North Shore Bays Benthic Mapping: Groundtruth Studies

Final Report to
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ABSTRACT

We combined high-resolution remote sensing techniques with detailed study of the physical and faunal characteristics at point locations in different seafloor environments within the Oyster Bay-Cold Spring Harbor Complex, the Huntington-Northport Bay Complex, and Port Jefferson Harbor, including Conscience Bay. High-resolution backscatter and bathymetric maps created by side scan and multibeam sonar surveys were used to classify the sea bed into provinces. Samples for macrofauna and sediment properties were collected within each province to provide "ground truth" for the acoustic maps. Oyster Bay, Huntington Harbor, and Port Jefferson Harbor were sampled at 40, 38, and 50 locations, respectively, with two replicate samples at each location. Samples were processed for organic content, grain-size, and fauna. Multivariate analysis was used to identify biotopes, i.e., areas of uniform sedimentary and faunal characteristics. Results indicated that acoustic mapping of the estuary floor provided a useful foundation from which to map benthic biotopes, that ground truth sampling will require a greater effort than that carried out in the present study in order to collect enough species to adequately characterize community structure, and that although most areas in the bays contained viable benthic communities, all three study areas showed some evidence of stress.

INTRODUCTION

Acoustic surveys of marine areas have become the underwater analog of aerial photography, enabling relatively large areas to be surveyed at fine resolution in relatively short periods of time. The acoustic remote sensing tools currently employed in geophysical surveys (side scan sonar, multibeam bathymetry etc.) have the potential/ability to characterize variations in bottom type at a level of resolution well beyond traditional discrete bottom sampling methods (e.g., cores, grab samples, etc.) (Ryan and Flood 1996). This capability enables the application of techniques commonly used in landscape ecology to marine benthic environments (Robbins and Bell, 1994). The strengths of a landscape ecology approach are evident in terrestrial and small stream ecosystems (e.g., Forman 1995).

Maps generated by acoustic surveys alone are not sufficient for characterizing bottom type or the distribution of benthic communities, and at least one stage of ground truthing, i.e., linking the acoustic maps with benthic environmental and biological assemblages, is required. Acoustic surveys can identify sites of different bottom character, but determining that those sites are, for example, sea-grass beds, rocky substrates, rippled sands, or muddy surfaces, requires verification by direct sampling. Knowing the type of bottom present is an important indicator of the benthic community that may be present, but benthic communities are highly variable and cannot be accurately predicted based on bottom type alone. In addition, geophysical features detectable by acoustic surveys that appear to characterize distinct sedimentary regions are not necessarily biologically relevant (Brown *et al.*, 2002).

The principal goal of this study was to collect and analyze sediment and faunal ground truth samples at three bays on the north shore of Long Island: Oyster Bay, Huntington Harbor, and Port Jefferson Harbor. Ground truth sampling locations were determined by visual examination of high resolution backscatter and bathymetric maps created by side scan and multibeam sonar surveys. Data were analyzed in order to address two further objectives. The first was to

determine how well strata or regions derived from visual examination of sonar data represented biotopes or areas of homogeneous physical and biological characteristics. The second was to estimate the number of samples required to adequately characterize the benthic community in a biotope. The latter information would be useful in planning future ground truth sampling.

METHODS

Study Area

This study was carried out in embayments on the North Shore of Long Island including the Oyster Bay-Cold Spring Harbor Complex; the Huntington-Northport Bay Complex, and Port Jefferson Harbor, including Conscience Bay (Figure 1). For convenience, these embayments will be referred to as Oyster Bay, Huntington Harbor, and Port Jefferson Harbor.

Sampling Locations

Stratification of the bays into initial acoustic provinces was conducted by visual examination of the multibeam bathymetry and side scan sonar data collected by Flood (2004). In this process, acoustic backscatter was taken as a proxy for bottom type, and our goal was to subdivide or stratify each area into separate provinces, each consisting of a homogeneous bottom type (Figures 2-4). One to six sampling stations were randomly positioned within each geophysical province, although we did modify positions such that sampling stations were at least 100 meters from any province boundary or any other station. Oyster Bay was subdivided into 20 initial acoustic provinces (A-T) and was sampled on May 1-3 2006. Fifteen initial acoustic provinces (A-O) were identified for Huntington Harbor, and sampling was carried out on May 16-19, 2005. Port Jefferson was subdivided into 19 initial acoustic provinces (A-U) and sampled on April 27-29, 2004. In all these areas, two replicate bottom samples were collected at each sampling station. It should be noted that letters associated with geophysical provinces are for identification purposes only and were arbitrarily assigned, i.e., there is no correspondence between provinces labeled A among areas.

Faunal and Sediment sampling

Faunal and sediment sampling was conducted aboard the R/V Pritchard operated by Stony Brook University. Bottom samples were collected using a modified Van Veen grab (0.04 m^2). Subsamples of sediments for grain size and organic content were drawn from each grab sample. The remaining sediment was washed through a 0.5 mm sieve for fauna. All material left on the sieve was preserved in 10% buffered formalin and stained with rose bengal. Faunal samples were rewashed in the lab and transferred to 70% ethanol before sorting and identification. Individual organisms were identified to species level whenever possible and the total for each taxon enumerated. Unless otherwise noted, all abundances are expressed as the number of individuals per sample (i.e., per 0.04 m^2).

Sediment samples were processed for organic content and grain-size. Samples were placed in a drying oven at 60^o C for 24-48 hours to obtain dry weights. Sediment organic content was

estimated by weight loss on ignition (LOI) when dry sediment samples were combusted at 450^{o} C for at least 4 hours.

Sediment grain-size analyses were used to measure percent composition by weight of major size-fractions (gravel, sand, silt, clay), as well as detailed grain-size distribution in ½ phi intervals. We used a combination of dry sieve, settling column, and sedigraph analyses for the gravel, sand, and silt-clay fractions, respectively. Samples were initially partitioned into three size-fractions by wet sieving with distilled water through a combination of 1 mm and 63 micron sieves. The >1mm and 1mm-63 micron fractions were placed in a drying oven at 60^{o} C for at least 48 hours to obtain dry weights. Water containing the <63 micron fraction (silt-clay) was brought up to 1000 ml total volume in a graduated cylinder, mixed thoroughly, and subsampled with a 20 ml pipette at a depth of 20 cm, 20 seconds after mixing (Folk 1964). Pipette samples were placed in a drying oven at 60^{o} C for at least 48 hours to obtain dry weight estimates of the silt-clay fraction. The remaining water containing the <63 micron fraction (silt-clay) was reserved for later grain-size analysis in the sedigraph.

The detailed grain-size distribution of the >1mm fraction was determined by dry sieving samples through a stack of sieves with the following sizes: 12.5 mm, 9.5 mm, 6.3 mm, 4.75 mm, 3.35 mm, 2 mm, 1.42 mm, and 1mm. Material remaining on each sieve was weighed.

The grain-size distribution of the 1mm-63 micron fraction was determined by settling column analysis. The settling column consisted of a 193.5 cm tall PVC tube with an internal diameter of 15.2 cm filled with distilled water. Samples were introduced at the top of the column and a collecting pan connected to a balance registered weight as particles settle through the water. A computer connected to the balance recorded cumulative weight and elapsed time for each sample. Weight-time data were converted to sedimentation diameter using an empirical equation in Gibbs et al. (1971). A particle roughness correction suggested by Baba and Komar (1981) was also applied.

A Micromeritics SediGraph 5100 was used to analyze the <63 micron (silt-clay) fraction. Water containing the <63 micron fraction was centrifuged for approximately ten minutes. Water was decanted from the sample, and the sedimented material was rewetted with a 0.5 % Calgon solution to reduce coagulation of clay particles. Samples were run using standard techniques obtained from the manufacturer. As a final step in the sediment analysis, results from the dry sieve, settling column, and sedigraph analyses were combined, and grain-size distribution in ½ phi intervals was obtained by linear interpolation. Mean grain-size and sorting (standard deviation) measures were computed from the cumulative distribution.

Data Entry and Summary

Data were entered into either Microsoft Excel spreadsheets or a Microsoft Access database. Faunal data were summarized by converting Access tables to a format compatible with PC-ORD (MJM Software Design, PO Box 129, Gleneden Beach, Oregon 97388) and using summary commands within this program. Transferring data to PC-ORD required assigning a unique 8-character code for each species. This was created by using the first 4 characters in both the genus and species name. A GIS geodatabase was created in ArcEditor version 9.2 (ESRI, 380

New York Street, Redlands, CA 92373-8100) to display the data. Data were imported into the GIS from the Access database. Although ArcEditor uses Access as its personal geodatabase format, the geodatabase is not a simple database but also contains georeferencing data, formatting, and other information.

Multivariate Analysis

A combination of multivariate direct gradient ordination analysis followed by a cluster analysis of the ordination scores was used in an attempt to identify biotopes, i.e., areas of uniform sedimentary and faunal characteristics. Direct gradient analysis was used to reveal trends in benthic species community variation that were related to the measured environmental data. Cluster analysis was then used to identify the natural breaks along these environmental gradients that separated distinct biotopes from one another.

The direct gradient analysis technique we applied was redundancy analysis (RDA). RDA, first suggested by Rao (1964), is a direct gradient ordination technique that combines ordination of sample sites based on species abundance data with regression on the environmental data to examine the relationship between community structure and the selected environmental variables (Jongman *et al.*, 1995). Significance of environmental variables in explaining community variation is determined through permutation tests. By examining the environmental and biological data simultaneously, this analysis depicts the trends in the species data that are related to the selected environmental data. RDA is based on Euclidean distance, which is not the most appropriate resemblance measure for species data, since it incorrectly interprets shared species absences between samples as similarities. In order to circumvent this shortcoming, a Hellinger transformation was applied to species abundances as recommended by Legendre and Gallagher (2001).

Ordinations such as RDA assume a continuous environmental gradient and do not always display obvious breaks between groups of samples. In contrast, cluster analyses identify discontinuities and form discrete groups of samples. To group stations, we used K-means clustering as recommended by Legendre et al. (2002).

Biotope identification was computed through an iterative process. In the first step of this iterative process, a parsimonious set of significant environmental variables was identified by forward selection using RDA (Jongman et al., 1995). Variables identified by forward selection were trimmed by the AICc stopping criterion (Burnham and Anderson, 2002). RDA was then re-calculated using just those variables retained by the AICc model selection criterion and their natural counterparts. For example, when % gravel, sand, silt or clay was selected by the model, the remaining variables in that set (the four variables are not independent and sum to 100%) were also included in the analysis.

In the second step, sample scores from the first four constrained RDA ordination axes were subjected to K-means clustering (Legendre et al., 2002). Ordinations such as RDA assume a continuous environmental gradient and do not always display obvious breaks between groups of samples. In contrast, cluster analyses identify discontinuities and form discrete groups of samples. A range of solutions from K=2 to K=20 groups were calculated and evaluated. The

CH statistic (Calinski and Harabasz 1974), a metric that compares the between-cluster sum-of-squares to the within-cluster sum-of-squares, was used to evaluate the number of groups. Ideally, the solution (meaning the best number of clusters K) is one that maximizes the CH index.

Nematodes generally do not provide significant information about macrofaunal community structure, but because they are so abundant, they can dominate multivariate analyses and obscure contributions of other species. This can occur even when transformations such as the Hellinger transformation are used to down-weight the influence of highly abundant species. Therefore, multivariate analyses were carried out both with and without nematodes to assess their effect. Results were generally similar, but the K-means analysis with nematodes present tended to split groups into smaller subsets of stations. We did not feel that the number of samples collected was sufficient to justify defining these small subsets as separate biotopes, so we report only the results of the multivariate analyses with nematodes removed.

Species Richness

In any community study, there is a need to estimate the number of samples that should be collected to guarantee than an adequate amount of data are available to identify and describe faunal community structure. We used an estimate of species richness to serve as the basis for determining an "adequate" sample size. Using species richness, an appropriate criterion might be, for example, to set sample size within an environmentally and biologically homogenous area large enough such that at least 70% of the species that are present are collected.

In the present study, the Chao 2 species richness estimator was used to estimate the fraction of species collected in environmentally and biologically homogenous areas. A comparison of species richness estimators by Colwell and Coddington (1994) suggested that the Chao 2 estimator worked extremely well to predict species richness. It was also particularly well suited for small sample sizes (< 25).

The Chao 2 estimator was calculated as

$$S_2^* = S_{obs} + (L^2 / 2M)$$

where S_2^* was the estimated species richness, S_{obs} was the observed number of species in the samples, L was the number of species that occurred in only one sample, and M was the number of species that occurred in exactly two samples. The variance of S_2^* was estimated as

$$\text{var}(S_2^*) = M\left[\left(\frac{L/M}{4}\right)^4 + (L/M)^3 + \left(\frac{L/M}{2}\right)^2\right]$$

S_2^* can be used in a sequential manner as each sample is added to a pooled set. As in the case of generating species accumulation curves, the order that samples are added affects the shape of the curve of S_2^* vs. the number of pooled samples. The analysis thus required generating an

ensemble by randomly permuting sample order 100-200 times and calculating the mean S_2^* for the ensemble. The curve of S_2^* vs. the number of pooled samples increases initially with sample size until about the square root of twice the total fauna is observed (Colwell and Coddington 1994). At that point the estimator should level off and become independent of sample size (Colwell and Coddington 1994). Evidence that the estimator has leveled off and become stable is necessary before it can be used with confidence.

RESULTS

General description of the sediments and faunal community

Sediments in the study areas were diverse (Figure 5). Only the Oyster Bay region had a restricted distribution with no sample containing > 50% gravel (and shell). Mean grain-size for Oyster Bay (0.017 mm) and Huntington Harbor (0.052 mm) was in the medium and coarse silt range, respectively. Mean grain-size for the Port Jefferson Harbor (0.064 mm) was in the very fine sand range. Field data and grain size summary data tabulated by sample are contained in Appendices 1 and 2. Data for each sample expressed as percent by weight in half phi intervals are given in Appendix 3.

A total of 77,036 animals representing 137 taxa were collected in the 256 samples. Average abundance in the 256 samples was 301 individuals per sample. Of the 256 taxa, 46.0% were polychaetes, 19.7% were molluscs, 29.9% were crustaceans, and the remainder (4.4%) was distributed among other groups (Table 1). Numerical dominants included nematodes (125 per sample), the capitellid polychaete *Capitella* sp (54 per sample), oligochaetes (21 per sample), the bivalve *Mulinia lateralis* (15 per sample), the common slipper shell *Crepidula fornicata* (14 per sample), and the spionid polychaete *Streblospio benedicti* (11 per sample). These six taxa represented about 80% of the total number of individuals collected. Faunal summary data tabulated by sample and by species are contained in Appendix 4.

Average faunal abundances in each region were 319 individuals per sample for Oyster Bay, 418 individuals per sample for Huntington Harbor, and 197 individuals per sample for Port Jefferson Harbor. Summary data tabulated by region and by individual samples is contained in Appendices 4 and 5.

a) Oyster Bay

In Oyster Bay, 80 samples were distributed among 20 initial acoustic provinces. Water depths ranged from 2.4 to 14.4 meters. No samples consisted of greater than 50% gravel. Samples were widely distributed in sand and silt-clay content, ranging from 1-95% and 0-99%, respectively. Organic content ranged from <1 to 10%.

Abundances ranged from 0 to 5920 individuals per sample and species richness varied from 0 to 29 species per sample. A total of 84 species were collected. The most abundant taxa was nematodes and represented 59.7% of the total number of individuals in the samples. Other abundant species included the bivalve *Mulinia lateralis* (13.3%), the capitellid polychaete *Capitella* sp (7.0%), and the gem clam *Gemma gemma* (3.3%) (Table 2). Three commercial

bivalve species were collected in this region, the hard clam *Mercenaria mercenaria*, the common oyster *Crassostrea virginica* and the soft shell clam *Mya arenaria*. Hard clams were found at 16 sampling stations. Oysters and soft shell clams were collected at 1 and 3 stations, respectively.

b) Huntington Harbor

Seventy six samples were collected in the Huntington Harbor region. These were distributed among 15 initial acoustic provinces. This region had a diverse range in grain size parameters (Figure 5), including samples with 0-77% gravel, 2-87% sand, and 2-98% silt-clay. Organic contents generally ranged from 0.2 to 9.6%.

Faunal abundances varied from 7 to 2176 individuals per sample. Species richness ranged from 3 to 28 species per sample. A total of 82 species were collected. Numerically abundant taxa included the capitellid polychaete *Capitella* sp (36.8%), nematodes (16.6%), the spionid polychaete *Streblospio benedicti* (7.2%), oligochaetes (7.0%), the common slipper shell *Crepidula fornicata* (6.3%), the orbiniid polychaete *Scoloplos robustus* (4.0%), the tube-building amphipod *Ampelisca abdita* (3.6%), and the spionid mud worm *Polydora ligni* (3.0%) (Table 2). The hard clam *Mercenaria mercenaria* and the razor clam *Ensis directus* were the only commercial shellfish collected. The hard clam was present at 8 sampling stations, and the razor clam was found at 2 stations.

c) Port Jefferson Harbor

One hundred samples were distributed among 19 initial acoustic provinces in Port Jefferson Harbor. Water depths ranged from 3.6 to 13.5 m. This region had a diverse range in grain size parameters (Figure 5), including samples with 0-76% gravel, 4-92% sand, and 1-96% silt-clay. Organic contents ranged from 0.4 to 10.1%.

Abundances varied from 0 to 4184 individuals per sample, and species richness ranged from 0 to 30 species per sample. A total of 103 species were collected. Nematodes (57.8%), oligochaetes (12.4%), and the common slipper shell *Crepidula fornicata* (7.2%) were the most abundant taxa. Commercial species collected in this region included the common oyster *Crassostrea virginica* at one station and the hard clam *Mercenaria mercenaria*. The latter species was present at 8 sampling stations.

Multivariate Analysis

For all regions, the K-means cluster analysis indicated multiple solutions for the number of potential biotopes present in the fauna. Two to four local maxima were present in the CH index when calculated for a range of solutions from K=2 to 20 groups. For Oyster Bay, maxima in CH occurred for K= 4, 6, and 9. Maxima in CH were found for K= 5, 7, 9 and 14 groups for Huntington Harbor. For Port Jefferson Harbor, peaks in CH at K= 5 and 8 occurred. We evaluated each of these solutions and chose the smallest K indicated by either the AICc index using the Canoco results or the CH index in the K-means analysis. Large K solutions tended to result in too many small ($n \leq 4$) groups that could not be justified as separate biotopes with the level of sampling in this study. It should be noted that identification numbers associated with

biotopes were arbitrarily assigned, e.g., there is no correspondence among areas between groups labeled “Biotope 1”.

a) Oyster Bay

Six biotopes were identified (Table 3). Figure 6 displays the arrangement of samples into the six biotopes. Figure 7 gives the relative species abundance trends for those species with more than 15% of their variance captured by the two dimensions across these 6 biotopes. Figure 8 shows the geographic distribution of samples for each biotope.

Abundance differed among the 6 biotopes (Table 4). Highest abundance was observed at Biotope 4 (1576 per sample with nematodes and 284 per sample without nematodes) and was much greater than the average abundance at Biotope 3 (6 per sample), the biotope with lowest abundance. Species richness also varied among biotopes. Biotope 3 had the lowest species richness (about 3 species per sample); Biotope 4 had the highest species richness (17 species per sample). The distribution and abundance of representative species superimposed on the ordination results are given in Figures 9-12.

Oyster Bay Biotope 1

Biotope 1 was defined by 4 samples located in West Harbor and 5 samples widely scattered throughout the Bay. Sediments consisted of high organic content (5%) mud (78% silt-clay), and stations were generally located in shallow water (5 m). The dwarf surf clam *Mulinia lateralis* (15.9 per sample) and the capitellid polychaete *Capitella* sp (11.8 per sample), and oligochaetes (8.3 per sample) were the most abundant taxa (Table 4). Other species consistently found in almost all samples included the polychaetes *Nepthys incisa* (2.1 per sample) and *Pectinaria gouldii* (2.0 per sample). Several samples in this group matched the overall species assemblage closely but were found in deeper water (> 6 m vs. <4 m) and had coarser sediments (<45% silt-clay vs. > 83%) than the remainder. These samples included OQ2b, OM2a, and OL1b. All 3 of these samples were located outside the West Harbor area, and any assignment of the area near these samples to Biotope 1 would need to be confirmed by additional sampling.

Oyster Bay Biotope 2

Biotope 2 dominated Cold Spring Harbor and a number of distinct areas in Oyster Bay Harbor. It was composed of initial acoustic provinces H, L, N, O, R, S and T along with samples from four other provinces (E, J, K, Q). A total of 32 samples were assigned to this biotope, the largest single group in Oyster Bay. Sediments consisted of high organic content (6%) mud (78% silt-clay); although at several stations (e.g., OL1 and ON1) silt-clay content was closer to 50%. The dwarf surf clam *Mulinia lateralis* was the dominant taxa, reaching average abundances of 98 per sample and representing an average of 83% of all the fauna present in the biotope (Table 4). *Nepthys incisa* (2.3 per sample) was found in 66% of the samples, but no other taxa stood out as being a consistent member of the fauna.

Oyster Bay Biotope 3

Biotope 3 was composed of 3 of 4 samples from initial acoustic province F and a few scattered samples from stations throughout the bay. Samples were muddy (83.4% silt-clay) and had a very high organic content (6.5%). The fauna in this assemblage was depauperate. Samples had the lowest abundance and species richness of any Oyster Bay biotope, averaging only 6 individuals and 3 species per sample. This biotope is best characterized as a muddy facies, with a close-to-absent macrofauna. Province F was the most well defined geographic region in this biotope. Assigning the area associated with any remaining samples to Biotope 3 would need to be confirmed by additional sampling.

Oyster Bay Biotope 4

Biotope 4 was composed of stations OP1, OP2, OA2, OG1, and 3 additional samples (OF1a, OB1b, and OB2b). Samples were largely sandy (59%) with the lowest average organic content (2.3%) of any biotope. Abundant taxa included polychaete *Brania wellfleetensis* (4.8 per sample), the capitellid polychaete *Capitella* sp (25.3 per sample), the slipper shell *Crepidula fornicata* (13.8 per sample), the small bivalve *Gemma gemma* (76.5 per sample), nematodes (1292 per sample), oligochaetes (20.8 per sample), the spionid polychaete *Polydora ligni* (13.0 per sample), the polychaete *Polygordius* sp (24.5 per sample), the porcellanid crab *Polyonyx gibbesi* (11.2 per sample), the spionid polychaete *Streblospio benedicti* (5.8 per sample), and the fringed worm *Tharyx* sp (49.9 per sample). All but *Capitella* sp and *Streblospio benedicti* reached their highest abundances in Biotope 4. This biotope was the most diverse assemblage in the bay, with 60 of the 84 species present in Oyster Bay found there and the highest average species richness per sample (16.9). It also had the highest abundance of any biotope in Oyster Bay (1576 individuals per sample with nematodes and 284 without nematodes).

Sediments and fauna in samples OF1a, OB1b, and OB2b were not consistent with the rest of the samples in this biotope. All 3 of these samples were muddy (> 69% silt-clay) and depauperate (0-1 individual per sample). These samples and stations probably do not belong to this biotope, but additional sampling would be needed to confirm this.

Oyster Bay Biotope 5

Biotope 5 was composed of all stations in provinces A, D, G and M (OA1, OD1, OG2, OG3, OG4, OM1, OM2) and one other sample (OQ2b). This biotope was found in a large, contiguous band starting at the opening of the bay, running west through Oyster Bay Harbor, and ending along the western part of West Harbor. The sediment facies consists primarily of gravel (27.4%) and sand (52.4%). Samples had a low organic content (2.4%), high mean grain size (1.9 phi), and low sorting coefficient (4.5). Stations tended to be in deep water (7.6 m). This is the gravel-sand biotope in Oyster Bay. Abundant fauna included the capitellid polychaete *Capitella* sp (91.2 per sample), the slipper shell *Crepidula fornicata* (4.6 per sample), nematodes (71.6 per sample), oligochaetes (18.7 per sample), the spionid polychaete *Polydora ligni* (8.9 per sample), the spionid polychaete *Streblospio benedicti* (7.1 per sample), and the fringed worm *Tharyx* sp (15.9 per sample). The hard clam *Mercenaria mercenaria* (1.6 per sample) reached its highest abundance in this biotope and was found in 73% of the samples. The chevron worm *Glycinde*

solitaria reached its highest abundance (4.4 per sample) in this biotope and was also present in most samples (73%). Based on the sediment characteristics and species assemblage, this biotope is most similar to biotope 4 but had generally lower species richness and abundance.

Oyster Bay Biotope 6

Biotope 6 was restricted in geographic extent to the West Harbor area. It consisted of stations OC1, OC2 and samples OB1a, OB2a, and OD3b. This biotope was characterized by muddy sediments (88.6% silt-clay), high mean phi size (8.3), and high sorting (8.6). This is the shallowest of all the biotopes (3.2 m). The tubiculous amphipod *Ampelisca abdita* (16.0 per sample), the capitellid polychaete *Capitella* sp (7.0 per sample), the dwarf surf clam *Mulinia lateralis* (7.4 per sample), ostracod B (6.4 per sample), and the porcellanid crab *Polyonyx gibbesi* (17.6 per sample) were abundant.

b) Huntington Harbor

Seven biotopes were identified (Table 5). Figure 13 displays the arrangement of samples into the seven biotopes. The relative species abundance trends for those species with more than 15% of their variance captured by the two dimensions across these 7 biotopes are given in Figure 14. Figure 15 shows the geographic distribution of samples for each biotope.

Abundance differed among the five biotopes (Table 6). Highest abundance was observed at Biotope 3 (1,090 individuals per sample with nematodes and 975 per sample without nematodes). This average was more than twenty times the average abundance at Biotope 5 (48 individuals per sample with nematodes and 47 per sample without nematodes), the biotope with lowest abundance. Species richness also varied among biotopes. Biotopes 3 had the highest species richness (about 23 species per sample). Biotope 5 had the lowest species richness (11 species per sample). Distribution and abundance of several representative species superimposed on the ordination results are given in Figures 16-19.

Huntington Harbor Biotope 1

Biotope 1 was composed of stations in initial acoustic provinces G, J, K, and N, one station in province A, and two additional samples (HC4a and HF1b). This biotope represented stations distributed in Northport Bay, with the exception of station HA1. Samples were mainly shell (46% gravel-sized particles) and mud (37.6% silt-clay). Organic content averaged 6.0%. The coarse material was composed mostly of *Crepidula* shell, and live slipper shells of two species, *Crepidula fornicata* (95.3 individuals per sample) and *Crepidula plana* (17.2 per sample), were common and reached their highest abundances in this biotope (Table 6). Other frequently occurring and abundant taxa included the capitellid polychaete *Capitella* sp (139.6 per sample), the paddle worm *Eteone heteropoda* (11.9 per sample), the scale worm *Harmothoe imbricata* (17.5 per sample), nematodes (63.8 per sample), the clam worm *Nereis succinea* (5.7 per sample), oligochaetes (58.8 per sample), the spionid polychaetes *Polydora ligni* (43.1 per sample) and *Streblospio benedicti* (46.9), the orbiniid worm *Scoloplos robustus* (20.2 per sample), and the fringed worm *Tharyx* sp (24.2 per sample).

Huntington Harbor Biotope 2

Biotope 2 was a small group restricted to the Northport Harbor area and included geophysical province O (Table 5). Sediments were muddy (86. 1% silt-clay) and high in organic content (6.1%). This biotope also had the finest mean grain size (7.8 phi) and the largest sorting coefficient (8.1). The tubiculous amphipod *Ampelisca abdita* (172.7 per sample) was the dominant species present. This species can build shag-carpet-like mats that can cover the bottom. Other abundant taxa included the capitellid polychaete *Capitella* sp (26.5 per sample), the paddle worm *Eteone heteropoda* (5.7 per sample), the cumacean *Leucon americanus* (7.8 per sample), nematodes (5.0 per sample), the spionid polychaete *Streblospio benedicti* (8.7), and the orbinid worm *Scoloplos robustus* (8.7 per sample). The chevron worm *Glycinde solitaria* (3.0 per sample), the clam worm *Nereis succinea* (4.0 per sample), and oligochaetes (2.0 per sample) were found in almost all samples of this biotope.

Huntington Harbor Biotope 3

Biotope 3 was another small group and was restricted geographically to the Huntington Bay region. It included one station from initial acoustic province A (HA2), two stations from province C (HC1 and HC2), and sample HF2a. Samples had the coarsest mean grain size (0.7 phi) of any biotope, a low sorting coefficient (3.4), and a low organic content (1.3%). Abundant taxa included the ampharetid polychaete *Ampharete arctica* (66.7 individuals per sample), the capitellid polychaete *Capitella* sp (728.9 per sample), the slipper shell *Crepidula fornicata* (17.1 individuals per sample), the scale worm *Harmothoe imbricata* (6.3 per sample), nematodes (115.6 per sample), oligochaetes (16.4 per sample), the spionid polychaetes *Polydora ligni* (8.3 per sample) and *Streblospio benedicti* (58.9), the t-headed worm *Scalibregma inflatum* (8.1 per sample), and the fringed worm *Tharyx* sp (18.7 per sample). The paddle worm *Eteone heteropoda* (2.3 per sample), the blood worm *Glycera americana* (1.4 per sample), and the chevron worm *Glycinde solitaria* (3.1 per sample) were found in almost all samples of this biotope.

This biotope was the most diverse assemblage in Huntington Harbor, with 49 of the 82 taxa present, and it had highest average species richness per sample (23.1). It also had the highest abundance of any biotope in Huntington Harbor (1090.4 individuals per sample with nematodes and 974.9 without nematodes).

Sample HF2a had both sediments and faunal assemblage that were consistent with this biotope. The assignment of the four samples in initial acoustic province F to three biotopes may reflect the patchy nature of the bottom suggested by backscatter data. Additional sampling in provinces C and F would have helped to resolve the boundaries of the several biotopes in this area (e.g., biotopes 1, 3, 4, and 7).

Huntington Harbor Biotope 4

Biotope 4 was composed samples from provinces C (HC3a, HC3b, HC4b), L (HL1b, HL2a, HL2b, HL3a), M (both replicates from HM1 and HM2), and several additional samples (HA3a, HH1a, HN2a). This biotope was centered in the northeastern region of Northport Bay and

sediments were sandy muds (48.9% silt-clay) with moderate organic contents (4.7%). The capitellid polychaete *Capitella* sp (107.8 individuals per sample), the paddle worm *Eteone heteropoda* (8.3 per sample), the chevron worm *Glycinde solitaria* (5.3 per sample), nematodes (25.8 per sample), oligochaetes (7.2 per sample), the orbinid worm *Scoloplos robustus* (32.1 per sample), and the spionid polychaete *Streblospio benedicti* (50.5 per sample) were all abundant (Table 6). Other common taxa included the cumacean *Leucon americanus* (3.5 per sample), the dwarf surf clam *Mulinia lateralis* (3.6 per sample), and the clam worm *Nereis succinea* (2.6 per sample).

Huntington Harbor Biotope 5

Biotope 5 was composed initial provinces H, I, and three additional samples (HL1a, HL3b, and HN2b). This biotope was located in Northport Bay and had a muddy (76.8% silt-clay), organic rich (6.0 %), low-reflective sediment facies. Samples in this biotope had the lowest average abundance (47.6 individuals per sample) and species richness (10.8 species per sample) of any group in Huntington Harbor. Only 28 of 82 taxa present in the Harbor were found in this biotope, tied with Biotope 2 for the lowest in Huntington Bay. Dominant taxa included the capitellid polychaete *Capitella* sp (9.3 individuals per sample), oligochaetes (12.1 per sample), the orbinid worm *Scoloplos robustus* (8.6 per sample), and the spionid polychaete *Streblospio benedicti* (5.5 per sample). The dwarf surf clam *Mulinia lateralis* (2.8 per sample) was found in almost all samples.

Huntington Harbor Biotope 6

Biotope 6 consisted of stations in initial provinces B (HB1, HB2, HB3), D (HD1, HD2), HE1, and one additional sample (HA3b). All stations were found in Huntington Bay and were distributed in low backscatter regions: one at the entrance to the Bay and the other in the southwest corner leading into Lloyd Harbor. Samples in this biotope consisted of about 46.0% silt-clay and 27.8% sand. Mean organic contents was 5.6%. Abundant taxa included the capitellid polychaete *Capitella* sp (138.7 per sample), the dwarf surf clam *Mulinia lateralis* (17.8 per sample), nematodes (9.5 per sample), the nut clam *Nucula proxima* (6.6 per sample), oligochaetes (19.6 per sample), the spionid polychaete *Streblospio benedicti* (9.8), and the bivalves *Tellina agilis* (5.5 per sample) and *Yoldia limatula* (7.5 per sample). This is the only biotope where the deposit feeding bivalves *N. proxima*, *T. agilis*, and *Y. limatula* were abundant in Huntington Harbor.

Huntington Harbor Biotope 7

This small biotope consisted of 5 samples HE2a, HE2b, HF1a HF2b, and HJ1b and was not geographically well defined. Sediments were sandy (62.7%) with shell and/or gravel (24.0%). Organic content was low (1.2%). Nematodes (545.2 individuals per sample) and oligochaetes (95.4 per sample) were the most abundant taxa. Other dominant taxa include the ampharetid polychaete *Ampharete arctica* (17.0 individuals per sample), the paranoid polychaete *Aricidea catherinae* (44.8 individuals per sample), the capitellid polychaete *Capitella* sp (68.4 per sample), the slipper shell *Crepidula fornicata* (11.8 individuals per sample), the amphipod *Elasmopus levis* (7.0 per sample), the paraonid polychaete *Paraonis* sp. (20.6 per sample), and

the spionid polychaetes *Polydora ligni* (6.4 per sample) and *Streblospio benedicti* (5.4 per sample).

c) Port Jefferson Harbor

Five biotopes were identified in Port Jefferson Harbor (Table 7). Figure 20 displays the arrangement of samples into the five biotopes. The relative species abundance trends for the seventeen species with more than 15% of their variance captured by the two dimensions across the 5 biotopes are illustrated in Figure 21. Figure 22 shows the geographic distribution of samples for each biotope.

Abundance differed among the 5 biotopes (Table 8). Highest abundance was observed at Biotope 5 (834 individuals per sample with nematodes and 127 per sample without nematodes) and was much greater than the average abundance at Biotope 2 (12 individuals per sample), the biotope with lowest abundance. Species richness also varied among biotopes. Biotope 2 had the lowest species richness (about 6 species per sample); Biotope 4 had the highest species richness (about 18 species per sample). The distribution and abundance of representative species superimposed on the ordination results are given in Figures 23-26.

Port Jefferson Harbor Biotope 1

Biotope 1 was defined by 11 samples, the majority of which were located in the dredged main ship channel and belonged to initial acoustic province E (PE3b, PE4a&b, PE5a&b, PE6a&b). The remaining samples were widely scattered throughout the Harbor (PA2a, PB2a, PC4b, and PN1a). Sediments were sandy (66.2%) with low gravel/shell (13.3%) and silt-clay (20.5%) contents. This biotope had the lowest average LOI (1.9%), mean grain size (2.2 phi), and sorting coefficient (3.7) in the harbor. Samples were generally collected in deep water (8.8 m). The ampharetid polychaete *Ampharete arctica* (10.9 individuals per sample), the bamboo worm *Clymenella* sp (5.0 per sample), and the fringed worm *Tharyx* sp (11.0 per sample) were all abundant.

Port Jefferson Harbor Biotope 2

Biotope 2 was a muddy-sand set of stations located in the center of the harbor and adjacent to the main ship channel. It consisted of stations in initial acoustic provinces I (PI1, PI2b, PI3), K (PK1, PK2), and L (PL1, PL2), several samples contiguous to these provinces (PE3a, PJ2a&b, PP1b, PP2a), and a few samples that were not from contiguous stations (PD3b, PN1b, PU1a). Sediments were an equal mixture of mud (47.1% silt-clay) and sand (48.6% sand). This biotope was characterized by very low faunal abundance (12.4 individuals per sample) and species richness (6.3 species per sample). While no species was abundant, the polychaete *Nepthys incisa* (2.9 per sample), the polychaete *Capitella* sp (1.6 per sample), and oligochaetes (1.7 per sample) were found in most samples. No other taxa stood out as being a consistent member of this assemblage, and in general, the fauna in this biotope was depauperate.

Port Jefferson Harbor Biotope 3

Biotope 3 was composed of 29 samples, with a set of stations in the eastern part of the harbor off Strongs Neck and dominated by initial acoustic province B (PB1, PB3, PB4, and PA2b), a set of mid-harbor stations to the east of the ship channel and mostly associated with initial acoustic province M (PM1, PM2, PM3, and PR1), a group of contiguous inner harbor stations (PP1, PP2, PT1, PT2, PQ1, PU2, PU3), and several samples in initial province D (PD1b, PD2b, PD3a) located in the northeastern part of the harbor. Samples were sandy mud (38.8% sand and 57.7% silt-clay) and had a high organic content (5.1%). Abundant taxa included the capitellid polychaete *Capitella* sp (7.8 per sample), oligochaetes (20.9 per sample), the spionid polychaete *Streblospio benedicti* (4.3 per sample), and the fringed worm *Tharyx* sp (5.5 per sample). Because the areas associated with this biotope were so geographically separated, additional sampling would be required to confirm their relationship.

Port Jefferson Harbor Biotope 4

Biotope 4 was composed of a large set of shelly-sand stations distributed to the west of the main channel and consisting of initial acoustic provinces C (PC1, PC2, PC3), G (PG1, PG2, PG3), H (PH1, PH2, PH3, PH4), and J (PJ1). Several samples in the northeast part of the harbor also belonged to this group (PD2a, PD3a&b, PE2a). Samples tended to have large amounts of shell (27.4% gravel) and sand (40.2% sand). Abundant taxa included the capitellid polychaete *Capitella* sp (6.7 per sample), the slipper shell *Crepidula fornicata* (51.2 per sample), nematodes (83.5 per sample), oligochaetes (63.3 per sample), the orbinid worm *Scoloplos fragilis* (6.2 per sample), and the fringed worm *Tharyx* sp (8.0 per sample). Slipper shells reached their highest abundance in this biotope. Samples in this biotope also commonly had the ampharetid polychaete *Ampharete arctica* (1.6 individuals per sample) and the spionid polychaete *Polydora ligni* (2.3 per sample) or *Polydora* sp (1.4 per sample). This biotope had the most diverse assemblage in the harbor, with an average of 18.1 species per sample and included 83 of the 103 taxa found in the harbor.

Port Jefferson Harbor Biotope 5

Biotope 5 was composed of a set of 13 samples scattered throughout Port Jefferson Harbor (PA1a&b, PB2b, PC4a, PD1a, PE2b, PI2a, PR2a&b, PS1a&b, PT1b, PU1b). The sediment facies consists primarily of muddy-sand (58.84% sand and 37.2% silt-clay). Sediments and fauna in samples PI2a, PR2a&b, PT1b, and PU1b were not consistent with the rest of the samples in this biotope. All of these samples were muddy (> 50% silt-clay) and depauperate (0-2 individuals per sample). These samples and stations probably do not belong to this biotope, but additional sampling would be needed to confirm this.

The paranoid polychaete *Aricidea catherinae* (55.7 individuals per sample), the polychaete *Brania wellfleetensis* (6.0 per sample), nematodes (707.1 per sample), and the dorvilleid polychaete *Schistomeringos caecus* (5.5 per sample) reached their highest abundances in this biotope. Other abundant taxa included the ampharetid polychaete *Ampharete arctica* (5.0 individuals per sample), the slipper shell *Crepidula fornicata* (4.5 per sample), and oligochaetes (9.2 per sample).

Species Richness

Species richness was successfully estimated for only 33% (6 of 18) of the biotopes (Table 9). In all other cases, the species richness curves failed to level off as required by the Chao 2 index. Figure 27 shows examples of biotopes where the Chao 2 index successfully provided and failed to provide an estimate of species richness. Also shown are species accumulation curves for the two biotopes. Based on Cerrato and Maher (2007), species richness calculations using replicate samples tended to yield slightly lower species richness estimates (~4.7% on average) than when samples were not replicated. Thus, a small bias is present in the estimates in Table 9.

In 4 of the 6 biotopes where species richness estimates were possible (Biotope 1 & 5 in Oyster Bay, Biotope 6 in Huntington Harbor, and Biotope 1 in Port Jefferson), a fixed collection effort of 10 samples yielded >75% of the estimated species present (Figures 28). The two exceptions were Biotope 2 in Port Jefferson Harbor where 10 samples resulted in the estimated collection of 50% of the species and Biotope 4 in Port Jefferson where a 10-sample effort resulted in an estimated 54% of the species collected. These two biotopes represented the least and most diverse assemblage examined in Port Jefferson Harbor (Table 8). Both would require a sampling effort of 25 or more samples to collect about 75% of the species present. In the case of Biotope 2, the large sampling effort would be required because so few individuals were collected (261 individuals in 21 samples or an average of only 12.4 individuals per sample). For Biotope 4, the large sampling effort would be required because of high species richness.

DISCUSSION

General description of the sediments and faunal community

As expected, both sediment and faunal characteristics varied in each of the three areas. A broad range of sediment types was found within each bay, with the exception that Oyster Bay had no samples containing > 50% gravel (and shell) (Figure 5). Bay-wide average faunal abundances differed by a factor of 2, with the highest average value in Huntington Harbor (418 individuals per sample) and the lowest average in Port Jefferson Harbor (197 per sample). Bay-wide average species richness per sample was much more comparable, varying by no more than about 50% among areas. Nevertheless, despite some similarities in general faunal characteristics, species compositions did vary among areas. Only 30% of the fauna were found in all three areas, while 36% were present in only one of the three areas (Figure 29).

Detailed comparisons among the three areas should be carried out with caution. Samples were collected over a three year period, and interannual differences would be expected to occur in each area. Also, comparisons should be at the biotope level, and not among whole regions where heterogeneity of bottom type would limit the ability to find significant differences.

Multivariate Analysis

Multivariate analysis indicated that 26%, 18%, and 25% of the samples for Oyster Bay, Huntington Harbor, and Port Jefferson Harbor, respectively, were not classified with members of their original geophysical province. This is in contrast to results in Cerrato and Maher (2007) who found that for Peconic Bay, only a small percentage of stations (12%) were not classified with members of their original geophysical province. There are a number of important differences between the present study and the study by Cerrato and Maher (2007) that can explain the disparate results. Cerrato and Maher collected 10 samples in each province; thus, a large fraction of the species present was collected (generally >75% based on the species richness analysis) and community structure in the province was well characterized. In the present study, only 2-4 samples were collected in 76% of the initial acoustic provinces and more than 8 samples were collected in only one province (i.e., < 2% of the provinces). It is unreasonable to expect that 2-4 samples would be adequate to uniquely and fully characterize a province. To carry out a comparable effort to that used by Cerrato and Maher (2007) would have required collecting more than twice the number of samples in each of the North Shore bays. In addition, Cerrato and Maher (2007) had considerably more environmental data available (all of the grain size data plus data from sediment profile images and a full suite of mesoscale, i.e., 10s of meters, variables from analysis of multibeam data), and the fauna in the study was substantially richer, averaging over 25 species per sample. In the present study average species richness was 12.6 species per sample.

There are a number of other potential reasons why individual samples were not classified with members of their original geophysical province. Benthic faunal populations and communities are patchy in space and time and have long been described as spatial and temporal mosaics produced by variations in biotic and physical processes (e.g., Johnson 1970, Rhoads et al. 1978, Barry and Dayton 1991). It is not surprising to us, therefore, that we found variability among samples within a geophysical province. The initial provinces were intended to reflect large-scale environmental differences; therefore, very small patches were not separated out. Small-scale environmental variability, even if not readily apparent in the acoustic data, could still affect the faunal assemblage. For example, a small meter-sized patch of coarse material or anthropogenic debris might not be visible in the acoustic analysis. It would, however, be discovered and settled by larvae of benthic species requiring an attachment site (e.g., barnacles) or species that require shelter from predation (e.g., small crabs). Huntington Harbor station HF1 is an example of a station that appeared to show small scale patchiness. The replicate samples (H47, H48) have considerably different sediment characteristics. H47 is composed of 15.1% gravel, 82.6% sand, and 2.3% silt-clay. In contract, the replicate sample H48 had 76.7% gravel, 3.6% sand, and 19.7% silt-clay. Even in homogeneous environments, variation in recruitment, mortality, and other biological processes will create spatial patchiness. In the current study, 24-30% of stations had the two replicate samples assigned to different biotopes (30% for Oyster Bay, 24% for Huntington Harbor, and 28% for Port Jefferson), indicating that a moderate degree of patchiness was present in the study areas.

Classification differences among individual stations may also have resulted from larger-scale environmental differences and occurred because the boundaries between provinces were

inaccurately drawn. In our experience with interpreting acoustic data, the transition between geophysical provinces is often gradational, and the location of a boundary then becomes subjective. Detailed examination of grain-size and additional information such as variables derived from sediment profile images and analysis of multibeam data could have helped determine whether boundaries should have been drawn differently. We also believe there is a large amount of biologically-relevant information that has yet to be extracted from the acoustic data and could reduce these classification differences.

We also identified a problem in the approach used. Samples that contained 0-1 species were often classified with samples that did not have similar environmental/faunal characteristics. For example, Biotope 4 in Oyster Bay had three samples with 0-1 species (OF1a, OB1b, and OB2b). Sediments in these three samples had > 69% silt-clay. The remaining samples in this biotope all had > 20 species and silt-clay contents < 17%. As a second example, Biotope 5 in Port Jefferson had five samples with 0-1 species (PI2a, PR2a&b, PT1b, and PU1b). Sample PI2a had 53% silt clay and the other four samples had > 91% silt-clay. The other samples in this biotope all had > 10 species and silt-clay contents < 17%. In these examples, the fact that the depauperate samples grouped together was appropriate; however, grouping these samples with those of dissimilar environmental characteristics did not seem correct. Further work is needed to determine whether the approach should be modified, whether one of the analysis programs had an artifact or bug that created this problem, or whether sample data should be should be pre-screened and samples deleted from the analysis based on a set of criteria (e.g., very low species richness).

Overall, the approach used in this study resulted in geographically defined biotopes that corresponded reasonably well to the initial acoustic provinces. There was a tendency for initial provinces to be grouped together into larger contiguous units. For example, provinces ON, OO, OS, and OT merged together into Biotope 2 in Oyster Bay and provinces PC, PG, and PH merged together to form Biotope 4 in Port Jefferson. We expected this to occur based on prior experience in Cerrato and Maher (2007), and it shows that acoustic mapping alone was not sufficient to describe the most parsimonious distribution of faunal assemblages. This result supports the conclusion in Brown *et al.* (2002) that some of the geophysical features detectable by acoustic surveys that appear to characterize distinct sedimentary regions are not always biologically relevant. There was also a pattern where disjunct provinces with similar environmental and faunal characteristics were placed in the same biotope. Biotope 2 in Port Jefferson Harbor is a good example of this, where provinces to the west (PK and PP) and east (PI and PL) of the ship channel grouped together. We believe that the process used in this study, i.e., one that starts with a large number of subdivisions and then reduces them is conservative and far preferable to one that starts with too few subdivisions.

Species Richness

Unfortunately, the Chao 2 estimator was able to predict species richness in only six biotopes. The results obtained for those six examples do, however, underscore the fact that the sampling frequency used in the current study (1-4 stations, 2-8 samples in all but 1 province) was not sufficient to collect the rare species present in an area. About 10 samples were required to consistently collect > 75% of the species present. Even then, a greater sampling effort may be

required for the most depauperate (e.g., Port Jefferson Biotope 2 in Figure 28) and diverse (e.g., Port Jefferson Biotope 4 in Figure 28) areas.

So, how many faunal samples should be collected in a biotope to characterize community structure? Using the data sets analyzed (Figure 28), two samples would yield on average only about 37% of the species present, clearly not enough to characterize a community. Ten samples would result in the collection of >75% of the species in most biotopes but only about 50-60% of the species in the most depauperate and diverse assemblages within a region. Collecting >75% of the species is likely to be sufficient to characterize community structure, but 50-60% seems inadequate. An effort beyond 20 samples for one biotope is probably not practical in a survey. This result suggests, therefore, that sampling levels may need to be two-tiered with at least 10 samples in an area but with twice that effort allocated to a few biotopes. *A priori* identification of those biotopes would be useful for planning a ground truth survey, but how to do that was beyond the scope of the present study.

Evidence of Stress

Several characteristics of the benthic community relating to species richness, dominance by opportunists, and anomalously low abundances, suggested that stress was present in all three of the study areas. We review these observations in this section but warn that a single sampling period is not sufficient to fully identify the source of the stress or its spatial and temporal extent.

All three North Shore bays in the current study had lower species richness compared to typical areas in the Peconic Bays Estuary on the eastern end of Long Island. Two bays in the Peconics, Orient Harbor and Northwest Harbor, were sampled by Cerrato and Maher (2007) using identical methods. The average number of species per sample in the North Shore Bays was about 50% of the values found in the Peconics (Figure 30A), and a planned comparison between regions was significant ($p<0.05$). The difference was apparent even when the data in the collections were standardized to the same number of individuals (Figure 30B) or to the same number of samples (Figure 30C).

Zajac (1998), in analyzing benthic data that were on the Connecticut side of Long Island Sound collected by Pellegrino and Hubbard (1983), noted that species richness increased from west to east. He attributed this pattern to a combination of a reduced species pool, lower habitat heterogeneity, and long-term environmental deterioration in the western portion of the Sound. In the current study, differences in species richness are not likely due to differences in habitat heterogeneity, as neither bay in the Peconics had samples that were collected in the heterogeneous, gravel rich habitats that supported high species richness in the Pellegrino and Hubbard study. Unfortunately, we cannot exclude the other two factors cited by Zajac, and the lower species richness observed in the current study may reflect nothing more than the general condition of the western and central portion of the Sound.

The dominant species in many of the biotopes in the present study were opportunists, i.e., species often associated with areas that had been recently disturbed or were held at a low successional stage by a chronic disturbance. In Oyster Bay and Huntington Harbor, more than half of the dominant species in each biotope and more than 60% of all individuals collected belonged to one

of five early colonizing opportunistic species (Figure 31). In addition in Huntington Harbor, the most abundant species in all seven biotopes was an opportunist. In contrast, opportunists were not overwhelming dominants in Port Jefferson Harbor. While opportunists can occur naturally in environments that were not recently disturbed, it would be hard to believe this was the case for Huntington Harbor where they were the dominant species in all seven biotopes.

Finally, two biotopes had anomalously low abundance and species richness and could be considered depauperate areas. Biotope 3 in Oyster Bay had an average of 6.1 individuals and 3.3 species per sample. Province F was the most well defined geographic region in this biotope, and three of the four samples in Province F were grouped into this biotope (F1b, F2a, and F2b). The fourth sample (F1a) was misclassified into biotope 4 (as noted in the results) and contained only one individual. Province F was a low backscatter area with muddy, organic rich sediments. It is located offshore of the property that was formerly Jacobson's Shipyard.

Biotope 2 in Port Jefferson Harbor had an average of only 12.4 individuals and 6.3 species per sample. This biotope was found in a fairly extensive area located in the center of the harbor adjacent to the main ship channel. Sediments were an equal mixture of mud (47.1% silt-clay) and sand (48.6% sand), and the organic content was 3.6%.

CONCLUSIONS

Acoustic mapping of the estuary floor provided a useful foundation from which to map benthic biotopes. The acoustic survey revealed the location and extent of areas of similar bottom type and the boundaries between areas. However, acoustic mapping alone was not sufficient to describe benthic biotopes, and this result underscores the continued need for ground truth sampling. Landscape views of sedimentary provinces need to be supplemented by biological community data, grain-size measurements and other environmental data of intermediate scale such as sediment profile images.

Our species richness analysis suggested that ground truth sampling will still require a significant effort to adequately characterize community structure. Although arbitrary, we recommend that the fraction of species collected in a biotope approach 70-75% to adequately characterize an area. At such a level, a fair number of rare species will be collected and an adequate estimate of species richness can be made. Why might it be important to sample this thoroughly? Abundant species are not necessarily the most functionally important, and rare taxa may include "keystone" species, critical to energy and material flows (Hooper et al 2005). Additionally, rare species are often more sensitive to disturbance than abundant species, so their occurrence along with estimates of species richness can serve as reliable indicators of environmental degradation (Cao et al 1998, Gaston 1998). Unfortunately, rare species are largely ignored in assessment and monitoring programs, one of the sacrifices made for the sake of cost efficiency (Cao et al 1998).

The present study provides baseline data for monitoring the condition of each bay in the future. We found indicators that suggested that the bays on the North Shore were less diverse and somewhat more disturbed than comparable areas of the Peconic Bays Estuary. This outcome probably represents a combination of local/within-bay and western/central Long Island Sound

conditions. Despite evidence of stress, most areas in the bays contained habitats with viable benthic communities present.

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Table 1. List of taxa collected.

Code	Phylum	Class	Order	Family	Species
177	Mollusca	Gastropoda			*Acteocina canaliculata*
162	Cnidaria	Anthozoa	Actiniaria		*Actiniaria sp*
218	Arthropoda	Crustacea	Amphipoda		*Ampelisca abdita*
219	Arthropoda	Crustacea	Amphipoda		*Ampelisca sp*
30	Arthropoda	Crustacea	Amphipoda	Ampeliscidae	*Ampelisca vadorum*
32	Arthropoda	Crustacea	Amphipoda	Ampeliscidae	*Ampelisca verrilli*
143	Annelida	Polychaeta		Ampharetidae	*Ampharete arctica*
62	Mollusca	Bivalvia		Arcidae	*Anadara transversa*
29	Annelida	Polychaeta		Arabellidae	*Arabella iricolor*
11	Annelida	Polychaeta		Paraonidae	*Aricidea catherinae*
86	Annelida	Polychaeta		Ampharetidae	*Asabellides oculata*
153	Annelida	Polychaeta		Maldanidae	*Asychis elongata*
119	Annelida	Polychaeta		Syllidae	*Autolytus cornutus*
288	Annelida	Polychaeta		Syllidae	*Autolytus fasciatus*
289	Mollusca	Crustacea			*Balanus amphitrite*
287	Mollusca	Crustacea			*Balanus eburneus*
79	Mollusca	Crustacea			*Balanus sp*
46	Arthropoda	Crustacea	Amphipoda	Pontogeneiidae	*Batea catharinensis*
189	Annelida	Polychaeta		Syllidae	*Brania clavata*
19	Annelida	Polychaeta		Syllidae	*Brania wellfleetensis*
282	Arthropoda	Crustacea	Decapoda	Cancridae	*Cancer irroratus*
2	Annelida	Polychaeta		Capitellidae	*Capitella sp*
35	Arthropoda	Crustacea	Amphipoda	Caprellidae	*Caprella penantis*
180	Mollusca	Gastropoda	Cephalaspidea		*Cephalaspidea*
78	Mollusca	Polyplacophora			*Chaetopleura apiculata*
6	Annelida	Polychaeta		Maldanidae	*Clymenella sp*
85	Arthropoda	Crustacea	Amphipoda		*Corophium sp*
234	Annelida	Polychaeta		Cirratulidae	*Cossura longocirrata*
284	Arthropoda	Crustacea	Decapoda		*Crab megalopa*
214	Arthropoda	Crustacea	Decapoda	Crangonidae	*Crangon septemspinosa*
163	Mollusca	Bivalvia		Ostreidae	*Crassostrea virginica*
75	Mollusca	Gastropoda		Calyptraeidae	*Crepidula fornicata*
76	Mollusca	Gastropoda		Calyptraeidae	*Crepidula plana*
122	Annelida	Polychaeta		Arabellidae	*Drilonereis longa*
52	Arthropoda	Crustacea	Decapoda	Xanthidae	*Dyspanopeus sayi*
41	Arthropoda	Crustacea	Amphipoda	Meltiidae	*Elasmopus levis*
68	Mollusca	Bivalvia		Solenidae	*Ensis directus*
213	Annelida	Polychaeta		Phyllodocidae	*Eteone heteropoda*
133	Annelida	Polychaeta		Phyllodocidae	*Eteone lactea*
164	Annelida	Polychaeta		Phyllodocidae	*Eteone sp*
13	Annelida	Polychaeta		Phyllodocidae	*Eumida sanguinea*
141	Mollusca	Gastropoda			*Euspira heros*
101	Mollusca	Gastropoda			*Euspira imaculata*
20	Annelida	Polychaeta		Syllidae	*Exogone dispar*
71	Mollusca	Bivalvia		Veneridae	*Gemma gemma*
140	Annelida	Polychaeta		Glyceridae	*Glycera americana*
114	Annelida	Polychaeta		Glyceridae	*Glycera dibranchiata*
238	Annelida	Polychaeta		Gonianidae	*Glycinde solitaria*
95	Chordata	Osteichthyes		Gobiidae	*Gobiosoma sp*

Table 1. List of taxa collected.

Code	Phylum	Class	Order	Family	Species
145	Annelida	Polychaeta		Hesionidae	*Gyptis vittata*
98	Annelida	Polychaeta		Polynoidae	*Harmothoe extenuata*
277	Annelida	Polychaeta		Polynoidae	*Harmothoe imbricata*
55	Arthropoda	Crustacea	Mysidacea		*Heteromysis formosa*
191	Mollusca	Gastropoda			*Ilyanassa obsoleta*
161	Mollusca	Gastropoda			*Ilyanassa trivittata*
33	Arthropoda	Crustacea	Amphipoda	Aoridae	*Lembos smithi*
125	Arthropoda	Crustacea	Tanaidacea		*Leptochelia savignyi*
173	Arthropoda	Crustacea	Cumacea		*Leucon americanus*
57	Arthropoda	Crustacea	Decapoda		*Libinia emarginata*
5	Annelida	Polychaeta		Lumbrineridae	*Lumbrineris tenuis*
64	Mollusca	Bivalvia		Lyonsiidae	*Lyonsia hyalina*
150	Arthropoda	Crustacea	Amphipoda	Lysianassidae	*Lysianopsis alba*
244	Mollusca	Bivalvia			*Macoma tenta*
160	Annelida	Polychaeta		Ampharetidae	*Melinna cristata*
42	Arthropoda	Crustacea	Amphipoda	Meltiidae	*Melita nitida*
70	Mollusca	Bivalvia		Veneridae	*Mercenaria mercenaria*
192	Arthropoda	Crustacea	Amphipoda	Aoridae	*Microdeutopus anomalus*
34	Arthropoda	Crustacea	Amphipoda	Aoridae	*Microdeutopus sp*
154	Annelida	Polychaeta		Hesionidae	*Microphthalmus aberrans*
283	Arthropoda	Crustacea	Amphipoda	Oedicerotidae	*Monoculodes sp*
137	Mollusca	Bivalvia		Mactridae	*Mulinia lateralis*
171	Mollusca	Bivalvia		Myidae	*Mya arenaria*
80	Nematoda	Nematoda			*Nematoda*
285	Arthropoda	Crustacea	Mysidacea		*Neomysis americana*
7	Annelida	Polychaeta		Nephtyidae	*Nephtys picta*
210	Annelida	Polychaeta		Nephtyidae	*Nepthys incisa*
102	Annelida	Polychaeta		Nereidae	*Nereis arenaceodonta*
8	Annelida	Polychaeta		Nereidae	*Nereis succinea*
132	Annelida	Polychaeta		Terebellidae	*Nicolea sp*
0	None	None			*No Organisms*
66	Mollusca	Bivalvia			*Nucula proxima*
104	Mollusca	Bivalvia			*Nucula tenuis*
4	Annelida	Polychaeta		Syllidae	*Odontosyllis fulgurans*
1	Annelida	Oligochaeta			*Oligochaeta*
146	Annelida	Polychaeta		Orbiniidae	*Orbinia sp*
82	Ostracoda	Crustacea			*Ostracod A*
83	Ostracoda	Crustacea			*Ostracod B*
50	Arthropoda	Crustacea	Cumacea		*Oxyurostylis smithi*
43	Arthropoda	Crustacea	Decapoda	Paguridae	*Pagurus longicarpus*
51	Mollusca	Bivalvia		Pandoridae	*Pandora gouldiana*
53	Arthropoda	Crustacea	Decapoda	Xanthidae	*Panopeus herbstii*
37	Arthropoda	Crustacea	Amphipoda	Caprellidae	*Paracaprella tenius*
174	Annelida	Polychaeta		Phyllodocidae	*Paranaitis speciosa*
278	Annelida	Polychaeta		Paraonidae	*Paraonis sp*
96	Arthropoda	Crustacea	Amphipoda	Phoxocephalidae	*Paraphoxus spinosus*
21	Annelida	Polychaeta		Syllidae	*Parapionosyllis longicirrata*
107	Annelida	Polychaeta		Pectinariidae	*Pectinaria gouldii*
216	Annelida	Polychaeta		Flabelligeridae	*Pherusa sp*

Table 1. List of taxa collected.

Code	Phylum	Class	Order	Family	Species
113	Annelida	Polychaeta		Phyllodocidae	*Phyllodoce arenae*
59	Arthropoda	Crustacea	Decapoda		*Pinnixa sp*
63	Annelida	Polychaeta		Terebellidae	*Pista palmata*
279	Mollusca	Bivalvia		Veneridae	*Pitar morrhuanus*
123	Annelida	Polychaeta		Hesionidae	*Podarke obscura*
205	Annelida	Polychaeta		Spionidae	*Polydora ligni*
16	Annelida	Polychaeta		Spionidae	*Polydora sp*
14	Annelida	Polychaeta		Polygordiidae	*Polygordius sp*
265	Arthropoda	Crustacea	Decapoda	Pinnotheridae	*Polyonyx gibbesi*
212	Annelida	Polychaeta		Spionidae	*Prionospio cirrobranchiata*
97	Annelida	Polychaeta		Spionidae	*Prionospio pinnata*
286	Arthropoda	Crustacea	Amphipoda	Aoridae	*Pseudunciola obliquua*
209	Mollusca	Gastropoda			*Rictaxis punctostriatus*
105	Arthropoda	Crustacea	Amphipoda	Aoridae	*Rudilemboides naglei*
142	Annelida	Polychaeta		Scalibregmidae	*Scalibregma inflatum*
134	Annelida	Polychaeta		Dorvilleidae	*Schistomeringos caecus*
275	Annelida	Polychaeta		Spionidae	*Scolecolepides viridis*
10	Annelida	Polychaeta		Orbiniidae	*Scoloplos fragilis*
276	Annelida	Polychaeta		Orbiniidae	*Scoloplos robustus*
178	Annelida	Polychaeta		Pilgariidae	*Sigambra sp*
217	Arthropoda	Crustacea	Isopoda	Sphaeromatidae	*Sphaeromatidae sp*
22	Annelida	Polychaeta		Syllidae	*Sphaerosyllis erinaceus*
23	Annelida	Polychaeta		Syllidae	*Sphaerosyllis hystrix*
156	Annelida	Polychaeta		Spionidae	*Spio sp*
18	Annelida	Polychaeta		Spionidae	*Spiophanes bombyx*
103	Mollusca	Bivalvia		Mactridae	*Spisula solidissima*
45	Arthropoda	Crustacea	Amphipoda	Stenothoidae	*Stenothoidae sp*
139	Annelida	Polychaeta		Sigalionidae	*Sthenelais boa*
166	Annelida	Polychaeta		Spionidae	*Streblospio benedicti*
110	Annelida	Polychaeta		Syllidae	*Syllides setosa*
215	Chordata	Osteichthyes		Labridae	*Tautogolabrus adspersus*
69	Mollusca	Bivalvia		Tellinidae	*Tellina agilis*
25	Annelida	Polychaeta		Cirratulidae	*Tharyx sp*
9	Annelida	Polychaeta		Opheliidae	*Travisia carnea*
99	Platyhelminthes	Turbellaria			*Turbellaria sp*
175	Mollusca	Gastropoda			*Turbonilla sp*
129	Arthropoda	Crustacea	Amphipoda	Aoridae	*Unciola irrorata*
280	Arthropoda	Crustacea	Amphipoda	Aoridae	*Unciola sp*
211	Mollusca	Bivalvia			*Yoldia limatula*
281	Mollusca	Bivalvia			*Yoldia sp*

Table 2. Taxa within top 95% of the fauna in at least one region.

	Average Abundance (per sample)				Percent of Fauna			
Species	Oyster Bay	Huntington	Port Jefferson	All Regions	Oyster Bay	Huntington	Port Jefferson	All Regions
Ampelisca abdita	0.0	15.0	0.0	4.4	0.0	3.6	0.0	1.5
Ampelisca sp	1.8	0.0	0.0	0.6	0.6	0.0	0.0	0.2
Ampharete arctica	0.1	8.2	2.4	3.4	0.0	2.0	1.2	1.1
Aricidea catherinae	0.4	3.0	7.8	4.0	0.1	0.7	3.9	1.3
Brania wellfleetensis	0.7	0.1	0.8	0.6	0.2	0.0	0.4	0.2
Capitella sp	22.3	153.7	4.7	54.4	7.0	36.8	2.4	18.1
Clymenella sp	0.0	0.0	1.6	0.6	0.0	0.0	0.8	0.2
Corophium sp	0.0	0.1	1.1	0.4	0.0	0.0	0.5	0.1
Crepidula fornicata	2.9	26.3	14.2	14.2	0.9	6.3	7.2	4.7
Crepidula plana	0.6	4.4	0.1	1.5	0.2	1.1	0.0	0.5
Eteone heteropoda	0.5	5.9	0.1	1.9	0.1	1.4	0.0	0.6
Gemma gemma	10.5	0.0	0.6	3.5	3.3	0.0	0.3	1.2
Glycera americana	0.2	0.3	0.6	0.4	0.1	0.1	0.3	0.1
Glycinde solitaria	1.3	2.1	0.0	1.1	0.4	0.5	0.0	0.4
Harmothoe extenuata	0.0	0.0	1.0	0.4	0.0	0.0	0.5	0.1
Harmothoe imbricata	0.7	5.5	0.0	1.9	0.2	1.3	0.0	0.6
Mulinia lateralis	42.5	4.7	0.0	14.7	13.3	1.1	0.0	4.9
Nematoda	190.5	69.3	114.1	124.7	59.7	16.6	57.8	41.4
Nepthys incisa	1.4	0.6	1.1	1.0	0.4	0.1	0.5	0.3
Nereis succinea	0.5	2.7	0.3	1.1	0.2	0.7	0.2	0.4
Nucula proxima	1.6	1.6	0.2	1.1	0.5	0.4	0.1	0.3
Oligochaeta	8.6	29.2	24.4	20.9	2.7	7.0	12.4	6.9
Ostracod B	0.6	0.0	1.1	0.6	0.2	0.0	0.6	0.2
Polydora ligni	3.7	12.6	0.7	5.2	1.2	3.0	0.4	1.7
Polygordius sp	3.4	0.0	0.3	1.2	1.1	0.0	0.1	0.4
Polyonyx gibbesi	4.0	0.0	0.0	1.3	1.3	0.0	0.0	0.4
Schistomeringos caecus	0.0	0.0	0.7	0.3	0.0	0.0	0.4	0.1
Scoloplos fragilis	0.0	0.0	3.1	1.2	0.0	0.0	1.6	0.4
Scoloplos robustus	0.1	16.8	0.0	5.0	0.0	4.0	0.0	1.7
Streblospio benedicti	2.4	30.1	2.1	10.5	0.7	7.2	1.0	3.5
Tellina agilis	0.4	1.7	0.7	0.9	0.1	0.4	0.3	0.3
Tharyx sp	9.9	8.4	5.6	7.8	3.1	2.0	2.8	2.6
Average Abundance	319.3	417.8	197.4	300.9				
Fraction of Fauna					97.5	96.2	95.9	96.6

Table 3. Biotopes for Oyster Bay

Biotope	1	2	3	4	5	6
	OD2a	OE2a	OE1a	OA2a	OA1a	OB1a
	OD2b	OE2b	OF1b	OA2b	OA1b	OB2a
	OD3a	OH1a	OF2a	OB1b	OD1a	OC1a
	OE1b	OH1b	OF2b	OB2b	OD1b	OC1b
	OJ2b	OH2a	OJ2a	OF1a	OG2a	OC2
	OK1a	OH2b	OQ1a	OG1a	OG2b	OC2a
	OL1b	OJ1a	OR1b	OG1b	OG3a	OD3b
	OM2a	OJ1b		OP1a	OG3b	
	OQ2b	OK1b		OP1b	OG4a	
		OL1a		OP2a	OG4b	
		OL2a		OP2b	OM1a	
		OL2b			OM1b	
		ON1a			OM2b	
		ON1b			OQ2a	
		ON2a				
		ON2b				
		OO1a				
		OO1b				
		OQ1b				
		OR1a				
		OR2a				
		OR2b				
		OS1a				
		OS1b				
		OS2a				
		OS2b				
		OT1a				
		OT1b				
		OT2a				
		OT2b				
		OT3a				
		OT3b				

Table 4. Average abundance of species in each biotope at Oyster Bay.

		1	2	3	4	5	6	
Taxa	**Code**	**Biotope 1**	**Biotope 2**	**Biotope 3**	**Biotope 4**	**Biotope 5**	**Biotope 6**	**All Biotopes**
Acteocina canaliculata	*Actcan*	0.3	0.4			0.1		0.2
Ampelisca sp	*Ampsp*	1.1	0.4		0.2	0.5	16.0	1.8
Ampharete arctica	*Amparc*	0.1	0.0		0.4			0.1
Anadara transversa	*Anatra*		0.0		0.2			0.0
Aricidea catherinae	*Aricat*				2.8			0.4
Autolytus fasciatus	*Autfas*				0.2			0.0
Balanus amphitrite	*Balamp*					0.1		0.0
Balanus eburneus	*Balebu*		0.1					0.1
Brania wellfleetensis	*Brawel*				4.8			0.7
Cancer irroratus	*Canirr*		0.0					0.0
Capitella sp	*Capsp*	11.8	2.2	0.6	25.3	91.2	7.0	22.3
Cephalaspidea	*Cep*	0.8						0.1
Clymenella sp	*Clysp*	0.1				0.1		0.0
Corophium sp	*Corsp*				0.1			0.0
Cossura longocirrata	*Coslon*					0.1		0.0
Crab megalopa	*Crameg*	0.1	0.1			0.1		0.1
Crangon septemspinosa	*Crasep*			0.1	0.2		0.1	0.1
Crassostrea virginica	*Cravir*				1.5			0.2
Crepidula fornicata	*Crefor*		0.4		13.8	4.6		2.9
Crepidula plana	*Crepla*				2.9	1.2		0.6
Dyspanopeus sayi	*Dyssay*				0.2			0.0
Elasmopus levis	*Elalev*				0.9			0.1
Eteone heteropoda	*Etehet*	0.1	0.0		0.8	1.6	0.6	0.5
Eteone lactea	*Etelac*						0.1	0.0
Eumida sanguinea	*Eumsan*		0.0		3.4	0.4		0.5
Euspira heros	*Eusher*				0.1			0.0
Gemma gemma	*Gemgem*				76.5			10.5
Glycera americana	*Glyame*	0.1	0.0	0.1	0.4	0.7		0.2
Glycinde solitaria	*Glysol*	1.3	0.3		1.9	4.4	0.7	1.3
Gyptis vittata	*Gypvit*				0.1	0.1	0.3	0.1
Harmothoe imbricata	*Harimb*		0.1		4.2	0.6		0.7
Ilyanassa obsoleta	*Ilyobs*	0.3	0.8					0.4
Ilyanassa trivittata	*Ilytri*	0.3	1.2		0.1	0.4		0.6
Leucon americanus	*Leuame*					0.1	0.7	0.1
Libinia emarginata	*Libema*				0.1			0.0
Lumbrineris tenuis	*Lumten*						1.6	0.1
Lyonsia hyalina	*Lyohya*		0.0		0.6			0.1
Lysianopsis alba	*Lysalb*				0.7			0.1
Macoma tenta	*Macten*	2.2	0.2	0.4			1.1	0.5
Melita nitida	*Melnit*				0.5	0.1		0.1
Mercenaria mercenaria	*Mermer*	0.8	0.7	0.4	0.1	1.6		0.7
Microphthalmus aberrans	*Micabe*		0.0		0.1			0.0
Monoculodes sp	*Monsp*		0.0					0.0
Mulinia lateralis	*Mullat*	15.9	97.9	0.1	0.8	4.4	7.4	42.5
Mya arenaria	*Myaare*		0.0	0.1			0.1	0.0
Nematoda	*Nem*	0.9	0.4		1291.6	71.6	1.4	190.5
Neomysis americana	*Neoame*		0.0					0.0
Nephtys picta	*Neppic*		0.1		0.2	0.6		0.2
Nepthys incisa	*Nepinc*	2.1	2.3	1.4		0.4	0.3	1.4
Nereis succinea	*Nersuc*		0.2	0.1	1.4	1.2	0.6	0.5
Nicolea sp	*Nicsp*				0.3			0.0
Nucula proxima	*Nucpro*	0.1	3.5		1.1			1.6
Nucula tenuis	*Nucten*		0.0			0.1		0.0
Oligochaeta	*Oli*	8.3	3.0	1.4	20.8	18.7	1.9	8.6
Orbinia sp	*Orbsp*				0.2			0.0
Ostracod A	*OstA*		0.1		0.5		0.6	0.2
Ostracod B	*OstB*				0.3		6.4	0.6

Table 4. Average abundance of species in each biotope at Oyster Bay.

		1	2	3	4	5	6	
Taxa	**Code**	**Biotope 1**	**Biotope 2**	**Biotope 3**	**Biotope 4**	**Biotope 5**	**Biotope 6**	**All Biotopes**
Pagurus longicarpus	*Paglon*		0.0			0.1		0.0
Pandora gouldiana	*Pangou*		0.2		0.4	0.1		0.2
Panopeus herbstii	*Panher*		0.1		0.8	0.4		0.2
Paraonis sp	*Parsp*				0.1			0.0
Paraphoxus spinosus	*Parspi*				0.9			0.1
Parapionosyllis longicirrata	*Parlon*				1.6			0.2
Pectinaria gouldii	*Pecgou*	2.0	0.6	0.9	0.5	2.1	0.3	1.0
Pherusa sp	*Phesp*	0.1	0.1			0.1		0.1
Phyllodoce arenae	*Phyare*				0.2			0.0
Pitar morrhuanus	*Pitmor*		0.1	0.1		0.1		0.1
Polydora ligni	*Pollig*	1.1	0.3		13.0	8.9	1.3	3.7
Polygordius sp	*Polsp*		0.0		24.5			3.4
Polyonyx gibbesi	*Polgib*	1.9	0.4		11.2	3.2	17.6	4.0
Prionospio pinnata	*Pripin*	0.2	0.0		0.5	0.3	0.1	0.2
Pseudunciola obliquua	*Pseobl*		0.1					0.0
Rictaxis punctostriatus	*Ricpun*				0.1			0.0
Scolecolepides viridis	*Scovir*	0.1	0.0		3.4	1.4	0.1	0.8
Scoloplos robustus	*Scorob*				0.2	0.1		0.1
Spiophanes bombyx	*Spibom*				0.1			0.0
Spisula solidissima	*Spisol*				0.4			0.1
Streblospio benedicti	*Strben*	1.1	0.6		5.8	7.1		2.4
Syllides setosa	*Sylset*				0.2			0.0
Tellina agilis	*Telagi*	0.2	0.1	0.1	1.7	0.3		0.4
Tharyx sp	*Thasp*	0.7	0.4		49.9	15.9	0.1	9.9
Travisia carnea	*Tracar*					0.1		0.0
Unciola sp	*Uncsp*				0.1			0.0
Yoldia sp	*Yolsp*		0.5					0.2
Average Abundance per sample (with nematodes)		54.3	118.2	6.1	1575.7	245.1	66.6	319.3
Average Abundance per sample (without nematodes)		53.4	117.8	6.1	284.1	173.4	65.1	128.8
Average Species Richness (per sample)		10.6	8.0	3.3	16.9	14.5	8.4	10.3
Total Number of Species		28	48	13	60	41	24	84
Number of Samples		9	32	7	11	14	7	80

Table 5. Biotopes for Huntington Harbor

Biotope	1	2	3	4	5	6	7
	HA1a	HO1a	HA2a	HA3a	HH1b	HA3b	HE2a
	HA1b	HO1b	HA2b	HC3a	HH2a	HB1a	HE2b
	HC4a	HO2a	HC1a	HC3b	HH2b	HB1b	HF1a
	HF1b	HO2b	HC1b	HC4b	HI1a	HB2a	HF2b
	HG1a	HO3a	HC2a	HH1a	HI1b	HB2b	HJ1b
	HG1b	HO3b	HC2b	HL1b	HI2a	HB3a	
	HG2a		HF2a	HL2a	HI2b	HB3b	
	HG2b			HL2b	HI3a	HD1a	
	HJ1a			HL3a	HI3b	HD1b	
	HJ2a			HM1a	HL1a	HD2a	
	HJ2b			HM1b	HL3b	HD2b	
	HK1a			HM2a	HN2b	HE1a	
	HK1b			HM2b		HE1b	
	HK2a			HN2a			
	HK2b						
	HN1a						
	HN1b						
	HN3a						
	HN3b						

Table 6. Average abundance of species in each biotope for Huntington Harbor

		1	2	3	4	5	6	7	
Taxa	**Code**	**Biotope 1**	**Biotope 2**	**Biotope 3**	**Biotope 4**	**Biotope 5**	**Biotope 6**	**Biotope 7**	**All Biotopes**
Acteocina canaliculata	*Actcan*					0.3	0.7		0.2
Ampelisca abdita	*Ampabd*	2.2	172.7		3.6	0.9			15.0
Ampelisca vadorum	*Ampvad*			0.7	0.6		0.5	0.2	0.3
Ampelisca verrilli	*Ampver*			0.3					0.0
Ampharete arctica	*Amparc*	2.3		66.7	1.1	0.1	0.9	17.0	8.2
Aricidea catherinae	*Aricat*			0.3				44.8	3.0
Asabellides oculata	*Asaocu*	0.2	0.2	1.0			0.2		0.2
Asychis elongata	*Asyelo*				0.1				0.0
Autolytus cornutus	*Autcor*	3.2		6.6		0.1		0.4	1.4
Batea catharinensis	*Batcat*	0.1							0.0
Brania wellfleetensis	*Brawel*			0.3				0.8	0.1
Capitella sp	*Capsp*	139.6	26.5	728.9	107.8	9.3	138.7	68.4	153.7
Cephalaspidea	*Cep*				0.1	0.1			0.0
Clymenella sp	*Clysp*			0.3					0.0
Corophium sp	*Corsp*	0.1	0.3					0.4	0.1
Cossura longocirrata	*Coslon*	0.1	0.3		0.4		1.2		0.3
Crepidula fornicata	*Crefor*	95.3		17.1	0.5			11.8	26.3
Crepidula plana	*Crepla*	17.2		0.9				0.4	4.4
Drilonereis longa	*Drilon*	0.1							0.0
Dyspanopeus sayi	*Dyssay*	0.2							0.0
Elasmopus levis	*Elalev*					0.1		7.0	0.5
Ensis directus	*Ensdir*			0.6					0.1
Eteone heteropoda	*Etehet*	11.9	5.7	2.3	8.3	0.8	0.2	8.2	5.9
Eteone lactea	*Etelac*		0.3						0.0
Eumida sanguinea	*Eumsan*	3.5		1.0	0.1			0.4	1.0
Exogone dispar	*Exodis*	0.1							0.0
Glycera americana	*Glyame*	0.3	0.2	1.4	0.3	0.1			0.3
Glycinde solitaria	*Glysol*	0.9	3.0	3.1	5.3	1.4	0.8	0.6	2.1
Gobiosoma sp	*Gobsp*	0.1							0.0
Gyptis vittata	*Gypvit*	0.1							0.0
Harmothoe imbricata	*Harimb*	17.5	0.5	6.3	0.3		0.1	6.8	5.5
Heteromysis formosa	*Hetfor*	0.1							0.0
Ilyanassa obsoleta	*Ilyobs*	0.7			0.6			0.2	0.3
Ilyanassa trivittata	*Ilytri*			0.4	0.1	0.1	0.2		0.1
Leucon americanus	*Leuame*	1.3	7.8		3.5	0.7	1.2	0.2	1.9
Lyonsia hyalina	*Lyohya*			0.6	0.1		0.9	0.6	0.3
Lysianopsis alba	*Lysalb*			1.7					0.2
Melinna cristata	*Melcri*	0.1							0.0
Mercenaria mercenaria	*Mermer*	0.5		0.1		0.2	0.1		0.2
Microphthalmus aberrans	*Micabe*				0.1			0.4	0.1
Mulinia lateralis	*Mullat*		2.0	4.3	3.6	2.8	17.8		4.7
Nematoda	*Nem*	63.8	5.0	115.6	25.8	0.3	9.5	545.2	69.3
Nephtys picta	*Neppic*			2.6		0.1		0.2	0.3
Nepthys incisa	*Nepinc*	0.1	0.3	1.7	0.5	0.1	1.5		0.6
Nereis succinea	*Nersuc*	5.7	4.0	1.3	2.6	1.0	0.2	3.0	2.7
Nicolea sp	*Nicsp*	0.1	0.2						0.0
Nucula proxima	*Nucpro*	0.4	0.2	2.7	0.1	0.5	6.6	0.4	1.6
Nucula tenuis	*Nucten*	0.2		0.4	0.7	0.5	0.3	1.2	0.4
Oligochaeta	*Oli*	58.8	2.0	16.4	7.2	12.1	19.6	95.4	29.2
Orbinia sp	*Orbsp*	0.1		0.6					0.1
Ostracod A	*OstA*	0.1	0.3		0.4	0.3	0.7		0.3
Oxyurostylis smithi	*Oxysmi*						0.2		0.0
Pagurus longicarpus	*Paglon*			0.1					0.0
Pandora gouldiana	*Pangou*			0.6			0.5	0.2	0.1
Panopeus herbstii	*Panher*	1.6		1.6	0.1			0.2	0.6
Paranaitis speciosa	*Parspe*	0.2		0.3	0.1				0.1
Paraonis sp	*Parsp*				0.1			20.6	1.4
Parapionosyllis longicirrata	*Parlon*			0.1				0.6	0.1
Pectinaria gouldii	*Pecgou*	1.3	2.2	0.7	3.7	0.3	2.2	0.4	1.7

Table 6. Average abundance of species in each biotope for Huntington Harbor

		1	2	3	4	5	6	7	
Taxa	**Code**	**Biotope 1**	**Biotope 2**	**Biotope 3**	**Biotope 4**	**Biotope 5**	**Biotope 6**	**Biotope 7**	**All Biotopes**
Pherusa sp	*Phesp*	0.1		0.1			0.2		0.1
Phyllodoce arenae	*Phyare*			0.3					0.0
Pinnixa sp	*Pinsp*				0.1		0.1	0.2	0.0
Pitar morrhuanus	*Pitmor*							0.2	0.0
Podarke obscura	*Podobs*			0.3					0.0
Polydora ligni	*Pollig*	43.1	0.5	8.3	3.2			6.4	12.6
Prionospio pinnata	*Pripin*	0.3	0.8	0.1	0.9	0.1	0.5		0.4
Rictaxis punctostriatus	*Ricpun*				0.1				0.0
Scalibregma inflatum	*Scainf*			8.1					0.8
Schistomeringos caecus	*Schcae*	0.1							0.0
Scolecolepides viridis	*Scovir*	0.1			0.1				0.0
Scoloplos robustus	*Scorob*	20.2	51.3	1.1	32.1	8.6	0.8	2.2	16.8
Sigambra sp	*Sigsp*						0.2		0.0
Spisula solidissima	*Spisol*						1.1		0.2
Stenothoidae sp	*Stesp*			0.1					0.0
Sthenelais boa	*Sthboa*			0.1					0.0
Streblospio benedicti	*Strben*	46.9	8.7	58.9	50.5	5.5	9.8	5.4	30.1
Tellina agilis	*Telagi*	0.2	0.2	3.1	0.6	0.3	5.5	3.8	1.7
Tharyx sp	*Thasp*	24.2	0.3	18.7	0.6		0.8	4.6	8.4
Turbellaria sp	*Tursp*				0.1		0.1		0.0
Turbonilla sp	*Tursp*				0.1				0.0
Unciola irrorata	*Uncirr*		0.2	1.4	0.1		0.8	1.0	0.4
Yoldia limatula	*Yollim*		0.2		0.3	1.1	7.5		1.5
Average Abundance per sample (with nematodes)		564.6	295.8	1090.4	266.4	47.6	232.2	859.8	417.8
Average Abundance per sample (without nematodes)		500.8	290.8	974.9	240.6	47.3	222.7	314.6	348.5
Average Species Richness (per sample)		18.4	15.0	23.1	15.7	10.8	15.3	15.2	16.1
Number of Samples		19	6	7	14	12	13	5	76
Total Number of Species		46	28	49	43	28	36	37	82

Table 7. Biotopes for Port Jefferson Harbor

Biotope	1	2	3	4	5
	PA2a	PD3b	PA2b	PC1a	PA1a
	PB2a	PE3a	PB1a	PC2a	PA1b
	PC4b	PI1a	PB1b	PC2b	PB2b
	PE3b	PI1b	PB3a	PC2b	PC4a
	PE4a	PI2b	PB3b	PC3a	PD1a
	PE4b	PI3a	PB4a	PC3b	PE2b
	PE5a	PI3b	PB4b	PD2a	PI2a
	PE5b	PJ2a	PD1b	PD4a	PR2a
	PE6a	PJ2b	PD2b	PD4b	PR2b
	PE6b	PK1a	PD3a	PE2a	PS1a
	PN1a	PK1b	PM1a	PG1a	PS1b
		PK2a	PM1b	PG1b	PT1b
		PK2b	PM2a	PG2a	PU1b
		PL1a	PM2b	PG2b	
		PL1b	PM3a	PG3a	
		PL2a	PM3b	PG3b	
		PL2b	PP1a	PH1a	
		PN1b	PP2b	PH1b	
		PP1b	PQ1a	PH2a	
		PP2a	PQ1b	PH2b	
		PU1a	PR1a	PH3a	
			PR1b	PH3b	
			PT1a	PH4a	
			PT2a	PH4b	
			PT2b	PJ1a	
			PU2a	PJ1b	
			PU2b		
			PU3a		
			PU3b		

Table 8. Average abundance of species in each biotope for Port Jefferson Harbor

		1	2	3	4	5	
Taxa	**Code**	**Biotope 1**	**Biotope 2**	**Biotope 3**	**Biotope 4**	**Biotope 5**	**All Biotopes**
Acteocina canaliculata	Actcan					0.1	0.0
Actiniaria sp	Actsp				0.0		0.0
Ampelisca vadorum	Ampvad	0.5	0.3	0.4	0.0	0.5	0.3
Ampelisca verrilli	Ampver	0.3		0.1		0.2	0.1
Ampharete arctica	Amparc	10.9	0.0	0.6	1.6	5.0	2.4
Anadara transversa	Anatra				0.4	0.1	0.1
Arabella iricolor	Arairi	0.3			0.0		0.0
Aricidea catherinae	Aricat	0.6	0.1	0.0	1.7	55.7	7.8
Asabellides oculata	Asaocu				0.1		0.0
Asychis elongata	Asyelo	0.1	0.3	0.2	0.1		0.2
Autolytus cornutus	Autcor				0.0		0.0
Balanus sp	Balsp				0.2	0.2	0.1
Batea catharinensis	Batcat				0.0		0.0
Brania clavata	Bracla				0.5	0.1	0.1
Brania wellfleetensis	Brawel	0.3			0.1	6.0	0.8
Capitella sp	Capsp	2.2	1.6	7.8	6.7	0.5	4.7
Caprella penantis	Cappen				0.0		0.0
Chaetopleura apiculata	Chaapi					0.1	0.0
Clymenella sp	Clysp	5.0	0.9	0.9	2.0	0.3	1.6
Corophium sp	Corsp			0.2	3.9	0.1	1.1
Crangon septemspinosa	Crasep			0.0		0.1	0.0
Crassostrea virginica	Cravir				0.0		0.0
Crepidula fornicata	Crefor		0.5	0.7	51.2	4.5	14.2
Crepidula plana	Crepla				0.2		0.1
Drilonereis longa	Drilon				0.1	0.2	0.0
Elasmopus levis	Elalev	0.3			0.4	0.1	0.2
Eteone heteropoda	Etehet			0.1	0.2		0.1
Eteone sp	Etesp				0.1		0.0
Eumida sanguinea	Eumsan	0.1			1.2		0.3
Euspira heros	Eusher			0.0			0.0
Euspira Imaculata	EusIma	0.1		0.0			0.0
Exogone dispar	Exodis				1.0	1.5	0.5
Gemma gemma	Gemgem				0.0	4.2	0.6
Glycera americana	Glyame	0.5	0.2	0.4	1.2	0.5	0.6
Glycera dibranchiata	Glydib				0.0	0.1	0.0
Gobiosoma sp	Gobsp				0.0		0.0
Gyptis vittata	Gypvit				0.0		0.0
Harmothoe extenuata	Harext	0.1		0.1	3.3	0.5	1.0
Heteromysis formosa	Hetfor			0.1	0.1		0.0
Ilyanassa trivittata	Ilytri	0.1		0.0	0.1	0.3	0.1
Lembos smithi	Lemsmi			0.0	1.0		0.3
Leptochelia savignyi	Lepsav				0.0	0.2	0.0
Leucon americanus	Leuame		0.0	0.1			0.0
Lumbrineris tenuis	Lumten		0.0		0.1	0.1	0.0
Lyonsia hyalina	Lyohya			0.0		0.6	0.1
Melinna cristata	Melcri	0.1		0.0	0.0		0.0
Mercenaria mercenaria	Mermer	0.2	0.0	0.1	0.1		0.1
Microdeutopus anomalus	Micano				0.1		0.0
Microdeutopus sp	Micsp			0.0	0.2		0.1
Mulinia lateralis	Mullat			0.1	0.0		0.0
Nematoda	Nem	2.5		0.7	83.5	707.1	114.1
Nephtys picta	Neppic	1.8	0.1	0.1	0.5	1.4	0.6
Nepthys incisa	Nepinc	1.1	2.9	0.9	0.2		1.1
Nereis arenaceodonta	Nerare	0.2	0.0		0.2	0.1	0.1
Nereis succinea	Nersuc	0.1	0.0	0.1	1.0		0.3
Nicolea sp	Nicsp	0.3			1.8		0.5

Table 8. Average abundance of species in each biotope for Port Jefferson Harbor

		1	2	3	4	5	
Taxa	**Code**	**Biotope 1**	**Biotope 2**	**Biotope 3**	**Biotope 4**	**Biotope 5**	**All Biotopes**
No Organisms	No Org					0.1	0.0
Nucula proxima	Nucpro	0.2		0.2	0.1	0.9	0.2
Nucula tenuis	Nucten	0.1	0.1	0.2	0.4	0.5	0.3
Odontosyllis fulgurans	Odoful				0.1		0.0
Oligochaeta	Oli	3.4	1.7	20.9	63.3	9.2	24.4
Orbinia sp	Orbsp	0.4		0.0	0.2	0.9	0.2
Ostracod A	OstA	0.1	0.0	0.4	0.1	0.7	0.3
Ostracod B	OstB	0.5		0.6	1.1	4.3	1.1
Oxyurostylis smithi	Oxysmi					0.2	0.0
Pagurus longicarpus	Paglon					0.2	0.0
Pandora gouldiana	Pangou	0.5	0.0	0.0	0.0	0.1	0.1
Panopeus herbstii	Panher	0.5	0.0	0.0	0.7	0.2	0.3
Paracaprella tenius	Parten					0.1	0.0
Paranaitis speciosa	Parspe	0.1					0.0
Paraphoxus spinosus	Parspi				0.1	0.2	0.1
Parapionosyllis longicirrata	Parlon				0.1	2.3	0.3
Pectinaria gouldii	Pecgou	0.7	0.7	0.4	0.0	0.1	0.4
Pherusa sp	Phesp				0.2		0.1
Phyllodoce arenae	Phyare	0.1		0.1	0.1		0.1
Pinnixa sp	Pinsp			0.0	0.0	0.1	0.0
Pista palmata	Pispal	0.4	0.0	0.0	0.0		0.1
Polydora ligni	Pollig	0.7	0.1	0.1	2.3	0.1	0.7
Polydora sp	Polsp				1.4	0.3	0.4
Polygordius sp	Polsp				0.2	1.8	0.3
Prionospio cirrobranchiata	Pricir	0.3		0.2	0.7	0.2	0.3
Prionospio pinnata	Pripin			0.0			0.0
Rudilemboides naglei	Rudnag					0.2	0.0
Scalibregma inflatum	Scainf			0.1		0.5	0.1
Schistomeringos caecus	Schcae				0.0	5.5	0.7
Scoloplos fragilis	Scofra	0.7	0.0	3.3	6.2	3.4	3.1
Sigambra sp	Sigsp		0.3	0.1			0.1
Sphaeromatidae sp	Sphsp					0.1	0.0
Sphaerosyllis erinaceus	Spheri				0.0		0.0
Sphaerosyllis hystrix	Sphhys				0.1	0.6	0.1
Spio sp	Spisp				0.1	0.4	0.1
Spiophanes bombyx	Spibom	0.4			0.1	0.6	0.1
Spisula solidissima	Spisol				0.0		0.0
Stenothoidae sp	Stesp					0.1	0.0
Sthenelais boa	Sthboa				0.1		0.0
Streblospio benedicti	Strben	2.3	0.8	4.3	0.8	1.5	2.1
Syllides setosa	Sylset	0.1		0.0	0.1	2.7	0.4
Tautogolabrus adspersus	Tauads				0.0		0.0
Tellina agilis	Telagi	1.8	0.2	0.7	0.4	1.2	0.7
Tharyx sp	Thasp	11.0	0.8	5.5	8.0	3.8	5.6
Travisia carnea	Tracar				0.2	0.1	0.1
Unciola irrorata	Uncirr	0.1		0.0	0.0	0.1	0.0
Yoldia limatula	Yollim	0.4	0.3	0.1		0.1	0.1
Average Abundance per sample (with nematodes)		52.1	12.4	51.3	253.1	833.5	197.4
Average Abundance per sample (without nematodes)		49.6	12.4	50.6	169.6	126.4	83.3
Average Species Richness (per sample)		12.8	6.3	9.2	18.1	13.5	11.9
Number of Samples		11	21	29	26	13	100
Total Number of Species		45	29	52	83	65	103

Table 9. Species richness estimates (S2*) using the Chao 2 index. S_{obs} is the number of observed species.

Bay	Biotope	Number of Samples	S_{obs}	Species Richness S_2^* (±s)	S_{obs}/S_2 *100
Oyster Bay	1	9	28	38.4 (6.0)	80
Oyster Bay	5	14	41	48.1 (5.9)	85
Huntington Harbor	6	13	36	39.6 (3.6)	91
Port Jefferson Harbor	1	11	45	57.9 (10.1)	78
Port Jefferson Harbor	2	21	29	44.4 (17.6)	65
Port Jefferson Harbor	4	26	83	107.3 (13.4)	77

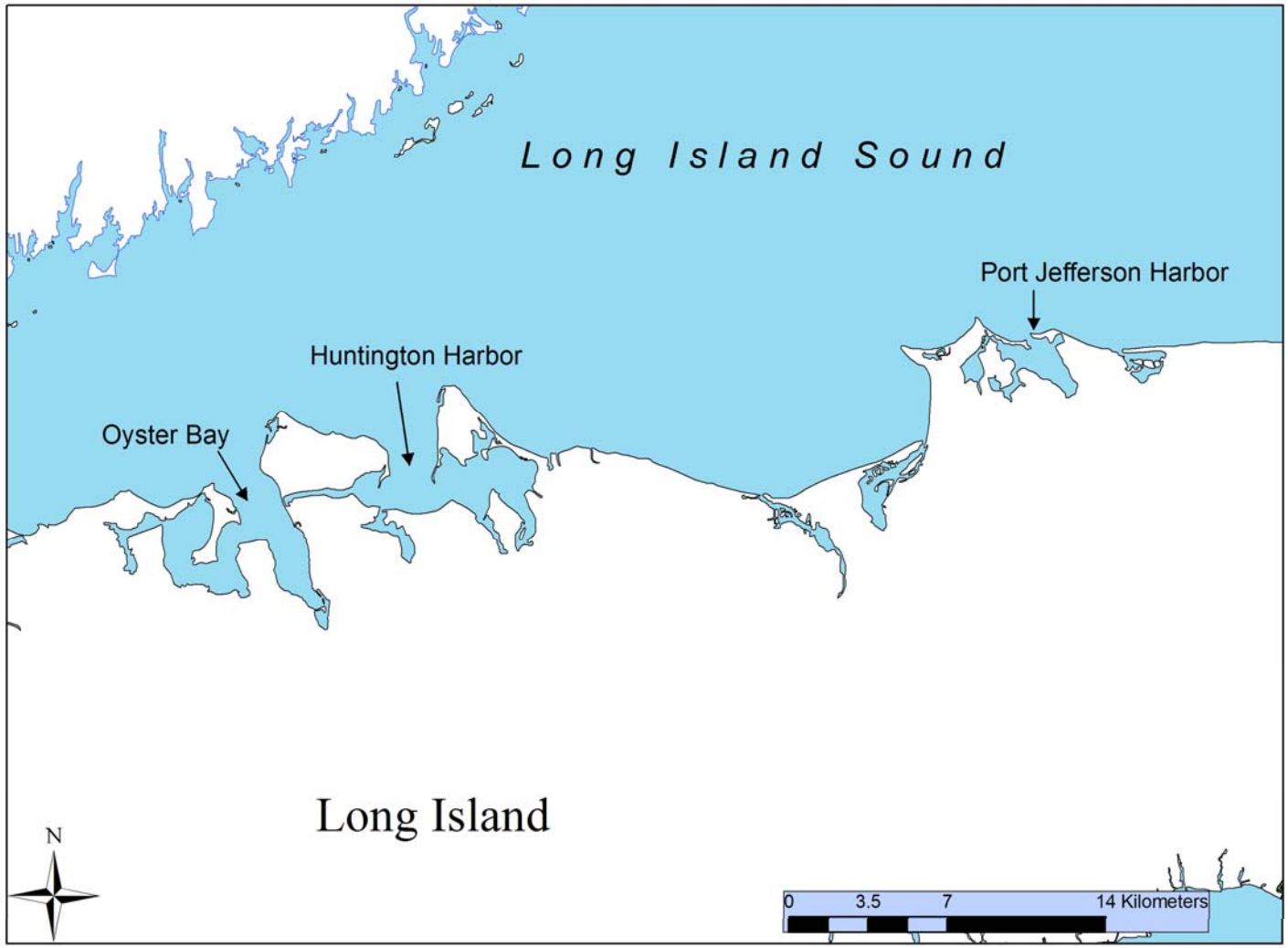


Figure 1. The North Shore bays sampled in the current study.

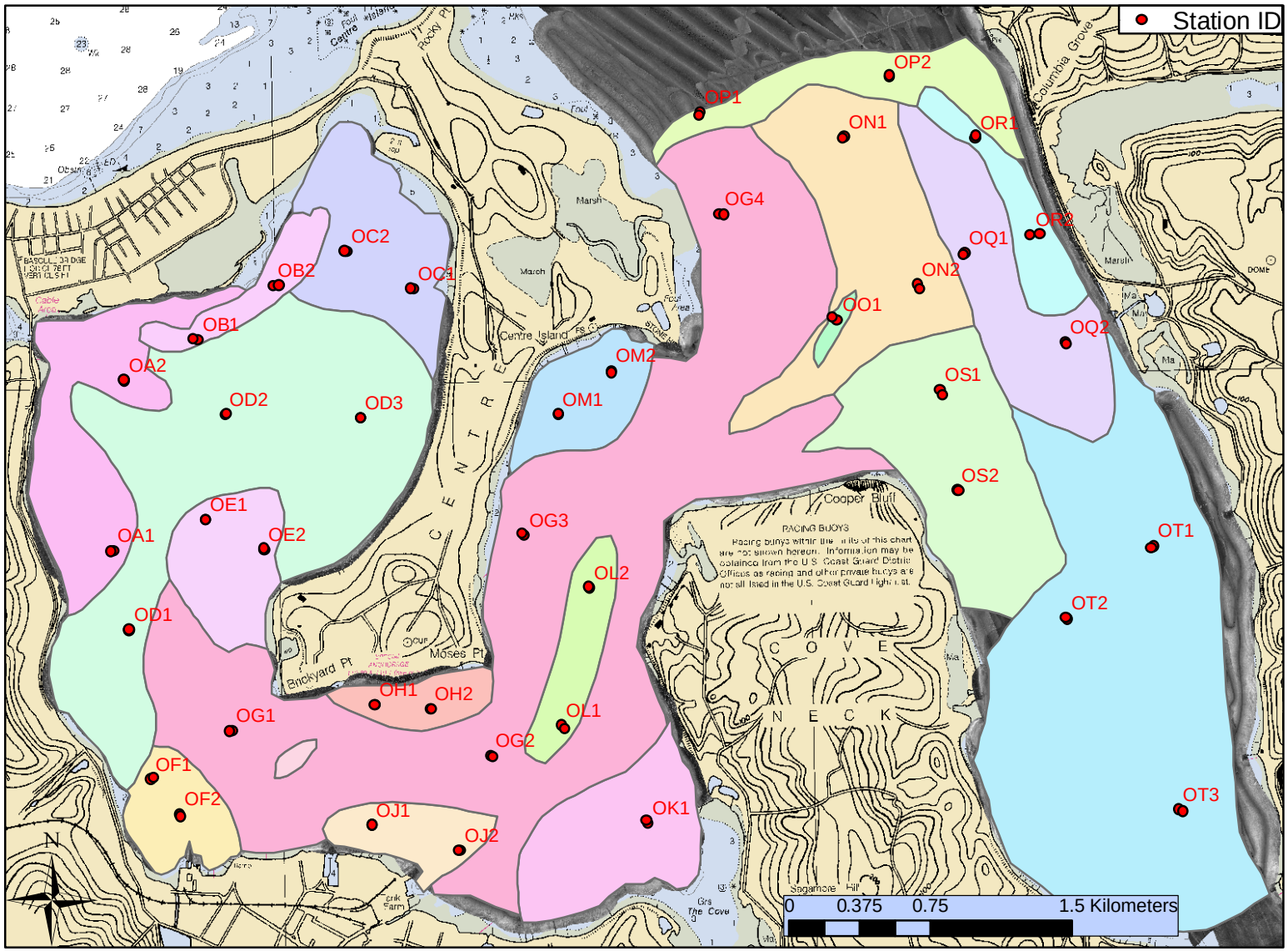


Figure 2. Oyster Bay initial geophysical provinces and sampling station locations.

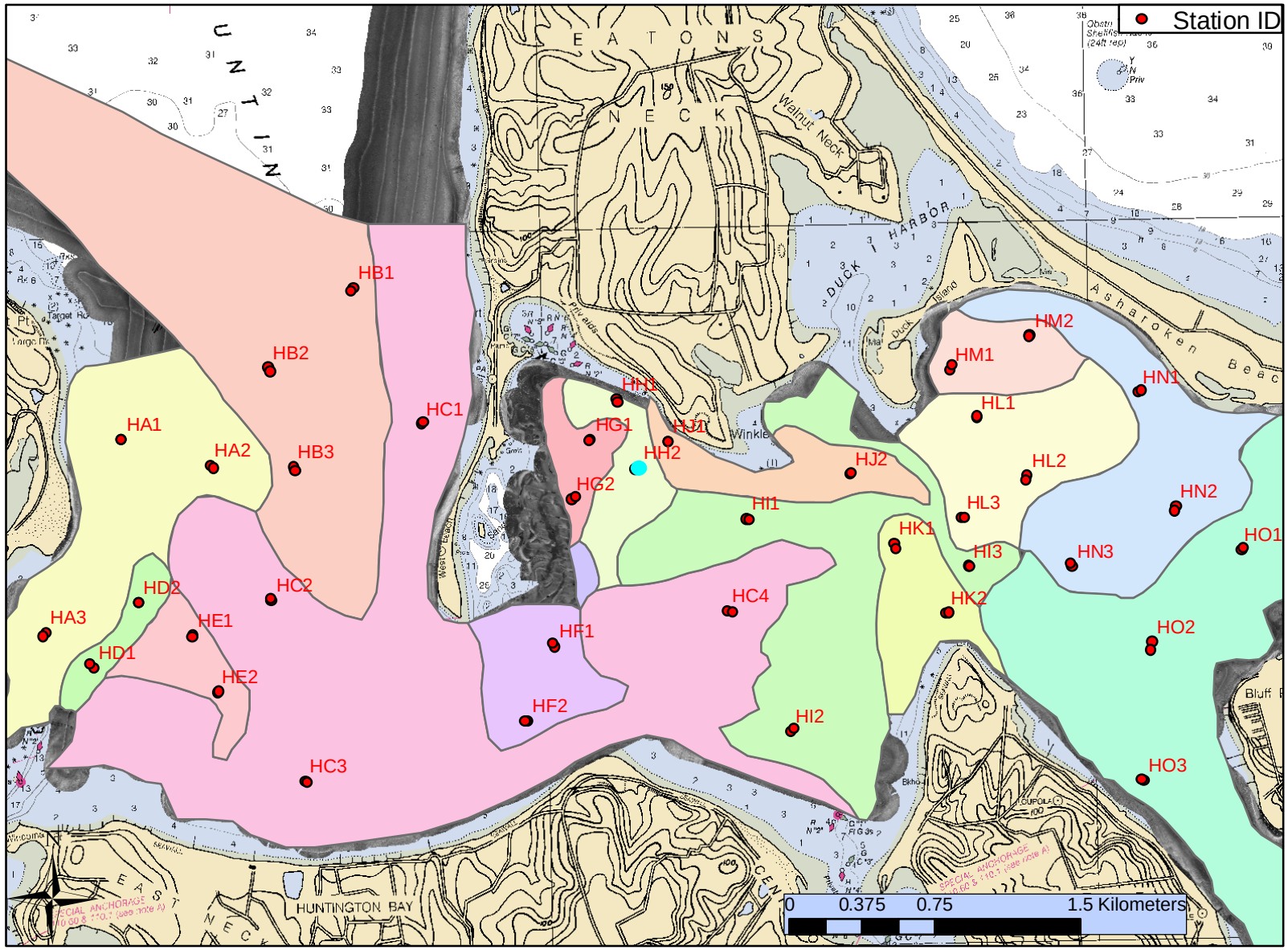


Figure 3. Huntington Bay initial geophysical provinces and sampling station locations.

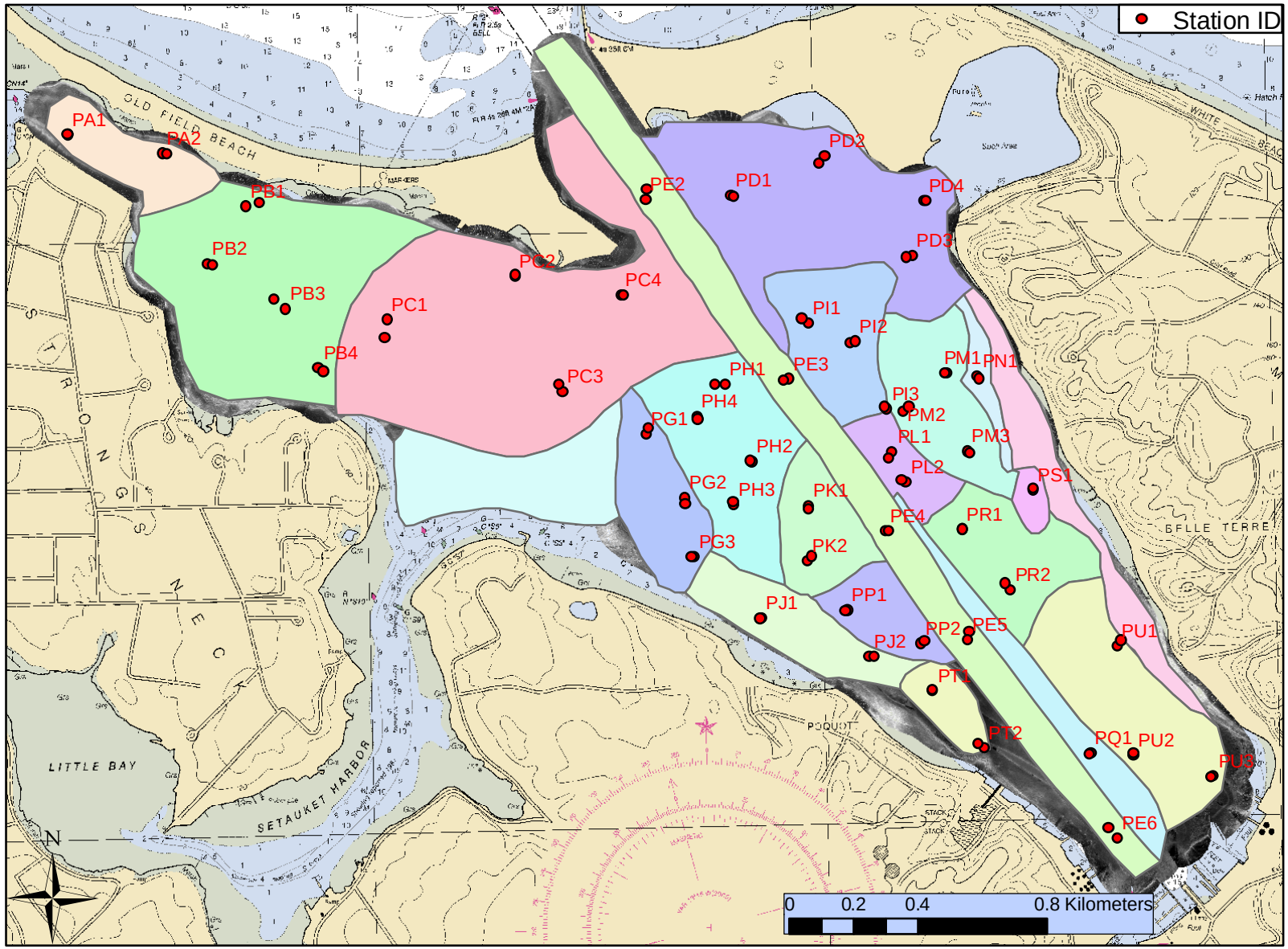


Figure 4. Port Jefferson Harbor initial geophysical provinces and sampling station locations.

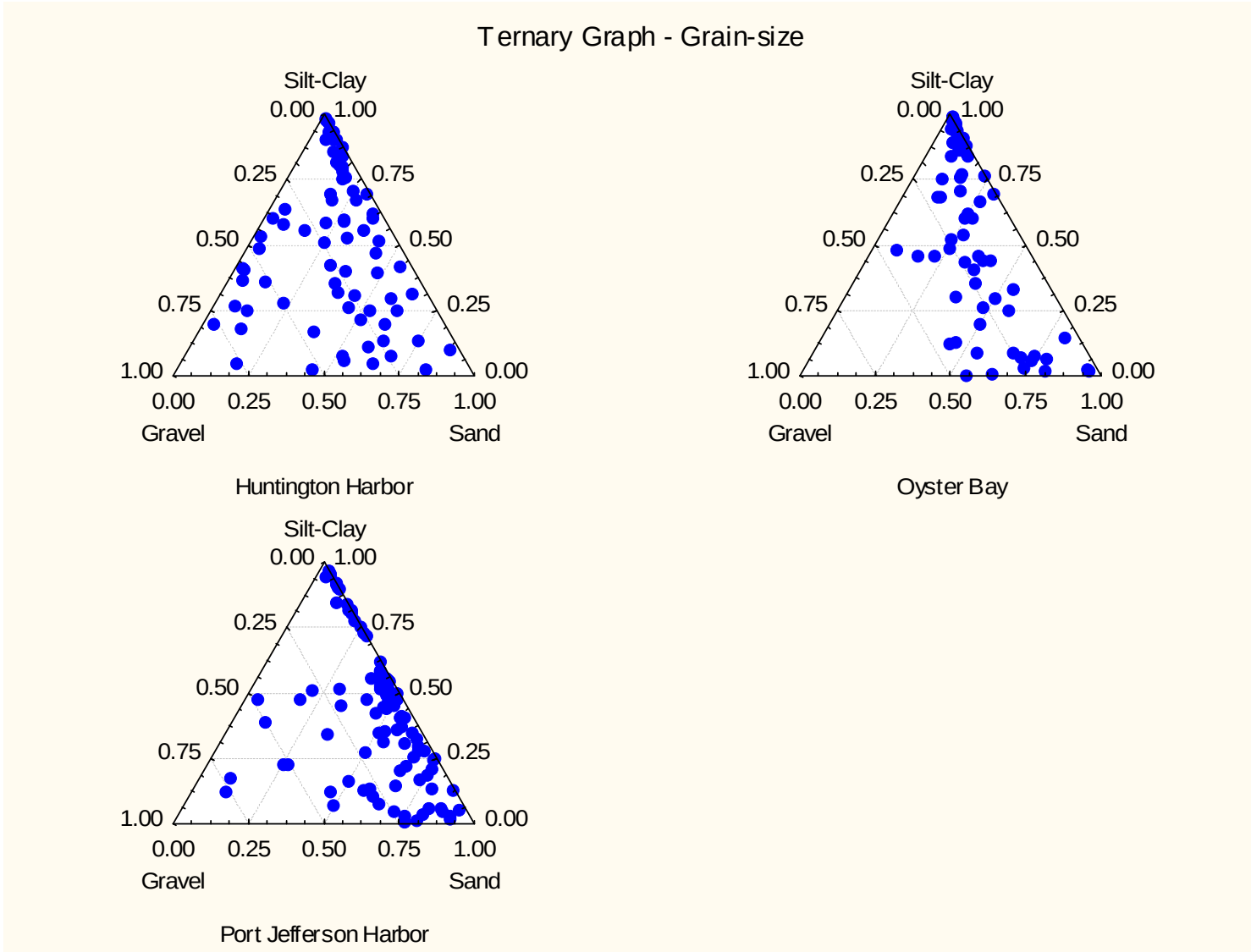


Figure 5. Ternary plots of sediment data.

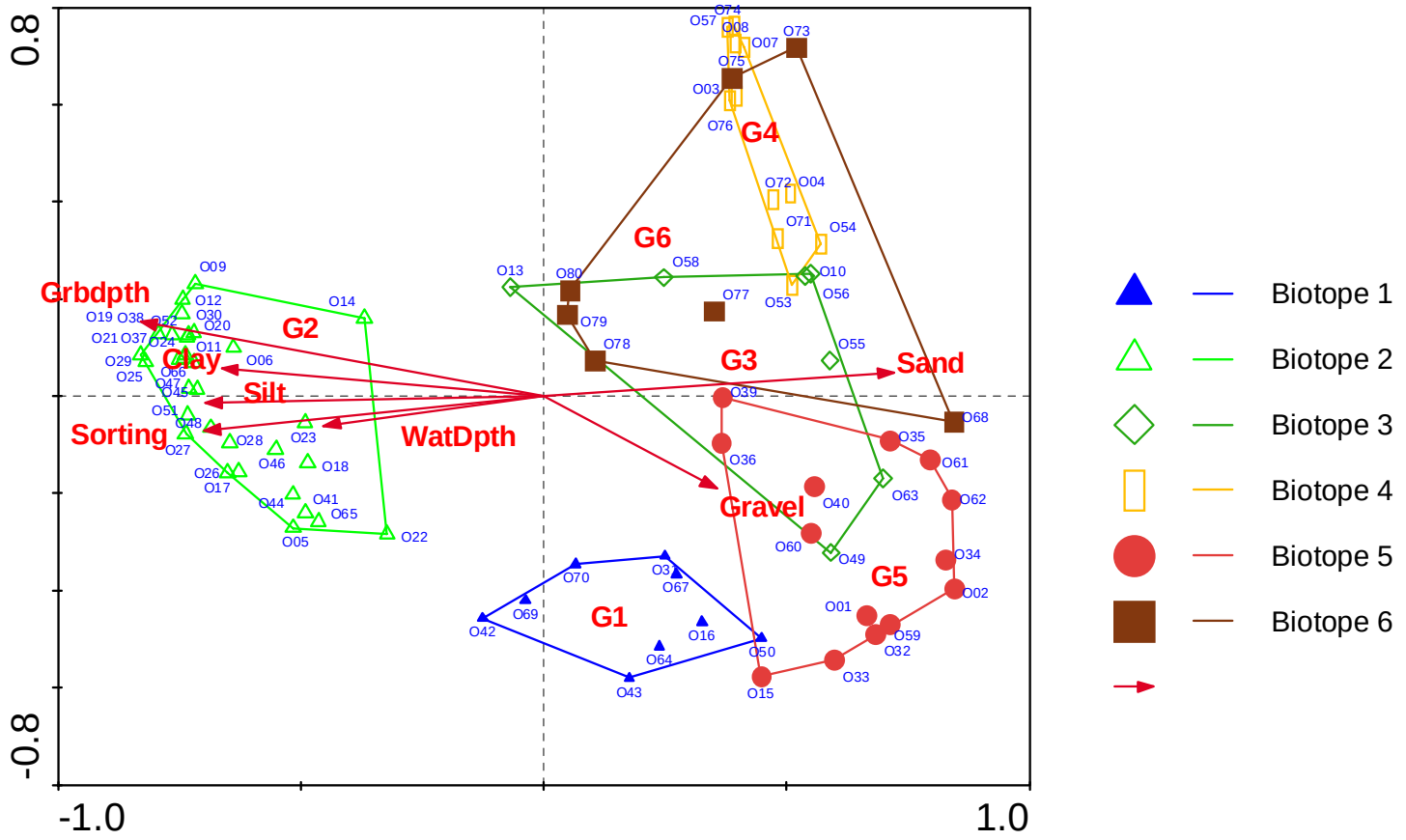


Figure 6. RDA analysis in Oyster Bay. Sample labels are plotted next to points. Samples are colored by membership in the 6 biotope clusters. Sample proximity implies similarity.

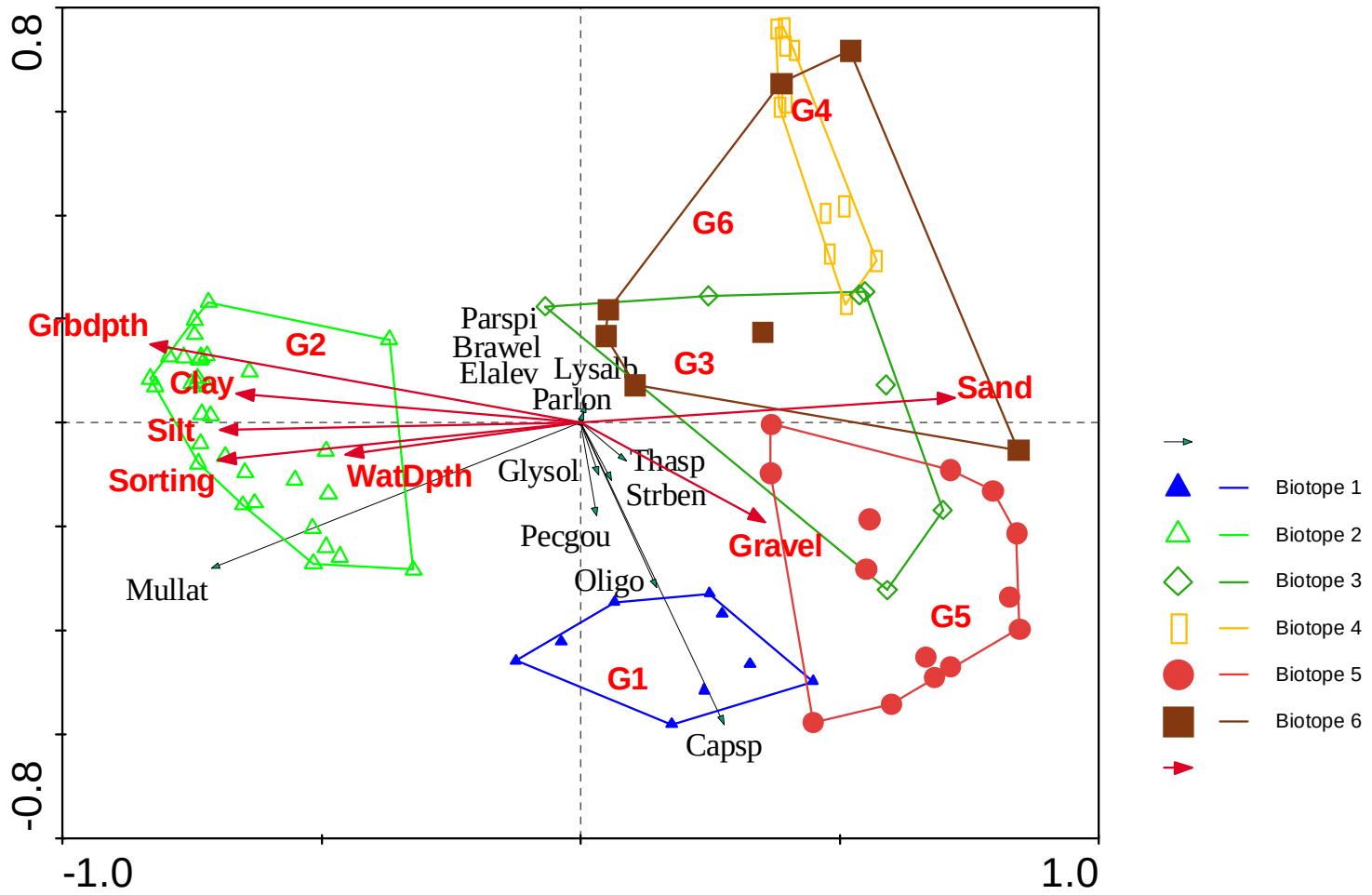


Figure 7. RDA analysis of the Oyster Bay data. Sample points are organized by memberships in the 6 biotopes. Black species arrows point in the direction of the steepest increase across the diagram. Angles between species arrows indicate correlations between the species. Sample proximity implies similarity. The 12 species listed are those for which 15% or greater of their variance is displayed in these first two dimensions.

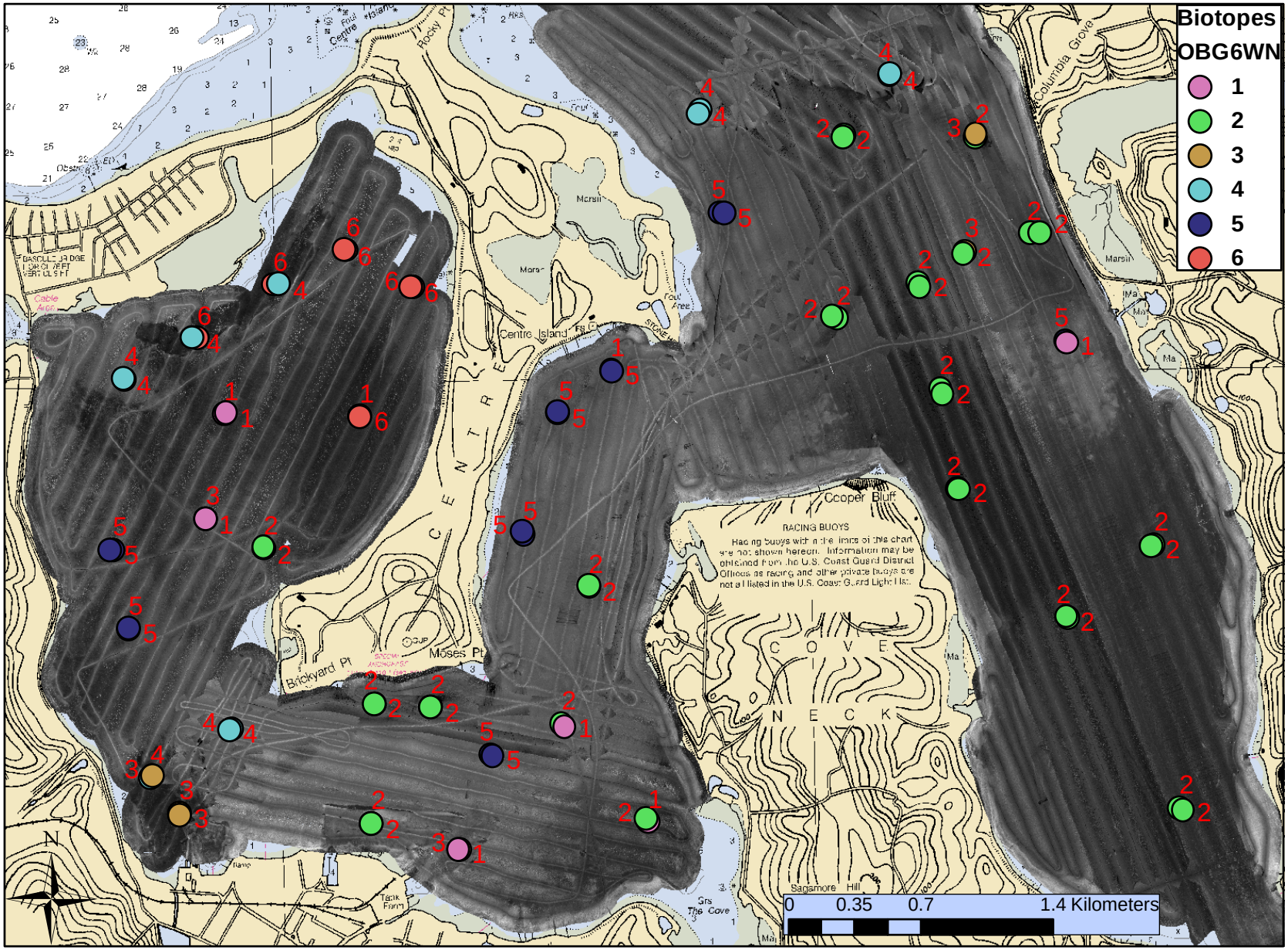


Figure 8. Biotope assignments for each sample in Oyster Bay.

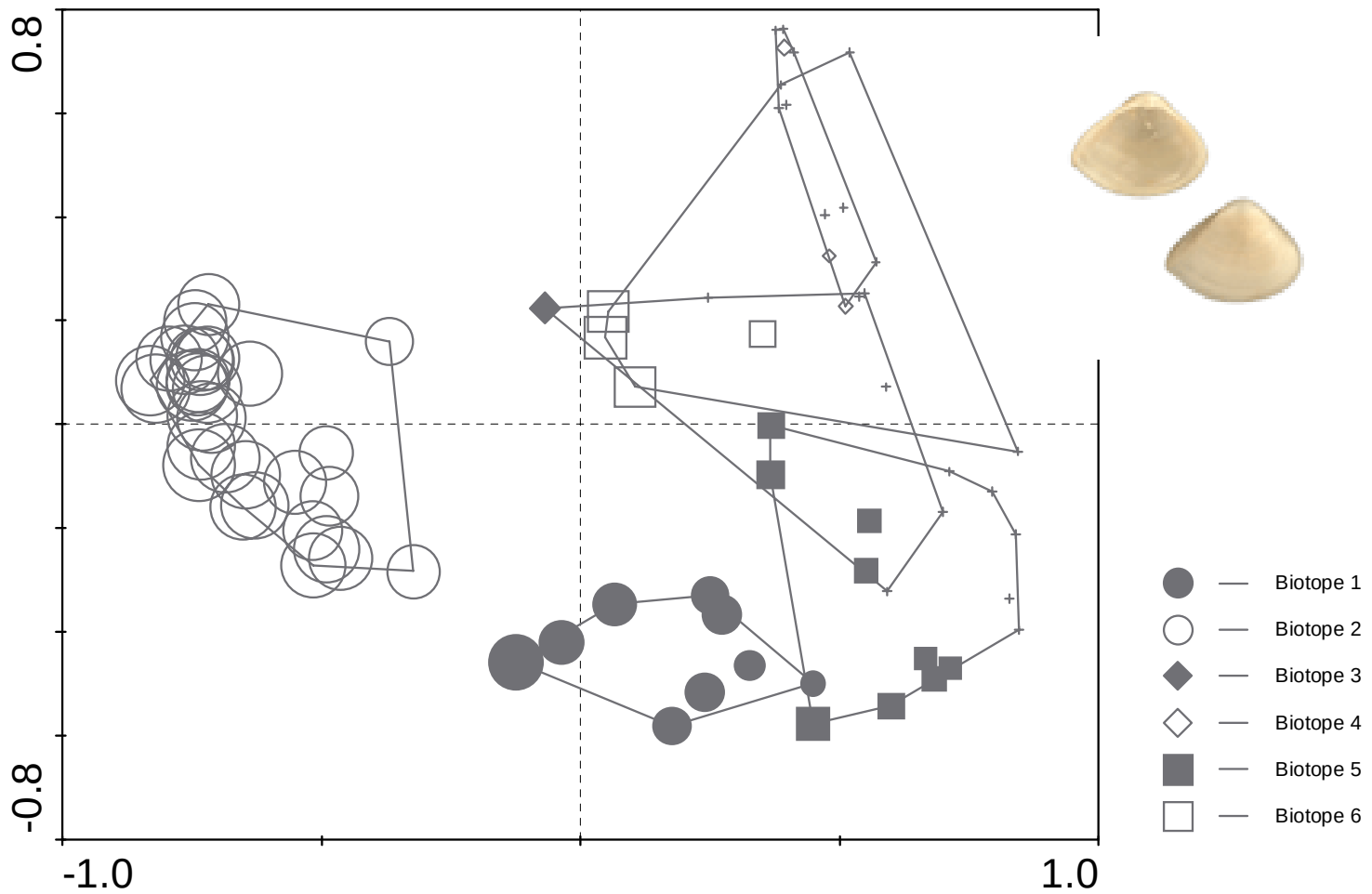


Figure 9. Relative abundance of the dwarf surf clam, *Mulinia lateralis* in the Oyster Bay biotopes. Points represent samples. Symbol diameters are proportional to relative abundance.

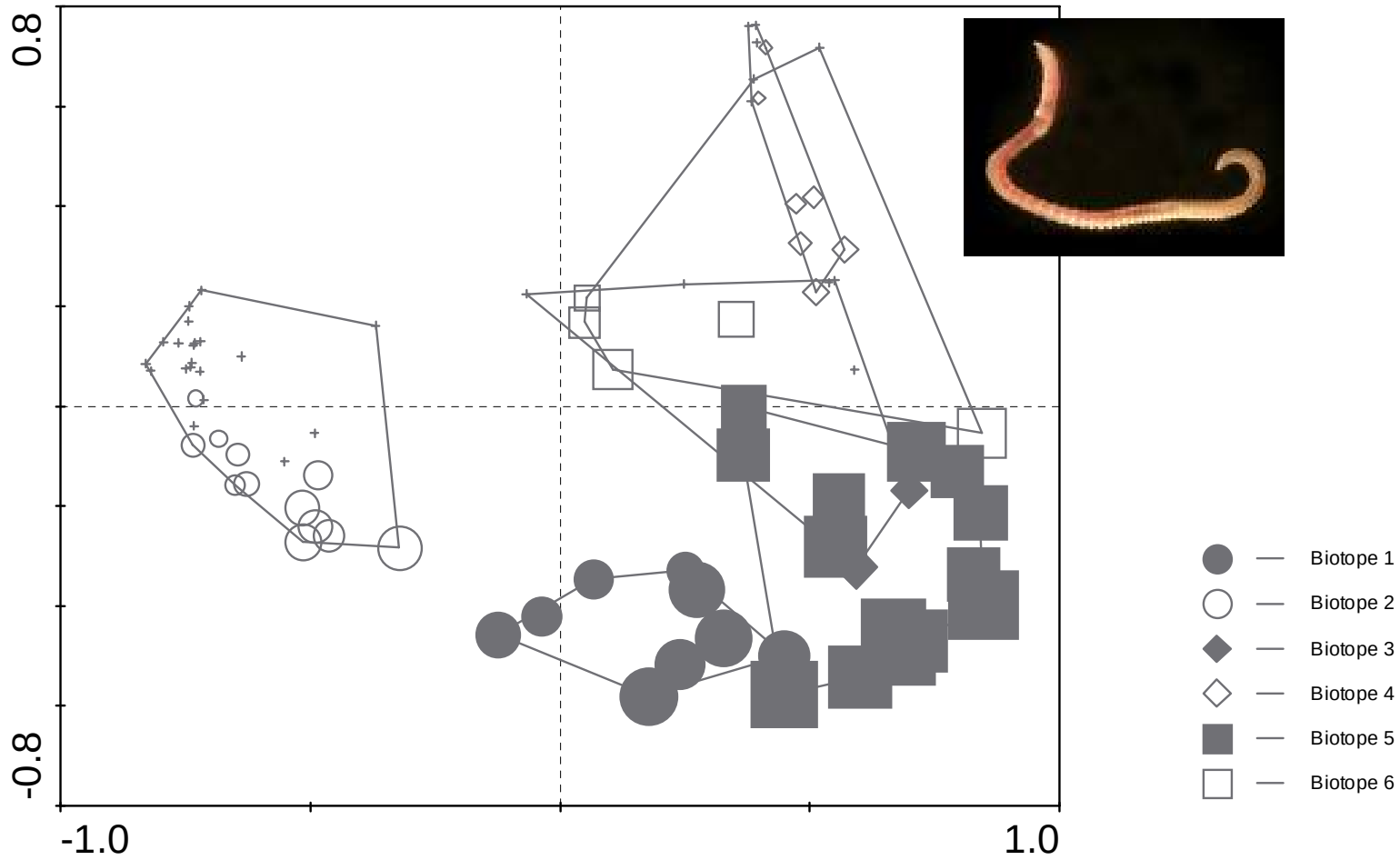


Figure 10. Relative abundance of the capitellid polychaete, *Capitella* sp in the Oyster Bay biotopes. Points represent samples. Symbol diameters are proportional to relative abundance.

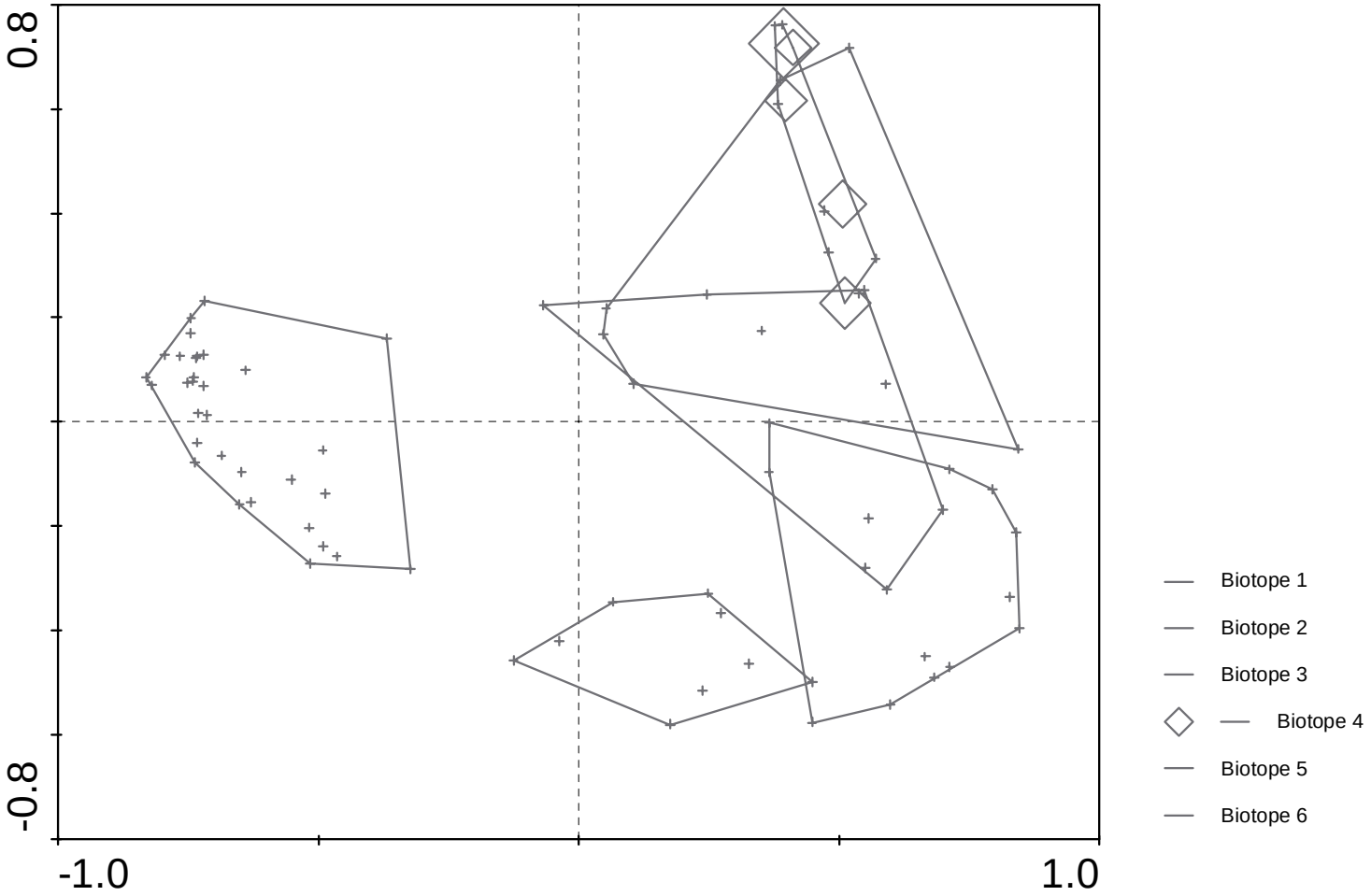


Figure 11. Relative abundance of the polychaete worm, *Parapionosyllis longicirrata* in the Oyster Bay biotopes. Points represent samples. Symbol diameters are proportional to relative abundance. This species was restricted to biotope 4.

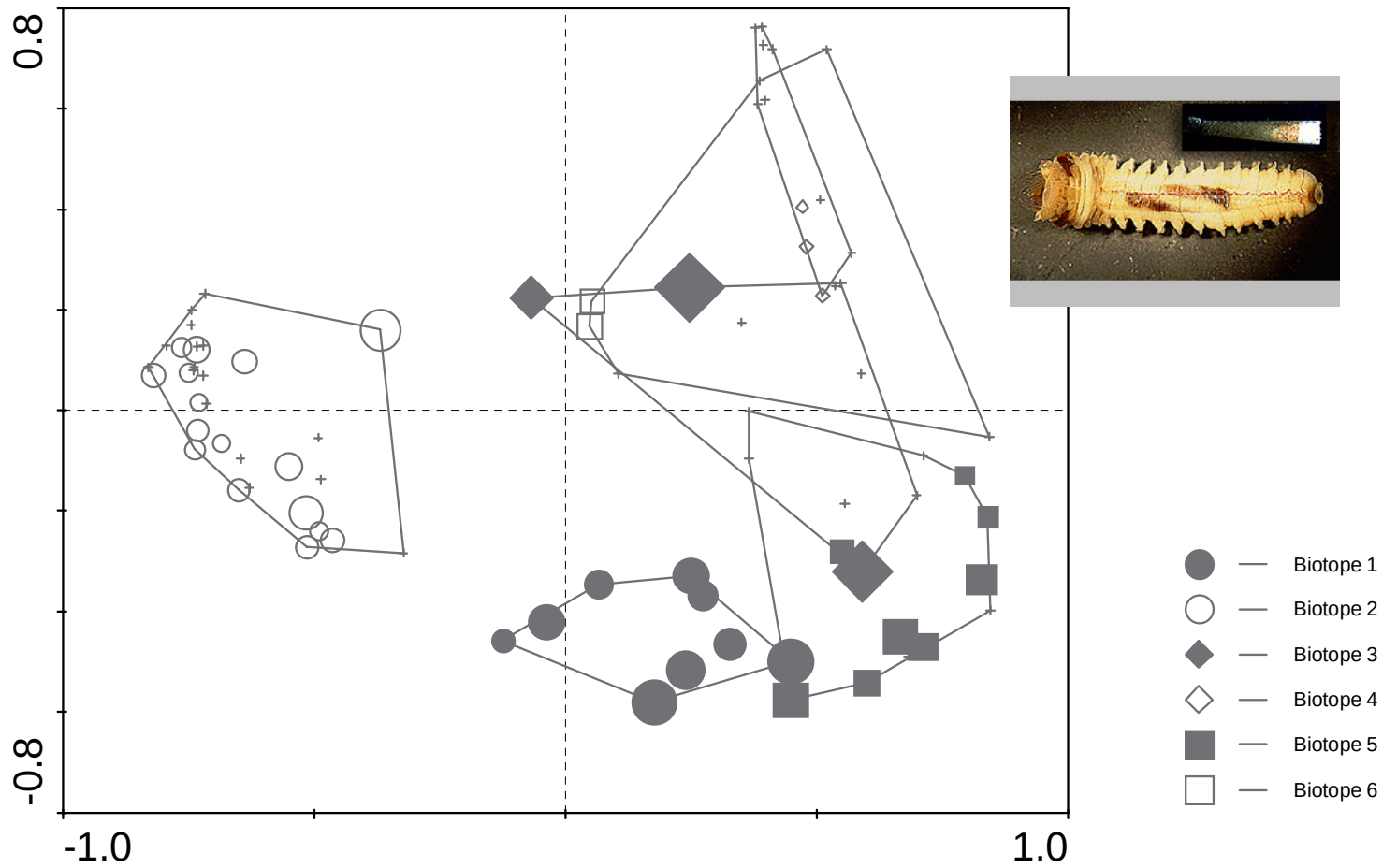


Figure 12. Relative abundance of the polychaete worm, *Pectinaria gouldii* in the Oyster Bay biotopes. Points represent samples. Symbol diameters are proportional to relative abundance. These worms were found in all biotopes but were most abundant in 1 and 5.

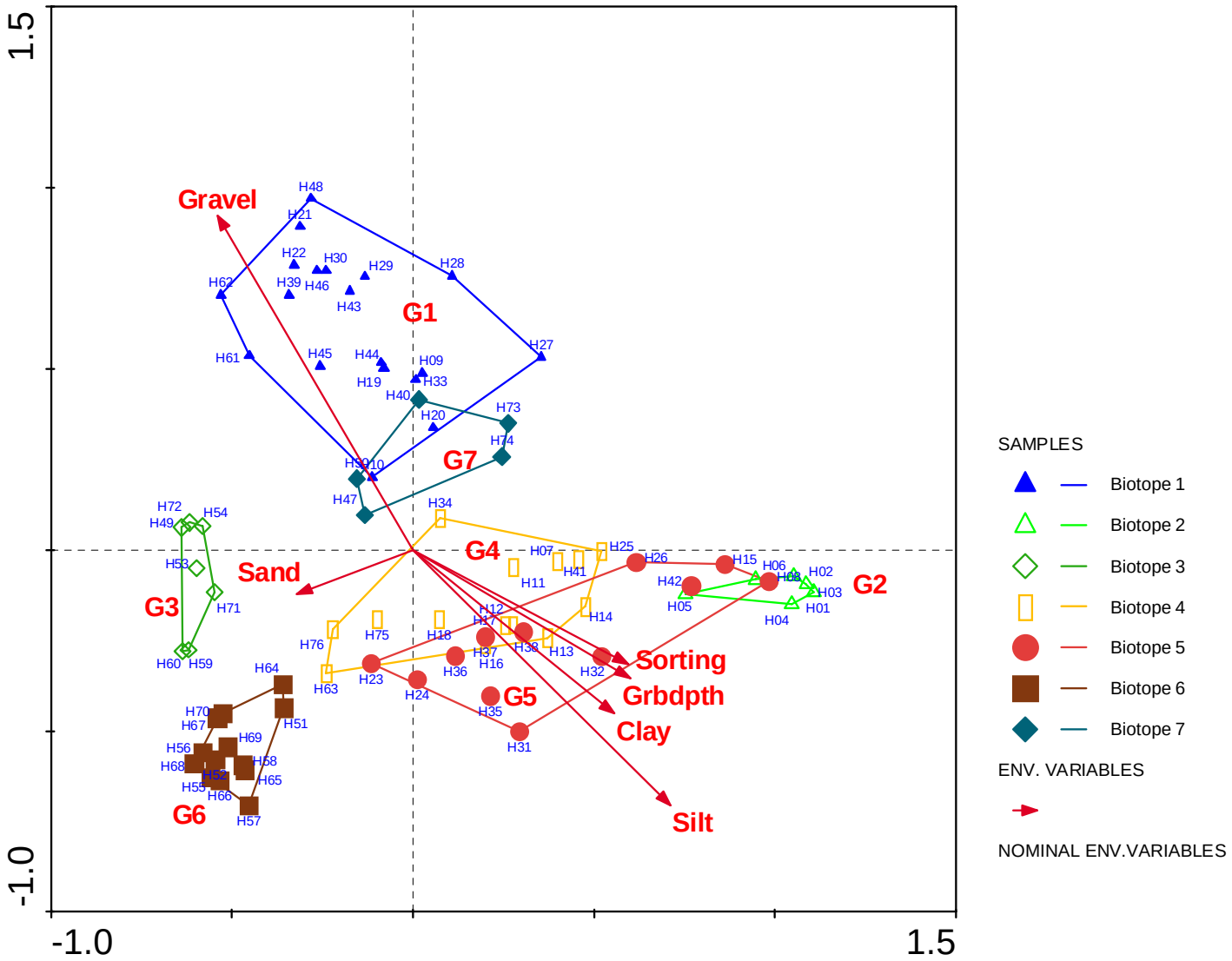


Figure 13. RDA analysis in Huntington Harbor. Sample labels are plotted next to points. Samples are colored by membership in the 6 biotope clusters. Sample proximity implies similarity.

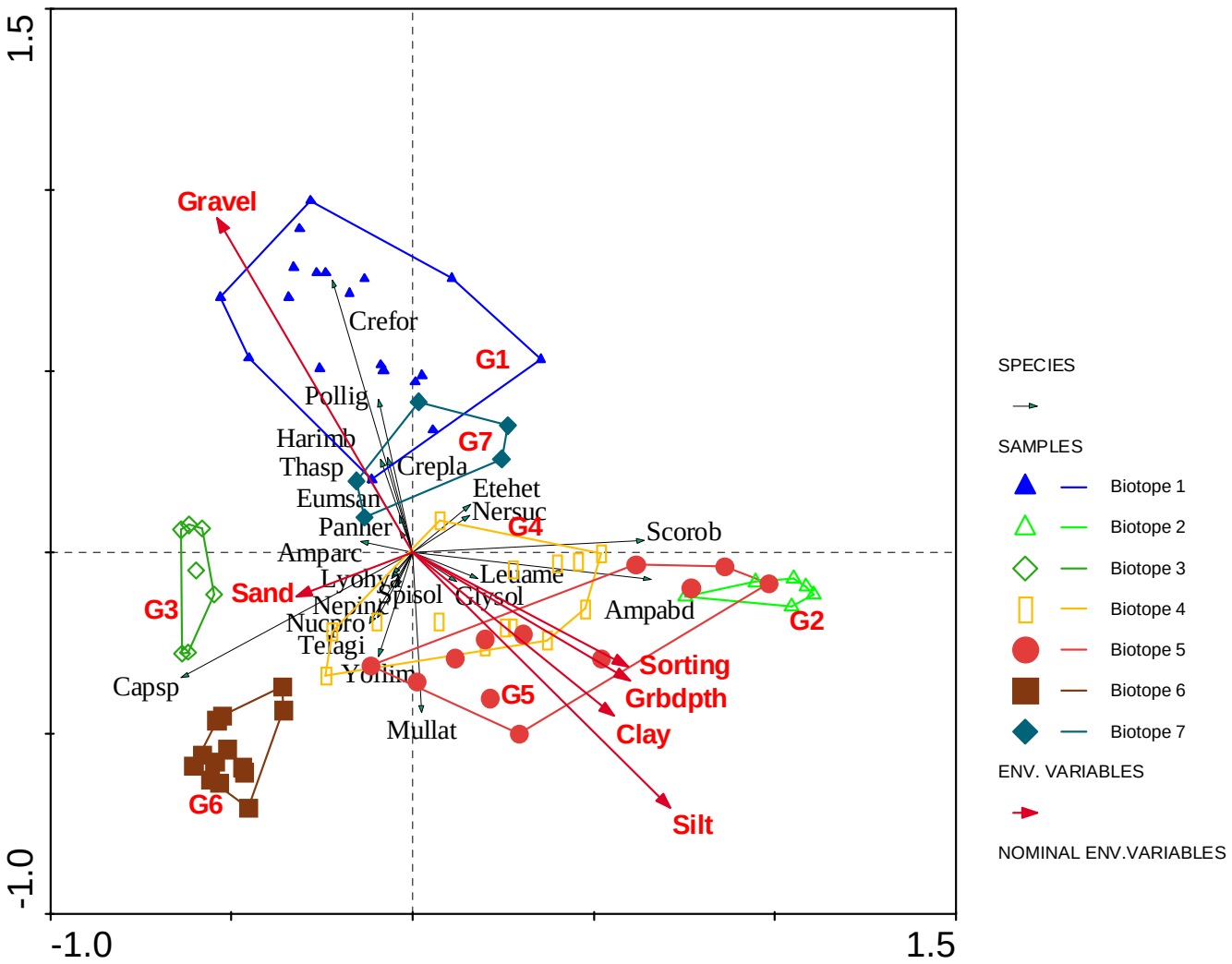


Figure 14. RDA analysis of the Huntington Harbor data. Sample points are organized by memberships in the 7 biotopes. Black species arrows point in the direction of the steepest increase across the diagram. Angles between species arrows indicate correlations between the species. Sample proximity implies similarity. The 22 species listed are those for which 15% or greater of their variance is displayed in these first two dimensions.

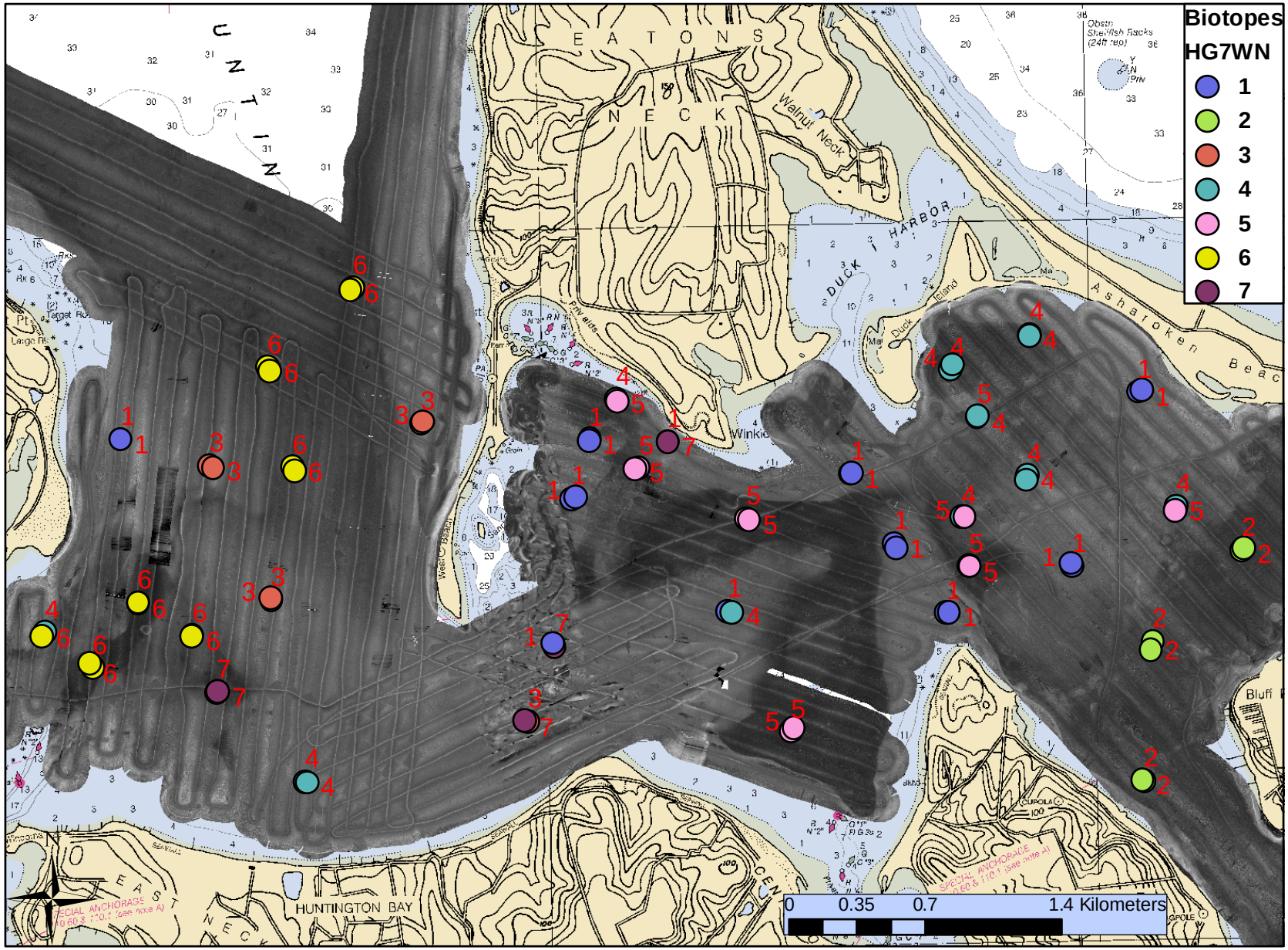


Figure 15. Biotope assignments for each sample in Huntington Harbor

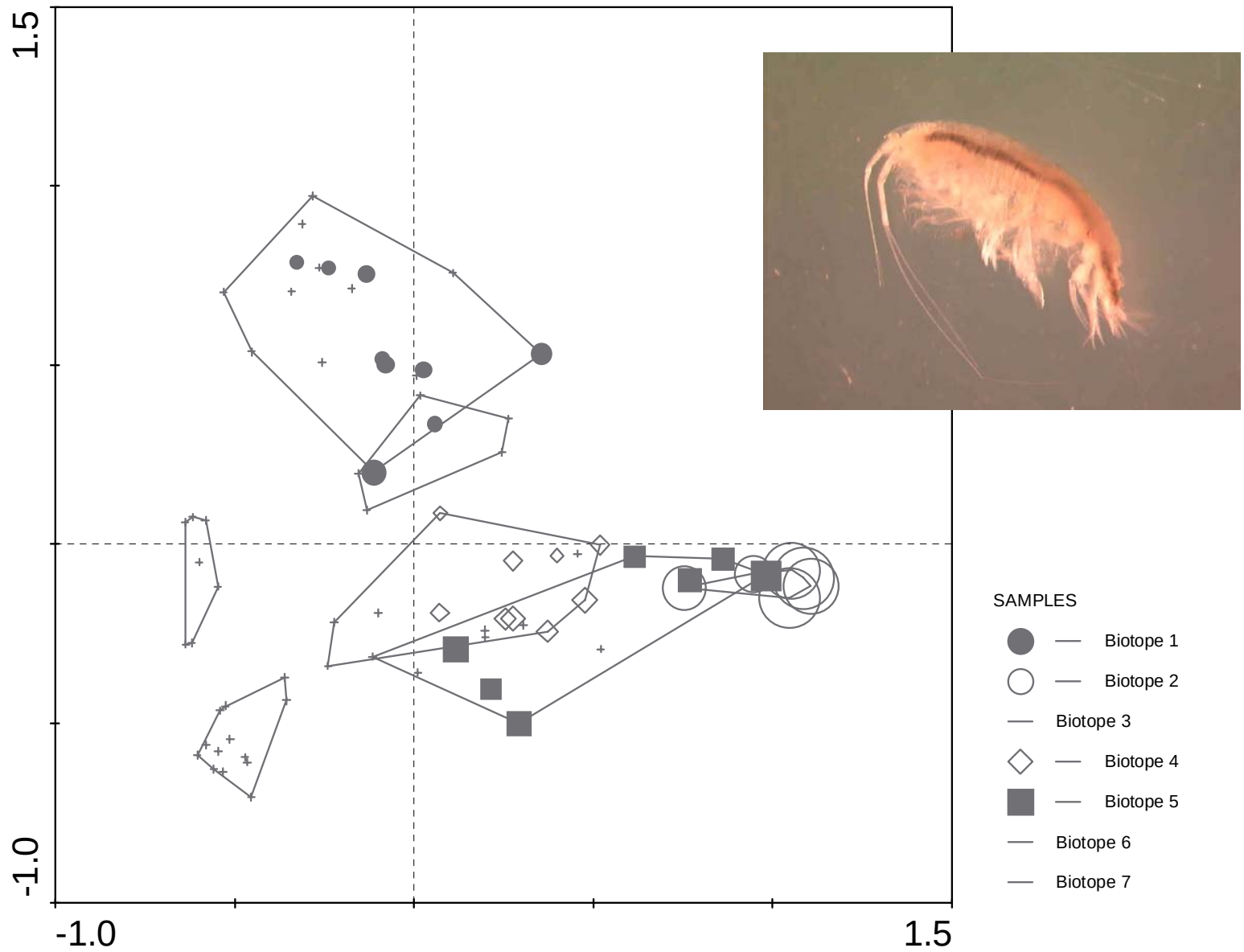


Figure 16. Relative abundance of the amphipod *Ampelisca abdita* in the Huntington Harbor biotopes. Points represent samples. Symbol diameters are proportional to relative abundance.

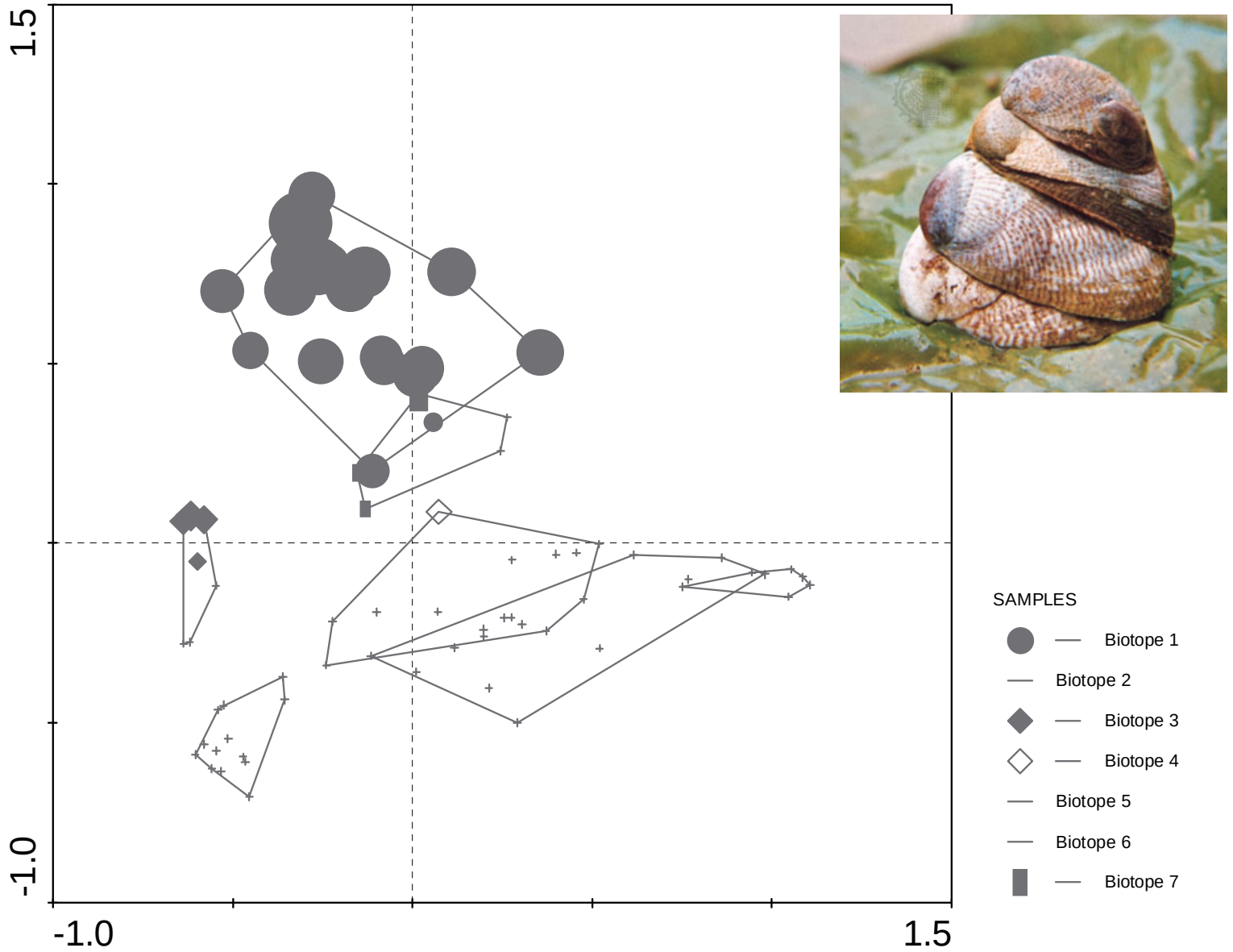


Figure 17. Relative abundance of the slipper shell *Crepidula fornicata* in the Huntington Harbor biotopes. Points represent samples. Symbol diameters are proportional to relative abundance.

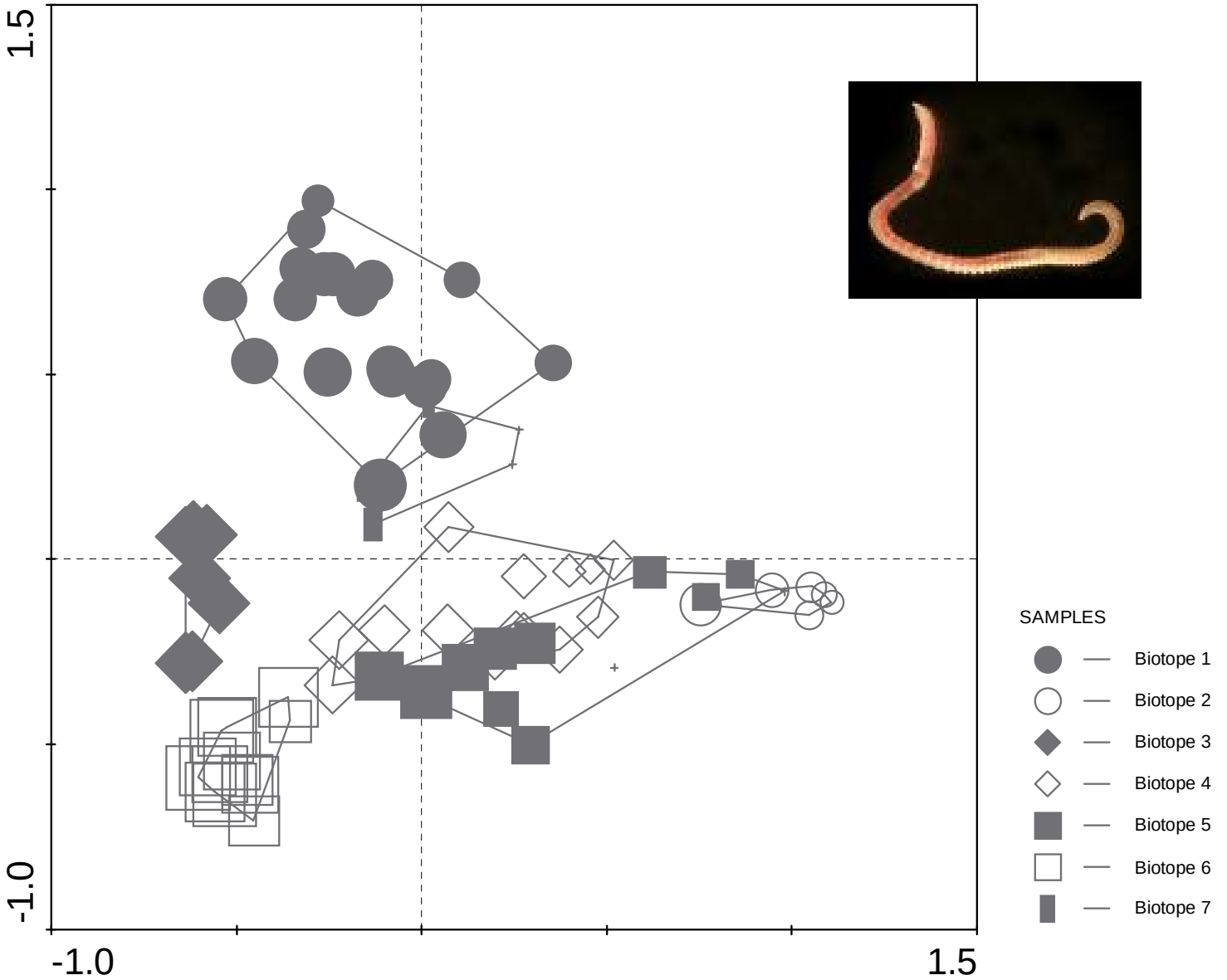


Figure 18. Relative abundance of the opportunistic polychaete *Capitella* sp in the Huntington Harbor biotopes. Points represent samples. Symbol diameters are proportional to relative abundance.

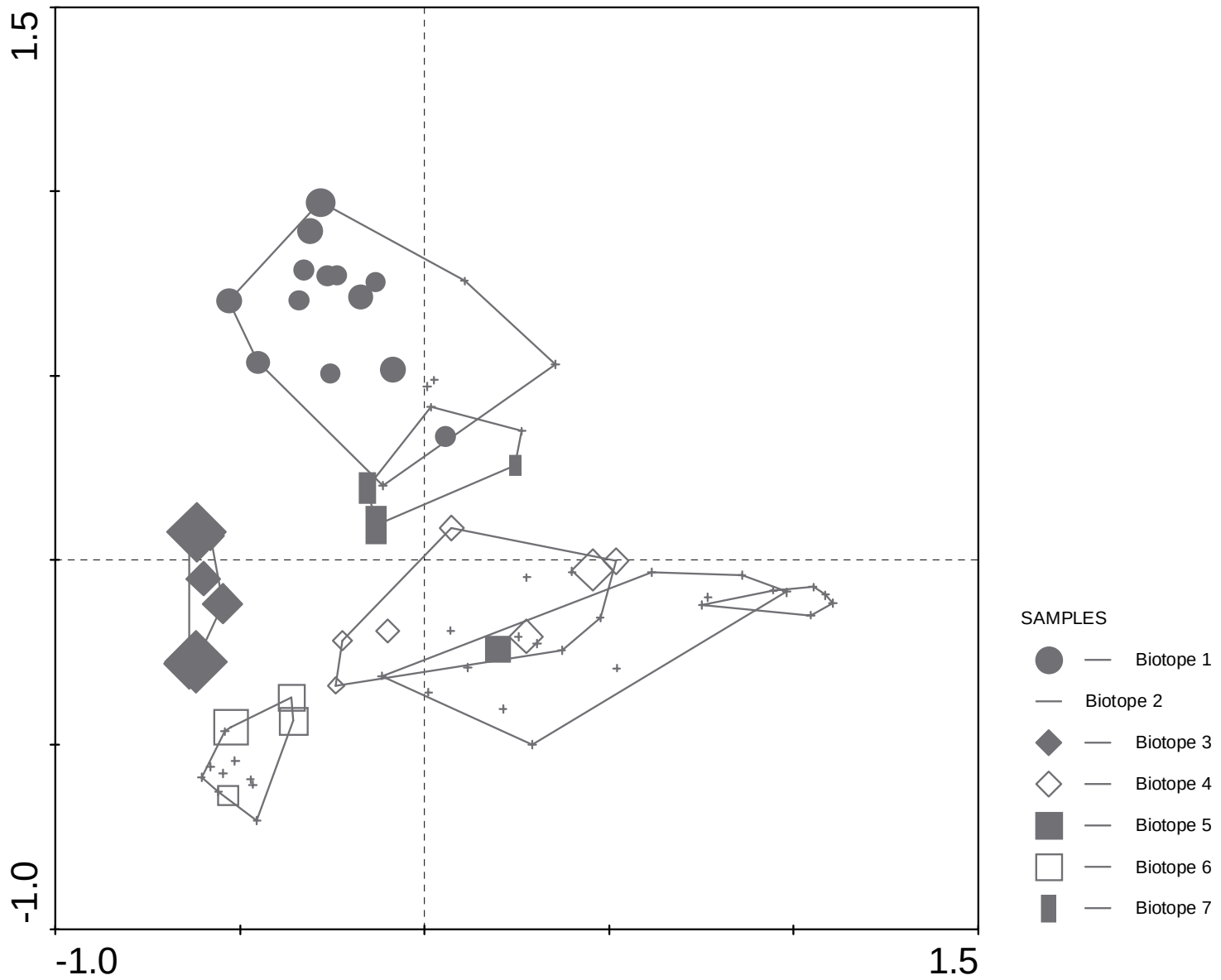


Figure 19. Relative abundance of the polychaete *Ampharete arctica* in the Huntington Harbor biotopes. Points represent samples. Symbol diameters are proportional to relative abundance

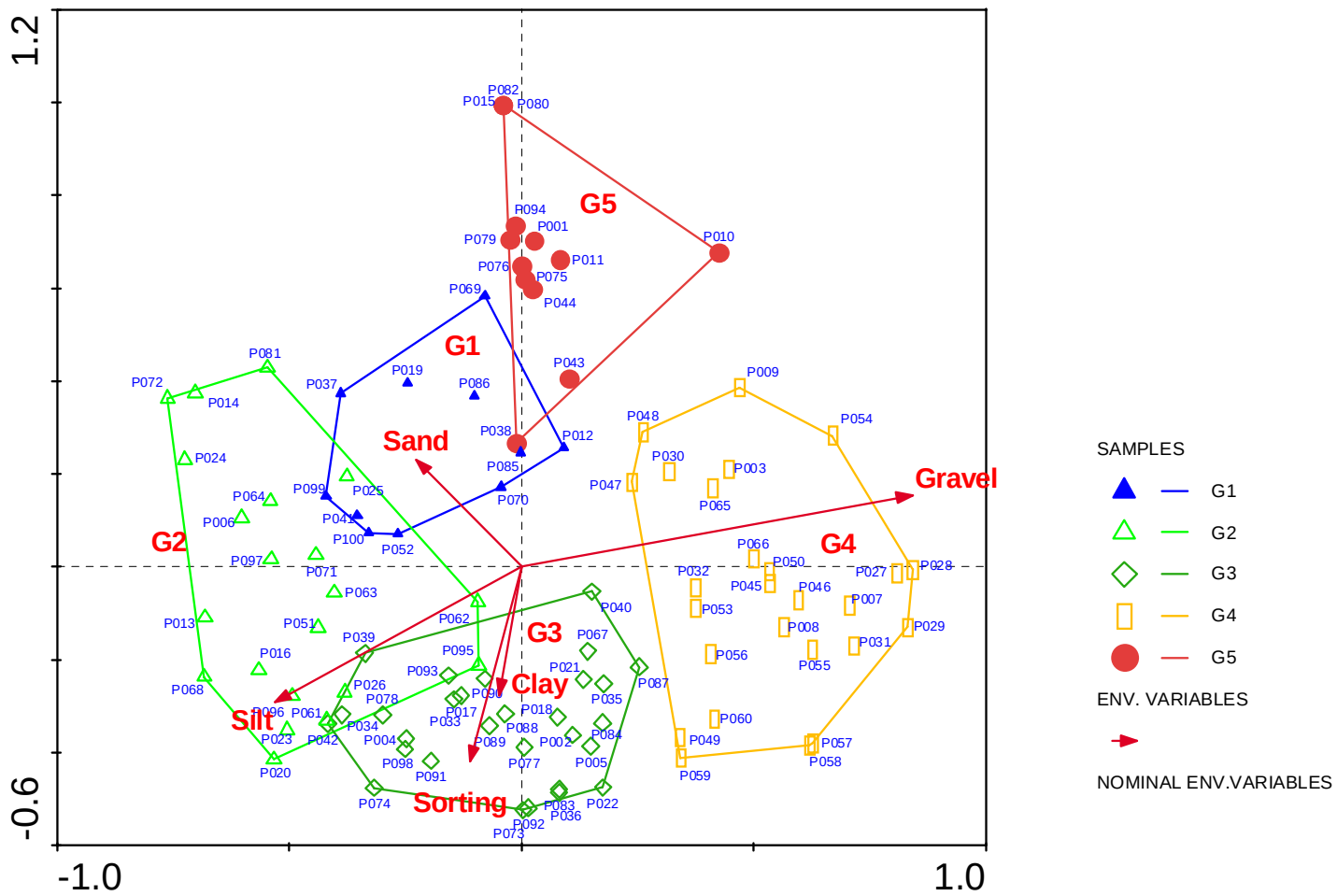


Figure 20. RDA analysis in Port Jefferson Harbor. Sample labels are plotted next to points. Samples are colored by membership in the 5 biotope clusters. Sample proximity implies similarity.

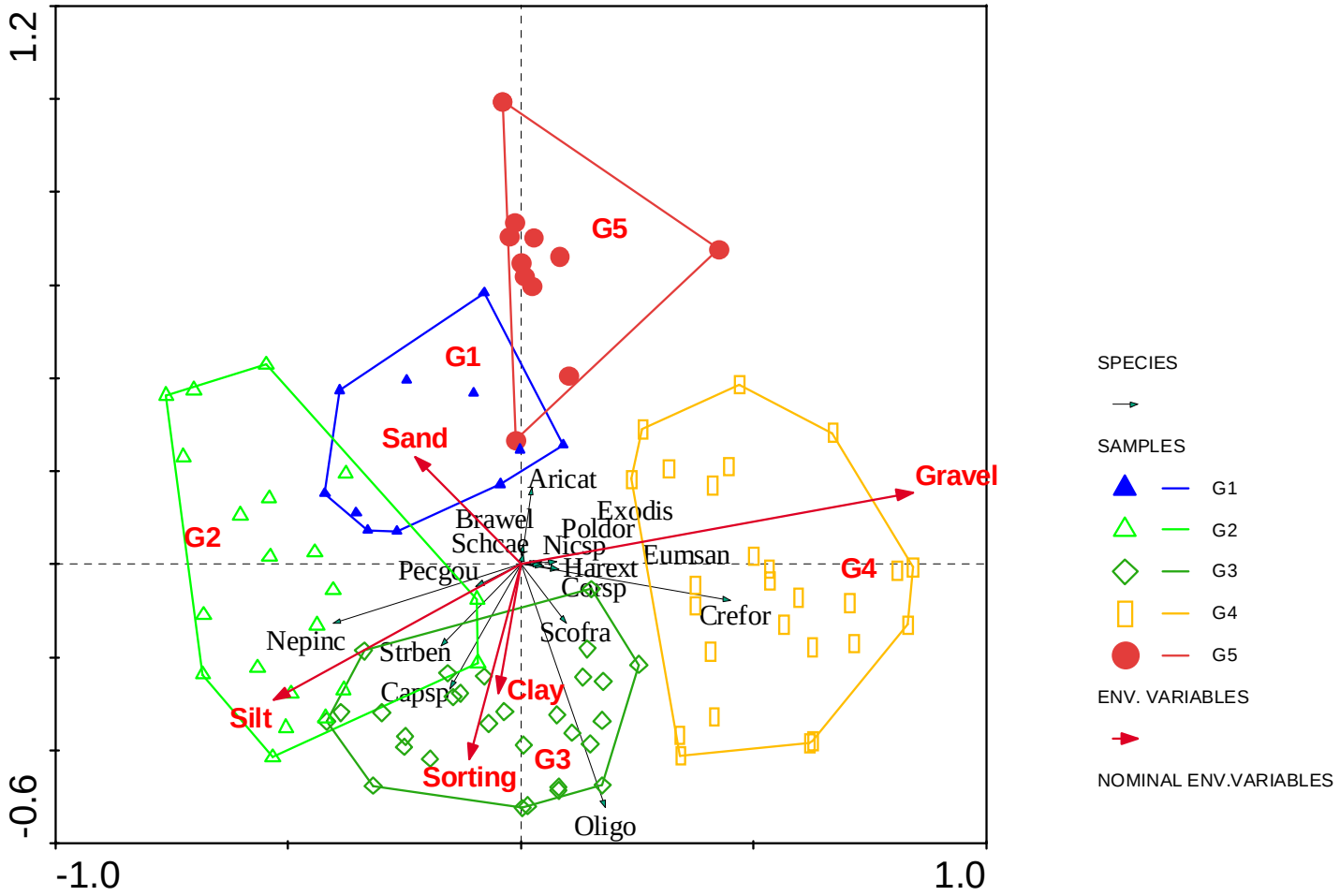


Figure 21. RDA analysis of the Port Jefferson Harbor data. Sample points are organized by memberships in the 5 biotopes. Black species arrows point in the direction of the steepest increase across the diagram. Angles between species arrows indicate correlations between the species. Sample proximity implies similarity. The 17 species listed are those for which 15% or greater of their variance is displayed in these first two dimensions.

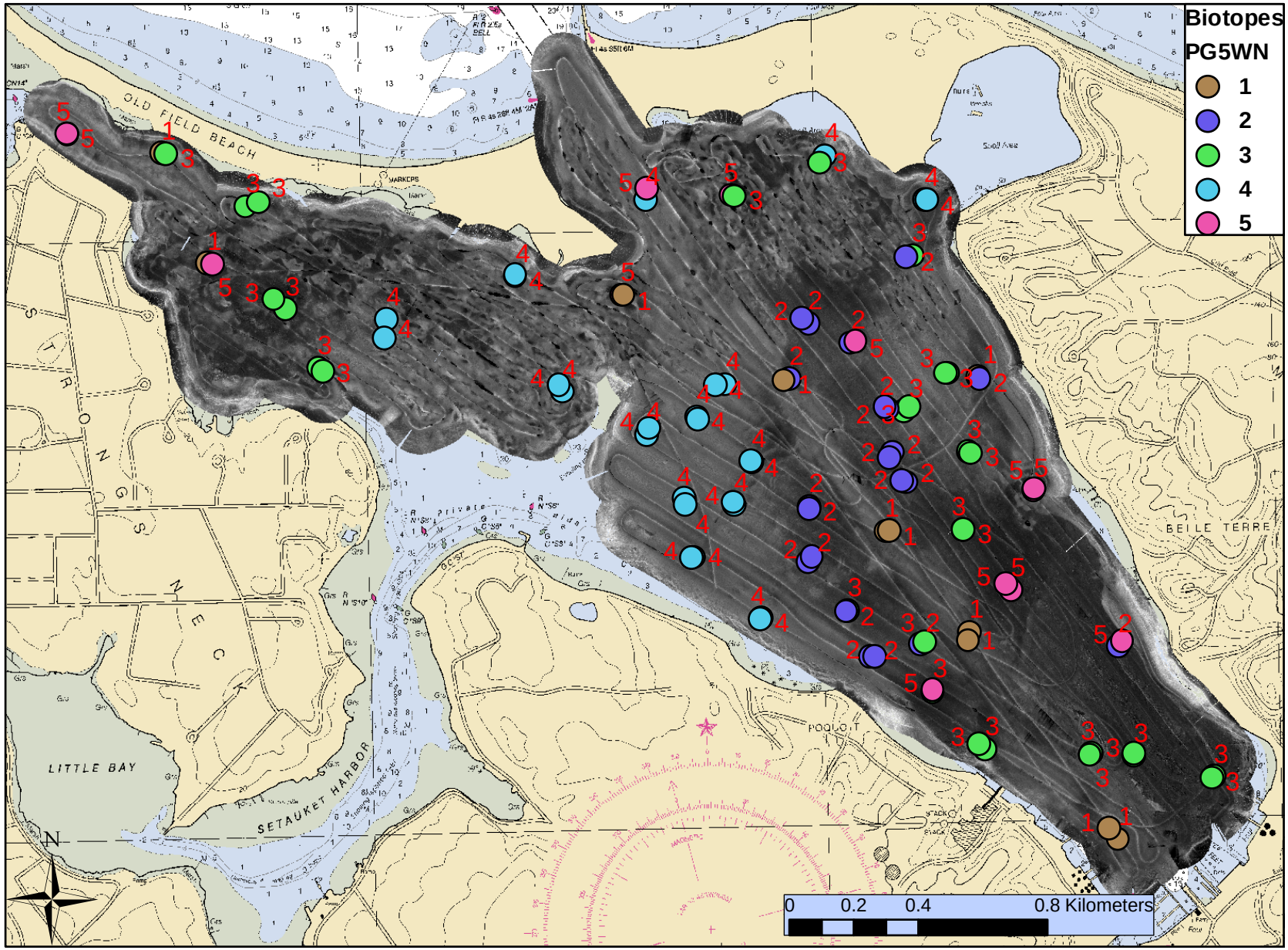


Figure 22. Biotope assignments for each sample in Port Jefferson Harbor

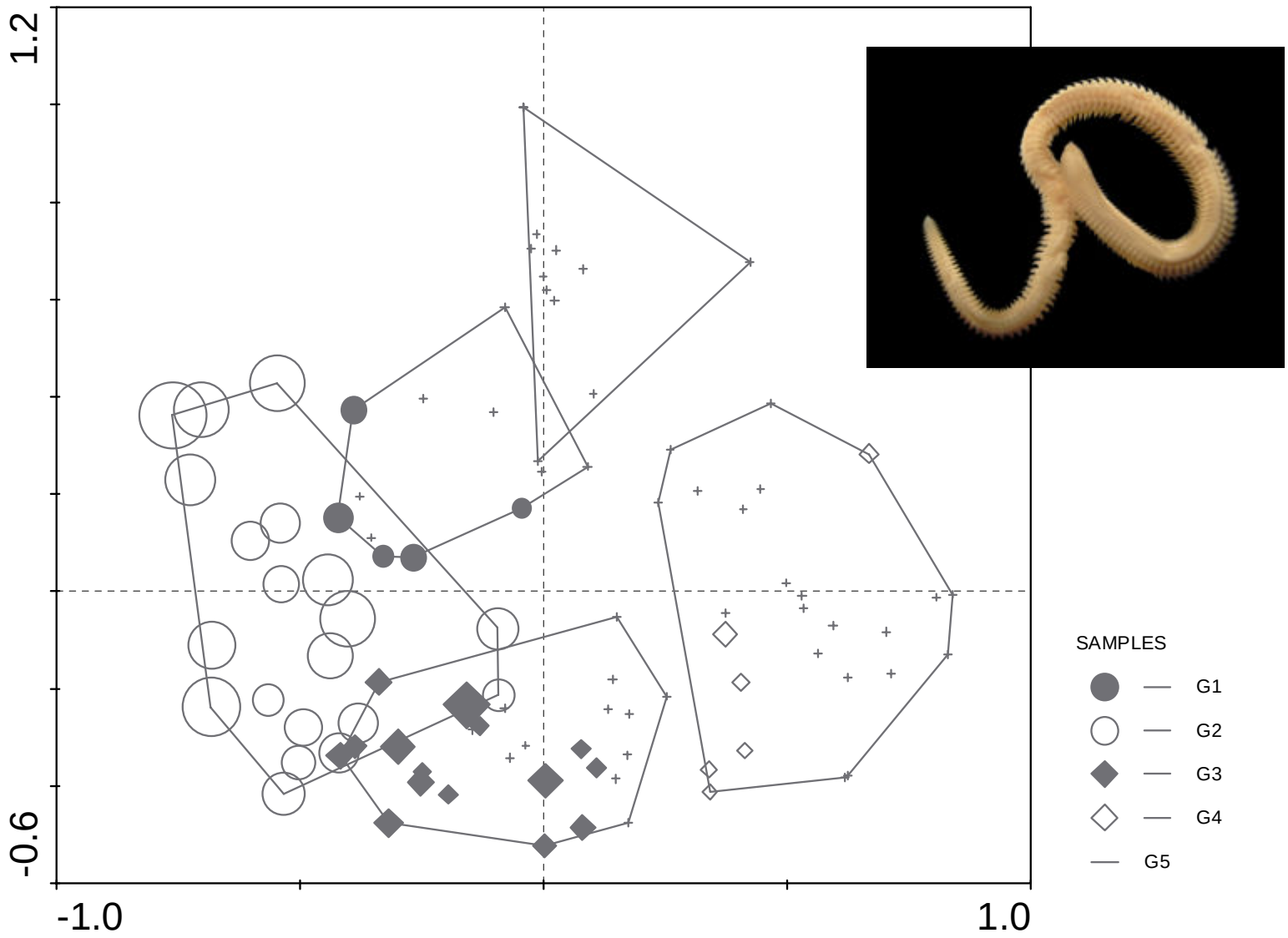


Figure 23. Relative abundance of the polychaete *Nepthys incisa* in the Port Jefferson Harbor biotopes. Points represent samples. Symbol diameters are proportional to relative abundance.

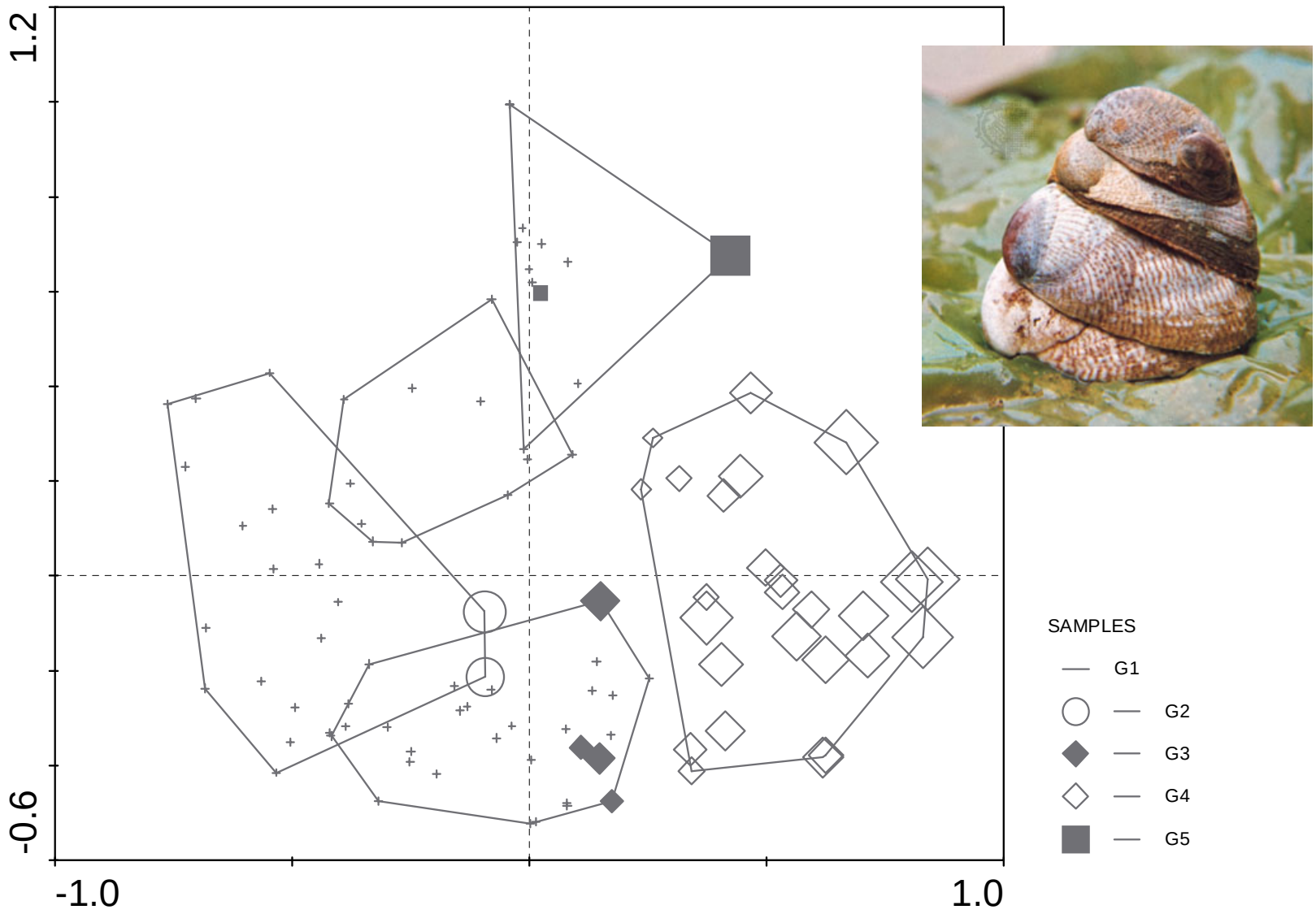


Figure 24. Relative abundance of the slipper shell *Crepidula fornicata* in the Port Jefferson Harbor biotopes. Points represent samples. Symbol diameters are proportional to relative abundance.

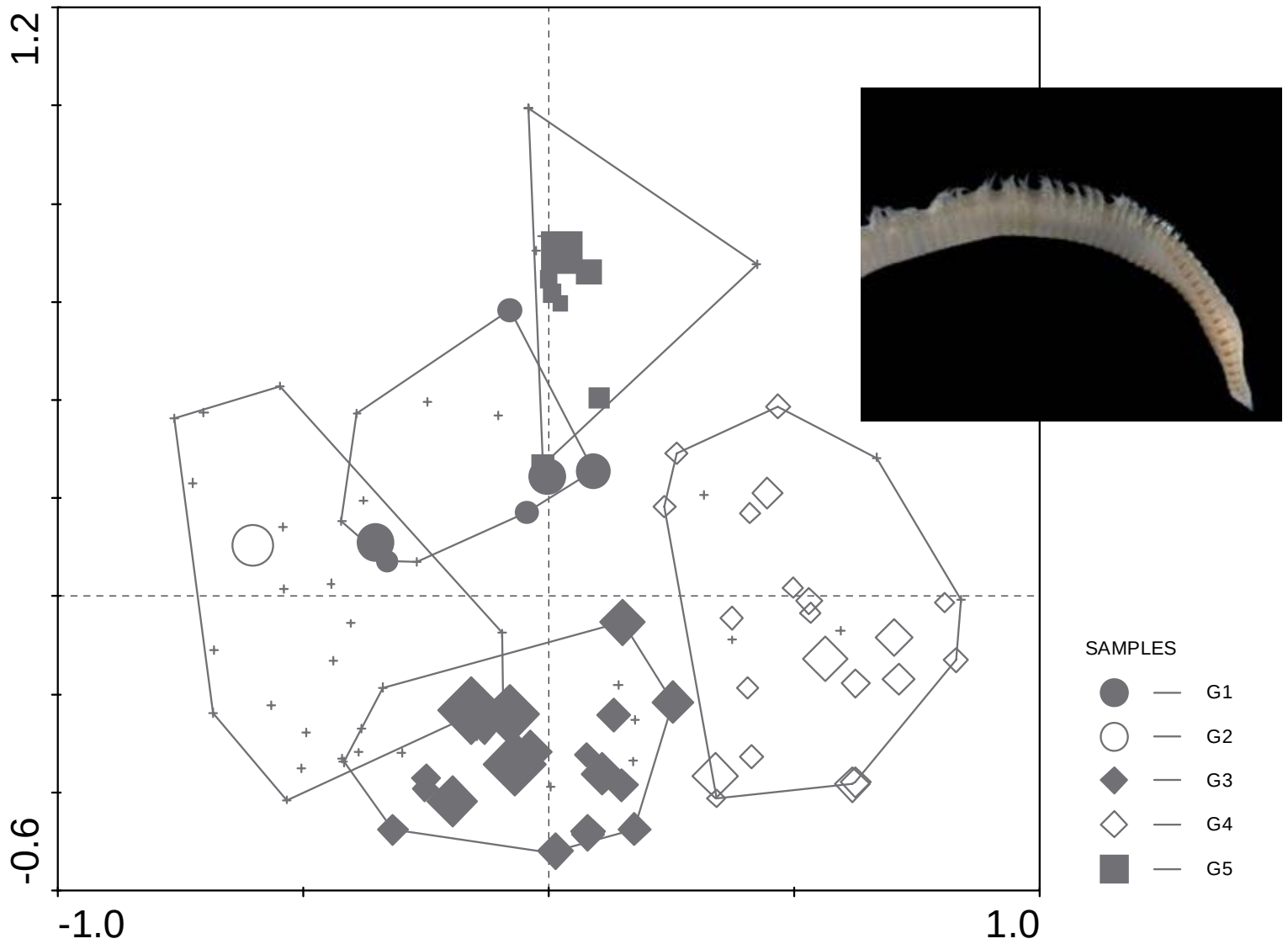


Figure 25. Relative abundance of orbiniid polychaete *Scoloplos fragilis* in the Port Jefferson Harbor biotopes. Points represent samples. Symbol diameters are proportional to relative abundance.

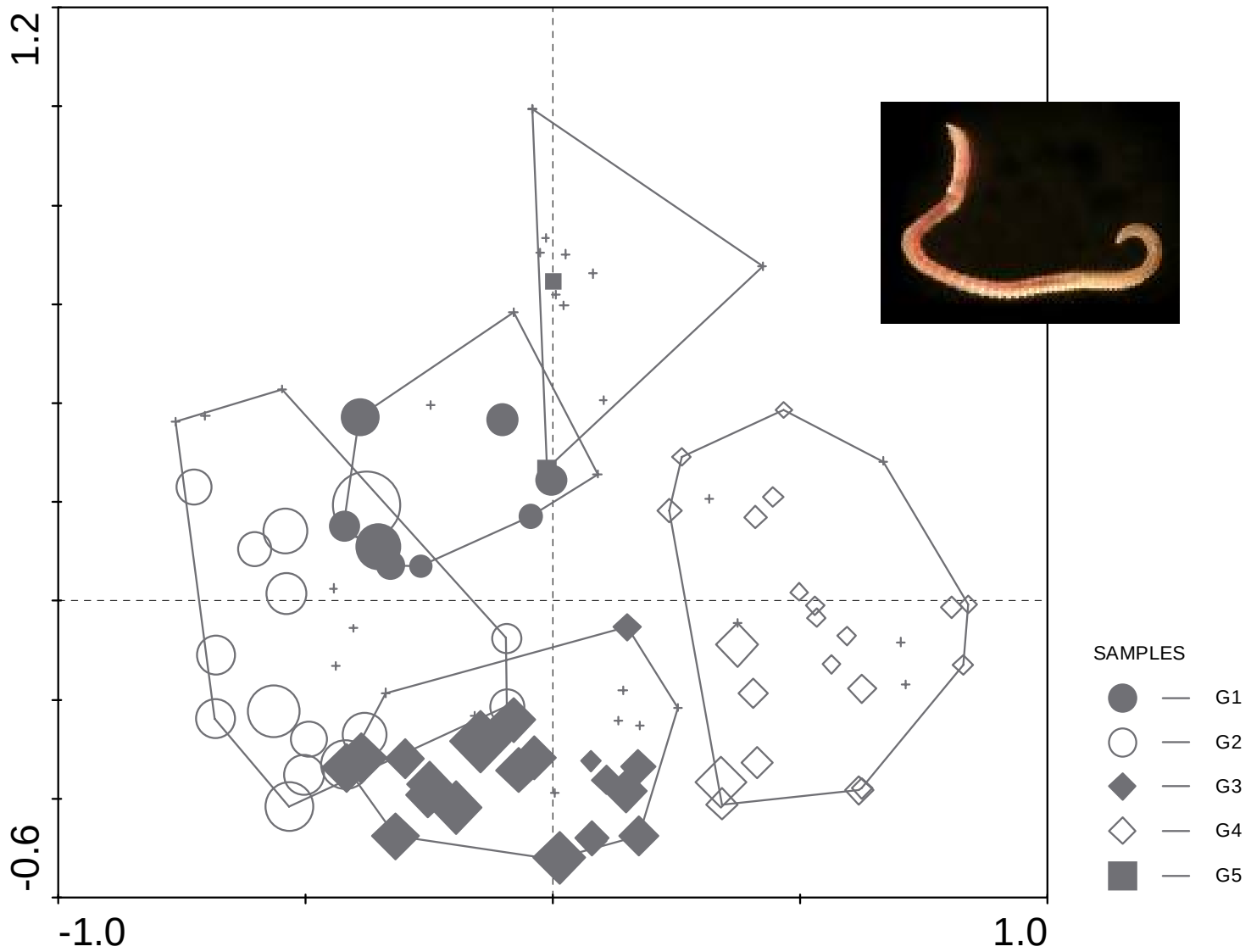
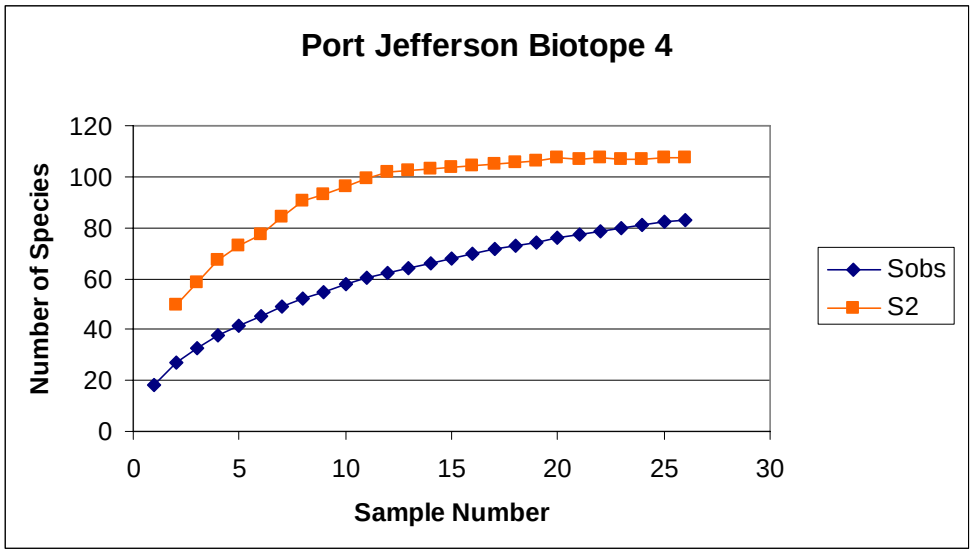


Figure 26. Relative abundance of capitellid polychaete *Capitella sp* in the Port Jefferson Harbor biotopes. Points represent samples. Symbol diameters are proportional to relative abundance.

Figure 27. Examples of species accumulation curves (S_{obs}) and estimated species richness based on the Chao 2 index (S_2^*). The S_2^* curve must level off for the index to yield a valid estimate of species richness. Left panel: For Port Jefferson Biotope 4 data set, the Chao 2 index has leveled off. Right Panel: For Port Jefferson Biotope 3 data set, the Chao 2 index is still increasing. Each curve represents the average of 100 permutations of sample order.



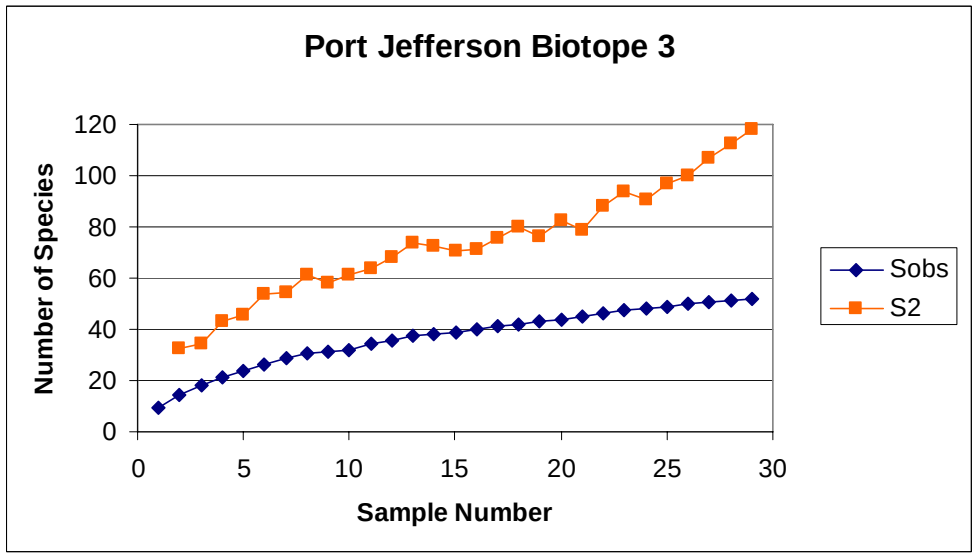
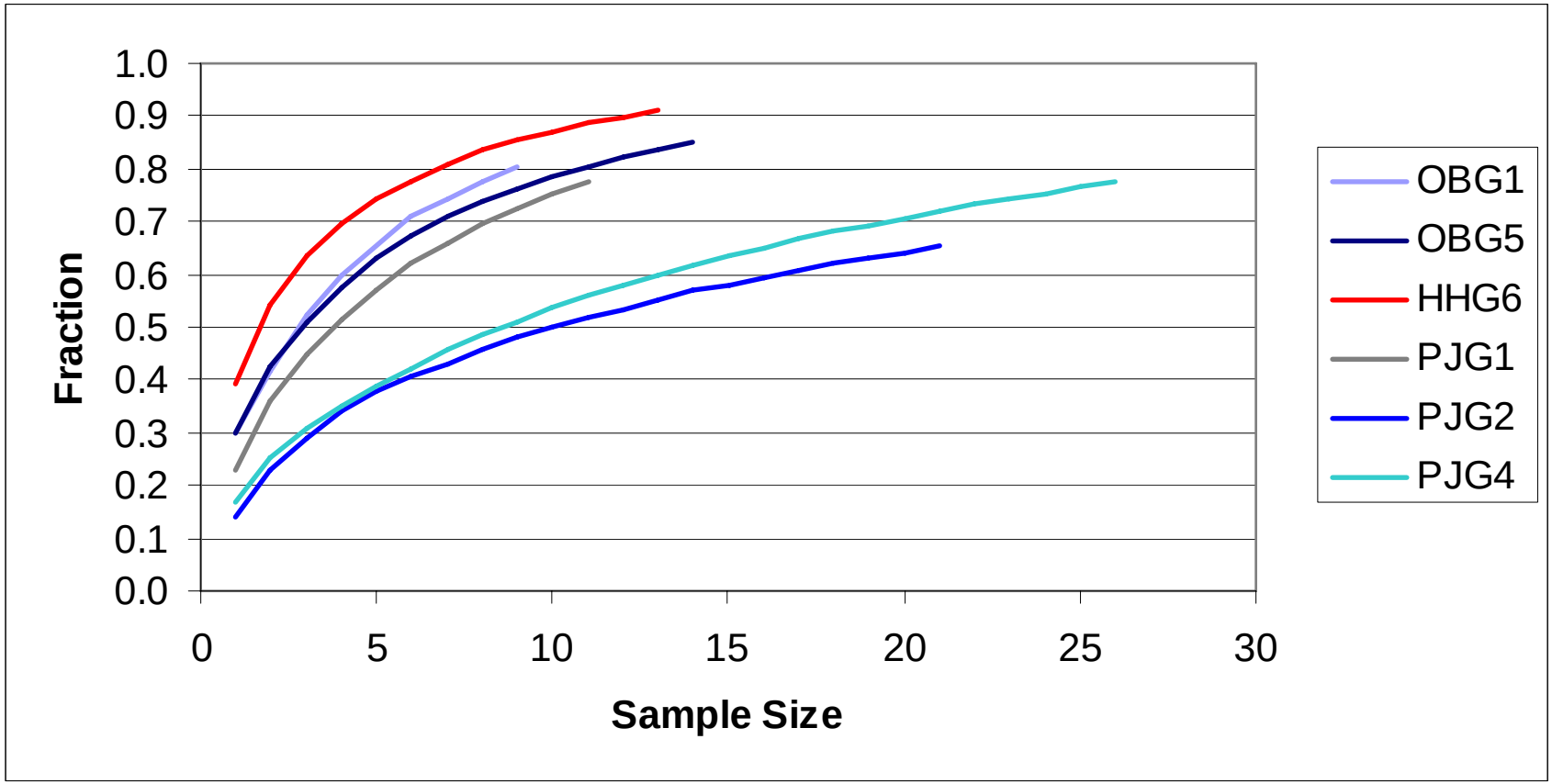


Figure 28. Estimated fraction of species collected versus sample size for the biotopes in Table 9. Each curve represents the average of 100 permutations of sample order. Only biotopes with valid species richness estimates are shown.



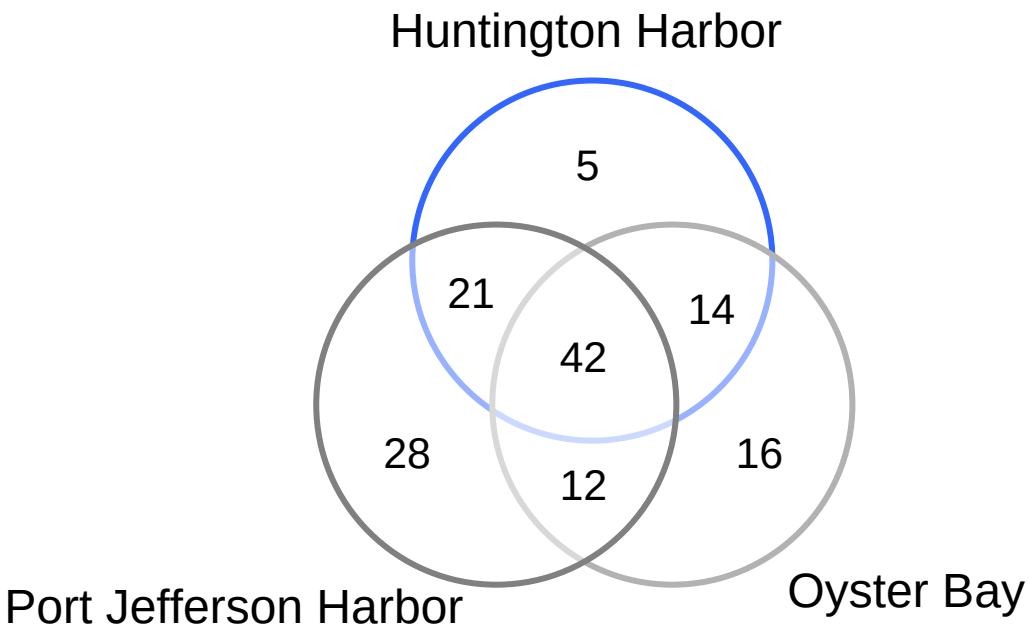
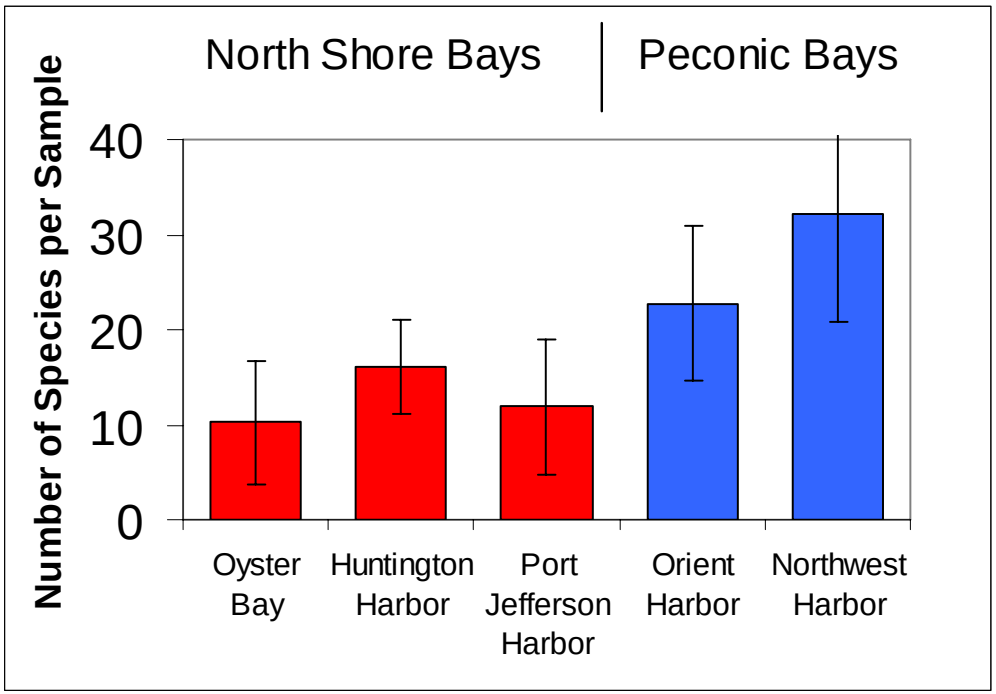


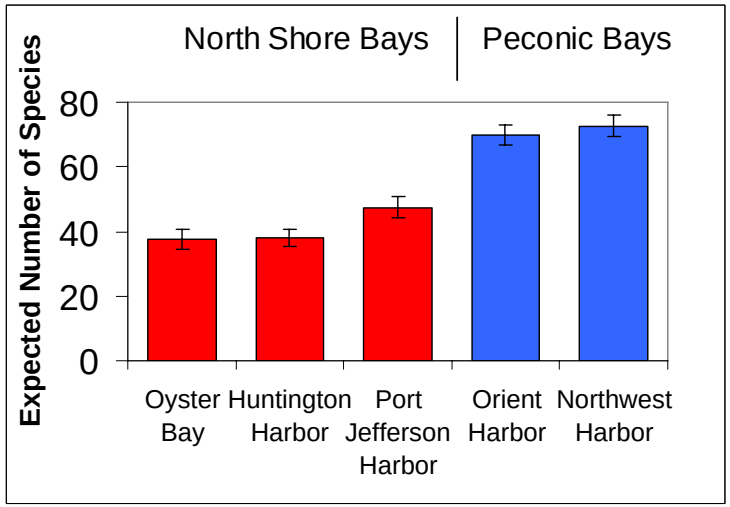
Figure 29. Venn diagram for the three study areas showing overlap of species collected between areas.

Figure 30. Comparison of species richness between three bays in the present study (Oyster Bay, Huntington Harbor, and Port Jefferson Harbor) and two bays in the Peconics (Orient Harbor and Northwest Harbor). (A) Average number of species per sample. (B) Expected number of species in a collection of 1000 individuals using rarefaction (Hurlbert 1971). (C) Average number of species in 12 samples using species accumulation curves. Each estimate represents the average of 100 permutations of sample order. All error bars are standard deviations.

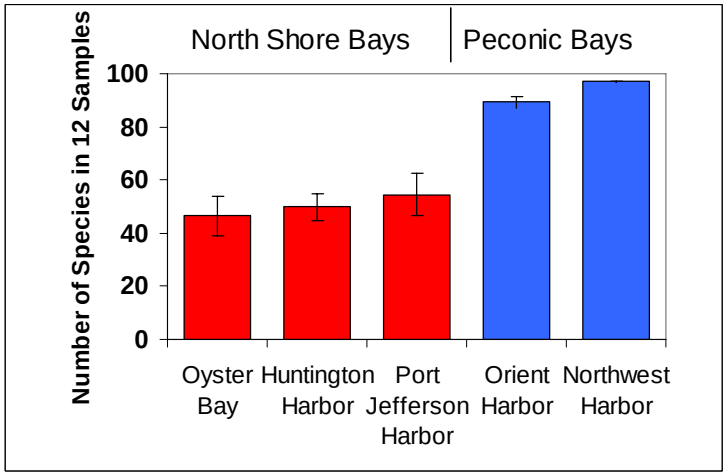
A



B



C



A

Oyster Bay

OBB1		OBB2		OBB3		OBB4		OBB5		OBB6	
Mullat	(0.35)	Mullat	(0.85)	Nepinc	(0.30)	Gemgem	(0.29)	Capsp	(0.59)	Polgib	(0.28)
Capsp	(0.26)	Nucpro	(0.03)	Pecgou	(0.18)	Thasp	(0.19)	Thasp	(0.10)	Ampsp	(0.25)
Macten	(0.05)	Nepinc	(0.02)	Capsp	(0.12)	Capsp	(0.10)	Pollig	(0.06)	Mullat	(0.12)

Huntington Harbor

HB1		HB2		HB3		HB4		HB5		HB6		HB7	
Capsp	(0.32)	Ampabd	(0.60)	Capsp	(0.76)	Capsp	(0.46)	Capsp	(0.26)	Capsp	(0.68)	Capsp	(0.31)
Crefor	(0.22)	Scorob	(0.18)	Amparc	(0.07)	Strben	(0.22)	Scorob	(0.24)	Mullat	(0.09)	Aricat	(0.20)
Strben	(0.11)	Capsp	(0.09)	Strben	(0.06)	Scorob	(0.14)	Strben	(0.16)	Strben	(0.05)	Parsp	(0.09)

Port Jefferson Harbor

PJB1		PJB2		PJB3		PJB4		PJB5	
Amparc	(0.24)	Nepinc	(0.27)	Capsp	(0.26)	Crefor	(0.48)	Aricat	(0.48)
Thasp	(0.24)	Capsp	(0.15)	Thasp	(0.19)	Thasp	(0.08)	Brawel	(0.05)
Clysp	(0.11)	Clysp	(0.08)	Strben	(0.15)	Capsp	(0.06)	Schcae	(0.05)

B

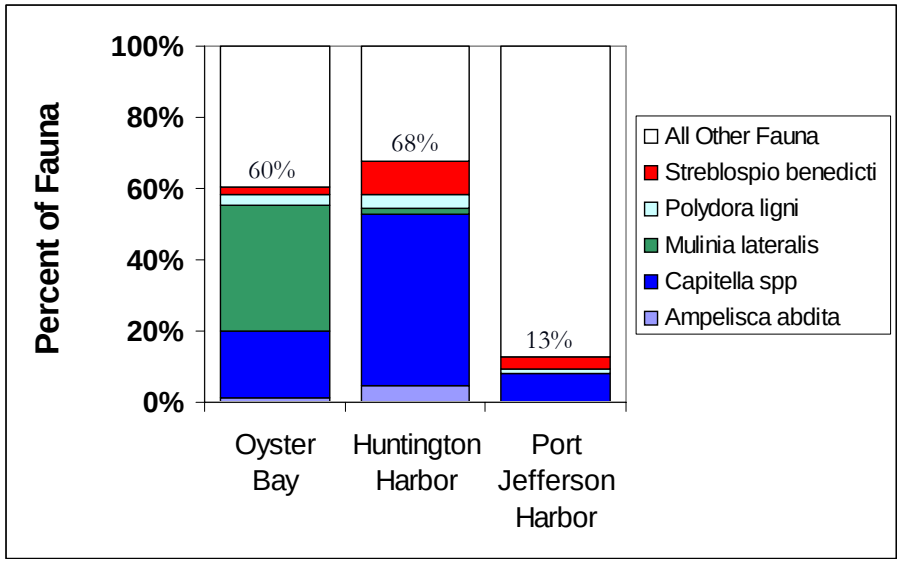


Figure 31. Relative abundances of five early colonizing opportunists in each bay. (A) Relative abundances (in parentheses) of the three dominant species in each biotope. (B) Relative abundances of the five opportunists compared to the remaining fauna in each bay. Ampabd = *Ampelisca abdita*, Capsp = *Capitella* sp., Mullat = *Mulinia lateralis*, Pollig = *Polydora ligni*, and Strben = *Streblospio benedicti*. Nematodes and oligochaetes were excluded from the analysis.

Date	SampleID	Region	Province	Station	Replicate	Temperature (°C)	Salinity	Water Depth (m)	Latitude (Degrees)	Latitude (Minutes)	Longitude (Degrees)	Longitude (Minutes)	RPD (cm)	Grab Depth (cm)	Sediment (from field notes)
5/16/2005	H01	H	HO	HO3	HO3a				40.00	54.65	-73.00	-21.98	0.50	10.00	Mud
5/16/2005	H02	H	HO	HO3	HO3b				40.00	54.37	-73.00	-21.98	0.50	10.00	Mud
5/16/2005	H03	H	HO	HO2	HO2a				40.00	54.83	-73.00	-21.78	0.00	10.00	Mud
5/16/2005	H04	H	HO	HO2	HO2b				40.00	54.80	-73.00	-21.79	0.00	10.00	Mud
5/16/2005	H05	H	HO	HO1	HO1a				40.00	55.08	-73.00	-21.45	0.00	10.00	Mud
5/16/2005	H06	H	HO	HO1	HO1b				40.00	55.08	-73.00	-21.44	1.00	10.00	Mud
5/16/2005	H07	H	HN	HN2	HN2a				40.00	55.20	-73.00	-21.69	1.00	10.00	Mud, some sand
5/16/2005	H08	H	HN	HN2	HN2b				40.00	55.19	-73.00	-21.69	1.00	10.00	Mud, some sand
5/16/2005	H09	H	HN	HN1	HN1a				40.00	55.52	-73.00	-21.82	0.00	9.00	Sand, shell, mud
5/16/2005	H10	H	HN	HN1	HN1b				40.00	55.53	-73.00	-21.81	0.00	7.00	Fine sand, shell
5/16/2005	H11	H	HM	HM2	HM2a				40.00	55.68	-73.00	-22.21	0.50	10.00	Mud, fine sand
5/16/2005	H12	H	HM	HM2	HM2b				40.00	55.68	-73.00	-22.21	0.50	10.00	Mud, fine sand
5/16/2005	H13	H	HM	HM1	HM1a				40.00	55.59	-73.00	-22.51	0.50	10.00	Mud, fine sand
5/16/2005	H14	H	HM	HM1	HM1b				40.00	55.61	-73.00	-22.50	0.50	10.00	Mud, fine sand
5/16/2005	H15	H	HL	HL1	HL1a				40.00	55.46	-73.00	-22.41	1.00	10.00	Mud, shell
5/16/2005	H16	H	HL	HL1	HL1b				40.00	55.46	-73.00	-22.41	1.00	10.00	Mud, shell
5/16/2005	H17	H	HL	HL2	HL2a				40.00	55.29	-73.00	-22.23	1.00	10.00	Mud
5/16/2005	H18	H	HL	HL2	HL2b				40.00	55.28	-73.00	-22.23	1.00	10.00	Mud, shell
5/16/2005	H19	H	HN	HN3	HN3a				40.00	55.04	-73.00	-22.07	2.00	10.00	Mud, shell
5/16/2005	H20	H	HN	HN3	HN3b				40.00	55.05	-73.00	-22.08	2.00	9.00	Mud, shell
5/16/2005	H21	H	HK	HK2	HK2a				40.00	54.92	-73.00	-22.54	0.00	7.00	Mud, shell
5/16/2005	H22	H	HK	HK2	HK2b				40.00	54.92	-73.00	-22.53	0.00	7.00	Mud, shell
5/16/2005	H23	H	HI	HI3	HI3a				40.00	55.05	-73.00	-22.45	0.50	10.00	Mud
5/16/2005	H24	H	HI	HI3	HI3b				40.00	55.05	-73.00	-22.45	0.50	10.00	Mud
5/16/2005	H25	H	HL	HL3	HL3a				40.00	55.18	-73.00	-22.47	0.50	7.00	Mud, shell
5/16/2005	H26	H	HL	HL3	HL3b				40.00	55.18	-73.00	-22.46	0.50	10.00	Mud, shell
5/16/2005	H27	H	HK	HK1	HK1a				40.00	55.11	-73.00	-22.72	2.00	10.00	Mud, shell
5/16/2005	H28	H	HK	HK1	HK1b				40.00	55.10	-73.00	-22.71	0.50	10.00	Mud, shell
5/16/2005	H29	H	HJ	HJ2	HJ2a				40.00	55.31	-73.00	-22.88	0.00	10.00	Mud, shell
5/16/2005	H30	H	HJ	HJ2	HJ2b				40.00	55.31	-73.00	-22.87	3.00	10.00	Mud, shell
5/16/2005	H31	H	HI	HI2	HI2a				40.00	54.60	-73.00	-23.11	1.00	10.00	Mud
5/16/2005	H32	H	HI	HI2	HI2b				40.00	54.61	-73.00	-23.10	1.00	10.00	Mud
5/16/2005	H33	H	HC	HC4	HC4a				40.00	54.93	-73.00	-23.34	3.00	10.00	Mud, shell
5/16/2005	H34	H	HC	HC4	HC4b				40.00	54.93	-73.00	-23.32	3.00	10.00	Mud, shell
5/16/2005	H35	H	HI	HI1	HI1a				40.00	55.19	-73.00	-23.26	0.50	10.00	Mud
5/16/2005	H36	H	HI	HI1	HI1b				40.00	55.19	-73.00	-23.25	2.00	10.00	Mud
5/16/2005	H37	H	HH	HH2	HH2a				40.00	55.34	-73.00	-23.65	1.00	10.00	Mud
5/16/2005	H38	H	HH	HH2	HH2b				40.00	55.33	-73.00	-23.66	1.00	10.00	Mud
5/16/2005	H39	H	HJ	HJ1	HJ1a				40.00	55.41	-73.00	-23.54	2.00	10.00	Fine sand, shell
5/16/2005	H40	H	HJ	HJ1	HJ1b				40.00	55.41	-73.00	-23.54	1.00	7.00	Sand, shell
5/16/2005	H41	H	HH	HH1	HH1a				40.00	55.53	-73.00	-23.73	1.00	10.00	Mud
5/16/2005	H42	H	HH	HH1	HH1b				40.00	55.52	-73.00	-23.72	0.50	10.00	Mud
5/16/2005	H43	H	HG	HG1	HG1a				40.00	55.42	-73.00	-23.83	3.00	9.00	Mud, shell
5/16/2005	H44	H	HG	HG1	HG1b				40.00	55.41	-73.00	-23.83	3.00	8.00	Mud, shell
5/16/2005	H45	H	HG	HG2	HG2a				40.00	55.25	-73.00	-23.90	0.50	9.00	Mud, shell
5/16/2005	H46	H	HG	HG2	HG2b				40.00	55.26	-73.00	-23.88	0.50	8.00	Mud, shell
5/16/2005	H47	H	HF	HF1	HF1a				40.00	54.84	-73.00	-23.97	0.00	10.00	Sand

Date	SampleID	Region	Province	Station	Replicate	Temperature (°C)	Salinity	Water Depth (m)	Latitude (Degrees)	Latitude (Minutes)	Longitude (Degrees)	Longitude (Minutes)	RPD (cm)	Grab Depth (cm)	Sediment (from field notes)
5/16/2005	H48	H	HF	HF1	HF1b				40.00	54.85	-73.00	-23.98	1.00	10.00	Mud, shell
5/16/2005	H49	H	HF	HF2	HF2a				40.00	54.64	-73.00	-24.07	0.00	9.00	Sand
5/16/2005	H50	H	HF	HF2	HF2b				40.00	54.64	-73.00	-24.08	0.00	8.00	Sand, gravel
5/17/2005	H51	H	HB	HB1	HB1a				40.00	55.85	-73.00	-24.68	0.50	10.00	Mud
5/17/2005	H52	H	HB	HB1	HB1b				40.00	55.84	-73.00	-24.69	0.50	10.00	Mud
5/17/2005	H53	H	HC	HC1	HC1a				40.00	55.47	-73.00	-24.44	1.00	7.00	Sand, shell
5/17/2005	H54	H	HC	HC1	HC1b				40.00	55.47	-73.00	-24.44	0.50	6.00	Sand, shell
5/17/2005	H55	H	HB	HB3	HB3a				40.00	55.36	-73.00	-24.92	1.00	10.00	Mud
5/17/2005	H56	H	HB	HB3	HB3b				40.00	55.34	-73.00	-24.91	1.00	10.00	Mud
5/17/2005	H57	H	HB	HB2	HB2a				40.00	55.63	-73.00	-25.00	1.00	10.00	Mud
5/17/2005	H58	H	HB	HB2	HB2b				40.00	55.62	-73.00	-24.99	1.00	10.00	Mud
5/17/2005	H59	H	HA	HA2	HA2a				40.00	55.36	-73.00	-25.22	0.00	6.00	Sand, shell
5/17/2005	H60	H	HA	HA2	HA2b				40.00	55.36	-73.00	-25.21	0.50	6.50	Sand, shell
5/17/2005	H61	H	HA	HA1	HA1a				40.00	55.44	-73.00	-25.54	0.50	8.00	Sand, shell, mud
5/17/2005	H62	H	HA	HA1	HA1b				40.00	55.44	-73.00	-25.54	0.50	7.00	Sand, shell, mud
5/17/2005	H63	H	HA	HA3	HA3a				40.00	54.91	-73.00	-25.83	0.50	9.00	Sand, mud
5/17/2005	H64	H	HA	HA3	HA3b				40.00	54.90	-73.00	-25.84	0.50	9.00	Sand, mud
5/17/2005	H65	H	HD	HD1	HD1a				40.00	54.81	-73.00	-25.66	0.50	10.00	Mud
5/17/2005	H66	H	HD	HD1	HD1b				40.00	54.82	-73.00	-25.67	0.50	10.00	Mud
5/17/2005	H67	H	HD	HD2	HD2a				40.00	54.99	-73.00	-25.49	2.00	10.00	Mud
5/17/2005	H68	H	HD	HD2	HD2b				40.00	54.99	-73.00	-25.49	2.00	10.00	Mud
5/17/2005	H69	H	HE	HE1	HE1a				40.00	54.89	-73.00	-25.29	1.00	10.00	Mud, sand
5/17/2005	H70	H	HE	HE1	HE1b				40.00	54.89	-73.00	-25.30	1.00	10.00	Mud, sand
5/17/2005	H71	H	HC	HC2	HC2a				40.00	54.99	-73.00	-25.00	0.50	7.00	Sand, gravel, shell
5/17/2005	H72	H	HC	HC2	HC2b				40.00	54.99	-73.00	-25.01	0.50	6.00	Sand, gravel, shell
5/17/2005	H73	H	HE	HE2	HE2a				40.00	54.73	-73.00	-25.21	1.00	10.00	Sand, shell, mud
5/17/2005	H74	H	HE	HE2	HE2b				40.00	54.74	-73.00	-25.20	6.00	10.00	Sand
5/17/2005	H75	H	HC	HC3	HC3a				40.00	54.48	-73.00	-24.89	1.00	8.00	Sand, shell, mud
5/17/2005	H76	H	HC	HC3	HC3b				40.00	54.48	-73.00	-24.89	1.00	7.50	Sand, shell, mud
5/1/2006	O01	O	OG	OG4	OG4a			8.80	40.00	54.47	-73.00	-30.32	0.50	6.00	mud, sand, shell
5/1/2006	O02	O	OG	OG4	OG4b			9.10	40.00	54.47	-73.00	-30.30	0.50	7.50	muddy sand
5/1/2006	O03	O	OP	OP1	OP1a			4.70	40.00	54.76	-73.00	-30.39	5.00	9.00	coarse sand
5/1/2006	O04	O	OP	OP1	OP1b			4.60	40.00	54.75	-73.00	-30.39	5.00	5.00	sand, gravel
5/1/2006	O05	O	ON	ON1	ON1a			10.90	40.00	54.69	-73.00	-29.85	0.50	10.00	mud, shell
5/1/2006	O06	O	ON	ON1	ON1b			10.90	40.00	54.68	-73.00	-29.85	0.50	10.00	mud, shell
5/1/2006	O07	O	OP	OP2	OP2a			5.10	40.00	54.85	-73.00	-29.67	9.00	8.00	sand
5/1/2006	O08	O	OP	OP2	OP2b			5.00	40.00	54.86	-73.00	-29.67	9.00	9.50	sand
5/1/2006	O09	O	OR	OR1	OR1a			13.50	40.00	54.67	-73.00	-29.35	0.00	10.00	mud
5/1/2006	O10	O	OR	OR1	OR1b			14.40	40.00	54.68	-73.00	-29.35	0.00	10.00	mud
5/1/2006	O11	O	OR	OR2	OR2a			12.10	40.00	54.40	-73.00	-29.15	0.50	9.50	mud
5/1/2006	O12	O	OR	OR2	OR2b			12.20	40.00	54.40	-73.00	-29.11	0.50	9.50	mud
5/1/2006	O13	O	OQ	OQ1	OQ1a			8.30	40.00	54.35	-73.00	-29.40	0.50	10.00	mud
5/1/2006	O14	O	OQ	OQ1	OQ1b			8.20	40.00	54.34	-73.00	-29.40	0.50	9.50	muddy sand
5/1/2006	O15	O	OQ	OQ2	OQ2a			7.30	40.00	54.09	-73.00	-29.03	0.50	7.00	mud, sand, shell
5/1/2006	O16	O	OQ	OQ2	OQ2b			7.20	40.00	54.08	-73.00	-29.02	0.50	6.50	mud, sand, shell
5/1/2006	O17	O	OT	OT1	OT1a			6.50	40.00	53.50	-73.00	-28.71	0.50	10.00	mud
5/1/2006	O18	O	OT	OT1	OT1b			6.40	40.00	53.50	-73.00	-28.72	0.50	10.00	mud

Date	SampleID	Region	Province	Station	Replicate	Temperature (°C)	Salinity	Water Depth (m)	Latitude (Degrees)	Latitude (Minutes)	Longitude (Degrees)	Longitude (Minutes)	RPD (cm)	Grab Depth (cm)	Sediment (from field notes)
5/1/2006	O19	O	OT	OT3	OT3a			6.30	40.00	52.75	-73.00	-28.63	0.00	10.00	mud
5/1/2006	O20	O	OT	OT3	OT3b			6.30	40.00	52.74	-73.00	-28.61	0.00	10.00	mud
5/1/2006	O21	O	OT	OT2	OT2a			6.70	40.00	53.30	-73.00	-29.04	0.50	10.00	mud
5/1/2006	O22	O	OT	OT2	OT2b			6.60	40.00	53.30	-73.00	-29.04	0.50	10.00	mud
5/1/2006	O23	O	OS	OS2	OS2a			6.80	40.00	53.67	-73.00	-29.44	2.00	10.00	mud
5/1/2006	O24	O	OS	OS2	OS2b			6.70	40.00	53.67	-73.00	-29.44	2.00	10.00	mud
5/1/2006	O25	O	OS	OS1	OS1a			6.70	40.00	53.96	-73.00	-29.50	0.50	10.00	mud
5/1/2006	O26	O	OS	OS1	OS1b			6.70	40.00	53.94	-73.00	-29.49	1.00	10.00	mud
5/1/2006	O27	O	ON	ON2	ON2a			7.80	40.00	54.26	-73.00	-29.58	2.00	10.00	mud, sand, shell, gravel
5/1/2006	O28	O	ON	ON2	ON2b			7.70	40.00	54.25	-73.00	-29.57	2.00	10.00	mud, sand, shell, gravel
5/1/2006	O29	O	OO	OO1	OO1a			8.80	40.00	54.16	-73.00	-29.88	1.00	10.00	mud
5/1/2006	O30	O	OO	OO1	OO1b			9.10	40.00	54.17	-73.00	-29.90	0.50	10.00	mud
5/1/2006	O31	O	OM	OM2	OM2a			6.30	40.00	54.03	-73.00	-30.74	1.00	9.00	mud, fine sand
5/1/2006	O32	O	OM	OM2	OM2b			6.20	40.00	54.02	-73.00	-30.74	0.50	5.50	mud, fine sand, shell
5/1/2006	O33	O	OM	OM1	OM1a			6.20	40.00	53.91	-73.00	-30.94	0.50	7.00	mud, fine sand, shell
5/1/2006	O34	O	OM	OM1	OM1b			6.20	40.00	53.91	-73.00	-30.94	0.50	6.00	mud, fine sand, shell
5/1/2006	O35	O	OG	OG3	OG3a			10.90	40.00	53.56	-73.00	-31.08	1.00	6.00	mud, sand, shell, gravel
5/1/2006	O36	O	OG	OG3	OG3b			10.60	40.00	53.57	-73.00	-31.08	0.50	7.00	mud, sand, shell
5/1/2006	O37	O	OL	OL2	OL2a			11.40	40.00	53.41	-73.00	-30.83	0.50	10.00	mud, shell
5/1/2006	O38	O	OL	OL2	OL2b			11.40	40.00	53.41	-73.00	-30.84	0.50	10.00	mud, shell
5/1/2006	O39	O	OG	OG2	OG2a			8.10	40.00	52.93	-73.00	-31.22	1.00	7.00	mud, sand, shell
5/1/2006	O40	O	OG	OG2	OG2b			8.10	40.00	52.93	-73.00	-31.21	1.00	7.00	mud, sand, shell
5/1/2006	O41	O	OL	OL1	OL1a			9.70	40.00	53.02	-73.00	-30.95	0.50	10.00	mud, shell
5/1/2006	O42	O	OL	OL1	OL1b			8.90	40.00	53.01	-73.00	-30.94	0.50	9.50	mud, shell
5/1/2006	O43	O	OK	OK1	OK1a			3.10	40.00	52.74	-73.00	-30.63	0.50	10.00	mud
5/1/2006	O44	O	OK	OK1	OK1b			3.20	40.00	52.74	-73.00	-30.63	1.00	10.00	mud
5/2/2006	O45	O	OH	OH1	OH1a			6.50	40.00	53.09	-73.00	-31.65	0.00	10.00	mud
5/2/2006	O46	O	OH	OH1	OH1b			6.40	40.00	53.09	-73.00	-31.65	0.50	10.00	mud
5/2/2006	O47	O	OH	OH2	OH2a			6.90	40.00	53.07	-73.00	-31.44	1.00	10.00	mud, shell
5/2/2006	O48	O	OH	OH2	OH2b			6.90	40.00	53.07	-73.00	-31.44	1.00	10.00	mud, shell
5/2/2006	O49	O	OJ	OJ2	OJ2a			6.90	40.00	52.67	-73.00	-31.34	0.50	10.00	mud
5/2/2006	O50	O	OJ	OJ2	OJ2b			7.00	40.00	52.67	-73.00	-31.34	0.50	10.00	mud
5/2/2006	O51	O	OJ	OJ1	OJ1a				40.00	52.74	-73.00	-31.67	0.50	10.00	mud, shell
5/2/2006	O52	O	OJ	OJ1	OJ1b				40.00	52.74	-73.00	-31.67	0.50	10.00	mud, shell
5/2/2006	O53	O	OG	OG1	OG1a			6.00	40.00	53.02	-73.00	-32.19	1.00	7.00	mud, sand, shell, gravel
5/2/2006	O54	O	OG	OG1	OG1b			6.00	40.00	53.02	-73.00	-32.20	8.00	6.50	shell
5/2/2006	O55	O	OF	OF2	OF2a			6.00	40.00	52.78	-73.00	-32.39	0.00	10.00	mud
5/2/2006	O56	O	OF	OF2	OF2b			6.00	40.00	52.78	-73.00	-32.39	0.00	10.00	mud
5/2/2006	O57	O	OF	OF1	OF1a			5.50	40.00	52.88	-73.00	-32.50	0.00	10.00	mud
5/2/2006	O58	O	OF	OF1	OF1b			5.60	40.00	52.89	-73.00	-32.49	0.50	10.00	mud
5/2/2006	O59	O	OD	OD1	OD1a			8.50	40.00	53.31	-73.00	-32.57	1.00	10.00	Muddy sand, shell
5/2/2006	O60	O	OD	OD1	OD1b			8.40	40.00	53.31	-73.00	-32.57	0.50	7.00	Muddy sand, shell
5/2/2006	O61	O	OA	OA1	OA1a			3.90	40.00	53.54	-73.00	-32.62	2.00	9.00	Muddy sand, shell
5/2/2006	O62	O	OA	OA1	OA1b			3.80	40.00	53.54	-73.00	-32.63	1.00	6.00	Muddy sand, shell
5/2/2006	O63	O	OE	OE1	OE1a			3.80	40.00	53.62	-73.00	-32.27	0.50	10.00	mud
5/2/2006	O64	O	OE	OE1	OE1b			3.90	40.00	53.62	-73.00	-32.27	3.00	10.00	mud
5/2/2006	O65	O	OE	OE2	OE2a			4.00	40.00	53.53	-73.00	-32.06	1.00	10.00	mud

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5/2/2006	O66	O	OE	OE2	OE2b			3.90	40.00	53.54	-73.00	-32.06	0.50	10.00	mud
5/2/2006	O67	O	OD	OD3	OD3a			2.90	40.00	53.91	-73.00	-31.69	0.50	10.00	mud
5/2/2006	O68	O	OD	OD3	OD3b			2.80	40.00	53.91	-73.00	-31.69	0.50	10.00	mud
5/2/2006	O69	O	OD	OD2	OD2a			2.60	40.00	53.92	-73.00	-32.19	0.50	10.00	mud
5/2/2006	O70	O	OD	OD2	OD2b			2.60	40.00	53.92	-73.00	-32.19	0.50	10.00	mud
5/2/2006	O71	O	OA	OA2	OA2a			3.40	40.00	54.02	-73.00	-32.57	2.00	7.50	mud, sand, shell, gravel
5/2/2006	O72	O	OA	OA2	OA2b			3.30	40.00	54.03	-73.00	-32.57	2.00	8.00	mud, sand, shell, gravel
5/2/2006	O73	O	OB	OB1	OB1a			4.40	40.00	54.14	-73.00	-32.29	0.00	10.00	mud
5/2/2006	O74	O	OB	OB1	OB1b			4.60	40.00	54.14	-73.00	-32.31	0.00	10.00	mud
5/2/2006	O75	O	OB	OB2	OB2a			5.10	40.00	54.29	-73.00	-32.00	0.00	10.00	mud
5/2/2006	O76	O	OB	OB2	OB2b			5.10	40.00	54.29	-73.00	-31.98	0.00	10.00	mud
5/2/2006	O77	O	OC	OC1	OC1a			2.60	40.00	54.27	-73.00	-31.48	0.50	10.00	mud, fine sand
5/2/2006	O78	O	OC	OC1	OC1b			2.60	40.00	54.27	-73.00	-31.49	1.00	10.00	mud, fine sand
5/2/2006	O79	O	OC	OC2	OC2a			2.40	40.00	54.38	-73.00	-31.73	0.50	10.00	mud
5/2/2006	O80	O	OC	OC2	OC2			2.50	40.00	54.38	-73.00	-31.73	0.50	10.00	mud
4/27/2004	P001	P	PD	PD1	PD1a	8.90	25.40	12.50	40.00	58.06	-73.00	-5.18		7.00	Gravel and sand
4/27/2004	P002	P	PD	PD1	PD1b	8.90	25.40	4.50	40.00	58.12	-73.00	-5.00		5.50	Shell and mud
4/27/2004	P003	P	PD	PD2	PD2a	8.90	25.80	6.40	40.00	58.12	-73.00	-4.97		8.50	Muddy sand
4/27/2004	P004	P	PD	PD2	PD2b	8.90	25.80	7.40	40.00	58.11	-73.00	-4.99		9.00	Mud
4/27/2004	P005	P	PD	PD3	PD3a	8.70	25.80	5.80	40.00	57.95	-73.00	-4.79		10.00	Sandy mud
4/27/2004	P006	P	PD	PD3	PD3b	8.70	25.80	7.30	40.00	57.95	-73.00	-4.80		10.00	Mud
4/27/2004	P007	P	PD	PD4	PD4a	9.20	25.70	3.60	40.00	58.04	-73.00	-4.76		7.00	Sandy mud
4/27/2004	P008	P	PD	PD4	PD4b	9.20	25.70	3.90	40.00	58.04	-73.00	-4.75		10.00	Shelly mud
4/27/2004	P009	P	PE	PE2	PE2a	8.80	25.60	9.40	40.00	58.05	-73.00	-5.37		7.00	Coarse sand and shells
4/27/2004	P010	P	PE	PE2	PE2b	8.80	25.60	12.30	40.00	58.07	-73.00	-5.37		9.50	Coarse sand and shells
4/27/2004	P011	P	PC	PC4	PC4a	8.80	25.50	13.40	40.00	57.89	-73.00	-5.43		7.50	Coarse sand
4/27/2004	P012	P	PC	PC4	PC4b	8.80	25.50	13.50	40.00	57.89	-73.00	-5.43		7.00	Coarse sand
4/27/2004	P013	P	PI	PI1	PI1a	9.30	25.30	6.10	40.00	57.84	-73.00	-5.02		10.00	Mud
4/27/2004	P014	P	PI	PI1	PI1b	9.30	25.30	6.10	40.00	57.85	-73.00	-5.03		10.00	Mud
4/27/2004	P015	P	PI	PI2	PI2a	9.10	25.50	6.40	40.00	57.81	-73.00	-4.92		10.00	Fine mud
4/27/2004	P016	P	PI	PI2	PI2b	9.10	25.50	6.40	40.00	57.81	-73.00	-4.93		10.00	Fine mud
4/27/2004	P017	P	PM	PM1	PM1a	8.70	25.60	6.40	40.00	57.75	-73.00	-4.71		8.50	Fine mud, some shell and gravel
4/27/2004	P018	P	PM	PM1	PM1b	8.70	25.60	6.30	40.00	57.75	-73.00	-4.72		7.50	Fine mud, some shell and gravel
4/27/2004	P019	P	PN	PN1	PN1a	8.90	25.60	6.30	40.00	57.75	-73.00	-4.65		10.00	Mud
4/27/2004	P020	P	PN	PN1	PN1b	8.90	25.60	6.40	40.00	57.74	-73.00	-4.64		10.00	Mud
4/27/2004	P021	P	PM	PM2	PM2a	8.80	25.60	7.40	40.00	57.69	-73.00	-4.81		10.00	Sandy mud
4/27/2004	P022	P	PM	PM2	PM2b	8.80	25.60	7.20	40.00	57.70	-73.00	-4.80		7.00	Sandy mud, some shell
4/27/2004	P023	P	PI	PI3	PI3a	8.80	25.50	7.40	40.00	57.69	-73.00	-4.85		10.00	Sandy mud, some shell
4/27/2004	P024	P	PI	PI3	PI3b	8.80	25.50	7.80	40.00	57.70	-73.00	-4.85		10.00	Mud
4/27/2004	P025	P	PL	PL1	PL1a	8.80	25.50	8.30	40.00	57.62	-73.00	-4.84		10.00	Mud
4/27/2004	P026	P	PL	PL1	PL1b	8.80	25.20	8.30	40.00	57.61	-73.00	-4.85		10.00	Mud
4/27/2004	P027	P	PC	PC3	PC3a	9.30	25.40	5.00	40.00	57.74	-73.00	-5.56		7.00	Fine sand, some gravel
4/27/2004	P028	P	PC	PC3	PC3b	9.30	25.40	6.60	40.00	57.75	-73.00	-5.57		10.00	Mud, some gravel
4/27/2004	P029	P	PC	PC2	PC2a	9.40	25.40	9.50	40.00	57.93	-73.00	-5.66		8.00	Mud and shell
4/27/2004	P030	P	PC	PC2	PC2b	9.40	25.40	9.00	40.00	57.93	-73.00	-5.66		7.00	Mud
4/27/2004	P031	P	PC	PC1	PC1a	9.80	25.20	5.30	40.00	57.86	-73.00	-5.95		9.00	Muddy sand
4/27/2004	P032	P	PC	PC2	PC2b	9.80	25.20	4.70	40.00	57.83	-73.00	-5.95		8.00	Coarse sand

Date	SampleID	Region	Province	Station	Replicate	Temperature (°C)	Salinity	Water Depth (m)	Latitude (Degrees)	Latitude (Minutes)	Longitude (Degrees)	Longitude (Minutes)	RPD (cm)	Grab Depth (cm)	Sediment (from field notes)
4/27/2004	P033	P	PB	PB4	PB4a	9.10	25.40	6.30	40.00	57.78	-73.00	-6.10		10.00	Mud
4/27/2004	P034	P	PB	PB4	PB4b	9.10	25.40	7.30	40.00	57.78	-73.00	-6.09		7.00	Mud
4/27/2004	P035	P	PB	PB3	PB3a	9.00	25.50	5.30	40.00	57.88	-73.00	-6.17		10.00	Mud
4/27/2004	P036	P	PB	PB3	PB3b	9.00	25.50	6.00	40.00	57.90	-73.00	-6.20		10.00	Mud
4/27/2004	P037	P	PB	PB2	PB2a	9.30	25.40	5.90	40.00	57.96	-73.00	-6.34		10.00	Muddy sand
4/27/2004	P038	P	PB	PB2	PB2b	9.30	25.40	7.60	40.00	57.96	-73.00	-6.33		9.00	Sand
4/27/2004	P039	P	PB	PB1	PB1a	9.40	25.40	7.10	40.00	58.06	-73.00	-6.25		10.00	Muddy sand
4/27/2004	P040	P	PB	PB1	PB1b	9.40	25.40	7.00	40.00	58.06	-73.00	-6.23		10.00	Muddy sand
4/27/2004	P041	P	PA	PA2	PA2a	10.80	25.20	6.50	40.00	58.15	-73.00	-6.44		10.00	Sand
4/27/2004	P042	P	PA	PA2	PA2b	10.80	25.20	7.20	40.00	58.15	-73.00	-6.43		10.00	Mud
4/27/2004	P043	P	PA	PA1	PA1a	9.40	25.40	5.80	40.00	58.18	-73.00	-6.64		8.00	Sand
4/27/2004	P044	P	PA	PA1	PA1b	9.40	25.40	6.00	40.00	58.18	-73.00	-6.65		10.00	Sand
4/27/2004	P045	P	PG	PG1	PG1a	9.30	25.50	6.80	40.00	57.66	-73.00	-5.38		6.00	Shell and mud
4/27/2004	P046	P	PG	PG1	PG1b	9.30	25.50	6.90	40.00	57.67	-73.00	-5.38		5.00	Shell and mud
4/27/2004	P047	P	PH	PH4	PH4a	9.20	25.50	7.00	40.00	57.69	-73.00	-5.27		6.00	Shell and mud
4/27/2004	P048	P	PH	PH4	PH4b	9.20	25.50	7.10	40.00	57.68	-73.00	-5.27		7.50	Shell and mud
4/27/2004	P049	P	PH	PH1	PH1a	9.10	25.60	8.50	40.00	57.74	-73.00	-5.21		8.00	Shell and mud
4/27/2004	P050	P	PH	PH1	PH1b	9.10	25.60	6.90	40.00	57.74	-73.00	-5.23		7.00	Shell and mud
4/28/2004	P051	P	PE	PE3	PE3a	9.40	25.40	10.90	40.00	57.75	-73.00	-5.06		10.00	Sand
4/28/2004	P052	P	PE	PE3	PE3b	9.40	25.40	11.30	40.00	57.75	-73.00	-5.08		10.00	Muddy sand
4/28/2004	P053	P	PH	PH2	PH2a	9.20	25.50	8.90	40.00	57.61	-73.00	-5.15		10.00	Mud
4/28/2004	P054	P	PH	PH2	PH2b	9.20	25.50	8.90	40.00	57.61	-73.00	-5.15		10.00	Mud
4/28/2004	P055	P	PH	PH3	PH3a	9.20	25.50	7.60	40.00	57.54	-73.00	-5.19		8.00	Shell and mud
4/28/2004	P056	P	PH	PH3	PH3b	9.20	25.50	7.60	40.00	57.54	-73.00	-5.19		7.00	Mud
4/28/2004	P057	P	PG	PG2	PG2a	9.30	25.40	6.90	40.00	57.55	-73.00	-5.30		7.50	Shell and mud
4/28/2004	P058	P	PG	PG2	PG2b	9.30	25.40	6.90	40.00	57.54	-73.00	-5.30		7.50	Shell and mud
4/28/2004	P059	P	PG	PG3	PG3a	9.60	25.30	9.80	40.00	57.45	-73.00	-5.28		6.00	Fine sand
4/28/2004	P060	P	PG	PG3	PG3b	9.60	25.30	9.70	40.00	57.45	-73.00	-5.29		6.50	Shell and mud
4/28/2004	P061	P	PK	PK1	PK1a	9.40	25.40	8.00	40.00	57.53	-73.00	-5.03		10.00	Mud
4/28/2004	P062	P	PK	PK1	PK1b	9.40	25.40	8.00	40.00	57.53	-73.00	-5.03		10.00	Mud
4/28/2004	P063	P	PK	PK2	PK2a	9.30	25.40	8.10	40.00	57.44	-73.00	-5.03		10.00	Mud
4/28/2004	P064	P	PK	PK2	PK2b	9.30	25.40	7.90	40.00	57.45	-73.00	-5.02		10.00	Mud
4/28/2004	P065	P	PJ	PJ1	PJ1a	9.70	25.20	5.30	40.00	57.35	-73.00	-5.14		7.00	Shell and mud
4/28/2004	P066	P	PJ	PJ1	PJ1b	9.70	25.20	4.70	40.00	57.35	-73.00	-5.14		7.00	Shell and mud
4/28/2004	P067	P	PP	PP1	PP1a	9.50	25.30	8.90	40.00	57.36	-73.00	-4.95		10.00	Mud
4/28/2004	P068	P	PP	PP1	PP1b	9.50	25.30	8.70	40.00	57.36	-73.00	-4.95		6.00	Fine sand
4/28/2004	P069	P	PE	PE4	PE4a	9.60	25.30	9.20	40.00	57.49	-73.00	-4.06		8.00	Sand
4/28/2004	P070	P	PE	PE4	PE4b	9.60	25.30	9.10	40.00	57.49	-73.00	-4.05		6.00	Sand
4/28/2004	P071	P	PL	PL2	PL2a	9.70	25.30	7.30	40.00	57.57	-73.00	-4.81		10.00	Mud
4/28/2004	P072	P	PL	PL2	PL2b	9.70	25.30	7.30	40.00	57.57	-73.00	-4.02		10.00	Mud
4/28/2004	P073	P	PM	PM3	PM3a	9.80	25.30	5.90	40.00	57.62	-73.00	-4.67		6.00	Mud, some shell
4/28/2004	P074	P	PM	PM3	PM3b	9.80	25.30	5.90	40.00	57.62	-73.00	-4.67		6.00	Mud
4/28/2004	P075	P	PS	PS1	PS1a	9.90	25.20	4.60	40.00	57.55	-73.00	-4.53		7.50	Sand
4/28/2004	P076	P	PS	PS1	PS1b	9.90	25.20	4.50	40.00	57.56	-73.00	-4.53		8.00	Sand
4/28/2004	P077	P	PR	PR1	PR1a	9.80	25.50	7.10	40.00	57.49	-73.00	-4.69		8.50	Mud
4/28/2004	P078	P	PR	PR1	PR1b	9.80	25.20	7.00	40.00	57.49	-73.00	-4.69		10.00	Mud
4/28/2004	P079	P	PR	PR2	PR2a	9.50	25.20	8.10	40.00	57.39	-73.00	-4.59		10.00	Mud

Date	SampleID	Region	Province	Station	Replicate	Temperature (°C)	Salinity	Water Depth (m)	Latitude (Degrees)	Latitude (Minutes)	Longitude (Degrees)	Longitude (Minutes)	RPD (cm)	Grab Depth (cm)	Sediment (from field notes)
4/28/2004	P080	P	PR	PR2	PR2b	9.50	25.20	7.70	40.00	57.40	-73.00	-4.60		10.00	Mud
4/28/2004	P081	P	PU	PU1	PU1a	10.00	25.00	4.30	40.00	57.29	-73.00	-4.35		10.00	Mud
4/28/2004	P082	P	PU	PU1	PU1b	10.00	25.00	4.50	40.00	57.30	-73.00	-4.34		10.00	Mud
4/28/2004	P083	P	PU	PU3	PU3a	10.30	25.10	3.60	40.00	57.07	-73.00	-4.15		9.00	Mud
4/28/2004	P084	P	PU	PU3	PU3b	10.30	25.10	3.60	40.00	57.07	-73.00	-4.15		10.00	Mud
4/28/2004	P085	P	PE	PE6	PE6a	10.00	25.00	9.00	40.00	56.97	-73.00	-4.36		8.00	Coarse sand
4/28/2004	P086	P	PE	PE6	PE6b	10.00	25.00	8.00	40.00	56.99	-73.00	-4.38		7.00	Coarse sand
4/28/2004	P087	P	PU	PU2	PU2a	10.20	25.00	3.90	40.00	57.11	-73.00	-4.32		10.00	Mud
4/28/2004	P088	P	PU	PU2	PU2b	10.20	25.00	3.80	40.00	57.11	-73.00	-4.32		10.00	Mud
4/28/2004	P089	P	PQ	PQ1	PQ1a	10.50	25.10	4.50	40.00	57.11	-73.00	-4.42		10.00	Mud
4/28/2004	P090	P	PQ	PQ1	PQ1b	10.50	25.10	5.20	40.00	573.11	-73.00	-4.42		10.00	Mud
4/28/2004	P091	P	PT	PT2	PT2a	10.10	25.10	9.21	40.00	57.12	-73.00	-4.65		10.00	Mud
4/28/2004	P092	P	PT	PT2	PT2b	10.10	25.10	8.00	40.00	57.13	-73.00	-4.66		10.00	Mud
4/28/2004	P093	P	PT	PT1	PT1a	10.10	25.10	7.40	40.00	57.22	-73.00	-4.76		10.00	Mud
4/28/2004	P094	P	PT	PT1	PT1b	10.10	25.10	7.40	40.00	57.22	-73.00	-4.76		10.00	Mud
4/28/2004	P095	P	PJ	PJ2	PJ2a	9.80	25.30	11.60	40.00	57.28	-73.00	-4.90		8.00	Mud and sand
4/28/2004	P096	P	PJ	PJ2	PJ2b	9.80	25.30	11.60	40.00	57.28	-73.00	-4.89		10.00	Mud
4/28/2004	P097	P	PP	PP2	PP2a	10.00	25.20	8.10	40.00	57.30	-73.00	-4.79		10.00	Mud
4/28/2004	P098	P	PP	PP2	PP2b	10.00	25.20	8.30	40.00	57.30	-73.00	-4.78		10.00	Mud
4/28/2004	P099	P	PE	PE5	PE5a	10.10	25.10	9.20	40.00	57.31	-73.00	-4.68		5.00	Shell and mud
4/28/2004	P100	P	PE	PE5	PE5b	10.10	25.10	8.90	40.00	57.32	-73.00	-4.68		7.00	Shell and mud

Appendix 2 - Grain-size Summary

	Gravel	Sand	Silt	Clay	Silt-Clay	MeanPhi	Sorting	LOI
H01	3.856	5.839	35.150	55.155	90.304	8.676	9.105	6.3
H02	1.523	8.285	39.555	50.636	90.192	7.945	8.115	6.3
H03	3.939	16.322	38.698	41.040	79.739	7.081	7.618	4.8
H04	4.493	14.835	38.233	42.439	80.672	7.109	7.596	6.7
H05	0.498	9.264	37.905	52.333	90.238	8.174	8.305	5.8
H06	3.942	10.624	36.970	48.464	85.434	7.727	8.159	6.4
H07	4.834	64.172	14.403	16.591	30.994	3.411	4.778	2.8
H08	3.831	54.425	19.500	22.245	41.745	4.440	5.771	3.3
H09	28.835	45.249	8.166	17.750	25.916	2.124	4.831	3.2
H10	68.610	13.572	4.193	13.624	17.817	0.039	5.066	1.8
H11	16.136	31.509	22.663	29.692	52.355	4.449	6.488	5.7
H12	8.895	35.520	24.959	30.626	55.584	5.114	6.619	5.1
H13	4.939	17.291	37.641	40.130	77.771	6.684	7.262	5.2
H14	1.532	14.530	37.077	46.860	83.938	7.792	8.193	6.6
H15	6.029	18.827	31.743	43.401	75.145	6.984	7.728	6.3
H16	13.529	27.585	26.896	31.990	58.886	5.235	6.664	5.9
H17	5.638	42.848	25.760	25.753	51.514	5.228	6.215	4.2
H18	28.842	36.011	16.130	19.017	35.147	2.884	5.590	3.4
H19	26.525	31.432	12.845	29.198	42.042	3.515	6.320	6.9
H20	5.368	27.421	23.201	44.009	67.211	6.357	7.200	6.6
H21	65.958	7.417	6.715	19.910	26.625	0.264	5.946	5.4
H22	62.736	12.223	6.225	18.816	25.041	0.365	5.765	4.7
H23	0.000	6.746	30.636	62.619	93.254	8.969	8.950	7.6
H24	0.000	3.494	38.209	58.297	96.506	8.687	8.551	3
H25	22.681	37.456	14.063	25.800	39.863	3.842	6.383	5.9
H26	24.612	44.897	13.526	16.964	30.491	2.722	5.240	3.5
H27	28.378	16.114	18.047	37.462	55.509	4.336	6.993	6.9
H28	51.458	12.401	10.593	25.548	36.141	1.730	6.232	6.5
H29	46.921	4.441	14.319	34.319	48.639	2.984	7.050	6.8
H30	56.354	2.537	10.451	30.658	41.109	1.969	6.790	7.4
H31	0.000	2.962	32.524	64.514	97.038	9.145	9.022	6.6
H32	0.245	12.410	28.895	58.450	87.345	8.513	8.655	6.9
H33	30.806	5.416	21.339	42.439	63.778	4.771	7.396	7.8
H34	44.396	2.230	18.852	34.522	53.374	3.262	6.974	7.9
H35	0.000	1.668	32.106	66.226	98.332	9.691	9.616	8.6
H36	0.000	2.042	36.202	61.756	97.958	9.180	9.077	8.2
H37	24.249	24.764	22.434	28.553	50.986	4.177	6.459	6
H38	4.598	24.731	29.727	40.943	70.670	6.692	7.374	5.8
H39	49.542	22.781	8.363	19.315	27.678	1.176	5.749	5.7
H40	2.967	87.100	3.201	6.732	9.933	1.937	2.989	1.3
H41	0.831	29.697	33.452	36.020	69.472	6.487	7.051	5.3
H42	4.610	13.600	36.425	45.366	81.791	7.378	7.930	5.9
H43	34.547	7.735	18.807	38.911	57.718	4.451	7.589	6.6
H44	58.433	5.149	11.937	24.481	36.418	1.454	6.560	7.3
H45	36.719	3.000	15.728	44.553	60.281	4.799	8.053	9.6
H46	56.434	3.252	10.999	29.315	40.314	2.068	7.006	6.7
H47	15.060	82.567	1.513	0.861	2.374	0.367	1.517	0.2
H48	76.682	3.629	5.820	13.869	19.688	-0.870	5.614	9
H49	76.345	19.003	1.722	2.930	4.652	-1.125	2.948	0.8
H50	52.725	44.735	0.863	1.677	2.540	-0.756	2.439	0.3
H51	2.761	35.447	27.930	33.862	61.792	6.132	6.949	5.2
H52	3.660	36.355	19.800	40.185	59.985	6.250	7.071	5.4
H53	13.065	62.223	10.906	13.806	24.712	2.732	4.628	2.7
H54	31.292	63.988	2.084	2.636	4.720	0.243	2.971	0.8
H55	13.334	27.029	25.492	34.146	59.638	5.511	6.915	6
H56	20.199	21.355	26.119	32.327	58.446	4.834	6.634	5.3
H57	13.184	17.686	31.472	37.659	69.131	5.822	6.909	6.3
H58	13.976	19.117	30.979	35.927	66.907	5.657	6.837	6.5
H59	23.120	63.287	6.069	7.524	13.594	1.641	3.704	1.7
H60	39.866	52.792	3.019	4.323	7.342	0.171	3.426	1.3
H61	44.532	38.393	5.682	11.392	17.074	0.549	4.710	3
H62	40.304	53.995	1.917	3.784	5.701	-0.175	3.301	1.6
H63	13.188	57.580	14.351	14.881	29.232	2.767	4.752	2.6
H64	11.539	74.907	7.130	6.424	13.553	1.590	3.341	1.2
H65	0.794	5.572	35.741	57.894	93.634	8.672	8.716	7.7

Appendix 2 - Grain-size Summary

	Gravel	Sand	Silt	Clay	Silt-Clay	MeanPhi	Sorting	LOI
H66	1.521	5.405	39.405	53.669	93.074	8.177	8.199	8.7
H67	5.007	19.127	32.466	43.399	75.865	6.799	7.418	5.8
H68	0.152	6.710	35.782	57.356	93.139	8.446	8.400	7.4
H69	9.017	43.944	17.839	29.200	47.039	4.792	6.375	3.3
H70	12.390	48.455	17.142	22.014	39.156	3.739	5.516	4.6
H71	23.910	68.625	3.428	4.036	7.464	0.736	2.932	0.7
H72	29.697	59.011	5.061	6.232	11.292	0.748	3.540	1.1
H73	29.378	38.678	12.736	19.208	31.944	2.451	5.375	2.6
H74	19.923	60.644	9.011	10.421	19.433	1.953	4.205	1.8
H75	26.700	51.672	7.874	13.754	21.628	1.851	4.609	2.1
H76	22.323	52.764	10.015	14.898	24.913	2.261	4.601	3.2
O01	41.990	45.405	4.989	7.616	12.606	0.759	4.318	1.9
O02	4.871	80.561	5.941	8.627	14.568	3.050	3.830	1.46
O03	17.753	80.744	0.289	1.214	1.503	0.460	1.924	0.29
O04	35.626	63.546	0.828	0.000	0.828	-0.242	1.832	0.3
O05	23.606	24.243	19.297	32.854	52.151	4.702	6.824	4.16
O06	25.907	25.723	17.684	30.686	48.370	4.331	6.625	3.82
O07	2.901	95.041	2.057	0.000	2.057	0.910	0.957	0.39
O08	3.613	94.274	2.112	0.000	2.112	0.850	0.938	0.87
O09	0.946	4.985	34.252	59.817	94.069	8.574	8.552	5.78
O10	0.958	5.519	34.108	59.415	93.522	8.557	8.570	5.37
O11	0.364	3.700	35.538	60.398	95.936	8.678	8.602	5.2
O12	2.062	4.236	33.711	59.991	93.702	8.744	8.860	5.45
O13	17.037	39.018	13.098	30.847	43.945	4.443	6.535	3.12
O14	23.445	32.939	16.967	26.650	43.616	3.993	6.293	3.08
O15	20.221	50.365	10.541	18.873	29.414	2.877	5.262	1.65
O16	21.862	37.901	13.881	26.355	40.236	3.659	6.130	2.56
O17	0.248	2.949	31.255	65.548	96.803	9.255	9.168	5.84
O18	0.553	3.279	30.121	66.047	96.168	8.635	8.428	6.06
O19	0.000	1.811	28.367	69.822	98.189	9.225	8.990	7.36
O20	0.000	1.429	25.234	73.337	98.571	9.703	9.533	7.34
O21	0.157	1.895	31.204	66.744	97.948	9.550	9.478	6.77
O22	0.000	1.553	28.614	69.833	98.447	9.622	9.468	6.63
O23	0.593	3.150	30.564	65.694	96.258	9.037	8.950	5.59
O24	2.690	2.994	30.038	64.278	94.316	9.126	9.269	5.27
O25	3.547	6.995	28.473	60.984	89.457	8.627	8.982	4.66
O26	4.678	6.112	25.202	64.007	89.209	8.539	8.845	4.74
O27	13.197	24.751	22.218	39.834	62.052	5.847	7.362	3.64
O28	18.456	27.492	20.904	33.148	54.052	4.981	6.866	3.75
O29	1.615	4.432	29.624	64.329	93.953	9.009	9.082	5.38
O30	0.599	4.567	31.017	63.816	94.833	8.942	8.932	5.07
O31	12.570	54.332	12.214	20.883	33.097	3.895	5.664	2.57
O32	18.410	56.952	9.388	15.250	24.638	2.883	4.779	2.31
O33	23.788	40.776	15.113	20.323	35.436	3.417	5.591	2.92
O34	37.921	16.424	15.167	30.487	45.655	3.370	6.794	4.4
O35	23.217	69.654	2.762	4.367	7.129	0.844	2.963	0.61
O36	18.281	74.008	2.938	4.773	7.710	1.121	2.946	5.78
O37	15.222	9.684	24.676	50.418	75.094	6.926	8.225	4.8
O38	15.095	24.760	19.933	40.212	60.145	5.793	7.354	4.53
O39	36.779	54.761	3.134	5.327	8.461	0.395	3.596	0.92
O40	24.630	66.519	2.740	6.111	8.851	1.074	3.180	1.17
O41	18.056	36.202	15.783	29.959	45.742	4.614	6.508	5.25
O42	14.835	41.022	14.760	29.383	44.143	4.728	6.477	5.62
O43	0.626	8.835	33.426	57.113	90.539	8.586	8.764	7.02
O44	2.907	10.449	32.698	53.946	86.644	8.067	8.452	7.23
O45	1.621	6.750	24.933	66.695	91.628	9.264	9.406	7.87
O46	1.544	6.112	30.195	62.149	92.344	8.930	9.102	8.16
O47	18.888	12.720	22.691	45.701	68.392	6.334	8.016	7.13
O48	20.291	11.565	21.479	46.664	68.144	6.164	7.871	7.18
O49	2.187	13.111	27.726	56.976	84.702	8.398	8.807	7.06
O50	0.996	11.298	27.897	59.810	87.706	8.628	8.851	8.28
O51	32.093	22.105	14.288	31.515	45.803	3.723	6.820	5.97
O52	12.678	27.325	18.386	41.611	59.997	5.966	7.335	5.43
O53	23.961	73.125	1.093	1.820	2.913	0.356	2.124	0.76
O54	44.824	54.979	0.197	0.000	0.197	-0.747	2.066	0.41

Appendix 2 - Grain-size Summary

	Gravel	Sand	Silt	Clay	Silt-Clay	MeanPhi	Sorting	LOI
O55	0.000	2.886	29.392	67.722	97.114	9.048	8.860	8.87
O56	0.886	2.054	29.354	67.707	97.061	9.464	9.445	8.51
O57	0.000	2.944	27.800	69.256	97.056	9.561	9.489	8.79
O58	0.000	3.441	30.115	66.444	96.559	9.330	9.257	8.81
O59	33.282	36.529	8.751	21.438	30.189	2.337	5.805	3.85
O60	43.985	43.698	4.174	8.143	12.317	0.355	4.227	3.07
O61	26.182	47.722	7.864	18.232	26.096	2.220	5.270	2.01
O62	30.095	50.220	5.941	13.744	19.685	1.480	4.757	1.85
O63	11.162	18.090	25.249	45.499	70.748	6.359	7.398	3.92
O64	2.478	13.837	26.181	57.504	83.685	8.135	8.706	4.43
O65	6.679	26.651	25.393	41.277	66.670	6.549	7.603	3.82
O66	43.801	8.483	16.815	30.900	47.715	3.032	7.008	3.67
O67	0.510	3.438	30.976	65.077	96.052	9.355	9.388	5.03
O68	0.113	3.061	33.829	62.996	96.825	8.852	8.728	4.97
O69	4.167	9.502	29.767	56.564	86.332	8.276	8.776	4.3
O70	7.911	8.330	27.906	55.853	83.759	7.895	8.744	4.09
O71	20.133	74.236	1.753	3.878	5.631	0.851	2.561	0.51
O72	14.991	78.843	2.098	4.067	6.165	1.039	2.620	1.08
O73	0.000	1.412	29.751	68.837	98.588	9.305	9.123	5.69
O74	0.000	2.020	28.841	69.139	97.980	9.640	9.547	6.19
O75	0.000	1.777	26.485	71.738	98.223	9.779	9.670	6.32
O76	0.794	29.703	20.166	49.215	69.380	7.031	7.956	6.1
O77	0.505	23.297	23.433	52.765	76.198	7.655	8.403	3.93
O78	0.448	1.550	32.588	65.414	98.002	9.057	8.936	3.7
O79	8.674	15.313	28.107	47.905	76.012	6.718	7.579	3.79
O80	7.910	15.438	27.632	49.020	76.653	6.841	7.718	3.9
P001	33.370	50.261	7.562	8.807	16.369	1.261	3.689	1.3
P002	2.975	64.719	15.505	16.801	32.306	3.754	4.757	2.7
P003	0.761	86.628	5.395	7.215	12.611	1.948	3.033	2.2
P004	4.430	55.121	16.881	23.568	40.449	4.499	5.714	3.7
P005	11.213	46.327	22.282	20.178	42.460	3.957	5.493	2.6
P006	0.367	37.894	25.567	36.173	61.739	6.236	6.881	3.9
P007	3.546	49.707	17.665	29.082	46.747	4.953	6.142	5.5
P008	2.258	39.884	25.907	31.951	57.858	5.634	6.388	4.1
P009	22.631	76.627	0.742	0.000	0.742	-0.117	1.400	0.4
P010	18.526	80.510	0.964	0.000	0.964	0.123	1.139	0.5
P011	24.147	71.230	2.232	2.392	4.623	0.319	2.234	0.7
P012	28.614	60.952	4.630	5.804	10.434	0.918	3.107	2.2
P013	5.489	57.710	18.490	18.311	36.801	3.933	5.121	3.2
P014	4.512	46.321	25.360	23.807	49.167	5.225	6.134	3.8
P015	4.929	42.246	24.521	28.305	52.826	5.572	6.675	2.9
P016	2.883	45.531	26.003	25.583	51.586	5.213	5.948	4.3
P017	0.735	74.629	10.905	13.730	24.636	3.234	4.258	2
P018	7.163	67.465	9.963	15.409	25.372	2.997	4.588	3.5
P019	0.612	49.799	26.003	23.586	49.589	5.236	5.894	3.7
P020	1.241	44.569	27.400	26.790	54.190	5.418	6.025	3.5
P021	14.520	54.289	13.502	17.689	31.191	2.994	4.973	1.7
P022	18.929	66.368	6.327	8.376	14.702	1.449	3.558	3.5
P023	7.852	61.443	14.689	16.016	30.705	3.274	4.893	3.1
P024	2.468	48.481	24.208	24.843	49.051	5.161	5.985	2.8
P025	7.308	48.833	23.741	20.118	43.859	4.246	5.392	2.9
P026	1.999	39.508	26.963	31.530	58.493	5.886	6.615	3.8
P027	14.482	65.331	6.898	13.289	20.187	2.805	4.512	2.7
P028	48.002	4.333	11.322	36.343	47.665	3.008	7.181	7.8
P029	3.822	12.071	22.693	61.414	84.107	8.524	9.081	7.8
P030	27.843	64.859	2.812	4.485	7.298	0.278	2.828	1.5
P031	6.578	37.907	17.040	38.475	55.515	5.714	7.088	5.5
P032	43.043	49.921	3.309	3.728	7.037	-0.144	3.067	0.8
P033	0.000	28.261	32.698	39.041	71.739	7.042	7.488	5.9
P034	0.000	18.718	31.950	49.332	81.282	8.115	8.442	7
P035	0.369	19.342	37.534	42.755	80.289	7.244	7.409	5.9
P036	0.064	3.926	37.935	58.076	96.010	8.665	8.588	9
P037	12.198	40.426	25.226	22.149	47.375	4.039	5.635	3.6
P038	9.553	73.618	6.393	10.436	16.830	1.898	3.904	1
P039	1.935	44.104	27.083	26.878	53.961	5.444	6.159	4.2

Appendix 2 - Grain-size Summary

	Gravel	Sand	Silt	Clay	Silt-Clay	MeanPhi	Sorting	LOI
P040	4.252	50.797	20.966	23.985	44.952	4.866	5.877	3.4
P041	5.429	48.085	22.783	23.704	46.487	4.663	5.876	4
P042	2.746	45.545	23.187	28.521	51.709	5.218	6.327	5.3
P043	6.649	90.320	2.402	0.628	3.031	0.935	1.548	0.5
P044	7.252	90.838	1.031	0.878	1.909	0.902	1.523	0.4
P045	50.496	26.938	8.114	14.452	22.565	0.681	4.999	2.7
P046	41.936	46.061	4.817	7.186	12.003	0.391	3.916	1.8
P047	76.300	11.680	3.739	8.281	12.020	-1.513	4.829	3.9
P048	50.229	11.051	11.566	27.154	38.721	2.032	6.524	2.7
P049	18.657	29.758	20.214	31.371	51.585	4.115	6.356	3.5
P050	72.283	10.127	5.994	11.596	17.590	-0.892	5.158	3.6
P051	14.356	51.218	17.034	17.391	34.426	3.605	5.136	3.7
P052	30.289	56.964	6.213	6.534	12.747	1.065	3.623	1.9
P053	21.532	33.118	18.651	26.699	45.350	3.856	6.126	5.1
P054	5.354	43.063	22.713	28.870	51.583	5.427	6.411	4.8
P055	52.162	25.089	9.893	12.856	22.749	0.493	5.037	3
P056	3.474	61.915	14.128	20.483	34.611	4.077	5.219	3.2
P057	28.260	20.950	13.941	36.849	50.790	4.253	7.141	2.9
P058	34.060	18.295	18.575	29.069	47.645	3.247	6.250	6.4
P059	3.462	75.776	8.182	12.580	20.762	3.431	4.257	2.8
P060	28.313	58.631	5.193	7.863	13.056	1.376	4.031	2.6
P061	1.306	43.011	32.074	23.608	55.683	5.234	5.767	4.1
P062	1.049	43.949	32.554	22.448	55.002	5.281	5.688	3.4
P063	1.923	50.446	23.585	24.046	47.631	5.084	5.742	3.9
P064	2.657	56.645	19.553	21.145	40.698	4.642	5.488	3.3
P065	31.553	34.446	10.757	23.244	34.001	2.565	5.543	3.5
P066	22.537	50.399	11.043	16.022	27.065	2.201	4.689	2.7
P067	3.253	55.545	23.510	17.692	41.202	4.282	5.073	3.6
P068	7.847	56.334	16.447	19.373	35.819	3.991	5.170	2.8
P069	15.400	81.026	1.859	1.714	3.573	0.668	1.932	0.4
P070	12.109	81.971	3.469	2.450	5.920	1.012	2.183	0.4
P071	2.682	40.519	33.216	23.583	56.799	5.084	5.756	3.4
P072	2.116	41.084	31.650	25.150	56.800	5.121	5.824	3.9
P073	11.450	66.477	11.766	10.307	22.073	2.416	4.012	2.2
P074	1.264	74.463	13.498	10.776	24.273	3.133	3.952	1.7
P075	2.684	92.304	2.601	2.410	5.011	0.888	1.814	0.7
P076	8.409	86.975	2.359	2.257	4.616	0.700	1.847	0.4
P077	0.897	21.363	43.886	33.854	77.740	6.507	6.725	6.7
P078	0.054	16.098	47.315	36.533	83.848	6.913	6.938	7.7
P079	0.000	3.708	38.089	58.203	96.292	8.883	8.836	8.4
P080	2.255	3.639	37.287	56.819	94.106	8.651	8.764	8.5
P081	0.000	10.096	44.483	45.422	89.904	7.861	7.929	7.8
P082	0.000	4.929	51.353	43.719	95.071	7.727	7.592	7.5
P083	0.000	4.491	45.329	50.181	95.509	8.208	8.148	10.1
P084	0.809	4.219	45.666	49.305	94.971	7.969	7.918	8.2
P085	7.824	86.273	2.599	3.305	5.903	0.695	2.172	1.1
P086	21.710	75.541	1.027	1.721	2.749	-0.116	2.124	0.6
P087	0.000	8.772	46.997	44.231	91.228	7.680	7.677	6.6
P088	0.960	17.616	47.189	34.235	81.424	6.767	6.930	6.6
P089	1.913	39.844	29.284	28.959	58.243	5.445	6.174	5.2
P090	8.039	47.678	21.937	22.346	44.283	4.170	5.586	3.6
P091	0.182	24.838	34.015	40.964	74.980	7.045	7.476	7.1
P092	0.104	26.859	33.897	39.140	73.037	6.777	7.144	7.4
P093	0.000	10.675	36.389	52.935	89.325	8.321	8.415	8.3
P094	0.000	8.358	37.745	53.896	91.642	8.602	8.696	7.4
P095	6.116	75.420	8.691	9.774	18.465	2.637	3.847	1.9
P096	12.213	52.754	17.621	17.411	35.032	3.581	5.230	3.2
P097	2.827	69.508	13.572	14.093	27.665	3.608	4.535	2.5
P098	3.682	66.579	14.395	15.344	29.739	3.878	4.913	2.5
P099	4.817	67.455	14.141	13.586	27.728	3.426	4.489	1.8
P100	7.378	79.209	7.234	6.179	13.413	2.199	3.267	1

Complete Grain-Size Distribution -- Percent by weight in 1/2 phi intervals

Listed phi value is the lower (i.e., finer) value of interval (e.g., 2.5 to 3 interval listed as 3 ---- like sieving)

* = Sample was < 2% silt-clay and/or too small to run on Sedigraph

First value for sample is always cumulative percent less than the indicated phi value (e.g., -1.5 would be <-1.5). Last value in sample is always percent greater than the previous phi value (e.g., 4.5 would be >4)

	<																														>
phi	**-3.5**	**-3**	**-2.5**	**-2**	**-1.5**	**-1**	**-0.5**	**0**	**0.5**	**1**	**1.5**	**2**	**2.5**	**3**	**3.5**	**4**	**4.5**	**5**	**5.5**	**6**	**6.5**	**7**	**7.5**	**8**	**8.5**	**9**	**9.5**	**10**	**10.5**	**11**	**11**
H01	0.00	0.47	1.00	0.97	0.75	0.67	0.52	0.52	0.15	0.28	0.41	0.58	0.59	0.65	1.01	1.13	0.57	1.67	3.51	5.45	5.70	5.95	6.00	6.31	5.77	5.52	3.55	3.72	2.28	2.39	31.93
H02	0.00	0.25	0.34	0.26	0.40	0.28	0.70	0.77	0.50	1.05	0.93	0.63	0.55	0.60	1.28	1.27	1.03	2.55	4.45	5.61	6.00	5.77	7.03	7.11	6.99	5.85	4.88	4.66	4.11	4.00	20.15
H03	0.00	0.25	1.04	1.31	0.60	0.74	1.30	0.97	0.18	0.51	0.98	0.95	1.23	1.67	4.52	4.01	3.51	4.43	5.00	5.17	5.09	4.83	5.30	5.36	5.18	3.91	3.93	3.34	3.33	2.85	18.50
H04	0.00	0.66	0.90	0.53	1.15	1.25	1.01	0.78	0.20	0.60	1.20	1.49	1.61	1.45	3.48	3.02	1.36	3.53	4.71	6.12	5.12	5.10	6.19	6.09	5.86	4.82	4.20	4.36	3.47	3.55	16.19
H05	0.00	0.00	0.00	0.00	0.17	0.33	0.41	0.72	0.19	0.62	1.04	1.31	1.00	1.16	1.45	1.35	1.03	2.68	4.57	5.02	5.58	5.93	6.56	6.55	6.41	6.42	4.52	4.49	3.97	4.37	22.16
H06	0.00	0.67	1.64	1.13	0.17	0.33	0.26	0.34	0.12	0.50	1.10	1.78	1.68	1.55	1.65	1.64	1.15	2.70	4.02	5.29	5.26	5.88	6.69	5.98	5.43	5.44	5.04	4.39	4.13	3.47	20.57
H07	0.00	0.00	0.06	0.78	1.79	2.20	3.58	4.81	6.09	9.43	9.53	10.61	11.60	5.48	2.53	0.49	0.79	1.61	2.15	1.95	1.82	1.94	1.96	2.19	2.01	1.99	1.84	1.59	1.51	1.40	6.26
H08	0.00	0.29	0.40	0.37	1.17	1.60	2.66	3.99	3.26	6.56	7.42	9.02	10.71	5.13	2.92	2.76	1.66	2.38	2.42	2.45	2.61	2.66	2.64	2.67	2.45	2.31	1.68	1.73	1.62	1.50	10.95
H09	1.79	6.58	5.32	4.61	5.83	4.71	4.18	4.92	3.14	7.86	11.94	7.40	2.99	1.79	0.61	0.41	0.26	0.33	0.58	0.88	1.22	1.28	1.61	2.01	2.47	2.33	2.25	1.66	1.62	1.66	5.75
H10	8.35	13.85	19.58	13.30	7.79	5.73	4.94	4.85	0.45	0.94	1.13	0.68	0.27	0.19	0.09	0.03	0.02	0.05	0.30	0.45	0.69	0.71	0.94	1.03	1.10	1.25	1.11	0.94	0.81	0.71	7.69
H11	5.40	9.65	0.05	0.12	0.33	0.59	1.48	2.29	2.48	6.26	9.68	5.28	1.37	0.71	1.11	0.84	0.30	1.64	2.95	3.09	3.43	3.53	3.78	3.94	3.69	3.35	2.68	2.62	2.09	2.35	12.92
H12	0.00	1.86	3.52	1.78	0.73	1.01	1.61	3.08	2.19	6.55	10.32	6.31	1.64	0.94	1.43	1.45	1.31	2.01	3.13	4.07	3.60	3.85	3.51	3.47	3.45	2.91	2.55	2.41	2.07	2.26	14.98
H13	0.00	1.32	1.86	0.50	0.68	0.57	0.63	0.99	0.54	1.51	2.24	2.29	1.77	2.28	2.52	2.52	2.58	3.39	4.45	5.60	5.27	5.20	5.46	5.68	5.98	5.24	4.41	3.68	4.00	3.58	13.23
H14	0.00	0.00	0.19	0.30	0.35	0.69	0.51	0.88	0.34	0.85	1.73	1.91	1.39	1.53	2.73	2.66	1.82	3.01	4.75	5.23	5.32	5.99	5.75	5.21	5.51	4.93	3.89	3.02	3.38	2.99	23.14
H15	2.17	0.71	1.20	0.96	0.73	0.27	0.62	0.53	0.20	0.56	1.05	1.54	1.67	2.89	5.87	3.90	2.06	2.55	3.94	4.49	4.32	4.83	4.83	4.72	4.90	4.78	4.02	3.45	3.29	2.88	20.09
H16	6.43	1.31	1.31	1.47	1.35	1.67	1.83	1.49	0.35	1.17	2.51	2.63	2.62	4.37	6.13	4.47	1.84	1.63	3.47	4.10	3.85	3.70	4.05	4.26	4.81	4.13	3.58	3.08	2.71	2.19	11.49
H17	1.60	0.00	0.11	1.08	1.55	1.29	1.32	1.79	1.22	2.72	3.31	2.66	2.13	5.20	13.64	8.88	3.65	3.94	3.54	2.77	3.00	2.84	2.97	3.05	3.34	2.65	2.62	2.11	1.85	2.29	10.90
H18	14.38	2.96	3.73	3.53	2.19	2.06	1.55	2.37	1.80	3.75	4.14	2.73	2.10	5.40	7.40	4.78	2.17	1.67	1.88	2.10	2.04	1.90	2.07	2.30	2.25	2.12	1.68	1.66	1.31	1.44	8.54
H19	19.55	2.79	0.54	1.67	1.21	0.76	1.50	2.00	1.67	4.48	7.03	4.56	2.73	2.94	2.73	1.80	0.51	0.72	0.61	1.82	1.51	1.94	2.86	2.87	2.99	3.34	3.18	2.35	2.45	2.07	12.82
H20	0.00	0.77	1.91	1.63	0.54	0.51	0.34	1.40	1.09	3.43	6.22	4.70	3.47	2.51	2.72	1.56	0.32	0.87	2.24	2.18	3.97	3.34	4.80	5.50	6.20	6.61	5.05	4.43	4.63	3.72	13.36
H21	60.87	2.96	0.22	0.58	0.60	0.72	0.33	0.58	0.45	1.32	1.92	1.49	0.71	0.36	0.24	0.02	0.03	0.14	0.51	0.64	0.92	1.18	1.43	1.88	1.92	2.09	1.70	1.66	1.49	1.59	9.45
H22	51.24	3.00	3.16	2.41	1.69	1.24	1.21	1.62	0.85	2.31	2.93	1.79	0.77	0.29	0.26	0.20	0.17	0.25	0.38	0.58	0.92	0.89	1.39	1.64	1.80	1.97	1.47	1.50	1.28	1.35	9.44
H23	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.15	0.02	0.10	0.74	1.14	0.94	0.90	1.23	1.47	0.46	1.01	2.70	3.78	5.16	4.81	6.41	6.31	5.78	6.51	5.17	4.85	4.73	5.03	30.55
H24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.07	0.29	0.48	0.44	0.43	0.73	0.99	0.47	0.97	2.50	5.62	6.78	6.60	7.16	8.12	7.60	7.43	6.52	5.93	5.09	5.23	20.51
H25	19.37	0.64	0.88	0.50	0.76	0.53	1.20	1.23	0.62	2.32	3.22	2.70	4.32	10.38	8.27	3.20	1.09	1.04	1.53	1.78	1.90	1.91	2.43	2.39	2.61	2.37	2.07	1.77	2.06	1.76	13.16
H26	18.98	0.00	0.54	1.44	1.61	2.04	2.11	2.15	1.93	4.10	4.59	3.81	6.29	8.94	7.06	3.94	0.86	1.61	1.89	1.63	1.88	1.78	1.86	2.04	2.17	1.66	1.68	1.24	1.56	1.62	7.04
H27	26.25	0.00	0.14	0.82	0.79	0.38	0.34	0.23	0.30	1.12	2.95	5.01	3.26	1.07	0.92	0.91	0.83	0.38	0.79	2.03	2.53	3.10	3.84	4.55	5.03	4.93	4.37	3.80	3.50	3.27	12.56
H28	44.21	1.69	2.86	1.16	0.71	0.82	1.00	0.60	0.21	0.83	2.17	3.72	2.30	0.66	0.49	0.41	0.16	0.25	1.02	1.16	1.40	2.02	2.22	2.35	2.48	2.76	4.00	3.26	2.24	2.24	8.58
H29	41.14	2.83	0.70	0.83	0.71	0.72	0.53	0.43	0.05	0.27	0.57	0.77	0.58	0.54	0.43	0.28	0.14	0.43	0.94	1.59	2.08	2.38	2.79	3.97	3.83	3.94	3.60	3.30	3.33	3.25	13.07
H30	49.17	3.75	2.17	0.82	0.26	0.19	0.22	0.26	0.03	0.10	0.22	0.37	0.36	0.35	0.37	0.25	0.11	0.11	0.38	1.14	1.64	2.25	2.25	2.56	3.03	3.24	3.36	2.89	2.75	2.42	12.97
H31	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.11	0.00	0.08	0.21	0.28	0.30	0.35	0.81	0.79	0.24	0.34	3.04	3.75	6.30	5.37	7.32	6.18	6.85	7.47	6.08	5.66	5.50	4.95	28.00
H32	0.00	0.00	0.00	0.00	0.08	0.16	0.21	0.25	0.19	0.48	0.71	1.15	1.82	3.48	2.65	1.46	0.74	0.80	2.05	3.59	4.56	5.25	5.73	6.17	6.62	6.33	5.28	4.86	4.92	4.95	25.49
H33	28.92	0.16	0.39	0.70	0.50	0.14	0.18	0.37	0.11	0.21	0.35	0.46	0.56	0.93	1.48	0.77	0.33	0.44	1.44	2.35	3.44	3.99	4.57	4.79	5.18	5.17	5.42	4.50	4.08	4.03	14.06
H34	37.27	2.05	3.24	0.92	0.45	0.47	0.30	0.51	0.02	0.06	0.11	0.15	0.16	0.26	0.41	0.25	0.07	0.20	1.44	2.55	3.13	3.25	4.20	4.01	4.62	4.38	4.50	4.33	2.98	2.95	10.77
H35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.04	0.11	0.10	0.16	0.55	0.69	0.13	0.57	1.92	4.82	5.41	6.33	5.73	7.19	6.62	6.42	3.61	5.53	4.04	4.25	35.76
H36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.02	-0.02	0.01	0.09	0.04	0.06	0.21	0.55	1.11	0.36	1.55	2.91	5.07	6.80	5.91	6.96	6.64	5.91	6.56	5.18	5.32	5.37	4.45	28.96
H37	9.96	6.33	4.28	0.84	1.26	1.57	1.85	1.85	0.76	1.56	2.04	2.09	1.90	4.19	5.38	3.15	1.56	1.59	2.91	3.05	3.34	3.34	3.15	3.50	3.84	3.03	2.79	2.32	2.44	2.40	11.73
H38	0.00	0.34	0.91	1.37	1.11	0.87	1.18	1.36	0.38	1.11	2.01	1.82	2.06	4.67	6.36	3.78	1.46	2.42	3.55	4.04	4.55	4.18	4.65	4.88	4.52	4.38	4.06	3.64	3.47	3.58	17.31
H39	42.79	1.20	2.70	2.08	0.53	0.24	0.60	0.86	0.92	3.61	7.35	6.85	1.84	0.21	0.23	0.30	0.40	0.39	0.84	0.70	1.32	1.57	1.33	1.81	1.95	1.83	1.87	1.44	1.36	1.33	9.53
H40	0.00	0.37	0.57	0.34	0.72	0.96	1.44	3.29	5.09	14.97	30.83	25.82	4.21	0.95	0.37	0.13	0.30	0.18	0.24	0.30	0.45	0.53	0.59	0.62	0.69	0.72	0.68	0.64	0.57	0.58	2.85
H41	0.00	0.00	0.11	0.22	0.20	0.30	0.54	1.11	0.97	2.79	4.70	4.51	3.11	3.19	4.24	4.54	1.11	3.46	5.40	4.84	5.10	4.41	4.65	4.48	4.06	4.21	3.63	3.35	3.64	2.89	14.24
H42	0.00	1.11	2.24	1.13	0.04	0.09	0.27	0.79	0.33	1.04	1.74	1.71	1.26	1.16	2.65	2.66	0.92	3.01	4.79	5.44	5.61	5.31	5.50	5.85	4.97	4.45	4.17	3.35	2.93	3.36	22.14
H43	30.23	1.81	1.41	0.47	0.24	0.39	0.31	0.45	0.15	0.46	0.67	0.73	0.63	0.98	2.16	1.21	0.50	0.84	1.78	2.24	3.21	3.08	3.34	3.82	3.68	3.94	3.20	2.88	2.88	2.53	19.81
H44	54.68	1.98	0.95	0.45	0.15	0.23	0.33	0.29	0.03	0.22	0.38	0.48	0.45	0.65	1.53	0.79	0.14	0.55	1.35	1.49	1.91	2.20	2.24	2.04	2.51	2.27	1.80	2.03	1.59	1.85	12.43
H45	30.25	2.63	1.75	1.09	0.52	0.47	0.21	0.25	0.04	0.14	0.31	0.37	0.37	0.30	0.51	0.50	0.18	0.33	1.19	1.76	2.46	3.01	3.26	3.55	4.01	4.21	3.63	3.27	2.84	2.65	23.95
H46	48.54	3.58	1.79	1.51	0.58	0.43	0.38	0.25	0.06	0.17	0.30	0.48	0.41	0.35	0.49	0.38	0.12	0.33	0.89	1.30	1.76	1.92	2.30	2.38	2.61	2.74	2.31	2.06	1.99	1.94	15.66
H47	0.00	0.00	0.45	2.21	5.14	7.27	11.29	15.23	11.87	18.40	17.88	4.45	1.46	0.77	0.29	0.93	1.08	0.01	0.04	0.07	0.06	0.08	0.08	0.08	0.08	0.07	0.08	0.06	0.10	0.38	
H48	73.27	2.11	0.58	0.19	0.22	0.32	0.50	0.35	0.08	0.18	0.36	0.42	0.32	0.36	0.56	0.50	0.14	0.16	0.49	0.70	0.93	0.98	1.23	1.19	1.24	1.35	1.27	1.12	0.98	0.96	6.95
H49	0.00	3.49	12.29	22.07	19.69	18.81	9.56	4.49	1.35	0.90	0.62	0.70	0.59	0.44	0.26	0.10	0.18	0.10	0.16	0.23	0.27	0.22	0.30	0.26	0.38	0.30	0.27	0.24	0.24	0.23	1.26
H50	0.00	3.71	8.84	12.11	13.46	14.60	13.33	10.76	6.23	7.23	4.88	1.31	0.54	0.22	0.18	0.07	0.04	0.03	0.09	0.11	0.11	0.18	0.14	0.16	0.16	0.17	0.13	0.14	0.13	0.09	0.86
H51	0.00	0.13	0.34	0.58	0.80	0.91	0.80	1.11	0.09	0.71	2.56	10.34	8.68	2.46	4.33	4.38	2.48	2.97	3.70	3.33	4.11	3.73	3.98	3.64	3.75	3.24	2.85	2.63	2.51	2.31	16.57
H52	0.00	0.00	0.22	1.06	1.28	1.11	0.79	1.13	0.17	0.90	2.53	9.96	8.60	2.81	4.79	4.67	1.29	0.73	1.43	2.40	3.01	3.48	3.54	3.93	4.48	4.36	4.20	3.88	4.10	3.86	15.30
H53	7.04	1.64	0.63	1.40	1.30	1.05	0.95	0.88	0.56	3.80	22.10	26.76	3.63	1.38	1.18	0.98	1.05	1.02	1.32	1.50	1.46	1.56	1.49	1.51	1.44	1.38	1.16	1.14	0.95	1.02	6.73
H54	18.13	7.23	3.31	1.06	0.81	0.74	0.65	0.50	1.20	12.95	27.07	15.39	2.40	0.47	0.50	2.87	0.53	0.09	0.15	0.29	0.27	0.21	0.25	0.31	0.28	0.31	0.23	0.27	0.24	0.21	1.10
H55	0.00	1.81	3.32	2.88	2.80	2.52	3.34	2.90	0.37	0.37	2.27	2.15	1.86	3.78	5.93	4.04	1.39	2.10	3.35	3.40	3.68	3.94	3.89	3.75	3.73	3.36	2.89	2.54	2.77	2.55	16.30
H56	7.84	2.36	3.63	1.75	2.27	2.36	2.30	1.52	0.22	0.84	1.77	2.06	2.10	3.42	4.66	2.45	1.26	1.69	3.03	3.76	4.10	3.88	4.34	4.06	4.34	4.01	3.40	3.16	3.34	2.76	11.31
H57	0.00	1.17	2.59	3.13	3.14	3.15	2.69	1.85	0.18	0.93	1.75	1.53	1.59	1.42	3.46	2.27	0.95	2.42	4.35	5.13	4.12	4.39	5.12	5.01	5.09	5.09	4.78	4.03	4.32	3.82	10.52
H58	0.00	1.22	2.73	3.31	3.32	3.40	3.11	2.10	0.18	0.73	1.42	1.61	1.90	2.27	3.45	2.35	0.98	2.28	4.31	4.60	4.99	4.32	4.72	4.78	4.91	4.67	4.26	3.63	3.49	3.23	11.75
H59	2.14	4.68	3.39	5.47	3.82	3.62	3.00	4.21	2.74	5.88	5.96	14.33	19.85	4.35	1.74	1.23	1.09	0.44	0.72	0.71	0.79	0.75	0.77	0.79	0.72	0.77	0.61	0.60	0.57	0.66	3.60
H60	18.90	4.85	5.62	4.49	3.37	2.64	3.24	3.92	3.52	7.05	6.74	11.04	12.58	2.57	1.27	0.87	0.32	0.28	0.38	0.41	0.40	0.43	0.40	0.41	0.45	0.39	0.41	0.39	0.42	0.36	1.89
H61	38.77	0.88	1.49	1.40	1.30	0.70	1.20	1.41	0.96	4.88	11.46	12.03	4.16	0.83	0.76	0.70	0.48	0.36	0.56	0.68	0.73	0.85	1.05	0.96	1.21	1.24	1.00	0.94	1.00	0.94	5.06
H62	28.78	3.30	3.10	1.97	1.59	1.57	1.82	2.07	2.23	9.23	17.40	15.66	4.77	0.81	0.00	0.00	0.00	0.03	0.11	0.26	0.27	0.39	0.40	0.46	0.51	0.47	0.47	0.37	0.40	0.45	1.12
H63	0.00	0.36	1.18	1.93	3.81	5.92	6.75	8.71	6.86	11.31	10.88	4.87	1.59	2.10	2.38	2.13	1.29	1.78	2.21	1.93	1.89	1.77	1.71	1.77	1.55	1.47	1.28	1.07	1.24	1.01	7.26
H64	3.51	0.25	0.68	1.23	2.42	3.45	6.26	9.13	7.86	15.65	16.50	8.25	3.57	2.15	3.03	2.52	1.59	0.82	1.09	0.84	0.77	0.66	0.66	0.70	0.55	0.59	0.52	0.46	0.48	0.40	3.42

phi	< -3.5	-3	-2.5	-2	-1.5	-1	-0.5	0	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	> 11
H65	0.00	0.23	0.31	0.00	0.09	0.17	0.17	0.25	0.11	0.33	0.57	0.62	0.74	0.65	0.87	1.25	0.59	1.45	3.47	5.18	6.35	5.84	6.76	6.10	6.30	5.78	4.81	4.84	4.64	3.85	27.67
H66	0.00	0.00	0.58	0.91	0.01	0.02	0.10	0.17	0.07	0.25	0.55	0.63	0.57	0.53	1.12	1.42	1.23	1.95	3.75	5.24	6.34	7.10	6.50	7.29	6.86	6.67	6.39	5.25	4.73	5.27	18.51
H67	0.00	0.00	0.11	0.88	1.81	2.21	2.23	2.34	0.51	1.53	2.14	1.41	1.01	1.79	4.17	2.00	1.60	1.58	3.03	4.24	5.13	5.74	5.25	5.90	5.54	5.39	5.16	4.25	3.82	4.26	14.97
H68	0.00	0.00	0.00	0.00	0.05	0.10	0.19	0.36	0.08	0.10	0.28	0.56	0.73	0.85	1.48	2.08	1.11	2.12	3.85	4.62	6.09	5.81	6.03	6.16	6.68	6.17	5.98	5.61	5.66	5.12	22.13
H69	0.00	0.00	0.76	2.40	2.76	3.10	4.08	4.65	1.65	5.17	7.68	6.68	5.30	3.72	3.02	2.00	0.93	1.14	1.80	2.29	2.80	2.79	3.01	3.07	2.89	2.78	2.13	2.01	2.49	2.24	14.65
H70	0.00	0.96	2.09	2.45	3.11	3.77	4.97	5.15	2.55	6.77	9.99	7.19	5.46	2.71	2.32	1.34	1.47	1.37	2.04	1.95	2.62	2.30	2.83	2.56	2.69	2.43	2.26	1.98	1.79	1.86	9.01
H71	7.33	3.49	4.41	3.46	2.79	2.43	3.36	5.99	6.23	14.71	14.91	12.03	6.65	3.67	0.36	0.70	0.52	0.24	0.35	0.45	0.45	0.45	0.48	0.49	0.47	0.47	0.42	0.37	0.38	0.31	1.62
H72	13.42	4.09	4.97	2.98	2.06	2.16	3.25	4.56	6.03	12.65	12.52	8.75	5.22	3.26	1.89	0.89	0.54	0.26	0.53	0.66	0.71	0.75	0.69	0.91	0.75	0.79	0.63	0.67	0.53	0.55	2.31
H73	8.28	4.33	4.60	4.92	3.65	3.60	4.65	5.03	3.82	7.06	6.90	4.25	2.35	1.44	2.10	1.08	0.95	1.07	1.17	1.55	1.84	1.98	1.84	2.34	2.19	2.07	1.61	1.57	1.62	1.52	8.63
H74	2.26	5.60	3.61	3.34	2.37	2.74	2.73	5.23	5.20	10.74	12.16	10.01	6.70	3.79	2.48	1.59	1.80	0.91	0.91	0.96	1.00	1.24	1.08	1.11	1.09	1.04	0.89	0.81	0.81	0.70	5.08
H75	11.74	2.03	3.70	3.24	3.18	2.81	3.24	4.15	2.99	7.84	12.02	10.67	5.92	2.66	1.46	0.73	0.24	0.38	0.77	1.06	1.17	1.39	1.30	1.56	1.45	1.43	1.42	1.48	1.27	1.16	5.54
H76	6.54	3.51	4.04	3.38	2.12	2.74	3.02	3.67	2.66	7.08	11.73	12.16	7.00	2.66	1.51	1.27	0.64	0.38	0.93	1.17	1.54	1.57	1.78	2.00	2.05	2.00	1.82	1.62	1.55	1.33	4.53
O01	35.43	2.04	2.23	0.92	0.73	0.63	0.77	0.74	0.33	1.18	2.00	3.17	7.20	17.47	10.02	2.52	0.74	0.55	0.47	0.66	0.54	0.66	0.72	0.66	0.82	0.78	0.71	0.71	0.75	0.69	3.16
O02	0.51	0.90	0.31	1.02	1.06	1.07	1.52	1.68	0.83	3.42	6.13	8.49	13.99	26.10	15.10	3.29	1.15	0.67	0.53	0.56	0.77	0.68	0.76	0.83	0.82	0.80	0.82	0.86	0.75	0.76	3.82
O03	3.05	5.80	1.63	2.78	2.17	2.32	3.51	5.22	6.73	18.70	32.53	12.20	1.08	0.57	0.22	0.00	0.00	0.01	0.02	0.04	0.06	0.07	0.05	0.04	0.05	0.08	0.09	0.10	0.12	0.13	0.64
O04	1.47	5.63	7.49	9.82	6.74	4.47	3.23	5.63	7.08	15.15	22.24	8.64	1.19	0.13	0.13	0.13	0.83 *														
O05	0.00	3.95	6.55	4.30	4.57	4.24	3.58	2.83	0.23	1.14	2.25	1.77	1.85	3.35	4.80	2.44	1.42	1.57	1.92	2.11	2.58	2.96	2.98	3.76	3.42	3.28	2.97	2.79	2.53	2.64	15.22
O06	0.00	3.24	7.11	7.01	4.70	3.84	4.39	3.08	0.12	0.95	2.15	1.84	1.79	3.02	5.66	2.71	1.57	1.50	1.80	1.80	2.37	2.68	2.71	3.25	3.34	2.88	2.56	2.50	2.47	2.18	14.75
O07	0.33	0.59	0.00	0.00	0.66	1.33	4.10	9.23	8.61	20.85	34.65	15.17	1.81	0.40	0.15	0.06	2.06 *														
O08	0.00	0.26	0.58	0.61	0.89	1.27	3.91	9.41	9.71	24.38	32.25	12.30	1.79	0.20	0.12	0.21	2.11 *														
O09	0.00	0.00	0.00	0.00	0.32	0.63	0.50	0.49	0.00	0.08	0.30	0.27	0.29	0.39	1.41	1.25	1.12	1.56	3.14	4.38	5.20	5.79	6.53	6.52	6.97	6.89	6.06	5.73	5.70	5.62	22.84
O10	0.00	0.00	0.06	0.19	0.31	0.40	0.70	0.31	0.00	0.07	0.20	0.34	0.63	0.61	1.33	1.32	1.39	2.18	3.04	4.72	5.54	4.86	6.78	5.60	6.60	5.95	5.91	5.44	5.23	5.15	25.13
O11	0.00	0.00	0.00	0.18	0.18	0.00	0.41	0.20	0.01	0.01	0.16	0.19	0.39	0.44	0.82	1.07	1.79	1.81	3.75	4.75	5.21	5.69	6.34	6.20	7.06	6.60	6.20	5.87	4.89	5.70	24.07
O12	0.00	0.00	0.50	1.05	0.36	0.16	0.35	0.22	0.03	0.08	0.22	0.37	0.31	0.41	1.10	1.14	0.89	1.83	3.68	5.17	5.19	4.98	5.86	6.12	6.43	5.10	5.63	4.79	4.53	5.03	28.48
O13	0.00	2.89	4.96	3.23	3.07	2.89	3.37	3.69	2.22	5.76	6.38	4.90	2.89	3.27	3.86	2.68	0.98	0.32	0.75	1.20	1.85	2.59	2.56	2.84	3.06	2.99	2.70	2.21	2.26	2.38	15.24
O14	0.00	2.52	6.17	6.67	4.29	3.79	3.60	3.54	1.06	3.28	5.03	4.24	2.78	3.05	3.84	2.52	1.88	1.53	1.85	2.16	2.04	2.56	2.47	2.46	2.69	2.41	2.19	1.95	1.90	1.79	13.72
O15	0.00	0.94	2.00	5.95	7.00	4.33	5.01	5.43	4.67	9.33	12.84	6.69	2.21	1.49	1.52	1.19	0.75	0.59	1.06	1.40	1.50	1.83	1.56	1.85	1.83	1.61	1.57	1.49	1.27	1.34	9.78
O16	2.06	4.83	3.34	4.56	3.57	3.50	3.48	4.54	3.68	7.09	8.38	4.81	1.64	1.62	1.52	1.13	0.66	0.98	1.39	1.87	1.76	2.38	1.85	2.99	2.32	2.37	1.67	2.37	1.82	1.58	14.23
O17	0.00	0.00	0.00	0.00	0.08	0.17	0.16	0.25	0.05	0.07	0.15	0.33	0.46	0.44	0.54	0.50	0.26	0.83	2.57	3.33	4.85	5.49	6.67	7.26	7.36	5.95	5.97	5.38	4.80	4.72	31.36
O18	0.00	0.00	0.00	0.00	0.18	0.37	0.15	0.27	0.00	0.03	0.14	0.35	0.50	0.55	0.64	0.65	0.65	1.05	2.12	3.14	4.45	5.74	6.06	6.90	6.56	8.12	10.39	8.79	9.71	10.31	12.17
O19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.01	0.08	0.12	0.39	0.52	0.20	0.17	0.20	0.14	0.76	1.58	2.95	4.32	4.92	6.40	7.30	7.84	6.40	6.11	6.39	7.14	8.40	27.55
O20	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.02	0.02	0.04	0.06	0.13	0.22	0.27	0.16	0.20	0.41	0.18	1.06	2.69	3.36	4.04	5.68	7.80	8.51	7.54	6.69	6.03	5.22	5.20	34.15
O21	0.00	0.00	0.00	0.00	0.05	0.10	0.13	0.22	0.00	0.01	0.04	0.22	0.34	0.31	0.30	0.33	0.81	0.18	1.90	3.57	4.35	5.79	7.17	7.44	7.23	6.58	5.91	5.30	4.86	4.37	32.50
O22	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.08	0.01	0.02	0.10	0.11	0.24	0.27	0.29	0.29	0.05	0.13	1.15	2.62	4.89	6.25	6.57	6.96	7.32	6.83	6.13	5.72	5.07	5.23	33.54
O23	0.00	0.00	0.00	0.00	0.20	0.40	0.47	0.28	0.02	0.15	0.24	0.30	0.28	0.37	0.56	0.48	1.09	1.01	2.09	3.75	4.63	5.33	6.08	6.58	6.66	6.22	5.67	5.56	6.07	6.72	28.81
O24	0.00	0.46	0.77	0.52	0.51	0.43	0.22	0.26	0.04	0.16	0.22	0.30	0.39	0.33	0.51	0.56	0.22	0.68	2.30	3.62	4.43	5.26	6.29	7.25	6.92	6.13	5.23	4.69	4.73	4.52	32.05
O25	0.00	0.00	0.72	1.48	0.69	0.66	1.00	0.73	0.10	0.53	0.76	0.56	0.50	0.53	1.22	1.07	1.63	1.11	2.28	3.39	3.81	4.75	5.31	6.18	6.57	5.85	5.29	4.66	4.68	4.55	29.38
O26	0.00	0.42	1.27	1.61	0.81	0.57	0.92	0.47	0.03	0.49	0.73	0.55	0.42	0.43	0.92	1.15	0.85	0.17	1.15	2.46	3.47	4.46	5.55	7.09	6.90	6.26	5.95	5.64	5.44	5.69	28.13
O27	0.00	0.58	2.33	4.10	3.19	3.01	4.20	3.14	0.84	2.84	2.82	1.75	1.30	2.22	3.23	2.42	1.31	1.75	2.32	2.58	2.90	3.48	3.81	4.06	4.20	3.85	3.43	3.06	2.93	3.02	19.35
O28	0.00	1.52	4.00	5.53	4.14	3.26	3.83	3.50	0.86	2.69	3.28	2.18	1.50	2.09	4.37	3.17	1.82	1.75	2.34	2.52	2.60	2.99	3.29	3.60	3.48	3.22	2.88	2.55	2.61	2.38	16.01
O29	0.00	0.33	0.44	0.00	0.28	0.57	0.20	0.40	0.01	0.30	0.49	0.32	0.41	0.42	0.87	1.01	0.94	1.23	2.64	3.90	4.14	4.66	5.80	6.32	6.28	6.07	5.54	4.84	4.79	5.19	31.62
O30	0.00	0.00	0.00	0.00	0.20	0.40	0.42	0.45	0.02	0.30	0.39	0.31	0.35	0.38	0.99	0.96	1.35	1.92	2.99	3.42	4.27	4.90	5.67	6.49	6.37	6.08	6.02	5.62	5.18	5.29	29.26
O31	6.57	0.45	0.88	1.18	1.66	1.83	1.51	2.49	1.30	3.77	5.63	5.35	4.78	15.32	10.29	3.88	1.98	1.17	1.27	1.09	1.26	1.53	1.79	2.13	2.05	2.02	1.79	1.65	1.71	1.54	10.12
O32	1.51	5.08	4.03	2.40	2.59	2.81	2.57	3.19	1.84	4.81	6.46	4.54	4.56	14.83	10.90	3.25	1.44	1.04	0.93	0.86	0.99	1.29	1.42	1.42	1.60	1.68	1.52	1.33	1.33	1.35	6.44
O33	0.00	7.56	10.28	1.27	2.41	2.27	2.43	2.53	0.14	1.67	2.98	2.83	2.40	10.43	10.86	4.50	2.74	1.37	1.36	1.53	1.72	1.90	2.12	2.37	2.34	2.17	1.93	1.59	1.60	1.54	9.16
O34	29.47	2.29	3.31	0.93	1.07	0.86	0.82	0.62	0.13	0.55	0.99	1.15	1.28	3.11	5.82	1.96	1.29	1.21	1.35	1.64	2.19	2.14	2.47	2.87	3.10	3.09	2.88	2.59	2.50	2.33	14.00
O35	3.25	5.80	2.46	5.16	3.06	3.48	4.67	5.17	5.05	12.12	19.05	13.57	5.60	2.62	1.37	0.43	0.53	0.30	0.30	0.28	0.31	0.32	0.34	0.39	0.40	0.40	0.40	0.33	0.30	0.32	2.22
O36	1.68	3.87	3.45	4.84	2.34	2.10	3.25	4.65	5.27	12.78	22.53	15.71	5.28	2.91	1.32	0.31	0.57	0.29	0.29	0.30	0.33	0.36	0.39	0.41	0.44	0.44	0.42	0.39	0.41	0.38	2.28
O37	0.61	4.81	5.54	1.24	1.33	1.69	0.98	0.73	0.17	0.30	0.44	0.52	0.70	1.52	2.89	1.43	1.33	1.43	2.52	2.89	3.28	3.82	4.50	4.91	4.87	4.79	4.63	4.20	3.96	3.96	24.00
O38	0.67	1.19	1.98	4.43	3.16	3.67	3.49	2.28	0.41	1.40	1.90	1.44	1.73	4.18	5.25	2.69	1.74	1.84	2.33	2.20	2.39	2.82	3.20	3.42	3.78	3.72	3.30	3.00	3.00	3.01	20.40
O39	20.49	3.29	5.31	3.17	2.75	1.78	2.28	3.45	2.70	7.09	11.93	13.06	7.88	3.45	1.92	1.00	0.61	0.30	0.26	0.26	0.34	0.38	0.45	0.53	0.53	0.50	0.45	0.39	0.41	0.44	2.61
O40	0.48	0.86	2.67	8.21	6.83	5.58	5.52	6.21	6.10	10.97	14.27	11.83	6.49	3.35	1.47	0.32	0.17	0.21	0.25	0.30	0.37	0.39	0.48	0.56	0.60	0.61	0.55	0.49	0.51	0.48	2.87
O41	0.00	2.66	4.69	2.72	3.35	4.63	3.57	2.43	0.59	2.11	3.51	2.87	2.81	6.30	9.01	3.01	1.59	1.43	1.80	1.91	1.96	2.06	2.31	2.73	2.99	2.80	2.50	2.38	2.48	2.26	14.54
O42	0.00	2.13	3.67	2.40	3.00	3.63	2.79	2.26	0.70	2.65	3.98	3.86	3.28	8.56	9.42	3.51	1.58	1.27	1.50	1.54	1.78	2.03	2.39	2.67	2.80	2.70	2.46	2.30	2.22	2.08	14.82
O43	0.00	0.00	0.00	0.00	0.21	0.42	0.44	0.53	0.15	0.64	1.21	1.27	1.14	1.14	1.47	0.85	0.87	2.27	4.08	4.46	4.81	5.05	5.68	6.21	5.69	5.31	4.68	4.53	4.72	4.59	27.60
O44	0.00	0.00	0.21	1.05	1.04	0.62	0.93	0.80	0.29	0.81	1.46	1.49	1.21	1.15	1.33	0.98	1.51	2.76	3.93	4.29	4.49	4.58	5.30	5.84	5.58	4.90	4.43	4.14	4.08	4.29	26.51
O45	0.00	0.00	0.10	0.56	0.59	0.38	0.25	0.31	0.01	0.24	0.47	0.37	0.50	0.84	2.04	1.72	0.37	1.40	2.06	2.65	3.57	3.42	5.09	6.38	6.20	6.03	5.47	4.94	4.43	4.48	35.15
O46	0.00	0.00	0.17	0.44	0.42	0.51	0.63	0.36	0.03	0.13	0.12	0.19	0.37	0.54	2.21	1.54	2.45	2.37	2.77	3.22	3.60	4.58	5.38	5.83	6.12	6.08	5.54	4.94	5.07	4.71	29.69
O47	1.16	5.48	6.00	2.91	1.64	1.69	1.64	0.85	0.02	0.26	0.55	0.58	0.67	1.35	3.87	2.94	1.55	1.82	2.17	2.86	3.05	3.29	3.64	4.31	4.50	4.41	3.87	3.39	3.35	3.29	22.88
O48	0.00	6.49	9.10	1.01	1.62	2.07	1.85	0.57	0.04	0.38	0.62	0.58	0.62	1.13	3.70	2.07	1.16	1.92	2.24	2.21	2.80	3.16	3.65	4.33	4.85	4.67	4.04	3.42	3.51	3.65	22.52
O49	0.00	0.00	0.00	0.67	0.95	0.57	0.62	0.67	0.28	0.88	1.22	1.12	1.18	1.87	3.16	2.12	1.75	1.85	2.47	3.33	3.49	4.40	5.02	5.41	5.67	5.45	4.99	4.15	4.16	4.13	28.43
O50	0.00	0.00	0.00	0.08	0.36	0.56	0.54	0.44	0.19	0.65	0.82	0.91	1.04	1.77	2.82	2.11	1.22	1.78	2.96	3.42	3.54	4.30	5.18	5.50	5.78	5.52	5.14	4.61	4.70	4.79	29.27
O51	26.40	1.57	1.33	0.87	0.83	1.09	1.10	1.05	0.29	1.06	1.96	2.26	2.88	5.17	4.33	2.00	0.80	1.17	1.63	1.56	1.63	1.89	2.43	3.17	3.20	3.06	2.85	2.30	2.39	2.41	15.31
O52	0.00	2.40	4.30	2.48	1.74	1.76	1.42	1.29	0.39	1.29	2.12	2.49	3.13	7.04	5.74	2.41	1.08	1.28	1.49	1.87	2.17	2.90	3.62	3.97	4.27	4.43	4.21	3.85	3.82	3.53	17.50
O53	0.76	3.46	4.00	4.66	5.61	5.48	6.58	7.72	7.75	16.00	19.90	11.05	2.56	0.78	0.23	0.56	0.37	0.05	0.07	0.09	0.11	0.12	0.12	0.15	0.17	0.18	0.17	0.16	0.17	0.16	0.80
O54	2.60	10.29	9.68	7.50	7.83	6.93	6.45	7.93	7.55	14.82	12.04	4.44	1.08	0.35	0.15	0.17	0.20 *														
O55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.06	0.15	0.38	0.49	0.34	0.31	0.41	0.49	0.31	0.74	2.55	3.23	4.15	5.38	6.23	6.81	7.20	7.26	6.90	6.87	7.38	7.62	24.49
O56	0.00	0.00	0.00	0.00	0.30	0.59	0.00	0.26	0.13	0.25	0.24	0.19	0.18	0.17	0.26	0.39	0.87	1.44	1.77	3.53	4.58	4.98	5.65	6.53	6.88	6.42	5.53	4.89	4.83	4.85	34.31

phi	< -3.5	-3	-2.5	-2	-1.5	-1	-0.5	0	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	> 11
O57	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.28	0.01	0.06	0.10	0.16	0.25	0.28	0.64	0.94	0.32	1.65	2.57	3.31	3.92	4.53	5.23	6.27	6.52	6.35	6.15	5.44	4.92	4.87	35.02
O58	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.10	0.01	0.06	0.15	0.33	0.46	0.47	0.71	0.95	1.27	1.57	2.48	3.27	4.02	4.94	5.91	6.66	6.60	6.03	5.67	4.96	4.91	5.23	33.05
O59	27.43	0.95	1.93	1.27	0.75	0.96	1.03	2.00	1.67	4.62	7.50	7.69	6.43	3.28	1.50	0.81	0.47	0.48	0.82	0.96	1.02	1.43	1.67	1.91	2.04	1.98	1.76	1.51	1.49	1.60	11.06
O60	29.05	4.47	5.90	1.89	1.49	1.18	1.88	2.36	1.55	4.77	8.55	9.10	8.13	4.69	1.69	0.98	0.45	0.23	0.39	0.47	0.55	0.61	0.66	0.80	0.77	0.75	0.76	0.74	0.68	0.61	3.83
O61	15.81	2.58	2.13	1.39	2.13	2.15	2.52	4.12	3.98	9.29	13.16	8.64	3.08	1.27	1.00	0.67	0.37	0.42	0.69	0.97	1.01	1.16	1.50	1.76	1.75	1.68	1.61	1.28	1.22	1.41	9.28
O62	21.52	2.44	1.72	1.53	1.23	1.66	2.86	3.69	3.41	8.33	13.44	10.59	4.14	1.74	1.26	0.76	0.26	0.36	0.56	0.66	0.80	0.91	1.12	1.28	1.32	1.33	1.25	1.14	1.05	1.08	6.57
O63	0.00	1.99	3.29	1.76	1.94	2.18	2.31	1.55	0.44	1.51	1.85	1.21	1.11	1.70	3.88	2.52	1.15	1.67	3.06	3.34	3.18	3.59	4.34	4.90	5.43	5.55	5.10	4.74	4.62	4.61	15.44
O64	0.00	0.28	0.46	0.44	0.65	0.65	5.92	0.79	0.03	0.35	0.58	0.67	0.60	0.99	2.34	1.56	1.46	1.60	2.40	3.18	3.67	4.19	4.57	5.12	5.73	5.32	4.49	4.05	4.24	4.42	29.25
O65	0.00	0.16	0.63	1.52	2.04	2.33	2.30	2.44	0.62	2.08	2.75	2.03	1.79	2.69	5.88	4.06	2.74	2.74	3.05	2.74	2.82	3.27	3.85	4.17	4.05	4.02	3.51	3.25	3.34	2.92	20.18
O66	36.03	0.40	1.07	1.71	2.12	2.48	3.13	3.09	0.07	0.26	0.33	0.21	0.16	0.26	0.59	0.38	0.92	1.85	2.12	1.92	2.01	2.37	2.70	2.92	2.95	2.80	2.62	2.29	2.16	2.12	15.96
O67	0.00	0.07	0.10	0.09	0.14	0.10	0.08	0.30	0.09	0.18	0.53	0.96	0.57	0.16	0.24	0.32	0.89	1.27	2.32	3.57	4.57	5.42	6.02	6.92	6.97	6.33	5.19	4.70	4.65	4.46	32.78
O68	0.00	0.00	0.00	0.06	0.06	0.00	0.17	0.39	0.10	0.22	0.28	0.51	0.53	0.27	0.31	0.29	0.65	1.03	2.57	3.52	5.06	6.28	6.96	7.76	8.32	7.62	6.85	6.32	5.98	5.64	22.27
O69	0.00	1.08	1.46	0.38	0.67	0.58	0.77	0.76	0.19	0.76	1.14	1.03	0.85	0.86	1.44	1.71	1.89	2.16	2.80	3.33	3.92	4.54	5.22	5.91	5.67	5.26	4.58	3.94	4.11	3.92	29.09
O70	6.44	0.00	0.23	0.50	0.33	0.40	0.53	0.66	0.19	0.64	1.10	0.85	0.68	0.77	1.33	1.59	1.31	1.99	3.00	3.41	3.73	4.33	4.94	5.19	5.44	5.39	4.77	4.26	4.29	4.09	27.62
O71	0.17	2.62	4.00	4.48	5.06	3.81	5.22	6.26	6.42	14.24	18.52	14.66	6.16	1.72	0.56	0.47	0.31	0.10	0.15	0.18	0.19	0.24	0.26	0.32	0.33	0.34	0.32	0.29	0.45	0.64	1.51
O72	0.00	1.65	3.49	3.81	3.26	2.77	4.66	6.33	6.52	16.75	23.01	15.11	5.48	1.23	-0.30	0.05	0.51	0.11	0.13	0.17	0.20	0.25	0.34	0.38	0.36	0.37	0.36	0.30	0.29	0.30	2.08
O73	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.77	0.00	0.04	0.06	0.07	0.09	0.07	0.09	0.19	0.14	0.42	1.33	3.06	4.70	5.88	6.61	7.61	8.07	7.92	7.24	6.33	6.44	6.27	26.57
O74	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.19	0.03	0.08	0.09	0.14	0.32	0.28	0.32	0.40	0.65	0.67	2.05	2.91	4.14	5.23	6.00	7.17	7.17	6.47	5.90	5.26	5.20	4.97	34.18
O75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.12	0.18	0.30	0.27	0.18	0.11	0.18	0.17	0.69	0.38	1.18	2.58	3.40	4.91	6.27	7.09	7.33	6.81	6.50	5.61	5.25	4.97	35.26
O76	0.00	0.00	0.00	0.00	0.26	0.53	1.45	2.85	3.70	7.71	7.61	3.51	1.60	0.60	0.39	0.29	0.22	-0.14	0.70	2.24	3.14	4.02	4.83	5.15	5.24	4.79	4.34	3.88	3.52	3.64	23.81
O77	0.00	0.00	0.00	0.00	0.17	0.34	0.99	2.52	2.56	5.63	5.76	2.87	1.64	0.66	0.39	0.28	0.37	1.08	1.99	2.64	2.98	4.13	4.89	5.35	5.28	5.07	4.55	3.69	3.77	3.71	26.70
O78	0.00	0.00	0.17	0.27	0.00	0.00	0.29	0.20	0.12	0.29	0.34	0.17	0.08	0.03	0.02	0.02	0.71	1.04	2.27	4.20	4.96	5.32	6.73	7.36	7.53	7.33	6.54	5.80	5.91	5.75	26.55
O79	0.00	0.00	0.94	3.43	2.74	1.57	1.37	2.14	1.75	3.32	3.15	1.65	0.87	0.46	0.26	0.34	0.98	1.27	2.29	2.71	3.51	5.06	5.91	6.39	6.52	6.43	5.63	4.66	4.38	4.37	15.91
O80	0.00	1.22	1.77	1.42	2.00	1.50	1.56	2.13	1.78	3.50	3.23	1.42	0.65	0.46	0.37	0.32	0.88	1.51	2.01	2.99	3.71	4.68	5.55	6.31	6.53	6.39	5.60	4.85	4.48	4.30	16.87
P001	0.00	0.69	3.10	8.22	10.35	11.00	7.47	5.98	4.58	7.47	8.52	5.94	2.69	2.60	3.10	1.92	0.87	0.78	0.97	0.84	0.74	1.06	1.00	1.29	1.23	1.32	1.24	0.96	0.99	0.77	2.28
P002	0.47	0.84	0.16	0.55	0.52	0.44	0.77	2.64	3.36	8.38	10.30	9.11	8.67	9.06	7.77	4.67	2.59	2.03	2.16	1.57	1.66	1.61	1.70	2.18	2.22	2.45	2.14	2.03	1.80	1.64	4.52
P003	0.00	0.00	0.02	0.16	0.28	0.31	0.58	3.21	11.01	31.10	25.24	8.94	3.33	1.49	0.75	0.99	0.90	0.66	0.61	0.59	0.58	0.65	0.60	0.80	0.81	0.80	0.84	0.78	0.84	0.66	2.47
P004	1.03	1.83	0.02	0.20	0.56	0.79	1.46	1.76	1.44	3.89	7.20	12.50	11.83	7.22	5.03	2.79	1.35	1.82	2.05	2.07	2.30	2.12	2.57	2.59	2.52	2.34	2.10	2.09	2.09	2.00	10.44
P005	7.26	0.00	0.57	1.22	0.93	1.22	1.50	2.24	2.17	5.07	6.51	6.58	5.09	6.22	6.54	4.41	3.20	3.31	3.05	2.69	2.36	2.39	2.60	2.68	2.70	2.45	2.51	2.06	1.94	1.82	6.71
P006	0.00	0.00	0.00	0.00	0.12	0.24	0.25	0.81	1.30	4.13	6.27	5.60	3.17	3.48	7.11	5.77	1.21	2.26	3.13	3.24	3.73	3.89	4.27	3.84	3.89	3.96	2.89	3.05	3.79	2.82	15.76
P007	0.00	0.00	0.32	0.96	1.06	1.20	1.69	2.87	3.01	6.66	9.46	6.51	4.58	6.09	5.59	3.25	2.02	1.81	1.97	2.03	2.05	2.37	2.57	2.84	3.03	3.17	2.92	2.60	2.45	2.65	12.27
P008	0.00	0.00	0.08	0.75	0.89	0.54	1.21	1.77	2.16	4.56	4.70	3.41	2.55	5.31	9.13	5.07	3.56	3.05	2.37	3.07	2.18	3.46	3.55	4.67	4.64	4.28	3.88	3.34	3.18	2.85	9.78
P009	1.31	3.46	2.26	4.06	5.79	5.75	7.71	12.24	18.24	25.39	9.43	2.33	0.77	0.21	0.14	0.16	0.74 *														
P010	0.30	0.53	0.15	2.89	6.65	8.00	9.57	12.24	16.03	23.50	13.70	4.10	0.64	0.01	0.44	0.28	0.96 *														
P011	0.00	0.28	0.98	3.49	8.17	11.22	14.39	17.18	13.02	10.39	4.12	2.19	2.63	2.95	2.72	1.63	0.52	0.40	0.26	0.23	0.22	0.18	0.20	0.21	0.24	0.21	0.25	0.20	0.22	0.20	1.08
P012	0.00	0.00	1.38	4.60	9.17	13.46	14.95	11.91	5.64	4.42	2.89	2.52	4.79	6.74	4.78	2.32	1.08	0.51	0.54	0.41	0.54	0.50	0.52	0.53	0.68	0.64	0.68	0.61	0.63	0.57	2.00
P013	0.00	0.00	0.86	1.48	1.13	2.02	2.27	3.53	2.89	7.32	9.69	7.12	4.91	5.94	9.03	5.01	2.96	2.76	2.69	2.27	1.88	1.98	2.00	1.95	2.17	1.98	2.04	1.86	1.84	1.96	6.46
P014	0.00	1.44	1.95	0.14	0.42	0.56	1.01	1.40	0.58	1.39	2.10	2.23	2.75	8.67	16.75	9.44	5.07	3.84	3.76	2.80	2.46	2.56	2.43	2.44	2.19	2.02	2.26	2.02	1.80	2.17	11.35
P015	0.00	0.00	0.95	2.03	1.01	0.93	1.77	1.80	1.19	2.30	2.79	3.47	3.69	6.35	11.85	7.02	3.83	3.51	3.15	2.88	3.06	2.65	2.56	2.88	2.61	2.12	2.25	2.11	2.33	1.80	15.08
P016	0.00	0.00	0.06	0.33	0.99	1.51	1.24	2.29	1.26	2.89	3.24	3.57	3.60	8.06	11.67	7.71	3.84	3.89	3.16	3.09	2.92	3.11	2.91	3.07	3.46	2.96	2.74	2.66	2.40	2.35	9.01
P017	0.00	0.00	0.07	0.14	0.19	0.33	0.97	2.40	2.95	8.88	17.28	25.78	8.29	2.93	3.08	2.06	1.54	1.14	1.35	1.42	1.20	1.43	1.22	1.62	1.48	1.53	1.43	1.38	1.36	1.39	5.16
P018	2.26	0.84	0.73	0.93	1.19	1.21	1.70	3.17	3.26	9.17	19.27	20.31	5.48	2.05	1.84	1.21	1.26	1.01	1.20	1.11	1.27	1.21	1.33	1.58	1.49	1.52	1.55	1.51	1.25	1.53	6.56
P019	0.00	0.00	0.00	0.07	0.23	0.32	1.19	1.11	0.53	1.35	3.43	7.50	7.38	7.89	11.93	7.47	3.97	3.50	3.14	3.26	2.83	3.21	2.74	3.35	3.15	2.85	2.81	2.57	2.10	2.33	7.77
P020	0.00	0.10	0.13	0.13	0.38	0.50	0.72	1.12	0.76	2.25	3.64	5.79	5.90	9.39	8.45	6.54	4.08	3.39	3.02	3.13	3.19	3.51	3.31	3.76	3.88	3.42	2.99	2.74	2.78	2.38	8.58
P021	0.24	3.43	4.66	1.73	2.04	2.42	3.53	6.58	5.24	9.99	9.76	5.61	2.72	3.68	4.10	3.08	1.65	2.03	1.71	1.54	1.62	1.61	1.54	1.80	1.94	1.94	1.82	1.68	1.67	1.61	7.02
P022	0.00	0.03	1.54	5.77	6.14	5.44	5.70	10.02	9.62	17.19	12.97	4.67	1.61	1.22	2.07	1.29	0.98	0.67	0.80	0.80	0.72	0.78	0.79	0.78	0.81	0.75	0.76	0.63	0.74	0.57	4.13
P023	0.00	0.64	0.88	0.83	2.39	3.12	4.57	6.66	4.71	10.74	10.98	6.67	3.64	5.03	4.81	3.64	2.60	1.74	2.04	1.89	1.44	1.83	1.59	1.55	1.61	1.35	1.33	1.24	1.32	1.36	7.81
P024	0.00	0.21	0.35	0.19	0.63	1.08	1.51	3.11	1.83	3.34	2.73	2.28	2.63	9.08	13.69	8.29	4.37	2.75	3.16	2.96	2.79	2.71	2.63	2.84	2.93	2.52	2.33	2.18	2.34	2.07	10.46
P025	0.00	0.79	1.42	1.73	1.91	1.45	2.25	3.42	3.20	5.62	5.44	3.58	2.53	6.91	9.53	6.36	4.27	3.39	3.34	2.52	2.52	2.38	2.42	2.90	2.88	2.66	2.32	2.12	1.96	1.53	6.65
P026	0.00	0.00	0.00	0.45	0.81	0.74	1.35	2.01	1.06	2.40	3.01	2.49	2.57	5.05	12.17	7.39	3.88	3.38	3.79	3.07	3.51	2.97	3.12	3.24	3.29	3.22	2.90	2.84	3.05	2.74	13.48
P027	0.00	2.65	4.94	3.18	1.97	1.75	1.29	2.67	2.33	6.27	7.57	8.88	11.81	15.48	6.55	2.47	1.31	0.69	0.57	0.77	0.71	0.74	1.02	1.08	1.32	1.35	1.05	1.21	1.06	1.09	6.20
P028	40.46	6.22	0.89	0.19	0.11	0.13	0.13	0.08	0.05	0.14	0.22	0.31	0.53	1.03	1.18	0.67	0.32	0.48	0.90	1.20	1.56	1.89	2.22	2.75	3.32	3.74	3.35	3.10	3.52	3.03	16.29
P029	1.28	2.28	0.00	0.08	0.12	0.07	0.19	0.64	0.68	1.34	1.11	1.04	1.17	1.55	2.41	1.93	0.79	1.64	1.70	1.92	3.30	4.15	4.40	4.79	5.82	4.78	4.82	4.62	3.78	4.28	33.32
P030	0.00	3.88	7.04	6.23	5.89	4.81	7.15	14.78	18.78	15.25	3.42	1.51	0.89	1.32	1.01	0.75	0.46	0.30	0.29	0.25	0.41	0.29	0.38	0.44	0.44	0.40	0.44	0.39	0.40	0.47	1.94
P031	0.00	1.57	2.77	1.26	0.51	0.48	1.49	2.70	3.35	5.42	5.59	4.85	3.94	4.12	4.07	2.38	1.13	1.48	1.49	1.85	2.06	2.75	2.77	3.50	3.58	3.90	3.88	3.19	3.04	3.36	17.51
P032	11.64	5.70	3.99	6.00	7.87	7.85	6.90	7.58	7.57	10.03	5.55	4.63	3.18	2.32	1.49	0.66	0.58	0.38	0.29	0.28	0.36	0.40	0.45	0.57	0.60	0.54	0.53	0.42	0.35	0.33	0.95
P033	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.64	0.43	0.86	1.14	1.72	2.84	4.61	9.44	6.57	3.78	4.64	4.47	4.25	4.29	3.91	3.84	3.52	3.74	2.90	3.43	3.00	2.81	2.97	20.20
P034	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.34	0.27	0.55	0.61	0.82	1.19	2.05	6.88	5.84	1.86	2.86	4.47	4.51	4.37	4.96	4.23	4.68	4.45	3.74	3.63	3.59	3.08	3.24	27.62
P035	0.00	0.00	0.00	0.00	0.12	0.25	0.14	0.19	0.17	0.54	0.73	0.78	1.16	1.89	8.15	5.58	4.08	4.09	4.13	5.29	4.56	5.11	4.94	5.35	5.41	5.84	4.76	4.58	4.68	3.48	14.00
P036	0.00	0.00	0.00	0.00	0.02	0.04	0.09	0.13	0.05	0.10	0.20	0.31	0.26	0.27	0.95	1.58	1.34	2.70	4.09	4.71	6.36	6.09	6.42	6.23	7.04	6.46	5.15	5.72	4.63	5.09	23.98
P037	0.00	1.05	3.15	3.39	2.01	2.60	3.99	5.75	4.42	6.25	5.13	3.12	2.64	3.05	3.27	2.81	2.45	2.79	3.19	3.25	3.04	3.49	3.30	3.70	3.63	3.27	3.01	2.29	2.04	1.86	6.04
P038	0.00	0.00	0.38	1.82	3.27	4.08	6.49	10.27	13.66	20.09	13.30	4.87	2.20	1.25	1.02	0.46	0.89	0.52	0.67	0.71	0.71	0.97	0.90	1.01	1.02	0.86	0.83	0.67	0.63	0.70	5.73
P039	0.00	0.00	0.00	0.83	0.92	0.19	0.88	1.45	0.99	1.90	2.93	5.05	6.57	10.92	8.78	4.64	2.98	3.25	3.22	3.21	3.23	3.27	4.12	3.80	4.08	4.09	2.85	3.17	1.87	2.82	7.98
P040	0.00	0.00	0.00	1.53	1.93	0.79	1.85	2.01	1.10	2.84	4.36	5.98	7.75	11.68	8.86	4.37	2.66	2.41	2.95	2.54	2.65	2.65	2.74	2.37	2.57	2.24	2.09	2.27	2.14	1.70	10.97
P041	1.13	2.31	0.65	0.49	0.36	0.48	1.24	2.60	1.79	5.49	7.72	6.48	4.23	6.54	7.64	4.36	2.51	3.02	2.92	2.54	2.90	2.98	2.61	3.30	2.90	2.73	2.55	2.62	2.09	2.54	8.27
P042	0.00	0.00	0.37	0.66	0.62	1.09	2.11	2.87	2.57	6.26	7.53	6.17	3.38	4.53	6.19	3.94	2.61	3.06	2.81	2.86	3.06	2.94	3.16	2.70	3.14	2.33	2.51	2.95	2.33	2.75	12.51
P043	0.00	1.69	2.30	0.50	1.06	1.10	3.23	7.40	11.32	22.10	26.35	12.32	4.35	2.14	0.74	0.38	0.39	0.08	0.16	0.19	0.20	0.43	0.48	0.48	0.48	0.15	0.00	0.00	0.00	0.00	0.00
P044	0.00	0.00	0.74	1.89	2.02	2.60	4.88	8.69	9.36	20.59	26.02	12.78	5.56	2.32	0.55	0.10	0.53	0.12	0.08	0.06	0.04	0.06	0.06	0.08	0.06	0.09	0.06	0.09	0.07	0.05	0.47

	<																													>
phi	**-3.5**	**-3**	**-2.5**	**-2**	**-1.5**	**-1**	**-0.5**	**0**	**0.5**	**1**	**1.5**	**2**	**2.5**	**3**	**3.5**	**4**	**4.5**	**5**	**5.5**	**6**	**6.5**	**7**	**7.5**	**8**	**8.5**	**9**	**9.5**	**10**	**10.5**	**11**	**11**
P045	38.76	3.90	2.45	3.44	1.17	0.78	1.34	1.70	1.40	2.49	2.66	3.16	7.50	3.86	2.02	0.81	0.67	0.62	0.65	0.74	0.85	1.14	1.47	1.97	2.42	2.29	1.93	1.59	1.30	1.37	3.54
P046	26.00	5.78	3.14	3.26	2.15	1.60	2.07	2.78	1.87	4.69	5.59	9.05	12.87	4.79	1.74	0.62	0.29	0.32	0.45	0.43	0.40	0.84	0.92	1.18	1.31	1.21	0.93	0.91	0.73	0.53	1.58
P047	72.66	0.64	0.55	1.03	0.68	0.73	0.73	0.89	0.77	1.59	1.37	1.49	1.89	1.60	1.00	0.35	0.29	0.28	0.36	0.46	0.55	0.52	0.56	0.72	0.86	0.81	0.82	0.83	0.73	0.82	3.41
P048	45.49	1.93	0.47	0.71	0.98	0.64	0.90	0.95	0.66	1.21	1.14	1.11	1.32	1.78	1.27	0.71	0.94	0.74	1.47	1.16	1.55	1.72	2.07	1.91	2.56	2.41	2.50	2.48	1.83	1.94	13.44
P049	17.76	0.00	0.00	0.00	0.30	0.60	1.52	3.79	5.14	6.83	3.07	1.94	1.93	2.60	1.88	1.06	1.80	1.46	1.62	2.39	2.62	2.77	3.32	4.24	4.07	4.53	3.88	3.75	3.28	2.90	8.96
P050	66.71	3.04	0.22	0.44	0.85	1.03	0.91	1.10	0.69	1.11	0.85	0.77	1.08	1.90	1.07	0.65	0.69	0.54	0.66	0.69	0.68	0.85	0.79	1.07	1.15	1.15	1.11	1.25	1.10	1.19	4.65
P051	0.00	2.26	3.67	2.70	3.09	2.64	2.40	3.02	1.97	3.45	3.95	4.54	5.09	11.97	10.20	4.64	2.45	2.40	2.13	1.75	2.01	1.87	2.27	2.15	2.45	1.99	1.85	1.70	1.57	1.42	6.42
P052	12.09	1.05	2.37	4.20	5.35	5.23	5.06	4.91	4.31	7.10	7.61	7.94	5.79	6.75	5.13	2.37	1.26	0.80	0.74	0.59	0.67	0.65	0.68	0.83	0.73	0.75	0.59	0.59	0.67	0.55	2.66
P053	6.50	11.60	0.00	0.91	1.45	1.08	0.54	2.60	2.17	4.50	4.97	4.87	4.12	3.64	3.40	2.31	1.43	1.77	2.13	2.49	2.60	2.60	2.49	3.14	3.43	2.75	2.65	2.62	2.50	2.44	10.31
P054	0.00	0.45	1.18	1.85	1.27	0.60	0.68	1.45	1.07	1.72	1.47	2.66	6.52	13.99	9.08	4.44	2.92	2.94	2.93	2.98	2.80	2.73	2.63	2.78	3.01	3.01	2.61	2.40	2.48	2.43	12.93
P055	50.28	1.14	0.00	0.08	0.27	0.39	0.26	1.11	0.81	2.29	3.03	3.76	3.73	5.22	3.39	1.48	0.95	0.85	0.89	1.17	1.12	1.65	1.49	1.78	2.08	1.81	1.63	1.61	1.19	1.07	3.48
P056	0.00	0.15	0.56	1.34	0.99	0.44	1.29	2.86	2.81	6.40	9.00	11.11	8.38	10.22	6.79	3.04	1.51	1.59	1.68	1.79	1.81	1.78	1.96	2.00	2.46	2.50	2.12	1.95	2.19	1.69	7.57
P057	28.12	0.00	0.00	0.03	0.06	0.05	0.10	1.09	0.96	2.07	2.18	2.57	4.06	4.33	2.62	0.98	0.83	0.81	1.07	1.61	1.90	2.25	2.43	3.04	3.64	3.51	3.76	2.73	3.06	2.93	17.23
P058	28.94	4.35	0.00	0.17	0.31	0.29	0.38	0.87	0.53	1.03	1.03	1.49	2.71	5.47	3.49	1.28	0.71	0.83	1.53	2.21	2.71	2.98	3.48	4.14	4.81	4.74	4.19	3.66	3.19	2.64	5.84
P059	0.00	0.70	1.24	0.51	0.38	0.64	0.86	2.19	2.26	4.57	5.24	8.40	11.64	23.31	12.99	4.31	1.43	0.92	0.69	0.92	0.96	1.02	1.02	1.22	1.28	1.68	1.14	1.38	1.22	1.48	4.40
P060	25.94	0.36	0.49	0.29	0.60	0.63	1.08	2.69	2.55	4.24	3.67	6.07	7.55	16.47	11.05	3.27	0.75	0.54	0.55	0.60	0.57	0.72	0.65	0.82	0.90	0.96	0.85	0.97	0.90	0.64	2.64
P061	0.00	0.00	0.00	0.31	0.54	0.45	1.54	2.48	1.93	2.74	2.80	2.05	1.84	7.83	12.68	7.14	4.26	4.45	3.97	4.38	3.54	4.07	3.10	4.30	3.89	3.78	3.34	3.03	2.66	1.91	5.00
P062	0.00	0.00	0.06	0.36	0.39	0.24	1.22	1.38	0.57	1.33	2.56	2.10	2.29	8.93	15.46	8.11	5.14	4.30	4.19	4.20	3.72	3.56	3.85	3.60	3.94	3.33	3.10	2.29	2.78	1.90	5.11
P063	0.00	0.00	0.13	0.37	0.58	0.84	0.57	1.70	1.41	2.70	3.45	3.32	3.32	9.89	17.71	6.39	4.07	3.30	3.13	2.78	2.53	2.55	2.48	2.75	3.11	3.63	2.74	2.64	2.35	2.54	7.03
P064	0.00	0.00	0.12	0.32	0.82	1.39	1.59	2.45	1.53	4.42	5.38	3.98	3.43	11.75	15.17	6.95	2.60	2.49	2.78	2.57	2.31	2.26	2.23	2.29	2.55	2.12	2.22	1.91	1.89	1.85	8.59
P065	16.28	3.00	2.53	4.34	2.94	2.46	1.99	2.56	1.69	5.16	8.76	6.43	2.45	2.80	1.72	0.89	0.77	0.85	0.87	1.34	1.31	1.54	1.95	2.12	2.88	2.93	2.65	2.69	2.20	2.47	7.41
P066	17.19	0.00	0.94	1.90	1.12	1.37	2.34	3.39	3.04	7.50	13.30	9.88	3.56	4.42	2.00	0.96	0.80	0.71	0.93	1.19	1.35	1.83	2.04	2.20	2.62	2.34	2.39	2.31	2.02	1.62	2.73
P067	0.00	0.00	0.77	1.41	0.50	0.57	3.06	4.61	2.56	3.43	3.18	2.81	4.07	10.25	15.47	6.09	3.23	2.29	2.56	2.39	3.14	2.95	3.42	3.54	3.49	3.06	2.65	2.10	2.02	1.23	3.15
P068	0.00	0.00	0.52	1.98	2.55	2.79	3.78	4.29	1.79	3.68	3.88	3.95	5.76	11.24	12.79	5.18	2.68	2.04	1.82	2.34	1.63	1.92	2.00	2.01	2.28	2.48	2.57	2.00	1.69	1.88	6.47
P069	0.17	0.30	1.19	4.18	4.73	4.82	7.27	11.29	11.65	16.68	14.67	11.07	4.17	2.28	1.35	0.60	0.40	0.24	0.21	0.31	0.18	0.13	0.23	0.16	0.22	0.24	0.15	0.19	0.18	0.16	0.57
P070	0.00	0.91	1.61	2.09	3.50	4.00	5.74	9.56	11.09	16.10	15.88	12.37	4.63	3.01	2.36	1.23	0.94	0.72	0.38	0.39	0.24	0.28	0.28	0.25	0.36	0.29	0.32	0.28	0.25	0.20	0.74
P071	0.00	0.00	0.00	0.37	1.02	1.29	2.04	2.69	1.78	3.96	4.35	3.38	3.12	6.27	7.37	5.54	4.61	4.06	4.35	4.18	3.79	3.96	4.19	4.08	4.49	3.63	3.38	2.46	2.67	2.11	4.84
P072	0.00	0.00	0.11	0.51	0.72	0.77	2.01	2.62	2.38	4.79	5.06	3.93	3.04	5.56	7.04	4.66	4.33	3.47	3.67	4.36	3.93	4.12	3.87	3.91	4.44	4.09	3.20	3.05	2.74	2.15	5.49
P073	6.82	0.00	0.26	0.93	1.50	1.95	2.99	5.63	4.44	8.73	10.57	12.19	5.84	6.20	6.48	3.40	2.20	1.65	1.58	1.53	1.24	1.19	1.08	1.29	1.33	1.48	1.13	1.20	1.09	1.09	2.98
P074	0.00	0.00	0.00	0.00	0.42	0.84	1.19	3.63	4.24	8.34	12.51	17.49	7.68	7.18	7.93	4.26	3.10	2.21	1.64	1.57	1.30	1.30	1.16	1.22	1.37	1.50	1.34	1.29	1.24	0.88	3.15
P075	0.00	0.00	0.00	0.63	1.10	0.95	3.23	10.33	22.16	42.08	10.89	2.31	0.00	0.86	0.31	0.13	0.57	0.20	0.37	0.27	0.26	0.31	0.25	0.38	0.31	0.32	0.36	0.27	0.30	0.21	0.64
P076	0.00	0.00	0.39	1.36	2.72	3.94	7.74	13.22	16.79	32.44	10.95	1.99	1.05	1.26	1.04	0.48	0.35	0.30	0.23	0.32	0.28	0.30	0.28	0.31	0.32	0.33	0.33	0.24	0.31	0.33	0.39
P077	0.00	0.00	0.00	0.00	0.30	0.60	0.51	1.08	0.62	1.59	1.87	1.99	1.59	2.86	5.71	3.53	3.57	4.57	4.80	6.64	5.77	5.73	6.16	6.65	6.09	5.77	5.03	4.10	3.42	2.92	6.52
P078	0.00	0.00	0.00	0.00	0.02	0.04	0.06	0.25	0.24	0.53	0.95	1.32	1.52	2.23	5.49	3.50	4.22	4.64	6.02	6.22	6.06	6.34	7.00	6.80	6.93	5.88	5.16	4.91	4.36	2.97	6.32
P079	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.04	0.05	0.04	0.20	0.37	0.54	1.10	1.26	1.14	2.51	3.93	5.20	6.44	6.01	6.06	6.81	5.84	5.56	4.96	4.80	5.14	4.51	27.39
P080	0.00	0.00	0.00	0.00	0.75	1.50	0.00	0.16	0.00	0.05	0.08	0.28	0.31	0.41	1.20	1.14	1.42	2.24	4.57	4.93	6.55	5.84	6.08	5.65	6.38	5.12	4.74	4.29	4.27	4.92	27.10
P081	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.28	0.71	0.52	0.45	0.64	1.22	3.41	2.61	2.80	3.56	6.06	6.79	6.60	6.49	6.34	5.84	4.73	4.09	4.20	4.05	3.69	4.06	20.62
P082	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.14	0.04	0.10	0.26	0.43	0.53	0.33	1.26	1.63	2.42	3.90	4.97	7.51	8.37	7.61	8.40	8.17	7.42	6.25	5.72	5.45	4.80	3.58	10.48
P083	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.38	0.04	0.22	0.26	0.41	0.15	0.48	1.09	1.41	1.83	3.43	5.49	6.34	8.03	6.84	6.78	6.60	5.71	6.03	5.06	5.16	4.58	5.19	18.47
P084	0.00	0.00	0.00	0.40	0.40	0.00	0.00	0.19	0.01	0.12	0.35	0.48	0.51	0.68	0.90	0.97	2.10	3.45	5.73	6.65	7.34	7.64	7.09	5.67	7.39	5.86	5.64	5.07	5.30	4.60	15.45
P085	0.00	0.80	1.28	0.68	1.94	3.12	8.64	17.21	19.65	26.84	9.87	3.37	0.27	0.26	0.08	0.08	0.21	0.20	0.26	0.30	0.40	0.33	0.41	0.49	0.51	0.42	0.42	0.33	0.35	0.28	1.01
P086	7.23	1.36	1.85	1.09	4.12	6.06	12.50	18.19	17.09	19.04	5.58	2.81	0.21	0.04	0.04	0.04	0.09	0.06	0.09	0.17	0.14	0.14	0.18	0.16	0.16	0.16	0.18	0.21	0.19	0.19	0.63
P087	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.06	0.20	0.57	0.36	0.58	1.34	2.95	2.64	3.77	4.00	6.72	6.74	7.00	6.91	5.87	5.99	6.01	5.45	5.22	4.65	5.35	4.76	12.79
P088	0.00	0.00	0.37	0.59	0.00	0.00	0.31	0.71	0.29	0.44	0.78	1.27	1.53	2.36	5.87	4.06	3.14	5.12	7.16	6.53	6.76	6.41	5.76	6.31	5.06	5.61	4.25	4.50	3.70	3.31	7.80
P089	0.00	0.70	0.95	0.00	0.09	0.17	0.49	2.07	1.59	4.30	5.73	6.16	5.04	5.41	5.67	3.38	2.75	3.10	3.56	4.13	3.62	4.01	4.02	4.10	4.01	3.79	3.58	2.88	3.36	2.66	8.69
P090	2.52	4.49	0.00	0.00	0.34	0.69	1.26	3.35	2.77	6.35	8.45	7.90	5.40	4.54	4.73	2.93	2.17	2.42	2.83	2.93	2.96	2.80	3.34	2.48	3.00	2.70	2.36	2.46	2.37	2.24	7.21
P091	0.00	0.00	0.00	0.04	0.08	0.06	0.00	0.57	0.21	1.18	3.19	5.80	4.63	3.30	3.55	2.41	1.92	3.28	4.08	4.84	5.04	5.09	4.94	4.83	4.32	4.64	3.47	3.68	3.59	3.36	17.91
P092	0.00	0.00	0.00	0.00	0.03	0.07	0.15	0.28	0.24	1.01	3.02	5.91	4.89	3.53	4.57	3.25	2.49	3.02	4.35	4.61	4.67	4.85	4.73	5.17	5.10	4.23	4.01	3.86	3.55	3.61	14.79
P093	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.21	0.00	0.25	0.51	0.75	0.92	1.40	3.87	2.63	1.48	2.65	4.23	5.41	5.36	5.81	6.05	5.41	5.80	5.05	4.91	4.20	4.56	4.37	24.04
P094	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.07	0.00	0.25	0.48	0.81	0.96	3.01	2.61	1.09	2.87	4.81	5.19	5.82	6.17	5.79	6.00	5.86	4.91	4.51	4.88	4.09	4.67	24.97
P095	0.00	0.61	1.55	1.47	1.06	1.43	3.27	5.44	3.98	9.60	12.49	11.43	7.72	11.13	8.41	1.94	1.06	1.09	1.01	1.03	1.21	1.20	1.09	1.01	1.08	1.07	0.95	0.99	0.97	1.00	3.71
P096	8.56	0.42	0.57	0.35	1.00	1.31	2.45	3.68	1.85	4.64	5.84	4.80	3.71	8.81	11.67	5.29	2.19	1.79	1.80	2.35	2.10	2.43	2.48	2.47	2.36	2.01	1.75	1.86	1.97	1.69	5.78
P097	0.00	0.00	0.15	0.94	1.06	0.69	1.52	2.61	1.65	4.87	8.16	13.26	17.06	9.11	7.20	4.07	1.88	1.62	1.55	1.47	1.63	1.83	1.71	1.88	1.68	1.50	1.42	1.40	1.49	1.25	5.36
P098	0.00	0.21	0.53	0.72	0.96	1.26	1.11	2.48	1.16	3.67	6.38	11.11	17.66	10.28	7.76	4.96	1.99	1.73	1.50	2.03	1.69	1.90	1.69	1.86	1.70	1.50	1.31	1.14	1.43	1.11	7.16
P099	0.00	0.76	1.07	0.24	1.04	1.71	1.80	3.79	3.31	6.32	6.71	8.71	15.73	11.56	6.59	2.94	1.84	1.46	1.66	1.61	1.58	2.15	1.94	1.91	1.91	1.37	1.69	1.28	1.49	1.23	4.62
P100	4.36	0.00	0.00	0.32	1.11	1.58	2.39	3.93	3.59	7.59	11.19	15.86	19.45	8.00	4.79	2.41	1.35	0.92	0.83	0.81	0.89	0.87	0.73	0.83	0.77	0.72	0.67	0.72	0.58	0.66	2.06

Appendix 4 - Faunal Summary

SampleID	Number individuals per sample	Abundance per square meter	Number species per sample	Equitability	Diversity
H01	205	5,125	17	0.533	1.509
H02	269	6,725	13	0.533	1.366
H03	441	11,025	19	0.377	1.110
H04	502	12,550	17	0.396	1.122
H05	200	5,000	11	0.721	1.729
H06	158	3,950	13	0.772	1.980
H07	376	9,400	14	0.608	1.606
H08	22	550	9	0.902	1.981
H09	457	11,425	18	0.680	1.965
H10	441	11,025	14	0.682	1.800
H11	236	5,900	14	0.741	1.956
H12	371	9,275	13	0.684	1.755
H13	82	2,050	12	0.803	1.996
H14	192	4,800	13	0.672	1.723
H15	31	775	11	0.838	2.011
H16	254	6,350	14	0.665	1.755
H17	113	2,825	16	0.697	1.932
H18	149	3,725	11	0.628	1.507
H19	919	22,975	21	0.686	2.089
H20	601	15,025	24	0.701	2.228
H21	559	13,975	21	0.705	2.148
H22	923	23,075	22	0.722	2.232
H23	42	1,050	9	0.664	1.460
H24	28	700	10	0.796	1.834
H25	183	4,575	18	0.730	2.109
H26	38	950	11	0.869	2.083
H27	141	3,525	13	0.832	2.133
H28	139	3,475	18	0.779	2.250
H29	589	14,725	21	0.734	2.234
H30	832	20,800	21	0.732	2.228
H31	23	575	12	0.903	2.243
H32	20	500	8	0.903	1.878
H33	162	4,050	12	0.799	1.985
H34	207	5,175	19	0.633	1.864
H35	47	1,175	15	0.804	2.178
H36	60	1,500	11	0.681	1.633
H37	110	2,750	13	0.730	1.872
H38	98	2,450	11	0.746	1.788
H39	705	17,625	17	0.713	2.021
H40	682	17,050	18	0.281	0.811
H41	64	1,600	11	0.789	1.892
H42	52	1,300	10	0.855	1.969
H43	531	13,275	18	0.751	2.169
H44	387	9,675	17	0.747	2.118
H45	474	11,850	18	0.685	1.979
H46	546	13,650	18	0.686	1.983
H47	2,176	54,400	22	0.415	1.283

Appendix 4 - Faunal Summary

SampleID	Number individuals per sample	Abundance per square meter	Number species per sample	Equitability	Diversity
H48	766	19,150	18	0.728	2.104
H49	693	17,325	18	0.492	1.421
H50	1,108	27,700	25	0.403	1.299
H51	79	1,975	16	0.810	2.245
H52	63	1,575	16	0.699	1.939
H53	1,283	32,075	21	0.369	1.125
H54	1,092	27,300	19	0.400	1.177
H55	139	3,475	13	0.602	1.545
H56	108	2,700	15	0.666	1.803
H57	77	1,925	13	0.730	1.871
H58	115	2,875	17	0.734	2.079
H59	1,358	33,950	28	0.401	1.338
H60	1,115	27,875	27	0.394	1.298
H61	968	24,200	21	0.674	2.051
H62	588	14,700	18	0.704	2.035
H63	525	13,125	21	0.483	1.472
H64	730	18,250	22	0.501	1.549
H65	383	9,575	19	0.504	1.483
H66	320	8,000	13	0.420	1.078
H67	422	10,550	13	0.404	1.037
H68	407	10,175	10	0.474	1.091
H69	98	2,450	17	0.647	1.834
H70	77	1,925	15	0.633	1.713
H71	1,288	32,200	25	0.390	1.256
H72	804	20,100	24	0.393	1.248
H73	7	175	3	0.914	1.004
H74	326	8,150	8	0.435	0.905
H75	394	9,850	23	0.611	1.917
H76	583	14,575	21	0.494	1.504
O01	88	2,200	14	0.695	1.834
O02	111	2,775	14	0.590	1.558
O03	2,036	50,900	21	0.155	0.472
O04	1,472	36,800	25	0.276	0.888
O05	159	3,975	13	0.407	1.044
O06	69	1,725	13	0.463	1.187
O07	1,624	40,600	22	0.329	1.016
O08	542	13,550	21	0.354	1.079
O09	112	2,800	4	0.517	0.716
O10	2	50	2	1.000	0.693
O11	121	3,025	6	0.487	0.872
O12	138	3,450	6	0.498	0.893
O13	10	250	7	0.943	1.834
O14	12	300	6	0.871	1.561
O15	140	3,500	12	0.622	1.547
O16	26	650	7	0.869	1.691
O17	39	975	7	0.403	0.784
O18	21	525	9	0.709	1.559

Appendix 4 - Faunal Summary

SampleID	Number individuals per sample	Abundance per square meter	Number species per sample	Equitability	Diversity
O19	63	1,575	5	0.543	0.875
O20	19	475	4	0.596	0.826
O21	10	250	2	0.881	0.611
O22	11	275	5	0.879	1.414
O23	27	675	4	0.857	1.188
O24	16	400	3	0.708	0.777
O25	83	2,075	6	0.297	0.532
O26	106	2,650	7	0.411	0.800
O27	314	7,850	8	0.138	0.286
O28	170	4,250	14	0.286	0.756
O29	44	1,100	2	0.511	0.354
O30	18	450	2	0.650	0.451
O31	38	950	12	0.842	2.092
O32	125	3,125	15	0.608	1.645
O33	64	1,600	12	0.687	1.707
O34	67	1,675	12	0.662	1.645
O35	568	14,200	13	0.430	1.102
O36	238	5,950	13	0.552	1.415
O37	262	6,550	13	0.147	0.378
O38	195	4,875	12	0.281	0.698
O39	67	1,675	10	0.689	1.587
O40	111	2,775	13	0.635	1.629
O41	290	7,250	12	0.379	0.941
O42	188	4,700	16	0.622	1.725
O43	19	475	9	0.868	1.908
O44	23	575	7	0.693	1.348
O45	66	1,650	5	0.294	0.474
O46	89	2,225	8	0.485	1.009
O47	473	11,825	15	0.180	0.486
O48	411	10,275	12	0.221	0.550
O49	16	400	5	0.939	1.511
O50	27	675	9	0.875	1.922
O51	107	2,675	10	0.333	0.766
O52	58	1,450	9	0.341	0.749
O53	1,212	30,300	29	0.363	1.221
O54	677	16,925	20	0.581	1.741
O55	1	25	1	0.000	0.000
O56	2	50	2	1.000	0.693
O57	1	25	1	0.000	0.000
O58	3	75	2	0.918	0.637
O59	297	7,425	18	0.606	1.751
O60	527	13,175	21	0.466	1.418
O61	691	17,275	17	0.673	1.906
O62	337	8,425	19	0.725	2.134
O63	9	225	4	0.876	1.215
O64	44	1,100	10	0.772	1.777
O65	163	4,075	15	0.454	1.229

Appendix 4 - Faunal Summary

SampleID	Number individuals per sample	Abundance per square meter	Number species per sample	Equitability	Diversity
O66	93	2,325	11	0.282	0.675
O67	69	1,725	10	0.828	1.906
O68	60	1,500	9	0.730	1.604
O69	37	925	9	0.904	1.987
O70	41	1,025	13	0.855	2.193
O71	3,833	95,825	23	0.182	0.572
O72	5,920	148,000	23	0.121	0.379
O73	1	25	1	0.000	0.000
O74	0	0	0	0.000	0.000
O75	1	25	1	0.000	0.000
O76	1	25	1	0.000	0.000
O77	214	5,350	17	0.664	1.882
O78	57	1,425	9	0.778	1.710
O79	63	1,575	9	0.716	1.573
O80	70	1,750	13	0.712	1.827
P001	237	5,925	16	0.617	1.712
P002	49	1,225	13	0.819	2.100
P003	174	4,350	24	0.738	2.345
P004	93	2,325	14	0.774	2.044
P005	57	1,425	14	0.829	2.188
P006	11	275	9	0.977	2.146
P007	121	3,025	16	0.712	1.973
P008	201	5,025	20	0.702	2.104
P009	221	5,525	20	0.523	1.566
P010	313	7,825	19	0.575	1.694
P011	135	3,375	10	0.520	1.196
P012	39	975	12	0.928	2.306
P013	15	375	10	0.903	2.079
P014	4	100	3	0.946	1.040
P015	0	0	0	0.000	0.000
P016	10	250	7	0.943	1.834
P017	120	3,000	15	0.601	1.628
P018	122	3,050	18	0.609	1.761
P019	6	150	5	0.970	1.561
P020	4	100	4	1.000	1.386
P021	19	475	7	0.814	1.584

Appendix 5 – Faunal Summary by Region

********** Output from program SUMMARY **********
PC-ORD, Version 4.41 7 Feb 2008, 23:33

Data Summary by Region

Compact format data file:
C:\Documents and Settings\Bob\My Documents\NorthShoreBays\PC_ORD Analysis\PCOrdDataCompact.txt

Species file:
C:\Documents and Settings\Bob\My Documents\NorthShoreBays\PC_ORD Analysis\PCOrdSpe.txt

Matrix size: 254 Sample (rows)
              138 Species (columns)

Subgroup: Huntngtn

Summary of 76 Sample N= 82 Species

No.	Name	Mean	Stand.Dev.	Sum	Minimum	Maximum	S	E	H`
1	H01	2.500	10.56	205.0	0.00	116.	17	0.533	1.509
2	H02	3.280	14.29	269.0	0.00	157.	13	0.533	1.366
3	H03	5.378	27.56	441.0	0.00	317.	19	0.377	1.110
4	H04	6.122	30.91	502.0	0.00	355.	17	0.396	1.122
5	H05	2.439	7.841	200.0	0.00	60.0	11	0.721	1.729
6	H06	1.927	5.681	158.0	0.00	50.0	13	0.772	1.980
7	H07	4.585	17.20	376.0	0.00	179.	14	0.608	1.606
8	H08	0.2683	0.7454	22.00	0.00	5.00	9	0.902	1.981
9	H09	5.573	16.60	457.0	0.00	144.	18	0.680	1.965
10	H10	5.378	18.34	441.0	0.00	180.	14	0.682	1.800
11	H11	2.878	8.528	236.0	0.00	71.0	14	0.741	1.956
12	H12	4.524	15.63	371.0	0.00	146.	13	0.684	1.755
13	H13	1.000	2.989	82.00	0.00	28.0	12	0.803	1.996
14	H14	2.341	8.208	192.0	0.00	77.0	13	0.672	1.723
15	H15	0.3780	1.131	31.00	0.00	11.0	11	0.838	2.011
16	H16	3.098	10.43	254.0	0.00	93.0	14	0.665	1.755
17	H17	1.378	4.371	113.0	0.00	38.0	16	0.697	1.932
18	H18	1.817	7.051	149.0	0.00	64.0	11	0.628	1.507
19	H19	11.21	31.69	919.0	0.00	279.	21	0.686	2.089
20	H20	7.329	19.84	601.0	0.00	178.	24	0.701	2.228
21	H21	6.817	20.66	559.0	0.00	209.	21	0.705	2.148
22	H22	11.26	28.90	923.0	0.00	206.	22	0.722	2.232
23	H23	0.5122	2.028	42.00	0.00	19.0	9	0.664	1.460
24	H24	0.3415	1.149	28.00	0.00	12.0	10	0.796	1.834
25	H25	2.232	6.873	183.0	0.00	67.0	18	0.730	2.109
26	H26	0.4634	1.274	38.00	0.00	11.0	11	0.869	2.083
27	H27	1.720	4.535	141.0	0.00	30.0	13	0.832	2.133
28	H28	1.695	4.336	139.0	0.00	28.0	18	0.779	2.250
29	H29	7.183	18.64	589.0	0.00	130.	21	0.734	2.234
30	H30	10.15	26.54	832.0	0.00	205.	21	0.732	2.228
31	H31	0.2805	0.6991	23.00	0.00	5.00	12	0.903	2.243
32	H32	0.2439	0.7171	20.00	0.00	6.00	8	0.903	1.878
33	H33	1.976	5.616	162.0	0.00	42.0	12	0.799	1.985
34	H34	2.524	8.624	207.0	0.00	85.0	19	0.633	1.864
35	H35	0.5732	1.671	47.00	0.00	17.0	15	0.804	2.178
36	H36	0.7317	2.713	60.00	0.00	25.0	11	0.681	1.633
37	H37	1.341	4.098	110.0	0.00	27.0	13	0.730	1.872
38	H38	1.195	3.835	98.00	0.00	28.0	11	0.746	1.788
39	H39	8.598	24.68	705.0	0.00	175.	17	0.713	2.021
40	H40	8.317	48.52	682.0	0.00	567.	18	0.281	0.811
41	H41	0.7805	2.435	64.00	0.00	19.0	11	0.789	1.892
42	H42	0.6341	1.847	52.00	0.00	16.0	10	0.855	1.969

43	H43	6.476	16.92	531.0	0.00	113.	18	0.751	2.169
44	H44	4.720	12.94	387.0	0.00	108.	17	0.747	2.118
45	H45	5.780	17.27	474.0	0.00	154.	18	0.685	1.979
46	H46	6.659	20.23	546.0	0.00	163.	18	0.686	1.983
47	H47	26.54	126.0	2176.	0.00	1440.	22	0.415	1.283
48	H48	9.341	26.41	766.0	0.00	224.	18	0.728	2.104
49	H49	8.451	38.34	693.0	0.00	437.	18	0.492	1.421
50	H50	13.51	62.91	1108.	0.00	710.	25	0.403	1.299
51	H51	0.9634	2.507	79.00	0.00	19.0	16	0.810	2.245
52	H52	0.7683	2.831	63.00	0.00	32.0	16	0.699	1.939
53	H53	15.65	77.05	1283.	0.00	867.	21	0.369	1.125
54	H54	13.32	64.25	1092.	0.00	727.	19	0.400	1.177
55	H55	1.695	7.272	139.0	0.00	83.0	13	0.602	1.545
56	H56	1.317	5.114	108.0	0.00	58.0	15	0.666	1.803
57	H57	0.9390	3.057	77.00	0.00	30.0	13	0.730	1.871
58	H58	1.402	4.366	115.0	0.00	45.0	17	0.734	2.079
59	H59	16.56	78.11	1358.	0.00	892.	28	0.401	1.338
60	H60	13.60	65.93	1115.	0.00	758.	27	0.394	1.298
61	H61	11.80	34.40	968.0	0.00	297.	21	0.674	2.051
62	H62	7.171	20.10	588.0	0.00	144.	18	0.704	2.035
63	H63	6.402	27.81	525.0	0.00	306.	21	0.483	1.472
64	H64	8.902	37.69	730.0	0.00	423.	22	0.501	1.549
65	H65	4.671	19.14	383.0	0.00	203.	19	0.504	1.483
66	H66	3.902	19.69	320.0	0.00	225.	13	0.420	1.078
67	H67	5.146	26.12	422.0	0.00	297.	13	0.404	1.037
68	H68	4.963	25.18	407.0	0.00	291.	10	0.474	1.091
69	H69	1.195	4.661	98.00	0.00	53.0	17	0.647	1.834
70	H70	0.9390	3.853	77.00	0.00	44.0	15	0.633	1.713
71	H71	15.71	75.76	1288.	0.00	868.	25	0.390	1.256
72	H72	9.805	48.10	804.0	0.00	553.	24	0.393	1.248
73	H73	0.8537E-01	0.3705	7.000	0.00	3.00	3	0.914	1.004
74	H74	3.976	19.51	326.0	0.00	206.	8	0.435	0.905
75	H75	4.805	16.52	394.0	0.00	171.	23	0.611	1.917
76	H76	7.110	31.60	583.0	0.00	360.	21	0.494	1.504
AVERAGES:		5.10	20.0	417.8	0.00	208.	16.1	0.646	1.736

Number of cells in main matrix = 6232
Percent of cells empty = 80.311
Matrix total = 3.1753E+04
Matrix mean = 5.0952E+00
Variance of totals of Sample = 1.6495E+05

S = Richness = number of non-zero elements in row
E = Evenness = H / ln (Richness)
H = Diversity = - sum (Pi*ln(Pi))
where Pi = importance probability in element i (element i relativized by row total)

Summary of 82 Species N= 76 Sample

No.	Name	Mean	Stand.Dev.	Sum	Minimum	Maximum	S
1	Actecana	0.158E+00	0.674E+00	0.1200E+02	0.000E+00	0.400E+01	6
3	Ampeabdi	0.150E+02	0.581E+02	0.1139E+04	0.000E+00	0.355E+03	31
5	Ampevado	0.263E+00	0.719E+00	0.2000E+02	0.000E+00	0.300E+01	11
6	Ampeverr	0.263E-01	0.161E+00	0.2000E+01	0.000E+00	0.100E+01	2
7	Ampharct	0.821E+01	0.263E+02	0.6240E+03	0.000E+00	0.177E+03	35
8	Amphocul	0.184E+00	0.534E+00	0.1400E+02	0.000E+00	0.300E+01	10
11	Ariccath	0.297E+01	0.253E+02	0.2260E+03	0.000E+00	0.221E+03	3
13	Asycelon	0.132E-01	0.115E+00	0.1000E+01	0.000E+00	0.100E+01	1
14	Autocorn	0.145E+01	0.502E+01	0.1100E+03	0.000E+00	0.350E+02	11
19	Batecath	0.132E-01	0.115E+00	0.1000E+01	0.000E+00	0.100E+01	1
21	Branwell	0.789E-01	0.483E+00	0.6000E+01	0.000E+00	0.400E+01	3
23	Capisp	0.154E+03	0.214E+03	0.1168E+05	0.000E+00	0.892E+03	72

25	CephCeph	0.263E-01	0.161E+00	0.2000E+01	0.000E+00	0.100E+01	2
27	Clymsp	0.263E-01	0.229E+00	0.2000E+01	0.000E+00	0.200E+01	1
28	Corosp	0.789E-01	0.356E+00	0.6000E+01	0.000E+00	0.200E+01	4
29	Cosslong	0.342E+00	0.136E+01	0.2600E+02	0.000E+00	0.110E+02	11
33	Crepforn	0.263E+02	0.503E+02	0.1996E+04	0.000E+00	0.209E+03	27
34	Crepplan	0.441E+01	0.114E+02	0.3350E+03	0.000E+00	0.640E+02	22
35	Drillong	0.132E-01	0.115E+00	0.1000E+01	0.000E+00	0.100E+01	1
36	Dyspsayi	0.395E-01	0.196E+00	0.3000E+01	0.000E+00	0.100E+01	3
37	Elaslevi	0.474E+00	0.368E+01	0.3600E+02	0.000E+00	0.320E+02	3
38	Ensidire	0.526E-01	0.278E+00	0.4000E+01	0.000E+00	0.200E+01	3
39	Eteohete	0.587E+01	0.830E+01	0.4460E+03	0.000E+00	0.440E+02	55
40	Eteolact	0.263E-01	0.161E+00	0.2000E+01	0.000E+00	0.100E+01	2
42	Eumisang	0.100E+01	0.265E+01	0.7600E+02	0.000E+00	0.140E+02	18
45	Exogdisp	0.263E-01	0.161E+00	0.2000E+01	0.000E+00	0.100E+01	2
48	Glycamer	0.276E+00	0.556E+00	0.2100E+02	0.000E+00	0.200E+01	17
49	Glycsoli	0.214E+01	0.356E+01	0.1630E+03	0.000E+00	0.220E+02	45
50	Gobisp	0.132E-01	0.115E+00	0.1000E+01	0.000E+00	0.100E+01	1
51	Gyptvitt	0.263E-01	0.161E+00	0.2000E+01	0.000E+00	0.100E+01	2
53	Harmimbr	0.550E+01	0.126E+02	0.4180E+03	0.000E+00	0.640E+02	35
54	Heteform	0.132E-01	0.115E+00	0.1000E+01	0.000E+00	0.100E+01	1
55	Ilyaobso	0.289E+00	0.108E+01	0.2200E+02	0.000E+00	0.700E+01	8
56	Ilyatriv	0.105E+00	0.386E+00	0.8000E+01	0.000E+00	0.200E+01	6
59	Leucamer	0.192E+01	0.307E+01	0.1460E+03	0.000E+00	0.120E+02	36
62	Lyonhyal	0.263E+00	0.640E+00	0.2000E+02	0.000E+00	0.300E+01	13
63	Lysialba	0.158E+00	0.138E+01	0.1200E+02	0.000E+00	0.120E+02	1
65	Melicris	0.132E-01	0.115E+00	0.1000E+01	0.000E+00	0.100E+01	1
67	Mercmerc	0.171E+00	0.473E+00	0.1300E+02	0.000E+00	0.200E+01	10
70	Micraber	0.526E-01	0.322E+00	0.4000E+01	0.000E+00	0.200E+01	2
72	Mulilate	0.470E+01	0.118E+02	0.3570E+03	0.000E+00	0.830E+02	40
74	NemaNema	0.693E+02	0.195E+03	0.5265E+04	0.000E+00	0.144E+04	53
76	Nephpict	0.263E+00	0.138E+01	0.2000E+02	0.000E+00	0.110E+02	5
77	Neptinci	0.553E+00	0.162E+01	0.4200E+02	0.000E+00	0.120E+02	17
79	Neresucc	0.272E+01	0.350E+01	0.2070E+03	0.000E+00	0.160E+02	50
80	Nicosp	0.263E-01	0.161E+00	0.2000E+01	0.000E+00	0.100E+01	2
81	Nucuprox	0.161E+01	0.478E+01	0.1220E+03	0.000E+00	0.310E+02	25
82	Nucutenu	0.421E+00	0.868E+00	0.3200E+02	0.000E+00	0.500E+01	20
84	OligOlig	0.292E+02	0.439E+02	0.2222E+04	0.000E+00	0.206E+03	70
85	Orbisp	0.658E-01	0.377E+00	0.5000E+01	0.000E+00	0.300E+01	3
86	OstrA	0.276E+00	0.556E+00	0.2100E+02	0.000E+00	0.200E+01	17
88	Oxyusmit	0.263E-01	0.161E+00	0.2000E+01	0.000E+00	0.100E+01	2
89	Pagulong	0.132E-01	0.115E+00	0.1000E+01	0.000E+00	0.100E+01	1
90	Pandgoul	0.145E+00	0.559E+00	0.1100E+02	0.000E+00	0.300E+01	6
91	Panoherb	0.566E+00	0.137E+01	0.4300E+02	0.000E+00	0.800E+01	18
93	Paraspec	0.921E-01	0.334E+00	0.7000E+01	0.000E+00	0.200E+01	6
94	Parasp	0.138E+01	0.115E+02	0.1050E+03	0.000E+00	0.100E+03	3
96	Paralong	0.526E-01	0.278E+00	0.4000E+01	0.000E+00	0.200E+01	3
97	Pectgoul	0.170E+01	0.285E+01	0.1290E+03	0.000E+00	0.190E+02	40
98	Phersp	0.658E-01	0.250E+00	0.5000E+01	0.000E+00	0.100E+01	5
99	Phylaren	0.263E-01	0.161E+00	0.2000E+01	0.000E+00	0.100E+01	2
100	Pinnsp	0.395E-01	0.196E+00	0.3000E+01	0.000E+00	0.100E+01	3
102	Pitamorr	0.132E-01	0.115E+00	0.1000E+01	0.000E+00	0.100E+01	1
103	Podaobsc	0.263E-01	0.161E+00	0.2000E+01	0.000E+00	0.100E+01	2
104	Polylign	0.126E+02	0.328E+02	0.9560E+03	0.000E+00	0.224E+03	39
109	Priopinn	0.434E+00	0.854E+00	0.3300E+02	0.000E+00	0.500E+01	22
111	Rictpunc	0.132E-01	0.115E+00	0.1000E+01	0.000E+00	0.100E+01	1
113	Scalinfl	0.750E+00	0.389E+01	0.5700E+02	0.000E+00	0.250E+02	4
114	Schicaec	0.132E-01	0.115E+00	0.1000E+01	0.000E+00	0.100E+01	1
115	Scolviri	0.395E-01	0.196E+00	0.3000E+01	0.000E+00	0.100E+01	3
117	Scolrobu	0.168E+02	0.198E+02	0.1275E+04	0.000E+00	0.720E+02	58
118	Sigasp	0.263E-01	0.161E+00	0.2000E+01	0.000E+00	0.100E+01	2
124	Spissoli	0.184E+00	0.668E+00	0.1400E+02	0.000E+00	0.300E+01	6
125	Stensp	0.132E-01	0.115E+00	0.1000E+01	0.000E+00	0.100E+01	1
126	Stheboa	0.132E-01	0.115E+00	0.1000E+01	0.000E+00	0.100E+01	1
127	Strebene	0.301E+02	0.340E+02	0.2284E+04	0.000E+00	0.157E+03	69
130	Tellagil	0.170E+01	0.366E+01	0.1290E+03	0.000E+00	0.160E+02	32
131	Tharsp	0.837E+01	0.266E+02	0.6360E+03	0.000E+00	0.198E+03	37
133	Turbelsp	0.263E-01	0.161E+00	0.2000E+01	0.000E+00	0.100E+01	2
134	Turbsp	0.132E-01	0.115E+00	0.1000E+01	0.000E+00	0.100E+01	1
135	Unciirro	0.368E+00	0.122E+01	0.2800E+02	0.000E+00	0.800E+01	12
137	Yoldlima	0.153E+01	0.354E+01	0.1160E+03	0.000E+00	0.160E+02	24

AVERAGES: 0.510E+01 0.103E+02 0.3872E+03 0.000E+00 0.597E+02 15.0

Subgroup: Oyster

Summary of 80 Sample N= 84 Species

No.	Name	Mean	Stand.Dev.	Sum	Minimum	Maximum	S	E	H`
1	O01	1.048	3.901	88.00	0.00	43.0	14	0.695	1.834
2	O02	1.321	5.740	111.0	0.00	65.0	14	0.590	1.558
3	O03	24.24	157.5	2036.	0.00	1840.	21	0.155	0.472
4	O04	17.52	102.1	1472.	0.00	1190.	25	0.276	0.888
5	O05	1.893	10.33	159.0	0.00	120.	13	0.407	1.044
6	O06	0.8214	4.370	69.00	0.00	51.0	13	0.463	1.187
7	O07	19.33	97.01	1624.	0.00	1050.	22	0.329	1.016
8	O08	6.452	35.19	542.0	0.00	409.	21	0.354	1.079
9	O09	1.333	7.045	112.0	0.00	75.0	4	0.517	0.716
10	O10	0.02381	0.1203	2.000	0.00	1.00	2	1.000	0.693
11	O11	1.440	7.533	121.0	0.00	84.0	6	0.487	0.872
12	O12	1.643	8.469	138.0	0.00	93.0	6	0.498	0.893
13	O13	0.1190	0.3582	10.00	0.00	3.00	7	0.943	1.834
14	O14	0.1429	0.5082	12.00	0.00	4.00	6	0.871	1.561
15	O15	1.667	6.812	140.0	0.00	74.0	12	0.622	1.547
16	O16	0.3095	1.029	26.00	0.00	9.00	7	0.869	1.691
17	O17	0.4643	2.737	39.00	0.00	32.0	7	0.403	0.784
18	O18	0.2500	1.057	21.00	0.00	12.0	9	0.709	1.559
19	O19	0.7500	4.076	63.00	0.00	47.0	5	0.543	0.875
20	O20	0.2262	1.225	19.00	0.00	14.0	4	0.596	0.826
21	O21	0.1190	0.6483	10.00	0.00	7.00	2	0.881	0.611
22	O22	0.1310	0.5017	11.00	0.00	5.00	5	0.879	1.414
23	O23	0.3214	1.351	27.00	0.00	13.0	4	0.857	1.188
24	O24	0.1905	0.9997	16.00	0.00	11.0	3	0.708	0.777
25	O25	0.9881	6.238	83.00	0.00	73.0	6	0.297	0.532
26	O26	1.262	7.161	106.0	0.00	83.0	7	0.411	0.800
27	O27	3.738	25.41	314.0	0.00	298.	8	0.138	0.286
28	O28	2.024	12.38	170.0	0.00	145.	14	0.286	0.756
29	O29	0.5238	3.350	44.00	0.00	39.0	2	0.511	0.354
30	O30	0.2143	1.303	18.00	0.00	15.0	2	0.650	0.451
31	O31	0.4524	1.278	38.00	0.00	10.0	12	0.842	2.092
32	O32	1.488	6.230	125.0	0.00	70.0	15	0.608	1.645
33	O33	0.7619	2.868	64.00	0.00	29.0	12	0.687	1.707
34	O34	0.7976	3.064	67.00	0.00	30.0	12	0.662	1.645
35	O35	6.762	31.32	568.0	0.00	298.	13	0.430	1.102
36	O36	2.833	12.03	238.0	0.00	124.	13	0.552	1.415
37	O37	3.119	20.97	262.0	0.00	246.	13	0.147	0.378
38	O38	2.321	14.34	195.0	0.00	168.	12	0.281	0.698
39	O39	0.7976	3.013	67.00	0.00	30.0	10	0.689	1.587
40	O40	1.321	5.102	111.0	0.00	51.0	13	0.635	1.629
41	O41	3.452	19.40	290.0	0.00	226.	12	0.379	0.941
42	O42	2.238	8.540	188.0	0.00	90.0	16	0.622	1.725
43	O43	0.2262	0.7121	19.00	0.00	7.00	9	0.868	1.908
44	O44	0.2738	1.234	23.00	0.00	14.0	7	0.693	1.348
45	O45	0.7857	5.038	66.00	0.00	59.0	5	0.294	0.474
46	O46	1.060	5.470	89.00	0.00	62.0	8	0.485	1.009
47	O47	5.631	36.92	473.0	0.00	433.	15	0.180	0.486
48	O48	4.893	31.24	411.0	0.00	366.	12	0.221	0.550
49	O49	0.1905	0.6558	16.00	0.00	5.00	5	0.939	1.511
50	O50	0.3214	0.9510	27.00	0.00	7.00	9	0.875	1.922
51	O51	1.274	7.686	107.0	0.00	90.0	10	0.333	0.766
52	O52	0.6905	4.183	58.00	0.00	49.0	9	0.341	0.749
53	O53	14.43	76.53	1212.	0.00	892.	29	0.363	1.221
54	O54	8.060	32.08	677.0	0.00	358.	20	0.581	1.741
55	O55	0.01190	0.08525	1.000	0.00	1.00	1	0.000	0.000
56	O56	0.02381	0.1203	2.000	0.00	1.00	2	1.000	0.693
57	O57	0.01190	0.08025	1.000	0.00	1.00	1	0.000	0.000
58	O58	0.03571	0.1903	3.000	0.00	2.00	2	0.918	0.637
59	O59	3.536	13.30	297.0	0.00	132.	18	0.606	1.751
60	O60	6.274	26.61	527.0	0.00	227.	21	0.466	1.418
61	O61	8.226	26.23	691.0	0.00	202.	17	0.673	1.906
62	O62	4.012	11.74	337.0	0.00	104.	19	0.725	2.134

63	O63	0.1071	0.4411	9.000	0.00	4.00	4	0.876	1.215
64	O64	0.5238	1.750	44.00	0.00	15.0	10	0.772	1.777
65	O65	1.940	10.06	163.0	0.00	117.	15	0.454	1.229
66	O66	1.107	6.909	93.00	0.00	81.0	11	0.282	0.675
67	O67	0.8214	2.501	69.00	0.00	22.0	10	0.828	1.906
68	O68	0.7143	2.665	60.00	0.00	26.0	9	0.730	1.604
69	O69	0.4405	1.242	37.00	0.00	10.0	9	0.904	1.987
70	O70	0.4881	1.301	41.00	0.00	10.0	13	0.855	2.193
71	O71	45.63	289.1	3833.	0.00	3380.	23	0.182	0.572
72	O72	70.48	467.6	5920.	0.00	5480	23	0.121	0.379
73	O73	0.01190	0.08525	1.000	0.00	1.00	1	0.000	0.000
74	O74	is empty							
75	O75	0.01190	0.08525	1.000	0.00	1.00	1	0.000	0.000
76	O76	0.01190	0.08525	1.000	0.00	1.00	1	0.000	0.000
77	O77	2.548	8.965	214.0	0.00	92.0	17	0.664	1.882
78	O78	0.6786	2.366	57.00	0.00	23.0	9	0.778	1.710
79	O79	0.7500	2.766	63.00	0.00	26.0	9	0.716	1.573
80	O80	0.8333	3.003	70.00	0.00	31.0	13	0.712	1.827
AVERAGES:		3.80	21.6	319.1	0.00	245.	10.3	0.536	1.118

Number of cells in main matrix = 6720
Percent of cells empty = 87.783
Matrix total = 2.5529E+04
Matrix mean = 3.7990E+00
Variance of totals of Sample = 6.9832E+05

S = Richness = number of non-zero elements in row
E = Evenness = H / ln (Richness)
H = Diversity = - sum (Pi*ln(Pi))
where Pi = importance probability in element i (element i relativized by row total)

Summary of 84 Species N= 80 Sample

No.	Name	Mean	Stand.Dev.	Sum	Minimum	Maximum	S
1	Actecana	0.200E+00	0.537E+00	0.1600E+02	0.000E+00	0.300E+01	12
4	Ampesp	0.179E+01	0.104E+02	0.1430E+03	0.000E+00	0.920E+02	26
7	Ampharct	0.750E-01	0.309E+00	0.6000E+01	0.000E+00	0.200E+01	5
9	Anadtran	0.375E-01	0.191E+00	0.3000E+01	0.000E+00	0.100E+01	3
11	Ariccath	0.387E+00	0.209E+01	0.3100E+02	0.000E+00	0.160E+02	4
15	Autofasc	0.250E-01	0.224E+00	0.2000E+01	0.000E+00	0.200E+01	1
16	Balaamph	0.250E-01	0.224E+00	0.2000E+01	0.000E+00	0.200E+01	1
17	Balaebur	0.500E-01	0.271E+00	0.4000E+01	0.000E+00	0.200E+01	3
21	Branwell	0.663E+00	0.298E+01	0.5300E+02	0.000E+00	0.180E+02	6
22	Cancirro	0.125E-01	0.112E+00	0.1000E+01	0.000E+00	0.100E+01	1
23	Capisp	0.223E+02	0.462E+02	0.1785E+04	0.000E+00	0.227E+03	49
25	CephCeph	0.875E-01	0.679E+00	0.7000E+01	0.000E+00	0.600E+01	2
27	Clymsp	0.375E-01	0.191E+00	0.3000E+01	0.000E+00	0.100E+01	3
28	Corosp	0.125E-01	0.112E+00	0.1000E+01	0.000E+00	0.100E+01	1
29	Cosslong	0.125E-01	0.112E+00	0.1000E+01	0.000E+00	0.100E+01	1
30	Crabmega	0.750E-01	0.265E+00	0.6000E+01	0.000E+00	0.100E+01	6
31	Cransept	0.500E-01	0.219E+00	0.4000E+01	0.000E+00	0.100E+01	4
32	Crasvirg	0.250E-01	0.157E+00	0.2000E+01	0.000E+00	0.100E+01	2
33	Crepforn	0.286E+01	0.996E+01	0.2290E+03	0.000E+00	0.650E+02	13
34	Crepplan	0.613E+00	0.334E+01	0.4900E+02	0.000E+00	0.280E+02	7
36	Dyspsayi	0.250E-01	0.224E+00	0.2000E+01	0.000E+00	0.200E+01	1
37	Elaslevi	0.125E+00	0.603E+00	0.1000E+02	0.000E+00	0.400E+01	4
39	Eteohete	0.463E+00	0.174E+01	0.3700E+02	0.000E+00	0.110E+02	12
40	Eteolact	0.125E-01	0.112E+00	0.1000E+01	0.000E+00	0.100E+01	1
42	Eumisang	0.538E+00	0.350E+01	0.4300E+02	0.000E+00	0.310E+02	8
43	Eusphero	0.125E-01	0.112E+00	0.1000E+01	0.000E+00	0.100E+01	1
46	Gemmgemm	0.105E+02	0.659E+02	0.8420E+03	0.000E+00	0.430E+03	3
48	Glycamer	0.213E+00	0.650E+00	0.1700E+02	0.000E+00	0.300E+01	10

49	Glycsoli	0.134E+01	0.307E+01	0.1070E+03	0.000E+00	0.160E+02	27
51	Gyptvitt	0.625E-01	0.244E+00	0.5000E+01	0.000E+00	0.100E+01	5
53	Harmimbr	0.725E+00	0.336E+01	0.5800E+02	0.000E+00	0.290E+02	13
55	Ilyaobso	0.375E+00	0.123E+01	0.3000E+02	0.000E+00	0.600E+01	10
56	Ilyatriv	0.600E+00	0.166E+01	0.4800E+02	0.000E+00	0.120E+02	19
59	Leucamer	0.750E-01	0.414E+00	0.6000E+01	0.000E+00	0.300E+01	3
60	Libiemar	0.125E-01	0.112E+00	0.1000E+01	0.000E+00	0.100E+01	1
61	Lumbtenu	0.138E+00	0.742E+00	0.1100E+02	0.000E+00	0.500E+01	3
62	Lyonhyal	0.100E+00	0.493E+00	0.8000E+01	0.000E+00	0.300E+01	4
63	Lysialba	0.100E+00	0.409E+00	0.8000E+01	0.000E+00	0.200E+01	5
64	Macotent	0.463E+00	0.135E+01	0.3700E+02	0.000E+00	0.800E+01	12
66	Meliniti	0.100E+00	0.409E+00	0.8000E+01	0.000E+00	0.300E+01	6
67	Mercmerc	0.688E+00	0.133E+01	0.5500E+02	0.000E+00	0.600E+01	25
70	Micraber	0.250E-01	0.157E+00	0.2000E+01	0.000E+00	0.100E+01	2
71	Monosp	0.125E-01	0.112E+00	0.1000E+01	0.000E+00	0.100E+01	1
72	Mulilate	0.425E+02	0.820E+02	0.3399E+04	0.000E+00	0.433E+03	58
73	Myaaren	0.375E-01	0.191E+00	0.3000E+01	0.000E+00	0.100E+01	3
74	NemaNema	0.191E+03	0.760E+03	0.1524E+05	0.000E+00	0.548E+04	33
75	Neomamer	0.125E-01	0.112E+00	0.1000E+01	0.000E+00	0.100E+01	1
76	Nephpict	0.175E+00	0.823E+00	0.1400E+02	0.000E+00	0.600E+01	5
77	Neptinci	0.135E+01	0.213E+01	0.1080E+03	0.000E+00	0.100E+02	37
79	Neresucc	0.525E+00	0.164E+01	0.4200E+02	0.000E+00	0.110E+02	16
80	Nicosp	0.375E-01	0.335E+00	0.3000E+01	0.000E+00	0.300E+01	1
81	Nucuprox	0.156E+01	0.623E+01	0.1250E+03	0.000E+00	0.350E+02	17
82	Nucutenu	0.250E-01	0.157E+00	0.2000E+01	0.000E+00	0.100E+01	2
84	OligOlig	0.855E+01	0.159E+02	0.6840E+03	0.000E+00	0.940E+02	53
85	Orbisp	0.250E-01	0.224E+00	0.2000E+01	0.000E+00	0.200E+01	1
86	OstrA	0.150E+00	0.748E+00	0.1200E+02	0.000E+00	0.500E+01	4
87	OstrB	0.600E+00	0.481E+01	0.4800E+02	0.000E+00	0.430E+02	6
89	Pagulong	0.250E-01	0.157E+00	0.2000E+01	0.000E+00	0.100E+01	2
90	Pandgoul	0.162E+00	0.538E+00	0.1300E+02	0.000E+00	0.300E+01	8
91	Panoherb	0.225E+00	0.811E+00	0.1800E+02	0.000E+00	0.600E+01	10
94	Parasp	0.125E-01	0.112E+00	0.1000E+01	0.000E+00	0.100E+01	1
95	Paraspin	0.125E+00	0.644E+00	0.1000E+02	0.000E+00	0.400E+01	4
96	Paralong	0.225E+00	0.900E+00	0.1800E+02	0.000E+00	0.400E+01	5
97	Pectgoul	0.100E+01	0.141E+01	0.8000E+02	0.000E+00	0.700E+01	41
98	Phersp	0.500E-01	0.219E+00	0.4000E+01	0.000E+00	0.100E+01	4
99	Phylaren	0.250E-01	0.157E+00	0.2000E+01	0.000E+00	0.100E+01	2
102	Pitamorr	0.625E-01	0.244E+00	0.5000E+01	0.000E+00	0.100E+01	5
104	Polylign	0.372E+01	0.130E+02	0.2980E+03	0.000E+00	0.820E+02	26
106	Polygord	0.339E+01	0.176E+02	0.2710E+03	0.000E+00	0.109E+03	4
107	Polygibb	0.400E+01	0.883E+01	0.3200E+03	0.000E+00	0.530E+02	35
109	Priopinn	0.162E+00	0.538E+00	0.1300E+02	0.000E+00	0.400E+01	10
110	Pseuobli	0.250E-01	0.224E+00	0.2000E+01	0.000E+00	0.200E+01	1
111	Rictpunc	0.125E-01	0.112E+00	0.1000E+01	0.000E+00	0.100E+01	1
115	Scolviri	0.750E+00	0.367E+01	0.6000E+02	0.000E+00	0.290E+02	10
117	Scolrobu	0.500E-01	0.271E+00	0.4000E+01	0.000E+00	0.200E+01	3
123	Spiobomb	0.125E-01	0.112E+00	0.1000E+01	0.000E+00	0.100E+01	1
124	Spissoli	0.500E-01	0.352E+00	0.4000E+01	0.000E+00	0.300E+01	2
127	Strebene	0.239E+01	0.631E+01	0.1910E+03	0.000E+00	0.430E+02	25
128	Syllseto	0.250E-01	0.224E+00	0.2000E+01	0.000E+00	0.200E+01	1
130	Tellagil	0.350E+00	0.102E+01	0.2800E+02	0.000E+00	0.700E+01	14
131	Tharsp	0.990E+01	0.365E+02	0.7920E+03	0.000E+00	0.238E+03	32
132	Travcarn	0.125E-01	0.112E+00	0.1000E+01	0.000E+00	0.100E+01	1
136	Uncisp	0.125E-01	0.112E+00	0.1000E+01	0.000E+00	0.100E+01	1
138	Yoldsp	0.200E+00	0.701E+00	0.1600E+02	0.000E+00	0.500E+01	9
AVERAGES:		0.380E+01	0.135E+02	0.3039E+03	0.000E+00	0.927E+02	9.8

Subgroup: PortJeff

Summary of 98 Sample N= 102 Species

No.	Name	Mean	Stand.Dev.	Sum	Minimum	Maximum	S	E	H`
1	P001	2.324	9.989	237.0	0.00	91.0	16	0.617	1.712
2	P002	0.4804	1.800	49.00	0.00	19.0	13	0.819	2.100
3	P003	1.706	5.549	174.0	0.00	47.0	24	0.738	2.345
4	P004	0.9118	3.185	93.00	0.00	23.0	14	0.774	2.044
5	P005	0.5588	1.857	57.00	0.00	16.0	14	0.829	2.188

6	P006	0.1078	0.3223	11.00	0.00	2.00	9	0.977	2.146
7	P007	1.186	4.763	121.0	0.00	46.0	16	0.712	1.973
8	P008	1.971	7.429	201.0	0.00	74.0	20	0.702	2.104
9	P009	2.167	11.07	221.0	0.00	118.	20	0.523	1.566
10	P010	3.069	13.94	313.0	0.00	144.	19	0.575	1.694
11	P011	1.324	7.209	135.0	0.00	67.0	10	0.520	1.196
12	P012	0.3824	1.085	39.00	0.00	6.00	12	0.928	2.306
13	P013	0.1471	0.5096	15.00	0.00	5.00	10	0.903	2.079
14	P014	0.03922	0.2075	4.000	0.00	2.00	3	0.946	1.040
15	P015	is empty							
16	P016	0.09804	0.3560	10.00	0.00	3.00	7	0.943	1.834
17	P017	1.176	5.615	120.0	0.00	56.0	15	0.601	1.628
18	P018	1.196	5.836	122.0	0.00	65.0	18	0.609	1.761
19	P019	0.05882	0.2382	6.000	0.00	2.00	5	0.970	1.561
20	P020	0.03922	0.1687	4.000	0.00	1.00	4	1.000	1.386
21	P021	0.1863	0.8488	19.00	0.00	9.00	7	0.814	1.584
22	P022	0.8529	3.988	87.00	0.00	42.0	12	0.658	1.635
23	P023	0.3235	0.9819	33.00	0.00	7.00	11	0.915	2.194
24	P024	0.09804	0.3949	10.00	0.00	4.00	7	0.898	1.748
25	P025	0.04902	0.2813	5.000	0.00	3.00	3	0.865	0.950
26	P026	0.04902	0.2235	5.000	0.00	2.00	4	0.961	1.332
27	P027	1.520	8.951	155.0	0.00	102.	16	0.470	1.302
28	P028	2.176	14.01	222.0	0.00	158.	12	0.377	0.936
29	P029	1.961	12.09	200.0	0.00	130.	9	0.415	0.913
30	P030	5.265	34.76	537.0	0.00	400.	18	0.324	0.938
31	P031	2.137	9.220	218.0	0.00	83.0	15	0.630	1.706
32	P032	2.706	13.92	276.0	0.00	141.	14	0.529	1.397
33	P033	0.1863	0.8908	19.00	0.00	9.00	5	0.848	1.365
34	P034	0.2647	1.115	27.00	0.00	9.00	8	0.793	1.649
35	P035	0.1176	0.7788	12.00	0.00	9.00	4	0.604	0.837
36	P036	0.1863	1.286	19.00	0.00	15.0	5	0.501	0.807
37	P037	0.1765	0.5664	18.00	0.00	5.00	10	0.927	2.135
38	P038	7.225	53.75	737.0	0.00	630.	25	0.231	0.743
39	P039	0.3333	1.525	34.00	0.00	16.0	9	0.748	1.643
40	P040	0.3922	1.678	40.00	0.00	17.0	10	0.760	1.751
41	P041	0.2941	1.154	30.00	0.00	11.0	9	0.837	1.840
42	P042	0.1471	0.6015	15.00	0.00	4.00	5	0.950	1.529
43	P043	5.078	28.83	518.0	0.00	334.	30	0.460	1.563
44	P044	41.02	340.6	4184.	0.00	4000.	30	0.087	0.297
45	P045	4.294	20.24	438.0	0.00	200.	24	0.515	1.636
46	P046	1.971	6.669	201.0	0.00	50.0	20	0.726	2.176
47	P047	5.922	34.39	604.0	0.00	400.	28	0.462	1.539
48	P048	2.167	12.92	221.0	0.00	150.	19	0.476	1.402
49	P049	1.392	5.567	142.0	0.00	43.0	14	0.696	1.838
50	P050	5.000	22.16	510.0	0.00	221.	25	0.565	1.819
51	P051	0.1961	0.7422	20.00	0.00	6.00	8	0.876	1.822
52	P052	0.5686	1.994	58.00	0.00	18.0	17	0.780	2.210
53	P053	0.1961	0.8774	20.00	0.00	9.00	7	0.818	1.591
54	P054	0.5588	3.515	57.00	0.00	41.0	12	0.493	1.226
55	P055	1.451	5.890	148.0	0.00	49.0	18	0.683	1.974
56	P056	0.8235	2.894	84.00	0.00	23.0	17	0.755	2.139
57	P057	3.794	22.36	387.0	0.00	255.	20	0.433	1.298
58	P058	2.951	15.04	301.0	0.00	163.	21	0.515	1.568
59	P059	1.863	10.72	190.0	0.00	124.	18	0.502	1.451
60	P060	2.196	8.902	224.0	0.00	90.0	21	0.654	1.990
61	P061	0.1471	0.5640	15.00	0.00	4.00	7	0.899	1.749
62	P062	0.1667	0.5613	17.00	0.00	4.00	9	0.918	2.018
63	P063	0.03922	0.2075	4.000	0.00	2.00	3	0.946	1.040
64	P064	0.04902	0.2813	5.000	0.00	3.00	3	0.865	0.950
65	P065	3.225	17.54	329.0	0.00	200.	19	0.520	1.532
66	P066	3.912	19.25	399.0	0.00	200.	23	0.495	1.552
67	P067	0.07843	0.3782	8.000	0.00	4.00	5	0.861	1.386
68	P068	0.1373	0.7287	14.00	0.00	8.00	5	0.778	1.253
69	P069	0.8235	2.929	84.00	0.00	23.0	16	0.756	2.096
70	P070	0.9118	3.265	93.00	0.00	33.0	16	0.790	2.189
71	P071	0.04902	0.2540	5.000	0.00	2.00	3	0.960	1.055
72	P072	0.04902	0.3506	5.000	0.00	4.00	2	0.722	0.500
73	P073	1.147	8.272	117.0	0.00	97.0	12	0.337	0.837
74	P074	0.2451	0.9477	25.00	0.00	8.00	8	0.861	1.791
75	P075	26.18	190.3	2670.	0.00	2220.	23	0.231	0.725
76	P076	19.97	149.9	2037.	0.00	1750.	21	0.192	0.584

77	P077	0.06863	0.5175	7.000	0.00	6.00	2	0.592	0.410
78	P078	0.06863	0.3043	7.000	0.00	3.00	5	0.917	1.475
79	P079	0.01961	0.1703	2.000	0.00	2.00	1	0.000	0.000
80	P081	0.01961	0.1201	2.000	0.00	1.00	2	1.000	0.693
81	P083	0.5098	2.711	52.00	0.00	31.0	11	0.636	1.526
82	P084	0.5784	3.469	59.00	0.00	40.0	8	0.576	1.198
83	P085	0.1667	0.5742	17.00	0.00	5.00	9	0.912	2.003
84	P086	0.4510	2.111	46.00	0.00	23.0	11	0.707	1.696
85	P087	0.3922	2.178	40.00	0.00	25.0	10	0.617	1.421
86	P088	0.4510	1.563	46.00	0.00	13.0	10	0.868	1.998
87	P089	0.4020	1.520	41.00	0.00	12.0	8	0.856	1.779
88	P090	0.4706	1.592	48.00	0.00	12.0	13	0.824	2.113
89	P091	1.235	4.761	126.0	0.00	41.0	11	0.753	1.805
90	P092	1.461	7.392	149.0	0.00	72.0	8	0.642	1.336
91	P093	0.02941	0.1466	3.000	0.00	1.00	3	1.000	1.099
92	P094	0.09804	0.08516	1.000	0.00	1.00	1	0.000	0.000
93	P095	0.3922	1.046	40.00	0.00	7.00	15	0.912	2.469
94	P096	0.1765	0.5263	18.00	0.00	3.00	10	0.950	2.187
95	P097	0.1863	0.6766	19.00	0.00	6.00	8	0.907	1.886
96	P098	0.4706	1.724	48.00	0.00	16.0	14	0.798	2.105
97	P099	0.5000	1.379	51.00	0.00	12.0	20	0.871	2.610
98	P100	1.284	5.736	131.0	0.00	64.0	16	0.687	1.904
AVERAGES:		1.97	12.5	201.4	0.00	140.	12.1	0.688	1.532

Number of cells in main matrix = 9996
Percent of cells empty = 88.125
Matrix total = 1.9737E+04
Matrix mean = 1.9745E+00
Variance of totals of Sample = 2.9051E+05

S = Richness = number of non-zero elements in row
E = Evenness = H / ln (Richness)
H = Diversity = - sum (Pi*ln(Pi))
where Pi = importance probability in element i (element i relativized by row total)

Summary of 102 Species N= 98 Sample

No.	Name	Mean	Stand.Dev.	Sum	Minimum	Maximum	S
1	Actecana	0.102E-01	0.101E+00	0.1000E+01	0.000E+00	0.100E+01	1
2	Actisp	0.102E-01	0.101E+00	0.1000E+01	0.000E+00	0.100E+01	1
5	Ampevado	0.316E+00	0.712E+00	0.3100E+02	0.000E+00	0.400E+01	21
6	Ampeverr	0.714E-01	0.296E+00	0.7000E+01	0.000E+00	0.200E+01	6
7	Ampharct	0.249E+01	0.573E+01	0.2440E+03	0.000E+00	0.330E+02	43
9	Anadtran	0.122E+00	0.460E+00	0.1200E+02	0.000E+00	0.300E+01	8
10	Arabiric	0.408E-01	0.199E+00	0.4000E+01	0.000E+00	0.100E+01	4
11	Ariccath	0.794E+01	0.364E+02	0.7780E+03	0.000E+00	0.275E+03	17
12	Asabocul	0.204E-01	0.202E+00	0.2000E+01	0.000E+00	0.200E+01	1
13	Asycelon	0.163E+00	0.398E+00	0.1600E+02	0.000E+00	0.200E+01	15
14	Autocorn	0.102E-01	0.101E+00	0.1000E+01	0.000E+00	0.100E+01	1
18	Balasp	0.612E-01	0.281E+00	0.6000E+01	0.000E+00	0.200E+01	5
19	Batecath	0.102E-01	0.101E+00	0.1000E+01	0.000E+00	0.100E+01	1
20	Branclav	0.133E+00	0.549E+00	0.1300E+02	0.000E+00	0.400E+01	8
21	Branwell	0.847E+00	0.471E+01	0.8300E+02	0.000E+00	0.410E+02	9
23	Capisp	0.476E+01	0.826E+01	0.4660E+03	0.000E+00	0.470E+02	68
24	Caprpena	0.102E-01	0.101E+00	0.1000E+01	0.000E+00	0.100E+01	1
26	Chaeapic	0.102E-01	0.101E+00	0.1000E+01	0.000E+00	0.100E+01	1
27	Clymsp	0.159E+01	0.333E+01	0.1560E+03	0.000E+00	0.200E+02	35
28	Corosp	0.110E+01	0.434E+01	0.1080E+03	0.000E+00	0.320E+02	16
31	Cransept	0.204E-01	0.142E+00	0.2000E+01	0.000E+00	0.100E+01	2
32	Crasvirg	0.102E-01	0.101E+00	0.1000E+01	0.000E+00	0.100E+01	1
33	Crepforn	0.145E+02	0.294E+02	0.1421E+04	0.000E+00	0.158E+03	34
34	Crepplan	0.612E-01	0.315E+00	0.6000E+01	0.000E+00	0.200E+01	4

35	Drillong	0.408E-01	0.245E+00	0.4000E+01	0.000E+00	0.200E+01	3
37	Elaslevi	0.153E+00	0.525E+00	0.1500E+02	0.000E+00	0.300E+01	10
39	Eteohete	0.714E-01	0.437E+00	0.7000E+01	0.000E+00	0.400E+01	4
41	Eteosp	0.204E-01	0.142E+00	0.2000E+01	0.000E+00	0.100E+01	2
42	Eumisang	0.337E+00	0.952E+00	0.3300E+02	0.000E+00	0.500E+01	16
43	Eusphero	0.102E-01	0.101E+00	0.1000E+01	0.000E+00	0.100E+01	1
44	EuspImac	0.204E-01	0.142E+00	0.2000E+01	0.000E+00	0.100E+01	2
45	Exogdisp	0.469E+00	0.165E+01	0.4600E+02	0.000E+00	0.140E+02	15
46	Gemmgemm	0.571E+00	0.396E+01	0.5600E+02	0.000E+00	0.320E+02	3
47	Glycdibr	0.204E-01	0.142E+00	0.2000E+01	0.000E+00	0.100E+01	2
48	Glycamer	0.643E+00	0.853E+00	0.6300E+02	0.000E+00	0.400E+01	43
50	Gobisp	0.102E-01	0.101E+00	0.1000E+01	0.000E+00	0.100E+01	1
51	Gyptvitt	0.102E-01	0.101E+00	0.1000E+01	0.000E+00	0.100E+01	1
52	Harmexte	0.969E+00	0.282E+01	0.9500E+02	0.000E+00	0.180E+02	21
54	Heteform	0.408E-01	0.245E+00	0.4000E+01	0.000E+00	0.200E+01	3
56	Ilyatriv	0.816E-01	0.310E+00	0.8000E+01	0.000E+00	0.200E+01	7
57	Lembsmit	0.265E+00	0.109E+01	0.2600E+02	0.000E+00	0.900E+01	10
58	Leptsavi	0.408E-01	0.245E+00	0.4000E+01	0.000E+00	0.200E+01	3
59	Leucamer	0.306E-01	0.173E+00	0.3000E+01	0.000E+00	0.100E+01	3
61	Lumbtenu	0.408E-01	0.199E+00	0.4000E+01	0.000E+00	0.100E+01	4
62	Lyonhyal	0.918E-01	0.519E+00	0.9000E+01	0.000E+00	0.400E+01	4
65	Melicris	0.306E-01	0.173E+00	0.3000E+01	0.000E+00	0.100E+01	3
67	Mercmerc	0.816E-01	0.275E+00	0.8000E+01	0.000E+00	0.100E+01	8
68	Micranom	0.306E-01	0.225E+00	0.3000E+01	0.000E+00	0.200E+01	2
69	Micrsp	0.510E-01	0.221E+00	0.5000E+01	0.000E+00	0.100E+01	5
72	Mulilate	0.408E-01	0.318E+00	0.4000E+01	0.000E+00	0.300E+01	2
74	NemaNema	0.116E+03	0.495E+03	0.1141E+05	0.000E+00	0.400E+04	45
76	Nephpict	0.582E+00	0.135E+01	0.5700E+02	0.000E+00	0.700E+01	24
77	Neptinci	0.107E+01	0.159E+01	0.1050E+03	0.000E+00	0.800E+01	46
78	Nerearen	0.918E-01	0.382E+00	0.9000E+01	0.000E+00	0.300E+01	7
79	Neresucc	0.327E+00	0.111E+01	0.3200E+02	0.000E+00	0.700E+01	14
80	Nicosp	0.500E+00	0.189E+01	0.4900E+02	0.000E+00	0.140E+02	12
81	Nucuprox	0.224E+00	0.111E+01	0.2200E+02	0.000E+00	0.100E+02	8
82	Nucutenu	0.276E+00	0.822E+00	0.2700E+02	0.000E+00	0.600E+01	17
83	Odonfulg	0.204E-01	0.142E+00	0.2000E+01	0.000E+00	0.100E+01	2
84	OligOlig	0.249E+02	0.405E+02	0.2442E+04	0.000E+00	0.255E+03	83
85	Orbisp	0.214E+00	0.736E+00	0.2100E+02	0.000E+00	0.400E+01	11
86	OstrA	0.265E+00	0.832E+00	0.2600E+02	0.000E+00	0.500E+01	14
87	OstrB	0.111E+01	0.396E+01	0.1090E+03	0.000E+00	0.370E+02	32
88	Oxyusmit	0.204E-01	0.202E+00	0.2000E+01	0.000E+00	0.200E+01	1
89	Pagulong	0.306E-01	0.303E+00	0.3000E+01	0.000E+00	0.300E+01	1
90	Pandgoul	0.102E+00	0.634E+00	0.1000E+02	0.000E+00	0.600E+01	5
91	Panoherb	0.286E+00	0.718E+00	0.2800E+02	0.000E+00	0.300E+01	17
92	Parateni	0.102E-01	0.101E+00	0.1000E+01	0.000E+00	0.100E+01	1
93	Paraspec	0.102E-01	0.101E+00	0.1000E+01	0.000E+00	0.100E+01	1
95	Paraspin	0.612E-01	0.281E+00	0.6000E+01	0.000E+00	0.200E+01	5
96	Paralong	0.327E+00	0.208E+01	0.3200E+02	0.000E+00	0.180E+02	5
97	Pectgoul	0.367E+00	0.778E+00	0.3600E+02	0.000E+00	0.400E+01	23
98	Phersp	0.510E-01	0.300E+00	0.5000E+01	0.000E+00	0.200E+01	3
99	Phylaren	0.612E-01	0.281E+00	0.6000E+01	0.000E+00	0.200E+01	5
100	Pinnsp	0.306E-01	0.173E+00	0.3000E+01	0.000E+00	0.100E+01	3
101	Pistpalm	0.714E-01	0.329E+00	0.7000E+01	0.000E+00	0.200E+01	5
104	Polylign	0.755E+00	0.236E+01	0.7400E+02	0.000E+00	0.200E+02	23
105	Polydora	0.408E+00	0.157E+01	0.4000E+02	0.000E+00	0.110E+02	9
106	Polygord	0.286E+00	0.172E+01	0.2800E+02	0.000E+00	0.160E+02	7
108	Priocirr	0.296E+00	0.166E+01	0.2900E+02	0.000E+00	0.160E+02	10
109	Priopinn	0.102E-01	0.101E+00	0.1000E+01	0.000E+00	0.100E+01	1
112	Rudinagl	0.306E-01	0.173E+00	0.3000E+01	0.000E+00	0.100E+01	3
113	Scalinfl	0.816E-01	0.423E+00	0.8000E+01	0.000E+00	0.300E+01	4
114	Schicaec	0.745E+00	0.502E+01	0.7300E+02	0.000E+00	0.420E+02	5
116	Scolfrag	0.318E+01	0.528E+01	0.3120E+03	0.000E+00	0.250E+02	55
118	Sigasp	0.102E+00	0.336E+00	0.1000E+02	0.000E+00	0.200E+01	9
119	Sphasp	0.102E-01	0.101E+00	0.1000E+01	0.000E+00	0.100E+01	1
120	Sphaerin	0.102E-01	0.101E+00	0.1000E+01	0.000E+00	0.100E+01	1
121	Sphahyst	0.102E+00	0.565E+00	0.1000E+02	0.000E+00	0.500E+01	5
122	Spiosp	0.816E-01	0.469E+00	0.8000E+01	0.000E+00	0.400E+01	4
123	Spiobomb	0.143E+00	0.556E+00	0.1400E+02	0.000E+00	0.300E+01	7
124	Spissoli	0.102E-01	0.101E+00	0.1000E+01	0.000E+00	0.100E+01	1
125	Stensp	0.102E-01	0.101E+00	0.1000E+01	0.000E+00	0.100E+01	1
126	Stheboa	0.306E-01	0.173E+00	0.3000E+01	0.000E+00	0.100E+01	3
127	Strebene	0.211E+01	0.369E+01	0.2070E+03	0.000E+00	0.170E+02	49

128	Syllseto	0.398E+00	0.277E+01	0.3900E+02	0.000E+00	0.270E+02	8
129	Tautadsp	0.102E-01	0.101E+00	0.1000E+01	0.000E+00	0.100E+01	1
130	Tellagil	0.704E+00	0.152E+01	0.6900E+02	0.000E+00	0.800E+01	28
131	Tharsp	0.568E+01	0.107E+02	0.5570E+03	0.000E+00	0.640E+02	62
132	Travcarn	0.714E-01	0.387E+00	0.7000E+01	0.000E+00	0.300E+01	4
135	Unciirro	0.408E-01	0.199E+00	0.4000E+01	0.000E+00	0.100E+01	4
137	Yoldlima	0.143E+00	0.431E+00	0.1400E+02	0.000E+00	0.200E+01	11
AVERAGES:		0.197E+01	0.695E+01	0.1935E+03	0.000E+00	0.533E+02	11.6

Data Summary by Region

Group: Huntngtn
Sample unit: H01

Value	Code	Species	Code Name
116.00	218	Ampelisca abdita	Ampeabdi
8.00	2	Capitella sp	Capisp
1.00	85	Corophium sp	Corosp
2.00	234	Cossura longocirrata	Cosslong
4.00	213	Eteone heteropoda	Eteohete
6.00	238	Glycinde solitaria	Glycsoli
1.00	277	Harmothoe imbricata	Harmimbr
2.00	173	Leucon americanus	Leucamer
2.00	137	Mulinia lateralis	Mulilate
16.00	80	Nematoda	NemaNema
1.00	8	Nereis succinea	Neresucc
1.00	66	Nucula proxima	Nucuprox
2.00	1	Oligochaeta	OligOlig
1.00	82	Ostracod A	OstrA
1.00	107	Pectinaria gouldii	Pectgoul
1.00	97	Prionospio pinnata	Priopinn
40.00	276	Scoloplos robustus	Scolrobu

Group: Huntngtn
Sample unit: H02

Value	Code	Species	Code Name
157.00	218	Ampelisca abdita	Ampeabdi
24.00	2	Capitella sp	Capisp
1.00	85	Corophium sp	Corosp
4.00	213	Eteone heteropoda	Eteohete
1.00	238	Glycinde solitaria	Glycsoli
1.00	277	Harmothoe imbricata	Harmimbr
12.00	173	Leucon americanus	Leucamer
4.00	80	Nematoda	NemaNema
5.00	8	Nereis succinea	Neresucc
5.00	1	Oligochaeta	OligOlig
1.00	97	Prionospio pinnata	Priopinn
53.00	276	Scoloplos robustus	Scolrobu
1.00	69	Tellina agilis	Tellagil

Group: Huntngtn
Sample unit: H03

Value	Code	Species	Code Name
317.00	218	Ampelisca abdita	Ampeabdi
24.00	2	Capitella sp	Capisp
5.00	213	Eteone heteropoda	Eteohete
3.00	238	Glycinde solitaria	Glycsoli
1.00	277	Harmothoe imbricata	Harmimbr
9.00	173	Leucon americanus	Leucamer
4.00	137	Mulinia lateralis	Mulilate
1.00	80	Nematoda	NemaNema
4.00	8	Nereis succinea	Neresucc
2.00	1	Oligochaeta	OligOlig
1.00	82	Ostracod A	OstrA
3.00	107	Pectinaria gouldii	Pectgoul
2.00	97	Prionospio pinnata	Priopinn
60.00	276	Scoloplos robustus	Scolrobu
1.00	201	Ampharete oculata	Amphocul
1.00	133	Eteone lactea	Eteolact
1.00	210	Nepthys incisa	Neptinci
1.00	205	Polydora ligni	Polylign
1.00	25	Tharyx sp	Tharsp

Group: Huntngtn
Sample unit: H04

Value	Code	Species	Code Name
355.00	218	Ampelisca abdita	Ampeabdi
36.00	2	Capitella sp	Capisp
6.00	213	Eteone heteropoda	Eteohete
1.00	238	Glycinde solitaria	Glycsoli
12.00	173	Leucon americanus	Leucamer
4.00	137	Mulinia lateralis	Mulilate
5.00	80	Nematoda	NemaNema
4.00	8	Nereis succinea	Neresucc
1.00	1	Oligochaeta	OligOlig
7.00	107	Pectinaria gouldii	Pectgoul
1.00	97	Prionospio pinnata	Priopinn
65.00	276	Scoloplos robustus	Scolrobu
1.00	205	Polydora ligni	Polylign
1.00	140	Glycera americana	Glycamer
1.00	132	Nicolea sp	Nicosp
1.00	129	Unciola irrorata	Unciirro
1.00	211	Yoldia limatula	Yoldlima

Group: Huntngtn
Sample unit: H05

Value	Code	Species	Code Name
60.00	218	Ampelisca abdita	Ampeabdi
47.00	2	Capitella sp	Capisp

3.00	213	Eteone heteropoda	Eteohete
3.00	238	Glycinde solitaria	Glycsoli
7.00	173	Leucon americanus	Leucamer
2.00	80	Nematoda	NemaNema
2.00	1	Oligochaeta	OligOlig
2.00	107	Pectinaria gouldii	Pectgoul
40.00	276	Scoloplos robustus	Scolrobu
1.00	205	Polydora ligni	Polylign
33.00	166	Streblospio benedicti	Strebene

Group: Huntngtn
Sample unit: H06

Value	Code	Species	Code Name
31.00	218	Ampelisca abdita	Ampeabdi
20.00	2	Capitella sp	Capisp
12.00	213	Eteone heteropoda	Eteohete
4.00	238	Glycinde solitaria	Glycsoli
5.00	173	Leucon americanus	Leucamer
2.00	137	Mulinia lateralis	Mulilate
2.00	80	Nematoda	NemaNema
10.00	8	Nereis succinea	Neresucc
50.00	276	Scoloplos robustus	Scolrobu
1.00	133	Eteone lactea	Eteolact
1.00	210	Nepthys incisa	Neptinci
1.00	25	Tharyx sp	Tharsp
19.00	166	Streblospio benedicti	Strebene

Group: Huntngtn
Sample unit: H07

Value	Code	Species	Code Name
1.00	218	Ampelisca abdita	Ampeabdi
51.00	2	Capitella sp	Capisp
25.00	213	Eteone heteropoda	Eteohete
2.00	238	Glycinde solitaria	Glycsoli
6.00	173	Leucon americanus	Leucamer
179.00	80	Nematoda	NemaNema
1.00	8	Nereis succinea	Neresucc
1.00	66	Nucula proxima	Nucuprox
14.00	1	Oligochaeta	OligOlig
1.00	82	Ostracod A	OstrA
3.00	107	Pectinaria gouldii	Pectgoul
72.00	276	Scoloplos robustus	Scolrobu
19.00	166	Streblospio benedicti	Strebene
1.00	161	Ilyanassa trivittata	Ilyatriv

Group: Huntngtn
Sample unit: H08

Value	Code	Species	Code Name

2.00	218	Ampelisca abdita	Ampeabdi
1.00	213	Eteone heteropoda	Eteohete
1.00	173	Leucon americanus	Leucamer
2.00	137	Mulinia lateralis	Mulilate
1.00	66	Nucula proxima	Nucuprox
5.00	1	Oligochaeta	OligOlig
1.00	107	Pectinaria gouldii	Pectgoul
5.00	276	Scoloplos robustus	Scolrobu
4.00	166	Streblospio benedicti	Strebene

Group: Huntngtn
Sample unit: H09

Value	Code	Species	Code Name
3.00	218	Ampelisca abdita	Ampeabdi
86.00	2	Capitella sp	Capisp
44.00	213	Eteone heteropoda	Eteohete
2.00	277	Harmothoe imbricata	Harmimbr
2.00	173	Leucon americanus	Leucamer
144.00	80	Nematoda	NemaNema
3.00	8	Nereis succinea	Neresucc
20.00	1	Oligochaeta	OligOlig
1.00	107	Pectinaria gouldii	Pectgoul
16.00	276	Scoloplos robustus	Scolrobu
4.00	205	Polydora ligni	Polylign
1.00	25	Tharyx sp	Tharsp
55.00	166	Streblospio benedicti	Strebene
69.00	75	Crepidula fornicata	Crepforn
2.00	76	Crepidula plana	Crepplan
2.00	191	Ilyanassa obsoleta	Ilyaobso
2.00	104	Nucula tenuis	Nucutenu
1.00	53	Panopeus herbstii	Panoherb

Group: Huntngtn
Sample unit: H10

Value	Code	Species	Code Name
21.00	218	Ampelisca abdita	Ampeabdi
180.00	2	Capitella sp	Capisp
22.00	213	Eteone heteropoda	Eteohete
3.00	277	Harmothoe imbricata	Harmimbr
3.00	173	Leucon americanus	Leucamer
101.00	80	Nematoda	NemaNema
20.00	1	Oligochaeta	OligOlig
4.00	276	Scoloplos robustus	Scolrobu
1.00	69	Tellina agilis	Tellagil
3.00	205	Polydora ligni	Polylign
2.00	25	Tharyx sp	Tharsp
43.00	166	Streblospio benedicti	Strebene
31.00	75	Crepidula fornicata	Crepforn
7.00	191	Ilyanassa obsoleta	Ilyaobso

Group: Huntngtn
Sample unit: H11

Value	Code	Species	Code Name
6.00	218	Ampelisca abdita	Ampeabdi
71.00	2	Capitella sp	Capisp
1.00	173	Leucon americanus	Leucamer
11.00	137	Mulinia lateralis	Mulilate
23.00	80	Nematoda	NemaNema
5.00	8	Nereis succinea	Neresucc
1.00	1	Oligochaeta	OligOlig
46.00	276	Scoloplos robustus	Scolrobu
21.00	205	Polydora ligni	Polylign
2.00	25	Tharyx sp	Tharsp
43.00	166	Streblospio benedicti	Strebene
3.00	191	Ilyanassa obsoleta	Ilyaobso
2.00	154	Microphthalmus aberrans	Micraber
1.00	209	Rictaxis punctostriatus	Rictpunc

Group: Huntngtn
Sample unit: H12

Value	Code	Species	Code Name
14.00	218	Ampelisca abdita	Ampeabdi
146.00	2	Capitella sp	Capisp
25.00	213	Eteone heteropoda	Eteohete
6.00	173	Leucon americanus	Leucamer
9.00	137	Mulinia lateralis	Mulilate
18.00	80	Nematoda	NemaNema
6.00	8	Nereis succinea	Neresucc
5.00	1	Oligochaeta	OligOlig
3.00	107	Pectinaria gouldii	Pectgoul
37.00	276	Scoloplos robustus	Scolrobu
1.00	25	Tharyx sp	Tharsp
100.00	166	Streblospio benedicti	Strebene
1.00	161	Ilyanassa trivittata	Ilyatriv

Group: Huntngtn
Sample unit: H13

Value	Code	Species	Code Name
3.00	218	Ampelisca abdita	Ampeabdi
28.00	2	Capitella sp	Capisp
1.00	234	Cossura longocirrata	Cosslong
9.00	213	Eteone heteropoda	Eteohete
1.00	238	Glycinde solitaria	Glycsoli
8.00	173	Leucon americanus	Leucamer
3.00	137	Mulinia lateralis	Mulilate
2.00	8	Nereis succinea	Neresucc
2.00	1	Oligochaeta	OligOlig
8.00	276	Scoloplos robustus	Scolrobu
15.00	166	Streblospio benedicti	Strebene

2.00	104	Nucula tenuis	Nucutenu

Group: Huntngtn
Sample unit: H14

Value	Code	Species	Code Name
12.00	218	Ampelisca abdita	Ampeabdi
51.00	2	Capitella sp	Capisp
1.00	234	Cossura longocirrata	Cosslong
4.00	213	Eteone heteropoda	Eteohete
4.00	238	Glycinde solitaria	Glycsoli
3.00	173	Leucon americanus	Leucamer
2.00	137	Mulinia lateralis	Mulilate
7.00	8	Nereis succinea	Neresucc
5.00	1	Oligochaeta	OligOlig
24.00	276	Scoloplos robustus	Scolrobu
77.00	166	Streblospio benedicti	Strebene
1.00	104	Nucula tenuis	Nucutenu
1.00	180	Cephalaspidea	CephCeph

Group: Huntngtn
Sample unit: H15

Value	Code	Species	Code Name
1.00	218	Ampelisca abdita	Ampeabdi
2.00	2	Capitella sp	Capisp
1.00	213	Eteone heteropoda	Eteohete
1.00	238	Glycinde solitaria	Glycsoli
2.00	173	Leucon americanus	Leucamer
1.00	137	Mulinia lateralis	Mulilate
1.00	80	Nematoda	NemaNema
2.00	8	Nereis succinea	Neresucc
5.00	1	Oligochaeta	OligOlig
11.00	276	Scoloplos robustus	Scolrobu
4.00	166	Streblospio benedicti	Strebene

Group: Huntngtn
Sample unit: H16

Value	Code	Species	Code Name
93.00	2	Capitella sp	Capisp
10.00	213	Eteone heteropoda	Eteohete
3.00	238	Glycinde solitaria	Glycsoli
6.00	173	Leucon americanus	Leucamer
4.00	137	Mulinia lateralis	Mulilate
16.00	1	Oligochaeta	OligOlig
1.00	82	Ostracod A	OstrA
5.00	107	Pectinaria gouldii	Pectgoul
54.00	276	Scoloplos robustus	Scolrobu
1.00	69	Tellina agilis	Tellagil
1.00	140	Glycera americana	Glycamer

1.00	211	Yoldia limatula	Yoldlima
56.00	166	Streblospio benedicti	Strebene
3.00	104	Nucula tenuis	Nucutenu

Group: Huntngtn
Sample unit: H17

Value	Code	Species	Code Name
6.00	218	Ampelisca abdita	Ampeabdi
38.00	2	Capitella sp	Capisp
1.00	213	Eteone heteropoda	Eteohete
3.00	238	Glycinde solitaria	Glycsoli
1.00	137	Mulinia lateralis	Mulilate
1.00	80	Nematoda	NemaNema
7.00	1	Oligochaeta	OligOlig
1.00	97	Prionospio pinnata	Priopinn
18.00	276	Scoloplos robustus	Scolrobu
1.00	69	Tellina agilis	Tellagil
1.00	205	Polydora ligni	Polylign
1.00	140	Glycera americana	Glycamer
1.00	211	Yoldia limatula	Yoldlima
28.00	166	Streblospio benedicti	Strebene
2.00	104	Nucula tenuis	Nucutenu
3.00	143	Ampharete arctica	Ampharct

Group: Huntngtn
Sample unit: H18

Value	Code	Species	Code Name
3.00	218	Ampelisca abdita	Ampeabdi
64.00	2	Capitella sp	Capisp
8.00	213	Eteone heteropoda	Eteohete
5.00	80	Nematoda	NemaNema
1.00	8	Nereis succinea	Neresucc
1.00	1	Oligochaeta	OligOlig
3.00	107	Pectinaria gouldii	Pectgoul
9.00	276	Scoloplos robustus	Scolrobu
3.00	69	Tellina agilis	Tellagil
51.00	166	Streblospio benedicti	Strebene
1.00	104	Nucula tenuis	Nucutenu

Group: Huntngtn
Sample unit: H19

Value	Code	Species	Code Name
7.00	218	Ampelisca abdita	Ampeabdi
279.00	2	Capitella sp	Capisp
13.00	213	Eteone heteropoda	Eteohete
3.00	238	Glycinde solitaria	Glycsoli
7.00	277	Harmothoe imbricata	Harmimbr
6.00	173	Leucon americanus	Leucamer

84.00	80	Nematoda	NemaNema
9.00	8	Nereis succinea	Neresucc
145.00	1	Oligochaeta	OligOlig
1.00	82	Ostracod A	OstrA
2.00	107	Pectinaria gouldii	Pectgoul
45.00	276	Scoloplos robustus	Scolrobu
58.00	205	Polydora ligni	Polylign
3.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
122.00	166	Streblospio benedicti	Strebene
119.00	75	Crepidula fornicata	Crepforn
9.00	76	Crepidula plana	Crepplan
4.00	53	Panopeus herbstii	Panoherb
1.00	52	Dyspanopeus sayi	Dyspsayi
1.00	145	Gyptis vittata	Gyptvitt

Group: Huntngtn
Sample unit: H20

Value	Code	Species	Code Name
2.00	218	Ampelisca abdita	Ampeabdi
178.00	2	Capitella sp	Capisp
2.00	234	Cossura longocirrata	Cosslong
15.00	213	Eteone heteropoda	Eteohete
4.00	238	Glycinde solitaria	Glycsoli
8.00	277	Harmothoe imbricata	Harmimbr
6.00	173	Leucon americanus	Leucamer
54.00	80	Nematoda	NemaNema
12.00	8	Nereis succinea	Neresucc
21.00	1	Oligochaeta	OligOlig
5.00	107	Pectinaria gouldii	Pectgoul
2.00	97	Prionospio pinnata	Priopinn
66.00	276	Scoloplos robustus	Scolrobu
58.00	205	Polydora ligni	Polylign
3.00	25	Tharyx sp	Tharsp
89.00	166	Streblospio benedicti	Strebene
4.00	75	Crepidula fornicata	Crepforn
64.00	76	Crepidula plana	Crepplan
1.00	104	Nucula tenuis	Nucutenu
2.00	143	Ampharete arctica	Ampharct
1.00	145	Gyptis vittata	Gyptvitt
2.00	13	Eumida sanguinea	Eumisang
1.00	95	Gobiosoma sp	Gobisp
1.00	70	Mercenaria mercenaria	Mercmerc

Group: Huntngtn
Sample unit: H21

Value	Code	Species	Code Name
99.00	2	Capitella sp	Capisp
2.00	85	Corophium sp	Corosp
4.00	213	Eteone heteropoda	Eteohete
30.00	277	Harmothoe imbricata	Harmimbr

36.00	80	Nematoda	NemaNema
16.00	8	Nereis succinea	Neresucc
1.00	66	Nucula proxima	Nucuprox
20.00	1	Oligochaeta	OligOlig
3.00	107	Pectinaria gouldii	Pectgoul
10.00	276	Scoloplos robustus	Scolrobu
23.00	205	Polydora ligni	Polylign
19.00	166	Streblospio benedicti	Strebene
209.00	75	Crepidula fornicata	Crepforn
31.00	76	Crepidula plana	Crepplan
2.00	53	Panopeus herbstii	Panoherb
4.00	143	Ampharete arctica	Ampharct
12.00	13	Eumida sanguinea	Eumisang
35.00	119	Autolytus cornutus	Autocorn
1.00	46	Batea catharinensis	Batecath
1.00	122	Drilonereis longa	Drillong
1.00	20	Exogone dispar	Exogdisp

Group: Huntngtn
Sample unit: H22

Value	Code	Species	Code Name
1.00	218	Ampelisca abdita	Ampeabdi
206.00	2	Capitella sp	Capisp
19.00	213	Eteone heteropoda	Eteohete
1.00	238	Glycinde solitaria	Glycsoli
37.00	277	Harmothoe imbricata	Harmimbr
118.00	80	Nematoda	NemaNema
8.00	8	Nereis succinea	Neresucc
5.00	66	Nucula proxima	Nucuprox
67.00	1	Oligochaeta	OligOlig
4.00	107	Pectinaria gouldii	Pectgoul
6.00	276	Scoloplos robustus	Scolrobu
139.00	205	Polydora ligni	Polylign
22.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
56.00	166	Streblospio benedicti	Strebene
172.00	75	Crepidula fornicata	Crepforn
49.00	76	Crepidula plana	Crepplan
1.00	53	Panopeus herbstii	Panoherb
3.00	143	Ampharete arctica	Ampharct
6.00	13	Eumida sanguinea	Eumisang
1.00	70	Mercenaria mercenaria	Mercmerc
1.00	134	Schistomeringos caecus	Schicaec

Group: Huntngtn
Sample unit: H23

Value	Code	Species	Code Name
14.00	2	Capitella sp	Capisp
2.00	173	Leucon americanus	Leucamer
2.00	137	Mulinia lateralis	Mulilate
1.00	8	Nereis succinea	Neresucc

1.00	66	Nucula proxima	Nucuprox
19.00	1	Oligochaeta	OligOlig
1.00	276	Scoloplos robustus	Scolrobu
1.00	211	Yoldia limatula	Yoldlima
1.00	166	Streblospio benedicti	Strebene

Group: Huntngtn
Sample unit: H24

Value	Code	Species	Code Name
12.00	2	Capitella sp	Capisp
1.00	213	Eteone heteropoda	Eteohete
4.00	137	Mulinia lateralis	Mulilate
1.00	8	Nereis succinea	Neresucc
3.00	1	Oligochaeta	OligOlig
1.00	82	Ostracod A	OstrA
3.00	276	Scoloplos robustus	Scolrobu
1.00	166	Streblospio benedicti	Strebene
1.00	104	Nucula tenuis	Nucutenu
1.00	7	Nephtys picta	Nephpict

Group: Huntngtn
Sample unit: H25

Value	Code	Species	Code Name
4.00	218	Ampelisca abdita	Ampeabdi
39.00	2	Capitella sp	Capisp
11.00	213	Eteone heteropoda	Eteohete
8.00	238	Glycinde solitaria	Glycsoli
2.00	277	Harmothoe imbricata	Harmimbr
1.00	173	Leucon americanus	Leucamer
1.00	137	Mulinia lateralis	Mulilate
10.00	80	Nematoda	NemaNema
4.00	8	Nereis succinea	Neresucc
13.00	1	Oligochaeta	OligOlig
2.00	82	Ostracod A	OstrA
5.00	107	Pectinaria gouldii	Pectgoul
67.00	276	Scoloplos robustus	Scolrobu
2.00	210	Nepthys incisa	Neptinci
5.00	205	Polydora ligni	Polylign
6.00	166	Streblospio benedicti	Strebene
1.00	104	Nucula tenuis	Nucutenu
2.00	143	Ampharete arctica	Ampharct

Group: Huntngtn
Sample unit: H26

Value	Code	Species	Code Name
1.00	218	Ampelisca abdita	Ampeabdi
4.00	2	Capitella sp	Capisp
3.00	213	Eteone heteropoda	Eteohete

4.00	238	Glycinde solitaria	Glycsoli
7.00	1	Oligochaeta	OligOlig
1.00	107	Pectinaria gouldii	Pectgoul
11.00	276	Scoloplos robustus	Scolrobu
1.00	69	Tellina agilis	Tellagil
1.00	140	Glycera americana	Glycamer
3.00	166	Streblospio benedicti	Strebene
2.00	70	Mercenaria mercenaria	Mercmerc

Group: Huntngtn
Sample unit: H27

Value	Code	Species	Code Name
3.00	218	Ampelisca abdita	Ampeabdi
22.00	2	Capitella sp	Capisp
3.00	213	Eteone heteropoda	Eteohete
3.00	238	Glycinde solitaria	Glycsoli
2.00	173	Leucon americanus	Leucamer
5.00	80	Nematoda	NemaNema
4.00	8	Nereis succinea	Neresucc
15.00	1	Oligochaeta	OligOlig
25.00	276	Scoloplos robustus	Scolrobu
3.00	205	Polydora ligni	Polylign
30.00	166	Streblospio benedicti	Strebene
24.00	75	Crepidula fornicata	Crepforn
2.00	76	Crepidula plana	Crepplan

Group: Huntngtn
Sample unit: H28

Value	Code	Species	Code Name
21.00	2	Capitella sp	Capisp
3.00	213	Eteone heteropoda	Eteohete
4.00	238	Glycinde solitaria	Glycsoli
1.00	277	Harmothoe imbricata	Harmimbr
3.00	8	Nereis succinea	Neresucc
1.00	66	Nucula proxima	Nucuprox
6.00	1	Oligochaeta	OligOlig
1.00	97	Prionospio pinnata	Priopinn
28.00	276	Scoloplos robustus	Scolrobu
22.00	205	Polydora ligni	Polylign
1.00	25	Tharyx sp	Tharsp
13.00	166	Streblospio benedicti	Strebene
26.00	75	Crepidula fornicata	Crepforn
2.00	76	Crepidula plana	Crepplan
1.00	191	Ilyanassa obsoleta	Ilyaobso
1.00	13	Eumida sanguinea	Eumisang
4.00	119	Autolytus cornutus	Autocorn
1.00	216	Pherusa sp	Phersp

Group: Huntngtn
Sample unit: H29

Value	Code	Species	Code Name
3.00	218	Ampelisca abdita	Ampeabdi
126.00	2	Capitella sp	Capisp
21.00	213	Eteone heteropoda	Eteohete
1.00	238	Glycinde solitaria	Glycsoli
10.00	277	Harmothoe imbricata	Harmimbr
24.00	80	Nematoda	NemaNema
4.00	8	Nereis succinea	Neresucc
70.00	1	Oligochaeta	OligOlig
5.00	107	Pectinaria gouldii	Pectgoul
1.00	97	Prionospio pinnata	Priopinn
22.00	276	Scoloplos robustus	Scolrobu
1.00	210	Nepthys incisa	Neptinci
46.00	205	Polydora ligni	Polylign
19.00	25	Tharyx sp	Tharsp
82.00	166	Streblospio benedicti	Strebene
130.00	75	Crepidula fornicata	Crepforn
20.00	76	Crepidula plana	Crepplan
1.00	143	Ampharete arctica	Ampharct
1.00	13	Eumida sanguinea	Eumisang
1.00	70	Mercenaria mercenaria	Mercmerc
1.00	20	Exogone dispar	Exogdisp

Group: Huntngtn
Sample unit: H30

Value	Code	Species	Code Name
1.00	218	Ampelisca abdita	Ampeabdi
205.00	2	Capitella sp	Capisp
30.00	213	Eteone heteropoda	Eteohete
35.00	277	Harmothoe imbricata	Harmimbr
18.00	80	Nematoda	NemaNema
4.00	8	Nereis succinea	Neresucc
143.00	1	Oligochaeta	OligOlig
1.00	107	Pectinaria gouldii	Pectgoul
24.00	276	Scoloplos robustus	Scolrobu
84.00	205	Polydora ligni	Polylign
24.00	25	Tharyx sp	Tharsp
1.00	132	Nicolea sp	Nicosp
67.00	166	Streblospio benedicti	Strebene
143.00	75	Crepidula fornicata	Crepforn
31.00	76	Crepidula plana	Crepplan
4.00	53	Panopeus herbstii	Panoherb
2.00	143	Ampharete arctica	Ampharct
10.00	13	Eumida sanguinea	Eumisang
2.00	70	Mercenaria mercenaria	Mercmerc
1.00	160	Melinna cristata	Melicris
2.00	174	Paranaitis speciosa	Paraspec

Group: Huntngtn
Sample unit: H31

Value	Code	Species	Code Name
1.00	218	Ampelisca abdita	Ampeabdi
4.00	2	Capitella sp	Capisp
1.00	213	Eteone heteropoda	Eteohete
5.00	137	Mulinia lateralis	Mulilate
1.00	8	Nereis succinea	Neresucc
1.00	66	Nucula proxima	Nucuprox
1.00	82	Ostracod A	OstrA
1.00	276	Scoloplos robustus	Scolrobu
1.00	211	Yoldia limatula	Yoldlima
4.00	166	Streblospio benedicti	Strebene
2.00	104	Nucula tenuis	Nucutenu
1.00	177	Acteocina canaliculata	Actecana

Group: Huntngtn
Sample unit: H32

Value	Code	Species	Code Name
2.00	173	Leucon americanus	Leucamer
6.00	137	Mulinia lateralis	Mulilate
1.00	8	Nereis succinea	Neresucc
4.00	1	Oligochaeta	OligOlig
1.00	276	Scoloplos robustus	Scolrobu
2.00	211	Yoldia limatula	Yoldlima
3.00	166	Streblospio benedicti	Strebene
1.00	177	Acteocina canaliculata	Actecana

Group: Huntngtn
Sample unit: H33

Value	Code	Species	Code Name
42.00	2	Capitella sp	Capisp
1.00	238	Glycinde solitaria	Glycsoli
1.00	277	Harmothoe imbricata	Harmimbr
4.00	173	Leucon americanus	Leucamer
4.00	80	Nematoda	NemaNema
8.00	8	Nereis succinea	Neresucc
35.00	1	Oligochaeta	OligOlig
1.00	107	Pectinaria gouldii	Pectgoul
18.00	276	Scoloplos robustus	Scolrobu
5.00	205	Polydora ligni	Polylign
16.00	166	Streblospio benedicti	Strebene
27.00	75	Crepidula fornicata	Crepforn

Group: Huntngtn
Sample unit: H34

Value	Code	Species	Code Name
1.00	218	Ampelisca abdita	Ampeabdi
85.00	2	Capitella sp	Capisp

8.00	213	Eteone heteropoda	Eteohete
3.00	238	Glycinde solitaria	Glycsoli
1.00	277	Harmothoe imbricata	Harmimbr
5.00	173	Leucon americanus	Leucamer
1.00	80	Nematoda	NemaNema
3.00	8	Nereis succinea	Neresucc
13.00	1	Oligochaeta	OligOlig
1.00	82	Ostracod A	OstrA
1.00	107	Pectinaria gouldii	Pectgoul
1.00	97	Prionospio pinnata	Priopinn
26.00	276	Scoloplos robustus	Scolrobu
1.00	205	Polydora ligni	Polylign
1.00	211	Yoldia limatula	Yoldlima
46.00	166	Streblospio benedicti	Strebene
7.00	75	Crepidula fornicata	Crepforn
1.00	53	Panopeus herbstii	Panoherb
2.00	143	Ampharete arctica	Ampharct

Group: Huntngtn
Sample unit: H35

Value	Code	Species	Code Name
1.00	218	Ampelisca abdita	Ampeabdi
6.00	2	Capitella sp	Capisp
1.00	238	Glycinde solitaria	Glycsoli
5.00	137	Mulinia lateralis	Mulilate
1.00	8	Nereis succinea	Neresucc
2.00	66	Nucula proxima	Nucuprox
17.00	1	Oligochaeta	OligOlig
3.00	276	Scoloplos robustus	Scolrobu
1.00	69	Tellina agilis	Tellagil
4.00	211	Yoldia limatula	Yoldlima
2.00	166	Streblospio benedicti	Strebene
1.00	104	Nucula tenuis	Nucutenu
1.00	119	Autolytus cornutus	Autocorn
1.00	177	Acteocina canaliculata	Actecana
1.00	41	Elasmopus levis	Elaslevi

Group: Huntngtn
Sample unit: H36

Value	Code	Species	Code Name
3.00	218	Ampelisca abdita	Ampeabdi
19.00	2	Capitella sp	Capisp
2.00	238	Glycinde solitaria	Glycsoli
1.00	137	Mulinia lateralis	Mulilate
1.00	66	Nucula proxima	Nucuprox
25.00	1	Oligochaeta	OligOlig
3.00	276	Scoloplos robustus	Scolrobu
1.00	211	Yoldia limatula	Yoldlima
3.00	166	Streblospio benedicti	Strebene
1.00	161	Ilyanassa trivittata	Ilyatriv
1.00	104	Nucula tenuis	Nucutenu

Group: Huntngtn
Sample unit: H37

Value	Code	Species	Code Name
26.00	2	Capitella sp	Capisp
2.00	238	Glycinde solitaria	Glycsoli
2.00	137	Mulinia lateralis	Mulilate
3.00	80	Nematoda	NemaNema
27.00	1	Oligochaeta	OligOlig
2.00	107	Pectinaria gouldii	Pectgoul
1.00	97	Prionospio pinnata	Priopinn
25.00	276	Scoloplos robustus	Scolrobu
1.00	69	Tellina agilis	Tellagil
2.00	211	Yoldia limatula	Yoldlima
17.00	166	Streblospio benedicti	Strebene
1.00	104	Nucula tenuis	Nucutenu
1.00	143	Ampharete arctica	Ampharct

Group: Huntngtn
Sample unit: H38

Value	Code	Species	Code Name
21.00	2	Capitella sp	Capisp
3.00	213	Eteone heteropoda	Eteohete
3.00	238	Glycinde solitaria	Glycsoli
3.00	137	Mulinia lateralis	Mulilate
27.00	1	Oligochaeta	OligOlig
1.00	82	Ostracod A	OstrA
28.00	276	Scoloplos robustus	Scolrobu
1.00	69	Tellina agilis	Tellagil
1.00	210	Nepthys incisa	Neptinci
2.00	211	Yoldia limatula	Yoldlima
8.00	166	Streblospio benedicti	Strebene

Group: Huntngtn
Sample unit: H39

Value	Code	Species	Code Name
175.00	2	Capitella sp	Capisp
3.00	213	Eteone heteropoda	Eteohete
8.00	277	Harmothoe imbricata	Harmimbr
1.00	173	Leucon americanus	Leucamer
144.00	80	Nematoda	NemaNema
10.00	8	Nereis succinea	Neresucc
74.00	1	Oligochaeta	OligOlig
6.00	276	Scoloplos robustus	Scolrobu
40.00	205	Polydora ligni	Polylign
18.00	25	Tharyx sp	Tharsp
40.00	166	Streblospio benedicti	Strebene
156.00	75	Crepidula fornicata	Crepforn

21.00	76	Crepidula plana	Crepplan
2.00	53	Panopeus herbstii	Panoherb
2.00	143	Ampharete arctica	Ampharct
4.00	13	Eumida sanguinea	Eumisang
1.00	275	Scolecolepides viridis	Scolviri

Group: Huntngtn
Sample unit: H40

Value	Code	Species	Code Name
15.00	2	Capitella sp	Capisp
8.00	213	Eteone heteropoda	Eteohete
2.00	238	Glycinde solitaria	Glycsoli
3.00	277	Harmothoe imbricata	Harmimbr
567.00	80	Nematoda	NemaNema
4.00	8	Nereis succinea	Neresucc
1.00	66	Nucula proxima	Nucuprox
4.00	1	Oligochaeta	OligOlig
2.00	107	Pectinaria gouldii	Pectgoul
5.00	276	Scoloplos robustus	Scolrobu
4.00	69	Tellina agilis	Tellagil
4.00	205	Polydora ligni	Polylign
9.00	25	Tharyx sp	Tharsp
2.00	166	Streblospio benedicti	Strebene
48.00	75	Crepidula fornicata	Crepforn
2.00	76	Crepidula plana	Crepplan
1.00	191	Ilyanassa obsoleta	Ilyaobso
1.00	53	Panopeus herbstii	Panoherb

Group: Huntngtn
Sample unit: H41

Value	Code	Species	Code Name
6.00	2	Capitella sp	Capisp
1.00	213	Eteone heteropoda	Eteohete
4.00	137	Mulinia lateralis	Mulilate
4.00	80	Nematoda	NemaNema
1.00	8	Nereis succinea	Neresucc
1.00	97	Prionospio pinnata	Priopinn
19.00	276	Scoloplos robustus	Scolrobu
1.00	205	Polydora ligni	Polylign
19.00	166	Streblospio benedicti	Strebene
5.00	191	Ilyanassa obsoleta	Ilyaobso
3.00	143	Ampharete arctica	Ampharct

Group: Huntngtn
Sample unit: H42

Value	Code	Species	Code Name
2.00	218	Ampelisca abdita	Ampeabdi
3.00	2	Capitella sp	Capisp

4.00	238	Glycinde solitaria	Glycsoli
1.00	173	Leucon americanus	Leucamer
3.00	137	Mulinia lateralis	Mulilate
5.00	8	Nereis succinea	Neresucc
6.00	1	Oligochaeta	OligOlig
11.00	276	Scoloplos robustus	Scolrobu
16.00	166	Streblospio benedicti	Strebene
1.00	180	Cephalaspidea	CephCeph

Group: Huntngtn
Sample unit: H43

Value	Code	Species	Code Name
113.00	2	Capitella sp	Capisp
6.00	213	Eteone heteropoda	Eteohete
8.00	277	Harmothoe imbricata	Harmimbr
72.00	80	Nematoda	NemaNema
6.00	8	Nereis succinea	Neresucc
57.00	1	Oligochaeta	OligOlig
1.00	107	Pectinaria gouldii	Pectgoul
29.00	276	Scoloplos robustus	Scolrobu
37.00	205	Polydora ligni	Polylign
14.00	25	Tharyx sp	Tharsp
63.00	166	Streblospio benedicti	Strebene
112.00	75	Crepidula fornicata	Crepforn
3.00	76	Crepidula plana	Crepplan
1.00	191	Ilyanassa obsoleta	Ilyaobso
1.00	53	Panopeus herbstii	Panoherb
4.00	143	Ampharete arctica	Ampharct
2.00	13	Eumida sanguinea	Eumisang
2.00	70	Mercenaria mercenaria	Mercmerc

Group: Huntngtn
Sample unit: H44

Value	Code	Species	Code Name
1.00	218	Ampelisca abdita	Ampeabdi
108.00	2	Capitella sp	Capisp
6.00	213	Eteone heteropoda	Eteohete
10.00	277	Harmothoe imbricata	Harmimbr
1.00	173	Leucon americanus	Leucamer
54.00	80	Nematoda	NemaNema
2.00	8	Nereis succinea	Neresucc
24.00	1	Oligochaeta	OligOlig
2.00	97	Prionospio pinnata	Priopinn
31.00	276	Scoloplos robustus	Scolrobu
8.00	205	Polydora ligni	Polylign
17.00	25	Tharyx sp	Tharsp
64.00	166	Streblospio benedicti	Strebene
53.00	75	Crepidula fornicata	Crepforn
1.00	76	Crepidula plana	Crepplan
2.00	191	Ilyanassa obsoleta	Ilyaobso
3.00	143	Ampharete arctica	Ampharct

Group: Huntngtn
Sample unit: H45

Value	Code	Species	Code Name
154.00	2	Capitella sp	Capisp
7.00	213	Eteone heteropoda	Eteohete
1.00	277	Harmothoe imbricata	Harmimbr
36.00	80	Nematoda	NemaNema
87.00	1	Oligochaeta	OligOlig
1.00	107	Pectinaria gouldii	Pectgoul
23.00	276	Scoloplos robustus	Scolrobu
1.00	69	Tellina agilis	Tellagil
1.00	201	Ampharete oculata	Amphocul
13.00	205	Polydora ligni	Polylign
9.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
52.00	166	Streblospio benedicti	Strebene
74.00	75	Crepidula fornicata	Crepforn
11.00	76	Crepidula plana	Crepplan
1.00	143	Ampharete arctica	Ampharct
1.00	70	Mercenaria mercenaria	Mercmerc
1.00	174	Paranaitis speciosa	Paraspec

Group: Huntngtn
Sample unit: H46

Value	Code	Species	Code Name
137.00	2	Capitella sp	Capisp
10.00	213	Eteone heteropoda	Eteohete
7.00	277	Harmothoe imbricata	Harmimbr
27.00	80	Nematoda	NemaNema
2.00	8	Nereis succinea	Neresucc
94.00	1	Oligochaeta	OligOlig
24.00	276	Scoloplos robustus	Scolrobu
2.00	201	Ampharete oculata	Amphocul
24.00	205	Polydora ligni	Polylign
7.00	25	Tharyx sp	Tharsp
27.00	166	Streblospio benedicti	Strebene
163.00	75	Crepidula fornicata	Crepforn
15.00	76	Crepidula plana	Crepplan
1.00	53	Panopeus herbstii	Panoherb
2.00	143	Ampharete arctica	Ampharct
2.00	13	Eumida sanguinea	Eumisang
1.00	70	Mercenaria mercenaria	Mercmerc
1.00	174	Paranaitis speciosa	Paraspec

Group: Huntngtn
Sample unit: H47

Value	Code	Species	Code Name

237.00	2	Capitella sp	Capisp
24.00	213	Eteone heteropoda	Eteohete
15.00	277	Harmothoe imbricata	Harmimbr
1440.00	80	Nematoda	NemaNema
1.00	8	Nereis succinea	Neresucc
87.00	1	Oligochaeta	OligOlig
6.00	276	Scoloplos robustus	Scolrobu
12.00	69	Tellina agilis	Tellagil
2.00	205	Polydora ligni	Polylign
13.00	25	Tharyx sp	Tharsp
4.00	129	Unciola irrorata	Unciirro
24.00	166	Streblospio benedicti	Strebene
6.00	75	Crepidula fornicata	Crepforn
5.00	104	Nucula tenuis	Nucutenu
66.00	143	Ampharete arctica	Ampharct
1.00	13	Eumida sanguinea	Eumisang
1.00	7	Nephtys picta	Nephpict
3.00	41	Elasmopus levis	Elaslevi
221.00	11	Aricidea catherinae	Ariccath
4.00	19	Brania wellfleetensis	Branwell
2.00	64	Lyonsia hyalina	Lyonhyal
2.00	21	Parapionosyllis longicirrata	Paralong

Group: Huntngtn
Sample unit: H48

Value	Code	Species	Code Name
81.00	2	Capitella sp	Capisp
12.00	213	Eteone heteropoda	Eteohete
52.00	277	Harmothoe imbricata	Harmimbr
39.00	80	Nematoda	NemaNema
3.00	8	Nereis succinea	Neresucc
136.00	1	Oligochaeta	OligOlig
6.00	276	Scoloplos robustus	Scolrobu
224.00	205	Polydora ligni	Polylign
12.00	25	Tharyx sp	Tharsp
10.00	166	Streblospio benedicti	Strebene
130.00	75	Crepidula fornicata	Crepforn
25.00	76	Crepidula plana	Crepplan
1.00	53	Panopeus herbstii	Panoherb
10.00	143	Ampharete arctica	Ampharct
1.00	52	Dyspanopeus sayi	Dyspsayi
7.00	13	Eumida sanguinea	Eumisang
16.00	119	Autolytus cornutus	Autocorn
1.00	216	Pherusa sp	Phersp

Group: Huntngtn
Sample unit: H49

Value	Code	Species	Code Name
437.00	2	Capitella sp	Capisp
7.00	213	Eteone heteropoda	Eteohete
24.00	277	Harmothoe imbricata	Harmimbr

47.00	80	Nematoda	NemaNema
18.00	66	Nucula proxima	Nucuprox
90.00	1	Oligochaeta	OligOlig
3.00	205	Polydora ligni	Polylign
2.00	140	Glycera americana	Glycamer
24.00	75	Crepidula fornicata	Crepforn
1.00	76	Crepidula plana	Crepplan
2.00	104	Nucula tenuis	Nucutenu
2.00	53	Panopeus herbstii	Panoherb
5.00	143	Ampharete arctica	Ampharct
1.00	70	Mercenaria mercenaria	Mercmerc
15.00	119	Autolytus cornutus	Autocorn
2.00	11	Aricidea catherinae	Ariccath
1.00	21	Parapionosyllis longicirrata	Paralong
12.00	150	Lysianopsis alba	Lysialba

Group: Huntngtn
Sample unit: H50

Value	Code	Species	Code Name
90.00	2	Capitella sp	Capisp
2.00	85	Corophium sp	Corosp
8.00	213	Eteone heteropoda	Eteohete
1.00	238	Glycinde solitaria	Glycsoli
16.00	277	Harmothoe imbricata	Harmimbr
710.00	80	Nematoda	NemaNema
1.00	66	Nucula proxima	Nucuprox
180.00	1	Oligochaeta	OligOlig
3.00	69	Tellina agilis	Tellagil
26.00	205	Polydora ligni	Polylign
1.00	129	Unciola irrorata	Unciirro
1.00	166	Streblospio benedicti	Strebene
5.00	75	Crepidula fornicata	Crepforn
1.00	104	Nucula tenuis	Nucutenu
2.00	154	Microphthalmus aberrans	Micraber
18.00	143	Ampharete arctica	Ampharct
1.00	13	Eumida sanguinea	Eumisang
2.00	119	Autolytus cornutus	Autocorn
32.00	41	Elasmopus levis	Elaslevi
3.00	11	Aricidea catherinae	Ariccath
1.00	64	Lyonsia hyalina	Lyonhyal
1.00	21	Parapionosyllis longicirrata	Paralong
1.00	30	Ampelisca vadorum	Ampevado
1.00	51	Pandora gouldiana	Pandgoul
1.00	59	Pinnixa sp	Pinnsp

Group: Huntngtn
Sample unit: H51

Value	Code	Species	Code Name
19.00	2	Capitella sp	Capisp
1.00	238	Glycinde solitaria	Glycsoli
9.00	80	Nematoda	NemaNema

7.00	1	Oligochaeta	OligOlig
1.00	82	Ostracod A	OstrA
2.00	107	Pectinaria gouldii	Pectgoul
1.00	97	Prionospio pinnata	Priopinn
16.00	69	Tellina agilis	Tellagil
2.00	201	Ampharete oculata	Amphocul
2.00	210	Nepthys incisa	Neptinci
10.00	211	Yoldia limatula	Yoldlima
4.00	166	Streblospio benedicti	Strebene
2.00	104	Nucula tenuis	Nucutenu
1.00	143	Ampharete arctica	Ampharct
1.00	50	Oxyurostylis smithi	Oxyusmit
1.00	178	Sigambra sp	Sigasp

Group: Huntngtn
Sample unit: H52

Value	Code	Species	Code Name
32.00	2	Capitella sp	Capisp
4.00	137	Mulinia lateralis	Mulilate
4.00	80	Nematoda	NemaNema
1.00	8	Nereis succinea	Neresucc
2.00	66	Nucula proxima	Nucuprox
1.00	1	Oligochaeta	OligOlig
1.00	82	Ostracod A	OstrA
2.00	107	Pectinaria gouldii	Pectgoul
1.00	97	Prionospio pinnata	Priopinn
2.00	69	Tellina agilis	Tellagil
2.00	25	Tharyx sp	Tharsp
5.00	211	Yoldia limatula	Yoldlima
1.00	166	Streblospio benedicti	Strebene
1.00	64	Lyonsia hyalina	Lyonhyal
1.00	50	Oxyurostylis smithi	Oxyusmit
3.00	103	Spisula solidissima	Spissoli

Group: Huntngtn
Sample unit: H53

Value	Code	Species	Code Name
867.00	2	Capitella sp	Capisp
4.00	213	Eteone heteropoda	Eteohete
2.00	238	Glycinde solitaria	Glycsoli
1.00	277	Harmothoe imbricata	Harmimbr
252.00	80	Nematoda	NemaNema
4.00	8	Nereis succinea	Neresucc
6.00	1	Oligochaeta	OligOlig
3.00	69	Tellina agilis	Tellagil
1.00	201	Ampharete oculata	Amphocul
19.00	205	Polydora ligni	Polylign
22.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
47.00	166	Streblospio benedicti	Strebene
2.00	161	Ilyanassa trivittata	Ilyatriv

10.00	75	Crepidula fornicata	Crepforn
2.00	76	Crepidula plana	Crepplan
34.00	143	Ampharete arctica	Ampharct
3.00	51	Pandora gouldiana	Pandgoul
1.00	32	Ampelisca verrilli	Ampeverr
1.00	68	Ensis directus	Ensidire
1.00	139	Sthenelais boa	Stheboa

Group: Huntngtn
Sample unit: H54

Value	Code	Species	Code Name
727.00	2	Capitella sp	Capisp
1.00	213	Eteone heteropoda	Eteohete
1.00	238	Glycinde solitaria	Glycsoli
3.00	277	Harmothoe imbricata	Harmimbr
183.00	80	Nematoda	NemaNema
5.00	1	Oligochaeta	OligOlig
3.00	107	Pectinaria gouldii	Pectgoul
2.00	276	Scoloplos robustus	Scolrobu
13.00	205	Polydora ligni	Polylign
7.00	25	Tharyx sp	Tharsp
1.00	129	Unciola irrorata	Unciirro
74.00	166	Streblospio benedicti	Strebene
45.00	75	Crepidula fornicata	Crepforn
2.00	76	Crepidula plana	Crepplan
2.00	53	Panopeus herbstii	Panoherb
18.00	143	Ampharete arctica	Ampharct
3.00	13	Eumida sanguinea	Eumisang
1.00	32	Ampelisca verrilli	Ampeverr
1.00	43	Pagurus longicarpus	Pagulong

Group: Huntngtn
Sample unit: H55

Value	Code	Species	Code Name
83.00	2	Capitella sp	Capisp
4.00	238	Glycinde solitaria	Glycsoli
8.00	137	Mulinia lateralis	Mulilate
2.00	66	Nucula proxima	Nucuprox
10.00	1	Oligochaeta	OligOlig
12.00	69	Tellina agilis	Tellagil
1.00	210	Nepthys incisa	Neptinci
1.00	129	Unciola irrorata	Unciirro
8.00	211	Yoldia limatula	Yoldlima
5.00	166	Streblospio benedicti	Strebene
1.00	64	Lyonsia hyalina	Lyonhyal
1.00	51	Pandora gouldiana	Pandgoul
3.00	103	Spisula solidissima	Spissoli

Group: Huntngtn
Sample unit: H56

Value	Code	Species	Code Name
58.00	2	Capitella sp	Capisp
6.00	137	Mulinia lateralis	Mulilate
8.00	80	Nematoda	NemaNema
5.00	66	Nucula proxima	Nucuprox
8.00	1	Oligochaeta	OligOlig
3.00	107	Pectinaria gouldii	Pectgoul
1.00	97	Prionospio pinnata	Priopinn
6.00	69	Tellina agilis	Tellagil
3.00	210	Nepthys incisa	Neptinci
1.00	25	Tharyx sp	Tharsp
1.00	211	Yoldia limatula	Yoldlima
1.00	166	Streblospio benedicti	Strebene
2.00	64	Lyonsia hyalina	Lyonhyal
2.00	51	Pandora gouldiana	Pandgoul
3.00	103	Spisula solidissima	Spissoli

Group: Huntngtn
Sample unit: H57

Value	Code	Species	Code Name
30.00	2	Capitella sp	Capisp
1.00	238	Glycinde solitaria	Glycsoli
1.00	173	Leucon americanus	Leucamer
11.00	137	Mulinia lateralis	Mulilate
1.00	66	Nucula proxima	Nucuprox
3.00	1	Oligochaeta	OligOlig
4.00	107	Pectinaria gouldii	Pectgoul
1.00	97	Prionospio pinnata	Priopinn
13.00	69	Tellina agilis	Tellagil
1.00	210	Nepthys incisa	Neptinci
1.00	25	Tharyx sp	Tharsp
9.00	211	Yoldia limatula	Yoldlima
1.00	166	Streblospio benedicti	Strebene

Group: Huntngtn
Sample unit: H58

Value	Code	Species	Code Name
45.00	2	Capitella sp	Capisp
1.00	213	Eteone heteropoda	Eteohete
1.00	173	Leucon americanus	Leucamer
4.00	137	Mulinia lateralis	Mulilate
7.00	66	Nucula proxima	Nucuprox
11.00	1	Oligochaeta	OligOlig
1.00	82	Ostracod A	OstrA
1.00	107	Pectinaria gouldii	Pectgoul
2.00	97	Prionospio pinnata	Priopinn
12.00	69	Tellina agilis	Tellagil
2.00	210	Nepthys incisa	Neptinci
1.00	25	Tharyx sp	Tharsp

16.00	211	Yoldia limatula	Yoldlima
5.00	166	Streblospio benedicti	Strebene
1.00	64	Lyonsia hyalina	Lyonhyal
3.00	51	Pandora gouldiana	Pandgoul
2.00	103	Spisula solidissima	Spissoli

Group: Huntngtn
Sample unit: H59

Value	Code	Species	Code Name
892.00	2	Capitella sp	Capisp
2.00	213	Eteone heteropoda	Eteohete
6.00	238	Glycinde solitaria	Glycsoli
1.00	277	Harmothoe imbricata	Harmimbr
20.00	137	Mulinia lateralis	Mulilate
108.00	80	Nematoda	NemaNema
1.00	66	Nucula proxima	Nucuprox
11.00	1	Oligochaeta	OligOlig
2.00	69	Tellina agilis	Tellagil
1.00	201	Ampharete oculata	Amphocul
12.00	210	Nepthys incisa	Neptinci
3.00	205	Polydora ligni	Polylign
18.00	25	Tharyx sp	Tharsp
2.00	140	Glycera americana	Glycamer
3.00	129	Unciola irrorata	Unciirro
49.00	166	Streblospio benedicti	Strebene
1.00	76	Crepidula plana	Crepplan
1.00	104	Nucula tenuis	Nucutenu
177.00	143	Ampharete arctica	Ampharct
13.00	119	Autolytus cornutus	Autocorn
1.00	216	Pherusa sp	Phersp
1.00	174	Paranaitis speciosa	Paraspec
2.00	64	Lyonsia hyalina	Lyonhyal
2.00	30	Ampelisca vadorum	Ampevado
2.00	68	Ensis directus	Ensidire
1.00	113	Phyllodoce arenae	Phylaren
25.00	142	Scalibregma inflatum	Scalinfl
1.00	45	Stenothoidae sp	Stensp

Group: Huntngtn
Sample unit: H60

Value	Code	Species	Code Name
758.00	2	Capitella sp	Capisp
3.00	238	Glycinde solitaria	Glycsoli
1.00	277	Harmothoe imbricata	Harmimbr
10.00	137	Mulinia lateralis	Mulilate
126.00	80	Nematoda	NemaNema
1.00	8	Nereis succinea	Neresucc
1.00	107	Pectinaria gouldii	Pectgoul
1.00	97	Prionospio pinnata	Priopinn
15.00	69	Tellina agilis	Tellagil
3.00	201	Ampharete oculata	Amphocul

7.00	205	Polydora ligni	Polylign
18.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
5.00	129	Unciola irrorata	Unciirro
32.00	166	Streblospio benedicti	Strebene
1.00	161	Ilyanassa trivittata	Ilyatriv
1.00	53	Panopeus herbstii	Panoherb
86.00	143	Ampharete arctica	Ampharct
4.00	119	Autolytus cornutus	Autocorn
11.00	7	Nephtys picta	Nephpict
2.00	64	Lyonsia hyalina	Lyonhyal
1.00	30	Ampelisca vadorum	Ampevado
1.00	51	Pandora gouldiana	Pandgoul
1.00	68	Ensis directus	Ensidire
22.00	142	Scalibregma inflatum	Scalinfl
2.00	6	Clymenella sp	Clymsp
1.00	146	Orbinia sp	Orbisp

Group: Huntngtn
Sample unit: H61

Value	Code	Species	Code Name
297.00	2	Capitella sp	Capisp
6.00	213	Eteone heteropoda	Eteohete
1.00	238	Glycinde solitaria	Glycsoli
48.00	277	Harmothoe imbricata	Harmimbr
144.00	80	Nematoda	NemaNema
14.00	8	Nereis succinea	Neresucc
75.00	1	Oligochaeta	OligOlig
1.00	276	Scoloplos robustus	Scolrobu
1.00	69	Tellina agilis	Tellagil
1.00	201	Ampharete oculata	Amphocul
14.00	205	Polydora ligni	Polylign
198.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
41.00	166	Streblospio benedicti	Strebene
84.00	75	Crepidula fornicata	Crepforn
16.00	76	Crepidula plana	Crepplan
5.00	53	Panopeus herbstii	Panoherb
5.00	143	Ampharete arctica	Ampharct
14.00	13	Eumida sanguinea	Eumisang
1.00	275	Scolecolepides viridis	Scolviri
1.00	146	Orbinia sp	Orbisp

Group: Huntngtn
Sample unit: H62

Value	Code	Species	Code Name
144.00	2	Capitella sp	Capisp
2.00	213	Eteone heteropoda	Eteohete
64.00	277	Harmothoe imbricata	Harmimbr
108.00	80	Nematoda	NemaNema
1.00	8	Nereis succinea	Neresucc

8.00	1	Oligochaeta	OligOlig
13.00	205	Polydora ligni	Polylign
110.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
3.00	166	Streblospio benedicti	Strebene
84.00	75	Crepidula fornicata	Crepforn
25.00	76	Crepidula plana	Crepplan
8.00	53	Panopeus herbstii	Panoherb
4.00	143	Ampharete arctica	Ampharct
1.00	52	Dyspanopeus sayi	Dyspsayi
5.00	13	Eumida sanguinea	Eumisang
6.00	119	Autolytus cornutus	Autocorn
1.00	55	Heteromysis formosa	Heteform

Group: Huntngtn
Sample unit: H63

Value	Code	Species	Code Name
306.00	2	Capitella sp	Capisp
1.00	234	Cossura longocirrata	Cosslong
7.00	213	Eteone heteropoda	Eteohete
14.00	238	Glycinde solitaria	Glycsoli
6.00	173	Leucon americanus	Leucamer
6.00	137	Mulinia lateralis	Mulilate
27.00	80	Nematoda	NemaNema
15.00	1	Oligochaeta	OligOlig
4.00	107	Pectinaria gouldii	Pectgoul
2.00	97	Prionospio pinnata	Priopinn
13.00	276	Scoloplos robustus	Scolrobu
2.00	69	Tellina agilis	Tellagil
5.00	210	Nepthys incisa	Neptinci
1.00	140	Glycera americana	Glycamer
1.00	129	Unciola irrorata	Unciirro
109.00	166	Streblospio benedicti	Strebene
1.00	143	Ampharete arctica	Ampharct
1.00	64	Lyonsia hyalina	Lyonhyal
2.00	30	Ampelisca vadorum	Ampevado
1.00	99	Turbellaria sp	Turbelsp
1.00	175	Turbonilla sp	Turbsp

Group: Huntngtn
Sample unit: H64

Value	Code	Species	Code Name
423.00	2	Capitella sp	Capisp
11.00	234	Cossura longocirrata	Cosslong
3.00	238	Glycinde solitaria	Glycsoli
1.00	277	Harmothoe imbricata	Harmimbr
12.00	173	Leucon americanus	Leucamer
26.00	137	Mulinia lateralis	Mulilate
94.00	80	Nematoda	NemaNema
1.00	8	Nereis succinea	Neresucc
1.00	66	Nucula proxima	Nucuprox

41.00	1	Oligochaeta	OligOlig
2.00	107	Pectinaria gouldii	Pectgoul
1.00	97	Prionospio pinnata	Priopinn
9.00	276	Scoloplos robustus	Scolrobu
5.00	69	Tellina agilis	Tellagil
5.00	25	Tharyx sp	Tharsp
1.00	129	Unciola irrorata	Unciirro
1.00	211	Yoldia limatula	Yoldlima
78.00	166	Streblospio benedicti	Strebene
8.00	143	Ampharete arctica	Ampharct
1.00	216	Pherusa sp	Phersp
3.00	64	Lyonsia hyalina	Lyonhyal
3.00	30	Ampelisca vadorum	Ampevado

Group: Huntngtn
Sample unit: H65

Value	Code	Species	Code Name
203.00	2	Capitella sp	Capisp
2.00	234	Cossura longocirrata	Cosslong
1.00	173	Leucon americanus	Leucamer
83.00	137	Mulinia lateralis	Mulilate
10.00	66	Nucula proxima	Nucuprox
48.00	1	Oligochaeta	OligOlig
2.00	82	Ostracod A	OstrA
1.00	107	Pectinaria gouldii	Pectgoul
1.00	69	Tellina agilis	Tellagil
1.00	210	Nepthys incisa	Neptinci
1.00	25	Tharyx sp	Tharsp
5.00	211	Yoldia limatula	Yoldlima
14.00	166	Streblospio benedicti	Strebene
2.00	161	Ilyanassa trivittata	Ilyatriv
1.00	104	Nucula tenuis	Nucutenu
1.00	216	Pherusa sp	Phersp
4.00	177	Acteocina canaliculata	Actecana
2.00	64	Lyonsia hyalina	Lyonhyal
1.00	30	Ampelisca vadorum	Ampevado

Group: Huntngtn
Sample unit: H66

Value	Code	Species	Code Name
225.00	2	Capitella sp	Capisp
1.00	238	Glycinde solitaria	Glycsoli
49.00	137	Mulinia lateralis	Mulilate
6.00	66	Nucula proxima	Nucuprox
16.00	1	Oligochaeta	OligOlig
1.00	276	Scoloplos robustus	Scolrobu
3.00	210	Nepthys incisa	Neptinci
12.00	211	Yoldia limatula	Yoldlima
3.00	166	Streblospio benedicti	Strebene
1.00	104	Nucula tenuis	Nucutenu
1.00	143	Ampharete arctica	Ampharct

1.00	177	Acteocina canaliculata	Actecana
1.00	64	Lyonsia hyalina	Lyonhyal

Group: Huntngtn
Sample unit: H67

Value	Code	Species	Code Name
297.00	2	Capitella sp	Capisp
1.00	234	Cossura longocirrata	Cosslong
2.00	213	Eteone heteropoda	Eteohete
7.00	137	Mulinia lateralis	Mulilate
19.00	66	Nucula proxima	Nucuprox
73.00	1	Oligochaeta	OligOlig
2.00	82	Ostracod A	OstrA
1.00	107	Pectinaria gouldii	Pectgoul
1.00	276	Scoloplos robustus	Scolrobu
1.00	69	Tellina agilis	Tellagil
2.00	210	Nepthys incisa	Neptinci
12.00	211	Yoldia limatula	Yoldlima
4.00	166	Streblospio benedicti	Strebene

Group: Huntngtn
Sample unit: H68

Value	Code	Species	Code Name
291.00	2	Capitella sp	Capisp
1.00	234	Cossura longocirrata	Cosslong
29.00	137	Mulinia lateralis	Mulilate
31.00	66	Nucula proxima	Nucuprox
27.00	1	Oligochaeta	OligOlig
3.00	210	Nepthys incisa	Neptinci
15.00	211	Yoldia limatula	Yoldlima
5.00	166	Streblospio benedicti	Strebene
4.00	177	Acteocina canaliculata	Actecana
1.00	30	Ampelisca vadorum	Ampevado

Group: Huntngtn
Sample unit: H69

Value	Code	Species	Code Name
53.00	2	Capitella sp	Capisp
1.00	173	Leucon americanus	Leucamer
2.00	137	Mulinia lateralis	Mulilate
6.00	80	Nematoda	NemaNema
2.00	66	Nucula proxima	Nucuprox
5.00	1	Oligochaeta	OligOlig
2.00	82	Ostracod A	OstrA
6.00	107	Pectinaria gouldii	Pectgoul
1.00	69	Tellina agilis	Tellagil
1.00	210	Nepthys incisa	Neptinci
8.00	129	Unciola irrorata	Unciirro

4.00	211	Yoldia limatula	Yoldlima
3.00	166	Streblospio benedicti	Strebene
1.00	30	Ampelisca vadorum	Ampevado
1.00	59	Pinnixa sp	Pinnsp
1.00	178	Sigambra sp	Sigasp
1.00	103	Spisula solidissima	Spissoli

Group: Huntngtn
Sample unit: H70

Value	Code	Species	Code Name
44.00	2	Capitella sp	Capisp
1.00	234	Cossura longocirrata	Cosslong
1.00	238	Glycinde solitaria	Glycsoli
2.00	137	Mulinia lateralis	Mulilate
2.00	80	Nematoda	NemaNema
5.00	1	Oligochaeta	OligOlig
7.00	107	Pectinaria gouldii	Pectgoul
3.00	69	Tellina agilis	Tellagil
1.00	129	Unciola irrorata	Unciirro
4.00	166	Streblospio benedicti	Strebene
2.00	143	Ampharete arctica	Ampharct
1.00	70	Mercenaria mercenaria	Mercmerc
1.00	64	Lyonsia hyalina	Lyonhyal
2.00	103	Spisula solidissima	Spissoli
1.00	99	Turbellaria sp	Turbelsp

Group: Huntngtn
Sample unit: H71

Value	Code	Species	Code Name
868.00	2	Capitella sp	Capisp
1.00	213	Eteone heteropoda	Eteohete
4.00	238	Glycinde solitaria	Glycsoli
7.00	277	Harmothoe imbricata	Harmimbr
93.00	80	Nematoda	NemaNema
2.00	8	Nereis succinea	Neresucc
3.00	1	Oligochaeta	OligOlig
2.00	276	Scoloplos robustus	Scolrobu
1.00	69	Tellina agilis	Tellagil
1.00	201	Ampharete oculata	Amphocul
10.00	205	Polydora ligni	Polylign
54.00	25	Tharyx sp	Tharsp
2.00	140	Glycera americana	Glycamer
1.00	129	Unciola irrorata	Unciirro
157.00	166	Streblospio benedicti	Strebene
2.00	53	Panopeus herbstii	Panoherb
53.00	143	Ampharete arctica	Ampharct
1.00	13	Eumida sanguinea	Eumisang
7.00	119	Autolytus cornutus	Autocorn
4.00	7	Nephtys picta	Nephpict
1.00	19	Brania wellfleetensis	Branwell
2.00	30	Ampelisca vadorum	Ampevado

8.00	142	Scalibregma inflatum	Scalinfl
3.00	146	Orbinia sp	Orbisp
1.00	123	Podarke obscura	Podaobsc

Group: Huntngtn
Sample unit: H72

Value	Code	Species	Code Name
553.00	2	Capitella sp	Capisp
1.00	213	Eteone heteropoda	Eteohete
6.00	238	Glycinde solitaria	Glycsoli
7.00	277	Harmothoe imbricata	Harmimbr
2.00	8	Nereis succinea	Neresucc
1.00	107	Pectinaria gouldii	Pectgoul
4.00	276	Scoloplos robustus	Scolrobu
1.00	69	Tellina agilis	Tellagil
1.00	201	Ampharete oculata	Amphocul
3.00	205	Polydora ligni	Polylign
12.00	25	Tharyx sp	Tharsp
2.00	140	Glycera americana	Glycamer
53.00	166	Streblospio benedicti	Strebene
41.00	75	Crepidula fornicata	Crepforn
4.00	53	Panopeus herbstii	Panoherb
94.00	143	Ampharete arctica	Ampharct
3.00	13	Eumida sanguinea	Eumisang
7.00	119	Autolytus cornutus	Autocorn
3.00	7	Nephtys picta	Nephpict
1.00	174	Paranaitis speciosa	Paraspec
1.00	19	Brania wellfleetensis	Branwell
1.00	113	Phyllodoce arenae	Phylaren
2.00	142	Scalibregma inflatum	Scalinfl
1.00	123	Podarke obscura	Podaobsc

Group: Huntngtn
Sample unit: H73

Value	Code	Species	Code Name
3.00	8	Nereis succinea	Neresucc
1.00	25	Tharyx sp	Tharsp
3.00	278	Paraonis sp	Parasp

Group: Huntngtn
Sample unit: H74

Value	Code	Species	Code Name
1.00	213	Eteone heteropoda	Eteohete
1.00	173	Leucon americanus	Leucamer
9.00	80	Nematoda	NemaNema
7.00	8	Nereis succinea	Neresucc
206.00	1	Oligochaeta	OligOlig
1.00	143	Ampharete arctica	Ampharct

100.00	278	Paraonis sp	Parasp
1.00	279	Pitar morrhuanus	Pitamorr

Group: Huntngtn
Sample unit: H75

Value	Code	Species	Code Name
171.00	2	Capitella sp	Capisp
3.00	234	Cossura longocirrata	Cosslong
3.00	213	Eteone heteropoda	Eteohete
14.00	238	Glycinde solitaria	Glycsoli
1.00	277	Harmothoe imbricata	Harmimbr
4.00	173	Leucon americanus	Leucamer
5.00	137	Mulinia lateralis	Mulilate
57.00	80	Nematoda	NemaNema
2.00	8	Nereis succinea	Neresucc
2.00	1	Oligochaeta	OligOlig
1.00	82	Ostracod A	OstrA
19.00	107	Pectinaria gouldii	Pectgoul
3.00	97	Prionospio pinnata	Priopinn
24.00	276	Scoloplos robustus	Scolrobu
7.00	205	Polydora ligni	Polylign
2.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
1.00	211	Yoldia limatula	Yoldlima
65.00	166	Streblospio benedicti	Strebene
3.00	143	Ampharete arctica	Ampharct
1.00	275	Scolecolepides viridis	Scolviri
3.00	30	Ampelisca vadorum	Ampevado
2.00	278	Paraonis sp	Parasp

Group: Huntngtn
Sample unit: H76

Value	Code	Species	Code Name
360.00	2	Capitella sp	Capisp
4.00	213	Eteone heteropoda	Eteohete
22.00	238	Glycinde solitaria	Glycsoli
3.00	173	Leucon americanus	Leucamer
4.00	137	Mulinia lateralis	Mulilate
36.00	80	Nematoda	NemaNema
4.00	8	Nereis succinea	Neresucc
7.00	1	Oligochaeta	OligOlig
9.00	107	Pectinaria gouldii	Pectgoul
5.00	97	Prionospio pinnata	Priopinn
33.00	276	Scoloplos robustus	Scolrobu
1.00	69	Tellina agilis	Tellagil
9.00	205	Polydora ligni	Polylign
4.00	25	Tharyx sp	Tharsp
73.00	166	Streblospio benedicti	Strebene
2.00	143	Ampharete arctica	Ampharct
1.00	13	Eumida sanguinea	Eumisang
1.00	174	Paranaitis speciosa	Paraspec

3.00	30	Ampelisca vadorum	Ampevado
1.00	59	Pinnixa sp	Pinnsp
1.00	153	Asychis elongata	Asycelon

Group: Oyster
Sample unit: O01

Value	Code	Species	Code Name
43.00	2	Capitella sp	Capisp
2.00	238	Glycinde solitaria	Glycsoli
2.00	137	Mulinia lateralis	Mulilate
9.00	80	Nematoda	NemaNema
5.00	1	Oligochaeta	OligOlig
4.00	107	Pectinaria gouldii	Pectgoul
7.00	25	Tharyx sp	Tharsp
2.00	140	Glycera americana	Glycamer
9.00	166	Streblospio benedicti	Strebene
1.00	161	Ilyanassa trivittata	Ilyatriv
1.00	70	Mercenaria mercenaria	Mercmerc
1.00	216	Pherusa sp	Phersp
1.00	219	Ampelisca sp	Ampesp
1.00	265	Polyonyx gibbesi	Polygibb

Group: Oyster
Sample unit: O02

Value	Code	Species	Code Name
65.00	2	Capitella sp	Capisp
5.00	238	Glycinde solitaria	Glycsoli
13.00	80	Nematoda	NemaNema
10.00	1	Oligochaeta	OligOlig
1.00	69	Tellina agilis	Tellagil
1.00	210	Nepthys incisa	Neptinci
2.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
5.00	166	Streblospio benedicti	Strebene
1.00	70	Mercenaria mercenaria	Mercmerc
3.00	7	Nephtys picta	Nephpict
1.00	51	Pandora gouldiana	Pandgoul
1.00	219	Ampelisca sp	Ampesp
2.00	265	Polyonyx gibbesi	Polygibb

Group: Oyster
Sample unit: O03

Value	Code	Species	Code Name
1.00	2	Capitella sp	Capisp
1.00	277	Harmothoe imbricata	Harmimbr
1845.00	80	Nematoda	NemaNema
4.00	97	Prionospio pinnata	Priopinn
2.00	69	Tellina agilis	Tellagil

2.00	205	Polydora ligni	Polylign
9.00	25	Tharyx sp	Tharsp
23.00	75	Crepidula fornicata	Crepforn
2.00	53	Panopeus herbstii	Panoherb
1.00	154	Microphthalmus aberrans	Micraber
1.00	13	Eumida sanguinea	Eumisang
1.00	7	Nephtys picta	Nephpict
4.00	41	Elasmopus levis	Elaslevi
4.00	11	Aricidea catherinae	Ariccath
1.00	19	Brania wellfleetensis	Branwell
4.00	21	Parapionosyllis longicirrata	Paralong
1.00	150	Lysianopsis alba	Lysialba
14.00	265	Polyonyx gibbesi	Polygibb
3.00	42	Melita nitida	Meliniti
4.00	96	Paraphoxus spinosus	Paraspin
109.00	14	Polygordius sp	Polygord

Group: Oyster
Sample unit: O04

Value	Code	Species	Code Name
29.00	2	Capitella sp	Capisp
1.00	85	Corophium sp	Corosp
3.00	277	Harmothoe imbricata	Harmimbr
1193.00	80	Nematoda	NemaNema
31.00	1	Oligochaeta	OligOlig
1.00	97	Prionospio pinnata	Priopinn
1.00	69	Tellina agilis	Tellagil
2.00	205	Polydora ligni	Polylign
20.00	25	Tharyx sp	Tharsp
1.00	166	Streblospio benedicti	Strebene
47.00	75	Crepidula fornicata	Crepforn
3.00	76	Crepidula plana	Crepplan
1.00	143	Ampharete arctica	Ampharct
2.00	13	Eumida sanguinea	Eumisang
3.00	41	Elasmopus levis	Elaslevi
5.00	19	Brania wellfleetensis	Branwell
4.00	21	Parapionosyllis longicirrata	Paralong
1.00	150	Lysianopsis alba	Lysialba
1.00	278	Paraonis sp	Parasp
18.00	265	Polyonyx gibbesi	Polygibb
4.00	96	Paraphoxus spinosus	Paraspin
98.00	14	Polygordius sp	Polygord
1.00	62	Anadara transversa	Anadtran
1.00	141	Euspira heros	Eusphero
1.00	57	Libinia emarginata	Libiemar

Group: Oyster
Sample unit: O05

Value	Code	Species	Code Name
16.00	2	Capitella sp	Capisp
2.00	238	Glycinde solitaria	Glycsoli

120.00	137	Mulinia lateralis	Mulilate
2.00	80	Nematoda	NemaNema
1.00	66	Nucula proxima	Nucuprox
4.00	1	Oligochaeta	OligOlig
2.00	107	Pectinaria gouldii	Pectgoul
3.00	210	Nepthys incisa	Neptinci
1.00	140	Glycera americana	Glycamer
5.00	70	Mercenaria mercenaria	Mercmerc
1.00	51	Pandora gouldiana	Pandgoul
1.00	279	Pitar morrhuanus	Pitamorr
1.00	14	Polygordius sp	Polygord

Group: Oyster
Sample unit: O06

Value	Code	Species	Code Name
51.00	137	Mulinia lateralis	Mulilate
2.00	80	Nematoda	NemaNema
1.00	1	Oligochaeta	OligOlig
1.00	107	Pectinaria gouldii	Pectgoul
1.00	161	Ilyanassa trivittata	Ilyatriv
1.00	104	Nucula tenuis	Nucutenu
1.00	53	Panopeus herbstii	Panoherb
4.00	70	Mercenaria mercenaria	Mercmerc
1.00	216	Pherusa sp	Phersp
2.00	51	Pandora gouldiana	Pandgoul
1.00	279	Pitar morrhuanus	Pitamorr
2.00	219	Ampelisca sp	Ampesp
1.00	62	Anadara transversa	Anadtran

Group: Oyster
Sample unit: O07

Value	Code	Species	Code Name
1.00	2	Capitella sp	Capisp
1054.00	80	Nematoda	NemaNema
1.00	66	Nucula proxima	Nucuprox
5.00	82	Ostracod A	OstrA
2.00	276	Scoloplos robustus	Scolrobu
2.00	69	Tellina agilis	Tellagil
9.00	25	Tharyx sp	Tharsp
1.00	53	Panopeus herbstii	Panoherb
2.00	143	Ampharete arctica	Ampharct
9.00	11	Aricidea catherinae	Ariccath
18.00	19	Brania wellfleetensis	Branwell
1.00	64	Lyonsia hyalina	Lyonhyal
2.00	21	Parapionosyllis longicirrata	Paralong
2.00	150	Lysianopsis alba	Lysialba
1.00	51	Pandora gouldiana	Pandgoul
3.00	103	Spisula solidissima	Spissoli
1.00	113	Phyllodoce arenae	Phylaren
15.00	265	Polyonyx gibbesi	Polygibb
1.00	96	Paraphoxus spinosus	Paraspin

63.00	14	Polygordius sp	Polygord
1.00	62	Anadara transversa	Anadtran
430.00	71	Gemma gemma	Gemmgemm

Group: Oyster
Sample unit: O08

Value	Code	Species	Code Name
3.00	137	Mulinia lateralis	Mulilate
2.00	66	Nucula proxima	Nucuprox
11.00	1	Oligochaeta	OligOlig
1.00	82	Ostracod A	OstrA
7.00	69	Tellina agilis	Tellagil
2.00	25	Tharyx sp	Tharsp
1.00	7	Nephtys picta	Nephpict
16.00	11	Aricidea catherinae	Ariccath
18.00	19	Brania wellfleetensis	Branwell
3.00	64	Lyonsia hyalina	Lyonhyal
4.00	21	Parapionosyllis longicirrata	Paralong
2.00	150	Lysianopsis alba	Lysialba
3.00	51	Pandora gouldiana	Pandgoul
1.00	103	Spisula solidissima	Spissoli
1.00	113	Phyllodoce arenae	Phylaren
2.00	146	Orbinia sp	Orbisp
53.00	265	Polyonyx gibbesi	Polygibb
1.00	96	Paraphoxus spinosus	Paraspin
409.00	71	Gemma gemma	Gemmgemm
1.00	18	Spiophanes bombyx	Spiobomb
1.00	280	Unciola sp	Uncisp

Group: Oyster
Sample unit: O09

Value	Code	Species	Code Name
75.00	137	Mulinia lateralis	Mulilate
35.00	66	Nucula proxima	Nucuprox
1.00	177	Acteocina canaliculata	Actecana
1.00	281	Yoldia sp	Yoldsp

Group: Oyster
Sample unit: O10

Value	Code	Species	Code Name
1.00	8	Nereis succinea	Neresucc
1.00	1	Oligochaeta	OligOlig

Group: Oyster
Sample unit: O11

Value	Code	Species	Code Name

84.00	137	Mulinia lateralis	Mulilate
27.00	66	Nucula proxima	Nucuprox
1.00	1	Oligochaeta	OligOlig
7.00	210	Nepthys incisa	Neptinci
1.00	281	Yoldia sp	Yoldsp
1.00	282	Cancer irroratus	Cancirro

Group: Oyster
Sample unit: O12

Value	Code	Species	Code Name
93.00	137	Mulinia lateralis	Mulilate
35.00	66	Nucula proxima	Nucuprox
2.00	210	Nepthys incisa	Neptinci
2.00	161	Ilyanassa trivittata	Ilyatriv
1.00	191	Ilyanassa obsoleta	Ilyaobso
5.00	281	Yoldia sp	Yoldsp

Group: Oyster
Sample unit: O13

Value	Code	Species	Code Name
1.00	137	Mulinia lateralis	Mulilate
1.00	107	Pectinaria gouldii	Pectgoul
1.00	69	Tellina agilis	Tellagil
3.00	210	Nepthys incisa	Neptinci
1.00	140	Glycera americana	Glycamer
2.00	70	Mercenaria mercenaria	Mercmerc
1.00	279	Pitar morrhuanus	Pitamorr

Group: Oyster
Sample unit: O14

Value	Code	Species	Code Name
1.00	277	Harmothoe imbricata	Harmimbr
4.00	137	Mulinia lateralis	Mulilate
1.00	107	Pectinaria gouldii	Pectgoul
1.00	210	Nepthys incisa	Neptinci
4.00	70	Mercenaria mercenaria	Mercmerc
1.00	177	Acteocina canaliculata	Actecana

Group: Oyster
Sample unit: O15

Value	Code	Species	Code Name
74.00	2	Capitella sp	Capisp
1.00	234	Cossura longocirrata	Cosslong
14.00	137	Mulinia lateralis	Mulilate

7.00	80	Nematoda	NemaNema
25.00	1	Oligochaeta	OligOlig
7.00	107	Pectinaria gouldii	Pectgoul
1.00	25	Tharyx sp	Tharsp
2.00	166	Streblospio benedicti	Strebene
1.00	145	Gyptis vittata	Gyptvitt
1.00	70	Mercenaria mercenaria	Mercmerc
6.00	7	Nephtys picta	Nephpict
1.00	279	Pitar morrhuanus	Pitamorr

Group: Oyster
Sample unit: O16

Value	Code	Species	Code Name
9.00	2	Capitella sp	Capisp
2.00	137	Mulinia lateralis	Mulilate
3.00	80	Nematoda	NemaNema
4.00	1	Oligochaeta	OligOlig
1.00	107	Pectinaria gouldii	Pectgoul
6.00	210	Nepthys incisa	Neptinci
1.00	219	Ampelisca sp	Ampesp

Group: Oyster
Sample unit: O17

Value	Code	Species	Code Name
1.00	2	Capitella sp	Capisp
32.00	137	Mulinia lateralis	Mulilate
2.00	1	Oligochaeta	OligOlig
1.00	210	Nepthys incisa	Neptinci
1.00	219	Ampelisca sp	Ampesp
1.00	281	Yoldia sp	Yoldsp
1.00	244	Macoma tenta	Macotent

Group: Oyster
Sample unit: O18

Value	Code	Species	Code Name
1.00	2	Capitella sp	Capisp
12.00	137	Mulinia lateralis	Mulilate
1.00	66	Nucula proxima	Nucuprox
1.00	1	Oligochaeta	OligOlig
2.00	210	Nepthys incisa	Neptinci
1.00	191	Ilyanassa obsoleta	Ilyaobso
1.00	219	Ampelisca sp	Ampesp
1.00	284	Crab megalopa	Crabmega
1.00	283	Monoculodes sp	Monosp

Group: Oyster
Sample unit: O19

Value	Code	Species	Code Name
47.00	137	Mulinia lateralis	Mulilate
5.00	66	Nucula proxima	Nucuprox
7.00	210	Nepthys incisa	Neptinci
3.00	191	Ilyanassa obsoleta	Ilyaobso
1.00	281	Yoldia sp	Yoldsp

Group: Oyster
Sample unit: O20

Value	Code	Species	Code Name
14.00	137	Mulinia lateralis	Mulilate
1.00	8	Nereis succinea	Neresucc
3.00	210	Nepthys incisa	Neptinci
1.00	219	Ampelisca sp	Ampesp

Group: Oyster
Sample unit: O21

Value	Code	Species	Code Name
7.00	137	Mulinia lateralis	Mulilate
3.00	210	Nepthys incisa	Neptinci

Group: Oyster
Sample unit: O22

Value	Code	Species	Code Name
2.00	2	Capitella sp	Capisp
1.00	238	Glycinde solitaria	Glycsoli
5.00	137	Mulinia lateralis	Mulilate
1.00	210	Nepthys incisa	Neptinci
2.00	177	Acteocina canaliculata	Actecana

Group: Oyster
Sample unit: O23

Value	Code	Species	Code Name
13.00	137	Mulinia lateralis	Mulilate
4.00	1	Oligochaeta	OligOlig
8.00	210	Nepthys incisa	Neptinci
2.00	281	Yoldia sp	Yoldsp

Group: Oyster
Sample unit: O24

Value	Code	Species	Code Name

11.00	137	Mulinia lateralis	Mulilate
4.00	210	Nepthys incisa	Neptinci
1.00	177	Acteocina canaliculata	Actecana

Group: Oyster
Sample unit: O25

Value	Code	Species	Code Name
73.00	137	Mulinia lateralis	Mulilate
1.00	107	Pectinaria gouldii	Pectgoul
5.00	210	Nepthys incisa	Neptinci
2.00	281	Yoldia sp	Yoldsp
1.00	284	Crab megalopa	Crabmega
1.00	285	Neomysis americana	Neomamer

Group: Oyster
Sample unit: O26

Value	Code	Species	Code Name
1.00	2	Capitella sp	Capisp
83.00	137	Mulinia lateralis	Mulilate
1.00	66	Nucula proxima	Nucuprox
9.00	1	Oligochaeta	OligOlig
1.00	107	Pectinaria gouldii	Pectgoul
10.00	210	Nepthys incisa	Neptinci
1.00	284	Crab megalopa	Crabmega

Group: Oyster
Sample unit: O27

Value	Code	Species	Code Name
7.00	2	Capitella sp	Capisp
298.00	137	Mulinia lateralis	Mulilate
2.00	1	Oligochaeta	OligOlig
2.00	107	Pectinaria gouldii	Pectgoul
1.00	210	Nepthys incisa	Neptinci
1.00	191	Ilyanassa obsoleta	Ilyaobso
2.00	51	Pandora gouldiana	Pandgoul
1.00	171	Mya arenaria	Myaaren

Group: Oyster
Sample unit: O28

Value	Code	Species	Code Name
3.00	2	Capitella sp	Capisp
145.00	137	Mulinia lateralis	Mulilate
1.00	80	Nematoda	NemaNema
1.00	66	Nucula proxima	Nucuprox

7.00	1	Oligochaeta	OligOlig
1.00	25	Tharyx sp	Tharsp
1.00	161	Ilyanassa trivittata	Ilyatriv
1.00	53	Panopeus herbstii	Panoherb
3.00	70	Mercenaria mercenaria	Mercmerc
1.00	64	Lyonsia hyalina	Lyonhyal
2.00	51	Pandora gouldiana	Pandgoul
1.00	281	Yoldia sp	Yoldsp
2.00	244	Macoma tenta	Macotent
1.00	287	Balanus eburneus	Balaebur

Group: Oyster
Sample unit: O29

Value	Code	Species	Code Name
39.00	137	Mulinia lateralis	Mulilate
5.00	210	Nepthys incisa	Neptinci

Group: Oyster
Sample unit: O30

Value	Code	Species	Code Name
15.00	137	Mulinia lateralis	Mulilate
3.00	7	Nephtys picta	Nephpict

Group: Oyster
Sample unit: O31

Value	Code	Species	Code Name
4.00	2	Capitella sp	Capisp
8.00	238	Glycinde solitaria	Glycsoli
6.00	137	Mulinia lateralis	Mulilate
10.00	1	Oligochaeta	OligOlig
2.00	107	Pectinaria gouldii	Pectgoul
1.00	97	Prionospio pinnata	Priopinn
2.00	69	Tellina agilis	Tellagil
1.00	166	Streblospio benedicti	Strebene
1.00	143	Ampharete arctica	Ampharct
1.00	70	Mercenaria mercenaria	Mercmerc
1.00	219	Ampelisca sp	Ampesp
1.00	265	Polyonyx gibbesi	Polygibb

Group: Oyster
Sample unit: O32

Value	Code	Species	Code Name
70.00	2	Capitella sp	Capisp
1.00	213	Eteone heteropoda	Eteohete
4.00	238	Glycinde solitaria	Glycsoli

1.00	277	Harmothoe imbricata	Harmimbr
4.00	137	Mulinia lateralis	Mulilate
2.00	80	Nematoda	NemaNema
1.00	8	Nereis succinea	Neresucc
17.00	1	Oligochaeta	OligOlig
6.00	25	Tharyx sp	Tharsp
10.00	166	Streblospio benedicti	Strebene
2.00	75	Crepidula fornicata	Crepforn
3.00	53	Panopeus herbstii	Panoherb
1.00	13	Eumida sanguinea	Eumisang
1.00	70	Mercenaria mercenaria	Mercmerc
2.00	265	Polyonyx gibbesi	Polygibb

Group: Oyster
Sample unit: O33

Value	Code	Species	Code Name
29.00	2	Capitella sp	Capisp
1.00	238	Glycinde solitaria	Glycsoli
3.00	137	Mulinia lateralis	Mulilate
4.00	80	Nematoda	NemaNema
16.00	1	Oligochaeta	OligOlig
1.00	107	Pectinaria gouldii	Pectgoul
1.00	210	Nepthys incisa	Neptinci
3.00	25	Tharyx sp	Tharsp
2.00	166	Streblospio benedicti	Strebene
2.00	70	Mercenaria mercenaria	Mercmerc
1.00	219	Ampelisca sp	Ampesp
1.00	265	Polyonyx gibbesi	Polygibb

Group: Oyster
Sample unit: O34

Value	Code	Species	Code Name
19.00	2	Capitella sp	Capisp
3.00	80	Nematoda	NemaNema
1.00	8	Nereis succinea	Neresucc
30.00	1	Oligochaeta	OligOlig
2.00	107	Pectinaria gouldii	Pectgoul
1.00	210	Nepthys incisa	Neptinci
4.00	25	Tharyx sp	Tharsp
1.00	104	Nucula tenuis	Nucutenu
3.00	70	Mercenaria mercenaria	Mercmerc
1.00	219	Ampelisca sp	Ampesp
1.00	265	Polyonyx gibbesi	Polygibb
1.00	42	Melita nitida	Meliniti

Group: Oyster
Sample unit: O35

Value	Code	Species	Code Name

215.00	2	Capitella sp	Capisp
2.00	238	Glycinde solitaria	Glycsoli
1.00	173	Leucon americanus	Leucamer
298.00	80	Nematoda	NemaNema
2.00	1	Oligochaeta	OligOlig
8.00	205	Polydora ligni	Polylign
13.00	25	Tharyx sp	Tharsp
3.00	140	Glycera americana	Glycamer
22.00	166	Streblospio benedicti	Strebene
1.00	70	Mercenaria mercenaria	Mercmerc
1.00	219	Ampelisca sp	Ampesp
1.00	265	Polyonyx gibbesi	Polygibb
1.00	9	Travisia carnea	Travcarn

Group: Oyster
Sample unit: O36

Value	Code	Species	Code Name
65.00	2	Capitella sp	Capisp
13.00	137	Mulinia lateralis	Mulilate
124.00	80	Nematoda	NemaNema
1.00	97	Prionospio pinnata	Priopinn
2.00	69	Tellina agilis	Tellagil
5.00	205	Polydora ligni	Polylign
3.00	25	Tharyx sp	Tharsp
3.00	140	Glycera americana	Glycamer
16.00	166	Streblospio benedicti	Strebene
2.00	161	Ilyanassa trivittata	Ilyatriv
2.00	70	Mercenaria mercenaria	Mercmerc
1.00	51	Pandora gouldiana	Pandgoul
1.00	6	Clymenella sp	Clymsp

Group: Oyster
Sample unit: O37

Value	Code	Species	Code Name
246.00	137	Mulinia lateralis	Mulilate
2.00	80	Nematoda	NemaNema
2.00	8	Nereis succinea	Neresucc
2.00	1	Oligochaeta	OligOlig
1.00	107	Pectinaria gouldii	Pectgoul
1.00	25	Tharyx sp	Tharsp
1.00	166	Streblospio benedicti	Strebene
1.00	161	Ilyanassa trivittata	Ilyatriv
1.00	13	Eumida sanguinea	Eumisang
1.00	70	Mercenaria mercenaria	Mercmerc
1.00	275	Scolecolepides viridis	Scolviri
2.00	219	Ampelisca sp	Ampesp
1.00	265	Polyonyx gibbesi	Polygibb

Group: Oyster
Sample unit: O38

Value	Code	Species	Code Name
168.00	137	Mulinia lateralis	Mulilate
2.00	66	Nucula proxima	Nucuprox
1.00	107	Pectinaria gouldii	Pectgoul
1.00	205	Polydora ligni	Polylign
1.00	166	Streblospio benedicti	Strebene
4.00	161	Ilyanassa trivittata	Ilyatriv
6.00	75	Crepidula fornicata	Crepforn
6.00	191	Ilyanassa obsoleta	Ilyaobso
1.00	53	Panopeus herbstii	Panoherb
2.00	70	Mercenaria mercenaria	Mercmerc
1.00	43	Pagurus longicarpus	Pagulong
2.00	286	Pseudunciola obliquua	Pseuobli

Group: Oyster
Sample unit: O39

Value	Code	Species	Code Name
12.00	2	Capitella sp	Capisp
1.00	238	Glycinde solitaria	Glycsoli
3.00	137	Mulinia lateralis	Mulilate
30.00	80	Nematoda	NemaNema
1.00	1	Oligochaeta	OligOlig
3.00	205	Polydora ligni	Polylign
1.00	53	Panopeus herbstii	Panoherb
14.00	275	Scolecolepides viridis	Scolviri
1.00	42	Melita nitida	Meliniti
1.00	284	Crab megalopa	Crabmega

Group: Oyster
Sample unit: O40

Value	Code	Species	Code Name
29.00	2	Capitella sp	Capisp
1.00	238	Glycinde solitaria	Glycsoli
3.00	137	Mulinia lateralis	Mulilate
51.00	80	Nematoda	NemaNema
1.00	8	Nereis succinea	Neresucc
11.00	1	Oligochaeta	OligOlig
2.00	205	Polydora ligni	Polylign
5.00	25	Tharyx sp	Tharsp
1.00	166	Streblospio benedicti	Strebene
3.00	70	Mercenaria mercenaria	Mercmerc
1.00	275	Scolecolepides viridis	Scolviri
2.00	219	Ampelisca sp	Ampesp
1.00	265	Polyonyx gibbesi	Polygibb

Group: Oyster
Sample unit: O41

Value	Code	Species	Code Name
24.00	2	Capitella sp	Capisp
226.00	137	Mulinia lateralis	Mulilate
4.00	80	Nematoda	NemaNema
5.00	1	Oligochaeta	OligOlig
1.00	107	Pectinaria gouldii	Pectgoul
1.00	205	Polydora ligni	Polylign
7.00	25	Tharyx sp	Tharsp
13.00	166	Streblospio benedicti	Strebene
2.00	161	Ilyanassa trivittata	Ilyatriv
5.00	191	Ilyanassa obsoleta	Ilyaobso
1.00	70	Mercenaria mercenaria	Mercmerc
1.00	265	Polyonyx gibbesi	Polygibb

Group: Oyster
Sample unit: O42

Value	Code	Species	Code Name
36.00	2	Capitella sp	Capisp
3.00	238	Glycinde solitaria	Glycsoli
90.00	137	Mulinia lateralis	Mulilate
5.00	80	Nematoda	NemaNema
24.00	1	Oligochaeta	OligOlig
2.00	107	Pectinaria gouldii	Pectgoul
1.00	210	Nepthys incisa	Neptinci
1.00	205	Polydora ligni	Polylign
4.00	25	Tharyx sp	Tharsp
8.00	166	Streblospio benedicti	Strebene
2.00	161	Ilyanassa trivittata	Ilyatriv
2.00	191	Ilyanassa obsoleta	Ilyaobso
6.00	70	Mercenaria mercenaria	Mercmerc
1.00	216	Pherusa sp	Phersp
1.00	219	Ampelisca sp	Ampesp
2.00	265	Polyonyx gibbesi	Polygibb

Group: Oyster
Sample unit: O43

Value	Code	Species	Code Name
7.00	2	Capitella sp	Capisp
3.00	137	Mulinia lateralis	Mulilate
1.00	1	Oligochaeta	OligOlig
2.00	107	Pectinaria gouldii	Pectgoul
2.00	210	Nepthys incisa	Neptinci
1.00	166	Streblospio benedicti	Strebene
1.00	161	Ilyanassa trivittata	Ilyatriv
1.00	177	Acteocina canaliculata	Actecana
1.00	244	Macoma tenta	Macotent

Group: Oyster
Sample unit: O44

Value	Code	Species	Code Name
2.00	2	Capitella sp	Capisp
14.00	137	Mulinia lateralis	Mulilate
1.00	107	Pectinaria gouldii	Pectgoul
1.00	69	Tellina agilis	Tellagil
2.00	210	Nepthys incisa	Neptinci
1.00	177	Acteocina canaliculata	Actecana
2.00	281	Yoldia sp	Yoldsp

Group: Oyster
Sample unit: O45

Value	Code	Species	Code Name
59.00	137	Mulinia lateralis	Mulilate
3.00	1	Oligochaeta	OligOlig
1.00	205	Polydora ligni	Polylign
1.00	25	Tharyx sp	Tharsp
2.00	161	Ilyanassa trivittata	Ilyatriv

Group: Oyster
Sample unit: O46

Value	Code	Species	Code Name
62.00	137	Mulinia lateralis	Mulilate
16.00	1	Oligochaeta	OligOlig
2.00	107	Pectinaria gouldii	Pectgoul
1.00	210	Nepthys incisa	Neptinci
1.00	25	Tharyx sp	Tharsp
5.00	161	Ilyanassa trivittata	Ilyatriv
1.00	70	Mercenaria mercenaria	Mercmerc
1.00	287	Balanus eburneus	Balaebur

Group: Oyster
Sample unit: O47

Value	Code	Species	Code Name
1.00	2	Capitella sp	Capisp
2.00	277	Harmothoe imbricata	Harmimbr
433.00	137	Mulinia lateralis	Mulilate
1.00	8	Nereis succinea	Neresucc
8.00	1	Oligochaeta	OligOlig
1.00	107	Pectinaria gouldii	Pectgoul
2.00	205	Polydora ligni	Polylign
1.00	25	Tharyx sp	Tharsp
5.00	161	Ilyanassa trivittata	Ilyatriv
7.00	75	Crepidula fornicata	Crepforn
6.00	191	Ilyanassa obsoleta	Ilyaobso
1.00	53	Panopeus herbstii	Panoherb
2.00	219	Ampelisca sp	Ampesp

1.00	284	Crab megalopa	Crabmega
2.00	287	Balanus eburneus	Balaebur

Group: Oyster
Sample unit: O48

Value	Code	Species	Code Name
2.00	2	Capitella sp	Capisp
1.00	213	Eteone heteropoda	Eteohete
366.00	137	Mulinia lateralis	Mulilate
1.00	8	Nereis succinea	Neresucc
16.00	1	Oligochaeta	OligOlig
1.00	107	Pectinaria gouldii	Pectgoul
3.00	205	Polydora ligni	Polylign
2.00	25	Tharyx sp	Tharsp
2.00	166	Streblospio benedicti	Strebene
12.00	161	Ilyanassa trivittata	Ilyatriv
4.00	191	Ilyanassa obsoleta	Ilyaobso
1.00	279	Pitar morrhuanus	Pitamorr

Group: Oyster
Sample unit: O49

Value	Code	Species	Code Name
3.00	2	Capitella sp	Capisp
3.00	1	Oligochaeta	OligOlig
4.00	107	Pectinaria gouldii	Pectgoul
5.00	210	Nepthys incisa	Neptinci
1.00	171	Mya arenaria	Myaaren

Group: Oyster
Sample unit: O50

Value	Code	Species	Code Name
7.00	2	Capitella sp	Capisp
1.00	137	Mulinia lateralis	Mulilate
1.00	66	Nucula proxima	Nucuprox
6.00	1	Oligochaeta	OligOlig
3.00	107	Pectinaria gouldii	Pectgoul
2.00	210	Nepthys incisa	Neptinci
1.00	25	Tharyx sp	Tharsp
1.00	177	Acteocina canaliculata	Actecana
5.00	244	Macoma tenta	Macotent

Group: Oyster
Sample unit: O51

Value	Code	Species	Code Name
2.00	238	Glycinde solitaria	Glycsoli

90.00	137	Mulinia lateralis	Mulilate
1.00	80	Nematoda	NemaNema
2.00	66	Nucula proxima	Nucuprox
4.00	1	Oligochaeta	OligOlig
1.00	107	Pectinaria gouldii	Pectgoul
1.00	210	Nepthys incisa	Neptinci
1.00	166	Streblospio benedicti	Strebene
2.00	161	Ilyanassa trivittata	Ilyatriv
3.00	177	Acteocina canaliculata	Actecana

Group: Oyster
Sample unit: O52

Value	Code	Species	Code Name
1.00	238	Glycinde solitaria	Glycsoli
49.00	137	Mulinia lateralis	Mulilate
1.00	80	Nematoda	NemaNema
1.00	66	Nucula proxima	Nucuprox
1.00	107	Pectinaria gouldii	Pectgoul
1.00	70	Mercenaria mercenaria	Mercmerc
2.00	177	Acteocina canaliculata	Actecana
1.00	219	Ampelisca sp	Ampesp
1.00	265	Polyonyx gibbesi	Polygibb

Group: Oyster
Sample unit: O53

Value	Code	Species	Code Name
49.00	2	Capitella sp	Capisp
4.00	213	Eteone heteropoda	Eteohete
2.00	238	Glycinde solitaria	Glycsoli
6.00	277	Harmothoe imbricata	Harmimbr
3.00	137	Mulinia lateralis	Mulilate
892.00	80	Nematoda	NemaNema
3.00	8	Nereis succinea	Neresucc
5.00	66	Nucula proxima	Nucuprox
30.00	1	Oligochaeta	OligOlig
1.00	107	Pectinaria gouldii	Pectgoul
4.00	69	Tellina agilis	Tellagil
28.00	205	Polydora ligni	Polylign
77.00	25	Tharyx sp	Tharsp
3.00	140	Glycera americana	Glycamer
43.00	166	Streblospio benedicti	Strebene
1.00	161	Ilyanassa trivittata	Ilyatriv
11.00	75	Crepidula fornicata	Crepforn
1.00	143	Ampharete arctica	Ampharct
1.00	145	Gyptis vittata	Gyptvitt
2.00	13	Eumida sanguinea	Eumisang
29.00	275	Scolecolepides viridis	Scolviri
5.00	19	Brania wellfleetensis	Branwell
4.00	21	Parapionosyllis longicirrata	Paralong
2.00	265	Polyonyx gibbesi	Polygibb
1.00	42	Melita nitida	Meliniti

1.00	214	Crangon septemspinosa	Cransept
1.00	163	Crassostrea virginica	Crasvirg
1.00	83	Ostracod B	OstrB
2.00	110	Syllides setosa	Syllseto

Group: Oyster
Sample unit: O54

Value	Code	Species	Code Name
29.00	2	Capitella sp	Capisp
1.00	213	Eteone heteropoda	Eteohete
1.00	238	Glycinde solitaria	Glycsoli
29.00	277	Harmothoe imbricata	Harmimbr
358.00	80	Nematoda	NemaNema
11.00	8	Nereis succinea	Neresucc
9.00	1	Oligochaeta	OligOlig
82.00	205	Polydora ligni	Polylign
9.00	25	Tharyx sp	Tharsp
9.00	166	Streblospio benedicti	Strebene
65.00	75	Crepidula fornicata	Crepforn
28.00	76	Crepidula plana	Crepplan
6.00	53	Panopeus herbstii	Panoherb
2.00	52	Dyspanopeus sayi	Dyspsayi
31.00	13	Eumida sanguinea	Eumisang
2.00	41	Elasmopus levis	Elaslevi
1.00	275	Scolecolepides viridis	Scolviri
1.00	265	Polyonyx gibbesi	Polygibb
1.00	163	Crassostrea virginica	Crasvirg
2.00	288	Autolytus fasciatus	Autofasc

Group: Oyster
Sample unit: O55

Value	Code	Species	Code Name
1.00	1	Oligochaeta	OligOlig

Group: Oyster
Sample unit: O56

Value	Code	Species	Code Name
1.00	1	Oligochaeta	OligOlig
1.00	214	Crangon septemspinosa	Cransept

Group: Oyster
Sample unit: O57

Value	Code	Species	Code Name
1.00	42	Melita nitida	Meliniti

Group: Oyster
Sample unit: O58

Value	Code	Species	Code Name
1.00	107	Pectinaria gouldii	Pectgoul
2.00	210	Nepthys incisa	Neptinci

Group: Oyster
Sample unit: O59

Value	Code	Species	Code Name
132.00	2	Capitella sp	Capisp
9.00	238	Glycinde solitaria	Glycsoli
2.00	277	Harmothoe imbricata	Harmimbr
6.00	137	Mulinia lateralis	Mulilate
1.00	80	Nematoda	NemaNema
78.00	1	Oligochaeta	OligOlig
6.00	107	Pectinaria gouldii	Pectgoul
1.00	97	Prionospio pinnata	Priopinn
5.00	205	Polydora ligni	Polylign
4.00	25	Tharyx sp	Tharsp
3.00	166	Streblospio benedicti	Strebene
28.00	75	Crepidula fornicata	Crepforn
9.00	76	Crepidula plana	Crepplan
1.00	53	Panopeus herbstii	Panoherb
4.00	13	Eumida sanguinea	Eumisang
2.00	70	Mercenaria mercenaria	Mercmerc
4.00	265	Polyonyx gibbesi	Polygibb
2.00	289	Balanus amphitrite	Balaamph

Group: Oyster
Sample unit: O60

Value	Code	Species	Code Name
227.00	2	Capitella sp	Capisp
13.00	238	Glycinde solitaria	Glycsoli
1.00	277	Harmothoe imbricata	Harmimbr
14.00	137	Mulinia lateralis	Mulilate
214.00	80	Nematoda	NemaNema
8.00	8	Nereis succinea	Neresucc
18.00	1	Oligochaeta	OligOlig
5.00	107	Pectinaria gouldii	Pectgoul
1.00	97	Prionospio pinnata	Priopinn
1.00	276	Scoloplos robustus	Scolrobu
2.00	210	Nepthys incisa	Neptinci
2.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
1.00	166	Streblospio benedicti	Strebene
1.00	161	Ilyanassa trivittata	Ilyatriv
2.00	75	Crepidula fornicata	Crepforn
1.00	76	Crepidula plana	Crepplan

1.00	145	Gyptis vittata	Gyptvitt
5.00	70	Mercenaria mercenaria	Mercmerc
1.00	177	Acteocina canaliculata	Actecana
8.00	265	Polyonyx gibbesi	Polygibb

Group: Oyster
Sample unit: O61

Value	Code	Species	Code Name
193.00	2	Capitella sp	Capisp
11.00	213	Eteone heteropoda	Eteohete
16.00	238	Glycinde solitaria	Glycsoli
2.00	277	Harmothoe imbricata	Harmimbr
202.00	80	Nematoda	NemaNema
2.00	8	Nereis succinea	Neresucc
27.00	1	Oligochaeta	OligOlig
2.00	107	Pectinaria gouldii	Pectgoul
1.00	276	Scoloplos robustus	Scolrobu
74.00	205	Polydora ligni	Polylign
104.00	25	Tharyx sp	Tharsp
16.00	166	Streblospio benedicti	Strebene
17.00	75	Crepidula fornicata	Crepforn
6.00	76	Crepidula plana	Crepplan
1.00	275	Scolecolepides viridis	Scolviri
1.00	43	Pagurus longicarpus	Pagulong
16.00	265	Polyonyx gibbesi	Polygibb

Group: Oyster
Sample unit: O62

Value	Code	Species	Code Name
104.00	2	Capitella sp	Capisp
10.00	213	Eteone heteropoda	Eteohete
7.00	238	Glycinde solitaria	Glycsoli
3.00	277	Harmothoe imbricata	Harmimbr
45.00	80	Nematoda	NemaNema
4.00	8	Nereis succinea	Neresucc
22.00	1	Oligochaeta	OligOlig
2.00	107	Pectinaria gouldii	Pectgoul
1.00	97	Prionospio pinnata	Priopinn
1.00	69	Tellina agilis	Tellagil
28.00	205	Polydora ligni	Polylign
68.00	25	Tharyx sp	Tharsp
12.00	166	Streblospio benedicti	Strebene
1.00	161	Ilyanassa trivittata	Ilyatriv
15.00	75	Crepidula fornicata	Crepforn
1.00	76	Crepidula plana	Crepplan
4.00	275	Scolecolepides viridis	Scolviri
1.00	6	Clymenella sp	Clymsp
8.00	265	Polyonyx gibbesi	Polygibb

Group: Oyster

Sample unit: O63

Value	Code	Species	Code Name
1.00	2	Capitella sp	Capisp
4.00	1	Oligochaeta	OligOlig
1.00	70	Mercenaria mercenaria	Mercmerc
3.00	244	Macoma tenta	Macotent

Group: Oyster
Sample unit: O64

Value	Code	Species	Code Name
11.00	2	Capitella sp	Capisp
8.00	137	Mulinia lateralis	Mulilate
15.00	1	Oligochaeta	OligOlig
3.00	107	Pectinaria gouldii	Pectgoul
1.00	210	Nepthys incisa	Neptinci
1.00	140	Glycera americana	Glycamer
1.00	191	Ilyanassa obsoleta	Ilyaobso
2.00	265	Polyonyx gibbesi	Polygibb
1.00	244	Macoma tenta	Macotent
1.00	284	Crab megalopa	Crabmega

Group: Oyster
Sample unit: O65

Value	Code	Species	Code Name
11.00	2	Capitella sp	Capisp
1.00	238	Glycinde solitaria	Glycsoli
117.00	137	Mulinia lateralis	Mulilate
1.00	66	Nucula proxima	Nucuprox
9.00	1	Oligochaeta	OligOlig
2.00	82	Ostracod A	OstrA
2.00	107	Pectinaria gouldii	Pectgoul
4.00	210	Nepthys incisa	Neptinci
2.00	205	Polydora ligni	Polylign
1.00	154	Microphthalmus aberrans	Micraber
1.00	143	Ampharete arctica	Ampharct
1.00	177	Acteocina canaliculata	Actecana
1.00	219	Ampelisca sp	Ampesp
7.00	265	Polyonyx gibbesi	Polygibb
3.00	244	Macoma tenta	Macotent

Group: Oyster
Sample unit: O66

Value	Code	Species	Code Name
1.00	238	Glycinde solitaria	Glycsoli
81.00	137	Mulinia lateralis	Mulilate
1.00	1	Oligochaeta	OligOlig

1.00	97	Prionospio pinnata	Priopinn
1.00	69	Tellina agilis	Tellagil
1.00	210	Nepthys incisa	Neptinci
1.00	205	Polydora ligni	Polylign
2.00	161	Ilyanassa trivittata	Ilyatriv
1.00	216	Pherusa sp	Phersp
1.00	219	Ampelisca sp	Ampesp
2.00	265	Polyonyx gibbesi	Polygibb

Group: Oyster
Sample unit: O67

Value	Code	Species	Code Name
22.00	2	Capitella sp	Capisp
13.00	137	Mulinia lateralis	Mulilate
6.00	1	Oligochaeta	OligOlig
2.00	107	Pectinaria gouldii	Pectgoul
1.00	97	Prionospio pinnata	Priopinn
1.00	210	Nepthys incisa	Neptinci
8.00	205	Polydora ligni	Polylign
1.00	25	Tharyx sp	Tharsp
6.00	219	Ampelisca sp	Ampesp
9.00	265	Polyonyx gibbesi	Polygibb

Group: Oyster
Sample unit: O68

Value	Code	Species	Code Name
15.00	2	Capitella sp	Capisp
2.00	238	Glycinde solitaria	Glycsoli
2.00	173	Leucon americanus	Leucamer
8.00	1	Oligochaeta	OligOlig
3.00	205	Polydora ligni	Polylign
1.00	25	Tharyx sp	Tharsp
1.00	275	Scolecolepides viridis	Scolviri
2.00	219	Ampelisca sp	Ampesp
26.00	265	Polyonyx gibbesi	Polygibb

Group: Oyster
Sample unit: O69

Value	Code	Species	Code Name
5.00	2	Capitella sp	Capisp
10.00	137	Mulinia lateralis	Mulilate
4.00	1	Oligochaeta	OligOlig
2.00	107	Pectinaria gouldii	Pectgoul
3.00	210	Nepthys incisa	Neptinci
1.00	205	Polydora ligni	Polylign
6.00	180	Cephalaspidea	CephCeph
1.00	177	Acteocina canaliculata	Actecana
5.00	244	Macoma tenta	Macotent

Group: Oyster
Sample unit: O70

Value	Code	Species	Code Name
5.00	2	Capitella sp	Capisp
1.00	213	Eteone heteropoda	Eteohete
1.00	238	Glycinde solitaria	Glycsoli
10.00	137	Mulinia lateralis	Mulilate
5.00	1	Oligochaeta	OligOlig
1.00	107	Pectinaria gouldii	Pectgoul
3.00	210	Nepthys incisa	Neptinci
1.00	180	Cephalaspidea	CephCeph
1.00	275	Scolecolepides viridis	Scolviri
1.00	6	Clymenella sp	Clymsp
1.00	219	Ampelisca sp	Ampesp
3.00	265	Polyonyx gibbesi	Polygibb
8.00	244	Macoma tenta	Macotent

Group: Oyster
Sample unit: O71

Value	Code	Species	Code Name
84.00	2	Capitella sp	Capisp
2.00	213	Eteone heteropoda	Eteohete
12.00	238	Glycinde solitaria	Glycsoli
3.00	277	Harmothoe imbricata	Harmimbr
3.00	137	Mulinia lateralis	Mulilate
3385.00	80	Nematoda	NemaNema
94.00	1	Oligochaeta	OligOlig
3.00	107	Pectinaria gouldii	Pectgoul
2.00	69	Tellina agilis	Tellagil
20.00	205	Polydora ligni	Polylign
185.00	25	Tharyx sp	Tharsp
3.00	132	Nicolea sp	Nicosp
4.00	166	Streblospio benedicti	Strebene
3.00	75	Crepidula fornicata	Crepforn
1.00	41	Elasmopus levis	Elaslevi
7.00	275	Scolecolepides viridis	Scolviri
6.00	19	Brania wellfleetensis	Branwell
3.00	64	Lyonsia hyalina	Lyonhyal
7.00	265	Polyonyx gibbesi	Polygibb
1.00	42	Melita nitida	Meliniti
3.00	71	Gemma gemma	Gemmgemm
1.00	214	Crangon septemspinosa	Cransept
1.00	83	Ostracod B	OstrB

Group: Oyster
Sample unit: O72

Value	Code	Species	Code Name

85.00	2	Capitella sp	Capisp
2.00	213	Eteone heteropoda	Eteohete
6.00	238	Glycinde solitaria	Glycsoli
4.00	277	Harmothoe imbricata	Harmimbr
5481.00	80	Nematoda	NemaNema
1.00	8	Nereis succinea	Neresucc
4.00	66	Nucula proxima	Nucuprox
54.00	1	Oligochaeta	OligOlig
1.00	107	Pectinaria gouldii	Pectgoul
1.00	69	Tellina agilis	Tellagil
9.00	205	Polydora ligni	Polylign
238.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
7.00	166	Streblospio benedicti	Strebene
3.00	75	Crepidula fornicata	Crepforn
1.00	76	Crepidula plana	Crepplan
1.00	209	Rictaxis punctostriatus	Rictpunc
1.00	13	Eumida sanguinea	Eumisang
2.00	11	Aricidea catherinae	Ariccath
2.00	150	Lysianopsis alba	Lysialba
2.00	219	Ampelisca sp	Ampesp
13.00	265	Polyonyx gibbesi	Polygibb
1.00	83	Ostracod B	OstrB

Group: Oyster
Sample unit: O73

Value	Code	Species	Code Name
1.00	265	Polyonyx gibbesi	Polygibb

Sample unit: O74

No Species encountered in this sample unit.

Group: Oyster
Sample unit: O75

Value	Code	Species	Code Name
1.00	219	Ampelisca sp	Ampesp

Group: Oyster
Sample unit: O76

Value	Code	Species	Code Name
1.00	70	Mercenaria mercenaria	Mercmerc

Group: Oyster
Sample unit: O77

Value	Code	Species	Code Name
20.00	2	Capitella sp	Capisp
1.00	213	Eteone heteropoda	Eteohete
1.00	238	Glycinde solitaria	Glycsoli
3.00	173	Leucon americanus	Leucamer
11.00	137	Mulinia lateralis	Mulilate
5.00	80	Nematoda	NemaNema
2.00	8	Nereis succinea	Neresucc
5.00	1	Oligochaeta	OligOlig
4.00	82	Ostracod A	OstrA
1.00	133	Eteone lactea	Eteolact
2.00	210	Nepthys incisa	Neptinci
5.00	205	Polydora ligni	Polylign
92.00	219	Ampelisca sp	Ampesp
16.00	265	Polyonyx gibbesi	Polygibb
1.00	214	Crangon septemspinosa	Cransept
43.00	83	Ostracod B	OstrB
2.00	5	Lumbrineris tenuis	Lumbtenu

Group: Oyster
Sample unit: O78

Value	Code	Species	Code Name
8.00	2	Capitella sp	Capisp
1.00	213	Eteone heteropoda	Eteohete
12.00	137	Mulinia lateralis	Mulilate
4.00	80	Nematoda	NemaNema
1.00	145	Gyptis vittata	Gyptvitt
23.00	265	Polyonyx gibbesi	Polygibb
3.00	244	Macoma tenta	Macotent
1.00	83	Ostracod B	OstrB
4.00	5	Lumbrineris tenuis	Lumbtenu

Group: Oyster
Sample unit: O79

Value	Code	Species	Code Name
4.00	2	Capitella sp	Capisp
14.00	137	Mulinia lateralis	Mulilate
1.00	80	Nematoda	NemaNema
1.00	107	Pectinaria gouldii	Pectgoul
1.00	145	Gyptis vittata	Gyptvitt
13.00	219	Ampelisca sp	Ampesp
26.00	265	Polyonyx gibbesi	Polygibb
2.00	244	Macoma tenta	Macotent
1.00	171	Mya arenaria	Myaaren

Group: Oyster
Sample unit: O80

Value	Code	Species	Code Name
2.00	2	Capitella sp	Capisp
2.00	213	Eteone heteropoda	Eteohete
2.00	238	Glycinde solitaria	Glycsoli
15.00	137	Mulinia lateralis	Mulilate
2.00	8	Nereis succinea	Neresucc
1.00	107	Pectinaria gouldii	Pectgoul
1.00	97	Prionospio pinnata	Priopinn
1.00	205	Polydora ligni	Polylign
4.00	219	Ampelisca sp	Ampesp
31.00	265	Polyonyx gibbesi	Polygibb
3.00	244	Macoma tenta	Macotent
1.00	83	Ostracod B	OstrB
5.00	5	Lumbrineris tenuis	Lumbtenu

Group: PortJeff
Sample unit: P001

Value	Code	Species	Code Name
62.00	80	Nematoda	NemaNema
7.00	25	Tharyx sp	Tharsp
2.00	140	Glycera americana	Glycamer
3.00	166	Streblospio benedicti	Strebene
1.00	161	Ilyanassa trivittata	Ilyatriv
2.00	143	Ampharete arctica	Ampharct
1.00	134	Schistomeringos caecus	Schicaec
3.00	7	Nephtys picta	Nephpict
91.00	11	Aricidea catherinae	Ariccath
3.00	19	Brania wellfleetensis	Branwell
1.00	32	Ampelisca verrilli	Ampeverr
1.00	6	Clymenella sp	Clymsp
1.00	62	Anadara transversa	Anadtran
1.00	9	Travisia carnea	Travcarn
37.00	83	Ostracod B	OstrB
21.00	10	Scoloplos fragilis	Scolfrag

Group: PortJeff
Sample unit: P002

Value	Code	Species	Code Name
3.00	2	Capitella sp	Capisp
19.00	1	Oligochaeta	OligOlig
2.00	107	Pectinaria gouldii	Pectgoul
1.00	210	Nepthys incisa	Neptinci
2.00	140	Glycera americana	Glycamer
5.00	166	Streblospio benedicti	Strebene
2.00	75	Crepidula fornicata	Crepforn
2.00	143	Ampharete arctica	Ampharct
1.00	51	Pandora gouldiana	Pandgoul
2.00	55	Heteromysis formosa	Heteform
1.00	141	Euspira heros	Eusphero
4.00	83	Ostracod B	OstrB

5.00	10	Scoloplos fragilis	Scolfrag

Group: PortJeff
Sample unit: P003

Value	Code	Species	Code Name
3.00	2	Capitella sp	Capisp
29.00	80	Nematoda	NemaNema
11.00	1	Oligochaeta	OligOlig
3.00	69	Tellina agilis	Tellagil
2.00	205	Polydora ligni	Polylign
16.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
4.00	166	Streblospio benedicti	Strebene
47.00	75	Crepidula fornicata	Crepforn
2.00	143	Ampharete arctica	Ampharct
1.00	13	Eumida sanguinea	Eumisang
1.00	7	Nephtys picta	Nephpict
1.00	160	Melinna cristata	Melicris
29.00	11	Aricidea catherinae	Ariccath
1.00	21	Parapionosyllis longicirrata	Paralong
1.00	113	Phyllodoce arenae	Phylaren
5.00	6	Clymenella sp	Clymsp
1.00	146	Orbinia sp	Orbisp
2.00	62	Anadara transversa	Anadtran
2.00	18	Spiophanes bombyx	Spiobomb
3.00	9	Travisia carnea	Travcarn
1.00	83	Ostracod B	OstrB
1.00	110	Syllides setosa	Syllseto
7.00	10	Scoloplos fragilis	Scolfrag

Group: PortJeff
Sample unit: P004

Value	Code	Species	Code Name
20.00	2	Capitella sp	Capisp
5.00	80	Nematoda	NemaNema
23.00	1	Oligochaeta	OligOlig
1.00	97	Prionospio pinnata	Priopinn
3.00	69	Tellina agilis	Tellagil
1.00	210	Nepthys incisa	Neptinci
17.00	25	Tharyx sp	Tharsp
1.00	211	Yoldia limatula	Yoldlima
13.00	166	Streblospio benedicti	Strebene
1.00	143	Ampharete arctica	Ampharct
1.00	7	Nephtys picta	Nephpict
3.00	6	Clymenella sp	Clymsp
1.00	153	Asychis elongata	Asycelon
3.00	10	Scoloplos fragilis	Scolfrag

Group: PortJeff
Sample unit: P005

Value	Code	Species	Code Name
11.00	2	Capitella sp	Capisp
2.00	80	Nematoda	NemaNema
16.00	1	Oligochaeta	OligOlig
1.00	107	Pectinaria gouldii	Pectgoul
3.00	69	Tellina agilis	Tellagil
1.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
1.00	211	Yoldia limatula	Yoldlima
6.00	166	Streblospio benedicti	Strebene
6.00	75	Crepidula fornicata	Crepforn
1.00	104	Nucula tenuis	Nucutenu
4.00	6	Clymenella sp	Clymsp
1.00	83	Ostracod B	OstrB
3.00	10	Scoloplos fragilis	Scolfrag

Group: PortJeff
Sample unit: P006

Value	Code	Species	Code Name
1.00	2	Capitella sp	Capisp
1.00	173	Leucon americanus	Leucamer
2.00	107	Pectinaria gouldii	Pectgoul
1.00	69	Tellina agilis	Tellagil
2.00	210	Nepthys incisa	Neptinci
1.00	25	Tharyx sp	Tharsp
1.00	166	Streblospio benedicti	Strebene
1.00	104	Nucula tenuis	Nucutenu
1.00	10	Scoloplos fragilis	Scolfrag

Group: PortJeff
Sample unit: P007

Value	Code	Species	Code Name
2.00	80	Nematoda	NemaNema
29.00	1	Oligochaeta	OligOlig
5.00	69	Tellina agilis	Tellagil
5.00	205	Polydora ligni	Polylign
8.00	25	Tharyx sp	Tharsp
2.00	140	Glycera americana	Glycamer
4.00	132	Nicolea sp	Nicosp
46.00	75	Crepidula fornicata	Crepforn
2.00	104	Nucula tenuis	Nucutenu
1.00	145	Gyptis vittata	Gyptvitt
1.00	20	Exogone dispar	Exogdisp
4.00	6	Clymenella sp	Clymsp
1.00	83	Ostracod B	OstrB
9.00	10	Scoloplos fragilis	Scolfrag
1.00	189	Brania clavata	Branclav
1.00	192	Microdeutopus anomalus	Micranom

Group: PortJeff
Sample unit: P008

Value	Code	Species	Code Name
2.00	2	Capitella sp	Capisp
4.00	213	Eteone heteropoda	Eteohete
1.00	137	Mulinia lateralis	Mulilate
2.00	80	Nematoda	NemaNema
32.00	1	Oligochaeta	OligOlig
1.00	69	Tellina agilis	Tellagil
6.00	205	Polydora ligni	Polylign
21.00	25	Tharyx sp	Tharsp
4.00	140	Glycera americana	Glycamer
10.00	166	Streblospio benedicti	Strebene
74.00	75	Crepidula fornicata	Crepforn
6.00	104	Nucula tenuis	Nucutenu
1.00	143	Ampharete arctica	Ampharct
1.00	95	Gobiosoma sp	Gobisp
2.00	41	Elasmopus levis	Elaslevi
5.00	6	Clymenella sp	Clymsp
25.00	10	Scoloplos fragilis	Scolfrag
2.00	192	Microdeutopus anomalus	Micranom
1.00	162	Actiniaria sp	Actisp
1.00	156	Spio sp	Spiosp

Group: PortJeff
Sample unit: P009

Value	Code	Species	Code Name
1.00	2	Capitella sp	Capisp
118.00	80	Nematoda	NemaNema
2.00	66	Nucula proxima	Nucuprox
6.00	1	Oligochaeta	OligOlig
8.00	25	Tharyx sp	Tharsp
1.00	129	Unciola irrorata	Unciirro
1.00	161	Ilyanassa trivittata	Ilyatriv
54.00	75	Crepidula fornicata	Crepforn
1.00	104	Nucula tenuis	Nucutenu
1.00	53	Panopeus herbstii	Panoherb
2.00	143	Ampharete arctica	Ampharct
11.00	11	Aricidea catherinae	Ariccath
1.00	103	Spisula solidissima	Spissoli
3.00	14	Polygordius sp	Polygord
1.00	110	Syllides setosa	Syllseto
4.00	10	Scoloplos fragilis	Scolfrag
1.00	98	Harmothoe extenuata	Harmexte
1.00	125	Leptochelia savignyi	Leptsavi
3.00	102	Nereis arenaceodonta	Nerearen
1.00	22	Sphaerosyllis erinaceus	Sphaerin

Group: PortJeff
Sample unit: P010

Value	Code	Species	Code Name
1.00	85	Corophium sp	Corosp
144.00	80	Nematoda	NemaNema
2.00	66	Nucula proxima	Nucuprox
1.00	1	Oligochaeta	OligOlig
57.00	75	Crepidula fornicata	Crepforn
3.00	53	Panopeus herbstii	Panoherb
30.00	143	Ampharete arctica	Ampharct
47.00	11	Aricidea catherinae	Ariccath
1.00	64	Lyonsia hyalina	Lyonhyal
3.00	43	Pagurus longicarpus	Pagulong
1.00	45	Stenothoidae sp	Stensp
1.00	96	Paraphoxus spinosus	Paraspin
7.00	83	Ostracod B	OstrB
1.00	189	Brania clavata	Branclav
6.00	98	Harmothoe extenuata	Harmexte
2.00	125	Leptochelia savignyi	Leptsavi
1.00	79	Balanus sp	Balasp
1.00	78	Chaetopleura apiculata	Chaeapic
4.00	16	Polydora sp	Polydora

Group: PortJeff
Sample unit: P011

Value	Code	Species	Code Name
52.00	80	Nematoda	NemaNema
4.00	1	Oligochaeta	OligOlig
1.00	69	Tellina agilis	Tellagil
1.00	140	Glycera americana	Glycamer
3.00	143	Ampharete arctica	Ampharct
3.00	7	Nephtys picta	Nephpict
67.00	11	Aricidea catherinae	Ariccath
1.00	19	Brania wellfleetensis	Branwell
1.00	14	Polygordius sp	Polygord
2.00	10	Scoloplos fragilis	Scolfrag

Group: PortJeff
Sample unit: P012

Value	Code	Species	Code Name
6.00	1	Oligochaeta	OligOlig
5.00	25	Tharyx sp	Tharsp
1.00	166	Streblospio benedicti	Strebene
3.00	143	Ampharete arctica	Ampharct
1.00	70	Mercenaria mercenaria	Mercmerc
2.00	7	Nephtys picta	Nephpict
3.00	41	Elasmopus levis	Elaslevi
6.00	11	Aricidea catherinae	Ariccath
6.00	51	Pandora gouldiana	Pandgoul
3.00	146	Orbinia sp	Orbisp
1.00	83	Ostracod B	OstrB

2.00	10	Scoloplos fragilis	Scolfrag

Group: PortJeff
Sample unit: P013

Value	Code	Species	Code Name
2.00	2	Capitella sp	Capisp
1.00	1	Oligochaeta	OligOlig
1.00	69	Tellina agilis	Tellagil
5.00	210	Nepthys incisa	Neptinci
1.00	25	Tharyx sp	Tharsp
1.00	166	Streblospio benedicti	Strebene
1.00	104	Nucula tenuis	Nucutenu
1.00	51	Pandora gouldiana	Pandgoul
1.00	178	Sigambra sp	Sigasp
1.00	153	Asychis elongata	Asycelon

Group: PortJeff
Sample unit: P014

Value	Code	Species	Code Name
2.00	210	Nepthys incisa	Neptinci
1.00	178	Sigambra sp	Sigasp
1.00	153	Asychis elongata	Asycelon

Sample unit: P015

No Species encountered in this sample unit.

Group: PortJeff
Sample unit: P016

Value	Code	Species	Code Name
3.00	2	Capitella sp	Capisp
1.00	1	Oligochaeta	OligOlig
1.00	107	Pectinaria gouldii	Pectgoul
1.00	210	Nepthys incisa	Neptinci
1.00	166	Streblospio benedicti	Strebene
2.00	178	Sigambra sp	Sigasp
1.00	6	Clymenella sp	Clymsp

Group: PortJeff
Sample unit: P017

Value	Code	Species	Code Name
5.00	2	Capitella sp	Capisp
2.00	80	Nematoda	NemaNema

34.00	1	Oligochaeta	OligOlig
1.00	107	Pectinaria gouldii	Pectgoul
2.00	210	Nepthys incisa	Neptinci
56.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
7.00	166	Streblospio benedicti	Strebene
1.00	143	Ampharete arctica	Ampharct
1.00	32	Ampelisca verrilli	Ampeverr
5.00	6	Clymenella sp	Clymsp
1.00	146	Orbinia sp	Orbisp
1.00	83	Ostracod B	OstrB
2.00	10	Scoloplos fragilis	Scolfrag
1.00	212	Prionospio cirrobranchiata	Priocirr

Group: PortJeff
Sample unit: P018

Value	Code	Species	Code Name
2.00	2	Capitella sp	Capisp
5.00	85	Corophium sp	Corosp
7.00	80	Nematoda	NemaNema
65.00	1	Oligochaeta	OligOlig
1.00	69	Tellina agilis	Tellagil
2.00	210	Nepthys incisa	Neptinci
20.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
1.00	166	Streblospio benedicti	Strebene
1.00	53	Panopeus herbstii	Panoherb
3.00	143	Ampharete arctica	Ampharct
1.00	7	Nephtys picta	Nephpict
1.00	30	Ampelisca vadorum	Ampevado
2.00	113	Phyllodoce arenae	Phylaren
5.00	6	Clymenella sp	Clymsp
2.00	10	Scoloplos fragilis	Scolfrag
2.00	98	Harmothoe extenuata	Harmexte
1.00	33	Lembos smithi	Lembsmit

Group: PortJeff
Sample unit: P019

Value	Code	Species	Code Name
1.00	69	Tellina agilis	Tellagil
1.00	25	Tharyx sp	Tharsp
2.00	211	Yoldia limatula	Yoldlima
1.00	166	Streblospio benedicti	Strebene
1.00	98	Harmothoe extenuata	Harmexte

Group: PortJeff
Sample unit: P020

Value	Code	Species	Code Name

1.00	2	Capitella sp	Capisp
1.00	1	Oligochaeta	OligOlig
1.00	210	Nepthys incisa	Neptinci
1.00	166	Streblospio benedicti	Strebene

Group: PortJeff
Sample unit: P021

Value	Code	Species	Code Name
9.00	1	Oligochaeta	OligOlig
1.00	107	Pectinaria gouldii	Pectgoul
3.00	25	Tharyx sp	Tharsp
2.00	140	Glycera americana	Glycamer
1.00	7	Nephtys picta	Nephpict
2.00	153	Asychis elongata	Asycelon
1.00	10	Scoloplos fragilis	Scolfrag

Group: PortJeff
Sample unit: P022

Value	Code	Species	Code Name
13.00	2	Capitella sp	Capisp
1.00	80	Nematoda	NemaNema
42.00	1	Oligochaeta	OligOlig
1.00	107	Pectinaria gouldii	Pectgoul
1.00	69	Tellina agilis	Tellagil
16.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
2.00	166	Streblospio benedicti	Strebene
3.00	75	Crepidula fornicata	Crepforn
1.00	143	Ampharete arctica	Ampharct
2.00	6	Clymenella sp	Clymsp
4.00	10	Scoloplos fragilis	Scolfrag

Group: PortJeff
Sample unit: P023

Value	Code	Species	Code Name
5.00	2	Capitella sp	Capisp
7.00	1	Oligochaeta	OligOlig
3.00	107	Pectinaria gouldii	Pectgoul
4.00	210	Nepthys incisa	Neptinci
4.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
1.00	211	Yoldia limatula	Yoldlima
4.00	166	Streblospio benedicti	Strebene
1.00	178	Sigambra sp	Sigasp
2.00	6	Clymenella sp	Clymsp
1.00	102	Nereis arenaceodonta	Nerearen

Group: PortJeff
Sample unit: P024

Value	Code	Species	Code Name
1.00	2	Capitella sp	Capisp
1.00	82	Ostracod A	OstrA
4.00	210	Nepthys incisa	Neptinci
1.00	178	Sigambra sp	Sigasp
1.00	6	Clymenella sp	Clymsp
1.00	153	Asychis elongata	Asycelon
1.00	5	Lumbrineris tenuis	Lumbtenu

Group: PortJeff
Sample unit: P025

Value	Code	Species	Code Name
3.00	2	Capitella sp	Capisp
1.00	211	Yoldia limatula	Yoldlima
1.00	153	Asychis elongata	Asycelon

Group: PortJeff
Sample unit: P026

Value	Code	Species	Code Name
1.00	2	Capitella sp	Capisp
1.00	1	Oligochaeta	OligOlig
1.00	210	Nepthys incisa	Neptinci
2.00	25	Tharyx sp	Tharsp

Group: PortJeff
Sample unit: P027

Value	Code	Species	Code Name
3.00	2	Capitella sp	Capisp
1.00	80	Nematoda	NemaNema
1.00	8	Nereis succinea	Neresucc
25.00	1	Oligochaeta	OligOlig
1.00	205	Polydora ligni	Polylign
7.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
102.00	75	Crepidula fornicata	Crepforn
1.00	104	Nucula tenuis	Nucutenu
2.00	53	Panopeus herbstii	Panoherb
1.00	143	Ampharete arctica	Ampharct
5.00	13	Eumida sanguinea	Eumisang
1.00	62	Anadara transversa	Anadtran
1.00	10	Scoloplos fragilis	Scolfrag
2.00	98	Harmothoe extenuata	Harmexte
1.00	33	Lembos smithi	Lembsmit

Group: PortJeff
Sample unit: P028

Value	Code	Species	Code Name
2.00	2	Capitella sp	Capisp
3.00	80	Nematoda	NemaNema
47.00	1	Oligochaeta	OligOlig
2.00	205	Polydora ligni	Polylign
1.00	140	Glycera americana	Glycamer
158.00	75	Crepidula fornicata	Crepforn
1.00	143	Ampharete arctica	Ampharct
1.00	13	Eumida sanguinea	Eumisang
1.00	41	Elasmopus levis	Elaslevi
3.00	62	Anadara transversa	Anadtran
2.00	33	Lembos smithi	Lembsmit
1.00	29	Arabella iricolor	Arabiric

Group: PortJeff
Sample unit: P029

Value	Code	Species	Code Name
3.00	2	Capitella sp	Capisp
1.00	80	Nematoda	NemaNema
58.00	1	Oligochaeta	OligOlig
1.00	69	Tellina agilis	Tellagil
130.00	75	Crepidula fornicata	Crepforn
1.00	7	Nephtys picta	Nephpict
4.00	10	Scoloplos fragilis	Scolfrag
1.00	98	Harmothoe extenuata	Harmexte
1.00	102	Nereis arenaceodonta	Nerearen

Group: PortJeff
Sample unit: P030

Value	Code	Species	Code Name
400.00	80	Nematoda	NemaNema
80.00	1	Oligochaeta	OligOlig
1.00	205	Polydora ligni	Polylign
6.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
2.00	132	Nicolea sp	Nicosp
1.00	161	Ilyanassa trivittata	Ilyatriv
30.00	75	Crepidula fornicata	Crepforn
5.00	143	Ampharete arctica	Ampharct
1.00	70	Mercenaria mercenaria	Mercmerc
1.00	122	Drilonereis longa	Drillong
1.00	134	Schistomeringos caecus	Schicaec
1.00	7	Nephtys picta	Nephpict
1.00	41	Elasmopus levis	Elaslevi
2.00	19	Brania wellfleetensis	Branwell
1.00	21	Parapionosyllis longicirrata	Paralong

2.00	9	Travisia carnea	Travcarn
1.00	98	Harmothoe extenuata	Harmexte

Group: PortJeff
Sample unit: P031

Value	Code	Species	Code Name
1.00	85	Corophium sp	Corosp
26.00	80	Nematoda	NemaNema
83.00	1	Oligochaeta	OligOlig
20.00	205	Polydora ligni	Polylign
2.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
4.00	132	Nicolea sp	Nicosp
1.00	166	Streblospio benedicti	Strebene
62.00	75	Crepidula fornicata	Crepforn
1.00	53	Panopeus herbstii	Panoherb
2.00	83	Ostracod B	OstrB
1.00	5	Lumbrineris tenuis	Lumbtenu
10.00	10	Scoloplos fragilis	Scolfrag
3.00	98	Harmothoe extenuata	Harmexte
1.00	23	Sphaerosyllis hystrix	Sphahyst

Group: PortJeff
Sample unit: P032

Value	Code	Species	Code Name
141.00	80	Nematoda	NemaNema
81.00	1	Oligochaeta	OligOlig
6.00	205	Polydora ligni	Polylign
16.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
2.00	132	Nicolea sp	Nicosp
16.00	75	Crepidula fornicata	Crepforn
1.00	13	Eumida sanguinea	Eumisang
1.00	51	Pandora gouldiana	Pandgoul
4.00	6	Clymenella sp	Clymsp
1.00	153	Asychis elongata	Asycelon
1.00	5	Lumbrineris tenuis	Lumbtenu
4.00	10	Scoloplos fragilis	Scolfrag
1.00	33	Lembos smithi	Lembsmit

Group: PortJeff
Sample unit: P033

Value	Code	Species	Code Name
9.00	2	Capitella sp	Capisp
3.00	137	Mulinia lateralis	Mulilate
4.00	1	Oligochaeta	OligOlig
2.00	82	Ostracod A	OstrA
1.00	166	Streblospio benedicti	Strebene

Group: PortJeff
Sample unit: P034

Value	Code	Species	Code Name
8.00	2	Capitella sp	Capisp
1.00	173	Leucon americanus	Leucamer
5.00	1	Oligochaeta	OligOlig
1.00	210	Nepthys incisa	Neptinci
1.00	211	Yoldia limatula	Yoldlima
9.00	166	Streblospio benedicti	Strebene
1.00	64	Lyonsia hyalina	Lyonhyal
1.00	83	Ostracod B	OstrB

Group: PortJeff
Sample unit: P035

Value	Code	Species	Code Name
9.00	1	Oligochaeta	OligOlig
1.00	166	Streblospio benedicti	Strebene
1.00	104	Nucula tenuis	Nucutenu
1.00	143	Ampharete arctica	Ampharct

Group: PortJeff
Sample unit: P036

Value	Code	Species	Code Name
1.00	2	Capitella sp	Capisp
1.00	80	Nematoda	NemaNema
15.00	1	Oligochaeta	OligOlig
1.00	210	Nepthys incisa	Neptinci
1.00	10	Scoloplos fragilis	Scolfrag

Group: PortJeff
Sample unit: P037

Value	Code	Species	Code Name
2.00	2	Capitella sp	Capisp
2.00	80	Nematoda	NemaNema
1.00	82	Ostracod A	OstrA
1.00	210	Nepthys incisa	Neptinci
2.00	25	Tharyx sp	Tharsp
1.00	166	Streblospio benedicti	Strebene
1.00	104	Nucula tenuis	Nucutenu
5.00	143	Ampharete arctica	Ampharct
2.00	83	Ostracod B	OstrB
1.00	29	Arabella iricolor	Arabiric

Group: PortJeff
Sample unit: P038

Value	Code	Species	Code Name
4.00	2	Capitella sp	Capisp
630.00	80	Nematoda	NemaNema
45.00	1	Oligochaeta	OligOlig
4.00	82	Ostracod A	OstrA
1.00	107	Pectinaria gouldii	Pectgoul
2.00	69	Tellina agilis	Tellagil
9.00	25	Tharyx sp	Tharsp
1.00	211	Yoldia limatula	Yoldlima
12.00	166	Streblospio benedicti	Strebene
1.00	104	Nucula tenuis	Nucutenu
2.00	143	Ampharete arctica	Ampharct
1.00	7	Nephtys picta	Nephpict
1.00	177	Acteocina canaliculata	Actecana
1.00	11	Aricidea catherinae	Ariccath
1.00	19	Brania wellfleetensis	Branwell
1.00	51	Pandora gouldiana	Pandgoul
1.00	59	Pinnixa sp	Pinnsp
3.00	6	Clymenella sp	Clymsp
1.00	214	Crangon septemspinosa	Cransept
4.00	83	Ostracod B	OstrB
3.00	110	Syllides setosa	Syllseto
6.00	10	Scoloplos fragilis	Scolfrag
1.00	23	Sphaerosyllis hystrix	Sphahyst
1.00	114	Glyceia dibranchiata	Glycdibr
1.00	105	Rudilemboides naglei	Rudinagl

Group: PortJeff
Sample unit: P039

Value	Code	Species	Code Name
3.00	80	Nematoda	NemaNema
7.00	1	Oligochaeta	OligOlig
1.00	82	Ostracod A	OstrA
2.00	210	Nepthys incisa	Neptinci
2.00	25	Tharyx sp	Tharsp
16.00	166	Streblospio benedicti	Strebene
1.00	6	Clymenella sp	Clymsp
1.00	153	Asychis elongata	Asycelon
1.00	63	Pista palmata	Pistpalm

Group: PortJeff
Sample unit: P040

Value	Code	Species	Code Name
2.00	2	Capitella sp	Capisp
1.00	1	Oligochaeta	OligOlig
1.00	82	Ostracod A	OstrA
3.00	69	Tellina agilis	Tellagil

1.00	129	Unciola irrorata	Unciirro
17.00	166	Streblospio benedicti	Strebene
8.00	75	Crepidula fornicata	Crepforn
1.00	70	Mercenaria mercenaria	Mercmerc
1.00	30	Ampelisca vadorum	Ampevado
5.00	10	Scoloplos fragilis	Scolfrag

Group: PortJeff
Sample unit: P041

Value	Code	Species	Code Name
6.00	2	Capitella sp	Capisp
2.00	69	Tellina agilis	Tellagil
11.00	166	Streblospio benedicti	Strebene
2.00	53	Panopeus herbstii	Panoherb
1.00	70	Mercenaria mercenaria	Mercmerc
4.00	6	Clymenella sp	Clymsp
1.00	110	Syllides setosa	Syllseto
2.00	10	Scoloplos fragilis	Scolfrag
1.00	29	Arabella iricolor	Arabiric

Group: PortJeff
Sample unit: P042

Value	Code	Species	Code Name
4.00	2	Capitella sp	Capisp
3.00	1	Oligochaeta	OligOlig
3.00	69	Tellina agilis	Tellagil
1.00	210	Nepthys incisa	Neptinci
4.00	166	Streblospio benedicti	Strebene

Group: PortJeff
Sample unit: P043

Value	Code	Species	Code Name
334.00	80	Nematoda	NemaNema
10.00	66	Nucula proxima	Nucuprox
44.00	1	Oligochaeta	OligOlig
1.00	82	Ostracod A	OstrA
8.00	69	Tellina agilis	Tellagil
1.00	104	Nucula tenuis	Nucutenu
3.00	143	Ampharete arctica	Ampharct
5.00	20	Exogone dispar	Exogdisp
2.00	134	Schistomeringos caecus	Schicaec
1.00	7	Nephtys picta	Nephpict
11.00	11	Aricidea catherinae	Ariccath
18.00	19	Brania wellfleetensis	Branwell
3.00	64	Lyonsia hyalina	Lyonhyal
10.00	21	Parapionosyllis longicirrata	Paralong
1.00	30	Ampelisca vadorum	Ampevado
1.00	142	Scalibregma inflatum	Scalinfl

3.00	146	Orbinia sp	Orbisp
1.00	96	Paraphoxus spinosus	Paraspin
16.00	14	Polygordius sp	Polygord
32.00	71	Gemma gemma	Gemmgemm
1.00	18	Spiophanes bombyx	Spiobomb
1.00	83	Ostracod B	OstrB
1.00	110	Syllides setosa	Syllseto
3.00	10	Scoloplos fragilis	Scolfrag
1.00	156	Spio sp	Spiosp
1.00	102	Nereis arenaceodonta	Nerearen
2.00	23	Sphaerosyllis hystrix	Sphahyst
1.00	105	Rudilemboides naglei	Rudinagl
1.00	37	Paracaprella tenius	Parateni
1.00	217	Sphaeromatidae sp	Sphasp

Group: PortJeff
Sample unit: P044

Value	Code	Species	Code Name
4000.00	80	Nematoda	NemaNema
8.00	1	Oligochaeta	OligOlig
4.00	82	Ostracod A	OstrA
1.00	69	Tellina agilis	Tellagil
1.00	25	Tharyx sp	Tharsp
1.00	129	Unciola irrorata	Unciirro
2.00	75	Crepidula fornicata	Crepforn
1.00	104	Nucula tenuis	Nucutenu
5.00	143	Ampharete arctica	Ampharct
14.00	20	Exogone dispar	Exogdisp
1.00	41	Elasmopus levis	Elaslevi
26.00	11	Aricidea catherinae	Ariccath
41.00	19	Brania wellfleetensis	Branwell
4.00	64	Lyonsia hyalina	Lyonhyal
18.00	21	Parapionosyllis longicirrata	Paralong
4.00	30	Ampelisca vadorum	Ampevado
2.00	50	Oxyurostylis smithi	Oxyusmit
1.00	146	Orbinia sp	Orbisp
1.00	96	Paraphoxus spinosus	Paraspin
5.00	14	Polygordius sp	Polygord
23.00	71	Gemma gemma	Gemmgemm
3.00	18	Spiophanes bombyx	Spiobomb
4.00	83	Ostracod B	OstrB
1.00	5	Lumbrineris tenuis	Lumbtenu
1.00	10	Scoloplos fragilis	Scolfrag
4.00	156	Spio sp	Spiosp
1.00	125	Leptochelia savignyi	Leptsavi
1.00	79	Balanus sp	Balasp
5.00	23	Sphaerosyllis hystrix	Sphahyst
1.00	105	Rudilemboides naglei	Rudinagl

Group: PortJeff
Sample unit: P045

Value	Code	Species	Code Name

5.00	2	Capitella sp	Capisp
4.00	85	Corophium sp	Corosp
200.00	80	Nematoda	NemaNema
114.00	1	Oligochaeta	OligOlig
2.00	205	Polydora ligni	Polylign
3.00	25	Tharyx sp	Tharsp
14.00	132	Nicolea sp	Nicosp
63.00	75	Crepidula fornicata	Crepforn
2.00	76	Crepidula plana	Crepplan
1.00	53	Panopeus herbstii	Panoherb
4.00	13	Eumida sanguinea	Eumisang
2.00	20	Exogone dispar	Exogdisp
1.00	96	Paraphoxus spinosus	Paraspin
1.00	14	Polygordius sp	Polygord
2.00	62	Anadara transversa	Anadtran
1.00	71	Gemma gemma	Gemmgemm
2.00	83	Ostracod B	OstrB
4.00	10	Scoloplos fragilis	Scolfrag
1.00	189	Brania clavata	Branclav
2.00	156	Spio sp	Spiosp
7.00	98	Harmothoe extenuata	Harmexte
1.00	79	Balanus sp	Balasp
1.00	33	Lembos smithi	Lembsmit
1.00	34	Microdeutopus sp	Micrsp

Group: PortJeff
Sample unit: P046

Value	Code	Species	Code Name
2.00	2	Capitella sp	Capisp
32.00	85	Corophium sp	Corosp
50.00	1	Oligochaeta	OligOlig
1.00	82	Ostracod A	OstrA
5.00	205	Polydora ligni	Polylign
37.00	25	Tharyx sp	Tharsp
2.00	132	Nicolea sp	Nicosp
35.00	75	Crepidula fornicata	Crepforn
3.00	53	Panopeus herbstii	Panoherb
1.00	13	Eumida sanguinea	Eumisang
3.00	20	Exogone dispar	Exogdisp
3.00	41	Elasmopus levis	Elaslevi
1.00	139	Sthenelais boa	Stheboa
1.00	62	Anadara transversa	Anadtran
4.00	83	Ostracod B	OstrB
8.00	98	Harmothoe extenuata	Harmexte
1.00	79	Balanus sp	Balasp
9.00	33	Lembos smithi	Lembsmit
1.00	114	Glyceia dibranchiata	Glycdibr
2.00	86	Asabellides oculata	Asabocul

Group: PortJeff
Sample unit: P047

Value	Code	Species	Code Name
19.00	2	Capitella sp	Capisp
15.00	85	Corophium sp	Corosp
400.00	80	Nematoda	NemaNema
2.00	8	Nereis succinea	Neresucc
47.00	1	Oligochaeta	OligOlig
27.00	25	Tharyx sp	Tharsp
3.00	140	Glycera americana	Glycamer
4.00	132	Nicolea sp	Nicosp
1.00	166	Streblospio benedicti	Strebene
14.00	75	Crepidula fornicata	Crepforn
1.00	76	Crepidula plana	Crepplan
2.00	53	Panopeus herbstii	Panoherb
10.00	143	Ampharete arctica	Ampharct
4.00	13	Eumida sanguinea	Eumisang
3.00	20	Exogone dispar	Exogdisp
1.00	41	Elasmopus levis	Elaslevi
2.00	11	Aricidea catherinae	Ariccath
1.00	139	Sthenelais boa	Stheboa
1.00	55	Heteromysis formosa	Heteform
1.00	163	Crassostrea virginica	Crasvirg
6.00	83	Ostracod B	OstrB
8.00	10	Scoloplos fragilis	Scolfrag
3.00	189	Brania clavata	Branclav
15.00	98	Harmothoe extenuata	Harmexte
8.00	16	Polydora sp	Polydora
4.00	33	Lembos smithi	Lembsmit
1.00	35	Caprella penantis	Caprpena
1.00	4	Odontosyllis fulgurans	Odonfulg

Group: PortJeff
Sample unit: P048

Value	Code	Species	Code Name
2.00	2	Capitella sp	Capisp
21.00	85	Corophium sp	Corosp
150.00	80	Nematoda	NemaNema
3.00	8	Nereis succinea	Neresucc
10.00	1	Oligochaeta	OligOlig
4.00	205	Polydora ligni	Polylign
2.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
4.00	75	Crepidula fornicata	Crepforn
2.00	143	Ampharete arctica	Ampharct
1.00	13	Eumida sanguinea	Eumisang
1.00	70	Mercenaria mercenaria	Mercmerc
1.00	46	Batea catharinensis	Batecath
3.00	20	Exogone dispar	Exogdisp
2.00	83	Ostracod B	OstrB
3.00	10	Scoloplos fragilis	Scolfrag
8.00	98	Harmothoe extenuata	Harmexte
2.00	33	Lembos smithi	Lembsmit
1.00	34	Microdeutopus sp	Micrsp

Group: PortJeff
Sample unit: P049

Value	Code	Species	Code Name
43.00	2	Capitella sp	Capisp
2.00	85	Corophium sp	Corosp
6.00	80	Nematoda	NemaNema
43.00	1	Oligochaeta	OligOlig
1.00	210	Nepthys incisa	Neptinci
2.00	25	Tharyx sp	Tharsp
2.00	140	Glycera americana	Glycamer
17.00	75	Crepidula fornicata	Crepforn
2.00	143	Ampharete arctica	Ampharct
1.00	83	Ostracod B	OstrB
18.00	10	Scoloplos fragilis	Scolfrag
1.00	189	Brania clavata	Branclav
2.00	98	Harmothoe extenuata	Harmexte
2.00	16	Polydora sp	Polydora

Group: PortJeff
Sample unit: P050

Value	Code	Species	Code Name
6.00	2	Capitella sp	Capisp
13.00	85	Corophium sp	Corosp
221.00	80	Nematoda	NemaNema
7.00	8	Nereis succinea	Neresucc
122.00	1	Oligochaeta	OligOlig
2.00	25	Tharyx sp	Tharsp
2.00	140	Glycera americana	Glycamer
2.00	132	Nicolea sp	Nicosp
65.00	75	Crepidula fornicata	Crepforn
1.00	76	Crepidula plana	Crepplan
1.00	104	Nucula tenuis	Nucutenu
1.00	53	Panopeus herbstii	Panoherb
2.00	143	Ampharete arctica	Ampharct
3.00	13	Eumida sanguinea	Eumisang
1.00	20	Exogone dispar	Exogdisp
1.00	41	Elasmopus levis	Elaslevi
1.00	146	Orbinia sp	Orbisp
2.00	96	Paraphoxus spinosus	Paraspin
1.00	9	Travisia carnea	Travcarn
8.00	83	Ostracod B	OstrB
12.00	10	Scoloplos fragilis	Scolfrag
4.00	189	Brania clavata	Branclav
18.00	98	Harmothoe extenuata	Harmexte
11.00	16	Polydora sp	Polydora
3.00	33	Lembos smithi	Lembsmit

Group: PortJeff
Sample unit: P051

Value	Code	Species	Code Name
5.00	1	Oligochaeta	OligOlig
1.00	107	Pectinaria gouldii	Pectgoul
2.00	69	Tellina agilis	Tellagil
6.00	210	Nepthys incisa	Neptinci
3.00	25	Tharyx sp	Tharsp
1.00	166	Streblospio benedicti	Strebene
1.00	143	Ampharete arctica	Ampharct
1.00	7	Nephtys picta	Nephpict

Group: PortJeff
Sample unit: P052

Value	Code	Species	Code Name
1.00	2	Capitella sp	Capisp
1.00	80	Nematoda	NemaNema
8.00	1	Oligochaeta	OligOlig
2.00	107	Pectinaria gouldii	Pectgoul
1.00	69	Tellina agilis	Tellagil
3.00	210	Nepthys incisa	Neptinci
12.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
1.00	166	Streblospio benedicti	Strebene
18.00	143	Ampharete arctica	Ampharct
2.00	7	Nephtys picta	Nephpict
1.00	160	Melinna cristata	Melicris
1.00	174	Paranaitis speciosa	Paraspec
2.00	30	Ampelisca vadorum	Ampevado
1.00	32	Ampelisca verrilli	Ampeverr
2.00	6	Clymenella sp	Clymsp
1.00	29	Arabella iricolor	Arabiric

Group: PortJeff
Sample unit: P053

Value	Code	Species	Code Name
4.00	2	Capitella sp	Capisp
1.00	85	Corophium sp	Corosp
2.00	1	Oligochaeta	OligOlig
1.00	210	Nepthys incisa	Neptinci
9.00	75	Crepidula fornicata	Crepforn
1.00	6	Clymenella sp	Clymsp
2.00	79	Balanus sp	Balasp

Group: PortJeff
Sample unit: P054

Value	Code	Species	Code Name
2.00	85	Corophium sp	Corosp
1.00	8	Nereis succinea	Neresucc

1.00	1	Oligochaeta	OligOlig
1.00	210	Nepthys incisa	Neptinci
1.00	25	Tharyx sp	Tharsp
41.00	75	Crepidula fornicata	Crepforn
2.00	216	Pherusa sp	Phersp
1.00	6	Clymenella sp	Clymsp
1.00	153	Asychis elongata	Asycelon
1.00	62	Anadara transversa	Anadtran
4.00	98	Harmothoe extenuata	Harmexte
1.00	63	Pista palmata	Pistpalm

Group: PortJeff
Sample unit: P055

Value	Code	Species	Code Name
9.00	2	Capitella sp	Capisp
3.00	85	Corophium sp	Corosp
10.00	80	Nematoda	NemaNema
49.00	1	Oligochaeta	OligOlig
1.00	82	Ostracod A	OstrA
2.00	25	Tharyx sp	Tharsp
2.00	140	Glycera americana	Glycamer
47.00	75	Crepidula fornicata	Crepforn
3.00	143	Ampharete arctica	Ampharct
1.00	13	Eumida sanguinea	Eumisang
1.00	119	Autolytus cornutus	Autocorn
2.00	7	Nephtys picta	Nephpict
2.00	216	Pherusa sp	Phersp
2.00	11	Aricidea catherinae	Ariccath
5.00	6	Clymenella sp	Clymsp
5.00	10	Scoloplos fragilis	Scolfrag
3.00	16	Polydora sp	Polydora
1.00	164	Eteone sp	Eteosp

Group: PortJeff
Sample unit: P056

Value	Code	Species	Code Name
5.00	2	Capitella sp	Capisp
6.00	80	Nematoda	NemaNema
20.00	1	Oligochaeta	OligOlig
1.00	210	Nepthys incisa	Neptinci
13.00	25	Tharyx sp	Tharsp
2.00	140	Glycera americana	Glycamer
23.00	75	Crepidula fornicata	Crepforn
1.00	143	Ampharete arctica	Ampharct
1.00	13	Eumida sanguinea	Eumisang
1.00	70	Mercenaria mercenaria	Mercmerc
1.00	20	Exogone dispar	Exogdisp
2.00	7	Nephtys picta	Nephpict
1.00	30	Ampelisca vadorum	Ampevado
1.00	113	Phyllodoce arenae	Phylaren
4.00	6	Clymenella sp	Clymsp

1.00	10	Scoloplos fragilis	Scolfrag
1.00	102	Nereis arenaceodonta	Nerearen

Group: PortJeff
Sample unit: P057

Value	Code	Species	Code Name
7.00	2	Capitella sp	Capisp
2.00	85	Corophium sp	Corosp
22.00	80	Nematoda	NemaNema
2.00	8	Nereis succinea	Neresucc
255.00	1	Oligochaeta	OligOlig
3.00	25	Tharyx sp	Tharsp
2.00	140	Glycera americana	Glycamer
1.00	132	Nicolea sp	Nicosp
60.00	75	Crepidula fornicata	Crepforn
1.00	53	Panopeus herbstii	Panoherb
2.00	13	Eumida sanguinea	Eumisang
1.00	122	Drilonereis longa	Drillong
3.00	20	Exogone dispar	Exogdisp
1.00	216	Pherusa sp	Phersp
1.00	146	Orbinia sp	Orbisp
1.00	55	Heteromysis formosa	Heteform
16.00	10	Scoloplos fragilis	Scolfrag
2.00	98	Harmothoe extenuata	Harmexte
4.00	16	Polydora sp	Polydora
1.00	164	Eteone sp	Eteosp

Group: PortJeff
Sample unit: P058

Value	Code	Species	Code Name
16.00	2	Capitella sp	Capisp
1.00	85	Corophium sp	Corosp
10.00	80	Nematoda	NemaNema
1.00	8	Nereis succinea	Neresucc
163.00	1	Oligochaeta	OligOlig
3.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
1.00	166	Streblospio benedicti	Strebene
65.00	75	Crepidula fornicata	Crepforn
2.00	76	Crepidula plana	Crepplan
1.00	53	Panopeus herbstii	Panoherb
1.00	143	Ampharete arctica	Ampharct
2.00	20	Exogone dispar	Exogdisp
1.00	41	Elasmopus levis	Elaslevi
1.00	59	Pinnixa sp	Pinnsp
1.00	6	Clymenella sp	Clymsp
1.00	83	Ostracod B	OstrB
19.00	10	Scoloplos fragilis	Scolfrag
5.00	98	Harmothoe extenuata	Harmexte
4.00	16	Polydora sp	Polydora
2.00	33	Lembos smithi	Lembsmit

Group: PortJeff
Sample unit: P059

Value	Code	Species	Code Name
15.00	2	Capitella sp	Capisp
2.00	80	Nematoda	NemaNema
124.00	1	Oligochaeta	OligOlig
1.00	210	Nepthys incisa	Neptinci
10.00	25	Tharyx sp	Tharsp
12.00	75	Crepidula fornicata	Crepforn
1.00	53	Panopeus herbstii	Panoherb
2.00	143	Ampharete arctica	Ampharct
2.00	13	Eumida sanguinea	Eumisang
1.00	20	Exogone dispar	Exogdisp
3.00	7	Nephtys picta	Nephpict
9.00	6	Clymenella sp	Clymsp
1.00	146	Orbinia sp	Orbisp
1.00	83	Ostracod B	OstrB
1.00	10	Scoloplos fragilis	Scolfrag
2.00	98	Harmothoe extenuata	Harmexte
1.00	16	Polydora sp	Polydora
2.00	212	Prionospio cirrobranchiata	Priocirr

Group: PortJeff
Sample unit: P060

Value	Code	Species	Code Name
17.00	2	Capitella sp	Capisp
1.00	85	Corophium sp	Corosp
20.00	80	Nematoda	NemaNema
90.00	1	Oligochaeta	OligOlig
1.00	82	Ostracod A	OstrA
1.00	210	Nepthys incisa	Neptinci
11.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
3.00	166	Streblospio benedicti	Strebene
45.00	75	Crepidula fornicata	Crepforn
1.00	53	Panopeus herbstii	Panoherb
4.00	143	Ampharete arctica	Ampharct
2.00	20	Exogone dispar	Exogdisp
3.00	7	Nephtys picta	Nephpict
1.00	113	Phyllodoce arenae	Phylaren
13.00	6	Clymenella sp	Clymsp
1.00	153	Asychis elongata	Asycelon
4.00	10	Scoloplos fragilis	Scolfrag
1.00	189	Brania clavata	Branclav
1.00	98	Harmothoe extenuata	Harmexte
3.00	16	Polydora sp	Polydora

Group: PortJeff
Sample unit: P061

Value	Code	Species	Code Name
4.00	2	Capitella sp	Capisp
4.00	1	Oligochaeta	OligOlig
3.00	210	Nepthys incisa	Neptinci
1.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
1.00	166	Streblospio benedicti	Strebene
1.00	11	Aricidea catherinae	Ariccath

Group: PortJeff
Sample unit: P062

Value	Code	Species	Code Name
1.00	2	Capitella sp	Capisp
2.00	1	Oligochaeta	OligOlig
1.00	107	Pectinaria gouldii	Pectgoul
4.00	210	Nepthys incisa	Neptinci
1.00	140	Glycera americana	Glycamer
2.00	211	Yoldia limatula	Yoldlima
1.00	166	Streblospio benedicti	Strebene
4.00	75	Crepidula fornicata	Crepforn
1.00	11	Aricidea catherinae	Ariccath

Group: PortJeff
Sample unit: P063

Value	Code	Species	Code Name
1.00	1	Oligochaeta	OligOlig
2.00	210	Nepthys incisa	Neptinci
1.00	70	Mercenaria mercenaria	Mercmerc

Group: PortJeff
Sample unit: P064

Value	Code	Species	Code Name
1.00	2	Capitella sp	Capisp
1.00	210	Nepthys incisa	Neptinci
3.00	25	Tharyx sp	Tharsp

Group: PortJeff
Sample unit: P065

Value	Code	Species	Code Name
8.00	2	Capitella sp	Capisp
4.00	85	Corophium sp	Corosp
200.00	80	Nematoda	NemaNema
2.00	8	Nereis succinea	Neresucc

22.00	1	Oligochaeta	OligOlig
4.00	205	Polydora ligni	Polylign
3.00	25	Tharyx sp	Tharsp
2.00	140	Glycera americana	Glycamer
10.00	132	Nicolea sp	Nicosp
43.00	75	Crepidula fornicata	Crepforn
4.00	13	Eumida sanguinea	Eumisang
3.00	20	Exogone dispar	Exogdisp
1.00	62	Anadara transversa	Anadtran
3.00	10	Scoloplos fragilis	Scolfrag
1.00	189	Brania clavata	Branclav
1.00	98	Harmothoe extenuata	Harmexte
16.00	212	Prionospio cirrobranchiata	Priocirr
1.00	23	Sphaerosyllis hystrix	Sphahyst
1.00	34	Microdeutopus sp	Micrsp

Group: PortJeff
Sample unit: P066

Value	Code	Species	Code Name
3.00	2	Capitella sp	Capisp
1.00	213	Eteone heteropoda	Eteohete
200.00	80	Nematoda	NemaNema
7.00	8	Nereis succinea	Neresucc
82.00	1	Oligochaeta	OligOlig
1.00	107	Pectinaria gouldii	Pectgoul
2.00	205	Polydora ligni	Polylign
6.00	25	Tharyx sp	Tharsp
2.00	140	Glycera americana	Glycamer
1.00	132	Nicolea sp	Nicosp
70.00	75	Crepidula fornicata	Crepforn
3.00	53	Panopeus herbstii	Panoherb
3.00	143	Ampharete arctica	Ampharct
1.00	13	Eumida sanguinea	Eumisang
2.00	20	Exogone dispar	Exogdisp
1.00	41	Elasmopus levis	Elaslevi
1.00	139	Sthenelais boa	Stheboa
1.00	6	Clymenella sp	Clymsp
4.00	10	Scoloplos fragilis	Scolfrag
5.00	98	Harmothoe extenuata	Harmexte
1.00	34	Microdeutopus sp	Micrsp
1.00	4	Odontosyllis fulgurans	Odonfulg
1.00	215	Tautogolabrus adspersus	Tautadsp

Group: PortJeff
Sample unit: P067

Value	Code	Species	Code Name
4.00	1	Oligochaeta	OligOlig
1.00	25	Tharyx sp	Tharsp
1.00	178	Sigambra sp	Sigasp
1.00	214	Crangon septemspinosa	Cransept
1.00	34	Microdeutopus sp	Micrsp

Group: PortJeff
Sample unit: P068

Value	Code	Species	Code Name
2.00	2	Capitella sp	Capisp
2.00	1	Oligochaeta	OligOlig
8.00	210	Nepthys incisa	Neptinci
1.00	166	Streblospio benedicti	Strebene
1.00	30	Ampelisca vadorum	Ampevado

Group: PortJeff
Sample unit: P069

Value	Code	Species	Code Name
4.00	80	Nematoda	NemaNema
3.00	69	Tellina agilis	Tellagil
23.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
3.00	132	Nicolea sp	Nicosp
1.00	129	Unciola irrorata	Unciirro
14.00	143	Ampharete arctica	Ampharct
1.00	13	Eumida sanguinea	Eumisang
7.00	7	Nephtys picta	Nephpict
1.00	11	Aricidea catherinae	Ariccath
1.00	19	Brania wellfleetensis	Branwell
1.00	30	Ampelisca vadorum	Ampevado
20.00	6	Clymenella sp	Clymsp
2.00	83	Ostracod B	OstrB
1.00	10	Scoloplos fragilis	Scolfrag
1.00	102	Nereis arenaceodonta	Nerearen

Group: PortJeff
Sample unit: P070

Value	Code	Species	Code Name
2.00	2	Capitella sp	Capisp
8.00	80	Nematoda	NemaNema
14.00	1	Oligochaeta	OligOlig
2.00	107	Pectinaria gouldii	Pectgoul
5.00	69	Tellina agilis	Tellagil
1.00	210	Nepthys incisa	Neptinci
3.00	205	Polydora ligni	Polylign
8.00	25	Tharyx sp	Tharsp
2.00	140	Glycera americana	Glycamer
1.00	161	Ilyanassa trivittata	Ilyatriv
33.00	143	Ampharete arctica	Ampharct
6.00	7	Nephtys picta	Nephpict
2.00	19	Brania wellfleetensis	Branwell
3.00	18	Spiophanes bombyx	Spiobomb
1.00	10	Scoloplos fragilis	Scolfrag

2.00	212	Prionospio cirrobranchiata	Priocirr

Group: PortJeff
Sample unit: P071

Value	Code	Species	Code Name
1.00	1	Oligochaeta	OligOlig
2.00	210	Nepthys incisa	Neptinci
2.00	211	Yoldia limatula	Yoldlima

Group: PortJeff
Sample unit: P072

Value	Code	Species	Code Name
4.00	210	Nepthys incisa	Neptinci
1.00	153	Asychis elongata	Asycelon

Group: PortJeff
Sample unit: P073

Value	Code	Species	Code Name
3.00	2	Capitella sp	Capisp
97.00	1	Oligochaeta	OligOlig
1.00	107	Pectinaria gouldii	Pectgoul
5.00	210	Nepthys incisa	Neptinci
2.00	25	Tharyx sp	Tharsp
2.00	166	Streblospio benedicti	Strebene
1.00	70	Mercenaria mercenaria	Mercmerc
2.00	30	Ampelisca vadorum	Ampevado
1.00	59	Pinnixa sp	Pinnsp
1.00	153	Asychis elongata	Asycelon
1.00	10	Scoloplos fragilis	Scolfrag
1.00	101	Euspira Imaculata	EuspImac

Group: PortJeff
Sample unit: P074

Value	Code	Species	Code Name
6.00	2	Capitella sp	Capisp
8.00	1	Oligochaeta	OligOlig
2.00	69	Tellina agilis	Tellagil
2.00	210	Nepthys incisa	Neptinci
1.00	140	Glycera americana	Glycamer
4.00	166	Streblospio benedicti	Strebene
1.00	30	Ampelisca vadorum	Ampevado
1.00	10	Scoloplos fragilis	Scolfrag

Group: PortJeff

Sample unit: P075

Value	Code	Species	Code Name
2220.00	80	Nematoda	NemaNema
13.00	1	Oligochaeta	OligOlig
3.00	69	Tellina agilis	Tellagil
29.00	25	Tharyx sp	Tharsp
2.00	140	Glycera americana	Glycamer
4.00	166	Streblospio benedicti	Strebene
2.00	161	Ilyanassa trivittata	Ilyatriv
6.00	143	Ampharete arctica	Ampharct
2.00	122	Drilonereis longa	Drillong
42.00	134	Schistomeringos caecus	Schicaec
6.00	7	Nephtys picta	Nephpict
275.00	11	Aricidea catherinae	Ariccath
14.00	19	Brania wellfleetensis	Branwell
2.00	21	Parapionosyllis longicirrata	Paralong
1.00	30	Ampelisca vadorum	Ampevado
2.00	142	Scalibregma inflatum	Scalinfl
4.00	146	Orbinia sp	Orbisp
1.00	14	Polygordius sp	Polygord
2.00	18	Spiophanes bombyx	Spiobomb
3.00	83	Ostracod B	OstrB
27.00	110	Syllides setosa	Syllseto
8.00	10	Scoloplos fragilis	Scolfrag
2.00	212	Prionospio cirrobranchiata	Priocirr

Group: PortJeff
Sample unit: P076

Value	Code	Species	Code Name
3.00	2	Capitella sp	Capisp
1750.00	80	Nematoda	NemaNema
4.00	1	Oligochaeta	OligOlig
1.00	69	Tellina agilis	Tellagil
1.00	205	Polydora ligni	Polylign
4.00	25	Tharyx sp	Tharsp
2.00	140	Glycera americana	Glycamer
1.00	104	Nucula tenuis	Nucutenu
14.00	143	Ampharete arctica	Ampharct
27.00	134	Schistomeringos caecus	Schicaec
4.00	7	Nephtys picta	Nephpict
206.00	11	Aricidea catherinae	Ariccath
1.00	30	Ampelisca vadorum	Ampevado
1.00	32	Ampelisca verrilli	Ampeverr
3.00	142	Scalibregma inflatum	Scalinfl
4.00	146	Orbinia sp	Orbisp
1.00	14	Polygordius sp	Polygord
2.00	18	Spiophanes bombyx	Spiobomb
4.00	110	Syllides setosa	Syllseto
3.00	10	Scoloplos fragilis	Scolfrag
1.00	212	Prionospio cirrobranchiata	Priocirr

Group: PortJeff
Sample unit: P077

Value	Code	Species	Code Name
6.00	1	Oligochaeta	OligOlig
1.00	210	Nepthys incisa	Neptinci

Group: PortJeff
Sample unit: P078

Value	Code	Species	Code Name
1.00	2	Capitella sp	Capisp
3.00	1	Oligochaeta	OligOlig
1.00	210	Nepthys incisa	Neptinci
1.00	166	Streblospio benedicti	Strebene
1.00	11	Aricidea catherinae	Ariccath

Group: PortJeff
Sample unit: P079

Value	Code	Species	Code Name
2.00	104	Nucula tenuis	Nucutenu

Group: PortJeff
Sample unit: P081

Value	Code	Species	Code Name
1.00	8	Nereis succinea	Neresucc
1.00	210	Nepthys incisa	Neptinci

Group: PortJeff
Sample unit: P083

Value	Code	Species	Code Name
5.00	2	Capitella sp	Capisp
1.00	173	Leucon americanus	Leucamer
1.00	8	Nereis succinea	Neresucc
1.00	66	Nucula proxima	Nucuprox
31.00	1	Oligochaeta	OligOlig
2.00	82	Ostracod A	OstrA
2.00	107	Pectinaria gouldii	Pectgoul
1.00	205	Polydora ligni	Polylign
4.00	166	Streblospio benedicti	Strebene
1.00	83	Ostracod B	OstrB
3.00	10	Scoloplos fragilis	Scolfrag

Group: PortJeff

Sample unit: P084

Value	Code	Species	Code Name
6.00	2	Capitella sp	Capisp
2.00	8	Nereis succinea	Neresucc
3.00	66	Nucula proxima	Nucuprox
40.00	1	Oligochaeta	OligOlig
1.00	82	Ostracod A	OstrA
4.00	104	Nucula tenuis	Nucutenu
2.00	83	Ostracod B	OstrB
1.00	212	Prionospio cirrobranchiata	Priocirr

Group: PortJeff
Sample unit: P085

Value	Code	Species	Code Name
1.00	2	Capitella sp	Capisp
1.00	8	Nereis succinea	Neresucc
1.00	1	Oligochaeta	OligOlig
1.00	25	Tharyx sp	Tharsp
3.00	53	Panopeus herbstii	Panoherb
5.00	143	Ampharete arctica	Ampharct
2.00	6	Clymenella sp	Clymsp
1.00	10	Scoloplos fragilis	Scolfrag
2.00	63	Pista palmata	Pistpalm

Group: PortJeff
Sample unit: P086

Value	Code	Species	Code Name
3.00	2	Capitella sp	Capisp
8.00	80	Nematoda	NemaNema
1.00	1	Oligochaeta	OligOlig
2.00	205	Polydora ligni	Polylign
3.00	25	Tharyx sp	Tharsp
1.00	166	Streblospio benedicti	Strebene
23.00	143	Ampharete arctica	Ampharct
1.00	6	Clymenella sp	Clymsp
1.00	83	Ostracod B	OstrB
1.00	212	Prionospio cirrobranchiata	Priocirr
2.00	63	Pista palmata	Pistpalm

Group: PortJeff
Sample unit: P087

Value	Code	Species	Code Name
1.00	8	Nereis succinea	Neresucc
25.00	1	Oligochaeta	OligOlig
1.00	107	Pectinaria gouldii	Pectgoul
1.00	69	Tellina agilis	Tellagil

1.00	205	Polydora ligni	Polylign
1.00	104	Nucula tenuis	Nucutenu
2.00	143	Ampharete arctica	Ampharct
3.00	6	Clymenella sp	Clymsp
1.00	83	Ostracod B	OstrB
4.00	10	Scoloplos fragilis	Scolfrag

Group: PortJeff
Sample unit: P088

Value	Code	Species	Code Name
9.00	2	Capitella sp	Capisp
13.00	1	Oligochaeta	OligOlig
5.00	82	Ostracod A	OstrA
1.00	205	Polydora ligni	Polylign
1.00	25	Tharyx sp	Tharsp
5.00	166	Streblospio benedicti	Strebene
4.00	143	Ampharete arctica	Ampharct
2.00	30	Ampelisca vadorum	Ampevado
1.00	83	Ostracod B	OstrB
5.00	10	Scoloplos fragilis	Scolfrag

Group: PortJeff
Sample unit: P089

Value	Code	Species	Code Name
9.00	2	Capitella sp	Capisp
7.00	1	Oligochaeta	OligOlig
5.00	25	Tharyx sp	Tharsp
5.00	166	Streblospio benedicti	Strebene
1.00	160	Melinna cristata	Melicris
1.00	30	Ampelisca vadorum	Ampevado
1.00	110	Syllides setosa	Syllseto
12.00	10	Scoloplos fragilis	Scolfrag

Group: PortJeff
Sample unit: P090

Value	Code	Species	Code Name
10.00	2	Capitella sp	Capisp
1.00	213	Eteone heteropoda	Eteohete
6.00	1	Oligochaeta	OligOlig
8.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
2.00	166	Streblospio benedicti	Strebene
1.00	161	Ilyanassa trivittata	Ilyatriv
1.00	30	Ampelisca vadorum	Ampevado
1.00	178	Sigambra sp	Sigasp
2.00	142	Scalibregma inflatum	Scalinfl
1.00	153	Asychis elongata	Asycelon
2.00	83	Ostracod B	OstrB

12.00	10	Scoloplos fragilis	Scolfrag

Group: PortJeff
Sample unit: P091

Value	Code	Species	Code Name
41.00	2	Capitella sp	Capisp
1.00	213	Eteone heteropoda	Eteohete
24.00	1	Oligochaeta	OligOlig
1.00	107	Pectinaria gouldii	Pectgoul
2.00	210	Nepthys incisa	Neptinci
18.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
13.00	166	Streblospio benedicti	Strebene
2.00	83	Ostracod B	OstrB
21.00	10	Scoloplos fragilis	Scolfrag
2.00	212	Prionospio cirrobranchiata	Priocirr

Group: PortJeff
Sample unit: P092

Value	Code	Species	Code Name
47.00	2	Capitella sp	Capisp
72.00	1	Oligochaeta	OligOlig
8.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
8.00	166	Streblospio benedicti	Strebene
1.00	143	Ampharete arctica	Ampharct
2.00	83	Ostracod B	OstrB
10.00	10	Scoloplos fragilis	Scolfrag

Group: PortJeff
Sample unit: P093

Value	Code	Species	Code Name
1.00	1	Oligochaeta	OligOlig
1.00	210	Nepthys incisa	Neptinci
1.00	10	Scoloplos fragilis	Scolfrag

Group: PortJeff
Sample unit: P094

Value	Code	Species	Code Name
1.00	161	Ilyanassa trivittata	Ilyatriv

Group: PortJeff
Sample unit: P095

Value	Code	Species	Code Name
4.00	2	Capitella sp	Capisp
5.00	1	Oligochaeta	OligOlig
3.00	107	Pectinaria gouldii	Pectgoul
4.00	210	Nepthys incisa	Neptinci
1.00	205	Polydora ligni	Polylign
1.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
3.00	166	Streblospio benedicti	Strebene
7.00	75	Crepidula fornicata	Crepforn
1.00	53	Panopeus herbstii	Panoherb
1.00	7	Nephtys picta	Nephpict
2.00	30	Ampelisca vadorum	Ampevado
5.00	6	Clymenella sp	Clymsp
1.00	153	Asychis elongata	Asycelon
1.00	63	Pista palmata	Pistpalm

Group: PortJeff
Sample unit: P096

Value	Code	Species	Code Name
2.00	2	Capitella sp	Capisp
3.00	1	Oligochaeta	OligOlig
1.00	107	Pectinaria gouldii	Pectgoul
3.00	210	Nepthys incisa	Neptinci
1.00	205	Polydora ligni	Polylign
1.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
2.00	166	Streblospio benedicti	Strebene
1.00	30	Ampelisca vadorum	Ampevado
3.00	6	Clymenella sp	Clymsp

Group: PortJeff
Sample unit: P097

Value	Code	Species	Code Name
3.00	2	Capitella sp	Capisp
1.00	1	Oligochaeta	OligOlig
2.00	107	Pectinaria gouldii	Pectgoul
3.00	210	Nepthys incisa	Neptinci
1.00	7	Nephtys picta	Nephpict
2.00	30	Ampelisca vadorum	Ampevado
1.00	178	Sigambra sp	Sigasp
6.00	6	Clymenella sp	Clymsp

Group: PortJeff
Sample unit: P098

Value	Code	Species	Code Name
11.00	2	Capitella sp	Capisp

2.00	66	Nucula proxima	Nucuprox
16.00	1	Oligochaeta	OligOlig
1.00	107	Pectinaria gouldii	Pectgoul
2.00	69	Tellina agilis	Tellagil
3.00	210	Nepthys incisa	Neptinci
2.00	25	Tharyx sp	Tharsp
1.00	140	Glycera americana	Glycamer
3.00	30	Ampelisca vadorum	Ampevado
1.00	178	Sigambra sp	Sigasp
1.00	32	Ampelisca verrilli	Ampeverr
3.00	6	Clymenella sp	Clymsp
1.00	10	Scoloplos fragilis	Scolfrag
1.00	212	Prionospio cirrobranchiata	Priocirr

Group: PortJeff
Sample unit: P099

Value	Code	Species	Code Name
3.00	2	Capitella sp	Capisp
1.00	80	Nematoda	NemaNema
1.00	66	Nucula proxima	Nucuprox
2.00	1	Oligochaeta	OligOlig
4.00	210	Nepthys incisa	Neptinci
1.00	205	Polydora ligni	Polylign
2.00	25	Tharyx sp	Tharsp
2.00	140	Glycera americana	Glycamer
1.00	211	Yoldia limatula	Yoldlima
3.00	166	Streblospio benedicti	Strebene
8.00	143	Ampharete arctica	Ampharct
3.00	7	Nephtys picta	Nephpict
1.00	30	Ampelisca vadorum	Ampevado
2.00	32	Ampelisca verrilli	Ampeverr
1.00	113	Phyllodoce arenae	Phylaren
12.00	6	Clymenella sp	Clymsp
1.00	146	Orbinia sp	Orbisp
1.00	153	Asychis elongata	Asycelon
1.00	102	Nereis arenaceodonta	Nerearen
1.00	101	Euspira Imaculata	EuspImac

Group: PortJeff
Sample unit: P100

Value	Code	Species	Code Name
6.00	2	Capitella sp	Capisp
3.00	80	Nematoda	NemaNema
1.00	66	Nucula proxima	Nucuprox
5.00	1	Oligochaeta	OligOlig
4.00	107	Pectinaria gouldii	Pectgoul
8.00	69	Tellina agilis	Tellagil
3.00	210	Nepthys incisa	Neptinci
2.00	205	Polydora ligni	Polylign
64.00	25	Tharyx sp	Tharsp
1.00	211	Yoldia limatula	Yoldlima

6.00	166	Streblospio benedicti	Strebene
11.00	143	Ampharete arctica	Ampharct
1.00	30	Ampelisca vadorum	Ampevado
14.00	6	Clymenella sp	Clymsp
1.00	18	Spiophanes bombyx	Spiobomb
1.00	10	Scoloplos fragilis	Scolfrag

Total number of species occurrences in data = 3235

********** End of Data Summarization **********