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NOAA Data Report ERL MESA-40



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DISTRIBUTION AND ABUNDANCE OF BENTHIC ORGANISMS  
IN THE NEW YORK BIGHT, FIRST AND SECOND MONITORING CRUISES,  
NOVEMBER 1975 AND MARCH 1976

Janice Caracciolo  
John Pearce  
Martha Halsey  
Leslie Rogers

Marine Ecosystems Analysis Program  
Boulder, Colorado  
September 1978

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NATIONAL OCEANIC AND  
ATMOSPHERIC ADMINISTRATION

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Research Laboratories

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Division of Environmental Assessment  
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These data were generated by personnel of the Division of Environmental Assessment, Northeast Fisheries Center, NMFS, with partial support from the NOAA MESA New York Bight Project. The data are being made available in the present form for timely assistance to user groups. The data are being further analyzed by staff members of the Northeast Fisheries Center and will form the basis for future publications.

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## Introduction

Analyses of benthic communities have been used since 1968 (Pearce et al. 1976a) to indicate impacts from contaminants on the ecosystem of the New York Bight apex. Studies done at Sandy Hook have had four phases: 1) reconnaissance, 2) seasonal sampling (five quarterly cruises between August 1973 and September 1974 [Pearce et al., 1976b, 1976c, 1977a]), 3) intensive grid sampling in areas known to be affected by sewage sludge and dredge spoil disposal (Pearce et al., 1977b), and 4) monitoring of selected stations in the apex.

The present data report is a product of the fourth phase, and was prepared to provide machine listed data and certain statistical calculations, diversity and equitability (Shannon and Weaver, 1963; Pielou, 1969), concerned with the distribution and abundance of benthic organisms collected at 18 monitoring stations located in the standard New York Bight MESA sampling grid (Fig. 1). Monitoring stations were selected from standard SYMAP stations located in the sewage sludge (stations 32-35) and dredge spoil disposal areas (between stations 36 and 43), in marginally polluted areas, in near-shore areas, and in unimpacted areas. Data from these stations will yield information on changes in the Bight over time by providing more replicate samples which may be compared with earlier samples collected at the same stations. Moreover, these stations also form the basis for sampling strata 4 of the new NMFS Ocean Pulse environmental assessment program (Pearce, 1977).

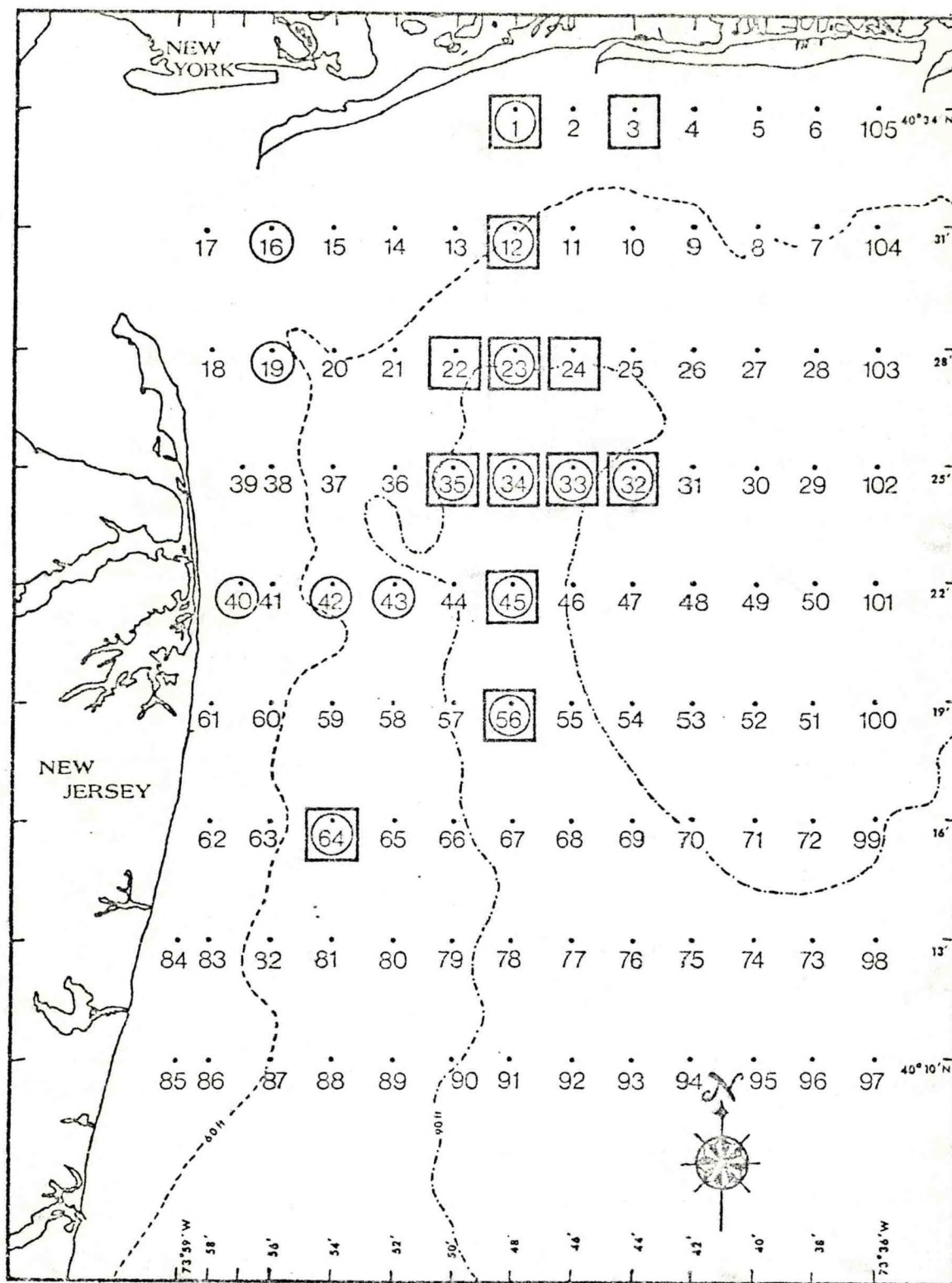


Figure 1. Standard N.Y. Bight, MESA SYMAP station positions.  
 □ = First monitoring cruise station;      ○ = Second monitoring cruise station.



## Materials and Methods

The first monitoring cruise was conducted in November 1975. Two 0.1 m<sup>2</sup> Smith-McIntyre benthic grab samples were collected at each of 13 stations (Fig. 1) from on board the R/V Rorqual. These stations were located by LORAN-A and radar.

The second monitoring cruise was conducted in February-March 1976. During this cruise, two 0.1 m<sup>2</sup> Smith-McIntyre benthic grab samples were collected at each of 15 stations from on board the NOAA ship Delaware II and the R/V Rorqual. Ten stations sampled during the first monitoring cruise were re-sampled on the second cruise (Fig. 1). Station positions were again located and maintained by LORAN-A and radar.

During both cruises, at each station, two sediment cores (3.4 cm inside diameter) were removed from each grab sample, one for standard geological analyses and the other for heavy metals analyses. These cores were frozen and placed in storage for future use.

The remainder of each grab sample was washed through a standard geological sieve with a 1.00 mm mesh size. All macrofauna collected in these samples was fixed in 10% buffered formalin and later transferred to and preserved in 70% ethanol containing 5% glycerol.

In the laboratory, dissecting microscopes were used as an aid in sorting organisms from preserved macrofauna samples.



Whenever possible, all organisms were identified to species level using standard keys and descriptions and, when necessary, consultations with recognized taxonomists.

Station positions and counts of organisms per species in each grab were coded and machine listed. The community found at each station was analyzed for total number of individuals per grab (N), total number of species (S), equitability ( $J' = H'/H'_{\max} = H'/\ln S$ ), and diversity ( $H' \cong \sum \frac{n_i}{N} \ln \frac{n_i}{N}$ , where  $n_i$  = number in the  $i$ th species).

### Results

Machine listed species lists and counts, with diversity and equitability calculations for each of the monitoring cruise stations are presented in Appendix A. Collection dates are indicated as day / month / year.

No detailed interpretations of these data will be made at this time.

### Literature Cited

- Pearce, J. 1977. A report on a new environmental assessment and monitoring program, Ocean Pulse. International Council for the Exploration of the Sea, Paper ml977/E: 65, Fisheries Improvement Committee, 12 p.
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Pielou, E. 1969. An introduction to mathematical ecology.

Wiley-Interscience, N. Y. 286 p.

Shannon, C. and W. Weaver. 1963. The mathematical theory  
of communication. Univ. of Ill. Press, Urbana. 117 p.



## APPENDIX A

Machine listings of species counts, diversity,  
and equitability for samples taken during the  
first and second monitoring cruises.

CRUISE 87501  
 DATE 11/11/75  
 STATION CRUISE SYMAP  
 001 1  
 NO. SPECIES 4 NO. INDIVIDUALS 7  
 GRAB 01  
 LATITUDE 4034 N  
 LONGITUDE 7348 W  
 DEPTH 9.6 METERS  
 DIVERSITY 1.2770  
 EQUITABILITY 0.9212

SPECIES LISTING  
 ASARELLIDES OCULATA 3  
 THARYX ACUTUS 1  
 UNCIOCLA IPERORATA 1  
 TELLINA AGILIS 2

\*\*\*\*\*

CRUISE 87501  
 DATE 11/11/75  
 STATION CRUISE SYMAP  
 001 1  
 NO. SPECIES 7 NO. INDIVIDUALS 25  
 GRAB 02  
 LATITUDE 4034 N  
 LONGITUDE 7348 W  
 DEPTH 9.6 METERS  
 DIVERSITY 1.3513  
 EQUITABILITY 0.6944

SPECIES LISTING  
 GLYCERA AMERICANA 2  
 GLYCERA SP. 1  
 THARYX ACUTUS 1  
 SPIOPHANES BOMBYX 3  
 NUCULA PROXIMA 1  
 TELLINA AGILIS 15  
 SPISULA SOLIDISSIMA 2

CRUISE 11/11/75 STATION NUMBER 003 SYMAP 3 GRAB 01 LATITUDE 4034 N LONGITUDE 7344 W DEPTH 12.1 METERS

NO. SPECIES 11 NO. INDIVIDUALS 735 DIVERSITY 0.2497 EQUITABILITY 0.1042

COUNT

SPECIES LISTING

GLYCERA AMERICANA 15  
GLYCERA DIBRANCHIATA 1  
SPIOPHANES BOMBYX 2  
ASABELLIDES OCULATA 704  
THARYX ANNULOSUS 1  
LUMBRINERIS FRAGILIS 1  
PHYLLODOCE ARENAE 3  
ORILONEREIS LONGA 1  
DIASTYLIS SCULPTA 2  
TELLINA AGILIS 3  
NUCULA PROXIMA 2

\*\*\*\*\*

CRUISE 11/11/75 STATION NUMBER 003 SYMAP 3 GRAB 02 LATITUDE 4034 N LONGITUDE 7344 W DEPTH 12.1 METERS

NO. SPECIES 10 NO. INDIVIDUALS 31 DIVERSITY 1.6371 EQUITABILITY 0.7110

COUNT

SPECIES LISTING

NEMATODA 1  
OLIGOCHAETA 1  
NEPHTYS INCISA 1  
NEPHTYS PICTA 5  
SPIOPHANES BOMBYX 3  
POLYDORA CAULLERYI 1  
ASABELLIDES OCULATA 16  
MICROPHthalmus ABERRANS 1  
SCOLOPLOS ARMIGER 1  
SPISULA SOLIDISSIMA 1



CRUISE 87501 DATE 11/11/75 STATION NUMBER CRUISE 012 SYMAP 12 GRAB 01 LATITUDE 4031 N LONGITUDE 7348 W DEPTH METERS 17.3  
 NO. SPECIES 8 NO. INDIVIDUALS 51 DIVERSITY 1.3456 EQUITABILITY 0.6471

SPECIES LISTING

ASARELLIDES OCULATA 5  
 GLYCERA DIBRANCHIATA 1  
 NEPHTYS PICTA 21  
 SPIOPHANES BOMBYX 1  
 HETEROMYSIS FORMOSA 1  
 AMPELISCA VERRILLI 20  
 TELLINA AGILIS 1  
 CERASTODERMA PINNULATUM 1

\*\*\*\*\*

CRUISE 87501 DATE 11/11/75 STATION NUMBER CRUISE 012 SYMAP 12 GRAB 02 LATITUDE 4031 N LONGITUDE 7348 W DEPTH METERS 17.3  
 NO. SPECIES 17 NO. INDIVIDUALS 43 DIVERSITY 1.7782 EQUITABILITY 0.7723

SPECIES LISTING

PHYNCHOCOFLA 1  
 SCOLOPLOS ACUTUS 1  
 ASARELLIDES OCULATA 14  
 MAGELONA ROSEA 4  
 SPIOPHANES BOMBYX 1  
 NEPHTYS PICTA 13  
 DIATYLLIS POLITA 1  
 AMPELISCA VERRILLI 2  
 TELLINA AGILIS 5  
 NUCULA PROXIMA 1

CRUISE 11/11/75 022 22 01 4028 N 7350 W 23.4  
 NO. SPECIES 13 NO. INDIVIDUALS 443 DIVERSITY 0.4440 EQUITABILITY 0.1731

SPECIES LISTING

NEMATODA  
 PHERUSA AFFINIS 1  
 ASABELLIDES OCULATA 4  
 THARYX ACUTUS 3  
 407  
 LUMBRINERIS TENUI 1  
 MEDIOMASTUS AMRISSETAE 13  
 PRIONOSPION STEENSTRUPI 1  
 AUTOLYTUS (AUTOLYTUS) 1  
 HARMOTHOE EXTENUATA 1  
 CANCER IRROBRATUS 1  
 PHOXOCEPHALUS HOLBOLLI 2  
 UNCIOLO IRROBRATA 7  
 TELLINA AGILIS 1

\*\*\*\*\*

CRUISE 11/11/75 022 22 02 4028 N 7350 W 23.4  
 NO. SPECIES 27 NO. INDIVIDUALS 1257 DIVERSITY 0.6186 EQUITABILITY 0.1377

SPECIES LISTING

CERIANTHUS AMERICANUS 11  
 NEMATODA 5  
 PROTOBRILUS SYMBIOTICUS 2  
 THARYX ACUTUS 1119  
 ASABELLIDES OCULATA 8  
 AMPHARETE ARCTICA 6  
 PECTINARIA GOULDI 1  
 SABELLARIA VULGARIS 2  
 PHERUSA AFFINIS 14  
 MEDIOMASTUS AMRISSETAE 47  
 NEREIS SUCCINEA 1  
 LUMBRINERIS FRAGILIS 1  
 ARICIDEA JEFFREYSII 2  
 AUTOLYTUS (AUTOLYTUS) 1 2  
 SCOPELEPIS SQUAMATA 1  
 HARMOTHOE EXTENUATA 6  
 PRIONOSPION STEENSTRUPI 1  
 POLYCIPRUS PHOSPHOREUS 1  
 NEREIS VIRENS 1  
 CHAETAZONE SETOSA 3  
 THARYX ANNULOSUS 1  
 UNCIOLO IRROBRATA 10  
 PHOXOCEPHALUS HOLBOLLI 7  
 CANCER IRROBRATUS 1  
 TIRRONILLA STRICTA 2  
 CERASTODERMA PINNULATUM 1  
 SOLICULA SOLICULICIMA 1

CRUISE 11/11/75 DATE 11/11/75 STATION NUMBER CRUISE SYMAP GRAB LATITUDE LONGITUDE DEPTH  
R7501 023 23 01 4028 N 7348 W 27.3

NO. SPECIES 14 NO. INDIVIDUALS 238 DIVERSITY 1.9316 EQUITABILITY 0.7319

SPECIES LISTING COUNT

CERIANTHUS AMERICANUS 21  
 PHERUSA AFFINIS 2  
 NEPHTYS INCISA 29  
 ASABELLIDES OCULATA 44  
 THARYX ACUTUS 90  
 THARYX ANNULOSUS 12  
 PRIONOSPION STEENSTRUPII 2  
 MEDIOMASTUS AMBISSETAE 8  
 DRILONEURIS LONGA 3  
 LUMBRINERIS TENUIS 5  
 ENSIS DIRECTUS 1  
 NUCULA PROXIMA 16  
 TELLINA AGILIS 3  
 PHORONIS ARCHITECTA 2

\*\*\*\*\*

CRUISE 11/11/75 DATE 11/11/75 STATION NUMBER CRUISE SYMAP GRAB LATITUDE LONGITUDE DEPTH  
R7501 023 23 02 4028 N 7348 W 27.3

NO. SPECIES 20 NO. INDIVIDUALS 633 DIVERSITY 1.7251 EQUITABILITY 0.5758

SPECIES LISTING COUNT

CERIANTHUS AMERICANUS 7  
 EDWARDSIA SIPUNCULOIDES 1  
 NEMATODA 1  
 CHONE INFRIDIUMIFORMIS 1  
 NEPHTYS INCISA 39  
 PRIONOSPION STEENSTRUPII 5  
 LUMBRINERIS TENUIS 26  
 MEDIOMASTUS AMBISSETAE 18  
 PARADONIS GRACILIS 1  
 ASABELLIDES OCULATA 283  
 THARYX ANNULOSUS 93  
 THARYX ACUTUS 126  
 ARICIDEA JEFFREYSII 1  
 COSSURA LONGICORPORA 1  
 PHERUSA AFFINIS 6  
 LEPTOCHEIRUS PINGUIS 1  
 NUCULA PROXIMA 14  
 UNIO BIVALEVE #2 1  
 PITAR MORRHUANA 1  
 PHORONIS ARCHITECTA 7



CRUISE R7501      DATE 11/11/75      STATION NUMBER  
    CRUISE 024      SYMAP 24      GRAB 01      DEPTH METERS 27.3  
    NO. INDIVIDUALS 484      DIVERSITY 1.5714      EQUITABILITY 0.5437

COUNT

SPECIES LISTING

CERIANTHUS AMERICANUS	33
NEMATODA	15
ASABELLIDES OCULATA	295
MEDIOASTUS AMBISSETAE	5
ORILONEREIS LONGA	1
LUMBRINERIS TENUIIS	7
THARYX ACUTUS	20
THARYX ANNULOSUS	15
NEPHTYS INCISA	35
PHERUSA AFFINIS	10
PHYLLODOCE ARFNAE	1
STHENELAIS BOA	1
HARMOTHOE EXTENUATA	1
CANCER IRRORATUS	1
NASSARIUS TRIVITTATUS	6
TELLINA AGILIS	3
PITAR MORRHUANA	3
PHORONIS ARCHITECTA	32

CRUISE 11/11/75  
R7521

STATION NUMBER  
CRUISE SYMAP  
032 32

GRAB  
01

NO. SPECIES 28

NO. INDIVIDUALS 1499

DIVERSITY 1.2608

EQUITABILITY 0.3784

LATITUDE 4225 N

LONGITUDE 7344 W

DEPTH METERS 25.8

SPECIES LISTING

SPECIES LISTING	COUNT
CERIANTHUS AMERICANUS	7
RHYNCHOCOELA	8
NEMATODA	10
OLIGOCHAETA	1
AGLAOPHAMUS CIRCINATA	13
OWENIA FUSIFORMIS	1
ASABELLIDES OCULATA	1082
NEPHTYS PICTA	5
GLYCERA DIBRANCHIATA	6
PHERUSA AFFINIS	28
THARYX ACUTUS	122
SPIOPHANES BOMBYX	57
PHYLLODOCE ARENAE	9
PECTINARIA GOULDII	2
POLYDORA LIGNI	54
STHENELEAIS LIMICOLA	1
LUMBRINERIS TENUIIS	2
NEREIS SUCCINEA	2
PHYLLODOCE MUCOSA	1
ONUPHIS QUADRICUSPIS	2
CRANGON SEPTemspINOSA	2
EDOTEA TRILOBA	11
UNCIOLOA IRROCRATA	32
MELITA NITIDA	1
TELLINA AGILIS	29
CERASTODERMA PINNULATUM	1
NUCULA PROXIMA	1
PHORONIS ARCHITECTA	9

CRUISE	DATE	STATION	NUMMER	GRAB	LATITUDE	LONGITUDE	DEPTH
R7501	11/11/75	032	SYMAP 32	02	4025 N	7344 W	METERS 25.8
NO. SPECIES 37		NO. INDIVIDUALS 1387			DIVERSITY 1.5443		EQUITABILITY 0.4277
SPECIES LISTING							
		CERIANTHUS AMERICANUS			COUNT		
		RHYNCHOCOELA			10		
		NEMATODA			9		
		NEPHTYS PICTA			9		
		THARYX ACUTUS			27		
		AMPHARETE ARCTICA			148		
		EXOgone HERES			1		
		MEDIOMASTUS AMBISSETAE			2		
		SPIOPHANES ROMBYX			5		
		AGLAOPHANTUS CIRCINATA			28		
		SPHERUSA AFFINIS			5		
		LUMBRINERIS FRAGILIS			13		
		LUMBRINERIS TENUIS			2		
		GLYCERA DIRRANCHIATA			2		
		PECTINARIA GOULDII			13		
		STHENELAIS LIMICOLA			1		
		ASABELLIDES OCULATA			2		
		POLYDORA LIGNI			910		
		ARICIDEA JEFFREYSII			29		
		PRIONOSPION STEENSTRUPII			2		
		NEREIS SUCCINEA			2		
		PHYLLODOCE ARENAE			3		
		SPIOCHAETOPTERUS OCULATUS			9		
		CAPITELLA CAPITATA			1		
		STAURONEREIS CAECUS			10		
		OWENIA FUSIFORMIS			1		
		CRANGON SEPTEMSPINOSA			4		
		UNCIOCLA IRORATA			8		
		EDOTEA TRILOBA			39		
		NASSARIUS TRIVITTATUS			13		
		TELLINA AGILIS			1		
		ENSIS DIRECTUS			62		
		PITAP MORRHUANA			1		
		CERASTODERMA PINNULATUM			2		
		SPISSULA SOLIDISSIMA			1		
		UNIO RIVALVE #2			2		
		PHORONIS ARCHITECTA			4		
					6		



CRUISE R7501  
 DATE 11/11/75  
 STATION NUMBER  
 CRUISE 033  
 SYMAP 33  
 GRAB 01  
 NO. SPECIES 21  
 NO. INDIVIDUALS 2092  
 LATITUDE 4025 N  
 LONGITUDE 7346 W  
 DEPTH METERS 33.1  
 DIVERSITY 0.5520  
 EQUITABILITY 0.1313

SPECIES LISTING	COUNT
CERIANTHUS AMERICANUS	7
RHYNCHOCELA	11
NEPHTYS INCISA	7
NINOE NIGRIPES	4
LUMBRINERIS TENUIS	1
MEDIONASTUS AMRISSETAE	24
PHERUSA AFFINIS	60
THARYX ACUTUS	7
ASABELLIDES OCULATA	1888
SPIOPHANES ROMBYX	16
SPIROCHAETOPTERUS OCULATUS	1
POLYDORA LIGNI	3
PHYLLODOCE ARENAE	9
PRIONOSPION STEENSTRUPII	30
GLYCERA DIBRANCHIATA	3
CRANGON SEPTemspINOSA	1
EDOTEA TRILOBA	5
UNCIOLEA IPROPATA	5
NUCULA PROXIMA	2
TELLINA AGILIS	7
ASTERIAS FORBESII	1

CRUISE	DATE	STATION NUMBER	GRAB	LATITUDE	LONGITUDE	DEPTH
R7501	11/11/75	033 33	02	4725 N	7346 W	METERS 33.1
NO. SPECIES 32		NO. INDIVIDUALS 2655		DIVERSITY 0.8694		EQUITABILITY 0.2508

SPECIES LISTING

CERIANTHUS AMERICANUS	4
RHYNCHOCOELA	4
NEMATODA	1
OLIGOCHAETA	15
PROTODRILUS SYMBIOTICUS	4
NEPHTYS INCISA	6
NEPHTYS PICTA	2
NEREIS GRAYI	5
PHERUSA AFFINIS	47
ASABELLIDES OCULATA	2220
THARYX ACUTUS	49
THARYX ANNULOSUS	6
STREPTOSPIO BENEDICTI	1
PRIONOSPION STEENSTRUPI	110
SPIOPHANES BOMBYX	27
POLYDORA LIGNI	61
PHYLLODOCE ARENAE	9
MEDIOMASTUS AMBISSETAE	22
CAPITELLA CAPITATA	1
ARICIDEA JEFFREYSII	1
GLYCERA DIBRANCHIATA	2
LUMBRINERIS TENUIS	2
NINOE NIGRIPES	4
PECTINARIA GOULDII	4
OWENIA FUSIFORMIS	4
FOOTEA TRILOBATA	11
UNCIOCLA TERRORATA	6
CRANGON SEPTENTRIONALIS	2
UNIO BIVALVE #2	1
TELLINA AGILIS	10
NICULA PROXIMA	1
PHORONIS ARCHITECTA	13

CRUISE R7501 DATE 11/11/75 STATION NUMBER  
 CRUISE 034 SYMAP 34 GRAB 01  
 NO. SPECIES 23 NO. INDIVIDUALS 2848 DEPTH 34.0 METERS  
 LATITUDE 4025 N LONGITUDE 7348 W EQUITABILITY 0.2517

COUNT

SPECIES LISTING

CERIANTHUS AMERICANUS 32  
 RHYNCHOCELA 1  
 NEREIS VIRENS 1  
 PHERUSA AFFINIS 45  
 NEPHTYS INCISA 64  
 AMPHARETE ARCTICA 2  
 ASABELLIDES OCULATA 249  
 THAPYX ANNULOSUS 14  
 THARYX ACUTUS 9  
 MEDIOMASTUS AMBISSETAE 1  
 PARONIS GRACILIS 1  
 LUMBRINEPIS TENUIS 24  
 EUCHONE RUBROCINCTA 4  
 COSSURA LONGOCIRRATA 3  
 UNCIOLA IRRODATA 1  
 HYPERIIDAE 1  
 2349  
 NUCULA PROXIMA 13  
 PITAR MORRHUANA 14  
 TELLINA AGILIS 7  
 UNID BIVALVE #2 2  
 CERASTODERMA PINNULATUM 10  
 YOLIA LIMATULA 10  
 MYTILUS EDULIS 1



CPUSE	DATE	STATION NUMBER	GRAB	LATITUDE	LONGITUDE	DEPTH
R7501	11/11/75	034 34	02	4025 N	7348 W	METERS
						34.0
NO. SPECIES 30	NO. INDIVIDUALS 813	DIVERSITY 1.0910	EQUITABILITY 0.5854			

SPECIES LISTING

CERIANTHUS AMERICANUS	COUNT
PROTODRILUS SYMBIOTICUS	19
OLIGOCHAETA	2
OPILONERFIS LONGA	2
LUMBRINERIS TENUIS	1
NINDE NIGRIPES	22
PHERUSA AFFINIS	4
EUCHONE RUBROCINCTA	12
COSSURA LONGOCIRRATA	20
THARYX ACUTUS	7
THARYX ANNULOSUS	54
PARAONIS GRACILIS	29
PRIONOSPION STEENSTRUPI	8
PECTINARIA GOULDII	16
ASARELLIDES OCULATA	1
MEDIOMASTUS AMBIOSETAE	100
NEPHTYS INCISA	21
COPEPODA	42
LEPTOCHEIRUS PINGUIS	1
MELITA NITIDA	1
CRANGON SEPTemspINOSA	1
CANCER TERRATUS	1
PITAR MOPRHUANA	2
CERASTODERMA PINNULATUM	7
NUCULA PROXIMA	1
NUCULA DELPHINODONTA	410
TELLINA AGILIS	4
THYASIRA TRISINUATA	7
UNIO BIVALVE #2	1
PHORONIS ARCHITECTA	6
	11

CRUISE 11/11/75 NO. SPECIES 13 NO. INDIVIDUALS 209 DIVERSITY 1.4412 DEPTH 29.5

SPECIES LISTING  
 RHYNCHOCELA 1  
 PROTODRILLUS SYMBIOTICUS 17  
 LUMBRINERIS TENUIIS 5  
 GLYCERA DIBRANCHIATA 5  
 SPIO FILICORNIS 1  
 ASARELLIDES OCULATA 5  
 AMPHARETE ARCTICA 3  
 PRIONOSPION STEENSTRUPI 119  
 THARYX ACUTUS 42  
 THARYX ANNULOSUS 6  
 UNCIOLOA TROCHATA 1  
 CRANGON SEPTEMPINOSA 1  
 NICULA PROXIMA 3

\*\*\*\*\*

CRUISE 11/11/75 NO. SPECIES 22 NO. INDIVIDUALS 2466 DIVERSITY 0.5460 DEPTH 29.5

SPECIES LISTING  
 CERTANTHUS AMERICANUS 24  
 OLIGOCHAETA 1  
 LUMBRINERIS TENUIIS 2  
 HARMOHNE EXTENUATA 1  
 NEPHYS INCISA 18  
 THARYX ACUTUS 5  
 THARYX ANNULOSUS 71  
 SPIOPHONES ROMBYX 1  
 PRIONOSPION STEENSTRUPI 2  
 ASARELLIDES OCULATA 31  
 PHEPUSA AFFINIS 14  
 LUMBRINERIS FRAGILIS 18  
 DRILONERIS LONGA 3  
 NINDE NIGRIPES 10  
 UNCIOLOA TROCHATA 1  
 CERASTODERMA PINNULATUM 4  
 NICULA PROXIMA 2228  
 PITAR MORRHUANA 8  
 PERIPLOMA FRAGILIS 1  
 TELLINA AGILIS 15  
 UNIO BIVALVE #2 6  
 PHORONIS ARCHITECTA 2

CRUISE 87501      DATE 11/11/75      STATION NUMBER CRUISE 045      SYMAP 45      GRAB 01      LATITUDE 4022 N      LONGITUDE 7348 W      DEPTH METERS 37.1  
 NO. SPECIES 20      NO. INDIVIDUALS 1084      DIVERSITY 1.2730      EQUITABILITY 0.4252

SPECIES LISTING	COUNT
CERTANTHUS AMERICANUS	27
PAPAONIS GRACILIS	5
HARMOTHOE EXTENUATA	1
ASARELLIDES OCULATA	304
NEPHTYS INCISA	55
PHERUSA AFFINIS	34
NINOE NIGRIPES	5
THARYX ACUTUS	3
LUMBRINERIS TENUIIS	5
MEDIDOMASTUS AMBISFIAE	1
COSSURA LONGOCIRRATA	3
CRANGON SEPTEMSPINOSA	1
THYASIRA TRISINUATA	1
YOLDIA MYALIS	1
YOLDIA LIMATULA	5
CERASTODERMA PINNULATUM	1
PITAR MORRHUANA	4
TELLINA ACILIS	6
NUCULA PROXIMA	617
PHORONIS ARCHITECTA	5



CRUISE 87501 DATE 11/11/75 STATION NUMBER CRUISE 045 SYMAP 45 GRAB 02 DEPTH METERS 37.1

NO. SPECIES 26 NO. INDIVIDUALS 1168 DIVERSITY 1.6255 EQUITABILITY 0.4989

SPECIES LISTING

CERIANTHUS AMERICANUS	19
EDWARDSIA SIPUNCULOIDES	1
RHYNCHOCELA	2
ANTINOELLA SARSI	1
HARMOTHE EXTENUATA	1
NEPHTYS INCISA	57
PARANAITIS KOSTERIENSIS	1
NINOE NIGRIPES	6
LUMBRINERIS FRAGILIS	3
MEDIOMASTUS AMBISSETAE	11
PARADITS GRACILIS	44
PHERUSA AFFINIS	50
THARYX ACUTUS	13
THARYX ANNULOSUS	4
ASABELLIDES OCULATA	406
COSSURA LONGICIRATA	11
PRIONOSPIC STEENSTRUPI	1
STENOPLEUSTES GRACILIS	1
PITAR MORRHUANA	4
YOLDIA LIMATULA	6
TELLINA AGILIS	6
UNIO BIVALVE #2	3
MYTILUS EDULIS	1
NUCULA PROXIMA	495
NUCULA DELPHINODONTA	3
PHORONIS ARCHITECTA	18

CRUISE R7501	DATE 11/11/75	STATION NUMBER CRUISE 056 SYMAP 56	GRAB 01	LATITUDE 4019 N	LONGITUDE 7348 W	DEPTH METERS 45.6
NO. SPECIES 28	NO. INDIVIDUALS 213	DIVERSITY 2.4778	EQUITABILITY 0.7436			
SPECIES LISTING						
				COUNT		
	CERIANTHUS AMERICANUS			12		
	EDWARDSIA SIPUNCULOIDES			5		
	RHYNCHOCOELA			1		
	ASABELLIDES OCULATA			28		
	POTAMILLA NEGLECTA			1		
	PHERUSA AFFINIS			65		
	BRADA VILLOSA			1		
	NEPHTYS INCISA			26		
	POLYCIRRUS SP.			2		
	RHOODINE LOVENI			3		
	SPIOPHANES BOMBYX			2		
	NINOE NIGRIPES			6		
	CHONE INFUNDIBULIFORMIS			1		
	THARYX ACUTUS			6		
	COSSURA LONGOCIRRATA			1		
	ETEONE LONGA			1		
	EUCHONE PURROCINCTA			1		
	LUMBRINERIS TENUIS			8		
	PRIONOSPION STEENSTRUP			4		
	LAONICE CIRPATA			1		
	FOOTEA TPILOBA			1		
	LEPTOCHEIRUS PINGUIS			3		
	NUCULA PROXIMA			11		
	PITAR MOPRHUANA			15		
	TELLINA AGILIS			2		
	CERASTODERMA PINNULATUM			4		
	UNID BIVALVE #2			1		
	THYONE PRIAREUS			1		

CRUISE 11/11/75 STATION NUMBER 056 CRUISE SYMAP 56 GRAB 02 DEPTH 45.6 METERS  
 NO. SPECIES 32 NO. INDIVIDUALS 414 DIVERSITY 2.6049 EQUITABILITY 0.7516

SPECIES LISTING

CERIANTHUS AMERICANUS	14
EDWARDSIA SIPUNCULOIDES	7
RHYNCHOCOELA	1
ASABELLIDES OCULATA	21
PRIONOSPION STEENSTRUPI	3
LUMBRINERIS TENUIS	21
EUCHONE RUBROCINCTA	3
PHOLOE MINUTA	4
POLYDORA QUADRILOBATA	5
SPERUSA AFFINIS	25
NINOE NIGRIPES	6
CAPITELLA CAPITATA	1
AMPHARETE ARCTICA	4
OPHIOGLYCEPA GIGANTEA	4
RHOPIE LOVENI	6
MEDIOMASTUS AMBIOSETAE	4
CHONE INFUNDIBULIFORMIS	1
MYXICOLA INFUNDITULUM	1
DRILONEREIS LONGA	4
POTAMILLA RENIFORMIS	7
THARYX ACUTUS	4
NEPHTYS INCISA	27
LEPTOCHEIRUS PINGUIS	3
CRANGON SEPTEMSPINOSA	1
CANCER IRROSTRATUS	1
NUCULA PROXIMA	114
NUCULA DELPHINODONTA	4
CERASTODERMA PINNULATUM	1
UNIO BIVALVE #2	1
YOLGIA LIMATULA	13
PITAR MOPRHUANA	10
THYONE BRIAREUS	3



Cruise	DATE	STATION NUMBER	GRAB	LATITUDE	LONGITUDE	DEPTH
R7501	11/11/75	064 SYMAP 64	01	4016 N	7354 W	METERS 20.3
NO. SPECIES 17		NO. INDIVIDUALS 42	DIVERSITY 2.3643		EQUITABILITY 0.8345	

COUNT

SPECIES LISTING	COUNT
ASARELLIDES OCULATA	4
NEPHTYS RUCERA	6
SPIOPHANES BOMBYX	1
GLYCERA DIBRANCHIATA	1
LUMBRINERIS TENUIS	1
LUMBRINERIS FRAGILIS	1
THARYX ACUTUS	1
HAPLOSCOPLOS RORUSTUS	1
EDDIEA TRILOBA	2
TRICHOPOPHOUS EPISTOMUS	1
PHOXOCEPHALUS HOLROLII	1
CANCER IPPORATUS	1
ENSIS DIRECTUS	1
TELLINA AGILIS	11
NUCULA PROXIMA	7
ECHINARACHNIUS PARMA	1
PHOPONIS ARCHITECTA	1

CRUISE 11/11/75 STATION NUMBER 064 064 GRAB 02 DEPTH 20.3  
 R7501 11/11/75 CRUISE SYMAP 64 02 METERS 20.3  
 NO. SPECIES 25 NO. INDIVIDUALS 983 DIVERSITY 1.2658 EQUITABILITY 0.2932

SPECIES LISTING	COUNT
RHYNCHOCOELA	3
PROTODRILUS SYMBIOTICUS	123
OLIGOCHAETA	62
PERUSA AFFINIS	1
HARMOTHOE EXTENUATA	1
ARTICIDEA JEFFREYSII	7
SYLLIS CORNUTA	2
AMPHARETE ARCTICA	2
MEDTOMASTUS AMBISSETAE	3
THARYX ACUTUS	662
THARYX ANNULOSUS	66
NEREIS SUCCINEA	1
LUMBRINERIS FRAGILIS	11
LUMBRINERIS TENUIS	8
PISIONE REMOTA	3
STAURONEREIS CAECUS	1
PHYLLODOCE ARENAE	3
SPIO FILICORNIS	1
GONIADELLA GRACILIS	9
CAULLERYELLA SP.	1
PHOXOCEPHALUS HOLBOELLI	2
CANCER IRPATORATUS	3
UNCINOLA IRRORATA	2
CRANGON SEPTEMSPINOSA	3
NUCULA PROXIMA	3

CRUISE	DATE	STATION NUMBER	CRUISE	SYMAP	GRAB	LATITUDE	LONGITUDE	DEPTH
R7618	23/03/76	001	1	01	4°34' N	73°48' W		9.6
NO. SPECIES 17 NO. INDIVIDUALS 72 DIVERSITY 2.2380 EQUITABILITY 0.7899								
SPECIES LISTING								
RHYNCHOCOELA 1								
PROTODRILUS SYMBIOTICUS 1								
OLIGOCHAETA 1								
DRILONEIREIS LONGA 4								
SPIOPHANES ROMYX 23								
ASABELLIDES OCULATA 15								
MAGELONA ROSEA 1								
NEPHTYS PICTA 3								
GLYCERA AMERICANA 4								
STHENELAIS LIMICOLA 4								
MEDIOMASTUS AMRISFTAE 3								
PRIONOSPION STEENSTRUP 1								
THARYX ACUTUS 2								
HAPLOSCOLOPUS ROBUSTUS 2								
PAGURUS BERNHARDUS 1								
TELLINA AGILIS 5								
PANDORA GOULDIANA 1								

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CRUISE	DATE	STATION NUMBER	CRUISE	SYMAP	GRAB	LATITUDE	LONGITUDE	DEPTH
R7618	23/03/76	001	1	02	4°34' N	73°48' W		9.6
NO. SPECIES 22 NO. INDIVIDUALS 129 DIVERSITY 2.3268 EQUITABILITY 0.7528								
SPECIES LISTING								
RHYNCHOCOELA 1								
OLIGOCHAETA 7								
ASABELLIDES OCULATA 15								
DRILONEIREIS LONGA 8								
SPIOPHANES ROMYX 45								
MAGELONA ROSEA 7								
PRIONOSPION STEENSTRUP 6								
NEPHTYS INCISA 4								
GLYCERA AMERICANA 8								
STHENELAIS LIMICOLA 3								
OMUPHIS EMERITA 1								
HAPLOSCOLOPUS ROBUSTUS 1								
ARICIDEA JEFFREYSII 1								
GONIADILLA GRACILIS 1								
PAGURUS BERNHARDUS 2								
CRANGON SEPTENSPINOSA 1								
UNCICOLA IRRORATA 1								
TELLINA AGILIS 13								
NUCULA PROXIMA 1								
SPISULA SOLIDISSIMA 1								
PITAR MORRHUANA 1								
PANDORA GOULDIANA 1								



CRUISE	DATE	STATION NUMBER	GRAB	LATITUDE	LONGITUDE	DEPTH
R7618	23/03/76	012	01	4031 N	7348 W	17.3
NO. SPECIES 18		NO. INDIVIDUALS 95		DIVERSITY 2.4522		EQUITABILITY 0.8484

SPECIES LISTING	COUNT
OLIGOCHAETA	1
SPIOPHANES BOMBYX	9
AGLAOPHAMUS CIRCINATA	1
NEPHTYS PICTA	13
GLYCERA DIBRANCHIATA	7
NINOE NIGRIPES	1
MEDIOMASTUS AMBISSETAE	2
THARYX ACUTUS	11
HAPLOSCOLOPLOS ROBUSTUS	4
NOTOMASTUS LATERICEUS	1
ASARELLIDIES OCULATA	2
LUMBRINERIS TENUIS	1
AMPELISCA VERRILLI	14
PHOTIS MACROCOPA	1
TELLINA AGILIS	16
MUCULA PROXIMA	7
PITAR MORRHUANA	3
PHORONIS ARCHITECTA	1

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CRUISE	DATE	STATION NUMBER	GRAB	LATITUDE	LONGITUDE	DEPTH
R7618	23/03/76	012	02	4031 N	7348 W	17.3
NO. SPECIES 23		NO. INDIVIDUALS 175		DIVERSITY 2.6245		EQUITABILITY 0.8370

SPECIES LISTING	COUNT
PROTODIPILUS SYMBIOTICUS	5
OLIGOCHAETA	16
PHERUSA AFFINIS	1
LUMBRINERIS FRAGILIS	1
SPIOPHANES BOMBYX	28
THARYX ACUTUS	21
ARTICIDEA JEFFREYSII	5
STHENELAIS LIMICOLA	2
ASARELLIDIES OCULATA	5
GLYCERA DIBRANCHIATA	1
AGLAOPHAMUS CIRCINATA	13
NEPHTYS PICTA	6
HAPLOSCOLOPLOS ROBUSTUS	3
PHYLLODOCE ARENAE	1
NOTOMASTUS LATERICEUS	8
CANCER IRROBRATUS	1
PHOTIS MACROCOPA	3
AMPELISCA VERRILLI	23
NISSARIUS TRIVITTATUS	1
MUCULA PROXIMA	12
PITAR MORRHUANA	1
TELLINA AGILIS	17
PHORONIS ARCHITECTA	1

CRUISE DATE STATION NUMBER GRAB LATITUDE LONGITUDE DEPTH  
 R7618 23/03/76 016 016 01 4031 N 7356 W 9.0

NO. SPECIES 12 NO. INDIVIDUALS 22 DIVERSITY 2.3896 EQUITABILITY 0.9616

COUNT

SPECIES LISTING

RHYNCHOCOLA 2  
 GLYCERA DIBRANCHIATA 1  
 NEPHTYS PICTA 2  
 LUMBRINERIS FRAGILIS 1  
 ARICIDEA JEFFREYSII 1  
 MAGELONA ROSEA 3  
 SPIOPHANES BOMBYX 3  
 ARICIDEA WASSI 2  
 STHENELAIS LIMICOLA 1  
 THARYX ANNULOSUS 3  
 NOTOMASTUS LATERICEUS 1  
 TELLINA AGILIS 2

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CRUISE DATE STATION NUMBER GRAB LATITUDE LONGITUDE DEPTH  
 R7618 23/03/76 016 02 4031 N 7356 W 9.0

NO. SPECIES 19 NO. INDIVIDUALS 77 DIVERSITY 2.1652 EQUITABILITY 0.7354

COUNT

SPECIES LISTING

RHYNCHOCOLA 4  
 NEPHTYS PICTA 15  
 ARICIDEA WASSI 6  
 ASABELLIDES OCULATA 3  
 STHENELAIS LIMICOLA 1  
 SPIOPHANES BOMBYX 1  
 MAGELONA ROSEA 1  
 SCOLOPLOS ARMIGER 3  
 ORBIGNIA SWANI 1  
 GLYCERA DIBRANCHIATA 1  
 ONIOPHIS EMERITA 1  
 CHIRIDOTEA TUFTSI 1  
 PSEUDUNCIOLO OBLIQUA 1  
 TRICHOPODUS EPISTOMUS 3  
 PROTOHAUSTORIUS DEICHMANNAE 1  
 TELLINA AGILIS 29  
 NUCULA PROXIMA 3  
 LYONSIA HYALINA 1  
 UNIO RIVALVE #2 1

CRUISE 87618 DATE 12/03/76 STATION NUMBER CRUISE 019 SYMAP 19 GRAB 01 LATITUDE 4028 N LONGITUDE 7356 W DEPTH METERS 11.5

NO. SPECIES 11 NO. INDIVIDUALS 334 DIVERSITY 1.1768 EQUITABILITY 0.4907

SPECIES LISTING

RHYNCHOCOELA  
NEMATODA  
PROTODRILUS SYMBIOTICUS  
OLIGOCHAETA  
NEPHTYS RUCERA  
LUMBRINERIS FRAGILIS  
GONIADELLA GRACILIS  
HEMIPODUS ROSEUS  
PISIONE REMOTA  
THAPYX ACUTUS  
TELLINA AGILIS

COUNT  
1  
207  
19  
1  
4  
1  
60  
43  
1  
5  
1

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CRUISE 87618 DATE 12/03/76 STATION NUMBER CRUISE 019 SYMAP 19 GRAB 02 LATITUDE 4028 N LONGITUDE 7356 W DEPTH METERS 11.5

NO. SPECIES 11 NO. INDIVIDUALS 438 DIVERSITY 0.8280 EQUITABILITY 0.3453

SPECIES LISTING

NEMATODA  
PROTODRILUS SYMBIOTICUS  
SIGALION ARENICOLA  
NEPHTYS RUCERA  
GONIADELLA GRACILIS  
HEMIPODUS ROSEUS  
TRAVISIA CARNEA  
UNICOLA IRROPATA  
LEPTOGNATHA CAECA  
TELLINA AGILIS  
AMMODYTES SP.

COUNT  
353  
22  
1  
7  
24  
19  
1  
1  
1  
8  
1



CRUISE 97518 DATE 23/3/76 STATION NUMBER CRUISE 023 SYMAP 23 GRAB 01 DEPTH METERS 27.3  
 NO. SPECIES 24 NO. INDIVIDUALS 546 DIVERSITY 2.3026 EQUITABILITY 0.7245

SPECIES LISTING

CERIANTHUS AMERICANUS	22
EDWARDSIA SIPUNCULOIDES	1
NEMATODA	4
OLIGOCHAETA	6
NEPHTYS INCISA	32
PHERUSA AFFINIS	5
AMPHARETE ARCTICA	1
ASARELLIDES OCULATA	118
LUMBRINERIS FRAGILIS	16
ORILONEREIS LONGA	4
PARAGNIS GRACILIS	2
APICIDEA JEFFREYSII	2
PRIONOSPID STEENSTRUPI	3
EUCHONE RUBROCINCTA	1
COSSURA LONGOCIRPATA	4
THARYX ACUTUS	95
THARYX ANNULOSUS	76
MEDIOMASTUS AMBRISETAE	11
NASSARIUS TRIVITTATUS	1
PITAR MORPHUANA	11
TELLINA AGILIS	1
MULINIA LATERALIS	1
NUCULA PROXIMA	81
PHORONIS ARCHITECTA	48

CRUISE R7618 DATE 23/03/76 STATION NUMBER CRUISE 023 SYMAP 23 GRAB 02  
 NO. SPECIES 24 NO. INDIVIDUALS 1227 DIVERSITY 2.1226 EQUITABILITY 0.6679  
 DEPTH METERS 27.3  
 LONGITUDE 7348 W  
 LATITUDE 4028 N

COUNT

SPECIES LISTING

CERIANTHUS AMERICANUS	15
NEMATODA	2
OLIGOCHAETA	15
NEPHTYS INCISA	37
OPHERUSA AFFINIS	13
ASABELLIDES OCULATA	138
AMPHARETE ARCTICA	5
COSSURA LONGOCIRRATA	20
PARAONIS GRACILIS	4
ARICIDEA JEFFREYSII	2
PRIONOSPION STEENSTRUPI	33
MEDIOMASTUS AMBISSETAE	56
THARYX ACUTUS	395
THARYX ANNULOSUS	275
EUCHONE RUBROCINCTA	12
LUMBRINERIS TENUIS	19
POLYDORA SOCIALIS	1
PHOTIS MACROCOKA	2
NUCULA PROXIMA	106
PITAR MORRHUANA	8
TELLINA AGILIS	2
SPISSULA SOLIDISSIMA	1
MULINIA LATERALIS	1
PHORONIS ARCHITECTA	65

CRUISE	DATE	STATION NUMBER	GRAB	LATITUDE	LONGITUDE	DEPTH
R7618	12/03/76	032 SYMAP 32	01	4025 N	7344 W	METERS 25.8
NO. SPECIES 25	NO. INDIVIDUALS 866	DIVERSITY 2.2214	EQUITABILITY 0.6818			

COUNT

SPECIES LISTING	COUNT
CERTANTHUS AMERICANUS	17
EDVARDOSIA SP.	1
RHYNCHOCELA	1
NEMATODA	17
OLIGOCHAETA	21
PHERUSA AFFINIS	25
ASABELLIDES OCULATA	181
NIMOE NIGRIPES	11
PRIONOSPION STEENSTRUPI	116
THARYX ACUTUS	287
THARYX ANNULOSUS	13
MEDIOMASTUS AMBISETAE	38
SPIOPHANES BOMBYX	7
ARICIDEA JEFFREYSII	28
SOLO FILICORNIS	35
NEPHTYS INCISA	5
NEPHTYS BUCERA	1
GLYCERA DIBRANCHIATA	11
NEREIS GRAYI	5
STHENELAIS LIMICOLA	1
OXYUROSTYLIS SMITHI	1
UNCIOLOA IRRORATA	20
TELLINA AGILIS	9
PITAR MORRHUANA	5
NUCULA PROXIMA	7
PHORONIS ARCHITECTA	3



CRUISE 87618 DATE 12/03/76 STATION NUMBER CRUISE 032 SYMAP 32 GRAB 02 DEPTH METERS 25.8  
 NO. SPECIES 37 NO. INDIVIDUALS 617 DIVERSITY 2.2306 EQUITABILITY 0.6177

SPECIES LISTING

CERIANTHUS AMERICANUS  
 EDWARDSIA STIPUNCULOIDES  
 NEMATODA  
 RHYNCHOCOELE  
 OLIGOCHAETA  
 PHERUSA AFFINIS  
 NEPHTYS INCISA  
 NINOE NIGRIPES  
 LUMBINERIS FRAGILIS  
 AGLAOPHANIUS CIRCINATA  
 DRILONERETS LONGA  
 SPID FILICORNIS  
 SPIOPHANES BOMBYX  
 STHENELAIS LIMICOLA  
 NEREIS GRAYI  
 PHYLLODOCE ARENAE  
 GLYCERA DIBRANCHIATA  
 GLYCERA AMERICANA  
 ARICIDEA JEFFREYSII  
 PRIONOSPION STEINSTRUPPI  
 ASARELLIDES OCULATA  
 EUCHONE RUBROCTINCTA  
 OWENIA FUSIFORMIS  
 THARYX ACUTUS  
 MEDIOMASTUS AMBISSETAE  
 CAPITELLA CAPITATA  
 EDOCEA TRILOBRA  
 CANCELLIUS IRROPATUS  
 PAGURUS LONGICARPUS  
 UNCIOLEA IPORATA  
 DORIDIIDAE  
 TELLINA AGILIS  
 CERASTODERMA PINNULATUM  
 PITAR MORRHUANA  
 NUCULA PROXIMA  
 UNIO BIVALVE #2  
 PHORONIS ARCHITECTA

COUNT  
 8  
 2  
 8  
 4  
 2  
 12  
 2  
 9  
 2  
 1  
 1  
 6  
 25  
 1  
 1  
 6  
 4  
 4  
 5  
 10  
 29  
 231  
 9  
 1  
 160  
 20  
 1  
 3  
 1  
 1  
 10  
 1  
 11  
 5  
 4  
 5  
 11  
 5

CRUISE R7618 DATE 12/03/76 STATION NUMBER CRUISE 033 SYMAP 33 GRAB 01 DEPTH METERS 33.1

NO. SPECIES 31 NO. INDIVIDUALS 1373 DIVERSITY 1.3113 EQUITABILITY 0.3819

SPECIES LISTING

CERTANTHUS AMERICANUS	4
RHYNCHOCOELE	4
NEMATODA	1
OLIGOCHAETA	5
PHERUSA AFFINIS	16
NEPHTYS INCISA	30
NINOE NIGRIPES	2
SPIOPHANES BOMBYX	11
GLYCERA DI BRANCHIATA	1
PRIONOSPION STEENSTRUP	65
PARANAITIS KOSTERIENSIS	1
EUCHONE RUBROCINCTA	19
ASABELLIDES OCLATA	969
PHYLLODOCE ARENAE	15
PHYLLODOCE MUCOSA	4
NERFIS SUCCINEA	2
THARYX ACUTUS	102
COSSURA LONGOCIRRATA	1
POLYDORA LIGNI	2
STAURONEREIS CAFCUS	1
MEDIOMASTUS AMBRISETAE	78
CAPITELLA CAPITATA	2
EDOTEA TRILOBIA	2
UNICOLA IRRORATA	18
LEPTOCHEIRUS PINGUIS	1
MONOCULODES EDWARDSI	1
DULICHIA MONOCANTHA	1
NASSARIUS TRIVITTATUS	5
TELLINA AGILIS	4
UNIO RIVALVE #2	3
PHORONIS ARCHITECTA	3

CRUISE 12/03/76 STATION NUMBER 033 SYMAP 33 GRAB 02 DEPTH 33.1 METERS  
 NO. SPECIES 30 NO. INDIVIDUALS 1297 DIVERSITY 1.6002 EQUITABILITY 0.4705

SPECIES LISTING

SPECIES LISTING	COUNT
RHYNCHOCOELE	7
NEMATODA	9
OLIGOCHAETA	6
PRIONOSPION STEENSTRUPI	125
SPIOPHANES BOMBYX	31
ASABELLIDES OCULATA	775
SPHERUSA AFFINIS	3
NINDE NIGRIPES	8
THARYX ACUTUS	155
THARYX ANNULOSUS	4
MEDIOMASTUS AMBISSETAE	49
CAPITELLA CAPITATA	2
NEREIS SUCCINEA	2
PARANAITIS KOSTERIENSIS	3
NEPHTYS INCISA	26
ANTINOMELLA SARSI	1
GLYCERA DIBRANCHIATA	5
PHYLLODOCE ARENAE	12
PHYLLODOCE MUCOSA	2
EUCHONE RUPEOCINCTA	26
CANCER IRROPATUS	1
ARGISSA HAMATIPES	1
UNCIGLA IRROPATA	19
HETEROMYSIS FORMOSA	2
EDUTEA TRILOBATA	1
NUCULA PROXIMA	1
PITAR MORRHUANA	2
UNIO BIVALVE #2	8
TELLINA AGILIS	10
CERASTODERMA PINNULATUM	1



CRUISE	DATE	STATION NUMBER	GRAB	LATITUDE	LONGITUDE	DEPTH
R7618	12/03/76	034 34	01	4025 N	7348 W	34.0
NO. SPECIES 27		NO. INDIVIDUALS 1310		DIVERSITY 1.6844		EQUITABILITY 0.5111

SPECIES LISTING	COUNT
CERJANTHUS AMERICANUS	2
OLIGOCHAETA	3
ASARELLIDES OCULATA	317
PHERUSA AFFINIS	31
NINOE NIGRIPES	1
LUMBRINERIS TENUIS	5
THARYX ANNULOSUS	14
THARYX ACUTUS	21
PARAONIS GRACILIS	12
NEPHYTYS INCISA	82
EUCHOMF FURROCINCTA	38
MEDIOMASTUS AMBISETAE	20
NEREIS SUCCINEA	1
EUMIDA SANGUINEA	1
PRIONOSPION STEENSTRUPI	1
OWENIA FUSIFORMIS	1
COSSURA LONGOCIRRATA	22
ARGISSA HAMATIPES	1
UNCIOLOA IRROPATA	2
YOLDIA LIMATULA	4
TELLINA AGILIS	11
NUCULA PROXIMA	652
CERASTODERMA PINNULATUM	3
THYASIPA TRISINUATA	1
UNIO BIVALVE #2	1
PITAP MORRHUANA	11
PHORONIS ARCHITECTA	52

CRUISE R7618  
 DATE 12/03/76  
 STATION NUMBER  
 CRUISE 034 SYMAP 34  
 GRAB 02  
 NO. SPECIES 24  
 NO. INDIVIDUALS 941  
 DIVERSITY 2.1774  
 EQUITABILITY 0.6851

SPECIES LISTING	COUNT	LATITUDE	LONGITUDE	DEPTH METERS
CERIANTHUS AMERICANUS	29	4025 N	7348 W	34.0
RHYNCHOCOELA	3			
NEMATODA	2			
OLIGOCHAETA	12			
PHERUSA AFFINIS	22			
NEPHTYS INCISA	54			
ASABELLIDES OCULATA	93			
COSSURA LONGOCIRRATA	45			
NINOE NIGRIPES	1			
LUMBRINERIS FRAGILIS	11			
LUMBRINERIS TENUIS	1			
PRIONOSPION STEENSTRUPI	2			
EUCHONE RUBROCINCTA	61			
THARYX ACUTUS	71			
THARYX ANNULOSUS	4			
PARAONIS GRACILIS	18			
MEDIOMASTUS AMBISSETAF	15			
ARGISSA HAMATIPES	1			
PHOTIS MACROCOPA	1			
NUCULA PROXIMA	348			
TELLINA AGILIS	10			
PITAR MORRHUANA	5			
UNIO RIVALVE #2	1			
PHORONIS ARCHITECTA	131			

CRUISE 19/02/76  
 R7618  
 STATION NUMBER  
 CRUISE 035  
 SYMAP 35  
 GRAB 01  
 LATITUDE 4025 N  
 LONGITUDE 7350 W  
 DEPTH METERS 29.5  
 NO. SPECIES 22  
 NO. INDIVIDUALS 895  
 DIVERSITY 0.8342  
 EQUITABILITY 0.2699

COUNT

SPECIES LISTING  
 CERTANTHUS AMERICANUS 3  
 NEMATODA 1  
 OLIGOCHAETA 1  
 NEPHTYS INCISA 26  
 COSSURA LONGOCIRRATA 17  
 ASABELLIDES OCULATA 55  
 PARACONIS GRACILIS 14  
 PHERUSA AFFINIS 1  
 LUMBRINERIS TENUIS 2  
 DEIONOSPIO STEENSTRUPI 1  
 CIRRIFORMIA GRANDIS 1  
 THARYX ANNULOSUS 7  
 EUCHONE PUBROCINCTA 5  
 MEDIOMASTUS AMRISETAE 2  
 PHOTIS MACROCOXA 1  
 NASSARIUS TRIVITTATUS 1  
 PITAR MORRHUANA 3  
 UNIO BIVALVE #2 1  
 CERASTODERMA PINNULATUM 1  
 TELLINA AGILIS 1  
 NUCULA PROXIMA 740  
 PHORONIS ARCHITECTA 11



CRUISE 19/02/76  
 R7618  
 STATION NUMBER  
 CRUISE SYMAP 35  
 GRAB 02  
 LATITUDE 4025 N  
 LONGITUDE 7350 W  
 DEPTH METERS 29.5  
 NO. SPECIES 26  
 NO. INDIVIDUALS 1190  
 DIVERSITY 0.9682  
 EQUITABILITY 0.2972

SPECIES LISTING

CERIANTHUS AMERICANUS	COUNT
ASABELLIDES OCULATA	9
PHERUSA AFFINIS	134
NEPHTYS INCISA	7
GLYCERA AMERICANA	25
PECTINARIA GOULDII	1
PHYLLODOCE ARENAE	1
PAPANAITIS KOSTERIENSIS	3
THARYX ANNULOSUS	1
ARICIDEA JEFFREYSII	8
PARAONIS GRACILIS	1
HARMOTHE EXTENUATA	1
EUCHONE RUBROINCTA	1
NINOE NIGRIPES	9
LUMBRINERIS TENUIS	1
LEPTOCHEIRUS PINGUIS	8
STENOPELUSTES GRACILIS	1
AEGININA LONGICORNIS	1
NUCULA PROXIMA	028
TELLINA AGILIS	14
PITAE MORRHUANA	12
CERASTODERMA PINNULATUM	2
YOLDIA LIMATULA	6
UNIO BIVALVE #2	4
MYTILUS EDULIS	1
PHORONIS ARCHITECTA	10

CRUISE 11 DATE 12/03/76 STATION NUMBER  
 CRUISE 040 SYMAP 40 GRAB 01 DEPTH METERS 12.4  
 NO. SPECIES 11 NO. INDIVIDUALS 968 DIVERSITY 0.6065 EQUITABILITY 0.2529

SPECIES LISTING

NEMATODA  
 PROTODRILUS SYMBIOTICUS  
 GONIADELLA GRACILIS  
 HEMIPODUS ROSEUS  
 ARICIDEA JEFFREYSII  
 THARYX ACUTUS  
 THARYX ANNULOSUS  
 NEPHTYS PICTA  
 NEPHTYS BUCERA  
 PITAR MORRHUANA  
 OSTRACODA

COUNT  
 840  
 52  
 33  
 18  
 9  
 5  
 1  
 5  
 1  
 1  
 1  
 3

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CRUISE 13 DATE 12/03/76 STATION NUMBER  
 CRUISE 040 SYMAP 40 GRAB 02 DEPTH METERS 12.4  
 NO. SPECIES 13 NO. INDIVIDUALS 71 DIVERSITY 2.0455 EQUITABILITY 0.7975

SPECIES LISTING

RHYNCHOCELA  
 COSSURA LONGOCIRRATA  
 SPIOPHANES BOMBRYX  
 THARYX ACUTUS  
 MAGELONA ROSEA  
 GLYCERA SP.  
 NEPHTYS RUCERA  
 NEPHTYS INCISA  
 NOTOMASTUS LATERICEUS  
 PAGURUS LONGICARPUS  
 NUCULA PROXIMA  
 TELIDINA AGILIS  
 PITAR MORRHUANA

COUNT  
 4  
 1  
 3  
 3  
 17  
 1  
 2  
 22  
 8  
 1  
 4  
 4  
 1

CRUISE 87618 DATE 12/03/76 STATION NUMBER CRUISE 042 SYMAP 42 GRAB 02 DEPTH METERS 21.2  
 NO. SPECIES 16 NO. INDIVIDUALS 96 DIVERSITY 1.9752 LONGITUDE 7354 W EQUITABILITY 0.7124

SPECIES LISTING	COUNT
RHYNGCHOCELA	1
PROTODRILUS SYMBIOTICUS	9
OLIGOCHAETA	1
AGLAPHAMUS CIRCINATA	4
NEPHTYS BUCERA	6
NEPHTYS PICTA	5
SPIOPHANES ROMBYX	17
LUMBRINERIS FRAGILIS	2
LUMBRINERIS TENUIS	1
ORILONERIS MAGNA	1
THARYX ACUTUS	2
PSEUDUNCIOCLA ORLIOUUA	6
AMPELISCA VADORUM	1
TELLINA AGILIS	44
NUCULA PROXIMA	2
SPISULA SOLIDISSIMA	1



CRUISE R7618 DATE 12/03/76 STATION NUMBER CRUISE SYMAP 043 GRAB 01 DEPTH METERS 25.8

NO. SPECIES 18 NO. INDIVIDUALS 361 DIVERSITY 1.9139 EQUITABILITY 0.6622

SPECIES LISTING

SPECIES LISTING	COUNT
RHYNCHOCNELA	101
PROTODRILUS SYMBIOTICUS	42
OLIGOCHAETA	71
LUMBRINERIS TENUI	14
NEPHTYS RUCERA	5
GLYCERA DIBRANCHIATA	1
ARICIDEA JEFFREYSII	2
AMPHARETE ARCTICA	1
FUCHONE RUBROCINCTA	1
NEPHTYS CAECA	1
AGLAOPHANUS CIRCINATA	2
LUMBRINERIS FRAGILIS	3
THARYX ACUTUS	80
THARYX ANNULOSUS	30
EXOGONE HERES	4
GONIADELLA GRACILIS	1
ENSIS DIPECTUS	1
SPISULA SOLIDISSIMA	1

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CRUISE R7618 DATE 12/03/76 STATION NUMBER CRUISE SYMAP 043 GRAB 02 DEPTH METERS 25.8

NO. SPECIES 16 NO. INDIVIDUALS 236 DIVERSITY 0.9600 EQUITABILITY 0.3463

SPECIES LISTING

SPECIES LISTING	COUNT
EDWARDSIA SPUNCULOIDES	1
PROTODRILUS SYMBIOTICUS	1
PHERUSA AFFINIS	2
GLYCERA DIBRANCHIATA	1
ASARELLIDES OCULATA	1
SCALIBREGMA INELATUM	1
NEPHTYS PICTA	1
AGLAOPHANUS CIRCINATA	1
LUMBRINERIS FRAGILIS	16
LUMBRINERIS TENUI	17
THARYX ACUTUS	184
THARYX ANNULOSUS	5
MEDIOMASTUS AMBISSETAE	2
CAULLERIELLA KILLAPIENSIS	1
PHOXOCEPHALUS HOLBOLI	1
SPISULA SOLIDISSIMA	1

CRUISE	DATE	STATION	NUMBER	GRAB	LATITUDE	LONGITUDE	DEPTH
R7618	19/02/76	CRUISE	SYMAP	01	4022 N	7348 W	METERS
		045	45				37.1
NO. SPECIES 18		NO. INDIVIDUALS	1087		DIVERSITY 2.1205		EQUITABILITY 0.5829
SPECIES LISTING							
							COUNT
							41
							1
							6
							1
							4
							22
							32
							2
							2
							1
							5
							8
							29
							20
							13
							6
							99
							76
							49
							3
							1
							43
							3
							1
							3
							1
							1
							1
							4
							1
							1
							3
							3
							66
							521
							4
							2
							8

CRUISE	DATE	STATION NUMBER	GRAB	LATITUDE	LONGITUDE	DEPTH
		CRUISE	SYMAP			METERS
R7618	10/02/76	045	02	4022 N	7348 W	37.1
NO. SPECIES 24		NO. INDIVIDUALS 813		DIVERSITY 1.8462		EQUITABILITY 0.5809
SPECIES LISTING						
		CERTANTHUS AMERICANUS		COUNT		
		EDWARDSIA SIPUNCULOIDES		34		
		OLIGOCHAETA		2		
		OPHERUSA AFFINIS		3		
		NEPHTYS INCISA		24		
		COSSURA LONGOCIRRATA		17		
		PARAONIS GRACILIS		26		
		ASARELLIPES OCULATA		18		
		OPILONEREIS LONGA		24		
		NINOE NIGRIPES		4		
		EUCHONE RUBROCINCTA		6		
		PRIONOSPION STEENSTRUPI		30		
		LUMBRINERIS TENUIS		1		
		THARYX ACUTUS		46		
		THARYX ANNULOSUS		19		
		MEDJOMASTUS AMRISSETAE		57		
		LEPTOCHEIRUS PINGUIS		15		
		CERASTODERMA PINNULATUM		1		
		YOLDIA LIMATULA		4		
		THYASIRA FLEXUOSA		2		
		UNIO BIVALVE #2		1		
		NUCULA PROXIMA		1		
		NUCULA DELPHINODONTA		457		
		PHORONIS ARCHITECTA		19		
				2		



CRUISE 19/02/76  
R7618

STATION NUMBER  
CRUISE 56  
SYMAP 56

GPAB 01

NO. SPECIES 42

NO. INDIVIDUALS 691

DIVERSITY 2.5962

DEPTH METERS 45.6

EQUITABILITY 0.6946

SPECIES LISTING

SPECIES LISTING	COUNT
CERIANTHUS AMERICANUS	18
EDWARDSIA SIPUNCULOIDES	13
RHYNCOCOELE	1
PHERUSA AFFINIS	135
NEPHTYS INCISA	12
NINOE NIGRIPES	15
DILONEREIS LONGA	4
ASABELLIDES OCULATA	18
AMPHARETE ARCTICA	3
PRIONOSPIO STEENSTRUPI	9
SPIOPHANES ROMBYX	1
THARYX ACUTUS	7
THARYX ANNULOSUS	1
LUMBRINERIS TENJIS	3
PARAONIS GRACILIS	2
MEDIOMASTUS AMBRISETAE	15
CAPITELLA CAPITATA	1
LADNICE CIPRATA	2
SPIROCHAETOPTERUS OCULATUS	2
MYRIOCHELE HEERI	2
POLYCIPTERUS MEDUSA	5
CHONE INFUNDIBULIFORMIS	4
EUCHONE RUBROCINCTA	4
PHOLME MINUTA	2
GONIADA NORVEGICA	2
GONIADA MACULATA	2
LEPTOCHEIRUS PINGUIS	135
ORCHOMENELLA MINUTA	1
DULICHIA MONOCANTHA	7
HAPPINTIA PROPINQUA	1
FRICHTHONTIUS RUBRICORNIS	1
PHOTIS DENTATA	5
NUCULA PROXIMA	132
NUCULA DELPHINODONTA	43
PITAR MORRHUANA	25
YOLDIA LIMATULA	3
CERASTODERMA PINNULATUM	2
UNITO RIVAIVE #2	33
TELLINA AGILIS	1
THYASIRA FLEXUOSA	1
ASTARTE UNDATA	1
PHORONIS ARCHITECTA	17

CRUISE	DATE	STATION	NUMBER	GRAB	LATITUDE	LONGITUDE	DEPTH
87618	19/02/76	CRUISE	SYMAP	02	4019 N	7348 W	METERS
		056	56				45.6
NO. SPECIES 30	NO. INDIVIDUALS 334	DIVERSITY 2.2725	EQUITABILITY 0.6681				

SPECIES LISTING

CERIANTHUS AMERICANUS	COUNT
EDWARDSIA SIPUNCULOIDES	10
RHYNCHOCOELE	3
NEMATODA	4
PHERUSA AFFINIS	9
NEPHTYS INCISA	145
DRILONEREIS LONGA	22
NINDE NIGRIPES	10
EUFONE LONGA	10
PHYLLODOCE ARENAE	2
ASABELLIDES OCULATA	1
COSSURA LONGOCIRRATA	5
RHODINE LOVENI	4
THARYX ACUTUS	7
THARYX ANNULOSUS	2
MEDIOMASTUS AMBISSETAE	1
PRIONOSPION STEENSTRUPII	8
EUCHONE PUBROCINCTA	1
LUMBRINERIS TENUIS	2
EUNTEA TRILOBA	9
LEPTOCHEIRUS PINGUIS	1
UNCIOCLA IRROPATA	48
PHOTIS DENTATA	2
DILICHTIA MONOCANTHA	8
PITAR MORRHUANA	2
NUCULA PROXIMA	5
CERASTODERMA PINNULATUM	4
UNIO BIVALVE #2	1
THYONE SP.	3
PHORONIS ARCHITECTA	2
	3

CRUISE 19/02/76  
R7618

STATION NUMBER  
CRUISE 064  
SYMAP 64

GRAB 01

NO. SPECIES 15

NO. INDIVIDUALS 117

DIVERSITY 2.3335

EQUITABILITY 0.8617

DEPTH METERS 20.3

SPECIES LISTING

SPECIES	COUNT
NEMATODA	20
PROTODRILLUS SYMBIOTICUS	18
OLIGOCHAETA	5
THARYX ACUTUS	16
LUMBRINERIS ACUTA	11
GONIADELLA GRACILIS	15
HEMIPODUS ROSEUS	12
PISIONE REMOTA	7
AMPHARETE ARCTICA	2
NEPHTYS BUCERA	2
PROTODRILLUS BIARTICULATA	3
PHOXOCEPHALUS HOLBOELLI	1
EODONTIA TRILORNA	1
CHIRONOTEA CAECA	1
CRENELLA GLANDULA	3

48

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CRUISE 19/02/76  
R7618

STATION NUMBER  
CRUISE 064  
SYMAP 64

GRAB 02

NO. SPECIES 14

NO. INDIVIDUALS 52

DIVERSITY 2.2892

EQUITABILITY 0.8674

DEPTH METERS 20.3

SPECIES LISTING

SPECIES	COUNT
RHYNCHOCOELE	2
NEMATODA	1
PROTODRILLUS SYMBIOTICUS	7
NEPHTYS BUCERA	2
LUMBRINERIS FRAGILIS	1
LUMBRINERIS ACUTA	9
GONIADELLA GRACILIS	10
HEMIPODUS ROSEUS	3
THARYX ACUTUS	9
CHIRONOTEA CAECA	2
LEPTOGNATHA CAECA	1
TELLINA AGILIS	2
ASTARTE CASTANEA	2
LYONSIA HYALINA	1