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Benthic Invertebrates, Water Quality, and Substrate Texture in Baker Bay, Youngs Bay, and Adjacent Areas of the Columbia River Estuary

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ABSTRACT

The study provides federal resource agencies base line classification information on an important west coast estuary. Estuarine characterization data were gathered at 3-month intervals from 45 sites in the Columbia River estuary. Replicate samples of benthic invertebrates and sediment structure were taken at each site. The four survey periods, during June, September, and December 1977 and March 1978, resulted in 359 invertebrate samples and 360 sediment samples.

Invertebrate samples, taken with a 0.05 m^2 Ponar dredge, were preserved, stained, identified to taxonomic group, counted, verified, and weighed. The study involved 212,797 benthic invertebrates--an average of 593 organisms per sample.

Embayments on the Oregon side of the estuary had greater numbers of benthic organism whereas weights averaged more on the Washington side. Seasonal shifts in numbers and weights were noted, but changes were not consistent between areas. Important species observed included amphipods: *Corophium salmonis*, *C. brevis*, and *C. spinicorne*; bivalves: *Macoma balthica* and *Corbicula Manilensis*; polychaetes: *Neanthes limnicola* and *Hobsonia florida*; copepod: *Canuella canadensis*; and groups such as nematoda, oligochaeta, nemertea, cumacea, cirripedia, and insecta.

Substrate samples were separated into nine particle size categories. Texture was usually silt to fine sand (0.002 to 0.125 mm) in Oregon embayments, but was fine sand to medium sand (0.125 to 0.25 mm) in Baker Bay and near the navigation channel. Over 20% of sediment samples exceeded the Environmental Protection Agency's acceptable volatile solid levels, but other water quality measurements such as oxygen, pH, and temperature were acceptable for aquatic life.

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INTRODUCTION

Classification of estuaries is based upon a number of geographic, physical, and biological characteristics. This report deals with data, collected between June 1977 and March 1978, that are adaptable for use by the U.S. Fish and Wildlife Service (FWS) in habitat classification (Cowardin et al. 1976).

The Columbia River estuary (37,232 ha) provides a habitat for valued species of fish, decapod shellfish, and other animals. Many of these species consume benthic invertebrates, particularly those associated with intertidal and shallow subtidal zones. Studies in this area by Higley and Holton (1975); Durkin et al. (1976, 1977); Higley, Holton, and Komar (1976); and Durkin, Lipovsky, and McConnell (1979) have established that benthic invertebrates, particularly amphipods and bivalves, are extensively used by juveniles of many economically important fish species. Other meaningful studies of the area have been described by Haertel and Osterberg (1966); Conrow et al. (1975); Johnson and Cutshall (1975); Sanborn (1975a, 1975b); Blahm, McConnell, and Davis (1977); and McConnell et al. (1978).

In 1977, the NMFS agreed to cooperatively provide the FWS specific information on two designated component areas within the Columbia River estuary. The collected information deals specifically with benthic invertebrate numbers and weights and associated sediment texture, volatile solids, and water quality measurements at sites within the two areas. Baker Bay, a shallow marine-oriented habitat formed one study unit; whereas, shallow, oligohaline Youngs Bay together with the shoreline area from Hammon, Oregon east to Tongue Point, Oregon formed the other unit (Figure 1).

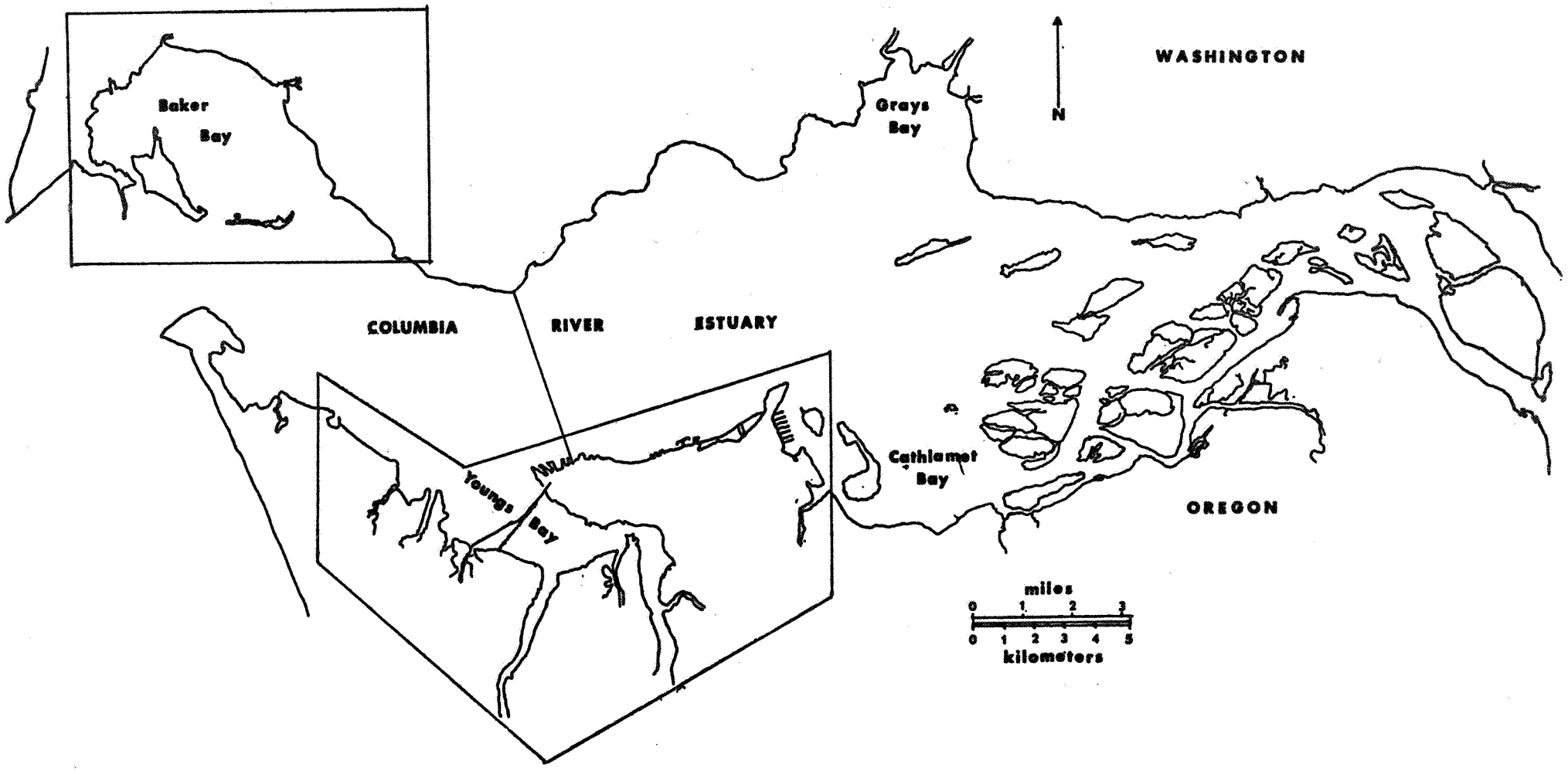

Figure 1.-- Columbia River estuary with Baker Bay and Youngs Bay study areas indicated in the blocked areas.

SAMPLING SITES

The locations of individual sites, shown in Figures 2 and 3, were based on several criteria: random geographic distribution within the study area, proximity to proposed development projects, water depth, relationship to shore-based activities, and the provision of sampling continuity at sites used in previous studies. Fixed objects such as dolphins, pilings, or navigation buoys were used to designate 26 sites while 19 sites were marked by anchored net floats. All sites were fixed by visual references or radar, and their locations in latitude, longitude, and water depth together with pertinent remarks are provided in Appendix A.

SAMPLING PROCEDURE

Paired invertebrate and sediment samples were taken at each site every 3 months for a year; water quality measurements were also taken at the surface and just above the bottom. The effort resulted in 360 sediment samples and 359 invertebrate samples.

Benthic samples collected with a 0.05 m^2 Ponar dredge were placed in a sieve box and washed by manually agitating until particles finer than 0.595 mm (No. 30 screen) were eliminated. Remaining sediments were transferred to individually marked sample bottles, and a Formalin-isopropyl alcohol solution was added to preserve the organisms.[1/] Rose-bengal, an organic stain, was added to each sample to facilitate visual separation of invertebrates. We know that some organisms wash through the 0.595 mm mesh and sampling in this manner also results in capture of some epibenthic

[1/] Reference to trade names does not imply endorsement by the National Marine Fisheries Service, NOAA.

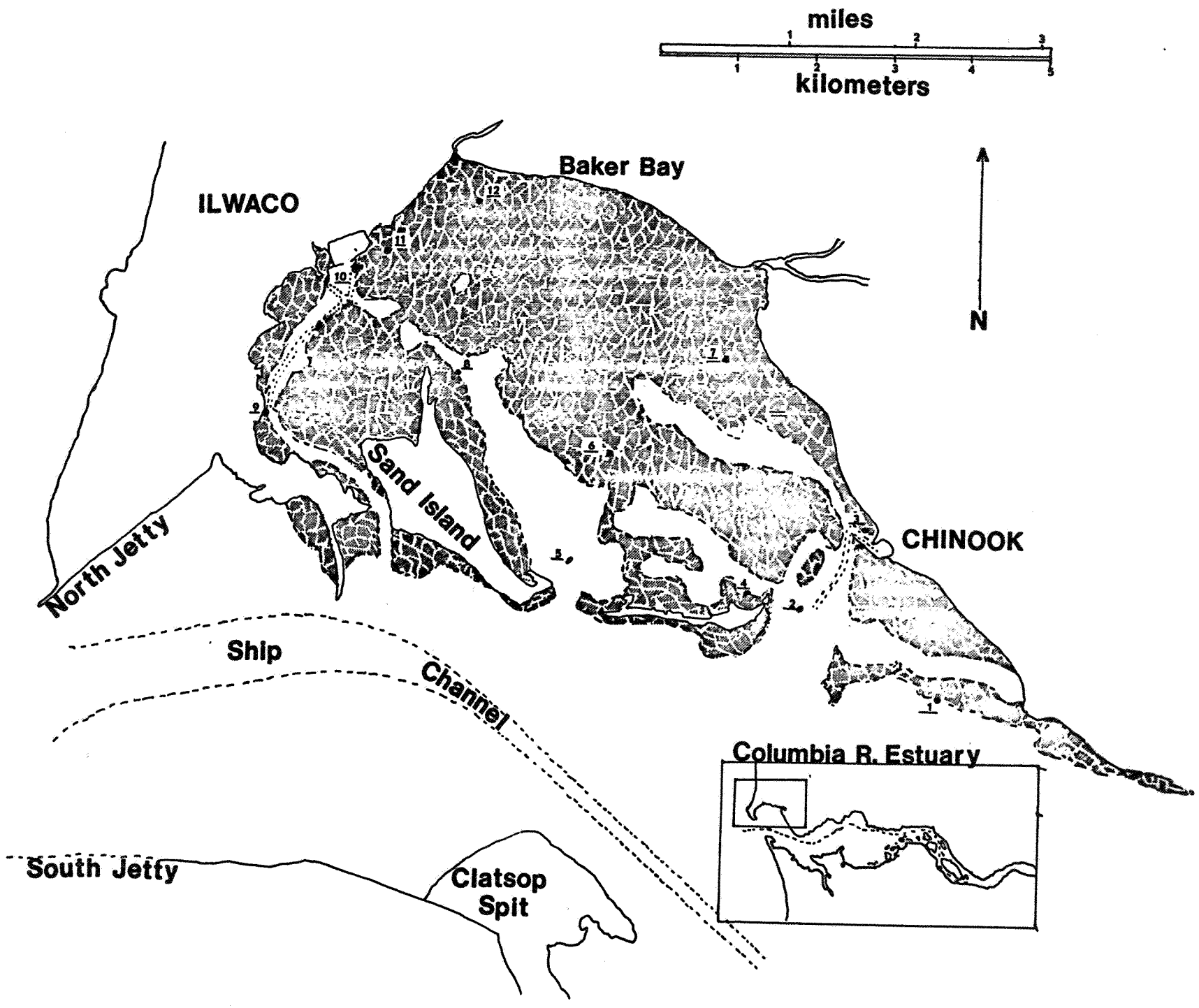

Figure 2.-- Baker Bay study area with 12 sampling sites shown. The intertidal area above -0.5 elevation is indicated by the shaded area of the map.

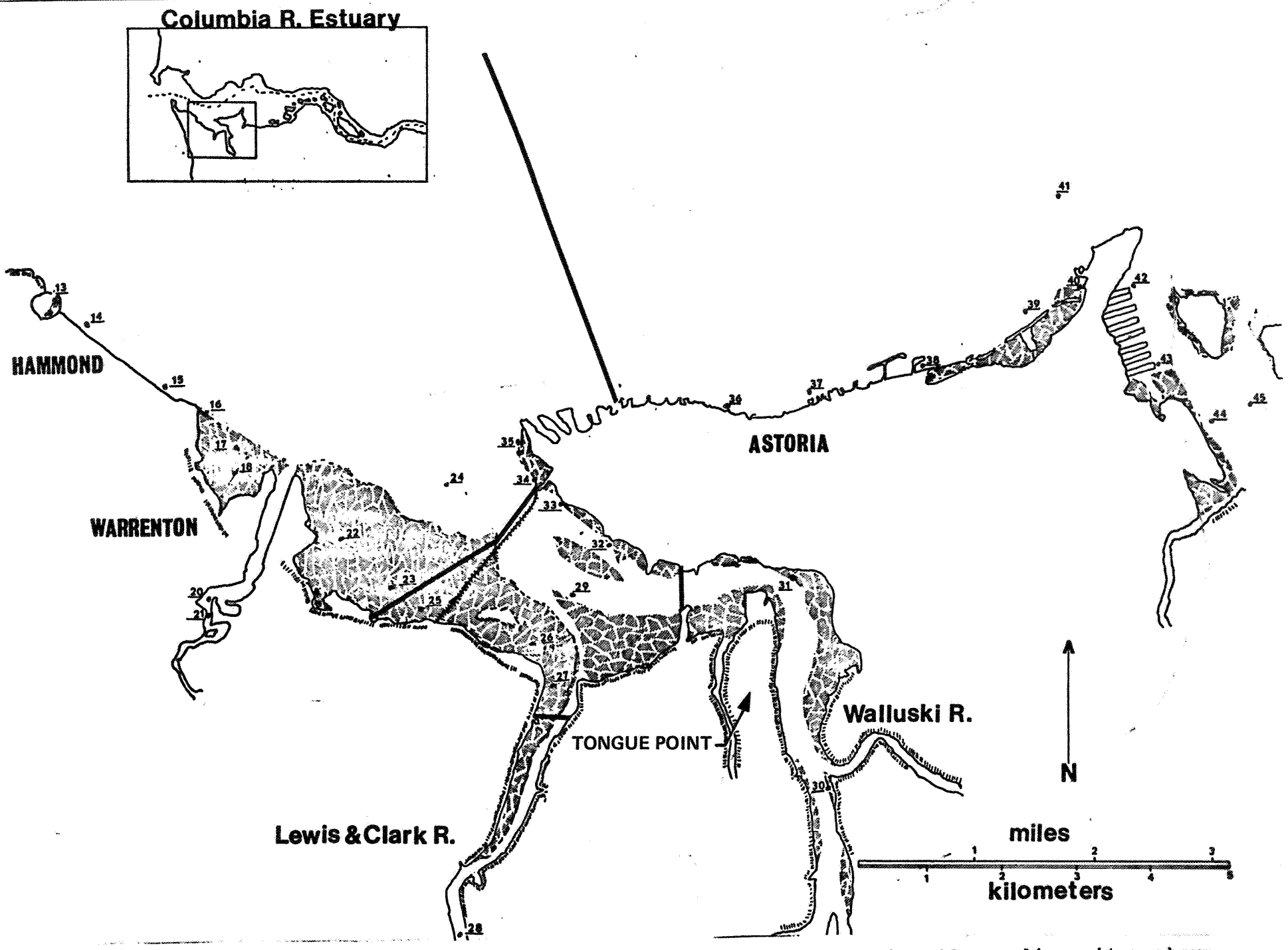

Figure 3.-- Youngs Bay - Hammond to Tongue Point study area with 33 sampling sites shown. Intertidal area above -0.5 elevation is indicated by the shaded portion of the map.

and pelagic species. However, rather than arbitrarily decide which organisms to include or delete, we counted all specimens found in the processed samples. The presence of individuals in certain habitats, during particular seasons, or in specific locales is useful information even though unknown proportions may escape.

Various magnification levels were used to extract specimens and separate them into specific groups. The group counts were verified with 10 power magnification, blotter dried, and weighed on a Mettler type H6T balance to the nearest 0.0001 g.

Identification of invertebrate organisms was made using the following references: Bradley (1908); Pennak (1953); Bosworth (1973); Barnes (1974); Smith and Carlton (1975); and Kujala (1977). In addition, Duane Higley, Oregon State University (OSU), Corvallis, Oregon, reviewed a number of difficult or controversial specimens. We, as well as earlier investigators, made no attempt to determine species of nematoda, nemertea, oligochaeta, and insecta. All sample specimens are preserved at the Hammond Facility, and if desired can be further classified by specialized researchers.

A separate Ponar grab was made to obtain material for sediment texture analysis, and 3.8 cm diameter corer was used to extract the sample. Sediment samples were individually numbered, placed in polyethylene bags, and refrigerated. Sediments were analyzed under contract by Northwest Testing Laboratory, Portland, Oregon for: 1) particle size, following procedures described by Black (1965), and 2) organic content based on the procedure described by Environmental Protection Agency (EPA) (1969). Classification of particle size was based on Wentworths grade scale (Twenhofel and Tyler, 1941).

WATER QUALITY

Measurements taken just below the surface and just above the bottom at the 45 sites are presented in Appendix B. Temperature, conductivity, salinity, turbidity, pH, and oxygen levels provided the status of conditions at the time invertebrate samples were gathered. Tables have been extracted from these data to show the ranges in water quality measurements during each survey.

Water temperatures (°C) shown in Table 1 were taken with a Beckman RS5-3 portable salinometer equipped with a 46 m probe. Lowest temperatures were associated with marine conditions in Baker Bay through the first three surveys but also occurred at Tongue Point, a freshwater site, in March. Warmest waters occurred at Youngs Bay or Tongue Point until March, and then were found at Baker Bay. During prior estuary investigations lower temperatures (0.49°C) were reported by Durkin et al. (1979) and higher temperatures (21.5°C) were reported by Haertel (1969).

The ranges of water conductivities (millimhos/cm), measured with the Beckman RS5-3 salinometer at the surface and bottom, are shown in Table 2. Low readings were associated with freshwater sites whereas high readings occurred at either Baker Bay or Tansy Point.

Salinity (ppt) was also measured with the Beckman RS5-3 salinometer (Table 3). Low salinities were found at or near Tongue Point and usually at the surface. We detected salinity at all Youngs Bay sites during the three 1977 surveys. In March, however, water at several sites in Youngs Bay was entirely without salt. Sites 30 in Youngs River and 28 in Lewis and Clark River had readings of 7.6 and 7.4 ppt during the September survey indicating substantial salt intrusion. Highest salinity readings were associated with Baker Bay and usually at Site 5 situated between Upper and

TABLE 1.--Low and high water temperatures (^{o}C) measured during each of four surveys on the Columbia River estuary 1977-1978.

Survey	Low temp.	Site	Geographic area	Depth (feet)	Date/ time (day/h)	High temp.	Site	Geographic area	Depth (feet)	Date/ time (day/h)
June 1977	12.8	8	Baker Bay	14	27/1150	19.4	26/27/31	Youngs Bay	Surface	23/1530 29/1225
Sept 1977	11.6	5	Baker Bay	5	15/1420	19.8	42	Tongue Pt.	Surface	14/1220
Dec 1977	5.1	6	Baker Bay	Surface	30/1400	9.2	25	Youngs Bay	Surface	13/1410
March 1978	5.7	41	Tongue Pt.	Surface	14/1055	9.8	5	Baker Bay	15	10/1215

TABLE 2.--Water conductivity (milli mho/cm) ranges measured during each of four surveys between June 1977 and March 1978.

Survey	Low temp.	Site	Geographic area	Depth (feet)	Date/ time (day/h)	High temp.	Site	Geographic area	Depth (feet)	Date/ time (day/h)
June 1977	0.14	42	Tongue Pt.	26	7/1340	28.55	2	Baker Bay	7	24/1051
Sept 1977	0.41	37	Astoria	Surface	4/1100	34.31	5	Baker Bay	5	15/1420
Dec 1977	0.08	45	Tongue Pt.	Surface	12/1130	32.08	16	Tansy Pt.	31	30/1540
March 1978	0.17	44	Tongue Pt.	16	14/1140	34.54	5	Baker Bay	15	10/1215

TABLE 3.--Salinity (ppt) ranges occurring during each of four surveys in the Columbia River estuary between June 1977 and March 1978.

Survey	Low salinity	Site	Geographic area	Depth (feet)	Date/ time (day/h)	High salinity	Site	Geographic area	Depth (feet)	Date/ time (day/h)
June 1977	0.06	45	Tongue Pt.	Surface	17/1425	23.91	2	Baker Bay	7	24/1051
Sept 1977	0.28	37	Astoria	Surface	14/1100	29.60	5	Baker Bay	15	15/1420
Dec 1977	0.06	45	Tongue Pt.	Surface	12/1130	29.41	5	Baker Bay	20	30/1510
March 1978	0.14	45	Tongue Pt.	22	14/1200	31.42	5	Baker Bay	15	10/1215

Lower Sand Island. Salinity in the Columbia River estuary has been studied by Neal (1965), Haertel and Osterberg (1966), and McConnell et al. (1979). The studies provide an understanding of salinity movement and levels in this system.

Turbidity of the water was measured with an H.F. Instrument Model DRT 100 nephelometric turbidimeter (Table 4). A 3-l Van Dorn bottle was used to take the water samples for turbidity and pH analyses. Data are expressed as formazin turbidity units (FTU). Clearest water was always found near the bottom of Baker Bay and usually just north of Sand Island. Water with the least clarity occurred either in the Lewis and Clark River, Youngs River, or Youngs Bay. A high reading of 84.0 FTU in the Lewis and Clark River during December reflects suspended sediments brought in by heavy rainfall. Previous measurements of estuarine turbidity were made by Haertel and Osterberg (1966). Although their results were based on Secchi disc readings, they also found the clearest water associated with the mouth of the Columbia River.

Ion activity was measured with a Leeds and Northrup Model 7404 meter and expressed in pH values (Table 5). Low levels were found at different sites during each survey and were not geographically related. High pH levels were associated with Baker Bay; usually at Site 5. This agrees with Park, Osterberg, and Forster (1972) who report a relationship between high pH and salinity.

Oxygen concentrations (mg/l) were determined with a YSI Model 57 oxygen meter after it had been calibrated using the modified Winkler method (EPA 1974). All oxygen concentrations were within safe limits for aquatic life (Table 6). The December and March surveys revealed levels at many

TABLE 4.--Turbidity (FTU) ranges occurring during each of four surveys in the Columbia River estuary between June 1977 and March 1978.

Survey	Low turbidity	Site	Geographic area	Depth (feet)	Date/ time (day/h)	High turbidity	Site	Geographic area	Depth (feet)	Date/ time (day/h)
June 1977	1.3	8	Baker Bay	Surface	27/1150	20.0	8	Lewis & Clark River	9	23/1515
Sept 1977	1.7	5/6	Baker Bay	Surface 2.5 m	15/1420	30.0	25	Youngs Bay	1.5	14/1425
Dec 1977	5.4	10	Baker Bay	Surface	30/1145	84.0	28	Lewis & Clark River	14	13/1245
March 1978	5.2	8	Baker Bay	5	10/1400	21.0	30	Youngs River	8	13/1420

TABLE 5.--Ranges of pH occurring during each of four surveys in the Columbia River estuary between June 1977 and March 1978.

Survey	Low pH	Site	Geographic area	Depth (feet)	Date/ time (day/h)	High pH	Site	Geographic area	Depth (feet)	Date/ time (day/h)
June 1977	7.0	25	Youngs Bay	Surface-4	23/1325	8.75	5-10	Baker Bay	9	24/1220
Sept 1977	7.3	15	Tansy Pt.	Surface	12/1130	8.5	5	Baker Bay	15	15/1420
Dec 1977	6.45	28	Lewis & Clark Riv.	Surface	13/1245	9.0	2-3	Baker Bay	10-6	15/1230
March 1978	6.5	9	Baker Bay	Surface-23	10/1535	8.2	5	Baker Bay	Surface	10/1215

TABLE 6.--Ranges of dissolved oxygen (mg/1) occurring during each of four surveys in the Columbia River estuary between June 1977 and March 1978.

Survey	Low O_2	Site	Geographic area	Depth (feet)	Date/ time (day/h)	High O_2	Site	Geographic area	Depth (feet)	Date/ time (day/h)
June 1977	6.1	28	Lewis & Clark Riv.	9	23/1315	10.1	10	Baker Bay	7	24/1320
Sept 1977	6.0	20-21	Skipanon R.	Surface	13/1045	8.6	37	Astoria	Surface	14/1100
Dec 1977	9.1	16-21	Alder Slough & Skipanon R.	12	13/1045	12.1	41	Tongue Pt.	42	12/1025
March 1978	8.6	10	Baker Bay	8	10/1515	12.2	41	Tongue Pt.	43	14/1055

sites approaching saturation. Oxygen concentrations during this study exceed those reported by Haertel and Osterberg (1966), and Haertel (1969).

Our water quality data reveal that estuarine temperature and oxygen levels were within acceptable limits for aquatic life.

SUBSTRATE SAMPLES

Individual Sites

We used nine standard particle groups ranging in size from clay (< 0.002 mm) to medium gravel (> 8 mm). The categories are presented as a percent value of the total sample (Appendix B).

Mean values and standard deviations for the various categories in the eight-sample group were determined for each of the 45 sites. The small standard deviation of the means indicated sample consistency. Based on these data, texture size in Baker Bay is shown graphically in Figure 4. The fine sand category (0.125-0.25 mm) was the predominant particle size at 10 of the 12 sites. This category ranged from 38.8% at Site 8 to 64.2% at Site 6. Medium sand (0.25-0.5 mm) was the next most predominant category. Site 10 near the Illwaco Harbor entrance differed by having a high percentage of silt, very fine sand, and clay whereas Site 12 near the mouth of the Wallacut River had about 40% very fine sand, 27% fine sand, and 18% silt. Little coarse sand or larger material was found in Baker Bay.

NMFS Sites 2, 3, 5, 6, and 8 appear geographically close to OSU Stations 16, 18, 8, 5, and 4 (Higley, Holton, and Komar 1976). Our sediment texture data agree with theirs only at NMFS Site 5. The OSU data indicated a higher proportion of silt-clay material than ours.

Sediment classifications at sites on the south side of the Columbia River estuary are shown in Figure 5. Fine sand is a major component of the sites off Hammond, in the Skipanon River, and along sites at the northeast

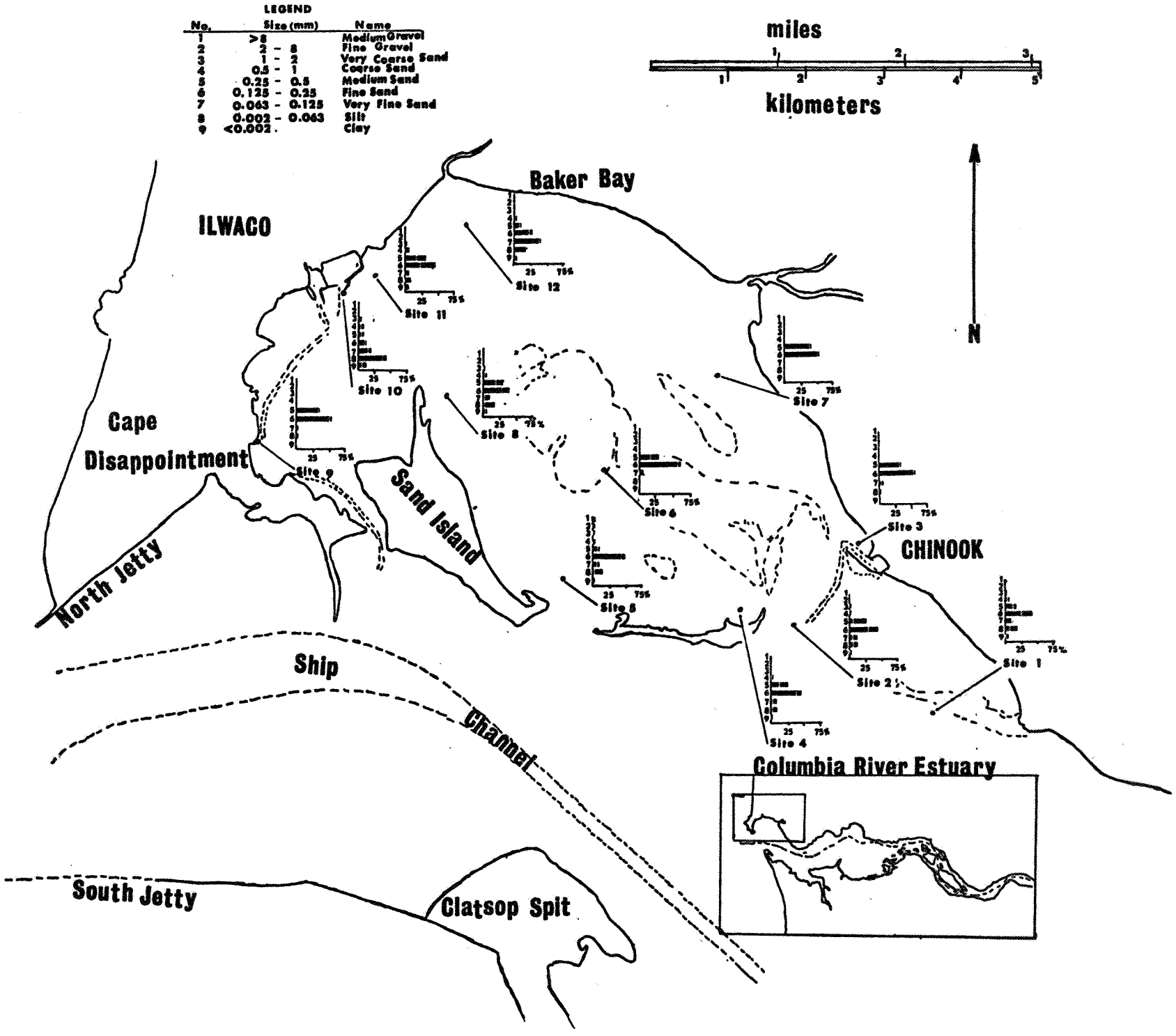

Figure 4.-- Mean particle size found at 12 sampling sites in Baker Bay between June 1977 and March 1978.

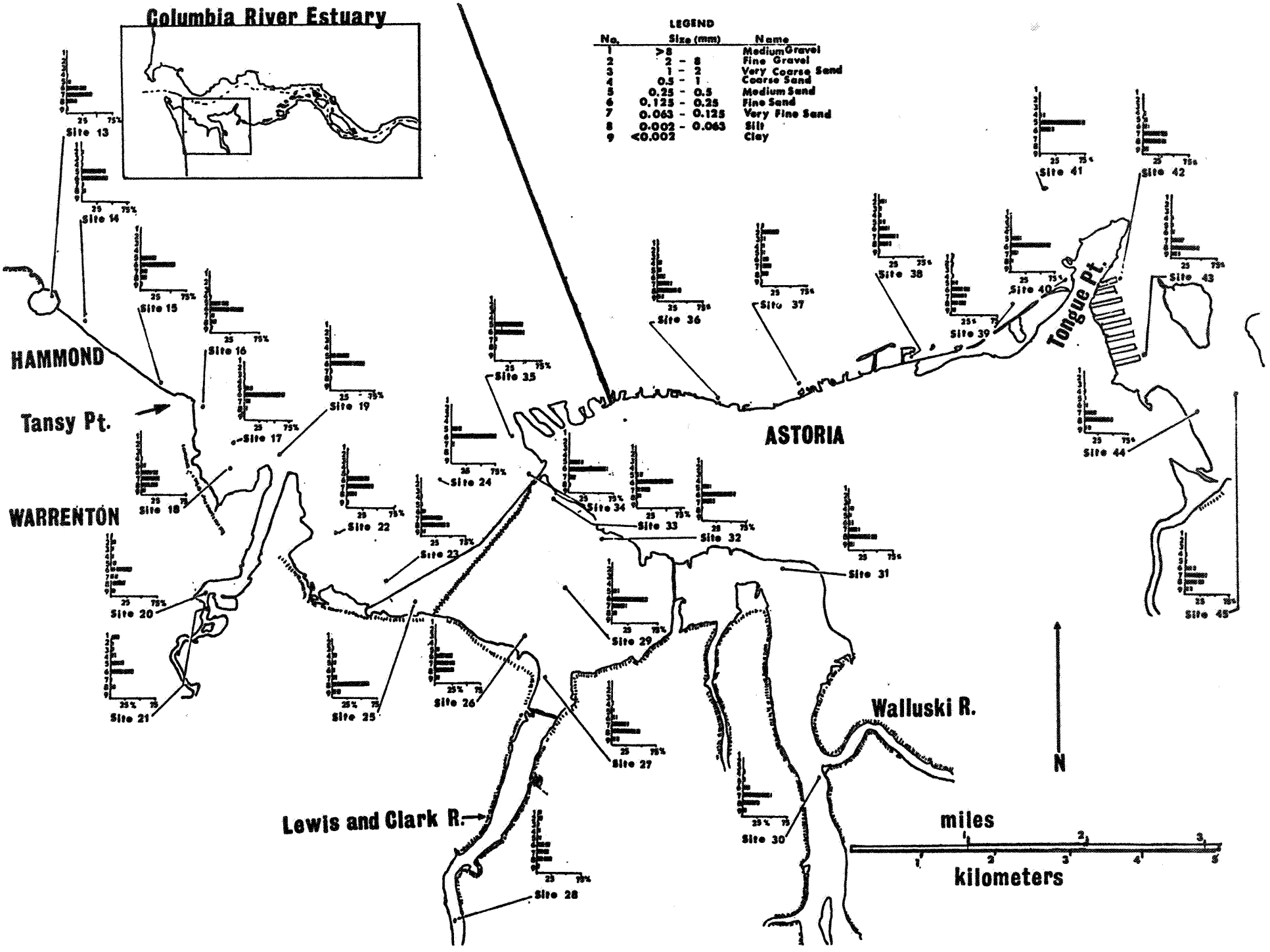

Figure 5.--Mean particle size found at 33 sampling sites in Youngs Bay-Hammond to Tongue Point area between June 1977 and March 1978.

side of Youngs Bay. Sites on the south or west portions of Youngs Bay had dominant categories of silt and very fine sand. Off Astoria, the major sediment component varied considerably -- fine grain at one site, silt at another, very fine sand at a third, and medium sand at a fourth. Sediment at Site 41, near the navigation channel station off Tongue Point, was primarily medium sand. Sites in and near the east side of Tongue Point were a consistent mixture of very fine sand and silt.

Review of OSU samples taken outside Youngs Bay by Higley, Holton, and Komar (1976), indicates there were only a few sites geographically comparable to ours: OSU Station 23 appeared similar to NMFS Site 13, OSU 42 to NMFS 18, OSU 40 with NMFS 35, and OSU 2 with NMFS 40. NMFS results generally agreed with OSU findings at two stations but not at the other sites. Within Youngs Bay seven NMFS sites correspond with OSU sites studied in 1974 by Higley and Holton (1975). NMFS sediment texture data agreed with some but not all OSU data. OSU's use of only four sediment texture categories made comparison difficult. Conrow, Williamson, and Klein (1975) in their study of Youngs Bay sediments presented a chart showing the median grain size distribution. Graphs of sediment diameter in phi units were also provided. Our overall data tends to agree with their charts, though few of their sample sites were directly comparable.

Sediment particle size characterization falls into three broad categories (Figure 6). Very fine sand and silt typify the Tongue Point area as well as the southwest portion of Youngs Bay, Hammond, Youngs River, and Lewis and Clark River. Medium to fine grain sand characterize the Tansy Point, Alder Cove, and Baker Bay areas as well as the northeast portion of Youngs Bay. Sites off Astoria have variable sediment texture.

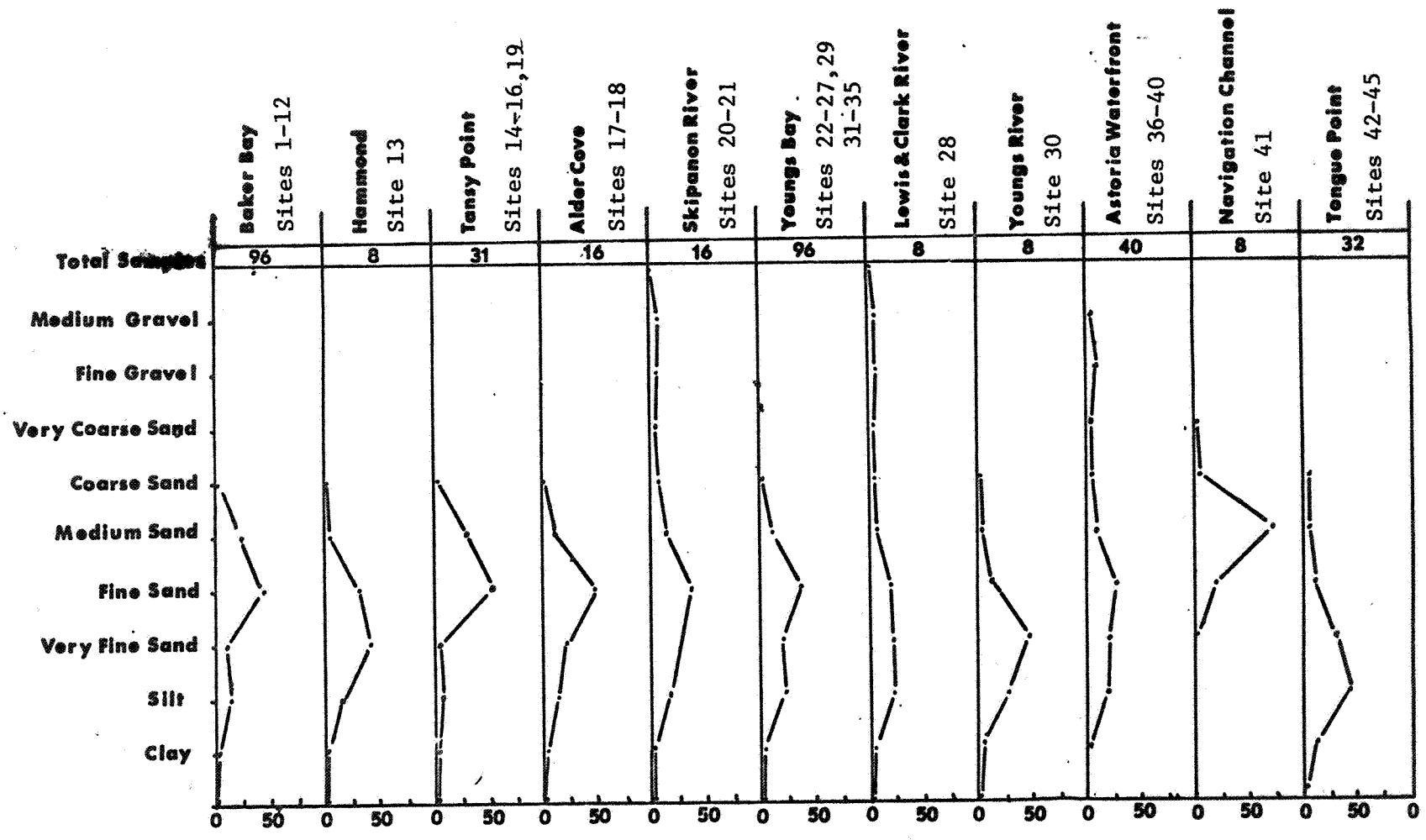

Figure 6.-- Mean annual sediment particle size for geographically similar sites in the Columbia River estuary.

Seasonal Change

Comparison of seasonal change in sediments was limited to five groups of sites having geographic proximity. Baker Bay Sites 1 to 12; Tansy Point Sites 14 to 16 and 19; Youngs Bay Sites 22 to 27, 29, and 31 to 35; Astoria Sites 36 to 40; and Tongue Point Sites 42 to 45. Grouping the results provided a larger sample base for determining change. The data from Baker Bay sites (Table 7) changed little in the first three surveys. However, the March results showed a small increase in fine sand with a decrease in coarse sand and clay.

Youngs Bay samples also revealed seasonal stability comparable to Baker Bay (Table 7). The mean grain size for each cateogry did not change greatly through the initial three surveys (June-December). In March silt increased about 6% while the coarse sand and clay categories diminished.

The Tansy Point sediment group included four sites and their combined results appear in Table 7. Medium and fine sand typified the June and September surveys while December and March surveys revealed proportionately greater amounts of silt and very fine sand.

The Astoria area sediment group included five sites (Table 7). The greatest change in particle texture occurred between the September and December survey. In December, fine gravel appeared and remained through the March survey. Increases in the fine gravel were balanced by a decrease in medium sand. The proportion of clay increased in December but diminished in March.

The final group examined for seasonal sediment change was made up of four sites located just east of Tongue Point (Table 7). The proportion of coarse, medium, and fine sand categories diminished each survey while silt and clay usually increased.

TABLE 7.--The mean proportion and standard deviation of sediment particle categories by seasonal survey for groups of geographically similar stations.

Geographic group/particle category	June Mean (%)	June SD (%)	Sept. Mean (%)	Sept. SD (%)	Dec. Mean (%)	Dec. SD (%)	March Mean (%)	March SD (%)
Baker Bay (12 sites)								
1. Gravel	1.66	4.94	0.09	0.49	0.00	0.00	0.01	0.07
2. Fine gravel	0.46	1.21	0.84	3.05	0.67	0.94	0.12	0.19
3. Very coarse sand	1.30	1.44	1.35	1.96	1.33	1.15	0.00	0.00
4. Coarse sand	4.27	4.70	3.91	4.07	2.17	1.94	0.10	0.15
5. Medium sand	22.89	15.23	25.99	16.60	24.04	14.34	24.62	15.36
6. Fine sand	40.05	19.82	39.96	17.92	45.77	17.98	52.81	16.95
7. Very fine sand	13.27	11.38	10.27	10.62	9.87	11.62	10.03	12.50
8. Silt	12.86	12.65	15.75	15.93	11.99	13.58	11.09	17.79
9. Clay	3.19	4.19	1.82	2.63	4.16	5.70	0.94	1.80
Youngs Bay (12 sites)								
1. Gravel	0.00	0.00	0.00	0.00	0.07	0.24	0.02	0.11
2. Fine sand	0.01	0.06	0.01	0.05	0.16	0.26	0.02	0.06
3. Very coarse sand	0.24	0.54	0.66	1.52	0.55	0.79	0.02	0.04
4. Coarse sand	2.85	4.38	2.35	3.59	1.65	1.43	0.17	0.18
5. Medium sand	13.95	13.79	13.87	12.12	9.77	12.66	10.77	12.70
6. Fine sand	37.61	26.78	38.68	25.61	34.49	24.45	38.09	27.04
7. Very fine sand	19.85	12.11	20.24	13.02	23.87	14.82	20.42	12.35
8. Silt	20.74	22.58	20.57	21.21	21.86	21.28	27.62	28.51
9. Clay	3.85	5.29	3.56	4.49	7.57	7.21	2.80	3.51
Tansy Point (4 sites)								
1. Gravel	0.00	0.00	0.00	0.00	0.19	0.38	0.00	0.00
2. Fine gravel	0.00	0.00	0.06	0.12	3.35	6.44	0.03	0.05
3. Very coarse sand	0.36	0.57	0.24	0.22	1.36	1.95	0.00	0.00
4. Coarse sand	1.26	1.33	0.89	0.90	2.02	1.79	0.09	0.08
5. Medium sand	26.99	11.69	42.85	18.54	25.35	6.41	26.11	15.61
6. Fine sand	62.15	12.76	53.32	18.57	47.21	13.73	49.51	19.74
7. Very fine sand	5.19	3.30	1.72	0.89	7.44	4.20	9.32	6.17
8. Silt	3.26	4.70	0.92	0.51	9.27	6.95	13.40	11.07
9. Clay	0.78	2.21	0.00	0.00	3.83	2.99	1.34	1.30

TABLE 7.--The mean proportion and standard deviation of sediment particle categories by seasonal survey for groups of geographically similar stations. (Cont'd)

Geographic group/ particle category	June Mean (%)	June SD (%)	Sept. Mean (%)	Sept. SD (%)	Dec. Mean (%)	Dec. SD (%)	March Mean (%)	March SD (%)
Astoria (5 sites)								
1. Gravel	1.19	3.77	1.91	6.05	2.77	4.74	2.20	3.34
2. Fine gravel	3.41	4.05	3.22	5.72	14.74	26.47	13.61	20.81
3. Very coarse sand	2.73	1.81	2.45	2.25	2.91	3.71	4.12	5.30
4. Coarse sand	6.52	4.68	4.35	3.35	3.19	2.11	2.73	2.15
5. Medium sand	12.52	5.70	11.95	5.47	7.90	4.64	6.72	3.22
6. Fine sand	34.28	23.29	28.59	21.42	21.20	21.30	25.35	23.60
7. Very fine sand	21.83	9.24	23.86	7.14	19.49	11.46	19.91	10.74
8. Silt	15.50	9.80	21.07	15.13	18.66	14.87	21.89	16.54
9. Clay	2.01	3.25	2.59	3.41	9.10	7.35	3.49	3.41
Tongue Point (4 sites)								
1. Gravel	0.02	0.05	0.00	0.00	0.00	0.00	0.00	0.00
2. Fine gravel	0.00	0.00	0.01	0.04	0.00	0.00	0.04	0.11
3. Very coarse sand	1.65	1.27	0.95	0.71	0.34	0.31	0.01	0.02
4. Coarse sand	7.26	3.47	4.42	1.66	2.72	1.22	0.18	0.09
5. Medium sand	6.54	3.72	4.78	1.71	4.41	1.75	0.23	0.14
6. Fine sand	11.58	8.79	8.91	2.91	8.46	3.25	5.81	3.61
7. Very fine sand	29.47	7.46	30.95	10.08	29.05	5.78	32.53	6.31
8. Silt	34.79	10.29	42.85	9.79	35.06	8.90	51.12	7.06
9. Clay	8.64	2.52	7.12	1.59	19.97	4.81	10.08	2.37

Organic Content

Percentages of volatile solids were determined for each of the 360 sediment samples. In some locations, decaying marsh vegetation or wood products caused high total volatile solid (TVS) readings. At other sites, other domestic waste products appeared responsible for excess levels. When measurements exceed 6% they exceed the EPA's standards and such a site may be suspected of being polluted. There was no attempt to determine the type of organic material involved when the 6% level was exceeded. The volatile solid data are provided simply to add a further dimension to habitat classification. The organic content data are listed for each sample in Appendix B.

Of the 360 TVS samples, 75 or 20.8% exceeded the 6% level. Lewis and Clark River Site 28, situated downstream from a log sorting yard, had consistently high organic levels, as did Skipanon River Sites 20 and 21. Other sites usually exceeding the EPA standard were Site 10 at the Ilwaco Harbor mouth, Site 25 in Youngs Bay, Site 31 near the Astoria sanitary landfill, Site 37 west of the east Mooring Basin, Site 39 west of the Astoria sewer disposal lagoon, Site 43 at the southern end of the Tongue Point facility, and Site 44 at the former Maritime Base pier.

The annual average TVS levels for geographically similar sites are presented in Figure 7. Presented in the same figure are seasonal TVS measurements at sites where combined samples provide a more reliable indication of levels. Based on these data, there appears to be a TVS increase from the September to the December survey in four of the five groups.

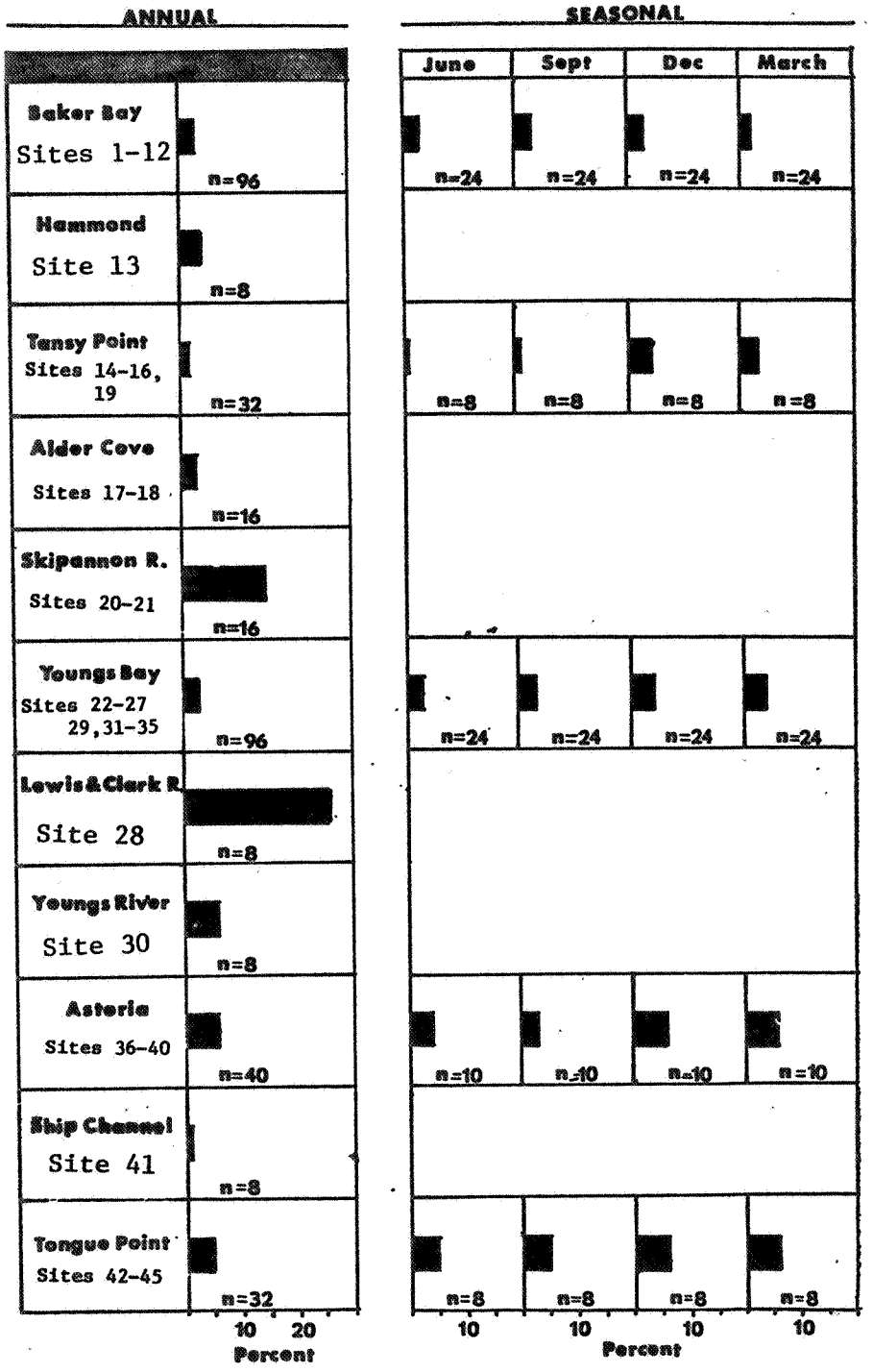

Figure 7.-- Mean annual volatile solid levels at geographically similar estuarine sites, and seasonal levels in the areas where 32 or more samples were taken.

BENTHIC INVERTEBRATES

Species

There were 43 groups and species (Table 8) of benthic invertebrates identified during this study; Higley and Holton (1978) listed 66 groups and species. Most of the difference undoubtedly relates to sampling station location. Higley and Holton (1978) sampled in the ocean at sites west of Baker Bay and locations north and east of Tongue Point. Benthic invertebrate communities at the estuary mouth contain stenohaline marine species which do not penetrate deeply into the estuary. Freshwater species that we did not encounter occur further east of Tongue Point according to the 1978 OSU report. Most benthic invertebrates found in our estuary study area were euryhaline probably due to the variation, magnitude, and intrusion distance of salinity.

Species captured that were not previously reported include: *Mya arenaria*, the eastern soft shell clam; *Mytilus edulis*, the bay mussel; *Clinocardium nuttalli*, the common cockle; *Asellus tomalensis* (isopoda); and *Hobsonia florida* (polychaeta). [*Amphicteus floridus* (polychaeta) previously reported by Higley and Holton (1978) apparently is not that species but is a new genus and species *Hobsonia florida*].[2/]

The study revealed the benthic invertebrate community of Baker Bay distinctly differed from that of Youngs Bay and adjacent areas. The principal component of the Baker Bay community was the bivalve, *Macoma balthica*. Other important species included the polychaeta, *Neanthes limnicola* and amphipods, *Eohaustorius estuaris* and *Corpohium brevis*.

2/ Karl Banse, Zoology Dept., Univ. of Washington, Seattle, Washington, personal communication.

Table 8.--Taxonomic groups and species found during an investigation of 45 sites in the Columbia River estuary.

Phylum Nemertinea

Phylum Nematoda

Phylum Platyhelmenthes
- Class Turbellaria

Phylum Annelida
- Class Polychaeta
  - Subclass Errantia
    - Family Nereidae
      - *Neanthes limnicola*
    - Family Phyllocodidae
      - *Eteone sp.*
    - Family Goniadidae
      - *Glycinde sp.*
  - Sublcass Sedentaria
    - Family Ampharetidae
      - *Hobsonia florida*
    - Family Spionidae
      - *Polydora sp.*
- Class Oligochaeta
- Class Hirudinea

Phylum Mollusca
- Class Gastropoda
  - Order Ctenobranchiatae
    - Family Pleuroceridae
      - *Goniobases sp.*
- Class Bivalvia
  - Family Cyrenidae
    - *Corbicula manilensis*
  - Family Tellendae
    - *Macoma balthica*
  - Family Myidae
    - *Mya arenaria*
  - Family Mytilidae
    - *Mytilus edulis*
  - Family Cardiidae
    - *Clinocardium nuttalli*

Phylum Arthropoda
- Subphylum Chelicerata
  - Class Arachnida
    - Order Acarina
      - Suborder Hydracarina
- Subphylum Mandibulata
  - Class Crustacea
    - Subclass Ostracoda
    - Subclass Branchiopoda
      - Order Diplostraca
        - Suborder Cladocera
          - Family Daphnidae
            - *Daphnia longispina*
          - Family Bosminidae
            - *Bosmina sp.*

Table 8.--Continued

- Subclass Copepoda
  - Order Harpacticoida
    - Family Canuellidae
      - *Canuella canadensis*
  - Order Calanoida
    - Family Temoridae
      - *Eurytemora hirundoides*
- Sublcass Cirrepedia
  - Order Thoracica
    - Family Balanidae
      - *Balanus amphitrite amphitrite*
- Sublcass Malacostraca
  - Superorder Peracarida
    - Order Mysidacea
      - Family Mysidae
        - *Neomysis mercedis*
    - Order Cumacea
    - Order Isopoda
      - Suborder Flabellifera
        - Family Sphaeromaticae
          - *Gnorimosphaeroma oregonensis*
      - Suborder Valvifera
        - Family Idoteidae
          - *Mesidontea* (=Saduria) entomon
      - Suborder Asellota
        - Family Asellidae
          - *Asellus tomalensis*
    - Order Amphipoda
      - Suborder Gammaridea
        - Family Corophiidae
          - *Corophium salmonis*
          - *Corophium spinicorne*
          - *Corophium brevis*
        - Family Gammaridae
          - *Anisogammarus confervicolus*
        - Family Haustoriidae
          - *Eohaustorius estuaris*
          - *Eohaustorius sp.*
        - Family Phoxocephalidae
          - *Paraphoxus milleri*
  - Superorder Eucarida
    - Order Decapoda
      - Suborder Natantia
        - *Cragon franciscorum*
- Class Insecta
  - Order Odonata
    - Suborder Zygoptera
      - Family Coenagrionidae
  - Order Diptera
    - Family Chironomidae (=Tendipedidae)
  - Order Tricoptera
  - Order Ephemeroptera
  - Order Plecoptera

The Youngs Bay benthic infauna assemblage had a large population of oligochaeta and amphipods, Corophium salmonis and Corophuim spinicorne. The higher densities appeared associated with a fine sand-silt substrate. Though the polychaeta, N. limnicola occurred in both bays, it had a higher population in Youngs Bay where it was associated with the sedentary polychaeta, Hobsonia florida. Bivalves of Youngs Bay included M. balthica, but it didn't occur as abundantly as in Baker Bay. The exotic Asian freshwater clam, Corbicula manilensis extended its range into Youngs Bay though it was not tolerant of the higher salinities found in Baker Bay.

The soft shell clam, Mya arenaria and cockle, Clinocardium nuttalli are common in west coast estuaries with high salinities and the proper substrate. Both were found at a wide number of sites during the September and December surveys, but only a few were found in March 1978.

Invertebrate Numbers

The number of benthic invertebrates found in each sample is presented in Appendix C. Though many samples show close similarity of groups and numbers, other samples are inconsistent. The differences in invertebrate numbers may result from distributional patchiness, sediment texture change, or a degree of flaw in the collection technique. However, the funding necessary for increased sampling to resolve sample variation was not available.

The mean number of each major benthic invertebrate group is presented for Baker Bay in Figure 8 and for Oregon sites in Figure 9. Baker Bay samples are not numerically great; with bivalves usually most important. Sites with bivalves have at least some silt, clay, and very fine sand. Polychaetes tend to be found in quantity at interior sites that have a

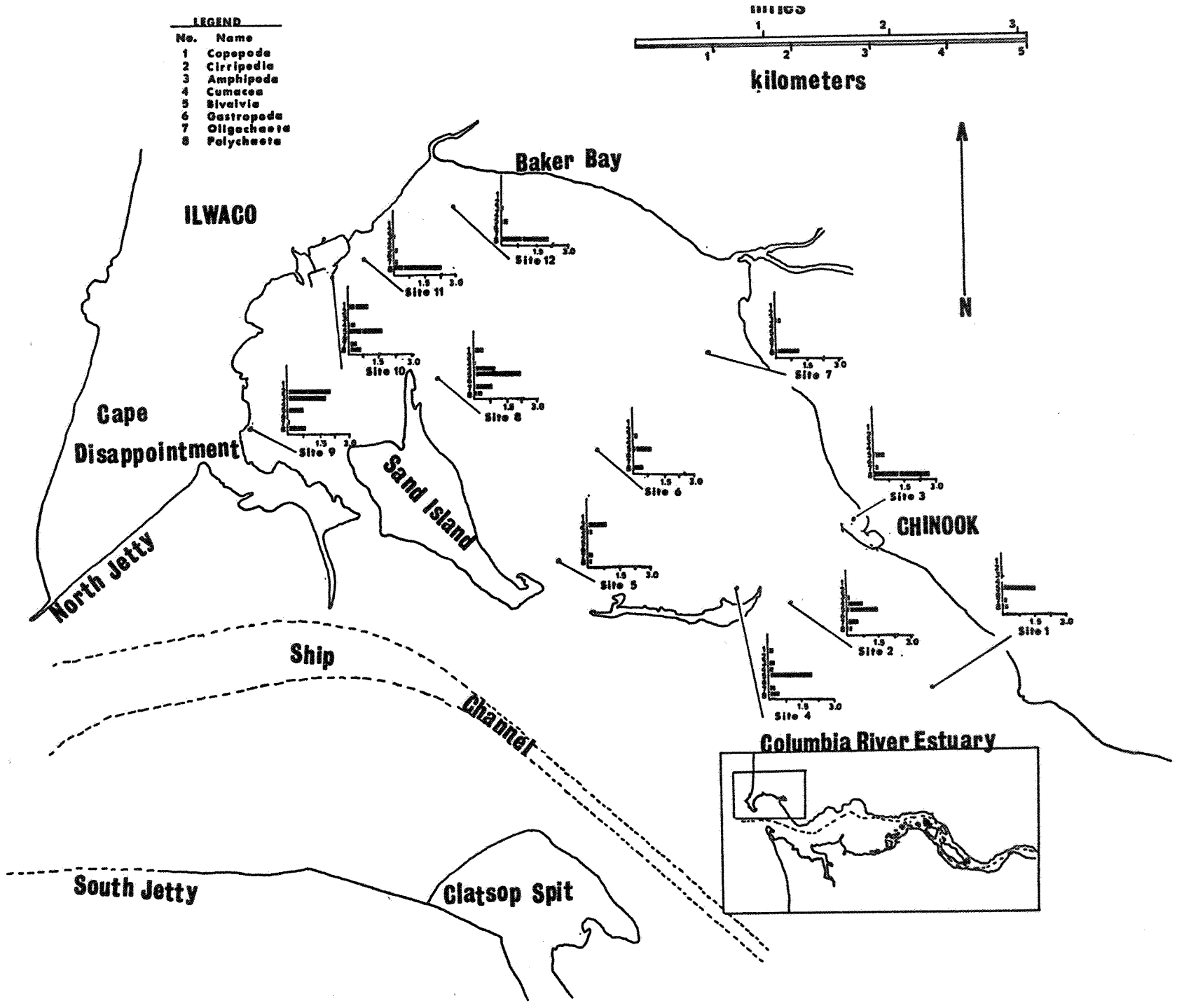

Figure 8.--Mean annual number of benthic invertebrates, expressed in thousands/m^2, at 12 Baker Bay sites.

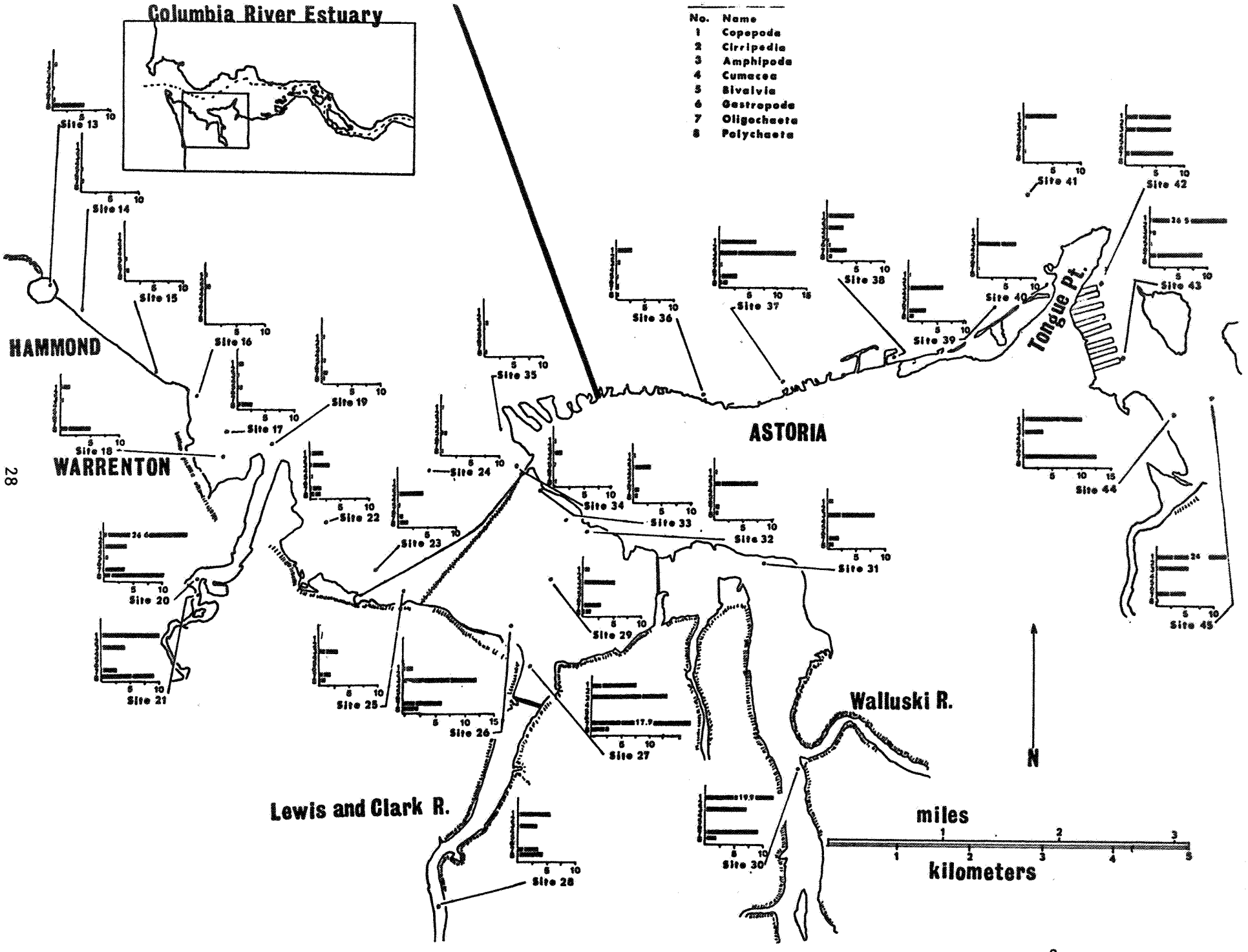

Figure 9.--Mean annual number of benthic invertebrates, expressed in thousands/m^2, at 33 sites in Youngs Bay and adjacent waters.

medium and fine grain sand substrate. Amphipods were common at Site 9 as were cirripedia. Other common benthic groups in Baker Bay were cumaceans, which occurred at Site 2 in Chinook Channel and Site 8 just north of Sand Island. Both sites had similar substrate.

Benthic invertebrate densities on the Oregon side were generally greater (Figure 9). The Oregon sites have either rich, diverse benthic invertebrate communities or sites with comparatively few organisms. Quantities of copepods were usually associated with low flow, and moderate salinities in the Skipanon River, Lewis and Clark River, Youngs River, Tongue Point, and several sites off Astoria. Copepods usually were associated with high numbers of amphipods and oligochaetes. Polychaeta, though common, were only numerically important at sites west of Astoria.

The densities of benthic invertebrates varied; the highest annual average was the 26,690 copepods/m^2 at Skipanon River Site 20. Site 27 at Youngs Bay had the highest average number of amphipods, 13,130/m^2. Whereas Sites 26 and 37 had comparable amphipod densities of 12,606/m^2 and 13,072/m^2, respectively. Bivalves occurred at every station, but the highest average number was 2,212/m^2 at Baker Bay Site 8. Polychaete densities average 10,596/m^2 at the Skipanon River Site 20 whereas gastropoda averaged 510/m^2 at Site 38. Oligochaeta densities were greatest (average 16,996/m^2) in Youngs Bay at Site 27. Nematoda did not appear in the graphs but occurred at all estuarine sites. Nematoda abundance was greatest in the Skipanon River, where they averaged 12,590/m^2.

Among all the 45 sampling sites, Skipanon River Site 20 with 58,150/m^2 had the highest mean density of all benthic invertebrates. Site 27 in Youngs Bay with 42,884/m^2 and Site 30 in Youngs River with 38,676/m^2 had the next greatest densities of invertebrates. The four Tongue Point sites had an average density exceeding 20,000/m^2. The lowest invertebrate density was 876/m^2 at Site 14 off Hammond. There were several other sites in Baker Bay and between Hammond and Warrenton with average densities below 2,000/m^2. These mean annual density levels, though useful for comparative purposes, tend to mask individual populations, particularly those that are high or low. For example, in June the greatest indicated single benthic density was at Skipanon River Site 20 where invertebrates numbering 131,280/m^2 were taken in one sample and 113,000/m^2 in a second. In contrast, invertebrate numbers of only 120/m^2 and 100/m^2 were found at Site 41 during the December survey.

Grouped Average Quantities

The annual mean densities for benthic invertebrates in similar geographic areas are shown as grouped data in Figure 10. The importance of specific groups can be associated with salinity levels or distance from the river mouth. Protected off-channel sites with fine sediment and slow water velocity can be factors adding significantly to enhancement of organisms such as copepods. Considerable variation in species richness and diversity exists between the geographic areas.

Seasonal Variation

Seasonal variation of invertebrates were examined at those five subareas where sediment texture changes were evaluated. The indicated seasonal trends are shown in Figure 11. Seasonal variation is apparent for amphipods, oligochaetes, and copepods. Sampling should be reinforced to

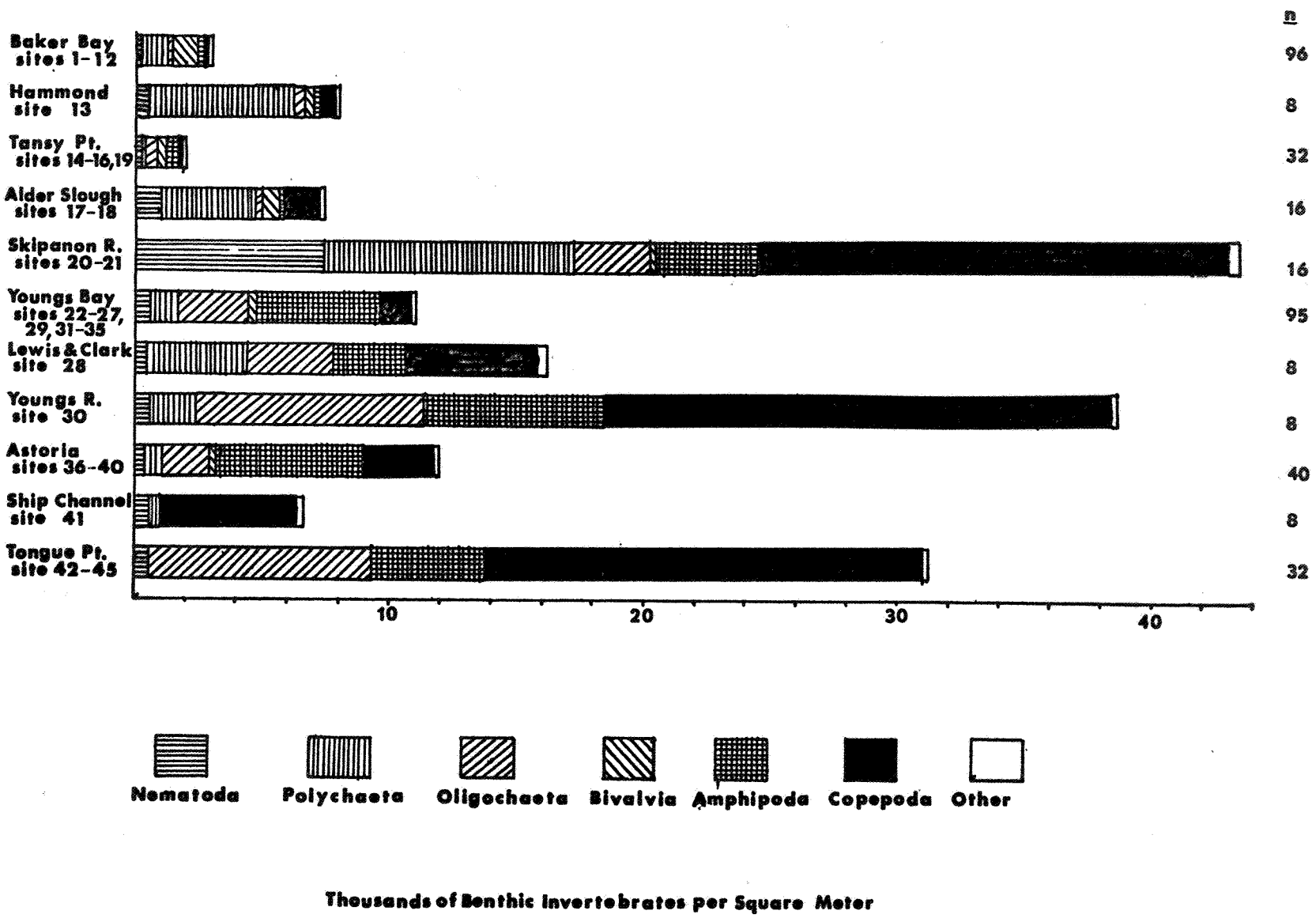

Figure 10.-- The average annual proportion of different benthic invertebrates found at groups of sites in similar geographic areas in the Columbia River estuary during June 1977 to March 1978.

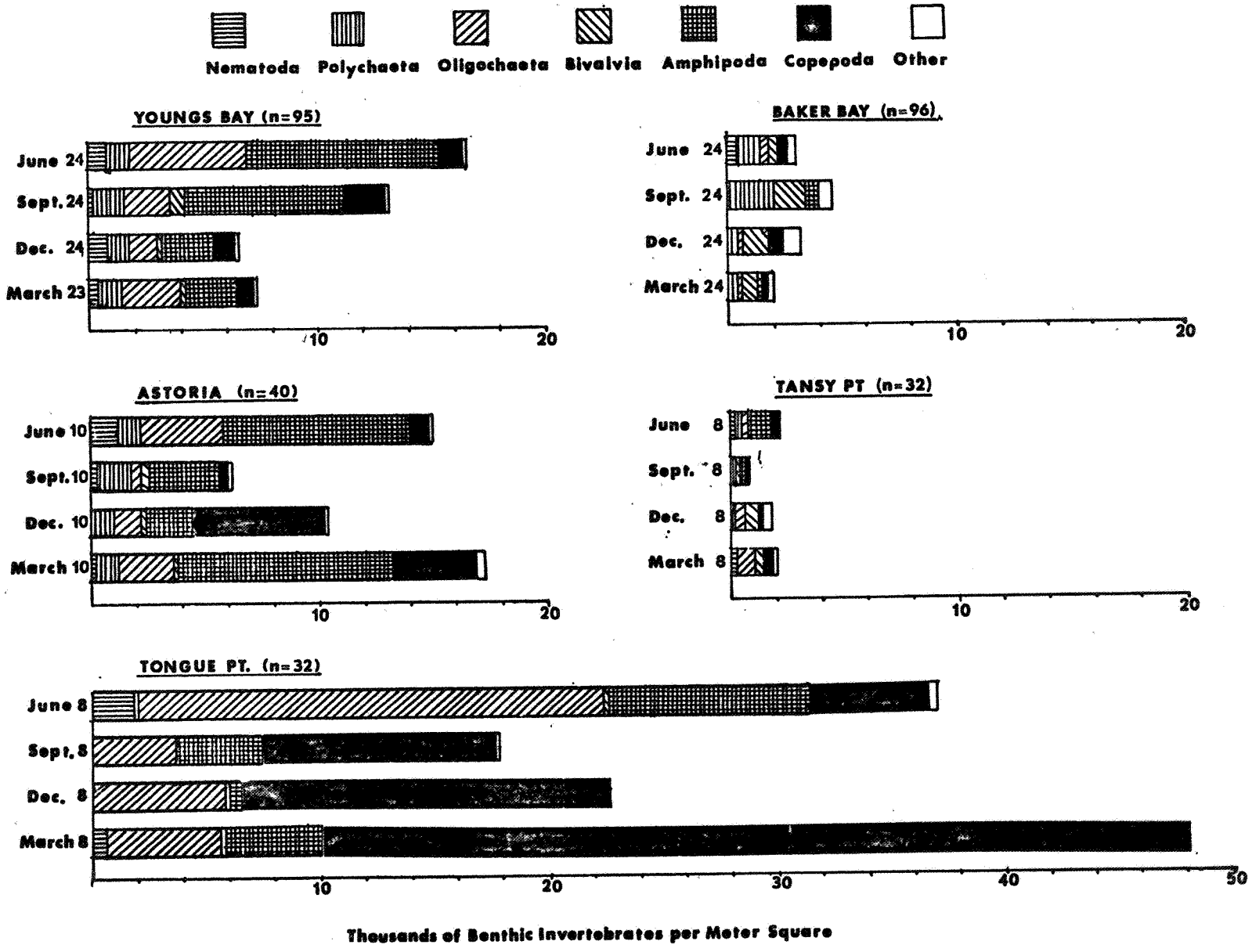

Figure 11.-- Seasonal composition and relative abundance of benthic invertebrates captured at five subareas in the Columbia River estuary. The number following the month indicates the number of samples for each period.

statistically verify these seasonal changes and relate numerical shifts to geographic areas. The grouped data indicate that in specific areas examined, the total number of organisms, from low to high abundance cycles, resulted in a 100% increase. At the Astoria, Youngs Bay, and Tongue Point areas, a consistent pattern for amphipods and oligochaetes occurred. Both populations decreased after the June surveys, dropped lower during either September or December, and increased in March. Copepods increased at freshwater stations after June. Polychaetes and bivalves in Baker Bay were most frequent in the September survey.

Invertebrate Weights

The weight of an individual species, group, or entire sample provides an additional perspective of the benthic invertebrate community. The importance of numerical abundance may be countered by the relatively minor weight of a species or group. In addition, invertebrates such as bivalves may not numerically dominate a benthic community but may dominate its biomass. The shell weight of bivalves, gastropods, and cirripedias should be considered when assessing biomass, but different factors would be required for each species, and probably each age class. Amphipods, copepods, cladocerans, mysids, and cumaceans also have chitonous exoskeletons which could be considered extraneous weight. Oligochaetes, nematodes, and polychaetes are groups with no shell or exoskeleton. The various weight aspects are acknowledged; however, data in this report are simply overall weights.

Benthic invertebrate weights (g/m^2) in Baker Bay are shown in Figure 12. The importance of bivalvia (*M. balthica*) weight is obvious; cirripedia, polychaeta, and amphipoda groups provide the remaining weights.

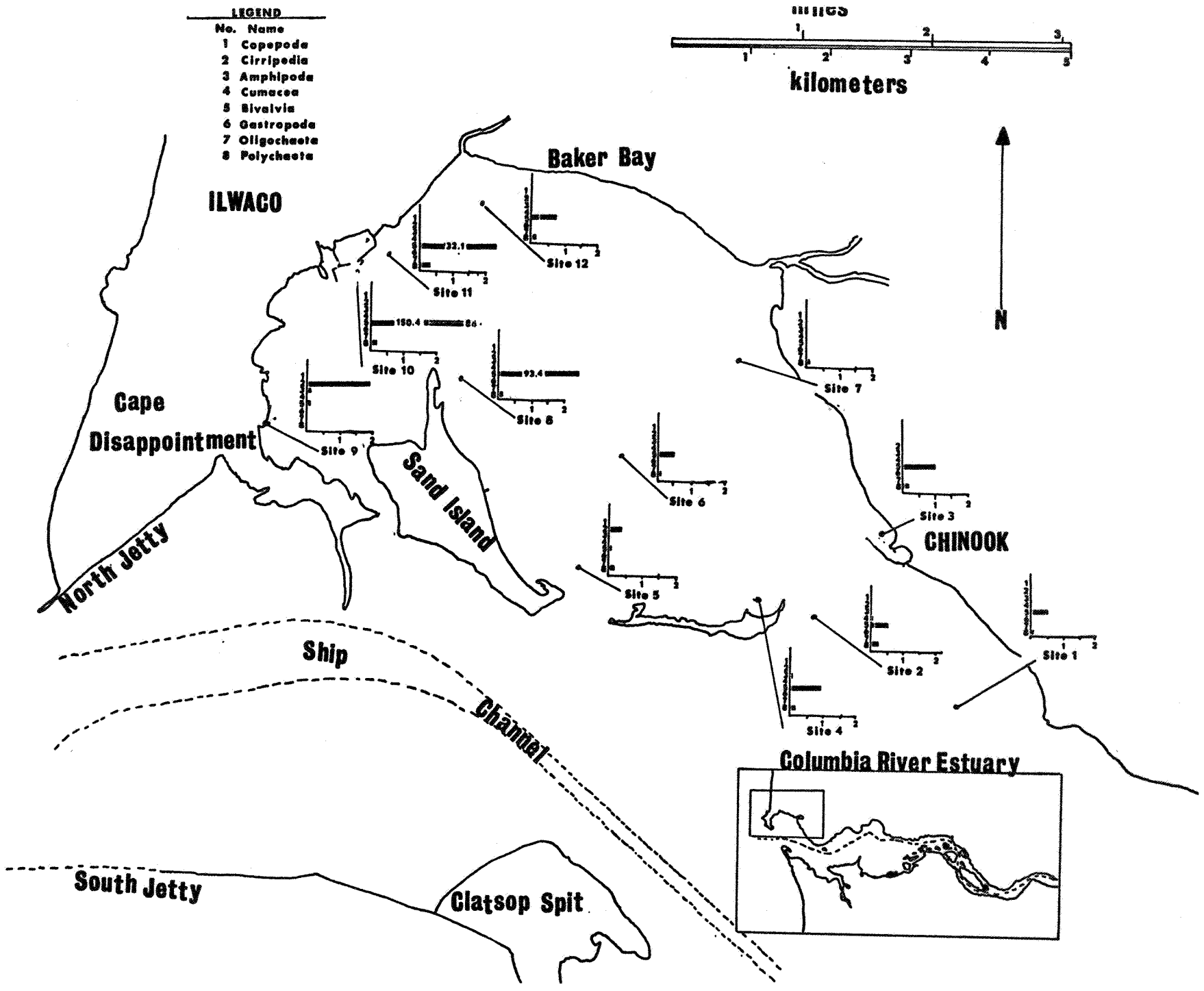

Figure 12.--Annual average weight (g/m^2) of eight benthic invertebrate groups occurring at 12 Baker Bay sites between June 1977 and March 1978.

The heaviest weight concentrations were found at Sites 8, 10, and 11 in the western portion of Baker Bay.

The average invertebrate weights (g/m^2) in Youngs Bay and adjacent Oregon sites are shown in Figure 13. Bivalvia and polychaeta groups were the major weight contributors at western sites; whereas, amphipoda, oligochaeta, bivalvia, and polychaeta accounted for nearly all Youngs Bay weights. Gastropoda, though numerically inconsequential at most sites, contributed substantially to the biomass found at Sites 37 and 38. Tongue Point sites reflected the importance of amphipoda and oligochaeta weights.

Grouped Average Weights

Sample weights from various sites were grouped to show the proportion of invertebrate weights associated with a particular area. These annual average weight components are compared in Figure 14. Bivalve weight dominance in Baker Bay is evident. Though having one of the lowest numerical densities of any study area, Baker Bay had the greatest average annual weight per square meter.

Seasonal Weight Variation

Seasonal weight comparison is presented in Figure 15 for geographically similar sites having 32 or more samples. Seasonal invertebrate weight trends in these areas follow the seasonal numerical trends at four of five sites. The exception was at Astoria where the lowest average weight occurred in June whereas the numerical low occurred in September.

SUMMARY

A study was conducted of benthic invertebrate communities and associated substrate texture at 45 sites in the Columbia River estuary. Replicate samples were made at each site every 3 months for 1 year.

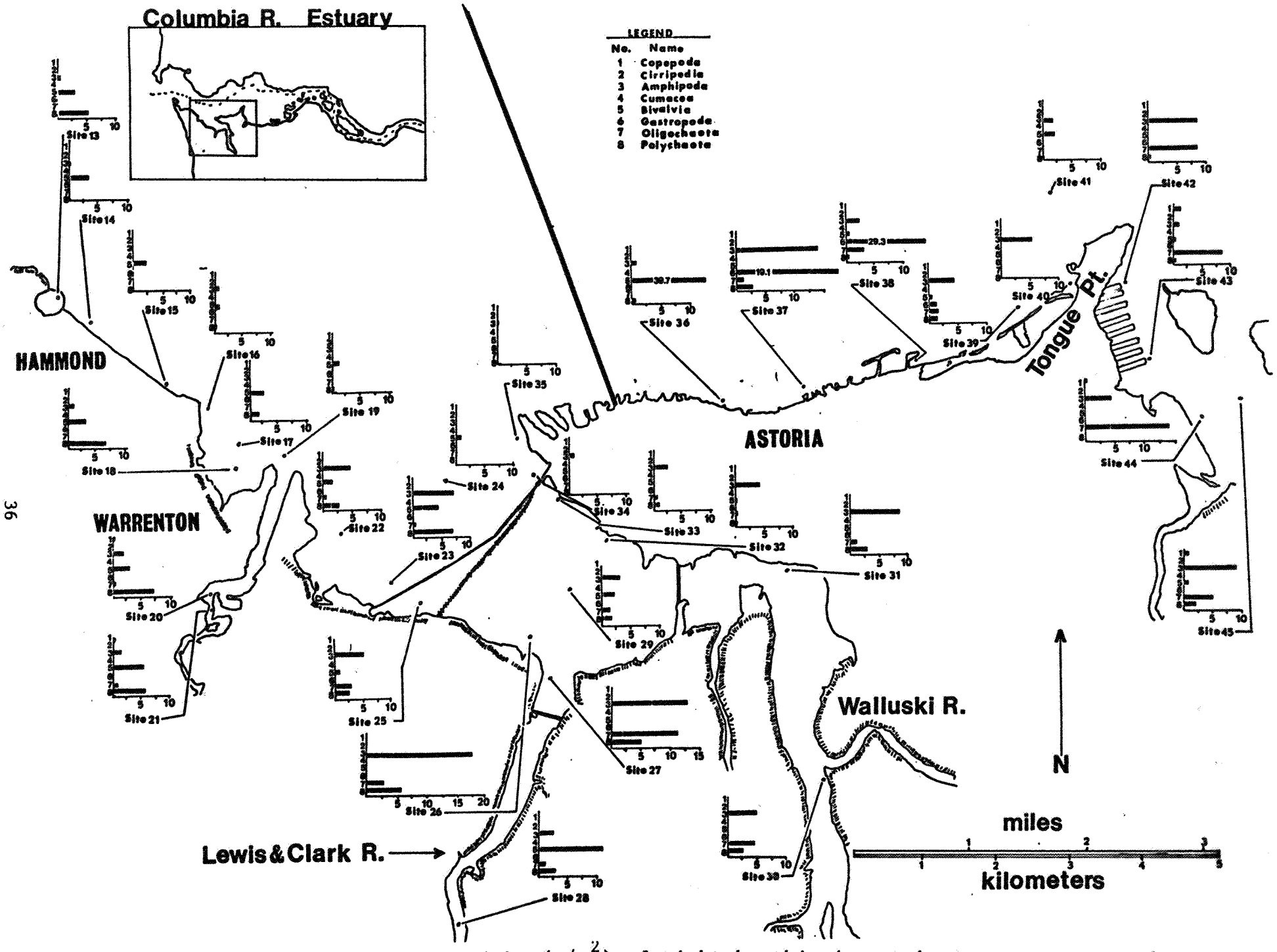

Figure 13.--Annual average weight (g/m^2) of eight benthic invertebrate groups occurring at 33 Oregon sites between June 1977 and March 1978.

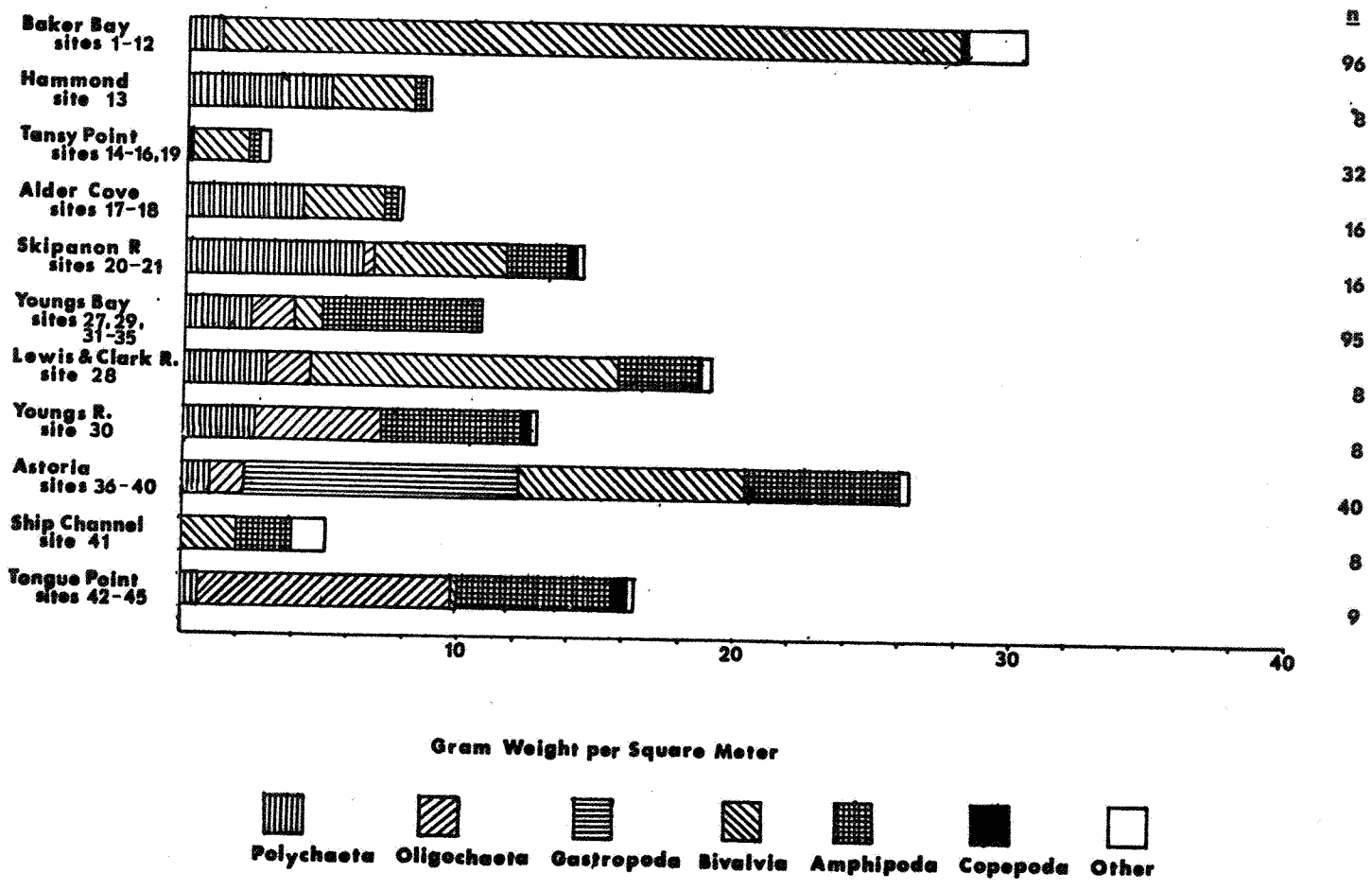

Figure 14.--The comparative weight (g/m^2) of various groups of benthic invertebrates at similar geographic sites. (n = number of samples.)

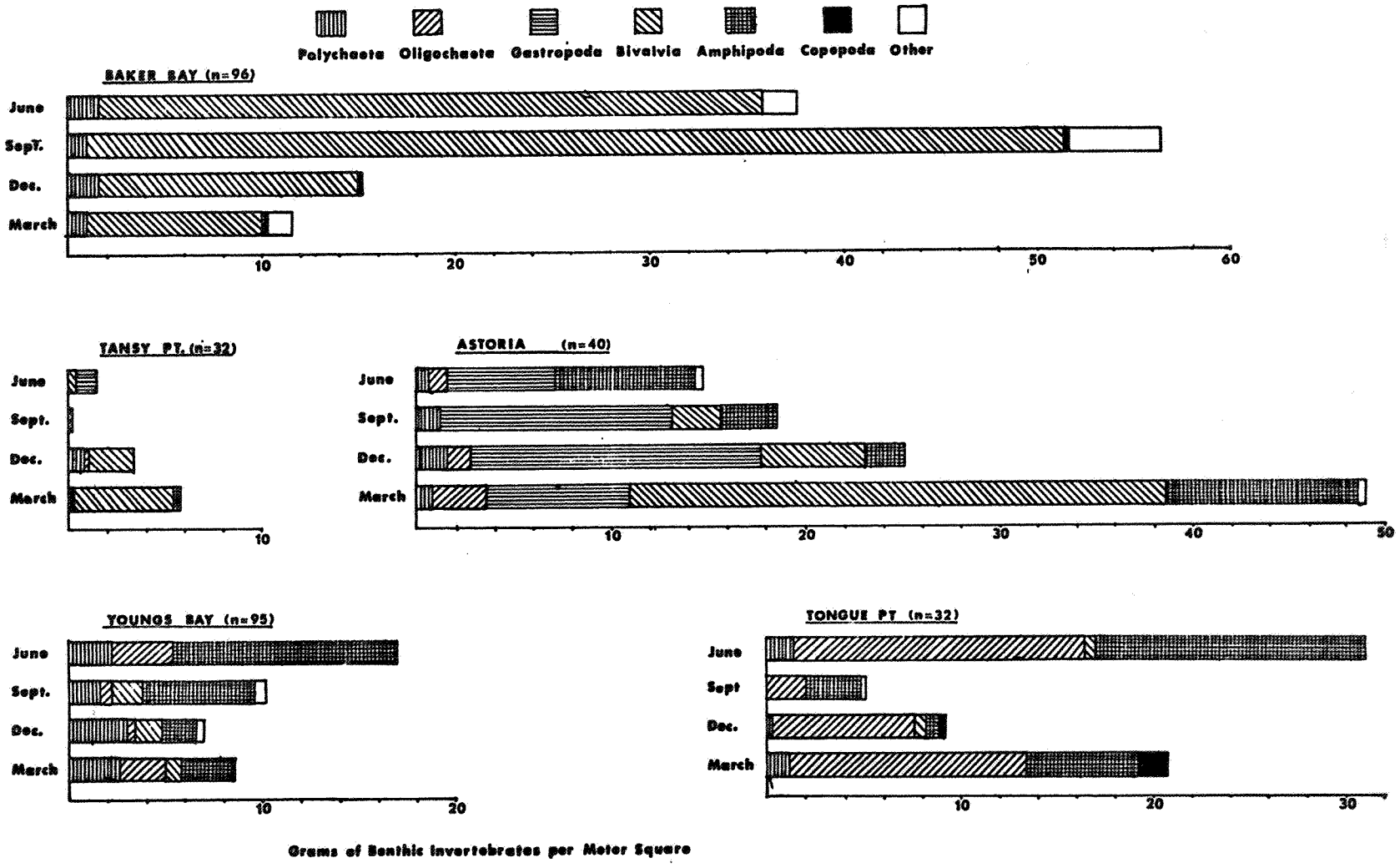

Figure 15.--Seasonal weight (g/m^2) comparison of selected groups of benthic invertebrates found at five subareas in the Columbia River estuary. (n = number of samples.)

Benthic invertebrate and substrate samples were taken with a 0.05 m^2 Ponar dredge. Water quality measurements were made just above the bottom and just below the surface in conjunction with the benthic sampling effort. Most sites were in estuarine embayments and in depths of less than 10 feet mlw.

The levels of water quality indicators measured were suitable for survival of aquatic estuarine species--ranges: salinity, 0.06 to 31.42 ppt; temperature, 5.1° to 19.8°C; O_2, 6.0 to 12.2 ppm; and pH, 6.45 to 9.0.

Sediment particle sizes were examined on an annual and seasonal basis. Annual averages indicated Baker Bay sites were primarily fine and medium grain sand, though proportions of very fine sand, silt, and clay did occur. Particle texture found at sites on the Oregon side varied considerably. Fine sand was a major component of sediments at Hammond, Tansy Point, Skipanon River, and northeastern Youngs Bay. Silt and very fine sand characterized the eastern and interior sites in Youngs Bay and Tongue Point. A mix of coarse and fine sediments occurred off Astoria. Areas with four or more sites revealed a gradual accumulation of fine grain material from June through March.

Examination of the organic content of sediments, expressed as percent volatile solids, indicated two areas, the Skipanon River and Lewis and Clark River, consistently exceeded EPA standards of 6%.

Benthic invertebrates collected were chiefly amphipods, oligochaetes, polychaetes, nematodes, bivalves, and copepods. Nemertea, gastropods, cirripedia, cumacea, and diptera were sporadically abundant at various sites but were geographically limited. The benthic infauna community at

Baker Bay sites was made up of polychaetes, bivalves, cumaceans, cirrepedias, and amphipods ranging in population from 1500 to 4000/m^2. On the Oregon side, the benthic community structure off Hammond was dominated by polychaetes, but the average quantities were below 5,000/m^2. Youngs Bay, Skipanon River, Youngs River, and Lewis and Clark River sites contained a diverse mix of amphipods, oligochaetes, polychaetes, copepods, and bivalves; the average population ranged from several thousand to over 58,000/m^2. Sites off Astoria were generally rich and diverse but varied in numbers and community structure. Tongue Point sites had benthic communities that exceeded an average of 20,000/m^2. Apparent seasonal differences in invertebrate numbers were noted based upon combined catches in specific areas. Seasonal abundance varied with the study area. Weights of bivalves and gastropoda dominated invertebrate weights at sites where they were numerous. Numerically important copepods provided only minor sample weight. Seasonal weight changes corresponded with numerical changes except at the Astoria group of stations.

ACKNOWLEDGEMENTS

Nick Zorich and Roy Pettit operated and maintained our 12.2 m vessel. Lawrence Davis, Edward Keller, and Robert McConnell gathered all water quality measurements and helped verify benthic invertebrate counts. Travis Coley prepared charts and bibliographic data. Murray Amos provided statistical guidance and examined analysis of variance tests for applicability. Candace Van Dulcen, Sue Doumitt, Amy White, Linda Jennings, and Liam Antrim sorted, categorized, and counted benthic invertebrates. Nancy Ellifrit and Jack Kincheloe, FWS, Portland, guided site selection to obtain data to fit the habitat classification goal. Nancy Ellifrit; Duane Higley, OSU; and Karl Banse, University of Washington, provided expert identification of some troublesome invertebrates. Our sincere appreciation is offered to each of the individuals noted who worked with us on this study and to anyone we may have inadvertently neglected to mention.

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APPENDIX A

LOCATION AND DESCRIPTION OF SAMPLING SITES

JUNE 1977-MARCH 1978

STATION	LATITUDE	LONGITUDE	MEAN DEPTH (ft)	CLASSIFICATION	REMARKS
1	46°15'13"N	123°56'10"W	6.1	subtidal	NMFS anchor and buoy east of Chinook Jetty
2	46°15'48"N	123°57'39"W	6.6	subtidal	50-75' W. of Dolphin '5' in Chinook Channel
3	46°16'24"N	123°57'00"W	4.4	intertidal	single piling 250'W. of Chinook cannery dock
4	46°16'00"N	123°58'24"W	5.1	intertidal	single piling 200' NE of tower
5	46°16'13"N	123°59'55"W	11.9	subtidal	tower between upper and lower Sand Island
6	46°16'56"N	123°59'33"W	7.3	subtidal	NMFS anchor & buoy center of Baker Bay
7	46°17'33"N	123°58'23"W	4.5	intertidal	4000'South of Chinook River mouth
8	46°17'27"N	124°01'06"W	8.6	subtidal	Piling East of North end of Sand Island
9	46°17'9"N	124°03'00"W	14.4	subtidal	N. off end of public boat landing Jetty
10	46°18'04"N	124°02'20"W	8.5	subtidal	piling with arrow sign off entrance Ilwaco Harbor Jetty
11	46°18'17"N	124°01'49"W	4.1	intertidal	NMFS anchor & buoy 900' NE Ilwaco Harbor Jetty
12	46°18'42"N	124°01'49"W	3.4	intertidal	2400 SSE Wallacut River mouth
13	46°12'15"N	123°56'50"W	4.8	intertidal	piling inside and 100' SE of Hammond Harbor entrance
14	46°12'03"N	123°56'30"W	11.9	subtidal	NMFS anchor & buoy 500 NW of Pt. Adams dock

STATION	LATITUDE	LONGITUDE	MEAN DEPTH (ft)	CLASSIFICATION	REMARKS
15	46°11'36"N	123°55'38"W	11.1	subtidal	piling jetty 1000 ft. NW of Pacific shrimp dock
16	46°11'23"N	123°55'11"W	15.5	subtidal	tower 900' SE of Pacific shrimp dock
17	46°11'12"N	123°54'55"W	5.9	intertidal	outer alder cove 2600' SE Pacific shrimp dock
18	46°10'58"N	123°54'55"W	4.3	intertidal	interior alder cove 3600' SE Pacific shrimp dock
19	46°11'05"N	123°54'22"W	7.9	subtidal	tide gauge dolphin west entrance of Skipanon River
20	46°10'02"N	123°55'11"W	5.8	subtidal	simple piling on east bend of river opposite warren house
21	46°09'57"N	123°55'11"W	8.9	subtidal	50' N of railroad bridge crossing Skipanon River
22	46°10'31"N	123°53'45"W	7.1	intertidal	NMFS anchor and buoy 3900' SE Skipanon River entrance
23	46°10'06"N	123°53'11"W	5.5	intertidal	NMFS anchor buoy 600' north of Youngs Bay bridge
24	46°10'54"N	123°52'35"W	10.3	subtidal	navigation dolphin at outer Youngs Bay
25	46°09'58"N	123°52'50"W	5.8	intertidal	NMFS anchor & buoy between highway bridge and railroad bridge
26	46°09'46"N	123°51'45"W	4.5	intertidal	NMFS anchor & buoy-line up red buoy dolphin, KAST tower 500' from west shore
27	46°09'28"N	123°51'32"W	4.4	intertidal	NMFS anchor & buoy 1500' N of highway bridge

STATION	LATITUDE	LONGITUDE	MEAN DEPTH (ft)	CLASSIFICATION	REMARKS
28	46°07'37"N	123°52'28"W	9.8	subtidal	Dolphin 900' south of Ft. Clatsop landing
29	46°10'03"N	123°51'21"W	10.5	subtidal	dolphin #6 in center in Youngs Bay
30	46°08'42"N	123°48'36"W	12.5	subtidal	Piling in Youngs River 300' South of Walluski river mouth
31	46°10'14"N	123°49'00"W	6.3	intertidal	piling 400' east of highline power lines
32	46°10'27"N	123°50'55"W	7.1	subtidal	NMFS anchor & buoy 500' south of east KAST radio tower
33	46°10'44"N	123°51'27"W	8.3	subtidal	NMFS anchor & buoy 300' south Garcia Ford garage
34	46°10'55"N	123°51'43"W	5.7	intertidal	NMFS anchor & buoy 100' NW of bridge approach
35	46°11'13"N	123°51'55"W	6.6	subtidal	NMFS anchor & buoy 300' W. of Port landfill
36	46°11'30"N	123°49'44"W	27.1	subtidal	Oregon Marine Pier Piling
37	46°11'36"N	123°48'50"W	15.0	subtidal	piling N. of IBD Bldg. NW of Astoria Plywood
38	46°12'10"N	123°46'34"W	7.3	subtidal	dolphin inside Bumble Bee cold storage pier

STATION	LATITUDE	LONGITUDE	MEAN DEPTH (ft)	CLASSIFICATION	REMARKS
39	46°12'10"N	123°46'34"W	11.6	subtidal	4-pilings 150'SW of orange piling
40	46°12'21"N	123°46'00"W	5.8	intertidal	NMFS anchor & buoy 150'SW of Coast Guard ramp
41	46°13'02"N	123°46'16"W	33.3	subtidal	150' SW of black navigation buoy 43
42	46°12'20"N	123°45'29"W	18.3	subtidal	end of North Pier 8 at Tongue Point
43	46°11'46"N	123°45'14"W	12.0	subtidal	end of South Pier 1 at Tongue Point
44	46°11'23"N	123°44'38"W	14.4	subtidal	SE dolphin at corps of Engineers dock
45	46°11'28"N	123°44'14"W	21.0	subtidal	NMFS anchor & buoy center of Mott basin

APPENDIX B

WATER QUALITY AND SEDIMENT DATA

JUNE 1977-MARCH 1978

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE
DATE	27	27	24	24	24	24	27	27	24	24
TIME	0935	0945	1051	1100	1115	1125	1010	1020	1210	1220
DEPTH (ft.)	8.0	8.0	7.0	7.0	5.0	5.0	6.0	6.0	9.0	9.0
Water quality data										
TEMP. SURFACE (°C)	16.0	16.0	16.9	16.9	17.6	17.6	15.5	15.5	17.0	17.0
TEMP. BOTTOM (°C)	13.9	13.9	15.5	15.5	17.0	17.0	11.8	14.8	16.8	16.8
CON. SURFACE*	12.18	12.18	09.26	09.26	15.3	15.3	17.45	17.45	12.42	12.42
CON. BOTTOM *	23.16	23.16	28.55	28.55	16.03	16.03	20.74	20.74	12.88	12.88
SAL. SURFACE (ppt)	08.76	08.76	06.44	06.44	10.74	10.74	13.08	13.08	08.68	08.68
SAL. BOTTOM (ppt)	18.45	18.45	23.91	23.91	11.27	11.27	16.02	16.02	14.1	14.1
TUR. SURFACE (FTU)	03.5	03.5	06.7	06.7	08.0	08.0	03.7	03.7	02.5	02.5
TUR. BOTTOM (FTU)	02.5	02.5	09.0	09.0	02.5	02.5	02.5	02.5	02.5	02.5
pH SURFACE	07.9	07.9	07.75	07.75	08.4	08.4	08.2	08.2	08.65	08.65
pH BOTTOM	08.0	08.0	07.8	07.8	08.65	08.65	08.2	08.2	08.75	08.75
O_2 SURFACE (mg/1)	08.1	08.1	08.9	08.9	08.4	08.4	07.7	07.7	08.6	08.6
O_2 BOTTOM (mg/1)	07.5	07.5	07.0	07.0	08.6	08.6	07.9	07.9	09.0	09.0
Sediment data										
PARTICLE SIZE (mm)	%									
> 8	-----	-----	-----	-----	-----	-----	-----	-----	21.41	09.08
2-8	00.78	-----	-----	-----	-----	-----	-----	-----	03.66	04.70
1-2	02.27	02.44	04.34	01.33	00.51	00.20	00.51	00.47	00.86	00.94
0.5-1	05.77	05.62	08.64	03.99	00.69	03.61	01.10	01.22	01.27	00.92
0.25-0.5	13.48	14.98	22.98	28.95	27.16	30.56	54.49	52.00	07.54	10.55
0.125-0.25	35.44	42.18	25.35	38.14	56.95	48.31	39.77	44.34	55.78	66.34
0.063-0.125	13.71	11.83	12.90	07.07	09.08	13.55	01.07	01.26	06.89	05.80
0.002-0.063	25.70	20.66	20.63	16.42	05.61	03.77	02.96	00.71	02.58	01.67
< 0.002	02.85	02.29	05.16	04.10	-----	-----	-----	-----	-----	-----
ORG. CONTENT	03.49	02.75	05.71	03.92	01.55	03.08	01.01	00.89	01.88	01.80

*(millimho/cm)

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE
DATE	27	27	27	27	27	27	24	24	24	24
TIME	1035	1040	1110	1120	1150	1155	1255	1305	1320	1330
DEPTH (ft.)	06.0	06.0	2.5	2.5	14.0	14.0	16.0	16.0	07.0	07.0
Water quality data										
TEMP. SURFACE	14.2	14.2	16.0	16.0	15.40	15.4	17.0	17.0	17.3	17.3
TEMP. BOTTOM	14.2	14.2	16.0	16.0	12.8	12.8	15.7	15.7	16.8	16.8
CON. SURFACE	20.64	20.64	14.9	14.9	19.05	19.05	14.94	14.94	14.68	14.68
CON. BOTTOM	22.22	22.22	14.9	14.9	26.24	26.24	18.92	18.92	15.59	15.59
SAL. SURFACE	15.79	15.79	10.75	10.75	14.32	14.32	10.53	10.53	10.19	10.19
SAL. BOTTOM	17.5	17.5	10.75	10.75	21.74	21.74	14.08	14.08	11.11	11.11
TUR. SURFACE	01.5	01.5	02.6	02.6	01.3	01.3	04.7	04.7	12.0	12.0
TUR. BOTTOM	01.5	01.5	02.6	02.6	03.0	03.0	06.7	06.9	07.8	07.8
pH SURFACE	08.15	08.15	07.45	07.45	08.3	08.3	08.6	08.6	08.7	08.7
pH BOTTOM	08.15	08.15	07.45	07.45	08.5	08.5	08.7	08.7	08.75	08.75
O_2 SURFACE	07.5	07.5	08.1	08.1	07.7	07.7	09.3	09.3	09.5	09.5
O_2 BOTTOM	08.1	08.1	08.1	08.1	06.7	06.7	09.8	08.8	10.1	10.1
Sediment data										
PARTICLE SIZE (mm)	%									
> 8	-----	-----	-----	-----	-----	-----	09.33	-----	-----	-----
2-8	-----	-----	-----	-----	-----	00.40	01.50	-----	-----	-----
1-2	00.21	00.31	00.62	00.23	00.75	00.55	00.54	00.50	03.66	01.03
0.5-1	00.71	01.52	00.54	00.57	03.98	02.71	00.63	01.01	08.86	07.65
0.25-0.5	10.08	10.46	40.19	45.82	24.21	24.14	37.15	40.73	08.67	10.04
0.125-0.25	73.75	71.43	58.25	52.85	31.23	31.40	49.75	57.06	10.04	12.20
0.063-0.125	13.98	14.80	00.26	00.32	19.17	19.50	00.58	00.55	18.14	18.60
0.002-0.063	01.27	01.48	00.14	00.21	16.53	17.04	00.52	00.15	37.97	37.86
< 0.002	-----	-----	-----	-----	04.13	04.26	-----	-----	12.66	12.62
ORG. CONTENT	01.52	02.02	01.20	01.18	02.86	03.13	02.61	01.00	07.28	07.23

*(millimho/cm)

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE
DATE	27	27	27	27	16	16	16	16	16	16
TIME	1205	1215	1220	1225	1535	1545	1125	1140	1250	1255
DEPTH (ft.)	3.0	3.0	2.5	2.5	6.0	6.0	10.0	10.0	15.0	15.0
Water quality data										
TEMP. SURFACE	16.0	16.0	16.6	16.6	18.0	18.0	15.8	15.8	16.0	16.0
TEMP. BOTTOM	16.0	16.0	16.6	16.6	17.5	17.5	15.6	15.6	15.4	15.4
CON. SURFACE	19.6	19.6	19.24	19.24	06.25	06.25	06.0	06.0	06.8	06.8
CON. BOTTOM	19.6	19.6	19.24	19.24	12.82	12.82	07.5	07.5	09.41	09.41
SAL. SURFACE	13.94	13.94	13.98	13.98	04.13	04.13	04.2	04.2	04.76	04.76
SAL. BOTTOM	13.94	13.94	13.98	13.98	09.24	09.24	05.34	05.34	06.80	06.80
TUR. SURFACE	03.7	03.7	04.0	04.0	04.7	04.7	03.8	03.8	05.2	05.2
TUR. BOTTOM	03.7	03.7	04.0	04.0	05.3	05.3	05.70	05.7	07.4	07.4
pH SURFACE	07.45	07.45	07.8	07.8	08.3	08.3	08.3	08.3	07.98	07.98
pH BOTTOM	07.45	07.45	07.8	07.8	08.3	08.3	07.95	07.95	08.2	08.2
O_2 SURFACE	07.6	07.6	08.3	08.3	08.4	08.4	08.4	08.4	07.9	07.9
O_2 BOTTOM	07.6	07.6	08.3	08.3	08.0	08.0	08.0	08.0	08.2	08.2

Sediment data

PARTICLE SIZE (mm)	%									
> 8	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2-8	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
1-2	05.62	02.33	00.66	00.35	00.90	00.32	00.29	00.02	00.03	00.12
0.5-1	13.0	19.96	05.29	03.21	01.82	03.45	02.54	00.64	00.19	00.25
0.25-0.5	08.39	08.76	08.42	09.53	17.49	12.48	45.54	43.82	17.70	18.39
0.125-0.25	08.23	08.19	22.22	22.92	31.60	38.73	45.60	53.73	70.33	70.28
0.063-0.125	24.65	23.45	40.76	40.67	29.23	26.50	02.47	01.54	10.02	09.26
0.002-0.063	30.08	27.98	18.12	18.66	19.96	18.52	03.56	00.25	01.73	01.70
< 0.002	10.03	09.33	04.53	04.66	-----	-----	-----	-----	-----	-----
ORG. CONTENT	05.49	05.53	03.12	03.35	02.91	03.85	01.52	00.84	00.93	00.96

*(millimho/cm)

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE
DATE	16	16	16	16	16	16	16	16	16	16
TIME	1305	1315	1335	1345	1355	1405	1415	1420	1435	1440
DEPTH (ft.)	17.0	17.0	6.0	6.0	4.0	4.0	8.0	8.0	9.0	9.0
Water quality data										
TEMP. SURFACE	15.90	15.90	16.20	16.20	17.20	17.20	16.40	16.40	17.20	17.20
TEMP. BOTTOM	14.90	14.90	16.0	16.0	17.20	17.20	15.60	15.60	17.0	17.0
CON. SURFACE	08.71	08.71	07.91	07.91	06.86	06.86	07.15	07.15	04.26	04.26
CON. BOTTOM	13.54	13.54	8.0	8.0	06.86	06.86	10.76	10.76	04.78	04.78
SAL. SURFACE	06.17	06.17	05.5	05.5	04.67	04.67	04.98	04.98	02.86	02.86
SAL. BOTTOM	10.10	10.10	05.62	05.62	04.67	04.67	07.78	07.78	03.24	03.24
TUR. SURFACE	03.5	03.5	05.2	05.2	03.5	03.5	04.3	04.30	05.3	05.3
TUR. BOTTOM	09.0	09.0	06.7	06.7	03.5	03.5	05.5	05.5	06.0	06.0
pH SURFACE	08.2	08.2	08.25	08.25	08.15	08.15	08.3	08.3	08.15	08.15
pH BOTTOM	08.1	08.1	08.45	08.45	08.2	08.2	08.4	08.4	07.5	07.5
O_2 SURFACE	07.9	07.9	07.9	07.9	08.2	08.2	08.0	08.0	07.8	07.8
O_2 BOTTOM	08.5	08.5	08.2	08.2	08.3	08.3	08.4	08.4	07.2	07.2
Sediment data										
PARTICLE SIZE (mm)	%									
> 8	-----	-----	-----	-----	-----	-----	-----	-----	-----	09.23
2-8	-----	-----	-----	-----	-----	-----	-----	-----	22.31	23.31
1-2	00.01	00.44	00.23	00.31	00.17	00.06	01.71	00.28	16.93	10.33
0.5-1	04.01	00.74	00.70	00.67	03.25	02.91	00.83	00.89	13.88	09.98
0.25-0.5	22.66	30.44	08.83	10.85	03.64	03.95	19.22	18.19	01.02	06.96
0.125-0.25	45.57	59.82	76.45	74.05	32.36	32.89	75.21	76.65	16.45	13.26
0.063-0.125	06.91	05.86	10.64	09.71	31.87	30.38	02.48	02.95	07.69	06.10
0.002-0.063	14.59	02.70	03.15	04.41	21.53	22.36	00.55	01.04	15.20	14.51
< 0.002	06.25	-----	-----	-----	07.18	07.45	-----	-----	06.52	06.25
ORG. CONTENT	02.55	00.95	01.27	01.37	03.05	03.01	01.07	01.12	19.56	20.27

*(millimho/cm)

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE
DATE	16	16	29	29	29	29	23	23	29	29
TIME	1455	1500	1445	1455	1410	1420	1315	1325	1325	1330
DEPTH (ft.)	12.0	12.0	6.0	6.0	5.0	5.0	8.0	8.0	4.0	4.0
Water quality data										
TEMP. SURFACE	17.6	17.6	18.3	18.3	18.8	18.8	18.0	18.0	18.3	18.3
TEMP. BOTTOM	17.1	17.1	18.2	18.2	18.7	18.7	17.4	17.4	18.3	18.3
CON. SURFACE	04.07	04.07	06.0	06.0	04.54	04.54	06.54	06.54	04.51	04.51
CON. BOTTOM	05.0	05.0	06.18	06.18	04.46	04.46	08.04	08.04	04.60	04.60
SAL. SURFACE	02.72	02.72	03.96	03.96	02.98	02.98	04.4	04.4	02.96	02.96
SAL. BOTTOM	03.40	03.40	04.0	04.0	03.0	03.0	05.64	05.64	03.04	03.04
TUR. SURFACE	04.7	04.7	04.5	04.5	04.0	04.0	07.5	07.5	06.6	06.6
TUR. BOTTOM	05.3	05.3	04.5	04.5	04.0	04.0	08.5	08.5	16.0	16.0
pH SURFACE	08.05	08.05	07.4	07.4	07.55	07.55	07.9	07.9	07.0	07.0
pH BOTTOM	07.9	07.9	07.1	07.1	07.55	07.55	07.9	07.9	07.0	07.0
O_2 SURFACE	07.8	07.8	08.0	08.0	08.0	08.0	07.4	07.40	08.6	08.6
O_2 BOTTOM	07.1	07.1	08.1	08.1	08.4	08.4	07.9	07.9	08.4	08.4
Sediment data										
PARTICLE SIZE (mm)	%									
> 8	-----	06.56	-----	-----	-----	-----	-----	-----	-----	-----
2-8	03.90	02.97	-----	-----	-----	-----	-----	-----	-----	-----
1-2	04.32	02.14	00.03	00.03	00.02	00.04	-----	-----	00.17	00.51
0.5-1	10.41	10.01	01.06	00.94	01.79	01.63	00.53	00.91	12.98	17.65
0.25-0.5	25.59	21.13	02.96	03.16	03.75	04.34	17.97	18.46	09.92	09.92
0.125-0.25	42.05	43.65	41.22	48.16	05.80	06.22	75.98	73.35	05.73	02.38
0.063-0.125	04.91	04.84	41.28	38.72	31.14	34.49	05.14	06.30	07.58	07.62
0.002-0.063	08.82	08.70	13.45	08.99	51.75	47.95	00.38	00.98	51.18	49.54
< 0.002	-----	-----	-----	-----	05.75	05.33	-----	-----	12.79	12.38
ORG. CONTENT	09.11	09.80	02.59	02.21	03.61	03.39	01.36	01.55	06.86	06.64

*(millimho/cm)

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE
DATE	29	29	29	29	23	23	23	23	23	23
TIME	1245	1255	1225	1235	1515	1530	1330	1340	1415	1425
DEPTH (ft.)	4.0	4.0	5.0	5.0	9.0	9.0	7.0	7.0	9.0	9.0
Water quality data										
TEMP. SURFACE	19.4	19.4	19.0	19.0	18.8	18.8	18.8	18.8	21.6	21.6
TEMP. BOTTOM	19.2	19.2	19.4	19.4	18.8	18.8	18.5	18.5	20.6	20.6
CON. SURFACE	03.82	03.82	03.66	03.66	01.73	01.73	06.18	06.18	03.15	03.15
CON. BOTTOM	03.82	03.82	03.66	03.66	01.70	01.70	06.20	06.20	03.72	03.72
SAL. SURFACE	02.54	02.54	02.38	02.38	01.1	01.1	04.14	04.14	02.06	02.06
SAL. BOTTOM	02.54	02.54	02.38	02.38	01.1	01.1	04.15	04.15	02.48	02.48
TUR. SURFACE	12.0	12.0	09.5	09.5	15.0	15.0	15.0	08.30	08.7	08.7
TUR. BOTTOM	12.0	12.0	07.5	07.5	20.0	20.0	08.7	08.7	08.7	08.7
pH SURFACE	07.55	07.55	07.55	07.55	07.5	07.5	07.85	07.85	07.7	07.8
pH BOTTOM	07.55	07.55	07.55	07.55	07.5	07.5	07.85	07.85	07.7	07.7
O_2 SURFACE	07.9	07.9	07.9	07.9	05.5	05.5	06.9	06.9	07.3	07.3
O_2 BOTTOM	08.1	08.1	08.1	08.1	06.1	06.1	07.1	07.1	07.5	07.5
Sediment data										
PARTICLE SIZE (mm)	%									
>8	-----	-----	-----	-----	18.13	27.51	-----	-----	-----	-----
2-8	-----	-----	-----	-----	26.20	28.85	-----	-----	-----	-----
1-2	00.04	-----	00.11	00.19	10.75	09.00	00.05	00.21	00.54	00.18
0.5-1	01.41	03.12	02.25	02.96	09.43	06.60	00.99	01.39	03.42	01.49
0.25-0.5	04.26	04.22	04.38	03.75	08.88	06.46	11.99	12.88	04.21	02.38
0.125-0.25	20.81	18.16	07.24	07.22	12.78	09.56	55.63	59.43	14.50	14.41
0.063-0.125	38.71	35.88	23.53	24.15	05.15	04.46	24.39	19.78	40.78	49.75
0.002-0.063	31.29	34.76	49.99	49.38	08.68	07.56	06.95	06.31	29.24	25.43
<0.002	03.48	03.86	12.50	12.35	-----	-----	-----	-----	07.31	36.77
ORG. CONTENT	03.52	04.02	04.67	04.13	66.21	58.77	02.26	01.85	04.99	04.31

*(millimho/cm)

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE
DATE	23	23	29	29	29	29	29	29	29	29
TIME	1350	1400	1205	1210	1145	1155	1055	1105	1120	1130
DEPTH (ft.)	3.0	3.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	4.0
TEMP. SURFACE	19.4	19.4	19.0	19.0	19.2	19.2	18.6	18.6	18.2	18.2
Water quality data										
TEMP. BOTTOM	19.4	19.4	19.0	19.0	19.2	19.2	18.4	18.4	18.0	18.0
CON. SURFACE	04.7	07.4	04.9	04.9	04.74	04.74	04.86	04.86	07.02	07.02
CON. BOTTOM	04.7	07.4	05.22	05.22	05.36	05.36	04.86	04.86	07.0	07.0
SAL. SURFACE	03.01	03.01	03.18	03.18	03.14	03.14	03.24	03.24	04.71	04.71
SAL. BOTTOM	03.01	03.01	03.46	03.46	03.60	03.60	03.24	03.24	04.71	04.71
TUR. SURFACE	09.7	09.7	07.0	07.0	05.5	05.5	06.7	06.7	08.5	08.5
TUR. BOTTOM	09.7	09.7	08.0	08.0	06.5	06.5	09.0	09.0	09.3	09.3
pH SURFACE	07.7	07.7	07.5	07.5	07.5	07.5	07.55	07.55	07.75	07.75
pH BOTTOM	07.7	07.7	07.55	07.55	07.6	07.6	07.9	07.9	07.75	07.75
O_2 SURFACE	06.8	06.8	07.9	07.9	07.8	07.8	07.8	07.8	07.5	07.5
O_2 BOTTOM	06.8	06.8	08.0	08.0	07.8	07.8	07.9	07.9	07.6	07.6
Sediment data										
PARTICLE SIZE (mm)	%									
> 8	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2-8	-----	00.05	-----	-----	-----	-----	-----	00.27	-----	-----
1-2	01.89	02.00	-----	00.06	-----	00.03	00.13	00.06	-----	00.11
0.5-1	08.51	06.71	00.39	00.45	00.36	00.41	00.60	00.63	00.38	00.31
0.25-0.5	04.78	04.73	16.24	16.13	15.17	11.23	32.49	18.04	51.77	52.70
0.125-0.25	05.22	05.48	58.06	61.25	67.96	64.33	56.39	67.85	44.67	44.10
0.063-0.125	17.88	23.45	20.53	18.64	12.76	18.17	09.42	11.96	02.56	02.33
0.002-0.063	49.38	46.06	04.78	03.47	03.75	05.83	00.97	01.19	00.62	00.41
< 0.002	12.34	11.52	-----	-----	-----	-----	-----	-----	-----	-----
ORG. CONTENT	05.89	05.28	01.61	01.59	01.58	01.59	01.84	02.04	01.17	01.09

*(millimho/cm)

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE
DATE	17	17	17	17	23	23	23	23	23	23
TIME	1223	1245	1258	1315	1240	1250	1225	1235	1200	1205
DEPTH (ft.)	22.0	22.0	14.0	14.0	06.0	06.0	10.0	10.0	3.0	3.0
Water quality data										
TEMP. SURFACE	17.9	17.9	17.4	17.4	18.4	18.4	19.1	19.1	18.2	18.2
TEMP. BOTTOM	17.2	17.2	17.2	17.2	18.0	18.0	18.8	18.8	18.2	18.2
CON. SURFACE	00.44	00.44	01.45	01.45	03.74	03.74	03.20	03.20	03.08	03.08
CON. BOTTOM	01.92	01.92	01.70	01.70	04.04	04.04	04.66	04.66	03.08	03.08
SAL. SURFACE	00.92	00.92	00.92	00.92	02.41	02.41	02.12	02.12	02.04	02.04
SAL. BOTTOM	01.28	01.28	01.11	01.11	02.69	02.69	03.08	03.08	02.04	02.04
TUR. SURFACE	05.2	05.2	04.5	04.5	04.5	04.5	03.0	03.0	03.5	03.5
TUR. BOTTOM	06.7	06.7	05.0	05.0	04.5	04.5	04.5	04.5	03.5	03.5
pH SURFACE	08.1	08.1	08.4	08.4	08.25	08.25	07.9	07.9	07.85	07.85
pH BOTTOM	08.2	08.2	08.3	08.3	08.15	08.15	08.1	08.1	07.85	07.85
O_2 SURFACE	08.7	08.7	08.6	08.6	08.5	08.5	08.4	08.4	08.3	08.3
O_2 BOTTOM	08.1	08.1	09.1	09.1	08.9	08.9	08.8	08.8	08.3	08.3
Sediment data										
PARTICLE SIZE (mm)	%									
> 8	-----	-----	-----	-----	-----	-----	-----	11.92	-----	-----
2-8	03.83	03.71	01.44	01.09	11.70	09.53	02.08	00.73	-----	-----
1-2	03.79	02.92	05.26	02.21	03.32	05.30	01.30	02.73	00.23	00.23
0.5-1	09.79	11.92	11.67	04.45	03.50	05.51	04.73	12.74	00.27	00.59
00.25-0.5	07.34	08.30	08.60	07.59	17.54	22.75	13.16	06.39	18.22	15.36
0.125-0.25	14.57	19.05	17.20	39.84	20.66	18.68	36.21	25.31	75.39	75.94
0.063-0.125	23.76	24.13	22.30	34.27	29.04	25.33	27.06	20.62	05.12	06.60
0.002-0.063	29.54	23.98	26.79	10.55	14.24	12.90	15.46	19.54	00.77	01.28
< 0.002	07.38	05.98	06.70	-----	-----	-----	-----	-----	-----	-----
ORG. CONTENT	04.48	03.47	07.02	05.41	04.97	06.34	03.09	03.90	01.00	01.09

*(millimho/cm)

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE	JUNE
DATE	23	23	17	17	17	17	17	17	17	17
TIME	1135	1140	1340	1350	1405	1410	1450	1455	1425	1435
DEPTH (ft.)	40.0	40.0	26.0	26.0	16.0	16.0	20.0	20.0	28.0	28.0
Water quality data										
TEMP. SURFACE	18.2	18.2	17.4	17.4	17.6	17.6	17.8	17.8	17.7	17.7
TEMP. BOTTOM	18.0	18.0	17.4	17.4	17.4	17.4	17.3	17.3	17.3	17.3
CON. SURFACE	00.16	00.16	00.14	00.14	00.18	00.18	00.20	00.27	00.19	00.19
CON. BOTTOM	00.16	00.16	00.14	00.14	00.28	00.28	00.18	00.18	00.19	00.19
SAL. SURFACE	00.07	00.07	00.07	00.07	00.10	00.10	00.12	00.12	00.06	00.06
SAL. BOTTOM	00.07	00.07	00.07	00.07	00.17	00.17	00.09	00.09	00.06	00.06
TUR. SURFACE	06.0	06.0	04.5	04.5	06.2	06.2	05.7	05.7	05.3	05.3
TUR. BOTTOM	07.0	07.0	05.2	05.2	07.0	07.0	08.5	08.5	07.5	07.5
pH SURFACE	07.85	07.85	08.5	08.5	08.25	08.25	08.0	08.0	07.95	07.95
pH BOTTOM	07.85	07.85	08.45	08.45	08.1	08.1	08.05	08.05	07.85	07.85
O_2 SURFACE	09.1	09.1	09.0	09.0	08.6	08.6	08.8	08,8	08.4	08.4
O_2 BOTTOM	09.3	09.3	09.6	09.6	08.4	08.4	09.4	09.4	07.2	07.2
Sediment data										
PARTICLE SIZE (mm)	%									
> 8	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2-8	00.64	-----	-----	-----	-----	-----	-----	-----	00.15	-----
1-2	00.91	00.67	01.72	00.57	00.56	02.27	02.15	04.11	01.67	00.13
0.5-1	06.21	06.51	12.53	06.55	06.73	09.20	08.93	08.36	05.08	00.67
0.25-0.5	65.82	63.72	15.34	07.20	05.72	06.20	05.27	04.42	04.11	04.09
0.125-0.25	25.05	28.73	10.89	06.21	06.53	06.84	06.76	05.23	20.88	29.29
0.063-0.125	00.20	00.29	25.37	26.78	26.27	24.45	25.45	24.44	41.05	41.92
0.002-0.063	01.17	00.08	27.32	42.15	43.35	40.83	41.16	42.75	21.65	19.12
< 0.002	-----	-----	06.83	10.54	10.34	10.21	10.29	10.69	05.41	04.78
ORG. CONTENT	00.88	00.82	03.33	04.64	06.28	06.36	06.22	05.68	04.30	03.75

*(millimho/cm)

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT
DATE	15	15	15	15	15	15	15	15	15	15
TIME	1035	1035	1100	1100	1115	1115	1600	1600	1420	1420
DEPTH (ft.)	6.3	6.3	6.3	6.3	3.1	3.1	6.3	6.3	15.8	15.8
Water quality data										
TEMP. SURFACE	17.65	17.65	16.74	16.74	15.82	15.82	15.34	15.34	13.74	13.74
TEMP. BOTTOM	17.43	17.43	14.86	14.86	15.80	15.80	13.34	13.34	11.59	11.59
CON. SURFACE	07.74	07.74	12.98	12.98	17.66	17.66	21.49	21.49	28.78	28.78
CON. BOTTOM	08.12	08.12	21.58	21.58	17.55	17.55	31.98	31.98	34.31	34.31
SAL. SURFACE	05.30	05.30	09.16	09.16	12.95	12.95	16.26	16.26	23.24	23.24
SAL. BOTTOM	05.56	05.56	16.38	16.38	12.90	12.90	26.16	26.16	29.60	29.60
TUR. SURFACE	03.5	03.5	02.8	02.8	03.8	03.8	02.3	02.3	01.7	01.7
TUR. BOTTOM	04.7	04.7	10.00	10.00	05.7	05.7	03.4	03.4	02.5	02.5
pH SURFACE	07.75	07.75	07.75	07.75	07.95	07.95	08.2	08.2	08.5	08.5
pH BOTTOM	07.55	07.55	08.00	08.00	08.00	08.00	08.2	08.2	08.4	08.4
O_2 SURFACE	07.9	07.9	07.9	07.9	07.8	07.8	07.6	07.6	08.0	08.0
O_2 BOTTOM	07.5	07.5	07.6	07.6	07.7	07.7	07.0	07.0	07.4	07.4
Sediment data										
PARTICLE SIZE (mm)	%									
> 8	-----	-----	-----	-----	-----	-----	-----	-----	-----	02.08
2-8	-----	-----	-----	00.07	-----	00.22	00.44	00.23	02.76	14.88
1-2	01.55	03.14	00.45	00.22	00.28	00.14	00.51	00.60	03.34	01.54
0.5-1	03.92	09.23	02.74	01.80	00.73	00.73	02.73	02.86	09.41	03.87
0.25-0.5	20.69	12.34	58.23	58.93	35.32	34.57	09.36	08.87	10.59	08.62
0.125-0.25	51.70	18.79	32.40	33.89	58.16	56.52	43.42	43.22	25.66	33.21
0.063-0.125	09.97	15.02	02.77	02.31	02.89	03.61	22.16	20.71	14.78	13.37
0.002-0.063	12.17	37.33	03.41	02.78	02.62	04.21	19.24	21.16	26.77	17.94
< 0.002	-----	04.15	-----	-----	-----	-----	02.14	02.35	06.69	04.49
ORG. CONTENT	02.82	05.39	01.44	21.26	01.19	01.36	04.24	04.03	05.56	03.39

*(millimho/cm)

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT
DATE	15	15	21	21	15	15	15	15	15	15
TIME	1530	1530	0910	0930	1250	1250	1150	1150	1215	1215
DEPTH (ft.)	7.9	7.9	7.9	7.9	3.1	3.1	19.0	19.0	12.6	12.6
Water quality data										
TEMP. SURFACE	15.45	15.45	14.7	15.5	15.56	15.56	16.36	16.36	15.02	15.02
TEMP. BOTTOM	12.62	12.62	14.7	15.5	15.64	15.64	14.27	14.27	14.75	14.75
CON. SURFACE	21.71	21.71	14.6	11.9	21.43	21.43	15.46	15.46	23.12	23.12
CON. BOTTOM	33.04	33.04	14.2	11.9	21.58	21.58	20.04	20.04	25.06	25.06
SAL. SURFACE	16.42	16.42	10.4	08.5	16.14	16.14	11.10	11.10	17.66	17.66
SAL. BOTTOM	27.65	27.65	10.4	08.5	16.2	16.2	14.94	14.94	19.41	19.41
TUR. SURFACE	01.8	01.8			05.0	05.0	02.4	02.4	03.3	03.3
TUR. BOTTOM	01.7	01.7			06.5	06.5	05.0	05.0	09.0	09.0
pH SURFACE	08.4	08.4			08.0	08.0	07.9	07.9	08.0	08.0
pH BOTTOM	08.4	08.4			08.0	08.0	08.0	08.0	08.05	08.05
O_2 SURFACE	07.8	07.8			07.5	07.5	07.7	07.7	07.8	07.8
O_2 BOTTOM	06.7	06.7			07.6	07.6	08.0	08.0	07.5	07.5
Sediment data										
PARTICLE SIZE (mm)	%									
> 8	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2-8	00.08	-----	-----	-----	-----	-----	00.55	00.72	-----	-----
1-2	00.14	00.38	-----	00.04	03.23	02.18	00.53	00.64	05.17	07.86
0.5-1	00.66	00.39	00.40	00.56	07.56	08.00	01.02	01.14	12.49	14.08
0.25-0.5	33.55	34.36	43.65	41.53	11.49	12.36	34.90	38.05	07.69	08.65
0.125-0.25	61.72	60.81	54.62	56.71	15.63	23.21	58.72	52.24	07.16	07.05
0.063-0.125	03.15	03.07	00.69	00.63	13.86	13.04	01.35	02.04	13.10	11.01
0.002-0.063	00.70	00.99	00.64	00.53	41.00	35.03	02.93	05.17	48.95	46.22
< 0.002	-----	-----	-----	-----	07.23	06.18	-----	-----	05.44	05.13
ORG. CONTENT	01.27	01.34	01.23	01.22	06.13	05.34	01.32	02.22	07.10	08.49

*(millimho/cm)

Station(sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	SEPT.	SEPT.	SEPT.	SEPT.	SEPT.	SEPT.	SEPT.	SEPT.	SEPT.	SEPT.
DATE	15	15	15	15	12	12	12	12	12	12
TIME	1320	1320	1340	1340	1025	1025	1105	1105	1130	1130
DEPTH (ft.)	4.7	4.7	4.7	4.7	4.4	4.4	15.8	15.8	15.8	15.8
Water quality data										
TEMP. SURFACE	15.84	15.84	16.03	16.03	17.8	17.8	17.96	17.96	18.17	18.17
TEMP. BOTTOM	15.70	15.70	15.60	15.60	17.7	17.7	15.55	15.55	15.76	15.76
CON. SURFACE	20.03	20.03	19.18	19.18	11.74	11.74	11.68	11.68	11.52	11.52
CON. BOTTOM	20.10	20.10	23.02	23.02	11.99	11.99	20.56	20.56	20.35	20.35
SAL. SURFACE	14.86	14.86	14.18	14.18	07.95	07.95	08.0	08.0	07.73	07.73
SAL. BOTTOM	14.94	14.94	17.45	17.45	08.14	08.14	15.40	15.40	15.16	15.16
TUR. SURFACE	03.8	03.8	03.2	03.2	03.3	03.3	04.3	04.3	03.3	03.3
TUR. BOTTOM	05.0	05.0	04.6	04.5	04.8	04.8	08.2	08.2	04.4	04.4
pH SURFACE	08.1	08.1	08.1	08.1	07.45	07.45	07.35	07.35	07.3	07.3
pH BOTTOM	08.0	08.0	08.1	08.1	07.3	07.3	07.35	07.35	07.4	07.4
O_2 SURFACE	07.7	07.7	07.8	07.8	07.1	07.1	06.9	06.9	06.8	06.8
O_2 BOTTOM	07.5	07.6	07.7	07.7	07.2	07.2	06.5	06.5	06.5	06.5
Sediment data										
PARTICLE SIZE (mm)	%									
> 8	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2-8	-----	-----	00.07	00.07	00.10	-----	00.25	00.26	-----	-----
1-2	00.07	00.19	00.77	00.47	00.11	00.18	00.22	00.26	-----	-----
0.5-1	00.38	00.54	04.43	04.24	01.66	01.28	00.77	00.91	00.07	00.24
0.25-0.5	41.29	36.59	10.52	11.24	05.08	04.16	47.47	43.07	30.74	31.43
0.125-0.25	50.80	60.29	26.88	26.20	21.50	22.10	49.99	52.70	65.49	64.64
0.063-0.125	01.83	00.71	37.17	37.14	55.84	56.12	00.82	01.41	02.74	02.98
0.002-0.063	05.63	01.68	20.16	20.64	15.71	16.16	00.48	01.39	00.96	00.71
< 0.002	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
ORG. CONTENT	01.85	01.29	03.55	03.58	05.00	05.08	00.96	01.36	00.95	00.86

*(millimho/cm)

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT
DATE	12	12	12	12	12	12	12	12	13	13
TIME	1140	1140	1205	1205	1220	1220	1430	1430	1045	1045
DEPTH (ft.)	19.0	19.0	4.75	4.75	4.75	4.75	9.5	9.5	6.3	6.3
Water quality data										
TEMP. SURFACE	16.72	16.72	17.83	17.83	18.77	18.77	16.48	16.48	17.46	17.46
TEMP. BOTTOM	15.32	15.32	17.79	17.79	17.78	17.78	15.02	15.02	17.38	17.38
CON. SURFACE	16.75	16.75	13.53	13.53	09.20	09.20	20.04	20.04	23.48	23.48
CON. BOTTOM	23.25	23.25	13.87	13.87	14.23	14.23	11.69	11.69	12.15	12.15
SAL. SURFACE	12.04	12.04	09.30	09.30	06.13	06.13	14.75	14.75	08.08	08.08
SAL. BOTTOM	17.46	17.46	09.64	09.64	09.83	09.83	17.95	17.95	08.40	08.40
TUR. SURFACE	04.0	04.0	03.3	03.3	03.2	03.2	03.8	03.8	04.5	04.5
TUR. BOTTOM	11.0	11.0	03.5	03.5	03.8	03.8	05.7	05.7	06.0	06.0
pH SURFACE	07.35	07.35	07.45	07.45	07.75	07.75	07.6	07.6	07.53	07.53
pH BOTTOM	07.35	07.35	07.45	07.45	07.9	07.9	07.6	07.6	07.66	07.66
O_2 SURFACE	06.4	06.4	06.6	06.6	07.5	07.5	06.6	06.6	06.0	06.0
O_2 BOTTOM	06.6	06.6	06.8	06.8	07.8	07 8	07.0	07.0	06.5	06.5
Sediment data										
PARTICLE SIZE (mm)	%									
> 8	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2-8	-----	-----	-----	-----	-----	-----	-----	-----	-----	00.18
1-2	00.08	00.35	00.14	00.10	-----	00.36	00.63	00.42	00.70	01.29
0.5-1	00.65	01.02	00.34	00.46	00.78	01.45	02.96	00.48	02.47	02.73
0.25-0.5	33.40	35.69	19.12	19.15	11.49	11.58	86.41	34.57	14.70	20.47
0.125-0.25	62.60	59.49	70.80	69.83	37.03	35.05	09.47	62.19	69.79	67.00
0.063-0.125	02.12	01.70	07.33	07.74	26.18	28.57	00.39	01.58	05.84	03.87
0.002-0.063	01.15	01.75	02.24	02.72	19.62	18.39	00.14	00.76	06.50	04.46
< 0.002	-----	-----	-----	-----	04.90	04.60	-----	-----	-----	-----
ORG. CONTENT	00.93	01.03	01.36	01.53	02.71	02.80	01.03	01.06	03.61	02.84

*(millimho/cm)

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT
DATE	13	13	12	12	12	12	12	12	14	14
TIME	1015	1015	1250	1250	1330	1330	1312	1312	1425	1425
DEPTH (ft.)	7.9	7.9	7.9	6.3	6.3	14.2	14.2	14.2	4.7	4.7
Water quality data										
TEMP. SURFACE	17.50	17.50	19.32	19.32	17.48	17.48	17.07	17.07	18.88	18.88
TEMP. BOTTOM	17.27	17.27	19.24	19.24	17.45	17.45	15.51	15.51	17.83	17.83
CON. SURFACE	11.62	11.62	08.68	08.68	14.92	17.92	15.86	15.86	08.24	08.24
CON. BOTTOM	13.55	13.55	15.52	15.52	14.91	14.91	21.55	21.55	15.80	15.80
SAL. SURFACE	08.02	08.02	05.72	05.72	10.41	10.41	11.20	11.20	05.48	05.48
SAL. BOTTOM	09.48	09.48	10.90	10.90	10.41	10.41	16.17	16.17	11.10	11.10
TUR. SURFACE	03.6	03.6	02.7	02.7	02.9	02.9	04.6	04.6	03.4	03.4
TUR. BOTTOM	04.2	04.2	03.6	03.5	06.6	06.6	05.2	05.2	30.0	30.0
pH SURFACE	07.6	07.6	07.5	07.5	08.3	08.3	08.1	08.1	07.9	07.9
pH BOTTOM	07.65	07.65	07.65	07.65	07.9	07.9	07.85	07.85	07.7	07.7
O_2 SURFACE	06.0	06.0	07.3	07.3	07.0	07.0	06.9	07.0	07.9	07.9
O_2 BOTTOM	06.6	06.6	07.2	07.2	07.0	07.0	06.9	07.0	07.5	07.5
Sediment data										
PARTICLE SIZE (mm)	%									
> 8	37.77	42.63	-----	-----	-----	-----	-----	-----	-----	-----
2-8	04.77	10.95	-----	-----	-----	-----	-----	-----	-----	-----
1-2	08.33	09.54	-----	-----	-----	00.04	00.14	00.01	02.24	00.93
0.5-1	10.58	10.44	00.62	00.58	01.61	00.82	00.39	00.21	07.30	07.01
0.25-0.5	17.91	11.82	02.27	02.38	03.09	02.69	23.97	23.67	09.03	09.61
0.125-0.25	15.81	09.48	44.13	43.02	07.48	08.65	70.71	72.50	06.37	06.14
0.063-0.125	01.75	02.05	39.59	39.75	35.05	36.30	04.22	03.03	07.97	07.94
0.002-0.063	03.08	03.09	13.39	14.27	42.22	41.20	00.57	00.58	60.38	61.53
< 0.002	-----	-----	-----	-----	10.55	10.30	-----	-----	06.71	06.84
ORG. CONTENT	20.13	18.46	02.54	02.69	03.59	03.51	01.43	01.45	08.20	07.91

*(millimho/cm)

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT
DATE	13	13	13	13	13	13	14	14	13	13
TIME	1405	1405	1425	1425	1455	1455	1500	1500	1330	1330
DEPTH (ft.)	4.7	4.7	4.7	4.7	12.6	12.6	14.2	14.2	15.8	15.8
Water quality data										
TEMP. SURFACE	17.58	17.58	18.32	18.32	17.96	17.96	17.61	17.61	18.50	18.50
TEMP. BOTTOM	17.08	17.08	18.04	18.04	17.80	17.80	16.50	16.50	18.15	18.15
CON. SURFACE	12.4	12.4	08.28	08.28	10.24	10.24	12.33	12.33	09.18	09.18
CON. BOTTOM	14.40	14.40	09.34	09.34	10.28	10.28	15.82	15.82	09.80	09.80
SAL. SURFACE	08.51	08.51	05.58	05.58	07.04	07.04	08.54	08.54	06.20	06.20
SAL. BOTTOM	10.12	10.12	06.32	06.32	06.98	06.98	11.37	11.37	06.61	06.61
TUR. SURFACE	03.8	03.8	03.8	03.8	07.4	07.4	02.8	02.8	07.6	07.6
TUR. BOTTOM	06.4	06.4	07.0	07.0	07.5	07.5	03.8	03.8	16.0	16.0
pH SURFACE	08.0	08.0	08.1	08.1	07.9	07.9	08.0	08.0	07.8	07.8
pH BOTTOM	08.0	08.0	08.1	08.1	07.9	07.9	07.9	07.9	07.8	07.8
O_2 SURFACE	06.9	06.9	07.0	07.0	06.6	06.6	07.7	07.7	06.7	06.7
O_2 BOTTOM	06.7	06.7	06.9	06.9	06.7	06.7	07.1	07.1	06.8	06.8
Sediment data										
PARTICLE SIZE (mm)	%									
> 8	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2-8	-----	-----	-----	-----	00.70	00.38	-----	-----	-----	-----
1-2	00.08	00.03	00.25	00.26	01.09	00.90	00.02	00.02	00.31	00.20
0.5-1	01.16	00.78	03.78	01.94	05.39	04.22	00.62	00.38	03.69	02.03
0.25-0.5	03.96	03.51	05.56	05.87	11.24	07.70	10.34	09.88	03.99	03.36
0.125-0.25	23.66	21.09	12.96	07.51	35.09	30.27	57.18	62.24	12.94	14.89
0.063-0.125	38.08	37.82	31.00	21.57	22.84	25.11	27.22	24.18	42.19	47.97
0.002-0.063	26.45	29.42	37.16	50.28	21.29	28.28	04.62	03.30	29.50	25.24
< 0.002	06.61	07.35	09.29	12.57	02.36	03.14	-----	-----	07.38	06.31
ORG. CONTENT	03.87	03.55	06.10	04.63	10.84	12.58	02.35	02.09	05.14	04.61

*(millimho/cm)

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT
DATE	13	13	13	13	13	13	12	12	12	12
TIME	1305	1305	1240	1240	1230	1230	1355	1355	1406	1406
DEPTH (ft.)	9.5	9.5	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
Water quality data										
TEMP. SURFACE	18.22	18.22	18.18	18.18	18.26	18.26	17.64	17.64	17.63	17.63
TEMP. BOTTOM	18.16	18.16	17.70	17.70	17.56	17.56	16.65	16.65	15.98	15.98
CON. SURFACE	08.94	08.94	08.70	08.70	08.44	08.44	15.75	15.75	15.14	15.14
CON. BOTTOM	08.90	08.90	11.05	11.05	11.64	11.64	17.37	17.37	20.03	20.03
SAL. SURFACE	05.99	05.99	05.87	05.87	05.73	05.73	11.05	11.05	10.62	10.62
SAL. BOTTOM	06.00	06.00	07.55	07.55	08.0	08.0	12.42	12.42	14.87	14.87
TUR. SURFACE	05.2	05.2	03.9	03.9	03.8	03.8	02.7	02.7	03.0	03.0
TUR. BOTTOM	08.4	08.4	05.4	05.4	04.2	04.2	02.8	02.8	02.9	02.9
pH SURFACE	08.0	08.0	07.9	07.9	07.6	07.6	07.9	07.9	07.65	07.65
pH BOTTOM	08.0	08.0	08.0	08.0	07.65	07.65	07.95	07.95	07.65	07.65
O_2 SURFACE	06.7	06.7	07.1	07.1	07.1	07.1	06.7	06.7	06.7	06.7
O_2 BOTTOM	06.8	06.8	07.2	07.2	06.9	06.9	07.0	07.0	07.0	07.0
Sediment data										
PARTICLE SIZE (mm)	%									
> 8	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2-8	-----	00.23	-----	-----	-----	-----	-----	-----	-----	-----
1-2	05.89	04.77	00.03	00.06	00.02	-----	00.06	00.29	00.16	00.11
0.5-1	12.89	11.45	00.87	00.77	00.30	00.17	00.52	00.87	00.21	01.10
0.25-0.5	07.55	06.59	18.22	15.35	19.12	14.02	22.97	23.02	43.33	46.82
0.125-0.25	06.89	07.61	56.73	49.74	67.74	65.93	67.35	67.41	49.02	46.15
0.063-0.125	14.69	19.24	20.81	27.87	09.38	13.72	08.21	07.34	06.12	04.62
0.002-0.063	42.28	42.59	03.34	06.21	03.44	06.16	00.89	01.07	01.16	01.20
< 0.002	07.81	07.52	-----	-----	-----	-----	-----	-----	-----	-----
ORG. CONTENT	06.66	06.57	01.43	01.67	01.29	01.44	01.48	01.39	01.40	01.48

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT
DATE	14	14	14	14	14	14	14	14	14	14
TIME	1025	1025	1100	1100	1120	1120	1135	1135	1150	1150
DEPTH (ft.)	19.0	19.0	11.0	11.0	9.5	9.5	14.2	14.2	4.7	4.7
Water quality data										
TEMP. SURFACE	19.04	19.04	18.98	18.98	18.99	18.99	19.08	19.08	19.10	19.10
TEMP. BOTTOM	18.92	18.92	18.98	18.98	18.56	18.56	19.08	19.08	19.08	19.08
CON. SURFACE	00.97	00.97	00.41	00.41	01.73	01.73	00.82	00.82	00.92	00.92
CON. BOTTOM	00.90	00.90	01.00	01.00	04.21	04.21	00.81	00.81	00.88	00.88
SAL. SURFACE	00.58	00.58	00.28	00.28	01.11	01.11	00.43	00.43	00.58	00.58
SAL. BOTTOM	00.58	00.58	00.61	00.61	02.75	02.75	00.47	00.47	00.54	00.54
TUR. SURFACE	04.0	04.0	03.8	03.8	06.6	06.6	07.0	07.0	11.0	11.0
TUR. BOTTOM	04.7	04.7	07.6	07.6	08.3	08.3	07.4	07.4	12.0	12.0
pH SURFACE	08.0	08.0	08.05	08.05	08.1	08.1	08.0	08.0	08.0	08.0
pH BOTTOM	08.05	08.05	08.0	08.0	08.1	08.1	08.1	08.1	08.0	08.0
O_2 SURFACE	08.2	08.2	08.6	08.6	08.2	08.2	08.3	08.3	08.4	08.4
O_2 BOTTOM	07.4	07.4	08.4	08.4	07.9	07.9	07.6	07.6	08.1	08.1
Sediment data										
PARTICLE SIZE (mm)	%									
> 8	-----	-----	-----	-----	-----	-----	-----	19.14	-----	-----
2-8	00.17	-----	-----	-----	15.82	11.65	01. 10	03.37	00.13	-----
1-2	01.24	01.04	06.40	02.95	05.99	04.18	00.60	00.93	00.49	00.73
0.5-1	05.16	05.04	10.67	06.93	06.80	05.05	01.12	01.23	00.49	00.97
0.25-0.5	07.33	05.69	08.80	06.39	09.54	10.84	17.40	13.67	19.25	20.62
0.125-0.25	11.36	11.13	12.60	14.23	13.35	14.56	49.76	36.50	61.86	60.53
0.063-0.125	26.68	25.58	25.13	32.77	29.97	31.32	23.22	18.06	13.15	12.70
0.002-0.063	40.85	43.79	30.92	31.22	18.53	22.40	06.80	07.14	04.63	04.45
< 0.002	07.21	07.73	05.46	05.51	-----	-----	-----	-----	-----	-----
ORG. CONTENT	03.54	03.48	07.72	05.87	05.02	04.66	02.78	06.01	01.71	01.56

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT	SEPT
DATE	14	14	14	14	14	14	14	14	14	14
TIME	1205	1205	1220	1220	1255	1255	1335	1335	1315	1315
DEPTH (ft.)	44.3	44.3	25.3	25.3	15.8	15.8	22.1	22.1	25.3	25.3
Water quality data										
TEMP. SURFACE	19.21	19.21	19.75	19.75	19.05	19.05	18.98	18.98	19.24	19.24
TEMP. BOTTOM	18.91	18.91	18.46	18.45	19.05	19.05	18.92	18.92	18.96	18.96
CON. SURFACE	00.86	00.86	00.56	00.56	00.62	00.62	01.06	01.06	00.88	00.88
CON. BOTTOM	01.32	01.32	04.57	04.57	03.00	03.00	01.22	01.22	02.80	02.80
SAL. SURFACE	00.56	00.56	00.33	00.33	00.38	00.38	00.68	00.68	00.54	00.54
SAL. BOTTOM	00.80	00.80	03.0	03.0	01.92	01.92	00.74	00.74	01.81	01.81
TUR. SURFACE	05.1	05.1	05.5	05.5	05.8	05.8	07.3	07.3	04.5	04.5
TUR. BOTTOM	14.0	14.0	12.0	12.0	07.1	07.1	14.0	14.0	09.5	09.5
pH SURFACE	08.0	08.0	08.05	08.05	08.05	08.05	07.8	07.8	08.05	08.05
pH BOTTOM	07.95	07.95	08.1	08.1	08.05	08.05	08.1	08.1	08.0	08.0
O_2 SURFACE	08.6	08.6	08.4	08.4	08.1	08.1	07.9	07.9	08.0	08.0
O_2 BOTTOM	08.6	08.6	08.0	08.0	07.5	07.5	07.9	07.9	07.5	07.5
Sediment data										
PARTICLE SIZE (mm)	%									
> 8	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2-8	-----	-----	-----	-----	00.11	-----	-----	-----	-----	-----
1-2	00.44	00.38	00.36	00.26	01.04	00.66	01.82	02.20	00.91	00.37
0.5-1	09.11	04.48	02.19	01.97	04.51	06.23	05.32	06.16	05.24	03.73
0.25-0.5	78.32	77.23	02.26	02.49	06.88	05.76	04.42	06.57	04.70	05.13
0.125-0.25	11.86	17.54	08.04	11.29	06.99	07.05	05.85	06.48	12.93	12.68
0.063-0.125	00.09	00.13	44.47	47.57	23.88	24.25	21.69	22.52	31.91	31.32
0.002-0.063	00.17	00.23	34.14	29.14	50.92	50.45	54.80	50.45	35.45	37.42
< 0.002	-----	-----	08.53	07.28	05.66	05.60	06.09	05.61	08.86	09.35
ORG. CONTENT	00.66	00.70	02.38	02.19	05.82	05.62	06.10	06.18	05.19	05.61

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
DATE	15	15	15	15	15	15	30	30	30	30
TIME	1205	1205	1230	1230	1240	1240	1530	1530	1510	1510
DEPTH (ft.)	10.0	10.0	10.0	10.0	06.0	06.0	06.0	06.0	20.0	20.0
Water quality data										
TEMP. SURFACE	07.78	07.78	07.74	07.74	07.94	07.94	06.14	06.14	05.90	05.90
TEMP. BOTTOM	07.65	07.65	07.74	07.74	07.94	07.94	07.17	07.17	08.57	08.57
CON. SURFACE	00.60	00.60	03.0	03.0	05.40	05.40	10.50	10.50	09.38	09.38
CON. BOTTOM	00.62	00.62	03.51	03.51	05.88	05.88	20.34	20.34	31.64	31.64
SAL. SURFACE	00.45	00.45	02.52	02.52	04.54	04.54	09.45	09.45	08.52	08.52
SAL. BOTTOM	00.45	00.45	02.92	02.92	04.91	04.91	18.90	18.90	29.41	29.41
TUR. SURFACE	38.0	38.0	26.0	26.0	24.0	24.0	06.8	06.8	07.4	07.4
TUR. BOTTOM	42.0	42.0	28.0	28.0	30.0	30.0	48.0	48.0	11.3	11.3
pH SURFACE	08.6	08.6	09.0	09.0	09.0	09.0	06.95	06.95	07.25	07.25
pH BOTTOM	08.6	08.6	09.0	09.0	09.0	09.0	07.3	07.3	07.75	07.75
O_2 SURFACE	10.7	10.7	10.5	10.5	10.1	10.1	09.9	09.9	10.2	10.2
O_2 BOTTOM	10.7	10.7	10.4	10.4	10.0	10.0	09.2	09.2	08.7	08.7
Sediment data										
PARTICLE SIZE (mm)	%									
> 8	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2-8	00.24	01.41	00.20	-----	00.14	00.24	01.35	01.22	02.92	03.45
1-2	01.42	03.80	00.70	01.65	00.42	00.34	02.07	02.36	03.32	02.28
0.5-1	03.97	04.37	01.29	02.30	00.63	00.44	02.63	05.98	02.84	02.48
0.25-0.5	06.88	19.19	12.64	21.32	35.81	36.09	06.80	08.38	11.15	12.30
0.125-0.25	21.95	32.79	56.30	38.34	57.26	56.97	39.68	38.69	64.07	68.11
0.063-0.125	15.12	10.55	15.49	12.20	02.64	02.84	22.62	19.77	07.15	06.17
0.002-0.063	35.29	18.97	10.70	19.35	02.14	02.16	19.87	18.88	05.99	03.65
< 0.002	15.13	08.13	02.68	04.84	00.92	00.92	04.97	04.72	02.56	01.56
ORG. CONTENT	05.01	03.94	02.76	03.65	01.26	01.28	03.90	04.17	03.92	02.88

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
DATE	30	30	30	30	30	30	30	30	30	30
TIME	1400	1400	1430	1430	1215	1215	1125	1125	1145	1145
DEPTH (ft.)	9.0	9.0	6.0	6.0	7.0	7.0	12.0	12.0	08.0	08.0
Water quality data										
TEMP. SURFACE	05.14	05.14	05.80	05.80	05.18	05.18	05.80	05.80	05.44	05.44
TEMP. BOTTOM	06.26	06.26	05.88	05.88	06.18	06.18	07.68	07.68	06.96	06.96
CON. SURFACE	07.53	07.53	07.75	07.75	09.18	09.18	09.80	09.80	09.52	09.52
CON. BOTTOM	12.64	12.64	08.66	08.66	13.82	18.82	25.79	25.79	23.6	23.6
SAL. SURFACE	06.78	06.78	06.97	06.97	08.45	08.45	08.88	08.88	08.68	08.68
SAL. BOTTOM	11.10	11.10	07.82	07.82	12.68	12.68	24.03	24.03	22.04	22.04
TUR. SURFACE	07.8	07.8	07.65	07.65	09.6	09.6	08.4	08.4	05.4	05.4
TUR. BOTTOM	11.4	11.4	11.4	11.4	11.8	11.8	10.0	10.0	13.4	13.4
pH SURFACE	06.8	06.8	06.7	06.7	07.0	07.0	07.15	07.15	06.7	06.7
pH BOTTOM	07.3	07.3	06.95	06.95	07.25	07.25	07.05	07.05	07.20	07.20
O_2 SURFACE	10.3	10.3	10.3	10.3	10.6	10.6	11.0	11.0	10.8	10.8
O_2 BOTTOM	10.1	10.1	10.5	10.5	09.9	09.9	10.2	10.2	10.7	10.7
Sediment data										
PARTICLE SIZE (mm)	%									
> 8	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2-8	00.17	00.10	00.07	-----	00.52	00.59	00.32	00.35	00.47	02.02
1-2	00.55	00.45	00.14	00.17	01.32	01.08	00.84	00.80	03.30	03.03
0.5-1	00.55	00.41	00.55	00.56	01.84	01.74	01.23	00.76	06.61	06.05
0.25-0.5	32.43	32.09	45.61	43.05	38.94	38.29	36.24	36.17	06.47	06.39
0.125-0.25	64.08	64.91	53.16	55.63	42.35	41.60	54.18	57.97	06.88	06.93
0.063-0.125	02.02	01.90	00.27	00.40	02.22	02.49	04.21	01.00	13.22	11.43
0.002-0.063	-----	-----	-----	-----	10.25	11.37	02.24	02.21	44.14	44.93
< 0.002	-----	-----	-----	-----	02.56	02.84	00.74	00.74	18.91	19.23
ORG. CONTENT	01.37	01.40	01.36	01.45	02.79	02.54	01.26	01.24	08.26	08.50

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
DATE	30	30	30	30	15	15	15	15	15	15
TIME	1240	1240	1300	1300	1035	1035	1055	1055	1125	1125
DEPTH (ft.)	2.0	2.0	3.0	3.0	4.0	4.0	26.0	26.0	11.0	11.0
Water quality data										
TEMP. SURFACE	05.48	05.48	05.70	05.70	08.46	08.46	07.70	07.70	07.87	07.87
TEMP. BOTTOM	05.48	05.48	05.70	05.70	08.47	08.47	07.86	07.86	07.87	07.87
CON. SURFACE	09.41	09.41	10.3	10.3	01.33	01.33	01.94	01.94	02.23	02.23
CON. BOTTOM	09.41	09.41	10.3	10.3	01.37	01.37	03.12	03.12	02.59	02.59
SAL. SURFACE	08.57	08.57	09.44	09.44	01.07	01.07	01.60	01.60	01.82	01.82
SAL. BOTTOM	08.57	08.57	09.43	09.43	01.13	01.13	02.54	02.54	02.10	02.10
TUR. SURFACE	11.0	11.0	07.1	07.1	21.0	21.0	16.0	16.0	19.0	19.0
TUR. BOTTOM	11.0	11.0	07.1	07.1	30.0	30.0	18.0	18.0	20.0	20.0
pH SURFACE	06.8	06.8	06.9	06.9	07.8	07.8	08.1	08.1	08.1	08.1
pH BOTTOM	06.8	06.8	06.9	06.9	07.8	07.8	08.1	08.1	08.1	08.1
O_2 SURFACE	10.5	10.5	10.4	10.4	10.0	10.0	10.5	10.5	10.4	10.4
O_2 BOTTOM	10.5	10.5	10.4	10.4	10.0	10.0	10.3	10.3	10.2	10.2
Sediment data										
PARTICLE SIZE (mm)	%									
> 8 mm	-----	-----	-----	-----	-----	-----	00.57	00.98	-----	-----
2-8	00.10	00.03	00.14	00.04	00.04	00.04	17.21	09.17	00.23	-----
1-2	00.10	00.03	01.37	00.41	00.63	00.36	05.52	03.08	00.90	00.59
0.5-1	00.34	00.21	02.70	01.56	00.82	01.08	05.74	03.63	01.68	01.09
0.25-0.5	38.06	35.74	08.46	07.60	07.90	07.39	23.35	38.87	24.81	22.11
0.125-0.25	60.59	62.57	26.93	26.49	48.14	50.50	22.42	39.12	49.28	52.03
0.063-0.125	00.45	00.69	40.56	41.48	30.19	29.31	05.21	01.67	11.45	12.17
0.002-0.063	-----	-----	15.87	17.94	08.60	07.92	15.99	02.78	06.99	07.21
< 0.002	-----	-----	03.97	04.48	03.68	03.40	04.00	00.70	04.66	04.80
ORG. CONTENT	01.06	01.14	03.25	03.82	02.97	02.77	06.11	05.58	03.06	03.11

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
DATE	13	13	13	13	13	13	13	13	13	13
TIME	1540	1540	1550	1550	1610	1610	1005	1005	1030	1030
DEPTH (ft.)	31.0	31.0	9.0	9.0	6.0	6.0	8.0	8.0	9.0	9.0
Water quality data										
TEMP. SURFACE	08.05	08.05	08.08	08.08	08.25	08.25	07.46	07.46	09.08	09.08
TEMP. BOTTOM	07.68	07.68	08.18	08.18	08.05	08.05	07.46	07.46	08.58	08.58
CON. SURFACE	06.93	06.93	07.60	07.60	07.48	07.48	01.88	01.88	01.69	01.69
CON. BOTTOM	32.08	32.08	09.61	09.61	07.60	07.60	02.09	02.09	02.92	02.92
SAL. SURFACE	05.84	05.84	06.32	06.32	06.32	06.32	01.56	01.56	01.31	01.31
SAL. BOTTOM	29.06	29.06	08.20	08.20	06.40	06.40	01.72	01.72	02.38	02.38
TUR. SURFACE	10.0	10.0	10.0	10.0	10.0	10.0	12.0	12.0	08.0	08.0
TUR. BOTTOM	20.0	20.0	11.0	11.0	11.0	11.0	24.0	24.0	10.0	10.0
pH SURFACE	08.6	08.6	08.95	08.95	08.95	08.95	07.3	07.3	07.05	07.05
pH BOTTOM	09.0	09.0	08.95	08.95	08.95	08.95	07.4	07.4	07.2	07.2
O_2 SURFACE	10.4	10.4	10.5	10.5	10.4	10.4	11.1	11.1	09.4	09.4
O_2 BOTTOM	09.1	09.1	10.4	10.4	10.4	10.4	11.4	11.4	09.5	09.5
Sediment data										
PARTICLE SIZE (mm)	%									
> 8	-----	-----	-----	-----	-----	-----	-----	-----	02.68	09.93
2-8	-----	-----	00.07	00.14	00.17	-----	00.23	-----	04.96	07.05
1-2	-----	00.20	00.14	00.44	00.60	00.42	00.47	00.14	04.83	06.19
0.5-1	00.34	01.71	00.71	00.95	01.45	01.27	00.90	01.11	11.26	10.36
0.25-0.5	23.08	16.47	21.09	18.10	10.13	09.53	27.19	26.89	15.62	12.09
0.125-0.25	48.97	38.67	64.49	61.50	28.93	26.82	64.18	62.99	22.32	18.85
0.063-0.125	09.15	11.90	09.31	12.64	31.07	31.28	03.55	04.46	11.13	09.64
0.002-0.063	12.92	21.73	03.36	04.99	19.36	21.47	02.78	03.77	16.33	15.54
< 0.002	05.54	09.31	00.84	01.25	08.29	09.20	00.70	00.94	10.88	10.36
ORG. CONTENT	03.30	05.06	01.88	02.16	03.59	03.98	01.84	02.10	28.10	29.15

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
DATE	13	13	13	13	13	13	13	13	13	13
TIME	1045	1045	1520	1520	1425	1425	1115	1115	1410	1410
DEPTH (ft.)	12.0	12.0	12.0	12.0	10.0	10.0	15.0	15.0	7.0	7.0
Water quality data										
TEMP. SURFACE	09.14	09.14	07.68	07.68	08.02	08.02	07.48	07.48	09.20	09.20
TEMP. BOTTOM	08.46	08.46	07.77	07.77	07.69	07.69	07.40	07.40	09.21	09.21
CON. SURFACE	01.21	01.21	02.38	02.38	03.22	03.22	01.20	01.20	01.70	01.70
CON. BOTTOM	09.70	09.70	02.46	02.46	05.82	05.82	03.36	03.36	01.75	01.75
SAL. SURFACE	00.94	00.94	01.96	01.96	02.72	02.72	00.97	00.97	01.31	01.31
SAL. BOTTOM	08.18	08.18	02.06	02.06	04.92	04.92	02.96	02.96	01.42	01.42
TUR. SURFACE	07.0	07.0	14.0	14.0	16.0	16.0	13.0	13.0	28.0	28.0
TUR. BOTTOM	07.0	07.0	14.0	14.0	20.0	20.0	20.0	20.0	40.0	40.0
pH SURFACE	07.05	07.05	08.45	08.45	08.2	08.2	07.7	07.7	08.1	08.1
pH BOTTOM	07.55	07.55	08.5	08.5	08.1	08.1	07.6	07.6	08.1	08.1
O_2 SURFACE	09.3	09.3	10.7	10.7	10.5	10.5	10.8	10.8	10.2	10.2
O_2 BOTTOM	09.1	09.1	10.8	10.8	10.4	10.4	10.7	10.7	10.2	10.2
Sediment data										
PARTICLE SIZE (mm)	%									
> 8	10.35	02.47	-----	-----	-----	-----	-----	-----	-----	-----
2-8	06.29	05.24	00.67	00.18	-----	00.23	00.53	00.08	-----	-----
1-2	09.77	07.75	00.81	01.19	00.83	01.18	00.53	00.08	03.50	00.89
0.5-1	08.27	08.53	01.48	01.76	02.38	02.36	00.65	00.19	06.25	04.23
0.25-0.5	24.23	29.61	01.80	01.90	01.95	02.27	11.33	10.99	04.91	06.60
0.125-0.25	36.41	42.47	26.94	29.95	04.57	04.86	80.05	81.29	03.95	04.60
0.063-0.125	01.45	01.17	44.27	43.05	35.70	36.23	05.72	06.13	05.51	05.79
0.002-0.063	02.59	02.22	16.81	15.38	43.66	42.29	00.71	00.74	53.11	54.52
< 0.002	00.65	00.55	07.21	06.59	10.91	10.57	00.47	00.50	22.76	23.37
ORG. CONTENT	12.33	10.04	04.04	04.06	04.49	04.62	02.82	01.79	08.90	08.99

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
DATE	13	13	13	13	13	13	13	13	12	12
TIME	1320	1320	1140	1140	1245	1245	1340	1340	1600	1600
DEPTH (ft.)	7.0	7.0	6.0	6.0	14.0	14.0	19.0	19.0	18.0	18.0
Water quality data										
TEMP. SURFACE	08.15	08.15	09.00	09.00	09.16	09.16	07.42	07.42	08.30	08.30
TEMP. BOTTOM	08.16	08.16	08.84	08.84	09.10	09.10	07.42	07.42	08.22	08.22
CON. SURFACE	02.30	02.30	00.60	00.60	00.34	00.34	02.84	02.84	00.51	00.51
CON. BOTTOM	02.60	02.60	00.53	00.53	00.34	00.34	03.03	03.03	00.54	00.54
SAL. SURFACE	01.84	01.84	00.44	00.44	00.24	00.24	02.38	02.38	00.37	00.37
SAL. BOTTOM	02.05	02.05	00.41	00.41	00.28	00.28	02.36	02.36	00.40	00.40
TUR. SURFACE	26.00	26.00	32.00	32.00	77.00	77.00	12.00	12.00	22.0	22.0
TUR. BOTTOM	22.0	22.0	31.0	31.0	84.0	84.0	14.0	14.0	30.0	30.0
pH SURFACE	07.5	07.5	07.5	07.5	06.45	06.45	07.9	07.9	07.3	07.3
pH BOTTOM	07.5	07.5	07.5	07.5	06.6	06.6	07.8	07.8	07.0	07.0
O_2 SURFACE	10.3	10.3	10.1	10.1	10.0	10.0	10.7	10.7	11.0	11.0
O_2 BOTTOM	10.5	10.5	10.1	10.1	10.0	10.0	10.7	10.7	11.1	11.1
Sediment data										
PARTICLE SIZE (mm)	%									
> 8	-----	-----	00.61	01.04	02.88	-----	-----	-----	-----	-----
2-8	-----	00.10	00.56	00.05	02.51	01.19	-----	-----	-----	-----
1-2	00.10	00.20	00.40	00.35	02.46	02.72	00.58	00.44	00.80	00.59
0.5-1	01.24	01.26	02.63	01.43	06.81	06.07	01.11	01.54	02.39	01.63
0.25-0.5	01.91	02.01	03.64	01.78	07.70	08.02	06.33	07.15	02.85	03.62
0.125-0.25	10.01	10.78	06.67	10.40	23.98	19.25	55.41	54.60	12.87	13.00
0.063-0.125	41.04	30.92	25.30	30.13	25.55	25.52	30.28	27.45	48.76	48.89
0.002-0.063	36.57	43.82	42.14	38.38	22.50	29.79	03.77	05.30	22.64	22.58
< 0.002	09.14	10.96	18.06	16.45	05.62	07.45	02.52	03.53	09.70	09.68
ORG. CONTENT	04.74	04.65	07.08	07.82	13.75	13.81	02.94	02.97	05.41	05.52

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
DATE	12	12	12	12	12	12	12	12	12	12
TIME	1535	1535	1510	1510	1500	1500	1440	1440	1425	1425
DEPTH (ft.)	11.0	11.0	10.0	10.0	11.0	11.0	10.0	10.0	8.0	8.0
Water quality data										
TEMP. SURFACE	07.64	07.64	07.45	07.45	07.50	07.50	07.50	07.50	07.56	07.56
TEMP. BOTTOM	07.64	07.64	07.45	07.45	07.30	07.30	07.53	07.53	07.56	07.56
CON. SURFACE	00.54	00.54	01.56	01.56	01.85	01.85	04.42	04.42	04.67	04.67
CON. BOTTOM	00.57	00.57	01.68	01.68	01.93	01.93	05.52	05.52	05.24	05.24
SAL. SURFACE	00.45	00.45	01.27	01.27	01.53	01.53	03.70	03.70	03.91	03.91
SAL. BOTTOM	00.46	00.46	01.41	01.41	01.60	01.60	04.63	04.63	04.46	04.46
TUR. SURFACE	16.0	16.0	12.0	12.0	12.0	12.0	11.0	11.0	10.0	10.0
TUR. BOTTOM	18.0	18.0	12.0	12.0	11.0	11.0	12.0	12.0	09.0	09.0
pH SURFACE	07.6	07.6	07.95	07.95	08.0	08.0	08.2	08.2	08.5	08.5
pH BOTTOM	07.55	07.55	07.7	07.7	08.0	08.0	08.25	08.25	08.5	08.5
O_2 SURFACE	11.2	11.2	11.2	11.2	11.1	11.1	10.9	10.9	11.1	11.1
O_2 BOTTOM	11.2	11.2	11.2	11.2	11.2	11.2	11.0	11.0	10.9	10.9
Sediment data										
PARTICLE SIZE (mm)	%									
> 8	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2-8	01.00	-----	-----	00.19	-----	-----	00.11	00.20	-----	-----
1-2	01.83	-----	00.04	-----	00.04	00.04	00.15	00.07	00.07	-----
0.5-1	03.30	02.92	00.55	00.77	00.32	00.42	01.11	00.44	00.55	00.70
0.25-0.5	04.54	04.12	14.51	09.32	01.71	01.84	22.17	18.37	47.15	46.19
0.125-0.25	08.91	08.40	54.09	58.32	39.61	42.21	64.34	65.93	50.57	51.25
0.063-0.125	20.83	17.38	23.83	24.81	46.50	44.05	10.94	13.72	01.60	01.71
0.002-0.063	47.67	53.74	04.19	03.95	08.27	08.01	00.71	00.76	-----	-----
< 0.002	11.92	13.44	02.79	02.64	03.55	03.43	00.47	00.51	-----	-----
ORG. CONTENT	06.70	06.97	02.02	02.37	02.75	02.58	01.61	01.64	00.90	00.88

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
DATE	12	12	12	12	12	12	12	12	12	12
TIME	1355	1355	1335	1335	1320	1320	1255	1255	1240	1240
DEPTH (ft.)	38.0	38.0	27.0	27.0	16.0	16.0	38.0	38.0	11.0	11.0
Water quality data										
TEMP. SURFACE	07.23	07.23	07.20	07.20	07.14	07.14	07.16	07.16	07.2	07.2
TEMP. BOTTOM	08.16	08.16	07.64	07.64	07.20	07.20	07.18	07.18	07.2	07.2
CON. SURFACE	14.44	14.44	01.30	01.30	00.34	00.34	00.34	00.34	00.12	00.12
CON. BOTTOM	16.22	16.22	08.36	08.36	00.40	00.40	00.37	00.37	00.18	00.18
SAL. SURFACE	01.18	01.18	01.12	01.12	00.28	00.28	00.28	00.28	00.10	00.10
SAL. BOTTOM	14.62	14.62	07.13	07.13	00.34	00.34	00.32	00.32	00.12	00.12
TUR. SURFACE	10.0	10.0	13.0	13.0	14.0	14.0	13.0	13.0	12.0	12.0
TUR. BOTTOM	09.0	09.0	10.0	10.0	17.0	17.0	15.0	15.0	13.0	13.0
pH SURFACE	08.7	08.7	08.1	08.1	07.8	07.8	07.85	07.85	07.7	07.7
pH BOTTOM	08.5	08.5	08.1	08.1	07.8	07.8	07.85	07.85	07.7	07.7
O_2 SURFACE	11.2	11.2	11.4	11.4	11.5	11.5	11.6	11.6	11.4	11.4
O_2 BOTTOM	10.4	10.4	11.1	11.1	11.4	11.4	11.5	11.5	11.3	11.3
Sediment data										
PARTICLE SIZE (mm)	%									
> 8	-----	12.06	10.19	05.45	-----	-----	-----	-----	-----	-----
2-8	00.10	00.05	62.94	66.01	06.82	10.57	00.51	00.26	-----	00.14
1-2	00.94	00.54	08.07	11.04	02.60	03.41	00.88	01.18	00.15	00.34
0.5-1	02.25	02.26	02.63	03.71	02.90	03.37	07.23	06.15	00.76	00.64
0.25-0.5	04.02	03.77	03.90	03.30	08.66	08.76	07.96	07.13	15.65	15.83
0.125-0.25	09.25	09.53	05.30	04.21	14.75	14.44	14.31	18.84	61.84	59.53
0.063-0.125	21.79	19.64	04.58	03.57	38.55	33.94	22.26	25.05	13.21	12.34
0.002-0.063	43.16	36.51	01.68	01.89	20.57	20.40	28.12	24.84	04.19	05.60
< 0.002	18.49	15.64	00.72	00.81	05.14	05.10	18.74	16.56	04.19	05.59
ORG. CONTENT	05.37	05.56	07.19	07.44	05.15	05.14	10.75	09.36	01.86	01.86

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
DATE	12	12	12	12	12	12	12	12	12	12
TIME	1025	1025	1040	1040	1105	1105	1150	1150	1130	1130
DEPTH (ft.)	42.0	42.0	28.0	28.0	18.0	18.0	22.0	22.0	28.0	28.0
Water quality data										
TEMP. SURFACE	06.81	06.81	07.03	07.03	07.20	07.20	07.2	07.2	07.15	07.15
TEMP. BOTTOM	06.67	06.67	07.21	07.21	07.15	07.15	07.2	07.2	07.20	07.20
CON. SURFACE	00.18	00.18	00.16	00.16	00.17	00.17	00.13	00.13	00.08	00.08
CON. BOTTOM	00.15	00.15	00.18	00.18	00.18	00.18	00.19	00.19	00.14	00.14
SAL. SURFACE	00.14	00.14	00.11	00.11	00.10	00.10	00.10	00.10	00.06	00.06
SAL. BOTTOM	00.09	00.09	00.14	00.14	00.13	00.13	00.12	00.12	00.10	00.10
TUR. SURFACE	11.0	11.0	12.0	12.0	13.0	13.0	13.0	13.0	13.0	13.0
TUR. BOTTOM	12.0	12.0	20.0	20.0	17.0	17.0	13.0	13.0	13.0	13.0
pH SURFACE	06.65	06.65	07.5	07.5	07.60	07.60	07.5	07.5	07.5	07.5
pH BOTTOM	06.90	06.90	07.35	07.35	07.35	07.35	07.5	07.5	07.5	07.5
O_2 SURFACE	12.0	12.0	11.2	11.2	11.1	11.1	10.7	10.7	11.1	11.1
O_2 BOTTOM	12.1	12.1	11.4	11.4	11.1	11.1	10.9	10.9	11.1	11.1
Sediment data										
PARTICLE SIZE (mm)	%									
> 8	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2-8	00.39	00.07	-----	-----	-----	-----	-----	-----	-----	-----
1-2	00.39	00.23	00.28	00.62	00.78	00.68	-----	-----	00.28	00.11
0.5-1	02.33	01.74	03.91	04.18	02.52	03.27	02.86	03.06	01.41	00.54
0.25-0.5	70.09	70.26	05.48	07.04	03.10	06.59	02.80	03.63	04.12	02.51
0.125-0.25	25.49	27.33	08.10	11.13	05.24	06.64	05.39	05.75	12.87	12.57
0.063-0.125	00.54	00.27	33.59	36.43	23.85	23.59	26.85	21.31	33.63	33.12
0.002-0.063	-----	-----	34.05	28.43	41.93	38.50	43.47	46.38	23.85	25.58
< 0.002	-----	-----	14.59	12.18	22.58	20.73	18.63	19.87	23.84	25.57
ORG. CONTENT	01.24	01.49	03.08	03.05	06.36	06.60	02.91	06.45	08.73	06.27

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH
DATE	10	10	10	10	10	10	10	10	10	10
TIME	1050	1055	1115	1120	1130	1135	1155	1200	1215	1220
DEPTH (ft.)	9.0	9.0	9.0	9.0	5.0	5.0	3.0	3.0	15.0	15.0
Water quality data										
TEMP. SURFACE	06.10	06.10	06.99	06.99	07.41	07.41	07.48	07.48	08.87	08.87
TEMP. BOTTOM	06.41	06.41	07.74	07.74	07.52	07.52	07.47	07.47	09.83	09.83
CON. SURFACE	02.36	02.36	09.82	09.82	10.90	10.90	12.14	12.14	24.33	24.33
CON. BOTTOM	03.08	03.08	16.96	16.96	13.60	13.60	12.23	12.23	34.54	34.54
SAL. SURFACE	02.04	02.04	08.65	08.65	09.50	09.50	10.68	10.68	21.80	21.80
SAL. BOTTOM	02.36	02.36	15.16	15.16	11.95	11.95	10.72	10.72	31.42	31.42
TUR. SURFACE	08.6	08.6	08.8	08.8	09.0	09.0	08.8	08.8	05.8	05.8
TUR. BOTTOM	08.8	08.8	16.0	16.0	09.5	09.5	09.0	09.0	07.8	07.8
pH SURFACE	07.3	07.3	07.75	07.75	08.0	08.0	08.1	08.1	08.2	08.2
pH BOTTOM	07.4	07.4	07.80	07.80	07.9	07.9	08.1	08.1	08.1	08.1
O_2 SURFACE	11.3	11.3	10.30	10.30	11.0	11.0	11.1	11.1	10.0	10.0
O_2 BOTTOM	11.1	11.1	09.5	09.5	09.8	09.8	11.1	11.1	08.8	08.8
Sediment data										
PARTICLE SIZE (mm)	----------%									
> 8	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2-8	00.09	-----	-----	00.12	-----	00.04	-----	00.08	00.49	00.26
1-2	00.19	-----	00.04	00.27	00.08	00.04	-----	-----	00.10	00.04
0.5-1	00.31	00.25	00.62	01.01	00.27	00.23	00.17	00.08	00.24	00.34
0.25-0.5	18.39	20.51	06.92	06.64	37.64	38.42	26.94	31.65	04.59	05.83
0.125-0.25	63.93	72.01	55.76	67.67	55.56	52.96	68.83	64.93	36.16	36.21
0.063-0.125	09.66	06.67	24.44	15.36	02.49	02.23	03.96	03.21	16.54	17.20
0.002-0.063	07.06	00.49	11.61	08.57	03.77	05.59	00.09	00.03	39.78	38.10
< 0.002	00.37	-----	00.61	00.45	00.20	00.49	-----	-----	02.09	02.01
ORG. CONTENT	01.95	00.75	03.28	03.91	01.72	01.93	00.59	00.64	04.73	04.43

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH
DATE	10	10	10	10	10	10	10	10	10	10
TIME	1240	1245	1305	1310	1400	1405	1535	1540	1515	1520
DEPTH (ft.)	6.0	6.0	6.0	6.0	5.0	5.0	23.0	23.0	8.0	8.0
Water quality data										
TEMP. SURFACE	08.44	08.44	08.07	08.07	08.25	08.25	08.35	08.35	08.31	08.31
TEMP. BOTTOM	09.27	09.27	07.75	07.75	08.44	08.44	09.31	09.31	08.89	08.89
CON. SURFACE	20.98	20.98	10.30	10.20	13.22	13.22	13.38	13.38	13.16	13.16
CON. BOTTOM	29.54	29.54	11.38	11.38	21.96	21.96	29.92	29.92	26.0	26.0
SAL. SURFACE	18.58	18.58	08.75	08.75	11.46	11.46	11.60	11.60	11.41	11.41
SAL. BOTTOM	26.75	26.75	09.82	09.82	19.78	19.78	27.06	27.06	23.39	23.39
TUR. SURFACE	06.6	06.6	05.3	05.3	05.4	05.4	06.4	06.4	05.8	05.8
TUR. BOTTOM	06.6	06.6	06.0	06.0	05.2	05.2	05.6	05.6	11.0	11.0
pH SURFACE	07.7	07.7	07.7	07.7	07.65	07.65	06.5	06.5	07.0	07.0
pH BOTTOM	07.7	07.7	07.7	07.7	07.5	07.5	06.5	06.5	06.9	06.9
O_2 SURFACE	09.3	09.3	09.8	09.8	09.5	09.5	10.2	10.2	09.7	09.7
O_2 BOTTOM	08.8	08.8	09.8	09.8	09.1	09.1	08.9	08.9	08.6	08.6
Sediment data										
PARTICLE SIZE (mm)	%									
> 8	-----	00.32	-----	-----	-----	-----	-----	-----	-----	-----
2-8	00.07	00.04	00.06	00.06	00.03	-----	00.23	00.82	-----	00.34
1-2	00.04	-----	00.03	00.03	-----	00.03	00.10	00.10	00.22	00.62
0.5-1	00.18	00.11	00.19	00.29	00.03	00.10	00.13	00.23	00.45	00.62
0.25-0.5	38.30	39.51	37.75	40.19	34.53	38.75	36.72	37.63	01.56	01.36
0.125-0.25	58.78	58.06	61.18	58.77	64.95	60.73	61.38	59.29	12.48	08.47
0.063-0.125	02.33	01.71	00.58	00.52	00.36	00.32	01.18	01.14	24.01	25.59
0.002-0.063	00.29	00.25	00.19	00.13	00.10	00.06	00.33	00.78	55.15	56.69
< 0.002	-----	-----	-----	-----	-----	-----	-----	-----	06.13	06.30
ORG. CONTENT	01.26	01.30	01.19	01.15	00.88	00.93	01.06	01.21	04.79	05.77

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH
DATE	10	10	10	10	10	10	6	6	13.0	13.0
TIME	1425	1430	1435	1440	1614	1620	1420	1425	1045	1050
DEPTH (ft.)	5.0	5.0	4.0	4.0	4.0	4.0	15.0	15.0	37.0	37.0
Water quality data										
TEMP. SURFACE	07.90	07.90	08.0	08.0	08.22	08.22	06.56	06.56	06.22	06.22
TEMP. BOTTOM	07.73	07.73	08.41	08.41	08.13	08.13	06.80	06.80	06.56	06.56
CON. SURFACE	13.11	13.11	12.37	12.37	04.51	04.51	09.81	09.81	02.75	02.75
CON. BOTTOM	16.93	06.93	05.58	15.58	18.59	18.59	12.06	12.06	02.90	02.90
SAL. SURFACE	11.78	11.78	10.60	10.60	03.71	03.71	08.63	08.63	02.32	02.32
SAL. BOTTOM	14.97	14.97	13.53	13.53	16.60	16.60	11.71	11.71	02.44	02.44
TUR. SURFACE	05.7	05.7	05.6	05.6	06.0	06.0	06.5	06.5	10.0	10.0
TUR. BOTTOM	06.8	06.8	06.6	06.6	06.2	06.2	07.8	07.8	11.0	11.0
pH SURFACE	07.5	07.5	07.5	07.5	07.8	07.8	08.3	08.3	07.1	07.1
pH BOTTOM	03.5	03.5	08.5	08.5	07.5	07.5	08.5	08.5	07.1	07.1
O_2 SURFACE	09.5	09.5	09.7	09.7	11.0	11.0	10.8	10.8	11.6	11.6
O_2 BOTTOM	09.4	09.4	09.7	09.7	09.8	09.8	10.4	10.4	11.5	11.5
Sediment data										
PARTICLE SIZE (mm)	%									
> 8	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2-8	00.03	-----	00.04	00.09	00.34	-----	-----	-----	00.15	00.05
1-2	-----	-----	00.35	00.13	00.15	00.05	00.04	00.04	00.10	00.10
0.5-1	00.10	00.17	00.35	00.31	00.58	00.34	00.34	00.64	00.10	00.20
0.25-0.5	37.86	37.60	05.08	06.40	02.04	01.56	45.15	40.27	09.04	10.70
0.125-0.25	60.50	60.70	32.27	35.76	16.63	17.98	43.51	41.73	41.14	40.48
0.063-0.125	00.59	00.76	39.89	39.88	56.32	46.90	04.22	05.53	17.52	15.92
0.002-0.063	00.90	00.76	19.38	16.05	22.73	29.85	06.41	10.86	28.75	29.30
< 0.002	-----	-----	02.64	01.39	01.20	03.32	00.34	00.94	03.20	03.25
ORG. CONTENT	00.98	01.08	02.90	02.80	03.98	04.04	02.06	03.05	04.44	04.21

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH
DATE	13	13	13	13	13	13	6	6	13	13
TIME	1100	1105	1530	1535	1545	1550	1405	1410	1130	1135
DEPTH (ft.)	24.0	24.0	5.0	5.0	3.0	3.0	7.0	7.0	6.0	6.0
Water quality data										
TEMP. SURFACE	06.32	06.32	07.30	07.30	07.55	07.55	06.37	06.37	08.23	08.23
TEMP. BOTTOM	06.56	06.56	06.86	06.86	07.55	07.55	06.75	06.75	07.58	07.58
CON. SURFACE	02.14	02.14	04.61	04.61	01.69	01.69	07.66	07.66	02.94	02.94
CON. BOTTOM	02.54	02.54	05.66	05.66	01.74	01.74	11.85	11.85	05.60	05.60
SAL. SURFACE	01.85	01.85	03.84	03.84	01.38	01.38	06.68	06.68	02.40	02.40
SAL. BOTTOM	02.46	02.46	04.83	04.83	01.43	01.43	10.66	10.66	04.66	04.66
TUR. SURFACE	11.0	11.0	07.6	07.6	13.0	13.0	07.0	07.0	10.0	10.0
TUR. BOTTOM	12.0	12.0	08.2	08.2	14.0	14.0	06.4	06.4	10.0	10.0
pH SURFACE	07.2	07.2	07.0	07.0	07.5	07.5	08.0	08.0	07.15	07.15
pH BOTTOM	07.2	07.7	07.0	07.0	07.5	07.5	08.35	08.35	07.15	07.15
O_2 SURFACE	11.5	11.5	11.0	11.0	11.2	11.2	10.4	10.4	10.0	10.0
O_2 BOTTOM	11.4	11.4	11.0	11.0	11.2	11.2	10.4	10.4	09.7	09.7
Sediment data										
PARTICLE SIZE (mm)	%									
> 8	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2-8	-----	-----	-----	00.04	-----	00.21	-----	-----	-----	00.23
102	-----	-----	00.04	00.16	-----	00.04	-----	-----	00.23	00.16
0.5-1	00.07	00.14	00.21	00.16	00.19	00.25	00.14	00.22	00.92	00.63
0.25-0.5	27.22	25.93	17.56	19.53	02.67	04.31	22.52	27.90	01.46	01.41
0.125-0.25	62.29	60.51	64.79	62.31	13.61	15.62	59.60	57.80	18.63	16.88
0.063-0.125	03.57	04.61	09.13	09.78	29.13	27.96	10.97	07.56	19.48	16.56
0.002-0.063	06.51	07.92	07.44	07.22	47.87	45.42	06.09	05.82	52.17	56.44
< 0.002	00.34	00.88	00.83	00.80	06.53	06.20	00.68	00.65	07.11	07.70
ORG. CONTENT	01.66	01.94	02.04	02.15	04.50	04.71	02.11	02.94	14.71	14.88

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH
DATE	13	13	13	13	6	6	6	6	6	6
TIME	1150	1155	1505	1510	1110	1115	1350	1355	1140	1145
DEPTH (ft.)	4.0	4.0	7.0	7.0	7.0	7.0	12.0	12.0	52.0	52.0
Water quality data										
TEMP. SURFACE	08.15	08.15	06.62	06.62	06.5	06.5	06.29	06.29	06.79	06.79
TEMP. BOTTOM	07.80	07.80	06.62	06.62	06.5	06.5	06.62	06.62	06.30	06.30
CON. SURFACE	04.47	04.47	01.44	01.44	08.12	08.12	06.58	06.58	04.53	04.53
CON. BOTTOM	05.99	05.99	01.88	01.88	10.40	10.40	11.98	11.98	06.31	06.31
SAL. SURFACE	03.70	03.70	01.13	01.13	07.23	07.23	05.73	05.73	03.80	03.80
SAL. BOTTOM	07.09	07.09	01.55	01.55	09.24	09.24	10.81	10.81	05.54	05.54
TUR. SURFACE	12.0	12.0	09.5	09.5	06.2	06.2	07.4	07.4	09.8	09.8
TUR. BOTTOM	12.0	12.0	09.0	09.0	06.2	06.2	07.8	07.8	11.0	11.0
pH SURFACE	07.0	07.0	06.9	06.9	08.1	08.1	08.4	08.4	08.3	08.3
pH BOTTOM	06.9	06.9	06.7	06.7	08.1	08.1	08.5	08.5	08.3	08.3
O_2 SURFACE	09.8	09.8	11.5	11.5	11.0	11.0	10.9	10.9	11.5	11.5
O_2 BOTTOM	09.8	09.8	11.5	11.5	11.7	11.7	10.5	10.5	11.5	11.5
Sediment data										
PARTICLE SIZE (mm)	%									
> 8	02.21	02.08	-----	-----	-----	-----	-----	-----	-----	-----
2-8	04.20	01.55	-----	-----	-----	-----	00.11	-----	-----	-----
1-2	01.15	00.75	00.09	00.04	-----	-----	-----	-----	-----	-----
0.5-1	02.78	02.21	00.22	00.16	00.09	00.09	00.26	00.22	-----	-----
0.25-0.5	14.71	22.91	00.52	00.37	00.51	00.23	17.00	08.96	00.23	00.24
0.125-0.25	60.95	53.20	30.00	25.46	08.05	06.16	74.56	80.30	02.87	00.24
0.063-0.125	04.51	04.50	48.23	50.18	34.61	32.74	06.16	08.37	11.01	05.06
0.002-0.063	08.74	11.52	18.84	20.94	53.90	57.74	01.84	02.04	77.29	85.02
< 0.002	00.76	01.28	02.09	02.85	02.84	03.04	00.10	00.11	08.59	09.45
ORG. CONTENT	10.61	08.63	03.86	03.93	04.07	03.86	02.40	02.33	08.48	08.29

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH
DATE	6	6	6	6	13	13	13	13	13	13
TIME	1205	1210	1245	1250	1305	1310	1335	1340	1420	1425
DEPTH (ft.)	6.0	6.0	6.0	6.0	8.0	8.0	11.0	11.0	8.0	8.0
Water quality data										
TEMP. SURFACE	05.50	05.50	06.36	06.36	08.33	08.33	06.55	06.55	07.53	07.53
TEMP. BOTTOM	06.32	06.32	06.25	06.25	08.18	08.18	06.61	06.61	07.53	07.53
CON. SURFACE	05.80	05.80	06.30	06.30	00.35	00.35	01.16	01.16	01.22	01.22
CON. BOTTOM	05.93	05.93	06.96	06.96	00.35	00.35	01.20	01.20	01.20	01.20
SAL. SURFACE	05.04	05.04	05.47	05.47	00.24	00.24	00.94	00.94	00.94	00.94
SAL. BOTTOM	05.12	05.12	06.20	06.20	00.24	00.24	00.97	00.97	00.95	00.95
TUR. SURFACE	07.4	07.4	06.7	06.7	10.0	10.0	13.0	13.0	19.0	19.0
TUR. BOTTOM	08.0	08.0	06.7	06.7	11.0	11.0	15.0	15.0	21.0	21.0
pH SURFACE	08.5	08.5	08.25	08.25	06.8	06.8	07.30	07.30	07.4	07.4
pH BOTTOM	08.5	08.5	08.2	08.2	06.7	06.7	07.25	07.25	07.2	07.2
O_2 SURFACE	11.6	11.6	11.6	11.6	10.2	10.2	11.5	11.5	11.8	11.8
O_2 BOTTOM	11.6	11.6	11.7	11.7	10.2	10.2	11.5	11.5	11.8	11.8
Sediment data										
PARTICLE SIZE (mm)	----------%									
> 8	-----	-----	-----	-----	-----	-----	-----	-----	03.08	-----
2-8	-----	00.07	00.14	-----	-----	-----	-----	-----	00.44	00.08
1-2	-----	00.04	00.19	-----	00.44	00.13	00.04	-----	00.04	00.08
0.5-1	00.21	00.14	00.19	00.38	00.81	01.02	00.14	00.18	00.18	00.42
0.25-0.5	18.37	18.25	00.71	00.71	02.88	02.62	08.23	04.56	00.66	00.96
0.125-0.25	42.39	44.88	12.01	03.56	17.22	13.53	60.68	46.07	12.72	11.83
0.063-0.125	19.16	18.00	29.14	29.01	21.54	31.01	21.57	24.51	48.81	47.92
0.002-0.063	17.88	16.75	51.43	58.37	45.69	43.94	08.88	23.45	32.36	36.77
< 0.002	01.99	01.86	05.71	07.96	11.42	07.75	00.46	01.23	01.70	01.94
ORG. CONTENT	03.61	04.00	05.44	05.88	15.89	16.00	02.39	03.83	09.21	05.43

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH
DATE	13	13	6	6	6	6	6	6	6	6
TIME	1400	1405	1300	1305	1245	1250	1320	1325	1330	1335
DEPTH (ft.)	5.0	5.0	7.0	7.0	6.0	6.0	6.0	6.0	5.0	5.0
Water quality data										
TEMP. SURFACE	07.64	07.64	06.41	06.41	06.36	06.36	06.30	06.30	06.40	06.40
TEMP. BOTTOM	07.53	07.53	06.27	06.27	06.25	06.25	06.30	06.30	06.40	06.40
CON. SURFACE	01.21	01.21	05.94	05.94	06.30	06.30	07.06	07.06	07.22	07.22
CON. BOTTOM	01.21	01.21	08.43	08.43	06.96	06.96	09.31	09.31	08.78	08.78
SAL. SURFACE	00.96	00.96	05.15	05.15	05.47	05.47	06.11	06.11	06.32	06.32
SAL. BOTTOM	00.96	00.96	07.54	07.54	06.20	06.20	08.30	08.30	07.80	07.80
TUR. SURFACE	17.0	17.0	07.6	07.6	06.7	06.7	07.4	07.4	06.7	06.7
TUR. BOTTOM	19.0	19.0	07.4	07.4	06.7	06.7	07.2	07.2	06.8	06.8
pH SURFACE	07.25	07.25	08.3	08.3	08.25	08.25	08.6	08.6	08.25	08.25
pH BOTTOM	07.1	07.1	08.3	08.3	08.2	08.2	08.6	08.6	08.35	08.35
O_2 SURFACE	11.7	11.7	11.5	11.5	11.6	11.6	11.5	11.5	11.5	11.5
O_2 BOTTOM	11.7	11.7	11.4	11.4	11.7	11.7	11.4	11.4	11.5	11.5
Sediment data										
PARTICLE SIZE (mm)	%									
> 8	-----	-----	00.56	-----	-----	-----	-----	-----	-----	-----
2-8	-----	-----	-----	-----	-----	-----	00.23	------	-----	-----
1-2	-----	-----	00.04	00.04	-----	-----	-----	00.08	-----	-----
0.5-1	00.09	00.22	00.19	00.23	00.11	00.08	00.59	00.65	00.31	00.31
0.25-0.5	00.22	00.27	14.11	11.40	10.84	10.93	21.50	23.27	43.47	43.66
0.125-0.25	03.31	01.99	63.05	58.14	65.79	62.19	63.29	64.04	46.98	48.16
0.063-0.125	22.39	20.01	18.14	24.38	15.93	16.96	12.29	10.42	06.16	05.62
0.002-0.063	66.60	69.77	03.53	05.23	06.60	08.66	01.94	01.42	02.77	02.03
< 0.002	07.40	07.75	00.39	00.58	00.73	01.18	00.17	00.12	00.31	00.22
ORG. CONTENT	07.25	07.50	02.06	02.35	01.88	02.24	01.88	01.94	01.70	01.58

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH
DATE	14	14	14	14	14	14	14	14	14	14
TIME	1025	1030	1005	1010	0950	0955	0945	0948	0935	0940
DEPTH (ft.)	12.0	12.0	14.0	14.0	7.0	7.0	12.0	12.0	5.0	5.0
Water quality data										
TEMP. SURFACE	06.15	06.15	06.27	06.27	06.08	06.08	06.22	06.22	06.22	06.22
TEMP. BOTTOM	06.21	06.21	06.15	06.15	06.09	06.09	06.25	06.25	06.23	06.23
CON. SURFACE	00.24	00.24	00.24	00.24	00.24	00.24	00.26	00.26	00.29	00.29
CON. BOTTOM	00.34	00.34	00.25	00.25	00.24	00.24	00.21	00.21	00.29	00.29
SAL. SURFACE	00.20	00.20	00.18	00.18	00.18	00.18	00.21	00.21	00.24	00.24
SAL. BOTTOM	00.30	00.30	00.20	00.20	00.20	00.20	00.18	00.18	00.24	00.24
TUR. SURFACE	11.0	11.0	09.5	09.5	10.0	10.0	07.8	07.8	07.2	07.2
TUR. BOTTOM	11.0	11.0	10.0	10.0	10.0	10.0	08.8	08.8	07.6	07.6
pH SURFACE	06.9	06.9	06.9	06.9	07.05	07.05	07.0	07.0	07.0	07.0
pH BOTTOM	06.9	06.9	06.9	06.9	07.05	07.05	07.0	07.0	07.0	07.0
O_2 SURFACE	11.9	11.9	11.9	11.9	12.0	12.0	11.8	11.8	12.0	12.0
O_2 BOTTOM	11.7	11.7	11.8	11.8	11.9	11.9	11.9	11.9	12.0	12.0
Sediment data										
PARTICLE SIZE (mm)	----------	----------	----------	----------	%	----------	----------	----------	----------	----------
> 8	-----	00.82	08.78	07.74	02.44	02.24	-----	-----	-----	-----
2-8	03.48	02.09	53.09	50.31	09.90	16.91	-----	00.05	00.18	00.07
1-2	02.54	01.40	12.76	14.33	03.46	05.79	-----	00.09	00.50	00.29
0.5-1	05.38	02.66	05.41	05.21	02.55	03.99	00.23	00.28	00.82	00.76
0.25-0.5	03.43	02.03	09.24	08.43	09.14	05.75	02.39	06.24	10.20	10.37
0.125-0.25	18.40	13.45	05.57	05.59	15.14	13.44	17.60	27.25	69.13	67.96
0.063-0.125	22.27	24.24	03.29	04.90	30.98	27.70	33.32	26.74	11.66	13.97
0.002-0.063	37.90	42.64	01.77	03.21	23.75	21.77	40.88	34.63	06.39	05.93
< 0.002	06.69	10.66	00.09	00.28	02.64	02.42	05.58	04.72	01.13	00.66
ORG. CONTENT	12.02	07.58	07.59	06.76	05.47	09.80	05.71	04.71	02.07	02.27

Station (sample)	1(A)	1(B)	2(A)	2(B)	3(A)	3(B)	4(A)	4(B)	5(A)	5(B)
MONTH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH	MARCH
DATE	14	14	14	14	14	14	14	14	14	14
TIME	1055	1100	1110	1115	1125	1130	1140	1145	1200	1205
DEPTH (ft.)	43.0	43.0	21.0	21.0	10.0	10.0	16.0	16.0	22.0	22.0
Water quality data										
TEMP. SURFACE	05.66	05.66	06.68	06.68	06.59	06.54	07.0	07.0	07.14	07.14
TEMP. BOTTOM	05.74	05.74	06.27	06.27	06.34	06.34	06.57	06.57	07.42	07.42
CON. SURFACE	00.21	00.21	00.26	00.26	00.23	00.23	00.23	00.27	00.21	00.21
CON. BOTTOM	00.20	00.20	00.19	00.19	00.23	00.23	00.17	00.17	00.18	00.18
SAL. SURFACE	00.18	00.18	00.20	00.20	00.21	00.21	00.20	00.20	00.16	00.16
SAL. BOTTOM	00.15	00.15	00.14	00.14	00.19	00.19	00.16	00.16	00.14	00.14
TUR. SURFACE	06.6	06.6	08.4	08.4	07.3	07.3	07.4	07.4	07.8	07.8
TUR. BOTTOM	07.2	07.2	08.4	08.4	07.8	07.8	16.0	16.0	14.0	14.0
pH SURFACE	07.2	07.2	07.3	07.3	07.25	07.25	07.8	07.8	07.9	07.9
pH BOTTOM	07.2	07.2	07.25	07.25	07.25	07.25	07.8	07.8	07.85	07.85
O_2 SURFACE	12.2	12.2	11.3	11.3	11.2	11.2	11.0	11.0	11.3	11.3
O_2 BOTTOM	12.1	12.1	11.3	11.3	11.3	11.3	11.1	11.1	11.3	11.3
Sediment data										
PARTICLE SIZE (mm)	%									
> 8	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2-8	00.14	-----	-----	-----	-----	-----	-----	-----	-----	00.32
1-2	00.74	00.11	-----	-----	-----	-----	-----	-----	-----	00.06
0.5-1	09.00	02.16	00.21	00.17	00.12	00.30	00.06	00.13	00.13	00.32
0.25-0.5	73.87	80.12	00.21	00.21	00.12	00.47	00.06	00.13	00.25	00.38
0.125-0.25	16.09	17.54	05.39	06.16	02.81	03.25	05.80	01.13	10.75	11.20
0.063-0.125	00.11	00.04	42.69	39.19	27.17	28.34	26.00	27.01	34.96	34.89
0.002-0.063	00.04	00.04	45.32	46.13	55.82	55.46	57.86	60.87	44.21	43.31
< 0.002	-----	-----	06.18	08.14	13.96	12.17	10.21	10.74	09.71	09.51
ORG. CONTENT	01.53	01.05	02.79	03.86	06.55	06.36	06.09	06.45	06.19	05.62

APPENDIX C

BENTHIC INVERTEBRATE DATA

JUNE 1977-MARCH 1978

Station (sample) Date: June 1977	1(A) NO.	WEIGHT(g)	1(B) NO.	WEIGHT(g)	2(A) NO.	WEIGHT(g)	2(B) NO.	WEIGHT(g)	3(A) NO.	WEIGHT(g)
Group										
NEMERTEA										
NEMATODA					186	0.0027	5		92	0.0008
Turbellaria										
ANNELIDA:										
Polychaeta	4	0.0016	8	0.0035	17	0.0248	3	0.0017	13	0.0079
Oligochaeta			1		97	0.0377	2	0.0001	29	0.0295
MOLLUSCA:										
Gastropoda										
Bivalva	6	0.0677	3	0.0019	33	0.2317	16	0.1631	58	3.8746
ARTHROPODA:									1	
Ostracoda										
Cirripedia										
Mysidacea										
Cumacea										
Amphipoda	4	0.0045	1	0.0001	4	0.0007	1			
Decapoda										
Isopoda										
Cladocera										
Copepoda	4				4		1		15	
INSECTA										
Odonata										
Diptera										
OTHER										
TOTAL:	18	0.0738	13	0.0055	341	0.2976	28	0.1649	208	3.9128
TOTALS/m^2:	360	1.4760	260	0.1100	6820	5.9520	560	3.2980	4160	78.2560

Station (sample) Date: June 1977	3(B) NO.	3(B) WEIGHT(g)	4(A) NO.	4(A) WEIGHT(g)	4(B) NO.	4(B) WEIGHT(g)	5(A) NO.	5(A) WEIGHT(g)	5(B) NO.	5(B) WEIGHT(g)
Group										
NEMERTEA										
NEMATODA	67	0.0082			6		18		9	
Turbellaria										
ANNELIDA:										
Polychaeta	101	0.0259	13	0.0026	4	0.0010	3	0.0106	3	0.0346
Oligochaeta	34	0.0013			1		7	0.0206	52	0.0648
MOLLUSCA:										
Gastropoda										
Bivalva	10	0.1121	5	0.0038	1	0.0022	5	0.0074	4	0.0153
ARTHROPODA:										
Ostracoda										
Cirripedia							125	0.4272	155	0.2536
Mysidacea							1	0.0007		
Cumacea										
Amphipoda			12	0.0003	1	0.0005	7	0.0024	19	0.0191
Decapoda										
Isopoda										
Cladocera										
Copepoda	2									
INSECTA										
Odonata										
Diptera			1	0.0001						
OTHER										
TOTAL:	214	0.1405	31	0.0068	13	0.0037	166	0.4689	242	0.3874
TOTALS/m^2:	4280	2.8100	620	0.1360	260	0.0740	3320	9.3780	4840	7.7480

Station (sample) Date: June 1977	6(A) NO.	WEIGHT(g)	6(B) NO.	WEIGHT(g)	7(A) NO.	WEIGHT(g)	7(B) NO.	WEIGHT(g)	8(A) NO.	WEIGHT(g)
Group										
NEMERTEA										
NEMATODA	1		4				1		1	
Turbellaria										
ANNELIDA:										
Polychaeta	6	0.0567	5	0.0005	9	0.0040	30	0.0118	7	0.0014
Oligochaeta	5	0.0006	2				1		55	0.0029
MOLLUSCA:										
Gastropoda										
Bivalva	45	0.0923	29	0.0058					42	0.1092
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea										
Cumacea			2	0.0002					8	0.0024
Amphipoda	8	0.0045	9	0.0015	21	0.0087	23	0.0097	1	0.0002
Decapoda							1			
Isopoda										
Cladocera										
Copepoda										
INSECTA										
Odonata										
Diptera										
OTHER										
TOTAL:	65	0.1541	51	0.0080	30	0.0127	56	0.0215	114	0.1161
TOTALS/m^2:	1300	3.0820	1020	0.1600	600	0.2540	1120	0.4300	2280	2.3220

Station (sample)	8(B)		9(A)		9(B)		10(A)		10(B)	
Date: June 1977	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA										
NEMATODA	8		1		1		45	0.0037	106	0.0001
Turbellaria										
ANNELIDA:										
Polychaeta	41	0.0474	4	0.0035	4	0.0010	68	0.2378	50	0.0475
Oligochaeta	149	0.0199	1				16	0.0004	40	0.0037
MOLLUSCA:										
Gastropoda										
Bivalva	109	1.1728	2	0.0009	7	0.0241	38	9.4945	39	11.5697
ARTHROPODA:										
Ostracoda										
Cirripedia					76	1.4115				
Mysidacea										
Cumacea	9	0.0010					4	0.0006	6	
Amphipoda	4	0.0006	1	0.0004					2	
Decapoda										
Isopoda										
Cladocera										
Copepoda										
INSECTA							94	0.0072	246	0.0171
Odonata										
Diptera										
OTHER										
TOTAL:	320	1.2417	9	0.0048	88	1.4366	265	9.7442	489	11.6381
TOTALS/m^2:	6400	24.8340	180	0.0960	1760	28.7320	5300	194.8840	9780	232.7620

Station (sample)	11(A)		11(B)		12(A)		12(B)		13(A)	
Date: June 1977	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA										
NEMATODA	59		10		6		7	0.0006	36	0.0008
Turbellaria										
ANNELIDA:										
Polychaeta	166	0.5955	121	0.4974	124	0.0467	206	0.1429	26	0.0162
Oligochaeta	21	0.0233	3	0.0005			5		2	
MOLLUSCA:										
Gastropoda										
Bivalva	26	8.1965	15	4.4823	3	0.6797	6	0.7232	3	0.0462
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea										
Cumacea	1	0.0006	1	0.0005						
Amphipoda	3	0.0094	5	0.0032			1		4	0.0011
Decapoda										
Isopoda										
Cladocera									1	
Copepoda			1		4				109	0.0030
INSECTA										
Odonata										
Diptera									10	0.0009
OTHER										
TOTAL:	276	8.8203	156	4.9839	137	0.7264	225	.8667	191	0.0682
TOTALS/m^2:	5520	176.4060	3120	99.6780	2740	14.5280	4500	17.3340	3820	1.3640

Station (sample)	13(B)		14(A)		14(B)		15(A)		15(B)	
Date: June 1977	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA										
NEMATODA	35	0.0030	8	0.0030	3		4		10	
Turbellaria										
ANNELIDA:										
Polychaeta	59	0.0569	6	0.0024	2	0.0003	5	0.0117	1	0.0090
Oligochaeta	1		6		2	0.0019	4	0.0001		
MOLLUSCA:										
Gastropoda										
Bivalva			3	0.0256	3	0.0416			2	0.0637
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea										
Cumacea										
Amphipoda			13	0.0339			3	0.0004	1	0.0004
Decapoda									1	0.0386
Isopoda										
Cladocera										
Copepoda	122	0.0081	9		7		12		23	0.0006
INSECTA										
Odonata	1				1					
Diptera									2	0.0002
OTHER										
TOTAL:	218	0.0680	45	0.0649	18	0.0438	28	0.0122	40	0.1125
TOTALS/m^2:	4360	1.3600	900	1.2980	360	0.8760	560	0.2440	800	2.2500

Station (sample) Date: June 1977	16(A) NO.	16(A) WEIGHT(g)	16(B) NO.	16(B) WEIGHT(g)	17(A) NO.	17(A) WEIGHT(g)	17(B) NO.	17(B) WEIGHT(g)	18(A) NO.	18(A) WEIGHT(g)
Group										
NEMERTEA	1	0.0001	1	0.0001	5	0.0002				
NEMATODA	6		43	0.0003	68	0.0003	55	0.0036	27	
Turbellaria										
ANNELIDA:										
Polychaeta	3	0.0004	5	0.0003	12	0.0081	10	0.0285	20	0.1229
Oligochaeta			2	0.0012	4	0.0004	8	0.0032	5	
MOLLUSCA:										
Gastropoda										
Bivalva			16	0.0117	4	0.0288	6	0.0337	3	0.1074
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea										
Cumacea										
Amphipoda	14	0.0056	287	0.3712	22	0.0053	22	0.0100	4	0.0047
Decapoda										
Isopoda			1	0.0005					1	0.0195
Cladocera	13	0.0002	14		3		6		2	
Copepoda	62	0.0043	41	0.0004	292	0.0024	145	0.0031	167	0.0045
INSECTA										
Odonata										
Diptera									3	0.0015
Insecta			1	0.0005						
OTHER										
TOTAL:	99	0.0106	411	0.3662	410	0.0455	252	0.0821	232	0.2605
TOTALS/m^2:	1980	0.2120	8220	7.7240	8200	0.9100	5040	1.6420	4640	5.2100

Station (sample)	18(B)		19(A)		19(B)		20(A)		20(B)	
Date: June 1977	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA							23	0.0013		
NEMATODA	29	0.0001	1		7		1985	0.0037	1265	0.0030
Turbellaria										
ANNELIDA:										
Polychaeta	17	0.2477	5	0.0001	3	0.0002	562	0.1804	396	0.1369
Oligochaeta			89	0.0146	45	0.0069	368	0.0198	496	0.0686
MOLLUSCA:										
Gastropoda										
Bivalva	6	0.2717	5	0.0027	1	0.0001	9	0.0297	21	0.0103
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea							2	0.0045		
Cumacea										
Amphipoda	8	0.0012	25	0.0027	19	0.0027	85	0.0230	466	0.3284
Decapoda							3	0.0259	2	0.0032
Isopoda										
Cladocera	1						17		26	
Copepoda	142	0.0039	17	0.0007	29	0.0001	2596	0.0137	3892	0.0328
INSECTA										
Odonata										
Diptera										
OTHER										
TOTAL:	203	0.5246	142	0.0208	104	0.0100	5,650	0.3020	6,564	0.5832
TOTALS/m^2:	4060	10.4920	2840	0.4160	2080	0.2000	113,000	6.0400	131,280	11.6640

Station (sample)	21(A)		21(B)		22(A)		22(B)		23(A)	
Date: June 1977	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA										
NEMATODA	25		34	0.0001	78	0.0001	6		100	0.0016
Turbellaria										
ANNELIDA:										
Polychaeta	666	0.4735	489	0.3533	24	0.0991	24	0.0976	104	0.7790
Oligochaeta	97	0.0178	64	0.0104	262	0.0563	136	0.0485	162	0.0629
MOLLUSCA:										
Gastropoda										
Bivalva	4	0.0279	5	0.0001	1	0.0087			1	0.0309
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea					1	0.0038				
Cumacea										
Amphipoda	402	0.2870	257	0.1406	374	0.6760	255	0.3385	799	1.6604
Decapoda					1					
Isopoda			3	0.0003						
Cladocera			1		3		1		3	
Copepoda	128	0.0012	184	0.0008	19	0.0002	11		26	0.0010
INSECTA										
Odonata										
Diptera	1									
Arachnida							1			
OTHER										
TOTAL:	1323	0.8074	1037	0.5050	763	0.8412	434	0.4846	1195	2.5358
TOTALS/m^2:	26460	16.1480	20740	10.1120	15260	16.8240	8680	9.6920	23900	50.7160

Station (sample)	23(B)		24(A)		24(B)		25(A)		25(B)	
Date: June 1977	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA										
NEMATODA	5				1		6		35	
Turbellaria										
ANNELIDA:										
Polychaeta	15	0.0198	15	0.0006	17	0.0022	33	0.1039	117	0.2076
Oligochaeta	46	0.0175	2	0.0023	3	0.0011	123	0.2045	183	0.2341
MOLLUSCA:										
Gastropoda										
Bivalva			5	0.0002	2	0.0022			1	
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea									1	0.0001
Cumacea										
Amphipoda	156	0.2096	2	0.0003	2	0.0005	102	0.3596	197	0.6333
Decapoda										
Isopoda										
Cladocera							4		1	
Copepoda	1				1		5		56	0.0014
INSECTA										
Odonata										
Diptera										
OTHER										
TOTAL:	223	0.2469	24	0.0034	26	0.0060	273	0.6680	591	1.0765
TOTALS/m^2:	4460	4.9380	480	0.0680	520	0.1200	5460	13.3600	11820	21.5300

Station (sample) Date: June 1977	26(A)		26(B)		27(A)		27(B)		28(A)	
	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA									4	
NEMATODA	14		3		24	0.0001	2		39	0.0002
Turbellaria										
ANNELIDA:										
Polychaeta	163	0.5134	71	0.1507	122	0.0073	116	0.3636	49	0.1516
Oligochaeta	462	0.3973	503	0.3437	2067	1.4556	693	0.2326	68	0.0105
MOLLUSCA:										
Gastropoda										
Bivalva	1	0.0001	1	0.0001			1	0.0001	14	0.0087
ARTHROPODA:										
Ostracoda									1	
Cirripedia										
Mysidacea										
Cumacea										
Amphipoda	923	2.0838	894	1.8946	835	0.9827	771	1.0504	221	0.5801
Decapoda										
Isopoda							1	0.0087	1	0.0002
Cladocera	34	0.0044	13		55	0.0002	31	0.0004		
Copepoda	123	0.0015	24	0.0001	454	0.0005	178	0.0015	25	0.0004
INSECTA										
Odonata										
Diptera	1								3	0.0003
OTHER										
TOTAL:	1721	3.0005	1509	2.2892	3557	1.4464	1793	1.6573	425	0.7520
TOTALS/m^2:	34420	60.0100	30180	47.784	71140	28.9280	35860	33.1460	8500	15.0400

Station (sample)	28(B)		29(A)		29(B)		30(A)		30(B)	
Date: June 1977	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA									5	
NEMATODA	11		240	0.0014	244	0.0013	49	0.0002	101	0.0070
Turbellaria										
ANNELIDA:										
Polychaeta	4	0.2450	23	0.0018	19	0.0016	11	0.0031	85	0.2215
Oligochaeta	60	0.0180	416	0.0969	434	0.1614	239	0.0391	2037	1.0348
MOLLUSCA:										
Gastropoda										
Bivalva			1	.0004			2	0.0050	6	0.0031
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea	1	0.0012			1	0.0008	1	0.0005		
Cumacea										
Amphipoda	26	0.1330	799	0.4353	661	0.2858	538	0.4245	1009	0.8923
Decapoda										
Isopoda	8	0.0100					2	0.0172		
Cladocera									1	
Copepoda	12		44	0.0008	29	0.0002	220	0.0013	339	0.0015
INSECTA										
Odonata										
Diptera	7	0.0084	13	0.0003						
Columbella	1								5	
Arachnida									1	
OTHER										
TOTAL:	130	0.4156	1536	0.5369	1388	0.4511	1062	0.4909	3589	2.1602
TOTALS/m^2:	2600	8.3120	30720	10.7380	27760	9.0220	21240	9.8180	71780	43.2040

Station (sample)	31(A)		31(B)		32(A)		32(B)		33(A)	
Date: June 1977	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA										
NEMATODA					51	0.0004	34	0.0001	56	0.0001
Turbellaria									5	0.0001
ANNELIDA:										
Polychaeta	22	0.2740	30	0.1266	8	0.0014	15	0.0013	35	0.0015
Oligochaeta	381	0.2117	157	0.1051	95	0.0496	51	0.0423	75	0.0243
MOLLUSCA:										
Gastropoda										
Bivalva										
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea										
Cumacea										
Amphipoda	818	0.9355	808	1.2497	517	0.3263	351	0.2060	358	0.2748
Decapoda										
Isopoda	1	0.0020								
Cladocera					19	0.0039	31	0.0003	12	
Copepoda	9		29	0.0006	47	0.0008	36	0.0003	5	0.0006
INSECTA										
Odonata										
Diptera									1	0.0001
OTHER										
TOTAL:	1231	1.4232	1024	1.4820	737	0.3824	518	0.2503	547	0.3015
TOTALS/m^2:	24620	28.4640	20480	29.6400	14740	7.6480	10360	5.0060	10940	6.0300

Station (sample)	33(B)		34(A)		34(B)		35(A)		35(B)	
Date: June 1977	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA										
NEMATODA	44	0.0001	17	0.0001	42	0.0001	8		17	
Turbellaria										
ANNELIDA:										
Polychaeta	6	0.0005	10	0.0022	16	0.0035	23	0.0149	20	0.0025
Oligochaeta	60	0.0301	7	0.0005	8	0.0047	5	0.0066	9	0.0068
MOLLUSCA:										
Gastropoda										
Bivalva	2	0.0018	1		1	0.0008			2	0.0011
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea			1	0.0010						
Cumacea										
Amphipoda	43	0.0044	183	0.0614	170	0.1302	44	0.0340	47	0.0096
Decapoda										
Isopoda										
Cladocera	5		6	0.0001	20	0.0008	3	0.0026		
Copepoda	1		10	0.0002	36	0.0003	5		6	
INSECTA										
Odonata										
Diptera			5							
OTHER										
Arachnida					2	0.0002				
TOTAL:	161	0.0369	240	0.0655	295	0.1406	88	0.0581	101	0.0200
TOTALS/m^2:	3220	0.7380	4800	1.3100	5900	2.8120	1760	1.1620	2020	0.4000

Station (sample) Date: June 1977	36(A)		36(B)		37(A)		37(B)		38(A)	
	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA							5	0.0001		
NEMATODA					156	0.0008	135	0.0023	54	
Turbellaria										
ANNELIDA:										
Polychaeta	3	0.0001	7	0.0009	21	0.2075	18	0.0079	1	0.0025
Oligochaeta	16	0.0053	40	0.0187	433	0.1681	590	0.2676	37	0.0019
MOLLUSCA:										
Gastropoda									46	1.6300
Bivalva			1	0.0074			1	0.0001	30	0.0016
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea					1	0.0047				
Cumacea										
Amphipoda	28	0.0297	3	0.0009	847	0.8857	681	0.4922	592	0.5950
Decapoda										
Isopoda					1	0.0015				
Cladocera	1		1		3		19	0.0001		
Copepoda	3		8		188	0.0012	253	0.0014	16	0.0004
INSECTA										
Odonata										
Diptera	2	0.0005					2			
Columbella							1			
OTHER										
Fish Larvae					1					
TOTAL:	53	0.0356	60	0.0279	1651	1.2695	1705	0.7717	776	2.1814
TOTALS/m^2:	1060	0.7120	1200	0.5580	33020	25.3900	34100	15.4340	15520	43.6280

Station (sample)	38(B)		39(A)		39(B)		40(A)		40(B)	
Date: June 1977	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA										
NEMATODA	3		185	0.0005	82	0.0020			22	0.0003
Turbellaria										
ANNELIDA:										
Polychaeta			8	0.0195	33	0.0126			2	0.0034
Oligochaeta	26	0.0015	383	0.0442	164	0.0160	6	0.0008	68	0.0076
MOLLUSCA:										
Gastropoda	20	1.1206	1	0.0484						
Bivalva	19	0.0018	5	0.0067	4	0.0006	3	0.0007	6	0.0005
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea										
Cumacea										
Amphipoda	168	0.0377	847	0.7372	605	0.5326	90	0.0394	330	0.2337
Decapoda	1	0.1931								
Isopoda										
Cladocera			1							
Copepoda	1		20	0.0002	9	0.0001				
INSECTA										
Odonata										
Diptera					2	0.0006				
OTHER										
TOTAL:	238	1.3547	1450	0.8567	899	0.5645	99	0.0409	428	0.2455
TOTALS/m^2:	4760	27.094	29000	17.134	17980	11.2900	1980	0.8180	8560	4.9100

Station (sample) Date: June 1977	41(A) NO.	41(A) WEIGHT(g)	41(B) NO.	41(B) WEIGHT(g)	42(A) NO.	42(A) WEIGHT(g)	42(B) NO.	42(B) WEIGHT(g)	43(A) NO.	43(A) WEIGHT(g)
Group										
NEMERTEA										
NEMATODA	59	0.0004	100	0.0008	30	0.0002	97		65	0.0009
Turbellaria										
ANNELIDA:										
Polychaeta					22	0.1086	20	0.0200		
Oligochaeta					1194	1.3795	718	0.5994	1046	0.7021
MOLLUSCA:										
Gastropoda										
Bivalva	4	0.0009	9	0.0022	2	0.0048	2	0.0006	35	0.0021
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea										
Cumacea					1	0.0042			1	
Amphipoda			30	0.6920	926	1.6529	517	0.4999	53	0.0814
Decapoda										
Isopoda			2	0.0026						
Cladocera	4		13	0.0001	2		3			
Copepoda	1		2		175	0.0019	878	0.0104	200	0.0035
INSECTA										
Odonata										
Diptera					2				8	0.0260
OTHER										
TOTAL:	68	0.0013	156	0.6977	2354	3.1477	2235	1.1303	1408	0.8160
TOTALS/m^2:	1360	0.0260	3120	13.9540	45960	62.9540	44700	22.6060	28160	16.3200

Station (sample) Date: June 1977	43(B)		44(A)		44(B)		45(A)		45(B)	
Group	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
NEMERTEA										
NEMATODA	26	0.0010	68	0.0017	47	0.0001	88	0.0008	279	0.0086
Turbellaria										
ANNELIDA:										
Polychaeta	1	0.0680					12	0.0380	16	0.2925
Oligochaeta	1262	0.5596	1961	0.8394	1310	1.4096	169	0.2546	527	0.2887
MOLLUSCA:										
Gastropoda										
Bivalva	11	0.1254					11	0.0229	6	0.0042
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea	1		2	0.0043	1	0.0018				
Cumacea										
Amphipoda	31	0.0057	93	0.2520	72	0.0575	922	1.6269	910	1.3797
Decapoda										
Isopoda										
Cladocera	1		3		8				3	
Copepoda	256	0.0019	56	0.0026	139	0.0001	280	0.0064	134	0.0008
INSECTA										
Odonata										
Diptera	34	0.0174	10	0.0054	4	0.0031			21	0.0031
Trichoptera			1	0.0055						
OTHER										
TOTAL:	1623	0.7790	2194	1.1109	1581	1.4722	1482	1.9496	1896	1.9776
TOTALS/m^2:	32460	15.5800	43880	22.2180	31620	29.4440	29640	38.9920	37920	39.5520

Station (sample) Date: Sept. 1977	1(A) NO.	WEIGHT(g)	1(B) NO.	WEIGHT(g)	2(A) NO.	WEIGHT(g)	2(B) NO.	WEIGHT(g)	3(A) NO.	WEIGHT(g)
Group										
NEMERTEA					6	0.0021				
NEMATODA					3				4	
Turbellaria										
ANNELIDA:										
Polychaeta	31	0.0395	9	0.0058	21	0.0247	3	0.0025	160	0.0235
Oligochaeta					1		1			
MOLLUSCA:										
Gastropoda										
Bivalva	234	0.4163	187	0.1833	98	0.0422	31	0.0357	10	0.0086
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea					2	0.0003	14	0.0010		
Cumacea					1					
Amphipoda	2	0.0007	6	0.0013	1	0.0002	2	0.0011		
Decapoda					1	0.0043	1	0.0230		
Isopoda							1	0.0001		
Cladocera										
Copepoda										
INSECTA										
Odonata										
Diptera										
OTHER										
TOTAL:	267	0.4565	202	0.1904	134	0.0738	53	0.0634	174	0.0321
TOTALS/m^2:	5340	9.1300	4040	3.8080	2680	1.4760	1060	1.2680	3480	0.6420

Station (sample)	3(B)		4(A)		4(B)		5(A)		5(B)	
Date: Sept. 1977	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA										
NEMATODA			1							
Turbellaria										
ANNELIDA:										
Polychaeta	172	0.0529	95	0.1914	21	0.0055	14	0.0326	8	0.0036
Oligochaeta	5		8				10	0.0010	3	0.0004
MOLLUSCA:										
Gastropoda										
Bivalva	8	0.0127	164	0.6148	45	0.2011	26	0.0343	6	0.0007
ARTHROPODA:										
Ostracoda										
Cirripedia							62	0.9023	10	0.4190
Mysidacea										
Cumacea										
Amphipoda			2		4	0.0008	21	0.0010	10	0.0023
Decapoda									1	
Isopoda							3	0.0010	2	0.0002
Cladocera										
Copepoda			3						1	
INSECTA										
Odonata										
Diptera										
OTHER										
TOTAL:	185	0.0656	273	0.8062	70	0.2074	136	0.9722	41	0.4262
TOTALS/m^2:	3700	1.3120	5460	16.1240	1400	4.1480	2720	19.4440	820	8.5240

Station (sample) Date: Sept. 1977	6(A) NO.	WEIGHT(g)	6(B) NO.	WEIGHT(g)	7(A) NO.	WEIGHT(g)	7(B) NO.	WEIGHT(g)	8(A) NO.	WEIGHT(g)
Group										
NEMERTEA	1	0.0003	4		4					
NEMATODA					10				9	
Turbellaria									1	
ANNELIDA:										
Polychaeta	30	0.0168	89	0.1678	170	0.1264	136	0.0577	24	0.0674
Oligochaeta	1		8	0.0060					58	0.0005
MOLLUSCA:										
Gastropoda										
Bivalva	40	0.0502	128	0.7840	3	0.0005	1		117	6.5590
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea										
Cumacea			3						20	0.0013
Amphipoda	5	0.0016			8	0.0147	11	0.0064	1	
Decapoda	1	0.0026								
Isopoda										
Cladocera										
Copepoda									3	
INSECTA										
Odonata										
Diptera							1			
OTHER										
TOTAL:	78	0.0715	228	0.9578	195	0.1416	149	0.0641	233	6.6282
TOTALS/m^2:	1560	1.4300	4560	19.1560	3900	2.8320	2980	1.2820	4660	132.5640

Station (sample) Date: Sept. 1977	8(B)		9(A)		9(B)		10(A)		10(B)	
Group	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
NEMERTEA										
NEMATODA	6		9							
Turbellaria										
ANNELIDA:										
Polychaeta	26	0.0371	323	0.0189	39	0.0018	9	0.0021	30	0.0072
Oligochaeta	6	0.0019	5		11		7		20	0.0193
MOLLUSCA:										
Gastropoda										
Bivalva	203	26.9471	113	0.0958	34	0.0514	120	13.5898	100	10.4818
ARTHROPODA:										
Ostracoda										
Cirripedia	2	0.0215	666	4.4331					1	0.0566
Mysidacea					1		1			
Cumacea	6	0.0005					8	0.0028	15	0.0013
Amphipoda	1		570	0.2357	11	0.0013	5	0.0005	1	
Decapoda										
Isopoda			24	0.0019						
Cladocera										
Copepoda										
INSECTA										
Odonata										
Diptera			1							
OTHER										
TOTAL:	250	27.0081	1711	4.7854	96	0.0545	150	13.5952	167	10.5662
TOTALS/m^2:	5000	540.1620	34220	95.7080	1920	1.0900	3000	271.9040	3340	211.3240

Station (sample) Date: Sept. 1977	11(A) NO.	11(A) WEIGHT(g)	11(B) NO.	11(B) WEIGHT(g)	12(A) NO.	12(A) WEIGHT(g)	12(B) NO.	12(B) WEIGHT(g)	13(A) NO.	13(A) WEIGHT(g)
NEMERTEA										
NEMATODA	41		6		10				5	0.0040
Turbellaria	1		5	0.0006	5	0.0006	34			
ANNELIDA:										
Polychaeta	275	0.0511	194	0.1001	75	0.0872	136	0.0751	206	0.2843
Oligochaeta	2				4					
MOLLUSCA:										
Gastropoda										
Bivalva	22	0.0057	18	0.0180	25	0.1852	7	0.1600	46	0.9546
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea										
Cumacea										
Amphipoda	2	0.0001	1		4	0.0050	3			
Decapoda					1	0.1574	9	0.0008		
Isopoda										
Cladocera										
Copepoda	2									
INSECTA							2			
Odonata										
Diptera										
OTHER										
TOTAL:	345	0.0569	224	0.1187	124	0.4354	191	0.2359	257	1.2429
TOTALS/m^2:	6900	1.1380	4480	2.3740	2480	8.7080	3820	4.7180	5140	24.8580

Station (sample)	13(B)		14(A)		14(B)		15(A)		15(B)	
Date: Sept. 1977	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA			2							
NEMATODA	2									
Turbellaria										
ANNELIDA:										
Polychaeta	145	0.0238	2	0.0006	2		5	0.0012	8	0.0018
Oligochaeta	6						2			
MOLLUSCA:										
Gastropoda									1	0.0001
Bivalva	6	0.0457	12	0.0084	12	0.0185	17	0.0159	19	0.0156
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea										
Cumacea	3	0.0002								
Amphipoda	2	0.0022	18	0.0077	13	0.0060	4	0.0022	17	0.0213
Decapoda										
Isopoda										
Cladocera										
Copepoda	5									
INSECTA										
Odonata										
Diptera										
OTHER										
TOTAL:	169	0.0719	34	0.0167	27	0.0245	28	0.0193	45	0.0388
TOTALS/m^2:	3380	1.4380	680	0.3340	540	0.4900	560	0.3860	900	0.7760

Station (sample) Date: Sept. 1977	16(A)		16(B)		17(A)		17(B)		18(A)	
Group	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
NEMERTEA							2	0.0001		
NEMATODA									149	
Turbellaria									27	0.0012
ANNELIDA:										
Polychaeta	11	0.0032	12	0.0007	167	0.0962	332	0.0605	320	0.2250
Oligochaeta	5		3				2			
MOLLUSCA:										
Gastropoda										
Bivalva	5	0.0157	5	0.0013	118	0.1181	93	0.0455	10	0.0601
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea	1				1	0.0001				
Cumacea										
Amphipoda	6	0.0007	14	0.0077	7	0.0011	2	0.0003	31	0.0416
Decapoda										
Isopoda										
Cladocera										
Copepoda					6				86	0.0004
INSECTA										
Odonata										
Diptera										
OTHER										
TOTAL:	28	0.0196	34	0.0097	299	0.2155	431	0.1064	623	.3283
TOTALS/m^2:	560	0.3920	680	0.1940	5980	4.3100	8620	2.1280	12460	6.5660

Station (sample) Date: Sept. 1977	18(B) NO.	18(B) WEIGHT(g)	19(A) NO.	19(A) WEIGHT(g)	19(B) NO.	19(B) WEIGHT(g)	20(A) NO.	20(A) WEIGHT(g)	20(B) NO.	20(B) WEIGHT(g)
Group										
NEMERTEA							2	0.0044	2	0.0002
NEMATODA	106						95	0.0003	37	0.0001
Turbellaria	7	0.0010					18	0.0011		
ANNELIDA:										
Polychaeta	444	0.2781	33	0.0207	18	0.0008	1512	0.4830	648	0.4427
Oligochaeta			3		1		37	0.0010	11	0.0034
MOLLUSCA:										
Gastropoda										
Bivalva	11	0.0634	27	0.0159	26	0.0027	59	0.0982	5	0.0002
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea			1							
Cumacea	1									
Amphipoda	10	0.0514	7	0.0003	5	0.0017	365	0.1677	614	0.3664
Decapoda					1	0.0021			2	0.0023
Isopoda										
Cladocera										
Copepoda	79	0.0007					715	0.0017	25	
INSECTA										
Odonata										
Diptera							4			
Hemiptera			1							
Isoptera							1			
OTHER										
TOTAL:	658	0.3946	72	0.0369	51	0.0073	2808	0.7574	1344	0.8153
TOTALS/m^2:	13160	7.8920	1440	0.7380	1020	0.1460	56160	15.1480	26880	16.3060

Station (sample) Date: Sept. 1977	21(A)		21(B)		22(A)		22(B)		23(A)	
Group	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
NEMERTEA					4	0.0184	4	0.0014		
NEMATODA	5		3		12		10			
Turbellaria	1						13	0.0084		
ANNELIDA:										
Polychaeta	636	0.1494	647	0.1940	116	0.2215	103	0.0499	74	0.0090
Oligochaeta	39		5	0.0004	66	0.0029	33	0.0005	2	
MOLLUSCA:										
Gastropoda										
Bivalva	6	1.4123	5	0.0003	16	0.1600	21	0.0488	11	0.2971
ARTHROPODA:										
Ostracoda										
Cirripedia			2	0.0002						
Mysidacea							1			
Cumacea										
Amphipoda	301	0.0434	126	0.0083	229	0.4104	235	0.3828	335	0.2519
Decapoda										
Isopoda										
Cladocera										
Copepoda	158	0.0003	51	0.0002	10		36		13	
INSECTA -										
Odonata										
Diptera										
Arachnida			1						1	
Unidentified					2					
OTHER										
TOTAL:	1146	1.6054	840	0.2034	455	0.8132	456	0.4918	436	0.5580
TOTALS/m^2:	22920	32.1080	16,800	4.0680	9100	16.2640	9120	9.8360	8720	11.1600

Station (sample)	23(B)		24(A)		24(B)		25(A)		25(B)	
Date: Sept. 1977	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA	4	0.0019	2	0.0005	1					
NEMATODA	1						10		14	0.0005
Turbellaria	4		1							
ANNELIDA:										
Polychaeta	79	0.1891	21	0.0012	20	0.0009	16	0.0922	24	0.1080
Oligochaeta	3		2	0.0003			58	0.0584	77	0.0459
MOLLUSCA:										
Gastropoda										
Bivalva	6	0.3403	86	0.0032	64	0.0024	1	0.3020		
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea										
Cumacea										
Amphipoda	361	0.5224	8	0.0030	12	0.0025	134	0.3218	38	0.0286
Decapoda										
Isopoda										
Cladocera										
Copepoda	1				1		1		4	
INSECTA										
Odonata										
Diptera										
OTHER										
TOTAL:	459	1.0537	120	0.0082	98	0.0058	220	0.7744	157	0.1830
TOTALS/m^2:	9180	21.0740	2400	0.1640	1960	0.1160	4400	15.4880	3140	3.6600

Station (sample) Date: Sept. 1977	26(A)		26(B)		27(A)		27(B)		28(A)	
	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA	1	0.0030			1					
NEMATODA	4		4		9		11		37	0.0001
Turbellaria	8	0.0003	9	0.0011	9	0.0003	10	0.0004	7	0.0004
ANNELIDA:										
Polychaeta	176	0.1751	102	0.2362	76	0.0735	157	0.067	947	0.2913
Oligochaeta	694	0.1757	114	0.0492	385	0.2138	411	0.0896	206	0.0315
MOLLUSCA:										
Gastropoda										
Bivalva	2		3		3		5	0.0001	6	0.0005
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea			1	0.0026						
Cumacea										
Amphipoda	774	0.7234	746	0.7074	780	0.4980	961	0.5789	318	0.1456
Decapoda										
Isopoda										
Cladocera										
Copepoda	68		199	0.0006	849	0.0028	747	0.0021	988	0.0059
INSECTA										
Odonata										
Diptera										
Arachnida	1								1	0.0001
OTHER										
TOTAL:	1728	1.0775	1178	0.9971	2112	0.7884	2302	0.7381	2510	0.4754
TOTALS/m^2:	34560	21.5500	23560	19.9400	42240	15.7680	46040	14.7620	50200	9.5080

Station (sample)	28(B)		29(A)		29(B)		30(A)		30(B)	
Date: Sept. 1977	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA	1		1	0.0033	4					
NEMATODA	54	0.0001	6		7		34		40	0.0001
Turbellaria	26	0.0011			7	0.0002	12	0.0012	12	0.0017
ANNELIDA:										
Polychaeta	469	0.4557	104	0.0627	132	0.0828	324	0.4155	156	0.0343
Oligochaeta	371	0.1023	13	0.0006	48	0.0019	620	0.2735	218	0.0817
MOLLUSCA:										
Gastropoda										
Bivalva	3	0.2858	142	0.1994	135	0.2526	6	0.0002	13	0.0010
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea	6	0.0068					1		5	0.0005
Cumacea										
Amphipoda	532	0.2193	148	0.0862	300	0.1698	539	0.2995	515	0.2732
Decapoda			1	0.5886						
Isopoda	5	0.0060								
Cladocera										
Copepoda	881	0.0032	14		75	0.0001	437	0.0022	1264	0.0090
INSECTA										
Odonata										
Diptera	3								1	
Arachnida					2				2	
Coleoptera	1									
OTHER										
TOTAL:	2352	1.0803	429	0.9408	710	0.5074	1973	0.9921	2226	0.4015
TOTALS/m^2:	47040	21.6060	8580	18.8160	14200	10.1480	39460	19.8420	44520	8.0300

Station (sample) Date: Sept. 1977	31(A) NO.	31(A) WEIGHT(g)	31(B) NO.	31(B) WEIGHT(g)	32(A) NO.	32(A) WEIGHT(g)	32(B) NO.	32(B) WEIGHT(g)	33(A) NO.	33(A) WEIGHT(g)
Group										
NEMERTEA	1	0.0013			1	0.0006	1	0.0003		
NEMATODA	5		4		71	0.0001	18		48	0.0001
Turbellaria					12	0.0005	5		15	0.0009
ANNELIDA:										
Polychaeta	162	0.3450	118	0.1704	64	0.0094	39	0.0086	78	0.0461
Oligochaeta	105	0.0047	38	0.0008	24	0.0007	25	0.0013	7	
MOLLUSCA:										
Gastropoda										
Bivalva	14	0.0010	9	0.0001	15	0.0013	20	0.0029	26	0.0115
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea	5	0.0037	2	0.0006	1					
Cumacea										
Amphipoda	608	0.4996	549	0.4513	747	0.4214	819	0.3610	241	0.2548
Decapoda										
Isopoda							1			
Cladocera										
Copepoda	19		78	0.0001	33				20	
INSECTA										
Odonata										
Diptera										
Arachnida									4	
OTHER										
TOTAL:	919	0.8553	798	0.6233	968	0.4340	928	0.3741	439	0.3134
TOTALS/m^2:	18380	17.1060	15960	12.4660	19360	8.6800	18560	7.4820	8760	6.2680

Station (sample) Date: Sept. 1977	33(B)		34(A)		34(B)		35(A)		35(B)	
Group	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
NEMERTEA									1	0.0002
NEMATODA	43	0.0001								
Turbellaria	16	0.0008	1							
ANNELIDA:										
Polychaeta	76	0.0484	38	0.0079	13	0.0029	16	0.0057	37	0.0041
Oligochaeta	10	0.0001								
MOLLUSCA:										
Gastropoda										
Bivalva	25	0.0088	24	0.0047	32	0.0263	17	0.0214	7	0.0056
ARTHROPODA:										
Ostracoda										
Cirripedia							1			
Mysidacea										
Cumacea										
Amphipoda	344	0.3280	65	0.0237	30	0.0036	1	0.0001	8	0.0005
Decapoda										
Isopoda										
Cladocera										
Copepoda	15		4		1		2			
INSECTA										
Odonata										
Diptera										
Arachnida	1									
OTHER										
TOTAL:	530	0.3862	132	0.0363	76	0.0328	37	0.0272	53	0.0104
TOTALS/m^2:	10600	7.7240	2640	0.7260	1520	0.6560	740	0.5440	1060	0.2080

Station (sample)	36(A)		36(B)		37(A)		37(B)		38(A)	
Date: Sept. 1977	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA					3	0.0005				
NEMATODA	3				15		5		1	
Turbellaria							14	0.0002		
ANNELIDA:										
Polychaeta	27	0.0872	28	0.0674	21	0.0270	47	0.0508	68	0.0332
Oligochaeta	7	0.0001	14	0.0005	3		9	0.0005	39	0.0026
MOLLUSCA:										
Gastropoda	1	0.0497							52	3.1251
Bivalva	5	0.0006	14	1.1991	8	0.0018	51	0.0527	27	0.0179
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea										
Cumacea										
Amphipoda	13	0.0037	14	0.0035	332	0.4732	277	0.3702	32	0.0073
Decapoda										
Isopoda										
Cladocera	1						1			
Copepoda	3				1		2		99	0.0002
INSECTA										
Odonata										
Diptera										
Arachnida									1	
OTHER										
TOTAL:	60	0.1413	70	1.2705	383	0.5025	406	0.4744	319	3.1863
TOTALS/m^2:	1200	2.8260	1400	25.4100	7660	10.0500	9120	9.4880	6380	63.7260

Station (sample) Date: Sept. 1977	38(B)		39(A)		39(B)		40(A)		40(B)	
	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA					1	0.0007	1	0.0029		
NEMATODA	6		86	0.0004	5		23		19	
Turbellaria	6	0.0001	19	0.0023						
ANNELIDA:										
Polychaeta	227	0.0483	103	0.0964	193	0.2155	9	0.0003	10	0.0004
Oligochaeta	9	0.0001	81	0.0019	63	0.0061	4		11	
MOLLUSCA:										
Gastropoda	36	2.7894								
Bivalva	6	0.0028	4	0.0004	13	0.0162	2	0.0001	3	0.0001
ARTHROPODA:										
Ostracoda										
Cirripedia					1					
Mysidacea										
Cumacea										
Amphipoda	18	0.0095	307	0.1947	21	0.0049	270	0.1608	236	0.1161
Decapoda										
Isopoda										
Cladocera			1						1	
Copepoda	2		26		25		20		29	
INSECTA										
Odonata										
Diptera										
Arachnida					1					
OTHER										
TOTAL:	310	2.8502	627	0.2961	323	0.2434	329	0.1641	309	0.1166
TOTALS/m^2:	6200	57.0040	12540	5.9220	6460	4.8680	6580	3.2820	6180	2.3320

Station (sample)	41(A)		41(B)		42(A)		42(B)		43(A)	
Date: Sept. 1977	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA	2	0.0010								
NEMATODA	12		71	0.0001	3		24		1	
Turbellaria			1							
ANNELIDA:										
Polychaeta	1		7		3	0.0043	20	0.0009		
Oligochaeta	12		47	0.0002	40	0.0011	238	0.0042	156	0.1394
MOLLUSCA:										
Gastropoda										
Bivalva	1	0.8411	1							
ARTHROPODA:										
Ostracoda			1		1					
Cirripedia										
Mysidacea	3	0.0082	2		2		1	0.0001	2	
Cumacea										
Amphipoda	23	0.0192	23	0.0106	385	0.2354	611	0.2851	44	0.0044
Decapoda					1	.1178				
Isopoda										
Cladocera	2		2		3		3		4	
Copepoda	36		224	0.0003	47		233	0.0008	361	0.0009
INSECTA										
Odonata										
Diptera										
OTHER										
TOTAL:	92	0.8695	379	0.0112	485	0.3586	1130	0.2911	568	0.1447
TOTALS/m^2:	1840	17.3900	7580	0.2240	9700	7.1720	22600	5.8220	11,360	2.8990

Station (sample)	43(B)		44(A)		44(B)		45(A)		45(B)	
Date: Sept. 1977	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA										
NEMATODA	3		8		4		3		3	
Turbellaria										
ANNELIDA:										
Polychaeta			1	0.0014			1		1	
Oligochaeta	145	0.0797	324	0.3825	75	0.0334	316	0.1274	167	0.0759
MOLLUSCA:										
Gastropoda										
Bivalva							1			
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea			5	0.0260	4	0.0170	1	0.0001	3	0.0006
Cumacea									1	0.0003
Amphipoda	66	0.0163	156	0.2363	174	0.2241	13	0.0017	23	0.0026
Decapoda										
Isopoda										
Cladocera	9				3		1		5	
Copepoda	1361	0.0048	497	0.0046	465	0.0045	419	0.0010	560	0.0041
INSECTA										
Odonata										
Diptera							1			
OTHER										
TOTAL:	1584	0.1008	991	0.6508	725	0.2790	756	0.1302	763	0.0835
TOTALS/m^2:	31680	2.0160	19820	13.0160	14500	5.5800	15120	2.6040	15260	1.6700

Station (sample) Date: Dec. 1977	1(A) NO.	WEIGHT(g)	1(B) NO.	WEIGHT(g)	2(A) NO.	WEIGHT(g)	2(B) NO.	WEIGHT(g)	3(A) NO.	WEIGHT(g)
Group										
NEMERTEA	3	0.0002	4	0.0031	1	0.0001	3	0.0013	1	0.0035
NEMATODA	9								2	
Turbellaria	1	0.0002							11	0.0075
ANNELIDA:										
Polychaeta	20	0.0409	22	0.0717	4	0.0369	12	0.1812	262	0.1863
Oligochaeta	27	0.0021	37	0.0030	3	0.0008	5	0.0013	2	0.0008
MOLLUSCA:										
Gastropoda										
Bivalva	65	0.4292	111	1.0492	17	0.0397	77	0.4376	68	0.0812
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea										
Cumacea							1	0.0001		
Amphipoda	2	0.0014	6	0.0248	9	0.0127	5	0.0215	3	0.0015
Decapoda										
Isopoda										
Cladocera										
Copepoda	4				1					
INSECTA										
Odonata										
Diptera										
Arachnida							1	0.0002		
OTHER										
TOTAL:	131	0.4740	180	1.1518	35	0.0902	104	0.6432	349	0.2808
TOTALS/m^2:	2620	9.4800	3600	23.0360	700	1.8040	2080	12.8640	6980	5.7660

Station (sample) Date: Dec. 1977	3(B) NO.	WEIGHT(g)	4(A) NO.	WEIGHT(g)	4(B) NO.	WEIGHT(g)	5(A) NO.	WEIGHT(g)	5(B) NO.	WEIGHT(g)
Group										
NEMERTEA			2				2	0.0009		
NEMATODA	2		8		15					
Turbellaria	4	0.0017								
ANNELIDA:										
Polychaeta	99	0.0787	20	0.0850	21	0.1630	18	0.3234	6	0.1319
Oligochaeta			63	0.0022	52	0.0012	3	0.0008	4	0.0002
MOLLUSCA:										
Gastropoda										
Bivalva	22	0.0247	254	1.6761	285	1.3111	3	0.1011	3	0.0004
ARTHROPODA:										
Ostracoda										
Cirripedia									1	0.0010
Mysidacea							4	0.0004	7	0.0030
Cumacea			40	0.0128	31	0.0017	2	0.0001		
Amphipoda	4	0.0055	4	0.0022	3	0.0232	2	0.0021	9	0.0327
Decapoda										
Isopoda										
Cladocera										
Copepoda			36	0.0013	57	0.0009	2	0.0007	1	
INSECTA										
Odonata										
Diptera										
OTHER										
TOTAL:	131	0.1106	427	1.7796	464	1.5011	36	0.4295	31	0.1692
TOTALS/m^2:	2620	2.2120	8540	35.5920	9280	30.0220	720	8.5900	620	3.3840

Station (sample) Date: Dec. 1977	6(A) NO.	WEIGHT(g)	6(B) NO.	WEIGHT(g)	7(A) NO.	WEIGHT(g)	7(B) NO.	WEIGHT(g)	8(A) NO.	WEIGHT(g)
Group										
NEMERTEA										
NEMATODA									4	
Turbellaria									2	0.0003
ANNELIDA:										
Polychaeta			8	0.0026	17	0.0068	61	0.0395	14	0.1832
Oligochaeta					1		4		20	0.0015
MOLLUSCA:										
Gastropoda										
Bivalva	14	0.0674	30	0.2459	1	0.0009	2	0.0047	212	1.7322
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea										
Cumacea									145	0.0423
Amphipoda	3	0.0030			1	0.0013	21	0.0392	2	0.0006
Decapoda										
Isopoda										
Cladocera										
Copepoda									48	0.0004
INSECTA										
Odonata										
Diptera										
OTHER										
TOTAL:	17	0.0704	38	0.2485	20	0.0090	88	0.0834	447	1.9605
TOTALS/m^2:	340	1.4080	760	4.9700	400	0.1800	1760	1.6680	8940	39.2100

Station (sample) Date: Dec. 1977	8(B) NO.	WEIGHT(g)	9(A) NO.	WEIGHT(g)	9(B) NO.	WEIGHT(g)	10(A) NO.	WEIGHT(g)	10(B) NO.	WEIGHT(g)
Group										
NEMERTEA	2	0.0001								
NEMATODA	25									
Turbellaria	4	0.0003							4	0.0015
ANNELIDA:										
Polychaeta	11	0.0961			1	0.0003	9	0.0489	8	0.0167
Oligochaeta	60	0.0010			2	0.0008	12	0.0015	5	0.0056
MOLLUSCA:										
Gastropoda										
Bivalva	160	0.7054	51	0.0604	26	0.0342	29	1.9031	97	5.7975
ARTHROPODA:										
Ostracoda										
Cirripedia					2	0.0164				
Mysidacea										
Cumacea	209	0.0501					29	0.0050	25	0.0053
Amphipoda			1		1	0.0001				
Decapoda										
Isopoda										
Cladocera										
Copepoda	98	0.0009			1	0.0002	1			
INSECTA										
Odonata										
Diptera										
OTHER										
TOTAL:	569	0.8539	52	0.0604	33	0.0520	80	1.9585	139	5.8266
TOTALS/m^2:	11380	17.0780	1040	1.2080	660	1.0400	1600	39.1700	2780	116.5370

Station (sample) Date: Dec. 1977	11(A) NO.	11(A) WEIGHT(g)	11(B) NO.	11(B) WEIGHT(g)	12(A) NO.	12(A) WEIGHT(g)	12(B) NO.	12(B) WEIGHT(g)	13(A) NO.	13(A) WEIGHT(g)
Group										
NEMERTEA	2	0.0026					1	0.0009	3	0.0014
NEMATODA									2	
Turbellaria							4	0.0028		
ANNELIDA:										
Polychaeta	51	0.0366	63	0.0671	71	0.0702	120	0.1139	451	0.4763
Oligochaeta	2						2	0.0011	14	0.0002
MOLLUSCA:										
Gastropoda										
Bivalva	13	0.0397	18	0.0680	19	0.0507	26	0.2786	17	0.006
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea	1	0.0036	1	0.0012						
Cumacea			1	0.0002	3	0.0005	7	0.0027		
Amphipoda	6	0.0130	11	0.0451	4	0.0014	1	0.0002	3	0.0043
Decapoda										
Isopoda									1	0.0002
Cladocera									1	
Copepoda									1	
INSECTA										
Odonata										
Diptera										
OTHER										
TOTAL:	75	0.0955	94	0.1816	97	0.1228	161	0.4002	493	0.4884
TOTALS/m^2:	1500	1.9100	1880	3.6320	1940	2.4560	3220	8.0040	9860	9.7680

Station (sample)	13(B)		14(A)		14(B)		15(A)		15(B)	
Date: Dec. 1977	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA	1	0.0047	10	0.0226	4	0.0126	14	0.0249	3	0.0056
NEMATODA	2		1				2		2	
Turbellaria	8	0.0037								
ANNELIDA:										
Polychaeta	391	0.8374	4	0.0004	1	0.0005	11	0.0207	4	0.0063
Oligochaeta	2		3	0.0018	3	0.0027	44	0.0264	138	0.0416
MOLLUSCA:										
Gastropoda							1	0.0132		
Bivalva	20	0.0654	6	0.0207	6	0.0175	48	0.3130	23	0.0073
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea							7	0.0033	5	0.0012
Cumacea			1	0.0002	2	0.0014	3	0.0016		
Amphipoda	14	0.0672	6	0.0133						
Decapoda										
Isopoda	1	0.0001								
Cladocera										
Copepoda							17			
INSECTA										
Odonata										
Diptera										
OTHER										
TOTAL:	439	0.9785	31	0.0590	16	0.0347	147	0.4031	175	0.0620
TOTALS/m^2:	8780	19.5700	620	1.1800	320	0.6940	2940	8.0620	3500	1.2400

Station (sample) Date: Dec. 1977	16(A) NO.	16(A) WEIGHT(g)	16(B) NO.	16(B) WEIGHT(g)	17(A) NO.	17(A) WEIGHT(g)	17(B) NO.	17(B) WEIGHT(g)	18(A) NO.	18(A) WEIGHT(g)
Group										
NEMERTEA	20	0.0289	2		4	0.0031	1	0.0041		
NEMATODA	1				2				11	
Turbellaria										
ANNELIDA:										
Polychaeta	1	0.0031	8	0.0949	141	0.1010	208	0.1190	450	0.4704
Oligochaeta	1	0.0013	2	0.0016			1			
MOLLUSCA:										
Gastropoda										
Bivalva	4	0.0060	7	0.2881	54	0.5187	74	0.2519	6	0.0054
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea	1									
Cumacea	1	0.0001			1	0.0002	1	0.0002		
Amphipoda	4	0.0020	6	0.0044	5	0.0015	1	0.0013	34	0.0441
Decapoda										
Isopoda										
Cladocera										
Copepoda	2		1		5				11	
INSECTA										
Odonata										
Diptera										
Psiroptera	1									
Coleoptera					1					
OTHER										
TOTAL:	36	0.0414	26	0.3890	213	0.6245	286	0.3765	512	0.5199
TOTALS/m^2:	720	0.8280	520	7.7800	4260	12.4900	5720	7.5300	10240	10.3980

Station (sample)	18(B)		19(A)		19(B)		20(A)		20(B)	
Date: Dec. 1977	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA	1		9	0.0091	1	0.0006	10	0.0089		
NEMATODA	15		2				56		716	0.0005
Turbellaria			26	0.0227	28	0.0270	5	0.0004	2	0.0001
ANNELIDA:										
Polychaeta	327	0.3978	33	0.0400	28	0.0465	647	0.6127	212	0.3825
Oligochaeta	1		1		6	0.0007	27	0.0009	122	0.0023
MOLLUSCA:										
Gastropoda										
Bivalva	11	0.2267	59	0.1904	48	0.1508	39	0.0677	25	0.1730
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea										
Cumacea	1	0.0001	4	0.0014	4	0.0014				
Amphipoda	17	0.0302	2	0.0015	3	0.0044	64	0.0307	13	0.0018
Decapoda										
Isopoda										
Cladocera										
Copepoda	3		26				356	0.0020	1582	0.0380
INSECTA										
Odonata										
Diptera					1	0.0009	2	0.0014	7	0.0003
Hymenoptera									1	
OTHER										
TOTAL:	376	0.6548	162	0.2651	119	0.2323	1206	0.7247	2680	0.5985
TOTALS/m^2:	7520	13.0960	3240	5.3020	2380	4.6460	24120	14.4040	53600	11.9700

Station (sample)	21(A)		21(B)		22(A)		22(B)		23(A)	
Date: Dec. 1977	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA					3				1	
NEMATODA	214	0.0013	321	0.0016	119	0.0004	5		116	0.0004
Turbellaria			2	0.0002	10	0.0011	7	0.0008	58	0.0075
ANNELIDA:										
Polychaeta	417	0.4918	344	0.2557	91	0.2618	69	0.0977	129	0.6190
Oligochaeta	86	0.0018	553	0.1668	51	0.0052	15	0.0012	39	0.0024
MOLLUSCA:										
Gastropoda										
Bivalva	12	0.0120	6	0.0195	39	0.1945	41	0.1977	51	0.3792
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea							1	0.0001	1	
Cumacea					2	0.0015	7	0.0006		
Amphipoda	6	0.0023	525	0.3400	7	0.0023	7	0.0014	12	0.0132
Decapoda										
Isopoda										
Cladocera										
Copepoda	1532	0.0324	582	0.0072	53	0.0005	95	0.0003	3	
INSECTA										
Odonata										
Diptera			1		1					
OTHER										
TOTAL:	2267	0.5416	2334	0.7910	376	0.4673	247	0.2998	410	1.0217
TOTALS/m^2:	45340	10.8320	46680	15.8200	7520	9.3460	4940	5.9960	8200	20.4340

Station (sample)	23(B)		24(A)		24(B)		25(A)		25(B)	
Date: Dec. 1977	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA			1		1	0.0011	1	0.0009	3	0.0015
NEMATODA	3		93	0.0010	13				2	
Turbellaria	19	0.0035	3	0.0006			2		5	0.0035
ANNELIDA:										
Polychaeta	82	0.5981	7	0.0016	4	0.0005	81	0.0624	47	0.1383
Oligochaeta	15	0.0003	16	0.0009	4	0.0010	9	0.0005	74	0.0646
MOLLUSCA:										
Gastropoda										
Bivalva	31	0.2928	39	0.0632	40	0.1011				
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea										
Cumacea	3	0.0002							1	
Amphipoda	16	0.0038	1		6	0.0034	361	0.3744	195	0.2334
Decapoda										
Isopoda										
Cladocera										
Copepoda	7		72	0.0012	21		10		2	
INSECTA										
Odonata										
Diptera										
OTHER										
TOTAL:	176	0.8987	232	0.0685	89	0.1071	464	0.4382	329	0.4413
TOTALS/m^2:	3520	17.9740	4640	1.3700	1780	2.1420	9280	8.7640	6580	8.8260

Station (sample) Date: Dec. 1977	26(A) NO.	26(A) WEIGHT(g)	26(B) NO.	26(B) WEIGHT(g)	27(A) NO.	27(A) WEIGHT(g)	27(B) NO.	27(B) WEIGHT(g)	28(A) NO.	28(A) WEIGHT(g)
Group										
NEMERTEA			2	0.0003						
NEMATODA	3		10		569	0.0013			17	
Turbellaria					12	0.0035				
ANNELIDA:										
Polychaeta	85	0.1816	83	0.2553	195	0.8860			19	0.0156
Oligochaeta	221	0.0271	29	0.0218	633	0.3982			199	0.2129
MOLLUSCA:										
Gastropoda										
Bivalva	1	0.0002	3	0.0006	4	0.0013			1	4.1549
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea									1	0.0019
Cumacea					2	0.0001				
Amphipoda	417	0.4076	345	0.3509	459	0.4472			2	0.0002
Decapoda										
Isopoda					1	0.4380				
Cladocera										
Copepoda	41		37	0.0001	339	0.0018			32	0.0002
INSECTA										
Odonata										
Diptera	2		2	0.0004					15	0.0019
Columbolla									1	
OTHER										
TOTAL:	770	0.6165	511	0.6294	2214	2.1774			287	4.3876
TOTALS/m^2:	15400	12.3300	10220	12.5880	44280	43.5480			5740	87.7520

Station (sample)	28(B)		29(A)		29(B)		30(A)		30(B)	
Date: Dec. 1977	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA					4	0.0024				
NEMATODA	29						6		11	
Turbellaria			12	0.0036	6	0.0008				
ANNELIDA:										
Polychaeta	26	0.0163	52	0.0954	29	0.0213	43	0.1217	70	0.1995
Oligochaeta	306	0.1545	22	0.0004	15	0.0003			34	0.0053
MOLLUSCA:										
Gastropoda										
Bivalva			53	0.3194	23	0.1244			1	
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea			1	0.0008						
Cumacea										
Amphipoda	8	0.0004	21	0.0132	6	0.0010	62	0.0386	86	0.0210
Decapoda										
Isopoda	1	0.0537								
Cladocera									1	
Copepoda	84	0.0005	133	0.0024	53	0.0004	636	0.0131	981	0.0109
INSECTA										
Odonata										
Diptera	13	0.0012			1					
OTHER										
TOTAL:	467	0.2266	294	0.4352	137	0.1506	747	0.1734	1184	0.2367
TOTALS/m^2:	9340	4.5320	5880	8.7040	2740	3.0120	14940	3.4580	23680	4.7340

Station (sample)	31(A)		31(B)		32(A)		32(B)		33(A)	
Date: Dec. 1977	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA					3	0.0020	2	0.0002		
NEMATODA	5						7			
Turbellaria										
ANNELIDA:										
Polychaeta	47	0.1158	42	0.0523	15	0.0131	16	0.0208	41	0.0656
Oligochaeta	37	0.0007	16	0.0006	27	0.0017	24	0.0024	100	0.0113
MOLLUSCA:										
Gastropoda										
Bivalva	2	0.0013			7	0.0650	5	0.0043	15	0.0599
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea					1	0.0025				
Cumacea										
Amphipoda	223	0.1542	268	0.0600	94	0.0328	74	0.0262	6	0.0016
Decapoda										
Isopoda										
Cladocera					1					
Copepoda	83	0.0004	254	0.0011	3		1			
INSECTA										
Odonata										
Diptera										
OTHER										
TOTAL:	397	0.2724	580	0.1140	151	0.1171	129	0.0539	162	0.1384
TOTALS/m^2:	7940	5.4480	11600	2.2800	3020	2.3420	2580	1.0780	3240	2.7680

Station (sample)	33(B)		34(A)		34(B)		35(A)		35(B)	
Date: Dec. 1977	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA									1	0.0012
NEMATODA									1	
Turbellaria										
ANNELIDA:										
Polychaeta	25	0.0068	14	0.0150	8	0.0068	3		4	0.0050
Oligochaeta	83	0.0238	21	0.0024	7	0.0002	3	0.0046	6	0.0015
MOLLUSCA:										
Gastropoda										
Bivalva	9	0.0126	6	0.0082	11	0.0073	1	0.0001		
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea										
Cumacea										
Amphipoda	6	0.0040	16	0.0153	9	0.0038	6	0.0054	26	0.0187
Decapoda										
Isopoda										
Cladocera										
Copepoda	3		9		12		10		17	
INSECTA										
Odonata										
Diptera										
OTHER										
TOTAL:	126	0.0472	66	0.0409	47	0.0181	23	0.0101	55	0.0264
TOTALS/m^2:	2520	0.9440	1320	0.8180	940	0.3620	460	0.2020	1100	0.5280

Station (sample)	36(A)		36(B)		37(A)		37(B)		38(A)	
Date: Dec. 1977	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA					2	0.0004	6	0.0055		
NEMATODA	3						7			
Turbellaria					15	0.0022	13	0.0065		
ANNELIDA:										
Polychaeta	4	0.0126	4	0.0066	117	0.2919	96	0.3337	5	0.0060
Oligochaeta	16	0.0007	12	0.0005	13	0.0025				
MOLLUSCA:										
Gastropoda					9	1.5044	26	4.5609		
Bivalva	10	0.8208	19	0.1922	15	0.0610	25	0.0400	6	0.0880
ARTHROPODA:										
Ostracoda										
Cirripedia					1	0.0257	2	0.0008		
Mysidacea	1	0.0008	2	0.0034			1	0.0004	2	0.0015
Cumacea	4	0.0040	2	0.0006						
Amphipoda	20	0.0059	18	0.0035	75	0.1119	104	0.0861	8	0.0039
Decapoda										
Isopoda	1				2	0.0013	3	0.0010		
Cladocera									1	
Copepoda	569	0.0160	164	0.0008	654	0.0075	1136	0.0123	2	
INSECTA										
Odonata										
Diptera			1				4			
Plecoptera	1	0.0001								
OTHER										
TOTAL:	629	0.8609	222	0.2076	903	2.0088	1423	5.0472	24	0.0994
TOTALS/m^2:	12580	17.2180	4440	4.1520	18060	40.1760	28460	100.9440	480	1.9880

Station (sample) Date: Dec. 1977	38(B)		39(A)		39(B)		40(A)		40(B)	
	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA							2	0.0129	1	0.0034
NEMATODA					2		5		25	
Turbellaria			1		1		1	0.0003	1	0.0004
ANNELIDA:										
Polychaeta	27	0.0407	4	0.0205	31	0.0846	3	0.0061	2	0.0027
Oligochaeta	48	0.0178			488	0.5302	4	0.0036	6	0.0108
MOLLUSCA:										
Gastropoda	12	0.9545			1	0.5030				
Bivalva	3	0.0730	4	0.2321	4	0.0030	1	0.0002		
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea										
Cumacea										
Amphipoda	21	0.0231	3	0.0052	11	0.0010	561	0.6010	301	0.2870
Decapoda										
Isopoda									1	0.0007
Cladocera										
Copepoda	257	0.0022	4		27	0.0003	8		7	
INSECTA										
Odonata										
Diptera			2	0.0002						
OTHER										
TOTAL:	368	1.1113	18	0.2580	565	1.1221	585	0.6241	344	0.3050
TOTALS/m^2:	7360	22.2260	360	5.1600	11300	22.4420	11700	12.4820	6880	6.1000

Station (sample)	41(A)		41(B)		42(A)		42(B)		43(A)	
Date: Dec. 1977	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA										
NEMATODA	3				2		2		9	
Turbellaria										
ANNELIDA:										
Polychaeta							3	0.0043	9	0.0616
Oligochaeta					246	0.2891	480	0.3524	350	0.4569
MOLLUSCA:										
Gastropoda										
Bivalva	1	0.0004	2	0.0015						
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea										
Cumacea										
Amphipoda	1	0.0004	4	0.0038	52	0.0261	51	0.0400	9	0.0088
Decapoda										
Isopoda										
Cladocera										
Copepoda					112	0.0015	652	0.0048	970	0.0263
INSECTA										
Odonata										
Diptera					2	0.0022	1	0.0006		
OTHER										
TOTAL:	5	0.0008	6	0.0053	414	0.3189	1189	0.4021	1347	0.5536
TOTALS/m^2:	100	0.0160	120	0.1060	8280	6.3780	23780	8.0420	26940	11.0720

Station (sample) Date: Dec. 1977	43(B) NO.	43(B) WEIGHT(g)	44(A) NO.	44(A) WEIGHT(g)	44(B) NO.	44(B) WEIGHT(g)	45(A) NO.	45(A) WEIGHT(g)	45(B) NO.	45(B) WEIGHT(g)
Group										
NEMERTEA					1					
NEMATODA	4		5		9		2		1	
Turbellaria			1	0.0001						
ANNELIDA:										
Polychaeta							1	0.0020	2	0.0117
Oligochaeta	175	0.1806	360	0.7703	425	0.6838	85	0.0489	180	0.1121
MOLLUSCA:										
Gastropoda										
Bivalva	1	0.0001					2	0.2290		
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea										
Cumacea										
Amphipoda	9	0.0048	11	0.0115	114	0.1665	9	0.0060	12	0.0084
Decapoda										
Isopoda										
Cladocera										
Copepoda	1050	0.0133	224	0.0038	6		1123	0.0290	2213	0.0530
INSECTA										
Odonata										
Diptera	3	0.0108								
Tricoptera	1									
OTHER										
TOTAL:	1243	0.2096	601	0.7857	555	0.8503	1222	0.3149	2408	0.1852
TOTALS/m^2:	24860	4.1920	12020	15.7140	11100	17.0060	24440	6.2980	48160	3.7040

Station (sample) Date: March 1978	1(A) NO.	WEIGHT(g)	1(B) NO.	WEIGHT(g)	2(A) NO.	WEIGHT(g)	2(B) NO.	WEIGHT(g)	3(A) NO.	WEIGHT(g)
Group										
NEMERTEA	9	0.0035	13	0.0941			3	0.0091	2	0.0028
NEMATODA					27		10		3	
Turbellaria										
ANNELIDA:										
Polychaeta	1	0.0006	1		6	0.3544	8	0.2274	137	0.1006
Oligochaeta	3	0.0039			71	0.0035	18		6	
MOLLUSCA:										
Gastropoda										
Bivalva	3	0.0424	1	0.0005	164	0.5436	181	0.5440	18	0.0700
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea					1	0.0001	1	0.0012		
Cumacea					138	0.0458	153	0.0629	7	0.0024
Amphipoda	6	0.0160	2	0.0010	4	0.0019	5	0.0012	1	0.0003
Decapoda										
Isopoda										
Cladocera										
Copepoda	5				13	0.0007	13	0.0005		
INSECTA										
Odonata										
Diptera										
OTHER										
Arachnida	1									
TOTAL:	28	0.0664	17	0.0956	424	0.9500	392	0.8463	174	0.1761
TOTALS/m^2:	560	1.3280	340	2.7120	8480	19.0000	7840	16.9260	3480	3.5220

Station (sample Date: March 1978	3(B) NO.	WEIGHT(g)	4(A) NO.	WEIGHT(g)	4(B) NO.	WEIGHT(g)	5(A) NO.	WEIGHT(g)	5(B) NO.	WEIGHT(g)
Group										
NEMERTEA			1				1		3	0.0011
NEMATODA	13				1		4			
Turbellaria	1	0.0002								
ANNELIDA:										
Polychaeta	124	0.0942	2	0.0005	2	0.0014	1	0.0034	8	0.0457
Oligochaeta	5	0.0007							2	
MOLLUSCA:										
Gastropoda										
Bivalva	26	0.1420	7	0.0122	5	0.0142	1		6	0.0371
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea							1	0.0001	8	0.0114
Cumacea	4	0.0012					4	0.0022		
Amphipoda	1	0.0006	35	0.0750	27	0.0423	8	0.0048	15	0.0140
Decapoda										
Isopoda									4	0.0183
Cladocera										
Copepoda	3						5		5	
INSECTA										
Odonata										
Diptera										
Crab Zoea									1	
OTHER										
TOTAL:	177	0.2389	45	0.0877	35	0.0579	25	0.0105	52	0.1276
TOTALS/m^2:	3540	4.7780	900	1.7540	700	1.1580	500	0.2100	1040	2.5520

Station (sample) Date: March 1978	6(A) NO.	WEIGHT(g)	6(B) NO.	WEIGHT(g)	7(A) NO.	WEIGHT(g)	7(B) NO.	WEIGHT(g)	8(A) NO.	WEIGHT(g)
Group										
NEMERTEA	1	0.0005	4	0.0051						
NEMATODA							2		7	
Turbellaria									1	0.0010
ANNELIDA:										
Polychaeta	17	0.0072	4	0.0101	11	0.0045	26	0.0279	10	0.0504
Oligochaeta					1					
MOLLUSCA:										
Gastropoda	1	0.0002								
Bivalva	32	0.4572	25	0.4015	2	0.0422	2	0.0073	23	0.0961
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea	4	0.0027	1	0.0005						
Cumacea										
Amphipoda	19	0.0220	4	0.0105	5	0.0167	13	0.0044	8	0.0108
Decapoda										
Isopoda										
Cladocera										
Copepoda	3	0.0017								
INSECTA										
Odonata										
Diptera							1	0.0002		
OTHER										
Arachnida							1			
TOTAL:	77	0.4915	38	0.4277	19	0.0634	45	0.0398	49	0.1583
TOTALS/m^2:	1540	9.8300	760	8.5540	380	1.2680	900	0.7960	980	3.1660

Station (sample)	8(B)		9(A)		9(B)		10(A)		10(B)	
Date: March 1978	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA									5	0.0016
NEMATODA	3						4		16	
Turbellaria							3	0.0007		
ANNELIDA:										
Polychaeta	11	0.0189			4	0.0158	6	0.0036	36	0.1775
Oligochaeta					6		6	0.0031	26	0.0015
MOLLUSCA:										
Gastropoda										
Bivalva	19	0.0496	6	0.0034	41	0.0316	80	2.9133	121	4.4156
ARTHROPODA:										
Ostracoda										
Cirripedia			4	0.0044	87	1.8323	1	0.0004		
Mysidacea	1	0.0002					2	0.0003		
Cumacea			7	0.0029	7	0.0006	16	0.0012	23	0.0020
Amphipoda	1	0.0021	7	0.0166	108	0.1203				
Decapoda					1	0.0001				
Isopoda					7	0.0057				
Cladocera										
Copepoda	20		1		7		11		13	
INSECTA										
Odonata										
Diptera							1	0.0002		
OTHER										
TOTAL:	55	0.0708	25	0.0273	268	2.0064	130	2.9228	240	4.5982
TOTALS/m^2:	1100	1.4160	500	0.5460	5360	40.1280	2600	58.4560	4800	91.9640

Station (sample)	11(A)		11(B)		12(A)		12(B)		13(A)	
Date: March 1978	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA									3	0.0017
NEMATODA	2		1		1		9		55	
Turbellaria										
ANNELIDA:										
Polychaeta	8	0.0033	7	0.0129	16	0.0029	65	0.0748	559	0.1853
Oligochaeta			1	0.0003	3		1		98	0.0045
MOLLUSCA:										
Gastropoda										
Bivalva	3	0.0073	4	0.0271	1	0.1594	15	0.7071	24	0.1000
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea										
Cumacea									5	0.0010
Amphipoda	9	0.0047			1	0.0002			10	0.0171
Decapoda										
Isopoda			1	0.0031						
Cladocera										
Copepoda							2		22	
INSECTA										
Odonata										
Diptera										
OTHER										
TOTAL:	22	0.0153	14	0.0434	22	0.1625	92	0.7819	776	0.3096
TOTALS/m^2:	440	0.3060	280	0.8680	440	3.2500	1840	15.6380	15520	6.1920

Station (sample) Date: March 1978	13(B)		14(A)		14(B)		15(A)		15(B)	
	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA	1	0.0087	4	0.0043	6	0.0044	6	0.0060	2	0.0027
NEMATODA	62		7		10		8		1	
Turbellaria	5	0.0033								
ANNELIDA:										
Polychaeta	491	0.2190			2	0.0005	1	0.0001	5	0.0049
Oligochaeta	56	0.0065	67	0.0073	18	0.0061	60	0.0035	9	0.0010
MOLLUSCA:										
Gastropoda										
Bivalva	8	0.0017	36	1.1889	16	0.1250	32	0.6390	1	0.0024
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea										
Cumacea	1	0.0005					8	0.0114	1	
Amphipoda	25	0.0333	2	0.0188	3	0.0052	20	0.0243	29	0.0223
Decapoda										
Isopoda									2	0.0093
Cladocera										
Copepoda	13				8		3		1	
INSECTA										
Odonata										
Diptera	1	0.0015	1	0.0002						
OTHER										
TOTAL:	663	0.2745	117	1.2195	63	0.1412	139	0.6843	51	0.0426
TOTALS/m^2:	13260	5.4900	2340	24.3900	1260	2.8240	2780	13.6860	1020	0.8520

Station (sample) Date: March 1978	16(A)		16(B)		17(A)		17(B)		18(A)	
	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA	14	0.0203	4	0.0069	6	0.0109				
NEMATODA	5		5		32		37		120	0.0021
Turbellaria					21	0.0068	16	0.0056	3	0.0008
ANNELIDA:										
Polychaeta	3	0.0419			111	0.0794	124	0.1241	182	0.7095
Oligochaeta	18	0.0033	17	0.0028	10	0.0008	45	0.0039	24	0.0030
MOLLUSCA:										
Gastropoda										
Bivalva	15	0.0567	5	0.0091	40	0.0974	58	0.0516	4	0.3800
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea	1	0.0430	1	0.0100						
Cumacea							2	0.0002	1	0.0001
Amphipoda	2	0.0014	1	0.0011	13	0.0040	19	0.0244	9	0.0192
Decapoda										
Isopoda										
Cladocera										
Copepoda	7		4		47	0.0001	32		16	
INSECTA										
Odonata										
Diptera					1				1	0.0004
Coleoptera	1	0.0046								
OTHER										
TOTAL:	66	0.1712	37	0.0299	281	0.1994	333	0.2098	360	1.1151
TOTALS/m^2:	1320	3.4240	740	0.5980	5620	3.9880	6660	4.1960	7200	22.3020

Station (sample)	18(B)		19(A)		19(B)		20(A)		20(B)	
Date: March 1978	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA			2	0.0075	4	0.0056				
NEMATODA	177	0.0022	89	0.0021	6		419	0.0010	466	0.0092
Turbellaria	5	0.0014	10	0.0052	21	0.0037	3	0.0005	6	0.0003
ANNELIDA:										
Polychaeta	128	0.3100	6	0.0049	6	0.0019	151	0.4490	111	0.2627
Oligochaeta	31	0.0011	66	0.0051	14	0.0029	242	0.0082	39	0.0026
MOLLUSCA:										
Gastropoda										
Bivalva	6	0.2271	17	0.0567	22	0.0313	7	0.9035	7	0.4100
ARTHROPODA:										
Ostracoda									2	
Cirripedia										
Mysidacea										
Cumacea							1			
Amphipoda	2	0.0027	8	0.0063	7	0.0014	24	0.0252	6	0.0119
Decapoda										
Isopoda			1	0.0002						
Cladocera									2	
Copepoda	58	0.0005	26		9		407	0.0023	1103	0.0257
INSECTA										
Odonata										
Diptera							1	0.0011		
OTHER										
Arachnida					1			1		
TOTAL:	407	0.5450	225	0.0880	90	0.0468	1255	1.3908	1743	0.7224
TOTALS/m^2:	8140	10.9000	4500	1.7600	1800	0.936	25100	27.816	34860	14.4480

Station (sample) Date: March 1978	21(A) NO.	21(A) WEIGHT(g)	21(B) NO.	21(B) WEIGHT(g)	22(A) NO.	22(A) WEIGHT(g)	22(B) NO.	22(B) WEIGHT(g)	23(A) NO.	23(A) WEIGHT(g)
Group										
NEMERTEA	1	0.0003	1	0.0018						
NEMATODA	41		267	0.0005	43		74		2	
Turbellaria	1		1	0.0007	11	0.0046	7	0.0029		
ANNELIDA:										
Polychaeta	149	0.2075	287	0.0892	83	0.2115	115	0.0939	99	0.4195
Oligochaeta	69	0.0021	115	0.0044	84	0.0275	59	0.0172	2	0.0012
MOLLUSCA:										
Gastropoda										
Bivalva	3	0.0085	8	0.7222	17	0.0667	18	0.0677	26	0.5320
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea										
Cumacea										
Amphipoda	15	0.0153	9	0.0091	32	0.0683	18	0.0286	1	
Decapoda									8	0.0172
Isopoda										
Cladocera										
Copepoda	106	0.0011	1465	0.0364	295	0.0081	265	0.0032	3	
INSECTA										
Odonata										
Diptera			2	0.0057	3	0.0007	2	0.0009		
Columbolla					2		1			
OTHER										
TOTAL:	385	0.2348	2155	0.8700	570	0.3874	559	0.2144	141	0.9699
TOTALS/m^2:	7700	4.6960	43100	17.4000	11400	7.7480	11180	4.2880	2820	19.3980

Station (sample)	23(B)		24(A)		24(B)		25(A)		25(B)	
Date: March 1978	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA			1	0.0001						
NEMATODA			26		3		6		9	
Turbellaria	2						3	0.0007	1	0.0002
ANNELIDA:										
Polychaeta	91	0.2706	6	0.0022	3	0.0004	31	0.2700	6	0.0800
Oligochaeta	1	0.0017	26	0.0026	6	0.0015	129	0.4051	65	0.1838
MOLLUSCA:										
Gastropoda										
Bivalva	15	0.1640	28	0.0893	51	0.0479			1	0.0431
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea			1	0.0002			1	0.0010	1	0.0045
Cumacea	1									
Amphipoda	18	0.0303	6	0.0055	3	0.0010	121	0.1550	82	0.0962
Decapoda										
Isopoda										
Cladocera										
Copepoda			7		2					
INSECTA										
Odonata										
Diptera										
OTHER										
TOTAL:	128	0.4666	101	0.0999	68	0.0508	291	0.8318	165	0.4078
TOTALS/m^2:	2560	9.3320	2020	1.9980	1360	1.0160	5820	16.6360	3300	8.1560

Station (sample)	26(A)		26(B)		27(A)		27(B)		28(A)	
Date: March 1978	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA										
NEMATODA	23		103		16		33		5	
Turbellaria	3	0.0006	4	0.0048	5	0.0016	8	0.0024		
ANNELIDA:										
Polychaeta	134	0.3284	123	0.3250	123	0.2000	145	0.2221		
Oligochaeta	286	0.1237	112	0.0394	716	0.6955	1045	0.9230	145	0.1249
MOLLUSCA:										
Gastropoda										
Bivalva			3	0.0046	1	0.0114				
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea							1	0.0010		
Cumacea										
Amphipoda	463	0.3973	481	0.6299	383	0.3179	407	0.3551	6	0.0023
Decapoda										
Isopoda					1	0.0002				
Cladocera										
Copepoda	13		84		42		113	0.0024	60	0.0002
INSECTA										
Odonata										
Diptera									23	0.0060
Ephemeroptera									1	0.0020
OTHER										
Arachnida			1							
TOTAL:	922	0.8500	911	1.0037	1287	1.2266	1752	1.5060	240	0.1354
TOTALS/m^2:	18440	17.0000	18220	20.0740	25740	24.5320	35040	30.1200	4800	2.7080

Station (sample)	28(B)		29(A)		29(B)		30(A)		30(B)	
Date: March 1978	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA			1	0.0005	2	0.0034				
NEMATODA	9		3		2		14		5	
Turbellaria			4	0.0014	4	0.0050			1	0.0007
ANNELIDA:										
Polychaeta			80	0.2618	33	0.0700	14	0.0394	12	0.0330
Oligochaeta	29	0.0210	114	0.1400	60	0.0858	443	0.3692	73	0.0596
MOLLUSCA:										
Gastropoda										
Bivalva			12	0.0499	7	0.0163				
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea										
Cumacea										
Amphipoda	3	0.0024	84	0.1530	117	0.2128	10	0.0009	13	0.0068
Decapoda										
Isopoda										
Cladocera										
Copepoda	35		90	0.0001	21		1919	0.0132	2187	0.0808
INSECTA										
Odonata										
Diptera	6	0.0060			1		2	0.0006	3	0.0053
OTHER										
TOTAL:	82	0.0294	388	0.6067	247	0.3933	2402	0.4233	2294	0.1862
TOTALS/m^2:	1640	0.5880	7760	12.1340	4940	7.8660	48040	8.4660	45880	3.7240

Station (sample)	31(A)		31(B)		32(A)		32(B)		33(A)	
Date: March 1978	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA							1	0.0039		
NEMATODA			2		14		3		51	
Turbellaria	1	0.0002								
ANNELIDA:										
Polychaeta	20	0.0376	23	0.1672	9	0.0156	13	0.0267	10	0.0204
Oligochaeta	44	0.0706	33	0.0152	35	0.0100	50	0.0202	37	0.0359
MOLLUSCA:										
Gastropoda										
Bivalva	1				2	0.0038	5	0.0515		
ARTHROPODA:										
Ostracoda					3					
Cirripedia										
Mysidacea					2	0.0253				
Cumacea										
Amphipoda	52	0.0241	21	0.0172	170	0.2072	108	0.0944	95	0.1989
Decapoda										
Isopoda	1	0.0004								
Cladocera										
Copepoda	30		9		4		13		34	
INSECTA										
Odonata										
Diptera										
OTHER										
TOTAL:	149	0.1329	88	0.1996	239	0.2619	193	0.1967	227	0.2552
TOTALS/m^2:	2980	2.6580	1760	3.9920	4780	5.2380	3860	3.9340	4540	5.1040

Station (sample) Date: March 1978	33(B)		34(A)		34(B)		35(A)		35(B)	
	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA										
NEMATODA	42		14		17		6		16	
Turbellaria			3	0.0018						
ANNELIDA:										
Polychaeta	12	0.0425	4	0.0030	2	0.0010	2	0.0041	6	0.0169
Oligochaeta	40	0.0343	14	0.0013	5		6	0.0013	9	0.0056
MOLLUSCA:										
Gastropoda										
Bivalva	2	0.0038	2	0.0029	4	0.0093	2	0.0106	6	0.0173
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea					1	0.0053				
Cumacea										
Amphipoda	85	0.1736	10	0.0044	52	0.0710	9	0.0041	24	0.0346
Decapoda										
Isopoda					1	0.0004			1	
Cladocera										
Copepoda	13		16		11				13	
INSECTA										
Odonata										
Diptera	1	0.0006								
OTHER										
TOTAL:	195	0.2548	63	0.0134	93	0.087	25	0.0201	75	0.0744
TOTALS/m^2:	3900	5.0960	1260	0.2680	1860	1.7400	500	0.4020	1500	1.4880

Station (sample)	36(A)		36(B)		37(A)		37(B)		38(A)	
Date: March 1978	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA	1	0.0028	2	0.0119	2					
NEMATODA					14		15			
Turbellaria							11	0.0014		
ANNELIDA:										
Polychaeta	1	0.0007	2	0.0189	62	0.1685	58	0.0934	20	0.0103
Oligochaeta	2	0.0006	2	0.0049	10	0.0010			594	0.7750
MOLLUSCA:										
Gastropoda					13	1.4638	5	0.1232	33	1.0462
Bivalva	47	6.7474	39	6.9347	1	0.1088			1	0.0040
ARTHROPODA:										
Ostracoda										
Cirripedia							1	0.1576		
Mysidacea										
Cumacea	3	0.0004	5	0.0006						
Amphipoda	65	0.1083	65	0.1237	2230	2.1548	683	1.0093	122	0.1970
Decapoda										
Isopoda	3	0.0012	2	0.1189						
Cladocera										
Copepoda	112	0.0020	229	0.0031	270	0.0057	40		284	0.0040
INSECTA										
Odonata										
Diptera										
OTHER										
TOTAL:	234	6.8634	346	7.2217	2602	3.9026	813	1.3849	1054	2.0365
TOTALS/m^2:	4680	137.2680	6920	144.4340	52040	78.052	16260	27.698	21080	40.7300

Station (sample)	38(B)		39(A)		39(B)		40(A)		40(B)	
Date: March 1978	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA	2				4		31		3	
NEMATODA										
Turbellaria										
ANNELIDA:										
Polychaeta	13	0.0065	12	0.1137	12	0.0207	1	0.0018	3	0.0060
Oligochaeta	547	0.5675	6	0.0010	5	0.0009	13	0.0054	3	0.0013
MOLLUSCA:										
Gastropoda	15	1.0690			1	0.0127				
Bivalva							1	0.0009	1	
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea										
Cumacea	1									
Amphipoda	154	0.2100	358	0.5850	217	0.3719	450	0.2669	410	0.5110
Decapoda										
Isopoda										
Cladocera										
Copepoda	1218	0.0212	1				1		1	
INSECTA										
Odonata										
Diptera										
OTHER										
TOTAL:	1950	1.8742	377	0.6997	239	0.4062	497	0.2750	421	0.5183
TOTALS/m^2;	39000	37.4840	7540	13.9540	7480	8.1240	9940	5.5000	8420	10.3660

Station (sample) Date: March 1978	41(A) NO.	41(A) WEIGHT(g)	41(B) NO.	41(B) WEIGHT(g)	42(A) NO.	42(A) WEIGHT(g)	42(B) NO.	42(B) WEIGHT(g)	43(A) NO.	43(A) WEIGHT(g)
Group										
NEMERTEA										
NEMATODA	5				4		15		20	
Turbellaria									4	0.0009
ANNELIDA:										
Polychaeta										
Oligochaeta			2	0.0001	235	0.5515	162	0.2972	199	0.6105
MOLLUSCA:										
Gastropoda										
Bivalva	1	0.0004	1	0.0001						
ARTHROPODA:										
Ostracoda										
Cirripedia										
Mysidacea	1	0.0015								
Cumacea										
Amphipoda	5	0.0015	23	0.0227	242	0.3569	176	0.3519	64	0.0577
Decapoda										
Isopoda	1	0.1472	2	0.2643						
Cladocera										
Copepoda	1172	0.0329	756	0.0183	332	0.0080	599	0.0241	2371	0.0957
INSECTA										
Odonata										
Diptera					3	0.0011	1		6	0.0032
OTHER										
Arachnida			1	0.0005						
TOTAL:	1185	0.1835	785	0.3060	816	0.9175	953	0.6732	2664	0.7680
TOTALS/m^2:	23700	3.6700	15700	6.1200	16320	18.3500	19060	13.4640	53280	15.3600

Station (sample)	43(B)		44(A)		44(B)		45(A)		45(B)	
Date: March 1978	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)	NO.	WEIGHT(g)
Group										
NEMERTEA										
NEMATODA	14		65	0.0005	17		49		14	
Turbellaria	2		6	0.0003			11	0.0036		
ANNELIDA:										
Polychaeta			1				50	0.4674	9	0.0308
Oligochaeta	269	0.6761	352	0.6371	218	0.8819	354	0.8657	260	0.3285
MOLLUSCA:										
Gastropoda										
Bivalva			1	0.0006			1			
ARTHROPODA:										
Ostracoda					1					
Cirripedia										
Mysidacea	1	0.0024	1	0.0052						
Cumacea									1	
Amphipoda	102	0.1432	579	0.6961	123	0.2089	275	0.2882	148	0.1936
Decapoda										
Isopoda										
Cladocera										
Copepoda	4033	0.2131	2244	0.0530	610	0.0105	3056	0.1454	1862	0.0349
INSECTA										
Odonata			4	0.0026						
Diptera	1		7	0.0013	3	0.0027	4	0.0082		
OTHER										
Hydracarina			2				1			
TOTAL:	4422	1.0348	3262	1.3967	972	1.1040	3801	1.7785	2294	0.5878
TOTALS/m^2:	88440	20.6960	65240	27.9340	19440	22.0800	76020	35.5700	45880	11.7560