
<i>Jasmineira caudata</i>	3	0	2	5	7
<i>Josephella marenzelleri</i>	0	0	0	0	1
<i>Laonice cirrata</i>	0	0	1	1	1
<i>Laonome</i> sp. A	0	0	0	0	8
<i>Lepidasthenia</i> sp. A					
<i>Linopherus microcephala</i>	0	0	0	0	1
<i>Loimia</i> sp. A					
<i>Lumbrineriopsis</i> sp. A					
<i>Lumbrineris latreilli</i>	3	0	1	4	19
<i>Lumbrineris tetraura</i>	0	1	2	3	43
<i>Lumbrineris</i> sp. A					
<i>Lygdamis nesiotis</i>					
<i>Lysidice ninetta</i>					
<i>Lysidice</i> sp. A					
<i>Lysippe</i> sp. A	1	1	1	3	9
<i>Magelona capensis</i>					
<i>Magelona cincta</i>					
<i>Magelona</i> sp. A	0	0	0	0	4
<i>Malacoceros</i> sp. A	0	0	0	0	1
Maldanidae sp. A	0	0	0	0	4
<i>Marphysa</i> cf. <i>conferta</i>					
<i>Marphysa depressa</i>					
<i>Megalomma intermedium</i>	0	0	0	0	1
<i>Melinna monoceroides</i>					
<i>Mesochaetopterus sagittarius</i>					
<i>Micronereis</i> sp. A					
<i>Microphthalmus</i> sp.					
<i>Micropodarke</i> sp. A	2	0	1	3	31
<i>Micropodarke</i> sp. B	0	0	0	0	2
<i>Microspio granulata</i>					
<i>Monticellina</i> cf. <i>dorsobranchialis</i>	0	0	0	0	1
<i>Monticellina</i> sp. A					
<i>Monticellina</i> sp. B	0	0	0	0	1
<i>Mooreonuphis</i> sp. A					
<i>Myriochele oculata</i>	15	0	15	30	232
<i>Myriochele pygidialis</i>					
<i>Myriochele</i> sp. A	0	0	0	0	19
<i>Mystides</i> nr. <i>caeca</i>					
<i>Naineris</i> sp. A					

TABLE D.6—Continued

Taxon	No. of Individuals at D6			Total	Transect D Total
	1	2	3		
<i>Neanthes arenaceodentata</i>					
<i>Nematonereis unicornis</i>					
<i>Neodexiospira preacuta</i>					
<i>Nereis</i> sp. B	1	1	5	7	53
<i>Nothria</i> sp. B					
<i>Notomastus tenuis</i>	1	0	1	2	14
<i>Odontosyllis maculata</i>					
<i>Odontosyllis</i> sp. A					
<i>Odontosyllis</i> sp. B	0	0	0	0	3
<i>Ophiodromus angustifrons</i>	3	7	6	16	63
<i>Ophiodromus</i> sp. A					
<i>Ophiodromus</i> sp. B					
<i>Ophryotrocha adherens</i>	0	0	0	0	27
<i>Paleanotus</i> sp. B					
<i>Palmyra</i> sp. A	0	0	0	0	1
<i>Paramphinome</i> sp. A					
<i>Paraonella</i> sp. A	0	0	0	0	3
<i>Pareulepis malayana</i>					
<i>Pholoe</i> sp. A					
<i>Pholoe</i> sp. B					
<i>Pholoe</i> sp. C					
<i>Pholoe</i> sp. D					
<i>Pholoe</i> sp. F					
<i>Phyllochaetopterus socialis</i>					
<i>Phyllochaetopterus verrilli</i>					
<i>Phyllochaetopterus</i> sp. A					
<i>Phyllodoce madeirensis</i>	1	0	0	1	3
<i>Phyllodoce parva</i>					
<i>Phyllodoce</i> sp. A					
<i>Phyllodoce</i> sp. C					
<i>Phyllodoce</i> sp. F	0	0	0	0	1
<i>Phyllodocidae</i> sp. A					
<i>Phyllodocidae</i> sp. C					
<i>Phyllodocidae</i> sp. G					
<i>Pionosyllis heterocirrata</i>	2	0	3	5	101
<i>Pionosyllis spinisetosa</i>					
<i>Pionosyllis weismanni</i>					
<i>Pionosyllis</i> sp. C					
<i>Pisione remota</i>					
<i>Pisione</i> sp. A	0	0	0	0	2
<i>Pisionidens</i> sp. A					
<i>Poecilochaetus johnsoni</i>					
<i>Poecilochaetus serpens</i>					
<i>Polycirrus plumosus</i>	0	0	0	0	2
<i>Polycirrus</i> sp. A					
<i>Polycirrus</i> sp. C					
<i>Polynoidae</i> sp. B					
<i>Polynoidae</i> sp. C					
<i>Polyopthalmus pictus</i>	0	0	0	0	4
<i>Potamilla</i> sp. A					
<i>Prionospio cirrifera</i>	8	0	4	12	86
<i>Prionospio cirrobranchiata</i>	0	0	0	0	36

TABLE D.6—Continued

Taxon	No. of Individuals at D6				Transect D Total
	Replicate			Total	
	1	2	3		
<i>Prionospio steenstrupi</i>	3	0	0	3	24
<i>Progoniada</i> sp. A					
<i>Progoniada</i> sp. C					
<i>Protodorvillea biarticulata</i>					
<i>Protodorvillea egena</i>	2	1	1	4	11
<i>Protodriloides</i> sp. A					
<i>Protodrilus</i> sp. A					
<i>Psamathe</i> sp. A					
<i>Pseudopolydora corallicola</i>					
<i>Pseudopotamilla reniformis</i>					
<i>Pseudovermilia occidentalis</i>					
<i>Questa caudicirra</i>					
<i>Questa</i> sp. A	0	0	0	0	6
<i>Questa</i> sp. B					
<i>Rhodine</i> sp. A					
<i>Rhynchospio</i> sp. B					
<i>Sabella</i> sp. A	0	0	0	0	1
<i>Sabellastarte spectabilis</i>					
<i>Saccocirrus oahuensis</i>					
<i>Saccocirrus waianaensis</i>					
<i>Salmacina dysteri</i>	0	0	0	0	26
<i>Samythella</i> sp. A					
Scalibregmidae sp. B					
<i>Scalisetosus</i> sp. A					
<i>Schistomeringos macilenta</i>	0	0	0	0	1
<i>Schistomeringos rudolphi</i>	0	0	0	0	16
<i>Scolecopsis victoriensis</i>					
<i>Scolecopsis</i> sp. B					
<i>Scyphoproctus djiboutiensis</i>					
<i>Sigalion</i> sp. A					
<i>Sigambra tentaculata</i>	0	1	0	1	4
<i>Sphaerodoropsis</i> sp. C					
<i>Sphaerosyllis riseri</i>	1	0	1	2	8
<i>Sphaerosyllis sublaevis</i>					
<i>Sphaerosyllis</i> sp. D					
<i>Sphaerosyllis</i> sp. E					
<i>Sphaerosyllis</i> sp. G	2	0	0	2	35
<i>Spio blakei</i>	1	0	0	1	11
<i>Spio filicornis</i>					
<i>Spiochaetopterus</i> sp. A	1	1	1	3	4
Spionidae sp. B					
Spionidae sp. D					
<i>Spiophanes bombyx</i>	0	0	0	0	7
<i>Streptosyllis</i> sp. A					
<i>Syllides bansei</i>					
<i>Syllis gracilis</i>					
<i>Synelmis acuminata</i>	10	11	7	28	261
<i>Synelmis albini</i>					
<i>Synelmis</i> sp. A					
<i>Synelmis</i> sp. B					
Terebellidae sp. A					
Terebellidae sp. B					

TABLE D.6—Continued

Taxon	No. of Individuals at D6			Total	Transect D Total
	1	2	3		
<i>Travisia</i> sp. A	0	0	0	0	1
<i>Trichobranchus glacialis</i>	0	0	0	0	1
<i>Typosyllis aciculata orientalis</i>	0	0	0	0	9
<i>Typosyllis cornuta</i>	0	0	0	0	
<i>Typosyllis variegata</i>					
<i>Typosyllis</i> sp. A					
<i>Typosyllis</i> sp. G					
<i>Vermiliopsis torquata</i>					
OLIGOCHAETA	24	29	13	66	466
NEMATODA	130	120	93	343	2068
PLATYHELMINTHES	1	0	0	1	5
PORIFERA					
ECHINODERMATA					
Asteroidea					5
Echinoidea	2	0	0	2	57
Holothuroidea	0	0	0	0	21
Ophiuroidea	2	0	0	2	
ANTHOZOA	0	0	0	0	9
HYDROZOA	0	0	0	0	4
SCYPHOZOA					
KINORHYNCHA					
<i>Echinoderes</i> sp. A	1	3	0	4	14
NEMERTEA	8	10	10	28	167
INSECTA	0	0	5	5	12
SIPUNCULA					
<i>Apionsoma misakianum</i>	0	0	0	0	15
<i>Aspidosiphon muelleri</i>	11	23	2	36	192
<i>Lithacrosiphon cristatus</i>					
<i>Phascolosoma nigrescens</i>					
<i>Siphonosoma cumanense</i>					
<i>Sipunculus nudus</i>					
<i>Sipuncula</i> sp. G					
<i>Sipuncula</i> spp.	0	0	0	0	17
PRIAPULIDA	3	4	1	8	58
CHAETOGNATHA	0	0	0	0	2
PHORONIDA					
<i>Phoronis psammophila</i>	0	2	0	2	8

TABLE D.6—Continued

Taxon	No. of Individuals at D6				Transect D Total
	Replicate			Total	
	1	2	3		
BRYOZOA	0	0	0	0	1
ECHIURA					
HEMICHORDATA					
CHORDATA					
Urochordata	0	0	0	0	1
<i>Branchiostoma</i> sp. A	8	2	7	17	64
Osteichthyes					
Total No. of Individuals/Replicate	266	226	193		
Total No. of Taxa/Replicate	36	18	29		
Total No. of Individuals Sampled				685	5,100
Total No. of Taxa Sampled				44	100

TABLE D.7. Taxon Abundance from Three Replicates for Nonmollusk Components (Excluding Crustaceans), Sand Island Ocean Outfall Sampling Stations E1 and E2, O'ahu, Hawai'i, August 2002

Taxon	No. of Individuals at E1				No. of Individuals at E2			
	Replicate 1	Replicate 2	Replicate 3	Total	Replicate 1	Replicate 2	Replicate 3	Total
POLYCHAETA								
<i>Acrocirrus</i> sp. A	2	2	1	5	0	0	0	0
<i>Aglaophamus circinata</i>								
<i>Amphicorina</i> sp. B	0	0	0	0	0	0	0	0
<i>Amphicteis gunneri</i>	1	2	0	3	0	0	0	0
<i>Amphiduros</i> sp. A								
<i>Amphiglena mediterranea</i>								
<i>Amphiglena</i> sp. A	0	0	0	0	0	0	0	0
<i>Aonides oxycephala</i>								
<i>Aonides</i> sp. A	0	1	2	3	0	0	1	1
<i>Aphelochaeta marioni</i>	3	8	1	12	0	0	0	0
Aphroditidae sp. A								
<i>Arabella</i> cf. <i>multidentata</i>	1	0	0	1	0	0	0	0
<i>Aricidea catherinae</i>	0	0	0	0	1	0	0	1
<i>Aricidea</i> (<i>Aedicira</i>) sp. A	0	0	0	0	0	0	0	0
<i>Armandia intermedia</i>	3	3	1	7	0	0	0	0
<i>Augeneriella dubia</i>	0	0	0	0	0	0	0	0
<i>Axiothella quadrimaculata</i>								
<i>Bispira</i> sp. A								
<i>Branchiomma nigromaculata</i>	0	0	0	0	0	0	0	0
<i>Branchiosyllis exilis</i>								
<i>Brania rhopalophora</i>	0	1	0	1	0	0	0	0
<i>Brania</i> sp. B	0	0	0	0	0	0	0	0
<i>Capitella capitata</i>	0	0	0	0	0	0	0	0
Capitellidae sp.	0	0	0	0	0	0	0	0
<i>Caulleriella acicula</i>	0	1	0	1	1	1	0	2
<i>Caulleriella bioculatus</i>	0	0	0	0	0	0	2	2
<i>Caulleriella zetlandica</i>								
<i>Caulleriella</i> sp. A	0	0	0	0	0	0	0	0
<i>Caulleriella</i> sp. B	0	0	0	0	0	2	0	2
Chaetopteridae sp. A								
Cirratulidae sp. A								
<i>Cirratulus africanus</i>								
<i>Cirratulus</i> sp. B								
<i>Cirriformia punctata</i>								
<i>Cossura</i> sp. A								
<i>Dipolydora normalis</i>								
<i>Dipolydora pilikia</i>								
<i>Dipolydora</i> sp. B								
<i>Dodecaceria</i> sp. A								
<i>Dorvillea</i> sp. B	0	0	0	0	0	0	0	0
<i>Euchone</i> cf. <i>rosea</i>	0	0	0	0	1	0	0	1
<i>Euchone</i> sp. B	3	5	3	11	0	0	0	0
<i>Eumida sanguinea</i>	0	0	0	0	0	0	0	0
<i>Eumida</i> sp. B	0	1	0	1	0	0	0	0
<i>Eunice antennata</i>								
<i>Eunice australis</i>								
<i>Eunice havaica</i>								
<i>Eunice vittata</i>								
<i>Euthalenessa</i> sp. A								

TABLE D.7—Continued

Taxon	No. of Individuals at E1				No. of Individuals at E2			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Exogone longicornis</i>	1	0	0	1	0	0	0	0
<i>Exogone</i> sp. C	0	0	2	2	0	0	0	0
<i>Exogone</i> sp. E	0	0	0	0	0	0	0	0
<i>Fabricia</i> sp. A								
<i>Glycera tessellata</i>	1	0	0	1	1	0	1	2
<i>Goniada emerita</i>	0	0	0	0	0	0	0	0
<i>Goniada maculata</i>								
<i>Grubeosyllis mediodentata</i>	0	0	0	0	0	0	0	0
<i>Haplosyllis spongicola</i>								
<i>Harmothoe</i> sp. A								
Hesionidae sp. G								
Hesionidae sp. H								
<i>Hesionura australiensis</i>	0	0	0	0	0	1	2	3
<i>Hydroides bannerorum</i>	0	0	0	0	0	0	0	0
<i>Jasmineira caudata</i>	0	0	0	0	0	0	0	0
<i>Josephella marenzelleri</i>								
<i>Laonice cirrata</i>	0	0	0	0	0	0	0	0
<i>Laonome</i> sp. A								
<i>Lepidasthenia</i> sp. A								
<i>Linopherus microcephala</i>	0	0	0	0	0	0	0	0
<i>Loimia</i> sp. A								
<i>Lumbrineriopsis</i> sp. A	0	0	0	0	0	0	0	0
<i>Lumbrineris latreilli</i>	0	0	0	0	0	0	0	0
<i>Lumbrineris tetraura</i>	1	0	3	4	0	0	0	0
<i>Lumbrineris</i> sp. A								
<i>Lygdamis nesiotis</i>	0	0	0	0	0	0	0	0
<i>Lysidice ninetta</i>								
<i>Lysidice</i> sp. A	0	0	0	0	0	0	0	0
<i>Lysippe</i> sp. A	0	1	0	1	0	0	0	0
<i>Magelona capensis</i>								
<i>Magelona cincta</i>								
<i>Magelona</i> sp. A	0	0	0	0	0	0	0	0
<i>Malacoceros</i> sp. A								
Maldanidae sp. A	0	0	0	0	0	0	0	0
<i>Marphysa</i> cf. <i>conferta</i>	0	0	1	1	0	0	0	0
<i>Marphysa depressa</i>								
<i>Megalomma intermedium</i>								
<i>Melinna monoceroides</i>								
<i>Mesochaetopterus sagittarius</i>								
<i>Micronereis</i> sp. A								
<i>Microphthalmus</i> sp.								
<i>Micropodarke</i> sp. A	0	2	0	2	1	0	0	1
<i>Micropodarke</i> sp. B	0	0	0	0	0	0	0	0
<i>Microspio granulata</i>								
<i>Monticellina</i> cf. <i>dorsobranchialis</i>								
<i>Monticellina</i> sp. A	0	0	0	0	1	0	0	1
<i>Monticellina</i> sp. B								
<i>Mooreonuphis</i> sp. A	2	0	1	3	1	3	4	8
<i>Myriochele oculata</i>	1	0	0	1	0	0	0	0
<i>Myriochele pygidialis</i>								
<i>Myriochele</i> sp. A	0	0	0	0	0	0	0	0
<i>Mystides</i> nr. <i>caeca</i>								

TABLE D.7—Continued

Taxon	No. of Individuals at E1				No. of Individuals at E2			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Naineris</i> sp. A								
<i>Neanthes arenaceodentata</i>	1	0	0	1	0	0	0	0
<i>Nematonereis unicornis</i>	0	0	0	0	0	0	0	0
<i>Neodexiospira preacuta</i>								
<i>Nereis</i> sp. B	0	0	0	0	0	0	0	0
<i>Nothria</i> sp. B	0	0	0	0	0	0	0	0
<i>Notomastus tenuis</i>	0	1	1	2	1	0	0	1
<i>Odontosyllis maculata</i>								
<i>Odontosyllis</i> sp. A								
<i>Odontosyllis</i> sp. B	0	0	0	0	0	0	0	0
<i>Ophiodromus angustifrons</i>	0	0	0	0	1	0	0	1
<i>Ophiodromus</i> sp. A								
<i>Ophiodromus</i> sp. B	0	0	0	0	1	0	8	9
<i>Ophryotrocha adherens</i>	3	0	0	3	1	0	1	2
<i>Paleanotus</i> sp. B								
<i>Palmyra</i> sp. A								
<i>Paramphinome</i> sp. A								
<i>Paraonella</i> sp. A	0	0	0	0	1	0	0	1
<i>Pareulepis malayana</i>								
<i>Pholoe</i> sp. A								
<i>Pholoe</i> sp. B								
<i>Pholoe</i> sp. C								
<i>Pholoe</i> sp. D								
<i>Pholoe</i> sp. F								
<i>Phyllochaetopterus socialis</i>								
<i>Phyllochaetopterus verrilli</i>								
<i>Phyllochaetopterus</i> sp. A	0	0	0	0	0	0	0	0
<i>Phyllodoce madeirensis</i>	0	0	0	0	0	0	0	0
<i>Phyllodoce parva</i>								
<i>Phyllodoce</i> sp. A								
<i>Phyllodoce</i> sp. C								
<i>Phyllodoce</i> sp. F								
Phyllodocidae sp. A								
Phyllodocidae sp. C								
Phyllodocidae sp. G								
<i>Pionosyllis heterocirrata</i>	0	0	0	0	6	1	5	12
<i>Pionosyllis spinisetosa</i>	0	0	0	0	0	0	0	0
<i>Pionosyllis weismanni</i>	0	0	0	0	0	0	0	0
<i>Pionosyllis</i> sp. C								
<i>Pisione remota</i>	0	0	0	0	1	0	0	1
<i>Pisione</i> sp. A	0	0	0	0	0	0	0	0
<i>Pisionidens</i> sp. A								
<i>Poecilochaetus johnsoni</i>								
<i>Poecilochaetus serpens</i>								
<i>Polycirrus plumosus</i>								
<i>Polycirrus</i> sp. A								
<i>Polycirrus</i> sp. C								
Polynoidae sp. B								
Polynoidae sp. C								
<i>Polyophthalmus pictus</i>	0	0	0	0	0	0	0	0
<i>Potamilla</i> sp. A								
<i>Prionospio cirrifera</i>	6	9	1	16	3	0	0	3

TABLE D.7—Continued

Taxon	No. of Individuals at E1				No. of Individuals at E2			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Prionospio cirrobranchiata</i>	4	2	3	9	6	2	1	9
<i>Prionospio steenstrupi</i>	0	1	1	2	0	0	0	0
<i>Progoniada</i> sp. A	0	0	1	1	1	2	1	4
<i>Progoniada</i> sp. C	0	0	0	0	0	0	0	0
<i>Protodorvillea biarticulata</i>	0	0	0	0	3	2	10	15
<i>Protodorvillea egena</i>	0	0	0	0	0	0	0	0
<i>Protodriloides</i> sp. A								
<i>Protodrilus</i> sp. A								
<i>Psamathe</i> sp. A	0	0	0	0	0	1	0	1
<i>Pseudopolydora corallicola</i>	0	0	0	0	0	0	1	1
<i>Pseudopotamilla reniformis</i>								
<i>Pseudovermilia occidentalis</i>								
<i>Questa caudicirra</i>								
<i>Questa</i> sp. A	0	0	0	0	0	0	0	0
<i>Questa</i> sp. B								
<i>Rhodine</i> sp. A								
<i>Rhynchospio</i> sp. B								
<i>Sabella</i> sp. A								
<i>Sabellastarte spectabilis</i>								
<i>Saccocirrus oahuensis</i>								
<i>Saccocirrus waianaensis</i>								
<i>Salmacina dysteri</i>	2	0	0	2	0	0	0	0
<i>Samythella</i> sp. A	0	0	0	0	0	0	0	0
Scalibregmidae sp. B								
<i>Scalisetosus</i> sp. A								
<i>Schistomeringos macilenta</i>								
<i>Schistomeringos rudolphi</i>	1	0	0	1	0	0	0	0
<i>Scolelepis victoriensis</i>								
<i>Scolelepis</i> sp. B								
<i>Scyphoproctus djiboutiensis</i>								
<i>Sigalion</i> sp. A								
<i>Sigambra tentaculata</i>								
<i>Sphaerodoropsis</i> sp. C	2	4	0	6	0	0	0	0
<i>Sphaerosyllis riseri</i>	1	2	0	3	0	0	0	0
<i>Sphaerosyllis sublaevis</i>								
<i>Sphaerosyllis</i> sp. D								
<i>Sphaerosyllis</i> sp. E								
<i>Sphaerosyllis</i> sp. G	1	1	2	4	0	0	0	0
<i>Spio blakei</i>	0	0	0	0	1	0	1	2
<i>Spio filicornis</i>								
<i>Spiochaetopterus</i> sp. A	0	0	0	0	0	0	0	0
Spionidae sp. B								
Spionidae sp. D	5	21	3	29	0	1	0	1
<i>Spiophanes bombyx</i>	0	0	1	1	0	0	0	0
<i>Streptosyllis</i> sp. A	0	0	0	0	0	0	0	0
<i>Syllides bansei</i>								
<i>Syllis gracilis</i>								
<i>Synelmis acuminata</i>	2	5	3	10	1	0	0	1
<i>Synelmis albini</i>								
<i>Synelmis</i> sp. A	0	0	0	0	0	0	0	0
<i>Synelmis</i> sp. B								
Terebellidae sp. A								

TABLE D.7—Continued

Taxon	No. of Individuals at E1				No. of Individuals at E2			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
Terebellidae sp. B								
<i>Travisia</i> sp. A	0	0	0	0	0	0	0	0
<i>Trichobranchus glacialis</i>								
<i>Typosyllis aciculata orientalis</i>	0	0	0	0	0	0	0	0
<i>Typosyllis cornuta</i>	0	0	0	0	0	1	3	4
<i>Typosyllis variegata</i>	0	0	0	0	0	0	0	0
<i>Typosyllis</i> sp. A								
<i>Typosyllis</i> sp. G								
<i>Vermiliopsis torquata</i>								
OLIGOCHAETA	4	11	8	23	3	3	8	14
NEMATODA	45	64	36	145	9	3	15	27
PLATYHELMINTHES	0	0	0	0	0	0	0	0
PORIFERA								
ECHINODERMATA								
Asteroidea								
Echinoidea	0	0	0	0	0	0	0	0
Holothuroidea	0	0	1	1	0	0	0	0
Ophiuroidea	0	0	1	1	1	2	0	3
ANTHOZOA	0	1	1	2	0	0	1	1
HYDROZOA	1	0	0	1	0	0	0	0
SCYPHOZOA								
KINORHYNCHA								
<i>Echinoderes</i> sp. A	0	0	0	0	0	1	0	1
NEMERTEA	7	3	1	11	7	4	2	13
INSECTA								
SIPUNCULA								
<i>Apionsoma misakianum</i>								
<i>Aspidosiphon muelleri</i>	7	15	9	31	0	3	1	4
<i>Lithacrosiphon cristatus</i>								
<i>Phascolosoma nigrescens</i>								
<i>Siphonosoma cumanense</i>								
<i>Sipunculus nudus</i>	0	0	1	1	0	0	0	0
<i>Sipuncula</i> sp. G	2	0	1	3	0	0	0	0
<i>Sipuncula</i> spp.								
PRIAPULIDA	0	0	0	0	0	0	0	0
CHAETOGNATHA								

TABLE D.7—Continued

Taxon	No. of Individuals at E1				No. of Individuals at E2			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
PHORONIDA								
<i>Phoronis psammophila</i>								
BRYOZOA	1	0	1	2	0	0	0	0
ECHIURA								
HEMICHORDATA								
CHORDATA								
Urochordata								
<i>Branchiostoma</i> sp. A	0	1	0	1	0	0	1	1
Osteichthyes								
Total No. of Individuals/Replicate	114	168	91		54	33	69	
Total No. of Taxa/Replicate	29	26	28		24	17	20	
Total No. of Individuals Sampled				373				156
Total No. of Taxa Sampled				46				36

TABLE D.8. Taxon Abundance from Three Replicates for Nonmollusk Components (Excluding Crustaceans), Sand Island Ocean Outfall Sampling Stations E3 and E5, O'ahu, Hawai'i, August 2002

Taxon	No. of Individuals at E3				No. of Individuals at E5			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
POLYCHAETA								
<i>Acrocirrus</i> sp. A	0	0	0	0	4	1	5	10
<i>Aglaophamus circinata</i>								
<i>Amphicorina</i> sp. B	0	1	6	7	0	0	0	0
<i>Amphicteis gunneri</i>	0	0	1	1	1	0	0	1
<i>Amphiduros</i> sp. A								
<i>Amphiglena mediterranea</i>								
<i>Amphiglena</i> sp. A	0	1	0	1	0	0	0	0
<i>Aonides oxycephala</i>								
<i>Aonides</i> sp. A	2	4	1	7	1	1	1	3
<i>Aphelochaeta marioni</i>	1	3	3	7	1	2	0	3
Aphroditidae sp. A								
<i>Arabella</i> cf. <i>multidentata</i>	0	0	0	0	0	0	0	0
<i>Aricidea catherinae</i>	0	0	0	0	1	4	1	6
<i>Aricidea (Aedicira)</i> sp. A	0	0	0	0	0	1	0	1
<i>Armandia intermedia</i>	3	0	4	7	1	3	0	4
<i>Augeneriella dubia</i>	0	0	0	0	0	0	0	0
<i>Axiothella quadrimaculata</i>								
<i>Bispira</i> sp. A								
<i>Branchiomma nigromaculata</i>	0	0	1	1	0	0	0	0
<i>Branchiosyllis exilis</i>								
<i>Brania rhopalophora</i>	0	0	0	0	0	0	0	0
<i>Brania</i> sp. B	1	0	0	1	0	0	0	0
<i>Capitella capitata</i>	0	0	0	0	0	0	0	0
Capitellidae sp.	0	0	0	0	0	0	1	1
<i>Caulleriella acicula</i>	0	0	0	0	0	0	0	0
<i>Caulleriella bioculatus</i>	0	0	1	1	0	0	0	0
<i>Caulleriella zetlandica</i>								
<i>Caulleriella</i> sp. A	1	0	0	1	0	0	1	1
<i>Caulleriella</i> sp. B	0	0	0	0	0	0	0	0
Chaetopteridae sp. A								
Cirratulidae sp. A								
<i>Cirratulus africanus</i>								
<i>Cirratulus</i> sp. B								
<i>Cirriformia punctata</i>								
<i>Cossura</i> sp. A								
<i>Dipolydora normalis</i>								
<i>Dipolydora pilikia</i>								
<i>Dipolydora</i> sp. B								
<i>Dodecaceria</i> sp. A								
<i>Dorvillea</i> sp. B	0	0	1	1	0	0	3	3
<i>Euchone</i> cf. <i>rosea</i>	1	1	4	6	0	0	0	0
<i>Euchone</i> sp. B	0	0	0	0	1	1	3	5
<i>Eumida sanguinea</i>	0	2	0	2	0	0	0	0
<i>Eumida</i> sp. B	0	0	0	0	0	0	0	0
<i>Eunice antennata</i>								
<i>Eunice australis</i>								
<i>Eunice havaica</i>								
<i>Eunice vittata</i>								
<i>Euthalenessa</i> sp. A								

TABLE D.8—Continued

Taxon	No. of Individuals at E3				No. of Individuals at E5			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Exogone longicornis</i>	0	0	0	0	0	0	0	0
<i>Exogone</i> sp. C	0	0	3	3	0	0	0	0
<i>Exogone</i> sp. E	0	1	1	2	0	1	0	1
<i>Fabricia</i> sp. A								
<i>Glycera tessellata</i>	0	0	1	1	1	0	0	1
<i>Goniada emerita</i>	0	0	0	0	0	0	1	1
<i>Goniada maculata</i>								
<i>Grubeosyllis mediudentata</i>	0	0	1	1	0	0	0	0
<i>Haplosyllis spongicola</i>								
<i>Harmothoe</i> sp. A								
Hesionidae sp. G								
Hesionidae sp. H								
<i>Hesionura australiensis</i>	1	1	0	2	0	0	0	0
<i>Hydroides bannerorum</i>	1	0	0	1	0	0	0	0
<i>Jasmineira caudata</i>	0	1	2	3	0	0	0	0
<i>Josephella marenzelleri</i>								
<i>Laonice cirrata</i>	0	0	0	0	0	0	4	4
<i>Laonome</i> sp. A								
<i>Lepidasthenia</i> sp. A								
<i>Linopherus microcephala</i>	0	1	0	1	0	0	0	0
<i>Loimia</i> sp. A								
<i>Lumbrineriopsis</i> sp. A	0	1	1	2	0	0	1	1
<i>Lumbrineris latreilli</i>	0	1	0	1	1	0	0	1
<i>Lumbrineris tetraura</i>	0	0	0	0	1	3	4	8
<i>Lumbrineris</i> sp. A								
<i>Lygdamis nesiotis</i>	0	1	1	2	0	0	0	0
<i>Lysidice ninetta</i>								
<i>Lysidice</i> sp. A	0	3	0	3	0	0	0	0
<i>Lysippe</i> sp. A	1	0	0	1	0	0	0	0
<i>Magelona capensis</i>								
<i>Magelona cincta</i>								
<i>Magelona</i> sp. A	0	1	0	1	0	0	0	0
<i>Malacoceros</i> sp. A								
Maldanidae sp. A	0	1	0	1	0	0	0	0
<i>Marphysa</i> cf. <i>conferta</i>	0	0	0	0	0	0	0	0
<i>Marphysa depressa</i>								
<i>Megalomma intermedium</i>								
<i>Melinna monoceroides</i>								
<i>Mesochaetopterus sagittarius</i>								
<i>Micronereis</i> sp. A								
<i>Microphthalmus</i> sp.								
<i>Micropodarke</i> sp. A	2	0	10	12	0	0	3	3
<i>Micropodarke</i> sp. B	0	0	5	5	0	0	0	0
<i>Microspio granulata</i>								
<i>Monticellina</i> cf. <i>dorsobranchialis</i>								
<i>Monticellina</i> sp. A	0	0	0	0	0	0	0	0
<i>Monticellina</i> sp. B								
<i>Mooreonuphis</i> sp. A	0	1	6	7	0	0	0	0
<i>Myriochele oculata</i>	2	1	0	3	1	0	1	2
<i>Myriochele pygidialis</i>								
<i>Myriochele</i> sp. A	0	0	2	2	0	0	1	1
<i>Mystides</i> nr. <i>caeca</i>								

TABLE D.8—Continued

Taxon	No. of Individuals at E3				No. of Individuals at E5			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Naineris</i> sp. A								
<i>Neanthes arenaceodentata</i>	0	0	0	0	0	0	0	0
<i>Nematonereis unicornis</i>	2	0	1	3	2	0	1	3
<i>Neodexiospira preacuta</i>								
<i>Nereis</i> sp. B	0	1	4	5	0	0	0	0
<i>Nothria</i> sp. B	0	0	0	0	1	2	0	3
<i>Notomastus tenuis</i>	2	1	0	3	0	4	1	5
<i>Odontosyllis maculata</i>								
<i>Odontosyllis</i> sp. A								
<i>Odontosyllis</i> sp. B	0	1	3	4	0	0	0	0
<i>Ophiodromus angustifrons</i>	4	2	16	22	1	0	1	2
<i>Ophiodromus</i> sp. A								
<i>Ophiodromus</i> sp. B	0	1	0	1	0	0	0	0
<i>Ophryotrocha adherens</i>	0	0	2	2	0	0	0	0
<i>Paleanotus</i> sp. B								
<i>Palmyra</i> sp. A								
<i>Paramphinome</i> sp. A								
<i>Paraonella</i> sp. A	0	0	0	0	0	0	0	0
<i>Pareulepis malayana</i>								
<i>Pholoe</i> sp. A								
<i>Pholoe</i> sp. B								
<i>Pholoe</i> sp. C								
<i>Pholoe</i> sp. D								
<i>Pholoe</i> sp. F								
<i>Phyllochaetopterus socialis</i>								
<i>Phyllochaetopterus verrilli</i>								
<i>Phyllochaetopterus</i> sp. A	3	1	1	5	0	0	0	0
<i>Phyllodoce madeirensis</i>	0	1	2	3	0	0	0	0
<i>Phyllodoce parva</i>								
<i>Phyllodoce</i> sp. A								
<i>Phyllodoce</i> sp. C								
<i>Phyllodoce</i> sp. F								
Phyllodocidae sp. A								
Phyllodocidae sp. C								
Phyllodocidae sp. G								
<i>Pionosyllis heterocirrata</i>	3	1	26	30	0	1	13	14
<i>Pionosyllis spinisetosa</i>	1	0	0	1	0	0	0	0
<i>Pionosyllis weismanni</i>	2	0	1	3	0	0	0	0
<i>Pionosyllis</i> sp. C								
<i>Pisione remota</i>	0	0	0	0	0	0	0	0
<i>Pisione</i> sp. A	3	0	0	3	0	0	0	0
<i>Pisionidens</i> sp. A								
<i>Poecilochaetus johnsoni</i>								
<i>Poecilochaetus serpens</i>								
<i>Polycirrus plumosus</i>								
<i>Polycirrus</i> sp. A								
<i>Polycirrus</i> sp. C								
Polynoidae sp. B								
Polynoidae sp. C								
<i>Polyophthalmus pictus</i>	2	3	6	11	0	0	0	0
<i>Potamilla</i> sp. A								
<i>Prionospio cirrifera</i>	5	4	3	12	2	4	5	11

TABLE D.8—Continued

Taxon	No. of Individuals at E3				No. of Individuals at E5			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Prionospio cirrobranchiata</i>	7	16	11	34	2	5	2	9
<i>Prionospio steenstrupi</i>	0	0	1	1	0	0	1	1
<i>Progoniada</i> sp. A	2	1	1	4	1	0	1	2
<i>Progoniada</i> sp. C	0	0	0	0	0	0	0	0
<i>Protodorvillea biarticulata</i>	2	0	2	4	0	0	2	2
<i>Protodorvillea egena</i>	0	0	0	0	0	0	2	2
<i>Protodriloides</i> sp. A								
<i>Protodrilus</i> sp. A								
<i>Psamathe</i> sp. A	0	0	0	0	0	0	0	0
<i>Pseudopolydora corallicola</i>	0	0	0	0	0	0	0	0
<i>Pseudopotamilla reniformis</i>								
<i>Pseudovermilia occidentalis</i>								
<i>Questa caudicirra</i>								
<i>Questa</i> sp. A	0	0	1	1	0	1	4	5
<i>Questa</i> sp. B								
<i>Rhodine</i> sp. A								
<i>Rhynchospio</i> sp. B								
<i>Sabella</i> sp. A								
<i>Sabellastarte spectabilis</i>								
<i>Saccocirrus oahuensis</i>								
<i>Saccocirrus waianaensis</i>								
<i>Salmacina dysteri</i>	3	4	5	12	0	0	0	0
<i>Samythella</i> sp. A	1	0	5	6	0	0	0	0
Scalibregmidae sp. B								
<i>Scalisetosus</i> sp. A								
<i>Schistomeringos macilenta</i>								
<i>Schistomeringos rudolphi</i>	1	3	0	4	0	0	0	0
<i>Scolecopsis victoriensis</i>								
<i>Scolecopsis</i> sp. B								
<i>Scyphoproctus djiboutiensis</i>								
<i>Sigalion</i> sp. A								
<i>Sigambra tentaculata</i>								
<i>Sphaerodoropsis</i> sp. C	0	0	0	0	0	0	0	0
<i>Sphaerosyllis riseri</i>	0	1	5	6	0	0	5	5
<i>Sphaerosyllis sublaevis</i>								
<i>Sphaerosyllis</i> sp. D								
<i>Sphaerosyllis</i> sp. E								
<i>Sphaerosyllis</i> sp. G	1	2	6	9	0	1	5	6
<i>Spio blakei</i>	2	1	0	3	0	2	0	2
<i>Spio filicornis</i>								
<i>Spiochaetopterus</i> sp. A	0	0	0	0	2	0	0	2
Spionidae sp. B								
Spionidae sp. D	4	5	7	16	5	8	1	14
<i>Spiophanes bombyx</i>	0	0	1	1	0	1	0	1
<i>Streptosyllis</i> sp. A	0	0	1	1	0	0	0	0
<i>Syllides bansei</i>								
<i>Syllis gracilis</i>								
<i>Synelmis acuminata</i>	8	1	4	13	2	1	4	7
<i>Synelmis albini</i>								
<i>Synelmis</i> sp. A	0	1	0	1	0	0	0	0
<i>Synelmis</i> sp. B								
Terebellidae sp. A								

TABLE D.8—Continued

Taxon	No. of Individuals at E3				No. of Individuals at E5			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
Terebellidae sp. B								
<i>Travisia</i> sp. A	0	0	0	0	0	1	0	1
<i>Trichobranchus glacialis</i>								
<i>Typosyllis aciculata orientalis</i>	0	3	3	6	0	0	0	0
<i>Typosyllis cornuta</i>	0	0	0	0	0	0	1	1
<i>Typosyllis variegata</i>	0	1	0	1	0	0	0	0
<i>Typosyllis</i> sp. A								
<i>Typosyllis</i> sp. G								
<i>Vermiliopsis torquata</i>								
OLIGOCHAETA	8	21	17	46	8	5	11	24
NEMATODA	21	24	341	386	14	12	144	170
PLATYHELMINTHES	0	0	1	1	0	0	0	0
PORIFERA								
ECHINODERMATA								
Asteroidea								
Echinoidea	0	1	1	2	0	0	0	0
Holothuroidea	0	0	0	0	0	0	1	1
Ophiuroidea	3	3	4	10	1	0	0	1
ANTHOZOA	0	0	0	0	0	2	0	2
HYDROZOA	0	0	1	1	0	0	0	0
SCYPHOZOA								
KINORHYNCHA								
<i>Echinoderes</i> sp. A	0	0	5	5	1	0	0	1
NEMERTEA	5	13	17	35	2	1	19	22
INSECTA								
SIPUNCULA								
<i>Apionsoma misakianum</i>								
<i>Aspidosiphon muelleri</i>	1	8	18	27	8	3	12	23
<i>Lithacrosiphon cristatus</i>								
<i>Phascolosoma nigrescens</i>								
<i>Siphonosoma cumanense</i>								
<i>Sipunculus nudus</i>	0	0	0	0	1	0	0	1
<i>Sipuncula</i> sp. G	1	0	6	7	0	1	1	2
<i>Sipuncula</i> spp.								
PRIAPULIDA	0	0	2	2	0	0	1	1
CHAETOGNATHA								

TABLE D.8—Continued

Taxon	No. of Individuals at E3				No. of Individuals at E5			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
PHORONIDA								
<i>Phoronis psammophila</i>								
BRYOZOA	1	0	0	1	0	0	0	0
ECHIURA								
HEMICHORDATA								
CHORDATA								
Urochordata								
<i>Branchiostoma</i> sp. A	5	1	3	9	0	0	0	0
Osteichthyes								
Total No. of Individuals/Replicate	119	152	589		67	72	268	
Total No. of Taxa/Replicate	39	47	57		27	27	37	
Total No. of Individuals Sampled				860				407
Total No. of Taxa Sampled				79				53

TABLE D.9. Taxon Abundance from Three Replicates for Nonmollusk Components (Excluding Crustaceans), Sand Island Ocean Outfall Sampling Station E6, O'ahu, Hawai'i, August 2002

Taxon	No. of Individuals at E6				Transect E Total
	1	2	3	Total	
POLYCHAETA					
<i>Acrocirrus</i> sp. A	10	23	3	36	51
<i>Aglaophamus circinata</i>					
<i>Amphicorina</i> sp. B	0	0	0	0	7
<i>Amphicteis gunneri</i>	0	1	0	1	6
<i>Amphiduros</i> sp. A					
<i>Amphiglena mediterranea</i>					
<i>Amphiglena</i> sp. A	0	1	0	1	2
<i>Aonides oxycephala</i>					
<i>Aonides</i> sp. A	3	3	0	6	20
<i>Aphelochaeta marioni</i>	6	4	6	16	38
Aphroditidae sp. A					
<i>Arabella</i> cf. <i>multidentata</i>	0	0	0	0	1
<i>Aricidea catherinae</i>	0	4	3	7	14
<i>Aricidea</i> (<i>Aedicira</i>) sp. A	1	1	0	2	3
<i>Armandia intermedia</i>	1	1	2	4	22
<i>Augeneriella dubia</i>	0	1	0	1	1
<i>Axiothella quadrimaculata</i>					
<i>Bispira</i> sp. A					
<i>Branchiomma nigromaculata</i>	0	0	0	0	1
<i>Branchiosyllis exilis</i>					
<i>Brania rhopalophora</i>	0	0	0	0	1
<i>Brania</i> sp. B	0	0	0	0	1
<i>Capitella capitata</i>	0	0	1	1	1
Capitellidae sp.	0	0	0	0	1
<i>Caulleriella acicula</i>	0	0	0	0	3
<i>Caulleriella bioculatus</i>	0	0	0	0	3
<i>Caulleriella zetlandica</i>					
<i>Caulleriella</i> sp. A	0	0	0	0	2
<i>Caulleriella</i> sp. B	0	0	0	0	2
Chaetopteridae sp. A					
Cirratulidae sp. A					
<i>Cirratulus africanus</i>					
<i>Cirratulus</i> sp. B					
<i>Cirriformia punctata</i>					
<i>Cossura</i> sp. A					
<i>Dipolydora normalis</i>					
<i>Dipolydora pilikia</i>					
<i>Dipolydora</i> sp. B					
<i>Dodecaceria</i> sp. A					
<i>Dorvillea</i> sp. B	0	2	0	2	6
<i>Euchone</i> cf. <i>rosea</i>	0	0	0	0	7
<i>Euchone</i> sp. B	0	5	1	6	22
<i>Eumida sanguinea</i>	0	0	0	0	2
<i>Eumida</i> sp. B	0	0	0	0	1
<i>Eunice antennata</i>					
<i>Eunice australis</i>					
<i>Eunice havaica</i>					
<i>Eunice vittata</i>					
<i>Euthalenessa</i> sp. A					
<i>Exogone longicornis</i>	0	0	0	0	1

TABLE D.9—Continued

Taxon	No. of Individuals at E6			Total	Transect E Total
	1	2	3		
<i>Exogone</i> sp. C	0	1	0	1	6
<i>Exogone</i> sp. E	0	0	0	0	3
<i>Fabricia</i> sp. A					
<i>Glycera tessellata</i>	1	1	0	2	7
<i>Goniada emerita</i>	0	3	1	4	5
<i>Goniada maculata</i>					
<i>Grubeosyllis mediodentata</i>	0	0	0	0	1
<i>Haplosyllis spongicola</i>					
<i>Harmothoe</i> sp. A					
Hesionidae sp. G					
Hesionidae sp. H					
<i>Hesionura australiensis</i>	0	0	0	0	5
<i>Hydroides bannerorum</i>	0	0	0	0	1
<i>Jasmineira caudata</i>	0	0	0	0	3
<i>Josephella marenzelleri</i>					
<i>Laonice cirrata</i>	0	1	0	1	5
<i>Laonome</i> sp. A					
<i>Lepidasthenia</i> sp. A					
<i>Linopherus microcephala</i>	0	0	0	0	1
<i>Loimia</i> sp. A					
<i>Lumbrineriopsis</i> sp. A	0	0	0	0	3
<i>Lumbrineris latreilli</i>	4	2	1	7	9
<i>Lumbrineris tetraura</i>	1	3	1	5	17
<i>Lumbrineris</i> sp. A					
<i>Lygdamis nesiotis</i>	0	0	0	0	2
<i>Lysidice ninetta</i>					
<i>Lysidice</i> sp. A	0	0	0	0	3
<i>Lysippe</i> sp. A	1	0	1	2	4
<i>Magelona capensis</i>					
<i>Magelona cincta</i>					
<i>Magelona</i> sp. A	0	0	1	1	2
<i>Malacoceros</i> sp. A					
Maldanidae sp. A	0	0	0	0	1
<i>Marphysa</i> cf. <i>conferta</i>	0	0	0	0	1
<i>Marphysa depressa</i>					
<i>Megalomma intermedium</i>					
<i>Melinna monoceroides</i>					
<i>Mesochaetopterus sagittarius</i>					
<i>Micronereis</i> sp. A					
<i>Microphthalmus</i> sp.					
<i>Micropodarke</i> sp. A	0	0	0	0	18
<i>Micropodarke</i> sp. B	0	0	0	0	5
<i>Microspio granulata</i>					
<i>Monticellina</i> cf. <i>dorsobranchialis</i>					
<i>Monticellina</i> sp. A	0	0	0	0	1
<i>Monticellina</i> sp. B					
<i>Mooreonuphis</i> sp. A	0	0	0	0	18
<i>Myriochele oculata</i>	4	0	0	4	10
<i>Myriochele pygidialis</i>					
<i>Myriochele</i> sp. A	0	2	0	2	5
<i>Mystides</i> nr. <i>caeca</i>					
<i>Naineris</i> sp. A					

TABLE D.9—Continued

Taxon	No. of Individuals at E6			Total	Transect E Total
	1	2	3		
<i>Neanthes arenaceodentata</i>	0	0	0	0	1
<i>Nematonereis unicornis</i>	0	0	0	0	6
<i>Neodexiospira preacuta</i>					
<i>Nereis</i> sp. B	0	0	0	0	5
<i>Nothria</i> sp. B	0	0	0	0	3
<i>Notomastus tenuis</i>	0	0	0	0	11
<i>Odontosyllis maculata</i>					
<i>Odontosyllis</i> sp. A					
<i>Odontosyllis</i> sp. B	0	0	0	0	4
<i>Ophiodromus angustifrons</i>	0	5	0	5	30
<i>Ophiodromus</i> sp. A					
<i>Ophiodromus</i> sp. B	0	0	0	0	10
<i>Ophryotrocha adherens</i>	0	0	0	0	7
<i>Paleanotus</i> sp. B					
<i>Palmyra</i> sp. A					
<i>Paramphinome</i> sp. A					
<i>Paraonella</i> sp. A	0	0	0	0	1
<i>Pareulepis malayana</i>					
<i>Pholoe</i> sp. A					
<i>Pholoe</i> sp. B					
<i>Pholoe</i> sp. C					
<i>Pholoe</i> sp. D					
<i>Pholoe</i> sp. F					
<i>Phyllochaetopterus socialis</i>					
<i>Phyllochaetopterus verrilli</i>					
<i>Phyllochaetopterus</i> sp. A	0	0	0	0	5
<i>Phyllodoce madeirensis</i>	0	0	0	0	3
<i>Phyllodoce parva</i>					
<i>Phyllodoce</i> sp. A					
<i>Phyllodoce</i> sp. C					
<i>Phyllodoce</i> sp. F					
Phyllodocidae sp. A					
Phyllodocidae sp. C					
Phyllodocidae sp. G					
<i>Pionosyllis heterocirrata</i>	2	3	0	5	61
<i>Pionosyllis spinisetosa</i>	0	0	0	0	1
<i>Pionosyllis weismanni</i>	0	0	0	0	3
<i>Pionosyllis</i> sp. C					
<i>Pisione remota</i>	0	0	0	0	1
<i>Pisione</i> sp. A	0	0	0	0	3
<i>Pisionidens</i> sp. A					
<i>Poecilochaetus johnsoni</i>					
<i>Poecilochaetus serpens</i>					
<i>Polycirrus plumosus</i>					
<i>Polycirrus</i> sp. A					
<i>Polycirrus</i> sp. C					
Polynoidae sp. B					
Polynoidae sp. C					
<i>Polyophthalmus pictus</i>	0	0	0	0	11
<i>Potamilla</i> sp. A					
<i>Prionospio cirrifera</i>	2	2	3	7	49
<i>Prionospio cirrobranchiata</i>	4	5	5	14	75

TABLE D.9—Continued

Taxon	No. of Individuals at E6			Total	Transect E Total
	1	2	3		
<i>Prionospio steenstrupi</i>	0	1	0	1	5
<i>Progoniada</i> sp. A	0	1	0	1	12
<i>Progoniada</i> sp. C	1	0	1	2	2
<i>Protodorvillea biarticulata</i>	1	0	0	1	22
<i>Protodorvillea egena</i>	0	2	0	2	4
<i>Protodriloides</i> sp. A					
<i>Protodrilus</i> sp. A					
<i>Psamathe</i> sp. A	0	0	0	0	1
<i>Pseudopolydora corallicola</i>	0	0	0	0	1
<i>Pseudopotamilla reniformis</i>					
<i>Pseudovermilia occidentalis</i>					
<i>Questa caudicirra</i>					
<i>Questa</i> sp. A	0	12	0	12	18
<i>Questa</i> sp. B					
<i>Rhodine</i> sp. A					
<i>Rhynchospio</i> sp. B					
<i>Sabella</i> sp. A					
<i>Sabellastarte spectabilis</i>					
<i>Saccocirrus oahuensis</i>					
<i>Saccocirrus waianaensis</i>					
<i>Salmacina dysteri</i>	0	0	0	0	14
<i>Samythella</i> sp. A	0	0	0	0	6
Scalibregmidae sp. B					
<i>Scalisetosus</i> sp. A					
<i>Schistomeringos macilenta</i>					
<i>Schistomeringos rudolphi</i>	0	0	0	0	5
<i>Scolelepis victoriensis</i>					
<i>Scolelepis</i> sp. B					
<i>Scyphoproctus djiboutiensis</i>					
<i>Sigalion</i> sp. A					
<i>Sigambra tentaculata</i>					
<i>Sphaerodoropsis</i> sp. C	0	0	0	0	6
<i>Sphaerosyllis riseri</i>	0	1	0	1	15
<i>Sphaerosyllis sublaevis</i>					
<i>Sphaerosyllis</i> sp. D					
<i>Sphaerosyllis</i> sp. E					
<i>Sphaerosyllis</i> sp. G	1	0	0	1	20
<i>Spio blakei</i>	0	1	2	3	10
<i>Spio filicornis</i>					
<i>Spiochaetopterus</i> sp. A	0	0	1	1	3
Spionidae sp. B					
Spionidae sp. D	8	5	5	18	78
<i>Spiophanes bombyx</i>	0	1	0	1	4
<i>Streptosyllis</i> sp. A	0	0	0	0	1
<i>Syllides bansei</i>					
<i>Syllis gracilis</i>					
<i>Synelmis acuminata</i>	1	5	1	7	38
<i>Synelmis albini</i>					
<i>Synelmis</i> sp. A	0	0	0	0	1
<i>Synelmis</i> sp. B					
Terebellidae sp. A					
Terebellidae sp. B					

TABLE D.9—Continued

Taxon	No. of Individuals at E6			Total	Transect E Total
	1	2	3		
<i>Travisia</i> sp. A	0	0	0	0	1
<i>Trichobranchus glacialis</i>					
<i>Typosyllis aciculata orientalis</i>	0	0	0	0	6
<i>Typosyllis cornuta</i>	0	1	0	1	6
<i>Typosyllis variegata</i>	0	0	0	0	1
<i>Typosyllis</i> sp. A					
<i>Typosyllis</i> sp. G					
<i>Vermiliopsis torquata</i>					
OLIGOCHAETA	14	7	12	33	140
NEMATODA	26	328	4	358	1086
PLATYHELMINTHES	0	0	0	0	1
PORIFERA					
ECHINODERMATA					
Asteroidea					
Echinoidea	0	0	0	0	2
Holothuroidea	0	10	4	14	16
Ophiuroidea	1	2	0	3	18
ANTHOZOA	0	0	0	0	5
HYDROZOA	0	0	0	0	2
SCYPHOZOA					
KINORHYNCHA					
<i>Echinoderes</i> sp. A	0	0	0	0	7
NEMERTEA	4	11	3	18	99
INSECTA					
SIPUNCULA					
<i>Apionsoma misakianum</i>					
<i>Aspidosiphon muelleri</i>	25	16	1	42	127
<i>Lithacrosiphon cristatus</i>					
<i>Phascolosoma nigrescens</i>					
<i>Siphonosoma cumanense</i>					
<i>Sipunculus nudus</i>					
<i>Sipuncula</i> sp. G	0	3	0	3	5
<i>Sipuncula</i> spp.	0	2	0	2	14
PRIAPULIDA	1	0	0	1	4
CHAETOGNATHA					
PHORONIDA					
<i>Phoronis psammophila</i>					

TABLE D.9—Continued

Taxon	No. of Individuals at E6				Transect E Total
	Replicate			Total	
	1	2	3		
BRYOZOA	0	0	0	0	3
ECHIURA					
HEMICHORDATA					
CHORDATA					
Urochordata					
<i>Branchiostoma</i> sp. A	0	0	0	0	11
Osteichthyes					
Total No. of Individuals/Replicate	123	483	63		
Total No. of Taxa/Replicate	24	40	23		
Total No. of Individuals Sampled				669	2,465
Total No. of Taxa Sampled				49	117

TABLE D.10. Taxon Abundance from Three Replicates for Crustacean Components, Sand Island Ocean Outfall Sampling Stations C1A and C2A, O'ahu, Hawai'i, August 2002

Taxon	No. of Individuals at C1A				No. of Individuals at C2A			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
ACARI								
Halacaridae sp. A								
PYCNOGONIDA								
<i>Anoplodactylus projectus</i>								
<i>Callipallene</i> sp. A								
COPEPODA	2	2	15	19	0	0	0	0
OSTRACODA-MYODOCOPIDA								
<i>Myodocope</i> sp. A								
<i>Myodocope</i> sp. B	0	0	3	3	0	0	0	0
<i>Myodocope</i> sp. C								
<i>Myodocope</i> sp. D								
<i>Sarsiella janiceae</i>	0	1	1	2	0	0	0	0
OSTRACODA-PODOCOPIDA								
<i>Bairdia hanaumaensis</i>								
<i>Bairdia kauaiensis</i>								
<i>Bythoceratina</i> cf. <i>monstruosa</i>								
<i>Cytherelloidea</i> cf. <i>monodenticulata</i>								
<i>Macrocypris gracilis</i>								
<i>Mutilus</i> cf. <i>oahuensis</i>								
CUMACEA								
NEBALIACEA								
<i>Nebalia</i> sp. A								
MYSIDACEA								
TANAIDACEA								
<i>Apseudes tropicalis</i>	0	0	0	0	0	0	0	0
<i>Leptochelia dubia</i>	0	0	2	2	0	0	0	0
<i>Leptochelia</i> sp. A								
<i>Tanaissus</i> sp. A	0	0	0	0	0	0	0	0
<i>Tanaid</i> sp. A								
ISOPODA								
<i>Apanthura inornata</i>								
<i>Caecianiropsis</i> (?) sp. A								
<i>Cryptoniscus</i> form								
<i>Gnathia</i> sp. A								
Hyssuridae sp. A	0	0	0	0	0	0	0	0
<i>Jaeropsis hawaiiensis</i>								
<i>Janira algicola</i>	0	0	0	0	0	0	0	0
<i>Mesanthura hieroglyphica</i>								
<i>Metacirrolana</i> sp. A								
<i>Munna acarina</i>								
<i>Munna</i> sp. A								
<i>Paranthura ostergaardi</i>								

TABLE D.10—Continued

Taxon	No. of Individuals at C1A				No. of Individuals at C2A			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Pleurocope</i> sp. A								
<i>Santia</i> sp. A								
AMPHIPODA—CAPRELLIDEA								
<i>Caprella equilibra</i>								
<i>Caprella inequilbra</i>								
<i>Caprella</i> cf. <i>subtilis</i>								
<i>Metaprotella sandalensis</i>								
<i>Paraprotella</i> cf. <i>prima</i>								
AMPHIPODA—GAMMARIDEA								
Amphilochidae sp(p).								
<i>Atylus nani</i>								
<i>Bemlos macromanus</i>	0	0	0	0	0	1	0	1
<i>Bemlos pualani</i>								
<i>Ceradocus hawaiiensis</i>								
<i>Elasmopus piikoi</i>	0	0	0	0	0	2	0	2
<i>Erichthonius brasiliensis</i>								
<i>Eriopisa</i> sp. A								
<i>Eriopisella sechellensis</i>	0	0	0	0	0	0	0	0
<i>Gammaropsis atlantica</i>								
<i>Gammaropsis pokipoki</i>								
<i>Gitanopsis pele</i>								
<i>Grandierella japonica</i>								
<i>Ischyrocerus kapu</i>								
<i>Ischyrocerus oahu</i>								
<i>Kanaloa manoa</i>								
<i>Konatopus paao</i>								
<i>Laetmatophilus hala</i>								
<i>Leucothoe hyhelia</i>								
<i>Liljeborgia heeia</i>								
<i>Melita appendiculata</i>								
<i>Paradexamine maunaloa</i>								
<i>Paraphoxus</i> sp. A								
<i>Paraphoxus</i> sp. B	0	0	0	0	0	0	0	0
<i>Photis kapapa</i>								
<i>Podocerus talegus</i>								
<i>Podocerus</i> sp. A								
<i>Seba ekepuu</i>	0	0	0	0	0	0	0	0
<i>Seba</i> sp. A								
DECAPODA—NATANTIA								
<i>Alpheopsis equalis</i>								
<i>Alpheus paracrinitus</i>								
<i>Ambidexter</i> sp. A								
<i>Leptochela hawaiiensis</i>	0	0	0	0	0	0	0	0
<i>Metapenaeus</i> sp. A								
<i>Ogyrides</i> sp. A								
<i>Pandalus</i> cf. <i>brevis</i>								
<i>Penaeopsis</i> sp. A								
<i>Processa aequimana</i>	0	0	0	0	0	7	0	7

TABLE D.10—Continued

Taxon	No. of Individuals at C1A				No. of Individuals at C2A			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Processa australiensis</i>	0	0	0	0	0	0	0	0
<i>Solenocera lucasii</i>								
DECAPODA-ANOMURA								
<i>Axius</i> sp. A								
<i>Callianassa</i> sp. A								
Pagurid sp. A								
<i>Pomatocheles</i> sp. A								
DECAPODA-BRACHYURA								
<i>Cleistostoma</i> sp. A								
<i>Cryptosoma granulorum</i>								
<i>Dorippe</i> (?) sp. A								
<i>Lissocarcinus laevis</i>								
<i>Macrophthalmus</i> sp. A								
<i>Micippa</i> (?) sp. A								
<i>Nucia</i> (?) sp. A	0	0	0	0	0	0	0	0
<i>Pilumnus</i> sp. A								
<i>Portumnus</i> sp. A								
<i>Portunus macrophthalmus</i>								
<i>Tlos</i> sp. A								
Megalops (unid.)	0	0	0	0	0	1	0	1
Total No. of Individuals/Replicate	2	3	21		0	11	0	
Total No. of Taxa/Replicate	1	2	4		0	4	0	
Total No. of Individuals Sampled				26				11
Total No. of Taxa Sampled				4				4

TABLE D.11. Taxon Abundance from Three Replicates for Crustacean Components, Sand Island Ocean Outfall Sampling Stations C3A and C5A, O'ahu, Hawai'i, August 2002

Taxon	No. of Individuals at C3A				No. of Individuals at C5A			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
ACARI								
Halacaridae sp. A								
PYCNOGONIDA								
<i>Anoplodactylus projectus</i>								
<i>Callipallene</i> sp. A								
COPEPODA	3	4	3	10	4	8	2	14
OSTRACODA-MYODOCOPIDA								
Myodocope sp. A								
Myodocope sp. B	3	0	0	3	0	0	0	0
Myodocope sp. C								
Myodocope sp. D								
<i>Sarsiella janiceae</i>	0	0	0	0	0	0	0	0
OSTRACODA-PODOCOPIDA								
<i>Bairdia hanaumaensis</i>								
<i>Bairdia kauaiensis</i>								
<i>Bythoceratina</i> cf. <i>monstruosa</i>								
<i>Cytherelloidea</i> cf. <i>monodenticulata</i>								
<i>Macrocypris gracilis</i>								
<i>Mutilus</i> cf. <i>oahuensis</i>								
CUMACEA								
NEBALIACEA								
<i>Nebalia</i> sp. A								
MYSIDACEA								
TANAIDACEA								
<i>Apseudes tropicalis</i>	0	0	0	0	1	0	0	1
<i>Leptochelia dubia</i>	0	1	0	1	1	1	0	2
<i>Leptochelia</i> sp. A								
<i>Tanaissus</i> sp. A	0	0	0	0	0	0	0	0
Tanaid sp. A								
ISOPODA								
<i>Apanthura inornata</i>								
<i>Caecianiropsis</i> (?) sp. A								
Cryptoniscus form								
<i>Gnathia</i> sp. A								
Hyssuridae sp. A	0	0	0	0	1	1	0	2
<i>Jaeropsis hawaiiensis</i>								
<i>Janira algicola</i>	0	1	0	1	1	1	0	2
<i>Mesanthura hieroglyphica</i>								
<i>Metacirrolana</i> sp. A								
<i>Munna acarina</i>								
<i>Munna</i> sp. A								
<i>Paranthura ostergaardi</i>								

TABLE D.11—Continued

Taxon	No. of Individuals at C3A				No. of Individuals at C5A			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Pleurocope</i> sp. A								
<i>Santia</i> sp. A								
AMPHIPODA—CAPRELLIDEA								
<i>Caprella equilibra</i>								
<i>Caprella inequilbra</i>								
<i>Caprella</i> cf. <i>subtilis</i>								
<i>Metaprotella sandalensis</i>								
<i>Paraprotella</i> cf. <i>prima</i>								
AMPHIPODA—GAMMARIDEA								
Amphilochidae sp(p).								
<i>Atylus nani</i>								
<i>Bemlos macromanus</i>	0	0	0	0	0	0	0	0
<i>Bemlos pualani</i>								
<i>Ceradocus hawaiiensis</i>								
<i>Elasmopus piikoi</i>	0	0	0	0	1	1	0	2
<i>Erichthonius brasiliensis</i>								
<i>Eriopisa</i> sp. A								
<i>Eriopisella sechellensis</i>	0	0	0	0	0	9	2	11
<i>Gammaropsis atlantica</i>								
<i>Gammaropsis pokipoki</i>								
<i>Gitanopsis pele</i>								
<i>Grandierella japonica</i>								
<i>Ischyrocerus kapu</i>								
<i>Ischyrocerus oahu</i>								
<i>Kanaloa manoa</i>								
<i>Konatopus paao</i>								
<i>Laetmatophilus hala</i>								
<i>Leucothoe hyhelia</i>								
<i>Liljeborgia heeia</i>								
<i>Melita appendiculata</i>								
<i>Paradexamine maunaloa</i>								
<i>Paraphoxus</i> sp. A								
<i>Paraphoxus</i> sp. B	0	2	0	2	0	0	0	0
<i>Photis kapapa</i>								
<i>Podocerus talegus</i>								
<i>Podocerus</i> sp. A								
<i>Seba ekepuu</i>	0	0	0	0	0	0	2	2
<i>Seba</i> sp. A								
DECAPODA—NATANTIA								
<i>Alpheopsis equalis</i>								
<i>Alpheus paracrinitus</i>								
<i>Ambidexter</i> sp. A								
<i>Leptochela hawaiiensis</i>	0	0	0	0	0	1	0	1
<i>Metapenaeus</i> sp. A								
<i>Ogyrides</i> sp. A								
<i>Pandalus</i> cf. <i>brevis</i>								
<i>Penaeopsis</i> sp. A								
<i>Processa aequimana</i>	0	0	0	0	0	1	0	1

TABLE D.11—Continued

Taxon	No. of Individuals at C3A				No. of Individuals at C5A			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Processa australiensis</i>	0	0	0	0	1	0	0	1
<i>Solenocera lucasii</i>								
DECAPODA—ANOMURA								
<i>Axius</i> sp. A								
<i>Callianassa</i> sp. A								
Pagurid sp. A								
<i>Pomatocheles</i> sp. A								
DECAPODA—BRACHYURA								
<i>Cleistostoma</i> sp. A								
<i>Cryptosoma granulosum</i>								
<i>Dorippe</i> (?) sp. A								
<i>Lissocarcinus laevis</i>								
<i>Macrophthalmus</i> sp. A								
<i>Micippa</i> (?) sp. A								
<i>Nucia</i> (?) sp. A	0	0	0	0	0	0	0	0
<i>Pilumnus</i> sp. A								
<i>Portunus</i> sp. A								
<i>Portunus macrophthalmus</i>								
<i>Tlos</i> sp. A								
Megalops (unid.)	0	1	0	1	0	0	0	0
Total No. of Individuals/Replicate	6	9	3		10	23	6	
Total No. of Taxa/Replicate	2	5	1		7	8	3	
Total No. of Individuals Sampled				18				39
Total No. of Taxa Sampled				6				11

TABLE D.12. Taxon Abundance from Three Replicates for Crustacean Components, Sand Island Ocean Outfall Sampling Station C6, O'ahu, Hawai'i, August 2002

Taxon	No. of Individuals at C6				Transect C Total
	Replicate			Total	
	1	2	3		
ACARI					
Halacaridae sp. A					
PYCNOGONIDA					
<i>Anoplodactylus projectus</i>					
<i>Callipallene</i> sp. A					
COPEPODA	2	3	1	6	49
OSTRACODA-MYODOCOPIDA					
Myodocope sp. A					
Myodocope sp. B	1	0	1	2	8
Myodocope sp. C					
Myodocope sp. D					
<i>Sarsiella janiceae</i>	0	0	0	0	2
OSTRACODA-PODOCOPIDA					
<i>Bairdia hanaumaensis</i>					
<i>Bairdia kauaiensis</i>					
<i>Bythoceratina</i> cf. <i>monstruosa</i>					
<i>Cytherelloidea</i> cf. <i>monodenticulata</i>					
<i>Macrocypris gracilis</i>					
<i>Mutilus</i> cf. <i>oahuensis</i>					
CUMACEA					
NEBALIACEA					
<i>Nebalia</i> sp. A					
MYSIDACEA					
TANAIDACEA					
<i>Apeudes tropicalis</i>	0	0	0	0	1
<i>Leptochelia dubia</i>	0	0	1	1	6
<i>Leptochelia</i> sp. A					
<i>Tanaissus</i> sp. A	0	1	0	1	1
Tanaid sp. A					
ISOPODA					
<i>Apanthura inornata</i>					
<i>Caecianiropsis</i> (?) sp. A					
Cryptoniscus form					
<i>Gnathia</i> sp. A					
Hyssuridae sp. A	0	0	0	0	2
<i>Jaeropsis hawaiiensis</i>					
<i>Janira algicola</i>	0	0	0	0	3
<i>Mesanthura hieroglyphica</i>					
<i>Metacirrolana</i> sp. A					
<i>Munna acarina</i>					
<i>Munna</i> sp. A					
<i>Paranthura ostergaardi</i>					

TABLE D.12—Continued

Taxon	No. of Individuals at C6				Transect C Total
	Replicate			Total	
	1	2	3		
<i>Pleurocope</i> sp. A					
<i>Santia</i> sp. A					
AMPHIPODA—CAPRELLIDEA					
<i>Caprella equilibra</i>					
<i>Caprella inequilibra</i>					
<i>Caprella</i> cf. <i>subtilis</i>					
<i>Metaprotella sandalensis</i>					
<i>Paraprotella</i> cf. <i>prima</i>					
AMPHIPODA—GAMMARIDEA					
Amphilochidae sp(p).					
<i>Atylus nani</i>					
<i>Bemlos macromanus</i>	0	0	0	0	1
<i>Bemlos pualani</i>					
<i>Ceradocus hawaiiensis</i>					
<i>Elasmopus piikoi</i>	0	0	0	0	4
<i>Erichthonius brasiliensis</i>					
<i>Eriopisa</i> sp. A					
<i>Eriopisella sechellensis</i>	0	0	0	0	11
<i>Gammaropsis atlantica</i>					
<i>Gammaropsis pokipoki</i>					
<i>Gitanopsis pele</i>					
<i>Grandierella japonica</i>					
<i>Ischyrocerus kapu</i>					
<i>Ischyrocerus oahu</i>					
<i>Kanaloa manoa</i>					
<i>Konatopus paao</i>					
<i>Laetmatophilus hala</i>					
<i>Leucothoe hyhelia</i>					
<i>Liljeborgia heeia</i>					
<i>Melita appendiculata</i>					
<i>Paradexamine maunaloa</i>					
<i>Paraphoxus</i> sp. A					
<i>Paraphoxus</i> sp. B	0	0	0	0	2
<i>Photis kapapa</i>					
<i>Podocerus talegus</i>					
<i>Podocerus</i> sp. A					
<i>Seba ekepuu</i>	0	0	2	2	4
<i>Seba</i> sp. A					
DECAPODA—NATANTIA					
<i>Alpheopsis equalis</i>					
<i>Alpheus paracrinitus</i>					
<i>Ambidexter</i> sp. A					
<i>Leptocheila hawaiiensis</i>	0	0	0	0	1
<i>Metapenaeus</i> sp. A					
<i>Ogyrides</i> sp. A					
<i>Pandalus</i> cf. <i>brevis</i>					
<i>Penaeopsis</i> sp. A					
<i>Processa aequimana</i>	0	0	0	0	8

TABLE D.12—Continued

Taxon	No. of Individuals at C6			Total	Transect C Total
	1	2	3		
<i>Processa australiensis</i>	0	0	0	0	1
<i>Solenocera lucasii</i>					
DECAPODA—ANOMURA					
<i>Axius</i> sp. A					
<i>Callianassa</i> sp. A					
Pagurid sp. A					
<i>Pomatocheles</i> sp. A					
DECAPODA—BRACHYURA					
<i>Cleistostoma</i> sp. A					
<i>Cryptosoma granulatum</i>					
<i>Dorippe</i> (?) sp. A					
<i>Lissocarcinus laevis</i>					
<i>Macrophthalmus</i> sp. A					
<i>Micippa</i> (?) sp. A					
<i>Nucia</i> (?) sp. A	0	0	1	1	1
<i>Pilumnus</i> sp. A					
<i>Portumnus</i> sp. A					
<i>Portunus macrophthalmus</i>					
<i>Tlos</i> sp. A					
<i>Megalops</i> (unid.)	0	0	0	0	2
<hr/>					
Total No. of Individuals/Replicate	3	4	6		
Total No. of Taxa/Replicate	2	2	5		
<hr/>					
Total No. of Individuals Sampled				13	107
Total No. of Taxa Sampled				6	18

TABLE D.13. Taxon Abundance from Three Replicates for Crustacean Components, Sand Island Ocean Outfall Sampling Stations D1 and D2, O'ahu, Hawai'i, August 2002

Taxon	No. of Individuals at D1				No. of Individuals at D2			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
ACARI								
Halacaridae sp. A	0	0	0	0	0	0	0	0
PYCNOGONIDA								
<i>Anoplodactylus projectus</i>	0	0	0	0	0	0	0	0
<i>Callipallene</i> sp. A								
COPEPODA	1	136	6	143	9	2	6	17
OSTRACODA-MYODOCOPIDA								
<i>Myodocope</i> sp. A	1	0	0	1	0	0	0	0
<i>Myodocope</i> sp. B	0	0	0	0	0	0	0	0
<i>Myodocope</i> sp. C								
<i>Myodocope</i> sp. D	0	0	0	0	0	0	0	0
<i>Sarsiella janiceae</i>	0	0	0	0	0	0	0	0
OSTRACODA-PODOCOPIDA								
<i>Bairdia hanaumaensis</i>								
<i>Bairdia kauaiensis</i>	0	0	0	0	0	1	1	2
<i>Bythoceratina</i> cf. <i>monstruosa</i>								
<i>Cytherelloidea</i> cf. <i>monodenticulata</i>	0	0	0	0	0	0	0	0
<i>Macrocypris gracilis</i>								
<i>Mutilus</i> cf. <i>oahuensis</i>	0	0	0	0	0	0	0	0
CUMACEA	0	0	0	0	0	0	0	0
NEBALIACEA								
<i>Nebalia</i> sp. A								
MYSIDACEA								
TANAIDACEA								
<i>Apseudes tropicalis</i>								
<i>Leptochelia dubia</i>	5	4	0	9	15	37	10	62
<i>Leptochelia</i> sp. A	0	0	0	0	1	0	0	1
<i>Tanaissus</i> sp. A	0	0	0	0	0	0	0	0
<i>Tanaid</i> sp. A								
ISOPODA								
<i>Apanthura inornata</i>	2	5	0	7	1	0	1	2
<i>Caecianiropsis</i> (?) sp. A								
Cryptoniscus form								
<i>Gnathia</i> sp. A								
Hyssuridae sp. A	0	0	0	0	0	0	0	0
<i>Jaeropsis hawaiiensis</i>								
<i>Janira algicola</i>								
<i>Mesanthura hieroglyphica</i>								
<i>Metaciroлана</i> sp. A								
<i>Munna acarina</i>	0	2	0	2	0	0	0	0
<i>Munna</i> sp. A	0	0	0	0	0	0	0	0
<i>Paranthura ostergaardi</i>	0	0	0	0	0	1	1	2

TABLE D.13—Continued

Taxon	No. of Individuals at D1				No. of Individuals at D2			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Pleurocope</i> sp. A								
<i>Santia</i> sp. A								
AMPHIPODA—CAPRELLIDEA								
<i>Caprella equilibra</i>								
<i>Caprella inequilbra</i>	0	0	0	0	0	0	0	0
<i>Caprella</i> cf. <i>subtilis</i>	0	0	0	0	0	0	0	0
<i>Metaprotella sandalensis</i>								
<i>Paraprotella</i> cf. <i>prima</i>								
AMPHIPODA—GAMMARIDEA								
Amphilochidae sp(p).	0	0	0	0	0	1	0	1
<i>Atylus nani</i>								
<i>Bemlos macromanus</i>	0	0	0	0	0	0	0	0
<i>Bemlos pualani</i>								
<i>Ceradocus hawaiiensis</i>								
<i>Elasmopus piikoi</i>	3	2	0	5	0	3	3	6
<i>Erichthonius brasiliensis</i>	0	0	0	0	0	2	0	2
<i>Eriopisa</i> sp. A								
<i>Eriopisella sechellensis</i>	0	0	0	0	4	8	10	22
<i>Gammaropsis atlantica</i>	0	0	0	0	0	11	0	11
<i>Gammaropsis pokipoki</i>								
<i>Gitanopsis pele</i>								
<i>Grandierella japonica</i>								
<i>Ischyrocerus kapu</i>	0	0	0	0	0	0	0	0
<i>Ischyrocerus oahu</i>								
<i>Kanaloa manoa</i>								
<i>Konatopus paao</i>	0	0	0	0	0	6	0	6
<i>Laetmatophilus hala</i>								
<i>Leucothoe hyhelia</i>	0	0	0	0	0	0	0	0
<i>Liljeborgia heeia</i>								
<i>Melita appendiculata</i>								
<i>Paradexamine maunaloa</i>								
<i>Paraphoxus</i> sp. A	0	0	0	0	0	1	0	1
<i>Paraphoxus</i> sp. B								
<i>Photis kapapa</i>	0	0	0	0	0	0	0	0
<i>Podocerus talegus</i>								
<i>Podocerus</i> sp. A								
<i>Seba ekepuu</i>								
<i>Seba</i> sp. A								
DECAPODA—NATANTIA								
<i>Alpheopsis equalis</i>								
<i>Alpheus paracrinitus</i>								
<i>Ambidexter</i> sp. A								
<i>Leptochela hawaiiensis</i>								
<i>Metapenaeus</i> sp. A								
<i>Ogyrides</i> sp. A								
<i>Pandalus</i> cf. <i>brevis</i>								
<i>Penaeopsis</i> sp. A								
<i>Processa aequimana</i>	0	0	1	1	0	0	0	0

TABLE D.13—Continued

Taxon	No. of Individuals at D1				No. of Individuals at D2			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Processa australiensis</i>								
<i>Solenocera lucasii</i>								
DECAPODA—ANOMURA								
<i>Axius</i> sp. A	0	0	0	0	0	0	0	0
<i>Callianassa</i> sp. A	0	0	0	0	0	0	0	0
Pagurid sp. A	0	0	0	0	0	0	0	0
<i>Pomatocheles</i> sp. A								
DECAPODA—BRACHYURA								
<i>Cleistostoma</i> sp. A								
<i>Cryptosoma granulorum</i>								
<i>Dorippe</i> (?) sp. A								
<i>Lissocarcinus laevis</i>								
<i>Macrophthalmus</i> sp. A								
<i>Micippa</i> (?) sp. A								
<i>Nucia</i> (?) sp. A								
<i>Pilumnus</i> sp. A	0	0	0	0	0	0	0	0
<i>Portumnus</i> sp. A								
<i>Portunus macrophthalmus</i>	0	0	0	0	0	0	0	0
<i>Tlos</i> sp. A								
Megalops (unid.)								
Total No. of Individuals/Replicate	12	149	7		30	73	32	
Total No. of Taxa/Replicate	5	5	2		5	11	7	
Total No. of Individuals Sampled				168				135
Total No. of Taxa Sampled				7				13

TABLE D.14. Taxon Abundance from Three Replicates for Crustacean Components, Sand Island Ocean Outfall Sampling Stations D3A and D5, O'ahu, Hawai'i, August 2002

Taxon	No. of Individuals at D3A				No. of Individuals at D5			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
ACARI								
Halacaridae sp. A	1	0	0	1	0	0	0	0
PYCNOGONIDA								
<i>Anoplodactylus projectus</i>	1	0	1	2	0	0	0	0
<i>Callipallene</i> sp. A								
COPEPODA	59	8	34	101	9	51	216	276
OSTRACODA-MYODOCOPIDA								
<i>Myodocope</i> sp. A	2	0	2	4	0	1	0	1
<i>Myodocope</i> sp. B	1	0	1	2	0	0	0	0
<i>Myodocope</i> sp. C								
<i>Myodocope</i> sp. D	0	0	0	0	1	0	0	1
<i>Sarsiella janiceae</i>	2	0	0	2	0	0	0	0
OSTRACODA-PODOCOPIDA								
<i>Bairdia hanaumaensis</i>								
<i>Bairdia kauaiensis</i>	1	2	2	5	1	2	1	4
<i>Bythoceratina</i> cf. <i>monstruosa</i>								
<i>Cytherelloidea</i> cf. <i>monodenticulata</i>	0	0	0	0	1	0	4	5
<i>Macrocypis gracilis</i>								
<i>Mutilus</i> cf. <i>oahuensis</i>	0	0	0	0	0	2	0	2
CUMACEA	0	0	0	0	0	8	0	8
NEBALIACEA								
<i>Nebalia</i> sp. A								
MYSIDACEA								
TANAIDACEA								
<i>Apeudes tropicalis</i>								
<i>Leptochelia dubia</i>	189	9	17	215	44	109	62	215
<i>Leptochelia</i> sp. A	0	0	0	0	3	10	8	21
<i>Tanaissus</i> sp. A	2	0	0	2	0	1	0	1
Tanaid sp. A								
ISOPODA								
<i>Apanthura inornata</i>	0	0	0	0	0	0	0	0
<i>Caecianiropsis</i> (?) sp. A								
Cryptoniscus form								
<i>Gnathia</i> sp. A								
Hyssuridae sp. A	0	0	0	0	0	0	0	0
<i>Jaeropsis hawaiiensis</i>								
<i>Janira algicola</i>								
<i>Mesanthura hieroglyphica</i>								
<i>Metacirolana</i> sp. A								
<i>Munna acarina</i>	5	1	1	7	0	0	7	7
<i>Munna</i> sp. A	0	0	0	0	0	5	0	5
<i>Paranthura ostergaardi</i>	0	0	0	0	0	0	0	0

TABLE D.14—Continued

Taxon	No. of Individuals at D3A				No. of Individuals at D5			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Pleurocope</i> sp. A								
<i>Santia</i> sp. A								
AMPHIPODA—CAPRELLIDEA								
<i>Caprella equilibra</i>					4	0	0	4
<i>Caprella inequilbra</i>	0	0	0	0	0	7	3	10
<i>Caprella</i> cf. <i>subtilis</i>	0	0	0	0				
<i>Metaprotella sandalensis</i>								
<i>Paraprotella</i> cf. <i>prima</i>								
AMPHIPODA—GAMMARIDEA								
Amphilochidae sp(p).	1	0	0	1	0	0	0	0
<i>Atylus nani</i>					1	4	0	5
<i>Bemlos macromanus</i>	6	1	0	7				
<i>Bemlos pualani</i>								
<i>Ceradocus hawaiiensis</i>					0	0	0	0
<i>Elasmopus piikoi</i>	0	0	0	0	0	0	0	0
<i>Erichthonius brasiliensis</i>	4	0	0	4	1	0	2	3
<i>Eriopisa</i> sp. A					0	12	8	20
<i>Eriopisella sechellensis</i>	6	1	1	8	0	0	0	0
<i>Gammaropsis atlantica</i>	0	0	0	0	0	0	0	0
<i>Gammaropsis pokipoki</i>								
<i>Gitanopsis pele</i>								
<i>Grandierella japonica</i>								
<i>Ischyrocerus kapu</i>	0	0	0	0	2	0	0	2
<i>Ischyrocerus oahu</i>								
<i>Kanaloa manoa</i>								
<i>Konatopus paao</i>	9	2	0	11	0	1	4	5
<i>Laetmatophilus hala</i>								
<i>Leucothoe hyhelia</i>	2	0	0	2	0	0	0	0
<i>Liljeborgia heeia</i>								
<i>Melita appendiculata</i>								
<i>Paradexamine maunaloa</i>								
<i>Paraphoxus</i> sp. A	0	0	0	0	0	0	0	0
<i>Paraphoxus</i> sp. B								
<i>Photis kapapa</i>	1	0	0	1	4	3	0	7
<i>Podocerus talegus</i>								
<i>Podocerus</i> sp. A								
<i>Seba ekepuu</i>								
<i>Seba</i> sp. A								
DECAPODA—NATANTIA								
<i>Alpheopsis equalis</i>								
<i>Alpheus paracrinitus</i>								
<i>Ambidexter</i> sp. A								
<i>Leptochela hawaiiensis</i>								
<i>Metapenaeus</i> sp. A								
<i>Ogyrides</i> sp. A								
<i>Pandalus</i> cf. <i>brevis</i>								
<i>Penaeopsis</i> sp. A								
<i>Processa aequimana</i>	0	2	0	2	0	1	0	1

TABLE D.14—Continued

Taxon	No. of Individuals at D3A				No. of Individuals at D5			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Processa australiensis</i>								
<i>Solenocera lucasii</i>								
DECAPODA-ANOMURA								
<i>Axius</i> sp. A								
<i>Callianassa</i> sp. A	0	0	0	0	0	0	0	0
Pagurid sp. A	1	0	0	1	0	0	0	0
<i>Pomatocheles</i> sp. A								
DECAPODA-BRACHYURA								
<i>Cleistostoma</i> sp. A								
<i>Cryptosoma granulorum</i>								
<i>Dorippe</i> (?) sp. A								
<i>Lissocarcinus laevis</i>								
<i>Macrophthalmus</i> sp. A								
<i>Micippa</i> (?) sp. A								
<i>Nucia</i> (?) sp. A								
<i>Pilumnus</i> sp. A	0	1	0	1	0	0	0	0
<i>Portumnus</i> sp. A								
<i>Portunus macrophthalmus</i>	0	0	0	0	0	0	2	2
<i>Tlos</i> sp. A								
Megalops (unid.)								
Total No. of Individuals/Replicate	293	27	59		71	217	317	
Total No. of Taxa/Replicate	18	9	8		11	15	11	
Total No. of Individuals Sampled				379				605
Total No. of Taxa Sampled				20				22

TABLE D.15. Taxon Abundance from Three Replicates for Crustacean Components, Sand Island Ocean Outfall Sampling Station D6, O'ahu, Hawai'i, August 2002

Taxon	No. of Individuals at D6				Transect D Total
	1	2	3	Total	
ACARI					
Halacaridae sp. A	0	0	0	0	1
PYCNOGONIDA					
<i>Anoplodactylus projectus</i>	0	0	0	0	2
<i>Callipallene</i> sp. A					
COPEPODA					
	12	22	4	38	575
OSTRACODA-MYODOCOPIDA					
Myodocope sp. A	0	1	2	3	9
Myodocope sp. B	0	0	0	0	2
Myodocope sp. C					
Myodocope sp. D	2	0	0	2	3
<i>Sarsiella janiceae</i>	0	0	1	1	3
OSTRACODA-PODOCOPIDA					
<i>Bairdia hanaumaensis</i>					
<i>Bairdia kauaiensis</i>	0	0	0	0	11
<i>Bythoceratina</i> cf. <i>monstruosa</i>					
<i>Cytherelloidea</i> cf. <i>monodenticulata</i>	0	1	0	1	6
<i>Macrocypris gracilis</i>					
<i>Mutilus</i> cf. <i>oahuensis</i>	0	0	0	0	2
CUMACEA					
	0	0	1	1	9
NEBALIACEA					
<i>Nebalia</i> sp. A					
MYSIDACEA					
TANAIDACEA					
<i>Apseudes tropicalis</i>					
<i>Leptochelia dubia</i>	39	27	22	88	589
<i>Leptochelia</i> sp. A	4	3	0	7	29
<i>Tanaissus</i> sp. A	0	0	0	0	3
Tanaid sp. A					
ISOPODA					
<i>Apanthura inornata</i>	0	0	0	0	9
<i>Caecianiropsis</i> (?) sp. A					
Cryptoniscus form					
<i>Gnathia</i> sp. A					
Hyssuridae sp. A	2	0	0	2	2
<i>Jaeropsis hawaiiensis</i>					
<i>Janira algicola</i>					
<i>Mesanthura hieroglyphica</i>					
<i>Metaciroлана</i> sp. A					
<i>Munna acarina</i>	0	0	1	1	17
<i>Munna</i> sp. A	0	0	0	0	5
<i>Paranthura ostergaardi</i>	0	0	0	0	2

TABLE D.15—Continued

Taxon	No. of Individuals at D6			Total	Transect D Total
	1	2	3		
<i>Pleurocope</i> sp. A					
<i>Santia</i> sp. A					
AMPHIPODA—CAPRELLIDEA					
<i>Caprella equilibra</i>					4
<i>Caprella inequilbra</i>	0	0	0	0	
<i>Caprella</i> cf. <i>subtilis</i>	0	0	0	0	10
<i>Metaprotella sandalensis</i>					
<i>Paraprotella</i> cf. <i>prima</i>					
AMPHIPODA—GAMMARIDEA					
Amphilochidae sp(p).	0	0	0	0	2
<i>Atylus nani</i>					
<i>Bemlos macromanus</i>	0	0	1	1	13
<i>Bemlos pualani</i>					
<i>Ceradocus hawaiiensis</i>					
<i>Elasmopus piikoi</i>	0	0	0	0	11
<i>Erichthonius brasiliensis</i>	0	0	0	0	9
<i>Eriopisa</i> sp. A					
<i>Eriopisella sechellensis</i>	38	19	10	67	117
<i>Gammaropsis atlantica</i>	0	2	0	2	13
<i>Gammaropsis pokipoki</i>					
<i>Gitanopsis pele</i>					
<i>Grandierella japonica</i>					
<i>Ischyrocerus kapu</i>	0	0	0	0	2
<i>Ischyrocerus oahu</i>					
<i>Kanaloa manoa</i>					
<i>Konatopus pao</i>	6	6	11	23	45
<i>Laetmatophilus hala</i>					
<i>Leucothoe hyhelia</i>	0	0	0	0	2
<i>Liljeborgia heeia</i>					
<i>Melita appendiculata</i>					
<i>Paradexamine maunaloa</i>					
<i>Paraphoxus</i> sp. A	0	0	0	0	1
<i>Paraphoxus</i> sp. B					
<i>Photis kapapa</i>	3	0	0	3	11
<i>Podocerus talegus</i>					
<i>Podocerus</i> sp. A					
<i>Seba ekepuu</i>					
<i>Seba</i> sp. A					
DECAPODA—NATANTIA					
<i>Alpheopsis equalis</i>					
<i>Alpheus paracrinitus</i>					
<i>Ambidexter</i> sp. A					
<i>Leptochela hawaiiensis</i>					
<i>Metapenaeus</i> sp. A					
<i>Ogyrides</i> sp. A					
<i>Pandalus</i> cf. <i>brevis</i>					
<i>Penaeopsis</i> sp. A					
<i>Processa aequimana</i>	0	1	1	2	6

TABLE D.15—Continued

Taxon	No. of Individuals at D6			Total	Transect D Total
	Replicate				
	1	2	3		
<i>Processa australiensis</i>					
<i>Solenocera lucasii</i>					
DECAPODA—ANOMURA					
<i>Axius</i> sp. A					
<i>Callianassa</i> sp. A	0	0	1	1	1
Pagurid sp. A	0	0	0	0	1
<i>Pomatocheles</i> sp. A					
DECAPODA—BRACHYURA					
<i>Cleistostoma</i> sp. A					
<i>Cryptosoma granulorum</i>					
<i>Dorippe</i> (?) sp. A					
<i>Lissocarcinus laevis</i>					
<i>Macrophthalmus</i> sp. A					
<i>Micippa</i> (?) sp. A					
<i>Nucia</i> (?) sp. A					
<i>Pilumnus</i> sp. A	0	0	0	0	1
<i>Portunus</i> sp. A					
<i>Portunus macrophthalmus</i>	0	0	0	0	2
<i>Tlos</i> sp. A					
Megalops (unid.)					
Total No. of Individuals/Replicate	106	82	55		
Total No. of Taxa/Replicate	8	9	11		
Total No. of Individuals Sampled				243	1,530
Total No. of Taxa Sampled				17	37

TABLE D.16. Taxon Abundance from Three Replicates for Crustacean Components, Sand Island Ocean Outfall Sampling Stations E1 and E2, O'ahu, Hawai'i, August 2002

Taxon	No. of Individuals at E1				No. of Individuals at E2			
	Replicate 1	Replicate 2	Replicate 3	Total	Replicate 1	Replicate 2	Replicate 3	Total
ACARI								
Halacaridae sp. A	0	0	0	0	0	0	0	0
PYCNOGONIDA								
<i>Anoplodactylus projectus</i>	0	0	0	0	0	0	0	0
<i>Callipallene</i> sp. A								
COPEPODA	16	41	6	63	0	1	2	3
OSTRACODA-MYODOCOPIDA								
<i>Myodocope</i> sp. A	1	0	0	1	0	0	0	0
<i>Myodocope</i> sp. B	0	0	0	0	0	0	0	0
<i>Myodocope</i> sp. C								
<i>Myodocope</i> sp. D	3	0	0	3	0	0	0	0
<i>Sarsiella janiceae</i>								
OSTRACODA-PODOCOPIDA								
<i>Bairdia hanaumaensis</i>								
<i>Bairdia kauaiensis</i>	0	0	0	0	1	0	0	1
<i>Bythoceratina</i> cf. <i>monstruosa</i>	0	0	0	0	0	0	0	0
<i>Cytherelloidea</i> cf. <i>monodenticulata</i>	0	0	0	0	0	0	0	0
<i>Macrocypris gracilis</i>								
<i>Mutilus</i> cf. <i>oahuensis</i>								
CUMACEA	2	0	2	4	0	0	0	0
NEBALIACEA								
<i>Nebalia</i> sp. A								
MYSIDACEA	0	0	1	1	0	0	0	0
TANAIDACEA								
<i>Apseudes tropicalis</i>								
<i>Leptocheilia dubia</i>	6	3	0	9	0	0	0	0
<i>Leptocheilia</i> sp. A	0	0	0	0	0	0	0	0
<i>Tanaissus</i> sp. A	9	6	11	26	0	0	0	0
Tanaid sp. A								
ISOPODA								
<i>Apanthura inornata</i>	0	0	0	0	0	1	0	1
<i>Caecianiropsis</i> (?) sp. A								
Cryptoniscus form								
<i>Gnathia</i> sp. A								
Hyssuridae sp. A	0	0	0	0	0	0	0	0
<i>Jaeropsis hawaiiensis</i>								
<i>Janira algicola</i>	0	0	0	0	0	0	0	0
<i>Mesanthura hieroglyphica</i>								
<i>Metacirrolana</i> sp. A								
<i>Munna acarina</i>	1	0	0	1	0	0	0	0
<i>Munna</i> sp. A	0	0	0	0	0	0	0	0
<i>Paranthura ostergaardi</i>								

TABLE D.16—Continued

Taxon	No. of Individuals at E1				No. of Individuals at E2			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Pleurocope</i> sp. A	1	0	0	1	0	0	0	0
<i>Santia</i> sp. A								
AMPHIPODA—CAPRELLIDEA								
<i>Caprella equilibra</i>								
<i>Caprella inequilbra</i>								
<i>Caprella</i> cf. <i>subtilis</i>	0	2	0	2	0	0	0	0
<i>Metaprotella sandalensis</i>								
<i>Paraprotella</i> cf. <i>prima</i>								
AMPHIPODA—GAMMARIDEA								
Amphilochidae sp(p).	0	0	0	0	0	0	0	0
<i>Arylus nani</i>	2	2	0	4	1	0	0	1
<i>Bemlos macromanus</i>	0	0	0	0	0	0	0	0
<i>Bemlos pualani</i>								
<i>Ceradocus hawaiiensis</i>								
<i>Elasmopus piikoi</i>								
<i>Erichthonius brasiliensis</i>	0	0	0	0	2	0	0	2
<i>Eriopisa</i> sp. A								
<i>Eriopisella sechellensis</i>	0	0	0	0	0	0	0	0
<i>Gammaropsis atlantica</i>								
<i>Gammaropsis pokipoki</i>								
<i>Gitanopsis pele</i>								
<i>Grandierella japonica</i>								
<i>Ischyrocerus kapu</i>								
<i>Ischyrocerus oahu</i>								
<i>Kanaloa manoa</i>								
<i>Konatopus pao</i>	4	11	1	16	4	0	0	4
<i>Laetmatophilus hala</i>								
<i>Leucothoe hyhelia</i>								
<i>Liljeborgia heeia</i>								
<i>Melita appendiculata</i>								
<i>Paradexamine maunaloa</i>								
<i>Paraphoxus</i> sp. A	0	0	0	0	0	0	0	0
<i>Paraphoxus</i> sp. B								
<i>Photis kapapa</i>	0	0	0	0	0	1	4	5
<i>Podocerus talegus</i>								
<i>Podocerus</i> sp. A								
<i>Seba ekepuu</i>								
<i>Seba</i> sp. A								
DECAPODA—NATANTIA								
<i>Alpheopsis equalis</i>								
<i>Alpheus paracrinitus</i>								
<i>Ambidexter</i> sp. A								
<i>Leptochela hawaiiensis</i>	0	0	0	0	0	0	0	0
<i>Metapenaeus</i> sp. A								
<i>Ogyrides</i> sp. A								
<i>Pandalus</i> cf. <i>brevis</i>	0	1	0	1	0	0	0	0
<i>Penaeopsis</i> sp. A								
<i>Processa aequimana</i>	0	0	0	0	0	0	0	0

TABLE D.16—Continued

Taxon	No. of Individuals at E1				No. of Individuals at E2			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Processa australiensis</i>								
<i>Solenocera lucasii</i>								
DECAPODA—ANOMURA								
<i>Axius</i> sp. A								
<i>Callianassa</i> sp. A								
Pagurid sp. A								
<i>Pomatocheles</i> sp. A								
DECAPODA—BRACHYURA								
<i>Cleistostoma</i> sp. A								
<i>Cryptosoma granulorum</i>								
<i>Dorippe</i> (?) sp. A								
<i>Lissocarcinus laevis</i>								
<i>Macrophthalmus</i> sp. A								
<i>Micippa</i> (?) sp. A								
<i>Nucia</i> (?) sp. A								
<i>Pilumnus</i> sp. A								
<i>Portunus</i> sp. A								
<i>Portunus macrophthalmus</i>								
<i>Tlos</i> sp. A								
Megalops (unid.)								
Total No. of Individuals/Replicate	45	66	21		8	3	6	
Total No. of Taxa/Replicate	10	7	5		4	3	2	
Total No. of Individuals Sampled				132				17
Total No. of Taxa Sampled				13				7

TABLE D.17. Taxon Abundance from Three Replicates for Crustacean Components, Sand Island Ocean Outfall Sampling Stations E3 and E5, O'ahu, Hawai'i, August 2002

Taxon	No. of Individuals at E3				No. of Individuals at E5			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
ACARI								
Halacaridae sp. A	0	0	1	1	0	0	0	0
PYCNOGONIDA								
<i>Anoplodactylus projectus</i>	0	0	0	0	1	0	0	1
<i>Callipallene</i> sp. A								
COPEPODA								
	5	11	328	344	3	4	92	99
OSTRACODA-MYODOCOPIDA								
<i>Myodocope</i> sp. A	6	5	8	19	1	0	0	1
<i>Myodocope</i> sp. B	0	4	6	10	0	0	3	3
<i>Myodocope</i> sp. C								
<i>Myodocope</i> sp. D	0	0	0	0	0	0	0	0
<i>Sarsiella janiceae</i>								
OSTRACODA-PODOCOPIDA								
<i>Bairdia hanaumaensis</i>								
<i>Bairdia kauaiensis</i>	0	0	7	7	0	1	0	1
<i>Bythoceratina</i> cf. <i>monstruosa</i>	0	0	0	0	0	0	5	5
<i>Cytherelloidea</i> cf. <i>monodenticulata</i>	0	0	24	24	0	0	0	0
<i>Macrocypris gracilis</i>								
<i>Mutilus</i> cf. <i>oahuensis</i>								
CUMACEA								
	0	1	1	2	0	2	2	4
NEBALIACEA								
<i>Nebalia</i> sp. A								
MYSIDACEA								
	0	0	1	1	0	0	1	1
TANAIDACEA								
<i>Apseudes tropicalis</i>								
<i>Leptocheilia dubia</i>	1	7	71	79	1	2	9	12
<i>Leptocheilia</i> sp. A	2	0	9	11	0	0	0	0
<i>Tanaissus</i> sp. A	8	3	47	58	0	0	0	0
Tanaid sp. A								
ISOPODA								
<i>Apanthura inornata</i>	0	0	0	0	1	0	0	1
<i>Caecianiropsis</i> (?) sp. A								
Cryptoniscus form								
<i>Gnathia</i> sp. A								
Hyssuridae sp. A	0	0	1	1	0	0	0	0
<i>Jaeropsis hawaiiensis</i>								
<i>Janira algicola</i>	0	0	3	3	0	0	0	0
<i>Mesanthura hieroglyphica</i>								
<i>Metaciroлана</i> sp. A								
<i>Munna acarina</i>	0	0	8	8	0	1	0	1
<i>Munna</i> sp. A	0	1	0	1	0	0	3	3
<i>Paranthura ostergaardi</i>								

TABLE D.17—Continued

Taxon	No. of Individuals at E3				No. of Individuals at E5			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Pleurocope</i> sp. A	0	0	3	3	0	0	0	0
<i>Santia</i> sp. A								
AMPHIPODA—CAPRELLIDEA								
<i>Caprella equilibra</i>								
<i>Caprella inequilbra</i>								
<i>Caprella</i> cf. <i>subtilis</i>	0	0	0	0	0	1	0	1
<i>Metaprotella sandalensis</i>								
<i>Paraprotella</i> cf. <i>prima</i>								
AMPHIPODA—GAMMARIDEA								
Amphilochidae sp(p).	0	0	3	3	0	0	0	0
<i>Arylus nani</i>	0	1	3	4	1	0	0	1
<i>Bemlos macromanus</i>	0	0	5	5	0	0	0	0
<i>Bemlos pualani</i>								
<i>Ceradocus hawaiiensis</i>								
<i>Elasmopus piikoi</i>								
<i>Erichthonius brasiliensis</i>	1	0	0	1	0	0	0	0
<i>Eriopisa</i> sp. A								
<i>Eriopisella sechellensis</i>	0	0	3	3	0	0	0	0
<i>Gammaropsis atlantica</i>								
<i>Gammaropsis pokipoki</i>								
<i>Gitanopsis pele</i>								
<i>Grandierella japonica</i>								
<i>Ischyrocerus kapu</i>								
<i>Ischyrocerus oahu</i>								
<i>Kanaloa manoa</i>								
<i>Konatopus paao</i>	1	6	8	15	1	0	0	1
<i>Laetmatophilus hala</i>								
<i>Leucothoe hyhelia</i>								
<i>Liljeborgia heeia</i>								
<i>Melita appendiculata</i>								
<i>Paradexamine maunaloa</i>								
<i>Paraphoxus</i> sp. A	0	0	2	2	0	0	0	0
<i>Paraphoxus</i> sp. B								
<i>Photis kapapa</i>	0	2	2	4	0	0	0	0
<i>Podocerus talegus</i>								
<i>Podocerus</i> sp. A								
<i>Seba ekepuu</i>								
<i>Seba</i> sp. A								
DECAPODA—NATANTIA								
<i>Alpheopsis equalis</i>								
<i>Alpheus paracrinitus</i>								
<i>Ambidexter</i> sp. A								
<i>Leptocheila hawaiiensis</i>	1	0	0	1	0	0	0	0
<i>Metapenaeus</i> sp. A								
<i>Ogyrides</i> sp. A								
<i>Pandalus</i> cf. <i>brevis</i>	0	0	0	0	0	0	0	0
<i>Penaeopsis</i> sp. A								
<i>Processa aequimana</i>	2	0	0	2	0	0	0	0

TABLE D.17—Continued

Taxon	No. of Individuals at E3				No. of Individuals at E5			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Processa australiensis</i>								
<i>Solenocera lucasii</i>								
DECAPODA—ANOMURA								
<i>Axius</i> sp. A								
<i>Callianassa</i> sp. A								
Pagurid sp. A								
<i>Pomatocheles</i> sp. A								
DECAPODA—BRACHYURA								
<i>Cleistostoma</i> sp. A								
<i>Cryptosoma granulorum</i>								
<i>Dorippe</i> (?) sp. A								
<i>Lissocarcinus laevis</i>								
<i>Macrophthalmus</i> sp. A								
<i>Micippa</i> (?) sp. A								
<i>Nucia</i> (?) sp. A								
<i>Pilumnus</i> sp. A								
<i>Portumnus</i> sp. A								
<i>Portunus macrophthalmus</i>								
<i>Tlos</i> sp. A								
Megalops (unid.)								
Total No. of Individuals/Replicate	27	41	544		9	11	115	
Total No. of Taxa/Replicate	9	10	22		7	6	7	
Total No. of Individuals Sampled				612				135
Total No. of Taxa Sampled				26				15

TABLE D.18. Taxon Abundance from Three Replicates for Crustacean Components, Sand Island Ocean Outfall Sampling Station E6, O'ahu, Hawai'i, August 2002

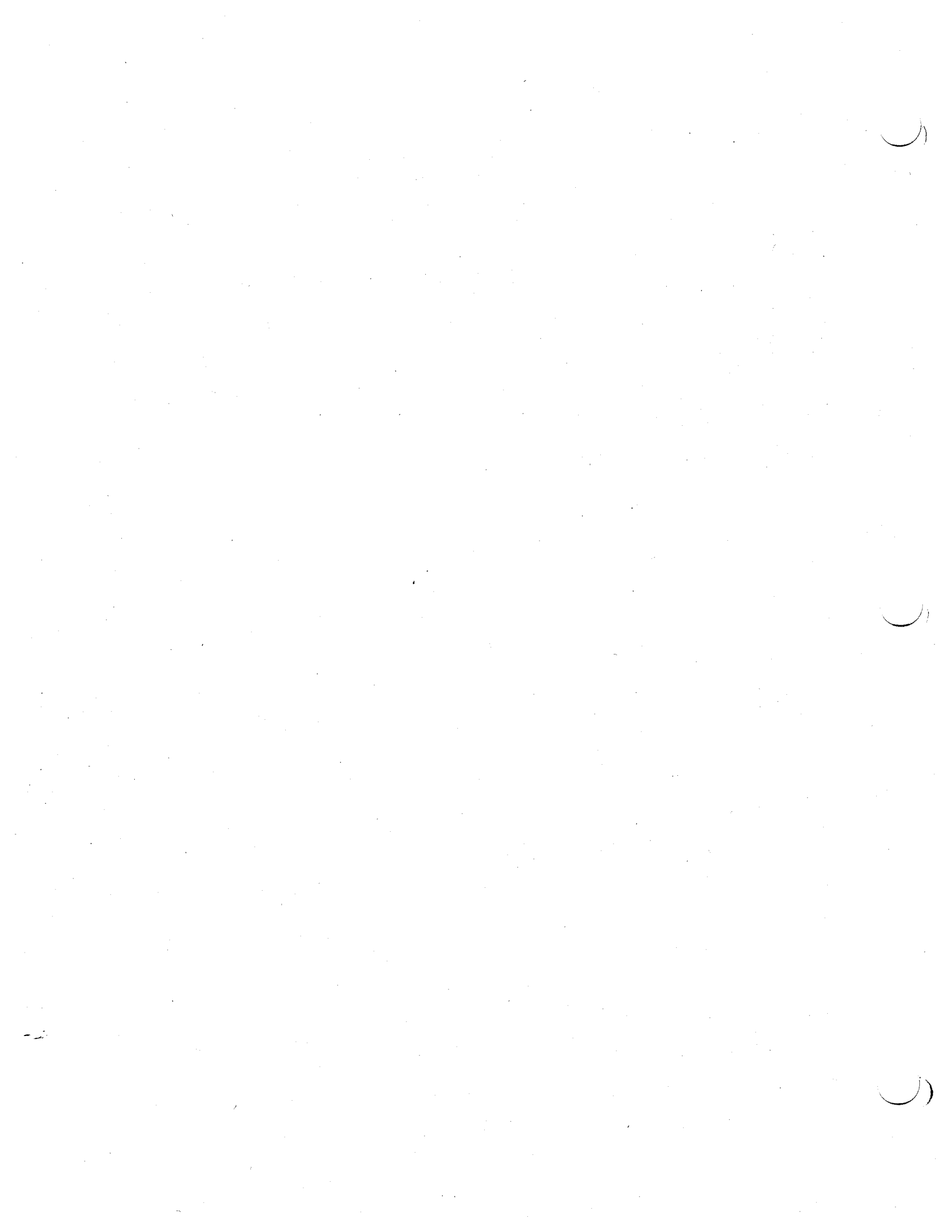
Taxon	No. of Individuals at E6				Transect E Total
	1	2	3	Total	
ACARI					
Halacaridae sp. A	0	0	0	0	1
PYCNOGONIDA					
<i>Anoplodactylus projectus</i>	0	0	1	1	2
<i>Callipallene</i> sp. A					
COPEPODA	4	93	3	100	609
OSTRACODA-MYODOCOPIDA					
Myodocope sp. A	0	0	1	1	22
Myodocope sp. B	0	2	0	2	15
Myodocope sp. C					
Myodocope sp. D	0	0	0	0	3
<i>Sarsiella janiceae</i>					
OSTRACODA-PODOCOPIDA					
<i>Bairdia hanaumaensis</i>	1	1	0	2	11
<i>Bairdia kauaiensis</i>	0	0	0	0	5
<i>Bythoceratina</i> cf. <i>monstruosa</i>	0	0	0	0	24
<i>Cytherelloidea</i> cf. <i>monodenticulata</i>					
<i>Macrocypris gracilis</i>					
<i>Mutilus</i> cf. <i>oahuensis</i>					
CUMACEA	0	0	1	1	11
NEBALIACEA					
<i>Nebalia</i> sp. A					
MYSIDACEA	0	0	0	0	3
TANAIDACEA					
<i>Aapseudes tropicalis</i>	2	0	2	4	104
<i>Leptochelia dubia</i>	0	0	0	0	11
<i>Leptochelia</i> sp. A	2	1	0	3	87
<i>Tanaissus</i> sp. A					
Tanaid sp. A					
ISOPODA					
<i>Apanthura inornata</i>	0	0	0	0	2
<i>Caecianiropsis</i> (?) sp. A					
Cryptoniscus form					
<i>Gnathia</i> sp. A					
Hyssuridae sp. A	0	0	0	0	1
<i>Jaeropsis hawaiiensis</i>	0	0	0	0	3
<i>Janira algicola</i>					
<i>Mesanthura hieroglyphica</i>					
<i>Metaciroлана</i> sp. A					
<i>Munna acarina</i>	0	0	0	0	10
<i>Munna</i> sp. A	0	0	0	0	4
<i>Paranthura ostergaardi</i>					

TABLE D.18—Continued

Taxon	No. of Individuals at E6				Transect E Total
	Replicate			Total	
	1	2	3		
<i>Pleurocope</i> sp. A	0	0	0	0	4
<i>Santia</i> sp. A					
AMPHIPODA—CAPRELLIDEA					
<i>Caprella equilibra</i>					3
<i>Caprella inequilbra</i>					
<i>Caprella</i> cf. <i>subtilis</i>	0	0	0	0	
<i>Metaprotella sandalensis</i>					
<i>Paraprotella</i> cf. <i>prima</i>					
AMPHIPODA—GAMMARIDEA					
Amphilochidae sp.(p).	0	0	0	0	3
<i>Atylus nani</i>	0	0	0	0	10
<i>Bemlos macromanus</i>	0	0	0	0	5
<i>Bemlos pualani</i>					
<i>Ceradocus hawaiiensis</i>					
<i>Elasmopus piikoi</i>					
<i>Erichthonius brasiliensis</i>	0	0	0	0	3
<i>Eriopisa</i> sp. A					
<i>Eriopisella sechellensis</i>	0	0	0	0	3
<i>Gammaropsis atlantica</i>					
<i>Gammaropsis pokipoki</i>					
<i>Gitanopsis pele</i>					
<i>Grandierella japonica</i>					
<i>Ischyrocerus kapu</i>					
<i>Ischyrocerus oahu</i>					
<i>Kanaloa manoa</i>					
<i>Konatopus paao</i>	0	1	1	2	38
<i>Laetmatophilus hala</i>					
<i>Leucothoe hyhelia</i>					
<i>Liljeborgia heeia</i>					
<i>Melita appendiculata</i>					
<i>Paradexamine maunaloa</i>					
<i>Paraphoxus</i> sp. A	0	0	0	0	2
<i>Paraphoxus</i> sp. B					
<i>Photis kapapa</i>	0	0	0	0	9
<i>Podocerus talegus</i>					
<i>Podocerus</i> sp. A					
<i>Seba ekepuu</i>					
<i>Seba</i> sp. A					
DECAPODA—NATANTIA					
<i>Alpheopsis equalis</i>					
<i>Alpheus paracrinitus</i>					
<i>Ambidexter</i> sp. A					
<i>Leptochela hawaiiensis</i>	0	0	0	0	1
<i>Metapenaeus</i> sp. A					
<i>Ogyrides</i> sp. A					
<i>Pandalus</i> cf. <i>brevis</i>	0	0	0	0	1
<i>Penaeopsis</i> sp. A					
<i>Processa aequimana</i>	0	0	0	0	2

TABLE D.18—Continued

Taxon	No. of Individuals at E6			Total	Transect E Total
	1	2	3		
<i>Processa australiensis</i>					
<i>Solenocera lucasii</i>					
DECAPODA-ANOMURA					
<i>Axius</i> sp. A					
<i>Callianassa</i> sp. A					
Pagurid sp. A					
<i>Pomatocheles</i> sp. A					
DECAPODA-BRACHYURA					
<i>Cleistostoma</i> sp. A					
<i>Cryptosomia granulorum</i>					
<i>Dorippe</i> (?) sp. A					
<i>Lissocarcinus laevis</i>					
<i>Macrophthalmus</i> sp. A					
<i>Micippa</i> (?) sp. A					
<i>Nucia</i> (?) sp. A					
<i>Pilumnus</i> sp. A					
<i>Portumnus</i> sp. A					
<i>Portunus macrophthalmus</i>					
<i>Tlos</i> sp. A					
Megalops (unid.)					
Total No. of Individuals/Replicate	9	98	9		
Total No. of Taxa/Replicate	4	5	6		
Total No. of Individuals Sampled				116	1,012
Total No. of Taxa Sampled				9	32



Appendix E. Taxon Abundance for Mollusks

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TABLE E.1. Taxon Abundance from Three Replicates for Mollusk Components, Sand Island Ocean Outfall Sampling Stations C1A and C2A, O'ahu, Hawai'i, August 2002

Taxon	No. of Individuals at C1A				No. of Individuals at C2A			
	1	2	3	Total	1	2	3	Total
BIVALVIA								
<i>Acar cf. plicata</i>	0	0	0	0	0	0	0	0
<i>Adipicola cf. crypta</i>								
<i>Amygdalum newcombi</i>								
<i>Amygdalum sp.</i>								
<i>Anguipecten cf. lamberti</i>								
<i>Anisodonta lutea</i>								
<i>Anomia nobilis</i>								
<i>Arca kauaia</i>								
<i>Arcidae sp.</i>	0	0	1	1	0	0	0	0
<i>Barbatia divaricata</i>	0	0	0	0	0	0	0	0
<i>Barbatia lima</i>								
<i>Barbatia nuttingi</i>								
<i>Barbatia sp.</i>								
<i>Brachidontes crebristriatus</i>	0	0	0	0	0	0	0	0
<i>Cardita thaanumi</i>	0	0	0	0	0	0	0	0
<i>Cardita sp.</i>								
<i>Carditella hawaiiensis</i>	0	0	0	0	0	0	0	0
<i>Carditella sp.</i>	0	0	0	0	0	0	0	0
<i>Chlamydella sp. A</i>								
<i>Chlamys coruscans hawaiiensis</i>								
<i>Chlamys kauaiensis</i>								
<i>Chlamys sp. B</i>								
<i>Chlamys sp.</i>	0	0	1	1	0	0	0	0
<i>Codakia punctata</i>								
<i>Cosa waikikia</i>	0	0	0	0	0	0	0	0
<i>Crenella sp.</i>								
<i>Ctena bella</i>								
<i>Ctena transversa</i>								
<i>Ctena sp.</i>	0	0	1	1	0	0	0	0
<i>Cuspidaria hawaiiensis</i>								
<i>Cuspidaria pailoloana</i>								
<i>Epicodakia sp.</i>				0				0
<i>Ervilia bisculpta</i>	0	1	0	1	0	0	0	0
<i>Euciroa pacifica</i>								
<i>Fragum mundum</i>	0	0	0	0	0	0	1	1
<i>Gastrochaena sp.</i>								
<i>Glycymeris sp.</i>								
<i>Grammatomya kanaka</i>	0	0	0	0	0	0	0	0
<i>Haumea juddi</i>								
<i>Hiatella arctica</i>								
<i>Hitia ovalis</i>								
<i>Kellia hawaiiensis</i>								
<i>Kona symmetrica</i>	0	0	0	0	0	0	0	0
<i>Leptonacea sp.</i>								
<i>Lima keokea</i>								
<i>Lima sp.</i>								
<i>Limopsis sp.</i>								
<i>Lioconcha hieroglyphica</i>	0	0	0	0	0	0	1	1
<i>Lonoa hawaiiensis</i>								
<i>Lucina edennula</i>								

TABLE E.1—Continued

Taxon	No. of Individuals at C1A				No. of Individuals at C2A			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Macoma dispar</i>								
<i>Macoma obliquilineata</i>	0	0	0	0	0	0	0	0
<i>Mactra thaanumi</i>								
<i>Mactra</i> sp.								
<i>Malleus regula</i>	0	0	0	0	0	0	0	0
<i>Malleus</i> sp.	0	0	0	0	0	0	0	0
<i>Modiolus</i> sp.	0	0	0	0	0	0	0	0
Mytilidae sp. A								
Mytilidae sp. B								
Mytilidae sp. C								
Mytilidae sp.								
<i>Nemocardium thaanumi</i>								
<i>Nemocardium</i> sp.								
<i>Nucula hawaiiensis</i>	0	0	0	0	0	0	0	0
<i>Ostrea</i> sp.	0	0	0	0	0	0	0	0
Pectinidae sp. A	0	0	0	0	0	0	0	0
<i>Pillucina hawaiiensis</i>								
<i>Pillucina spaldingi</i>								
<i>Pillucina</i> sp.								
<i>Pinna</i> sp.	0	0	0	0	0	0	0	0
<i>Poromya transversa</i>								
Propeamusiidae sp.								
<i>Pteria</i> sp.								
<i>Rocheffortina sandwichensis</i>	2	0	0	2	0	0	0	0
<i>Rocheffortina</i> sp.								
<i>Scintilla hiloa</i>								
<i>Semelangulus crebrimaculatus</i>	0	0	0	0	0	0	0	0
<i>Semelangulus</i> sp.								
<i>Semele australis</i>								
<i>Septifer bryanae</i>	0	0	0	0	0	0	0	0
<i>Septifer</i> sp.	0	0	0	0	0	0	0	0
<i>Spondylus</i> sp.								
<i>Tellina oahuana</i>								
<i>Tellina robusta</i>								
<i>Tellina</i> sp. A								
<i>Tellina</i> sp. B								
<i>Tellina</i> sp. C								
<i>Tellina</i> sp.	0	0	0	0	0	0	0	0
Bivalvia sp. A	0	0	0	0	1	0	0	1
Bivalvia sp. B	0	0	0	0	0	0	0	0
Bivalvia sp. C	0	0	0	0	0	0	0	0
Bivalvia spp.	0	0	0	0	0	0	2	2
GASTROPODA								
<i>Acteocina hawaiiensis</i>	0	0	0	0	0	0	0	0
<i>Acteocina sandwichensis</i>	0	0	0	0	0	0	0	0
<i>Acteocina</i> sp. A								
<i>Acteocina</i> sp.	1	0	0	1	0	0	0	0
<i>Alcyna ocellata</i>	0	0	0	0	0	0	0	0
<i>Alcyna subangulata</i>	0	0	0	0	0	0	0	0
<i>Alvania isolata</i>	0	0	0	0	0	0	0	0
<i>Anacithara perfecta</i>	0	0	0	0	0	0	0	0

TABLE E.1—Continued

Taxon	No. of Individuals at C1A				No. of Individuals at C2A			
	Replicate			Total	Replicate			Total
1	2	3	1		2	3		
<i>Antisabia foliacea</i>								
Aplysiidae								
Architectonicidae sp.								
<i>Argyropeza leucocephala</i>	0	0	0	0	0	0	0	0
<i>Argyropeza</i> sp.	0	0	0	0	0	0	0	0
<i>Aspella producta</i>								
<i>Aspella</i> sp.								
<i>Atys curta</i>								
<i>Atys debilis</i>								
<i>Atys semistriata</i>								
<i>Atys</i> sp.								
<i>Balcis</i> cf. <i>brunnimaculata</i>								
<i>Balcis</i> spp.	9	1	2	12	12	2	4	18
<i>Barleeia calcarea</i>								
<i>Benthonella</i> sp.								
<i>Bittium impendens</i>	0	0	0	0	0	0	0	0
<i>Bittium</i> sp.	0	0	0	0	0	0	0	0
<i>Brookula hawaiiensis</i>								
<i>Brookula iki</i>	0	0	0	0	0	0	0	0
<i>Brookula</i> sp.								
Buccinidae sp.								
<i>Bulla vermicosa</i>								
<i>Bulla</i> sp.								
<i>Bullina scabra</i>								
<i>Caecum arcuatum</i>								
<i>Caecum</i> cf. <i>glabella</i>								
<i>Caecum</i> cf. <i>glabriformis</i>	0	0	0	0	0	0	0	0
<i>Caecum oahuense</i>	0	0	0	0	0	0	1	1
<i>Caecum sepimentum</i>	1	0	0	1	5	0	1	6
<i>Caecum</i> sp. A	0	2	0	2	0	0	0	0
<i>Caecum</i> sp.	0	2	0	2	0	0	0	0
<i>Cancilla granatina</i>								
<i>Cancilla</i> sp.								
<i>Cantharus</i> sp.								
Capulidae sp.								
<i>Carinapex minutissima</i>	0	0	0	0	0	0	0	0
<i>Carinapex papillosa</i>								
Cephalaspidea sp.	0	0	0	0	0	0	0	0
<i>Cerithidium diplax</i>	0	0	0	0	1	0	8	9
<i>Cerithidium perparvulum</i>	29	15	11	55	21	20	15	56
<i>Cerithiopsis</i> spp.	0	0	0	0	0	0	1	1
<i>Cerithium atromarginatum</i>								
<i>Cerithium columna</i>	0	0	0	0	0	0	0	0
<i>Cerithium glareosum</i>								
<i>Cerithium interstriatum</i>	0	0	0	0	0	0	0	0
<i>Cerithium nesioticum</i>	0	0	0	0	0	0	0	0
<i>Cerithium rostratum</i>	0	0	0	0	0	0	0	0
<i>Cerithium zebrum</i>	0	0	0	0	0	0	0	0
<i>Cerithium</i> spp.	0	1	1	2	1	5	7	13
<i>Ceritoturrus bittium</i>	0	0	0	0	1	0	0	1
<i>Circulus</i> sp.								
<i>Cirsotrema varicosa</i>								

TABLE E.1—Continued

Taxon	No. of Individuals at C1A				No. of Individuals at C2A			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Clavus pusilla</i>	0	0	0	0	0	0	0	0
<i>Clavus</i> sp.	0	0	0	0	0	0	0	0
<i>Collonista candida</i>	0	0	0	0	0	0	0	0
<i>Conus pulicarius</i>								
<i>Conus quercinus</i>								
<i>Conus</i> sp.								
Coralliophilidae sp.								
Costellariidae sp.								
<i>Crepidula aculeata</i>								
<i>Crucibulum spinosum</i>								
<i>Cycloscala hyalina</i>								
<i>Cyclostremiscus emeryi</i>	1	0	0	1	0	0	0	0
<i>Cyclostremiscus striatus</i>	0	0	0	0	0	0	0	0
<i>Cyclostremiscus</i> sp. A	5	0	0	5	0	0	0	0
<i>Cylichna pusilla</i>								
Cypraeidae spp.	0	0	0	0	0	0	0	0
<i>Cystiscus huna</i>	0	0	0	0	0	0	1	1
Daphnellinae sp.	0	0	0	0	0	0	0	0
<i>Dentimargo pumila</i>								
<i>Diala scopulorum</i>	0	1	0	1	4	7	1	12
<i>Diala semistriata</i>	2	1	0	3	23	18	8	49
<i>Diala</i> sp.								
<i>Diniatys dentifer</i>								
<i>Diodora granifera</i>								
<i>Drupella</i> sp. A								
<i>Drupella</i> sp.								
<i>Eatoniella janetaylorae</i>	0	0	0	0	0	0	0	0
<i>Eatoniella pigmenta</i>								
<i>Eatoniella</i> sp.								
<i>Elachisina robertsoni</i>								
<i>Elacorbis callusa</i>								
<i>Emarginula dilecta</i>								
<i>Emarginula</i> sp.								
<i>Epitonium</i> spp.	0	0	1	1	0	0	0	0
<i>Erato sandwicensis</i>								
<i>Erema acricula</i>	0	0	0	0	0	0	0	0
<i>Euchelus gemmatus</i>	0	0	0	0	0	0	0	0
<i>Euchelus</i> sp.								
<i>Eucithara angiostoma</i>	0	0	0	0	0	0	0	0
<i>Eucithara pusilla</i>								
<i>Eucithara</i> sp.								
<i>Eucyrtoma albomacula</i>								
<i>Eulima peasei</i>	0	0	0	0	0	0	0	0
<i>Eulimidae</i> sp.	0	0	0	0	0	0	0	0
<i>Euplica varians</i>	0	0	0	0	0	0	0	0
<i>Evalea peasei</i>								
<i>Evalea waikikiensis</i>								
<i>Finella pupoides</i>	0	0	0	0	0	0	0	0
<i>Fusinus</i> sp.								
<i>Gemmula monilifera</i>								
<i>Gibbula marmorea</i>	0	0	0	0	0	0	0	0
<i>Glyphostoma kihikihi</i>	0	0	0	0	0	0	1	1

TABLE E.1—Continued

Taxon	No. of Individuals at C1A				No. of Individuals at C2A			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Granula sandwicensis</i>	0	0	1	1	0	0	0	0
<i>Granulina vitrea</i>	0	0	0	0	5	0	2	7
<i>Granulina</i> sp.	0	0	0	0	0	1	0	1
<i>Gyrineum pusillum</i>	0	0	0	0	0	0	0	0
<i>Haminoea curta</i>	0	0	0	0	0	0	0	0
<i>Haminoea</i> sp.	0	0	0	0	0	0	0	0
<i>Heliacus implexus</i>								
<i>Heliacus</i> sp. A	0	0	0	0	0	0	0	0
<i>Heliacus</i> sp.	0	0	1	1	0	0	0	0
<i>Herviera gliriella</i>	1	0	0	1	5	1	1	7
<i>Herviera patricia</i>	0	0	0	0	0	0	0	0
<i>Hinemoa indica</i>	0	0	0	0	0	0	0	0
<i>Hipponix australis</i>	0	0	0	0	0	0	0	0
<i>Hipponix imbricatus</i>								
<i>Hipponix pilosus</i>	0	0	0	0	0	0	0	0
<i>Hipponix</i> sp.	0	1	1	2	0	0	1	1
<i>Hydatina</i> sp.								
<i>Ittibittium parcum</i>	0	0	0	0	0	0	0	0
<i>Julia exquisita</i>	0	0	0	0	0	0	0	0
Juliidae sp.	0	0	0	0	0	0	0	0
<i>Kermia aniani</i>								
<i>Kermia brunnea</i>								
<i>Kermia cylindrica</i>								
<i>Kermia daedalea</i>	0	0	0	0	0	1	0	1
<i>Kermia</i> sp.	0	0	0	0	0	0	1	1
<i>Koloonella hawaiiensis</i>	0	0	0	0	0	0	0	0
<i>Koloonella</i> sp.								
<i>Leptothyra rubricincta</i>	0	0	1	1	7	6	4	17
<i>Leptothyra verruca</i>	0	0	0	0	0	0	0	0
<i>Lienardia apiculata</i>								
<i>Lienardia mighelsi</i>								
Liotiidae sp.								
<i>Lophocochlias minutissimus</i>	7	1	1	9	6	3	5	14
<i>Lophocochlias</i> sp. A	0	0	0	0	0	0	0	0
<i>Lophocochlias</i> sp.								
<i>Meioceras sandwichensis</i>								
<i>Merelina granulosa</i>								
<i>Merelina hewa</i>	0	0	0	0	0	0	0	0
<i>Merelina wanawana</i>	0	0	0	0	0	0	0	0
<i>Metaxia albicephala</i>	0	0	0	0	0	0	0	0
<i>Metaxia brunnicephala</i>	0	0	0	0	0	0	0	0
<i>Metaxia</i> sp.								
<i>Microdaphne trichodes</i>	0	0	0	0	0	0	0	0
<i>Miralda paulbartschi</i>	0	0	0	0	0	0	0	0
<i>Miralda scopulorum</i>	0	0	0	0	0	0	0	0
<i>Miralda</i> sp.								
<i>Mitra earlei</i>								
<i>Mitra saltata</i>								
<i>Mitra</i> sp.	0	0	0	0	3	0	0	3
<i>Mitrella bella</i>								
<i>Mitrella loyaltensis</i>								
<i>Mitrella margarita</i>								

TABLE E.1—Continued

Taxon	No. of Individuals at C1A				No. of Individuals at C2A			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Mitrella rorida</i>								
<i>Mitrolumna metula</i>								
<i>Modulus tectum</i>	0	0	0	0	0	0	0	0
<i>Morula</i> sp.	0	0	0	0	0	0	0	0
<i>Nassarius crematus</i>								
<i>Nassarius papillosus</i>								
<i>Nassarius</i> sp.								
<i>Natica bougei</i>								
<i>Natica gualteriana</i>	0	0	0	0	0	0	0	0
<i>Natica</i> sp.	0	0	3	3	0	0	0	0
<i>Nerita</i> spp.	0	0	0	0	0	0	0	0
<i>Neritopsis radula</i>								
<i>Nesiodostomia quarta</i>								
<i>Nesiodostomia</i> sp.	0	0	0	0	0	0	1	1
<i>Odostomia gulicki</i>	0	0	0	0	0	0	0	0
<i>Odostomia oxia</i>	0	0	0	0	0	0	0	0
<i>Odostomia stearnsiella</i>								
<i>Odostomia</i> sp. A								
<i>Odostomia</i> sp. B								
<i>Odostomia</i> sp.								
<i>Omalaxis</i> sp.								
<i>Omalogyra japonica</i>	1	0	1	2	1	0	0	1
<i>Omalogyra</i> spp.	0	0	0	0	0	0	0	0
<i>Orbitestella regina</i>	13	13	8	34	4	3	2	9
<i>Orbitestella</i> sp. A	0	0	0	0	0	0	0	0
<i>Orbitestella</i> sp. B	0	0	0	0	0	0	0	0
<i>Orbitestella</i> sp.	0	0	0	0	0	2	0	2
<i>Parashiela beetsi</i>	17	8	4	29	4	4	3	11
<i>Pelycidion habeii</i>								
<i>Peristernia chlorostoma</i>								
<i>Phenacolepas scobinata</i>								
<i>Philippia oxytropis</i>								
<i>Philippia</i> sp.								
<i>Planaxis suturalis</i>	0	0	0	0	0	0	0	0
<i>Planaxis</i> sp.								
<i>Plesiotrochus luteus</i>	0	0	0	0	0	0	0	0
<i>Powellsetia fallax</i>								
<i>Prodotia iostomus</i>								
<i>Pseudodaphnella pulchella</i>								
<i>Pseudomalaxis</i> sp.								
<i>Pterygia pudica</i>								
<i>Pupa pudica</i>								
<i>Pupa tessellata</i>								
<i>Pupa</i> sp.								
<i>Pusillina marmorata</i>	19	6	14	39	16	8	25	49
<i>Pyramidella sulcata</i>								
<i>Pyramidella</i> sp. A	0	0	0	0	3	0	0	3
<i>Pyramidella</i> sp. B								
<i>Pyramidella</i> sp. C								
<i>Pyramidella</i> sp. D								
<i>Pyramidella</i> spp.								
<i>Pyramidellidae</i> sp. A								

TABLE E.1—Continued

Taxon	No. of Individuals at C1A				No. of Individuals at C2A			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
Pyramidellidae sp. B								
Pyramidellidae sp. C								
Pyramidellidae sp. D								
Pyramidellidae sp.	1	0	0	1	1	2	0	3
<i>Pyramidelloides angusta</i>								
<i>Pyramidelloides gracilis</i>	0	0	0	0	0	0	0	0
<i>Pyramidelloides suta</i>	0	0	0	0	0	0	0	0
<i>Pyrgulina oodes</i>	0	0	0	0	0	0	0	0
<i>Pyrgulina</i> sp.								
<i>Rastodens</i> sp.								
<i>Rhinoclavis articulata</i>								
<i>Rissoella</i> sp.	0	0	0	0	5	0	0	5
Rissoidea spp.	14	0	0	14	0	0	0	0
<i>Rissoina ambigua</i>	0	0	0	0	0	0	0	0
<i>Rissoina cerithiiformis</i>	0	0	0	0	1	0	7	8
<i>Rissoina costata</i>	0	0	0	0	0	0	0	0
<i>Rissoina imbricata</i>								
<i>Rissoina pulchella</i>	0	1	0	1	0	0	0	0
<i>Rissoina</i> sp.								
<i>Rufodardanula ponderi</i>	0	0	0	0	0	0	0	0
<i>Rufodardanula</i> sp.								
<i>Sansonia kenneyi</i>	0	0	0	0	1	1	0	2
<i>Sansonia</i> sp. A	0	0	0	0	0	0	0	0
<i>Sansonia</i> spp.								
<i>Scabricola casta</i>								
<i>Scalenostoma</i> sp.								
<i>Scaliola</i> spp.	7	0	2	9	3	1	5	9
<i>Scaphander</i> sp.	0	0	1	1	0	0	0	0
<i>Schwartziella ephamilla</i>	2	0	0	2	4	0	0	4
<i>Schwartziella triticea</i>								
<i>Scissurella coronata</i>								
<i>Scissurella pseudoequatoria</i>	0	0	0	0	0	0	0	0
<i>Seminella peasei</i>	0	0	0	0	0	0	0	0
<i>Seminella smithi</i>								
<i>Sinezona insignis</i>	0	0	0	0	0	0	0	0
<i>Smaragdia bryanae</i>	0	0	0	0	0	0	0	0
<i>Stilifer</i> sp.								
<i>Stosicia hiloense</i>	0	0	0	0	0	0	0	0
<i>Strebloceras subannulatum</i>	1	0	0	1	0	0	0	0
<i>Strombus helii</i>								
<i>Strombus maculatus</i>								
<i>Styliferina goniochila</i>	0	0	0	0	0	0	0	0
<i>Synaptocochlea concinna</i>								
<i>Terebra</i> spp.	0	0	0	0	0	0	0	0
<i>Thala milium</i>								
<i>Tricolia variabilis</i>	9	1	8	18	27	6	17	50
<i>Triphora</i> spp.	2	0	2	4	5	8	7	20
<i>Tritonoturris</i> sp. A								
<i>Trivia globosa pilula</i>								
<i>Trivia hordacea</i>								
<i>Trivia pellucida</i>								
<i>Trivia</i> spp.	0	0	0	0	0	0	0	0

TABLE E.1—Continued

Taxon	No. of Individuals at C1A				No. of Individuals at C2A			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Trochus intextus</i>	0	0	0	0	0	0	0	0
<i>Trochus</i> sp.								
<i>Tugali oblonga</i>								
<i>Tugali</i> sp.								
<i>Turbo sandwicensis</i>	0	0	0	0	0	0	0	0
<i>Turbonilla cornelliana</i>	0	0	0	0	0	0	0	0
<i>Turbonilla thaanumi</i>	0	0	0	0	0	0	0	0
<i>Turbonilla</i> sp. A								
<i>Turbonilla</i> sp. B								
<i>Turbonilla</i> sp. C	0	0	0	0	0	0	0	0
<i>Turbonilla</i> sp. D	0	0	0	0	0	0	0	0
<i>Turbonilla</i> sp. E	0	0	0	0	0	0	0	0
<i>Turbonilla</i> sp. F	0	0	0	0	0	0	0	0
<i>Turbonilla</i> spp.	0	0	0	0	0	0	0	0
Turridae sp.	0	0	0	0	0	0	0	0
<i>Umbraculum sinicum</i>								
<i>Umbraculum</i> sp.								
<i>Vanikoro cancellata</i>								
<i>Vanikoro</i> sp.								
<i>Vepracula brunonia</i>								
Vermetidae spp.	0	0	0	0	0	0	0	0
<i>Vexillum adamsianum</i>								
<i>Vexillum approximatum</i>								
<i>Vexillum cosmani</i>								
<i>Vexillum interruptum</i>								
<i>Vexillum pacificum</i>								
<i>Vexillum rubrum</i>								
<i>Vexillum rufofilosum</i>								
<i>Vexillum tusum</i>	0	0	0	0	0	0	0	0
<i>Vexillum</i> sp. A								
<i>Vexillum</i> sp.								
Vitrinellidae sp.								
<i>Volvarina fusiformis</i>	0	0	0	0	0	0	0	0
<i>Williamia radiata</i>	1	1	0	2	0	2	0	2
<i>Xenuroturris</i> sp.								
<i>Zebina bidentata</i>								
<i>Zebina</i> sp.	0	0	0	0	0	0	0	0
<i>Gastropoda</i> sp. A	0	0	0	0	0	0	0	0
<i>Gastropoda</i> spp.								
SCAPHOPODA								
Scaphopoda sp.								
POLYPLACOPHORA								
Polyplacophora sp.	0	0	0	0	0	0	0	0
Total No. of Individuals	145	56	66	267	170	101	133	404
Total No. of Individuals/cm ³	9.7	3.7	4.4	5.9	11.3	6.7	8.9	9.0
Total No. of Taxa	22	16	21	38	27	20	28	41

TABLE E.2. Taxon Abundance from Three Replicates for Mollusk Components, Sand Island Ocean Outfall Sampling Stations C3A and C5A, O'ahu, Hawai'i, August 2002

Taxon	No. of Individuals at C3A				No. of Individuals at C5A			
	1	2	3	Total	1	2	3	Total
BIVALVIA								
<i>Acar cf. plicata</i>	1	1	0	2	0	0	0	0
<i>Adipicola cf. crypta</i>								
<i>Amygdalum newcombi</i>								
<i>Amygdalum sp.</i>								
<i>Anguipecten cf. lamberti</i>								
<i>Anisodonta lutea</i>								
<i>Anomia nobilis</i>								
<i>Arca kauaia</i>								
Arcidae sp.	0	0	0	0	0	0	0	0
<i>Barbatia divaricata</i>	1	0	0	1	0	0	0	0
<i>Barbatia lima</i>								
<i>Barbatia nuttingi</i>								
<i>Barbatia sp.</i>								
<i>Brachidontes crebristriatus</i>	0	4	0	4	0	1	0	1
<i>Cardita thaanumi</i>	0	0	0	0	1	0	0	1
<i>Cardita sp.</i>								
<i>Carditella hawaiiensis</i>	0	0	0	0	0	0	0	0
<i>Carditella sp.</i>	0	0	1	1	0	1	0	1
<i>Chlamydella sp. A</i>								
<i>Chlamys coruscans hawaiiensis</i>								
<i>Chlamys kauaiensis</i>								
<i>Chlamys sp. B</i>								
<i>Chlamys sp.</i>	0	0	0	0	0	0	0	0
<i>Codakia punctata</i>								
<i>Cosa waikikia</i>	0	0	0	0	0	0	0	0
<i>Crenella sp.</i>								
<i>Ctena bella</i>								
<i>Ctena transversa</i>								
<i>Ctena sp.</i>	0	0	0	0	0	0	0	0
<i>Cuspidaria hawaiiensis</i>								
<i>Cuspidaria pailoana</i>								
<i>Epicodakia sp.</i>	0	0	0	0	0	0	0	0
<i>Ervilia bisculpta</i>	0	1	0	1	0	0	1	1
<i>Euciroa pacifica</i>								
<i>Fragum mundum</i>	0	1	0	1	0	0	0	0
<i>Gastrochaena sp.</i>								
<i>Glycymeris sp.</i>								
<i>Grammatomya kanaka</i>	0	0	1	1	0	0	0	0
<i>Haumea juddi</i>								
<i>Hiatella arctica</i>								
<i>Hitia ovalis</i>								
<i>Kellia hawaiiensis</i>								
<i>Kona symmetrica</i>	1	1	1	3	0	0	0	0
<i>Leptonacea sp.</i>								
<i>Lima keokea</i>								
<i>Lima sp.</i>								
<i>Limopsis sp.</i>								
<i>Lioconcha hieroglyphica</i>	0	0	0	0	0	0	0	0
<i>Lonoa hawaiiensis</i>								
<i>Lucina edentula</i>								

TABLE E.2—Continued

Taxon	No. of Individuals at C3A				No. of Individuals at C5A			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Macoma dispar</i>								
<i>Macoma obliquilineata</i>	0	0	0	0	0	1	0	1
<i>Mactra thaanumi</i>								
<i>Mactra</i> sp.								
<i>Malleus regula</i>	0	1	0	1	0	0	0	0
<i>Malleus</i> sp.	0	5	2	7	0	0	0	0
<i>Modiolus</i> sp.	0	1	0	1	0	0	0	0
Mytilidae sp. A								
Mytilidae sp. B								
Mytilidae sp. C								
Mytilidae sp.								
<i>Nemocardium thaanumi</i>								
<i>Nemocardium</i> sp.								
<i>Nucula hawaiiensis</i>	0	2	1	3	0	0	0	0
<i>Ostrea</i> sp.	0	6	1	7	0	0	0	0
Pectinidae sp. A	0	1	0	1	0	0	0	0
<i>Pillucina hawaiiensis</i>								
<i>Pillucina spaldingi</i>								
<i>Pillucina</i> sp.								
<i>Pinna</i> sp. ^a	frag	0	0	frag	0	0	0	0
<i>Poromya transversa</i>								
Propeamusiidae sp.								
<i>Pteria</i> sp.								
<i>Rochefortina sandwichensis</i>	2	5	3	10	2	2	0	4
<i>Rochefortina</i> sp.								
<i>Scintilla hiloa</i>								
<i>Semelangulus crebrimaculatus</i>	0	0	0	0	0	0	0	0
<i>Semelangulus</i> sp.								
<i>Semele australis</i>								
<i>Septifer bryanae</i>	0	0	2	2	0	0	0	0
<i>Septifer</i> sp.	0	0	0	0	1	0	0	1
<i>Spondylus</i> sp.								
<i>Tellina oahuana</i>								
<i>Tellina robusta</i>								
<i>Tellina</i> sp. A								
<i>Tellina</i> sp. B								
<i>Tellina</i> sp. C								
<i>Tellina</i> sp.	0	0	0	0	0	0	0	0
Bivalvia sp. A	0	0	0	0	0	0	0	0
Bivalvia sp. B	1	0	0	1	0	0	0	0
Bivalvia sp. C	1	0	0	1	0	0	0	0
Bivalvia spp.	0	0	0	0	3	4	0	7
GASTROPODA								
<i>Acteocina hawaiiensis</i>	0	0	0	0	0	0	2	2
<i>Acteocina sandwichensis</i>	0	2	0	2	0	0	0	0
<i>Acteocina</i> sp. A								
<i>Acteocina</i> sp.	0	0	0	0	2	3	0	5
<i>Alcyna ocellata</i>	5	12	14	31	1	0	13	14
<i>Alcyna subangulata</i>	3	0	0	3	0	0	1	1
<i>Alvania isolata</i>	0	0	0	0	0	0	1	1
<i>Anacithara perfecta</i>	0	1	0	1	0	0	0	0

TABLE E.2—Continued

Taxon	No. of Individuals at C3A				No. of Individuals at C5A			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Antisabia foliacea</i>								
Aplysiidae								
Architectonicidae sp.								
<i>Argyropeza leucocephala</i>	2	0	0	2	0	0	0	0
<i>Argyropeza</i> sp.	0	0	0	0	0	26	0	26
<i>Aspella producta</i>								
<i>Aspella</i> sp.								
<i>Atys curta</i>								
<i>Atys debilis</i>								
<i>Atys semistriata</i>								
<i>Atys</i> sp.								
<i>Balcis</i> cf. <i>brunnimaculata</i>								
<i>Balcis</i> spp.	1	0	1	2	14	2	0	16
<i>Barleeia calcarea</i>								
<i>Benthonella</i> sp.								
<i>Bittium impendens</i>	2	1	0	3	0	0	0	0
<i>Bittium</i> sp.	0	0	0	0	0	0	2	2
<i>Brookula hawaiiensis</i>								
<i>Brookula iki</i>	1	0	0	1	0	0	0	0
<i>Brookula</i> sp.								
Buccinidae sp.								
<i>Bulla vernicosa</i>								
<i>Bulla</i> sp.								
<i>Bullina scabra</i>								
<i>Caecum arcuatum</i>								
<i>Caecum</i> cf. <i>glabella</i>								
<i>Caecum</i> cf. <i>glabriformis</i>	0	1	0	1	0	0	0	0
<i>Caecum oahuense</i>	0	0	0	0	0	0	0	0
<i>Caecum sepimentum</i>	8	12	15	35	2	0	0	2
<i>Caecum</i> sp. A	0	0	0	0	0	0	0	0
<i>Caecum</i> sp.	0	0	0	0	0	2	0	2
<i>Cancilla granatina</i>								
<i>Cancilla</i> sp.								
<i>Cantharus</i> sp.								
Capulidae sp.								
<i>Carinapex minutissima</i>	8	1	1	10	0	0	0	0
<i>Carinapex papillosa</i>								
<i>Cephalaspidea</i> sp.	0	3	0	3	1	0	0	1
<i>Cerithidium diplax</i>	19	31	18	68	0	0	34	34
<i>Cerithidium perparvulum</i>	27	31	42	100	68	61	47	176
<i>Cerithiopsis</i> spp.	1	0	1	2	10	2	0	12
<i>Cerithium atromarginatum</i>								
<i>Cerithium columna</i>	0	1	1	2	0	0	0	0
<i>Cerithium glareosum</i>								
<i>Cerithium interstriatum</i>	1	0	2	3	0	0	1	1
<i>Cerithium nesioticum</i>	0	0	0	0	0	0	6	6
<i>Cerithium rostratum</i>	0	0	0	0	0	0	1	1
<i>Cerithium zebrum</i>	0	0	0	0	0	0	0	0
<i>Cerithium</i> spp.	0	1	0	1	22	0	0	22
<i>Ceritoturris bittium</i>	0	0	0	0	0	0	0	0
<i>Circulus</i> sp.								
<i>Cirsotrema varicosa</i>								

TABLE E.2—Continued

Taxon	No. of Individuals at C3A				No. of Individuals at C5A			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Clavus pusilla</i>	0	0	0	0	0	0	0	0
<i>Clavus</i> sp.	0	0	1	1	0	0	0	0
<i>Collonista candida</i>	2	4	1	7	0	0	2	2
<i>Conus pulicarius</i>								
<i>Conus quercinus</i>								
<i>Conus</i> sp.								
Coralliophilidae sp.								
Costellariidae sp.								
<i>Crepidula aculeata</i>								
<i>Crucibulum spinosum</i>								
<i>Cycloscala hyalina</i>								
<i>Cyclostremiscus emeryi</i>	2	8	3	13	0	0	1	1
<i>Cyclostremiscus striatus</i>	1	0	0	1	0	0	0	0
<i>Cyclostremiscus</i> sp. A	0	0	0	0	0	0	0	0
<i>Cylichna pusilla</i>								
Cypraeidae spp.	0	1	0	1	0	0	0	0
<i>Cystiscus huna</i>	0	0	0	0	4	0	0	4
Daphnellinae sp.	0	1	0	1	0	0	1	1
<i>Dentimargo pumila</i>								
<i>Diala scopulorum</i>	0	0	0	0	7	1	0	8
<i>Diala semistriata</i>	15	10	12	37	38	34	41	113
<i>Diala</i> sp.								
<i>Diniatys dentifer</i>								
<i>Diodora granifera</i>								
<i>Drupella</i> sp. A								
<i>Drupella</i> sp.								
<i>Eatoniella janetaylorae</i>	0	0	0	0	0	0	0	0
<i>Eatoniella pigmenta</i>								
<i>Eatoniella</i> sp.								
<i>Elachisina robertsoni</i>								
<i>Elacorbis callusa</i>								
<i>Emarginula dilecta</i>								
<i>Emarginula</i> sp.								
<i>Epitonium</i> spp.	0	0	0	0	1	0	0	1
<i>Erato sandwicensis</i>								
<i>Etrema acricula</i>	1	0	0	1	0	0	0	0
<i>Euchelus gemmatus</i>	1	3	1	5	0	0	1	1
<i>Euchelus</i> sp.								
<i>Eucithara angiostroma</i>	0	1	0	1	0	0	0	0
<i>Eucithara pusilla</i>								
<i>Eucithara</i> sp.								
<i>Eucylotoma albomacula</i>								
<i>Eulima peasei</i>	0	1	0	1	0	0	0	0
Eulimidae sp.	0	4	0	4	0	0	0	0
<i>Euplica varians</i>	0	0	0	0	3	0	0	3
<i>Evalea peasei</i>								
<i>Evalea waikikiensis</i>								
<i>Finella pupoides</i>	0	0	0	0	3	0	0	3
<i>Fusinus</i> sp.								
<i>Gemmula monilifera</i>								
<i>Gibbula marmorea</i>	0	1	0	1	0	0	1	1
<i>Glyphostoma kihikihi</i>	0	0	0	0	0	0	0	0

TABLE E.2—Continued

Taxon	No. of Individuals at C3A				No. of Individuals at C5A			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Granula sandwicensis</i>	0	7	0	7	0	5	0	5
<i>Granulina vitrea</i>	0	0	0	0	0	0	0	0
<i>Granulina</i> sp.	5	0	4	9	1	0	3	4
<i>Gyrineum pusillum</i>	0	0	0	0	0	0	0	0
<i>Haminoea curta</i>	0	1	0	1	0	0	0	0
<i>Haminoea</i> sp.	0	0	0	0	0	0	0	0
<i>Heliacus implexus</i>								
<i>Heliacus</i> sp. A	0	0	0	0	1	0	0	1
<i>Heliacus</i> sp.	0	0	0	0	0	0	0	0
<i>Herviera gliriella</i>	0	1	0	1	0	0	2	2
<i>Herviera patricia</i>	2	0	0	2	0	0	0	0
<i>Hinemoa indica</i>	0	1	1	2	0	0	0	0
<i>Hipponix australis</i>	0	0	0	0	0	0	0	0
<i>Hipponix imbricatus</i>								
<i>Hipponix pilosus</i>	0	0	1	1	0	0	1	1
<i>Hipponix</i> sp.	0	0	0	0	1	0	0	1
<i>Hydatina</i> sp.								
<i>Ittibittium parcum</i>	0	0	0	0	0	0	0	0
<i>Julia exquisita</i>	0	1	1	2	0	0	0	0
Juliidae sp.	0	0	0	0	0	0	0	0
<i>Kermia aniani</i>								
<i>Kermia brunnea</i>								
<i>Kermia cylindrica</i>								
<i>Kermia daedalea</i>	0	0	0	0	0	0	0	0
<i>Kermia</i> sp.	0	0	0	0	0	0	0	0
<i>Kolonella hawaiiensis</i>	0	0	0	0	0	0	0	0
<i>Kolonella</i> sp.								
<i>Leptothyra rubricincta</i>	2	2	9	13	3	4	2	9
<i>Leptothyra verruca</i>	0	0	0	0	0	0	0	0
<i>Lienardia apiculata</i>								
<i>Lienardia mighelsi</i>								
Liotiidae sp.								
<i>Lophocochlias minutissimus</i>	37	30	22	89	12	23	20	55
<i>Lophocochlias</i> sp. A	0	2	1	3	0	0	3	3
<i>Lophocochlias</i> sp.								
<i>Meioceras sandwichensis</i>								
<i>Merelina granulosa</i>								
<i>Merelina hewa</i>	0	0	0	0	1	0	0	1
<i>Merelina wanawana</i>	1	0	0	1	0	0	0	0
<i>Metaxia albicephala</i>	0	1	1	2	0	0	0	0
<i>Metaxia brunnicephala</i>	0	1	0	1	0	0	0	0
<i>Metaxia</i> sp.								
<i>Microdaphne trichodes</i>	1	0	4	5	0	0	0	0
<i>Miralda paulbarschi</i>	1	0	0	1	0	0	0	0
<i>Miralda scopulorum</i>	0	0	0	0	0	0	0	0
<i>Miralda</i> sp.								
<i>Mitra earlei</i>								
<i>Mitra saltata</i>								
<i>Mitra</i> sp.	0	0	0	0	1	0	0	1
<i>Mitrella bella</i>								
<i>Mitrella loyaltensis</i>								
<i>Mitrella margarita</i>								

TABLE E.2—Continued

Taxon	No. of Individuals at C3A				No. of Individuals at C5A			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Mitrella rorida</i>								
<i>Mitrolumna metula</i>								
<i>Modulus tectum</i>	0	0	0	0	0	0	0	0
<i>Morula</i> sp.	0	0	0	0	0	0	0	0
<i>Nassarius crematus</i>								
<i>Nassarius papillosus</i>								
<i>Nassarius</i> sp.								
<i>Natica bougei</i>								
<i>Natica gualteriana</i>	0	1	0	1	1	2	2	5
<i>Natica</i> sp.	0	0	0	0	0	0	0	0
<i>Nerita</i> spp.	0	0	0	0	1	6	0	7
<i>Neritopsis radula</i>								
<i>Nesiodostomia quarta</i>								
<i>Nesiodostomia</i> sp.	0	0	0	0	0	0	0	0
<i>Odostomia gulicki</i>	2	1	4	7	0	0	0	0
<i>Odostomia oxia</i>	0	0	1	1	0	0	0	0
<i>Odostomia stearnsiella</i>								
<i>Odostomia</i> sp. A								
<i>Odostomia</i> sp. B								
<i>Odostomia</i> sp.								
<i>Omalaxis</i> sp.								
<i>Omalogyra japonica</i>	0	2	0	2	0	1	0	1
<i>Omalogyra</i> spp.	0	0	0	0	1	0	0	1
<i>Orbitestella regina</i>	25	25	11	61	6	16	16	38
<i>Orbitestella</i> sp. A	0	0	0	0	0	1	1	2
<i>Orbitestella</i> sp. B	0	0	2	2	0	0	2	2
<i>Orbitestella</i> sp.	0	0	0	0	0	0	0	0
<i>Parashiela beetsi</i>	26	32	26	84	27	27	21	75
<i>Pelycidion habei</i>								
<i>Peristernia chlorostoma</i>								
<i>Phenacolepas scobinata</i>								
<i>Philippia oxytropis</i>								
<i>Philippia</i> sp.								
<i>Planaxis suturalis</i>	1	0	0	1	0	0	0	0
<i>Planaxis</i> sp.								
<i>Plesiotrochus luteus</i>	1	0	0	1	2	0	1	3
<i>Powellsetia fallax</i>								
<i>Prodotia iostomus</i>								
<i>Pseudodaphnella pulchella</i>								
<i>Pseudomalaxis</i> sp.								
<i>Pterygia pudica</i>								
<i>Pupa pudica</i>								
<i>Pupa tessellata</i>								
<i>Pupa</i> sp.								
<i>Pusillina marmorata</i>	59	100	71	230	60	71	72	203
<i>Pyramidella sulcata</i>								
<i>Pyramidella</i> sp. A	0	0	0	0	0	0	0	0
<i>Pyramidella</i> sp. B								
<i>Pyramidella</i> sp. C								
<i>Pyramidella</i> sp. D								
<i>Pyramidella</i> spp.								
<i>Pyramidellidae</i> sp. A								

TABLE E.2—Continued

Taxon	No. of Individuals at C3A				No. of Individuals at C5A			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
Pyramidellidae sp. B								
Pyramidellidae sp. C								
Pyramidellidae sp. D								
Pyramidellidae sp.	0	0	0	0	7	3	0	10
<i>Pyramidelloides angusta</i>								
<i>Pyramidelloides gracilis</i>	0	2	0	2	0	0	0	0
<i>Pyramidelloides suta</i>	0	0	1	1	0	0	0	0
<i>Pyrgulina oodes</i>	0	0	0	0	0	0	0	0
<i>Pyrgulina</i> sp.								
<i>Rastodens</i> sp.								
<i>Rhinoclavis articulata</i>								
<i>Rissoella</i> sp.	2	1	2	5	0	0	4	4
Rissoidae spp.	0	0	0	0	4	5	0	9
<i>Rissoina ambigua</i>	0	4	0	4	1	0	0	1
<i>Rissoina cerithiiformis</i>	0	1	1	2	0	2	2	4
<i>Rissoina costata</i>	0	0	0	0	0	0	0	0
<i>Rissoina imbricata</i>								
<i>Rissoina pulchella</i>	0	1	0	1	0	0	0	0
<i>Rissoina</i> sp.								
<i>Rufodardanula ponderi</i>	1	1	2	4	0	0	1	1
<i>Rufodardanula</i> sp.								
<i>Sansonia kenneyi</i>	0	0	0	0	0	2	0	2
<i>Sansonia</i> sp. A	0	0	0	0	0	1	0	1
<i>Sansonia</i> spp.								
<i>Scabricola casta</i>								
<i>Scalenostoma</i> sp.								
<i>Scaliola</i> spp.	10	22	22	54	19	21	2	42
<i>Scaphander</i> sp.	0	0	0	0	0	0	0	0
<i>Schwartziella ephamilla</i>	6	4	4	14	6	5	4	15
<i>Schwartziella triticea</i>								
<i>Scissurella coronata</i>								
<i>Scissurella pseudoequatoria</i>	0	1	0	1	1	0	0	1
<i>Seminella peasei</i>	0	0	0	0	0	0	1	1
<i>Seminella smithi</i>								
<i>Sinezona insignis</i>	0	2	2	4	0	0	0	0
<i>Smaragdia bryanae</i>	0	0	0	0	0	0	1	1
<i>Stilifer</i> sp.								
<i>Stosicia hiloense</i>	1	0	0	1	0	0	0	0
<i>Strebloceras subannulatum</i>	1	3	2	6	1	0	0	1
<i>Strombus helli</i>								
<i>Strombus maculatus</i>								
<i>Styliferina goniochila</i>	3	3	11	17	0	0	1	1
<i>Synaptocochlea concinna</i>								
<i>Terebra</i> spp.	0	0	0	0	0	0	0	0
<i>Thala milium</i>								
<i>Tricolia variabilis</i>	31	33	33	97	37	72	43	152
<i>Triphora</i> spp.	5	4	4	13	5	14	0	19
<i>Tritonoturris</i> sp. A								
<i>Trivia globosa pilula</i>								
<i>Trivia hordacea</i>								
<i>Trivia pellucida</i>								
<i>Trivia</i> spp.	0	1	0	1	0	0	0	0

TABLE E.2—Continued

Taxon	No. of Individuals at C3A				No. of Individuals at C5A			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Trochus intextus</i>	0	1	0	1	0	0	0	0
<i>Trochus</i> sp.								
<i>Tugali oblonga</i>								
<i>Tugali</i> sp.								
<i>Turbo sandwicensis</i>	1	0	0	1	0	0	0	0
<i>Turbonilla cornelliana</i>	0	0	1	1	0	0	0	0
<i>Turbonilla thaanumi</i>	0	0	0	0	0	0	0	0
<i>Turbonilla</i> sp. A								
<i>Turbonilla</i> sp. B								
<i>Turbonilla</i> sp. C	0	1	0	1	0	0	0	0
<i>Turbonilla</i> sp. D								
<i>Turbonilla</i> sp. E	0	1	2	3	0	0	0	0
<i>Turbonilla</i> sp. F								
<i>Turbonilla</i> spp.	0	0	0	0	0	0	0	0
Turridae sp.	0	2	0	2	0	0	2	2
<i>Umbraculum sinicum</i>								
<i>Umbraculum</i> sp.								
<i>Vanikoro cancellata</i>								
<i>Vanikoro</i> sp.								
<i>Veprecula brunonia</i>								
Vermetidae spp.	8	11	9	28	0	0	7	7
<i>Vexillum adamsianum</i>								
<i>Vexillum approximatum</i>								
<i>Vexillum cosmani</i>								
<i>Vexillum interruptum</i>								
<i>Vexillum pacificum</i>								
<i>Vexillum rubrum</i>								
<i>Vexillum rufilosum</i>								
<i>Vexillum tusum</i>	0	1	0	1	0	0	0	0
<i>Vexillum</i> sp. A								
<i>Vexillum</i> sp.								
Vitrinellidae sp.								
<i>Volvarina fusiformis</i>	0	0	0	0	0	0	0	0
<i>Williamia radiata</i>	1	1	1	3	0	1	0	1
<i>Xenuroturrus</i> sp.								
<i>Zebina bidentata</i>								
<i>Zebina</i> sp.	3	0	0	3	0	0	0	0
<i>Gastropoda</i> sp. A	2	3	2	7	0	0	0	0
<i>Gastropoda</i> spp.								
SCAPHOPODA								
Scaphopoda sp.								
POLYPLACOPHORA								
Polyplacophora sp.	0	0	0	0	0	0	0	0
Total No. of Individuals	345	472	383	1,200	382	422	370	1,174
Total No. of Individuals/cm ³	23.0	31.5	25.5	26.7	25.5	28.1	24.7	26.1
Total No. of Taxa	52	73	53	104	41	33	41	78

^a*Pinna* sp. are indicated by a "+" for larval shells and by "frag" for shell fragments.

TABLE E.3. Taxon Abundance from Three Replicates for Mollusk Components, Sand Island Ocean Outfall Sampling Station C6, O'ahu, Hawai'i, August 2002

Taxon	No. of Individuals at C6				Transect C Total
	1	2	3	Total	
BIVALVIA					
<i>Acar</i> cf. <i>plicata</i>	0	0	0	0	2
<i>Adipicola</i> cf. <i>crypta</i>					
<i>Amygdalum</i> <i>newcombi</i>					
<i>Amygdalum</i> sp.					
<i>Anguipecten</i> cf. <i>lamberti</i>					
<i>Anisodonta</i> <i>lutea</i>					
<i>Anomia</i> <i>nobilis</i>					
<i>Arca</i> <i>kauaia</i>					
Arcidae sp.	0	0	0	0	1
<i>Barbatia</i> <i>divaricata</i>	0	0	0	0	1
<i>Barbatia</i> <i>lima</i>					
<i>Barbatia</i> <i>nuttingi</i>					
<i>Barbatia</i> sp.					
<i>Brachidontes</i> <i>crebristriatus</i>	0	0	0	0	5
<i>Cardita</i> <i>thaanumi</i>	0	0	1	1	2
<i>Cardita</i> sp.					
<i>Carditella</i> <i>hawaiensis</i>	0	1	0	1	1
<i>Carditella</i> sp.	0	0	0	0	2
<i>Chlamydella</i> sp. A					
<i>Chlamys</i> <i>coruscans hawaiensis</i>					
<i>Chlamys</i> <i>kauaiensis</i>					
<i>Chlamys</i> sp. B					
<i>Chlamys</i> sp.	0	0	1	1	2
<i>Codakia</i> <i>punctata</i>					
<i>Cosa</i> <i>waikikia</i>	1	0	0	1	1
<i>Crenella</i> sp.					
<i>Ctena</i> <i>bella</i>					
<i>Ctena</i> <i>transversa</i>					
<i>Ctena</i> sp.	0	0	0	0	1
<i>Cuspidaria</i> <i>hawaiensis</i>					
<i>Cuspidaria</i> <i>pailoloana</i>					
<i>Epicodakia</i> sp.	1	0	0	1	1
<i>Ervilia</i> <i>bisculpta</i>	1	0	0	1	4
<i>Euciroa</i> <i>pacifica</i>					
<i>Fragum</i> <i>mundum</i>	4	2	0	6	8
<i>Gastrochaena</i> sp.					
<i>Glycymeris</i> sp.					
<i>Grammatomya</i> <i>kanaka</i>	1	0	0	1	2
<i>Haumea</i> <i>juddi</i>					
<i>Hiatella</i> <i>arctica</i>					
<i>Hitia</i> <i>ovalis</i>					
<i>Kellia</i> <i>hawaiensis</i>					
<i>Kona</i> <i>symmetrica</i>	3	1	0	4	7
Leptonacea sp.					
<i>Lima</i> <i>keokea</i>					
<i>Lima</i> sp.					
<i>Limopsis</i> sp.					
<i>Lioconcha</i> <i>hieroglyphica</i>	0	0	0	0	1
<i>Lonoa</i> <i>hawaiensis</i>					
<i>Lucina</i> <i>edentula</i>					

TABLE E.3—Continued

Taxon	No. of Individuals at C6				Transect C Total
	1	2	3	Total	
<i>Macoma dispar</i>					
<i>Macoma obliquilineata</i>	0	0	0	0	1
<i>Mactra thaanumi</i>					
<i>Mactra</i> sp.					
<i>Malleus regula</i>	0	0	0	0	1
<i>Malleus</i> sp.	0	0	0	0	7
<i>Modiolus</i> sp.	0	0	0	0	1
Mytilidae sp. A					
Mytilidae sp. B					
Mytilidae sp. C					
Mytilidae sp.					
<i>Nemocardium thaanumi</i>					
<i>Nemocardium</i> sp.					
<i>Nucula hawaiiensis</i>	0	0	0	0	3
<i>Ostrea</i> sp.	0	0	1	1	8
Pectinidae sp. A	0	0	0	0	1
<i>Pillucina hawaiiensis</i>					
<i>Pillucina spaldingi</i>					
<i>Pillucina</i> sp.					
<i>Pinna</i> sp. ^a	0	0	0	0	frag
<i>Poromya transversa</i>					
Propeamusiidae sp.					
<i>Pteria</i> sp.					
<i>Rochefortina sandwichensis</i>	0	3	0	3	19
<i>Rochefortina</i> sp.					
<i>Scintilla hiloa</i>					
<i>Semelangulus crebrimaculatus</i>	0	1	0	1	1
<i>Semelangulus</i> sp.					
<i>Semele australis</i>					
<i>Septifer bryanae</i>	0	0	1	1	3
<i>Septifer</i> sp.	0	0	0	0	1
<i>Spondylus</i> sp.					
<i>Tellina oahuana</i>					
<i>Tellina robusta</i>					
<i>Tellina</i> sp. A					
<i>Tellina</i> sp. B					
<i>Tellina</i> sp. C					
<i>Tellina</i> sp.	1	0	0	1	1
Bivalvia sp. A	0	0	0	0	1
Bivalvia sp. B	0	0	0	0	1
Bivalvia sp. C	0	0	0	0	1
Bivalvia spp.	0	0	1	1	10
GASTROPODA					
<i>Acteocina hawaiiensis</i>	0	0	0	0	2
<i>Acteocina sandwichensis</i>	1	0	1	2	4
<i>Acteocina</i> sp. A					
<i>Acteocina</i> sp.				0	6
<i>Alcyona ocellata</i>	4	4	3	11	56
<i>Alcyona subangulata</i>	0	0	0	0	4
<i>Alvania isolata</i>	1	1	1	3	4
<i>Anacithara perfecta</i>	0	0	0	0	1

TABLE E.3—Continued

Taxon	No. of Individuals at C6			Total	Transect C Total
	1	2	3		
<i>Antisabia foliacea</i>					
Aplysiidae					
Architectonicidae sp.					
<i>Argyropeza leucocephala</i>	0	0	0	0	2
<i>Argyropeza</i> sp.	0	0	0	0	26
<i>Aspella producta</i>					
<i>Aspella</i> sp.					
<i>Atys curta</i>					
<i>Atys debilis</i>					
<i>Atys semistriata</i>					
<i>Atys</i> sp.					
<i>Balcis</i> cf. <i>brunnimaculata</i>					
<i>Balcis</i> spp.	0	2	0	2	50
<i>Barleeia calcarea</i>					
<i>Benthonella</i> sp.					
<i>Bittium impendens</i>	0	1	2	3	6
<i>Bittium</i> sp.	0	0	0	0	2
<i>Brookula hawaiiensis</i>					
<i>Brookula iki</i>	0	0	0	0	1
<i>Brookula</i> sp.					
Buccinidae sp.					
<i>Bulla vernicosa</i>					
<i>Bulla</i> sp.					
<i>Bullina scabra</i>					
<i>Caecum arcuatum</i>					
<i>Caecum</i> cf. <i>glabella</i>					
<i>Caecum</i> cf. <i>glabrifomis</i>	0	0	0	0	1
<i>Caecum oahuense</i>	0	0	0	0	1
<i>Caecum sepimentum</i>	2	6	7	15	59
<i>Caecum</i> sp. A	0	0	0	0	2
<i>Caecum</i> sp.	0	0	0	0	4
<i>Cancilla granatina</i>					
<i>Cancilla</i> sp.					
<i>Cantharus</i> sp.					
Capulidae sp.					
<i>Carinapex minutissima</i>	0	2	0	2	12
<i>Carinapex papillosa</i>					
<i>Cephalaspidea</i> sp.	0	0	0	0	4
<i>Cerithidium diplax</i>	20	21	20	61	172
<i>Cerithidium perparvulum</i>	50	45	37	132	519
<i>Cerithiopsis</i> spp.	0	0	1	1	16
<i>Cerithium atromarginatum</i>					
<i>Cerithium columna</i>	1	3	0	4	6
<i>Cerithium glareosum</i>					
<i>Cerithium interstriatum</i>	2	2	0	4	8
<i>Cerithium nesioticum</i>	0	1	0	1	7
<i>Cerithium rostratum</i>	0	0	0	0	1
<i>Cerithium zebrum</i>	1	0	0	1	1
<i>Cerithium</i> spp.	0	0	0	0	38
<i>Ceritoturrus bittium</i>	0	0	0	0	1
<i>Circulus</i> sp.					
<i>Cirsotrema varicosa</i>					

TABLE E.3—Continued

Taxon	No. of Individuals at C6			Total	Transect C Total
	1	2	3		
<i>Clavus pusilla</i>	0	1	0	1	1
<i>Clavus</i> sp.	0	0	0	0	1
<i>Collonista candida</i>	3	2	1	6	15
<i>Conus pulicarius</i>					
<i>Conus quercinus</i>					
<i>Conus</i> sp.					
Coralliophilidae sp.					
Costellariidae sp.					
<i>Crepidula aculeata</i>					
<i>Crucibulum spinosum</i>					
<i>Cycloscala hyalina</i>					
<i>Cyclostremiscus emeryi</i>	2	2	0	4	19
<i>Cyclostremiscus striatus</i>	0	0	0	0	1
<i>Cyclostremiscus</i> sp. A	0	0	0	0	5
<i>Cylichna pusilla</i>					
Cypraeidae spp.	0	0	0	0	1
<i>Cystiscus huna</i>	0	0	0	0	5
Daphnellinae sp.	0	0	0	0	2
<i>Dentimargo pumila</i>					
<i>Diala scopulorum</i>	1	0	0	1	22
<i>Diala semistriata</i>	21	31	17	69	271
<i>Diala</i> sp.					
<i>Diniatys dentifer</i>					
<i>Diodora granifera</i>					
<i>Drupella</i> sp. A					
<i>Drupella</i> sp.					
<i>Eatoniella janetaylorae</i>	1	0	0	1	1
<i>Eatoniella pigmenta</i>					
<i>Eatoniella</i> sp.					
<i>Elachisina robertsoni</i>					
<i>Elacorbis callusa</i>					
<i>Emarginula dilecta</i>					
<i>Emarginula</i> sp.					
<i>Epitonium</i> spp.	0	0	0	0	2
<i>Erato sandwicensis</i>					
<i>Etrema acricula</i>	0	0	0	0	1
<i>Euchelus gemmatus</i>	1	0	0	1	7
<i>Euchelus</i> sp.					
<i>Eucithara angiostroma</i>	0	0	0	0	1
<i>Eucithara pusilla</i>					
<i>Eucithara</i> sp.					
<i>Eucylotoma albomacula</i>					
<i>Eulima peasei</i>	0	0	0	0	1
Eulimidae sp.	0	0	0	0	4
<i>Euplica varians</i>	0	0	0	0	3
<i>Evalea peasei</i>					
<i>Evalea waikikiensis</i>					
<i>Finella pupoides</i>	0	0	0	0	3
<i>Fusinus</i> sp.					
<i>Gemmula monilifera</i>					
<i>Gibbula marmorea</i>	0	0	0	0	2
<i>Glyphostoma kihikihi</i>	0	0	0	0	1

TABLE E.3—Continued

Taxon	No. of Individuals at C6			Total	Transect C Total
	1	2	3		
<i>Granula sandwicensis</i>	0	0	0	0	13
<i>Granulina vitrea</i>	1	5	0	6	13
<i>Granulina</i> sp.	1	0	0	1	15
<i>Gyrineum pusillum</i>	0	0	1	1	1
<i>Haminoea curta</i>	0	0	0	0	1
<i>Haminoea</i> sp.	1	0	0	1	1
<i>Heliacus implexus</i>					
<i>Heliacus</i> sp. A	0	0	0	0	1
<i>Heliacus</i> sp.	0	0	1	1	2
<i>Herviera gliriella</i>	2	3	3	8	19
<i>Herviera patricia</i>	0	0	0	0	2
<i>Hinemoa indica</i>	0	0	0	0	2
<i>Hipponix australis</i>	1	0	1	2	2
<i>Hipponix imbricatus</i>					
<i>Hipponix pilosus</i>	0	0	1	1	3
<i>Hipponix</i> sp.	0	0	0	0	4
<i>Hydatina</i> sp.					
<i>Ittibittium parcum</i>	4	5	3	12	12
<i>Julia exquisita</i>	3	2	1	6	8
<i>Juliidae</i> sp.	0	0	2	2	2
<i>Kermia aniani</i>					
<i>Kermia brunnea</i>					
<i>Kermia cylindrica</i>					
<i>Kermia daedalea</i>	0	0	0	0	1
<i>Kermia</i> sp.	0	0	0	0	1
<i>Kolonella hawaiiensis</i>	0	0	1	1	1
<i>Kolonella</i> sp.					
<i>Leptothyra rubricincta</i>	0	2	2	4	44
<i>Leptothyra verruca</i>	1	4	1	6	6
<i>Lienardia apiculata</i>					
<i>Lienardia mighelsi</i>					
<i>Liotiidae</i> sp.					
<i>Lophocochlias minutissimus</i>	17	13	17	47	214
<i>Lophocochlias</i> sp. A	2	0	0	2	8
<i>Lophocochlias</i> sp.					
<i>Meioceras sandwichensis</i>					
<i>Merelina granulosa</i>					
<i>Merelina hewa</i>	0	1	0	1	2
<i>Merelina wanawana</i>	0	0	0	0	1
<i>Metaxia albicephala</i>	0	0	0	0	2
<i>Metaxia brunnicephala</i>	0	0	0	0	1
<i>Metaxia</i> sp.					
<i>Microdaphne trichodes</i>	0	0	0	0	5
<i>Miralda paulbartschi</i>	1	0	0	1	2
<i>Miralda scopulorum</i>	0	1	0	1	1
<i>Miralda</i> sp.					
<i>Mitra earlei</i>					
<i>Mitra saltata</i>					
<i>Mitra</i> sp.	0	0	0	0	4
<i>Mitrella bella</i>					
<i>Mitrella loyaltensis</i>					
<i>Mitrella margarita</i>					

TABLE E.3—Continued

Taxon	No. of Individuals at C6			Total	Transect C Total
	1	2	3		
<i>Mitrella rorida</i>					
<i>Mitrolumna metula</i>					
<i>Modulus tectum</i>	1	0	0	1	1
<i>Morula</i> sp.	0	0	1	1	1
<i>Nassarius crematus</i>					
<i>Nassarius papillosus</i>					
<i>Nassarius</i> sp.					
<i>Natica bougei</i>					
<i>Natica gualteriana</i>	2	0	1	3	9
<i>Natica</i> sp.	0	0	0	0	3
<i>Nerita</i> spp.	0	0	0	0	7
<i>Neritopsis radula</i>					
<i>Nesiostomia quarta</i>					
<i>Nesiostomia</i> sp.	0	0	0	0	1
<i>Odostomia gulicki</i>	3	1	0	4	11
<i>Odostomia oxia</i>	0	0	0	0	1
<i>Odostomia stearnsiella</i>					
<i>Odostomia</i> sp. A					
<i>Odostomia</i> sp. B					
<i>Odostomia</i> sp.					
<i>Omalaxis</i> sp.					
<i>Omalogyra japonica</i>	1	0	0	1	7
<i>Omalogyra</i> spp.	0	0	0	0	1
<i>Orbitestella regina</i>	11	12	13	36	178
<i>Orbitestella</i> sp. A	0	0	0	0	2
<i>Orbitestella</i> sp. B	0	1	0	1	5
<i>Orbitestella</i> sp.	0	0	0	0	2
<i>Parashiela beetsi</i>	30	21	19	70	269
<i>Pelycidion habei</i>					
<i>Peristernia chlorostoma</i>					
<i>Phenacolepas scobinata</i>					
<i>Philippia oxytropis</i>					
<i>Philippia</i> sp.					
<i>Planaxis suturalis</i>	0	0	0	0	1
<i>Planaxis</i> sp.					
<i>Plesiotrochus luteus</i>	3	1	2	6	10
<i>Powellsetia fallax</i>					
<i>Prodotia iostomus</i>					
<i>Pseudodaphnella pulchella</i>					
<i>Pseudomalaxis</i> sp.					
<i>Pterygia pudica</i>					
<i>Pupa pudica</i>					
<i>Pupa tessellata</i>					
<i>Pupa</i> sp.					
<i>Pusillina marmorata</i>	27	35	25	87	608
<i>Pyramidella sulcata</i>					
<i>Pyramidella</i> sp. A	0	0	0	0	3
<i>Pyramidella</i> sp. B					
<i>Pyramidella</i> sp. C					
<i>Pyramidella</i> sp. D					
<i>Pyramidella</i> spp.					
<i>Pyramidellidae</i> sp. A					

TABLE E.3—Continued

Taxon	No. of Individuals at C6				Transect C Total
	1	2	3	Total	
Pyramidellidae sp. B					
Pyramidellidae sp. C					
Pyramidellidae sp. D					
Pyramidellidae sp.	0	0	0	0	14
<i>Pyramidelloides angusta</i>					
<i>Pyramidelloides gracilis</i>	0	0	1	1	3
<i>Pyramidelloides suta</i>	0	0	0	0	1
<i>Pyrgulina oodes</i>	0	1	0	1	1
<i>Pyrgulina</i> sp.					
<i>Rastodens</i> sp.					
<i>Rhinoclavis articulata</i>					
<i>Rissoella</i> sp.	3	1	1	5	19
Rissoidae spp.	0	0	0	0	23
<i>Rissoina ambigua</i>	0	4	1	5	10
<i>Rissoina cerithiiformis</i>	1	0	0	1	15
<i>Rissoina costata</i>	2	0	1	3	3
<i>Rissoina imbricata</i>					
<i>Rissoina pulchella</i>	0	0	0	0	2
<i>Rissoina</i> sp.					
<i>Rufodardanula ponderi</i>	0	0	0	0	5
<i>Rufodardanula</i> sp.					
<i>Sansonia kenneyi</i>	0	0	0	0	4
<i>Sansonia</i> sp. A	0	0	0	0	1
<i>Sansonia</i> spp.					
<i>Scabricola casta</i>					
<i>Scalenostoma</i> sp.					
<i>Scaliola</i> spp.	14	16	9	39	153
<i>Scaphander</i> sp.	0	0	0	0	1
<i>Schwartziella ephamilla</i>	0	9	5	14	49
<i>Schwartziella triticea</i>					
<i>Scissurella coronata</i>					
<i>Scissurella pseudoequatoria</i>	1	0	0	1	3
<i>Seminella peasei</i>	0	0	0	0	1
<i>Seminella smithi</i>					
<i>Sinezona insignis</i>	1	1	0	2	6
<i>Smaragdia bryanae</i>	0	1	0	1	2
<i>Stilifer</i> sp.					
<i>Stosicia hiloense</i>	0	0	0	0	1
<i>Strebloceras subannulatum</i>	0	2	0	2	10
<i>Strombus helli</i>					
<i>Strombus maculatus</i>					
<i>Styliferina goniochila</i>	1	3	1	5	23
<i>Synaptocochlea concinna</i>					
<i>Terebra</i> spp.	0	0	1	1	1
<i>Thala milium</i>					
<i>Tricolia variabilis</i>	62	44	27	133	450
<i>Triphora</i> spp.	8	6	5	19	75
<i>Tritonoturris</i> sp. A					
<i>Trivia globosa pilula</i>					
<i>Trivia hordacea</i>					
<i>Trivia pellucida</i>					
<i>Trivia</i> spp.	0	0	0	0	1

TABLE E.3—Continued

Taxon	No. of Individuals at C6				Transect C Total
	1	2	3	Total	
<i>Trochus intextus</i>	0	0	0	0	1
<i>Trochus</i> sp.					
<i>Tugali oblongata</i>					
<i>Tugali</i> sp.					
<i>Turbo sandwicensis</i>	1	0	0	1	2
<i>Turbonilla cornelliana</i>	0	0	0	0	1
<i>Turbonilla thaanumi</i>	1	2	0	3	3
<i>Turbonilla</i> sp. A					
<i>Turbonilla</i> sp. B					
<i>Turbonilla</i> sp. C	0	0	0	0	1
<i>Turbonilla</i> sp. D					
<i>Turbonilla</i> sp. E	1	0	0	1	4
<i>Turbonilla</i> sp. F					
<i>Turbonilla</i> spp.	1	0	0	1	1
Turridae sp.	0	0	0	0	4
<i>Umbraculum sinicum</i>					
<i>Umbraculum</i> sp.					
<i>Vanikoro cancellata</i>					
<i>Vanikoro</i> sp.					
<i>Vepracula brunonia</i>					
Vermetidae spp.	8	3	4	15	50
<i>Vexillum adamsianum</i>					
<i>Vexillum approximatum</i>					
<i>Vexillum cosmani</i>					
<i>Vexillum interruptum</i>					
<i>Vexillum pacificum</i>					
<i>Vexillum rubrum</i>					
<i>Vexillum rufofilosum</i>					
<i>Vexillum tusum</i>	0	0	0	0	1
<i>Vexillum</i> sp. A					
<i>Vexillum</i> sp.					
Vitrinellidae sp.					
<i>Volvarina fusiformis</i>	0	0	1	1	1
<i>Williamia radiata</i>	0	1	0	1	9
<i>Xenuroturrus</i> sp.					
<i>Zebina bidentata</i>					
<i>Zebina</i> sp.	1	0	0	1	4
<i>Gastropoda</i> sp. A	2	2	0	4	11
<i>Gastropoda</i> spp.					
SCAPHOPODA					
Scaphopoda sp.					
POLYPLACOPHORA					
Polyplacophora sp.	1	1	0	2	2
Total No. of Individuals	344	336	247	927	3,972
Total No. of Individuals/cm ³	22.9	22.4	16.5	20.6	17.7
Total No. of Taxa	58	51	45	91	168

^a*Pinna* sp. are indicated by a "+" for larval shells and by "frag" for shell fragments.

TABLE E.4. Taxon Abundance from Three Replicates for Mollusk Components, Sand Island Ocean Outfall Sampling Stations D1 and D2, O'ahu, Hawai'i, August 2002

Taxon	No. of Individuals at D1				No. of Individuals at D2			
	1	2	3	Total	1	2	3	Total
BIVALVIA								
<i>Acar cf. plicata</i>								
<i>Adipicola cf. crypta</i>								
<i>Amygdalum newcombi</i>								
<i>Amygdalum sp.</i>	0	0	0	0	0	0	0	0
<i>Anguipecten cf. lamberti</i>								
<i>Anisodonta lutea</i>								
<i>Anomia nobilis</i>								
<i>Arca kauaia</i>	0	0	0	0	2	2	2	6
<i>Arcidae sp.</i>	0	1	0	1	0	0	0	0
<i>Barbatia divaricata</i>								
<i>Barbatia lima</i>								
<i>Barbatia nuttingi</i>								
<i>Barbatia sp.</i>								
<i>Brachidontes crebristriatus</i>	0	0	0	0	0	0	0	0
<i>Cardita thaanumi</i>								
<i>Cardita sp.</i>								
<i>Carditella hawaiiensis</i>	0	0	0	0	0	0	0	0
<i>Carditella sp.</i>								
<i>Chlamydella sp. A</i>								
<i>Chlamys coruscans hawaiiensis</i>								
<i>Chlamys kauaiensis</i>								
<i>Chlamys sp. B</i>								
<i>Chlamys sp.</i>	0	0	0	0	0	0	0	0
<i>Codakia punctata</i>								
<i>Cosa waikikia</i>								
<i>Crenella sp.</i>								
<i>Ctena bella</i>								
<i>Ctena transversa</i>	3	0	0	3	0	0	0	0
<i>Ctena sp.</i>	0	0	0	0	0	0	0	0
<i>Cuspidaria hawaiiensis</i>								
<i>Cuspidaria pailoana</i>								
<i>Epicodakia sp.</i>	0	0	0	0	0	0	0	0
<i>Ervilia biscalpta</i>	19	11	12	42	6	5	6	17
<i>Euciroa pacifica</i>								
<i>Fragum mundum</i>	0	0	0	0	0	0	0	0
<i>Gastrochaena sp.</i>								
<i>Glycymeris sp.</i>								
<i>Grammatomya kanaka</i>								
<i>Haumea juddi</i>	0	0	0	0	0	0	0	0
<i>Hiatella arctica</i>								
<i>Hitia ovalis</i>								
<i>Kellia hawaiiensis</i>	0	0	0	0	0	0	0	0
<i>Kona symmetrica</i>								
<i>Leptonacea sp.</i>								
<i>Lima keokea</i>								
<i>Lima sp.</i>								
<i>Limopsis sp.</i>								
<i>Lioconcha hieroglyphica</i>								
<i>Lonoa hawaiiensis</i>								
<i>Lucina edentula</i>								

TABLE E.4—Continued

Taxon	No. of Individuals at D1				No. of Individuals at D2			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Macoma dispar</i>	0	0	0	0	0	0	0	0
<i>Macoma obliquilineata</i>	0	0	0	0	0	0	0	0
<i>Mactra thaanumi</i>	0	0	0	0	0	0	0	0
<i>Mactra</i> sp.								
<i>Malleus regula</i>								
<i>Malleus</i> sp.								
<i>Modiolus</i> sp.								
Mytilidae sp. A								
Mytilidae sp. B								
Mytilidae sp. C								
Mytilidae sp.	0	0	0	0	0	0	0	0
<i>Nemocardium thaanumi</i>								
<i>Nemocardium</i> sp.								
<i>Nucula hawaiiensis</i>								
<i>Ostrea</i> sp.								
Pectinidae sp. A								
<i>Pillucina hawaiiensis</i>								
<i>Pillucina spaldingi</i>								
<i>Pillucina</i> sp.								
<i>Pinna</i> sp. ^a	++	+	+	+	+	+	+	+
<i>Poromya transversa</i>								
Propeamusiidae sp.								
<i>Preria</i> sp.	0	0	0	0	0	0	0	0
<i>Rochefortina sandwichensis</i>	7	0	0	7	0	0	0	0
<i>Rochefortina</i> sp.								
<i>Scintilla hiloa</i>	0	0	0	0	0	0	0	0
<i>Semelangulus crebrimaculatus</i>								
<i>Semelangulus</i> sp.								
<i>Semele australis</i>								
<i>Septifer bryanae</i>	0	0	0	0	0	0	0	0
<i>Septifer</i> sp.	0	0	0	0	0	0	0	0
<i>Spondylus</i> sp.								
<i>Tellina oahuana</i>								
<i>Tellina robusta</i>	0	0	0	0	0	0	0	0
<i>Tellina</i> sp. A								
<i>Tellina</i> sp. B								
<i>Tellina</i> sp. C								
<i>Tellina</i> sp.	1	0	0	1	0	0	0	0
Bivalvia sp. A								
Bivalvia sp. B								
Bivalvia sp. C								
Bivalvia spp.	0	0	1	1	0	0	11	11
GASTROPODA								
<i>Acteocina hawaiiensis</i>	0	0	0	0	0	0	0	0
<i>Acteocina sandwicensis</i>	15	0	0	15	11	12	17	40
<i>Acteocina</i> sp. A	0	0	0	0	0	0	0	0
<i>Acteocina</i> sp.	7	15	0	22	21	15	0	36
<i>Alcyna ocellata</i>	0	0	0	0	0	0	0	0
<i>Alcyna subangulata</i>	0	0	0	0	0	0	0	0
<i>Alvania isolata</i>	0	0	0	0	0	0	0	0
<i>Anacithara perfecta</i>								

TABLE E.4—Continued

Taxon	No. of Individuals at D1				No. of Individuals at D2			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Antisabia foliacea</i>								
Aplysiidae	0	0	0	0	0	0	0	0
Architectonicidae sp.	1	0	1	2	0	0	1	1
<i>Argyropeza leucocephala</i>								
<i>Argyropeza</i> sp.								
<i>Aspella producta</i>								
<i>Aspella</i> sp.								
<i>Atys curta</i>								
<i>Atys debilis</i>								
<i>Atys semistriata</i>	0	0	0	0	0	0	0	0
<i>Atys</i> sp.	0	0	0	0	0	0	0	0
<i>Balcis</i> cf. <i>brunnimaculata</i>								
<i>Balcis</i> spp.	49	25	14	88	29	34	29	92
<i>Barleeia calcarea</i>								
<i>Benthonella</i> sp.								
<i>Bittium impendens</i>	0	0	0	0	0	0	0	0
<i>Bittium</i> sp.								
<i>Brookula hawaiiensis</i>								
<i>Brookula iki</i>	0	0	0	0	0	0	0	0
<i>Brookula</i> sp.								
Buccinidae sp.								
<i>Bulla vermicosa</i>	0	0	0	0	0	0	0	0
<i>Bulla</i> sp.	0	0	0	0	1	0	0	1
<i>Bullina scabra</i>								
<i>Caecum arcuatum</i>								
<i>Caecum</i> cf. <i>glabella</i>								
<i>Caecum</i> cf. <i>glabriformis</i>								
<i>Caecum oahuense</i>								
<i>Caecum sepimentum</i>	0	0	0	0	0	0	0	0
<i>Caecum</i> sp. A								
<i>Caecum</i> sp.	0	0	0	0	2	0	1	3
<i>Cancilla granatina</i>	0	0	0	0	1	0	1	2
<i>Cancilla</i> sp.	0	1	0	1	0	0	0	0
<i>Cantharus</i> sp.								
Capulidae sp.								
<i>Carinapex minutissima</i>	0	0	0	0	0	0	0	0
<i>Carinapex papillosa</i>								
Cephalaspidea sp.	0	0	0	0	0	0	0	0
<i>Cerithidium diplax</i>	0	0	0	0	48	17	0	65
<i>Cerithidium perparvulum</i>	42	7	0	49	95	117	99	311
<i>Cerithiopsis</i> spp.								
<i>Cerithium atromarginatum</i>								
<i>Cerithium columna</i>								
<i>Cerithium glareosum</i>								
<i>Cerithium interstriatum</i>	0	3	0	3	0	0	0	0
<i>Cerithium nesioticum</i>								
<i>Cerithium rostratum</i>								
<i>Cerithium zebrum</i>								
<i>Cerithium</i> spp.	0	16	4	20	0	1	0	1
<i>Ceritoturris bittium</i>	0	0	0	0	0	0	0	0
<i>Circulus</i> sp.								
<i>Cirsotrema varicosa</i>								

TABLE E.4—Continued

Taxon	No. of Individuals at D1				No. of Individuals at D2			
	1	Replicate 2	3	Total	1	Replicate 2	3	Total
<i>Clavus pusilla</i>								
<i>Clavus</i> sp.	0	0	0	0	0	0	0	0
<i>Collonista candida</i>								
<i>Conus pulicarius</i>								
<i>Conus quercinus</i>								
<i>Conus</i> sp.								
Coralliophilidae sp.								
Costellariidae sp.								
<i>Crepidula aculeata</i>								
<i>Crucibulum spinosum</i>								
<i>Cycloscala hyalina</i>								
<i>Cyclostremiscus emeryi</i>	2	1	1	4	4	4	2	10
<i>Cyclostremiscus striatus</i>								
<i>Cyclostremiscus</i> sp. A	2	0	0	2	0	0	0	0
<i>Cylichna pusilla</i>	0	0	0	0	0	0	4	4
Cypraeidae spp.								
<i>Cystiscus huna</i>	0	2	0	2	0	0	0	0
Daphnellinae sp.	0	0	0	0	0	1	0	1
<i>Dentimargo pumila</i>								
<i>Diala scopulorum</i>	41	12	16	69	0	0	0	0
<i>Diala semistriata</i>	18	0	0	18	11	19	37	67
<i>Diala</i> sp.								
<i>Diniatys dentifer</i>	0	0	0	0	0	0	0	0
<i>Diodora granifera</i>	0	0	0	0	0	0	0	0
<i>Drupella</i> sp. A								
<i>Drupella</i> sp.								
<i>Eatoniella janetaylorae</i>								
<i>Eatoniella pigmenta</i>								
<i>Eatoniella</i> sp.								
<i>Elachisina robertsoni</i>								
<i>Elacorbis callusa</i>								
<i>Emarginula dilecta</i>								
<i>Emarginula</i> sp.								
<i>Epitonium</i> spp.	6	3	1	10	0	0	0	0
<i>Erato sandwicensis</i>	0	0	0	0	0	1	0	1
<i>Etrema acricula</i>								
<i>Euchelus gemmatus</i>	0	0	0	0	3	1	0	4
<i>Euchelus</i> sp.								
<i>Eucithara angiostoma</i>								
<i>Eucithara pusilla</i>	1	0	0	1	0	0	0	0
<i>Eucithara</i> sp.								
<i>Eucyrtoma albomacula</i>								
<i>Eulima peasei</i>								
Eulimidae sp.								
<i>Euplica varians</i>								
<i>Evalea peasei</i>								
<i>Evalea waikikiensis</i>								
<i>Finella pupoides</i>	178	86	82	346	80	49	81	210
<i>Fusinus</i> sp.								
<i>Gemmula monilifera</i>								
<i>Gibbula marmorea</i>	0	0	0	0	0	0	0	0
<i>Glyphostoma kihikihi</i>								

TABLE E.4—Continued

Taxon	No. of Individuals at D1				No. of Individuals at D2			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Granula sandwicensis</i>	0	0	0	0	0	0	0	0
<i>Granulina vitrea</i>	0	1	0	1	3	0	2	5
<i>Granulina</i> sp.	2	2	2	6	0	0	1	1
<i>Gyrineum pusillum</i>	0	1	0	1	0	0	0	0
<i>Haminoea curta</i>	0	0	0	0	0	2	0	2
<i>Haminoea</i> sp.	0	0	0	0	0	0	0	0
<i>Heliacus implexus</i>	0	0	0	0	0	0	0	0
<i>Heliacus</i> sp. A								
<i>Heliacus</i> sp.	0	0	0	0	0	0	0	0
<i>Herviera gliriella</i>								
<i>Herviera patricia</i>								
<i>Hinemoa indica</i>	0	0	0	0	0	0	0	0
<i>Hipponix australis</i>	0	0	0	0	0	0	0	0
<i>Hipponix imbricatus</i>								
<i>Hipponix pilosus</i>								
<i>Hipponix</i> sp.								
<i>Hydatina</i> sp.								
<i>Ittibittium parcum</i>	0	0	0	0	0	0	0	0
<i>Julia exquisita</i>								
Juliidae sp.								
<i>Kermia aniani</i>								
<i>Kermia brunnea</i>								
<i>Kermia cylindrica</i>								
<i>Kermia daedalea</i>								
<i>Kermia</i> sp.								
<i>Kooloonella hawaiiensis</i>								
<i>Kooloonella</i> sp.	18	6	7	31	1	0	0	1
<i>Leptothyra rubricincta</i>	0	0	0	0	0	0	0	0
<i>Leptothyra verruca</i>	0	0	0	0	0	0	0	0
<i>Lienardia apiculata</i>								
<i>Lienardia mighelsi</i>								
Liotiidae sp.	0	0	0	0	0	0	0	0
<i>Lophocochlias minutissimus</i>	1	4	1	6	4	5	4	13
<i>Lophocochlias</i> sp. A	0	0	0	0	0	0	0	0
<i>Lophocochlias</i> sp.	0	0	0	0	0	0	0	0
<i>Meioceras sandwicensis</i>								
<i>Merelina granulosa</i>								
<i>Merelina hewa</i>								
<i>Merelina wanawana</i>	0	0	0	0	0	0	0	0
<i>Metaxia albicephala</i>								
<i>Metaxia brunnicephala</i>								
<i>Metaxia</i> sp.	0	0	0	0	0	0	0	0
<i>Microdaphne trichodes</i>	0	0	0	0	0	0	0	0
<i>Miralda paulbarschi</i>	0	1	0	1	0	0	0	0
<i>Miralda scopulorum</i>	0	0	0	0	0	0	0	0
<i>Miralda</i> sp.								
<i>Mitra earlei</i>	0	2	0	2	0	0	0	0
<i>Mitra saltata</i>								
<i>Mitra</i> sp.								
<i>Mitrella bella</i>								
<i>Mitrella loyaltensis</i>								
<i>Mitrella margarita</i>								

TABLE E.4—Continued

Taxon	No. of Individuals at D1				No. of Individuals at D2			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Mitrella rorida</i>								
<i>Mitrolumna metula</i>								
<i>Modulus tectum</i>								
<i>Morula</i> sp.	0	0	0	0	0	0	0	0
<i>Nassarius crematus</i>								
<i>Nassarius papillosus</i>								
<i>Nassarius</i> sp.								
<i>Natica bougei</i>								
<i>Natica gualteriana</i>	0	0	0	0	0	0	0	0
<i>Natica</i> sp.	9	5	4	18	3	3	3	9
<i>Nerita</i> spp.	1	0	0	1	0	0	0	0
<i>Neritopsis radula</i>								
<i>Nesiodostomia quarta</i>								
<i>Nesiodostomia</i> sp.	0	0	0	0	0	0	0	0
<i>Odostomia gulicki</i>	0	0	0	0	0	0	0	0
<i>Odostomia oxia</i>								
<i>Odostomia stearnsiella</i>	1	0	0	1	0	0	0	0
<i>Odostomia</i> sp. A								
<i>Odostomia</i> sp. B								
<i>Odostomia</i> sp.	0	0	0	0	0	0	0	0
<i>Omalaxis</i> sp.								
<i>Omalogyra japonica</i>	0	0	0	0	0	0	0	0
<i>Omalogyra</i> spp.	0	0	0	0	0	0	0	0
<i>Orbitestella regina</i>	2	0	1	3	0	2	3	5
<i>Orbitestella</i> sp. A								
<i>Orbitestella</i> sp. B	0	0	0	0	0	0	0	0
<i>Orbitestella</i> sp.	0	0	0	0	0	3	0	3
<i>Parashiela beetsi</i>	7	3	2	12	22	12	24	58
<i>Pelycidion habei</i>								
<i>Peristernia chlorostoma</i>								
<i>Phenacolepas scobinata</i>								
<i>Philippia oxytropis</i>								
<i>Philippia</i> sp.								
<i>Planaxis suturalis</i>								
<i>Planaxis</i> sp.								
<i>Plesiotrochus luteus</i>								
<i>Powellsetia fallax</i>								
<i>Prodotia iostomus</i>								
<i>Pseudodaphnella pulchella</i>	0	0	0	0	0	0	0	0
<i>Pseudomalaxis</i> sp.								
<i>Pterygia pudica</i>								
<i>Pupa pudica</i>								
<i>Pupa tessellata</i>								
<i>Pupa</i> sp.	2	2	0	4	0	0	0	0
<i>Pusillina marmorata</i>	30	19	21	70	0	14	22	36
<i>Pyramidella sulcata</i>	0	0	0	0	0	0	0	0
<i>Pyramidella</i> sp. A								
<i>Pyramidella</i> sp. B								
<i>Pyramidella</i> sp. C	2	2	0	4	0	0	0	0
<i>Pyramidella</i> sp. D	2	5	4	11	0	0	0	0
<i>Pyramidella</i> spp.	0	0	0	0	0	9	7	16
<i>Pyramidellidae</i> sp. A								

TABLE E.4—Continued

Taxon	No. of Individuals at D1				No. of Individuals at D2			
	1	Replicate 2	3	Total	1	Replicate 2	3	Total
Pyramidellidae sp. B								
Pyramidellidae sp. C	0	0	0	0	0	0	1	1
Pyramidellidae sp. D								
Pyramidellidae sp.	0	0	0	0	0	0	0	0
<i>Pyramidelloides angusta</i>								
<i>Pyramidelloides gracilis</i>								
<i>Pyramidelloides suta</i>								
<i>Pyrgulina oodes</i>	9	6	0	15	0	0	0	0
<i>Pyrgulina</i> sp.	0	0	0	0	0	0	0	0
<i>Rastodens</i> sp.								
<i>Rhinoclavis articulata</i>								
<i>Rissoella</i> sp.	0	0	0	0	0	0	0	0
Rissoidae spp.								
<i>Rissoina ambigua</i>								
<i>Rissoina cerithiiformis</i>	0	0	0	0	0	1	1	2
<i>Rissoina costata</i>	0	0	0	0	0	0	2	2
<i>Rissoina imbricata</i>								
<i>Rissoina pulchella</i>	0	0	0	0	0	0	0	0
<i>Rissoina</i> sp.	0	0	0	0	0	6	0	6
<i>Rufodardanula ponderi</i>	0	0	0	0	0	0	0	0
<i>Rufodardanula</i> sp.								
<i>Sansonia kenneyi</i>								
<i>Sansonia</i> sp. A								
<i>Sansonia</i> spp.								
<i>Scabricola casta</i>								
<i>Scalenostoma</i> sp.								
<i>Scaliola</i> spp.	7	3	2	12	37	0	40	77
<i>Scaphander</i> sp.								
<i>Schwartziella ephamilla</i>	0	0	0	0	0	2	0	2
<i>Schwartziella triticea</i>	0	0	0	0	0	0	0	0
<i>Scissurella coronata</i>								
<i>Scissurella pseudoequatoria</i>								
<i>Seminella peasei</i>								
<i>Seminella smithi</i>	0	0	0	0	0	0	0	0
<i>Sinezona insignis</i>	0	0	0	0	0	0	0	0
<i>Smaragdia bryanae</i>								
<i>Stilifer</i> sp.								
<i>Stosicia hiloense</i>	0	0	0	0	0	0	0	0
<i>Strebloceras subannulatum</i>	0	0	0	0	0	0	0	0
<i>Strombus helii</i>								
<i>Strombus maculatus</i>								
<i>Styliferina goniochila</i>	0	0	0	0	0	0	0	0
<i>Synaptocochlea concinna</i>	0	0	0	0	0	0	0	0
<i>Terebra</i> spp.	0	0	0	0	0	0	0	0
<i>Thala milium</i>								
<i>Tricolia variabilis</i>	8	6	1	15	0	0	0	0
<i>Triphora</i> spp.	0	0	1	1	0	1	0	1
<i>Tritonoturris</i> sp. A								
<i>Trivia globosa pilula</i>								
<i>Trivia hordacea</i>								
<i>Trivia pellucida</i>								
<i>Trivia</i> spp.								

TABLE E.4—Continued

Taxon	No. of Individuals at D1				No. of Individuals at D2			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Trochus intextus</i>								
<i>Trochus</i> sp.	0	0	0	0	0	0	0	0
<i>Tugali oblonga</i>								
<i>Tugali</i> sp.	1	0	0	1	0	0	0	0
<i>Turbo sandwicensis</i>	0	0	0	0	0	0	0	0
<i>Turbonilla cornelliana</i>	0	1	2	3	0	0	0	0
<i>Turbonilla thaanumi</i>								
<i>Turbonilla</i> sp. A								
<i>Turbonilla</i> sp. B								
<i>Turbonilla</i> sp. C								
<i>Turbonilla</i> sp. D								
<i>Turbonilla</i> sp. E	0	0	0	0	0	0	0	0
<i>Turbonilla</i> sp. F								
<i>Turbonilla</i> spp.	0	0	0	0	0	0	0	0
Turridae sp.	0	0	0	0	0	3	1	4
<i>Umbraculum sinicum</i>								
<i>Umbraculum</i> sp.								
<i>Vanikoro cancellata</i>								
<i>Vanikoro</i> sp.								
<i>Vepracula brunonia</i>	0	0	1	1	1	0	0	1
Vermetidae spp.	0	0	0	0	0	0	0	0
<i>Vexillum adamsianum</i>								
<i>Vexillum approximatum</i>								
<i>Vexillum cosmani</i>								
<i>Vexillum interruptum</i>								
<i>Vexillum pacificum</i>								
<i>Vexillum rubrum</i>								
<i>Vexillum rufofilosum</i>								
<i>Vexillum tusum</i>								
<i>Vexillum</i> sp. A								
<i>Vexillum</i> sp.								
Vitrinellidae sp.								
<i>Volvarina fusiformis</i>								
<i>Williamia radiata</i>	1	0	0	1	0	0	0	0
<i>Xenuroturris</i> sp.	0	0	0	0	0	0	1	1
<i>Zebina bidentata</i>								
<i>Zebina</i> sp.								
<i>Gastropoda</i> sp. A								
<i>Gastropoda</i> spp.	0	0	0	0	0	0	0	0
SCAPHOPODA								
Scaphopoda sp.								
POLYPLACOPHORA								
Polyplacophora sp.								
Total No. of Individuals	495	252	181	928	385	341	403	1,129
Total No. of Individuals/cm ³	33.0	16.8	12.1	20.6	25.7	22.7	26.9	25.1
Total No. of Taxa	34	31	23	47	22	28	28	42

^a*Pinna* sp. are indicated by a "+" for larval shells and by "frag" for shell fragments.

TABLE E.5. Taxon Abundance from Three Replicates for Mollusk Components, Sand Island Ocean Outfall Sampling Stations D3A and D5, O'ahu, Hawai'i, August 2002

Taxon	No. of Individuals at D3A				No. of Individuals at D5			
	1	2	3	Total	1	2	3	Total
BIVALVIA								
<i>Acar cf. plicata</i>								
<i>Adipicola cf. crypta</i>								
<i>Amygdalum newcombi</i>								
<i>Amygdalum sp.</i>	0	0	0	0	0	2	0	2
<i>Anguipecten cf. lamberti</i>								
<i>Anisodonta lutea</i>								
<i>Anomia nobilis</i>								
<i>Arca kauaia</i>	0	0	0	0	0	0	0	0
Arcidae sp.	1	0	0	1	0	0	0	0
<i>Barbatia divaricata</i>								
<i>Barbatia lima</i>								
<i>Barbatia nuttingi</i>								
<i>Barbatia sp.</i>								
<i>Brachidontes crebristriatus</i>	0	0	0	0	0	2	0	2
<i>Cardita thaanumi</i>								
<i>Cardita sp.</i>								
<i>Carditella hawaiiensis</i>	1	1	0	2	0	0	0	0
<i>Carditella sp.</i>								
<i>Chlamydella sp. A</i>								
<i>Chlamys coruscans hawaiiensis</i>								
<i>Chlamys kauaiensis</i>								
<i>Chlamys sp. B</i>								
<i>Chlamys sp.</i>	0	0	0	0	0	0	1	1
<i>Codakia punctata</i>								
<i>Cosa waikikia</i>								
<i>Crenella sp.</i>								
<i>Ctena bella</i>								
<i>Ctena transversa</i>	0	0	0	0	3	0	0	3
<i>Ctena sp.</i>	0	0	0	0	0	0	1	1
<i>Cuspidaria hawaiiensis</i>								
<i>Cuspidaria pailoana</i>								
<i>Epicodakia sp.</i>	0	0	0	0	0	1	2	3
<i>Ervilia biscalpta</i>	0	0	0	0	21	7	16	44
<i>Euciroa pacifica</i>								
<i>Fragum mundum</i>	0	0	0	0	1	0	0	1
<i>Gastrochaena sp.</i>								
<i>Glycymeris sp.</i>								
<i>Grammatomya kanaka</i>								
<i>Haumea juddi</i>	0	0	0	0	0	3	0	3
<i>Hiatella arctica</i>								
<i>Hitia ovalis</i>								
<i>Kellia hawaiiensis</i>	0	0	0	0	0	1	0	1
<i>Kona symmetrica</i>								
Leptonacea sp.								
<i>Lima keokea</i>								
<i>Lima sp.</i>								
<i>Limopsis sp.</i>								
<i>Lioconcha hieroglyphica</i>								
<i>Lonoa hawaiiensis</i>								
<i>Lucina edentula</i>								

TABLE E.5—Continued

Taxon	No. of Individuals at D3A				No. of Individuals at D5			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Macoma dispar</i>	0	0	0	0	0	0	0	0
<i>Macoma obliquilineata</i>	0	0	0	0	0	0	0	0
<i>Macra thaanumi</i>	0	0	0	0	0	0	0	0
<i>Macra</i> sp.								
<i>Malleus regula</i>								
<i>Malleus</i> sp.								
<i>Modiolus</i> sp.								
Mytilidae sp. A								
Mytilidae sp. B								
Mytilidae sp. C							1	1
Mytilidae sp.	0	0	0	0	0	0	1	1
<i>Nemocardium thaanumi</i>								
<i>Nemocardium</i> sp.								
<i>Nucula hawaiiensis</i>								
<i>Ostrea</i> sp.								
Pectinidae sp. A								
<i>Pillucina hawaiiensis</i>								
<i>Pillucina spaldingi</i>								
<i>Pillucina</i> sp.								
<i>Pinna</i> sp. ^a	+	+	frag+	frag+	+	+	+	+
<i>Poromya transversa</i>								
Propeamusiidae sp.								
<i>Pteria</i> sp.	0	0	0	0	0	1	0	1
<i>Rocheffortina sandwichensis</i>	0	0	0	0	0	0	0	0
<i>Rocheffortina</i> sp.								
<i>Scintilla hiloa</i>	0	0	0	0	0	0	0	0
<i>Semelangulus crebrimaculatus</i>								
<i>Semelangulus</i> sp.								
<i>Semele australis</i>							1	1
<i>Septifer bryanae</i>	0	0	0	0	0	0	1	1
<i>Septifer</i> sp.	0	0	0	0	1	0	0	1
<i>Spondylus</i> sp.								
<i>Tellina oahuana</i>								
<i>Tellina robusta</i>	0	0	0	0	1	1	0	2
<i>Tellina</i> sp. A								
<i>Tellina</i> sp. B								
<i>Tellina</i> sp. C								
<i>Tellina</i> sp.	0	0	0	0	3	1	4	8
<i>Bivalvia</i> sp. A								
<i>Bivalvia</i> sp. B								
<i>Bivalvia</i> sp. C								
<i>Bivalvia</i> spp.	1	3	2	6	0	0	0	0
GASTROPODA								
<i>Acteocina hawaiiensis</i>	0	0	0	0	0	0	0	0
<i>Acteocina sandwichensis</i>	0	0	0	0	16	11	0	27
<i>Acteocina</i> sp. A	0	2	0	2	0	0	0	0
<i>Acteocina</i> sp.	4	4	3	11	0	0	10	10
<i>Alcyna ocellata</i>	0	0	0	0	1	0	1	2
<i>Alcyna subangulata</i>	0	0	0	0	0	2	0	2
<i>Alvania isolata</i>	0	0	0	0	2	0	0	2
<i>Anacithara perfecta</i>								

TABLE E.5—Continued

Taxon	No. of Individuals at D3A				No. of Individuals at D5			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Antisabia foliacea</i>								
Aplysiidae	0	0	0	0	0	1	0	1
Architectonicidae sp.	0	0	0	0	0	0	0	0
<i>Argyropeza leucocephala</i>								
<i>Argyropeza</i> sp.								
<i>Aspella producta</i>								
<i>Aspella</i> sp.								
<i>Atys curta</i>								
<i>Atys debilis</i>								
<i>Atys semistriata</i>	0	0	0	0	0	0	1	1
<i>Atys</i> sp.	0	0	0	0	0	0	2	2
<i>Balcis</i> cf. <i>brunnimaculata</i>								
<i>Balcis</i> spp.	17	7	8	32	21	20	36	77
<i>Barleeia calcarea</i>								
<i>Benthonella</i> sp.								
<i>Bittium impendens</i>	0	0	0	0	2	0	0	2
<i>Bittium</i> sp.								
<i>Brookula hawaiiensis</i>								
<i>Brookula iki</i>	0	0	0	0	2	0	0	2
<i>Brookula</i> sp.								
Buccinidae sp.								
<i>Bulla vernicosa</i>	0	0	0	0	0	0	0	0
<i>Bulla</i> sp.	0	0	0	0	0	0	0	0
<i>Bullina scabra</i>								
<i>Caecum arcuatum</i>								
<i>Caecum</i> cf. <i>glabella</i>								
<i>Caecum</i> cf. <i>glabriformis</i>								
<i>Caecum oahuense</i>								
<i>Caecum sepimentum</i>	0	0	0	0	0	1	0	1
<i>Caecum</i> sp. A								
<i>Caecum</i> sp.	0	3	0	3	0	0	0	0
<i>Cancilla granatina</i>	0	0	0	0	0	0	0	0
<i>Cancilla</i> sp.	0	0	0	0	0	0	0	0
<i>Cantharus</i> sp.								
Capulidae sp.								
<i>Carinapex minutissima</i>	0	0	0	0	0	1	0	1
<i>Carinapex papillosa</i>								
<i>Cephalaspidea</i> sp.	0	0	0	0	3	0	0	3
<i>Cerithidium diplax</i>	0	0	0	0	7	2	13	22
<i>Cerithidium perparvulum</i>	12	20	19	51	16	15	16	47
<i>Cerithiopsis</i> spp.								
<i>Cerithium atromarginatum</i>								
<i>Cerithium columna</i>								
<i>Cerithium glareosum</i>								
<i>Cerithium interstriatum</i>	0	0	0	0	0	2	0	2
<i>Cerithium nesioticum</i>								
<i>Cerithium rostratum</i>								
<i>Cerithium zebrum</i>								
<i>Cerithium</i> spp.	0	4	7	11	0	0	0	0
<i>Ceritoturris bittium</i>	0	0	0	0	1	0	0	1
<i>Circulus</i> sp.								
<i>Cirsotrema varicosa</i>								

TABLE E.5—Continued

Taxon	No. of Individuals at D3A				No. of Individuals at D5			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Clavus pusilla</i>	0	0	1	1	0	0	0	0
<i>Clavus</i> sp.	0	0	1	1	0	0	0	0
<i>Collonista candida</i>								
<i>Conus pulicarius</i>								
<i>Conus quercinus</i>								
<i>Conus</i> sp.								
Coralliophilidae sp.								
Costellariidae sp.								
<i>Crepidula aculeata</i>								
<i>Crucibulum spinosum</i>								
<i>Cycloscala hyalina</i>								
<i>Cyclostremiscus emeryi</i>	5	8	0	13	0	0	0	0
<i>Cyclostremiscus striatus</i>	0	0	0	0	0	0	0	0
<i>Cyclostremiscus</i> sp. A	0	0	0	0	0	0	0	0
<i>Cylichna pusilla</i>	0	0	0	0	0	0	0	0
Cypraeidae spp.								
<i>Cystiscus huna</i>	0	0	3	3	0	0	0	0
Daphnellinae sp.	0	0	0	0	0	0	0	0
<i>Dentimargo pumila</i>								
<i>Diala scopulorum</i>	11	17	16	44	17	11	21	49
<i>Diala semistriata</i>	8	10	7	25	13	5	8	26
<i>Diala</i> sp.								
<i>Diniatys dentifer</i>	0	0	0	0	4	1	1	6
<i>Diodora granifera</i>	0	0	2	2	0	0	0	0
<i>Drupella</i> sp. A								
<i>Drupella</i> sp.								
<i>Eatoniella janetaylorae</i>								
<i>Eatoniella pigmenta</i>								
<i>Eatoniella</i> sp.								
<i>Elachisina robertsoni</i>								
<i>Elacorbis callusa</i>								
<i>Emarginula dilecta</i>								
<i>Emarginula</i> sp.								
<i>Epitonium</i> spp.	0	0	0	0	3	4	0	7
<i>Erato sandwicensis</i>	0	0	0	0	0	0	0	0
<i>Etrema acricula</i>								
<i>Euchelus gemmatus</i>	0	0	0	0	0	1	2	3
<i>Euchelus</i> sp.								
<i>Eucithara angiostoma</i>								
<i>Eucithara pusilla</i>	0	0	0	0	0	0	0	0
<i>Eucithara</i> sp.								
<i>Eucylotoma albomacula</i>								
<i>Eulima peasei</i>								
Eulimidae sp.								
<i>Euplica varians</i>								
<i>Evalea peasei</i>								
<i>Evalea waikikiensis</i>								
<i>Finella pupoides</i>	25	6	0	31	101	87	95	283
<i>Fusinus</i> sp.								
<i>Gemmula monilifera</i>								
<i>Gibbula marmorea</i>	0	0	0	0	1	3	0	4
<i>Glyphostoma kihikihi</i>								

TABLE E.5—Continued

Taxon	No. of Individuals at D3A				No. of Individuals at D5			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Granula sandwicensis</i>	0	0	1	1	0	0	0	0
<i>Granulina vitrea</i>	0	0	0	0	5	5	4	14
<i>Granulina</i> sp.	0	0	0	0	3	3	2	8
<i>Gyrineum pusillum</i>	0	0	0	0	0	0	0	0
<i>Haminoea curta</i>	0	0	0	0	0	2	1	3
<i>Haminoea</i> sp.	0	0	0	0	0	0	0	0
<i>Heliacus implexus</i>	0	0	0	0	0	4	1	5
<i>Heliacus</i> sp. A								
<i>Heliacus</i> sp.	0	0	2	2	2	0	0	2
<i>Herviera gliriella</i>								
<i>Herviera patricia</i>								
<i>Hinemoa indica</i>	0	0	0	0	1	0	0	1
<i>Hipponix australis</i>	0	1	0	1	0	0	0	0
<i>Hipponix imbricatus</i>								
<i>Hipponix pilosus</i>								
<i>Hipponix</i> sp.								
<i>Hydatina</i> sp.								
<i>Itibittium parcum</i>	0	0	0	0	2	2	2	6
<i>Julia exquisita</i>								
Juliidae sp.								
<i>Kermia aniani</i>								
<i>Kermia brunnea</i>								
<i>Kermia cylindrica</i>								
<i>Kermia daedalea</i>								
<i>Kermia</i> sp.								
<i>Kooloonella hawaiiensis</i>								
<i>Kooloonella</i> sp.	0	0	0	0	3	0	2	5
<i>Leptothyra rubricincta</i>	2	3	1	6	0	0	1	1
<i>Leptothyra verruca</i>	0	0	0	0	0	0	1	1
<i>Lienardia apiculata</i>								
<i>Lienardia mighelsi</i>								
Liotiidae sp.	0	1	0	1	0	0	0	0
<i>Lophocochlias minutissimus</i>	5	4	0	9	0	2	2	4
<i>Lophocochlias</i> sp. A	0	0	0	0	0	0	1	1
<i>Lophocochlias</i> sp.	0	5	0	5	0	0	0	0
<i>Meioceras sandwichensis</i>								
<i>Merelina granulosa</i>								
<i>Merelina hewa</i>								
<i>Merelina wanawana</i>	0	0	0	0	1	0	0	1
<i>Metaxia albicephala</i>								
<i>Metaxia brunnicephala</i>								
<i>Metaxia</i> sp.	0	0	0	0	0	1	0	1
<i>Microdaphne trichodes</i>	0	0	0	0	0	0	0	0
<i>Miralda paulbarschi</i>	0	0	0	0	1	0	1	2
<i>Miralda scopulorum</i>	0	0	0	0	1	0	0	1
<i>Miralda</i> sp.								
<i>Mitra earlei</i>	0	0	0	0	0	0	0	0
<i>Mitra saltata</i>								
<i>Mitra</i> sp.								
<i>Mitrella bella</i>								
<i>Mitrella loyaltensis</i>								
<i>Mitrella margarita</i>								

TABLE E.5—Continued

Taxon	No. of Individuals at D3A				No. of Individuals at D5			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Mitrella rorida</i>								
<i>Mitrolumna metula</i>								
<i>Modulus tectum</i>								
<i>Morula</i> sp.	0	0	0	0	0	0	0	0
<i>Nassarius crematus</i>								
<i>Nassarius papillosus</i>								
<i>Nassarius</i> sp.								
<i>Natica bougei</i>								
<i>Natica gualteriana</i>	0	0	0	0	0	0	0	0
<i>Natica</i> sp.	0	0	0	0	4	7	5	16
<i>Nerita</i> spp.	0	0	0	0	0	0	0	0
<i>Neritopsis radula</i>								
<i>Nesiodostomia quarta</i>								
<i>Nesiodostomia</i> sp.	0	0	0	0	0	0	0	0
<i>Odostomia gulicki</i>	0	0	0	0	0	0	2	2
<i>Odostomia oxia</i>								
<i>Odostomia stearnsiella</i>	0	0	0	0	0	0	0	0
<i>Odostomia</i> sp. A								
<i>Odostomia</i> sp. B								
<i>Odostomia</i> sp.	0	0	0	0	0	0	0	0
<i>Omalaxis</i> sp.								
<i>Omalogyra japonica</i>	1	10	3	14	1	1	2	4
<i>Omalogyra</i> spp.	9	0	0	9	0	0	0	0
<i>Orbitestella regina</i>	13	20	10	43	13	0	4	17
<i>Orbitestella</i> sp. A								
<i>Orbitestella</i> sp. B	2	0	0	2	0	0	0	0
<i>Orbitestella</i> sp.	0	0	8	8	0	0	0	0
<i>Parashiela beetsi</i>	4	7	10	21	4	5	6	15
<i>Pelcydion habei</i>								
<i>Peristernia chlorostoma</i>								
<i>Phenacolepas scobinata</i>								
<i>Philippia oxytropis</i>								
<i>Philippia</i> sp.								
<i>Planaxis suturalis</i>								
<i>Planaxis</i> sp.								
<i>Plesiotrochus luteus</i>								
<i>Powellsetia fallax</i>								
<i>Prodotia iostomus</i>								
<i>Pseudodaphnella pulchella</i>	0	0	0	0	0	0	0	0
<i>Pseudomalaxis</i> sp.								
<i>Pterygia pudica</i>								
<i>Pupa pudica</i>								
<i>Pupa tessellata</i>								
<i>Pupa</i> sp.	0	0	0	0	3	3	4	10
<i>Pusillina marmorata</i>	16	8	12	36	12	11	5	28
<i>Pyramidella sulcata</i>	0	0	0	0	0	0	0	0
<i>Pyramidella</i> sp. A								
<i>Pyramidella</i> sp. B								
<i>Pyramidella</i> sp. C	0	0	0	0	0	0	0	0
<i>Pyramidella</i> sp. D	0	0	0	0	0	0	0	0
<i>Pyramidella</i> spp.	0	0	0	0	0	0	0	0
<i>Pyramidellidae</i> sp. A								

TABLE E.5—Continued

Taxon	No. of Individuals at D3A				No. of Individuals at D5			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
Pyramidellidae sp. B								
Pyramidellidae sp. C	0	0	0	0	0	0	0	0
Pyramidellidae sp. D								
Pyramidellidae sp.	5	0	5	10	0	0	0	0
<i>Pyramidelloides angusta</i>								
<i>Pyramidelloides gracilis</i>								
<i>Pyramidelloides suta</i>								
<i>Pyrgulina oodes</i>	0	0	0	0	0	0	0	0
<i>Pyrgulina</i> sp.	0	0	0	0	9	6	12	27
<i>Rastodens</i> sp.								
<i>Rhinoclavis articulata</i>								
<i>Rissoella</i> sp.	0	6	0	6	4	6	5	15
Rissoidae spp.								
<i>Rissoina ambigua</i>								
<i>Rissoina cerithiiformis</i>	0	0	0	0	1	0	0	1
<i>Rissoina costata</i>	0	0	0	0	0	0	0	0
<i>Rissoina imbricata</i>								
<i>Rissoina pulchella</i>	0	0	0	0	1	0	0	1
<i>Rissoina</i> sp.	0	0	0	0	0	0	0	0
<i>Rufodardanula ponderi</i>	0	0	0	0	1	1	0	2
<i>Rufodardanula</i> sp.								
<i>Sansonia kenneyi</i>								
<i>Sansonia</i> sp. A								
<i>Sansonia</i> spp.								
<i>Scabricola casta</i>								
<i>Scalenostoma</i> sp.								
<i>Scaliola</i> spp.	9	7	4	20	5	3	10	18
<i>Scaphander</i> sp.								
<i>Schwartziella ephamilla</i>	0	0	0	0	0	0	0	0
<i>Schwartziella triticea</i>	0	0	0	0	1	0	0	1
<i>Scissurella coronata</i>								
<i>Scissurella pseudoequatoria</i>								
<i>Seminella peasei</i>								
<i>Seminella smithi</i>	2	0	1	3	0	0	0	0
<i>Sinezona insignis</i>	0	0	0	0	1	1	1	3
<i>Smaragdia bryanae</i>								
<i>Stilifer</i> sp.								
<i>Stosicia hiloense</i>	0	1	0	1	0	0	0	0
<i>Strebloceras subannulatum</i>	0	1	0	1	0	1	0	1
<i>Strombus helli</i>								
<i>Strombus maculatus</i>								
<i>Styliferina goniochila</i>	0	0	0	0	2	3	0	5
<i>Synaptocochlea concinna</i>	0	1	0	1	1	0	0	1
<i>Terebra</i> spp.	0	0	0	0	0	1	0	1
<i>Thala milium</i>								
<i>Tricolia variabilis</i>	19	36	22	77	10	6	6	22
<i>Triphora</i> spp.	6	3	4	13	0	0	0	0
<i>Tritonoturris</i> sp. A								
<i>Trivia globosa pilula</i>								
<i>Trivia hordacea</i>								
<i>Trivia pellucida</i>								
<i>Trivia</i> spp.								

TABLE E.5—Continued

Taxon	No. of Individuals at D3A				No. of Individuals at D5			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Trochus intextus</i>	0	1	0	1	0	0	0	0
<i>Trochus</i> sp.	0	1	0	1	0	0	0	0
<i>Tugali oblonga</i>	0	0	0	0	0	0	0	0
<i>Tugali</i> sp.	0	0	0	0	0	0	1	1
<i>Turbo sandwicensis</i>	0	0	0	0	0	0	1	1
<i>Turbonilla cornelliana</i>	0	0	0	0	2	1	0	3
<i>Turbonilla thaanumi</i>								
<i>Turbonilla</i> sp. A								
<i>Turbonilla</i> sp. B								
<i>Turbonilla</i> sp. C								
<i>Turbonilla</i> sp. D								
<i>Turbonilla</i> sp. E	0	0	0	0	3	5	0	8
<i>Turbonilla</i> sp. F	0	0	0	0	0	1	0	1
<i>Turbonilla</i> spp.	0	0	0	0	0	1	0	1
Turridae sp.	0	1	1	2	0	1	3	4
<i>Umbraculum sinicum</i>								
<i>Umbraculum</i> sp.								
<i>Vanikoro cancellata</i>								
<i>Vanikoro</i> sp.								
<i>Veprecula brunonia</i>	0	0	0	0	0	1	0	1
Vermetidae spp.	0	0	0	0	2	0	1	3
<i>Vexillum adamsianum</i>								
<i>Vexillum approximatum</i>								
<i>Vexillum cosmani</i>								
<i>Vexillum interruptum</i>								
<i>Vexillum pacificum</i>								
<i>Vexillum rubrum</i>								
<i>Vexillum rufofilosum</i>								
<i>Vexillum tusum</i>								
<i>Vexillum</i> sp. A								
<i>Vexillum</i> sp.								
Vitrinellidae sp.								
<i>Volvarina fusiformis</i>								
<i>Williamia radiata</i>	0	0	0	0	1	0	0	1
<i>Xenuroturris</i> sp.	0	0	0	0	0	0	0	0
<i>Zebina bidentata</i>								
<i>Zebina</i> sp.								
<i>Gastropoda</i> sp. A								
<i>Gastropoda</i> spp.	0	4	0	4	0	0	0	0
SCAPHOPODA								
<i>Scaphopoda</i> sp.								
POLYPLACOPHORA								
<i>Polyplacophora</i> sp.								
Total No. of Individuals	178	205	152	535	340	269	317	926
Total No. of Individuals/cm ³	11.9	13.7	10.1	11.9	22.7	17.9	21.1	20.6
Total No. of Taxa	24	32	25	43	53	52	46	86

^a*Pinna* sp. are indicated by a "+" for larval shells and by "frag" for shell fragments.

TABLE E.6. Taxon Abundance from Three Replicates for Mollusk Components, Sand Island Ocean Outfall Sampling Station D6, O'ahu, Hawai'i, August 2002

Taxon	No. of Individuals at D6				Transect D Total
	1	2	3	Total	
BIVALVIA					
<i>Acar cf. plicata</i>					
<i>Adipicola cf. crypta</i>					
<i>Amygdalum newcombi</i>					
<i>Amygdalum sp.</i>	0	0	0	0	2
<i>Anguipecten cf. lamberti</i>					
<i>Anisodonta lutea</i>					
<i>Anomia nobilis</i>					
<i>Arca kauaia</i>	0	0	0	0	6
<i>Arcidae sp.</i>	0	0	0	0	2
<i>Barbatia divaricata</i>					
<i>Barbatia lima</i>					
<i>Barbatia nuttingi</i>					
<i>Barbatia sp.</i>					
<i>Brachidontes crebristriatus</i>	0	0	0	0	2
<i>Cardita thaanumi</i>					
<i>Cardita sp.</i>					
<i>Carditella hawaiiensis</i>	0	0	0	0	2
<i>Carditella sp.</i>					
<i>Chlamydella sp. A</i>					
<i>Chlamys coruscans hawaiiensis</i>					
<i>Chlamys kauaiensis</i>					
<i>Chlamys sp. B</i>					
<i>Chlamys sp.</i>	1	2	0	3	4
<i>Codakia punctata</i>					
<i>Cosa waikikia</i>					
<i>Crenella sp.</i>					
<i>Ctena bella</i>					
<i>Ctena transversa</i>	3	1	2	6	12
<i>Ctena sp.</i>	0	0	0	0	1
<i>Cuspidaria hawaiiensis</i>					
<i>Cuspidaria pailoloana</i>					
<i>Epicodakia sp.</i>	0	1	0	1	4
<i>Ervilia bisculpta</i>	0	15	0	15	118
<i>Euciroa pacifica</i>					
<i>Fragum mundum</i>	0	0	0	0	1
<i>Gastrochaena sp.</i>					
<i>Glycymeris sp.</i>					
<i>Grammatomya kanaka</i>					
<i>Haumea juddi</i>	0	0	0	0	3
<i>Hiatella arctica</i>					
<i>Hitia ovalis</i>					
<i>Kellia hawaiiensis</i>	0	0	0	0	1
<i>Kona symmetrica</i>					
<i>Leptonacea sp.</i>					
<i>Lima keokea</i>					
<i>Lima sp.</i>					
<i>Limopsis sp.</i>					
<i>Lioconcha hieroglyphica</i>					
<i>Lonoa hawaiiensis</i>					
<i>Lucina edentula</i>					

TABLE E.6—Continued

Taxon	No. of Individuals at D6				Transect D Total
	Replicate			Total	
	1	2	3		
<i>Macoma dispar</i>					
<i>Macoma obliquilineata</i>	0	1	0	1	1
<i>Mactra thaanumi</i>	9	0	2	11	11
<i>Mactra</i> sp.					
<i>Malleus regula</i>					
<i>Malleus</i> sp.					
<i>Modiolus</i> sp.					
Mytilidae sp. A					
Mytilidae sp. B					
Mytilidae sp. C					
Mytilidae sp.	0	2	0	2	3
<i>Nemocardium thaanumi</i>					
<i>Nemocardium</i> sp.					
<i>Nucula hawaiiensis</i>					
<i>Ostrea</i> sp.	0	1	0	1	1
Pectinidae sp. A					
<i>Pillucina hawaiiensis</i>					
<i>Pillucina spaldingi</i>					
<i>Pillucina</i> sp.					frag+
<i>Pinna</i> sp. ^a	+	++	+	++	
<i>Poromya transversa</i>					
Propeamusiidae sp.					
<i>Pteria</i> sp.	0	0	0	0	1
<i>Rochefortina sandwichensis</i>	0	0	0	0	7
<i>Rochefortina</i> sp.					
<i>Scintilla hiloa</i>	12	0	0	12	12
<i>Semelangulus crebrimaculatus</i>					
<i>Semelangulus</i> sp.					
<i>Semele australis</i>					
<i>Septifer bryanae</i>	0	0	0	0	1
<i>Septifer</i> sp.	0	0	0	0	1
<i>Spondylus</i> sp.					
<i>Tellina oahuana</i>					
<i>Tellina robusta</i>	0	3	0	3	5
<i>Tellina</i> sp. A					
<i>Tellina</i> sp. B					
<i>Tellina</i> sp. C					
<i>Tellina</i> sp.	1	0	0	1	10
Bivalvia sp. A					
Bivalvia sp. B					
Bivalvia sp. C					
Bivalvia spp.	0	6	4	10	28
GASTROPODA					
<i>Acteocina hawaiiensis</i>	2	0	3	5	5
<i>Acteocina sandwicensis</i>	0	8	0	8	90
<i>Acteocina</i> sp. A	0	0	0	0	2
<i>Acteocina</i> sp.	15	10	11	36	115
<i>Alcyna ocellata</i>	0	3	0	3	5
<i>Alcyna subangulata</i>	0	0	0	0	2
<i>Alvania isolata</i>	0	0	0	0	2
<i>Anacithara perfecta</i>					

TABLE E.6—Continued

Taxon	No. of Individuals at D6			Total	Transect D Total
	1	2	3		
<i>Antisabia foliacea</i>					
Aplysiidae	0	0	0	0	1
Architectonicidae sp.	0	0	0	0	3
<i>Argyropeza leucocephala</i>					
<i>Argyropeza</i> sp.					
<i>Aspella producta</i>					
<i>Aspella</i> sp.					
<i>Atys curta</i>					
<i>Atys debilis</i>					
<i>Atys semistriata</i>	0	0	0	0	1
<i>Atys</i> sp.	0	0	0	0	2
<i>Balcis</i> cf. <i>brunnimaculata</i>					
<i>Balcis</i> spp.	15	40	22	77	366
<i>Barleeia calcarea</i>					
<i>Benthonella</i> sp.					
<i>Bittium impendens</i>	0	0	0	0	2
<i>Bittium</i> sp.					
<i>Brookula hawaiiensis</i>					
<i>Brookula iki</i>	0	0	0	0	2
<i>Brookula</i> sp.					
Buccinidae sp.					
<i>Bulla vernicosa</i>	0	1	0	1	1
<i>Bulla</i> sp.	0	0	0	0	1
<i>Bullina scabra</i>					
<i>Caecum arcuatum</i>					
<i>Caecum</i> cf. <i>glabella</i>					
<i>Caecum</i> cf. <i>glabriformis</i>					
<i>Caecum oahuense</i>					
<i>Caecum sepimentum</i>	0	0	1	1	2
<i>Caecum</i> sp. A					
<i>Caecum</i> sp.	0	0	0	0	6
<i>Cancilla granatina</i>	0	0	0	0	2
<i>Cancilla</i> sp.	0	0	0	0	1
<i>Cantharus</i> sp.					
Capulidae sp.					
<i>Carinapex minutissima</i>	0	0	0	0	1
<i>Carinapex papillosa</i>					
Cephalaspidea sp.	0	0	0	0	3
<i>Cerithidium diplax</i>	0	6	0	6	93
<i>Cerithidium perparvulum</i>	41	20	32	93	551
<i>Cerithiopsis</i> spp.					
<i>Cerithium atromarginatum</i>					
<i>Cerithium columna</i>					
<i>Cerithium glareosum</i>					
<i>Cerithium interstriatum</i>	0	0	0	0	5
<i>Cerithium nesioticum</i>					
<i>Cerithium rostratum</i>					
<i>Cerithium zebrium</i>					
<i>Cerithium</i> spp.	1	1	2	4	36
<i>Ceritoturris bittium</i>	0	0	0	0	1
<i>Circulus</i> sp.					
<i>Cirsotrema varicosa</i>					

TABLE E.6—Continued

Taxon	No. of Individuals at D6				Transect D Total
	1	2	3	Total	
<i>Clavus pusilla</i>					
<i>Clavus</i> sp.	0	0	0	0	1
<i>Collonista candida</i>					
<i>Conus pulicarius</i>					
<i>Conus quercinus</i>					
<i>Conus</i> sp.					
Coralliophilidae sp.					
Costellariidae sp.					
<i>Crepidula aculeata</i>					
<i>Crucibulum spinosum</i>					
<i>Cycloscala hyalina</i>					
<i>Cyclostremiscus emeryi</i>	0	0	0	0	27
<i>Cyclostremiscus striatus</i>					
<i>Cyclostremiscus</i> sp. A	0	0	0	0	2
<i>Cylichna pusilla</i>	0	1	0	1	5
Cypraeidae spp.					
<i>Cystiscus huna</i>	0	0	0	0	5
Daphnellinae sp.	0	0	0	0	1
<i>Dentimargo pumila</i>					
<i>Diala scopulorum</i>	9	12	12	33	195
<i>Diala semistriata</i>	7	21	22	50	186
<i>Diala</i> sp.					
<i>Diniatys dentifer</i>	0	0	0	0	6
<i>Diodora granifera</i>	0	0	0	0	2
<i>Drupella</i> sp. A					
<i>Drupella</i> sp.					
<i>Eatoniella janetaylorae</i>					
<i>Eatoniella pigmenta</i>					
<i>Eatoniella</i> sp.					
<i>Elachisina robertsoni</i>					
<i>Elacorbis callusa</i>					
<i>Emarginula dilecta</i>					
<i>Emarginula</i> sp.					
<i>Epitonium</i> spp.	2	0	2	4	21
<i>Erato sandwicensis</i>	0	0	0	0	1
<i>Etrema acricula</i>					
<i>Euchelus gemmatus</i>	0	2	0	2	9
<i>Euchelus</i> sp.					
<i>Eucithara angiostroma</i>					
<i>Eucithara pusilla</i>	0	0	1	1	2
<i>Eucithara</i> sp.					
<i>Eucylotoma albomacula</i>					
<i>Eulima peasei</i>					
Eulimidae sp.					
<i>Euplica varians</i>					
<i>Evalea peasei</i>					
<i>Evalea waikikiensis</i>					
<i>Finella pupoides</i>	51	43	90	184	1,054
<i>Fusinus</i> sp.					
<i>Gemmula monilifera</i>					
<i>Gibbula marmorea</i>	0	0	0	0	4
<i>Glyphostoma kihikihi</i>					

TABLE E.6—Continued

Taxon	No. of Individuals at D6				Transect D Total
	Replicate			Total	
	1	2	3		
<i>Granula sandwicensis</i>	0	0	0	0	1
<i>Granulina vitrea</i>	4	8	0	12	32
<i>Granulina</i> sp.	2	7	6	15	30
<i>Gyrineum pusillum</i>	0	0	0	0	1
<i>Haminoea curta</i>	0	0	0	0	5
<i>Haminoea</i> sp.	0	0	3	3	3
<i>Heliacus implexus</i>	0	1	0	1	6
<i>Heliacus</i> sp. A					
<i>Heliacus</i> sp.	0	1	0	1	5
<i>Herviera gliriella</i>					
<i>Herviera patricia</i>					
<i>Hinemoa indica</i>	0	1	0	1	2
<i>Hipponix australis</i>	0	0	0	0	1
<i>Hipponix imbricatus</i>					
<i>Hipponix pilosus</i>					
<i>Hipponix</i> sp.					
<i>Hydatina</i> sp.					
<i>Ittibittium parcum</i>	0	0	0	0	6
<i>Julia exquisita</i>					
Juliidae sp.					
<i>Kermia aniani</i>					
<i>Kermia brunnea</i>					
<i>Kermia cylindrica</i>					
<i>Kermia daedalea</i>					
<i>Kermia</i> sp.					
<i>Kolonella hawaiiensis</i>					
<i>Kolonella</i> sp.	0	7	0	7	44
<i>Leptothyra rubricincta</i>	0	0	0	0	7
<i>Leptothyra verruca</i>	0	0	0	0	1
<i>Lienardia apiculata</i>					
<i>Lienardia mighelsi</i>					
Liotiidae sp.	0	0	0	0	1
<i>Lophocochlias minutissimus</i>	0	1	1	2	34
<i>Lophocochlias</i> sp. A	0	0	0	0	1
<i>Lophocochlias</i> sp.	0	0	0	0	5
<i>Meioceras sandwicensis</i>					
<i>Merelina granulosa</i>					
<i>Merelina hewa</i>					
<i>Merelina wanawana</i>	0	0	0	0	1
<i>Metaxia albicephala</i>					
<i>Metaxia brunnicephala</i>					
<i>Metaxia</i> sp.	0	0	0	0	1
<i>Microdaphne trichodes</i>	0	0	1	1	1
<i>Miralda paulbartschi</i>	0	0	0	0	3
<i>Miralda scopulorum</i>	0	0	0	0	1
<i>Miralda</i> sp.					
<i>Mitra earlei</i>	0	0	0	0	2
<i>Mitra saltata</i>					
<i>Mitra</i> sp.					
<i>Mitrella bella</i>					
<i>Mitrella loyaltensis</i>					
<i>Mitrella margarita</i>					

TABLE E.6—Continued

Taxon	No. of Individuals at D6			Total	Transect D Total
	1	2	3		
<i>Mitrella rorida</i>					
<i>Mitrolumna metula</i>					
<i>Modulus tectum</i>					
<i>Morula</i> sp.	1	1	0	2	2
<i>Nassarius crematus</i>					
<i>Nassarius papillosus</i>					
<i>Nassarius</i> sp.					
<i>Natica bougei</i>					
<i>Natica gualteriana</i>	13	11	3	27	27
<i>Natica</i> sp.	0	0	0	0	43
<i>Nerita</i> spp.	0	0	0	0	1
<i>Neritopsis radula</i>					
<i>Nesiodostomia quarta</i>					
<i>Nesiodostomia</i> sp.	12	10	9	31	31
<i>Odostomia gulicki</i>	0	0	0	0	2
<i>Odostomia oxia</i>					
<i>Odostomia stearnsiella</i>	0	0	0	0	1
<i>Odostomia</i> sp. A					
<i>Odostomia</i> sp. B					
<i>Odostomia</i> sp.	0	2	0	2	2
<i>Omalaxis</i> sp.					
<i>Omalogyra japonica</i>	1	1	0	2	20
<i>Omalogyra</i> spp.	0	0	0	0	9
<i>Orbitestella regina</i>	0	1	6	7	75
<i>Orbitestella</i> sp. A					
<i>Orbitestella</i> sp. B	0	1	0	1	3
<i>Orbitestella</i> sp.	0	0	1	1	12
<i>Parashiela beetsi</i>	7	10	9	26	132
<i>Pelcydion habei</i>					
<i>Peristernia chlorostoma</i>					
<i>Phenacolepas scobinata</i>					
<i>Philippia oxytropis</i>					
<i>Philippia</i> sp.					
<i>Planaxis suturalis</i>					
<i>Planaxis</i> sp.					
<i>Plesiotrochus luteus</i>					
<i>Powellsetia fallax</i>					
<i>Prodotia iostomus</i>					
<i>Pseudodaphnella pulchella</i>	0	0	1	1	1
<i>Pseudomalaxis</i> sp.					
<i>Pterygia pudica</i>					
<i>Pupa pudica</i>					
<i>Pupa tessellata</i>					
<i>Pupa</i> sp.	0	2	1	3	17
<i>Pusillina marmorata</i>	10	13	12	35	205
<i>Pyramidella sulcata</i>	3	0	0	3	3
<i>Pyramidella</i> sp. A					
<i>Pyramidella</i> sp. B					
<i>Pyramidella</i> sp. C	0	0	0	0	4
<i>Pyramidella</i> sp. D	0	0	0	0	11
<i>Pyramidella</i> spp.	0	0	4	4	20
<i>Pyramidellidae</i> sp. A					

TABLE E.6—Continued

Taxon	No. of Individuals at D6			Total	Transect D Total
	1	2	3		
Pyramidellidae sp. B					
Pyramidellidae sp. C	0	2	0	2	3
Pyramidellidae sp. D					
Pyramidellidae sp.	0	0	0	0	10
<i>Pyramidelloides angusta</i>					
<i>Pyramidelloides gracilis</i>					
<i>Pyramidelloides suta</i>					
<i>Pyrgulina oodes</i>	0	2	0	2	17
<i>Pyrgulina</i> sp.	0	0	0	0	27
<i>Rastodens</i> sp.					
<i>Rhinoclavis articulata</i>					
<i>Rissoella</i> sp.	20	7	0	27	48
Rissoidae spp.					
<i>Rissoina ambigua</i>					
<i>Rissoina cerithiiformis</i>	0	0	0	0	3
<i>Rissoina costata</i>	0	0	0	0	2
<i>Rissoina imbricata</i>					
<i>Rissoina pulchella</i>	0	0	0	0	1
<i>Rissoina</i> sp.	0	0	7	7	13
<i>Rufodardanula ponderi</i>	0	0	0	0	2
<i>Rufodardanula</i> sp.					
<i>Sansonia kenneyi</i>					
<i>Sansonia</i> sp. A					
<i>Sansonia</i> spp.					
<i>Scabricola casta</i>					
<i>Scalenostoma</i> sp.					
<i>Scaliola</i> spp.	3	4	6	13	140
<i>Scaphander</i> sp.					
<i>Schwartziella ephamilla</i>	3	0	0	3	5
<i>Schwartziella triticea</i>	0	0	0	0	1
<i>Scissurella coronata</i>					
<i>Scissurella pseudoequatoria</i>					
<i>Seminella peasei</i>					
<i>Seminella smithi</i>	0	0	0	0	3
<i>Sinezona insignis</i>	0	0	0	0	3
<i>Smaragdia bryanae</i>					
<i>Stilifer</i> sp.					
<i>Stosicia hiloense</i>	0	0	0	0	1
<i>Strebloceras subannulatum</i>	0	0	0	0	2
<i>Strombus helli</i>					
<i>Strombus maculatus</i>					
<i>Styliferina goniochila</i>	0	0	0	0	5
<i>Synaptocochlea concinna</i>	4	0	0	4	6
<i>Terebra</i> spp.	0	0	0	0	1
<i>Thala milium</i>					
<i>Tricolia variabilis</i>	3	2	5	10	124
<i>Triphora</i> spp.	0	1	3	4	19
<i>Tritonoturris</i> sp. A					
<i>Trivia globosa pilula</i>					
<i>Trivia hordacea</i>					
<i>Trivia pellucida</i>					
<i>Trivia</i> spp.					

TABLE E.6—Continued

Taxon	No. of Individuals at D6				Transect D Total
	1	2	3	Total	
<i>Trochus intextus</i>					
<i>Trochus</i> sp.	0	0	0	0	1
<i>Tugali oblonga</i>					
<i>Tugali</i> sp.	0	0	0	0	1
<i>Turbo sandwicensis</i>				0	1
<i>Turbonilla cornelliana</i>	0	3	0	3	9
<i>Turbonilla thaanumi</i>					
<i>Turbonilla</i> sp. A					
<i>Turbonilla</i> sp. B					
<i>Turbonilla</i> sp. C					
<i>Turbonilla</i> sp. D					
<i>Turbonilla</i> sp. E	0	0	0	0	8
<i>Turbonilla</i> sp. F					
<i>Turbonilla</i> spp.	3	0	0	3	4
Turridae sp.	0	0	1	1	11
<i>Umbraculum sinicum</i>					
<i>Umbraculum</i> sp.					
<i>Vanikoro cancellata</i>					
<i>Vanikoro</i> sp.					
<i>Veprecula brunonia</i>	0	1	0	1	4
Vermetidae spp.	0	0	0	0	3
<i>Vexillum adamsianum</i>					
<i>Vexillum approximatum</i>					
<i>Vexillum cosmani</i>					
<i>Vexillum interruptum</i>					
<i>Vexillum pacificum</i>					
<i>Vexillum rubrum</i>					
<i>Vexillum rufofilosum</i>					
<i>Vexillum tusum</i>					
<i>Vexillum</i> sp. A					
<i>Vexillum</i> sp.					
Vitrinellidae sp.					
<i>Volvarina fusiformis</i>					
<i>Williamia radiata</i>	0	1	0	1	3
<i>Xenuroturris</i> sp.	0	0	0	0	1
<i>Zebina bidentata</i>					
<i>Zebina</i> sp.					
<i>Gastropoda</i> sp. A					
<i>Gastropoda</i> spp.	0	0	0	0	4
SCAPHOPODA					
Scaphopoda sp.					
POLYPLACOPHORA					
Polyplacophora sp.					
Total No. of Individuals	258	301	285	844	4,362
Total No. of Individuals/cm ³	17.2	20.1	19.0	18.8	19.4
Total No. of Taxa	30	49	33	67	148

^a*Pinna* sp. are indicated by a "+" for larval shells and by "frag" for shell fragments.

TABLE E.7. Taxon Abundance from Three Replicates for Mollusk Components, Sand Island Ocean Outfall Sampling Stations E1 and E2, O'ahu, Hawai'i, August 2002

Taxon	No. of Individuals at E1				No. of Individuals at E2			
	1	2	3	Total	1	2	3	Total
BIVALVIA								
<i>Acar cf. plicata</i>	0	0	0	0	0	0	0	0
<i>Adipicola cf. crypta</i>	0	0	0	0	0	0	0	0
<i>Amygdalum newcombi</i>								
<i>Amygdalum</i> sp.								
<i>Anguipecten cf. lamberti</i>	0	1	0	1	0	0	0	0
<i>Anisodonta lutea</i>								
<i>Anomia nobilis</i>	0	0	0	0	0	0	0	0
<i>Arca kauaia</i>								
Arcidae sp.								
<i>Barbatia divaricata</i>	0	0	0	0	0	0	0	0
<i>Barbatia lima</i>								
<i>Barbatia nuttingi</i>								
<i>Barbatia</i> sp.								
<i>Brachidontes crebristriatus</i>	0	0	0	0	0	0	0	0
<i>Cardita thaanumi</i>								
<i>Cardita</i> sp.								
<i>Carditella hawaiiensis</i>	0	0	0	0	0	0	0	0
<i>Carditella</i> sp.								
<i>Chlamydella</i> sp. A	0	0	0	0	0	0	0	0
<i>Chlamys coruscans hawaiiensis</i>								
<i>Chlamys kauaiensis</i>								
<i>Chlamys</i> sp. B								
<i>Chlamys</i> sp.	0	1	1	2	0	0	1	1
<i>Codakia punctata</i>								
<i>Cosa waikikia</i>	0	0	0	0	0	0	0	0
<i>Crenella</i> sp.								
<i>Ctena bella</i>								
<i>Ctena transversa</i>	0	2	3	5	0	2	0	2
<i>Ctena</i> sp.	0	0	0	0	0	0	0	0
<i>Cuspidaria hawaiiensis</i>								
<i>Cuspidaria pailoana</i>	0	0	0	0	0	0	0	0
<i>Epicodakia</i> sp.	0	0	0	0	0	0	0	0
<i>Ervilia biscalpta</i>	0	0	0	0	0	1	0	1
<i>Euciroa pacifica</i>								
<i>Fragum mundum</i>	0	0	0	0	0	0	0	0
<i>Gastrochaena</i> sp.								
<i>Glycymeris</i> sp.	0	0	0	0	1	0	0	1
<i>Grammatomya kanaka</i>	0	0	0	0	0	0	0	0
<i>Haumea juddi</i>	0	0	0	0	0	0	1	1
<i>Hiatella arctica</i>								
<i>Hitia ovalis</i>								
<i>Kellia hawaiiensis</i>	0	0	0	0	0	0	0	0
<i>Kona symmetrica</i>								
Leptonacea sp.								
<i>Lima keokea</i>								
<i>Lima</i> sp.	0	0	0	0	0	0	0	0
<i>Limopsis</i> sp.								
<i>Lioconcha hieroglyphica</i>								
<i>Lonoa hawaiiensis</i>								
<i>Lucina edentula</i>								

TABLE E.7—Continued

Taxon	No. of Individuals at E1				No. of Individuals at E2			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Macoma dispar</i>								
<i>Macoma obliquilineata</i>								
<i>Mactra thaanumi</i>								
<i>Mactra</i> sp.								
<i>Malleus regula</i>								
<i>Malleus</i> sp.								
<i>Modiolus</i> sp.	0	0	0	0	0	0	0	0
Mytilidae sp. A								
Mytilidae sp. B								
Mytilidae sp. C								
Mytilidae sp.	0	0	0	0	0	0	0	0
<i>Nemocardium thaanumi</i>	0	0	0	0	0	0	0	0
<i>Nemocardium</i> sp.	0	0	0	0	0	0	0	0
<i>Nucula hawaiiensis</i>	0	0	0	0	0	0	0	0
<i>Ostrea</i> sp.	0	0	0	0	0	0	0	0
Pectinidae sp. A								
<i>Pillucina hawaiiensis</i>								
<i>Pillucina spaldingi</i>								
<i>Pillucina</i> sp.								
<i>Pinna</i> sp. ^a	+	+	+	+	0	0	0	0
<i>Poromya transversa</i>								
Propeamusiidae sp.	0	0	0	0	0	0	0	0
<i>Pteria</i> sp.								
<i>Rochefortina sandwichensis</i>	0	0	0	0	0	0	6	6
<i>Rochefortina</i> sp.								
<i>Scintilla hiloa</i>								
<i>Semelangulus crebrimaculatus</i>								
<i>Semelangulus</i> sp.								
<i>Semele australis</i>								
<i>Septifer bryanae</i>	0	0	0	0	0	0	0	0
<i>Septifer</i> sp.	0	0	0	0	1	0	3	4
<i>Spondylus</i> sp.								
<i>Tellina oahuana</i>								
<i>Tellina robusta</i>								
<i>Tellina</i> sp. A								
<i>Tellina</i> sp. B								
<i>Tellina</i> sp. C								
<i>Tellina</i> sp.	0	0	0	0	0	0	0	0
Bivalvia sp. A	0	0	0	0	0	0	0	0
Bivalvia sp. B								
Bivalvia sp. C								
Bivalvia spp.	5	6	5	16	2	0	4	6
GASTROPODA								
<i>Acteocina hawaiiensis</i>	0	0	0	0	0	0	0	0
<i>Acteocina sandwichensis</i>	0	0	0	0	0	0	0	0
<i>Acteocina</i> sp. A								
<i>Acteocina</i> sp.	1	1	2	4	7	2	4	13
<i>Alcyna ocellata</i>	0	0	0	0	0	0	1	1
<i>Alcyna subangulata</i>	0	0	0	0	0	0	0	0
<i>Alvania isolata</i>								
<i>Anacithara perfecta</i>	0	0	0	0	0	0	0	0

TABLE E.7—Continued

Taxon	No. of Individuals at E1				No. of Individuals at E2			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Antisabia foliacea</i>	0	0	0	0	0	0	0	0
Aplysiidae	0	0	0	0	0	0	0	0
Architectonicidae sp.								
<i>Argyropeza leucocephala</i>	0	0	0	0	0	0	0	0
<i>Argyropeza</i> sp.								
<i>Aspella producta</i>								
<i>Aspella</i> sp.								
<i>Atys curta</i>								
<i>Atys debilis</i>								
<i>Atys semistriata</i>								
<i>Atys</i> sp.	1	0	0	1	0	1	0	1
<i>Balcis</i> cf. <i>brunnimaculata</i>								
<i>Balcis</i> spp.	1	26	14	41	25	19	37	81
<i>Barleeia calcarea</i>								
<i>Benthonella</i> sp.								
<i>Bittium impendens</i>	0	0	0	0	0	0	0	0
<i>Bittium</i> sp.	0	0	0	0	4	0	0	4
<i>Brookula hawaiiensis</i>								
<i>Brookula iki</i>								
<i>Brookula</i> sp.	0	0	0	0	0	0	0	0
Buccinidae sp.								
<i>Bulla vernicosa</i>								
<i>Bulla</i> sp.	0	0	3	3	1	0	0	1
<i>Bullina scabra</i>								
<i>Caecum arcuatum</i>	0	0	0	0	0	3	1	4
<i>Caecum</i> cf. <i>glabella</i>								
<i>Caecum</i> cf. <i>glabriformis</i>	0	0	0	0	0	0	0	0
<i>Caecum oahuense</i>								
<i>Caecum sepimentum</i>	0	1	1	2	2	0	0	2
<i>Caecum</i> sp. A	0	0	0	0	1	0	0	1
<i>Caecum</i> sp.	0	0	1	1	0	1	0	1
<i>Cancilla granatina</i>	0	0	0	0	0	0	1	1
<i>Cancilla</i> sp.								
<i>Cantharus</i> sp.								
Capulidae sp.								
<i>Carinapex minutissima</i>	0	0	0	0	0	0	0	0
<i>Carinapex papillosa</i>								
Cephalaspidea sp.	0	0	0	0	0	1	0	1
<i>Cerithidium diplax</i>	0	0	0	0	0	0	1	1
<i>Cerithidium perparvulum</i>	18	0	0	18	66	75	2	143
<i>Cerithiopsis</i> spp.								
<i>Cerithium atromarginatum</i>								
<i>Cerithium columna</i>	0	0	0	0	0	0	0	0
<i>Cerithium glareosum</i>								
<i>Cerithium interstriatum</i>	0	0	0	0	0	0	0	0
<i>Cerithium nesioticum</i>	0	0	0	0	0	0	0	0
<i>Cerithium rostratum</i>	0	0	0	0	4	0	0	4
<i>Cerithium zebrum</i>	0	0	0	0	0	0	0	0
<i>Cerithium</i> spp.	2	0	0	2	6	0	8	14
<i>Ceritoturris bittium</i>	0	0	0	0	0	0	0	0
<i>Circulus</i> sp.								
<i>Cirsotrema varicosa</i>								

TABLE E.7—Continued

Taxon	No. of Individuals at E1				No. of Individuals at E2			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Clavus pusilla</i>								
<i>Clavus</i> sp.								
<i>Collonista candida</i>	0	0	0	0	0	0	0	0
<i>Conus pulicarius</i>								
<i>Conus quercinus</i>								
<i>Conus</i> sp.								
Coralliophilidae sp.								
Costellariidae sp.								
<i>Crepidula aculeata</i>								
<i>Crucibulum spinosum</i>								
<i>Cycloscala hyalina</i>								
<i>Cyclostremiscus emeryi</i>	0	0	0	0	0	0	0	0
<i>Cyclostremiscus striatus</i>								
<i>Cyclostremiscus</i> sp. A	0	0	0	0	1	0	0	1
<i>Cylichna pusilla</i>								
Cypraeidae spp.								
<i>Cystiscus huna</i>								
Daphnellinae sp.	0	0	0	0	0	0	0	0
<i>Dentimargo pumila</i>								
<i>Diala scopulorum</i>	93	102	48	243	118	88	192	398
<i>Diala semistriata</i>	5	1	3	9	79	65	59	203
<i>Diala</i> sp.								
<i>Diniatys dentifer</i>								
<i>Diodora granifera</i>	0	0	0	0	0	0	0	0
<i>Drupella</i> sp. A								
<i>Drupella</i> sp.								
<i>Eatoniella janetaylorae</i>								
<i>Eatoniella pigmenta</i>								
<i>Eatoniella</i> sp.	0	0	0	0	14	0	0	14
<i>Elachisina robertsoni</i>								
<i>Elacorbis callusa</i>								
<i>Emarginula dilecta</i>								
<i>Emarginula</i> sp.	0	0	0	0	0	0	1	1
<i>Epitonium</i> spp.	0	0	0	0	0	0	0	0
<i>Erato sandwicensis</i>	0	0	0	0	0	1	0	1
<i>Etrema acricula</i>								
<i>Euchelus gemmatus</i>	0	0	0	0	0	0	0	0
<i>Euchelus</i> sp.								
<i>Eucithara angiostoma</i>	0	0	0	0	0	0	0	0
<i>Eucithara pusilla</i>								
<i>Eucithara</i> sp.								
<i>Eucylotoma albomacula</i>	0	0	0	0	0	0	2	2
<i>Eulima peasei</i>								
Eulimidae sp.	0	0	0	0	0	0	0	0
<i>Euplica varians</i>								
<i>Evalea peasei</i>								
<i>Evalea waikikiensis</i>								
<i>Finella pupoides</i>	2	0	0	2	2	0	0	2
<i>Fusinus</i> sp.								
<i>Gemmula monilifera</i>								
<i>Gibbula marmorea</i>	0	0	0	0	0	0	0	0
<i>Glyphostoma kihikihi</i>								

TABLE E.7—Continued

Taxon	No. of Individuals at E1				No. of Individuals at E2			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Granula sandwicensis</i>	0	0	0	0	0	0	0	0
<i>Granulina vitrea</i>	0	0	0	0	0	0	0	0
<i>Granulina</i> sp.	0	1	0	1	1	2	2	5
<i>Gyrineum pusillum</i>								
<i>Haminoea curta</i>								
<i>Haminoea</i> sp.	0	0	0	0	0	0	2	2
<i>Heliacus implexus</i>								
<i>Heliacus</i> sp. A								
<i>Heliacus</i> sp.	0	0	0	0	0	0	1	1
<i>Herviera gliriella</i>								
<i>Herviera patricia</i>								
<i>Hinemoa indica</i>	0	0	0	0	0	0	0	0
<i>Hipponix australis</i>								
<i>Hipponix imbricatus</i>								
<i>Hipponix pilosus</i>	0	0	0	0	0	0	0	0
<i>Hipponix</i> sp.	0	0	0	0	2	0	0	2
<i>Hydatina</i> sp.								
<i>Ittibittium parcum</i>	0	0	0	0	0	0	0	0
<i>Julia exquisita</i>								
Juliidae sp.								
<i>Kermia aniani</i>								
<i>Kermia brunnea</i>								
<i>Kermia cylindrica</i>								
<i>Kermia daedalea</i>								
<i>Kermia</i> sp.								
<i>Kolonella hawaiiensis</i>								
<i>Kolonella</i> sp.	0	0	0	0	0	0	0	0
<i>Leptothyra rubricincta</i>	0	0	0	0	0	0	0	0
<i>Leptothyra verruca</i>	0	0	0	0	0	0	0	0
<i>Lienardia apiculata</i>								
<i>Lienardia mighelsi</i>								
Liotiidae sp.								
<i>Lophocochlias minutissimus</i>	0	0	0	0	4	7	5	16
<i>Lophocochlias</i> sp. A	0	0	0	0	0	0	0	0
<i>Lophocochlias</i> sp.								
<i>Meioceras sandwichensis</i>								
<i>Merelina granulosa</i>								
<i>Merelina hewa</i>	0	0	0	0	0	0	0	0
<i>Merelina wanawana</i>	0	0	0	0	0	0	0	0
<i>Metaxia albicephala</i>								
<i>Metaxia brunnicephala</i>								
<i>Metaxia</i> sp.	0	0	0	0	0	0	0	0
<i>Microdaphne trichodes</i>								
<i>Miralda paulbarschi</i>	0	0	0	0	0	0	0	0
<i>Miralda scopulorum</i>	0	0	0	0	0	1	0	1
<i>Miralda</i> sp.								
<i>Mitra earlei</i>								
<i>Mitra saltata</i>								
<i>Mitra</i> sp.	0	0	0	0	0	2	0	2
<i>Mitrella bella</i>								
<i>Mitrella loyaltensis</i>	0	0	0	0	0	0	0	0
<i>Mitrella margarita</i>								

TABLE E.7—Continued

Taxon	No. of Individuals at E1				No. of Individuals at E2			
	1	Replicate 2	3	Total	1	Replicate 2	3	Total
<i>Mitrella rorida</i>								
<i>Mitrolumna metula</i>								
<i>Modulus tectum</i>								
<i>Morula</i> sp.								
<i>Nassarius crematus</i>	0	0	0	0	0	0	0	0
<i>Nassarius papillosus</i>								
<i>Nassarius</i> sp.								
<i>Natica bougei</i>								
<i>Natica gualteriana</i>	0	0	0	0	0	0	0	0
<i>Natica</i> sp.	1	2	1	4	3	1	4	8
<i>Nerita</i> spp.	0	0	0	0	0	0	3	3
<i>Neritopsis radula</i>	0	0	0	0	0	0	2	2
<i>Nesiodostomia quarta</i>								
<i>Nesiodostomia</i> sp.	0	0	0	0	0	3	0	3
<i>Odostomia gulicki</i>	0	0	0	0	0	1	0	1
<i>Odostomia oxia</i>								
<i>Odostomia stearnsiella</i>								
<i>Odostomia</i> sp. A								
<i>Odostomia</i> sp. B								
<i>Odostomia</i> sp.	0	0	0	0	0	0	0	0
<i>Omalaxis</i> sp.								
<i>Omalogyra japonica</i>	0	0	0	0	1	2	0	3
<i>Omalogyra</i> spp.								
<i>Orbitestella regina</i>	0	0	1	1	6	9	1	16
<i>Orbitestella</i> sp. A	0	0	0	0	3	0	0	3
<i>Orbitestella</i> sp. B	0	0	0	0	0	0	0	0
<i>Orbitestella</i> sp.								
<i>Parashiela beetsi</i>	6	11	0	17	24	12	9	45
<i>Pelycidion habei</i>								
<i>Peristernia chlorostoma</i>								
<i>Phenacolepas scobinata</i>								
<i>Philippia oxytropis</i>								
<i>Philippia</i> sp.								
<i>Planaxis suturalis</i>								
<i>Planaxis</i> sp.								
<i>Plesiotrochus luteus</i>								
<i>Powellsetia fallax</i>								
<i>Prodotia iostomus</i>								
<i>Pseudodaphnella pulchella</i>								
<i>Pseudomalaxis</i> sp.								
<i>Pterygia pudica</i>								
<i>Pupa pudica</i>								
<i>Pupa tessellata</i>								
<i>Pupa</i> sp.	0	0	0	0	0	0	0	0
<i>Pusillina marmorata</i>	6	10	4	20	19	14	19	52
<i>Pyramidella sulcata</i>								
<i>Pyramidella</i> sp. A								
<i>Pyramidella</i> sp. B								
<i>Pyramidella</i> sp. C								
<i>Pyramidella</i> sp. D								
<i>Pyramidella</i> spp.	6	5	3	14	0	0	0	0
<i>Pyramidellidae</i> sp. A								

TABLE E.7—Continued

Taxon	No. of Individuals at E1				No. of Individuals at E2			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
Pyramidellidae sp. B	0	0	0	0	0	0	0	0
Pyramidellidae sp. C	0	0	0	0	0	0	0	0
Pyramidellidae sp. D	0	5	0	5	8	2	5	15
Pyramidellidae sp.	0	5	0	5	8	2	5	15
<i>Pyramidelloides angusta</i>	0	0	0	0	0	0	0	0
<i>Pyramidelloides gracilis</i>	0	0	0	0	0	0	0	0
<i>Pyramidelloides suta</i>	0	0	0	0	0	3	0	3
<i>Pyrgulina oodes</i>	0	0	0	0	0	3	0	3
<i>Pyrgulina</i> sp.	0	0	0	0	0	0	0	0
<i>Rastodens</i> sp.								
<i>Rhinoclavis articulata</i>								
<i>Rissoella</i> sp.	0	0	0	0	0	0	0	0
Rissoidae spp.	1	0	0	1	3	9	7	19
<i>Rissoina ambigua</i>								
<i>Rissoina cerithiiformis</i>	0	0	0	0	0	0	1	1
<i>Rissoina costata</i>								
<i>Rissoina imbricata</i>								
<i>Rissoina pulchella</i>	0	0	0	0	0	0	0	0
<i>Rissoina</i> sp.	0	0	0	0	0	0	5	5
<i>Rufodardanula ponderi</i>								
<i>Rufodardanula</i> sp.								
<i>Sansonia kenneyi</i>	0	0	0	0	0	0	0	0
<i>Sansonia</i> sp. A								
<i>Sansonia</i> spp.								
<i>Scabricola casta</i>								
<i>Scalenostoma</i> sp.								
<i>Scaliola</i> spp.	0	2	3	5	82	46	117	245
<i>Scaphander</i> sp.								
<i>Schwartziella ephamilla</i>	0	0	0	0	0	0	0	0
<i>Schwartziella triticea</i>	0	0	0	0	0	0	0	0
<i>Scissurella coronata</i>								
<i>Scissurella pseudoequatoria</i>	0	0	0	0	0	0	0	0
<i>Seminella peasei</i>								
<i>Seminella smithi</i>	0	0	0	0	0	0	0	0
<i>Sinezona insignis</i>	0	0	0	0	0	0	0	0
<i>Smaragdia bryanae</i>	0	0	0	0	0	0	0	0
<i>Stilifer</i> sp.								
<i>Stosicia hiloense</i>	0	0	0	0	0	0	2	2
<i>Strebloceras subannulatum</i>	0	0	0	0	0	0	0	0
<i>Strombus helli</i>								
<i>Strombus maculatus</i>								
<i>Styliferina goniochila</i>	0	0	0	0	0	0	0	0
<i>Synaptocochlea concinna</i>								
<i>Terebra</i> spp.								
<i>Thala milium</i>								
<i>Tricolia variabilis</i>	0	0	0	0	3	5	9	17
<i>Triphora</i> spp.	0	0	0	0	5	4	5	14
<i>Tritonoturris</i> sp. A								
<i>Trivia globosa pilula</i>								
<i>Trivia hordacea</i>								
<i>Trivia pellucida</i>								
<i>Trivia</i> spp.								

TABLE E.7—Continued

Taxon	No. of Individuals at E1				No. of Individuals at E2			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Trochus intextus</i>	0	0	0	0	0	0	0	0
<i>Trochus</i> sp.								
<i>Tugali oblonga</i>								
<i>Tugali</i> sp.								
<i>Turbo sandwicensis</i>								
<i>Turbonilla cornelliana</i>	0	0	0	0	0	0	0	0
<i>Turbonilla thaanumi</i>								
<i>Turbonilla</i> sp. A								
<i>Turbonilla</i> sp. B								
<i>Turbonilla</i> sp. C	0	0	0	0	0	0	0	0
<i>Turbonilla</i> sp. D	0	0	0	0	0	0	0	0
<i>Turbonilla</i> sp. E								
<i>Turbonilla</i> sp. F								
<i>Turbonilla</i> spp.								
Turridae sp.	0	0	0	0	0	0	1	1
<i>Umbraculum sinicum</i>								
<i>Umbraculum</i> sp.								
<i>Vanikoro cancellata</i>								
<i>Vanikoro</i> sp.	0	0	0	0	0	0	0	0
<i>Vepracula brunonia</i>								
Vermetidae spp.	0	0	0	0	0	0	0	0
<i>Vexillum adamsianum</i>								
<i>Vexillum approximatum</i>								
<i>Vexillum cosmani</i>								
<i>Vexillum interruptum</i>								
<i>Vexillum pacificum</i>								
<i>Vexillum rubrum</i>								
<i>Vexillum rufofilosum</i>	0	0	0	0	0	0	2	2
<i>Vexillum tusum</i>								
<i>Vexillum</i> sp. A	0	0	0	0	0	0	0	0
<i>Vexillum</i> sp.								
Vitrinellidae sp.								
<i>Volvarina fusiformis</i>								
<i>Williamia radiata</i>	0	0	0	0	0	1	0	1
<i>Xenuroturris</i> sp.								
<i>Zebina bidentata</i>								
<i>Zebina</i> sp.								
<i>Gastropoda</i> sp. A								
<i>Gastropoda</i> spp.								
SCAPHOPODA								
Scaphopoda sp.	0	1	0	1	0	0	0	0
POLYPLACOPHORA								
Polyplacophora sp.								
Total No. of Individuals	148	178	93	419	498	383	526	1,407
Total No. of Individuals/cm ³	9.9	11.9	6.2	9.3	33.2	25.5	35.1	31.3
Total No. of Taxa	15	18	16	26	31	30	37	61

^a*Pinna* sp. are indicated by a "+" for larval shells and by "frag" for shell fragments.

TABLE E.8. Taxon Abundance from Three Replicates for Mollusk Components, Sand Island Ocean Outfall Sampling Stations E3 and E5, O'ahu, Hawai'i, August 2002

Taxon	No. of Individuals at E3				No. of Individuals at E5			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
BIVALVIA								
<i>Acar</i> cf. <i>plicata</i>	1	0	0	1	0	0	1	1
<i>Adipicola</i> cf. <i>crypta</i>	0	0	0	0	1	2	0	3
<i>Amygdalum newcombi</i>								
<i>Amygdalum</i> sp.								
<i>Anguipecten</i> cf. <i>lamberti</i>	0	0	0	0	0	0	0	0
<i>Anisodonta lutea</i>								
<i>Anomia nobilis</i>	0	0	0	0	1	0	0	1
<i>Arca kauaia</i>								
Arcidae sp.								
<i>Barbatia divaricata</i>	1	2	0	3	0	0	0	0
<i>Barbatia lima</i>								
<i>Barbatia nuttingi</i>								
<i>Barbatia</i> sp.								
<i>Brachidontes crebristriatus</i>	1	1	0	2	0	0	0	0
<i>Cardita thaanumi</i>								
<i>Cardita</i> sp.								
<i>Carditella hawaiiensis</i>	2	5	1	8	0	1	2	3
<i>Carditella</i> sp.								
<i>Chlamydella</i> sp. A	0	0	0	0	0	2	3	5
<i>Chlamys coruscans hawaiiensis</i>								
<i>Chlamys kauaiensis</i>								
<i>Chlamys</i> sp. B								
<i>Chlamys</i> sp.	0	2	1	3	1	2	1	4
<i>Codakia punctata</i>								
<i>Cosa waikikia</i>	0	2	2	4	14	3	4	21
<i>Crenella</i> sp.								
<i>Ctena bella</i>								
<i>Ctena transversa</i>	0	0	0	0	0	0	8	8
<i>Ctena</i> sp.	8	13	10	31	0	0	0	0
<i>Cuspidaria hawaiiensis</i>								
<i>Cuspidaria pailoana</i>	0	1	0	1	0	0	0	0
<i>Epicodakia</i> sp.	4	11	3	18	0	0	0	0
<i>Ervilia biscalpta</i>	5	4	7	16	1	2	0	3
<i>Euciroa pacifica</i>								
<i>Fragum mundum</i>	0	0	1	1	0	0	0	0
<i>Gastrochaena</i> sp.								
<i>Glycymeris</i> sp.	0	0	0	0	0	0	0	0
<i>Grammatomya kanaka</i>	0	0	1	1	0	0	0	0
<i>Haumea juddi</i>	0	0	0	0	0	0	0	0
<i>Hiatella arctica</i>								
<i>Hitia ovalis</i>								
<i>Kellia hawaiiensis</i>	0	0	2	2	4	5	2	11
<i>Kona symmetrica</i>								
Leptonacea sp.								
<i>Lima keokea</i>								
<i>Lima</i> sp.	0	0	0	0	0	1	0	1
<i>Limopsis</i> sp.								
<i>Lioconcha hieroglyphica</i>								
<i>Lonoa hawaiiensis</i>								
<i>Lucina edentula</i>								

TABLE E.8—Continued

Taxon	No. of Individuals at E3				No. of Individuals at E5			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Macoma dispar</i>								
<i>Macoma obliquilineata</i>								
<i>Maetra thaanumi</i>								
<i>Maetra</i> sp.								
<i>Malleus regula</i>								
<i>Malleus</i> sp.								
<i>Modiolus</i> sp.	0	0	0	0	0	1	0	1
Mytilidae sp. A								
Mytilidae sp. B								
Mytilidae sp. C								
Mytilidae sp.	4	5	1	10	0	4	0	4
<i>Nemocardium thaanumi</i>	1	0	1	2	0	1	0	1
<i>Nemocardium</i> sp.	0	0	1	1	0	0	0	0
<i>Nucula hawaiiensis</i>	1	0	1	2	0	0	2	2
<i>Ostrea</i> sp.	0	2	0	2	2	2	1	5
Pectinidae sp. A								
<i>Pillucina hawaiiensis</i>								
<i>Pillucina spaldingi</i>								
<i>Pillucina</i> sp.								
<i>Pinna</i> sp. ^a	+	+	+	+	0	0	0	0
<i>Poromya transversa</i>								
Propeamusiidae sp.	0	0	0	0	3	0	0	3
<i>Pteria</i> sp.								
<i>Rochefortina sandwichensis</i>	2	1	2	5	1	2	0	3
<i>Rochefortina</i> sp.								
<i>Scintilla hiloa</i>								
<i>Semelangulus crebrimaculatus</i>								
<i>Semelangulus</i> sp.								
<i>Semele australis</i>								
<i>Septifer bryanae</i>	0	0	0	0	2	0	0	2
<i>Septifer</i> sp.	0	0	0	0	0	0	3	3
<i>Spondylus</i> sp.								
<i>Tellina oahuana</i>								
<i>Tellina robusta</i>								
<i>Tellina</i> sp. A								
<i>Tellina</i> sp. B								
<i>Tellina</i> sp. C								
<i>Tellina</i> sp.	0	0	1	1	0	0	0	0
Bivalvia sp. A	2	6	0	8	0	0	0	0
Bivalvia sp. B								
Bivalvia sp. C								
Bivalvia spp.	0	0	1	1	0	0	0	0
GASTROPODA								
<i>Acteocina hawaiiensis</i>	0	1	0	1	0	0	0	0
<i>Acteocina sandwichensis</i>	0	0	0	0	1	0	1	2
<i>Acteocina</i> sp. A								
<i>Acteocina</i> sp.	5	4	0	9	0	0	0	0
<i>Alcyna ocellata</i>	3	7	7	17	0	3	0	3
<i>Alcyna subangulata</i>	0	2	1	3	0	0	0	0
<i>Alvania isolata</i>								
<i>Anacithara perfecta</i>	0	1	0	1	0	0	0	0

TABLE E.8—Continued

Taxon	No. of Individuals at E3				No. of Individuals at E5			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Antisabia foliacea</i>	0	2	0	2	0	0	1	1
Aplysiidae	0	0	0	0	0	8	0	8
Architectonicidae sp.								
<i>Argyropeza leucocephala</i>	0	2	0	2	0	0	0	0
<i>Argyropeza</i> sp.								
<i>Aspella producta</i>								
<i>Aspella</i> sp.								
<i>Atys curta</i>								
<i>Atys debilis</i>								
<i>Atys semistriata</i>								
<i>Atys</i> sp.	0	0	0	0	0	0	0	0
<i>Balcis</i> cf. <i>brunnimaculata</i>								
<i>Balcis</i> spp.	0	0	0	0	38	35	57	130
<i>Barleeia calcarea</i>								
<i>Benthonella</i> sp.								
<i>Bittium impendens</i>	1	0	0	1	0	0	1	1
<i>Bittium</i> sp.	0	0	0	0	0	0	0	0
<i>Brookula hawaiiensis</i>								
<i>Brookula iki</i>								
<i>Brookula</i> sp.	0	0	0	0	1	1	0	2
Buccinidae sp.								
<i>Bulla vermicosa</i>								
<i>Bulla</i> sp.	0	0	0	0	0	0	0	0
<i>Bullina scabra</i>								
<i>Caecum arcuatum</i>	0	0	0	0	0	0	0	0
<i>Caecum</i> cf. <i>glabella</i>								
<i>Caecum</i> cf. <i>glabriformis</i>	0	0	0	0	3	0	1	4
<i>Caecum oahuense</i>								
<i>Caecum sepimentum</i>	15	10	14	39	17	11	0	28
<i>Caecum</i> sp. A	0	0	0	0	0	0	0	0
<i>Caecum</i> sp.	0	0	0	0	0	0	0	0
<i>Cancilla granatina</i>	0	0	0	0	0	0	0	0
<i>Cancilla</i> sp.								
<i>Cantharus</i> sp.								
Capulidae sp.								
<i>Carinapex minutissima</i>	0	0	0	0	0	1	1	2
<i>Carinapex papillosa</i>								
<i>Cephalaspidea</i> sp.	0	0	0	0	1	0	3	4
<i>Cerithidium diplax</i>	16	10	19	45	2	3	1	6
<i>Cerithidium perparvulum</i>	94	67	79	240	50	41	56	147
<i>Cerithiopsis</i> spp.								
<i>Cerithium atromarginatum</i>								
<i>Cerithium columna</i>	1	0	0	1	0	0	2	2
<i>Cerithium glareosum</i>								
<i>Cerithium interstriatum</i>	1	4	0	5	18	0	10	28
<i>Cerithium nesioticum</i>	0	0	0	0	1	0	0	1
<i>Cerithium rostratum</i>	0	1	0	1	0	0	0	0
<i>Cerithium zebrum</i>	1	0	0	1	0	0	0	0
<i>Cerithium</i> spp.	0	0	0	0	0	0	0	0
<i>Ceritoturris bittium</i>	0	0	0	0	1	1	1	3
<i>Circulus</i> sp.								
<i>Cirsotrema varicosa</i>								

TABLE E.8—Continued

Taxon	No. of Individuals at E3				No. of Individuals at E5			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Clavus pusilla</i>								
<i>Clavus</i> sp.								
<i>Collonista candida</i>	0	1	1	2	0	0	0	0
<i>Conus pulicarius</i>								
<i>Conus quercinus</i>								
<i>Conus</i> sp.								
Coralliophilidae sp.								
Costellariidae sp.								
<i>Crepidula aculeata</i>								
<i>Crucibulum spinosum</i>								
<i>Cycloscala hyalina</i>								
<i>Cyclostremiscus emeryi</i>	1	0	5	6	0	0	0	0
<i>Cyclostremiscus striatus</i>								
<i>Cyclostremiscus</i> sp. A	0	0	0	0	0	0	0	0
<i>Cylichna pusilla</i>								
Cypraeidae spp.								
<i>Cystiscus huna</i>								
Daphnellinae sp.	0	1	0	1	0	0	0	0
<i>Dentimargo pumila</i>								
<i>Diala scopulorum</i>	239	194	292	725	318	400	419	1,137
<i>Diala semistriata</i>	39	35	20	94	11	20	13	44
<i>Diala</i> sp.								
<i>Diniatys dentifer</i>								
<i>Diodora granifera</i>	1	0	1	2	0	0	0	0
<i>Drupella</i> sp. A								
<i>Drupella</i> sp.								
<i>Eatoniella janetaylorae</i>								
<i>Eatoniella pigmenta</i>								
<i>Eatoniella</i> sp.	4	0	1	5	0	0	0	0
<i>Elachisina robertsoni</i>								
<i>Elacorbis callusa</i>								
<i>Emarginula dilecta</i>								
<i>Emarginula</i> sp.	0	0	0	0	0	1	0	1
<i>Epitonium</i> spp.	0	0	1	1	2	1	2	5
<i>Erato sandwicensis</i>	0	0	0	0	0	0	0	0
<i>Erema acricula</i>								
<i>Euchelus gemmatus</i>	3	2	2	7	2	1	0	3
<i>Euchelus</i> sp.								
<i>Eucithara angiostoma</i>	0	0	0	0	0	0	0	0
<i>Eucithara pusilla</i>								
<i>Eucithara</i> sp.								
<i>Eucylotoma albomacula</i>	0	0	0	0	0	0	0	0
<i>Eulima peasei</i>								
Eulimidae sp.	35	22	35	92	0	0	0	0
<i>Euplica varians</i>								
<i>Evalea peasei</i>								
<i>Evalea waikikiensis</i>								
<i>Finella pupoides</i>	5	1	0	6	6	1	2	9
<i>Fusinus</i> sp.								
<i>Gemmula monilifera</i>								
<i>Gibbula marmorea</i>	1	0	0	1	0	0	1	1
<i>Glyphostoma kihikihi</i>								

TABLE E.8—Continued

Taxon	No. of Individuals at E3				No. of Individuals at E5			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Granula sandwicensis</i>	0	1	0	1	0	0	0	0
<i>Granulina vitrea</i>	0	0	0	0	0	0	0	0
<i>Granulina</i> sp.	0	0	0	0	0	0	0	0
<i>Gyrineum pusillum</i>								
<i>Haminoea curta</i>								
<i>Haminoea</i> sp.	1	0	1	2	3	1	0	4
<i>Heliacus implexus</i>								
<i>Heliacus</i> sp. A								
<i>Heliacus</i> sp.	0	0	0	0	0	0	0	0
<i>Herviera gliriella</i>								
<i>Herviera patricia</i>								
<i>Hinemoa indica</i>	1	0	0	1	0	0	0	0
<i>Hipponix australis</i>								
<i>Hipponix imbricatus</i>								
<i>Hipponix pilosus</i>	1	1	0	2	0	0	0	0
<i>Hipponix</i> sp.	0	0	0	0	0	0	0	0
<i>Hydatina</i> sp.								
<i>Itibittium parcum</i>	1	1	0	2	0	0	0	0
<i>Julia exquisita</i>								
Juliidae sp.								
<i>Kermia aniani</i>								
<i>Kermia brunnea</i>								
<i>Kermia cylindrica</i>								
<i>Kermia daedalea</i>								
<i>Kermia</i> sp.								
<i>Kolonella hawaiiensis</i>								
<i>Kolonella</i> sp.	0	0	0	0	3	0	0	3
<i>Leptothyra rubricincta</i>	2	0	0	2	1	1	1	3
<i>Leptothyra verruca</i>	1	1	0	2	0	2	2	4
<i>Lienardia apiculata</i>								
<i>Lienardia mighelsi</i>								
Liotiidae sp.								
<i>Lophocochlias minutissimus</i>	14	4	3	21	1	2	1	4
<i>Lophocochlias</i> sp. A	3	0	0	3	0	0	0	0
<i>Lophocochlias</i> sp.								
<i>Meioceras sandwichensis</i>								
<i>Merelina granulosa</i>								
<i>Merelina hewa</i>	1	1	1	3	0	0	0	0
<i>Merelina wanawana</i>	2	1	0	3	0	0	0	0
<i>Metaxia albicephala</i>								
<i>Metaxia brunnicephala</i>								
<i>Metaxia</i> sp.	1	0	0	1	1	0	0	1
<i>Microdaphne trichodes</i>								
<i>Miralda paulbarschi</i>	3	0	0	3	0	0	0	0
<i>Miralda scopulorum</i>	0	0	0	0	0	0	1	1
<i>Miralda</i> sp.								
<i>Mitra earlei</i>								
<i>Mitra saltata</i>								
<i>Mitra</i> sp.	0	0	0	0	0	0	0	0
<i>Mitrella bella</i>								
<i>Mitrella loyaltensis</i>	0	1	0	1	2	0	0	2
<i>Mitrella margarita</i>								

TABLE E.8—Continued

Taxon	No. of Individuals at E3				No. of Individuals at E5			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
<i>Mitrella rorida</i>								
<i>Mitrolumna metula</i>								
<i>Modulus tectum</i>								
<i>Morula</i> sp.								
<i>Nassarius crematus</i>	0	0	0	0	0	0	1	1
<i>Nassarius papillosus</i>								
<i>Nassarius</i> sp.								
<i>Natica bougei</i>								
<i>Natica gualteriana</i>	2	4	4	10	4	1	1	6
<i>Natica</i> sp.	0	0	0	0	0	0	0	0
<i>Nerita</i> spp.	0	0	0	0	0	0	0	0
<i>Neritopsis radula</i>	0	0	0	0	0	0	0	0
<i>Nesiodostomia quarta</i>								
<i>Nesiodostomia</i> sp.	0	0	0	0	0	0	0	0
<i>Odostomia gulicki</i>	0	0	0	0	0	0	0	0
<i>Odostomia oxia</i>								
<i>Odostomia stearnsiella</i>								
<i>Odostomia</i> sp. A								
<i>Odostomia</i> sp. B								
<i>Odostomia</i> sp.	6	0	0	6	0	0	0	0
<i>Omalaxis</i> sp.								
<i>Omalogyra japonica</i>	0	0	0	0	4	4	0	8
<i>Omalogyra</i> spp.								
<i>Orbitestella regina</i>	7	6	7	20	1	6	3	10
<i>Orbitestella</i> sp. A	0	0	0	0	0	0	0	0
<i>Orbitestella</i> sp. B	1	1	0	2	0	1	2	3
<i>Orbitestella</i> sp.								
<i>Parashiela beetsi</i>	13	6	7	26	4	5	8	17
<i>Pelycidion habei</i>								
<i>Peristernia chlorostoma</i>								
<i>Phenacolepas scobinata</i>								
<i>Philippia oxytropis</i>								
<i>Philippia</i> sp.								
<i>Planaxis suturalis</i>								
<i>Planaxis</i> sp.								
<i>Plesiotrochus luteus</i>								
<i>Powellsetia fallax</i>								
<i>Prodotia iostomus</i>								
<i>Pseudodaphnella pulchella</i>								
<i>Pseudomalaxis</i> sp.								
<i>Pterygia pudica</i>								
<i>Pupa pudica</i>								
<i>Pupa tessellata</i>								
<i>Pupa</i> sp.	0	1	0	1	0	0	0	0
<i>Pusillina marmorata</i>	71	56	47	174	73	85	84	242
<i>Pyramidella sulcata</i>								
<i>Pyramidella</i> sp. A								
<i>Pyramidella</i> sp. B								
<i>Pyramidella</i> sp. C								
<i>Pyramidella</i> sp. D								
<i>Pyramidella</i> spp.	0	0	0	0	0	0	0	0
<i>Pyramidellidae</i> sp. A								

TABLE E.8—Continued

Taxon	No. of Individuals at E3				No. of Individuals at E5			
	Replicate			Total	Replicate			Total
	1	2	3		1	2	3	
Pyramidellidae sp. B								
Pyramidellidae sp. C	1	0	0	1	0	2	1	3
Pyramidellidae sp. D								
Pyramidellidae sp.	0	0	0	0	0	0	0	0
<i>Pyramidelloides angusta</i>								
<i>Pyramidelloides gracilis</i>	1	0	0	1	0	0	0	0
<i>Pyramidelloides suta</i>								
<i>Pyrgulina oodes</i>	3	6	0	9	6	6	0	12
<i>Pyrgulina</i> sp.	0	0	0	0	2	2	0	4
<i>Rastodens</i> sp.								
<i>Rhinoclavis articulata</i>								
<i>Rissoella</i> sp.	6	3	4	13	1	5	4	10
Rissoidae spp.	0	0	0	0	0	0	0	0
<i>Rissoina ambigua</i>								
<i>Rissoina cerithiiformis</i>	0	1	0	1	0	0	0	0
<i>Rissoina costata</i>								
<i>Rissoina imbricata</i>								
<i>Rissoina pulchella</i>	14	26	12	52	9	3	8	20
<i>Rissoina</i> sp.	0	0	0	0	0	0	0	0
<i>Rufodardanula ponderi</i>								
<i>Rufodardanula</i> sp.								
<i>Sansonia kenneyi</i>	0	0	0	0	0	1	0	1
<i>Sansonia</i> sp. A								
<i>Sansonia</i> spp.								
<i>Scabricola casta</i>								
<i>Scalenostoma</i> sp.								
<i>Scaliola</i> spp.	67	47	80	194	21	31	23	75
<i>Scaphander</i> sp.								
<i>Schwartziella ephamilla</i>	3	4	0	7	2	8	2	12
<i>Schwartziella triticea</i>	0	1	0	1	0	0	0	0
<i>Scissurella coronata</i>								
<i>Scissurella pseudoequatoria</i>	0	0	0	0	1	3	0	4
<i>Seminella peasei</i>								
<i>Seminella smithi</i>	0	0	0	0	0	2	0	2
<i>Sinezona insignis</i>	0	1	1	2	0	0	0	0
<i>Smaragdia bryanae</i>	0	0	0	0	1	0	1	2
<i>Stilifer</i> sp.								
<i>Stosicia hiloense</i>	0	1	0	1	0	0	0	0
<i>Strebloceras subannulatum</i>	0	0	0	0	1	14	0	15
<i>Strombus helli</i>								
<i>Strombus maculatus</i>								
<i>Styliferina goniochila</i>	1	1	0	2	0	0	0	0
<i>Synaptocochlea concinna</i>								
<i>Terebra</i> spp.								
<i>Thala milium</i>								
<i>Tricolia variabilis</i>	30	17	20	67	1	1	2	4
<i>Triphora</i> spp.	8	5	0	13	3	8	0	11
<i>Tritonoturris</i> sp. A								
<i>Trivia globosa pilula</i>								
<i>Trivia hordacea</i>								
<i>Trivia pellucida</i>								
<i>Trivia</i> spp.								

TABLE E.8—Continued

Taxon	No. of Individuals at E3				No. of Individuals at E5			
	1	Replicate 2	3	Total	1	Replicate 2	3	Total
<i>Trochus intextus</i>	1	0	0	1	0	0	0	0
<i>Trochus</i> sp.								
<i>Tugali oblonga</i>								
<i>Tugali</i> sp.								
<i>Turbo sandwicensis</i>								
<i>Turbonilla cornelliana</i>	0	1	0	1	0	0	0	0
<i>Turbonilla thaanumi</i>								
<i>Turbonilla</i> sp. A								
<i>Turbonilla</i> sp. B								
<i>Turbonilla</i> sp. C	0	1	0	1	0	0	0	0
<i>Turbonilla</i> sp. D	0	1	0	1	2	0	0	2
<i>Turbonilla</i> sp. E								
<i>Turbonilla</i> sp. F								
<i>Turbonilla</i> spp.								
Turridae sp.	1	1	0	2	0	0	0	0
<i>Umbraculum sinicum</i>								
<i>Umbraculum</i> sp.								
<i>Vanikoro cancellata</i>								
<i>Vanikoro</i> sp.	0	1	1	2	0	0	3	3
<i>Vepracula brunonia</i>								
Vermetidae spp.	8	0	3	11	0	2	4	6
<i>Vexillum adamsianum</i>								
<i>Vexillum approximatum</i>								
<i>Vexillum cosmani</i>								
<i>Vexillum interruptum</i>								
<i>Vexillum pacificum</i>								
<i>Vexillum rubrum</i>								
<i>Vexillum rufofilosum</i>	0	0	0	0	0	0	0	0
<i>Vexillum tusum</i>								
<i>Vexillum</i> sp. A	0	0	0	0	3	0	0	3
<i>Vexillum</i> sp.								
Vitrinellidae sp.								
<i>Volvarina fusiformis</i>								
<i>Williamia radiata</i>	1	0	0	1	0	0	0	0
<i>Xenuroturrus</i> sp.								
<i>Zebina bidentata</i>								
<i>Zebina</i> sp.								
<i>Gastropoda</i> sp. A								
<i>Gastropoda</i> spp.								
SCAPHOPODA								
Scaphopoda sp.	0	0	0	0	0	0	0	0
POLYPLACOPHORA								
Polyplacophora sp.								
Total No. of Individuals	773	625	705	2,103	652	752	751	2,155
Total No. of Individuals/cm ³	51.5	41.7	47.0	46.7	43.5	50.1	50.1	47.9
Total No. of Taxa	63	64	45	93	50	52	46	77

^a*Pinna* sp. are indicated by a "+" for larval shells and by "frag" for shell fragments.

TABLE E.9. Taxon Abundance from Three Replicates for Mollusk Components, Sand Island Ocean Outfall Sampling Station E6, O'ahu, Hawai'i, August 2002

Taxon	No. of Individuals at E6				Transect E Total
	1	2	3	Total	
BIVALVIA					
<i>Acar</i> cf. <i>plicata</i>	0	0	0	0	2
<i>Adipicola</i> cf. <i>crypta</i>	0	0	0	0	3
<i>Amygdalum newcombi</i>					
<i>Amygdalum</i> sp.					
<i>Anguipecten</i> cf. <i>lamberti</i>	0	0	0	0	1
<i>Anisodonta lutea</i>					
<i>Anomia nobilis</i>	0	0	0	0	1
<i>Arca kauaia</i>					
Arcidae sp.					
<i>Barbatia divaricata</i>	0	0	0	0	3
<i>Barbatia lima</i>					
<i>Barbatia nuttingi</i>					
<i>Barbatia</i> sp.					
<i>Brachidontes crebristriatus</i>	0	0	0	0	2
<i>Cardita thaanumi</i>					
<i>Cardita</i> sp.					
<i>Carditella hawaiiensis</i>	0	0	0	0	11
<i>Carditella</i> sp.					
<i>Chlamydella</i> sp. A	1	0	0	1	6
<i>Chlamys coruscans hawaiiensis</i>					
<i>Chlamys kauaiensis</i>					
<i>Chlamys</i> sp. B					
<i>Chlamys</i> sp.	0	1	1	2	12
<i>Codakia punctata</i>					
<i>Cosa waikikia</i>	0	0	0	0	25
<i>Crenella</i> sp.					
<i>Ctena bella</i>					
<i>Ctena transversa</i>	0	0	0	0	15
<i>Ctena</i> sp.	0	0	0	0	31
<i>Cuspidaria hawaiiensis</i>					
<i>Cuspidaria pailoloana</i>	0	0	0	0	1
<i>Epicodakia</i> sp.	0	0	0	0	18
<i>Ervilia bisculpta</i>	4	0	2	6	26
<i>Euciroa pacifica</i>					
<i>Fragum mundum</i>	0	0	0	0	1
<i>Gastrochaena</i> sp.					
<i>Glycymeris</i> sp.	0	0	0	0	1
<i>Grammatomya kanaka</i>	0	0	0	0	1
<i>Haumea juddi</i>	0	0	0	0	1
<i>Hiatella arctica</i>					
<i>Hitia ovalis</i>					
<i>Kellia hawaiiensis</i>	0	0	0	0	13
<i>Kona symmetrica</i>					
Leptonacea sp.					
<i>Lima keokea</i>					
<i>Lima</i> sp.	0	1	2	3	4
<i>Limopsis</i> sp.					
<i>Lioconcha hieroglyphica</i>					
<i>Lonoa hawaiiensis</i>					
<i>Lucina edentula</i>					

TABLE E.9—Continued

Taxon	No. of Individuals at E6			Total	Transect E Total
	1	2	3		
<i>Macoma dispar</i>					
<i>Macoma obliquilineata</i>					
<i>Mactra thaanumi</i>					
<i>Mactra</i> sp.					
<i>Malleus regula</i>					
<i>Malleus</i> sp.					
<i>Modiolus</i> sp.	0	0	0	0	1
Mytilidae sp. A					
Mytilidae sp. B					
Mytilidae sp. C					
Mytilidae sp.	0	0	0	0	14
<i>Nemocardium thaanumi</i>	0	0	0	0	3
<i>Nemocardium</i> sp.	0	0	0	0	1
<i>Nucula hawaiiensis</i>	0	1	0	1	5
<i>Ostrea</i> sp.	0	0	0	0	7
Pectinidae sp. A					
<i>Pillucina hawaiiensis</i>					
<i>Pillucina spaldingi</i>					
<i>Pillucina</i> sp.					
<i>Pinna</i> sp. ^a	+	+	+	+	frag+
<i>Poromya transversa</i>					
Propeamusiidae sp.	0	0	0	0	3
<i>Pteria</i> sp.					
<i>Rochefortina sandwichensis</i>	0	2	0	2	16
<i>Rochefortina</i> sp.					
<i>Scintilla hiloa</i>					
<i>Semelangulus crebrimaculatus</i>					
<i>Semelangulus</i> sp.					
<i>Semele australis</i>					
<i>Septifer bryanae</i>	0	0	0	0	2
<i>Septifer</i> sp.	0	0	0	0	7
<i>Spondylus</i> sp.					
<i>Tellina oahuana</i>					
<i>Tellina robusta</i>					
<i>Tellina</i> sp. A					
<i>Tellina</i> sp. B					
<i>Tellina</i> sp. C					
<i>Tellina</i> sp.	0	0	0	0	1
Bivalvia sp. A	0	0	0	0	8
Bivalvia sp. B	1	0	0	1	1
Bivalvia sp. C					
Bivalvia spp.	0	0	0	0	23
GASTROPODA					
<i>Acteocina hawaiiensis</i>	0	0	0	0	1
<i>Acteocina sandwicensis</i>	0	0	0	0	2
<i>Acteocina</i> sp. A					
<i>Acteocina</i> sp.	0	0	0	0	26
<i>Alcyna ocellata</i>	0	0	0	0	21
<i>Alcyna subangulata</i>	0	0	0	0	3
<i>Alvania isolata</i>					
<i>Anacithara perfecta</i>	0	0	0	0	1

TABLE E.9—Continued

Taxon	No. of Individuals at E6				Transect E Total
	1	2	3	Total	
<i>Antisabia foliacea</i>	0	0	0	0	3
Aplysiidae	0	0	0	0	8
Architectonicidae sp.					
<i>Argyropeza leucocephala</i>	0	0	0	0	2
<i>Argyropeza</i> sp.					
<i>Aspella producta</i>					
<i>Aspella</i> sp.					
<i>Atys curta</i>					
<i>Atys debilis</i>					
<i>Atys semistriata</i>					
<i>Atys</i> sp.	0	0	0	0	2
<i>Balcis</i> cf. <i>brunnimaculata</i>					
<i>Balcis</i> spp.	6	5	11	22	274
<i>Barleeia calcarea</i>					
<i>Benthonella</i> sp.					
<i>Bittium impendens</i>	0	0	0	0	2
<i>Bittium</i> sp.	0	0	0	0	4
<i>Brookula hawaiiensis</i>					
<i>Brookula iki</i>					
<i>Brookula</i> sp.	0	0	0	0	2
Buccinidae sp.					
<i>Bulla vernicosa</i>					
<i>Bulla</i> sp.	0	0	0	0	4
<i>Bullina scabra</i>					
<i>Caecum arcuatum</i>	0	0	0	0	4
<i>Caecum</i> cf. <i>glabella</i>					
<i>Caecum</i> cf. <i>glabriformis</i>	0	0	0	0	4
<i>Caecum oahuense</i>					
<i>Caecum sepimentum</i>	0	0	0	0	71
<i>Caecum</i> sp. A	0	0	0	0	1
<i>Caecum</i> sp.	0	0	0	0	2
<i>Cancilla granatina</i>	0	0	0	0	1
<i>Cancilla</i> sp.					
<i>Cantharus</i> sp.					
Capulidae sp.					
<i>Carinapex minutissima</i>	0	0	0	0	2
<i>Carinapex papillosa</i>					
Cephalaspidea sp.	0	0	0	0	5
<i>Cerithidium diplax</i>	2	0	0	2	54
<i>Cerithidium perparvulum</i>	3	0	1	4	552
<i>Cerithiopsis</i> spp.					
<i>Cerithium atromarginatum</i>					
<i>Cerithium columna</i>	0	0	0	0	3
<i>Cerithium glareosum</i>					
<i>Cerithium interstriatum</i>	0	0	0	0	33
<i>Cerithium nesioticum</i>	0	0	0	0	1
<i>Cerithium rostratum</i>	0	0	0	0	5
<i>Cerithium zebrum</i>	0	0	0	0	1
<i>Cerithium</i> spp.	0	0	0	0	16
<i>Ceritoturris bittium</i>	0	0	0	0	3
<i>Circulus</i> sp.					
<i>Cirsotrema varicosa</i>					

TABLE E.9—Continued

Taxon	No. of Individuals at E6			Total	Transect E Total
	1	2	3		
<i>Clavus pusilla</i>					
<i>Clavus</i> sp.					
<i>Collonista candida</i>	0	0	0	0	2
<i>Conus pulicarius</i>					
<i>Conus quercinus</i>					
<i>Conus</i> sp.					
Coralliophilidae sp.					
Costellariidae sp.					
<i>Crepidula aculeata</i>					
<i>Crucibulum spinosum</i>					
<i>Cycloscala hyalina</i>					
<i>Cyclostremiscus emeryi</i>	0	0	0	0	6
<i>Cyclostremiscus striatus</i>					
<i>Cyclostremiscus</i> sp. A	0	0	0	0	1
<i>Cylichna pusilla</i>					
Cypraeidae spp.					
<i>Cystiscus huna</i>					
Daphnellinae sp.	0	0	0	0	1
<i>Dentimargo pumila</i>					
<i>Diala scopulorum</i>	23	26	21	70	2,573
<i>Diala semistriata</i>	0	0	0	0	350
<i>Diala</i> sp.					
<i>Diniatys dentifer</i>					
<i>Diodora granifera</i>	0	0	0	0	2
<i>Drupella</i> sp. A					
<i>Drupella</i> sp.					
<i>Eatoniella janetaylorae</i>					
<i>Eatoniella pigmenta</i>					
<i>Eatoniella</i> sp.	1	0	0	1	20
<i>Elachisina robertsoni</i>					
<i>Elacorbis callusa</i>					
<i>Emarginula dilecta</i>					
<i>Emarginula</i> sp.	0	0	0	0	2
<i>Epitonium</i> spp.	0	1	0	1	7
<i>Erato sandwicensis</i>	0	0	0	0	1
<i>Erema acricula</i>					
<i>Euchelus gemmatus</i>	0	0	0	0	10
<i>Euchelus</i> sp.					
<i>Eucithara angiostroma</i>	0	1	0	1	1
<i>Eucithara pusilla</i>					
<i>Eucithara</i> sp.					
<i>Eucylotoma albomacula</i>	0	0	0	0	2
<i>Eulima peasei</i>					
Eulimidae sp.	0	0	0	0	92
<i>Euplica varians</i>					
<i>Evalea peasei</i>					
<i>Evalea waikikiensis</i>					
<i>Finella pupoides</i>	0	0	3	3	22
<i>Fusinus</i> sp.					
<i>Gemmula monilifera</i>					
<i>Gibbula marmorea</i>	0	0	0	0	2
<i>Glyphostoma kihikihi</i>					

TABLE E.9—Continued

Taxon	No. of Individuals at E6				Transect E Total
	1	2	3	Total	
<i>Granula sandwicensis</i>	0	0	0	0	1
<i>Granulina vitrea</i>	1	0	0	1	1
<i>Granulina</i> sp.	0	0	0	0	6
<i>Gyrineum pusillum</i>					
<i>Haminoea curta</i>					
<i>Haminoea</i> sp.	0	0	0	0	8
<i>Heliacus implexus</i>					
<i>Heliacus</i> sp. A					
<i>Heliacus</i> sp.	0	0	1	1	2
<i>Herviera gliriella</i>					
<i>Herviera patricia</i>					
<i>Hinemoa indica</i>	0	0	0	0	1
<i>Hipponix australis</i>					
<i>Hipponix imbricatus</i>					
<i>Hipponix pilosus</i>	0	0	0	0	2
<i>Hipponix</i> sp.	0	0	0	0	2
<i>Hydatina</i> sp.					
<i>Ittibittium parcum</i>	0	0	0	0	2
<i>Julia exquisita</i>					
Juliidae sp.					
<i>Kermia aniani</i>					
<i>Kermia brunnea</i>					
<i>Kermia cylindrica</i>					
<i>Kermia daedalea</i>					
<i>Kermia</i> sp.					
<i>Kolonella hawaiiensis</i>					
<i>Kolonella</i> sp.	0	1	0	1	4
<i>Leptothyra rubricincta</i>	0	0	0	0	5
<i>Leptothyra verruca</i>	0	0	0	0	6
<i>Lienardia apiculata</i>					
<i>Lienardia mighelsi</i>					
Liotiidae sp.					
<i>Lophocochlias minutissimus</i>	0	0	0	0	41
<i>Lophocochlias</i> sp. A	0	0	0	0	3
<i>Lophocochlias</i> sp.					
<i>Meioceras sandwichensis</i>					
<i>Merelina granulosa</i>					
<i>Merelina hewa</i>	0	0	0	0	3
<i>Merelina wanawana</i>	0	0	0	0	3
<i>Metaxia albicephala</i>					
<i>Metaxia brunniccephala</i>					
<i>Metaxia</i> sp.	0	0	0	0	2
<i>Microdaphne trichodes</i>					
<i>Miralda paulbartschi</i>	0	0	0	0	3
<i>Miralda scopulorum</i>	0	0	0	0	2
<i>Miralda</i> sp.					
<i>Mitra earlei</i>					
<i>Mitra saltata</i>					
<i>Mitra</i> sp.	0	0	0	0	2
<i>Mitrella bella</i>					
<i>Mitrella loyaltensis</i>	0	0	0	0	3
<i>Mitrella margarita</i>					

TABLE E.9—Continued

Taxon	No. of Individuals at E6			Total	Transect E Total
	1	2	3		
<i>Mitrella rorida</i>					
<i>Mitrolumna metula</i>					
<i>Modulus tectum</i>					
<i>Morula</i> sp.					
<i>Nassarius crematus</i>	0	0	0	0	1
<i>Nassarius papillosus</i>					
<i>Nassarius</i> sp.					
<i>Natica bougei</i>					
<i>Natica gualteriana</i>	1	2	1	4	20
<i>Natica</i> sp.	0	0	0	0	12
<i>Nerita</i> spp.	0	0	0	0	3
<i>Neritopsis radula</i>	0	0	0	0	2
<i>Nesiodostomia quarta</i>					
<i>Nesiodostomia</i> sp.	0	0	0	0	3
<i>Odostomia gulicki</i>	0	0	0	0	1
<i>Odostomia oxia</i>					
<i>Odostomia stearnsiella</i>					
<i>Odostomia</i> sp. A					
<i>Odostomia</i> sp. B					
<i>Odostomia</i> sp.	0	0	0	0	6
<i>Omalaxis</i> sp.					
<i>Omalogyra japonica</i>	1	2	1	4	15
<i>Omalogyra</i> spp.					
<i>Orbitestella regina</i>	0	1	0	1	48
<i>Orbitestella</i> sp. A	0	0	0	0	3
<i>Orbitestella</i> sp. B	1	0	0	1	6
<i>Orbitestella</i> sp.					
<i>Parashiela beetsi</i>	0	1	1	2	107
<i>Pelycidion habei</i>					
<i>Peristernia chlorostoma</i>					
<i>Phenacolepas scobinata</i>					
<i>Philippia oxytropis</i>					
<i>Philippia</i> sp.					
<i>Planaxis suturalis</i>					
<i>Planaxis</i> sp.					
<i>Plesiotrochus luteus</i>					
<i>Powellsetia fallax</i>					
<i>Prodotia iostomus</i>					
<i>Pseudodaphnella pulchella</i>					
<i>Pseudomalaxis</i> sp.					
<i>Pterygia pudica</i>					
<i>Pupa pudica</i>					
<i>Pupa tessellata</i>					
<i>Pupa</i> sp.	0	0	0	0	1
<i>Pusillina marmorata</i>	1	0	2	3	491
<i>Pyramidella sulcata</i>					
<i>Pyramidella</i> sp. A					
<i>Pyramidella</i> sp. B					
<i>Pyramidella</i> sp. C					
<i>Pyramidella</i> sp. D					
<i>Pyramidella</i> spp.	0	0	0	0	14
<i>Pyramidellidae</i> sp. A					

TABLE E.9—Continued

Taxon	No. of Individuals at E6			Total	Transect E Total
	1	2	3		
Pyramidellidae sp. B					
Pyramidellidae sp. C	0	0	0	0	4
Pyramidellidae sp. D					
Pyramidellidae sp.	0	1	1	2	22
<i>Pyramidelloides angusta</i>					
<i>Pyramidelloides gracilis</i>	0	0	0	0	1
<i>Pyramidelloides suta</i>					
<i>Pyrgulina oodes</i>	0	0	0	0	24
<i>Pyrgulina</i> sp.	0	0	0	0	4
<i>Rastodens</i> sp.					
<i>Rhinoclavis articulata</i>					
<i>Rissoella</i> sp.	0	0	0	0	23
Rissoidae spp.	0	0	0	0	20
<i>Rissoina ambigua</i>					
<i>Rissoina cerithiiformis</i>	0	0	0	0	2
<i>Rissoina costata</i>					
<i>Rissoina imbricata</i>					
<i>Rissoina pulchella</i>	0	0	0	0	72
<i>Rissoina</i> sp.	0	0	0	0	5
<i>Rufodardanula ponderi</i>					
<i>Rufodardanula</i> sp.					
<i>Sansonia kenneyi</i>	0	0	0	0	1
<i>Sansonia</i> sp. A					
<i>Sansonia</i> spp.					
<i>Scabricola casta</i>					
<i>Scalenostoma</i> sp.					
<i>Scaliola</i> spp.	2	0	2	4	523
<i>Scaphander</i> sp.					
<i>Schwartziella ephamilla</i>	0	0	1	1	20
<i>Schwartziella triticea</i>	0	0	0	0	1
<i>Scissurella coronata</i>					
<i>Scissurella pseudoequatoria</i>	0	0	0	0	4
<i>Seminella peasei</i>					
<i>Seminella smithi</i>	0	0	0	0	2
<i>Sinezona insignis</i>	0	0	0	0	2
<i>Smaragdia bryanae</i>	0	1	0	1	3
<i>Stilifer</i> sp.					
<i>Stosicia hiloense</i>	0	0	0	0	3
<i>Strebloceras subannulatum</i>	0	0	0	0	15
<i>Strombus heli</i>					
<i>Strombus maculatus</i>					
<i>Styliferina goniochila</i>	0	0	0	0	2
<i>Synaptocochlea concinna</i>					
<i>Terebra</i> spp.					
<i>Thala milium</i>					
<i>Tricolia variabilis</i>	0	0	0	0	88
<i>Triphora</i> spp.	0	0	0	0	38
<i>Tritonoturris</i> sp. A					
<i>Trivia globosa pilula</i>					
<i>Trivia hordacea</i>					
<i>Trivia pellucida</i>					
<i>Trivia</i> spp.					

TABLE E.9—Continued

Taxon	No. of Individuals at E6				Transect E Total
	1	2	3	Total	
<i>Trochus intextus</i>	0	0	0	0	1
<i>Trochus</i> sp.					
<i>Tugali oblonga</i>					
<i>Tugali</i> sp.					
<i>Turbo sandwicensis</i>					
<i>Turbonilla cornelliana</i>	0	0	0	0	1
<i>Turbonilla thaanumi</i>					
<i>Turbonilla</i> sp. A					
<i>Turbonilla</i> sp. B					
<i>Turbonilla</i> sp. C	0	0	0	0	1
<i>Turbonilla</i> sp. D	0	0	0	0	3
<i>Turbonilla</i> sp. E					
<i>Turbonilla</i> sp. F					
<i>Turbonilla</i> spp.					
Turridae sp.	0	0	0	0	3
<i>Umbraculum sinicum</i>					
<i>Umbraculum</i> sp.					
<i>Vanikoro cancellata</i>					
<i>Vanikoro</i> sp.	0	0	0	0	5
<i>Vepracula brunonia</i>					
Vermetidae spp.	0	0	2	2	19
<i>Vexillum adamsianum</i>					
<i>Vexillum approximatum</i>					
<i>Vexillum cosmani</i>					
<i>Vexillum interruptum</i>					
<i>Vexillum pacificum</i>					
<i>Vexillum rubrum</i>					
<i>Vexillum rufofilosum</i>	0	0	0	0	2
<i>Vexillum tusum</i>					
<i>Vexillum</i> sp. A	0	0	0	0	3
<i>Vexillum</i> sp.					
Vitrinellidae sp.					
<i>Volvarina fusiformis</i>					
<i>Williamia radiata</i>	0	0	0	0	2
<i>Xenuroturris</i> sp.					
<i>Zebina bidentata</i>					
<i>Zebina</i> sp.					
<i>Gastropoda</i> sp. A					
<i>Gastropoda</i> spp.					
SCAPHOPODA					
Scaphopoda sp.	0	0	0	0	1
POLYPLACOPHORA					
Polyplacophora sp.					
Total No. of Individuals	48	47	53	148	6,232
Total No. of Individuals/cm ³	3.2	3.1	3.5	3.3	27.7
Total No. of Taxa	15	16	17	30	156

^a*Pinna* sp. are indicated by a "+" for larval shells and by "frag" for shell fragments.