Ocean Exploration Benthic Community Assessment, 2002

SUBMITTED TO:

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INTRODUCTION

The Ocean Exploration (OE) region was sampled during 2002. One aspect of this evaluation was benthic community characterization, which was accomplished via sample collection by National Oceanic and Atmospheric Administration (NOAA) personnel and laboratory and data analysis by Barry A. Vittor & Associates, Inc. (BVA). Locations of the OE stations are given in Figure 1 and Table 1.

METHODS

Sample Collection And Handling

A grab scoop (area = 0.03 m^2) mounted on the Johnson Sea-Link submersible was used to collect a bottom sample at each of 44 Ocean Exploration stations during 2002. The 44 stations represented 11 offshore regions from northeastern Florida to South Carolina: St. Augustine Scarp 1 (SAS1 Near and Far) – Stations 1004-1008; St. Augustine Scarp 2 (SAS2 Near and Far) – Stations 1014-1022; Jax Scarp 1 (JS1) – Stations 1027-1030; Julian's Ridge 1 (JR1) – 1049—1052; Julian's Ridge 2 (JR2 Near and Far) – Stations 1059-1066; Scamp Ridge 1 (SR1) - Stations 1072-1074; Scamp Ridge 2 (SR2 Near and Far) - Stations 1078-1083; Charleston Lumps South 1 (CLS1) – 1090-1094; Charleston Lumps South 2 (CLS2) – 1102-1109; Charleston Lumps North (CLN) – Stations 1110-1112; and Georgetown Hole (GH) – Stations 1116-1118 (Table 1). Macroinfaunal samples were sieved through a 0.5–mm mesh screen and preserved with 10% formalin on ship. Macroinfaunal samples were transported to the BVA laboratory in Mobile, Alabama.

Macroinfaunal Sample Analysis

In the laboratory of BVA, benthic samples were inventoried, rinsed gently through a 0.5 mm mesh sieve to remove preservatives and sediment, stained with Rose Bengal, and stored in 70% isopropanol solution until processing. Sample material (sediment, detritus, organisms) was placed in white enamel trays for sorting under Wild M-5A dissecting microscopes. All macroinvertebrates were carefully removed with

forceps and placed in labeled glass vials containing 70% isopropanol. Each vial represented a major taxonomic group (e.g. Polychaeta, Mollusca, Arthropoda). All sorted macroinvertebrates were identified to the lowest practical identification level (LPIL), which in most cases was to species level unless the specimen was a juvenile, damaged, or otherwise unidentifiable. The number of individuals of each taxon, excluding fragments, was recorded. A voucher collection was prepared, composed of representative individuals of each species not previously encountered in samples from the region.

DATA ANALYSIS

All data generated as a result of laboratory analysis of macroinfauna samples were first coded on data sheets. Enumeration data were entered for each species according to station and replicate. These data were reduced to a data summary report for each station, which included a taxonomic species list and benthic community parameters information. Archive data files of species identification and enumeration were prepared.

The Quality Assurance and Quality Control reports for the OE samples are given in the Appendix.

Assemblage Structure

Several numerical indices were chosen for analysis and interpretation of the macroinfaunal data. Infaunal abundance is reported as the total number of individuals per station and the total number of individuals per square meter (= density). Taxa richness is reported as the average number of taxa represented in a given station collection.

Taxa diversity, which is often related to the ecological stability and environmental "quality" of the benthos, was estimated using Shannon's Index (Pielou, 1966), according to the following formula:

$$H' = -\sum_{i=1}^{s} p_i(ln\, p_i)$$

where, S = the number of taxa in the sample,

i = the i'th taxa in the sample, and

p_i = is the number of individuals of the i'th taxa divided by the total number of

individuals in the sample.

Taxa diversity was calculated using ln; however, diversity may also be calculated using $\log_2$. Both methods of calculating diversity are common in the scientific literature. The taxa diversity calculated in this report using ln, can be converted to $\log_2$ diversity by multiplying the ln taxa diversity by 1.4427.

Taxa diversity within a given community is dependent upon the number of taxa present (taxa richness) and the distribution of all individuals among those taxa (equitability or evenness). In order to quantify and compare the equitability in the fauna to the taxa diversity for a given area, Pielou's Index J' (Pielou, 1966) was calculated as J' = H'/lnS, where lnS = H'_{max}, or the maximum possible diversity, when all taxa are represented by the same number of individuals; thus, J' = H' /H' $_{max}$.

BENTHIC COMMUNITY CHARACTERIZATION

Microsoft ™ Excel spreadsheets are being provided separately to NOAA which include: raw data on taxa abundance and density by replicate, a complete taxonomic listing with station abundance and occurrence, a major taxa table with overall taxa abundance, and an assemblage parameter table including data on mean number of taxa, mean density, taxa diversity and taxa evenness by station.

A total of 4152 organisms, representing 399 taxa, were identified from the 44 OE stations (Table 2). Polychaetes were the most numerous organisms present representing 57.2% of the total assemblage, followed in abundance by malacostracans (20.7%).

Polychaetes represented 49.6% of the total number of taxa followed by malacostracans (24.8%) and bivalves (10.8%) (Table 2).

The abundance of major taxa by station are given in Table 3 and Figure 2. Polychaetes and a mixed assemblage of arthropods and mollusks dominated the assemblage at all stations.

The dominant taxon collected from the OE samples was the malacostracan, *Rildardanus laminosa* representing 5.95% of the total individuals collected (Table 4). Other dominant taxa included the Phylum Cnidaria (LPIL), the chordate, *Branchiostoma* (LPIL), and the polychaetes, *Ceratonereis mirabilis, Plakosyllis quadrioculata, Glycera* sp. F, and *Bhawania goodei* representing 3.68%, 2.31%, 4.05%, 2.26%, 2.05% and 2.02% of the total assemblage, respectively. The malacostracan, *Rildardanus laminosa* was the most widely distributed taxon being found at 73% of the stations (Table 4). The distribution of dominant taxa representing > 5% of the total assemblage at each station is given in Table 5.

Station taxa richness and station density data are given in Table 6 and Figures 3 and 4. Taxa richness varied and ranged from 2 at Station 1111 to 87 at Station 1082 (Table 6; Figure 3). Station densities exhibited considerable variation ranging from 133 organisms/m^2 at Station 1111 to 6733 organisms/m^2 at Station 1082 (Table 6; Figure 4).

Taxa diversity and evenness are given in Table 6 and Figures 5 and 6. Taxa diversity (H') ranged from 0.56 at Station 1111 to 4.09 at Station 1082 (Table 6; Figure 5). Taxa evenness (J') was uniformly high and values ranged from 0.81 at Station 1111 to 0.99 at several stations (Table 6; Figure 6).

Assemblage data summarized by geographic region are given in Table 6 and Figures 7-10. Taxa richness in the Charleston Lumps region was lower than the other sampling regions, with the CLN region having the lowest average taxa richness (Mean = 5.7, SD = 3.5) (Figure 7). The remaining regions had mean taxa richness values greater than 40 organisms/sample. Region mean density data are given in Table 6 and Figure 8. The Charleston Lumps region had the lowest mean station densities relative to the remaining regions, with the CLN region having the lowest average density (Mean = 277.7 organisms/m^2; SD = 126.4) (Figure 8). Taxa diversity (H') and evenness (J') for the regions are summarized in Figures 9 and 10. Taxa diversity was generally high with values greater than 3 at all but two regions (CLS1 and CLN). Taxa evenness was uniformly high ($\geq$ 0.88) for all regions.

LITERATURE CITED

Pielou, E.C. 1966. The measurement of diversity in different types of biological

collections. Journal of Theoretical Biology 13:131-144.

Table 1. Station locations and depths for the NOAA OE stations, 2002.

Region	Station	Latitude	Longitude	Depth (m)
St. Augustine Scarp 1	1004	29.939955	-80.28452	60.4
	1005	29.939955	-80.28452	60.4
	1006	29.939955	-80.28452	60.4
	1007	29.939955	-80.28452	60.4
	1008	29.939955	-80.28452	60.4
St. Augustine Scarp 2	1014	29.99236	-80.27865	61.3
	1015	29.99236	-80.27865	61.3
	1016	29.99236	-80.27865	61.3
	1019	29.99236	-80.27865	61.3
	1021	29.99236	-80.27865	61.3
	1022	29.99236	-80.27865	61.3
Jax Scarp 1	1027	30.40045	-80.21553	59.4
	1029	30.40045	-80.21553	59.4
	1030	30.40045	-80.21553	59.4
Julian's Ridge 1	1049	32.34239	-79.04650	54.9
	1051	32.34239	-79.04650	54.9
	1052	32.34239	-79.04650	54.9
Julian's Ridge 2	1059	32.34745	-79.03661	58.8
	1060	32.34745	-79.03661	58.8
	1062	32.34745	-79.03661	58.8
	1061	32.34745	-79.03661	58.8
	1064	32.34745	-79.03661	58.8
	1066	32.34745	-79.03661	58.8
Scamp Ridge 1	1072	32.40211	-78.99836	53.6
	1073	32.40211	-78.99836	53.6
	1074	32.40211	-78.99836	53.6
Scamp Ridge 2	1078	32.40959	-78.98950	53.0
	1079	32.40959	-78.98950	53.0
	1080	32.40959	-78.98950	53.0
	1081	32.40959	-78.98950	53.0
	1082	32.40959	-78.98950	53.0
	1083	32.40959	-78.98950	53.0
Charleston Lumps South 1	1090	32.95243	-78.31892	206.0
	1092	32.95243	-78.31892	206.0
	1094	32.95243	-78.31892	206.0
Charleston Lumps South 2	1102	32.62751	-78.32405	201.2
	1107	32.62751	-78.32405	201.2
	1109	32.62751	-78.32405	201.2
Charleston Lumps North	1110	32.93229	-78.11240	199.6
	1111	32.93229	-78.11240	199.6
	1112	32.93229	-78.11240	199.6
Georgetown Hole	1116	32.85166	-78.25444	54.3
	1117	32.85166	-78.25444	54.3
	1118	32.85166	-78.25444	54.3

Table 2. Summary of overall abundance of major benthic macroinfaunal taxonomic
groups for the NOAA OE stations, 2002.

Taxa	Total No. Taxa	% Total	Total No. Individuals	% Total
Annelida				
Oligochaeta	2	0.5	66	1.6
Polychaeta	198	49.6	2,373	57.2
Mollusca				
Aplacophora	1	0.3	1	0.0
Bivalvia	43	10.8	179	4.3
Gastropoda	22	5.5	55	1.3
Polyplacophora	1	0.3	46	1.1
Scaphopoda	2	0.5	24	0.6
Arthropoda				
Malacostraca	99	24.8	861	20.7
Pycnogonida	1	0.3	4	0.1
Echinodermata				
Asteroidea	1	0.3	4	0.1
Echinoidea	1	0.3	20	0.5
Holothuroidea	1	0.3	1	0.0
Ophiuroidea	4	1.0	23	0.6
Other Taxa	23	5.8	495	11.9
Total	**399**		**4,152**	

Table 3. Summary of abundance of major benthic macroinfaunal taxonomic groups
by station for the NOAA OE stations, 2002.

Station	Taxa	Total No. Taxa	% Total	Total No. Individuals	% Total
1004	Annelida	38	67.9	63	58.9
	Mollusca	4	7.1	6	5.6
	Arthropoda	8	14.3	20	18.7
	Echinodermata	2	3.6	3	2.8
	Other Taxa	4	7.1	15	14.0
	Total	**56**		**107**	
1005	Annelida	31	50.0	61	40.9
	Mollusca	5	8.1	7	4.7
	Arthropoda	19	30.6	67	45.0
	Echinodermata	1	1.6	1	0.7
	Other Taxa	6	9.7	13	8.7
	Total	**62**		**149**	
1006	Annelida	31	70.5	56	63.6
	Mollusca	1	2.3	1	1.1
	Arthropoda	8	18.2	15	17.0
	Echinodermata	0	0.0	0	0.0
	Other Taxa	4	9.1	16	18.2
	Total	**44**		**88**	
1007	Annelida	37	68.5	75	58.1
	Mollusca	1	1.9	3	2.3
	Arthropoda	8	14.8	32	24.8
	Echinodermata	1	1.9	2	1.6
	Other Taxa	7	13.0	17	13.2
	Total	**54**		**129**	
1008	Annelida	40	56.3	88	57.9
	Mollusca	5	7.0	8	5.3
	Arthropoda	17	23.9	40	26.3
	Echinodermata	1	1.4	1	0.7
	Other Taxa	8	11.3	15	9.9
	Total	**71**		**152**	
1014	Annelida	22	75.9	32	76.2
	Mollusca	0	0.0	0	0.0
	Arthropoda	5	17.2	8	19.0
	Echinodermata	0	0.0	0	0.0
	Other Taxa	2	6.9	2	4.8
	Total	**29**		**42**	

Table 3 continued:

Station	Taxa	Total No. Taxa	% Total	Total No. Individuals	% Total
1015	Annelida	23	63.9	33	55.0
	Mollusca	0	0.0	0	0.0
	Arthropoda	9	25.0	12	20.0
	Echinodermata	0	0.0	0	0.0
	Other Taxa	4	11.1	15	25.0
	Total	**36**		**60**	
1016	Annelida	31	60.8	43	51.2
	Mollusca	4	7.8	5	6.0
	Arthropoda	12	23.5	26	31.0
	Echinodermata	1	2.0	1	1.2
	Other Taxa	3	5.9	9	10.7
	Total	**51**		**84**	
1019	Annelida	36	69.2	100	78.7
	Mollusca	1	1.9	2	1.6
	Arthropoda	9	17.3	15	11.8
	Echinodermata	2	3.8	2	1.6
	Other Taxa	4	7.7	8	6.3
	Total	**52**		**127**	
1021	Annelida	31	70.5	43	54.4
	Mollusca	3	6.8	4	5.1
	Arthropoda	6	13.6	10	12.7
	Echinodermata	1	2.3	2	2.5
	Other Taxa	3	6.8	20	25.3
	Total	**44**		**79**	
1022	Annelida	36	65.5	76	65.5
	Mollusca	2	3.6	2	1.7
	Arthropoda	10	18.2	21	18.1
	Echinodermata	2	3.6	5	4.3
	Other Taxa	5	9.1	12	10.3
	Total	**55**		**116**	
1027	Annelida	26	63.4	47	63.5
	Mollusca	0	0.0	0	0.0
	Arthropoda	11	26.8	22	29.7
	Echinodermata	0	0.0	0	0.0
	Other Taxa	4	9.8	5	6.8
	Total	**41**		**74**	

Table 3 continued:

Station	Taxa	Total No. Taxa	% Total	Total No. Individuals	% Total
1029	Annelida	31	68.9	63	75.9
	Mollusca	2	4.4	2	2.4
	Arthropoda	10	22.2	16	19.3
	Echinodermata	1	2.2	1	1.2
	Other Taxa	1	2.2	1	1.2
	Total	**45**		**83**	
1030	Annelida	40	59.7	65	50.8
	Mollusca	3	4.5	3	2.3
	Arthropoda	16	23.9	35	27.3
	Echinodermata	2	3.0	4	3.1
	Other Taxa	6	9.0	21	16.4
	Total	**67**		**128**	
1049	Annelida	28	56.0	41	46.1
	Mollusca	6	12.0	6	6.7
	Arthropoda	12	24.0	23	25.8
	Echinodermata	2	4.0	2	2.2
	Other Taxa	2	4.0	17	19.1
	Total	**50**		**89**	
1051	Annelida	26	55.3	57	50.0
	Mollusca	4	8.5	8	7.0
	Arthropoda	12	25.5	39	34.2
	Echinodermata	0	0.0	0	0.0
	Other Taxa	5	10.6	10	8.8
	Total	**47**		**114**	
1052	Annelida	29	58.0	56	53.8
	Mollusca	4	8.0	5	4.8
	Arthropoda	10	20.0	29	27.9
	Echinodermata	0	0.0	0	0.0
	Other Taxa	7	14.0	14	13.5
	Total	**50**		**104**	
1059	Annelida	27	51.9	53	57.6
	Mollusca	10	19.2	12	13.0
	Arthropoda	11	21.2	23	25.0
	Echinodermata	1	1.9	1	1.1
	Other Taxa	3	5.8	3	3.3
	Total	**52**		**92**	

Table 3 continued:

Station	Taxa	Total No. Taxa	% Total	Total No. Individuals	% Total
1060	Annelida	29	65.9	57	67.1
	Mollusca	3	6.8	3	3.5
	Arthropoda	8	18.2	16	18.8
	Echinodermata	1	2.3	1	1.2
	Other Taxa	3	6.8	8	9.4
	Total	**44**		**85**	
1061	Annelida	26	60.5	60	56.1
	Mollusca	5	11.6	6	5.6
	Arthropoda	6	14.0	29	27.1
	Echinodermata	2	4.7	4	3.7
	Other Taxa	4	9.3	8	7.5
	Total	**43**		**107**	
1062	Annelida	33	68.8	77	72.6
	Mollusca	5	10.4	8	7.5
	Arthropoda	6	12.5	12	11.3
	Echinodermata	1	2.1	1	0.9
	Other Taxa	3	6.3	8	7.5
	Total	**48**		**106**	
1064	Annelida	36	64.3	53	47.7
	Mollusca	7	12.5	22	19.8
	Arthropoda	7	12.5	15	13.5
	Echinodermata	2	3.6	2	1.8
	Other Taxa	4	7.1	19	17.1
	Total	**56**		**111**	
1066	Annelida	23	57.5	49	61.3
	Mollusca	6	15.0	9	11.3
	Arthropoda	9	22.5	16	20.0
	Echinodermata	0	0.0	0	0.0
	Other Taxa	2	5.0	6	7.5
	Total	**40**		**80**	
1072	Annelida	23	54.8	67	57.3
	Mollusca	4	9.5	7	6.0
	Arthropoda	8	19.0	12	10.3
	Echinodermata	1	2.4	3	2.6
	Other Taxa	6	14.3	28	23.9
	Total	**42**		**117**	

Table 3 continued:

Station	Taxa	Total No. Taxa	% Total	Total No. Individuals	% Total
1073	Annelida	33	76.7	74	80.4
	Mollusca	1	2.3	5	5.4
	Arthropoda	6	14.0	6	6.5
	Echinodermata	0	0.0	0	0.0
	Other Taxa	3	7.0	7	7.6
	Total	**43**		**92**	
1074	Annelida	29	56.9	68	50.7
	Mollusca	4	7.8	14	10.4
	Arthropoda	14	27.5	29	21.6
	Echinodermata	0	0.0	0	0.0
	Other Taxa	4	7.8	23	17.2
	Total	**51**		**134**	
1078	Annelida	39	60.9	79	46.2
	Mollusca	11	17.2	17	9.9
	Arthropoda	4	6.3	33	19.3
	Echinodermata	1	1.6	1	0.6
	Other Taxa	9	14.1	41	24.0
	Total	**64**		**171**	
1079	Annelida	30	56.6	56	53.3
	Mollusca	11	20.8	22	21.0
	Arthropoda	8	15.1	19	18.1
	Echinodermata	1	1.9	2	1.9
	Other Taxa	3	5.7	6	5.7
	Total	**53**		**105**	
1080	Annelida	37	62.7	77	57.5
	Mollusca	7	11.9	12	9.0
	Arthropoda	8	13.6	23	17.2
	Echinodermata	1	1.7	1	0.7
	Other Taxa	6	10.2	21	15.7
	Total	**59**		**134**	
1081	Annelida	28	62.2	52	51.0
	Mollusca	6	13.3	13	12.7
	Arthropoda	6	13.3	22	21.6
	Echinodermata	1	2.2	1	1.0
	Other Taxa	4	8.9	14	13.7
	Total	**45**		**102**	

Table 3 continued:

Station	Taxa	Total No. Taxa	% Total	Total No. Individuals	% Total
1082	Annelida	51	58.6	120	59.4
	Mollusca	17	19.5	29	14.4
	Arthropoda	11	12.6	32	15.8
	Echinodermata	1	1.1	2	1.0
	Other Taxa	7	8.0	19	9.4
	Total	**87**		**202**	
1083	Annelida	37	66.1	77	54.6
	Mollusca	5	8.9	16	11.3
	Arthropoda	7	12.5	26	18.4
	Echinodermata	1	1.8	1	0.7
	Other Taxa	6	10.7	21	14.9
	Total	**56**		**141**	
1090	Annelida	7	43.8	7	38.9
	Mollusca	5	31.3	7	38.9
	Arthropoda	2	12.5	2	11.1
	Echinodermata	2	12.5	2	11.1
	Other Taxa	0	0.0	0	0.0
	Total	**16**		**18**	
1092	Annelida	12	63.2	12	60.0
	Mollusca	1	5.3	2	10.0
	Arthropoda	5	26.3	5	25.0
	Echinodermata	0	0.0	0	0.0
	Other Taxa	1	5.3	1	5.0
	Total	**19**		**20**	
1094	Annelida	10	66.7	12	70.6
	Mollusca	3	20.0	3	17.6
	Arthropoda	1	6.7	1	5.9
	Echinodermata	0	0.0	0	0.0
	Other Taxa	1	6.7	1	5.9
	Total	**15**		**17**	
1102	Annelida	14	56.0	16	55.2
	Mollusca	4	16.0	5	17.2
	Arthropoda	5	20.0	6	20.7
	Echinodermata	0	0.0	0	0.0
	Other Taxa	2	8.0	2	6.9
	Total	**25**		**29**	

Table 3 continued:

Station	Taxa	Total No. Taxa	% Total	Total No. Individuals	% Total
1107	Annelida	17	60.7	33	61.1
	Mollusca	2	7.1	6	11.1
	Arthropoda	7	25.0	13	24.1
	Echinodermata	1	3.6	1	1.9
	Other Taxa	1	3.6	1	1.9
	Total	**28**		**54**	
1109	Annelida	15	60.0	30	69.8
	Mollusca	3	12.0	4	9.3
	Arthropoda	5	20.0	7	16.3
	Echinodermata	0	0.0	0	0.0
	Other Taxa	2	8.0	2	4.7
	Total	**25**		**43**	
1110	Annelida	7	77.8	9	81.8
	Mollusca	0	0.0	0	0.0
	Arthropoda	1	11.1	1	9.1
	Echinodermata	1	11.1	1	9.1
	Other Taxa	0	0.0	0	0.0
	Total	**9**		**11**	
1111	Annelida	2	100.0	4	100.0
	Mollusca	0	0.0	0	0.0
	Arthropoda	0	0.0	0	0.0
	Echinodermata	0	0.0	0	0.0
	Other Taxa	0	0.0	0	0.0
		2		**4**	
1112	Annelida	5	62.5	10	71.4
	Mollusca	0	0.0	0	0.0
	Arthropoda	1	12.5	1	7.1
	Echinodermata	0	0.0	0	0.0
	Other Taxa	2	25.0	3	21.4
	Total	**8**		**14**	
1116	Annelida	25	62.5	61	64.2
	Mollusca	7	17.5	10	10.5
	Arthropoda	5	12.5	14	14.7
	Echinodermata	0	0.0	0	0.0
	Other Taxa	3	7.5	10	10.5
	Total	**40**		**95**	
1117	Annelida	33	57.9	105	67.3
	Mollusca	6	10.5	7	4.5
	Arthropoda	11	19.3	27	17.3
	Echinodermata	1	1.8	1	0.6
	Other Taxa	6	10.5	16	10.3
	Total	**57**		**156**	
1118	Annelida	41	62.1	126	66.0
	Mollusca	4	6.1	4	2.1
	Arthropoda	14	21.2	45	23.6
	Echinodermata	1	1.5	2	1.0
	Other Taxa	6	9.1	14	7.3
	Total	**66**		**191**	

Table 4. Distribution and abundance of benthic macroinfaunal taxa for the NOAA OE stations, 2002.

Taxon Name	Phylum	Class	No. of Individuals	% Total	Cumulative %	Occurrence	% Station Occurrence
Rildardanus laminosa	Art	Mala	247	5.95	5.95	32	73
Ceratonereis mirabilis	Ann	Poly	168	4.05	10.00	29	66
Cnidaria (LPIL)	Cni	-	153	3.68	13.68	16	36
Branchiostoma (LPIL)	Cho	Lept	96	2.31	15.99	23	52
Plakosyllis quadrioculata	Ann	Poly	94	2.26	18.26	24	55
Glycera sp. F	Ann	Poly	85	2.05	20.30	28	64
Bhawania goodei	Ann	Poly	84	2.02	22.33	25	57
Sipuncula (LPIL)	Sip	-	77	1.85	24.18	29	66
Rhynchocoela (LPIL)	Rhy	-	73	1.76	25.94	27	61
Ingolfiella fuscina	Art	Mala	69	1.66	27.60	16	36
Sphaerosyllis piriferopsis	Ann	Poly	67	1.61	29.21	25	57
Spionidae Genus F	Ann	Poly	58	1.40	30.61	11	25
Goniadella sp. A	Ann	Poly	58	1.40	32.01	21	48
Poecilochaetus johnsoni	Ann	Poly	57	1.37	33.38	22	50
Pisione sp. A	Ann	Poly	56	1.35	34.73	26	59
Goniadides carolinae	Ann	Poly	54	1.30	36.03	23	52
Haplosyllis spongicola	Ann	Poly	54	1.30	37.33	11	25
Tubificidae (LPIL)	Ann	Olig	53	1.28	38.61	24	55
Chone (LPIL)	Ann	Poly	50	1.20	39.81	21	48
Armandia maculata	Ann	Poly	48	1.16	40.97	22	50
Podarkeopsis levifuscina	Ann	Poly	48	1.16	42.12	16	36
Glycera americana	Ann	Poly	47	1.13	43.26	14	32
Polyplacophora (LPIL)	Mol	Polyp	46	1.11	44.36	23	52
Prionospio (LPIL)	Ann	Poly	46	1.11	45.47	19	43
Protodorvillea kefersteini	Ann	Poly	44	1.06	46.53	24	55
Sabellidae (LPIL)	Ann	Poly	44	1.06	47.59	15	34
Ceratonereis (LPIL)	Ann	Poly	43	1.04	48.63	12	27
Glyceridae (LPIL)	Ann	Poly	43	1.04	49.66	20	45
Spionidae (LPIL)	Ann	Poly	42	1.01	50.67	19	43
Eunice unifrons	Ann	Poly	37	0.89	51.57	20	45
Montacutidae (LPIL)	Mol	Biva	37	0.89	52.46	12	27
Trypanosyllis (LPIL)	Ann	Poly	36	0.87	53.32	16	36
Capitellidae (LPIL)	Ann	Poly	35	0.84	54.17	21	48
Terebellides parvus	Ann	Poly	34	0.82	54.99	18	41
Notomastus latericeus	Ann	Poly	33	0.79	55.78	13	30
Ampelisca (LPIL)	Art	Mala	31	0.75	56.53	14	32
Eurydice convexa	Art	Mala	31	0.75	57.27	13	30
Eurydice piperata	Art	Mala	31	0.75	58.02	10	23
Gammaropsis (LPIL)	Art	Mala	30	0.72	58.74	12	27
Galathowenia oculata	Ann	Poly	29	0.70	59.44	9	20
Spiophanes bombyx	Ann	Poly	28	0.67	60.12	16	36
Elasmopus sp. C	Art	Mala	27	0.65	60.77	6	14
Glycera (LPIL)	Ann	Poly	26	0.63	61.39	8	18
Ampharetidae (LPIL)	Ann	Poly	25	0.60	61.99	18	41
Trypanosyllis parvidentata	Ann	Poly	24	0.58	62.57	12	27
Munida pusilla	Art	Mala	23	0.55	63.13	5	11
Vermiliopsis annulata	Ann	Poly	23	0.55	63.68	10	23
Maldanidae (LPIL)	Ann	Poly	22	0.53	64.21	17	39
Eurydice personata	Art	Mala	21	0.51	64.72	11	25

Table 4 continued:

Taxon Name	Phylum	Class	No. of Individuals	% Total	Cumulative %	Occurrence	% Station Occurrence
Ampelisca sp. AF	Art	Mala	20	0.48	65.20	5	11
Automate (LPIL)	Art	Mala	20	0.48	65.68	16	36
Echinoidea (LPIL)	Ech	Echin	20	0.48	66.16	15	34
Harmothoe imbricata	Ann	Poly	20	0.48	66.64	14	32
Mooreonuphis nebulosa	Ann	Poly	20	0.48	67.12	15	34
Syllidae (LPIL)	Ann	Poly	20	0.48	67.61	12	27
Antalis ceratum	Mol	Scap	19	0.46	68.06	7	16
Ophiuroidea (LPIL)	Ech	Ophi	19	0.46	68.52	14	32
Bhawania heteroseta	Ann	Poly	18	0.43	68.95	14	32
Crassinella lunulata	Mol	Biva	18	0.43	69.39	6	14
Syllis ortizi	Ann	Poly	18	0.43	69.82	9	20
Cirratulidae (LPIL)	Ann	Poly	17	0.41	70.23	12	27
Galatheidae (LPIL)	Art	Mala	17	0.41	70.64	6	14
Paguridae (LPIL)	Art	Mala	17	0.41	71.05	11	25
Mooreonuphis pallidula	Ann	Poly	16	0.39	71.44	13	30
Phyllodocidae (LPIL)	Ann	Poly	16	0.39	71.82	15	34
Teinostoma biscaynense	Mol	Gast	16	0.39	72.21	3	7
Unciola serrata	Art	Mala	15	0.36	72.57	4	9
Syllis danieli	Ann	Poly	14	0.34	72.90	7	16
Corbulidae (LPIL)	Mol	Biva	13	0.31	73.22	4	9
Cumella (LPIL)	Art	Mala	13	0.31	73.53	10	23
Fabricinuda trilobata	Ann	Poly	13	0.31	73.84	6	14
Laonice cirrata	Ann	Poly	13	0.31	74.16	6	14
Lumbriculidae (LPIL)	Ann	Olig	13	0.31	74.47	5	11
Syllis sp. F	Ann	Poly	13	0.31	74.78	7	16
Aspidosiphon gosnoldi	Sip	-	12	0.29	75.07	10	23
Caulleriella (LPIL)	Ann	Poly	12	0.29	75.36	9	20
Nereididae (LPIL)	Ann	Poly	12	0.29	75.65	10	23
Scoletoma verrilli	Ann	Poly	12	0.29	75.94	8	18
Turbellaria (LPIL)	Pla	Turb	12	0.29	76.23	8	18
Xanthidae (LPIL)	Art	Mala	12	0.29	76.52	11	25
Ascidiacea (LPIL)	Cho	Asci	11	0.26	76.78	5	11
Crenella divaricata	Mol	Biva	11	0.26	77.05	9	20
Eunicidae (LPIL)	Ann	Poly	11	0.26	77.31	8	18
Leptochelia (LPIL)	Art	Mala	11	0.26	77.58	7	16
Notomastus (LPIL)	Ann	Poly	11	0.26	77.84	7	16
Phyllodoce (LPIL)	Ann	Poly	11	0.26	78.11	9	20
Pionosyllis gesae	Ann	Poly	11	0.26	78.37	7	16
Syllis cornuta	Ann	Poly	11	0.26	78.64	9	20
Paramphinome sp. B	Ann	Poly	10	0.24	78.88	8	18
Pionosyllis weismanni	Ann	Poly	10	0.24	79.12	9	20
Polynoidae (LPIL)	Ann	Poly	10	0.24	79.36	8	18
Elasmopus (LPIL)	Art	Mala	9	0.22	79.58	6	14
Hesionidae (LPIL)	Ann	Poly	9	0.22	79.79	7	16
Lineidae (LPIL)	Rhy	Anop	9	0.22	80.01	6	14
Opisthodonta sp. B	Ann	Poly	9	0.22	80.23	7	16
Serpulidae (LPIL)	Ann	Poly	9	0.22	80.44	6	14
Actiniaria (LPIL)	Cni	Anth	8	0.19	80.64	8	18
Axiothella mucosa	Ann	Poly	8	0.19	80.83	6	14
Bivalvia (LPIL)	Mol	Biva	8	0.19	81.02	5	11
Bunakenia sp. A	Art	Mala	8	0.19	81.21	3	7
Dipolydora socialis	Ann	Poly	8	0.19	81.41	8	18

Table 4 continued:

Taxon Name	Phylum	Class	No. of Individuals	% Total	Cumulative %	Occurrence	% Station Occurrence
Notomastus lineatus	Ann	Poly	8	0.19	81.60	4	9
Osachila semilevis	Art	Mala	8	0.19	81.79	7	16
Polycirrus (LPIL)	Ann	Poly	8	0.19	81.98	6	14
Semele purpurascens	Mol	Biva	8	0.19	82.18	6	14
Syllis (LPIL)	Ann	Poly	8	0.19	82.37	7	16
Terebellidae (LPIL)	Ann	Poly	8	0.19	82.56	7	16
Trypanosyllis coeliaca	Ann	Poly	8	0.19	82.76	5	11
Autolytus (LPIL)	Ann	Poly	7	0.17	82.92	6	14
Caecum johnsoni	Mol	Gast	7	0.17	83.09	5	11
Eurydice (LPIL)	Art	Mala	7	0.17	83.26	6	14
Gammaropsis sp. E	Art	Mala	7	0.17	83.43	1	2
Golfingia (LPIL)	Sip	-	7	0.17	83.60	2	5
Golfingiidae (LPIL)	Sip	-	7	0.17	83.77	7	16
Harmothoe (LPIL)	Ann	Poly	7	0.17	83.94	4	9
Nereis pelagica	Ann	Poly	7	0.17	84.10	5	11
Owenia fusiformis	Ann	Poly	7	0.17	84.27	6	14
Aoridae (LPIL)	Art	Mala	6	0.14	84.42	3	7
Aspidosiphon (LPIL)	Sip	-	6	0.14	84.56	5	11
Aspidosiphon muelleri	Sip	-	6	0.14	84.71	5	11
Ceradocus sheardi	Art	Mala	6	0.14	84.85	1	2
Cirrophorus ilvana	Ann	Poly	6	0.14	85.00	5	11
Dulichiella sp. A	Art	Mala	6	0.14	85.14	3	7
Euchone incolor	Ann	Poly	6	0.14	85.28	3	7
Eunice (LPIL)	Ann	Poly	6	0.14	85.43	5	11
Gammaropsis sp. K	Art	Mala	6	0.14	85.57	1	2
Kalliapseudes bahamaensis	Art	Mala	6	0.14	85.72	6	14
Lucinidae (LPIL)	Mol	Biva	6	0.14	85.86	3	7
Maera sp. j	Art	Mala	6	0.14	86.01	4	9
Microcharon sp. A	Art	Mala	6	0.14	86.15	4	9
Nereis allanae	Ann	Poly	6	0.14	86.30	1	2
Nereis micromma	Ann	Poly	6	0.14	86.44	5	11
Pitar fulminatus	Mol	Biva	6	0.14	86.58	4	9
Tubulanus (LPIL)	Rhy	Anop	6	0.14	86.73	4	9
Antalis (LPIL)	Mol	Scap	5	0.12	86.85	5	11
Arabella multidentata	Ann	Poly	5	0.12	86.97	5	11
Axiidae (LPIL)	Art	Mala	5	0.12	87.09	5	11
Caulleriella sp. A	Ann	Poly	5	0.12	87.21	5	11
Ceratocephale oculata	Ann	Poly	5	0.12	87.33	5	11
Corbula cymella	Mol	Biva	5	0.12	87.45	3	7
Cyclaspis sp. O	Art	Mala	5	0.12	87.57	3	7
Diplodonta punctata	Mol	Biva	5	0.12	87.69	4	9
Gastrochaena hians	Mol	Biva	5	0.12	87.81	4	9
Gnathia (LPIL)	Art	Mala	5	0.12	87.93	4	9
Goneplacidae (LPIL)	Art	Mala	5	0.12	88.05	5	11
Listriella carinata	Art	Mala	5	0.12	88.17	3	7
Megalomma (LPIL)	Ann	Poly	5	0.12	88.29	4	9
Onuphidae (LPIL)	Ann	Poly	5	0.12	88.42	5	11
Pagurus (LPIL)	Art	Mala	5	0.12	88.54	4	9
Photis pugnator	Art	Mala	5	0.12	88.66	1	2
Pista (LPIL)	Ann	Poly	5	0.12	88.78	4	9
Schistomeringos pectinata	Ann	Poly	5	0.12	88.90	5	11
Sclerobregma stenocerum	Ann	Poly	5	0.12	89.02	3	7
Spio pettiboneae	Ann	Poly	5	0.12	89.14	3	7

Table 4 continued:

Taxon Name	Phylum	Class	No. of Individuals	% Total	Cumulative %	Occurrence	% Station Occurrence
Spiochaetopterus oculatus	Ann	Poly	5	0.12	89.26	5	11
Veneridae (LPIL)	Mol	Biva	5	0.12	89.38	5	11
Aricidea taylori	Ann	Poly	4	0.10	89.47	3	7
Asteroidea (LPIL)	Ech	Aste	4	0.10	89.57	2	5
Automate sp. D	Art	Mala	4	0.10	89.67	3	7
Axiopsis sp. A	Art	Mala	4	0.10	89.76	3	7
Branchiomma nigromaculata	Ann	Poly	4	0.10	89.86	3	7
Caulleriella sp. B	Ann	Poly	4	0.10	89.96	3	7
Chrysopetalum hernancortezae	Ann	Poly	4	0.10	90.05	2	5
Diplodonta (LPIL)	Mol	Biva	4	0.10	90.15	4	9
Ehlersia ferrugina	Ann	Poly	4	0.10	90.25	3	7
Erichthonius brasiliensis	Art	Mala	4	0.10	90.34	2	5
Euphrosine sp. A	Ann	Poly	4	0.10	90.44	4	9
Euphrosine sp. B	Ann	Poly	4	0.10	90.53	4	9
Gastropoda (LPIL)	Mol	Gast	4	0.10	90.63	4	9
Goniada maculata	Ann	Poly	4	0.10	90.73	4	9
Loimia medusa	Ann	Poly	4	0.10	90.82	4	9
Lumbrinerides acuta	Ann	Poly	4	0.10	90.92	3	7
Lumbrineriopsis gardineri	Ann	Poly	4	0.10	91.02	3	7
Lysidice notata	Ann	Poly	4	0.10	91.11	4	9
Macrochaeta sp. A	Ann	Poly	4	0.10	91.21	4	9
Microjassa sp. B	Art	Mala	4	0.10	91.31	3	7
Monticellina dorsobranchialis	Ann	Poly	4	0.10	91.40	4	9
Mysidae (LPIL)	Art	Mala	4	0.10	91.50	3	7
Nephtys squamosa	Ann	Poly	4	0.10	91.59	4	9
Opheliidae (LPIL)	Ann	Poly	4	0.10	91.69	3	7
Pectinidae (LPIL)	Mol	Biva	4	0.10	91.79	4	9
Photis longicaudata	Art	Mala	4	0.10	91.88	2	5
Pycnogonida (LPIL)	Art	Pycn	4	0.10	91.98	2	5
Solariella lacunella	Mol	Gast	4	0.10	92.08	3	7
Spiophanes missionensis	Ann	Poly	4	0.10	92.17	4	9
Amakusanthura magnifica	Art	Mala	3	0.07	92.24	3	7
Aricidea cerrutii	Ann	Poly	3	0.07	92.32	3	7
Chevalia carpenteri	Art	Mala	3	0.07	92.39	2	5
Cirrophorus (LPIL)	Ann	Poly	3	0.07	92.46	3	7
Cirrophorus lyra	Ann	Poly	3	0.07	92.53	3	7
Cumella sp. L	Art	Mala	3	0.07	92.61	3	7
Cyclaspis pustulata	Art	Mala	3	0.07	92.68	3	7
Dentatisyllis carolinae	Ann	Poly	3	0.07	92.75	3	7
Dipolydora caulleryi	Ann	Poly	3	0.07	92.82	3	7
Eusyllis kupfferi	Ann	Poly	3	0.07	92.89	2	5
Heteropodarke lyonsi	Ann	Poly	3	0.07	92.97	3	7
Lacydonia miranda	Ann	Poly	3	0.07	93.04	3	7
Liljeborgia (LPIL)	Art	Mala	3	0.07	93.11	3	7
Lucina multilineata	Mol	Biva	3	0.07	93.18	1	2
Lumbrineridae (LPIL)	Ann	Poly	3	0.07	93.26	2	5
Megalomma heterops	Ann	Poly	3	0.07	93.33	3	7
Melitidae (LPIL)	Art	Mala	3	0.07	93.40	3	7
Mesochaetopterus (LPIL)	Ann	Poly	3	0.07	93.47	3	7
Mooreonuphis (LPIL)	Ann	Poly	3	0.07	93.55	3	7
Musculus lateralis	Mol	Biva	3	0.07	93.62	2	5
Mysella (LPIL)	Mol	Biva	3	0.07	93.69	2	5
Nothria (LPIL)	Ann	Poly	3	0.07	93.76	2	5
Pherusa inflata	Ann	Poly	3	0.07	93.83	2	5

Table 4 continued:

Taxon Name	Phylum	Class	No. of Individuals	% Total	Cumulative %	Occurrence	% Station Occurrence
Pionosyllis (LPIL)	Ann	Poly	3	0.07	93.91	3	7
Processa (LPIL)	Art	Mala	3	0.07	93.98	2	5
Sabellaria vulgaris	Ann	Poly	3	0.07	94.05	2	5
Sabellidae Genus G	Ann	Poly	3	0.07	94.12	1	2
Scissurella proxima	Mol	Gast	3	0.07	94.20	2	5
Semele (LPIL)	Mol	Biva	3	0.07	94.27	3	7
Thyasiridae (LPIL)	Mol	Biva	3	0.07	94.34	2	5
Amphiuridae (LPIL)	Ech	Ophi	2	0.05	94.39	1	2
Aonides mayaguezensis	Ann	Poly	2	0.05	94.44	2	5
Aricidea (LPIL)	Ann	Poly	2	0.05	94.48	2	5
Balanoglossus (LPIL)	Hem	Ente	2	0.05	94.53	2	5
Batea carinata	Art	Mala	2	0.05	94.58	2	5
Byblis (LPIL)	Art	Mala	2	0.05	94.63	2	5
Caecum floridanum	Mol	Gast	2	0.05	94.68	1	2
Chaetozone (LPIL)	Ann	Poly	2	0.05	94.73	2	5
Chama macerophylla	Mol	Biva	2	0.05	94.77	2	5
Corbula (LPIL)	Mol	Biva	2	0.05	94.82	2	5
Decapoda (LPIL)	Art	Mala	2	0.05	94.87	2	5
Diplocirrus sp. A	Ann	Poly	2	0.05	94.92	2	5
Doris verrucosa	Mol	Gast	2	0.05	94.97	2	5
Echiura (LPIL)	Echi	-	2	0.05	95.01	2	5
Gammaropsis sp. A	Art	Mala	2	0.05	95.06	1	2
Hippomedon serratus	Art	Mala	2	0.05	95.11	2	5
Horoloanthura irpex	Art	Mala	2	0.05	95.16	2	5
Hydrozoa (LPIL)	Cni	Hydr	2	0.05	95.21	2	5
Ischyroceridae (LPIL)	Art	Mala	2	0.05	95.26	1	2
Kinbergonuphis simoni	Ann	Poly	2	0.05	95.30	2	5
Levinsenia gracilis	Ann	Poly	2	0.05	95.35	2	5
Lima scabra	Mol	Biva	2	0.05	95.40	2	5
Limopsis cristata	Mol	Biva	2	0.05	95.45	1	2
Litocorsa antennata	Ann	Poly	2	0.05	95.50	2	5
Lucina (LPIL)	Mol	Biva	2	0.05	95.54	1	2
Lumbrineris coccinea	Ann	Poly	2	0.05	95.59	2	5
Magelona (LPIL)	Ann	Poly	2	0.05	95.64	2	5
Magelona papillicornis	Ann	Poly	2	0.05	95.69	2	5
Magelona sp. K	Ann	Poly	2	0.05	95.74	2	5
Majidae (LPIL)	Art	Mala	2	0.05	95.79	2	5
Nereis (LPIL)	Ann	Poly	2	0.05	95.83	2	5
Nothria sp. F	Ann	Poly	2	0.05	95.88	1	2
Odontosyllis (LPIL)	Ann	Poly	2	0.05	95.93	1	2
Paranebalia longipes	Art	Mala	2	0.05	95.98	2	5
Parapinnixa bouvieri	Art	Mala	2	0.05	96.03	2	5
Parthenopidae (LPIL)	Art	Mala	2	0.05	96.07	1	2
Photis (LPIL)	Art	Mala	2	0.05	96.12	2	5
Phoxocephalidae (LPIL)	Art	Mala	2	0.05	96.17	2	5
Phyllodoce arenae	Ann	Poly	2	0.05	96.22	2	5
Pista sp. A	Ann	Poly	2	0.05	96.27	2	5
Prionospio steenstrupi	Ann	Poly	2	0.05	96.32	1	2
Pseudoleptochelia sp. A	Art	Mala	2	0.05	96.36	2	5
Pseudovermilia occidentalis	Ann	Poly	2	0.05	96.41	2	5
Sigalionidae (LPIL)	Ann	Poly	2	0.05	96.46	2	5
Synelmis (LPIL)	Ann	Poly	2	0.05	96.51	2	5
Synelmis acuminata	Ann	Poly	2	0.05	96.56	2	5
Teinostoma sp. A	Mol	Gast	2	0.05	96.60	1	2
Trypanosyllis sp. B	Ann	Poly	2	0.05	96.65	1	2

Table 4 continued:

Taxon Name	Phylum	Class	No. of Individuals	% Total	Cumulative %	Occurrence	% Station Occurrence
Turbonilla sp. Q	Mol	Gast	2	0.05	96.70	2	5
Typosyllis armillaris	Ann	Poly	2	0.05	96.75	1	2
Unciola (LPIL)	Art	Mala	2	0.05	96.80	2	5
Accalathura (LPIL)	Art	Mala	1	0.02	96.82	1	2
Accalathura crenulata	Art	Mala	1	0.02	96.84	1	2
Acuminodeutopus naglei	Art	Mala	1	0.02	96.87	1	2
Ampharete (LPIL)	Ann	Poly	1	0.02	96.89	1	2
Ampharete sp. B	Ann	Poly	1	0.02	96.92	1	2
Amphicteis gunneri	Ann	Poly	1	0.02	96.94	1	2
Anadara notabilis	Mol	Biva	1	0.02	96.97	1	2
Anamixis cavitura	Art	Mala	1	0.02	96.99	1	2
Ancistrosyllis hartmanae	Ann	Poly	1	0.02	97.01	1	2
Anthomuda stenotelson	Art	Mala	1	0.02	97.04	1	2
Aonides paucibranchiata	Ann	Poly	1	0.02	97.06	1	2
Aplacophora (LPIL)	Mol	Apla	1	0.02	97.09	1	2
Arabella (LPIL)	Ann	Poly	1	0.02	97.11	1	2
Arabella iricolor	Ann	Poly	1	0.02	97.13	1	2
Aspidosiphon albus	Sip	-	1	0.02	97.16	1	2
Astarte nana	Mol	Biva	1	0.02	97.18	1	2
Asthenothaerus hemphilli	Mol	Biva	1	0.02	97.21	1	2
Brachiopoda (LPIL)	Bra	-	1	0.02	97.23	1	2
Bryozoa (LPIL)	Bry	-	1	0.02	97.25	1	2
Caecum (LPIL)	Mol	Gast	1	0.02	97.28	1	2
Callianassidae (LPIL)	Art	Mala	1	0.02	97.30	1	2
Campylaspis heardi	Art	Mala	1	0.02	97.33	1	2
Capulus (LPIL)	Mol	Gast	1	0.02	97.35	1	2
Cardiidae (LPIL)	Mol	Biva	1	0.02	97.37	1	2
Cardiomya costellata	Mol	Biva	1	0.02	97.40	1	2
Carditidae (LPIL)	Mol	Biva	1	0.02	97.42	1	2
Chloeia viridis	Ann	Poly	1	0.02	97.45	1	2
Colubraria lanceolata	Mol	Gast	1	0.02	97.47	1	2
Corophium (LPIL)	Art	Mala	1	0.02	97.50	1	2
Cossura soyeri	Ann	Poly	1	0.02	97.52	1	2
Cupuladria (LPIL)	Ect	Gymn	1	0.02	97.54	1	2
Cuspidaria rostrata	Mol	Biva	1	0.02	97.57	1	2
Cyclaspis unicornis	Art	Mala	1	0.02	97.59	1	2
Dasybranchus lumbricoides	Ann	Poly	1	0.02	97.62	1	2
Dentimargo aureocincta	Mol	Gast	1	0.02	97.64	1	2
Dipolydora (LPIL)	Ann	Poly	1	0.02	97.66	1	2
Dipolydora sp. D	Ann	Poly	1	0.02	97.69	1	2
Dispio uncinata	Ann	Poly	1	0.02	97.71	1	2
Doriopsilla (LPIL)	Mol	Gast	1	0.02	97.74	1	2
Euclymene sp. A	Ann	Poly	1	0.02	97.76	1	2
Eumida sanguinea	Ann	Poly	1	0.02	97.78	1	2
Exogone (LPIL)	Ann	Poly	1	0.02	97.81	1	2
Flabelligeridae (LPIL)	Ann	Poly	1	0.02	97.83	1	2
Fossarus orbignyi	Mol	Gast	1	0.02	97.86	1	2
Frevillea hirsuta	Art	Mala	1	0.02	97.88	1	2
Gemma gemma	Mol	Biva	1	0.02	97.90	1	2
Cirratulidae Genus A	Ann	Poly	1	0.02	97.93	1	2
Glans dominguensis	Mol	Biva	1	0.02	97.95	1	2
Glycera sp. D	Ann	Poly	1	0.02	97.98	1	2
Glycera sp. E	Ann	Poly	1	0.02	98.00	1	2
Gouldia cerina	Mol	Biva	1	0.02	98.03	1	2
Gregariella coralliophaga	Mol	Biva	1	0.02	98.05	1	2
Hemipodus roseus	Ann	Poly	1	0.02	98.07	1	2

Table 4 continued:

Taxon Name	Phylum	Class	No. of Individuals	% Total	Cumulative %	Occurrence	% Station Occurrence
Heteromysis formosa	Art	Mala	1	0.02	98.10	1	2
Hydroides bispinosa	Ann	Poly	1	0.02	98.12	1	2
Hypsicomus phaeotaenia	Ann	Poly	1	0.02	98.15	1	2
Ilyanassa trivittata	Mol	Gast	1	0.02	98.17	1	2
Iphimedia zora	Art	Mala	1	0.02	98.19	1	2
Laeonereis culveri	Ann	Poly	1	0.02	98.22	1	2
Lasaeidae (LPIL)	Mol	Biva	1	0.02	98.24	1	2
Leitoscoloplos (LPIL)	Ann	Poly	1	0.02	98.27	1	2
Lembos (LPIL)	Art	Mala	1	0.02	98.29	1	2
Leptognathia (LPIL)	Art	Mala	1	0.02	98.31	1	2
Leucon (LPIL)	Art	Mala	1	0.02	98.34	1	2
Liljeborgia sp. A	Art	Mala	1	0.02	98.36	1	2
Lumbrineris (LPIL)	Ann	Poly	1	0.02	98.39	1	2
Lygdamis indicus	Ann	Poly	1	0.02	98.41	1	2
Lyonsia hyalina	Mol	Biva	1	0.02	98.43	1	2
Lysianopsis alba	Art	Mala	1	0.02	98.46	1	2
Maera (LPIL)	Art	Mala	1	0.02	98.48	1	2
Marphysa conferta	Ann	Poly	1	0.02	98.51	1	2
Marphysa sanguinea	Ann	Poly	1	0.02	98.53	1	2
Mediomastus (LPIL)	Ann	Poly	1	0.02	98.55	1	2
Melita (LPIL)	Art	Mala	1	0.02	98.58	1	2
Mesanthura paucidens	Art	Mala	1	0.02	98.60	1	2
Mesorhoea sexspinosa	Art	Mala	1	0.02	98.63	1	2
Microphthalmus (LPIL)	Ann	Poly	1	0.02	98.65	1	2
Nannosquilla carolinensis	Art	Mala	1	0.02	98.68	1	2
Nemocardium peramabile	Mol	Biva	1	0.02	98.70	1	2
Nephtys (LPIL)	Ann	Poly	1	0.02	98.72	1	2
Nereimyra sp. A	Ann	Poly	1	0.02	98.75	1	2
Notomastus americanus	Ann	Poly	1	0.02	98.77	1	2
Notomastus sp. A	Ann	Poly	1	0.02	98.80	1	2
Notomastus tenuis	Ann	Poly	1	0.02	98.82	1	2
Nucula aegeenis	Mol	Biva	1	0.02	98.84	1	2
Oedicerotidae (LPIL)	Art	Mala	1	0.02	98.87	1	2
Oenonidae (LPIL)	Ann	Poly	1	0.02	98.89	1	2
Okenia sapelona	Mol	Gast	1	0.02	98.92	1	2
Ophiactis savignyi	Ech	Ophi	1	0.02	98.94	1	2
Ophioderma appressum	Ech	Ophi	1	0.02	98.96	1	2
Orbiniidae (LPIL)	Ann	Poly	1	0.02	98.99	1	2
Oweniidae (LPIL)	Ann	Poly	1	0.02	99.01	1	2
Paranthuridae (LPIL)	Art	Mala	1	0.02	99.04	1	2
Paraonidae (LPIL)	Ann	Poly	1	0.02	99.06	1	2
Parapionosyllis longicirrata	Ann	Poly	1	0.02	99.08	1	2
Paraprionospio pinnata	Ann	Poly	1	0.02	99.11	1	2
Paratanaidae (LPIL)	Art	Mala	1	0.02	99.13	1	2
Parthenope (LPIL)	Art	Mala	1	0.02	99.16	1	2
Phalacrostemma sp. A	Ann	Poly	1	0.02	99.18	1	2
Phimochirus holthuisi	Art	Mala	1	0.02	99.21	1	2
Pholoe minuta	Ann	Poly	1	0.02	99.23	1	2
Piromis roberti	Ann	Poly	1	0.02	99.25	1	2
Pleurotomaridae Genus A	Mol	Gast	1	0.02	99.28	1	2
Podocerus kleidus	Art	Mala	1	0.02	99.30	1	2
Politolana imposter	Art	Mala	1	0.02	99.33	1	2
Porifera (LPIL)	Por	-	1	0.02	99.35	1	2
Psammolyce ctenidophora	Ann	Poly	1	0.02	99.37	1	2
Pseudoleptochelia (LPIL)	Art	Mala	1	0.02	99.40	1	2
Pteriidae (LPIL)	Mol	Biva	1	0.02	99.42	1	2
Scalibregma inflatum	Ann	Poly	1	0.02	99.45	1	2
Scolelepis texana	Ann	Poly	1	0.02	99.47	1	2

Table 4 continued:

Taxon Name	Phylum	Class	No. of Individuals	% Total	Cumulative %	Occurrence	% Station Occurrence
Scoletoma acicularum	Ann	Poly	1	0.02	99.49	1	2
Scoloplos rubra	Ann	Poly	1	0.02	99.52	1	2
Semele bellastriata	Mol	Biva	1	0.02	99.54	1	2
Sigatica semisulcata	Mol	Gast	1	0.02	99.57	1	2
Sipunculus nudus	Sip	-	1	0.02	99.59	1	2
Solariella lamellosa	Mol	Gast	1	0.02	99.61	1	2
Solenolambrus typicus	Art	Mala	1	0.02	99.64	1	2
Spiophanes wigleyi	Ann	Poly	1	0.02	99.66	1	2
Stomatopoda (LPIL)	Art	Mala	1	0.02	99.69	1	2
Syllis barbata	Ann	Poly	1	0.02	99.71	1	2
Syllis gracilis	Ann	Poly	1	0.02	99.74	1	2
Syllis sardai	Ann	Poly	1	0.02	99.76	1	2
Synalpheus (LPIL)	Art	Mala	1	0.02	99.78	1	2
Synapseudes sp. A	Art	Mala	1	0.02	99.81	1	2
Synelmis ewingi	Ann	Poly	1	0.02	99.83	1	2
Thyone pawsoni	Ech	Holo	1	0.02	99.86	1	2
Trichobranchus glacialis	Ann	Poly	1	0.02	99.88	1	2
Tricolia affinis	Mol	Gast	1	0.02	99.90	1	2
Turbonilla (LPIL)	Mol	Gast	1	0.02	99.93	1	2
Upogebia spinistipula	Art	Mala	1	0.02	99.95	1	2
Varicorbula operculata	Mol	Biva	1	0.02	99.98	1	2
Ventricolaria rugatina	Mol	Biva	1	0.02	100.00	1	2

Taxa Key

Ann=Annelida
  Olig=Oligochaeta
  Poly=Polychaeta
Art=Arthropoda
  Mala=Malacostraca
  Pycn=Pycnogonida
Bra=Brachiopoda
Bry=Bryozoa
Cho=Chordata
  Asci=Ascidiacea
  Lept=Leptocardia

Cni=Cnidaria
  Anth=Anthozoa
  Hydr=Hydrozoa
Ech=Echinodermata
  Aste=Asteroidea
  Echin=Echinoidea
  Holo=Holothuroidea
  Ophi=Ophiuroidea
Echi=Echiura
Ect=Ectoprocta
  Gymn=Gymnolaemata
Hem=Hemichordata
  Ente=Enteropneusta

Mol=Mollusca
  Apla=Aplacophora
  Biva=Bivalvia
  Gast=Gastropoda
  Polyp=Polyplacophora
  Scap=Scaphopoda
Pla=Platyhelminthes
  Turb=Turbellaria
Por=Porifera
Rhy=Rhynchocoela
  Anop=Anopla
Sip=Sipuncula

Table 5. Percentage abundance of dominant benthic macroinfaunal taxa (> 5% of the total) for the NOAA OE stations, 2002.

Taxa	1004	1005	1006	1007	1008	1014	1015	1016	1019	1021	1022	1027	1029	1030
Annelida														
Oligochaeta														
Lumbriculidae (LPIL)														
Tubificidae (LPIL)											5.2			
Polychaeta														
Ampharetidae (LPIL)			5.7											
Aricidea cerrutii														
Armandia maculata														
Bhawania goodei														
Ceratonereis (LPIL)														
Ceratonereis mirabilis													6.0	
Chone (LPIL)														
Cirratulidae (LPIL)														
Euchone incolor														
Flabelligeridae (LPIL)														
Galathowenia oculata				6.2										
Spionidae Genus F														
Glycera (LPIL)					5.3									
Glycera americana											8.6			
Glycera sp. F														
Glyceridae (LPIL)										5.1				
Goniada maculata														
Goniadella sp. A					7.2	11.9	5.0			5.1				
Goniadides carolinae														
Haplosyllis spongicola									23.6					
Laonice cirrata														
Magelona (LPIL)														
Magelona papillicornis														
Maldanidae (LPIL)														
Monticellina dorsobranchialis														
Mooreonuphis (LPIL)														
Mooreonuphis pallidula														
Nereimyra sp. A														

Table 5 continued:

Taxa	1004	1005	1006	1007	1008	1014	1015	1016	1019	1021	1022	1027	1029	1030
Nereis pelagica														
Orbiniidae (LPIL)														
Paraonidae (LPIL)														
Paraprionospio pinnata														
Phyllodoce (LPIL)														
Phyllodocidae (LPIL)														
Pisione sp. A							6.7							
Plakosyllis quadrioculata														
Podarkeopsis levifuscina														
Poecilochaetus johnsoni							5.0					9.5	9.6	
Prionospio (LPIL)								6.0			5.2			
Sabellidae (LPIL)														
Scalibregma inflatum														
Sphaerosyllis piriferopsis														
Spiochaetopterus oculatus														
Spionidae (LPIL)														
Spiophanes missionensis														
Terebellides parvus														
Arthropoda														
Malacostraca														
Ampelisca (LPIL)		5.4												
Ampelisca sp. AF				8.5							5.2			
Byblis (LPIL)														
Elasmopus sp. C														
Eurydice convexa														
Eurydice piperata					5.3							6.8		
Gammaropsis (LPIL)		6.0					5.0							
Gammaropsis sp. E				5.4										
Gnathia (LPIL)														
Hippomedon serratus														
Ingolfiella fuscina														
Leptochelia (LPIL)														
Leptognathia (LPIL)														
Munida pusilla		6.7												

Table 5 continued:

Taxa	1004	1005	1006	1007	1008	1014	1015	1016	1019	1021	1022	1027	1029	1030
Politolana imposter														
Rildardanus laminosa	11.2		5.7	6.2	5.9							6.8		
Unciola (LPIL)														
Unciola serrata														6.3
Chordata														
Leptocardia														
Branchiostoma (LPIL)														
Cnidaria														
Cnidaria (LPIL)	10.3		14.8				20.0	7.1		21.5				
Echinodermata														
Asteroidea														
Asteroidea (LPIL)														
Ophiuroidea														
Ophioderma appressum														
Ophiuroidea (LPIL)														
Mollusca														
Aplacophora														
Aplacophora (LPIL)														
Bivalvia														
Corbulidae (LPIL)														
Cuspidaria rostrata														
Gemma gemma														
Limopsis cristata														
Lucina (LPIL)														
Lucina multilineata														
Lucinidae (LPIL)														
Montacutidae (LPIL)														
Nucula aegeenis														
Thyasiridae (LPIL)														
Gastropoda														
Solariella lamellosa														
Teinostoma biscaynense														

Table 5 continued:

Taxa	1004	1005	1006	1007	1008	1014	1015	1016	1019	1021	1022	1027	1029	1030
Rhynchocoela														
Rhynchocoela (LPIL)														8.6
Sipuncula														
Aspidosiphon (LPIL)														
Sipuncula (LPIL)														

Table 5 continued:

Taxa	1049	1051	1052	1059	1060	1061	1062	1064	1066	1072	1073	1074	1078	1079	1080
Annelida															
Oligochaeta															
Lumbriculidae (LPIL)															
Tubificidae (LPIL)															
Polychaeta															
Ampharetidae (LPIL)															
Aricidea cerrutii															
Armandia maculata									5.0						
Bhawania goodei										5.1	9.8				
Ceratonereis (LPIL)				6.5		6.5	7.5		6.3						
Ceratonereis mirabilis				8.7	8.2	10.3	19.8		16.3	6.8		6.0		6.7	6.0
Chone (LPIL)															
Cirratulidae (LPIL)															
Euchone incolor															
Flabelligeridae (LPIL)															
Galathowenia oculata		5.3													
Spionidae Genus F										15.4	17.4	5.2			
Glycera (LPIL)															
Glycera americana												5.2			
Glycera sp. F			6.7												6.0
Glyceridae (LPIL)															
Goniada maculata															
Goniadella sp. A															
Goniadides carolinae															
Haplosyllis spongicola															
Laonice cirrata															
Magelona (LPIL)															
Magelona papillicornis															
Maldanidae (LPIL)															
Monticellina dorsobranchialis															
Mooreonuphis (LPIL)															
Mooreonuphis pallidula															
Nereimyra sp. A															

Table 5 continued:

Taxa	1049	1051	1052	1059	1060	1061	1062	1064	1066	1072	1073	1074	1078	1079	1080
Nereis pelagica															
Orbiniidae (LPIL)															
Paraonidae (LPIL)															
Paraprionospio pinnata															
Phyllodoce (LPIL)															
Phyllodocidae (LPIL)															
Pisione sp. A			7.7												
Plakosyllis quadrioculata		5.3			5.9										
Podarkeopsis levifuscina		7.9			7.1										
Poecilochaetus johnsoni															
Prionospio (LPIL)															
Sabellidae (LPIL)													5.3		
Scalibregma inflatum															
Sphaerosyllis piriferopsis															6.7
Spiochaetopterus oculatus															
Spionidae (LPIL)															
Spiophanes missionensis															
Terebellides parvus															
Arthropoda															
Malacostraca															
Ampelisca (LPIL)															
Ampelisca sp. AF															
Byblis (LPIL)															
Elasmopus sp. C										7.5					
Eurydice convexa													5.2		
Eurydice piperata															
Gammaropsis (LPIL)															
Gammaropsis sp. E															
Gnathia (LPIL)															
Hippomedon serratus															
Ingolfiella fuscina	5.6		5.8	5.4											7.5
Leptochelia (LPIL)															
Leptognathia (LPIL)															
Munida pusilla															

Table 5 continued:

Taxa	1049	1051	1052	1059	1060	1061	1062	1064	1066	1072	1073	1074	1078	1079	1080
Rhynchocoela															
Rhynchocoela (LPIL)															
Sipuncula															
Aspidosiphon (LPIL)															
Sipuncula (LPIL)								12.6							

Table 5 continued:

Taxa	1049	1051	1052	1059	1060	1061	1062	1064	1066	1072	1073	1074	1078	1079	1080
Politolana imposter															
Rildardanus laminosa		21.9	8.7		7.1	21.5		7.2				5.2	15.2		
Unciola (LPIL)															
Unciola serrata	5.6														
Chordata															
Leptocardia															
Branchiostoma (LPIL)	18.0		6.7						6.3						
Cnidaria															
Cnidaria (LPIL)										17.9		11.9	11.7		10.4
Echinodermata															
Asteroidea															
Asteroidea (LPIL)															
Ophiuroidea															
Ophioderma appressum															
Ophiuroidea (LPIL)															
Mollusca															
Aplacophora															
Aplacophora (LPIL)															
Bivalvia															
Corbulidae (LPIL)								7.2							
Cuspidaria rostrata															
Gemma gemma															
Limopsis cristata															
Lucina (LPIL)															
Lucina multilineata															
Lucinidae (LPIL)															
Montacutidae (LPIL)											5.4	6.0			
Nucula aegeenis															
Thyasiridae (LPIL)															
Gastropoda															
Solariella lamellosa															
Teinostoma biscaynense														9.5	

Table 5 continued:

Taxa	1081	1082	1083	1090	1092	1094	1102	1107	1109	1110	1111	1112	1116	1117	1118
Annelida															
Oligochaeta															
Lumbriculidae (LPIL)											27.3				
Tubificidae (LPIL)						5.9							5.3		
Polychaeta															
Ampharetidae (LPIL)															
Aricidea cerrutii					5.0							10.0			
Armandia maculata															
Bhawania goodei															
Ceratonereis (LPIL)															
Ceratonereis mirabilis	6.9	5.9	7.1										5.3		
Chone (LPIL)														11.5	
Cirratulidae (LPIL)							6.9								
Euchone incolor						11.8									
Flabelligeridae (LPIL)				5.6											
Galathowenia oculata															
Spionidae Genus F						5.9			9.3	9.1		40.0			
Glycera (LPIL)															
Glycera americana															
Glycera sp. F					5.0	11.8									
Glyceridae (LPIL)					5.0					9.1					
Goniada maculata					5.0										
Goniadella sp. A										9.1					
Goniadides carolinae													5.3		
Haplosyllis spongicola															6.3
Laonice cirrata									7.0						
Magelona (LPIL)					5.0										
Magelona papillicornis											25.0	10.0			
Maldanidae (LPIL)				5.6	5.0										
Monticellina dorsobranchialis					5.0										
Mooreonuphis (LPIL)					5.0										
Mooreonuphis pallidula										9.1					
Nereimyra sp. A										9.1					

Table 5 continued:

Taxa	1081	1082	1083	1090	1092	1094	1102	1107	1109	1110	1111	1112	1116	1117	1118
Nereis pelagica						5.9	6.9								
Orbiniidae (LPIL)					5.0										
Paraonidae (LPIL)										9.1					
Paraprionospio pinnata						5.9									
Phyllodoce (LPIL)					5.0										
Phyllodocidae (LPIL)				5.6		5.9									
Pisione sp. A															
Plakosyllis quadrioculata													10.5	12.2	7.9
Podarkeopsis levifuscina															5.2
Poecilochaetus johnsoni				5.6	5.0										
Prionospio (LPIL)															
Sabellidae (LPIL)								7.4							
Scalibregma inflatum				5.6											
Sphaerosyllis piriferopsis															
Spiochaetopterus oculatus						5.9									
Spionidae (LPIL)				5.6	5.0			16.7	18.6		75.0				
Spiophanes missionensis				5.6		5.9									
Terebellides parvus						5.9									
Arthropoda															
Malacostraca															
Ampelisca (LPIL)					5.0										
Ampelisca sp. AF															
Byblis (LPIL)				5.6											
Elasmopus sp. C													5.3		
Eurydice convexa				5.6											
Eurydice piperata										9.1					
Gammaropsis (LPIL)							6.9								
Gammaropsis sp. E															
Gnathia (LPIL)					5.0										
Hippomedon serratus						5.9						10.0			
Ingolfiella fuscina															
Leptochelia (LPIL)									9.3						
Leptognathia (LPIL)					5.0										
Munida pusilla															

Table 5 continued:

Taxa	1081	1082	1083	1090	1092	1094	1102	1107	1109	1110	1111	1112	1116	1117	1118
Politolana imposter					5.0										
Rildardanus laminosa	9.8	8.4	7.8											6.4	
Unciola (LPIL)					5.0										
Unciola serrata															
Chordata															
Leptocardia															
Branchiostoma (LPIL)													6.3	5.8	
Cnidaria															
Cnidaria (LPIL)	7.8														
Echinodermata															
Asteroidea															
Asteroidea (LPIL)										9.1					
Ophiuroidea															
Ophioderma appressum				5.6											
Ophiuroidea (LPIL)				5.6											
Mollusca															
Aplacophora															
Aplacophora (LPIL)						5.9									
Bivalvia															
Corbulidae (LPIL)															
Cuspidaria rostrata				5.6											
Gemma gemma				5.6											
Limopsis cristata				11.1											
Lucina (LPIL)							6.9								
Lucina multilineata								5.6							
Lucinidae (LPIL)				11.1				5.6							
Montacutidae (LPIL)															
Nucula aegeenis						5.9									
Thyasiridae (LPIL)					10.0	5.9									
Gastropoda															
Solariella lamellosa				5.6											
Teinostoma biscaynense															

Table 5 continued:

Taxa	1081	1082	1083	1090	1092	1094	1102	1107	1109	1110	1111	1112	1116	1117	1118
Rhynchocoela															
Rhynchocoela (LPIL)					5.0							10.0			
Sipuncula															
Aspidosiphon (LPIL)						5.9									
Sipuncula (LPIL)												20.0			

Table 6. Summary of benthic macroinfaunal data for the NOAA OE stations, 2002.

Region	Station	Total No. Taxa	Total. No. Individuals	Density (nos/m²)	H' Diversity	J' Evenness
SAS1-Near	1004	56	107	3567.0	3.67	0.91
	1005	62	149	4967.0	3.80	0.92
		59.0		4267.0	3.74	0.92
SAS1-Far	1006	44	88	2933.0	3.49	0.92
	1007	54	129	4300.0	3.68	0.92
	1008	71	152	5067.0	3.89	0.91
		56.3		4100.0	3.69	0.92
		13.7		1081.0	0.20	0.01
SAS2-Near	1014	29	42	1400.0	3.25	0.96
	1015	36	60	2000.0	3.25	0.91
	1016	51	84	2800.0	3.75	0.95
		38.7		2066.7	3.42	0.94
		11.2		702.4	0.29	0.03
SAS2-Far	1019	52	127	4233.0	3.45	0.87
	1021	44	79	2633.0	3.38	0.89
	1022	55	116	3867.0	3.74	0.93
		50.3		3577.7	3.53	0.90
		5.7		838.3	0.19	0.03
JS1	1027	41	74	2467.0	3.52	0.95
	1029	45	83	2767.0	3.60	0.95
	1030	67	128	4267.0	3.88	0.92
		51.0		3167.0	3.67	0.94
		14.0		964.4	0.19	0.01
JR1	1049	50	89	2967.0	3.54	0.90
	1051	47	114	3800.0	3.31	0.86
	1052	50	104	3467.0	3.60	0.92
		49.0		3411.3	3.48	0.89
		1.7		419.3	0.15	0.03
JR2-Near	1060	44	85	2833.0	3.54	0.93
	1061	43	107	3567.0	3.18	0.84
	1064	56	111	3700.0	3.66	0.91
		47.7		3366.7	3.46	0.90
		7.2		466.9	0.25	0.05
JR2-Far	1059	52	92	3067.0	3.72	0.94
	1062	48	106	3533.0	3.42	0.88
	1066	40	80	2667.0	3.35	0.91
		44.0		3100.0	3.38	0.90
		5.7		612.4	0.05	0.02
SR1	1072	42	117	3900.0	3.17	0.85
	1073	43	92	3067.0	3.34	0.89
	1074	51	134	4467.0	3.54	0.90
		45.3		3811.3	3.35	0.88
		4.9		704.2	0.18	0.03

Table 6 continued:

Region	Station	Total No. Taxa	Total. No. Individuals	Density (nos/m²)	H' Diversity	J' Evenness
SR2-Near	1079	53	105	3500.0	3.73	0.94
	1080	59	134	4467.0	3.65	0.89
	1081	45	102	3400.0	3.50	0.92
		52.3		3789.0	3.63	0.92
		7.0		589.3	0.12	0.02
SR2-Far	1078	64	171	5700.0	3.64	0.87
	1082	87	202	6733.0	4.09	0.92
	1083	56	141	4700.0	3.74	0.93
		69.0		5711.0	3.82	0.91
		16.1		1016.5	0.24	0.03
CLS1	1090	16	18	600.0	2.74	0.99
	1092	19	20	667.0	2.93	0.99
	1094	15	17	567.0	2.67	0.99
		16.7		611.3	2.78	0.99
		2.1		51.0	0.13	0.00
CLS2	1102	25	29	967.0	3.18	0.99
	1107	28	54	1800.0	3.07	0.92
	1109	25	43	1433.0	2.98	0.92
		26.0		1400.0	3.07	0.94
		1.7		417.5	0.10	0.04
CLN	1110	9	11	367.0	2.10	0.95
	1111	2	4	133.0	0.56	0.81
	1112	6	10	333.0	1.61	0.90
		5.7		277.7	1.42	0.89
		3.5		126.4	0.78	0.07
GH	1116	40	95	3167.0	3.43	0.93
	1117	57	156	5200.0	3.51	0.87
	1118	66	191	6367.0	3.80	0.91
		54.3		4911.3	3.58	0.90
		13.2		1619.4	0.20	0.03

Region Key:

SAS1	**St. Augustine Scarp 1**
SAS2	**St. Augustine Scarp 2**
JS1	**Jax Scarp 1**
JR1	**Julian's Ridge 1**
JR2	**Julian's Ridge 2**
SR1	**Scamp Ridge 1**
SR2	**Scamp Ridge 2**
CLS1	**Charleston Lumps South 1**
CLS2	**Charleston Lumps South 2**
CLN	**Charleston Lumps North**
GH	**Georgetown Hole**

Figure 1. Locations of the NOAA OE stations, 2002.
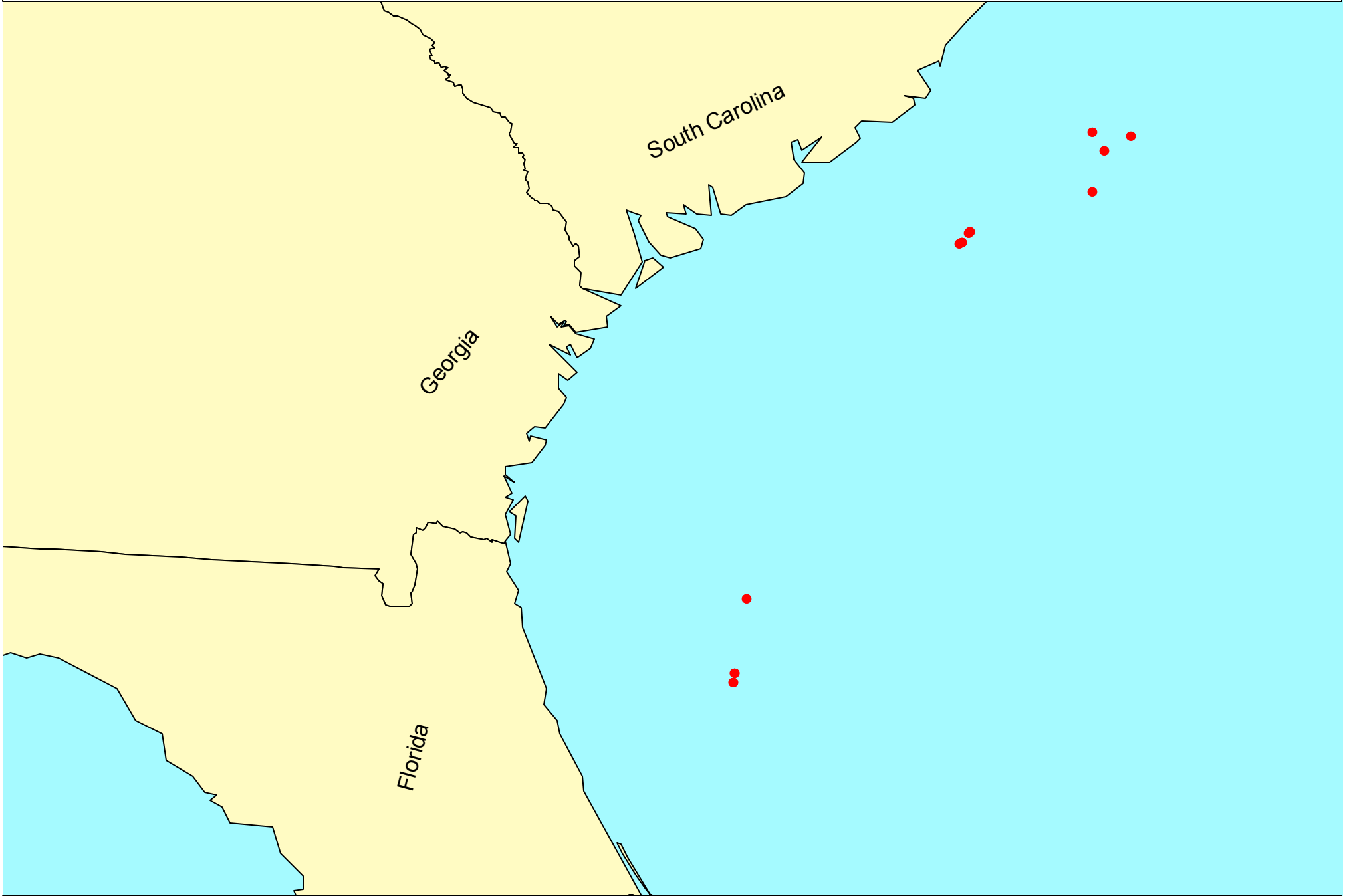
Figure 2. Relative abundance of major taxa for the NOAA OE stations, 2002.
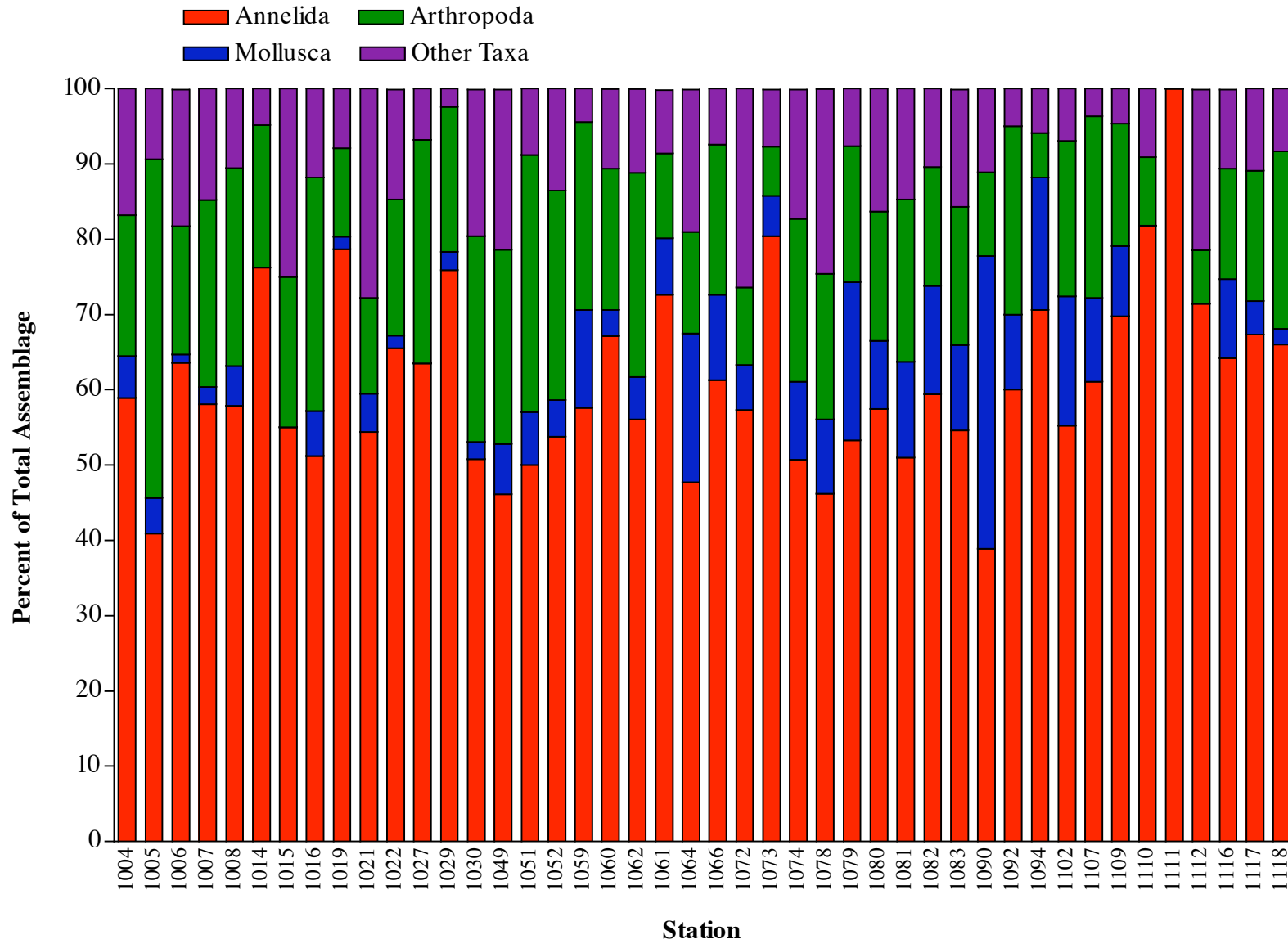
Figure 3. Taxa richness for the NOAA OE stations, 2002.
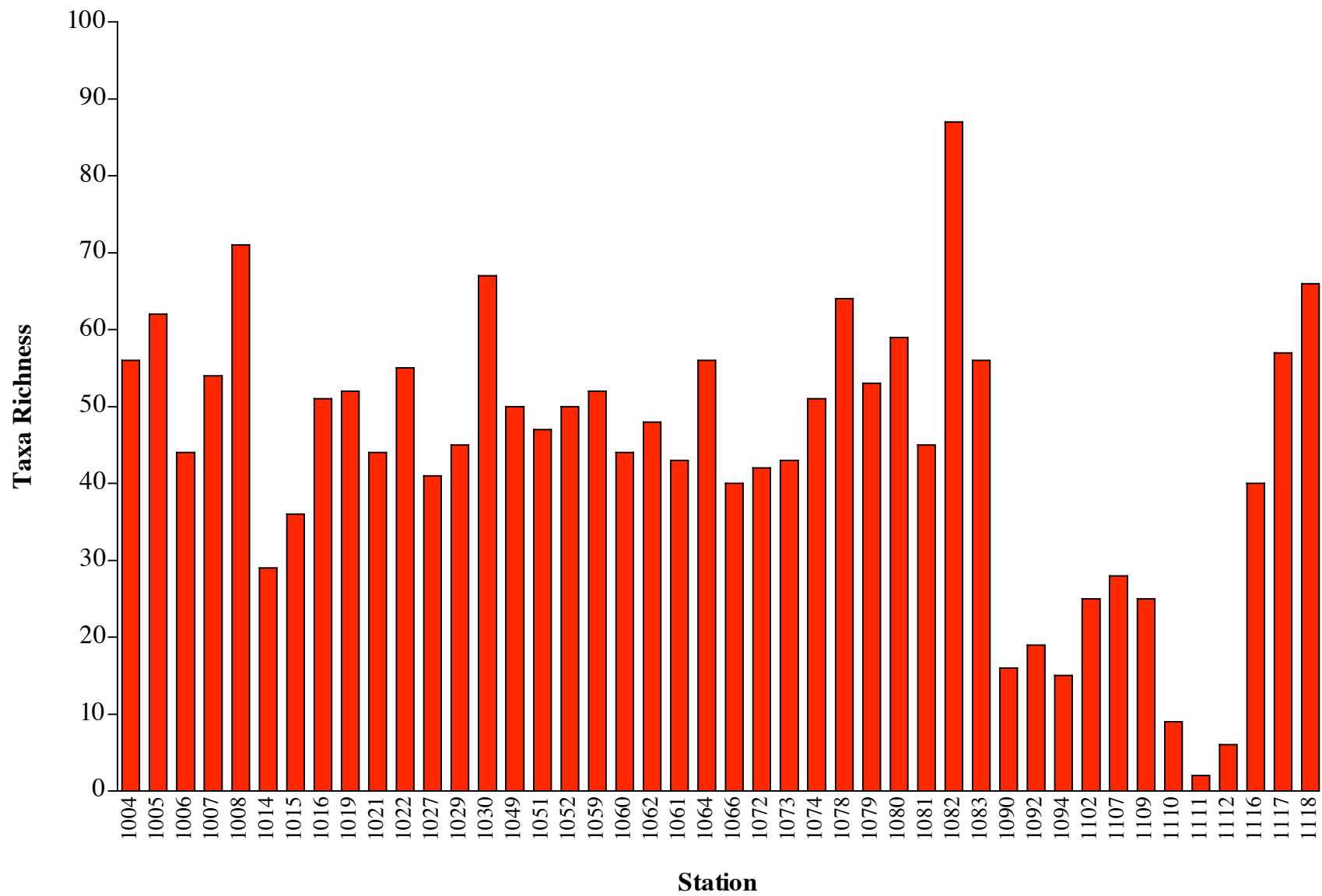
Figure 4. Taxa densities for the NOAA OE stations, 2002.
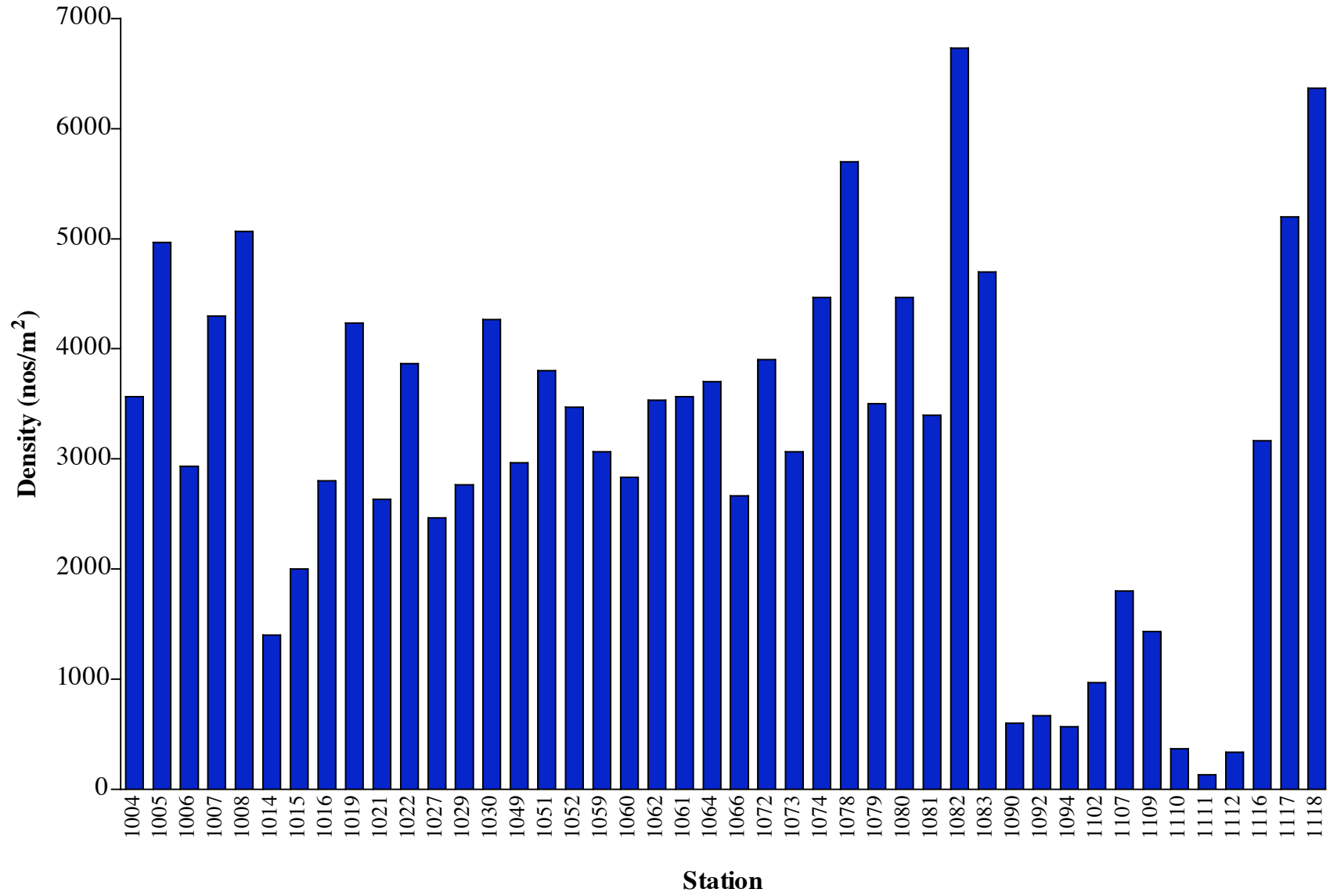
Figure 5. Taxa diversity (H') for the NOAA OE stations, 2002.
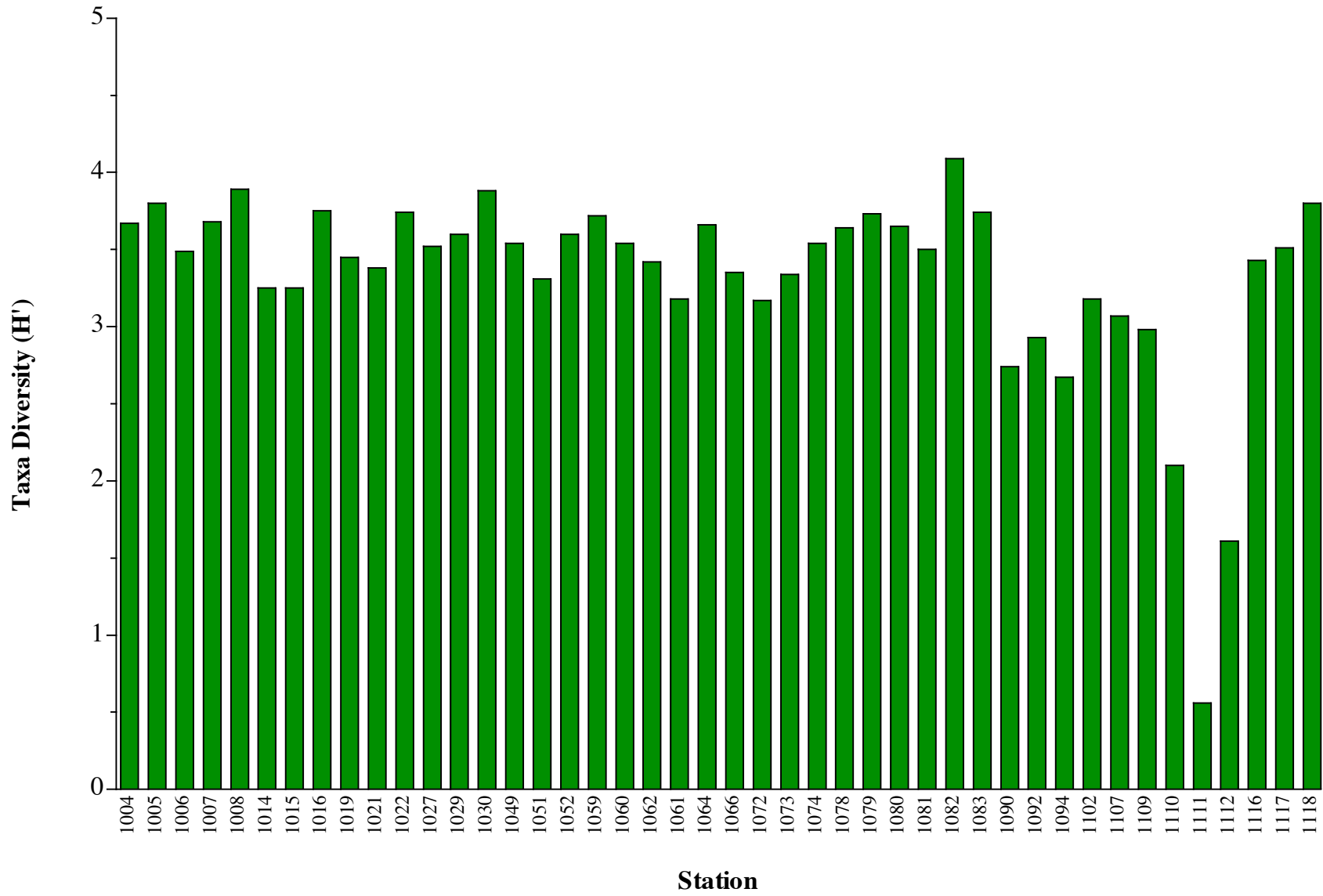
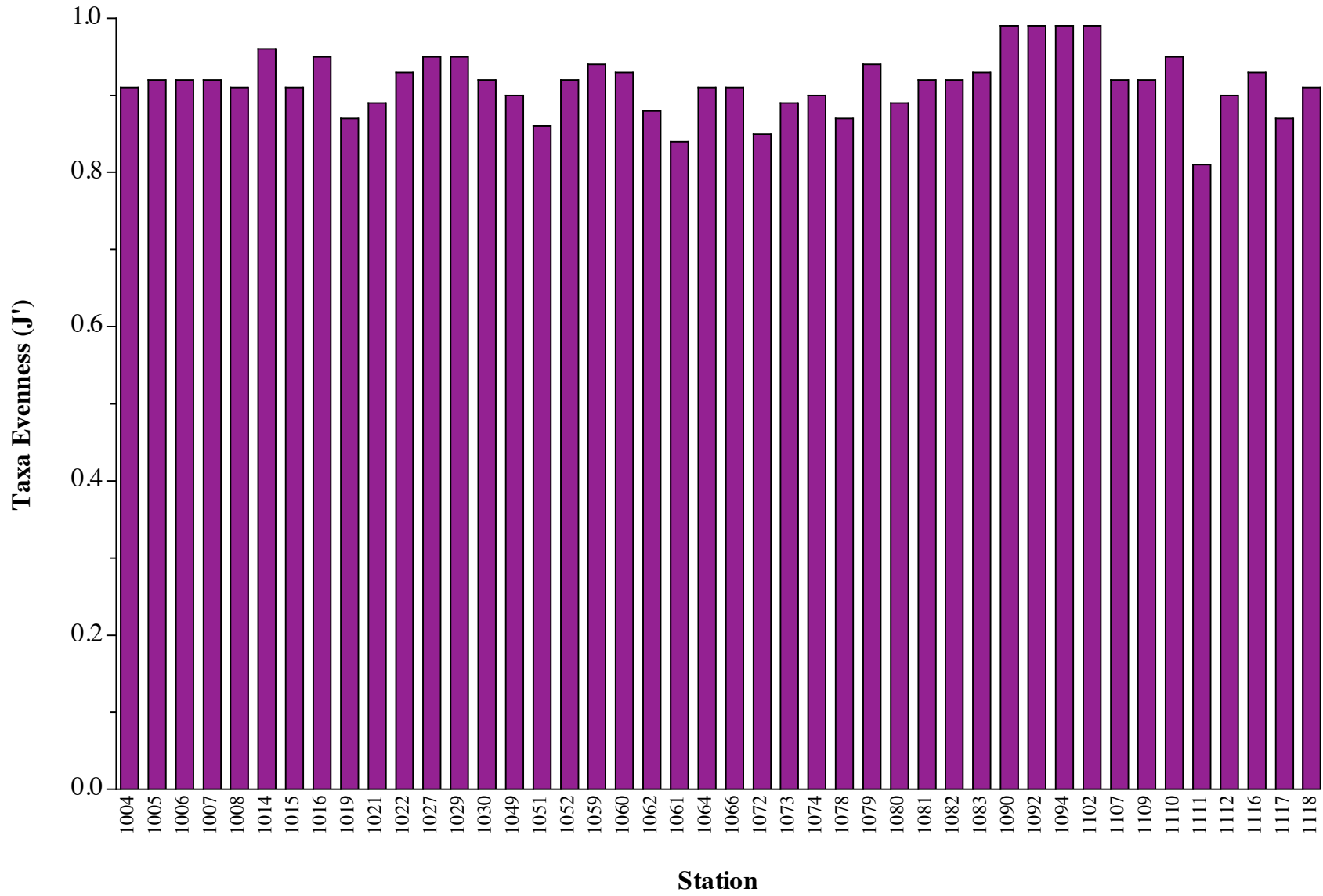Figure 6. Taxa evenness (J') for the NOAA OE stations, 2002.

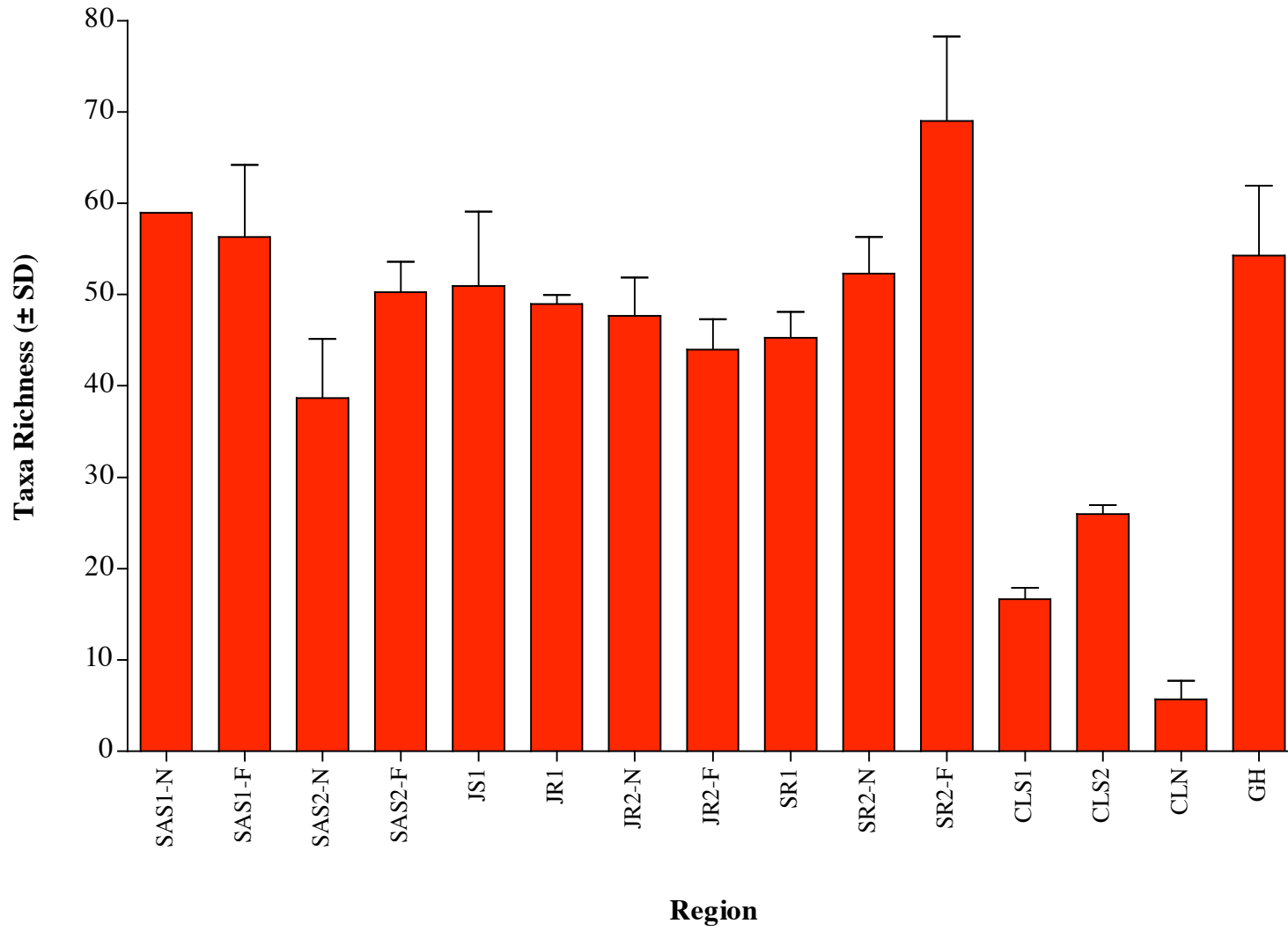Figure 7. Taxa richness for the NOAA OE regions, 2002. See text for explanations of regional key.

Figure 8. Macroinfaunal densities for the NOAA OE regions, 2002. See text for explanations of regional key.
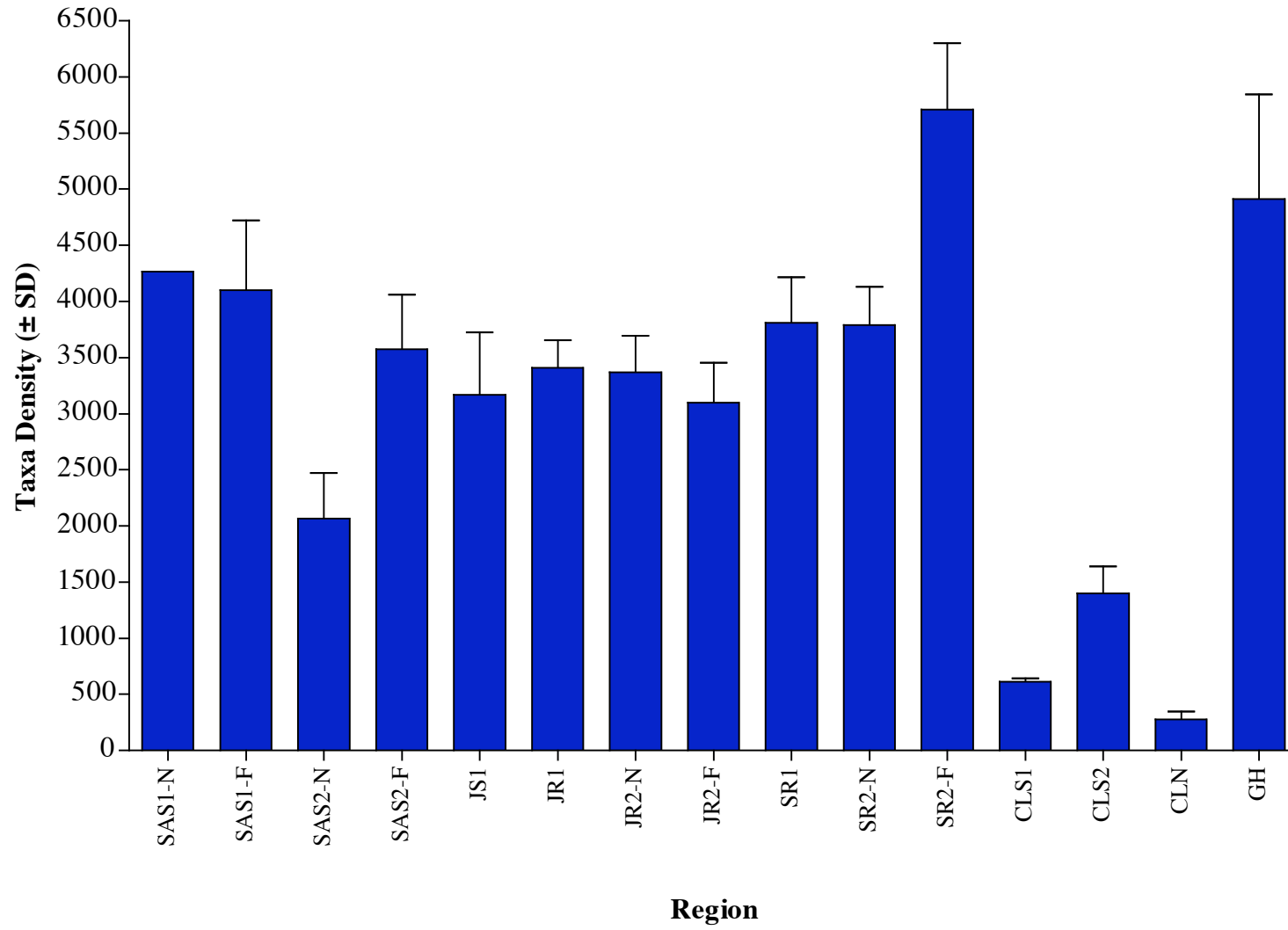
Figure 9. Taxa diversity (H') for the NOAA OE regions, 2002. See text for explanations of regional key.
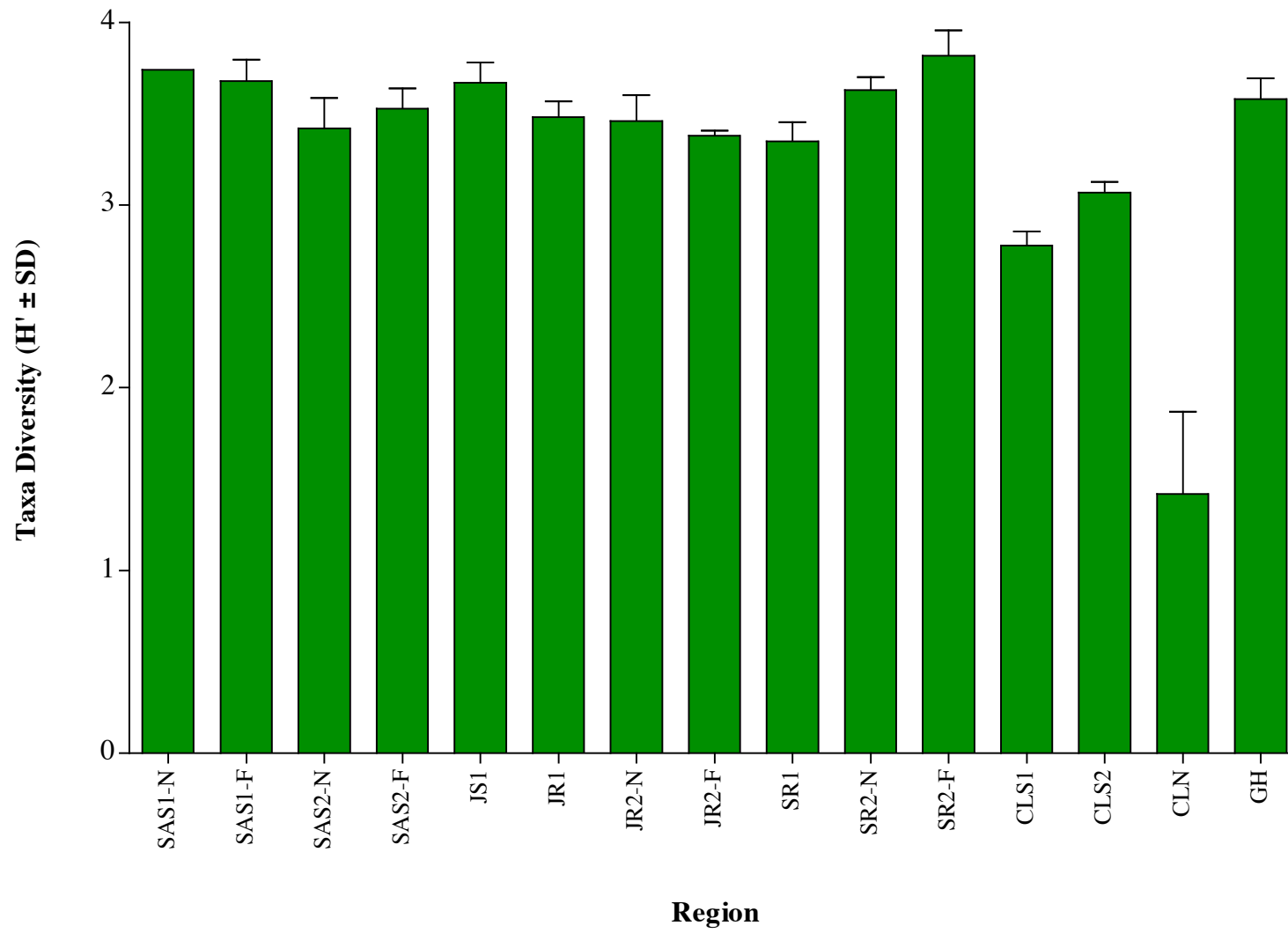
Figure 10. Taxa evenness (J') for the NOAA OE regions, 2002. See text for explanations of regional key.
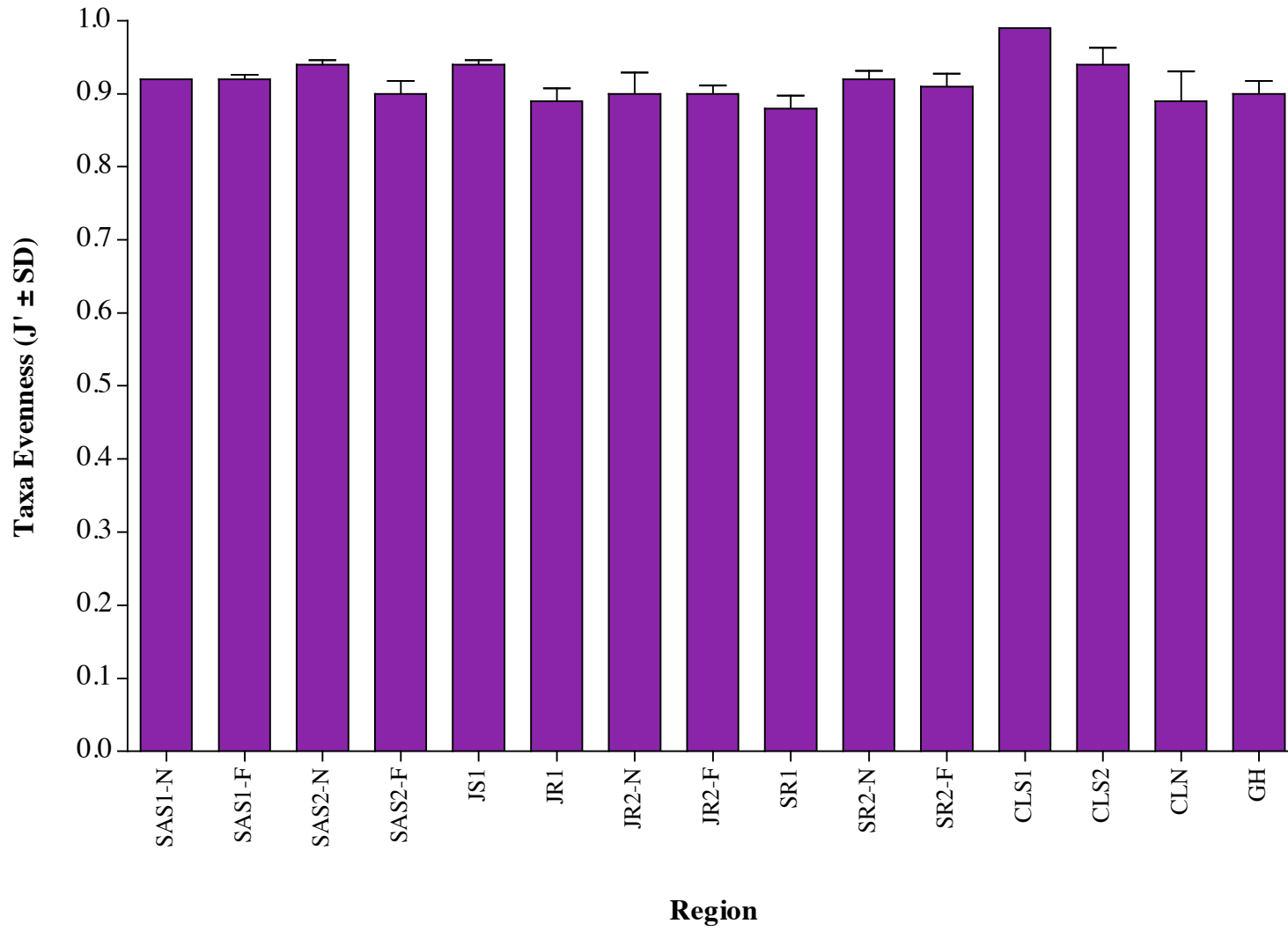
APPENDICES

QUALITY ASSURANCE STATEMENT

Client/Project: NOAA

Work Assignment Title: OE-2002

Task Number: Opt 3-1

Description of Data Set or Deliverable: 44 Benthic macroinvertebrate samples collected
in 2002; Young Dredge grabs

Description of audit and review activities: Judged accuracy rates were well above standard
levels for sorting and taxonomy. Laboratory QC reports were completed. Copies
of QC results follow (see attachment.) All taxonomic data were
entered into computer and printed. This list was checked for accuracy against
original taxonomic data sheets.

Description of outstanding issues or deficiencies which may affect data quality: None

_____

Signature of QA Officer or Reviewer   Date

_____

Signature of Project Manager   Date

QUALITY CONTROL REWORKS

Client/Project: NOAA-OE   **Task Number:** Opt 3-1

Sorting Results:

Sample #	% Accuracy
OE02 1092	100%
OE02 1090	100%
OE02 1094	100%
OE02 1107	100%
OE02 1027	100%

Taxonomy Results:

Sample #	Taxa	% Accuracy
OE02 1064	Crust./Moll.	98%
OE02 1112	Crust./Moll.	100%
OE02 1019	Crust./Moll.	96%
OE02 1090	Crust./Moll.	100%
OE02 1004	Poly./Misc.	97%
OE02 1021	Poly./Misc.	100%
OE02 1062	Poly./Misc.	97%
OE02 1080	Poly./Misc.	98%
OE02 1022	Poly./Misc.	97%

Description of outstanding issues or deficiencies which may affect data quality: None

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Signature of QA Officer or Reviewer   Date