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A QUANTITATIVE SURVEY OF THE BENTHIC INFAUNA OF NORTHERN MONTEREY BAY, CALIFORNIA

Final Summary Data Report for
August 1971 through February 1973

Annual Report, Part 8, 1973

by

Alfred T. Hodgson and James W. Nybakken

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Robert E. Arnal, Sea Grant Project Coordinator

Moss Landing Marine Laboratories
of the
California State University and Colleges
at
Fresno, Hayward, Sacramento, San Francisco, San Jose, and Stanislaus

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1973

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INTRODUCTION

In July 1970, Moss Landing Marine Laboratories began a limited qualitative survey of the benthic infauna at several shallow water stations in northern Monterey Bay to gather baseline information on the species composition of the benthic communities. Based on the experience and the data obtained during this investigation, a more extensive study was initiated in August 1971. The two principal objectives of this study were to obtain quantitative information on the composition of the shallow water benthic infauna communities of northern Monterey Bay and to evaluate their natural variation in time and space. Permanent stations were chosen which represented the major depth and sediment regimes of the shallower water of northern Monterey Bay. In addition, several stations were placed in areas which are likely to be affected by waste disposal in the near future. Wherever possible, the location of stations was chosen to coincide with sampling stations used by other participants in the Sea Grant program for gathering data on hydrography, phytoplankton biomass, and productivity. This insured that a maximum amount of information would be available for analyzing the temporal and spatial differences of the benthic infaunal communities. The sampling procedures we used were similar to those employed by Dr. Welton Lee of Hopkins Marine Station and Dr. Eugene Haderlie of the United States Naval Postgraduate School in their survey of the benthic infauna of southern Monterey Bay. The similar techniques should permit the comparison of data from the two halves of the bay.

This final data report discusses the methods we employed in the survey and gives the initial reduction of the data on the benthic infauna for the period of August 1971 through February 1973. This report does not represent final data analysis, nor does it discuss community structure and temporal variation. It is merely a data report.

We have collected 383 species of infaunal organisms and have identified and enumerated 137,465 individuals. Due to the magnitude of the taxonomic difficulties involved, our time has been almost entirely occupied by this task. Detailed analyses and interpretations of the data presented here are currently being initiated by the scientific personnel involved in the project and upon completion will be submitted for publication to appropriate scientific journals.

Initially the study was supported soley by a grant from the Office of Sea Grant Programs, U.S. Department of Commerce. From September 1971 through August 1972, substantial additional support was received from the Association of Monterey Bay Area Governments (AMBAG). This support enabled us to expand and improve the project.

SCIENTIFIC PERSONNEL

Individual	Specialty
James Nybakken Associate Professor	Project Director
Alfred Hodgson Chief Systematist	Polychaeta and Ophiuroidea
Patrick Clark Research Assistant	Bivalvia
Gary McDonald Research Assistant	Opisthobranchia

Michael Panietz Research Assistant	Polychaeta
David Shonman Research Assistant	Gastropoda and Scaphopoda
Peter Slattery Research Assistant	Crustacea and Ophiuroidea
Barry Turner Research Assistant	Polychaeta

In addition to the above personnel, students employed as hourly help and students enrolled in the undergraduate research class "Environmental Research Participation" have greatly aided in shipboard sampling and laboratory sorting of samples.

ACKNOWLEDGEMENTS

We are most grateful to the following taxonomic experts for their courtesy in identifying and/or confirming determinations of specimens of organisms collected during this study. Without their help, a project such as this would not have been possible. However, the acknowledgement of their invaluable assistance does not imply that they have checked all of the species listed in this report or all of the individuals of a given species.

Dr. James A. Blake Pacific Marine Station	Spionidae
Mr. James Carlton California Academy of Sciences	Gastropoda and Scaphopoda
Dr. Kristian Fauchald Curator Allan Hancock Foundation	Polychaeta

Dr. John S. Garth Chief Curator Allan Hancock Foundation	Brachyuran Decapoda
Dr. Robert Given Allan Hancock Foundation	Cumacea
Miss Janet Haig Allan Hancock Foundation	*Pagurus granosimanus*
Dr. Olga Hartman Allan Hancock Foundation	Polychaeta
Dr. Charlotte Holmquist Naturhistorisk Riksmuseet Stockholm, Sweden	Mysidacea
Mr. Ernest W. Iverson California Academy of Sciences	Tanaidacea and Isopoda
Dr. Meredith L. Jones Curator, Division of Worms U. S. National Museum	Magelonidae
Dr. Louis S. Kornicker Curator, Division of Crustacea U. S. National Museum	Mydocopid Ostracoda
Dr. Diana R. Laubitz National Museums of Canada	Caprellidae
Mr. William J. Light California Academy of Sciences	Cirratulidae
Dr. James McLean Los Angeles County Museum of Natural History	Gastropoda
Mr. Louis Marincovich University of Southern California	Gastropoda
Dr. John L. Mohr University of Southern California	Nebaliacea
Dr. Allyn G. Smith California Academy of Sciences	Mollusca
Mr. James Sutton Hopkins Marine Station	Ophiuroidea

We are also greatly indebted to Frank Monnich, owner and Captain of the research vessels AMIGO and FALCON, for providing us with the ship time necessary for the collection of our samples.

METHODS AND MATERIALS

Choice of Stations

Sampling began at ten permanent stations in August 1971. The locations of these stations were chosen to cover a large area of the bay north of the Monterey Submarine Canyon and to represent a wide range of depth and sediment types. Areas with rocky substrata were avoided. The steep slopes of the canyon wall were also avoided due to the difficulty of maintaining the ship over a constant depth while sampling.

These ten permanent stations were also used for the AMBAG project. Two stations were added at the request of AMBAG. However, the one new station located outside the bay had to be eliminated, leaving eleven permanent stations. The locations and depths of these stations are listed in Table 1. Figure 1 shows their locations within the bay.

Navigation

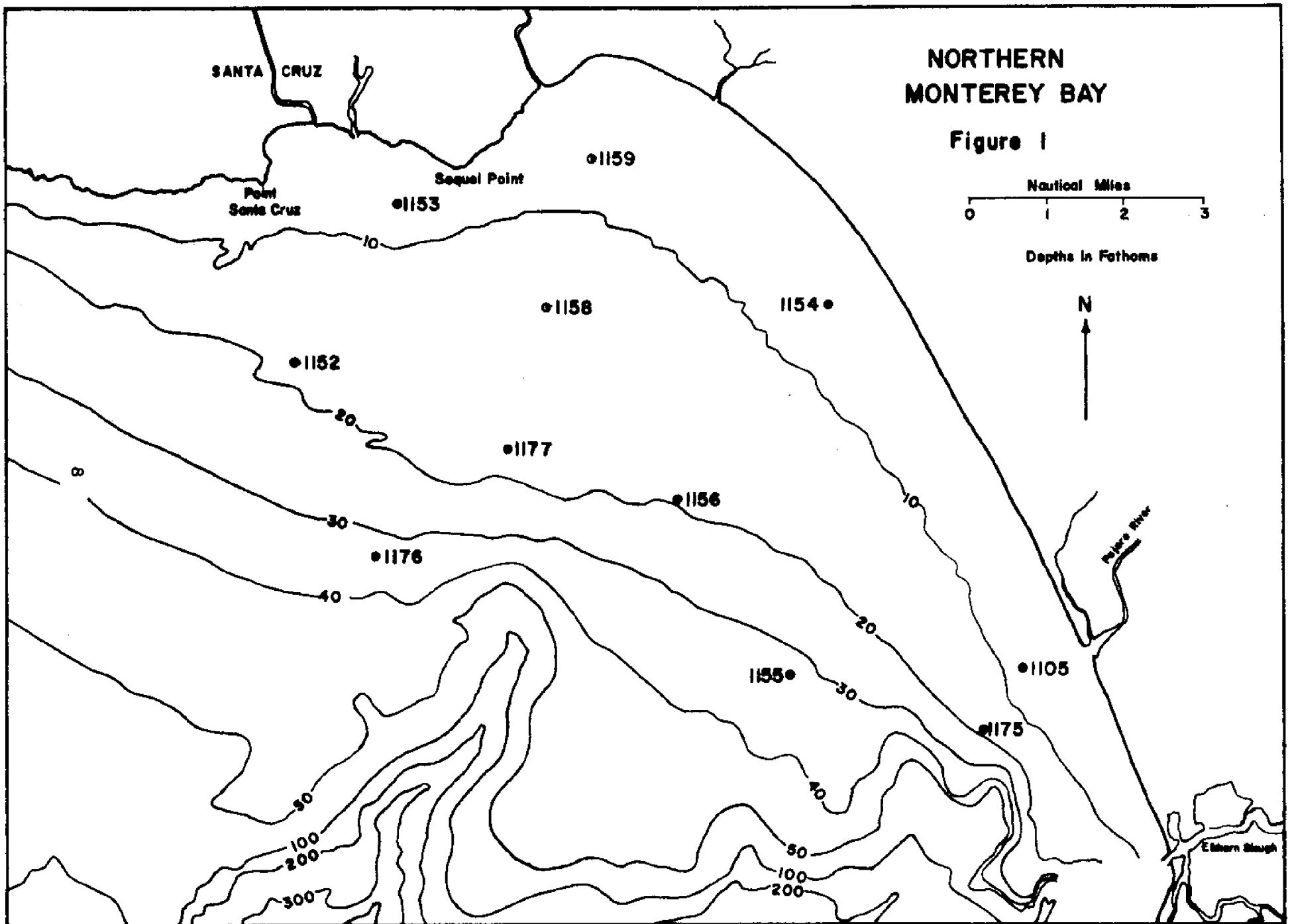
Station positions were determined using a combination of loran, radar ranges and bearings, and fathometer readings. In most cases the accuracy of the position was about ± 0.1 nautical mile. The ship was not anchored at the stations so the amount of drift was constantly observed and recorded. If the depth changed more than a few meters, or if

Table 1

Locations and mean depths from August 1971 through February 1973 for the eleven permanent benthos stations in northern Monterey Bay

Station Number	Latitude N	Longitude W	Mean Depth (m)
1105	36° 51.0'	121° 49.8'	16.5
1152	36° 54.8'	122° 01.0'	36.0
1153	36° 56.7'	121° 59.2'	14.5
1154	36° 55.5'	121° 52.6'	15.0
1155	36° 50.8'	121° 53.6'	62.5
1156	36° 53.0'	121° 55.0'	37.0
1158	36° 55.1'	121° 56.7'	25.5
1159	36° 57.1'	121° 56.2'	16.0
1175	36° 50.2'	121° 50.2'	36.5
1176	36° 52.3'	121° 59.8'	63.0
1177	36° 53.6'	121° 57.5'	34.5

Figure 1. Northern Monterey Bay, showing the locations of the eleven permanent benthos stations


NORTHERN
MONTEREY BAY
Figure 1
Nautical Miles
0 1 2 3
Depths in Fathoms
N
SANTA CRUZ
Point Santa Cruz
Soquel Point
Pajaro River
Elkhorn Slough
1159
1153
1158
1154
1152
1177
1156
1176
1155
1105
1175
10
20
30
40
50
100
200
300

the ship drifted more than 0.3 nautical mile during sampling, we returned to the correct position to take the remainder of the replicate samples.

Number of replicate samples

Samples were collected with the Smith - McIntyre grab (McIntyre 1954) which has a sampling area of 0.1 m^2. Initially eight replicates for faunal analyses were taken at each station. This was the number of replicates used by Drs. Lee and Haderlie for their survey in southern Monterey Bay. The number of replicates was later decreased to six due to time and financial limitations. This number was felt to be sufficient based on data reported by Lie (1968) for a similar quantitative study of the benthic infauna in Puget Sound. He considered five 0.1 m^2 replicate samples to be adequate to statistically describe the faunal assemblages and to obtain data on the ecology and biology of the most important species. In the May 1972 sampling period, we initiated more intensive sampling at station 1105 (Figure 1). The number of replicates was increased from six to ten in order to improve our ability to detect short term temporal variations at that station.

To determine if the number of species at a station was being adequately sampled with six replicates, cumulative plots of the number of species added versus increased sampling area were constructed for three stations (Figure 2). The plots represent the average values for two random orders of the replicates. Figure 2 shows that 91% to 96% of the species found in eight replicates will be obtained in six replicates at these stations. At station 1105, 86% of the species in ten replicates will be obtained in six replicates. Due to the dominance of the infaunal

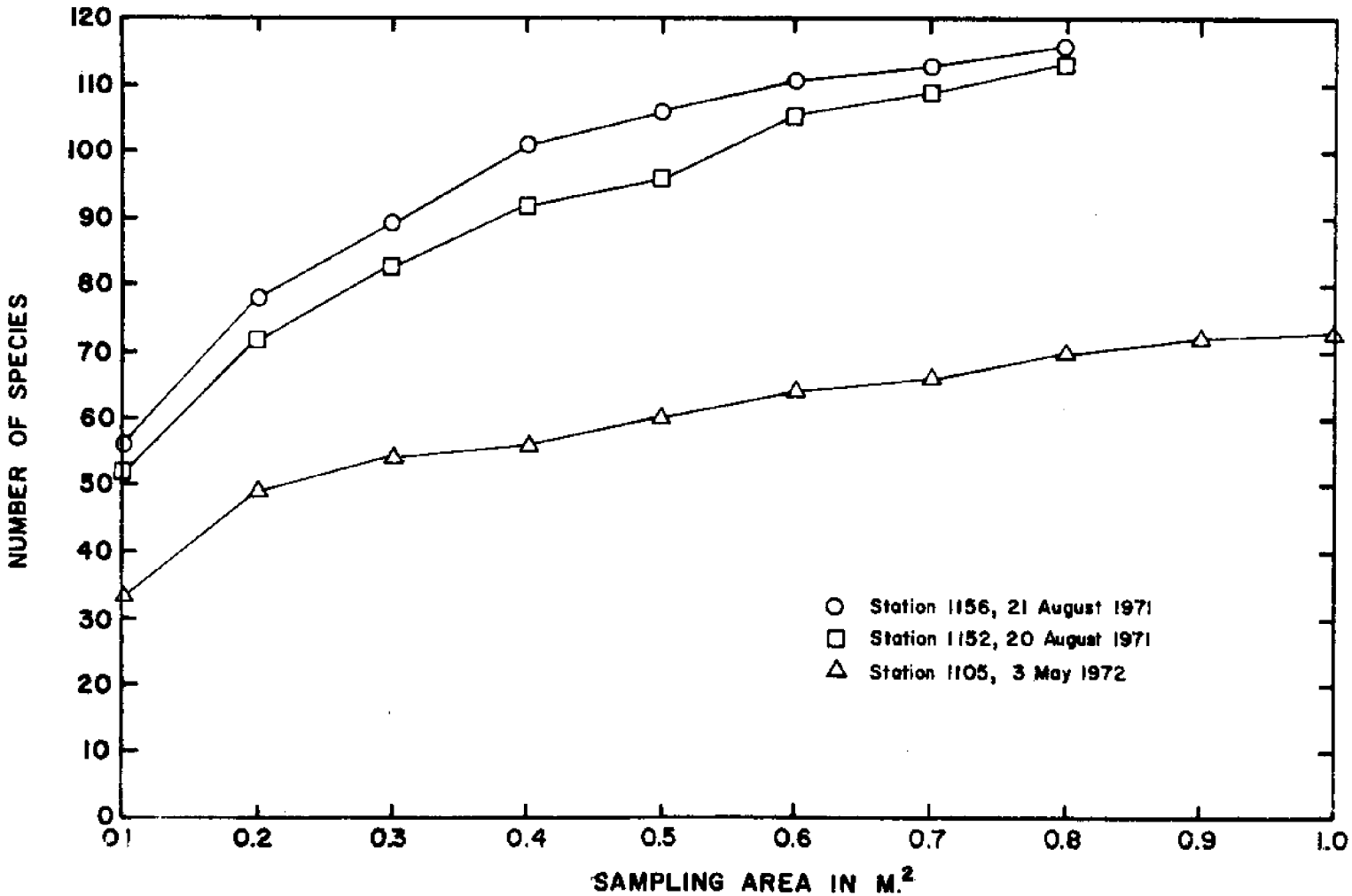


Figure 2. Cumulative plots of the number of species added versus increased sampling area, for three stations

communities by a small number of species (Tables 5 - 70), the species added in succeeding replicates are generally the rarer species. Therefore, six replicates are adequate for sampling the dominant species at a station. Table 2 shows the number of replicate samples at each station for each sampling period throughout the investigation.

Performance of the Smith-McIntyre grab

Variability in the volume of sediment obtained at each station was used to evaluate the ability of the Smith-McIntyre grab to take reliable replicate samples, Table 2 shows the mean volume of sediment obtained at all of the stations throughout the period of investigation. The coefficient of variation equals 100 (Standard deviation / mean volume). Good replication should produce a low coefficient of variation. The average coefficient of variation of mean sediment volumes from all stations decreases from 26% to 13% through the sampling periods (Figure 3). At the same time the average volume of mean sediment volumes from all stations increases from 4.5 to 9 liters (Figure 4). The correlation between these values is highly significant ($p < .001$, correlation coefficient), demonstrating that the average mean coefficient of variation for all stations decreases with increasing average mean volume of sediment throughout the period of investigation. This trend is attributable to the effect of experience of the crew in operating both the ship and the sampling gear. The effect of weather is probably minimal as wind and sea conditions were considerably variable and did not follow the trend of decreasing through the sampling periods.

The coefficient of variation is a measure of the variation in depth

Table 2

Volume of sediment in liters obtained in the grab samples at the eleven benthos stations in northern Monterey Bay during the period of investigation

Date	Number of replicates	Mean volume	Range of variation	Standard deviation	Coefficient of variation (%)
Station 1105					
21 Aug 1971	8	2.50	1- 3	0.75	30.19
10 Nov 1971	6	4.00	3- 5	0.89	22.36
2 Feb 1972	6	6.17	5- 7	0.98	15.96
3 May 1972	10	6.00	5- 7	0.66	11.06
22 Aug 1972	10	6.40	5- 7	0.70	10.94
17 Nov 1972	12	6.25	5- 7	0.62	9.99
28 Feb 1973	10	4.70	4- 6	0.68	14.43
Station 1152					
20 Aug 1971	8	6.00	5- 8	1.07	17.80
24 Nov 1971	6	6.50	6- 7	0.55	8.43
3 Feb 1972	6	8.83	7- 11	1.47	16.68
10 May 1972	6	9.83	9- 11	0.98	10.20
23 Aug 1972	6	10.00	9- 11	0.63	6.32
18 Nov 1972	6	10.00	8- 12	1.41	14.14

Table 2 (continued)

Date	Number of replicates	Mean volume	Range of variation	Standard deviation	Coefficient variation (%)
Station 1153					
13 Oct 1971	6	2.67	2- 4	1.03	38.74
24 Nov 1971	6	4.50	3- 8	1.87	41.57
3 Feb 1972	6	6.67	5- 8	1.03	15.51
10 May 1972	6	4.50	4- 5	0.55	12.17
23 Aug 1972	6	6.50	5- 8	1.05	16.14
18 Nov 1972	6	6.00	5- 7	0.89	14.91
Station 1154					
20 Aug 1971	8	2.88	1- 5	1.46	50.68
10 Nov 1971	6	3.50	3- 4	0.55	15.65
2 Feb 1972	6	5.00	4- 7	1.10	21.91
3 May 1972	6	5.83	4- 9	1.94	33.30
22 Aug 1972	6	5.67	5- 7	0.82	14.44
17 Nov 1972	6	6.17	5- 8	0.98	15.96

Table 2 (continued)

Date	Number of replicates	Mean volume	Range of variation	Standard deviation	Coefficient of variation (%)
Station 1155					
Aug 1971					
24 Nov 1971	6	12.00	11-13	0.63	5.27
2 Feb 1972	6	12.83	11-14	0.98	7.68
3 May 1972	6	12.33	9- 13	1.63	13.25
22 Aug 1972	6	12.17	10-14	1.72	14.16
17 Nov 1972	6	14.00	13-15	0.63	4.52
Station 1156					
21 Aug 1971	8	5.13	5- 6	0.36	7.03
10 Nov 1971	6	8.83	6- 12	2.32	26.24
2 Feb 1972	6	7.00	5- 8	1.10	15.65
3 May 1972	6	8.83	7- 11	1.33	15.07
22 Aug 1972	6	9.17	7- 11	1.60	17.48
17 Nov 1972	6	9.17	8- 10	0.75	8.23

Table 2 (continued)

Date	Number of replicates	Mean volume	Range of variation	Standard deviation	Coefficient of variation (%)
Station 1158					
20 Aug 1971	8	4.00	3- 5	0.75	18.88
10 Nov 1971	6	5.00	2- 7	2.00	40.00
2 Feb 1972	6	5.50	4- 7	1.05	19.07
3 May 1972	6	6.67	5- 8	1.21	18.18
22 Aug 1972	6	9.33	8- 10	0.82	8.77
17 Nov 1972	6	8.83	7- 11	1.47	16.68
Station 1159					
20 Aug 1971	8	3.38	1- 5	1.51	44.58
10 Nov 1971	6	5.67	4- 7	1.21	21.38
2 Feb 1972	6	6.67	6- 8	0.82	12.27
3 May 1972	6	9.00	6- 11	1.67	18.59
22 Aug 1972	6	9.83	6- 12	2.40	24.44
17 Nov 1972	6	9.33	8- 13	1.86	19.97

Table 2 (continued)

Date	Number of replicates	Mean volume	Range of variation	Standard deviation	Coefficient of variation(%)
Station 1175					
21 Aug 1971	8	7.50	6- 9	0.93	12.36
10 Nov 1971	6	7.50	6- 9	1.38	18.38
3 Feb 1972	6	6.00	5- 7	0.89	14.91
10 May 1972	6	8.17	7- 9	0.98	12.06
23 Aug 1972	6	8.50	8- 10	0.84	9.84
17 Nov 1972	6	8.33	7- 10	1.03	12.42
Station 1176					
13 Oct 1971	6	8.50	6- 10	1.52	17.84
24 Nov 1971	6	9.00	8- 10	0.89	9.94
3 Feb 1972	6	13.17	12-15	1.17	8.89
10 May 1972	6	10.17	9- 11	0.75	7.42
23 Aug 1972	6	13.33	13-15	0.82	6.14
18 Nov 1972	6	13.33	12-15	1.51	11.30

Table 2 (continued)

Date	Number of replicates	Mean volume	Range of variation	Standard deviation	Coefficient of variation (%)
Station 1177					
21 Aug 1971	8	3.25	2- 4	0.89	27.35
24 Nov 1971	6	3.83	3- 4	0.41	10.76
3 Feb 1972	6	4.50	4- 6	0.84	18.59
10 May 1972	6	6.00	5- 7	0.03	10.54
23 Aug 1972	6	8.50	7- 10	1.05	12.34
18 Nov 1972	6	7.17	6- 9	1.17	16.32

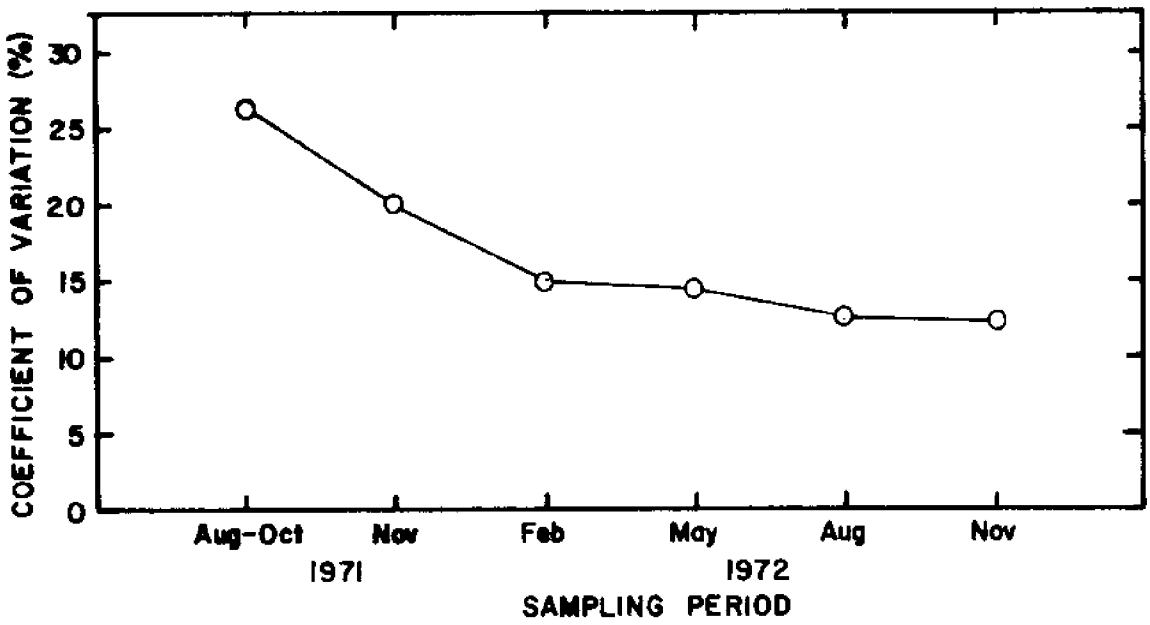


Figure 3. Average coefficient of variation of mean sediment volumes in replicate grab samples from all stations

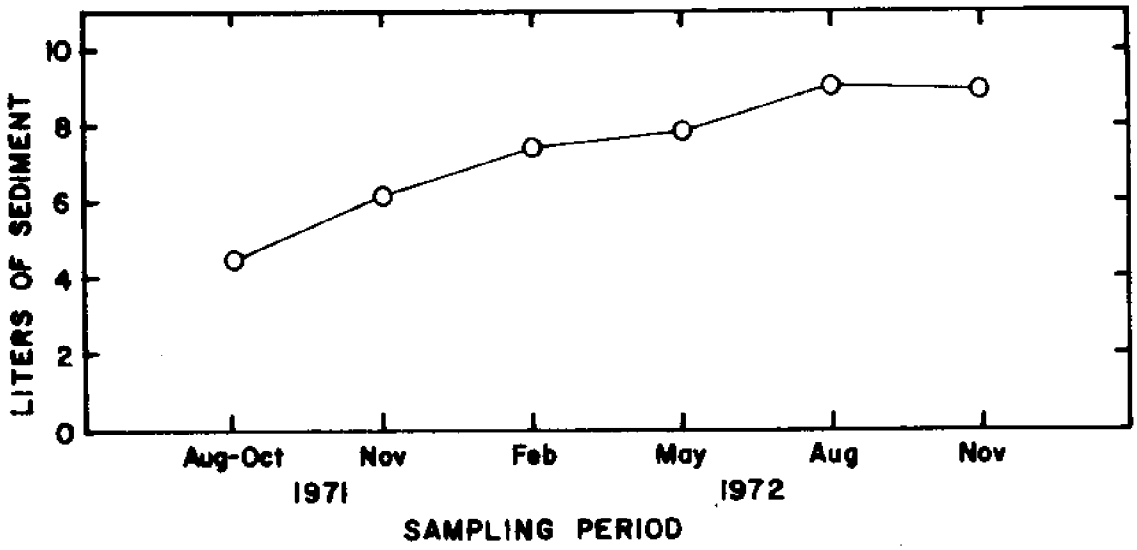


Figure 4. Average volume of mean sediment volumes in replicate grab samples from all stations

of penetration of the grab. An experienced crew can achieve a mean coefficient of variation for all stations of approximately 13% with a mean volume of sediment of 9 liters, indicating an average penetration of 10 cm. However, the volume of sediment obtained at stations with a high percentage of sand (Table 4) was considerably less. Analysis showed that the average volume of sediment in replicate grab samples was highly negatively correlated with percent sand composition of the sediments ($p < .001$, correlation coefficient). From February 1972 through November 1972, when the crew's sampling experience was high, some replicates with a minimum volume of 4 liters, representing 5 cm penetration, were taken at the sandy stations (Table 2). In an investigation conducted by John Oliver of Moss Landing Marine Laboratories on a sandy bottom in 20 meters of water near Moss Landing, twenty-four percent of the total number of infaunal organisms were found to inhabit depths greater than 5 cm. Nine percent were found at depths greater than 10 cm. If the vertical distribution of the infauna in mud is similar (Molander 1928) the effect of sampling variability on faunal parameters can be expected to be higher at sandy stations than at stations with softer sediments even though the coefficients of variation may be equal.

Sieve mesh size

All of the samples were sieved through a Nytex screen with a 1.0 mm mesh size which was backed up by another screen with a 0.5 mm mesh size. Initially only those organisms which were retained by the 1.0 mm mesh size screen were saved for faunal analyses. At station 1105, from May 1972 through February 1973, we also identified and enumerated those organisms

retained by the 0.5 mm mesh. Table 3 compares the 1.0 mm mesh screen to the combination of the two screens with respect to the total numbers of species and individuals obtained.

Table 3

Total number of species and individuals obtained at station 1105 with a 1.0 mm mesh screen and the 1.0 mm plus 0.5 mm mesh screens.

	1.0 mm		1.0 mm + 0.5 mm	
Date	# species	# Indiv.	# species	# Indiv.
3 May 1972	73	2748	97	8893
22 Aug 1972	79	2196	94	14997
11 Nov 1972	64	2035	72	4051
28 Feb 1972	49	694	58	1454

Reish (1959) discusses the importance of screen size in washing quantitative benthic samples. We considered the 1.0 mm mesh size appropriate for this survey, due, primarily, to the prohibitive time factor involved in identifying and enumerating the organisms retained by a 0.5 mm mesh screen. However, some information about the seasonality of important infaunal species was lost, as many of the individuals retained by the 0.5 mm mesh screen were juveniles. In May and August, additions of primarily juvenile forms of four species accounted for 56% and 80%, respectively, of the increases shown in the total numbers of individuals (Table 3). The increases in the numbers of species were due, largely, to additions of rare species.

Sampling Procedures

In each of the six replicates, the depth of the sediment contained in the grab was measured through a door on the top of the bucket. This measurement was used to determine the volume of sediment. At the same time, we measured the temperature of the sediment and removed a small subsample with an 8 cm long plastic cover for sediment particle size analysis and organic carbon determination. The contents of the grab were then emptied into a styrofoam ice chest for storage until they could be sieved. From November 1971 through February 1972, an additional grab sample was taken at each station to obtain sediment for heavy metal determination and DDT and nutrient uptake analyses.

Sieving was done on board ship. The sample was washed from the ice chest onto the screen with a hose. Water used in this operation was pumped from the bay through a filter to remove all planktonic organisms larger than the mesh size used for sieving. A low water pressure was maintained to prevent unnecessary damage to the specimens.

Larger polychaetes were picked from the screen while the sample was being sieved. They were relaxed in propylene phenoxetol diluted 1:99 with sea water, bottled, and preserved in 10% formalin buffered to neutral pH with hexamethylenetetramine. Ophiuroids were also picked from the screen during the sieving process, killed by placing in distilled water, bottled seperately, and preserved in 10% buffered formalin. All of the material left on the screen after sieving was placed in a jar containing sea water with magnesium chloride (73 grams / liter) and rose bengal. This relaxed and stained the organisms. The sample was allowed to stand for about an hour and then preserved with 10% buffered formalin.

Sampling Dates

Samples were collected at each station once every three months during the period of investigation. Table 2 lists the sampling dates. In February 1973 we took samples only at station 1105 which had been under the influence of a heavy discharge from the Pajaro River during the winter months.

Sorting and Identification of the Fauna

The preserved samples were brought back to the laboratory for sorting. Small portions from the jars containing the screen residue were placed in glass petri dishes with fresh water, and the organisms were picked out under a dissecting microscope with fine forceps. The rose bengal had stained the organisms pink so that they were more readily separated from the sediment and debris. The fauna was sorted into six major categories: Polychaeta, Bivalvia, other Mollusca, Crustacea, Echinodermata, and miscellaneous phyla. These were bottled seperately and preserved in 70% ethanol. This initial rough sorting was done by several part time employees.

The bottles of Polychaeta, together with the jars of larger Polychaeta separated on board ship, were further sorted into families before identifications to the lowest possible taxa were made. The other major categories of organisms were sorted directly to the lowest taxa. We put most of our taxonomic efforts into the five major classes of infaunal organisms; Polychaeta, Gastropoda, Bivalvia, Crustacea and Ophiuroidea. The other classes of organisms received less attention.

We are currently in the process of establishing a reference collection of all of the species of organisms collected by this survey. This collection will be catalogued and maintained in the museum at Moss Landing Marine Laboratories. In addition to the reference collection, the laboratory will store, at least temporarily, all of the organisms that were obtained during this survey. The California Academy of Sciences has expressed an interest in receiving all of the organisms except the reference collection. We may transfer our material there.

Some of the identifications given to organisms in this report are still subject to revision pending further examination by experts. In addition, there are a number of species which do not appear to be described in the literature. It is hoped that eventually descriptions will be made from our material and published.

Sediment Particle Size Analysis

The 72 subsamples collected in November 1972 were analyzed for sediment particle size using standard proceedures. (Carver 1971, Emery, 1938). The samples were initially treated with 35% hydrogen peroxide to remove the organics. The silt and clay fractions were then separated from the coarser fractions by dry sieving through a 4-phi screen. Silt was separated from clay by pipette analysis and the sand was further divided into coarse, medium, and fine portions by Emery tube analysis. There was no gravel fraction. The results are presented in Table 4 as mean percent weights for each size fraction. The number of subsamples used for calculating the means equals the number of replicates for a station.

EXPLANATION OF DATA TABLES AND FIGURES

Tables 5 - 70 list the major classes and species of organisms found at each station throughout the period of investigation. Only identified species of organisms having a mean number of individuals of 2.00 or greater per $0.1m^2$ are reported. The organisms falling into the category of miscellaneous phyla are excluded. The choice of a mean of 2.00 individuals / $0.1m^2$ as a cutoff point was arbitrary but is based on the fact that a taxon must be present in reasonable numbers before it can be treated quantitatively. The choice of a mean of 2.00 or greater per $0.1m^2$ leaves an average of 21 species that are reported at each station for each sampling period. These species account for 63% of the total number of individuals collected during the survey and, therefore, comprise the major components of the fauna. The number of replicates for a station is used for calculating the mean. The variance is symbolized by S^2. The Conf. limits are the 95% confidence limits. Percent of the total means percent of the total number of individuals collected at that station for that sampling period. Percent of the total for species are listed under sp. Values for classes are listed under Cl. Classes and species are listed in the order in which they are reported in the species list (Table 71).

Station 1155 was not sampled in August - October 1971. Data for Bivalvia in November 1972 and February 1973 are also missing as identifications of these organisms have not been completed.

Table 71 lists all of the genera and species that were recorded during the investigation along with the author and date of the original

description. Organisms identified to specific level, but for which a specific name is not presently available, are designated by lower case letters (e.g. Phyllodoce sp. a). Organisms identified to generic level only are designated by sp. if singular or spp. if more than one individual is present. An exception is the Bivalvia in which no distinction is made between individuals identified to the specific level, for which no specific name is available, and those individuals only identified to the generic level.

Polychaeta are listed by families. The order of families is the phylogenetic order recognized by Hartman (1968, 1969). Species are listed alphabetically under each family. Gastropoda are listed alphabetically by subclass. Crustacea are ordered alphabetically by order with the exceptions of the Amphipoda, which are listed alphabetically by family, and the Decapoda, which are listed by suborder. The arrangement of subclasses and orders of Crustacea is the phylogenetic order recognized by Meglitsch (1967).

This table also shows the distributions of genera and species among the eleven stations from October 1971 through February 1973. A "+" denotes that the taxon was present at the station indicated at least once during the period of investigation but was never represented during any sampling period by a mean number of indivudals equal to or greater than 2.00 per $0.1m^2$. A "C" (= common) indicates that a taxon was represented during at least one sampling period by a mean of 2.00 per $0.1m^2$ or greater but less than 20.00 individuals per $0.1m^2$. If the numbers of individuals of a taxon were present at a station at any time

in numbers exceeding 20.00 per $0.1m^2$, this is designated by "A" (= abundant).

Figures 7-41 show the numbers of species of organisms and numbers of individuals per $0.1m^2$ and the 95% confidence limits from each sampling period for total fauna, Polychaeta, Gastropoda, Bivalvia, Crustacea, and Ophiuroidea. The number of species is the total number found in the combined replicates for a station. The mean number of individuals and confidence limits are calculated from the total number of replicates for a station (Table 2).

The order of the stations is constant for Figures 7-41. This order is derived from the depths and sediment parameters of the stations. The stations can be separated into four depth categories (Table 1); 14.5m to 16.5 m, 25.5 m, 34.5 m to 37.0 m, and 62.5 m to 63.0 m. Table 4 gives the mean percent weight of sediment fractions at the eleven stations in November 1972. Figure 5 shows the percent weights of the sand fractions and the 95% confidence limits in order of decreasing values. Figure 6 shows the percent weights of the clay fractions, and the 95% confidence limits in order of increasing values. The ordering of the stations in the two figures is the same except for station 1153.

Sanders (1956, 1958) found that clay content is the most valid sediment particle size parameter for determining faunal distributions. Indirectly, depth may also be related to the distributions of the infauna as Nichols (1970) has shown. Based on this information, the eleven stations have been ordered within their depth categories by increasing percent clay composition in an attempt to approximate a natural order.

Table 4

Mean percent weight of sediment fractions
at the eleven benthos stations in November 1972.

Station	Coarse sand	Medium sand	Fine sand	Sand	Silt	Clay	Silt and clay	Sand / mud
	2.0-0.5 mm	0.5-0.25 mm	0.25-0.062 mm	2.0-0.062 mm	0.062-0.031 mm	0.031 mm	0.062 mm	
1105	0.09	0.50	96.32	96.91	1.73	1.45	3.18	30.47
1152	0.90	9.40	68.10	78.40	16.10	5.60	21.70	3.61
1153	2.92	14.67	67.75	85.33	12.67	2.00	14.67	5.82
1154	1.42	7.42	85.67	94.50	3.83	1.75	5.58	16.95
1155	0.00	0.30	14.60	14.90	67.50	17.50	85.00	0.18
1156	0.08	2.75	78.75	81.58	14.17	4.42	18.59	4.39
1158	0.33	2.17	87.25	89.75	7.08	3.17	10.25	8.76
1159	1.00	4.58	59.17	64.75	28.25	7.00	35.25	1.84
1175	0.00	0.30	87.30	87.60	8.70	3.70	12.40	7.06
1176	0.17	1.08	34.17	35.42	49.92	14.58	64.50	0.55
1177	0.00	0.17	91.33	91.50	5.75	2.92	8.67	10.55

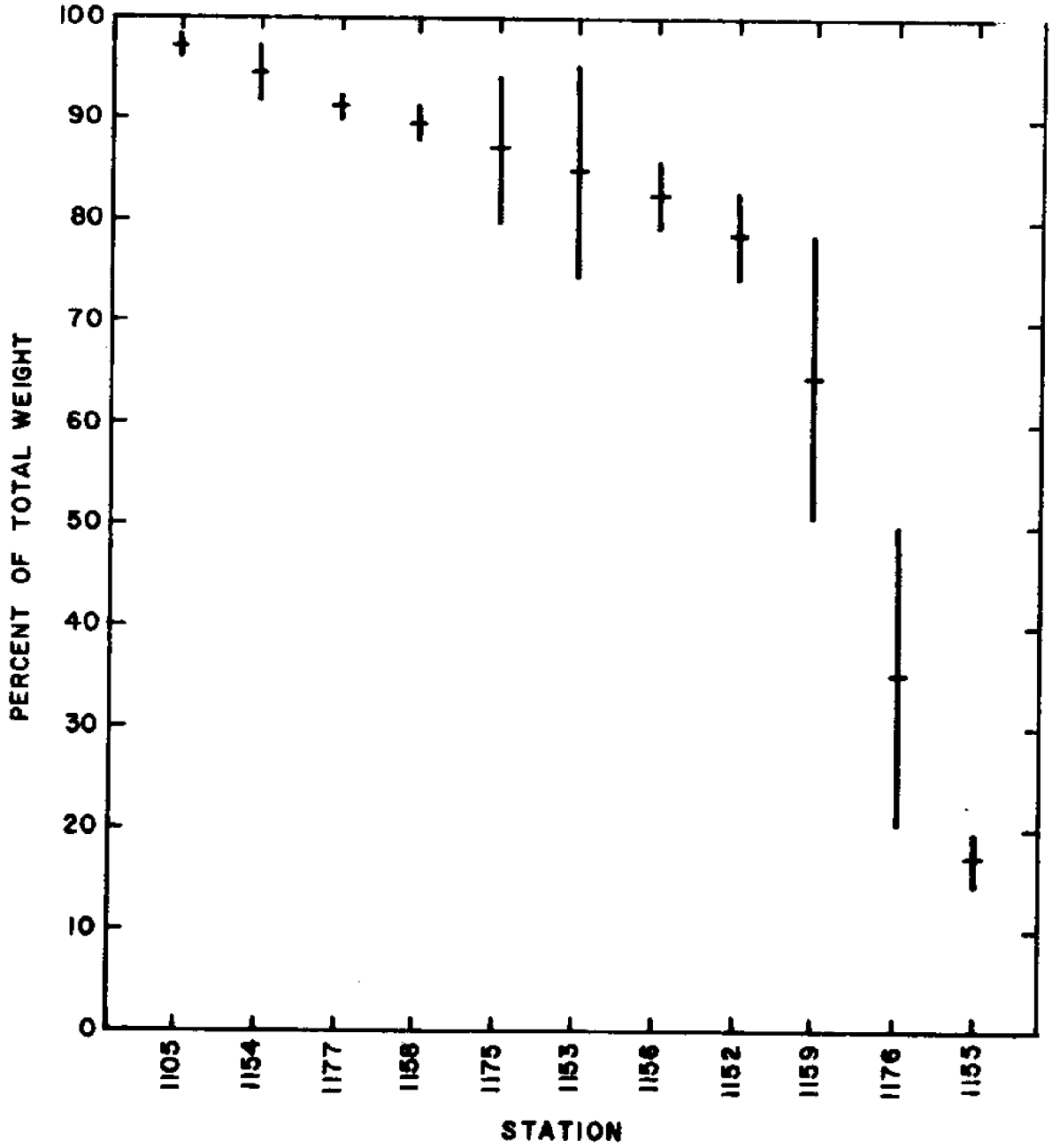


Figure 5. Mean percent weight of the sand fraction of the sediment by station in November 1972

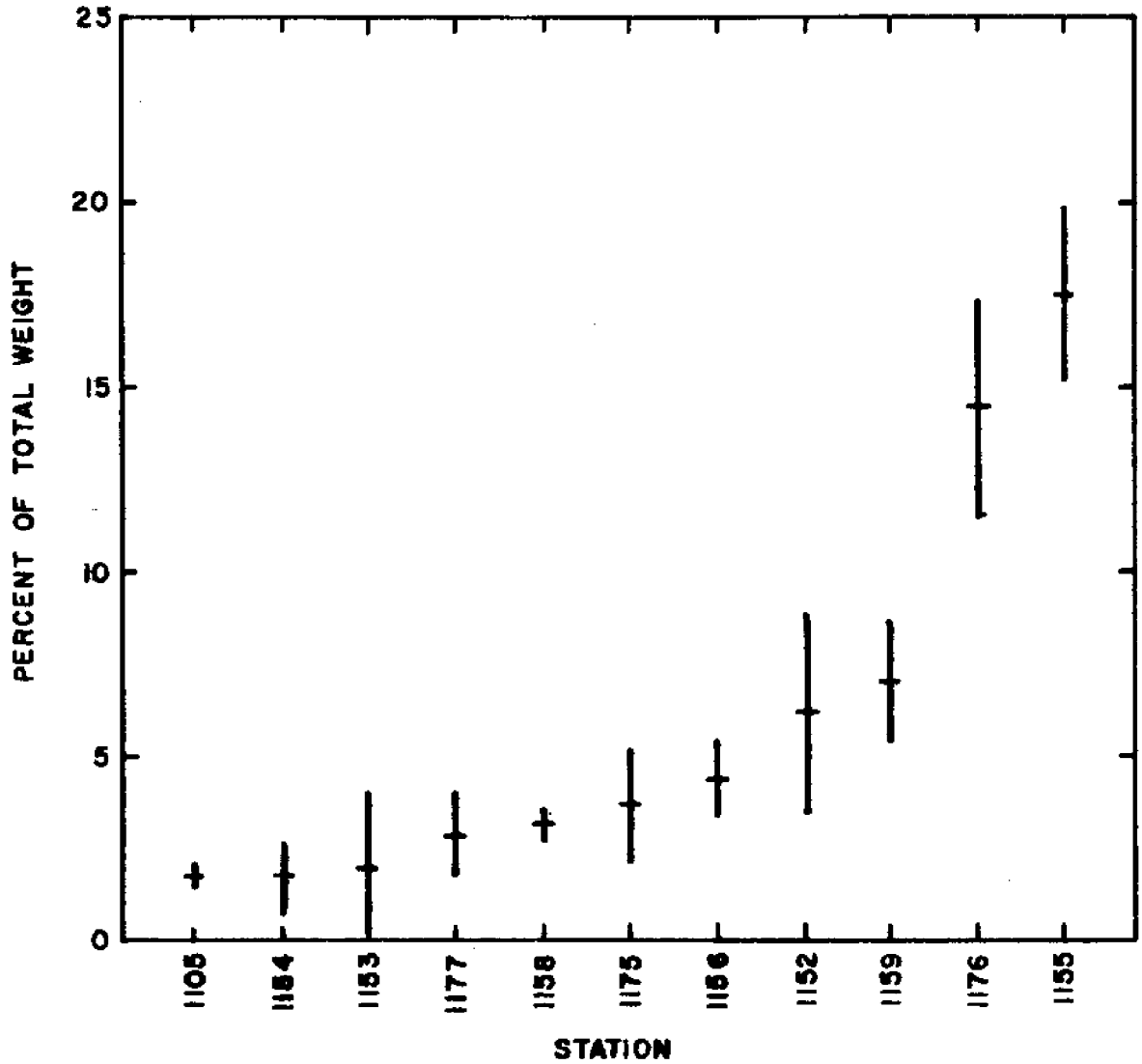


Figure 6. Mean percent weight of the clay fraction of the sediment by station in November 1972

Figure 42 shows the percent compositions of the numbers of individuals comprising the major components of the fauna at each station. Data from August 1971 through August 1972 were combined to calculate the percentages. November 1972 was excluded due to lack of information for Bivalvia.

REFERENCES

Carver, R. E., ed. 1971. Procedures in sedimentary petrology. Wiley-Interscience, New York. 653 pp.

Emery, K. O. 1938. Rapid method of mechanical analysis of sands. J. Sediment. Petrology, 8:105-110.

Hartman, O. 1968. Atlas of errantiate polychaetous annelids from California. Allan Hancock Foundation, University of Southern California, Los Angeles. 828 pp.

Hartman, O. 1969. Atlas of sedentariate polychaetous annelids from California. Allan Hancock Foundation, University of Southern California, Los Angeles. 812 pp.

Lie, U. 1968. A quantitative study of benthic infauna in Puget Sound, Washington, U.S.A., in 1963-1964. FiskDir. Skr. Ser. HavUnders., 14:229-556.

McIntyre, A. D. 1954. A spring-loaded bottom sampler. J. Mar. Biol. Ass. U. K., 33:257-264.

Meglitsch, P. A. 1967. Invertebrate zoology. Oxford University Press, New York. 961 pp.

Molander, A. 1928. Investigations into the vertical distribution of the fauna of the bottom deposits in the Gullmar Fjord. Svenska hydrogr.-biol. Kommn. Skr., N. S. Hydrogr., 6:19-28.

Nichols, F. H. 1970. Benthic polychaete assemblages and their relationship to the sediment in Port Madison, Washington. Mar. Biol., 6(1):48-57.

Reish, D. J. 1959. A discussion of the importance of screen-size in washing of quantitative marine bottom samples. Ecology, 40(2):307-309.

Sanders, H. L. 1956. Oceanology of Long Island Sound, 1952-1954. X. The biology of marine bottom communities. Bull. Bingham Oceanogr. Collect. Yale Univ., 15:345-414.

Sanders, H. L. 1958. Benthic studies in Buzzards Bay. I. Animal-sediment relationships. Limnol. Oceanogr., 3(3):245-258.

Table 5

Major classes and species of organisms at
Station 1105, 21 Aug 1971

Summary: Completely sorted and analyzed

Number of replicates: 8

Total number of identified species: 86

Total number of individuals: 4389

Class	Number of species	Percent of total identified species
Polychaeta	43	50
Gastropoda	5	6
Bivalvia	16	19
Crustacea	20	23
Ophiuroidea	1	1
Total	85	99

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	132.25	973.07	26.14	1058		24.1
Sthenelais verruculosa	2.75	3.36	1.54	22	.5	
Glycera convoluta	3.13	2.13	1.22	25	.6	
Glycinde sp. a	3.88	8.13	2.39	31	.7	
Nothria elegans	9.00	18.86	3.64	72	1.6	
Haploscoloplos pugettensis	2.63	1.13	.89	21	.5	
Scoloplos armiger	2.50	2.29	1.27	20	.5	
Prionospio pygmaeus	17.75	18.21	3.58	142	3.2	
Spiophanes bombyx	8.00	8.00	2.37	64	1.5	

Table 5 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Magelona nr. *pitelkai*	6.13	11.84	2.88	49	1.1	
Magelona sacculata	18.50	62.00	6.60	148	3.4	
Armandia bioculata	21.63	150.55	10.28	173	3.9	
Pectinaria californiensis	4.13	4.13	1.70	33	.8	
GASTROPODA	4.25	5.07	1.89	34		.8
BIVALVIA	98.00	908.29	25.25	784		17.9
Macoma yoldiformis	2.38	2.27	1.26	19	.4	
Mactra californica	22.50	58.00	6.38	180	4.1	
Mysella aleutica	4.00	6.57	2.15	32	.7	
Nuculana taphrina	17.50	21.43	3.88	140	3.2	
Protothaca staminea	5.50	6.29	2.10	44	1.0	
Siliqua patula	2.88	7.55	2.30	23	.5	
Tellina modesta	27.75	185.64	11.42	222	5.1	
Tellina nuculoides	9.63	32.55	4.78	77	1.8	
CRUSTACEA	307.00	8005.29	77.25	2456		56.0
Euphilomedes carcharodonta	245.25	5848.50	64.08	1962	44.7	
Hemilamprops californica	5.88	12.41	2.95	47	1.1	
Eohaustorius sencillus	3.50	10.57	2.72	28	.6	
Paraphoxus nr. *daboius*	14.88	116.41	9.04	119	2.7	
Paraphoxus epistomus	11.63	57.98	6.38	93	2.1	
Paraphoxus lucubrans	2.88	6.98	2.21	23	.5	

Table 6

Major classes and species of organisms at
Station 1154, 20 Aug 1971

Summary: Completely sorted and analyzed

Number of replicates: 8

Total number of identified species: 64

Total number of individuals: 3309

Class	Number of species	Percent of total identified species
Polychaeta	35	55
Gastropoda	2	3
Bivalvia	13	20
Crustacea	13	20
Ophiuroidea	1	2
Total	64	100

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	138.50	2487.14	41.79	1108		33.5
Sthenelais verruculosa	2.00	.86	.78	16	.5	
Glycera convoluta	2.88	4.41	1.76	23	.7	
Glycinde sp. a	4.00	4.57	1.79	32	1.0	
Nothria elegans	3.88	5.84	2.02	31	.9	
Lumbrineris luti	8.50	20.86	3.83	68	2.1	
Haploscoloplos pugettensis	5.38	16.27	3.38	43	1.3	
Prionospio pygmaeus	44.25	565.93	19.93	354	10.7	
Magelona sacculata	18.38	118.84	9.13	147	4.4	

Table 6 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Chaetozone setosa	3.13	2.98	1.45	25	.8	
Armandia bioculata	24.13	153.55	10.38	193	5.8	
Chone nr. *mollis*	2.25	2.21	1.25	18	.5	
GASTROPODA	14.25	30.79	4.65	114		3.4
Olivella pycna	13.13	43.55	5.53	131	3.2	
BIVALVIA	194.75	5013.93	59.33	1558		47.1
Macoma nasuata	2.88	2.98	1.45	23	.7	
Macoma yoldiformis	6.25	68.50	6.94	50	1.5	
Mactra californica	7.63	29.98	4.59	61	1.8	
Nemocardium centifilosum	38.88	492.70	18.60	311	9.4	
Nuculana taphrina	3.13	8.98	2.51	25	.8	
Nuculana sp.	46.75	265.07	13.64	374	11.3	
Siliqua patula	34.13	182.13	11.31	273	8.3	
Tellina modesta	52.50	525.71	19.21	420	12.7	
CRUSTACEA	60.38	645.98	21.30	483		14.6
Euphilomedes carcharodonta	51.63	613.98	20.76	413	12.5	
Acanthomysis davisi	2.38	10.84	2.76	19	.6	

Table 7

Major classes and species of organisms at
Station 1153, 13 Oct 1971

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 65

Total number of individuals: 1083

Class	Number of species	Percent of total identified species
Polychaeta	25	39
Gastropoda	8	12
Bivalvia	13	20
Crustacea	19	29
Ophiuroidea	0	0
Total	65	100

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	38.50	469.10	22.72	231		21.3
Nothria elegans	4.83	9.37	3.21	29	2.7	
Lumbrineris luti	2.83	7.77	2.92	17	1.6	
Prionospio pygmaeus	2.00	8.40	3.04	12	1.1	
Chaetozone setosa	2.83	35.77	6.27	17	1.6	
Scalibregma inflatum	12.00	66.80	8.58	72	6.6	
GASTROPODA	23.67	142.67	12.53	142		13.1
Olivella pycna	9.67	45.47	7.07	58	5.4	

Table 7 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
BIVALVIA	69.67	1126.67	35.22	418		38.6
Macoma yoldiformis	5.67	23.87	5.13	34	3.1	
Nemocardium centifilosum	2.00	6.40	2.65	12	1.1	
Nuculana taphrina	24.17	206.97	15.09	145	13.4	
Pandora bilirata	4.50	27.10	5.46	27	2.5	
Protothaca staminea	7.00	32.80	6.01	42	3.9	
Tellina modesta	23.33	119.47	11.47	140	12.9	
CRUSTACEA	43.83	330.97	19.09	263		24.3
Euphilomedes carcharodonta	23.67	204.27	15.00	142	13.1	
Cyclaspis nubila	2.17	8.97	3.14	13	1.2	
Hemilamprops californica	2.83	4.97	2.34	17	1.6	
Bathycopea daltonae	2.33	6.67	2.71	14	1.3	

Table 8

Major classes and species of organisms at
Station 1159, 20 Aug 1971

Summary: Completely sorted and analyzed

Number of replicates: 8

Total number of identified species: 115

Total number of individuals: 2615

Class	Number of species	Percent of total identified species
Polychaeta	56	49
Gastropoda	9	8
Bivalvia	16	14
Crustacea	31	27
Ophiuroidea	1	1
Total	113	99

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	130.00	1936.00	36.87	1040		39.8
Eumida sp. a	3.13	25.27	4.21	25	1.0	
Glycera convoluta	2.88	4.13	1.70	23	.9	
Glycinde sp. a	4.50	4.86	1.85	36	1.4	
Nothria elegans	6.63	4.27	1.73	53	2.0	
Lumbrineris luti	28.25	262.50	13.58	226	8.6	
Haploscoloplos pugettensis	4.88	8.89	2.51	39	1.5	
Prionospio pygmaeus	7.88	22.41	3.97	63	2.4	
Spiophanes bombyx	5.50	21.71	3.90	44	1.7	

Table 8 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Scalibregma inflatum	22.38	455.13	17.88	179	6.8	
Armandia bioculata	2.88	5.84	2.02	23	.9	
Mediomastus californiensis	8.38	40.55	5.34	67	2.6	
Ampharete labrops	7.88	10.70	2.74	63	2.4	
GASTROPODA	33.25	539.93	19.47	266		10.2
Alvinia acutelirata	2.25	8.79	2.48	18	.7	
Nassarius mendicus	2.25	5.36	1.94	18	.7	
Olivella pycna	15.38	416.27	17.10	123	4.7	
SCAPHOPODA	3.50	4.57	1.79	28		1.1
Cadulus fusiformis	3.13	4.13	1.70	25	1.0	
BIVALVIA	50.38	373.98	16.20	403		15.4
Cardium quatrogenarium	3.38	2.55	1.34	27	1.0	
Macoma yoldiformis	11.13	99.84	8.37	111	3.4	
Mysella aleutica	2.38	3.13	1.48	19	.7	
Nuculana taphrina	2.88	6.70	2.17	23	.9	
Protothaca staminea	2.88	2.41	1.30	23	.9	
Siliqua patula	2.00	4.57	1.79	16	.6	
Tellina modesta	22.88	138.13	9.85	183	7.0	
CRUSTACEA	95.25	1523.36	32.70	762		29.1
Euphilomedes carcharodonta	27.13	93.27	8.09	217	8.3	
Cyclaspis nubila	3.50	10.57	2.72	28	1.1	
Diastylis sp. a	8.50	24.29	4.13	68	2.6	
Hemilamprops californica	3.75	5.36	1.94	30	1.1	

Table 8 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Ampelisca cristata	3.88	8.98	2.51	31	1.2	
Argissa hamatipes	4.00	9.71	2.61	32	1.2	
Photis californica	2.00	8.29	2.41	16	.6	
Protomedia penates	10.25	41.64	5.41	82	3.1	
Protomedia (*C.*) *zotea*	5.63	43.98	5.56	45	1.7	

Table 9

Major classes and species of organisms at
Station 1158, 20 Aug 1971

Summary: Completely sorted and analyzed

Number of replicates: 8

Total number of identified species: 106

Total number of individuals: 2281

Class	Number of species	Percent of total identified species
Polychaeta	60	57
Gastropoda	10	9
Bivalvia	11	10
Crustacea	23	22
Ophiuroidea	1	1
Total	105	99

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	74.25	1218.21	29.25	594		26.0
Thalenessa spinosa	2.50	4.29	1.73	20	.9	
Nephtys cornuta franciscana	2.38	6.27	2.10	19	.8	
Glycinde sp. a	3.38	1.70	1.09	27	1.2	
Spiophanes bombyx	6.50	28.86	4.50	52	2.3	
Spiophanes sp. a	3.25	3.36	1.54	26	1.1	
Magelona nr. *pitelkai*	5.63	11.41	2.83	45	2.0	
Magelona sacculata	11.38	42.55	5.47	91	4.0	
Mediomastus californiensis	11.38	167.41	10.84	91	4.0	

Table 9 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
APLACOPHORA	2.00	2.29	1.27	16		.7
GASTROPODA	17.13	19.55	3.17	137		6.0
Cylichna attonsa	2.13	1.27	.94	17	.7	
Mitrella gouldii	2.13	6.41	2.12	17	.7	
SCAPHOPODA	3.13	6.70	2.17	25		1.1
Cadulus fusiformis	3.13	6.70	2.17	25	1.1	
BIVALVIA	17.38	53.70	6.14	139		6.1
Macoma yoldiformis	6.63	11.41	2.83	53	2.3	
Nuculana taphrina	4.25	5.36	1.94	34	1.5	
CRUSTACEA	73.38	945.98	25.77	587		25.7
Euphilomedes carcharodonta	26.00	312.00	14.80	208	9.1	
Hemilamprops californica	4.50	21.71	3.90	36	1.6	
Ampelisca cristata	13.00	15.71	3.32	104	4.6	
Protomedia penates	7.75	36.79	5.08	62	2.7	
Protomedia (*C.*) *zotea*	3.13	17.84	3.54	25	1.1	
Paraphoxus nr. *daboius*	4.38	6.84	2.19	35	1.5	
Paraphoxus epistomus	3.63	4.27	1.73	29	1.3	

Table 10

Major classes and species of organisms at
Station 1177, 21 Aug 1971

Summary: Completely sorted and analyzed

Number of replicates: 8

Total number of identified species: 118

Total number of individuals: 2784

Class	Number of species	Percent of total identified species
Polychaeta	57	48
Gastropoda	13	11
Bivalvia	11	9
Crustacea	33	28
Ophiuroidea	2	2
Total	116	98

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	100.75	1117.07	28.01	806		29.0
Thalenessa spinosa	4.38	1.70	1.09	35	1.3	
Nephtys cornuta franciscana	7.13	36.70	5.08	57	2.0	
Glycinde sp. a	3.50	3.71	1.61	28	1.0	
Scoloplos armiger	2.13	2.41	1.30	17	.6	
Aricidea nr. *suecica*	4.75	7.36	2.27	38	1.4	
Prionospio malmgreni	2.50	3.43	1.55	20	.7	
Spiophanes bombyx	5.88	7.55	2.30	47	1.7	
Magelona nr. *pitelkai*	9.25	12.50	2.96	74	2.7	

Table 10 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Magelona sacculata	12.75	35.07	4.96	102	3.7	
Chaetozone setosa	3.38	3.13	1.48	27	1.0	
Mediomastus californiensis	19.38	155.70	10.46	155	5.6	
GASTROPODA	19.25	36.79	5.08	154		5.5
Cylichna attonsa	2.13	2.98	1.45	17	.6	
Kurtzia arteaga	2.50	1.71	1.10	20	.7	
Mitrella gouldii	4.75	7.36	2.27	38	1.4	
SCAPHOPODA	5.25	27.07	4.36	42	1.5	
Cadulus fusiformis	2.50	7.43	2.28	20	.7	
BIVALVIA	9.38	23.70	4.08	75	2.7	
Astarte sp.	2.00	2.29	1.27	16	.6	
Macoma yolidformis	2.50	2.86	1.42	20	.7	
Nuculana taphrina	2.88	10.70	2.74	23	.8	
CRUSTACEA	59.00	1232.86	29.42	472		17.0
Euphilomedes carcharodonta	9.63	33.13	4.82	77	2.8	
Hemilamprops californica	5.50	11.71	2.87	44	1.6	
Ampelisca cristata	3.50	5.14	1.90	28	1.0	
Ampelisca macrocephala	2.00	2.57	1.34	16	.6	
Protomedeia (*C.*) *zotea*	5.00	167.43	10.84	40	1.4	
Paraphoxus nr. *daboius*	2.63	4.84	1.84	21	.8	
Paraphoxus epistomus	13.00	96.29	8.22	104	3.7	
OPHIUROIDEA	3.38	1.13	.89	27		1.0

Table 11

Major classes and species of organisms at
Station 1175, 21 Aug 1971

Summary: Completely sorted and analyzed

Number of replicates: 8

Total number of identified species: 93

Total number of individuals: 4570

Class	Number of species	Percent of total identified species
Polychaeta	50	54
Gastropoda	7	8
Bivalvia	12	13
Crustacea	20	22
Ophiuroidea	2	2
Total	91	99

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	360.63	30515.98	146.38	2885		63.1
Thalenessa spinosa	3.38	2.84	1.41	27	.6	
Eteone sp. a	2.63	3.98	1.67	21	.5	
Nephtys cornuta franciscana	17.00	25.14	4.20	136	3.0	
Nothria elegans	3.00	16.57	3.41	24	.5	
Prionospio cirrifera	104.25	7703.64	73.54	834	18.2	
Pseudopolydora sp. a	52.38	6184.55	65.90	419	9.2	
Magelona nr. pitelkai	12.00	8.00	2.37	96	2.1	

Table 11 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Magelona sacculata	126.50	784.86	23.47	1012	22.1	
Mediomastus californiensis	3.75	9.64	2.60	30	.7	
Amphicteis scaphobranchiata	2.13	4.98	1.87	17	.4	
GASTROPODA	7.75	8.79	2.48	62		1.4
BIVALVIA	4.00	10.29	2.69	32		.7
CRUSTACEA	57.38	439.41	17.56	459		10.0
Euphilomedes carcharodonta	4.50	29.43	4.55	36	.8	
Hemilamprops californica	2.75	18.50	3.60	22	.5	
Paraphoxus nr. *daboius*	20.13	220.13	12.43	161	3.5	
Paraphoxus epistomus	3.50	36.00	5.03	28	.6	
Paraphoxus lucubrans	2.38	2.27	1.26	19	.4	
Paraphoxus variatus	8.25	33.93	4.88	66	1.4	
Pinnixa franciscana	2.63	10.27	2.68	21	.5	

Table 12

Major classes and species of organisms at
Station 1156, 21 Aug 1971

Summary: Completely sorted and analyzed

Number of replicates: 8

Total number of identified species: 113

Total number of individuals: 3886

Class	Number of species	Percent of total identified species
Polychaeta	68	60
Gastropoda	9	8
Bivalvia	11	10
Crustacea	22	19
Ophiuroidea	3	3
Total	113	100

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	Cl.
POLYCHAETA	194.13	1971.55	37.21	1553		40.00
Pholoe glabra	6.38	11.41	2.83	51	1.3	
Thalenessa spinosa	5.25	5.07	1.89	42	1.1	
Nephtys cornuta franciscana	4.50	.57	.63	36	.9	
Glycinde sp. a	2.88	1.55	1.04	23	.6	
Lumbrineris cruzensis	2.63	6.84	2.19	21	.5	
Scoloplos armiger	3.38	1.41	1.00	27	.7	
Aricidea nr. *suecica*	14.75	93.64	8.11	118	3.0	
Prionospio cirrifera	3.50	1.14	.90	28	.7	

Table 12 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Prionospio malmgreni	3.25	1.64	1.07	26	.7	
Spiophanes bombyx	6.00	6.86	2.19	48	1.2	
Spiophanes missionensis	2.00	6.57	2.15	16	.4	
Spiophanes sp. a	2.00	2.00	1.19	16	.4	
Magelona nr. *pitelkai*	14.50	22.57	3.98	116	3.0	
Magelona sacculata	11.63	11.98	2.90	93	2.4	
Chaetozone setosa	6.25	2.79	1.40	50	1.3	
Cossura rostrata	2.00	2.29	1.27	16	.4	
Brada villosa	2.75	4.50	1.78	22	.6	
Sternaspis fossor	5.38	8.55	2.45	43	1.1	
Mediomastus californiensis	41.38	377.41	16.28	331	8.5	
Asychis disparidentata	2.38	1.41	1.00	19	.5	
GASTROPODA	29.63	126.84	9.44	237		6.1
Cylichna attonsa	6.00	4.86	1.85	48	1.2	
Rictaxis punctocaelatus	2.63	3.13	1.48	21	.5	
Volvulella cylindrica	4.38	11.41	2.83	35	.9	
Kurtzia arteaga	3.88	6.41	2.12	31	.8	
Mitrella gouldii	3.50	7.71	2.33	28	.7	
BIVALVIA	17.25	52.79	6.09	138		3.6
Macoma yoldiformis	4.38	4.84	1.84	35	.9	
Mysella aleutica	4.88	11.55	2.85	39	1.0	
Nuculana taphrina	2.50	6.86	2.19	20	.5	

Table 12 (continued)

Taxa	Mean # / .1m2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
CRUSTACEA	49.38	120.27	9.19	395		10.2
Hemilamprops californica	7.50	12.29	2.94	60	1.5	
Ampelisca compressa	2.00	1.71	1.10	16	.4	
Ampelisca macrocephala	2.75	17.64	3.52	22	.6	
Ampelisca pugetica	3.50	5.43	1.95	28	.7	
Protomedia penates	3.75	9.64	2.60	30	.8	
Paraphoxus variatus	14.50	63.14	6.66	116	3.0	
OPHUROIDEA	25.75	56.60	6.30	206		5.3
Amphiodia urtica	9.25	40.79	5.35	74	1.9	
Amphioplus hexacanthus	15.50	22.57	3.98	124	3.2	

Table 13

Major classes and species of organisms at
Station 1152, 20 Aug 1971

Summary: Completely sorted and analyzed

Number of replicates: 8

Total number of identified species: 114

Total number of individuals: 2695

Class	Number of species	Percent of total identified species
Polychaeta	65	57
Gastropoda	12	11
Bivalvia	10	9
Crustacea	23	20
Ophiuroidea	3	3
Total	113	100

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	116.00	646.86	21.31	928		34.4
Harmothoe nr. *lunulata*	2.00	3.14	1.49	16	.6	
Pholoe glabra	3.50	10.57	2.72	28	1.0	
Thalenessa spinosa	4.88	4.41	1.76	39	1.4	
Nephtys cornuta franciscana	3.13	3.27	1.51	25	.9	
Glycinde sp. a	2.00	2.86	1.42	16	.6	
Aricidea nr. *suecica*	6.75	15.93	3.34	54	2.0	
Prionospio cirrifera	5.50	7.71	2.33	44	1.6	
Magelona nr. *pitelkai*	6.13	6.70	2.17	49	1.8	
Magelona sacculata	4.13	3.27	1.51	33	1.2	

Table 13 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Chaetozone setosa	2.50	2.00	1.19	20	.7	
Brada villosa	7.25	18.79	3.63	58	2.2	
Sternaspis fossor	2.63	4.27	1.73	21	.8	
Mediomastus californiensis	29.00	291.71	14.31	232	8.6	
GASTROPODA	17.88	69.27	6.97	143		5.3
Kurtzia arteaga	2.13	3.84	1.64	17	.6	
Mitrella gouldii	2.75	5.64	1.99	22	.8	
SCAPHOPODA	2.75	.79	.74	22		.8
Cadulus fusiformis	2.00	1.71	1.10	16	.6	
BIVALVIA	15.38	28.84	4.50	123		4.6
Astarte sp.	3.38	5.70	2.00	27	1.0	
Macoma yoldiformis	2.25	3.36	1.54	18	.7	
Mysella aleutica	5.38	31.70	4.72	43	1.6	
Nuculana taphrina	2.00	4.57	1.79	16	.6	
CRUSTACEA	57.25	252.21	13.31	458		17.0
Euphilomedes carcharodonta	13.50	60.86	6.54	108	4.0	
Hemilamprops californica	9.75	28.21	4.45	78	2.9	
Ampelisca cristata	4.00	12.29	2.94	32	1.2	
Ampelisca macrocephala	2.63	3.13	1.48	21	.8	
Paraphoxus bicuspidatus	4.13	1.27	.94	33	1.2	
Paraphoxus epistomus	3.00	7.14	2.24	24	.9	
Paraphoxus variatus	6.38	8.27	2.41	51	1.9	

Table 13 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
OPHIUROIDEA	27.50	102.00	8.46	220		8.2
Amphiodia urtica	2.75	2.79	1.40	22	.8	
Amphioplus hexacanthus	22.25	87.93	7.86	178	6.6	

Table 14

Major classes and species of organisms at
Station 1176, 13 Oct 1971

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 119

Total number of individuals: 2031

Class	Number of species	Percent of total identified species
Polychaeta	64	54
Gastropoda	8	7
Bivalvia	13	11
Crustacea	26	22
Ophiuroidea	4	3
Total	115	97

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	101.67	1267.87	37.36	610		30.0
Glycera capitata	4.33	4.27	2.17	26	1.3	
Lumbrineris cruzensis	6.67	12.67	3.73	40	2.0	
Lumbrineris luti	9.17	17.77	4.42	55	2.7	
Ninoe sp. a	4.00	3.20	1.88	24	1.2	
Scoloplos armiger	3.17	6.57	2.69	19	.9	
Paraprionospio pinnata	4.00	7.60	2.89	24	1.2	
Prionospio cirrifera	2.00	7.20	2.82	12	.6	
Prionospio malmgreni	3.50	12.30	3.68	21	1.0	

Table 14 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of sp.	total Cl.
Spiophanes bombyx	5.00	44.80	7.02	30	1.5	
Spiophanes missionensis	2.17	.97	1.03	13	.6	
Sternaspis fossor	5.50	5.90	2.55	33	1.6	
Mediomastus californiensis	3.50	10.70	3.43	21	1.0	
Maldane cristata	7.00	4.00	2.10	42	2.1	
Myriochele heeri	4.33	11.47	3.55	26	1.3	
GASTROPODA	31.83	70.57	8.81	191		9.4
Cylichna attonsa	8.50	9.10	3.17	51	2.5	
Kurtzia arteaga	6.17	9.37	3.21	37	1.8	
Mitrella gouldii	10.33	13.47	3.85	62	103	3.1
SCAPHOPODA	10.33	11.47	3.55	62		3.0
Cadulus fusiformis	4.67	3.47	1.95	28	1.4	
BIVALVIA	25.33	95.87	10.27	152		7.5
Astarte sp.	4.17	6.97	2.77	25	1.2	
Macoma yoldiformis	2.33	4.27	2.17	14	.7	
Mysella aleutica	2.00	8.40	3.04	12	.6	
Periploma discuss	9.33	9.87	3.30	56	2.8	
Vesicomya sp.	3.83	3.37	1.93	23	1.1	
CRUSTACEA	32.17	176.57	13.94	193		9.5
Diastylis sp. b	5.17	3.37	1.93	31	1.5	
Byblis veleronis	4.17	7.37	2.85	25	1.2	
Paraphoxus bicuspidatus	3.33	9.07	3.16	20	1.0	
Paraphoxus variatus	4.17	3.37	1.93	25	1.2	

Table 14 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
ARACHNOIDEA	3.67	3.07	1.84	22		1.1
Ammothella sp. a	3.67	3.07	1.84	22	1.1	
OPHIUROIDEA	32.83	330.17	19.06	197		9.7
Amphiodia urtica	30.67	320.67	18.79	184	9.1	

Table 15

Major classes and species of organisms at
Station 1105, 10 Nov 1971

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 65

Total number of individuals: 2174

Class	Number of species	Percent of total identified species
Polychaeta	27	42
Gastropoda	6	9
Bivalvia	15	23
Crustacea	15	23
Ophiuroidea	1	2
Total	64	99

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	42.67	313.87	18.59	256		11.8
Glycinde sp.a	3.67	7.07	2.79	22	1.0	
Nothria elegans	4.00	3.20	1.88	24	1.1	
Haploscoloplos pugettensis	10.17	23.37	5.07	61	2.8	
Magelona sacculata	9.83	31.77	5.91	59	2.7	
GASTROPODA	8.17	10.17	3.35	49		2.3
BIVALVIA	141.50	1930.70	46.10	849		39.1
Cooperella subdiaphana	4.50	7.50	2.87	27	1.2	
Macoma yoldiformis	2.67	2.67	1.71	16	.7	

Table 15 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	%of total sp.	Cl.
Nuculana taphrina	18.67	33.07	6.03	112	5.2	
Nuculana sp.	5.33	8.67	3.09	53	1.4	
Pandora bilirata	2.00	2.40	1.63	12	.6	
Protothaca staminea	76.50	1347.90	38.52	459	21.0	
Tellina modesta	27.50	131.90	12.05	165	7.6	
CRUSTACEA	164.17	1061.37	34.18	985		45.3
Euphilomedes carachardonta	147.00	735.20	28.45	882	40.6	
Hemilamprops californica	2.83	1.37	1.23	17	.8	
Paraphoxus nr. *daboius*	2.83	48.17	7.28	17	.8	
Paraphoxus epistomus	6.50	56.30	7.87	39	1.8	

Table 16

Major classes and species of organisms at station 1154, 10 Nov 1971

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 56

Total number of individuals: 1934

Class	Number of species	Percent of total identified species
Polychaeta	24	43
Gastropoda	4	7
Bivalvia	14	25
Crustacea	13	23
Ophiuroidea	1	2
Total	56	100

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	32.67	207.07	15.10	196		10.0
Thalenessa spinosa	2.00	1.60	1.33	12	.6	
Glycera convoluta	2.00	1.60	1.33	12	.6	
Nothria elegans	3.00	4.40	2.20	18	.9	
Lumbrineris luti	3.33	7.07	2.97	20	1.0	
Haploscoloplos pugettensis	6.50	16.30	4.24	39	2.0	
Magelona sacculata	6.17	6.97	2.77	37	1.9	
GASTROPODA	30.17	623.77	26.20	181	9.4	
Olivella pycna	25.67	536.67	24.31	154	8.0	
BIVALVIA	181.00	6201.60	82.62	1086		56.2

Table 16 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	Cl.
Macoma yoldiformis	13.50	48.70	7.32	81	4.2	
Nemocardium centrifilosum	19.50	143.50	12.57	117	6.1	
Siliqua patula	3.83	8.57	3.07	23	2.0	
Tellina modesta	84.33	1520.27	40.91	506	26.2	
Tellina sp.	49.33	710.67	27.97	296	15.3	
Protothaca staminea	4.33	3.07	1.84	26	1.3	
CRUSTACEA	70.67	591.07	25.51	424		21.9
Euphilomedes carcharodonta	57.67	874.67	31.03	346	17.9	
Hemilamprops californica	2.00	10.00	3.32	12	.6	

Table 17

Major classes and species of organisms at
Station 1153, 24 Nov 1971

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 73

Total number of individuals: 1840

Class	Number of species	Percent of total identified species
Polychaeta	28	38
Gastropoda	7	10
Bivalvia	16	22
Crustacea	19	26
Ophiuroidea	3	4
Total	73	100

Number of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	63.33	857.07	30.72	380		20.7
Glycera convoluta	6.33	21.07	4.82	38	2.1	
Glycinde sp. a	2.17	4.97	2.34	13	.7	
Nothria elegans	7.50	10.70	3.43	45	2.5	
Lumbrineris tetraura	12.67	67.87	8.64	76	4.1	
Haploscoloplos pugettensis	3.50	2.70	1.72	21	1.1	
Chaetozone setosa	2.33	3.87	2.06	14	.8	
Scalibregma inflatum	15.00	768.80	29.09	90	4.9	
Ampeana occidentalis	4.17	30.17	5.76	25	1.4	
GASTROPODA	28.00	419.20	21.48	168		9.1

Table 17 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Olivella pycna	10.33	280.67	17.58	103	3.4	
BIVALVIA	154.17	4411.37	69.69	925		50.3
Macoma yolidformis	6.33	13.87	3.91	38	2.1	
Mysella aleutica	4.67	99.47	10.46	28	1.5	
Nemocardium centrifilsum	9.33	55.87	7.84	56	3.0	
Nuculana sp.	34.17	1234.57	16.07	342	11.1	
Pandora bilirata	5.67	12.27	3.67	34	1.9	
Protothaca staminea	49.50	1543.50	41.22	297	16.1	
Tellina modesta	38.33	276.27	17.44	230	12.5	
Siliqua patula	2.67	5.87	2.54	16	.9	
CRUSTACEA	55.33	130.67	11.99	332		18.0
Euphilomedes carcharodonta	26.67	153.47	13.00	160	8.7	
Diastylopsis tenuis	4.33	47.07	7.20	26	1.4	
Hemilamprops californica	7.17	4.57	2.24	43	2.3	
Bathycopea daltonae	3.83	5.37	2.43	23	1.3	
Edotea sublittoralis	3.00	2.00	1.48	18	1.0	
OPHIUROIDEA	3.00	20.80	4.79	18		1.0

Table 18

Major classes and species of organisms at
Station 1159, 10 Nov 1971

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 88

Total number of individuals: 2473

Class	Number of species	Percent of total identified species
Polychaeta	43	49
Gastropoda	6	7
Bivalvia	15	17
Crustacea	22	25
Ophiuroidea	1	1
Total	87	99

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	104.67	859.87	30.77	628		25.4
Sthenelais verruculosa	2.00	2.00	1.48	12	.5	
Nephtys parva	2.00	2.40	1.63	12	.5	
Glycinde sp. a	5.33	9.07	3.16	32.	1.3	
Nothria elegans	2.17	.97	1.03	13	.5	
Lumbrineris luti	25.00	37.20	6.40	150	6.1	
Haploscoloplos pugettensis	18.67	87.47	9.81	112	4.5	
Magelona nr. *pitelkai*	2.67	1.87	1.43	16	.7	
Magelona sacculata	13.67	129.87	11.96	82	3.3	

Table 18 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Chaetozone setosa	2.17	4.97	2.34	13	.5	
Amaeana occidentalis	2.00	3.20	1.88	12	.5	
GASTROPODA	24.50	133.90	12.14	147		5.9
Nassarius mendicus	8.00	35.20	6.22	48	1.9	
Olivella pycna	2.83	3.37	1.93	17	.7	
BIVALVIA	180.33	8275.47	95.45	1082		43.8
Macoma yoldiformis	30.00	281.20	17.59	180	7.3	
Nuculana taphrina	5.17	7.37	2.85	31	1.3	
Nuculana sp.	3.17	6.17	2.61	19	.8	
Protothaca staminea	27.67	178.67	14.02	166	6.7	
Tellina meropsis	12.17	50.57	7.46	73	3.0	
Tellina modesta	91.00	3190.40	59.26	546	22.1	
Transennella tantilla	5.33	31.87	5.92	32	1.3	
CRUSTACEA	93.50	1404.70	39.32	561		22.7
Euphilomedes carcharodonta	61.67	715.47	28.06	370	15.0	
Diastylis sp. b	2.17	2.97	1.81	13	.5	
Hemilamprops californica	4.67	13.87	3.91	28	1.1	
Ampelisca cristata	2.17	2.97	1.81	13	.5	
Paraphoxus nr. *daboius*	10.00	54.40	7.74	60	2.4	

Table 19

Major classes and species of organisms at
Station 1158, 10 Nov 1971

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 97

Total number of individuals: 1181

Class	Number of species	Percent of total identified species
Polychaeta	53	55
Gastropoda	10	10
Bivalvia	13	13
Crustacea	17	18
Ophiuroidea	2	2
Total	95	98

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	63.50	493.90	23.32	381		32.3
Glycinde sp. a	2.50	4.30	2.18	15	1.3	
Nothria elegans	2.67	4.27	2.17	16	1.4	
Phylo felix	3.67	5.47	2.45	22	1.9	
Spiophanes bombyx	5.17	20.57	4.76	31	2.6	
Magelona nr. *pitelkai*	8.00	12.80	3.75	48	4.1	
Magelona sacculata	8.17	17.77	4.42	49	4.2	
Chaetozone setosa	2.50	3.50	1.96	15	1.3	
Mediomastus californiensis	6.33	13.47	3.85	38	3.2	

Table 19 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
GASTROPODA	32.17	42.57	6.85	193		16.3
Cylichna attonsa	6.50	3.10	1.85	39	3.3	
Kurtzia arteaga	4.17	12.97	3.78	25	2.1	
SCAPHOPODA	4.33	2.67	1.71	26		2.2
BIVALVIA	32.33	87.07	9.79	194		16.4
Cooperella subdiaphana	3.00	6.40	2.65	18	1.5	
Macoma yoldiformis	15.50	48.30	7.29	93	7.9	
Nuculana taphrina	8.17	2.17	1.54	49	4.2	
CRUSTACEA	42.00	20.80	4.79	252		21.3
Euphilomedes carcharodonta	26.00	3.20	1.88	156	13.2	
Hemilamprops californica	2.33	1.47	1.27	14	1.2	
Ampelisca cristata	2.83	2.17	1.54	17	1.4	
Paraphoxus nr. *daboius*	2.17	2.97	1.81	13	1.1	

Table 20

Major classes and species of organisms at
Station 1177, 24 Nov 1971

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 90

Total number of individuals: 1023

Class	Number of species	Percent of total identified species
Polychaeta	48	53
Gastropoda	8	9
Bivalvia	13	14
Crustacea	15	17
Ophiuroidea	3	3
Total	87	96

Number of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	50.00	212.80	15.31	300		29.3
Thalenessa spinosa	2.17	.57	.79	13	1.3	
Glycinde sp. a	3.67	1.47	1.27	22	2.2	
Spiophanes bombyx	4.67	9.47	3.23	28	2.7	
Magelona nr. *pitelkai*	2.33	5.07	2.36	14	1.4	
Magelona sacculata	12.00	55.60	7.82	72	7.0	
Chaetozone setosa	2.50	1.10	1.10	15	1.5	
Mediomastus californiensis	2.00	4.00	2.10	12	1.2	
GASTROPODA	33.00	261.20	16.96	198		19.4

Table 20 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Cylichna attonsa	5.00	11.20	3.51	30	2.9	
Kurtzia arteaga	9.67	68.67	8.69	58	5.7	
Mitrella gouldii	5.50	16.30	4.24	33	3.2	
SCAPHOPODA	9.33	30.27	5.77	56		5.5
Cadulus fusiformis	5.83	28.17	5.57	35	3.4	
BIVALVIA	13.33	48.67	7.32	80		7.8
Macoma yoldiformis	4.83	23.77	5.11	29	2.8	
Nuculana taphrina	3.33	1.07	1.08	20	2.0	
CRUSTACEA	39.00	800.00	29.68	234		22.9
Euphilomedes carcharodonta	16.17	321.37	18.81	97	9.5	
Hemilamprops californica	2.83	5.37	2.43	17	1.7	
Paraphoxus epistomus	8.00	24.80	5.22	48	4.7	
OPHIUROIDEA	3.83	4.97	2.34	23		2.3

Table 21

Major classes and species of organisms at
Station 1175, 10 Nov 1971

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 74

Total number of individuals: 1670

Class	Number of species	Percent of total identified species
Polychaeta	37	50
Gastropoda	8	11
Bivalvia	13	18
Crustacea	13	18
Ophiuroidea	2	3
Total	73	100

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	153.67	2065.87	47.69	922		55.2
Thalenessa spinosa	2.00	2.80	1.76	12	.7	
Phylo felix	12.17	21.77	4.90	73	4.4	
Aricidea nr. *suecica*	3.33	4.67	2.27	20	1.2	
Prionospio cirrifera	5.17	79.77	9.37	31	1.9	
Prionospio malmgreni	3.00	4.40	2.20	18	1.1	
Magelona nr. *pitelkai*	9.83	30.97	5.84	59	3.5	
Magelona sacculata	87.00	476.80	22.91	522	31.3	
APLACOPHORA	2.17	9.37	3.21	13		.8

Table 21 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
GASTROPODA	30.67	89.87	9.95	184		11.0
Cylichna attonsa	9.50	43.50	6.92	57	3.4	
Kurtzia arteaga	4.83	2.97	1.81	29	1.7	
Mitrella gouldii	2.50	3.10	1.85	15	.9	
SCAPHOPODA	3.67	3.47	1.95	22		1.3
Cadulus fusiformis	3.00	2.40	1.63	18	1.1	
BIVALVIA	17.33	57.87	7.98	104	6.2	
Macoma yoldiformis	2.17	2.17	1.54	13	.8	
Nuculana taphrina	8.67	28.67	5.62	52	3.1	
CRUSTACEA	62.67	512.67	23.76	376		22.5
Euphilomedes carcharodonta	5.50	.30	.57	33	2.0	
Paraphoxus nr. *daboius*	39.50	301.50	18.22	237	14.2	
Paraphoxus lucubrans	2.67	7.87	2.94	16	1.0	
Paraphoxus variatus	10.00	55.60	7.82	60	3.6	

Table 22

Major classes and species of organisms at
Station 1156, 10 Nov 1971

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 101

Total number of individuals: 1372

Class	Number of species	Percent of total identified species
Polychaeta	56	55
Gastropoda	11	11
Bivalvia	15	15
Crustacea	13	13
Ophiuroidea	3	3
Total	98	97

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	95.83	1130.57	35.28	575		41.9
Pholoe glabra	2.00	1.60	1.33	12	.9	
Thalenessa spinosa	3.00	2.40	1.63	18	1.3	
Lumbrineris californiensis	2.33	2.27	1.58	14	1.0	
Phylo felix	4.00	14.40	3.98	24	1.7	
Spiophanes bombyx	5.83	27.37	5.49	35	2.6	
Spiophanes missionensis	2.00	2.00	1.48	12	.9	
Magelona nr. *pitelkai*	8.83	14.97	4.06	53	3.9	
Magelona sacculata	15.50	73.90	9.02	93	6.8	

Table 22 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Chaetozone setosa	5.00	7.20	2.82	30	2.2	
Brada villosa	2.17	4.57	2.24	13	.9	
Sternaspis fossor	2.83	5.37	2.43	17	1.2	
Mediomastus californiensis	5.33	21.87	4.91	32	2.3	
GASTROPODA	42.33	123.87	11.68	254		18.5
Cylichna attonsa	9.17	24.17	5.16	55	4.0	
Volvulella cylindrica	3.67	5.07	2.36	22	1.6	
Kurtzia arteaga	11.67	8.67	3.09	70	5.1	
Mitrella gouldii	5.00	8.40	3.04	30	2.2	
SCAPHOPODA	8.83	10.57	3.41	53		3.9
Cadulus fusiformis	5.33	15.87	4.18	32	2.3	
BIVALVIA	20.83	48.97	7.34	125		9.1
Cooperella subdiaphana	2.00	6.80	2.74	12	.9	
Macoma yoldiformis	6.50	23.90	5.13	39	2.8	
Mysella aleutica	3.00	4.40	2.20	18	1.3	
Nuculana taphrina	2.17	2.17	1.54	13	.9	
CRUSTACEA	18.17	80.57	9.42	109		7.9
Ampelisca cristata	2.00	3.60	1.99	12	.9	
Paraphoxus variatus	7.50	16.70	4.29	45	3.3	
OPHIUROIDEA	23.33	126.67	11.81	140		10.2
Amphiodia urtica	6.17	1.77	1.39	37	2.7	
Amphioplus hexacanthus	15.17	98.17	10.40	91	6.6	

Table 23

Major classes and speices of organisms at
Station 1152, 24 Nov 1971

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 93

Total number of individuals: 1082

Class	Number of species	Percent of total identified species
Polychaeta	53	57
Gastropoda	9	10
Bivalvia	11	12
Crustacea	16	17
Ophiuroidea	3	3
Total	92	99

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	45.83	35.77	6.27	275		25.4
Thalenessa spinosa	3.67	10.27	3.36	22	2.0	
Glycinde sp.a	3.50	2.30	1.59	21	1.9	
Magelona nr. *pitelkai*	3.33	2.27	1.58	20	1.9	
Sternaspis fossor	2.00	2.80	1.76	12	1.1	
Mediomastus californiensis	2.00	4.00	2.10	12	1.1	
Asychis disparidentata	2.17	1.77	1.39	13	1.2	
GASTROPODA	22.17	18.57	4.52	133		12.3
Cylichna attonsa	7.00	2.00	1.48	42	3.9	
SCAPHOPODA	6.33	5.07	2.36	38		3.5

Table 23 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
BIVALVIA	20.33	16.27	4.23	122		11.3
Cooperella subdiaphana	3.33	6.27	2.63	20	1.9	
Macoma yoldiformis	5.17	6.97	2.77	31	2.9	
Mysella aleutica	2.50	3.10	1.85	15	1.4	
Nuculana taphrina	3.00	.40	.66	18	1.7	
CRUSTACEA	31.83	78.57	9.30	191		17.7
Euphilomedes carcharodonta	11.33	23.87	5.13	68	6.3	
Diastylis sp. a	3.17	3.77	2.04	19	1.8	
Ampelisca compressa	3.50	13.10	3.80	21	1.9	
Ampelsica cristata	3.00	6.80	2.74	18	1.7	
Paraphoxus bicuspidatus	2.83	4.17	2.14	17	1.6	
OPHIUROIDEA	15.33	31.07	5.85	92		8.5
Amphiodia urtica	5.67	5.47	2.45	34	3.1	
Amphioplus hexacanthus	8.50	17.90	4.44	51	4.7	

Table 24

Major classes and species or organisms at
Station 1176, 24 Nov 1971

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 106

Total number of individuals: 1231

Class	Number of species	Percent of total identified species
Polychaeta	58	55
Gastropoda	9	8
Bivalvia	13	12
Crustacea	21	20
Ophiuroidea	3	3
Total	104	98

Numbers of i dividuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	63.33	198.67	14.79	380		30.9
Glycera capitata	3.83	7.77	2.92	23	1.9	
Lumbrineris cruzensis	5.83	4.57	2.24	35	2.8	
Lumbrineris luti	8.00	19.60	4.64	48	3.9	
Ninoe sp. a	3.33	8.27	3.02	20	1.6	
Paraprionospio pinnata	3.00	.40	.66	18	1.5	
Sternaspis fossor	6.17	8.57	3.07	37	3.0	
Maldane cristata	3.17	6.97	2.77	19	1.5	
APLACOPHORA	2.33	9.07	3.16	14		1.1

Table 24 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
GASTROPODA	16.50	42.70	6.86	99		8.0
Cylichna attonsa	5.17	3.77	2.04	31	2.5	
Kurtzia arteaga	3.83	4.57	2.24	23	1.9	
Mitrella gouldii	3.00	16.00	4.20	18	1.5	
SCAPHOPODA	8.83	7.37	2.85	53		4.3
Cadulus fusiformis	5.83	7.77	2.92	35	2.8	
BIVALVIA	27.00	134.00	12.15	162		13.2
Astarte sp.	5.00	6.80	2.74	30	2.4	
Axinopsida sp.	8.67	18.67	4.53	52	4.2	
Compsomyax subdiaphana	3.50	2.30	1.59	21	1.6	
Nucula tenuis	2.00	2.40	1.63	12	1.0	
CRUSTACEA	16.83	72.97	8.69	101		8.2
Paraphoxus bicuspidatus	4.00	4.40	2.20	24	2.0	
Pinnixa occidentalis	2.17	6.97	2.77	13	1.1	
OPHIUROIDEA	36.67	284.27	17.69	220		17.9
Amphiodia urtica	29.33	239.47	16.24	176	14.3	
HOLOTHUROIDEA	2.00	4.80	2.30	12		1.0

Table 25

Major classes and species of organisms at
Station 1155, 24 Nov 1971

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 112

Total number of individuals: 2033

Class	Number of species	Percent of total identified species
Polychaeta	56	50
Gastropoda	9	8
Bivalvia	17	15
Crustacea	24	21
Ophiuroidea	3	3
Total	109	97

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	125.00	1140.40	35.43	750		36.9
Pholoe glabra	2.83	5.37	2.43	17	.8	
Glycera capitata	3.33	4.27	2.17	20	1.0	
Goniada brunnea	2.17	2.17	1.54	13	.6	
Onuphis parva	2.67	2.27	1.58	16	.8	
Lumbrineris luti	17.67	45.47	7.07	106	5.2	
Ninoe sp. a	6.00	5.20	2.39	36	1.8	
Paraonis ivanovi	9.33	52.67	7.61	56	2.8	
Paraprionospio pinnata	9.33	14.27	3.96	56	2.8	

Table 25 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Spiophanes sp. a	2.00	.40	.66	12	.6	
Brada pluribranchiata	2.00	.80	.94	12	.6	
Scalibregma inflatum	2.67	42.67	6.85	16	.8	
Sternaspis fossor	6.33	3.87	2.06	38	1.9	
Mediomastus californiensis	3.00	3.60	1.99	18	.9	
Maldane cristata	11.33	9.87	3.30	68	3.3	
Pectinaria californiensis	2.67	1.07	1.08	16	.8	
Terebellides stroemi	9.83	10.97	3.47	59	2.9	
GASTRPOPDA	15.00	26.80	5.43	90		4.4
Cylichna attonsa	5.50	6.70	2.72	33	1.6	
Kurtzia arteaga	2.33	9.07	3.16	14	.7	
SCAPHOPODA	22.67	125.47	11.75	136		6.7
Cadulus fusiformis	15.17	79.77	9.37	91	4.5	
BIVALVIA	46.67	106.27	10.82	280	13.8	
Astarte sp.	6.50	1.90	1.45	39	1.9	
Axinopsida sp.	15.33	22.67	5.00	92	4.5	
Compsomyax subdiaphana	3.50	4.30	2.18	21	1.0	
Mysella aleutica	3.00	2.40	1.63	18	.9	
Nucula tenius	3.33	4.27	2.17	20	1.0	
Pandora bilirata	3.00	9.20	3.18	18	.9	
Psephidia sp.	3.00	2.40	1.63	18	.9	
Tellina meropsis	2.50	4.30	2.18	15	.7	
Yoldia ensifera	2.83	3.37	1.93	17	.8	

Table 25 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
CRUSTACEA	28.17	120.97	11.54	169		8.3
Eudorella pacifica	2.17	2.97	1.81	13	.6	
Byblis veleronis	2.67	5.87	2.54	16	.8	
Protomedeia penates	6.67	27.87	5.54	40	2.0	
Heterophoxus oculatus	2.83	1.37	1.23	17	.8	
Paraphoxus bicuspidatus	3.83	3.37	1.93	23	1.1	
Pinnixa occidentalis	2.00	4.00	2.10	12	.6	
OPHIUROIDEA	73.17	113.77	11.19	439		21.6
Amphiodia urtica	62.67	85.07	9.68	376	18.5	
Dougaloplus amphacantha	2.50	1.10	1.10	15	.7	
HOLOTHUROIDEA	2.33	3.07	1.84	14		.7

Table 26

Major classes and species of organisms at station 1105, 2 Feb 1972

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 57

Total number of individuals: 1622

Class	Number of species	Percent of total identified species
Polychaeta	26	46
Gastropoda	5	9
Bivalvia	12	21
Crustacea	12	21
Ophiuroidea	0	0
Total	55	97

Number of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	48.00	155.20	13.07	288		17.8
Thalenessa spinosa	2.83	2.57	1.68	17	1.0	
Glycinde sp. a	2.00	.00	.00	12	.7	
Nothria elegans	2.50	1.90	1.45	15	.9	
Haploscoloplos pugettensis	15.00	74.40	9.05	90	5.5	
Prionospio pygmaeus	5.17	14.97	4.06	31	1.9	
Magelona nr. *pitelkai*	3.50	4.30	2.18	21	1.3	
Magelona sacculata	6.83	6.97	2.77	41	2.5	
GASTROPODA	11.17	40.57	6.68	67		4.1
BIVALVIA	76.00	232.00	15.98	456		28.1

Table 26 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total CI.
Nuculana taphrina	7.33	30.27	5.77	44	2.7	
Protothaca staminea	44.17	78.17	9.28	265	16.3	
Tellina modesta	15.67	23.07	5.04	94	5.8	
Siliqua patula	5.50	10.70	3.43	33	2.0	
CRUSTACEA	132.17	914.97	31.74	793		48.9
Euphilomedes carcharodonta	117.17	1193.37	36.24	703	43.3	
Hemilamprops californica	2.50	1.10	1.10	15	.7	
Paraphoxus nr. *daboius*	3.00	5.20	2.39	18	1.1	
Paraphoxus epistomus	3.50	7.90	2.95	21	1.3	

Table 27

Major classes and species of organisms at
Station 1154, 2 Feb 1972

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 49

Total number of individuals: 1352

Class	Number of species	Percent of total identified species
Polychaeta	21	43
Gastropoda	4	8
Bivalvia	11	22
Crustacea	10	20
Ophiuroidea	2	4
Total	48	97

Number of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	42.17	174.97	13.88	253		18.7
Glycera convoluta	2.00	1.20	1.15	12	.9	
Lumbrineris luti	2.83	18.57	4.52	17	1.3	
Haploscoloplos pugettensis	6.83	13.37	3.84	41	3.0	
Prionospio pygmaeus	3.67	5.87	2.54	22	1.6	
Magelona sacculata	8.17	10.17	3.35	49	3.6	
Chaetozone setosa	8.17	9.37	3.21	49	3.6	
GASTROPODA	10.83	203.77	14.98	65		4.8
Olivella pycna	4.67	109.87	11.00	28	2.1	

Table 27 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
BIVALVIA	76.67	1436.27	39.76	460		34.0
Macoma yoldiformis	2.67	2.27	1.58	16	1.2	
Nuculana taphrina	9.50	46.30	7.14	57	4.2	
Nuculana sp.	7.50	24.70	5.21	45	3.3	
Protothaca staminea	15.67	162.67	13.38	94	7.0	
Tellina modesta	37.17	329.37	19.04	223	16.5	
CRUSTACEA	92.83	614.97	26.02	557		41.2
Euphilomedes carcharodonta	69.33	482.67	23.05	416	30.8	
Hemilamprops californica	10.33	20.27	4.72	62	4.6	
Paraphoxus nr. *daboius*	4.67	7.07	2.79	28	2.1	

Table 28

Major classes and species of organisms at station 1153, 3. Feb 1972

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 73

Total number of individuals: 712

Class	Number of species	Percent of total identified species
Polychaeta	32	44
Gastropoda	10	14
Bivalvia	10	14
Crustacea	20	27
Ophiuroidea	1	1
Total	73	100

Number of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	22.83	155.77	13.09	137		19.2
Magelona sacculata	3.17	6.17	2.61	19	2.7	
Amaeana occidentalis	3.00	35.20	6.22	18	2.5	
GASTROPODA	22.50	482.30	23.04	135		19.0
Olivella pycna	13.50	578.30	25.23	81	11.4	
BIVALVIA	27.67	1048.27	33.97	166		23.3
Protothaca staminea	13.67	405.07	21.12	82	11.5	
Tellina modesta	6.33	41.07	6.72	38	5.3	
CRUSTACEA	29.33	165.47	13.50	176		24.7

Table 28 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Euphilomedes carcharodonta	6.83	63.77	8.38	41	5.8	
Megaluropus longimerus	2.00	2.00	1.48	12	1.7	
Tritella pilimana	4.33	75.87	9.14	26	3.7	
ECHINOIDEA	13.17	117.37	11.37	79		11.1

Table 29

Major classes and species of organisms at station 1159, 2 Feb 1972

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 115

Total number of individuals: 2209

Class	Number of species	Percent of total identified species
Polychaeta	65	57
Gastropoda	15	13
Bivalvia	17	15
Crustacea	15	13
Ophiuroidea	1	1
Total	113	99

Number of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	Cl.
POLYCHAETA	129.00	2110.80	48.20	774		35.0
Glycinde sp. a	2.83	1.37	1.23	17	.8	
Nothria elegans	2.00	2.00	1.48	12	.5	
Lumbrineris luti	19.33	73.07	8.97	116	5.3	
Haploscoloplos pugettensis	32.00	42.00	6.80	192	8.7	
Phylo felix	6.17	31.77	5.91	37	1.7	
Spiophanes bombyx	2.00	3.20	1.88	12	.5	
Mediomastus californiensis	10.00	54.40	7.74	60	2.7	
Axiothella rubrocincta	2.67	11.87	3.61	16	.7	

Table 29 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Amaeana occidentalis	4.17	6.17	2.61	25	1.1	
GASTROPODA	68.83	4255.77	68.45	413		18.7
Cyclichna attonsa	9.00	23.60	5.10	54	2.4	
Alvinia acutelirata	18.67	931.14	31.71	112	5.1	
Nassarius mendicus	13.33	367.07	20.10	80	3.6	
SCAPHOPODA	6.50	6.70	2.72	39		1.8
Cadulus fusiformis	6.17	8.57	3.07	37		1.7
BIVALVIA	84.33	1555.07	41.37	506		22.9
Macoma yoldiformis	7.67	33.47	6.07	46	2.1	
Mysella aleutica	3.50	21.10	4.82	21	1.0	
Nuculana taphrina	24.67	177.47	13.98	148	6.7	
Protothaca staminea	9.17	114.17	11.21	55	2.5	
Tellina modesta	33.17	323.37	18.87	199	9.0	
CRUSTACEA	73.33	2329.87	50.64	440		19.9
Euphilomedes carcharodonta	26.00	157.60	13.17	156	7.1	
Hemilamprops californica	4.33	7.87	2.94	26	1.2	
Ampelsica cristata	2.00	3.20	1.88	12	.5	
Aoroides columbiae	2.00	19.60	4.64	12	.5	
Photis ? brevipes	3.33	59.07	8.06	20	.9	
Protomedeia (C.) zotea	25.17	1808.07	44.62	151	6.8	

Table 30

Major classes and species of organisms at station 1158, 2 Feb 1972

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 85

Total number of individuals: 1207

Class	Number of species	Percent of total identified species
Polychaeta	41	48
Gastropoda	10	12
Bivalvia	13	15
Crustacea	19	22
Ophiuroidea	1	1
Total	84	98

Number of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	32.17	242.57	16.34	193		16.0
Spiophanes bombyx	2.83	5.37	2.43	17	1.4	
Magelona nr. *pitelkai*	3.00	4.40	2.20	18	1.5	
Magelona sacculata	5.67	17.07	4.33	34	2.8	
GASTROPODA	23.33	138.67	12.36	140		11.6
Cylichna attonsa	5.50	35.90	6.29	33	2.7	
BIVALVIA	42.17	226.57	15.79	253		21.0
Composomyax subdiaphana	2.00	.40	.66	12	1.0	
Cooperella subdiaphana	4.00	10.80	3.45	24	2.0	

Table 30 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Macoma yoldiformis	8.67	7.47	2.87	52	4.3	
Nuculana taphrina	12.83	39.77	6.62	77	6.4	
Protothaca staminea	6.67	21.47	4.86	40	3.3	
Siliqua patula	3.33	8.67	3.09	20	1.7	
CRUSTACEA	63.00	273.20	17.34	378		31.3
Euphilomedes carcharodonta	37.33	123.47	11.66	224	18.6	
Hemilamprops californica	3.00	3.20	1.88	18	1.5	
Ampelisca cristata	5.33	12.27	3.67	32	2.7	
Protomedeia penates	2.17	.97	1.03	13	1.1	
Paraphoxus nr. *daboius*	5.00	4.80	2.30	30	2.5	
Caprella angusta	3.67	80.67	9.42	22	1.8	

Table 31

Major classes and species of organisms at station 1177, 3 Feb 1972

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 78

Total number of individuals: 1050

Class	Number of species	Percent of identified species
Polychaeta	37	47
Gastropoda	11	14
Bivalvia	10	13
Crustacea	15	19
Ophiuroidea	3	4
Total	76	97

Number of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	41.33	263.47	17.03	248		23.6
Glycinde sp. a	3.83	2.97	1.81	23	2.2	
Prionospio malmgreni	2.00	1.60	1.33	12	1.1	
Prionospio pygmaeus	2.67	9.47	3.23	16	1.5	
Spiophanes bombyx	2.17	2.17	1.54	13	1.2	
Magelona nr. *pitelkai*	2.00	2.80	1.76	12	1.1	
Magelona sacculata	11.83	23.77	5.11	71	6.8	
GASTROPODA	15.33	38.27	6.49	92		8.8
Kurtzia arteaga	2.00	5.60	2.48	12	1.1	

Table 31 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Mitrella gouldii	6.17	30.17	5.76	37	3.5	
SCAPHOPODA	5.83	13.37	3.84	35		2.3
Cadulus fusiformis	3.83	6.17	2.61	23	2.2	
BIVALVIA	13.17	22.97	5.03	79		7.5
Cooperella subdiaphana	2.33	1.07	1.08	14	1.3	
Macoma yoldiformis	2.83	3.77	2.04	17	1.6	
Nuculana taphrina	5.00	8.40	3.04	30	2.9	
CRUSTACEA	26.50	160.30	13.28	159		15.1
Euphilomedes carcharodonta	6.17	15.37	4.11	37	3.5	
Hemilamprops californica	4.50	5.50	2.46	27	2.6	
Protomedeia (*C.*) *zotea*	6.17	2.97	1.81	37	3.5	
OPHIUROIDEA	2.00	2.80	1.76	12		1.1

Table 32

Major classes and species of organisms at station 1175, 3 Feb 1972

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 84

Total number of individuals: 1341

Class	Number of species	Percent of identified species
Polychaeta	38	45
Gastropoda	6	7
Bivalvia	16	19
Crustacea	20	24
Ophiuroidea	2	2
Total	82	97

Number of individuals in major classes and species:

Taxa	Mean # / . $1m^2$	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	112.33	531.87	24.20	674		50.3
Eteone sp. a	2.83	20.97	4.80	17	1.3	
Haploscoloplos pugettensis	5.00	6.40	2.65	30	2.2	
Phylo felix	7.83	13.77	3.89	47	3.5	
Magelona nr. *pitelkai*	3.17	2.17	1.54	19	1.4	
Magelona sacculata	65.00	336.00	19.23	390	29.0	
Chaetozone setosa	2.00	4.00	2.10	12		.9
GASTORPODA	39.67	372.27	20.24	238		17.7
Cylichna attonsa	9.33	23.07	5.04	56	4.2	

Table 32

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Kurtzia arteaga	2.50	3.50	1.96	15	1.1	
Mitrella gouldii	6.83	58.97	8.06	41	3.1	
SCAPHOPODA	2.50	2.70	1.72	15		1.1
Cadulus fusiformis	2.33	3.07	1.84	14	1.0	
BIVALVIA	18.17	65.37	8.48	109		8.1
Nuculana taphrina	9.83	39.37	6.58	59	4.4	
CRUSTACEA	43.33	63.07	8.33	260		19.4
Euphilomedes carcharodonta	10.33	15.87	4.18	62	4.6	
Hemilamprops californica	7.00	6.40	2.65	42	3.1	
Paraphoxus nr. *daboius*	9.00	8.80	3.11	54	4.0	
Paraphoxus epistomus	3.67	10.27	3.36	22	1.6	
Paraphoxus variatus	3.83	17.77	4.42	23	1.7	
Caprella californica	2.50	27.10	5.46	15	1.1	

Table 33

Major classes and species of organisms at station 1156, 2 Feb 1972

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 103

Total number of individuals: 1264

Class	Number of species	Percent of total identified species
Polychaeta	52	50
Gastropoda	13	13
Bivalvia	13	13
Crustacea	18	17
Ophiuroidea	4	4
Total	100	97

Number of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	85.83	1096.97	34.75	515		40.7
Thalenessa spinosa	4.17	4.17	2.14	25	2.0	
Glycinde sp. a	2.50	1.90	1.45	15	1.2	
Phylo felix	3.33	4.67	2.27	20	1.6	
Scoloplos armiger	2.67	9.87	3.30	16	1.3	
Aricidea nr. *suecica*	2.33	5.87	2.54	14	1.1	
Spiophanes bombyx	3.00	3.60	1.99	18	1.4	
Magelona nr. *pitelkai*	11.17	42.97	6.88	67	5.3	
Magelona sacculata	9.33	1.87	1.43	56	4.4	
Chaetozone setosa	4.50	16.30	4.24	27	2.1	

Table 33 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Sternaspis fossor	3.17	10.97	3.47	19	1.5	
Mediomastus californiensis	4.33	17.87	4.43	26	2.1	
GASTROPODA	34.83	198.17	14.77	209		16.5
Cyclichna attonsa	6.83	14.17	3.95	41	3.2	
Volvulella cylindrica	4.17	6.97	2.77	25	2.0	
Kurtzia arteaga	5.67	15.47	4.13	34	2.7	
Mitrella gouldii	3.67	5.47	2.45	22	1.7	
SCAPHOPODA	11.83	40.97	6.72	71		5.6
Cadulus fusiformis	8.50	32.70	6.00	51	4.0	
BIVALVIA	24.33	70.67	8.82	146		11.6
Cooperella subdiaphana	5.17	17.77	4.42	31	2.5	
Macoma yoldiformis	6.17	12.97	3.78	37	2.9	
Nuculana taphrina	3.67	3.07	1.84	22	1.7	
CRUSTACEA	25.33	34.67	6.18	152		12.0
Euphilomedes carcharodonta	2.50	1.90	1.45	15	1.2	
Hemilamprops californica	3.17	.57	.79	19	1.5	
Paraphoxus epistomus	3.33	17.47	4.38	20	1.6	
Paraphoxus variatus	6.83	50.17	7.43	41	3.2	
OPHIUROIDEA	20.17	98.57	10.42	121		9.6
Amphioda urtica	4.83	34.57	6.17	29	2.3	
Amphioplus hexacanthus	11.17	19.77	4.66	67	5.3	
Amphiura arcystata	2.50	7.90	2.95	15	1.2	

Table 34

Major classes and species of organisms at station 1152, 3 Feb 1972

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 105

Total number of individuals: 1318

Class	Number of species	Percent of total identified species
Polychaeta	56	53
Gastropoda	13	12
Bivalvia	14	13
Crustacea	17	16
Ophiuroidea	3	3
Total	103	97

Number of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	70.50	157.10	13.15	423		32.1
Pholoe glabra	4.67	2.67	1.71	28	2.1	
Thalenessa spinosa	4.50	5.90	2.55	27	2.0	
Nephtys caecoides	2.33	2.67	1.71	14	1.1	
Glycinde sp. a	2.00	4.00	2.10	12	.9	
Lumbrineris luti	3.83	8.97	3.14	23	1.7	
Spiophanes bombyx	2.00	.40	.66	12	.9	
Magelona nr. *pitelkai*	4.50	5.90	2.55	27	2.0	

Table 34 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Sternaspis fossor	4.67	11.47	3.55	28	2.1	
Asychis disparidentata	2.83	2.17	1.54	17	1.3	
GASTROPODA	35.83	84.57	9.65	215		16.3
Cylichna attonsa	11.50	18.70	4.54	69	5.2	
Volvulella cylindrica	2.67	5.47	2.45	16	1.2	
Kurtzia arteaga	2.67	7.87	2.94	16	1.2	
SCAPHOPODA	6.17	14.97	4.06	37		2.8
Cadulus fusiformis	4.00	13.60	3.87	24	1.8	
BIVALVIA	22.33	39.87	6.62	134		10.2
Axinospida sp.	2.17	3.37	1.93	13	1.0	
Cooperella subdiaphana	3.67	7.07	2.97	22	1.7	
Macoma yoldiformis	4.00	2.40	1.63	24	1.8	
Mysella aleutica	3.67	12.67	3.73	22	1.7	
Nuculana taphrina	3.00	7.60	2.89	18	1.4	
CRUSTACEA	28.50	145.90	12.67	171		13.0
Euphilomedes caracharodonta	4.67	7.87	2.94	28	2.1	
Hemilamprops californica	4.00	7.20	2.82	24	1.8	
Ampelisca cristata	2.00	.80	.94	12	.9	
Paraphoxus bicuspidatus	4.83	15.37	4.11	29	2.2	
Paraphoxus variatus	3.67	2.27	1.58	22	1.7	
OPHIUROIDEA	20.50	66.30	8.54	123		9.3
Amphiodia urtica	11.50	30.70	5.81	69	5.2	
Amhioplus hexacanthus	8.33	44.67	7.01	50	3.8	

Table 35

Major classes and species of organisms at station 1176, 3 Feb 1972

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 104

Total number of individuals: 1343

Class	Number of species	Percent of identified species
Polychaeta	54	52
Gastropoda	9	9
Bivalvia	17	17
Crustacea	18	17
Ophiuroidea	4	4
Total	102	99

Number of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	70.83	124.57	11.71	425		31.6
Glycera capitata	2.83	1.37	1.23	17	1.3	
Lumbrineris cruzensis	8.33	17.47	4.38	50	3.7	
Lumbrineris luti	11.50	40.30	6.66	69	5.1	
Ninoe sp. a	5.50	6.70	2.72	33	2.5	
Paraprionospio pinnata	3.00	5.60	2.48	18	1.3	
Sternaspis fossor	4.33	3.87	2.06	26	1.9	
Maldane cristata	7.17	12.17	3.66	43	3.2	
Myriochele heeri	2.17	.97	1.03	13	1.0	

Table 35 (continued)

Taxa	Mean # / . $1m^2$	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
GASTROPODA	23.00	8.40	3.04	138		10.3
Cylichna attonsa	4.83	2.17	1.54	29	2.2	
Kurtzia arteaga	6.00	5.60	2.48	36	2.7	
Mitrella gouldii	6.00	13.60	3.87	36	2.7	
SCAPHOPODA	4.17	7.37	2.85	25		1.9
Cadulus fusiformis	2.50	4.30	2.18	15	1.1	
BIVALVIA	37.83	98.17	10.40	227		16.9
Astarte sp.	5.33	4.27	2.17	32	2.4	
Axionospida sp.	13.33	31.07	5.85	80	6.0	
Compsomyax subdiaphana	3.00	1.20	1.15	18	1.3	
Psephidia sp.	4.00	6.80	2.74	24	1.8	
CRUSTACEA	18.50	24.70	5.21	111		8.3
Paraphoxus bicuspidatus	3.50	8.30	3.02	21	1.6	
Paraphoxus variatus	2.67	6.67	2.71	16	1.2	
OPHIUROIDEA	49.67	475.87	22.89	298		22.2
Amphiodia urtica	47.67	430.27	21.76	286	21.3	

Table 36

Major classes and species of organisms at station 1155, 2 Feb 1972

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 117

Total number of individuals: 1892

Class	Number of species	Percent of total identified species
Polychaeta	64	55
Gastropoda	9	8
Bivalvia	20	17
Crustacea	16	14
Ophiuroidea	4	3
Total	113	97

Number of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	98.33	637.07	26.48	590		31.2
Pholoe glabra	3.00	4.40	2.20	18	1.0	
Glycera capitata	3.67	2.67	1.71	22	1.2	
Goniada brunnea	2.17	.57	.79	13	.7	
Lumbrineris cruzensis	3.33	8.67	3.09	20	1.1	
Lumbrineris luti	12.50	25.10	5.26	75	4.0	
Ninoe sp. a	7.17	15.77	4.17	43	2.3	
Paraonis ivanovi	8.00	54.00	7.17	48	2.5	
Paraprionospio pinnata	6.17	4.97	2.34	37	2.0	

Table 36 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Sternapsis fossor	3.17	3.37	1.93	19	1.0	
Mediomastus californiensis	2.83	12.57	3.72	17	.9	
Maldane cristata	7.00	2.40	1.63	42	2.2	
Pectinaria californiensis	2.33	3.07	1.84	14	.7	
Terebellides stroemi	2.33	.27	.54	14	.7	
GASTROPODA	41.67	109.47	10.98	250		13.2
Cylichna attonsa	8.17	10.97	3.47	49	2.6	
Kurtzia arteaga	7.67	5.87	2.54	46	2.4	
Mitrella gouldii	12.00	121.60	11.57	72	3.8	
SCAPHOPODA	17.50	88.30	9.86	105		5.6
Cadulus fusiformis	11.33	37.47	6.42	68	3.6	
BIVALVIA	51.00	97.60	10.37	306		16.2
Astarte sp.	5.00	7.60	2.89	30	1.6	
Axinopsida sp.	17.17	21.77	4.90	103	5.4	
Cooperella subdiaphana	2.17	2.97	1.81	13	.7	
Lyonsia californica	3.50	2.70	1.72	21	1.1	
Mysella aleutica	3.67	7.07	2.79	22	1.2	
Nucula tenuis	4.33	3.87	2.06	26	1.4	
Pandora bilirata	2.17	5.37	2.43	13	.7	
Psephidia sp.	4.50	10.30	3.37	27	1.4	
CRUSTACEA	17.50	20.70	4.77	105		5.6
Paraphoxus bicuspidatus	3.00	6.40	2.65	18	1.0	
Paraphoxus similis	2.33	2.67	1.71	14	.7	
ARACHNOIDEA	2.33	1.07	1.08	14	.7	

Table 36 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Ammothella sp. a	2.33	1.07	1.08	14	.7	
OPHIUROIDEA	72.83	639.37	26.53	437		23.1
Amphiodia urtica	66.50	527.50	24.10	399	21.1	

Table 37

Major classes and species of organisms at
Station 1105, 3 May 1972

Summary: Completely sorted and analyzed

Number of replicates: 10

Total number of identified species: 73

Total number of individuals: 2748

Class	Number of species	Percent of total identified species
Polychaeta	35	48
Gastropoda	4	5
Bivalvia	12	16
Crustacea	19	26
Ophiuroidea	2	3
Total	72	98

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	80.60	202.49	10.17	806		29.3
Sthenelais verruculosa	2.10	1.88	.98	21	.8	
Thalenessa spinosa	2.30	2.46	1.12	23	.8	
Glycinde sp. a	3.30	2.68	1.17	33	1.2	
Nothria elegans	18.20	61.96	5.63	182	6.6	
Haploscoloplos pugettensis	11.80	16.40	2.89	118	4.3	
Phylo felix	3.30	2.23	1.07	33	1.2	
Prionospio pygmaeus	12.80	41.07	4.58	128	4.7	
Spiophanes bombyx	5.90	13.43	2.62	59	2.1	

Table 37 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Magelona sacculata	6.30	6.23	1.78	63	2.3	
GASTROPODA	8.50	16.72	2.92	85		3.1
BIVALVIA	55.60	95.60	6.99	556		20.2
Macoma yoldiformis	2.30	2.01	1.01	23	.8	
Nuculana taphrina	2.60	3.38	1.31	26	.9	
Protothaca staminea	27.60	67.16	5.86	276	10.0	
Siliqua patula	7.80	13.29	2.61	78	2.8	
Tellina modesta	12.40	23.82	3.49	124	4.5	
CRUSTACEA	124.10	236.77	11.00	1241		45.2
Euphilomedes carcharodonta	82.20	273.51	11.82	822	29.9	
Hemilamprops californica	8.60	15.38	2.80	86	3.1	
Eohaustorius sencillus	2.10	8.32	2.06	21	.8	
Paraphoxus nr. *daboius*	7.60	8.93	2.14	76	2.8	
Paraphoxus epistomus	4.40	11.16	2.39	44	1.6	

Table 38

Major classes and species of organisms at
Station 1154, 3 May 1972

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 73

Total number of individuals: 1328

Class	Number of species	Percent of total identified species
Polycheata	35	48
Gastropoda	4	5
Bivalvia	11	15
Crustacea	21	29
Ophiuroidea	1	1
Total	72	98

Numbers of individuals in major classes and species:

Taxa	Mean# / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	65.67	836.27	30.34	394		29.7
Nephtys caecoides	2.83	6.17	2.61	17	1.3	
Glycera convoluta	2.50	5.90	2.55	15	1.1	
Glycinde sp. a	3.33	7.07	2.79	20	1.5	
Nothria elegans	6.67	53.47	7.67	40	3.0	
Lumbrineris luti	8.00	70.80	8.83	48	3.6	
? *Protodorvillea* sp. a	2.00	24.00	5.14	12	.9	
Haploscoloplos pugettensis	7.17	44.57	7.00	43	3.2	
Phylo felix	6.00	9.60	3.25	36	2.7	

Table 38 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Prionospio pygmaeus	3.33	8.67	3.09	20	1.5	
Magelona sacculata	8.83	54.97	7.78	53	4.0	
Chaetozone setosa	4.17	5.37	2.43	25	1.9	
GASTROPODA	17.33	104.27	10.71	104		7.8
Olivella pycna	10.67	89.47	9.92	64	4.8	
BIVALVIA	53.33	727.87	28.31	320		24.1
Macoma yoldiformis	4.00	11.20	3.51	24	1.8	
Nuculana taphrina	3.50	4.30	2.18	21	1.6	
Siliqua patula	2.17	2.57	1.68	13	1.0	
Tellina modesta	38.67	423.47	21.59	232	17.5	
CRUSTACEA	78.00	533.20	24.23	468		35.2
Euphilomedes carcharodonta	44.50	377.10	20.37	267	20.1	
Hemilamprops californica	7.50	16.30	4.24	45	3.4	
Bathycopea daltonae	4.17	85.77	9.72	25	1.9	
Paraphoxus nr. *daboius*	3.00	16.80	4.30	18	1.4	
Pinnixa ? *franciscana*	5.50	30.70	5.81	33	2.5	

Table 39

Major classes and species of organisms at
Station 1153, 10 May 1972

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 79

Total number of individuals: 1211

Class	Number of species	Percent of total identified species
Polychaeta	36	46
Gastropoda	6	8
Bivalvia	12	15
Crustacea	23	29
Ophiuroidea	1	1
Total	78	99

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	51.17	97.77	10.37	307		25.4
Thalenessa spinosa	2.17	1.37	1.23	13	1.1	
Glycera convoluta	3.00	4.40	2.20	18	1.5	
Glycinde sp. a	2.33	.67	.86	14	1.2	
Nothria elegans	8.50	5.90	2.55	51	4.2	
Lumbrineris luti	8.50	23.50	5.09	51	4.2	
Haploscoloplos pugettensis	5.67	20.67	4.77	34	2.8	
Phylo felix	2.17	1.37	1.23	13	1.1	
Prionospio pygmaeus	3.17	20.97	4.80	19	1.7	

Table 39 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
GASTROPODA	22.67	247.07	16.49	136		11.2
Olivella pycna	8.17	277.77	17.49	49	4.0	
BIVALVIA	51.83	360.57	19.92	311		25.7
Macoma yoldiformis	3.33	9.47	3.23	20	1.7	
Nuculana taphrina	2.33	5.07	2.36	14	1.2	
Nuculana sp.	4.83	2.17	1.54	29	2.4	
Pandora punctata	3.50	3.10	1.85	21	1.7	
Protothaca staminea	11.83	55.77	7.84	71	5.8	
Tellina modesta	23.33	102.27	10.61	140	11.6	
CRUSTACEA	62.50	567.50	24.99	375		31.0
Euphilomedes carcharodonta	31.00	309.20	18.45	186	15.4	
Hemilamprops californica	13.83	98.97	10.44	83	6.9	
Bathymedon daltonae	3.50	1.90	1.45	21	1.7	

Table 40

Major classes and species of organisms at
Station 1159, 3 May 1972

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 124

Total number of individuals: 2658

Class	Number of species	Percent of total identified species
Polychaeta	70	56
Gastropoda	11	9
Bivalvia	14	11
Crustacea	26	21
Ophiuroidea	2	2
Total	123	99

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	168.67	1809.87	44.64	1012		38.1
Anaitides williamsi	2.17	10.57	3.41	13	.5	
Phyllodoce sp. a	2.83	2.17	1.54	17	.6	
Langerhansia nr. *heterochaeta*	2.67	10.27	3.36	16	.6	
Glycera americana	2.00	1.20	1.15	12	.5	
Glycinde sp. a	2.33	1.47	1.27	14	.5	
Nothria elegans	12.83	44.97	7.04	77	2.9	
Lumbrineris luti	19.50	69.10	8.72	117	4.4	
Haploscoloplos pugettensis	11.83	21.77	4.90	71	2.7	

Table 40 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Spiophanes sp. a	7.17	4.57	2.24	43	1.6	
Scalibregma inflatum	2.50	2.30	1.59	15	.6	
Heteromastus filobranchus	12.17	126.97	11.82	73	2.7	
Mediomastus californiensis	31.17	587.77	25.44	187	7.0	
Notomastus (*C.*) *tenuis*	9.17	8.97	3.14	55	2.1	
Praxillella affinis pacifica	3.33	11.87	3.61	20	.8	
GASTROPODA	57.17	66.57	8.56	343	12.9	
Cylichna attonsa	10.67	8.67	3.09	64	2.4	
Alvinia acutelirata	6.67	28.67	5.62	40	1.5	
Nassarius mendicus	9.50	58.70	8.04	57	2.1	
Scissilabra dalli	2.67	14.27	3.96	16	.6	
SCAPHOPODA	13.67	21.87	4.91	82		3.1
Cadulus fusiformis	13.67	21.87	4.91	82	3.1	
BIVALVIA	78.50	112.70	11.14	471		17.7
Astarte sp.	5.00	2.80	1.76	30	1.1	
Macoma yoldiformis	12.67	24.27	5.17	76	2.9	
Mysella aleutica	10.33	68.27	8.67	62	2.3	
Nuculana taphrina	25.50	29.10	5.66	153	5.8	
Tellina modesta	20.17	74.17	9.04	121	4.6	
CRUSTACEA	99.83	844.17	30.48	599		22.5
Euphilomedes carcharodonta	13.50	59.50	8.09	81	3.0	
Hemilamprops californica	4.50	5.90	2.55	27	1.0	
Argissa hamatipes	4.17	8.97	3.14	25	.9	

Table 40 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Protomedeia penates	3.17	2.17	1.54	19	.7	
Protomedeia (*C.*) *zotea*	16.67	429.67	23.29	100	3.8	
Pinnixa ? *franciscana* juv.	16.50	222.70	15.66	99	3.7	
OPHIUROIDEA	2.00	2.40	1.63	12		.5

Table 41

Major classes and species of organisms at
Station 1158, 3 May 1972

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 87

Total number of individuals: 1364

Class	Number of species	Percent of total identified species
Polychaeta	43	49
Gastropoda	9	10
Bivalvia	12	14
Crustacea	20	23
Ophiuroidea	2	2
Total	86	98

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	51.17	165.37	13.49	307		22.5
Thalenessa spinosa	2.33	2.67	1.71	14	1.0	
Glycinde sp. a	3.33	4.67	2.27	20	1.5	
Nothria elegans	4.00	5.20	2.39	24	1.8	
Spiophanes bombyx	4.83	8.57	3.07	29	2.1	
Spiophanes sp. a	6.00	15.60	4.14	36	2.6	
Magelona nr. *pitelkai*	5.33	3.87	2.06	32	2.3	
Magelona sacculata	3.67	6.27	2.63	22	1.6	
Chaetozone setosa	2.00	2.80	1.76	12	.9	

Table 41 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Mediomastus californiensis	2.33	2.27	1.58	14	1.0	
GASTROPODA	13.67	40.67	6.69	82		6.0
Cyclichna attonsa	5.33	5.47	2.45	32	2.3	
SCAPHOPODA	2.00	4.80	2.30	12		.9
Cadulus fusiformis	2.00	4.80	2.30	12	.9	
BIVALVIA	32.33	73.47	8.99	194		14.2
Macoma yoldiformis	5.33	3.47	1.95	32	2.3	
Nuculana taphrina	14.67	18.27	4.48	88	6.5	
Siliqua patula	3.17	4.57	2.24	19	1.4	
CRUSTACEA	87.83	130.17	11.97	527		38.6
Euphilomedes carcharodonta	34.00	26.40	5.39	204	15.0	
Hemilamprops californica	9.50	21.90	4.91	57	4.2	
Ampelisca cristata	2.67	2.27	1.58	16	1.2	
Protomedeia penates	2.67	5.87	2.54	16	1.2	
Paraphoxus nr. *daboius*	4.50	1.10	1.10	27	2.0	
Pinnixa ? *franciscana* juv.	21.00	85.60	9.71	126	9.2	

Table 42

Major classes and species of organisms at
Station 1177, 10 May 1972

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 106

Total number of individuals: 1687

Class	Number of species	Percent of total identified species
Polychaeta	55	52
Gastropoda	11	10
Bivalvia	12	11
Crustacea	23	22
Ophiuroidea	3	3
Total	104	98

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	93.33	1897.47	45.70	560		33.2
Thalenessa spinosa	4.50	1.90	1.45	27	1.6	
Glycinde sp. a	3.50	2.70	1.72	21	1.2	
Scoloplos armiger	2.83	5.37	2.43	17	1.0	
Spiophanes bombyx	21.33	42.67	6.85	128	7.6	
Spiophanes sp. a	2.33	5.07	2.36	14	.8	
Magelona nr. *pitelkai*	4.00	6.80	2.74	24	1.4	
Magelona sacculata	12.33	176.27	13.93	74	4.4	
Chaetozone setosa	7.83	16.57	4.27	47	2.8	

Table 42 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Sabellaria cementarium	2.67	42.67	6.85	16	.9	
GASTROPODA	41.67	197.47	14.74	250		14.8
Cylichna attonsa	6.00	8.00	2.97	36	2.1	
Volvulella cylindrica	2.50	4.70	2.27	15	.9	
Kurtzia arteaga	6.00	3.20	1.88	36	2.1	
Mitrella gouldii	12.33	58.67	8.04	74	4.4	
SCAPHOPODA	4.00	3.20	1.88	24		1.4
Cadulus fusiformis	3.33	3.87	2.06	20	1.2	
BIVALVIA	13.00	31.20	5.86	78		4.6
Astarte sp.	2.00	.40	.66	12	.7	
Nuculana taphrina	3.00	2.80	1.76	18	1.1	
CRUSTACEA	51.00	1647.20	42.58	306		18.1
Euphilomedes carcharodonta	2.17	.57	.79	13	.8	
Hemilamprops californica	10.33	1.07	1.08	62	103	3.7
Aorides columbiae	3.00	47.20	7.21	18	1.1	
Protomedeia (*C.*) *zotea*	8.33	359.47	19.89	50	3.0	
Paraphoxus epistomus	7.33	11.87	3.61	44	2.6	
Pinnixa ? *franciscana* juv.	5.50	16.30	4.24	33	2.0	
OPHIUROIDEA	7.50	21.50	4.86	45		2.7
Amphiodia urtica	2.67	1.87	1.43	16	.9	
Amphioplus hexacanthus	3.33	9.07	3.16	20	1.2	

Table 43

Major classes and species of organisms at
Station 1175, 10 May 1972

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 119

Total number of individuals: 3186

Class	Number of species	Percent of total identified species
Polychaeta	68	57
Gastropoda	10	8
Bivalvia	14	12
Crustacea	22	18
Ophiuroidea	2	2
Total	116	97

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	221.00	4387.60	69.50	1326		41.6
Pholoe glabra	2.33	2.67	1.71	14	.4	
Thalenessa spinosa	5.33	8.27	3.02	32	1.0	
Phyllodoce sp. a	2.67	1.07	1.08	16	.5	
Glycinde sp. a	2.67	2.67	1.71	16	.5	
Scoloplos armiger	4.83	2.17	1.54	29	.9	
Aricidea nr. *suecica*	4.33	4.67	2.27	26	.8	
Prionospio malmgreni	7.17	21.37	4.85	43	1.4	
Spiophanes bombyx	6.67	69.87	8.77	40	1.3	

Table 43 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Spiophanes missionensis	6.00	15.20	4.09	36	1.1	
Spiophanes sp. a	14.50	8.30	3.02	87	2.7	
Magelona nr. *pitelkai*	14.17	32.17	5.95	85	2.7	
Magelona sacculata	47.17	1194.97	36.27	283	8.9	
Telepsavus costarum	4.67	5.07	2.36	28	.9	
Chaetozone setosa	8.00	17.20	4.35	48	1.5	
Brada villosa	3.83	10.57	3.41	23	.7	
Mediomastus californiensis	12.50	49.10	7.35	75	2.4	
Amphicteis scaphobranchiata	2.50	5.50	2.46	15	.5	
APLACOPHORA	2.00	4.00	2.10	12		.4
GASTROPODA	47.33	59.47	8.09	284	8.9	
Cylichna attonsa	12.67	16.27	4.23	76	2.4	
Kurtzia arteaga	10.83	3.77	2.04	65	2.0	
Mitrella gouldii	3.50	9.10	3.17	21	.7	
SCAPHOPODA	7.83	14.57	4.00	47		1.5
Cadulus fusiformis	5.00	2.80	1.76	30	.9	
BIVALVIA	19.17	17.37	4.37	115		3.6
Astarte sp.	5.17	2.17	1.54	31	1.0	
Compsomyax subdiaphana	4.33	8.67	3.09	26	.8	
CRUSTACEA	65.50	97.50	10.36	393		12.3
Euphilomedes carcharodonta	7.33	1.47	1.27	44	1.4	
Hemilamprops californica	3.83	2.57	1.68	23	.7	
Ampelisca compressa	2.33	4.27	2.17	14	.4	

Table 43 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Paraphoxus variatus	20.00	28.40	5.59	120	3.8	
Pinnixa ? *franciscana* juv.	11.67	101.47	10.57	70	2.2	
Pinnixa ? *occidentalis* juv.	2.33	6.27	2.63	14	.4	
OPHIUROIDEA	5.50	21.90	4.91	33		1.0
Amphioplus hexacanthus	3.33	10.27	3.36	20	.6	
HOLOTHUROIDEA	2.00	2.00	1.48	12		.4

Table 44

Major classes and species of organisms at
Station 1156, 3 May 1972

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 111

Total number of individuals: 1971

Class	Number of species	Percent of total identified species
Polycheata	58	52
Gastropoda	14	13
Bivalvia	16	14
Crustacea	17	15
Ophiuroidea	3	3
Total	108	97

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m2	S2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	85.00	269.60	17.23	510		25.9
Thalenessa spinosa	3.50	5.10	2.37	21	1.1	
Glycinde sp. a	2.17	2.57	1.68	13	.7	
Nothria elegans	2.17	1.37	1.23	13	.7	
Paraprionospio pinnata	2.33	2.67	1.71	14	.7	
Spiophanes bombyx	5.33	4.67	2.27	32	1.6	
Spiophanes missionensis	4.17	7.77	2.92	25	1.3	
Spiophanes sp.a	3.17	4.57	2.24	19	1.0	
Magelona nr. *pitelkai*	9.00	11.20	3.51	54	2.7	

Table 44 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Magelona sacculata	4.00	2.80	1.76	24	1.2	
Chaetozone setosa	4.83	8.17	3.00	29	1.5	
Brada villosa	4.00	12.80	3.75	24	1.2	
Mediomastus californiensis	2.83	2.57	1.68	17	.9	
GASTROPODA	46.67	25.87	5.34	280		14.2
Rictaxis punctocaelatus	2.67	2.67	1.71	16	.8	
Cylichna attonsa	10.50	10.70	3.43	63	3.2	
Volvulella cylindrica	4.67	10.27	3.36	28	1.4	
Kurtzia arteaga	8.67	3.47	1.95	52	2.6	
Mitrella gouldii	5.67	17.07	4.33	34	1.7	
SCAPHOPODA	6.83	22.57	4.98	41		2.1
Cadulus fusiformis	6.33	19.47	4.63	38	1.9	
BIVALVIA	48.00	211.60	15.26	288		14.6
Compsomyax subdiaphana	5.83	10.17	3.35	35	1.8	
Macoma yoldiformis	14.00	37.60	6.43	84	4.3	
Mysella aleutica	2.83	4.57	2.24	17	.9	
Nuculana taphrina	12.33	27.47	5.50	74	3.8	
Nucula tenius	2.00	2.00	1.48	12	.6	
Siliqua patula	3.00	4.40	2.20	18	.9	
Solen sicarius	2.00	1.20	1.15	12	.6	
CRUSTACEA	82.33	612.67	25.97	494		25.1
Euphilomedes carcharodonta	3.17	1.37	1.23	19	1.0	
Hemilamprops californica	6.50	9.90	3.30	39	2.0	

Table 44 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Ampelisca compressa	2.33	11.07	3.49	14	.7	
Paraphoxus variatus	8.33	19.47	4.63	50	2.5	
Pinnixa ? *franciscana* juv.	35.00	153.20	12.99	210	10.7	
Pinnixa ? *occidentalis* juv.	2.50	5.10	2.37	15	.8	
OPHIUROIDEA	27.33	167.47	13.58	164		8.3
Amphiodia urtica	4.50	44.70	7.01	27	1.4	
Amphioplus hexacanthus	21.17	63.77	8.38	127	6.4	

Table 45

Major classes and species of organisms at
Station 1152, 10 May 1972

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 112

Total number of individuals: 1591

Class	Number of species	Percent of total identified species
Polychaeta	60	54
Gastropoda	12	11
Bivalvia	15	13
Crustacea	20	18
Ophiuroidea	3	3
Total	110	99

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	81.00	443.20	22.09	486		30.5
Pholoe glabra	2.33	2.27	1.58	14	.9	
Thalenessa spinosa	3.83	.57	.79	23	1.4	
Nephtys caecoides	2.00	4.00	2.10	12	.7	
Spiophanes bombyx	9.33	11.87	3.61	56	3.5	
Spiophanes sp. a	9.83	15.77	4.17	59	3.7	
Magelona nr. *pitelkai*	3.50	11.90	3.62	21	1.3	
Magelona sacculata	2.50	7.50	2.87	15	.9	
Sternaspis fossor	4.17	2.17	1.54	25	1.6	

Table 45 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Mediomastus californiensis	4.17	12.17	3.66	25	1.6	
GASTROPODA	30.17	19.77	4.66	181		11.4
Rictaxis punctocaelatus	2.17	9.77	3.28	13	.8	
Cylichna attonsa	8.17	19.37	4.62	49	3.1	
Volvulella cylindrica	2.00	2.40	1.63	12	.8	
Kurtzia arteaga	2.00	4.40	2.20	12	.8	
Mitrella gouldii	2.83	.97	1.03	17	1.1	
SCAPHOPODA	4.33	1.47	1.27	26		1.6
Cadulus fusiformis	2.50	.70	.88	15	.9	
BIVALVIA	39.83	58.57	8.03	239		15.0
Astarte sp.	2.00	1.60	1.33	12	.8	
Axinospida sp.	5.83	6.97	2.77	35	2.2	
Cooperella subdiaphana	2.17	2.17	1.54	13	.8	
Macoma yoldiformis	9.17	4.57	2.24	55	3.5	
Mysella aleutica	4.17	8.57	3.07	25	1.6	
Nuculana taphrina	4.17	2.97	1.81	25	1.6	
Siliqua patula	6.67	21.47	4.86	40	2.5	
Solen sicarius	2.00	.80	.94	12	.8	
CRUSTACEA	56.67	293.87	17.99	340		21.4
Euphilomedes carcharodonta	7.33	9.07	3.16	44	2.8	
Hemilamprops californica	3.33	5.47	2.45	20	1.3	
Ampelisca compressa	6.67	29.07	5.66	40	2.5	
Ampelisca cristata	2.00	3.60	1.99	12	.8	

Table 45 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Paraphoxus bicuspidata	4.17	1.77	1.39	25	1.6	
Paraphoxus variatus	3.17	2.57	1.68	19	1.2	
OPHIUROIDEA	19.67	23.47	5.08	118		7.4
Amphiodia urtica	9.50	10.70	3.43	57	3.6	
Amphioplus hexacanthus	8.83	14.17	3.95	53	3.3	

Table 46

Major classes and species of organisms at
Station 1176, 10 May 1972

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 132

Total number of individuals: 1783

Class	Number of species	Percent of total identified species
Polychaeta	73	55
Gastropoda	10	8
Bivalvia	18	14
Crustacea	24	18
Ophiuroidea	3	2
Total	128	97

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	135.83	165.37	13.49	815		45.7
Nephtys ferruginea	2.00	3.20	1.88	12	.7	
Glycera capitata	5.33	6.67	2.71	32	1.8	
Lumbrineris cruzensis	5.50	5.10	2.37	33	1.9	
Lumbrineris luti	7.17	5.37	2.43	43	2.4	
Ninoe sp. a	3.00	3.60	1.99	18	1.0	
Prionospio malmgreni	3.67	1.87	1.43	22	1.2	
Paraprionospio pinnata	20.50	76.30	9.16	123	6.9	
Spiophanes bombyx	28.83	37.37	6.41	173	9.7	

Table 46 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Spiophanes missionensis	4.17	1.37	1.23	25	1.4	
Spiophanes sp. a	2.33	2.27	1.58	14	.8	
Sternaspis fossor	6.17	7.37	2.85	37	2.1	
Mediomastus californiensis	3.33	3.87	2.06	20	1.1	
Maldane cristata	3.00	1.60	1.33	18	1.0	
Myriochele heeri	2.00	2.80	1.76	12	.7	
Terebellides stroemi	2.00	4.80	2.30	12	.7	
APLACOPHORA	2.50	2.30	1.59	15		.8
GASTROPODA	18.33	55.47	7.81	110		6.2
Cylichna attonsa	4.50	11.50	3.56	27	1.5	
Kurtzia arteaga	5.00	8.00	2.97	30	1.7	
Mitrella gouldii	2.67	3.07	1.84	16	.9	
SCAPHOPODA	2.67	3.47	1.95	16		.9
Cadulus fusiformis	2.17	2.97	1.81	13	.7	
BIVALVIA	38.00	113.60	11.18	228		12.8
Astarte sp.	2.67	4.27	2.17	16	.9	
Axinospida sp.	20.50	57.50	7.96	123	6.9	
CRUSTACEA	49.17	56.57	7.89	295		16.5
Hemilamprops californica	5.00	5.20	2.39	30	1.7	
Paraphoxus bicuspidatus	2.33	1.87	1.43	14	.8	
Paraphoxus similis	2.17	2.57	1.68	13	.7	
Paraphoxus variatus	3.17	2.97	1.81	19	1.1	
Pinnixa ? occidentalis juv.	17.00	62.80	8.31	102	5.7	

Table 46 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
OPHIUROIDEA	31.00	128.80	11.91	186		10.4
Amphiodia urtica	27.83	113.37	11.17	167	9.4	
HOLOTHURIODEA	2.83	.97	1.03	17		1.0

Table 47

Major classes and species of organisms at Station 1155, 3 May 1972

Summary: completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 120

Total number of individuals: 1894

Class	Number of species	Percent of total identified species
Polychaeta	61	51
Gastropoda	11	9
Bivalvia	20	17
Crustacea	21	18
Ophiuroidea	4	3
Total	117	98

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	110.17	305.77	18.35	661		34.9
Glycera capitata	3.17	2.97	1.81	19	1.0	
Onuphis parva	2.83	2.17	1.54	17	.9	
Lumbrineris luti	14.50	31.10	5.85	87	4.6	
Ninoe sp. a	11.17	26.17	5.37	67	3.5	
Paraonis ivanovi	3.33	3.87	2.06	20	1.1	
Paraprionospio pinnata	22.83	154.57	13.04	137	7.2	
Spiophanes missionensis	2.00	3.20	1.88	12	.6	
Sternaspis fossor	3.67	1.07	1.08	22	1.2	

Table 47 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Maldane cristata	5.17	2.17	1.54	31	1.6	
Terebellides stroemi	3.33	14.67	4.02	20	1.1	
APLACOPHORA	2.67	2.67	1.71	16		.8
GASTROPODA	26.50	72.70	8.95	159		8.4
Cylichna attonsa	6.67	18.27	4.48	40	2.1	
Volvulella cylindrica	2.17	.97	1.03	13	.7	
Kurtzia arteaga	8.17	15.77	4.17	49	2.6	
Mitrella gouldii	4.83	10.57	3.41	29	1.5	
SCAPHOPODA	10.00	33.20	6.05	60		3.2
Cadulus fusiformis	7.83	20.57	4.76	47	2.5	
BIVALVIA	41.50	87.10	9.79	249		13.1
Astarte sp.	7.17	5.37	2.43	43	2.3	
Axinospida sp.	18.00	12.80	3.75	108	5.7	
Nucula tenius	2.67	2.27	1.58	16	.8	
CRUSTACEA	54.33	705.87	27.88	326		17.2
Byblis veleronis	2.00	2.40	1.63	20	.6	
Paraphoxus bicuspidatus	2.67	.67	.86	16	.8	
Paraphoxus similis	2.00	1.60	1.33	12	.6	
Pinnixa ? occidentalis juv.	9.50	86.70	9.77	57	3.0	
ARACHNOIDEA	4.00	8.80	3.11	24		1.3
Ammothella sp. a	4.00	8.80	3.11	24	1.3	
OPHIUROIDEA	42.50	508.70	23.66	255		13.5
Amphiodia urtica	38.17	446.17	22.16	229	12.1	
HOLOTHUROIDEA	6.17	4.97	2.34	37		2.0

Table 48

Major classes and species of organisms at station 1105, 22 Aug 1972

Summary: Completely sorted and analyzed

Number of replicates: 10

Total number of identified species: 79

Total number of individuals 2196

Class	Number of species	Percent of total identified species
Polychaeta	41	52
Gastropoda	3	4
Bivalvia	18	23
Crustacea	15	19
Ophiuroidea	1	1
Total	78	99

Number of individuals in major classes and species:

Taxa	Mean # / .1m2	S^2	Conf. limits	Total #	% of total sp.	% of total CI
POLYCHATEA	49.50	136.72	8.36	495		22.5
Nothria elegans	3.20	4.84	1.57	32	1.5	
Lumbrineris luti	3.10	2.99	1.24	31	1.4	
Haploscoloplos pugettensis	2.30	4.46	1.51	23	1.0	
Phylo felix	3.70	10.01	2.26	37	1.7	
Prionospio pygmaeus	5.80	9.51	2.20	58	2.6	
Spiophanes bombyx	3.80	3.51	1.34	38	1.7	
Magelona sacculata	11.50	40.28	4.54	115	5.2	
GASTROPODA	8.60	18.49	3.07	86		3.9

Table 48 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Olivella pycna	3.00	5.56	1.68	30	1.4	
BIVALVIA	48.40	123.82	7.95	484		22.0
Macoma yoldiformis	7.10	12.10	2.49	71	3.2	
Protothaca satminea	14.40	15.17	2.78	145	6.6	
Tellina modesta	18.90	49.21	5.01	189	8.6	
CRUSTACEA	107.10	473.66	15.55	1071	48.8	
Euphilomedes carcharodonta	86.30	387.79	14.07	863	39.3	
Eohaustroius sencillus	3.40	8.04	2.03	34	1.5	
Paraphoxus daboius	3.40	6.93	1.88	34	1.5	
Paraphoxus epistomus	9.90	16.32	2.89	99	4.5	

Table 49

Major classes and species of organisms at station 1154, 22 Aug 1972

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 61

Total number of individuals: 1191

Class	Number of species	Percent of total identified species
Polychaeta	26	42
Gastropoda	6	10
Bivalvia	16	26
Crustacea	12	20
Ophiuroidea	1	2
Total	61	100

Number of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	Cl.
POLYCHAETA	47.50	90.70	9.99	285		23.9
Nephtys caecoides	2.67	1.87	1.43	16	1.3	
Glycinde sp. a	2.67	5.47	2.45	16	1.3	
Nothria elegans	2.50	7.90	2.95	15	1.3	
Lumbrineris luti	4.17	6.17	2.61	25	2.1	
Haploscoloplos pugettensis	4.50	.70	.88	27	2.3	
Phylo felix	4.33	9.07	3.16	26	2.2	
Prionospio pygmaeus	3.83	5.37	2.43	23	1.9	
Spiophanes bombyx	3.17	2.97	1.81	19	1.6	

Table 49 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Chaetozone setosa	4.00	1.60	1.33	24	2.0	
GASTROPODA	11.67	27.47	5.50	70		5.9
Kurtziella plumbea	2.33	15.47	4.13	14	1.2	
Olivella pycna	4.00	9.60	3.25	24	2.0	
BIVALVIA	44.33	359.07	19.88	266		22.3
Cooperella subdiaphana	3.17	4.57	2.24	19	1.6	
Macoma yoldiformis	10.17	41.37	6.75	61	5.1	
Tellina modesta	22.33	120.27	11.51	134	11.3	
CRUSTACEA	91.50	53.90	7.70	549		46.1
Euphilomedes carcharodonta	82.00	80.40	9.41	492	41.3	
Paraphoxus daboius	7.83	58.97	8.06	47	3.9	

Table 50

Major classes and species of organisms at station 1153, 23 Aug 1972

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified speceis: 103

Total number of individuals : 1387

Class	Number of species	Percent of total identified species
Polychaeta	49	48
Gastropoda	9	9
Bivalvia	17	17
Crustacea	25	24
Ophiuroidea	1	1
Total	101	99

Number of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	63.67	1213.47	36.55	382		27.5
Glycera convoluta	3.00	4.00	2.10	18	1.3	
Glycinde sp. a	3.00	4.00	2.10	18	1.3	
Nothria elegans	8.83	57.77	7.97	53	3.8	
Lumbrineris luti	9.83	74.17	9.04	59	4.3	
Haploscoloplos pugettensis	2.00	4.40	2.20	12	.9	
Prionospio pygmaeus	2.67	8.27	3.02	16	1.2	
Spiophanes bombyx	2.17	3.77	2.04	13	.9	
Chaetozone setosa	3.17	5.77	2.52	19	2.0	

Table 50 (continued)

Taxa	Mean # / .1m2	S^2	Conf. limits	Total #	% of total sp.	Cl.
Scalibregma inflatum	4.67	21.87	4.91	28	2.0	
Ampharete nr. *labrops*	6.50	195.50	14.67	39	2.8	
GASTROPODA	40.67	1128.67	35.25	244		17.6
Alvinia acutelirata	9.50	394.70	20.84	57	4.1	
Kurtziella plumbea	2.67	2.27	1.58	16	1.2	
Mitrella tuberosa	1.83	20.17	4.71	11	.8	
Nassarius mendicus	4.67	32.67	6.00	28	2.0	
Olivella pycna	12.83	62.57	8.30	77	5.6	
BIVALVIA	48.83	298.17	18.12	293		21.1
Cooperella subdiaphana	2.67	2.27	1.58	16	1.2	
Macoma yoldiformis	4.50	5.90	2.55	27	1.9	
Modiolus rectus	4.00	62.80	8,31	24	1.7	
Nuculana taphrina	5.17	13.37	3.84	31	2.2	
Pandora punctata	3.17	2.57	1.68	19	1.4	
Protothaca staminea	3.00	2.00	1.48	18	1.3	
Siliqua patula	5.83	12.57	3.72	35	2.5	
Tellina modesta	13.67	112.67	11.14	82	5.9	
CRUSTACEA	69.50	1213.10	36.54	417		30.1
Euphilomedes carcharodonta	30.83	135.37	12.21	185	13.3	
Hemilamprops californica	2.00	1.60	1.33	12	.9	
Bathycopea daltonae	4.50	19.90	4.68	27	1.9	
Ampelisca cristata	3.33	5.87	2.54	20	1.4	
Aoroides columbiae	3.00	54.00	7.71	18	1.3	
Protomedeia (*C.*) *zotea*	7.17	244.17	16.39	43	3.1	

Table 51

Major classes and species of organisms at station 1159, 22 Aug 1972

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 113

Total number of individuals: 2878

Class	Number of species	Percent of total identified species
Polychaeta	60	53
Gastropoda	12	11
Bivalvia	17	15
Crustacea	20	18
Ophiuroidea	1	1
Total	110	98

Number of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	Cl.
POLYCHAETA	148.33	2205.07	49.27	890		30.9
Gyptis brevipalpa	2.17	2.97	1.81	13	.5	
Neris zonata	2.00	6.40	2.65	12	.4	
Glycera americana	3.17	6.57	2.69	19	.7	
Glycinde sp. a	6.00	6.40	2.65	36	1.3	
Nothria elegans	10.33	27.87	5.54	62	2.2	
Lumbrineris luti	27.83	212.17	15.28	167	5.8	
Haploscoloplos pugettensis	12.00	3.20	1.88	72	2.5	
Pseudopolydora sp. a	2.83	9.77	3.28	17	.6	
Magelona sacculata	4.67	21.47	4.86	28	1.0	

Table 51 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Scalibregma inflatum	17.00	14.00	3.93	102	3.5	
Heteromastus filobranchus	2.00	2.40	1.63	12	.4	
Mediomastus californiensis	4.00	6.80	2.74	24	.8	
Notomastus (*C.*) *tenuis*	8.00	17.60	4.40	48	1.7	
Axiothella robrocincta	3.17	3.77	2.04	19	.7	
Ampharete nr. *labrops*	9.00	347.60	19.56	54	1.9	
GASTROPODA	45.50	1248.70	37.08	273		9.5
Cylichna attonsa	4.17	7.37	2.85	25	.9	
Alvinia acutelirata	7.83	223.37	15.68	47	1.6	
Mitrella gouldii	5.00	106.40	10.82	30	1.0	
Nassarius mendicus	9.67	111.47	11.08	58	2.0	
Olivella pycna	3.17	3.77	2.04	19	.7	
BIVALVIA	158.00	4398.40	69.58	948		32.9
Macoma yoldiformis	15.50	243.50	16.37	93	3.2	
Mya arenaria	2.50	17.50	4.39	15	.5	
Mysella aleutica	8.67	14.27	3.96	52	.9	
Nuculana taphrina	3.67	6.67	2.71	22	.8	
Protothaca staminea	4.00	3.60	1.99	24	.8	
Siliqua patula	4.00	20.40	4.74	24	.8	
Tellina modesta	108.00	2254.40	49.82	648	22.5	
Transennella tantilla	3.50	18.30	4.49	21	.7	
CRUSTACEA	104.83	12504.97	117.33	629		21.9
Euphilomedes carcharodonta	40.67	219.87	15.56	244	8.5	
Ampelisca cristata	4.50	3.50	1.96	27	.9	

Table 51 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Photis brevipes	9.00	486.00	23.13	54	1.9	
Protomedeia (*C.*) *zotea*	5.50	168.70	13.63	33	1.1	
Caprella californica	8.33	397.07	20.91	50	1.7	
Caprella mendax	3.33	66.67	8.57	20	.7	
Tritella pilimana	2.17	28.17	5.57	13	.5	

Table 52

Major classes and species of organisms at station 1158, 22 Aug 1972

Summary: Completely sorted and analyzed

Number of replictaes: 6

Total number of identified species: 94

Total number of individuals: 1432

Class	Number of species	Percent of total identified species
Polychaeta	52	55
Gastropoda	11	12
Bivalvia	14	15
Crustacea	14	15
Ophiuroidea	2	2
Total	93	99

Number of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	46.83	44.57	7.00	281		19.4
Glycinde sp. a	3.67	6.27	2.63	22	1.5	
Nothria elegans	7.50	14.30	3.97	45	3.1	
Spiophanes bombyx	2.00	1.60	1.33	12	.8	
Magelona nr. *pitelkai*	3.33	3.87	2.06	20	1.4	
Magelona sacculata	2.83	.17	.43	17	1.2	
Mediomastus californiensis	2.83	.97	1.03	17	1.2	
GASTROPODA	16.33	96.67	10.32	98		6.7
Cylichna attonsa	3.83	5.77	2.52	23	1.6	
Mitrella gouldii	3.50	15.50	4.13	21	1.4	

Table 52 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
BIVALVIA	36.67	181.07	14.12	220		15.2
Macoma yoldiformis	9.67	31.47	5.89	58	4.0	
Mysella aleutica	2.67	.67	.86	16	1.1	
Nuculana taphrina	15.50	54.70	7.76	93	6.4	
Protothaca staminea	2.17	.57	.79	13	.9	
CRUSTACEA	76.33	151.07	12.90	458		31.5
Euphilomedes carcharodonta	56.67	150.27	12.86	340	23.4	
Ampelisca cristata	8.00	6.80	2.74	48	3.3	
Paraphoxus daboius	4.83	9.37	3.21	29	2.0	

Table 53

Major classes and species of organisms at station 1177, 23 Aug 1972

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 97

Total number of individuals : 1019

Class	Number of species	Percent of total identified species
Polychaeta	54	56
Gastropoda	11	11
Bivalvia	9	9
Crustacea	18	19
Ophiuroidea	2	2
Total	94	97

Number of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	Cl.
POLYCHAETA	59.17	105.37	10.77	355		34.8
Thalenessa spinosa	3.17	1.77	1.39	19	1.9	
Glycinde sp. a	3.50	4.30	2.18	21	2.1	
Prionospio malmgreni	3.33	3.47	1.95	20	2.0	
Spiophanes bombyx	5.00	11.60	3.57	30	2.9	
Magelona nr. *pitelkai*	4.67	11.07	3.49	28	2.7	
Magelona sacculata	4.50	11.10	3.50	27	2.6	
Chaetozone setosa	4.50	2.30	1.59	27	2.6	
GASTROPODA	26.33	94.27	10.19	158		15.5

Table 53 (continued)

Taxa	Mean # / .1m^2	s^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Cylichna attonsa	6.33	10.67	3.43	38	3.7	
Epitonium tinctum	2.33	9.07	3.16	14	1.4	
Kurtzia arteaga	3.50	3.50	1.96	21	2.1	
Mitrella gouldii	5.83	31.37	5.88	35	3.4	
SCAPHOPODA	4.17	4.57	2.24	25		2.5
Cadulus fusiformis	3.50	5.90	2.55	21	2.1	
BIVALVIA	14.67	18.27	4.48	88		8.6
Compsomyax subdiaphana	2.00	2.40	1.63	12	1.2	
Cooperella subdiaphana	3.50	3.10	1.85	21	2.1	
Macoma yoldiformis	2.50	1.10	1.10	15	1.5	
Nuculana taphrina	2.17	4.57	2.24	13	1.3	
CRUSTACEA	34.67	269.87	17.24	208		20.4
Hemilamprops californica	5.50	9.10	3.17	33	3.2	
Ampelsica cristata	3.33	3.87	2.06	20	2.0	
Protomedeia (C.) zotea	3.17	46.57	7.16	19	1.9	
Paraphoxus epistomus	10.33	4.27	2.17	62	6.1	
OPHIUROIDEA	10.50	55.50	7.82	63		6.2
Amphiodia urtica	3.83	2.97	1.81	23	2.3	
Amphioplus hexacanthus	5.83	46.57	7.16	35	3.4	

Table 54

Major classes and species of organisms at station 1175, 23 Aug 1972

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 99

Total number of individuals: 1465

Class	Number of species	Percent of total identified species
Polychaeta	52	53
Gastropoda	11	11
Bivalvia	16	16
Crustacea	16	16
Ophiuroidea	3	3
Total	98	99

Number of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	89.50	230.70	15.94	537		36.7
Lumbrineris luti	2.00	4.40	2.20	12	.8	
Prionospio malmgreni	2.67	1.87	1.43	16	1.1	
Spiophanes missionensis	2.00	5.20	2.39	12	.8	
Spiophanes sp. a	2.00	8.40	3.04	12	.8	
Magelona nr. *pitelkai*	4.00	5.60	2.48	24	1.6	
Magelona sacculata	35.67	563.87	24.91	214	14.6	
Chaetozone setosa	2.33	5.07	2.36	14	1.0	
GASTROPODA	32.67	77.87	9.26	196		13.4

Table 54 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Cylichna attonsa	7.83	24.57	5.20	47	3.2	
Kurtzia arteaga	5.50	26.30	5.38	33	2.3	
Mitrella gouldii	8.17	26.97	5.45	49	3.3	
SCAPHOPODA	4.67	11.07	3.49	28		1.9
Cadulus fusiformis	3.00	3.60	1.99	18	1.2	
BIVALVIA	18.67	255.07	16.76	112		7.6
Astarte sp.	2.83	11.37	3.54	17	1.2	
Axinospida sp.	5.67	68.27	8.67	34	2.3	
Nuculana taphrina	2.83	2.97	1.81	17	1.2	
CRUSTACEA	42.83	252.57	16.67	257		17.5
Euphilomedes carcharodonta	21.67	441.87	22.05	130	8.9	
Paraphoxus epistomus	2.17	5.77	2.52	13	.9	
Paraphoxus variatus	12.00	270.40	17.25	72	4.9	
OPHIUROIDEA	4.50	15.50	4.13	27		1.8

Table 55

Major classes and species of organisms at station 1156, 22 Aug 1972

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 120

Total number of individuals: 1401

Class	Number of species	Percent of total identified species
Polychaeta	68	57
Gastropoda	14	12
Bivalvia	15	13
Crustacea	17	14
Ophiuroidea	3	3
Total	117	99

Number of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	Cl.
POLYCHAETA	75.33	141.87	12.50	452		32.3
Pholoe glabra	3.17	2.97	1.81	19	1.4	
Nephtys caecoides	2.17	2.57	1.68	13	.9	
Aricidea nr. *suecica*	2.17	2.57	1.68	13	.9	
Spiophanes bombyx	8.00	9.20	3.18	48	3.4	
Magelona nr. *pitelkai*	6.83	6.57	2.69	41	2.9	
Cossura rostrata	3.33	11.87	3.61	20	1.4	
Sternaspis fossor	4.00	6.40	2.65	24	1.7	
Mediomastus californiensis	5.17	3.77	2.04	31	2.2	

Table 55 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
GASTROPODA	32.17	147.37	12.74	193		13.8
Cylichna attonsa	9.17	16.17	4.22	55	3.9	
Volvulella cylindrica	2.00	1.60	1.33	12	.9	
Kurtzia arteaga	7.00	24.40	5.18	42	3.0	
Mitrella gouldii	4.17	19.37	4.62	25	1.8	
SCAPHOPODA	6.33	3.07	1.84	38		2.7
Cadulus fusiformis	5.33	5.07	2.36	32	2.3	
BIVALVIA	27.50	121.10	11.55	165		11.8
Astarte sp.	2.00	1.60	1.33	12	.9	
Compsomyax subdiaphana	3.67	2.67	1.71	22	1.6	
Cooperella subdiaphana	2.50	17.90	4.44	15	1.1	
Macoma yoldiformis	8.33	15.47	4.13	50	3.6	
Mysella aleutica	2.83	7.77	2.92	17	1.2	
Nucula tenuis	2.17	1.37	1.23	13	.9	
Nuculana taphrina	2.00	.80	.94	12	.9	
CRUSTACEA	31.50	3.90	2.07	189		13.5
Euphilomedes carcharodonta	3.00	4.80	2.30	18	1.3	
Hemilamprops californica	5.50	3.90	2.07	33	2.4	
Paraphoxus bicuspidatus	2.83	4.57	2.24	17	1.2	
Paraphoxus variatus	10.17	4.97	2.34	61	4.4	
OPHIUROIDEA	28.50	24.30	5.17	171		12.2
Amphiodia urtica	22.17	29.37	5.69	133	9.5	
Amphioplus hexacanthus	2.67	11.87	3.61	16	1.1	

Table 56

Major classes and species of organisms at station 1152, 23 Aug 1972

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 115

Total number of individuals: 1201

Class	Number of species	Percent of total identified species
Polychaeta	64	56
Gastropoda	13	11
Bivalvia	15	13
Crustacea	18	16
Ophiuroidea	3	3
Total	113	99

Number of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	69.00	28.80	5.63	414		34.5
Thalenessa spinosa	4.00	2.00	1.48	24	2.0	
Nephtys caecoides	2.17	1.77	1.39	13	1.1	
Glycinde sp. a	2.50	1.50	1.29	15	1.2	
Aricidia nr. *suecica*	2.33	.27	.54	14	1.2	
Paraprionospio pinnata	2.17	2.97	1.81	13	1.1	
Spiophanes bombyx	2.83	6.17	2.61	17	1.4	
Magelona nr. *pitelkai*	3.17	17.77	4.42	19	1.6	
Brada villosa	2.17	.57	.79	13	1.1	

Table 56 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Sternaspis fossor	3.33	2.27	1.58	20	1.7	
Mediomastus californiensis	4.83	32.57	5.99	29	2.4	
Praxillella affinis pacifica	2.33	3.47	1.95	14	1.2	
Owenia collaris	2.83	2.57	1.68	17	1.4	
GASTROPODA	17.83	46.17	7.13	107		8.9
Cylichna attonsa	6.33	14.67	4.02	38	3.2	
SCAPHOPODA	4.83	10.17	3.35	29		2.4
Cadulus fusiformis	4.83	10.17	3.35	29	2.4	
BIVALVIA	22.33	15.87	4.18	170		14.2
Axinospida sp.	4.67	10.27	3.36	28	2.3	
Macoma yoldiformis	5.33	7.47	2.87	32	2.7	
Mysella aelutica	4.50	2.70	1.72	27	2.2	
Nuculana taphrina	5.50	2.70	1.72	33	2.7	
CRUSTACEA	36.50	21.50	4.86	219		18.2
Euphilomedes carcharodonta	14.33	11.07	3.49	86	7.2	
Hemilamprops californica	2.33	4.27	2.17	14	1.2	
Ampelisca cristata	3.17	6.97	2.77	19	1.6	
Paraphoxus bicuspidatus	2.33	3.07	1.84	14	1.2	
Paraphoxus variatus	4.00	1.60	1.33	24	2.0	
OPHIUROIDEA	19.17	44.17	6.97	115		9.6
Amphiodia urtica	7.50	4.30	2.18	45	3.7	
Amphioplus hexacanthus	10.50	42.70	6.86	63	5.2	

Table 57

Major classes and species of organisms at station 1176, 23 Aug 1972

Summary: Completely sorted and analyzed

Number of replictaes: 6

Total number of identified species: 115

Total number of individuals: 1115

Class	Number of species	Percent of total identified species
Polychaeta	69	60
Gastropoda	7	6
Bivalvia	12	10
Crustacea	20	17
Ophiuroidea	3	3
Total	111	96

Number of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	72.50	77.50	9.24	435		39.0
Glycera capitata	2.83	.57	.79	17	1.5	
Lumbrineris cruzensis	3.17	.57	.79	19	1.7	
Lumbrineris luti	8.50	7.50	2.87	51	4.6	
Ninoe sp. a	4.17	28.57	5.61	25	2.2	
Paraprionospio pinnata	9.83	38.97	6.55	59	5.3	
Sternaspis fossor	2.83	1.37	1.23	17	1.5	
Maldane cristata	5.00	6.00	2.57	30	2.7	
Terebellides stroemi	3.67	5.87	2.54	22	2.0	

Table 57 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
APLACOPHORA	2.00	2.40	1.63	12		1.1
GASTROPODA	16.17	28.97	5.65	97		8.7
Cylichna attonsa	2.83	3.77	2.04	17	1.5	
Alvinia acutelirata	3.33	5.47	2.45	20	1.8	
Kurtzia arteaga	5.00	4.80	2.30	30	2.7	
Mitrella gouldii	2.17	3.37	1.93	13	1.2	
SCAPHOPODA	2.33	11.47	3.55	14		1.3
BIVALVIA	24.50	39.90	6.63	147		13.2
Axinospida sp.	17.50	49.50	7.38	105	9.4	
CRUSTACEA	21.17	32.97	6.02	127		11.4
Heterophoxus oculatus	2.50	6.30	2.63	15	1.3	
Pinnixa occidentalis	7.00	2.00	1.48	42	3.8	
OPHIUROIDEA	32.17	55.77	7.84	193		17.3
Amphiodia urtica	23.17	24.17	5.16	139	12.5	

Table 58

Major classes and species of organisms at station 1155, 22 Aug 1972

Summary: Completely sorted and analyzed

Number of replicates: 6

Total number of identified species: 118

Total number of individuals: 2084

Class	Number of species	Percent of total identified species
Polychaeta	62	53
Gastropoda	8	7
Bivalvia	19	16
Crustacea	21	18
Ophiuroidea	4	3
Total	114	97

Number of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	130.83	402.97	21.06	785		37.7
Nephtys ferruginea	3.50	3.50	1.96	21	1.0	
Glycera capitata	5.83	3.37	1.93	35	1.7	
Lumbrineris cruzensis	4.83	8.17	3.00	29	1.4	
Lumbrineris luti	18.17	13.37	3.84	109	5.2	
Ninoe sp. a	7.67	11.47	3.55	46	2.2	
Paraonis ivanovi	6.00	19.60	4.64	36	1.7	
Paraprionospio pinnata	27.00	59.60	8.10	162	7.8	
Spiophanes bombyx	7.17	13.37	3.84	43	2.1	

Table 58 (continued)

Taxa	Mean # / .1m^2	s^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Spiophanes missionensis	2.50	5.90	2.55	15	.7	
Sternaspis fossor	3.67	4.67	2.27	22	1.1	
Maldane cristata	9.33	148.67	12.79	56	2.7	
Terebellides stroemi	2.17	1.77	1.39	13	.6	
ARLACHOPHORA	3.67	8.67	3.09	22		1.1
GASTROPODA	18.33	46.67	7.17	110		5.3
Cylichna attonsa	5.67	10.27	3.36	34	1.6	
Kurtzia arteaga	6.67	34.67	6.18	40	1.9	
Mitrella gouldii	2.50	22.30	4.95	15	.7	
SCAPHOPODA	10.83	33.37	6.06	65		3.1
Cadulus fusiformis	7.33	11.47	3.55	44	2.1	
BIVALVIA	36.50	111.90	11.10	219		10.5
Astarte sp.	7.50	14.30	3.97	45	2.2	
Axinospida sp.	13.50	11.90	3.62	81	3.9	
Compsomyax subdiaphana	2.17	5.77	5.25	13	.6	
Nucula tenuis	2.67	2.27	1.58	16	.8	
Yoldia sp.	2.67	17.07	4.33	16	.8	
CRUSTACEA	35.67	15.87	4.18	214		10.3
Gnathia crenulatifrons	3.33	9.47	3.23	20	1.0	
Ampelisca hancocki	2.00	.40	.66	12	.6	
Byblis veleronis	4.17	2.97	1.81	25	1.2	
Paraphoxus bicuspidatus	3.33	5.07	2.36	20	1.0	
Paraphoxus variatus	4.17	24.57	5.20	25	1.2	
Pinnixa occidentalis	5.00	8.80	3.11	30	1.4	

Table 58 (continued)

Taxa	Mean # / .1m2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl
ARACHNOIDEA	3.50	9.90	3.30	21		1.0
Ammothella sp. a	3.50	9.90	3.30	21	1.0	
OPHIUROIDEA	49.67	639.07	26.52	298		14.3
Amphiodia urtica	29.83	360.97	19.93	179	8.6	
HOLOTHUROIDEA	3.33	9.07	3.16	20		1.0

Table 59

Major classes and species of organisms at
Station 1105, 17 Nov 1972

Summary: Bivalvia not included

Number of replicates: 12

Total number of identified species: 64

Total number of individuals: 2035

Class	Number of species	Percent of total identified species
Polychaeta	38	59
Gastropoda	6	9
Bivalvia		
Crustacea	18	28
Ophiuroidea	1	2
Total	63	98

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	51.08	513.36	14.39	613		30.1
Glycera convoluta	2.08	1.90	.88	25	1.2	
Nothria elegans	5.42	10.08	2.02	65	3.2	
Lumbrineris luti	2.92	9.72	1.98	35	1.7	
Haploscoloplos pugettensis	3.42	6.81	1.66	41	2.0	
Phylo felix	3.00	10.18	2.03	36	1.8	
Prionospio pygmaeus	2.75	6.93	1.67	33	1.6	
Siphophanes bombyx	3.08	4.81	1.39	37	1.8	
Magelona nr. *pitelkai*	2.92	37.36	3.88	35	1.7	

Table 59 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Magelona sacculata	14.42	36.99	3.86	173	8.5	
Chaetozone setosa	3.83	5.79	1.53	46	2.3	
GASTROPODA	17.67	45.70	4.29	212		10.4
CRUSTACEA	88.42	311.72	11.21	1061		52.1
Euphilomedes carcharodonta	72.08	255.54	10.15	865	42.5	
Paraphoxus daboius	6.92	7.36	1.72	83	4.1	
Paraphoxus epistomus	4.83	12.70	2.26	58	2.9	
OPHIUROIDEA	2.67	4.06	1.28	32		1.6
ECHINOIDEA	7.00	31.09	3.54	84		4.1

Table 60

Major classes and species of organisms at
Station 1154, 17 Nov 1972

Summary: Bivalvia not included

Number of replicates: 6

Total number of identified species: 61

Total number of individuals: 1067

Class	Number of species	Percent of total identified species
Polychaeta	36	59
Gastropoda	10	16
Bivalvia		
Crustacea	14	23
Ophiuroidea	1	2
Total	61	100

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	65.33	365.47	20.06	392		36.7
Nephtys caecoides	2.33	7.47	2.87	14	1.3	
Nothria elegans	2.17	2.17	1.54	13	1.2	
Lumbrineris luti	12.33	52.67	7.61	74	6.9	
Haploscoloplos pugettensis	11.67	57.07	7.93	70	6.6	
Phylo felix	3.00	2.00	1.48	18	1.7	
Magelona sacculata	5.17	8.97	3.14	31	2.9	
Chaetozone setosa	13.17	68.97	8.71	79	7.4	

Table 60 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
GASTROPODA	16.33	60.27	8.15	98		9.2
Kurtziella plumbea	2.17	11.77	3.60	13	1.2	
CRUSTACEA	90.17	801.37	29.70	541		50.7
Euphilomedes carcharodonta	84.00	838.00	30.37	504	47.2	

Table 61

Major classes and species of organisms at
Station 1153. 18 Nov 1972

Summary: Bivalvia not included

Number of replicates: 6

Total number if identified species: 59

Total number of individuals: 749

Class	Number of species	Percent of total identified species
Polychaeta	39	66
Gastropoda	4	7
Bivalvia		
Crustacea	15	25
Ophiuroidea	1	2
Total	59	100

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	69.50	489.90	23.22	417		55.7
Glycera convoluta	2.83	6.17	2.61	17	2.3	
Nothria elegans	2.00	6.00	2.57	12	1.6	
Lumbrineris luti	14.50	47.90	7.26	87	11.6	
Haploscoloplos pugettensis	3.17	10.17	3.35	19	2.5	
Phylo felix	2.00	2.00	1.48	12	1.6	
Chaetozone setosa	2.50	4.30	2.18	15	2.0	
Scalibregma inflatum	23.33	253.87	16.72	140	18.7	
Amaeana occidentalis	4.00	10.00	3.32	24	3.2	

Table 61 (continued)

Taxa	Mean # / .1m^2	S2	Conf. limits	Total #	% of total sp.	% of total Cl.
GASTROPODA	19.83	122.17	11.60	119		15.9
Kurtziella plumbea	2.00	.80	.94	12	1.6	
Olivella pycna	10.83	101.77	10.58	65	8.7	
CRUSTACEA	27.00	350.40	19.64	162		21.6
Euphilomedes carcharodonta	17.50	179.10	14.04	105	14.0	
Cyclaspis nubila	2.00	4.40	2.20	12	1.6	
Bathycopea daltonae	2.83	13.37	3.84	17	2.3	

Table 62

Major classes and species of organisms at
Station 1159, 17 Nov 1972

Summary: Bivalvia not included

Number of replicates: 6

Total number of identified species: 93

Total number of individuals: 1307

Class	Number of species	Percent of total identified species
Polychaeta	67	72
Gastropoda	10	11
Bivalvia		
Crustacea	13	14
Ophiuroidea	1	1
Total	91	98

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	129.83	899.77	31.47	779		59.6
Eumida sp.a	2.00	7.60	2.89	12	.9	
Langerhansia nr. *heterochaeata*	2.17	4.57	2.24	13	1.0	
Glycera americana	2.33	3.07	1.84	14	1.1	
Nothria elegans	12.33	32.67	6.00	74	5.7	
Lumbrineris luti	12.50	17.90	4.44	75	5.7	
Haploscoloplos pugettensis	9.33	9.87	3.30	56	4.3	
Spiophanes sp. a	2.33	2.67	1.71	14	1.1	
Heteromastus filobranchus	3.33	3.87	2.06	20	1.5	

Table 62 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Mediomastus californiensis	6.50	13.10	3.80	39	3.0	
Notomastus (*C.*) *tenuis*	6.00	5.60	2.48	36	2.8	
Notomastus magnus	2.17	2.17	1.54	13	1.0	
Axiothella rubrocincta	2.17	5.37	2.43	13	1.0	
? *Clymenella* sp. a	2.17	7.37	2.85	13	1.0	
Ampharete nr. *labrops*	3.50	19.10	4.59	21	1.6	
Amaeana occidentalis	6.00	9.20	3.18	36	2.8	
Streblosoma sp. a	2.33	3.07	1.84	14	1.1	
GASTROPODA	50.00	410.40	21.26	300		23.0
Cylichna attonsa	6.17	6.17	2.61	37	2.8	
Alvinia acutelirata	8.67	8.67	3.09	52	4.0	
Mitrella tuberosa	5.50	19.50	4.63	33	2.5	
Nassarius mendicus	16.33	197.87	14.76	98	7.5	
Scissilabra dalli	5.67	65.87	8.52	34	2.6	
SCAPHOPODA	9.50	4.70	2.27	57		4.4
Cadulus fusiformis	8.33	2.67	1.71	50	3.8	
CRUSTACEA	9.17	50.17	7.43	55		4.2
Photis brevipes	2.17	23.37	5.07	13	1.0	
Pinnixa franciscana	2.00	3.60	1.99	12	.9	
ARACHNOIDEA	2.00	2.00	1.48	12		.9
Ammothella sp. a	2.00	2.00	1.48	12	.9	

Table 63

Major classes and species of organisms at
Station 1158, 17 Nov 1972

Summary: Bivalvia not included

Number of replicates: 6

Total number of identified species: 67

Total number of individuals: 1309

Class	Number of species	Percent of total identified species
Polychaeta	46	69
Gastropoda	9	13
Bivalvia		
Crustacea	9	13
Ophiuroidea	2	3
Total	66	98

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	55.50	31.50	5.89	333		25.4
Thalenessa spinosa	2.67	1.87	1.43	16	1.2	
Glycinde sp. a	3.00	2.40	1.63	18	1.4	
Nothria elegans	6.33	8.67	3.09	38	2.9	
Spiophanes bombyx	2.33	2.67	1.71	14	1.1	
Magelona nr. *pitelkai*	5.17	7.37	2.85	31	2.4	
Magelona sacculata	6.33	11.47	3.55	38	2.9	
Mediomastus californiensis	4.33	75.07	9.09	26	2.0	
Streblosoma sp. a	7.00	12.80	3.75	42	3.2	

Table 63 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
GASTROPODA	21.00	44.80	7.02	126		9.6
Cylichna attonsa	4.00	2.00	1.48	24	1.8	
SCAPHOPODA	3.33	5.47	2.45	20		1.5
CRUSTACEA	107.33	403.07	21.06	644		49.2
Euphilomedes carcharodonta	97.50	326.30	18.95	585	44.7	
Ampelisca cristata	2.50	5.90	2.55	15	1.1	
Paraphoxus daboius	4.17	11.37	3.54	25	1.9	
OPHIUROIDEA	2.33	5.47	2.45	14		1.1

Table 64

Major classes and species of organisms at
Station 1177, 18 Nov 1972

Summary: Bivalvia not included

Number of replicates: 6

Total number of identified species: 69

Total number of individuals: 776

Class	Number of species	Percent of total identified species
Polychaeta	45	65
Gastropoda	10	14
Bivalvia		
Crustacea	9	13
Ophiuroidea	3	4
Total	67	96

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	64.33	205.47	15.04	386		49.7
Thalenessa spinosa	4.00	6.40	2.65	24	3.1	
Glycinde sp. a	2.50	4.30	2.18	15	1.9	
Spiophanes bombyx	6.00	12.80	3.75	36	4.6	
Magelona nr. *pitelkai*	6.33	7.87	2.94	38	4.9	
Magelona sacculata	17.17	22.17	4.94	103	13.3	
Chaetozone setosa	7.33	3.07	1.84	44	5.7	
GASTROPODA	20.17	113.77	11.19	121		15.6
Kurtzia arteaga	3.67	3.87	2.06	22	2.8	

Table 64 (continued)

Taxa	Mean # / .1m2	S2	Conf. limits	Total #	% of total sp.	% of total Cl.
Mitrella gouldii	7.33	51.47	7.53	44	5.7	
CRUSTACEA	24.00	65.20	8.47	144		18.6
Euphilomedes carcharodonta	6.00	11.20	3.51	36	4.6	
Ampelisca compressa	3.17	24.57	5.20	19	2.4	
Paraphoxus epistomus	9.67	30.67	5.81	58	7.5	
OPHIUROIDEA	9.67	5.87	2.54	58		7.5
Amphiodia urtica	2.67	3.47	1.95	16	2.1	
Amphioplus hexacanthus	6.17	4.57	2.24	37	4.8	

Table 65

Major classes and species of organisms at
Station 1175, 17 Nov 1972

Summary: Bivalvia not included

Number of replicates: 6

Total number of identified species: 86

Total number of individuals: 1172

Class	Number of species	Percent of total identified species
Polychaeta	53	62
Gastropoda	12	14
Bivalvia		
Crustacea	17	20
Ophiuroidea	3	3
Total	85	99

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	95.50	280.30	17.57	573		48.9
Thalenessa spinosa	4.67	5.07	2.36	28	2.4	
Phylo felix	7.00	44.00	6.96	42	3.6	
Prionospio malmgreni	8.00	10.80	3.45	48	4.1	
Magelona nr. *pitelkai*	3.17	11.37	3.54	19	1.6	
Magelona sacculata	28.50	367.90	20.12	171	14.6	
Praxillella affinis pacifica	4.17	76.97	9.20	25	2.1	
Amphicteis scaphobranchia	3.33	8.67	3.09	20	1.7	
GASTROPODA	26.00	166.40	13.53	156		13.3

Table 65 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Kurtzia arteaga	7.17	27.37	5.49	43	3.7	
Mitrella gouldii	4.33	13.07	3.79	25	2.2	
SCAPHOPODA	6.33	13.07	3.79	38		3.2
Cadulus fusiformis	3.83	4.97	2.34	23	2.0	
CRUSTACEA	35.83	150.17	12.86	215		18.3
Euphilomedes carcharodonta	13.33	97.47	10.36	80	6.8	
Paraphoxus daboius	8.00	71.20	8.85	48	4.1	
Paraphoxus variatus	27.00	2036.00	47.34	162	13.8	
OPHIUROIDEA	5.33	22.67	5.00	32		2.7
Amphioplus hexacanthus	2.83	4.57	2.24	17	1.5	

Table 66

Major classes and species of organisms at
Station 1156, 17 Nov 1972

Summary: Bivalvia not included

Number of replicates: 6

Total number of identified species: 91

Total number of individuals: 968

Class	Number of species	Percent of total identified species
Polychaeta	55	60
Gastropoda	11	12
Bivalvia		
Crustacea	19	21
Ophiuroidea	3	3
Total	88	96

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S2	Conf. limits	Total #	% of total sp.	Cl.
POLYCHAETA	63.33	123.87	11.68	380		39.3
Thalenessa spinosa	2.67	1.87	1.43	16	1.7	
Glycinde sp.a	3.17	4.17	2.14	19	2.0	
Spiophanes bombyx	5.17	8.57	3.07	31	3.2	
Magelona nr. *pitelkai*	2.67	2.67	1.71	16	1.7	
Magelona sacculata	5.33	11.47	3.55	32	3.3	
Sternaspis fossor	2.33	7.07	2.79	14	1.4	
? *Clymenella* sp. a	4.33	14.27	3.96	26	2.7	
Amaeana occidentalis	5.50	6.70	2.72	33	3.4	

Table 66 (continued)

Taxa	Mean # / .1m^2	S2	Conf. limits	Total #	% of total sp.	% of total Cl.
GASTROPODA	23.17	59.37	8.08	139		14.4
Cylichna attonsa	6.67	10.67	3.43	40	4.1	
Kurtzia arteaga	4.83	7.77	2.92	29	3.0	
Mitrella gouldii	3.17	7.77	2.92	19	2.0	
SCAPHOPODA	5.33	2.27	1.58	32		3.3
CRUSTACEA	28.00	15.60	4.14	168		17.4
Euphilmedes carcharodonta	5.33	3.07	1.84	32	3.3	
Ampelisca compressa	2.50	7.50	2.87	15	1.5	
Paraphoxus epistomus	3.33	3.07	1.84	33	2.1	
Paraphoxus variatus	26.67	2183.07	49.02	160	16.5	
OPHIUROIDEA	25.33	33.47	6.07	152		15.7
Amphiodia urtica	3.00	6.80	2.74	18	1.9	
Amphioplus hexacanthus	20.50	34.30	6.14	123	12.7	

Table 67

Major classes and species of organisms at
Station 1152, 18 Nov 1972

Summary: Bivalvia not included

Number of replicates: 6

Total number of identified species: 87

Total number of individuals: 1042

Class	Number of species	Percent of total identified species
Polychaeta	54	62
Gastropoda	10	11
Bivalvia		
Crustacea	18	21
Ophiuroidea	3	3
Total	85	97

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	s^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	80.00	162.00	13.35	480		46.1
Pholoe glabra	2.17	3.77	2.04	13	1.2	
Thalenessa spinosa	2.67	2.67	1.71	16	1.5	
Spiophanes bombyx	5.17	2.17	1.54	31	3.0	
Magelona nr. *pitelkai*	4.00	3.20	1.88	24	2.3	
Magelona sacculata	3.83	7.37	2.85	23	2.2	
Brada villosa	2.50	5.50	2.46	15	1.4	
Sternaspis fossor	2.50	9.10	3.17	15	1.4	
Mediomastus californiensis	3.83	5.37	2.43	23	2.2	

Table 67 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
? *Clymenella* sp. a	2.33	8.27	3.02	14	1.3	
Praxillella affinis pacifica	3.00	1.20	1.15	18	1.7	
Amaeana occidentalis	6.83	23.77	5.11	41	3.9	
GASTROPODA	21.17	11.37	3.54	127		12.2
Cylichna attonsa	6.83	16.57	4.27	41	3.9	
Kurtzia arteaga	2.33	1.07	1.08	14	1.3	
Mitrella gouldii	2.17	5.77	2.52	13	1.2	
SCAPHOPODA	3.83	3.77	2.04	23		2.2
Cadulus fusiformis	3.17	4.57	2.24	19	1.8	
CRUSTACEA	19.50	24.30	5.17	117		11.2
Euphilomedes carcharodonta	6.00	13.20	3.81	36	3.5	
Paraphoxus bicuspidatus	4.83	4.57	2.24	29	2.8	
Paraphoxus variatus	2.50	3.50	1.96	15	1.4	
OPHIUROIDEA	23.00	34.40	6.15	138		13.2
Amphiodia urtica	8.83	14.57	4.00	53	5.1	
Amphioplus hexacanthus	12.33	72.67	8.94	74	7.1	

Table 68

Major classes and species of organisms at
Station 1176, 18 Nov 1972

Summary: Bivalvia not included

Number of replicates: 6

Total number of identified species: 93

Total number of individuals: 1157

Class	Number of species	Percent of total identified species
Polychaeta	57	61
Gastropoda	10	11
Bivalvia		
Crustacea	19	20
Ophiuroidea	4	4
Total	90	96

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	103.83	312.57	18.5	623		53.8
Nephtys ferruginea	2.00	4.40	2.20	12	1.0	
Glycera capitata	4.17	1.37	1.23	25	2.2	
Lumbrineris cruzensis	4.67	10.27	3.36	28	2.4	
Lumbrineris luti	8.17	14.17	3.95	49	4.2	
Ninoe sp. a	4.33	4.27	2.17	26	2.2	
Laonice cirrata	2.33	3.87	2.06	14	1.2	
Paraprionospio pinnata	11.17	20.97	4.80	67	5.8	
Prionospio malmgreni	2.50	5.90	2.55	15	1.3	

Table 68 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
Sternaspis fossor	5.00	10.00	3.32	30	2.6	
Maldane cristata	11.67	31.47	5.89	70	6.1	
Myriochele heeri	8.83	17.37	4.37	53	4.6	
Terebellides stroemi	8.33	20.27	4.72	50	4.3	
GASTROPODA	20.33	45.47	7.07	122		10.5
Cylichna attonsa	5.00	4.00	2.10	30	2.6	
Alvinia acutelirata	3.33	11.87	3.61	20	1.7	
Kurtzia arteaga	4.17	4.97	2.34	25	2.2	
Mitrella gouldii	3.83	7.77	2.92	23	2.0	
SCAPHOPODA	5.00	6.80	2.74	30		2.6
Cadulus fusiformis	2.50	2.70	1.72	15	1.3	
CRUSTACEA	17.00	24.80	5.22	102		8.8
Paraphoxus bicuspidatus	3.83	7.77	2.92	23	2.0	
OPHIUROIDEA	33.67	79.07	9.33	202		17.5
Amphiodia urtica	25.00	39.20	6.57	150	13.0	

Table 69

Major classes and species of organisms at
Station 1155, 17 Nov 1972

Summary: Bivalvia not included

Number of replicates: 6

Total number of identified species: 92

Total number of individuals: 1691

Class	Number of species	Percent of total identified species
Polychaeta	57	62
Gastropoda	10	11
Bivalvia		
Crustacea	18	20
Ophiuroidea	3	3
Total	88	96

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	96.83	157.77	13.18	581		34.4
Nephtys ferruginea	2.67	3.47	1.95	16		.9
Glycera capitata	4.83	.97	1.03	29	1.7	
Onuphis parva	3.33	2.27	1.58	20	1.2	
Lumbrineris luti	8.00	6.80	2.74	48	2.8	
Ninoe sp. a	3.83	2.57	1.68	23	1.4	
Paraonis ivanovi	4.33	1.87	1.43	26	1.5	
Paraprionospio pinnata	17.50	56.70	7.90	105	6.2	
Sternaspis fossor	2.17	4.57	2.24	13	.8	

Table 69 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	#	% of total sp.	% of total Cl.
Maldane cristata	8.00	10.00	3.32	48	2.8	
Terebellides stroemi	4.50	11.90	3.62	27	1.6	
APLACOPHORA	2.00	2.00	1.48	12		.7
GASTROPODA	22.67	21.07	4.82	136		8.0
Cylichna attonsa	5.50	5.90	2.55	33	2.0	
Kurtzia arteaga	5.00	2.80	1.76	30	1.8	
Mitrella gouldii	5.83	18.57	4.52	35	2.1	
SCAPHOPODA	5.83	14.57	4.00	35		2.1
Cadulus fusiformis	3.83	4.57	2.24	23	1.4	
CRUSTACEA	22.67	31.87	5.92	136		8.0
Paraphoxus bicuspidatus	5.33	2.67	1.71	32	1.9	
Paraphoxus similis	2.83	1.77	1.39	17	1.0	
Pinnixa occidentalis	2.33	3.07	1.84	14	.8	
OPHIUROIDEA	98.33	515.07	23.81	590		34.9
Amphiodia urtica	84.67	267.87	17.17	508	30.0	
HOLOTHURIODEA	3.67	9.07	3.16	22		1.3

Table 70

Major classes and species of organisms at
Station 1105, 28 Feb 1973

Summary: Bivalvia not included

Number of replicates: 10

Total number of identified species: 49

Total number of individuals: 694

Class	Number of species	Percent of total identified species
Polychaeta	27	55
Gastropoda	4	8
Bivalvia		
Crustacea	16	33
Ophiuroidea	1	2
Total	48	98

Numbers of individuals in major classes and species:

Taxa	Mean # / .1m^2	S2	Conf. limits	Total #	% of total sp.	% of total Cl.
POLYCHAETA	26.30	32.68	4.09	263		37.9
Nothria elegans	7.90	7.21	1.92	79	11.4	
Lumbrineris luti	2.30	3.12	1.26	23	3.3	
Magelona sacculata	2.50	3.17	1.27	25	3.6	
Chaetozone setosa	2.90	8.10	2.03	29	4.2	
GASTROPODA	8.70	12.90	2.57	87		12.5
CRUSTACEA	31.70	102.68	7.24	317		45.7
Euphilomedes carcharodonta	17.60	49.82	5.04	176	25.4	
Mesolamprops sp. a	2.40	3.60	1.36	24	3.5	

Table 70 (continued)

Taxa	Mean # / .1m^2	S^2	Conf. limits	Total #	% of total sp.	Cl.
Paraphoxus daboius	4.10	4.10	1.45	41	5.9	
Paraphoxus epistomus	3.80	9.96	2.25	38	5.5	

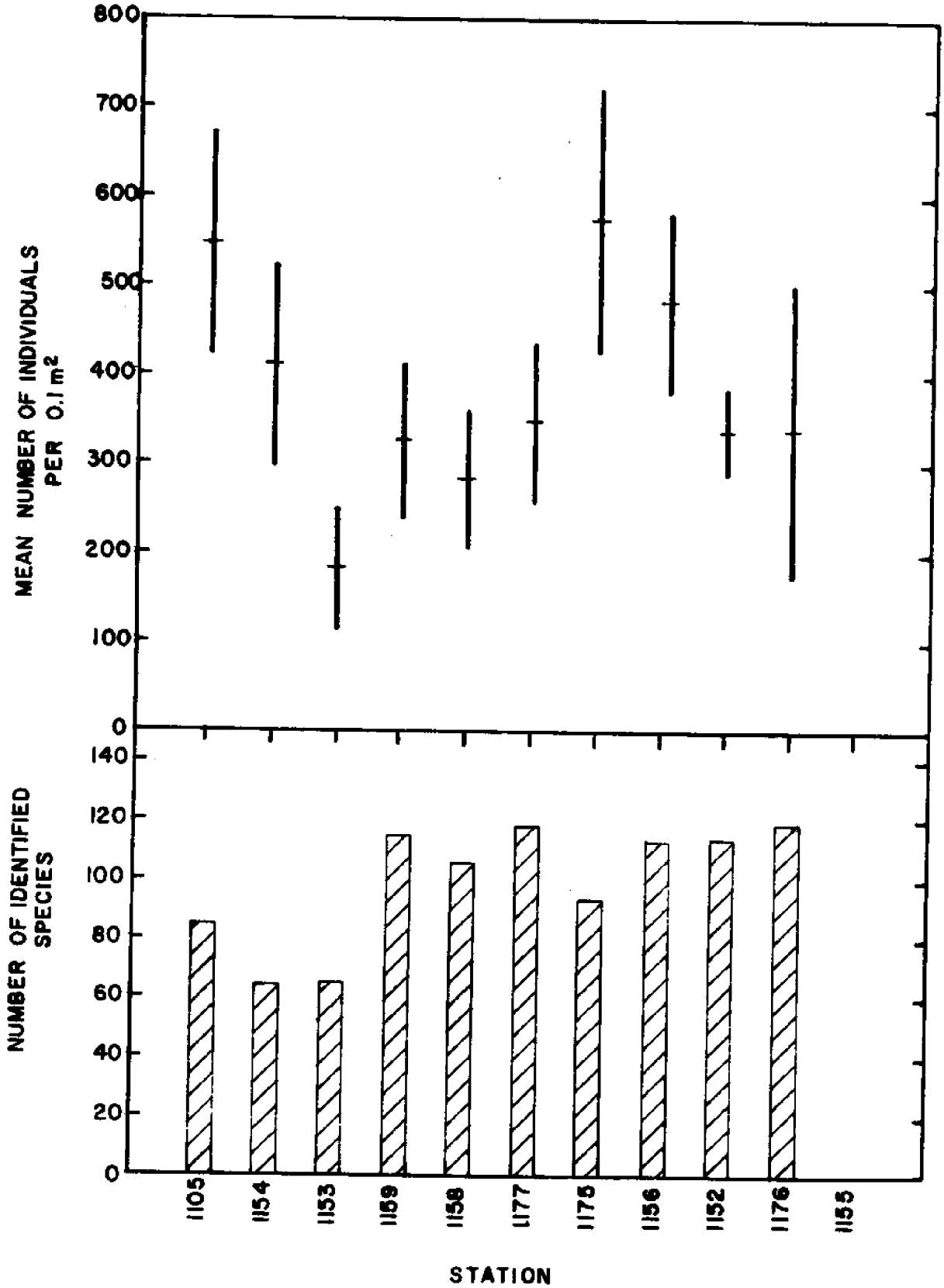


Figure 7. Total number of identified species of total fauna and the mean number of individuals of total fauna per 0.1 m^2 with 95% confidence limits, August - October 1971

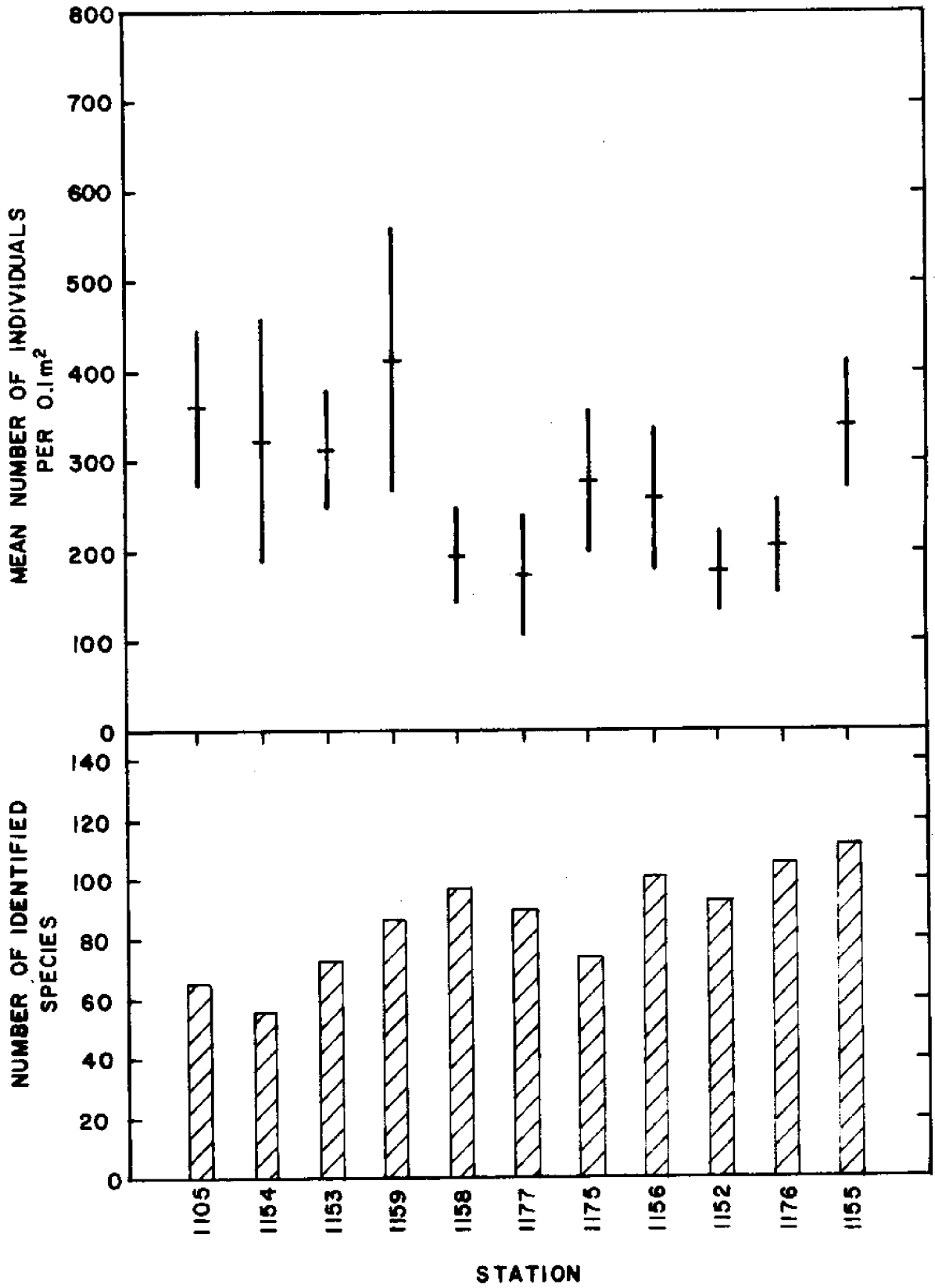


Figure 8. Total number of identified species of total fauna and the mean number of individuals of total fauna per 0.1 m^2 with 95% confidence limits, November 1971

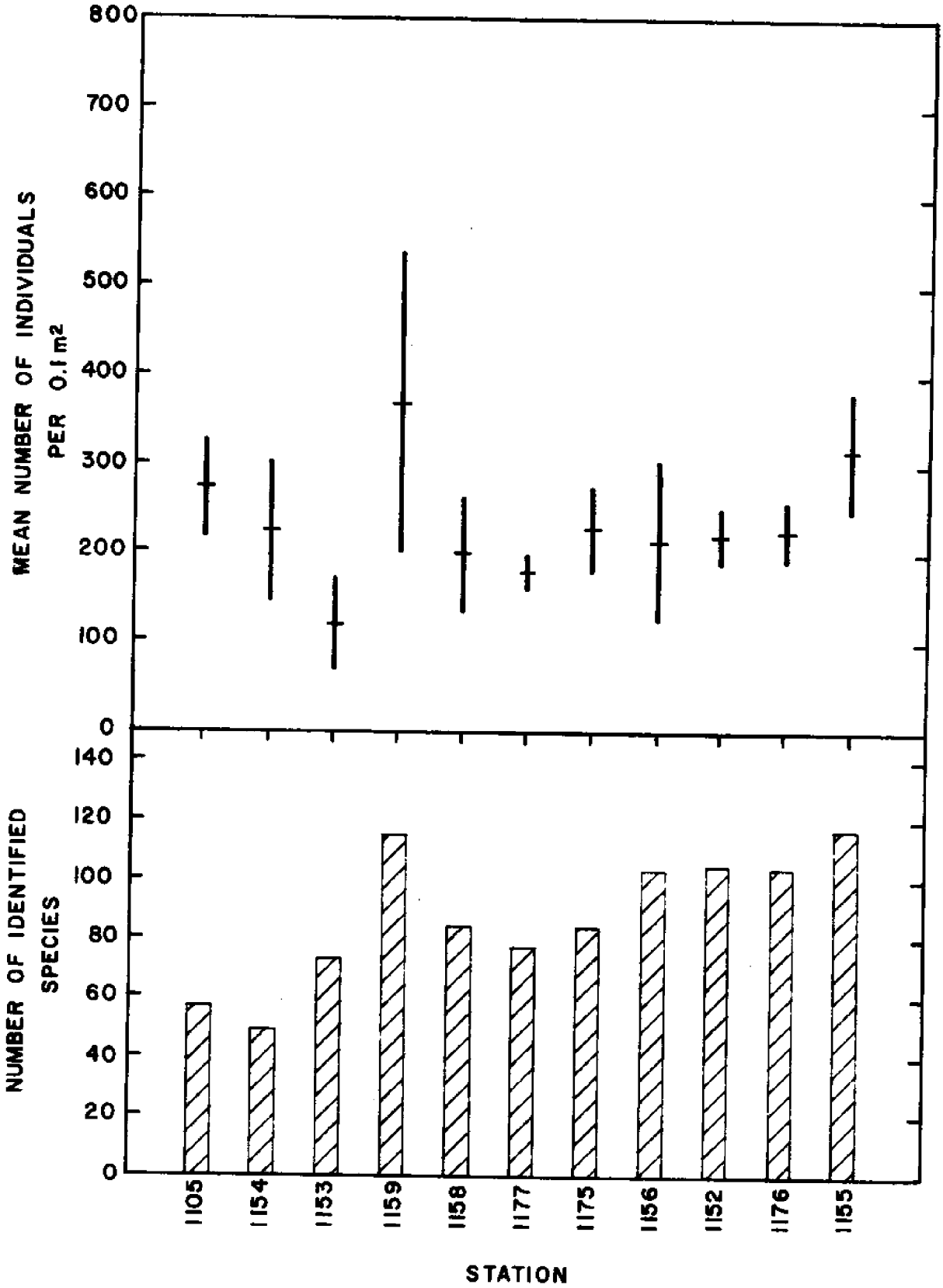


Figure 9. Total number of identified species of total fauna and the mean number of individuals of total fauna per 0.1 m^2 with 95% confidence limits, February 1972

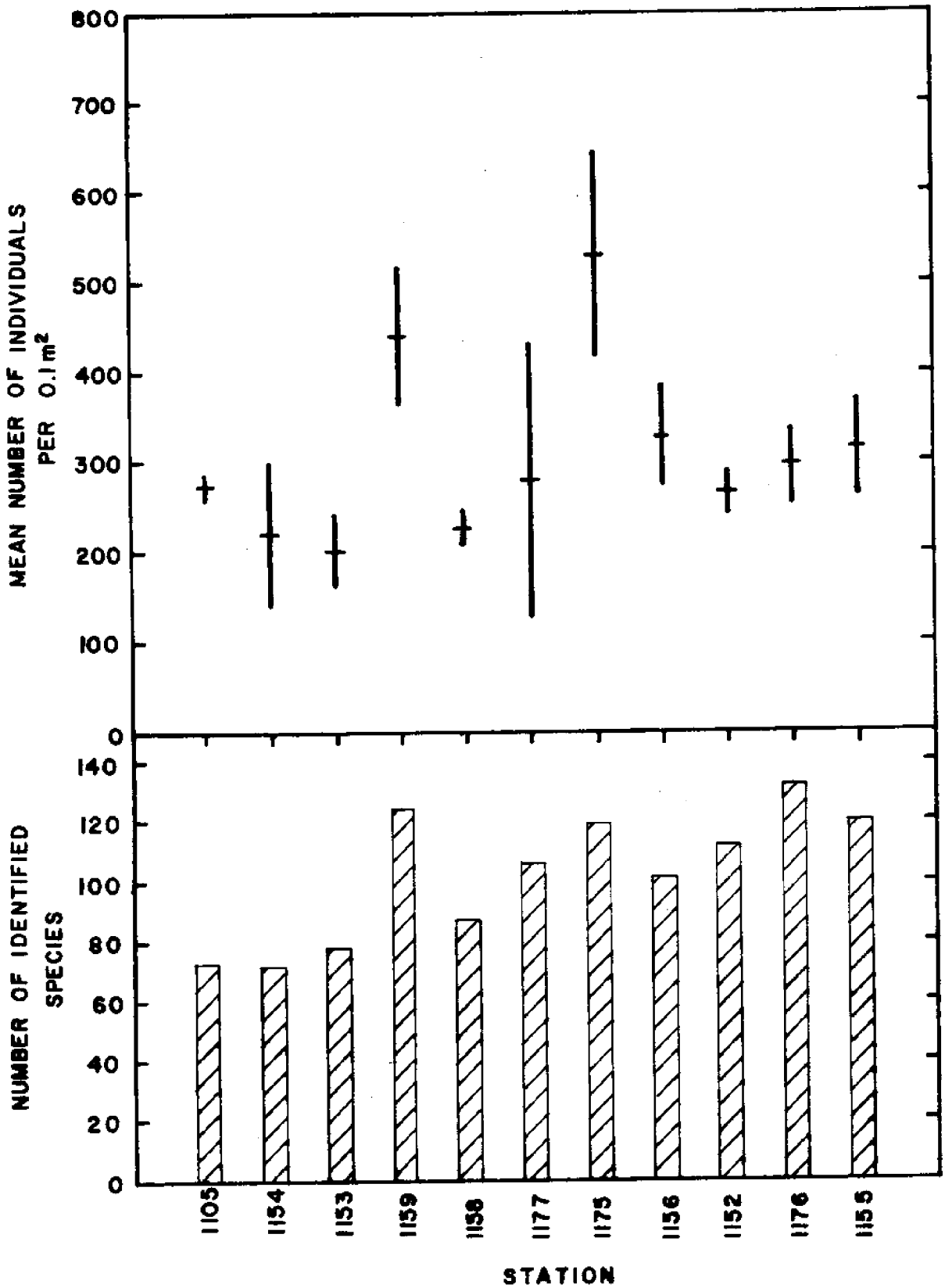


Figure 10. Total number of identified species of total fauna and the mean number of individuals of total fauna per 0.1 m^2 with 95% confidence limits, May 1972

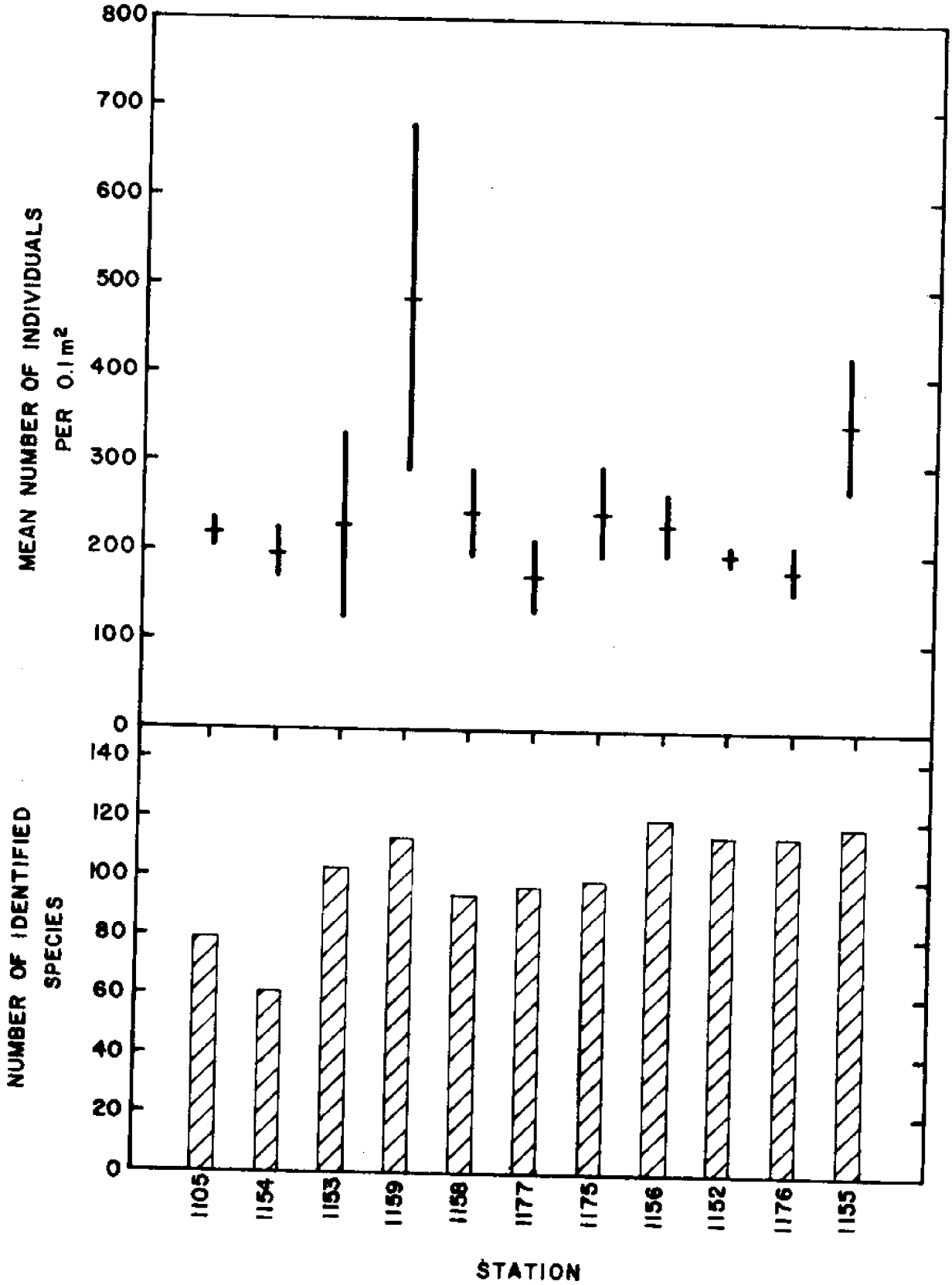


Figure 11. Total number of identified species of total fauna and the mean number of individuals of total fauna per 0.1 m^2 with 95% confidence limits, August 1972

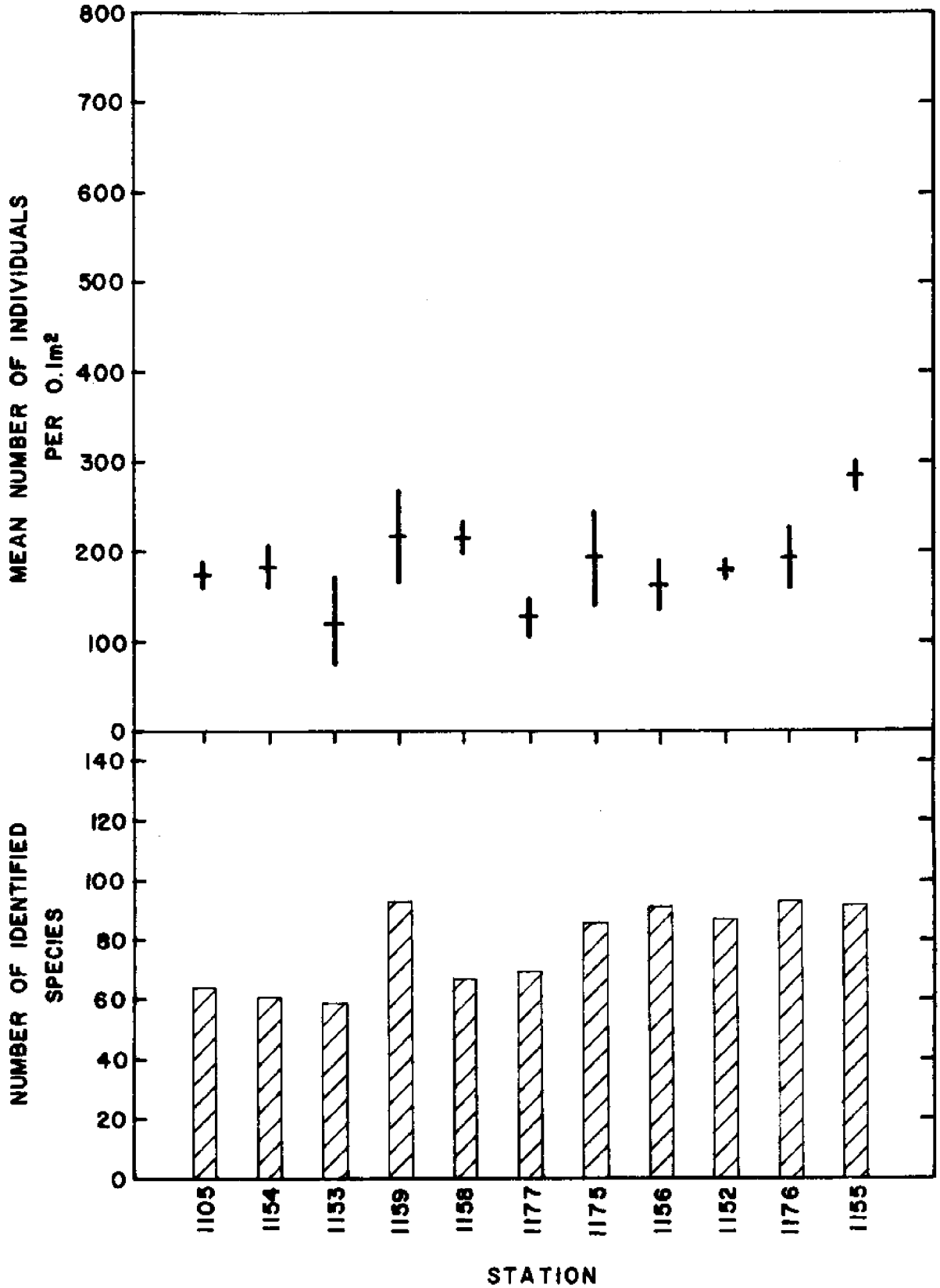


Figure 12. Total number of identified species of total fauna and the mean number of individuals of total fauna per 0.1 m^2 with 95% confidence limits, November 1972

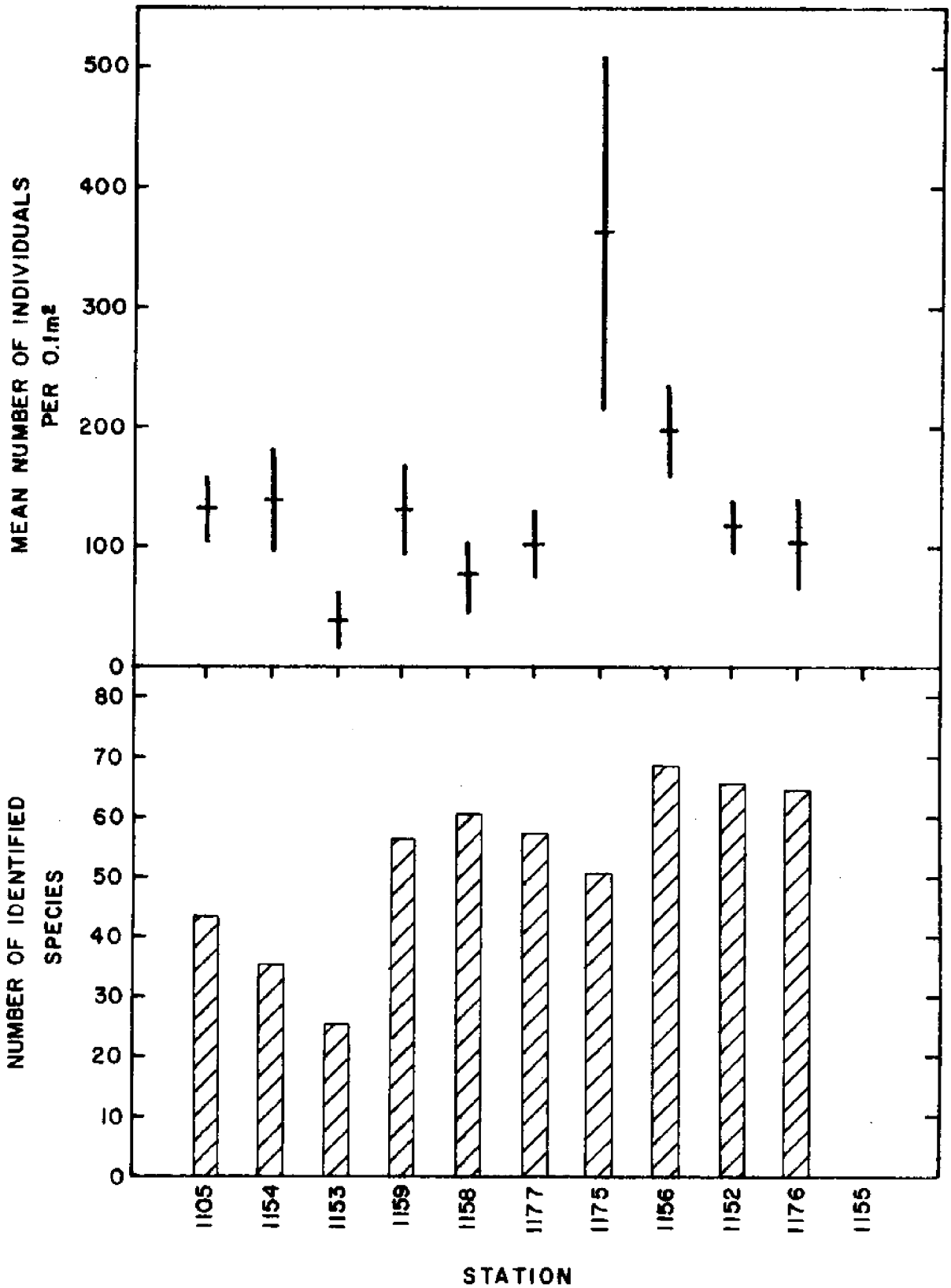


Figure 13. Total number of identified species of Polychaeta and the mean number of individuals of Polychaeta per 0.1 m^2 with 95% confidence limits, August - October 1971

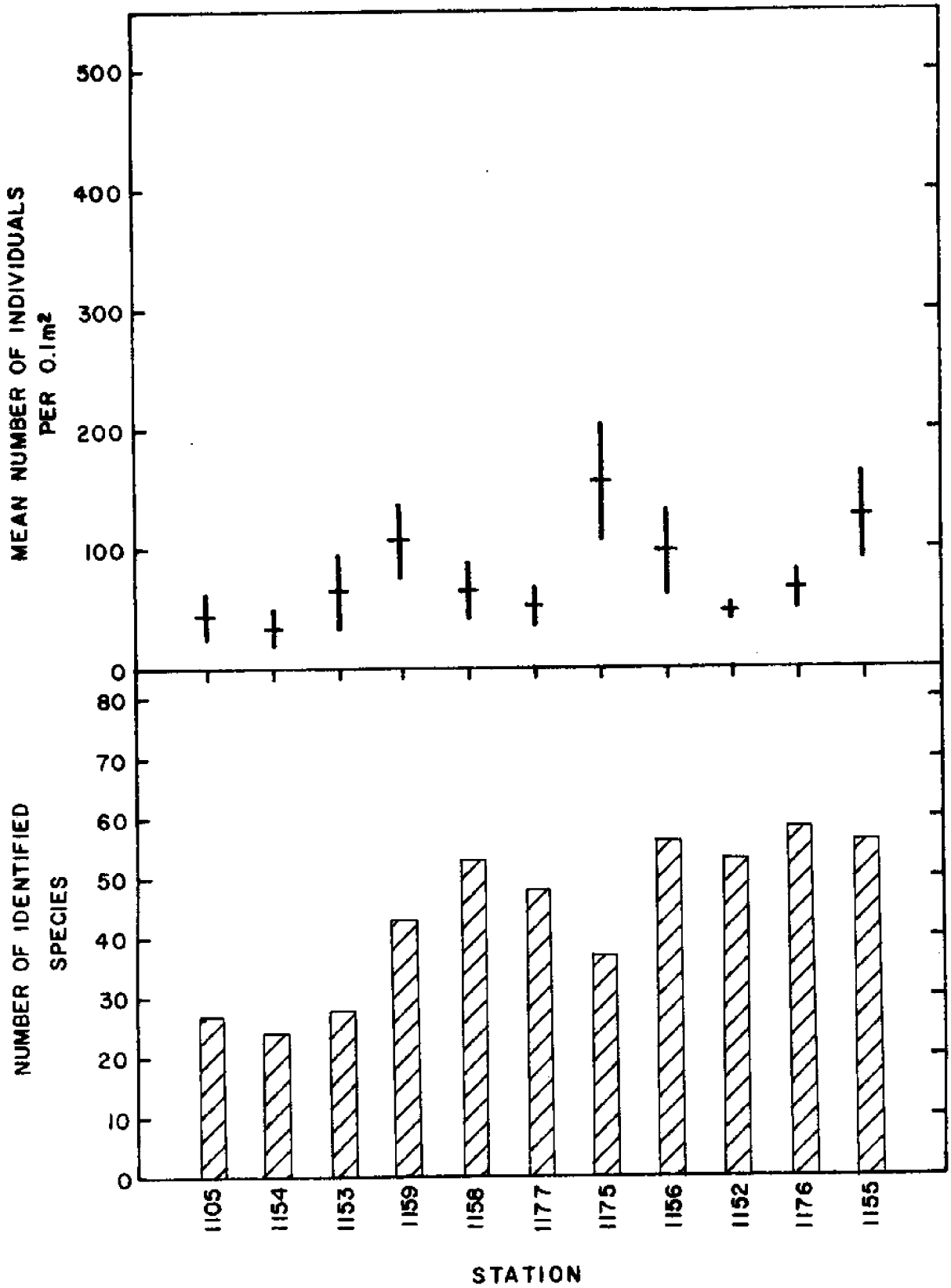


Figure 14. Total number of identified species of Polychaeta and the mean number of individuals of Polychaeta per 0.1 m^2 with 95% confidence limits, November 1971

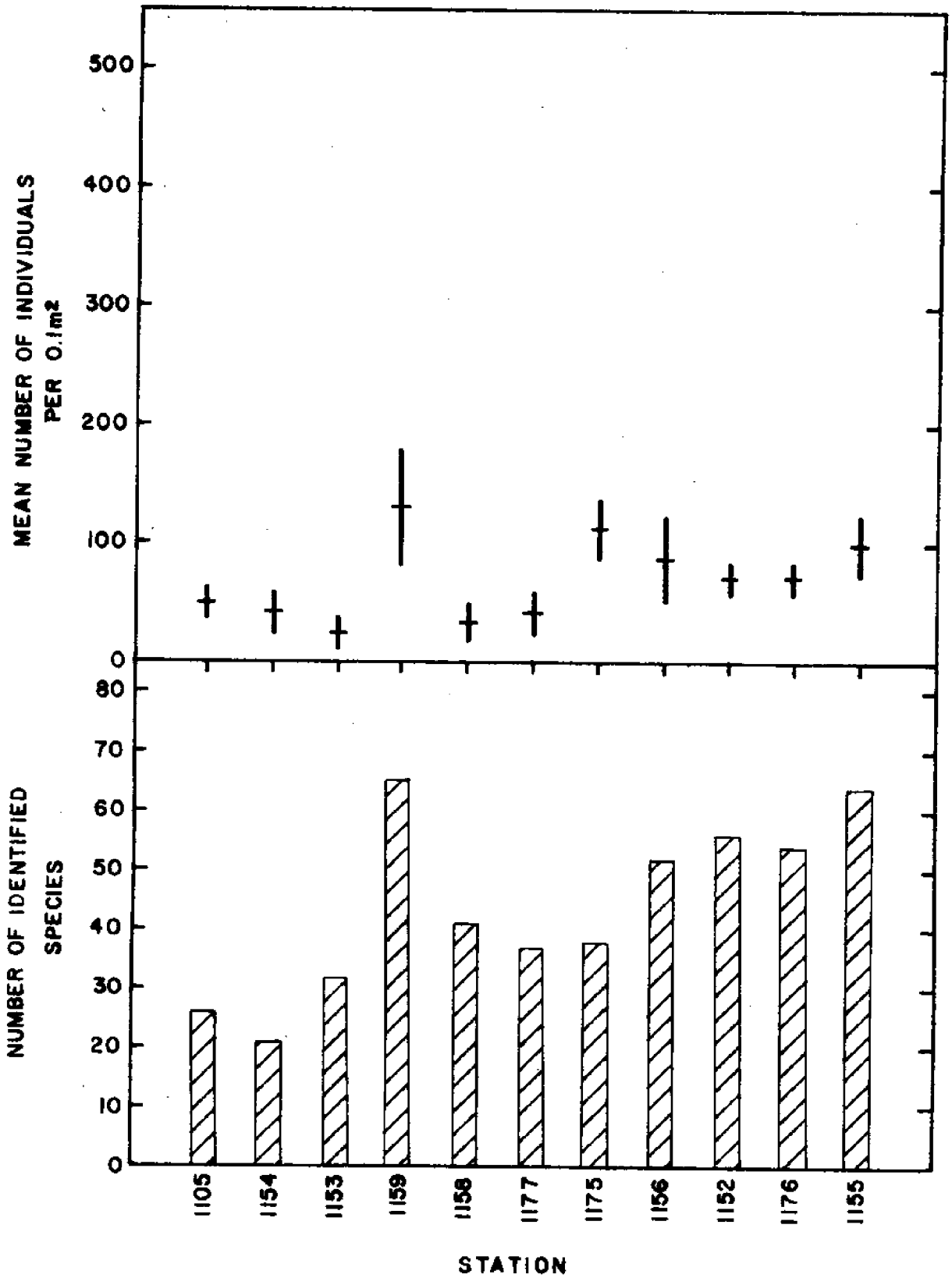


Figure 15. Total number of identified species of Polychaeta and the mean number of individuals of Polychaeta per 0.1 m^2 with 95% confidence limits, February 1972

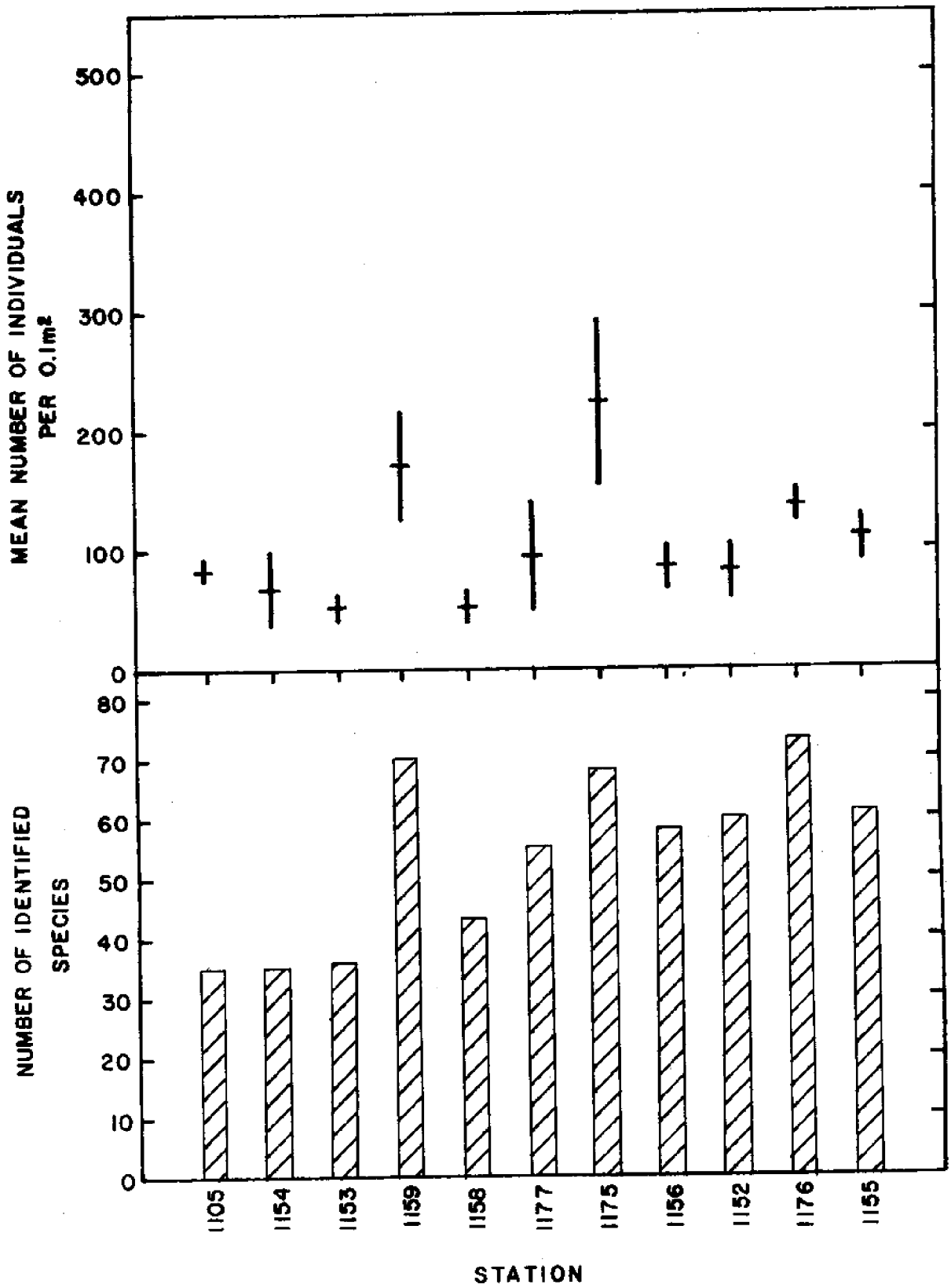


Figure 16. Total number of identified species of Polychaeta and the mean number of individuals of Polychaeta per 0.1 m^2 with 95% confidence limits, May 1972

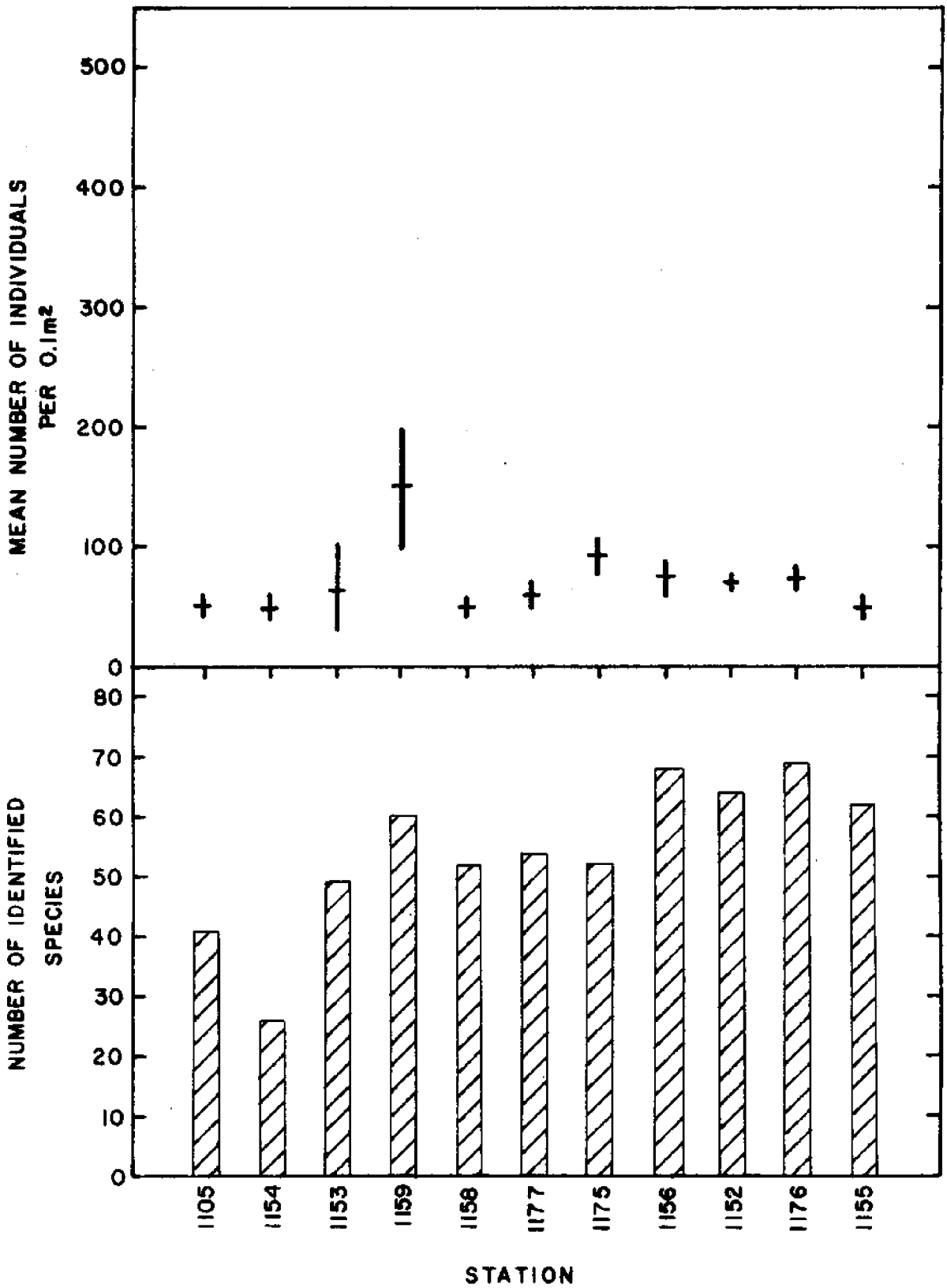


Figure 17. Total number of identified species of Polychaeta and the mean number of individuals of Polychaeta per 0.1 m^2 with 95% confidence limits, August 1972

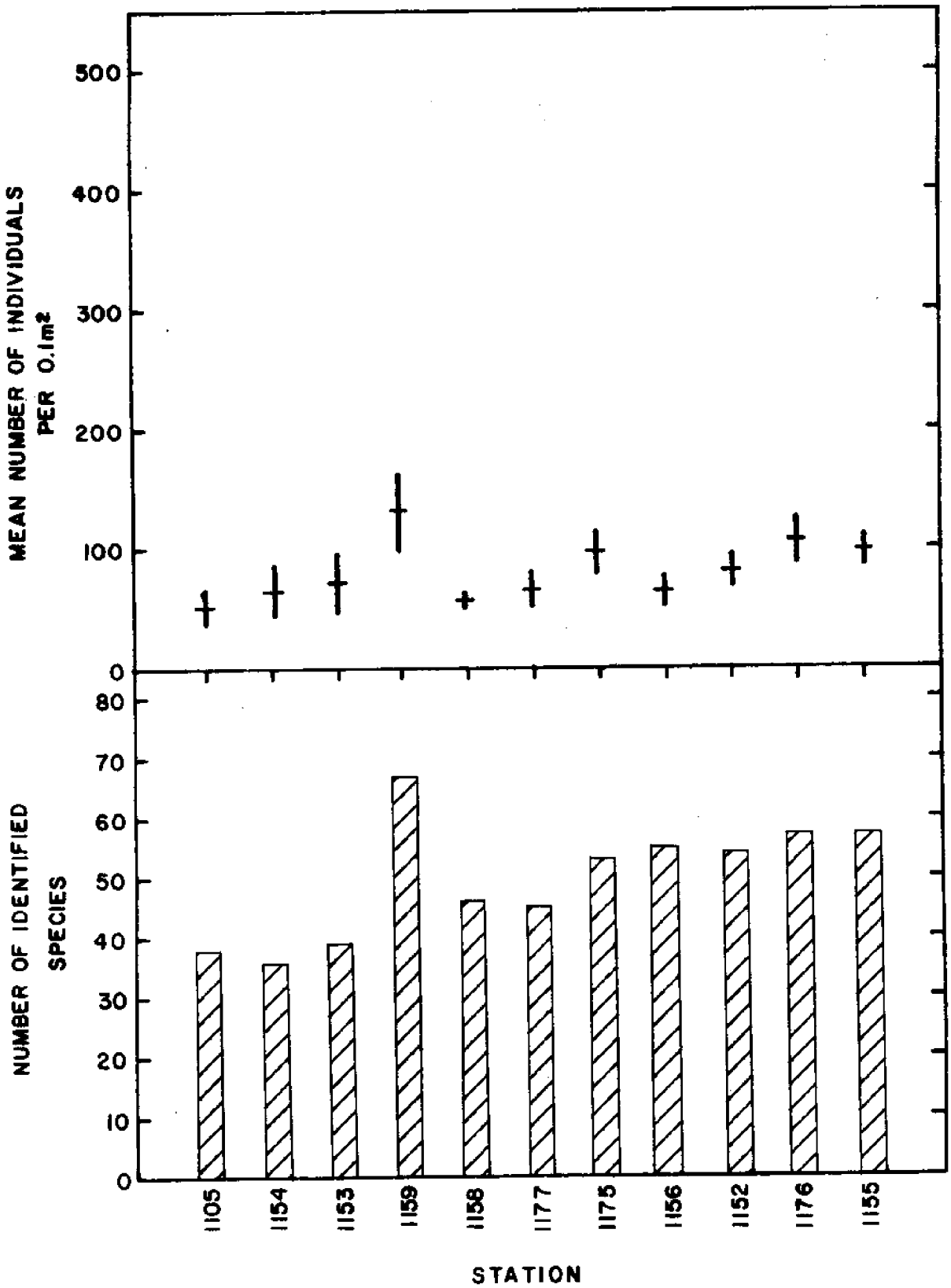


Figure 18. Total number of identified species of Polychaeta and the mean number of individuals of Polychaeta per 0.1 m^2 with 95% confidence limits, November 1972

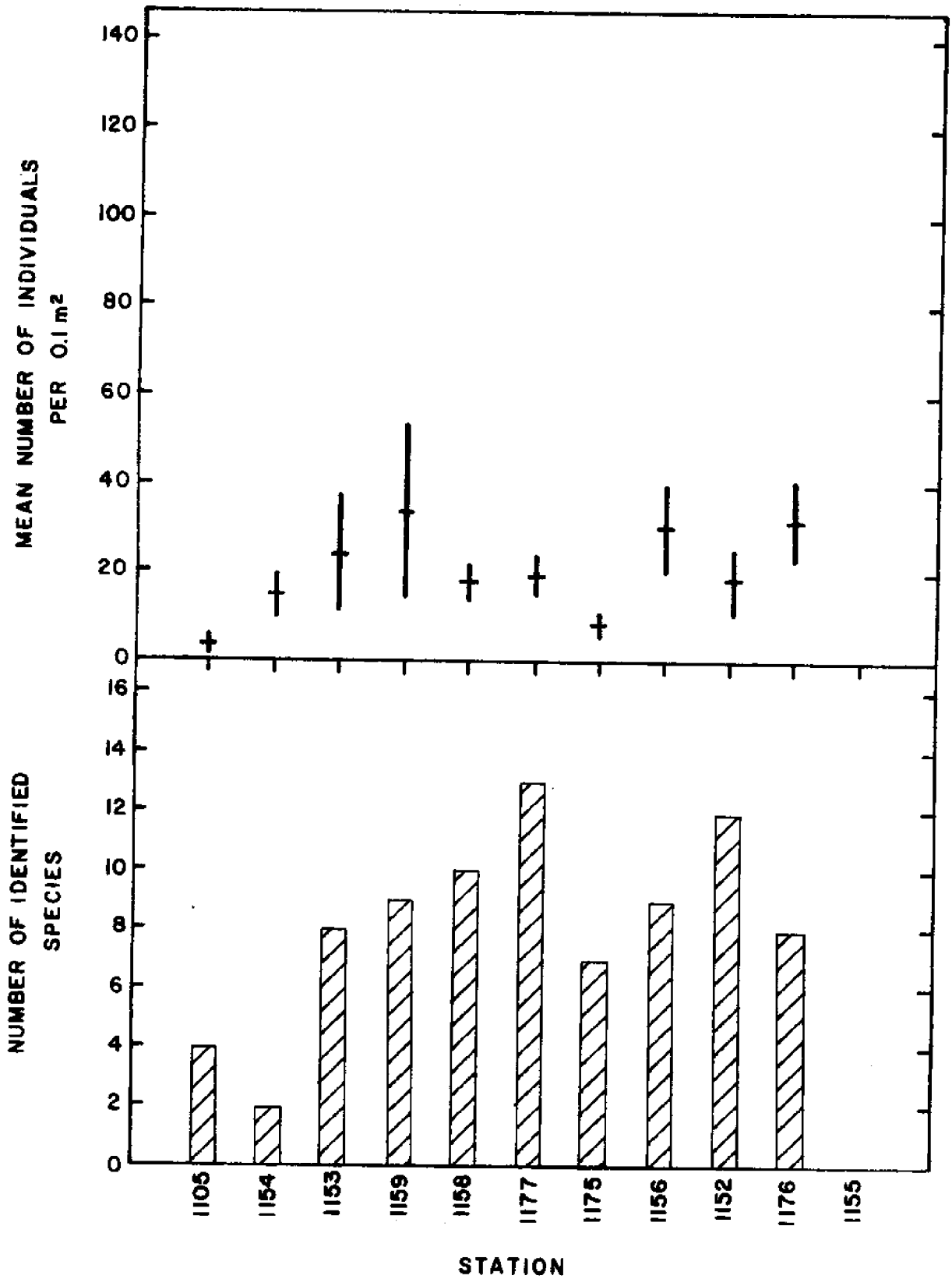


Figure 19. Total number of identified species of Gastropoda and the mean number of individuals of Gastropoda per 0.1 m^2 with 95% confidence limits, August - October 1971

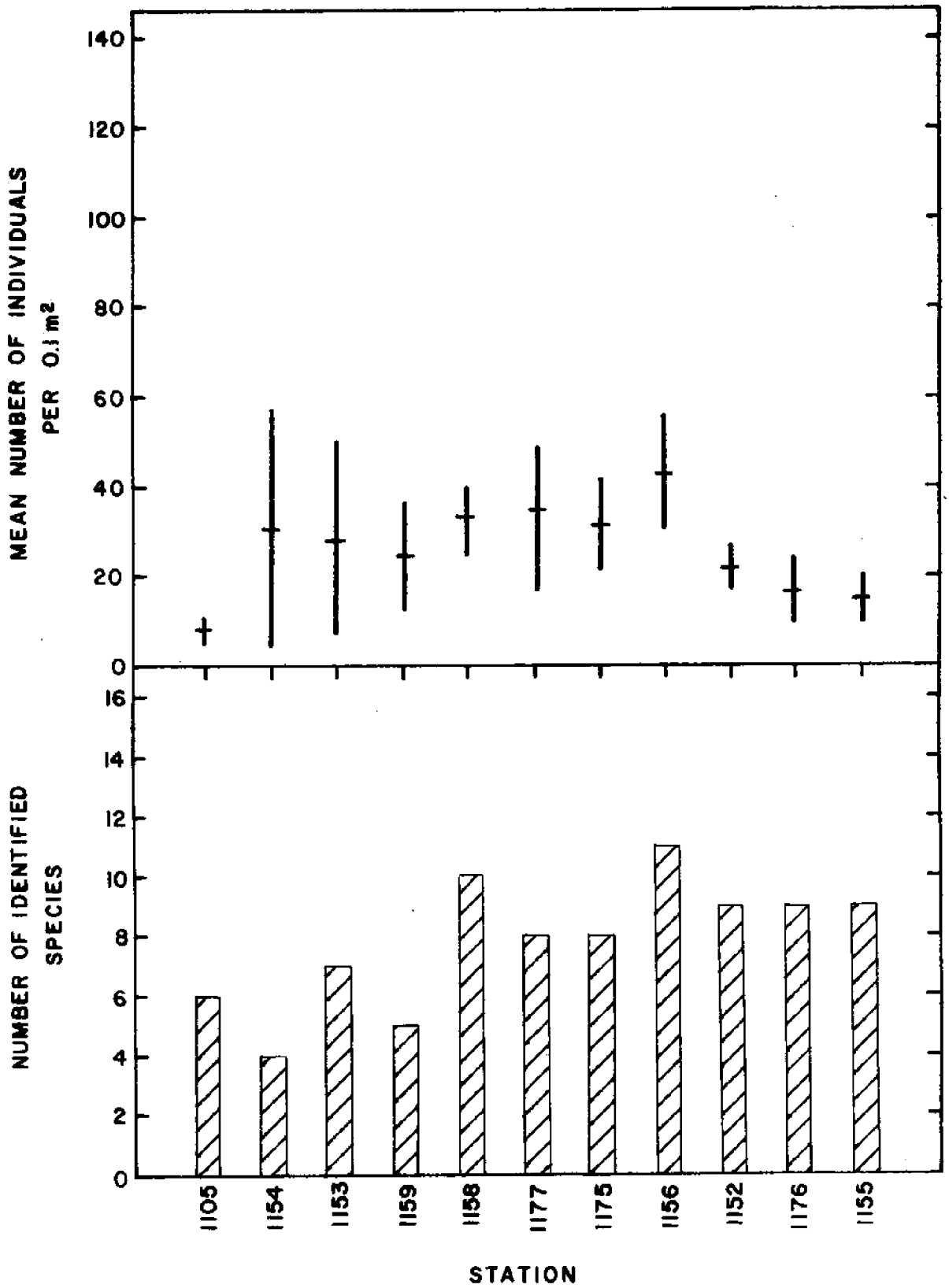


Figure 20. Total number of identified species of Gastropoda and the mean number of individuals of Gastropoda per 0.1 m^2 with 95% confidence limits, November 1971

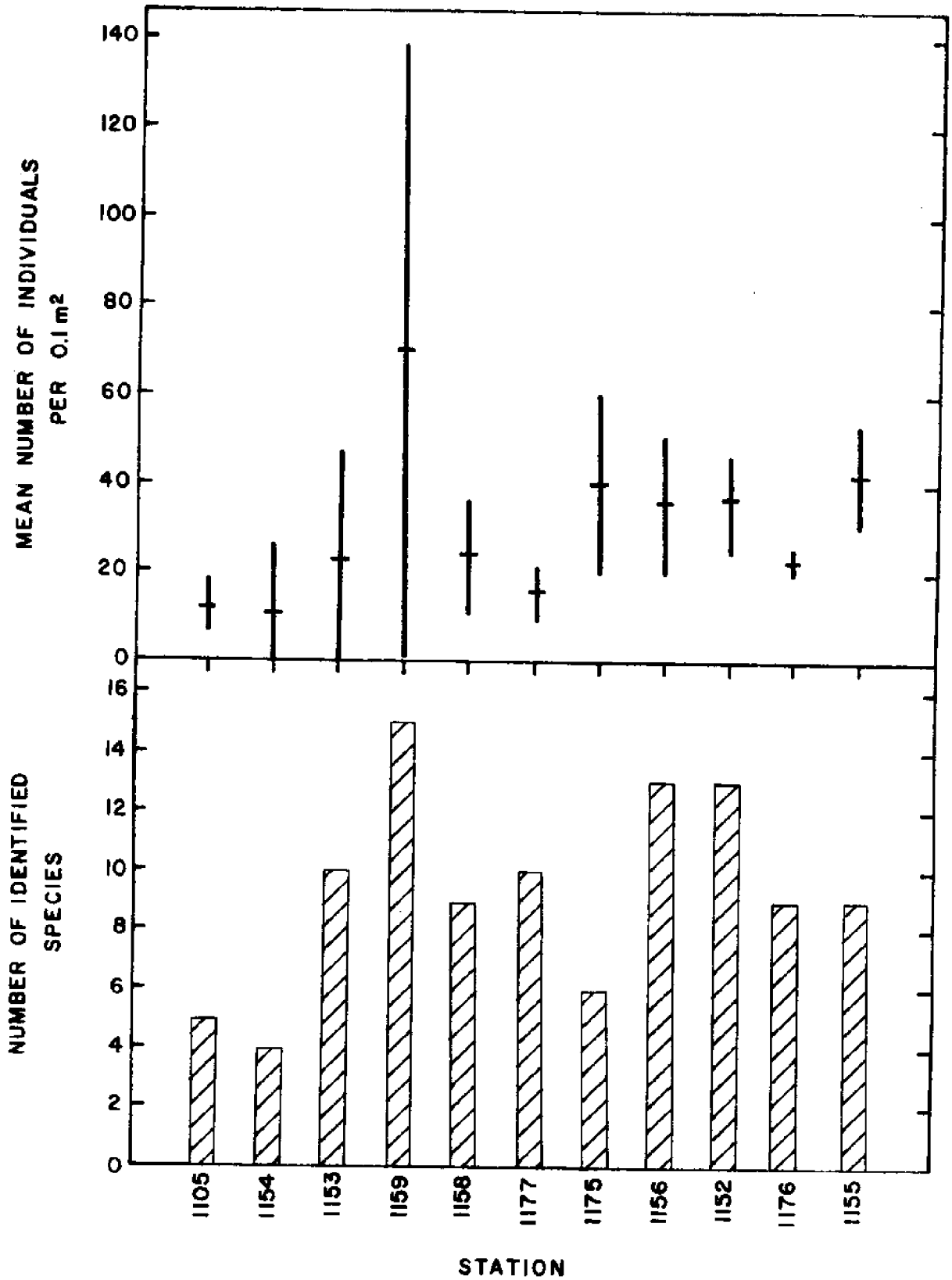


Figure 21. Total number of identified species of Gastropoda and the mean number of individuals of Gastropoda per 0.1 m^2 with 95% confidence limits, February 1972

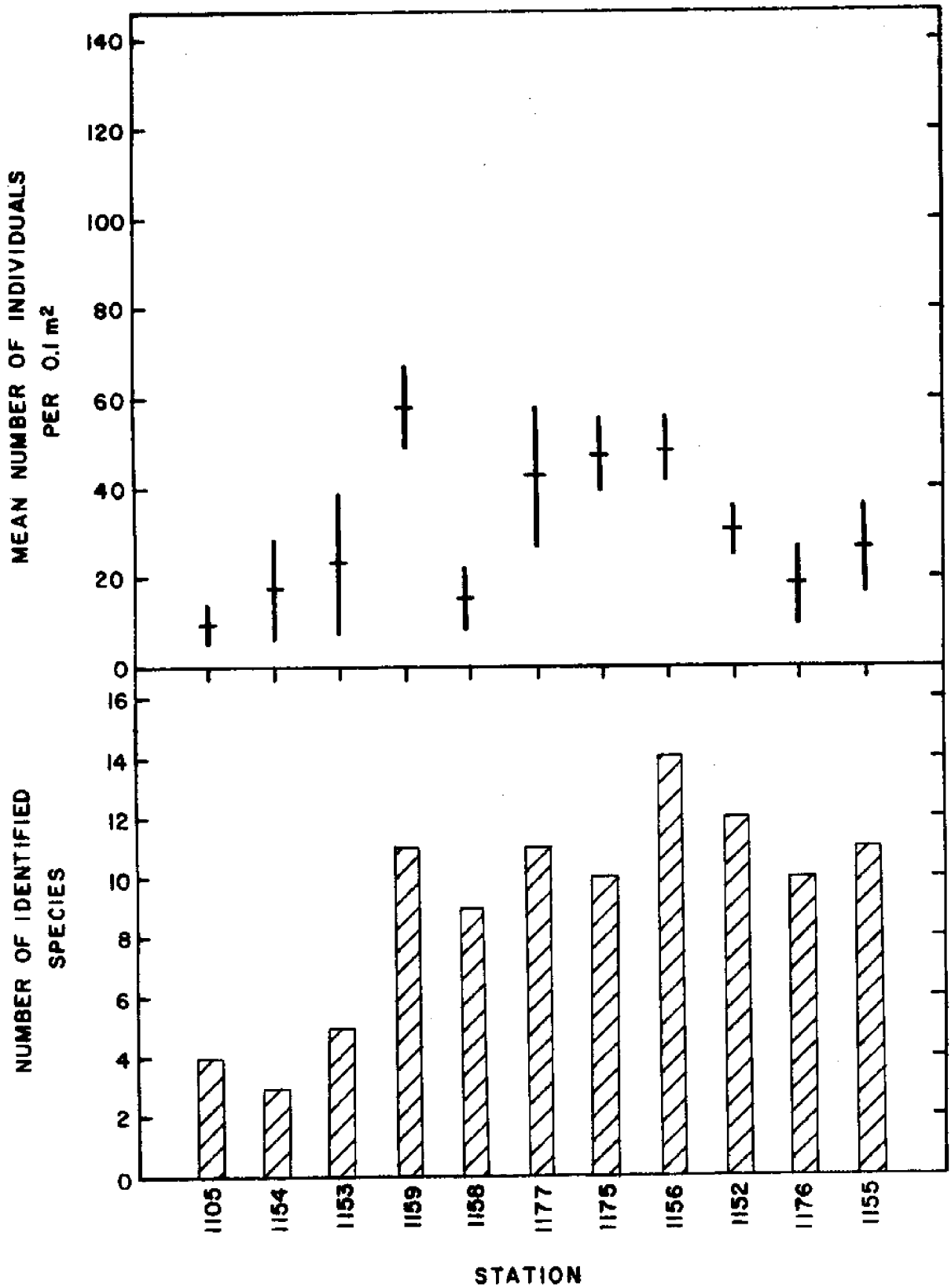


Figure 22. Total number of identified species of Gastropoda and the mean number of individuals of Gastropoda per 0.1 m^2 with 95% confidence limits, May 1972

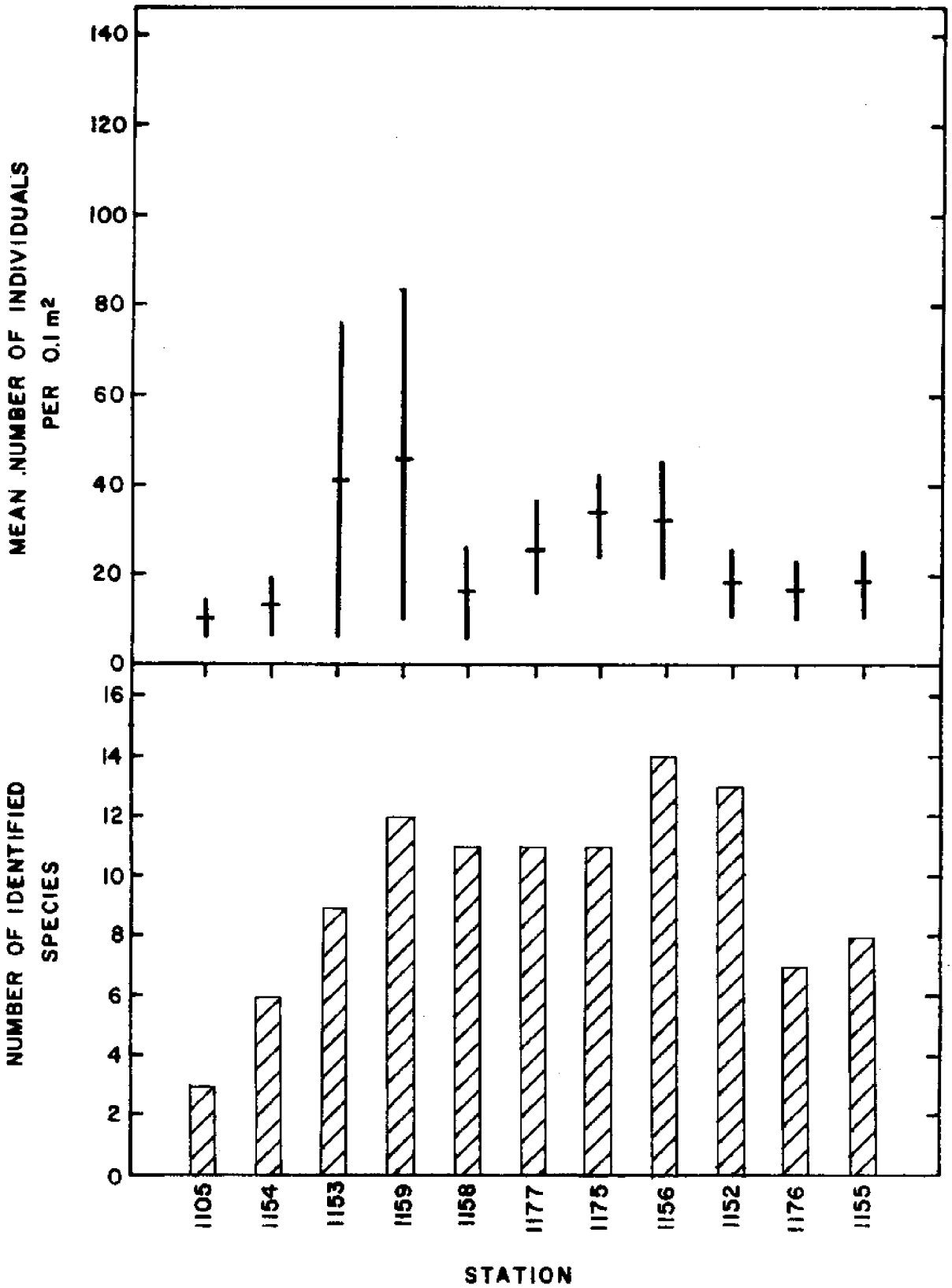


Figure 23. Total number of identified species of Gastropoda and the mean number of individuals of Gastropoda per 0.1 m^2 with 95% confidence limits, August 1972

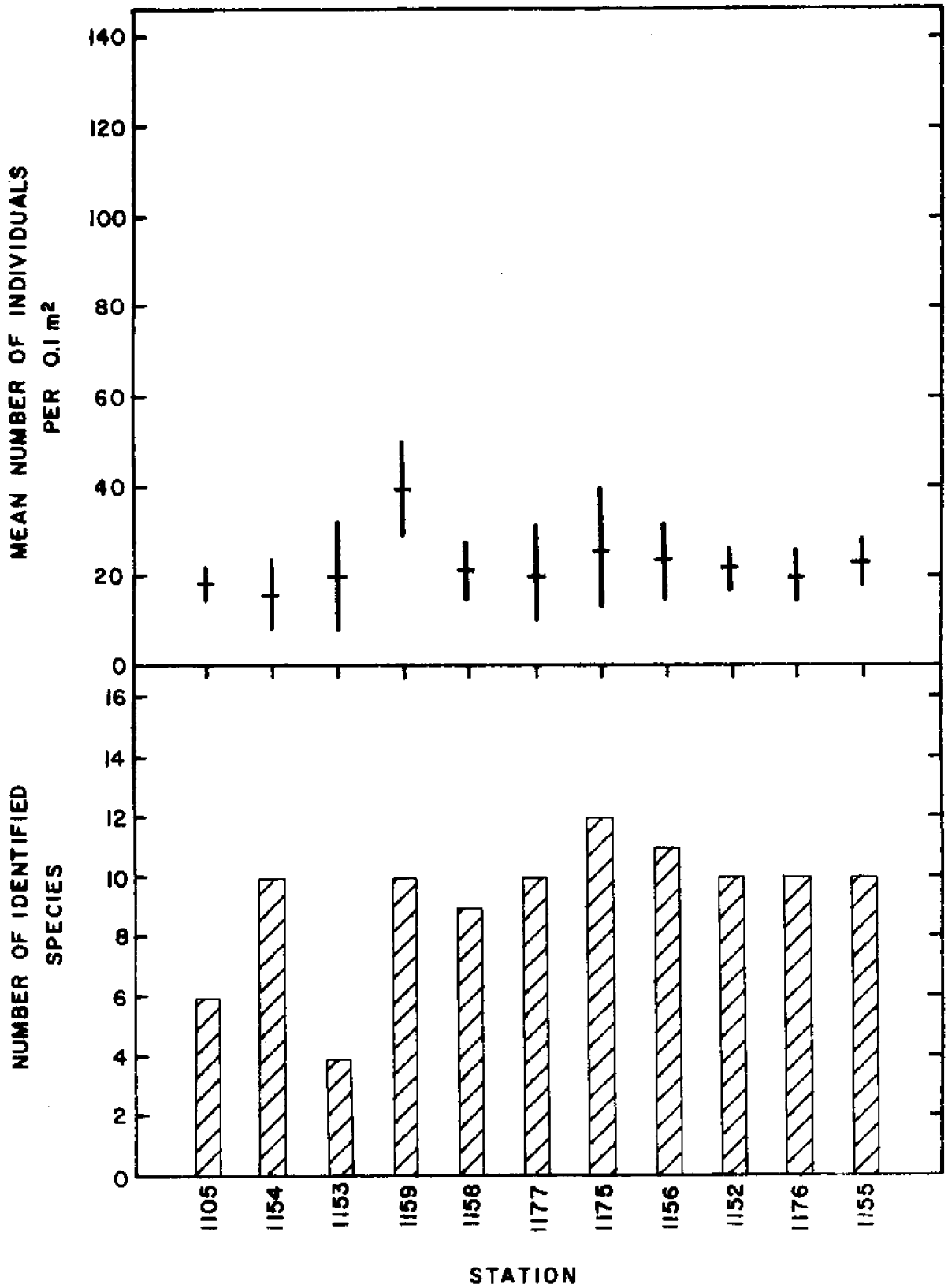


Figure 24. Total number of identified species of Gastropoda and the mean number of individuals of Gastropoda per 0.1 m^2 with 95% confidence limits, November 1972

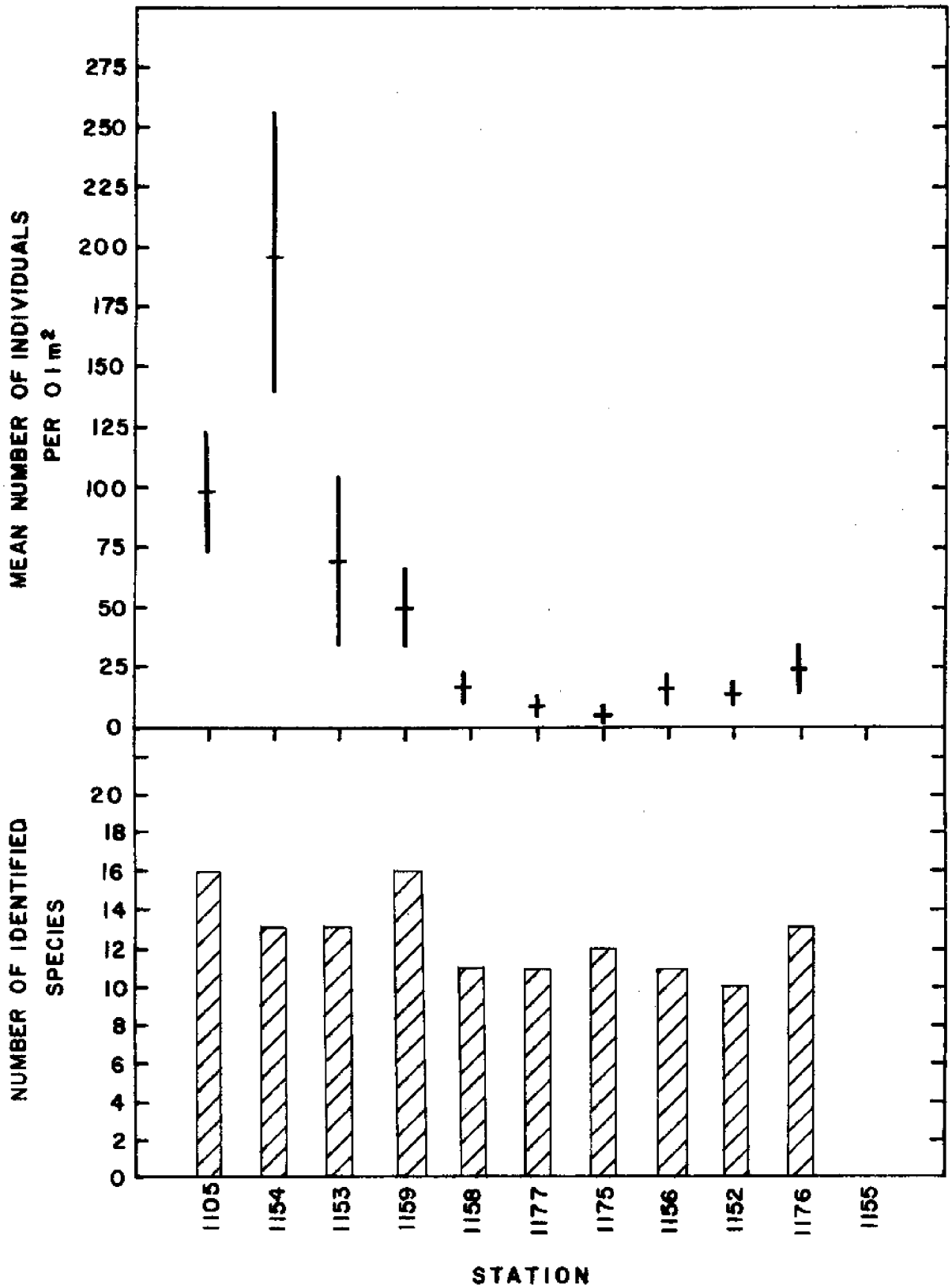


Figure 25. Total number of identified species of Bivalvia and the mean number of individuals of Bivalvia per 0.1 m^2 with 95% confidence limits, August - October 1971

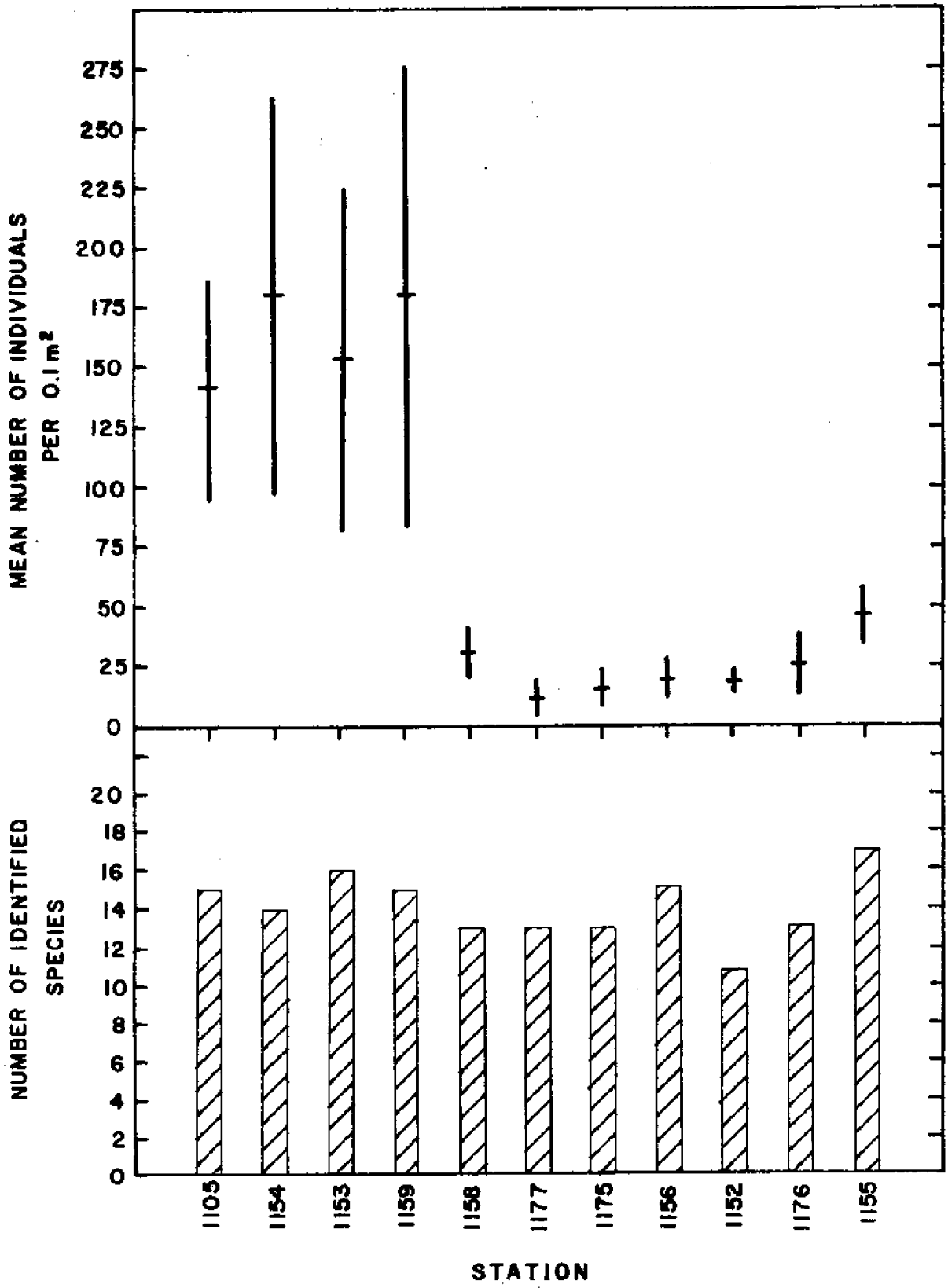


Figure 26. Total number of identified species of Bivalvia and the mean number of individuals of Bivalvia per 0.1 m^2 with 95% confidence limits, November 1971

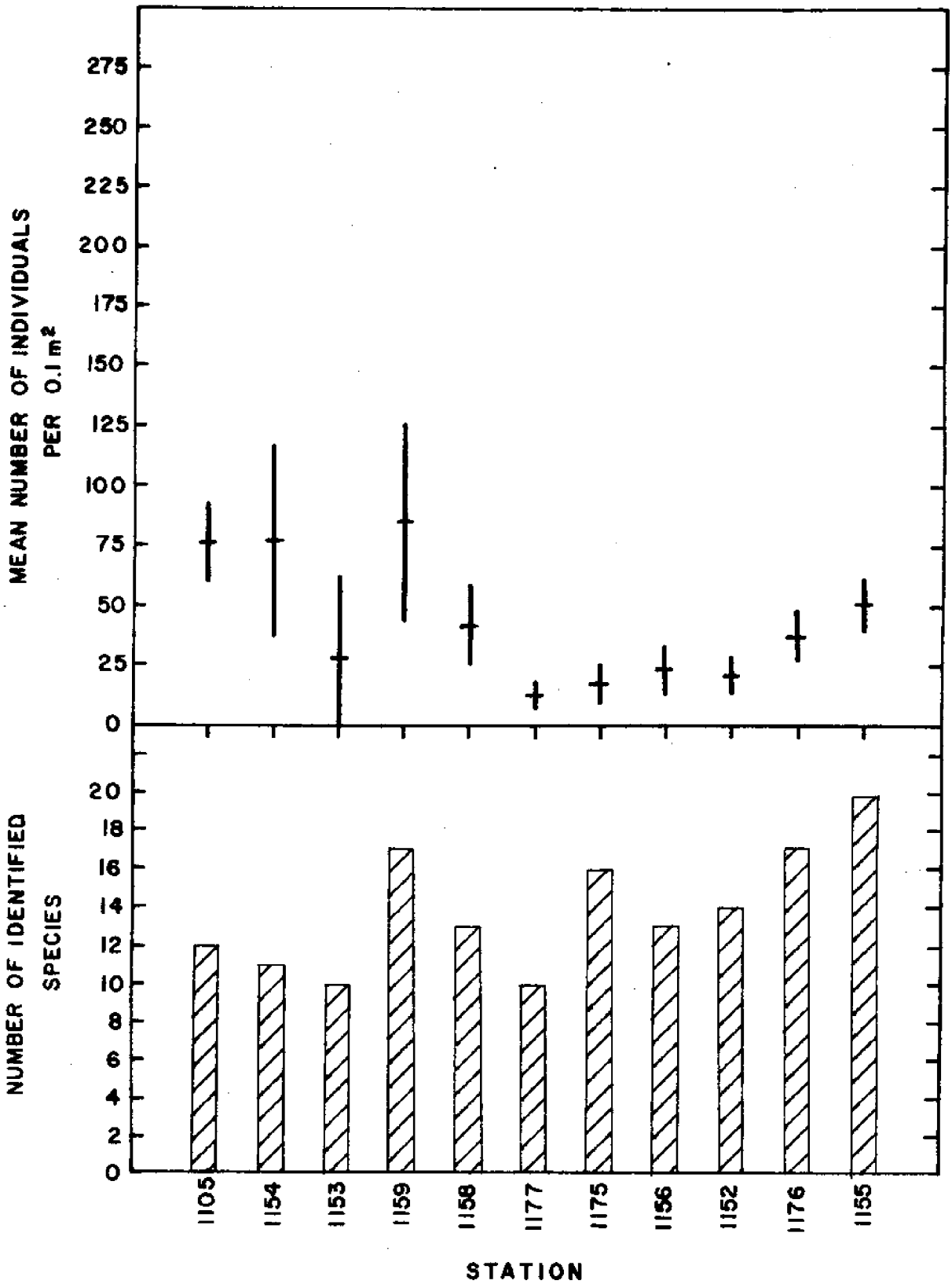


Figure 27. Total number of identified species of Bivalvia and the mean number of individuals of Bivalvia per 0.1 m^2 with 95% confidence limits, February 1972

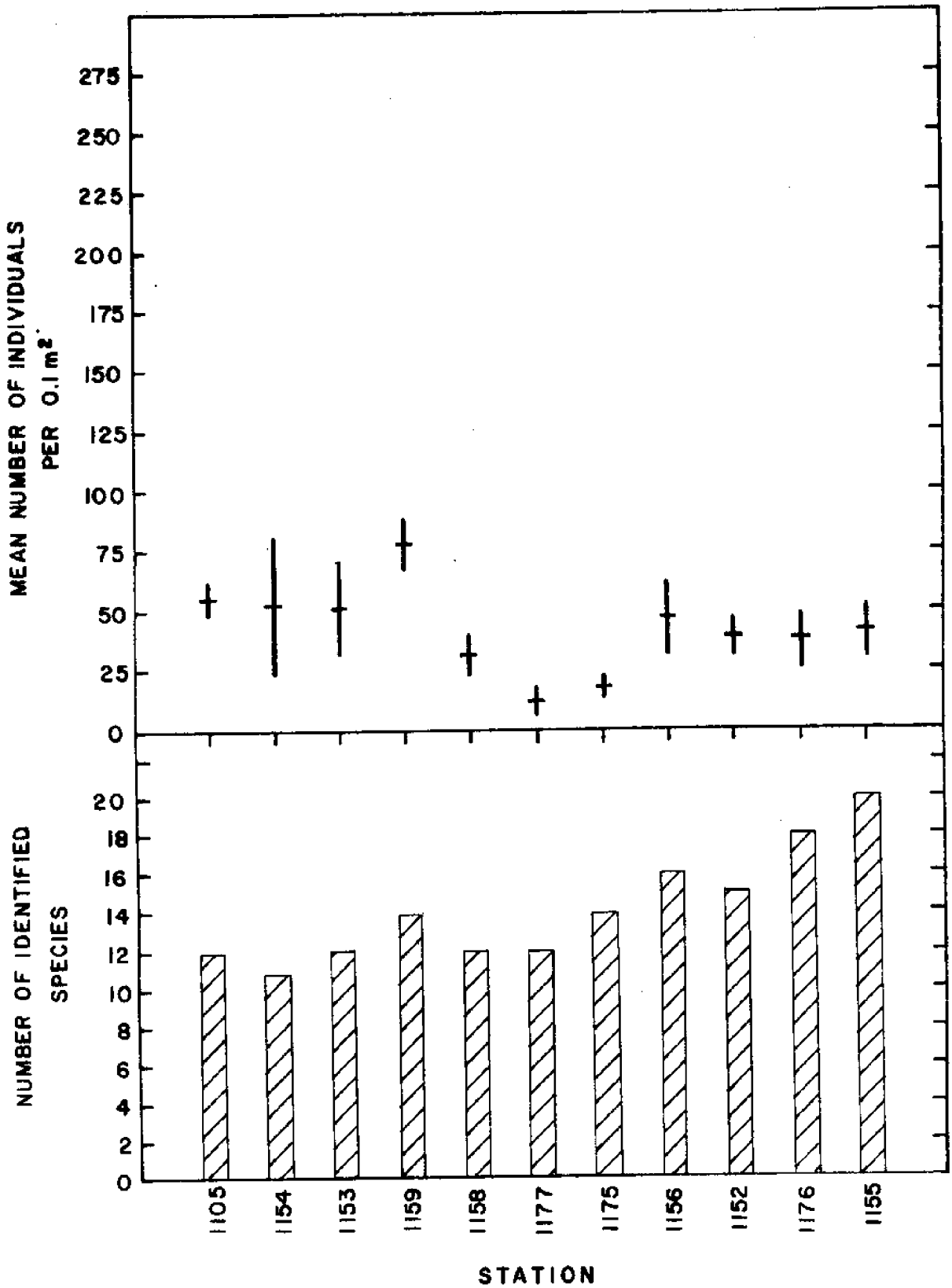


Figure 28. Total number of identified species of Bivalvia and the mean number of individuals of Bivalvia per 0.1 m^2 with 95% confidence limits, May 1972

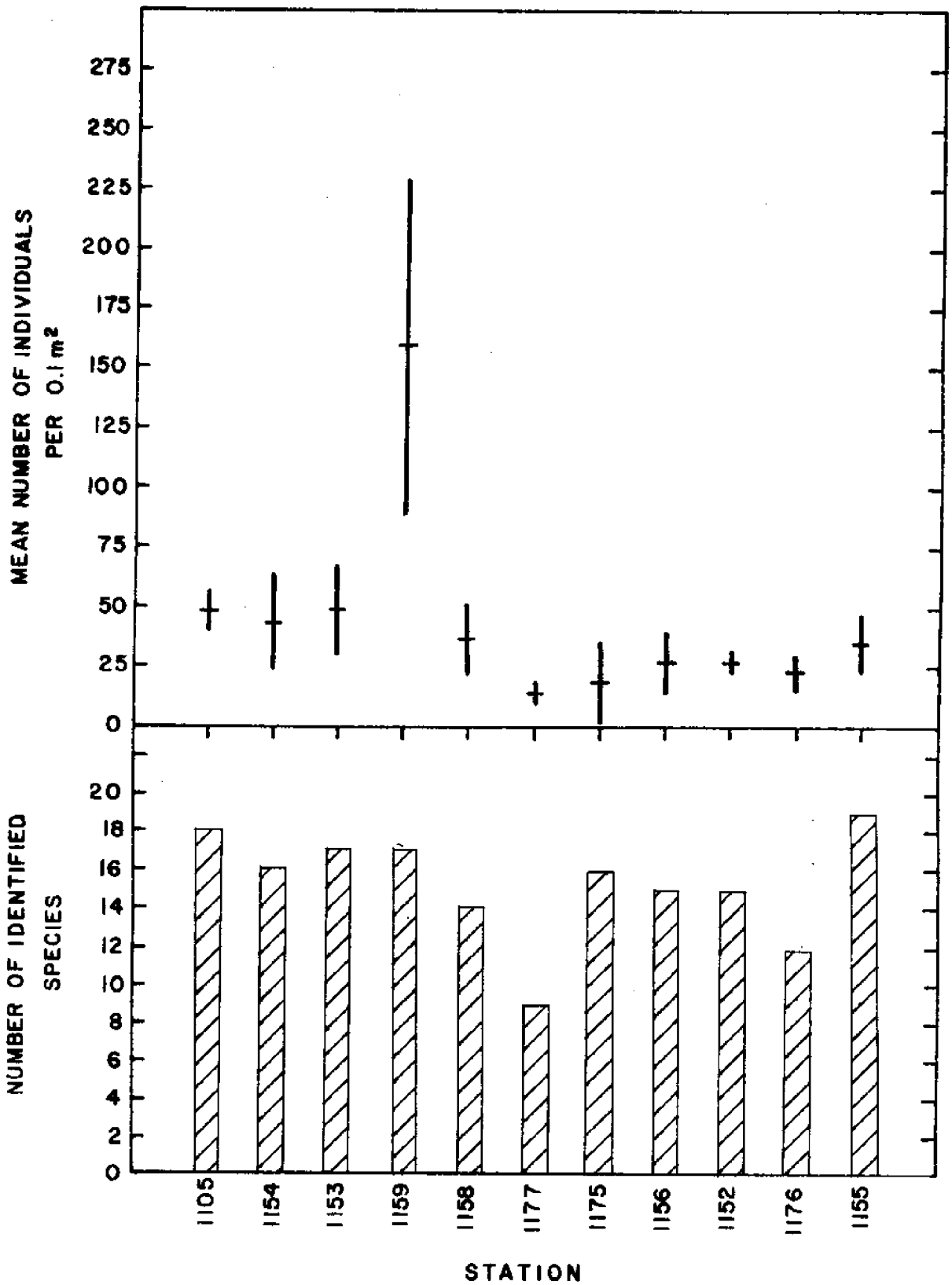


Figure 29. Total number of identified species of Bivalvia and the mean number of individuals of Bivalvia per 0.1 m^2 with 95% confidence limits, August 1972

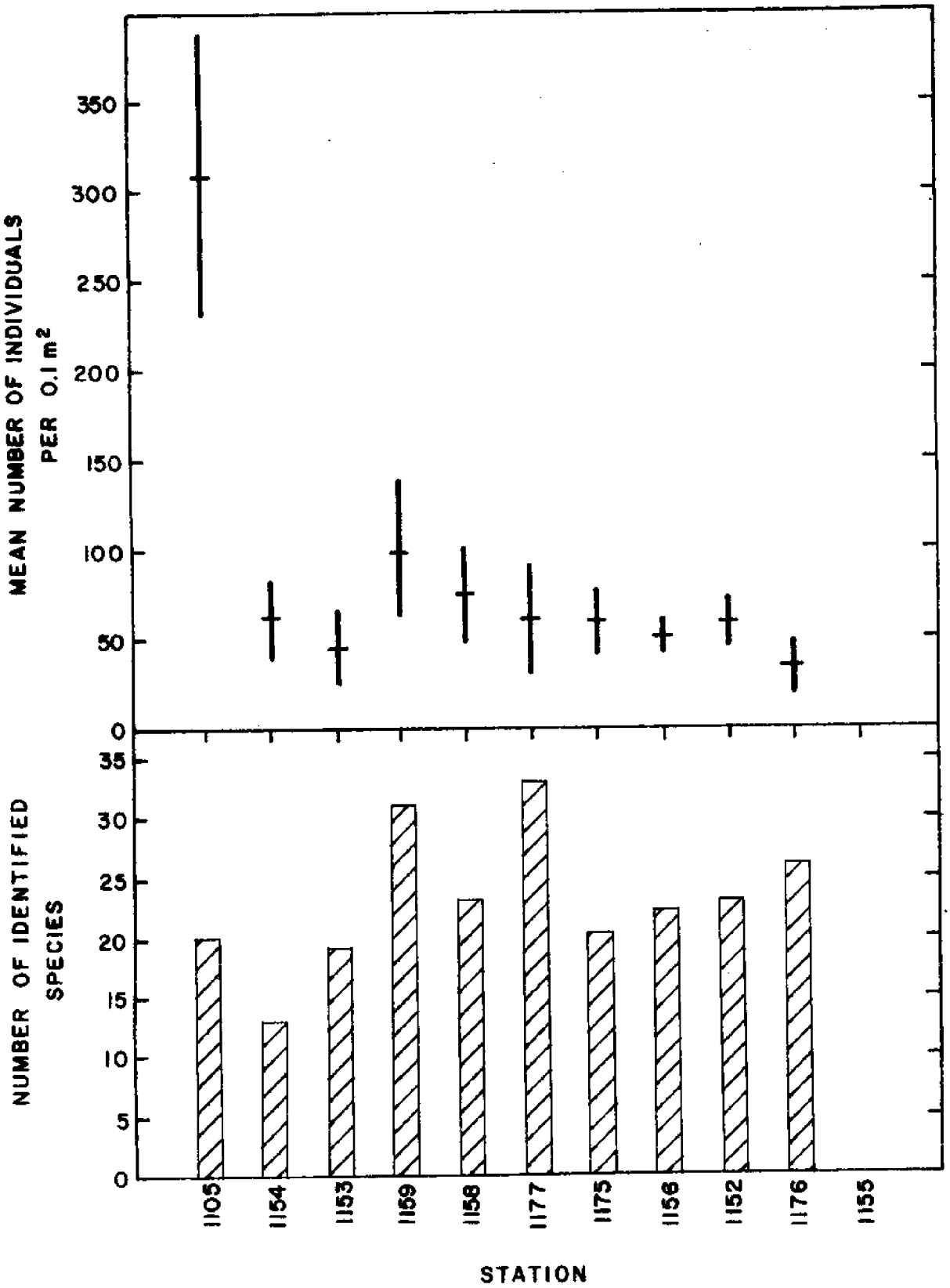


Figure 30. Total number of identified species of Crustacea and the mean number of individuals of Crustacea per 0.1 m^2 with 95% confidence limits, August - October 1971

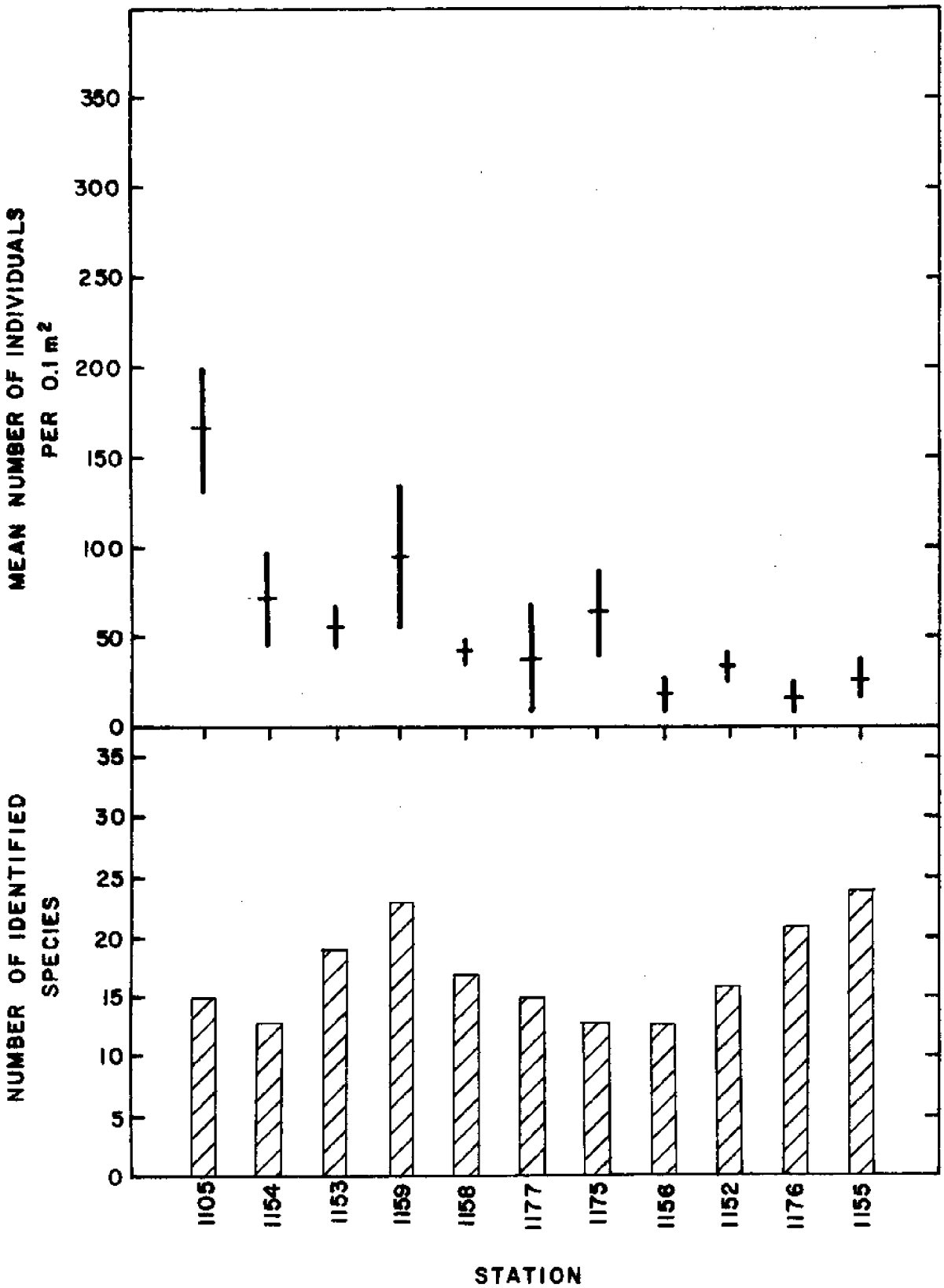


Figure 31. Total number of identified species of Crustacea and the mean number of individuals of Crustacea per 0.1 m^2 with 95% confidence limits, November 1971

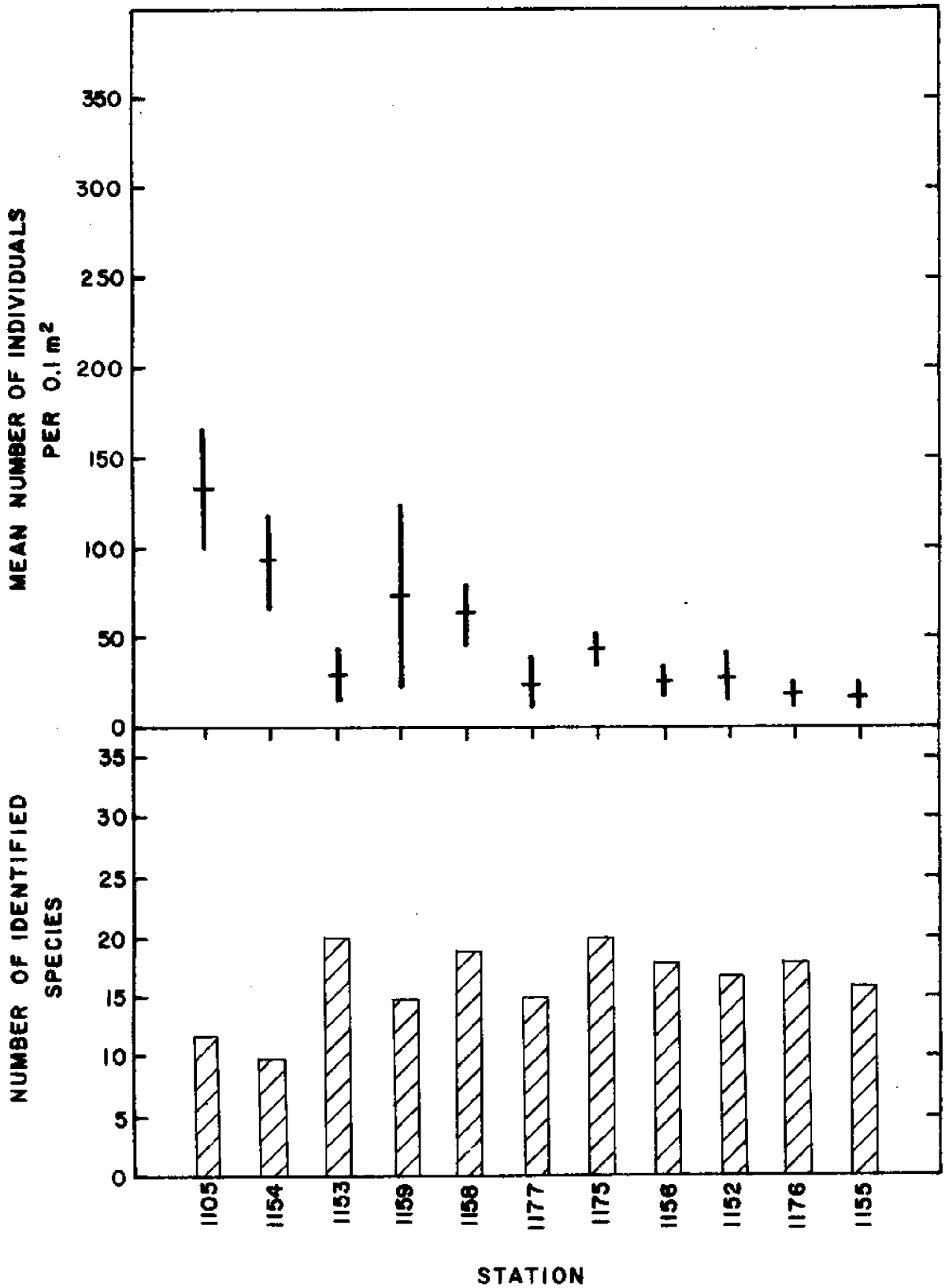


Figure 32. Total number of identified species of Crustacea and the mean number of individuals of Crustacea per 0.1 m^2 with 95% confidence limits, February 1972

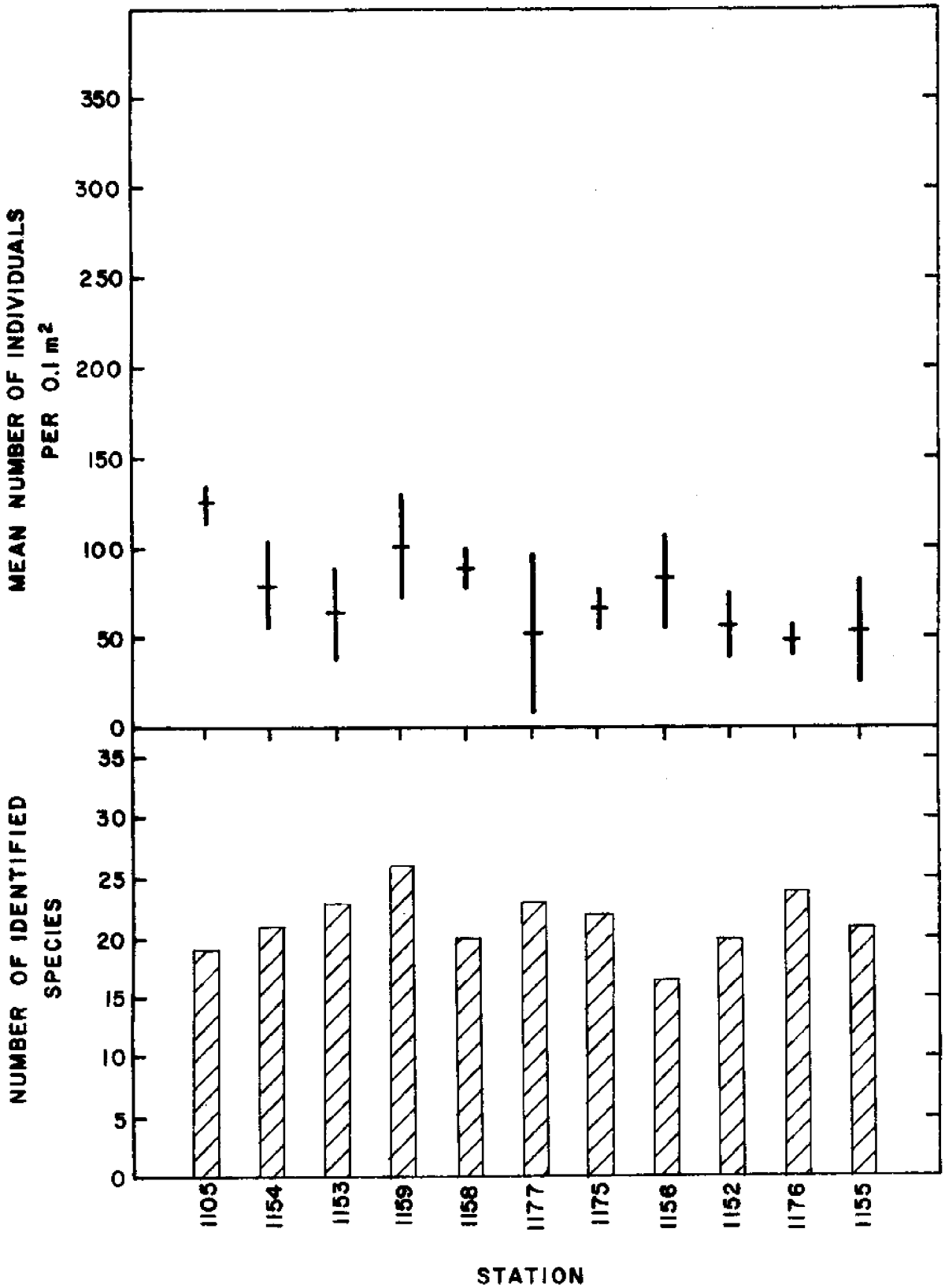


Figure 33. Total number of identified species of Crustacea and the mean number of individuals of Crustacea per 0.1 m^2 with 95% confidence limits, May 1972

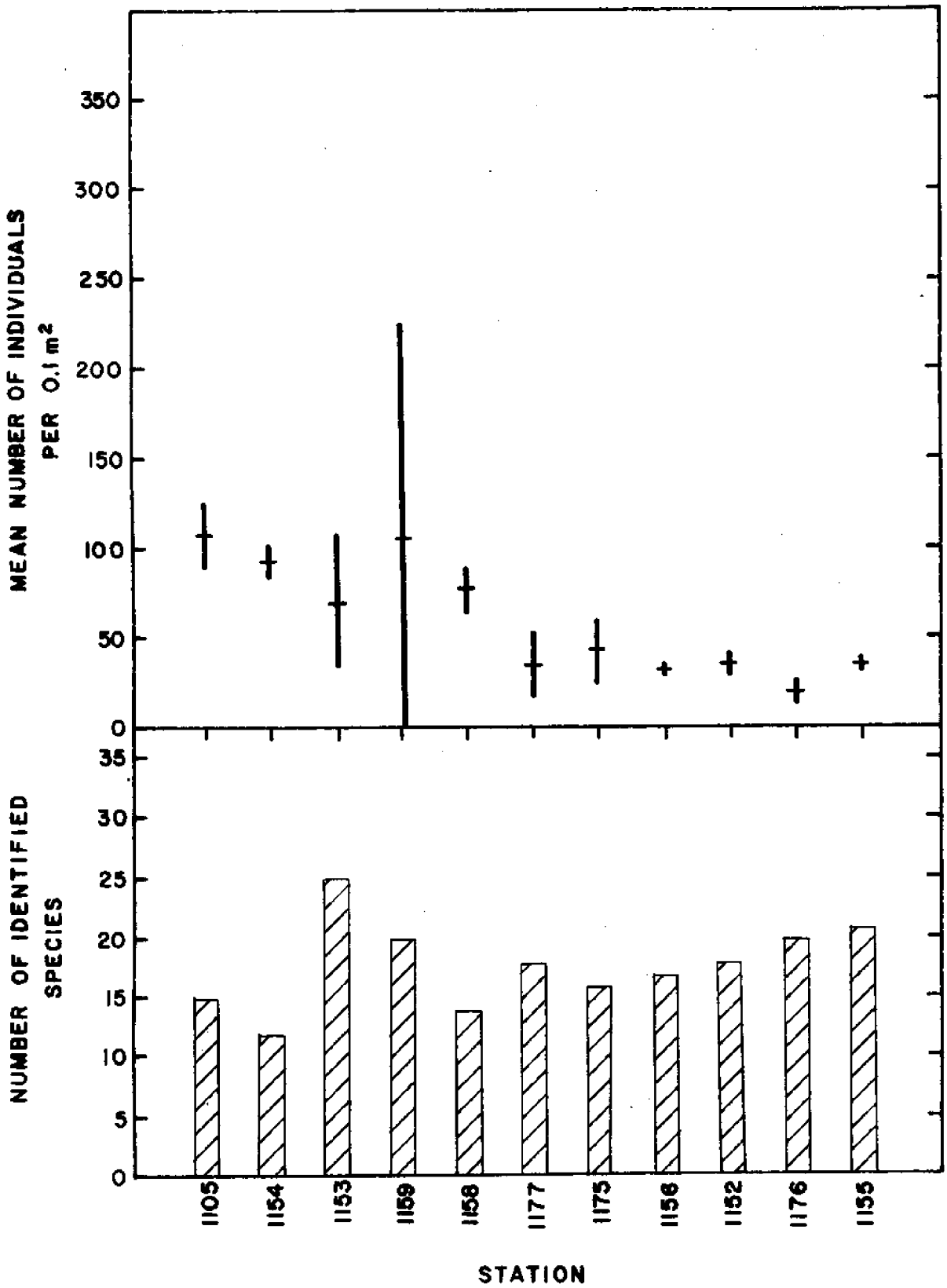


Figure 34. Total number of identified species of Crustacea and the mean number of individuals of Crustacea per 0.1 m^2 with 95% confidence limits, August 1972

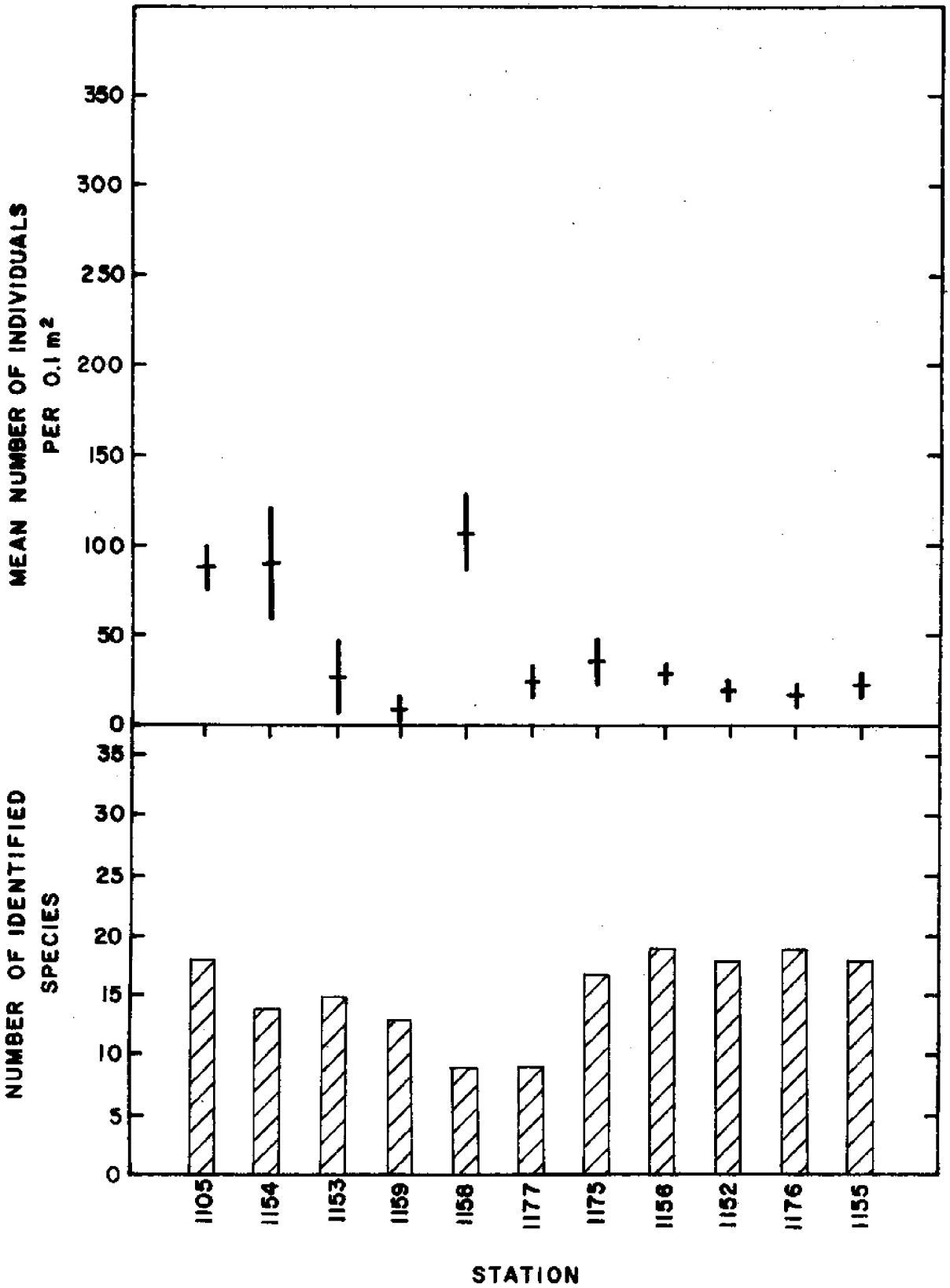


Figure 35. Total number of identified species of Crustacea and the mean number of individuals of Crustacea per 0.1 m^2 with 95% confidence limits, November 1972

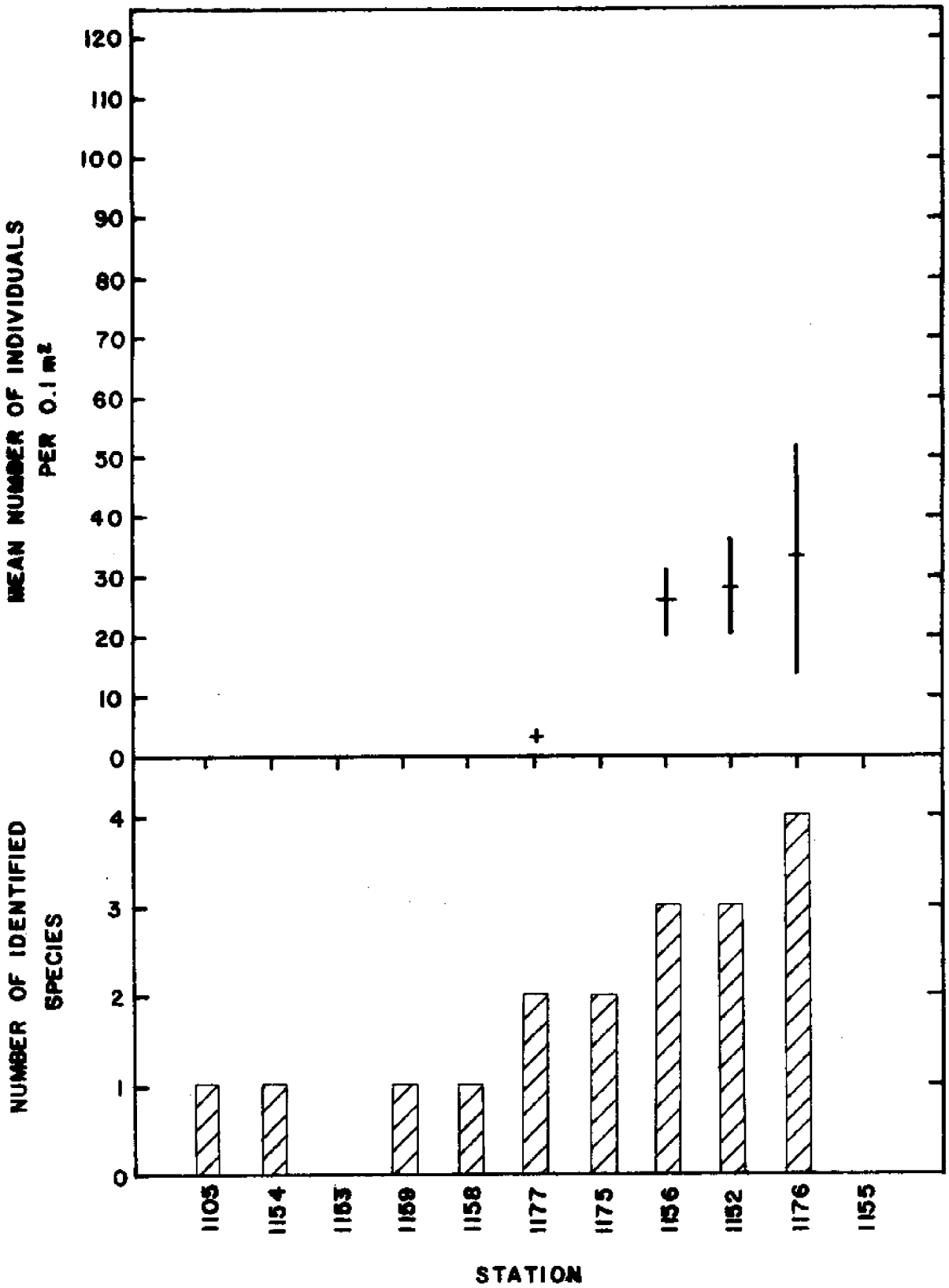


Figure 36. Total number of identified species of Ophiuroidea and the mean number of individuals of Ophiuroidea per 0.1 m^2 with 95% confidence limits, August - October 1971

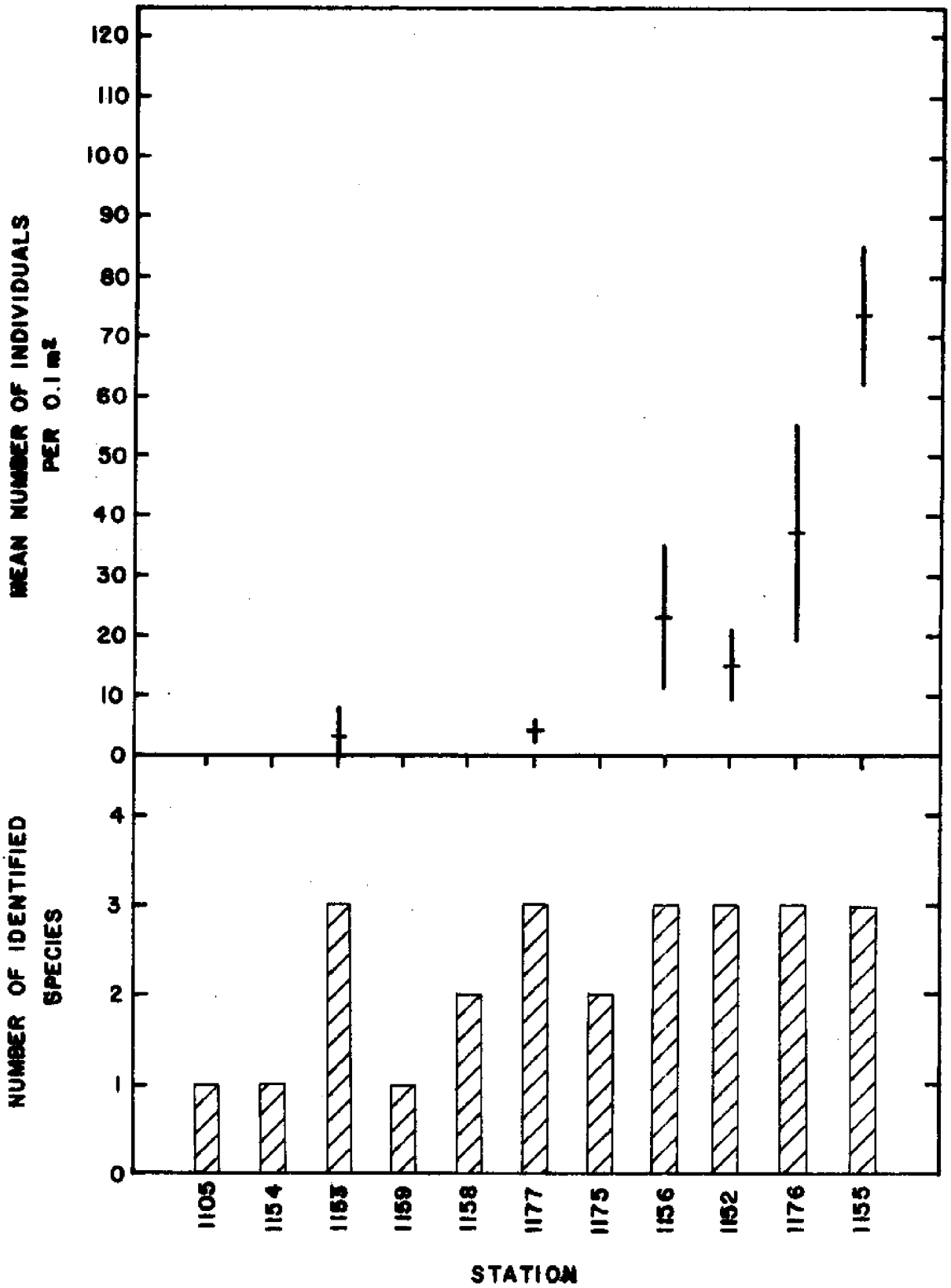


Figure 37. Total number of identified species of Ophiuroidea and the mean number of individuals of Ophiuroidea per 0.1 m^2 with 95% confidence limits, November 1971

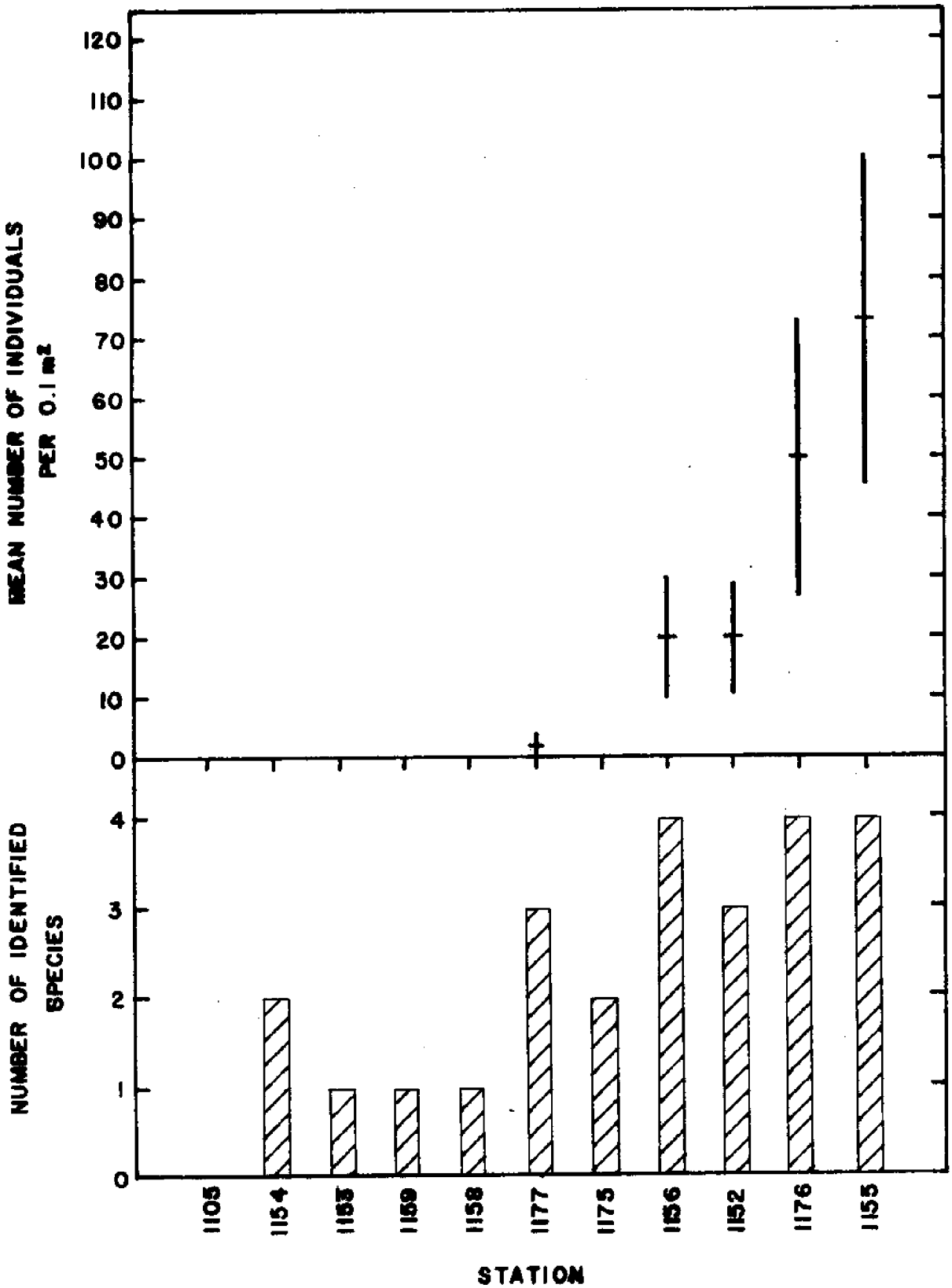


Figure 38. Total number of identified species of Ophiuroidea and the mean number of individuals of Ophiuroidea per 0.1 m^2 with 95% confidence limits, February 1972

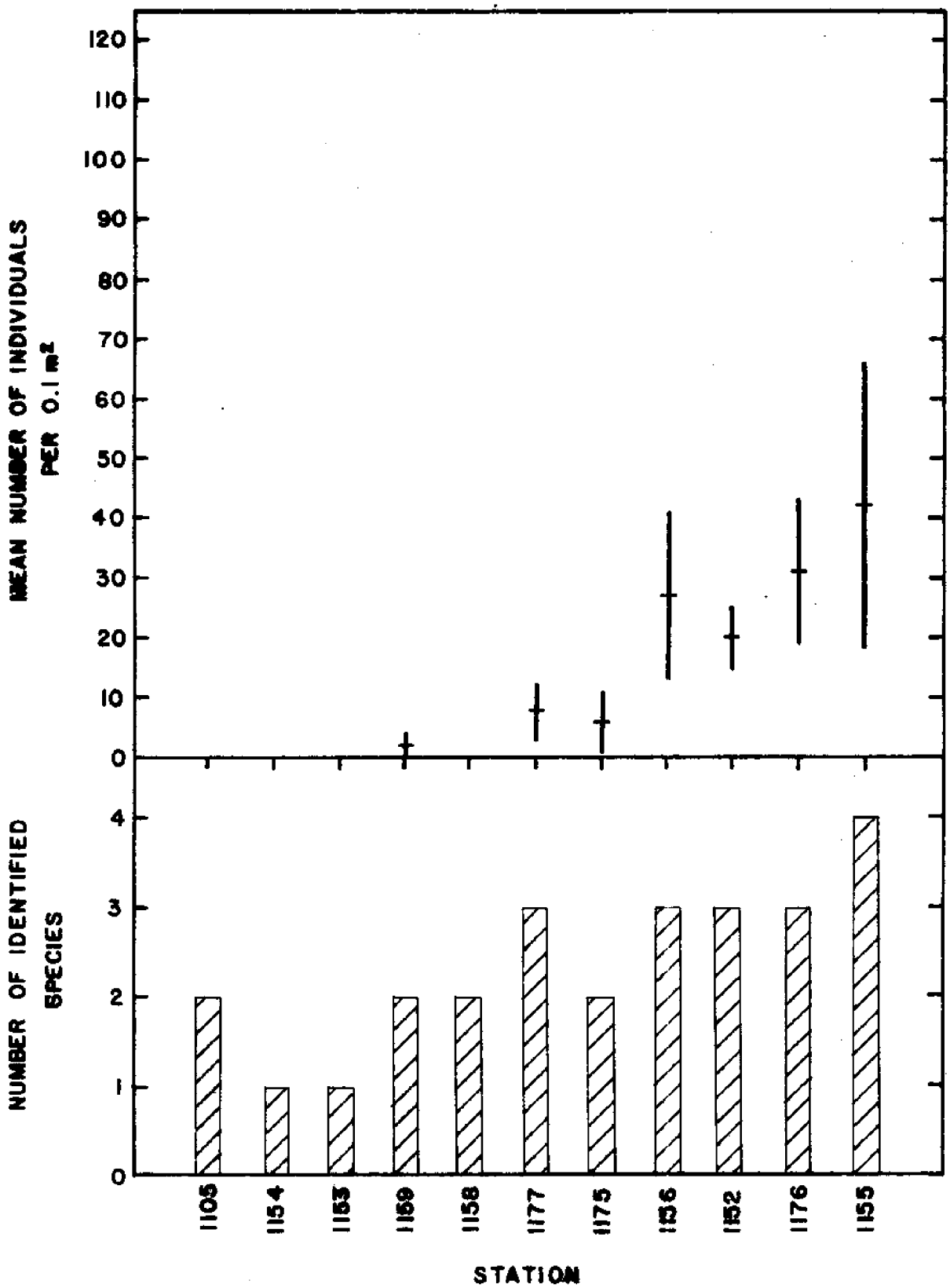


Figure 39. Total number of identified species of Ophiuroidea and the mean number of individuals of Ophiuroidea per 0.1 m^2 with 95% confidence limits, May 1972

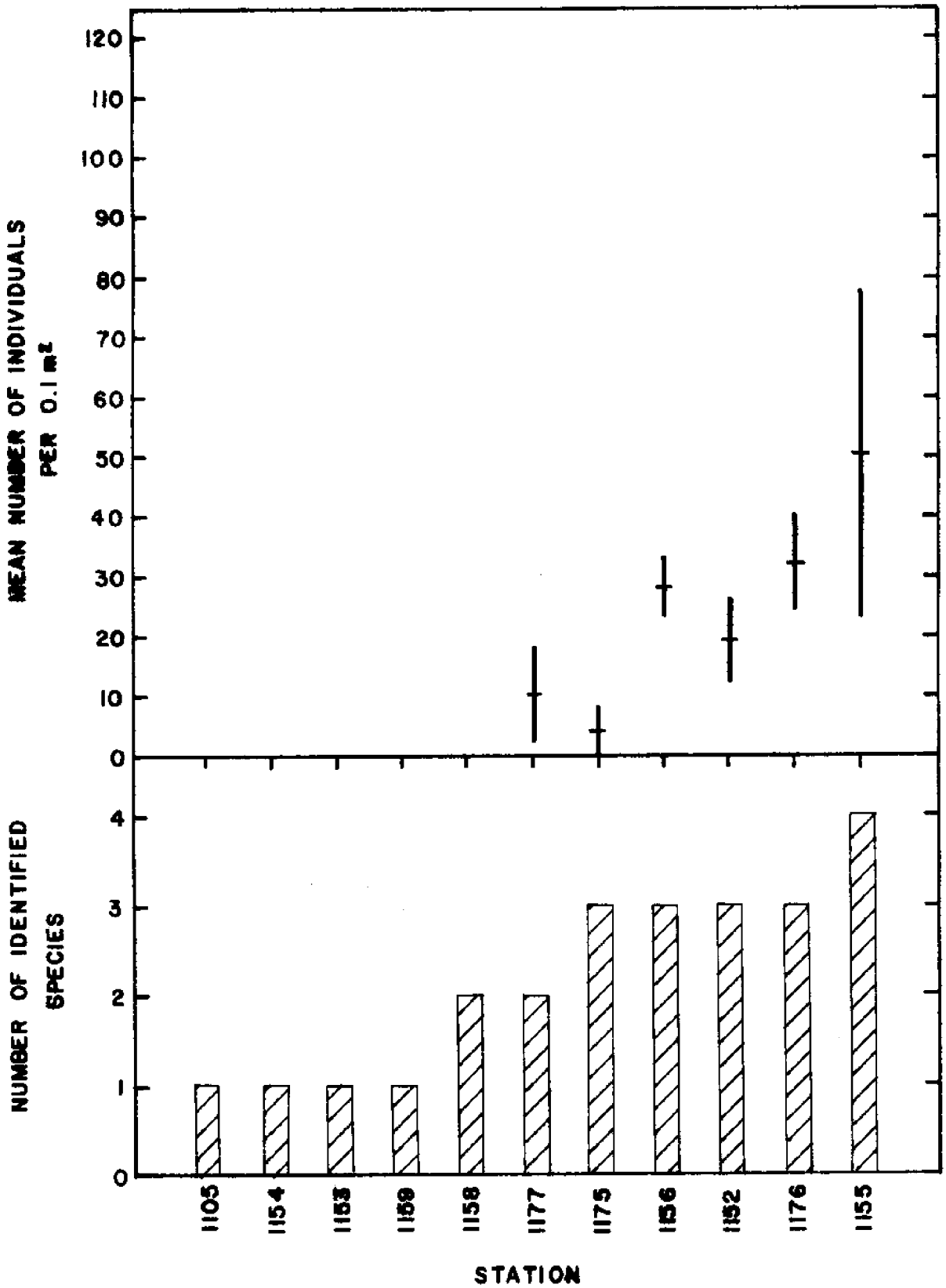


Figure 40. Total number of identified species of Ophiuroidea and the mean number of individuals of Ophiuroidea per 0.1 m^2 with 95% confidence limits, August 1972

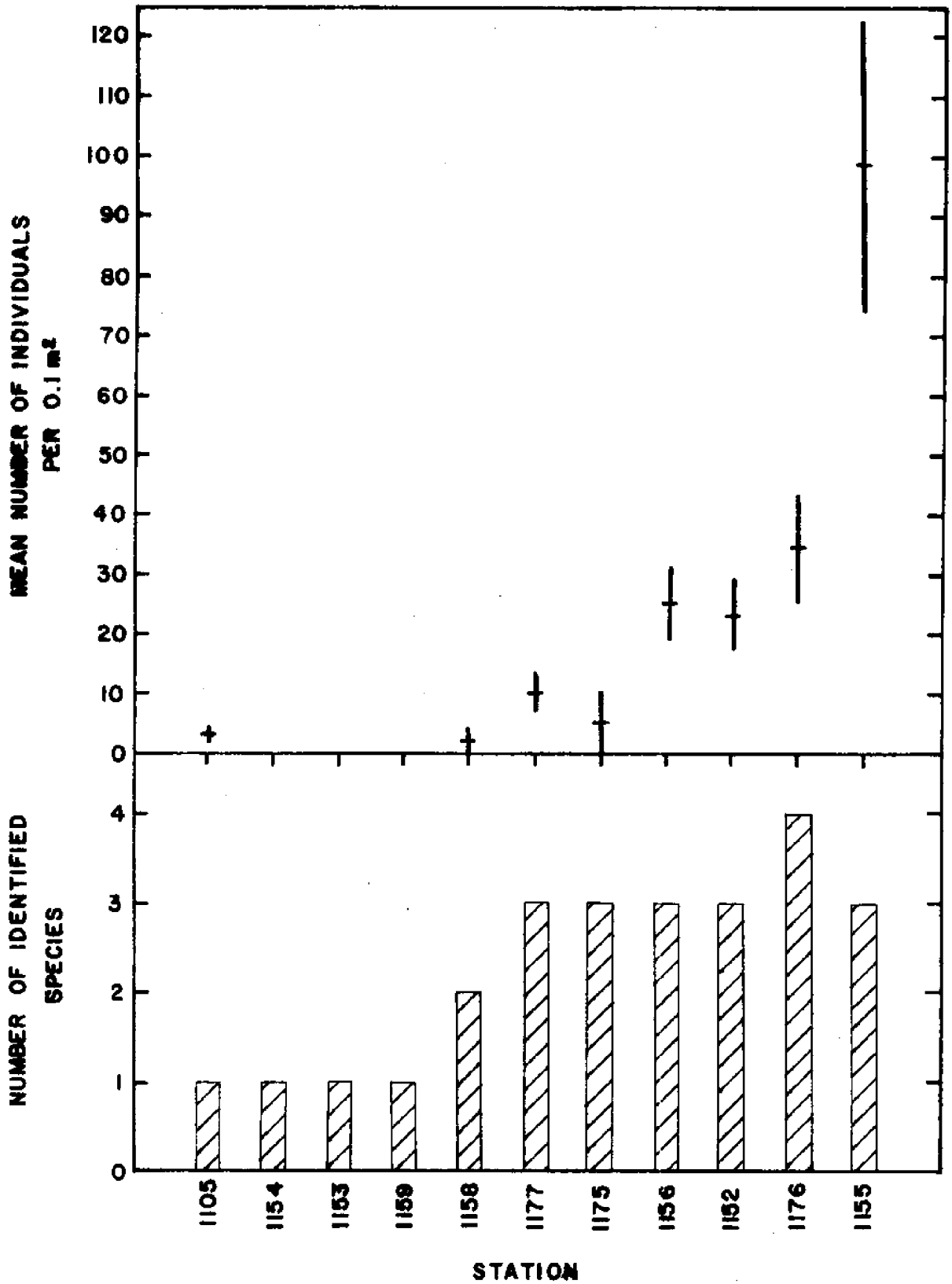


Figure 41. Total number of identified species of Ophiuroidea and the mean number of individuals of Ophiuroidea per 0.1 m^2 with 95% confidence limits, November 1972

Figure 42. Percent composition of the numbers of individuals comprising the major components of the fauna at the eleven benthos stations for the period of August 1971 through August 1972

Table 71

A taxonomic list, showing the distributions of all of the genera and species that were collected from October 1971 through February 1973 at the eleven benthos stations in northern Monterey Bay.

+ = Present, mean # individuals per 0.1 m^2 <2.00

C = Common, mean # individuals per 0.1 m^2 >2.00 but <20.00

A = Abundant, mean # individuals per 0.1 m^2 >20.00

SPECIES	1105	1154	1153	1159	1158	1177	1175	1156	1152	1176	1155
POLYCHAETA											
Aphroditidae											
Aphrodita parva Moore, 1905	+				+		+	+	+	+	
Aphrodita refulgida Moore, 1910				+	+	+			+	+	
Polynoidae											
Halosydna brevisetosa Kinberg, 1855			+	+		+					
Harmothoe nr. *lunalata* (delle Chiaje, 1841)	+	+	+	+	+	+	+	+	C	+	+
Harmothoe priops Hartman, 1961	+	+	+	+	+	+	+	+	+	+	+
Harmothoe sp. a									+		
Harmothoe sp. b				+	+						
Hesperone laevis Hartman, 1961							+	+		+	
Lepidasthenia longicirrata Berkeley, 1923	+	+	+	+	+		+	+	+	+	+
Polyodontidae											
Peisidice aspera Johnson, 1897				+							
Sigalionidae											
Pholoe glabra Hartman, 1961				+	+	+	C	C	C	+	C
Sthenelais verruculosa Johnson, 1897	C	C	+	C	+	+	+	+	+	+	+
Sthenelanella uniformis Moore, 1910						+	+				

SPECIES	1105	1154	1153	1159	1158	1177	1175	1156	1152	1176	1155
Thalenessa spinosa (Hartman, 1934)	C	C	C	+	C	C	C	C	C	+	
Phyllodocidae											
Anaitides groenlandica (Oersted, 1843)	+	+	+	+		+	+		+	+	+
Anaitides ? *multiseriata* Rioja, 1941										+	
Anaitides williamsi Hartman, 1936			+	C		+					
Anaitides sp. a	+	+	+	+	+	+	+	+	+	+	+
Eteone nr. *alba* Webster, 1879		+			+						
Eteone nr. *longa* (Fabricius, 1780)	+		+	+	+	+	+	+	+		
Eteone nr. *spetsbergensis* Malmgren, 1865	+	+		+		+					
Eteone sp. a	+	+		+	+	+	C	+	+		
Eulalia nr. *aviculiseta* Hartman, 1936				+	+						
Eumida sp. a	+	+	+	C	+	+	+	+	+		
Eumida sp. b						+	+	+	+	+	+
Genetyllis castanea (Marenzeller, 1879)	+			+	+	+			+		
Paranaitis polynoides (Moore, 1909)	+					+	+	+	+		
Paranaitis sp. a						+	+		+	+	
Phyllodoce sp. a	+	+	+	C	+	+	C	+	+	+	+
Hesionidae											

SPECIES	1105	1154	1153	1159	1158	1177	1175	1156	1152	1176	1155
Gyptis brevipalpa (Hartmann - Schroeder, 1959)	+	+	+	C	+	+	+	+	+	+	+
? *Ophiodromus* sp. a									+		
Pilargidae											
Parandalia fauveli (Berkeley & Berkeley, 1941)				+	+				+		
Pilargis berkeleyae Monro, 1933				+	+		+	+	+		
Pilargis maculata Hartman, 1947				+			+	+	+	+	+
Sigambra tentaculata (Treadwell, 1941)	+							+	+	+	+
Syllidae											
Autolytus sp. a						+		+			
Eusyllis transecta Hartman, 1966	+					+					
Langerhansia nr. *Heterochaeta* (Moore, 1909)				C	+	+			+		+
Sphaerosyllis californiensis Hartman, 1966			+	+			+	+			
Typosyllis armillaris (Muller, 1771)	+	+	+	+	+	+	+	+			
Nereidae											
Nereis zonata Malmgren, 1867	+	+	+	C			+	+	+	+	+
Platynereis bicanaliculata (Baird, 1863)			+	+							
Nephtyidae											
Nephtys assignis Hartman, 1950										+	+

SPECIES	1105	1154	1153	1159	1158	1177	1175	1156	1152	1176	1155
Nephtys caecoides Hartman, 1938	+	C	+	+	+	+	+	C	C	+	+
Nephtys cornuta franciscana Clark & Jones, 1955	+	+		+	C	C	C	C	C	+	
Nephtys ferruginea Hartman, 1940				+	+	+	+	+	+	C	C
Nephtys parva Clark & Jones, 1955	+	+	+	C	+	+	+	+	+	+	+
Sphaerodoridae											
Ephesiella brevicapitis (Moore, 1909)				+				+	+	+	+
Sphaerodoridium minutum (Webster & Benedict, 1887)						+					
Sphaerodoridium sphaerulifer (Moore, 1909)											+
Glyceridae											
Glycera americana Leidy, 1855	+		+	C	+		+	+	+	+	+
Glycera capitata Oersted, 1843	+			+	+	+	+	+	+	C	C
Glycera convoluta Keferstein, 1862	C	C	C	C	+	+	+	+	+		
Glycera oxycephala Ehlers, 1887			+								
Glycera robusta Ehlers, 1868								+	+	+	+
Glycera sp. a	C				+	+		+	+		
Hemipodus borealis Johnson, 1901		+									
Goniadidae											
Glycinde sp. a	C	C	C	C	C	C	C	C	C	+	+

SPECIES	1105	1154	1153	1159	1158	1177	1175	1156	1152	1176	1155
Goniada brunnea Treadwell, 1906								+		+	C
Goniada maculata Oersted, 1843	+	+	+	+	+	+	+	+	+		
Onuphidae											
Diopatra ornata Moore, 1911			+	+	+	+	+	+		+	
Nothria elegans (Johnson, 1901)	C	C	C	C	C	+	C	C	+	+	+
Nothria iridescens (Johnson, 1901)										+	+
Onuphis parva Moore, 1911						+				+	C
Lumbrineridae											
Lumbrineris bicirrata Treadwell, 1929										+	
Lumbrineris californiensis Hartman, 1944	+	+	+	+	+	+	+	C	+		+
Lumbrineris cruzensis Hartman, 1944			+	+	+	+	+	C	+	C	C
Lumbrineris index Moore, 1911										+	+
Lumbrineris inflata Moore, 1911				+							
Lumbrineris lagunae Fauchald, 1970									+	+	+
Lumbrineris latreilli Audouin & Milne Edwards, 1834	+	+									
Lumbrineris limicola Hartman, 1944				+			+	+	+		
Lumbrineris luti Berkeley & Berkeley, 1945	C	C	C	A	+	+	C	+	C	C	C
Lumbrineris tetraura (Schmarda, 1861)			+								

SPECIES	1105	1154	1153	1159	1158	1177	1175	1156	1152	1176	1155
Lumbrineris sp. a				+	+	+	+	+	+		
Ninoe sp. a								+	+	C	C
Arabellidae											
Arabella pectinata Fauchald, 1970			+	+	+	+		+	+	+	
Drilonereis falcata Moore, 1911							+	+	+	+	+
Drilonereis ? *filum* (Claparede, 1868)								+	+	+	+
Drilonereis longa Webster, 1879							+	+		+	
Drilonereis sp. a					+					+	+
Dorvillidae											
Protodorvillea recuperata Banse & Nichols, 1968				+							
? *Protodorvillea* sp. a		C									+
Orbiniidae											
Haploscoloplos pugettensis (Pettibone, 1957)	C	C	C	A	+		C	+	+		+
Naineris uncinata Hartman, 1957									+		
Phylo felix Kinberg, 1866	C	+	C	C	C	+	C	C	+		+
Scoloplos armiger (Muller, 1776)	C	+		+	+	C	C	C	+	C	+
Paraonidae											
Aedicira antennata (Annenkova, 1934)										+	+

SPECIES	1105	1154	1153	1159	1158	1177	1175	1156	1182	1176	1155
Aedicira nr. *pacifica* (Hartman, 1944)				+			+	+			
Aedicira sp. a	+		+								
Aricidea ramosa Annenkova, 1934							+	+	+	+	+
Aricidea nr. *suecica* (Eliason, 1920)	+	+	+	+	+	C	C	C	C	+	+
Aricidea sp. a			+	+	+		+	+	+		
Paradoneis sp. a									+		
Paraonis ivanovi Annenkova, 1934			+				+	+	+	+	C
Apistobranchidae											
Apistobranchus ornatus Hartman, 1965											+
Spionidae											
Boccardia basilaria Hartman, 1961				+							
Dispio uncinata Hartman, 1951		+	+								
Laonice cirrata Sars, 1851			+	+	+	+	+	+	+	C	+
Nerine foliosa occidentalis Hartman, 1961	+				+	+	+	+	+	+	+
Paraprionospio pinnata (Ehlers, 1901)				+	+	+	+	C	C	A	A
Polydora brachycephala (Hartman, 1936)			+	+					+		
Polydora nr. *caeca* (Oersted, 1843)	+		+	+	+	+	+	+			+
Polydora limicola Annenkova, 1934			+	+		+					

SPECIES	1105	1154	1153	1159	1158	1177	1175	1156	1152	1176	1155
Prionospio cirrifera Wiren, 1883	+	+	+	+	+	+	A	C	C	C	+
Prionospio malmgreni Claparede, 1870	+		+	+	+	C	C	C	+	C	+
Prionospio pygmaeus Hartman, 1961	C	A	C	C	+	C	+	+	+	+	+
Pseudopolydora sp. a	+			C	+		A	+		+	+
Rhyncospio arenicola Hartman, 1936	+										
Spio filicornis (Muller, 1766)								+		+	
Spiophanes bombyx (Claparede, 1870)	C	C	C	C	C	A	C	C	C	A	C
Spiophanes missionensis Hartman, 1941	+	+	+	+	+	+	C	C	+	C	C
Spiophanes sp. a	+	+	+	C	C	C	C	C	C	C	C
Magelonidae											
Magelona nr. *pitelkai* Hartman, 1944	C	+	+	C	C	C	C	C	C	+	+
Magelona sacculata Hartman, 1961	+	+	+	+	+	+	A	C	C	+	
Magelona spp.	+	+	+	+	+	+	A	C	C	+	C
Disomidae											
Disoma franciscanum Hartman, 1947									+		+
Poecilochaetidae											
Poecilochaetus johnsoni Hartman, 1939	+		+	+	+		+	+	+	+	+
Chaetopteridae											

SPECIES	1105	1154	1153	1159	1158	1177	1175	1156	1162	1176	1155
Mesochaetopterus taylori Potts, 1914			+	+							
Phyllochaetopterus limicolus Hartman, 1960				+		+					+
Telepsavus costarum Claparede, 1870	+	+	+	+	+	+	C	+	+	+	+
Cirratulidae											
Chaetozone setosa Malmgren, 1867	C	C	C	C	C	C	C	C	C		
Chaetozone sp. a	+										
Cirriformia spirabranchia (Moore, 1904)									+		
Tharyx monilaris Hartman, 1960										+	+
Tharyx tesselata Hartman, 1960						+			+	+	+
Tharyx spp.			+	C	+	C	C	C	C	C	C
Cossuridae											
Cossura rostrata Fauchald, 1972					+		+	C	+	+	+
Flabelligeridae											
Brada pluribranchiata (Moore, 1923)										+	C
Brada villosa (Rathke, 1843)				+	+	+	C	C	C	+	
? *Flabelligella* sp. a				+		+					
Flabelligera infundibularis Johnson 1901										+	
Pherusa neopapillata Hartman, 1961								+		+	

SPECIES	1105	1154	1153	1159	1158	1177	1175	1156	1152	1176	1155
Pherusa ? *papillata* (Johnson, 1901)				+		+					+
Piromis hospitis Fauchald, 1970										+	+
Scalibregmidae											
Scalibregma inflatum Rathke, 1843	+	+	A	A	+	+	+	+	+	+	C
Opheliidae											
Ammotrypane aulogaster Rathke, 1843										+	+
Armandia bioculata Hartman, 1938	A	A	+	C	+						
Ophelia assimilis Tebble, 1953			+								
Travisia brevis Moore, 1923										+	+
Travisia pupa Moore, 1906										+	+
Travisia gigas Hartman, 1938	+	+	+		+	+	+	+			+
Travisia sp. a	+						+		+		
Sternaspidae											
Sternaspis fossor Stimpson, 1854						+	C	C	C	C	C
Capitellidae											
Decamastus sp. a				+			+	+		+	+
Heteromastus filobranchus Berkeley & Berkeley, 1932				C			+		+		+
Mediomastus acutus Hartman, 1969	+		+	+		+					

SPECIES	1105	1154	1153	1159	1158	1177	1175	1156	1152	1176	1155
Mediomastus californiensis Hartman, 1944	+	+	+	A	C	C	C	A	A	C	C
Notomastus (*Clistomastus*) *tenuis* Moore, 1909	+	+	+	C		+		+		+	+
Notomastus magnus Hartman, 1947	+	+	+	C	+	+	+	+	+	+	+
Maldanidae											
Asychis disparidentata (Moore, 1904)				+	+	+	+	C	C	+	+
Axiothella rubrocincta (Johnson, 1901)	+	+	+	C	+	+		+			
? *Clymenella* sp. a				C		+	C	C	C	+	
Isocirrus longiceps (Moore, 1923)			+	+				+	+		
Maldane cristata Treadwell, 1923					+		+	+	+	C	C
Praxillella affinis pacifica Berkeley, 1929				C	+	+	+	+	C	+	+
Praxillella gracilis (Sars, 1861)											+
Rhodine bitorquata Moore, 1923								+		+	+
Oweniidae											
Myriochele heeri Malmgren, 1867										C	+
Owenia collaris Hartman, 1955		+	+	+	+	+	+	+	C	+	
Sabellariidae											
Sabellaria cementarium Moore, 1906			+			C					
Pectinariidae											

SPECIES	1105	1154	1153	1159	1158	1177	1175	1156	1152	1178	1155
Cistenides brevicoma (Johnson, 1901)			+	+							
Pectinaria californiensis Hartman, 1941	C	+	+	+	+		+	+	+	+	C
Ampharetidae											
Amage scutata Moore, 1923										+	+
Ampharete nr. *labrops* Hartman, 1961	+	+	C	C	+	+	+	+	+	+	+
Amphicteis mucronata Moore, 1923										+	+
Amphicteis scaphobranchiata Moore, 1906		+		+	+	+	C	+	+	+	+
Anobothrus sp. a								+		+	
Melinna oculata Hartman, 1969					+	+	+	+	+	+	+
Samytha californiensis Hartman, 1969										+	+
Schistocomus hiltoni Chamberlin, 1919				+		+					+
Terebellidae											
Amaeana occidentalis (Hartman, 1944)	+	+	C	C	+	+	C	C	C	+	+
Artacama coniferi Moore, 1905								+		+	
Eupolymnia crescentis Chamberlin, 1919			+								
Lanassa gracilis (Moore, 1923)						+	+	+	+	+	+
Loimia nr. *medusa* (Savigny, 1818)	+	+		+		+	+	+	+		+
Pista fasciata (Grube, 1870)			+	+	+	+	+	+	+	+	+

SPECIES	1105	1154	1153	1159	1158	1177	1175	1156	1152	1176	1155
Pista moorei Berkeley & Berkeley, 1942										+	+
Pista sp. a								+			
Polycirrus spp.				+	+	+	+	+	+	+	+
Streblosoma sp. a	+	+	+	C	C	+		+	+	+	+
Trichobranchidae											
Terebellides stroemi Sars, 1835							+	+	+	C	C
Trichobranchus glacialis Malmgren, 1866										+	
Sabellidae											
Chone ecaudata (Moore, 1923)						+					
Chone gracilis Moore, 1906										+	+
Chone nr. *mollis* (Bush, 1904	+	C	+	+		+	+	+	+		
Chone veleronis Bansem k972					+	+			+		
Euchone incolor Hartman, 1965				+	+		+				
Megalomma pigmentum Reish, 1963								+			
Megalomma splendida (Moore, 1905										+	
Myxicola infundibulum (Renier, 1804)											+
Potamilla sp. a						+	+	+	+		
Pseudopotamilla sp. a				+							

SPECIES	1105	1154	1153	1159	1158	1177	1175	1156	1152	1176	1155
APLACOPHORA											
Chaetoderma spp.	+			+	C	+	C	+	+	C	C
GASTROPODA											
Opisthobranchia											
Acteocina spp.	C	+	+	C	C	C	C	C	C	+	C
Aglaja diomedea (Bergh, 1893)	+	+		+	+			+	+	+	+
Aglaja ocelligera Bergh, 1894		+			+	+	+	+	+	+	+
Cylichna attonsa (Carpenter, 1865)		+	+	C	C	C	C	C	C	C	C
Gastropteron pacificum Bergh, 1893						+	+	+	+	+	+
Odostomia (*Amura*) spp.	+			+	+	+	+		+	+	
Odostomia (*Evalea*) spp.	C	C	C	C	C	+	C	C	+	+	+
Philine sp. a								+		+	+
Pleruobranchaea sp.										+	
Rictaxis punctocaelatus (Carpenter, 1864)		+		+	+	+	+	C	C	+	+
Turbonilla spp.	+	+	+	C	C	+	+	C	C	+	+
Volvullella cylindrica (Carpenter, 1863)	+		+	+	+	C	+	C	C	+	C
Volvullella panamica Dall, 1919				+			+	+	+	+	+
Nudibranchia a	+			+	+	+	+	+	+	+	+

SPECIES	1105	1154	1153	1159	1158	1177	1175	1156	1152	1176	1155
Nudibranchia b					+						
Prosobranchia											
Mesogastropoda											
Alvinia acutelirata Carpenter, 1866		+	C	C						C	+
Balcis rutila (Carpenter, 1864)			+	+		+		+	+		
Balcis spp.		+				+		+	+		
Cerithiopsis sp. a			+								
Cyclostremella californica Bartsch, 1907			+		+	+		+	+		
Epitonium bellastriatum (Carpenter, 1864)					+	+	+	+	+	+	+
Epitonium cooperi Strong, 1930			+	+							
Epitonium tabulatum Dall, 1917					+	+		+	+		+
Epitonium tinctum (Carpenter, 1864)	+	+	+	+	+	C	+	+	+	+	+
Fartulum occidentale Bartsch, 1920			+	+							
Lacuna spp.					+						
Polinices draconis (Dall, 1903)					+			+	+		
Polinices lewisii (Gould, 1847)	+	+		+	+	+	+				
Polinices reclusianus (Deshayes, 1839)	+	+		+	+	+		+	+		
Scissilabra dalli Bartch, 1907				C							

SPECIES	1105	1154	1153	1159	1158	1177	1175	1156	1152	1176	1155
Sinum scopulosum (Conrad, 1849)								+			
Vitrinella oldroydi Bartch, 1907			+								
Neogastropoda											
Cancellaria sp.										+	
Granulina margaritula (Carpenter, 1857)			+								
Kurtzia arteaga (Dall & Bartch, 1910)	+	+	+	+	C	C	C	C	C	C	C
Kurtziella plumbea (Hinds, 1843)	+	C	C	+	+	+	+	+	+		
Mitrella gouldii (Carpenter, 1857)	+		+	C	C	C	C	C	C	C	C
Mitrella tuberosa (Carpenter, 1864)			+	C							
Nassarius fossatus (Gould, 1849)		+	+								
Nassarius mendicus (Gould, 1849)		+	C	C	+	+	+	+		+	+
Nassarius perpinguis (Hinds, 1844)	+	+		+	+	+			+		
Nassarius rhynetes Berry, 1935						+	+				
Ocenebra beta (Dall, 1919)			+								
Olivella pycna Berry, 1935	C	A	C	C	+	+	+	+	+		
Ophiodermella halcyonis (Dall, 1908)			+		+	+	+	+	+		+
SCAPHOPODA											
Cadulus fusiformis Pilsbry & Sharp, 1898	+	+	+	C	C	C	C	C	C	C	C

SPECIES	1105	1154	1153	1159	1158	1177	1175	1156	1152	1176	1155
Dentalium neohexagonum Sharp & Pilsbry, 1897				+		+	+	+	+	+	+
Dentalium rectius Carpenter, 1864										+	+
BIVALVIA											
Astarte sp.	+			C	+	C	C	C	C	C	C
Asthenothaerus villosior Carpenter, 1864				+			+	+	+	+	+
Axinospida sp.	+			+	+	+	C	+	C	A	C
Cardium quatrogenarium Conrad, 1837	+	+	+	C						+	+
Clinocardium nuttalli		+									
Compsomyax subdiaphana (Carpenter)	+	+		+	C	C	C	C	+	C	C
Cooperella subdiaphana (Carpenter, 1864)	C	C	C	+	C	C	+	C	C	+	C
Cuspidaria apodema Dall, 1916										+	+
Entodesma saxicola (Baird, 1863)	+			+		+		+			+
Hainopsida sp.				+							
Lyonsia californica Conrad, 1837	+	+	+	+	+	+	+	+	+	+	+
Macoma nasuta (Conrad, 1837)	+	C	+	+	+		+	+		+	
Macoma yoldiformis Carpenter, 1864	C	C	C	A	C	C	C	C	C	C	+
Mactra californica Conrad, 1837	A	C	+	+			+				
Mactra sp.	+	+		+							

SPECIES	1105	1154	1153	1159	1158	1177	1175	1156	1152	1176	1155
Modiolus rectus Conrad, 1837	+		C	+		+	+	+	+	+	+
Mya arenaria Linnaeus, 1758				C							
Mysella aleutica	C	+	C	C	C	+	+	C	C	C	C
Nemocardium centrifilosum (Carpenter, 1864)	+	A	C	+		+	+	+		+	+
Nucula tenuis (Montaque,1802)						+	+	C	+	C	C
Nuculana taphrina (Dall, 1896)	C	C	A	A	C	C	C	C	C		+
Nuculana sp.	C	A	A	C			+	+			+
Pandora bilirata Conrad, 1855	C	+	C	+	+		+	+		+	C
Pandora punctata Conrad, 1837	+	+	C	+							
Panopaea generosa Gould, 1850		+									
Pecten diegensis Dall, 1898			+								
Pecten latiauratus Conrad, 1837				+		+	+				
Periploma discuss Stearns, 1890					+		+	+	+	C	+
Platyodon cancellatus (Conrad, 1837)	+			+			+	+	+		+
Protothaca staminea (Conrad, 1837)	A	C	A	A	C		+		+		+
Psephidia sp.										C	C
Saxicavella pacifica Dall, 1916					+		+	+	+	+	+
Saxidomus nuttalli Conrad, 1837				+	+				+		

SPECIES	1105	1154	1153	1159	1158	1177	1175	1156	1152	1176	1155
Siliqua patula (Dixon, 1788)	C	A	C	C	C	+	+	C	C		+
Solamen columbianum (Dall, 1897)						+		+		+	+
Solen sicarius Gould, 1850	+	+	+	+	+	+	+	C	C		+
Tellina bodegensis Hinds, 1864	+										
Tellina meropsis Dall, 1900	+	+	+	C	+	+	+	+			C
Tellina modesta (Carpenter, 1864)	A	A	A	A	+	+	+	+	+	+	+
Tellina nuculoides	C	+			+					+	+
Transennella tantilla Gould, 1852				C							
Vesicoma sp.							+			C	
Yoldia ensifera Dall, 1897										+	C
Yoldia scissurata Dall, 1898								+			
Yoldia sp.										+	+
Bivalvia a			+				+		+	+	+
Bivalvia b				+						+	
Bivalvia d					+		+	+	+	+	+
Bivalvia e			+								
CEPHALOPODA											
Octopus sp.			+								

SPECIES	1105	1154	1153	1159	1158	1177	1175	1156	1152	1176	1155
CRUSTACEA											
Ostracoda											
Myodocopa											
Asteropella sp. a	+		+	+	+		+	+	+		
? *Bathyleberis* sp. a				+						+	
Euphilomedes carcharodonta (Smith, 1952)	A	A	A	A	A	C	A	C	C	+	+
Euphilomedes longiseta (Juday, 1907)	+						+				
Euphilomedes oblonga (Juday, 1907)		+					+			+	
Malacastraca											
Nebaliacea											
Epinebalia pugettensis Clark, 1932					+	+		+	+		
Mysidacea											
Acanthomysis ? *davisi* Banner, 1948	+	C	+	+	+						
Acanthomysis nephrophthalma Banner, 1948	+	+	+		+	+	+	+	+	+	
Heteromysis sp. a										+	+
Metamysidopsis ? *elongata* (Holmes, 1900)		+	+	+							
Neomysis kadiakensis Ortman, 1908	+	+	+	+	+		+	+	+	+	+
Cumacea											

SPECIES	1105	1154	1153	1159	1158	1177	1175	1156	1152	1176	1155
Anchiocolurus occidentalis (Calman, 1912)	+	+	+	+				+		+	
Campylaspis canaliculata Zimmer, 1936								+		+	+
Campylaspis nodulosa								+		+	
Campylaspis sp. a						+	+				
Cyclaspis nubila Zimmer, 1936	+	+	C	C							
Diastylis sp. a			+	C	+	+	+	+	C	+	+
Diastylis sp. b				C	+					C	+
Diastylis spp.	+	+	+	C	+	+	+	+	+	C	C
Diastylopsis tenuis Zimmer, 1936	+	+	C	+	+	+			+		
Eudorella pacifica Hart, 1930						+			+	+	C
Eudorellopsis longirostris Given, 1961			+							+	
Hemilamprops californica Zimmer, 1936	C	C	C	C	C	C	C	C	C	C	+
Lamprops spp.	+										
Leptostylis sp.										+	
Mesolamprops sp. a	C	+	+		+						
Tanaidacea											
Leptochelia dubia (Kroyer, 1842)				+	+	+					
Leptognathia spp.	+		+		+	+	+	+			

SPECIES	1105	1154	1153	1159	1158	1177	1175	1156	1152	1176	1155
Isopoda											
Austrosignum nr. *tillerae* Menzies & Barnard, 1959	+			+		+	+	+		+	
Bathycopea daltonae (Menzies & Barnard, 1959)	+	C	C	+							
Edotea sublittoralis Menzies & Barnard, 1959	+	+	C	+	+	+	+			+	
Gnathia crenulatifrons Monod, 1926			+				+	+	+	+	C
Haliophasma geminata Menzies & Barnard, 1959				+		+	+				+
Idarcturus allelomorphus Menzies & Barnard, 1959						+					
Tecticeps convexus Richardson, 1899			+								
Amphipoda											
Ampeliscidae											
Ampelisca compressa Holmes, 1908			+		+	C	C	C	C	+	+
Ampelisca cristata Holmes, 1908	+		C	C	C	C	+	C	C	+	+
Ampelisca hancocki Barnard, 1954						+	+	+	+	+	C
Ampelisca macrocephala (Liljeborg, 1842)			C		+	C	+	C	C	+	+
Ampelisca pacifica Holmes, 1908										+	+
Ampelisca pugetica Stimpson, 1864			+			+	+	C	+	+	+
Ampelisca romigi Barnard, 1954							+				
Ampelisca shoemakeri Barnard, 1954							+			+	+

SPECIES	1105	1154	1153	1159	1158	1177	1175	1156	1152	1176	1155
Byblis veleronis Barnard, 1954			+				+	+	+	C	C
Amphilochidae											
Gitanopsis spp.			+			+			+		
Aoridae											
Aoroides columbiae Walker, 1898	+		C	C		C	+	+			
Argissidae											
Argissa hamatipes (Norman, 1869)		+	+	C	+	+	+	+	+	+	+
Atylidae											
Atylus spp.	+	+									
Corophiidae											
Corophium ? *baconi* Shoemaker, 1934			+								
Corophium spp.				+	+	+					
Ericthonius spp.			+	C	+	+					
Gammaridae											
Anisogammarus ? *confervicolus* (Stimpson, 1856)											+
Megaluropus longimerus Schellenberg, 1925	+	+	C	+	+	+	+	+		+	
Melita desdichada Barnard, 1962											+
Haustoriidae											

SPECIES	1105	1154	1153	1159	1158	1177	1175	1156	1152	1176	1155
Eohaustorius sencillus Barnard, 1962	C										
Isaeidae											
Gammaropsis thompsoni (Walker, 1898)			+								
Photis bifurcata Barnard, 1962			+	+		+					
Photis brevipes Shoemaker, 1942			+	C		+	+	+	+		
Photis californica Stout, 1913	+	+	+	C	+	+	+	+	+		
Protomedeia (cheirimedeia) zotea Barnard, 1962	+		+	A	C	C	+		+		
Protomedeia articulata Barnard, 1962	+			+	+	+					+
Protomedeia penates Barnard, 1966	+	+	+	C	C	+	+	C	+	+	C
Ischyroceridae											
Ischyrocerus ? pelagops Barnard, 1962	+	+	+	+	+						
Liljeboriidae											
Listriella diffusa Barnard, 1959	+			+	+		+		+	+	
Lysianassidae											
Hippomedon denticulatus (Bate, 1857)										+	
Hippomedon zetesimus Hurley, 1963							+		+		
Lysianassa oculata (Holmes, 1908)			+		+	+	+	+	+	+	
Opisa tridentata Hurley, 1963								+			

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? Orchomene spp.										+	
Pachynus barnardi Hurley, 1963			+		+	+		+	+		+
Oedicerotidae											
Bathymedon roquedo Barnard, 1962			+		+	+	+	+	+	+	+
Monoculodes spinipes Mills, 1962	+	+	+		+						
Synchelidium spp.	+	+	+	+	+	+	+	+	+	+	+
Pardaliscidae											
Nicippe tumida Bruzelius										+	
Phoxocephalidae											
Heterophoxus oculatus (Holmes, 1908)										C	C
Metaphoxus frequens Barnard, 1960										+	
Paraphoxus bicuspidatus Barnard, 1960	+		C			+		C	C	C	C
Paraphoxus ? cognatus Barnard, 1960			+								
Paraphoxus nr. daboius Barnard, 1960	C	C	+	C	C	C	A	+	+		+
Paraphoxus epistomus (Shoemaker, 1938)	C	+	C		C	C	C	C	C	+	
Paraphoxus lucubrans Barnard, 1960	C	+		+	+	+	C				
Paraphoxus obtusidens (Alderman, 1936)			+	+							
Paraphoxus similis Barnard, 1960							+		+	C	C

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Paraphoxus spinosus (Holmes, 1903)		+									
Paraphoxus variatus Barnard, 1960	+		C		+	+	A	A	C	C	C
Podoceridae											
Dulichia spp.	+	+	+	+	+						
Synopiidae											
Tiron biocellata Barnard, 1962		+	+	+							
Caprellidae											
Caprella angusta Mayer, 1903					C	+	+				
Caprella californica Stimpson, 1857	+		+	C	+	+	C				
Caprella mendax Mayer, 1903				C		+					
Mayerella banksia Laubitz, 1970				+		+		+	+		
Tritella pilimana Mayer, 1890			C	C	+	+			+		
Decapoda											
Natantia											
Crago ? *nigromaculata* (Lockington, 1877)	+		+	+	+		+			+	+
Crago sp. a	+										
Crago sp. b	+										
Spirontocaris ? *palpator* (Owen, 1939)				+							

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Spirontocaris ? *taylori* (Stimpson, 1857)				+							
Anomura											
Callianassa spp.	+	C	+	C	+	+	C	+	C	C	C
Pagurus granosimanus (Stimpson, 1859)	+	+	+	+							
Pagurus setosus (Benedict, 1892)						+					
Barchyura											
Cancer jordani Rathbun, 1900	+	+	+	+	+	+	+	+	+	+	+
Opisthus transversus Rathbun, 1893	+	+			+				+		
Pinnixa franciscana Rathbun, 1918	+	+	+	C	A	C	C	A	+	+	
Pinnixa occidentalis Rathbun, 1893		+		+			C	C	+	C	C
Pinnixa spp.	C		+	+	C	+	C	C	C		C
Pugettia gracilis Dana, 1851				+							
Pugettia richii Dana, 1851			+								
Scleroplax granulata Rathbun, 1893			+		+	+	+	+	+		
ARACHNOIDEA											
Pycnogonida											
Ammothella menziesi Hedgpeth, 1961			+								
Ammothella sp. a	+			C	+	+	+	+		C	C

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ASTEROIDEA											
Phanerozonia											
? *Leptychaster* spp.						+	+	+	+	+	+
OPHIUROIDEA											
Amphiuridae											
Amphioda occidentalis (Lyman, 1860)			+								
Amphiodia urtica (Lyman, 1860)	+	+	C	+	+	C	+	A	C	A	A
Amphioplus hexacanthus Clark, 1911	+	+	A	+	+	C	C	A	A	+	+
Amphiura arcystata Clark, 1911			+			+	+	C	+	+	+
Dougaloplus amphacantha					+			+		+	C
ECHINOIDEA											
Clypeastroida											
Dendraster spp.	C	+	C	+			+				
Spatangoida											
Brisaster townsendi (Agassiz)										+	+
OSTEICHTHYES											
Teleostei											
Chilara taylori						+	+		+		