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**Zooplankton of Shelikof Strait, Alaska,  
April to July 1987:**

**Data from Fisheries-Oceanography  
Coordinated Investigations  
(FOCI) Cruises**

**December 1989**

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Zooplankton of Shelikof Strait, Alaska, April to July 1987:  
Data from Fisheries-Oceanography Coordinated Investigations  
(FOCI) Cruises

by

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## INTRODUCTION

The data in this report were collected as part of the NOAA program Fisheries-Oceanography Coordinated Investigations (FOCI). These data were obtained as part of an ongoing effort to describe the environment of the Shelikof Strait region of Alaska and understand how it relates to the recruitment of walleye pollock, Theragra chalcogramma. Background studies emphasizing areal distribution and seasonal development of zooplankton communities were conducted in 1985 (March to October) and 1986 (April to August); these data are reported in Siefert et. al. (1988a) and Siefert and Incze (1989), respectively. Zooplankton vertical distributions in areas of concentrated pollock larvae were studied in 1986 and in 1987; these data are reported in Siefert et. al. (1988b) and Siefert et. al. (in prep.), respectively. The data reported here are abundance and composition data collected April through July 1987 for seasonal and interannual comparisons of the Shelikof zooplankton community. Gray and Blood (in prep.) provide the details of the research cruises conducted in 1987. Data summarized in these various reports are undergoing analysis and will be the subjects of more detailed manuscripts, some currently in preparation.

## METHODS

The area of the Gulf of Alaska covered by this study is shown in Figures 1 and 2, and locations of stations sampled during each of three cruises are illustrated in Figures 3-6. The majority of sampling was conducted south of Cape Kekurnoi and north of Chirikof Island. To provide data for seasonal and interannual comparisons a transect of time series stations (line 8, see fig. 1) was occupied during each cruise. In June, stations were sampled for larval pollock prey near the Shumagin Islands, a postulated nursery area for pollock larvae.

Plankton samples were obtained by double-oblique tows of 60-cm bongo samplers (Posgay and Marak 1980) equipped with 333  $\mu\text{m}$  mesh nets or 20-cm bongo samplers equipped with 150  $\mu\text{m}$  mesh nets. On all cruises at the time series stations described above (line 8), 20-cm bongo samplers were attached to the towing cable about 1 m above the 60-cm bongo. At other stations the 60-cm bongo with 333  $\mu\text{m}$  nets was towed alone. Mechanical flowmeters were installed in the mouth of each net to estimate the volume of water filtered by the nets; and a bathykymograph (BKG) was used to record maximum sampling depth and to verify that sampling trajectories were not biased. Tows were taken from surface to near bottom (generally within 10-15 m or less). Samples were preserved in 5% buffered formalin:seawater for later analysis.

In the laboratory, organisms were sorted into taxonomic

categories selected to describe the seasonal development and interannual differences of zooplankton communities in Shelikof Strait, emphasizing the most abundant species. A list of these taxa is given in Table 1, with definitions of abbreviations used throughout this report.

Samples were sorted at the Alaska Fisheries Science Center in Seattle and the Plankton Sorting Center in Szczecin, Poland. Identifications made in Poland were verified by a biologist in Seattle. For all samples, large organisms such as shrimp and jellyfish were removed and noted before further processing. After this step, procedures for enumerating samples differed between the two laboratories and are outlined below.

In Poland, all samples were treated in the same way regardless of the mesh size used for collection (333 or 150  $\mu\text{m}$ ). After removing large organisms (see above), the sample was split with a Folsom plankton splitter to obtain a subsample with approximately 100-200 organisms  $\geq 5\text{mm}$  in their maximum dimension (note that smaller organisms are much more numerous and are treated separately; see below). This first split was not made to less than 1/64 of the original sample. All organisms  $\geq 5\text{ mm}$  were enumerated from this first subsample except the following taxa: decapod larvae, euphausiid furciliae and larvaceans. These taxa can have numerous individuals both larger and smaller than 5 mm so they were counted from a smaller subsample. The subsample described above (sorted for  $\geq 5\text{mm}$  organisms) was then subdivided

to provide a subsample containing a total of approximately 1000 organisms. This subsample was used for the enumeration of all remaining taxa.

In Seattle, all of the samples processed were from paired 333 and 150  $\mu\text{m}$  mesh nets. Processing was designed to maximize benefit from this complementarity. Enumeration of organisms  $\geq 5\text{mm}$  followed the procedure outlined for Poland, but this was done only with the 333  $\mu\text{m}$  mesh samples. Smaller subsamples were used for smaller zooplankton, as in Poland, but only selected organisms were removed from each mesh size. Selection was based on the likelihood of retention by the two nets. Those organisms most likely retained quantitatively by the 333  $\mu\text{m}$  mesh net were not counted from the 150  $\mu\text{m}$  mesh sample, while those not quantitatively retained by the 333 were counted only in the 150  $\mu\text{m}$  sample. A few taxa were counted from both nets: C2 calanoids later identified as Neocalanus cristatus, N. plumchrus, Calanus marshallae, and C. pacificus; and "Other Zooplankton <5 mm". The organisms selected for enumeration from the two nets are listed in Table 2. All taxa were ultimately counted so proper collation of data from the paired samples will enable comparison with samples sorted in Poland.

Because only selected organisms were enumerated from each net sample in Seattle, it generally was sufficient to look at smaller subsamples than those examined in Poland. Most of the time, a subsample containing 300-500 small zooplankton provided



adequate counts (at least 30) of the taxa of particular interest to our study. If it did not, then a second subsample was sorted for those organisms.

The mesh sizes and procedures followed for sorting of each sample are summarized at the beginning of each appendix.

## RESULTS

A list of taxa found in each sample is contained in Appendices 1-3. Samples are identified by station numbers and mesh size of net. When the 20-cm bongo was towed along with the 60-cm bongo the resulting data appear together (i.e. at each station, the first pages list results from the 333  $\mu\text{m}$  mesh net; data from 150  $\mu\text{m}$  mesh net follow).

Taxa are listed in order of abundance and each list includes: the number of organisms counted; the fraction of the sample from which they were counted (sub/fac); their number per 10m<sup>3</sup> and per m<sup>2</sup>; and the percent of organisms they represent in the sample (this percent was not calculated for samples sorted in Seattle because only selected organisms were counted from each net; see methods). In each appendix, location is given to tenths of a degree of latitude and longitude, date and time are GMT, station depth and sample intervals are in meters, volume filtered is expressed in cubic meters and net mesh is in micrometers.

For some taxonomic categories, we typically did not spend the time to identify and record all species encountered; however, notes were kept on the most abundant species in these categories. A summary is given in Table 3.

## DISCUSSION

Care must be taken in using these data for quantitative comparisons. The size of the net mesh used to collect the samples, the sample splitting process, organism net avoidance behavior, and sample preservation all affect the estimates of taxa collected.

The nets with 333  $\mu\text{m}$  mesh used for zooplankton sampling here do not consistently retain organisms with a minimum dimension less than 471  $\mu\text{m}$  (Miller et. al. 1984); and those nets with 150  $\mu\text{m}$  mesh do not consistently retain organisms with a minimum dimension less than 212  $\mu\text{m}$ . On the basis of size, we consider that the following taxa were quantitatively retained when the 333  $\mu\text{m}$  mesh nets were used: Calanus marshallae C3, C4, C5 and adults; C. pacificus C3, C4, C5 and adults; Eucalanus bungii C3, C4, C5 and adults; Metridia spp. C5 and adults; M. pacifica C5 and adults; Neocalanus cristatus C2, C3, C4, C5, and adults; N. plumchrus C3, C4, C5 and adults; copepods  $\geq 2\text{mm}$ ; anomuran and brachyuran larvae; euphausiid furciliae, juveniles and adults; chaetognaths  $\geq 20\text{mm}$ ; and other zooplankton  $\geq 5\text{mm}$  in their maximum dimension. In addition to the above organisms the nets with 150

$\mu\text{m}$  mesh should retain the following taxa: C. marshallae C1 and C2; C. pacificus C1, and C2; E. bungii C1 and C2; N. cristatus C1; N. plumchrus C1 and C2; Metriididae C2, C3, and C4; Pseudocalanus spp. C3, C4, C5, and adults; chaetognaths  $\geq 5\text{mm}$ ; euphausiid calyptopis C1, C2, and C3; and natantian larvae.

Estimates for gelatinous zooplankton (e.g. cnidarian medusae and larvaceans) are not quantitative because of the effects of sampling and preservation on their structure. The sample splitting process affects estimates of thecosomate pteropods because they do not stay suspended in the sample. Also, euphausiid adults and juveniles probably are underrepresented due to net avoidance.



## ACKNOWLEDGMENTS

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Table 1. Taxonomic and size/life history stage categories of invertebrates identified in zooplankton samples from Shelikof Strait. The size and/or stages of taxa which are considered to be quantitatively retained by the various mesh sizes are indicated by underlining. No underline indicates that at least some undersampling is likely with all of the nets used. One and two underlines indicate virtually complete retention by the 150 and 333  $\mu$ m mesh nets, respectively.

<u>Taxon</u>	<u>Size/Life History Stages*</u>
<u>Acartia</u> spp.	
Anomura	<u>larva</u>
Bivalvia	<5mm, veliger <5mm
Brachyura	<u>larva</u>
Bryozoa	cyphonautes <5mm
<u>Calanus marshallae</u>	<u>adult F, adult M, C5, C4, C3, C2, C1</u>
<u>C. pacificus</u>	<u>adult F, adult M, C5, C4, C3, C2, C1</u>
Cephalopoda	<u><math>\geq</math>5mm, &lt;5mm</u>
Chaetognatha	<u><math>\geq</math>20mm, &lt;20mm and <math>\geq</math>5mm, &lt;5mm</u>
Cirripedia	nauplius <5mm, cypris <5mm
Cladocera	<5mm
Cnidaria	<u>medusa <math>\geq</math>5mm, medusa &lt;5mm</u>
Ctenophora	<u><math>\geq</math>5mm, &lt;5mm</u>
Cumacea	<u><math>\geq</math>5mm, &lt;5mm</u>
Echinodermata	<u><math>\geq</math>5mm, &lt;5mm, larva &lt;5mm</u>
<u>Eucalanus bungii</u>	<u>adult F, adult M, C5 F, C5 M, C4 F, C4 M, C3, C2, C1</u>
Euphausiacea	<u>damaged A&amp;J; furcilia; calyptopis 3, 2, 1;</u> nauplius/metanauplius
<u>Euphausia pacifica</u>	<u>A&amp;J</u>
Foraminifera	<5mm

Table 1. Continued

<u>Taxon</u>	<u>Size/Life History Stages*</u>
Gammaridea	<u>≥5mm</u> , <5mm
Gastropoda	<5mm, veliger <5mm
Gymnosomata	<u>≥5mm</u> , <5mm
Hyperiidea	<u>≥5mm</u> , <5mm
Invertebrata	<u>≥5mm</u> , <5mm egg, <5mm
Larvacea	
<u>Metridia</u> spp.	<u>adult F, adult M, C5 F, C5 M, C4</u>
<u>Metridia pacifica</u>	<u>adult F, adult M, C5 F, C5 M, C4</u>
Metriididae	<u>C3, C2, C1</u>
Mysidacea	<u>≥5mm</u> , <5mm
Natantia	<u>≥5mm A&amp;J, &lt;5mm A&amp;J, larva</u>
Nematoda	<u>≥5mm</u> , <5mm
<u>Neocalanus cristatus</u>	<u>adult F, adult M, C5, C4, C3, C2, C1</u>
<u>N. plumchrus</u>	<u>adult F, adult M, C5, C4, C3, C2, C1</u>
<u>Oithona</u> spp.	
Ostracoda	<5mm
Other Copepoda	<u>≥5mm, &lt;5mm and ≥2mm</u> , <2mm, nauplius, unidentified
Other zooplankton	<u>≥5mm</u> , <5mm
Polychaeta	<u>≥5mm</u> , <5mm
<u>Pseudocalanus</u> spp.	<u>adult F, adult M, C5 F, C5 M, C4 F, C4 M</u>
? <u>Pseudocalanus</u> spp.**	<u>C3, C2, C1</u>
Radiolaria	<5mm



Table 1. Continued

<u>Taxon</u>	<u>Size/Life History Stages*</u>
Siphonophora	<u>≥5mm, &lt;5mm</u>
<u>Tessarabrachion</u> <u>oculatum</u>	<u>A&amp;J</u>
Thecosomata	<u>≥5mm, &lt;5mm</u>
<u>Thysanoessa inermis</u>	<u>A&amp;J</u>
<u>T. inspinata</u>	<u>A&amp;J</u>
<u>T. longipes</u>	<u>A&amp;J</u>
<u>T. raschii</u>	<u>A&amp;J</u>
<u>T. spinifera</u>	<u>A&amp;J</u>
Unidentified Calanoida	<u>C3, C2, C1</u>

\* Life history stage abbreviations:

F= female

M= male

C= copepodite

A&J= adults and juveniles combined

blank= stage not determined

\*\* identification uncertain

Table 2. Organisms selected for enumeration from each net for paired samples sorted in Seattle. Not all of the taxa and/or stages listed under 150  $\mu\text{m}$  are retained quantitatively, see Table 1.

## TAXA

333  $\mu\text{m}$  Samples

Neocalanus cristatus  
Adult, C5, C4, C3, C2

N. plumchrus  
Adult, C5, C4, C3, C2

Calanus marshallae  
Adult, C5, C4, C3, C2

C. pacificus  
Adult, C5, C4, C3, C2

Eucalanus bungii  
Adult, C5, C4, C3

Metridia pacifica  
Adult, C5

Other Copepoda > 2mm

Euphausiacea  
A&J, furciliae

Chaetognatha > 5mm

Decapoda (Crustacea) larvae

Larvacea

Other zooplankton  $\geq$  and <5mm

150  $\mu\text{m}$  Samples

N. cristatus  
C1

N. plumchrus  
C2, C1

C. marshallae  
C2, C1

C. pacificus  
C2, C1

E. bungii  
C2, C1

M. pacifica  
C4

Metriididae  
C3, C2, C1

Other Copepoda <2mm  
nauplii

Oithona spp.

Pseudocalanus spp.

Acartia spp.

Euphausiacea  
Calyptope 3, 2, 1, nauplii

Other zooplankton <5mm

Table 3. Invertebrate zooplankton taxa not routinely identified to species, and the species most commonly encountered from these taxa in Shelikof Strait in 1987.

<u>Taxon</u>	<u>Composition</u>
<u>Acartia</u> spp.	<u>Acartia longiremis</u>
Anomura larva	Paguridae, few Lithodidae
Brachyura larva	<u>Chionoecetes bairdi</u> , other Majidae, <u>Cancer</u> spp.
Chaetognatha	<u>Eukronia hamata</u> , <u>Sagitta elegans</u>
Cnidaria medusa	<u>Aglantha digitale</u>
Gammaridea	<u>Cyphocharis challengerii</u>
Gymnosomata	<u>Clione</u> spp.
Hyperiidia	<u>Themisto pacifica</u> , <u>Primno macropa</u>
Larvacea	<u>Fritillaria</u> spp., <u>Oikopleura</u> spp.
Mysidacea	<u>Meterothrops</u> spp.
Natantia A&J	<u>Pandalus borealis</u>
<u>Oithona</u> spp.	<u>Oithona similis</u>
Other Copepoda $\geq 5$ mm	Euchaetidae
Other Copepoda $\geq 2$ and $< 5$ mm	Euchaetidae, Scolecithricidae, Aetideidae
Other Copepoda $< 2$ mm	Scolecithricidae, <u>Microcalanus</u> spp., <u>Oncaea</u> spp., Aetideidae, <u>Centropages</u> spp.
Polychaeta	Tomopteridae
Thecosomata	<u>Limacina helicina</u>

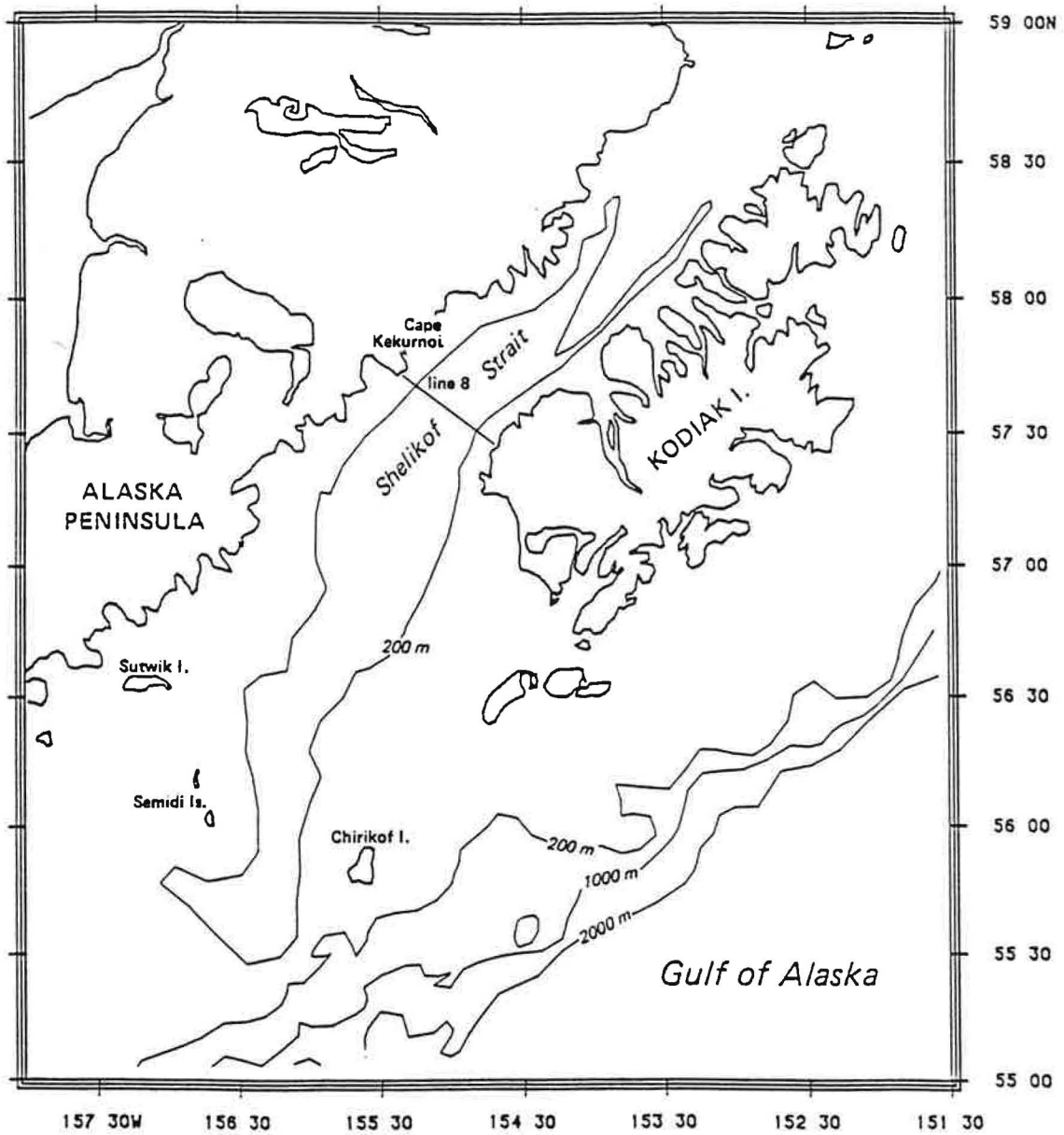


Figure 1. Geography and bathymetry of Shelikof Strait, northwestern Gulf of Alaska.

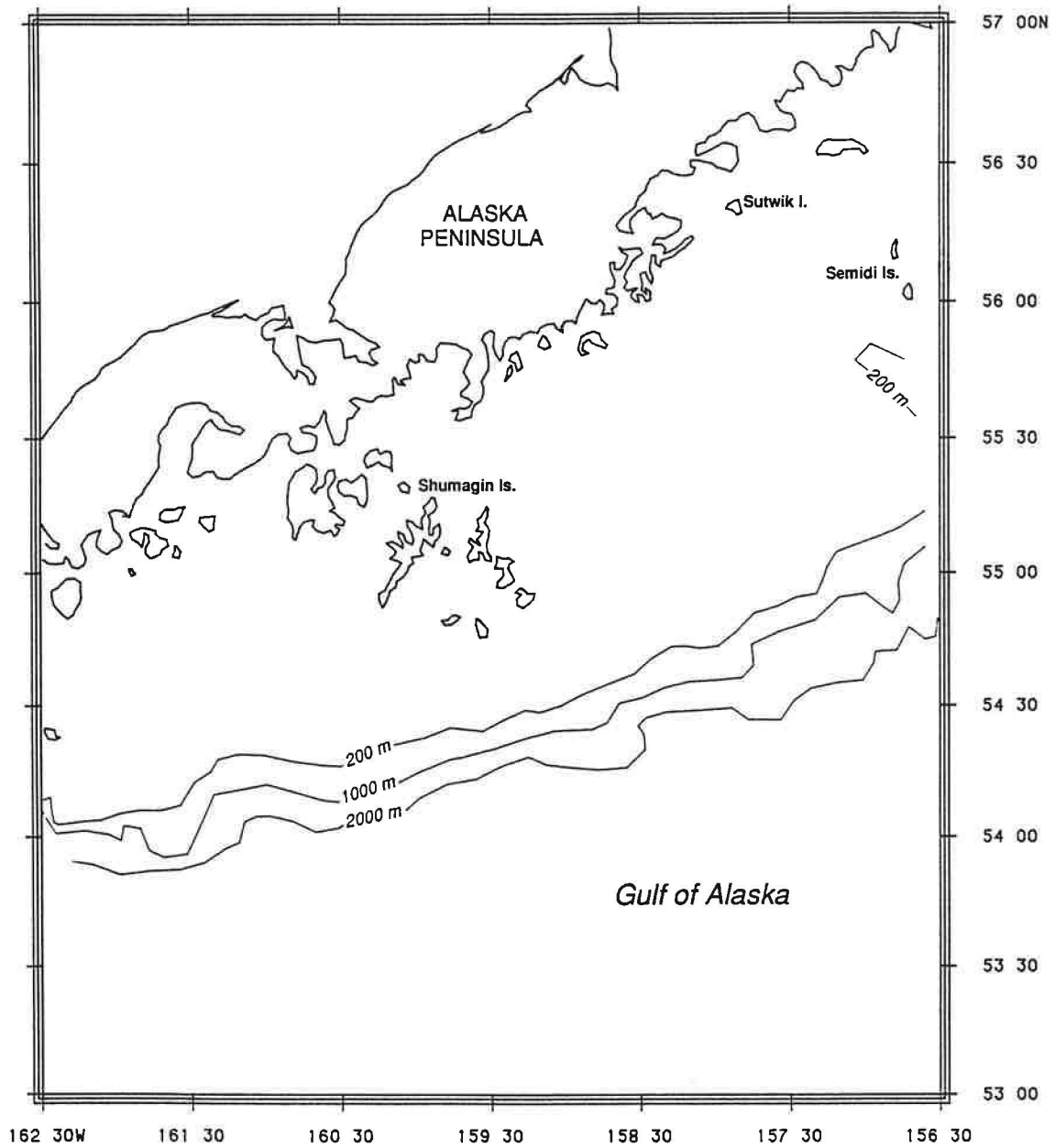


Figure 2. Geography and bathymetry of postulated nursery area for pollock larvae near Shumagin Islands, northwestern Gulf of Alaska.

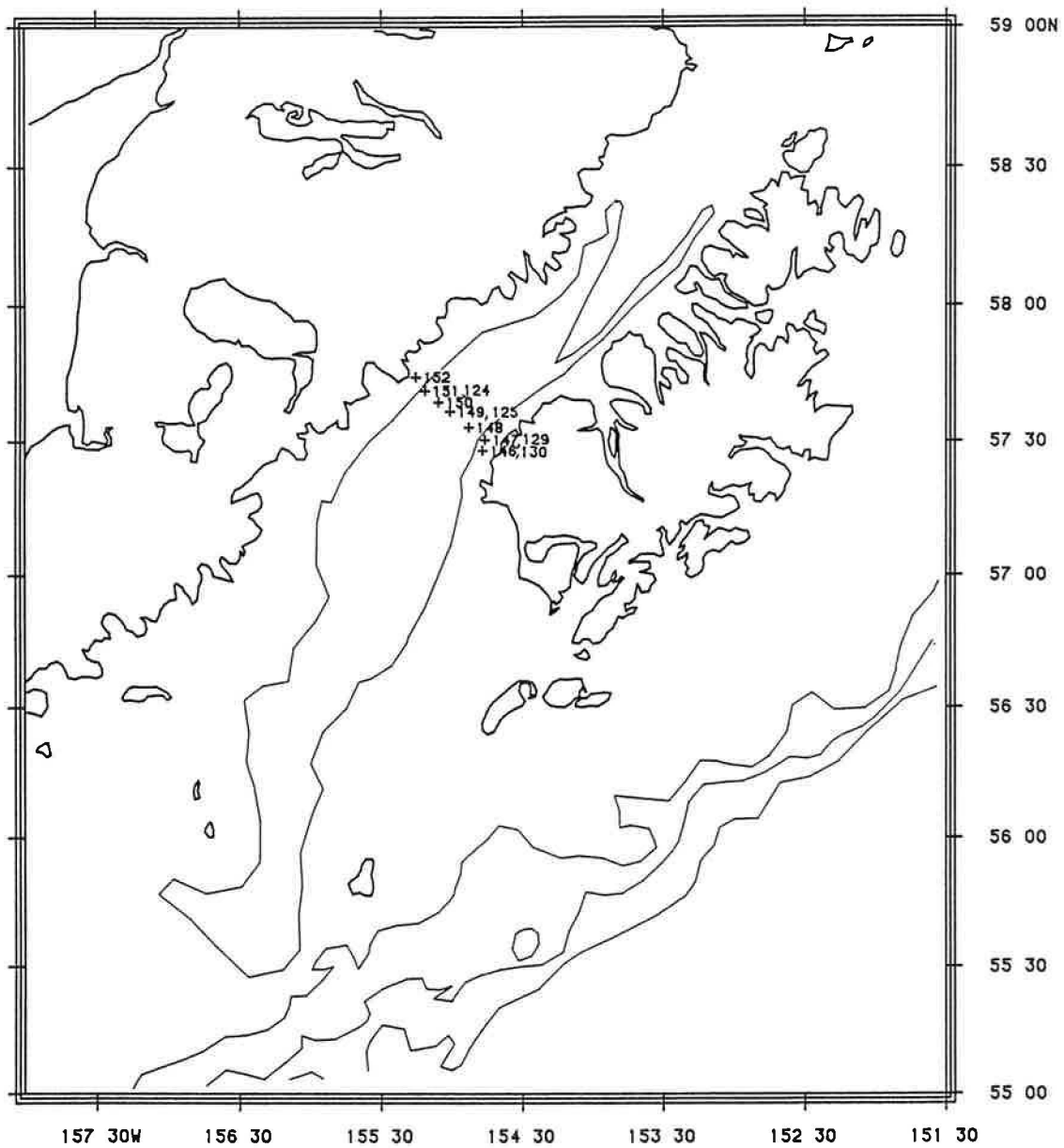


Figure 3. Stations sampled for zooplankton, FOCI cruise 2MF87, 2-17 April 1987.

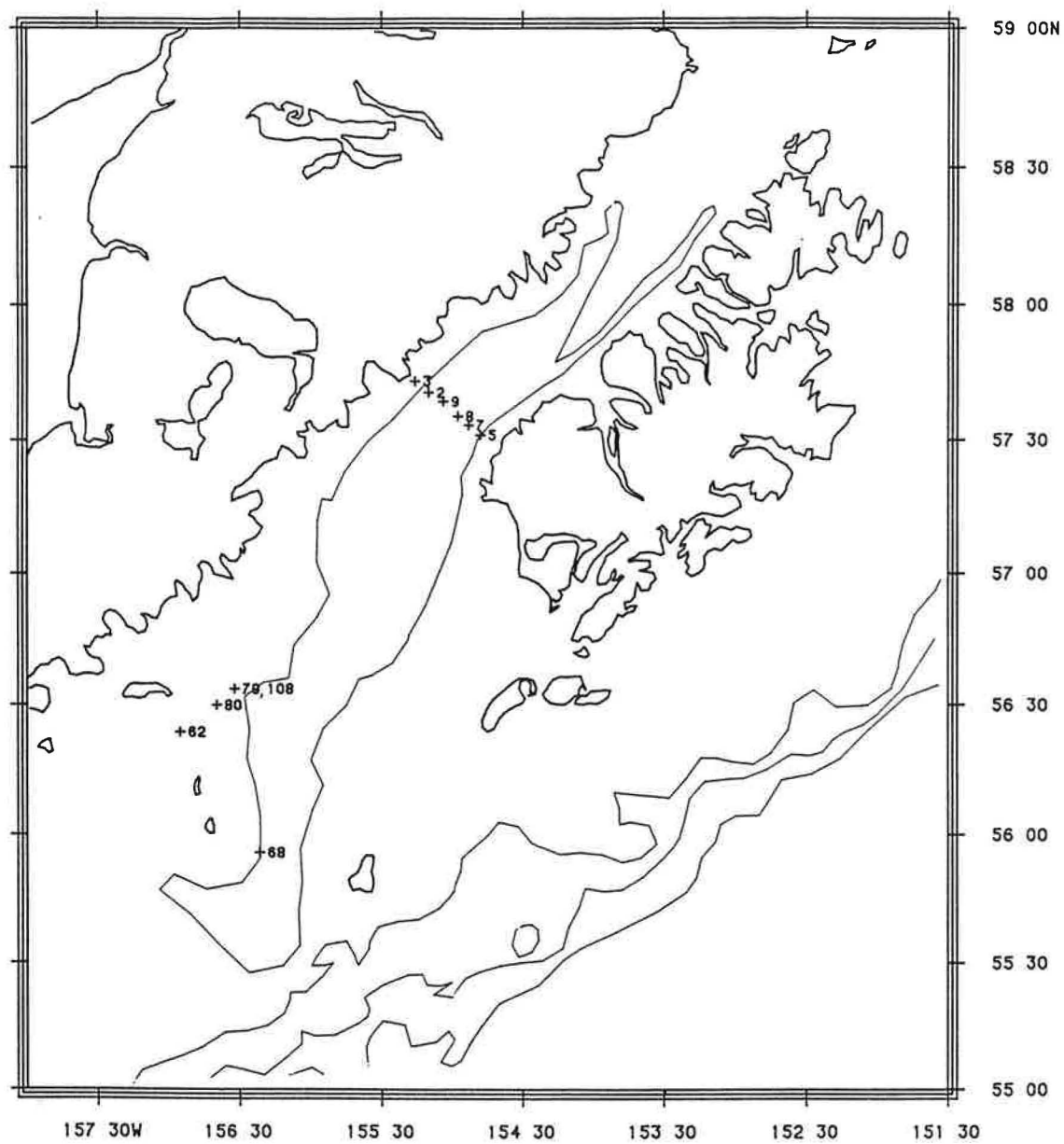


Figure 4. Stations sampled for zooplankton, FOCI cruise 3MF87, 18-29 May 1987.

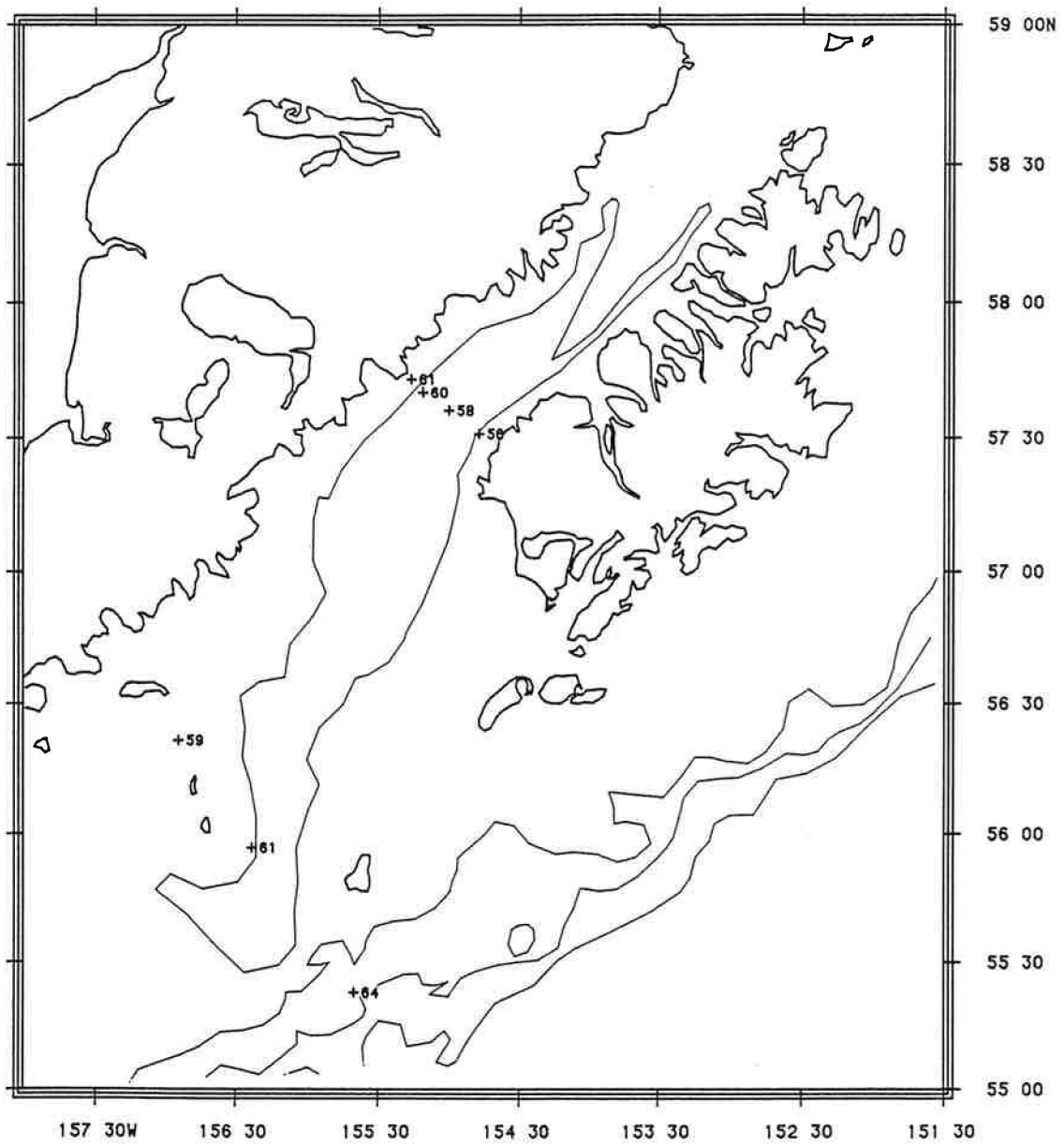


Figure 5. Time series stations sampled for zooplankton, FOCI cruise 4MF87, 17 June-16 July 1987.



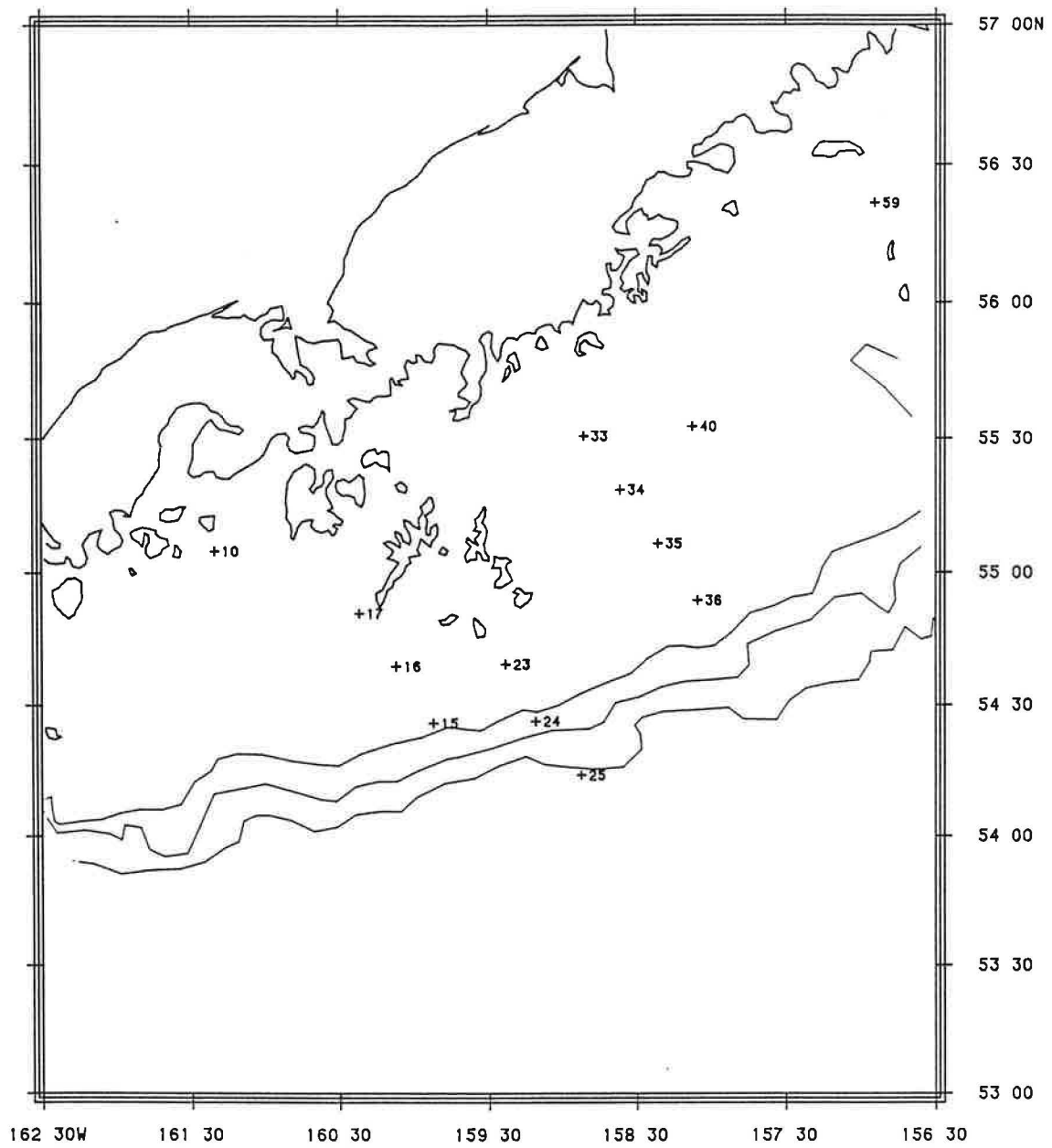


Figure 6. Stations sampled for zooplankton in postulated nursery area, FOCI cruise 4MF87, 17 June-16 July 1987.



Appendix 1. Abundance of zooplankton taxa at each station sampled during FOCI cruise 2MF87 in Shelikof Strait, 2-17 April 1987. Below is a summary of the samples collected on this cruise and the procedures used when they were enumerated (see Methods). P=enumerated for all organisms S=enumerated for selected organisms (see Table 2).

<u>STATION #</u>	<u>333 <math>\mu</math>m MESH</u>	<u>150 <math>\mu</math>m MESH</u>
G124A	P	P
G125A	P	P
G129A	P	P
G130A	P	P
G146A	S	S
G147A	S	S
G148A	S	S
G149A	S	S
G150A	S	S
G151A	S	S
G152A	S	S

STA. G124A 57 40.6 N 155 10.1 W 11 Apr 87 5:03

DEPTH 292 SAMPLING INTERVAL 0 - 274 VOLUME FILTERED 540.3 NET MESH 333

Taxon	Number counted	Sub/fac	No./10m3	No./m2	%
Neocalanus plumchrus C-3	229	32.0	136	3960	14.2
Neocalanus plumchrus C-2	143	32.0	85	2473	8.9
Other Copepoda <2mm	139	32.0	82	2404	8.6
Metridia pacifica C-5 M	135	32.0	80	2335	8.4
Pseudocalanus spp. - adult F	119	32.0	70	2058	7.4
Metridia pacifica C-4	117	32.0	69	2023	7.3
Metridia pacifica C-5 F	93	32.0	55	1608	5.8
Oithona spp.	69	32.0	41	1193	4.3
Invertebrata - egg <5mm	67	32.0	40	1159	4.2
Teleostei - egg <5mm	65	32.0	38	1124	4.0
Metridia pacifica - adult M	53	32.0	31	917	3.3
Metridia spp. - adult F	45	32.0	27	778	2.8
Metridia spp. - adult M	42	32.0	25	726	2.6
Metridia pacifica - adult F	38	32.0	23	657	2.4
Metriididae C-3	37	32.0	22	640	2.3
Neocalanus plumchrus C-4	24	32.0	14	415	1.5
Ostracoda <5mm	23	32.0	14	398	1.4
Larvacea	19	32.0	11	329	1.2
Calanus marshallae - adult F	15	32.0	9	259	0.9
Thecosomata <5mm	14	32.0	8	242	0.9
Siphonophora <5mm	14	32.0	8	242	0.9
Neocalanus cristatus C-3	12	32.0	7	208	0.7
Chaetognatha 5-20mm	47	8.0	7	203	0.7
Pseudocalanus spp. - adult M	9	32.0	5	156	0.6
Calanus marshallae - adult M	8	32.0	5	138	0.5
Calanus pacificus C-5	8	32.0	5	138	0.5
Pseudocalanus spp. C-5 M	7	32.0	4	121	0.4
Pseudocalanus spp. C-5 F	7	32.0	4	121	0.4
Acartia spp.	5	32.0	3	86	0.3
Chaetognatha <5mm	5	32.0	3	86	0.3
Chaetognatha >20mm	19	8.0	3	82	0.3
Teleostei - larva <5mm	4	32.0	2	69	0.2
Other Copepoda damaged	4	32.0	2	69	0.2
Gammaridea <5mm	3	32.0	2	52	0.2
Calanus marshallae C-2	2	32.0	1	35	0.1
Neocalanus cristatus C-4	7	8.0	1	30	0.1
Gammaridea >5mm	7	8.0	1	30	0.1
Other Copepoda >5mm	5	8.0	1	22	0.1
Cnidaria - medusa >5mm	5	8.0	1	22	0.1
Thysanoessa inermis A&J	5	8.0	1	22	0.1
Eucalanus bungii C-4 M	1	32.0	1	17	0.1
Pseudocalanus spp. C-4 F	1	32.0	1	17	0.1
Mysidacea >5mm	4	8.0	1	17	0.1
Eucalanus bungii C-3	1	32.0	1	17	0.1
Calanus marshallae C-5	1	32.0	1	17	0.1
Natantia - larva	1	32.0	1	17	0.1
Polychaeta <5mm	1	32.0	1	17	0.1

ERRATA: NWAFC PROCESSED REPORT 89-22

There was an error in the database used to generate the data reported in NWAFC Processed Report 89-22. The incorrect equation,  $\text{No.}/10\text{m}^3(\text{depth})/10$ , was used to calculate  $\text{No.}/\text{m}^2$ . Therefore,  $\text{No.}/\text{m}^2$  in the Appendices on pages 33-136 needs to be corrected.  $\text{No.}/\text{m}^2$  should be calculated by using the following equation:

$$\text{No.}/\text{m}^2 = \frac{\text{No.}/10\text{m}^3(\text{lowest depth of sampling interval})}{10}$$

Please make this correction when interpreting data.

Siefert, D. L. W. and L. S. Incze, 1989. Zooplankton of Shelikof Strait, Alaska, April to July 1987: Data from Fisheries-Oceanography Coordinated Investigations (FOCI) Cruises. U. S. Dept. of Commerce, NOAA, NMFS, NWAFC Proc. Rep. 89-22, 136pp.



Metriididae C-1	1	32.0	1	17	0.1
Cirripedia - nauplius <5mm	1	32.0	1	17	0.1
Metridia spp. C-4	1	32.0	1	17	0.1
Metriididae C-2	1	32.0	1	17	0.1
Other Copepoda 2-5mm	1	32.0	1	17	0.1
Calanus marshallae C-1	1	32.0	1	17	0.1
Teleostei - larva >5mm	2	8.0	< 1	9	< 0.1
Thysanoessa spinifera A&J	2	8.0	< 1	9	< 0.1
Neocalanus cristatus C-5	2	8.0	< 1	9	< 0.1
Siphonophora >5mm	2	8.0	< 1	9	< 0.1
Polychaeta >5mm	1	8.0	< 1	4	< 0.1
Eucalanus bungii C-5 F	1	8.0	< 1	4	< 0.1
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			955	27898	100.

STA. G124A 57 40.6 N 155 10.1 W 11 Apr 87 5:03

DEPTH 292 SAMPLING INTERVAL 0 - 274 VOLUME FILTERED 55.2 NET MESH 150

Taxon	Number counted	Sub/fac	No./10m3	No./m2	%
Oithona spp.	619	32.0	3589	104795	46.0
Other Copepoda <2mm	202	32.0	1171	34198	15.0
Invertebrata - egg <5mm	71	32.0	412	12020	5.3
Other Copepoda - nauplius	56	32.0	325	9481	4.2
Larvacea	39	32.0	226	6603	2.9
?Pseudocalanus spp. C-1	36	32.0	209	6095	2.7
Neocalanus plumchrus C-2	31	32.0	180	5248	2.3
?Pseudocalanus spp. C-2	25	32.0	145	4232	1.9
?Pseudocalanus spp. C-3	25	32.0	145	4232	1.9
Neocalanus plumchrus C-3	22	32.0	128	3725	1.6
Metridia pacifica C-4	21	32.0	122	3555	1.6
Metridia pacifica C-5 M	21	32.0	122	3555	1.6
Pseudocalanus spp. - adult F	20	32.0	116	3386	1.5
Neocalanus plumchrus C-1	16	32.0	93	2709	1.2
Cladocera <5mm	12	32.0	70	2032	0.9
Metriididae C-1	12	32.0	70	2032	0.9
Pseudocalanus spp. C-5 M	9	32.0	52	1524	0.7
Pseudocalanus spp. C-4 M	9	32.0	52	1524	0.7
Cirripedia - nauplius <5mm	9	32.0	52	1524	0.7
Metridia pacifica C-5 F	8	32.0	46	1354	0.6
Chaetognatha <5mm	7	32.0	41	1185	0.5
Ostracoda <5mm	7	32.0	41	1185	0.5
Metridia spp. - adult F	6	32.0	35	1016	0.4
Metridia pacifica - adult F	5	32.0	29	846	0.4
Teleostei - egg <5mm	5	32.0	29	846	0.4
Pseudocalanus spp. C-4 F	5	32.0	29	846	0.4
Metriididae C-2	4	32.0	23	677	0.3
Neocalanus plumchrus C-4	4	32.0	23	677	0.3
Metridia pacifica - adult M	4	32.0	23	677	0.3
Thecosomata <5mm	4	32.0	23	677	0.3
Metriididae C-3	4	32.0	23	677	0.3
Acartia spp.	3	32.0	17	508	0.2
Pseudocalanus spp. C-5 F	3	32.0	17	508	0.2
Calanus marshallae C-1	3	32.0	17	508	0.2
Calanus pacificus C-5	2	32.0	12	339	0.1
Neocalanus cristatus C-3	2	32.0	12	339	0.1
Calanus marshallae - adult F	2	32.0	12	339	0.1
Calanus marshallae - adult M	2	32.0	12	339	0.1
Pseudocalanus spp. - adult M	2	32.0	12	339	0.1
Metridia spp. - adult M	2	32.0	12	339	0.1
Chaetognatha 5-20mm	35	1.0	6	185	0.1
Polychaeta <5mm	1	32.0	6	169	0.1
Calanus marshallae C-2	1	32.0	6	169	0.1
Hyperiididae <5mm	1	32.0	6	169	0.1
Chaetognatha >20mm	12	1.0	2	63	< 0.1
Cnidaria - medusa >5mm	7	1.0	1	37	< 0.1
Neocalanus cristatus C-4	6	1.0	1	32	< 0.1



Gammaridea >5mm	3	1.0	1	16	< 0.1
Thysanoessa inermis A&J	3	1.0	1	16	< 0.1
Other Copepoda >5mm	3	1.0	1	16	< 0.1
Eucalanus bungii C-5 M	3	1.0	1	16	< 0.1
Thysanoessa spinifera A&J	2	1.0	< 1	11	< 0.1
Teleostei - larva >5mm	1	1.0	< 1	5	< 0.1
Eucalanus bungii C-5 F	1	1.0	< 1	5	< 0.1
Neocalanus cristatus C-5	1	1.0	< 1	5	< 0.1
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			7795	227604	100.

STA. G125A 57 37.1 N 155 03.1 W 11 Apr 87 9:16

DEPTH 254 SAMPLING INTERVAL 0 - 236 VOLUME FILTERED 350.2 NET MESH 333

Taxon	Number counted	Sub/fac	No./10m3	No./m2	%
Neocalanus plumchrus C-3	269	32.0	246	6244	23.2
Pseudocalanus spp. - adult F	96	32.0	88	2228	8.3
Neocalanus plumchrus C-2	93	32.0	85	2159	8.0
Metridia pacifica C-4	64	32.0	58	1486	5.5
Metridia pacifica C-5 M	63	32.0	58	1462	5.4
Oithona spp.	63	32.0	58	1462	5.4
Metridia pacifica - adult M	41	32.0	37	952	3.5
Metridia pacifica C-5 F	41	32.0	37	952	3.5
Other Copepoda <2mm	39	32.0	36	905	3.4
Thysanoessa inermis A&J	78	16.0	36	905	3.4
Neocalanus plumchrus C-4	37	32.0	34	859	3.2
Invertebrata - egg <5mm	30	32.0	27	696	2.6
Ostracoda <5mm	28	32.0	26	650	2.4
Metridia spp. - adult F	24	32.0	22	557	2.1
Chaetognatha >20mm	47	16.0	21	545	2.0
Metridia pacifica - adult F	22	32.0	20	511	1.9
Teleostei - egg <5mm	18	32.0	16	418	1.6
Pseudocalanus spp. C-5 F	17	32.0	16	395	1.5
Calanus marshallae - adult F	16	32.0	15	371	1.4
Thecosomata <5mm	12	32.0	11	279	1.0
Chaetognatha 5-20mm	23	16.0	11	267	1.0
Metridia spp. - adult M	10	32.0	9	232	0.9
Pseudocalanus spp. C-5 M	9	32.0	8	209	0.8
Calanus marshallae C-5	9	32.0	8	209	0.8
Calanus marshallae - adult M	8	32.0	7	186	0.7
Larvacea	8	32.0	7	186	0.7
Acartia spp.	7	32.0	6	162	0.6
Calanus marshallae C-2	6	32.0	5	139	0.5
Metriididae C-3	4	32.0	4	93	0.3
Other Copepoda - nauplius	4	32.0	4	93	0.3
Pseudocalanus spp. C-4 M	4	32.0	4	93	0.3
Neocalanus cristatus C-4	7	16.0	3	81	0.3
?Pseudocalanus spp. C-3	3	32.0	3	70	0.3
Gastropoda <5mm	3	32.0	3	70	0.3
Pseudocalanus spp. - adult M	3	32.0	3	70	0.3
?Pseudocalanus spp. C-2	3	32.0	3	70	0.3
Gammaridea <5mm	2	32.0	2	46	0.2
Calanus marshallae C-3	2	32.0	2	46	0.2
?Pseudocalanus spp. C-1	2	32.0	2	46	0.2
Cnidaria - medusa >5mm	4	16.0	2	46	0.2
Cirripedia - nauplius <5mm	2	32.0	2	46	0.2
Neocalanus plumchrus - adult F	2	32.0	2	46	0.2
Neocalanus plumchrus C-5	2	32.0	2	46	0.2
Neocalanus cristatus C-5	3	16.0	1	35	0.1
Thysanoessa spinifera A&J	3	16.0	1	35	0.1
Siphonophora <5mm	1	32.0	1	23	0.1
Natantia - larva	1	32.0	1	23	0.1

Calanus pacificus - adult M	1	32.0	1	23	0.1
Polychaeta <5mm	1	32.0	1	23	0.1
Metridia spp. C-5 F	1	32.0	1	23	0.1
Euphausiacea A&J	2	16.0	1	23	0.1
Teleostei - larva >5mm	2	16.0	1	23	0.1
Eucalanus bungii - adult F	1	16.0	< 1	12	< 0.1
Polychaeta >5mm	1	16.0	< 1	12	< 0.1
Gammaridea >5mm	1	16.0	< 1	12	< 0.1
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			1057	26856	100.

STA. G125A 57 37.1 N 155 03.1 W 11 Apr 87 9:16

DEPTH 254 SAMPLING INTERVAL 0 - 236 VOLUME FILTERED 35.3 NET MESH 150

Taxon	Number counted	Sub/fac	No./10m3	No./m2	%
Oithona spp.	467	32.0	4236	107602	37.8
Other Copepoda <2mm	131	32.0	1188	30184	10.6
Invertebrata - egg <5mm	65	32.0	590	14977	5.3
?Pseudocalanus spp. C-3	61	32.0	553	14055	4.9
?Pseudocalanus spp. C-2	50	32.0	454	11521	4.0
Other Copepoda - nauplius	46	32.0	417	10599	3.7
?Pseudocalanus spp. C-1	45	32.0	408	10368	3.6
Neocalanus plumchrus C-3	42	32.0	381	9677	3.4
Pseudocalanus spp. - adult F	33	32.0	299	7604	2.7
Pseudocalanus spp. C-5 M	29	32.0	263	6682	2.3
Neocalanus plumchrus C-2	28	32.0	254	6451	2.3
Metriididae C-1	22	32.0	200	5069	1.8
Pseudocalanus spp. C-4 F	21	32.0	190	4839	1.7
Pseudocalanus spp. C-5 F	18	32.0	163	4147	1.5
Pseudocalanus spp. C-4 M	16	32.0	145	3687	1.3
Metriididae C-2	15	32.0	136	3456	1.2
Larvacea	15	32.0	136	3456	1.2
Thecosomata <5mm	15	32.0	136	3456	1.2
Cirripedia - nauplius <5mm	13	32.0	118	2995	1.1
Metridia pacifica - adult M	12	32.0	109	2765	1.0
Metridia pacifica C-5 M	11	32.0	100	2535	0.9
Metridia pacifica - adult F	8	32.0	73	1843	0.6
Metridia pacifica C-4	8	32.0	73	1843	0.6
Neocalanus plumchrus C-1	7	32.0	63	1613	0.6
Metriididae C-3	6	32.0	54	1382	0.5
Neocalanus plumchrus C-4	6	32.0	54	1382	0.5
Metridia pacifica C-5 F	5	32.0	45	1152	0.4
Pseudocalanus spp. - adult M	4	32.0	36	922	0.3
Teleostei - egg <5mm	4	32.0	36	922	0.3
Ostracoda <5mm	4	32.0	36	922	0.3
Acartia spp.	3	32.0	27	691	0.2
Calanus marshallae C-1	3	32.0	27	691	0.2
Metridia spp. - adult F	3	32.0	27	691	0.2
Thysanoessa inermis A&J	46	2.0	26	662	0.2
Polychaeta <5mm	2	32.0	18	461	0.2
Calanus marshallae - adult F	2	32.0	18	461	0.2
Chaetognatha <5mm	2	32.0	18	461	0.2
Calanus pacificus C-5	2	32.0	18	461	0.2
Chaetognatha >20mm	28	2.0	16	403	0.1
Chaetognatha 5-20mm	25	2.0	14	360	0.1
Unidentified Calanoida C-1	1	32.0	9	230	0.1
Euphausiacea - nauplius	1	32.0	9	230	0.1
Metridia spp. - adult M	1	32.0	9	230	0.1
Neocalanus cristatus C-3	1	32.0	9	230	0.1
Siphonophora <5mm	1	32.0	9	230	0.1
Neocalanus cristatus C-4	4	2.0	2	58	< 0.1
Thysanoessa spinifera A&J	4	2.0	2	58	< 0.1

Other Copepoda >5mm	2	2.0	1	29	< 0.1
Cnidaria - medusa >5mm	2	2.0	1	29	< 0.1
Gammaridea >5mm	1	2.0	1	14	< 0.1
Eucalanus bungii - adult F	1	2.0	1	14	< 0.1
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			11213	284802	100.

STA. G129A 57 30.8 N 154 48.8 W 12 Apr 87 4:43

DEPTH 228 SAMPLING INTERVAL 0 - 194 VOLUME FILTERED 271.9 NET MESH 333

Taxon	Number counted	Sub/fac	No./10m3	No./m2	%
Neocalanus plumchrus C-3	526	32.0	619	14115	31.1
Metridia pacifica C-5 M	135	32.0	159	3623	8.0
Pseudocalanus spp. - adult F	120	32.0	141	3220	7.1
Neocalanus plumchrus C-2	98	32.0	115	2630	5.8
Oithona spp.	92	32.0	108	2469	5.4
Metridia pacifica C-4	92	32.0	108	2469	5.4
Other Copepoda 2-5mm	83	32.0	98	2227	4.9
Neocalanus plumchrus C-4	82	32.0	97	2200	4.8
Metridia pacifica C-5 F	57	32.0	67	1530	3.4
Metridia pacifica - adult M	51	32.0	60	1369	3.0
Teleostei - egg <5mm	39	32.0	46	1047	2.3
Invertebrata - egg <5mm	36	32.0	42	966	2.1
Metridia spp. - adult F	32	32.0	38	859	1.9
Calanus marshallae - adult F	28	32.0	33	751	1.7
Pseudocalanus spp. C-5 F	27	32.0	32	725	1.6
Thecosomata <5mm	24	32.0	28	644	1.4
Metridia pacifica - adult F	23	32.0	27	617	1.4
Calanus marshallae C-5	16	32.0	19	429	0.9
Ostracoda <5mm	15	32.0	18	403	0.9
Chaetognatha 5-20mm	51	8.0	15	342	0.8
Pseudocalanus spp. C-5 M	11	32.0	13	295	0.7
Larvacea	11	32.0	13	295	0.7
Metridia spp. - adult M	11	32.0	13	295	0.7
Acartia spp.	10	32.0	12	268	0.6
Thysanoessa inermis A&J	29	8.0	9	195	0.4
Pseudocalanus spp. - adult M	7	32.0	8	188	0.4
Calanus marshallae - adult M	5	32.0	6	134	0.3
Chaetognatha >20mm	16	8.0	5	107	0.2
Metriididae C-3	4	32.0	5	107	0.2
Metridia spp. C-5 F	4	32.0	5	107	0.2
Neocalanus plumchrus C-1	3	32.0	4	81	0.2
Calanus marshallae C-3	3	32.0	4	81	0.2
Metridia spp. C-5 M	3	32.0	4	81	0.2
Cnidaria - medusa >5mm	9	8.0	3	60	0.1
Hyperiididae <5mm	2	32.0	2	54	0.1
Calanus marshallae C-2	2	32.0	2	54	0.1
Thysanoessa spinifera A&J	6	8.0	2	40	0.1
Other Copepoda >5mm	5	8.0	1	34	0.1
Neocalanus cristatus C-3	1	32.0	1	27	0.1
Metriididae C-2	1	32.0	1	27	0.1
Cirripedia - nauplius <5mm	1	32.0	1	27	0.1
Natantia - larva	1	32.0	1	27	0.1
Siphonophora >5mm	4	8.0	1	27	0.1
Eucalanus bungii C-4 F	1	32.0	1	27	0.1
Neocalanus plumchrus - adult F	1	32.0	1	27	0.1
Cumacea <5mm	1	32.0	1	27	0.1
Teleostei - larva >5mm	3	8.0	1	20	< 0.1

Hyperiidea >5mm	1	8.0	< 1	7	< 0.1
Eucalanus bungii C-5 M	1	8.0	< 1	7	< 0.1
Neocalanus cristatus C-5	1	8.0	< 1	7	< 0.1
Neocalanus cristatus C-4	1	8.0	< 1	7	< 0.1
Eucalanus bungii C-5 F	1	8.0	< 1	7	< 0.1
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		1990		45377	100.

STA. G129A 57 30.8 N 154 48.8 W 12 Apr 87 4:43

DEPTH 228 SAMPLING INTERVAL 0 - 194 VOLUME FILTERED 30.4 NET MESH 150

Taxon	Number counted	Sub/fac	No./10m3	No./m2	%
Oithona spp.	404	32.0	4252	96948	39.3
Other Copepoda <2mm	122	32.0	1284	29276	11.9
Invertebrata - egg <5mm	100	32.0	1052	23997	9.7
Other Copepoda - nauplius	52	32.0	547	12478	5.1
Neocalanus plumchrus C-3	41	32.0	432	9839	4.0
Pseudocalanus spp. - adult F	33	32.0	347	7919	3.2
?Pseudocalanus spp. C-2	26	32.0	274	6239	2.5
?Pseudocalanus spp. C-1	26	32.0	274	6239	2.5
Cirripedia - nauplius <5mm	24	32.0	253	5759	2.3
Neocalanus plumchrus C-4	22	32.0	232	5279	2.1
Larvacea	15	32.0	158	3600	1.5
Metriididae C-1	15	32.0	158	3600	1.5
?Pseudocalanus spp. C-3	14	32.0	147	3360	1.4
Pseudocalanus spp. C-5 M	12	32.0	126	2880	1.2
Pseudocalanus spp. C-4 F	12	32.0	126	2880	1.2
Metridia pacifica C-4	10	32.0	105	2400	1.0
Thecosomata <5mm	9	32.0	95	2160	0.9
Metridia pacifica C-5 M	9	32.0	95	2160	0.9
Metriididae C-2	8	32.0	84	1920	0.8
Acartia spp.	8	32.0	84	1920	0.8
Pseudocalanus spp. C-5 F	8	32.0	84	1920	0.8
Neocalanus plumchrus C-2	8	32.0	84	1920	0.8
Pseudocalanus spp. C-4 M	5	32.0	53	1200	0.5
Neocalanus plumchrus C-1	4	32.0	42	960	0.4
Calanus marshallae - adult F	4	32.0	42	960	0.4
Metridia spp. - adult F	4	32.0	42	960	0.4
Chaetognatha <5mm	4	32.0	42	960	0.4
Metridia pacifica - adult M	4	32.0	42	960	0.4
Teleostei - egg <5mm	3	32.0	32	720	0.3
Pseudocalanus spp. - adult M	3	32.0	32	720	0.3
Metriididae C-3	2	32.0	21	480	0.2
Metridia pacifica C-5 F	2	32.0	21	480	0.2
Metridia pacifica - adult F	2	32.0	21	480	0.2
Polychaeta <5mm	2	32.0	21	480	0.2
Chaetognatha 5-20mm	56	1.0	18	420	0.2
Calanus pacificus C-5	1	32.0	11	240	0.1
Neocalanus plumchrus C-5	1	32.0	11	240	0.1
Calanus marshallae - adult M	1	32.0	11	240	0.1
Bivalvia <5mm	1	32.0	11	240	0.1
Calanus marshallae C-3	1	32.0	11	240	0.1
Calanus marshallae C-2	1	32.0	11	240	0.1
Brachyura - larva	1	32.0	11	240	0.1
Metridia spp. C-4	1	32.0	11	240	0.1
Gymnosomata <5mm	1	32.0	11	240	0.1
Neocalanus cristatus C-4	11	1.0	4	82	< 0.1
Cnidaria - medusa >5mm	10	1.0	3	75	< 0.1
Thysanoessa inermis A&J	5	1.0	2	37	< 0.1



Chaetognatha >20mm	5	1.0	2	37	< 0.1
Thysanoessa spinifera A&J	2	1.0	1	15	< 0.1
Eucalanus bungii C-5 F	1	1.0	< 1	7	< 0.1
Polychaeta >5mm	1	1.0	< 1	7	< 0.1
Teleostei - larva >5mm	1	1.0	< 1	7	< 0.1
Hyperiidea >5mm	1	1.0	< 1	7	< 0.1
Other Copepoda >5mm	1	1.0	< 1	7	< 0.1
Gammaridea >5mm	1	1.0	< 1	7	< 0.1
Cumacea >5mm	1	1.0	< 1	7	< 0.1
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			10830	246929	100.

STA. G130A      57 29.1 N      154 43.5 W      12 Apr 87      6:10

DEPTH                      SAMPLING INTERVAL                      VOLUME FILTERED                      NET MESH

108                              0 - 103                              198.9                              333

Taxon	Number counted	Sub/fac	No./10m3	No./m2	%
Neocalanus plumchrus C-3	208	8.0	84	903	17.5
Other Copepoda <2mm	148	8.0	60	643	12.4
Pseudocalanus spp. - adult F	133	8.0	53	578	11.2
Metridia pacifica C-5 F	96	8.0	39	417	8.1
Metridia pacifica - adult F	75	8.0	30	326	6.3
Calanus marshallae - adult F	73	8.0	29	317	6.1
Thysanoessa inermis A&J	51	8.0	21	222	4.3
Neocalanus plumchrus C-2	46	8.0	19	200	3.9
Oithona spp.	44	8.0	18	191	3.7
Metridia pacifica C-5 M	39	8.0	16	169	3.3
Chaetognatha 5-20mm	39	8.0	16	169	3.3
Metridia pacifica C-4	35	8.0	14	152	2.9
Neocalanus plumchrus C-4	30	8.0	12	130	2.5
Metridia spp. - adult M	7	32.0	11	122	2.4
Calanus marshallae - adult M	16	8.0	6	69	1.3
Acartia spp.	15	8.0	6	65	1.3
Cnidaria - medusa >5mm	14	8.0	6	61	1.2
Metridia pacifica - adult M	13	8.0	5	56	1.1
Pseudocalanus spp. C-5 F	12	8.0	5	52	1.0
Pseudocalanus spp. - adult M	9	8.0	4	39	0.8
Mysidacea <5mm	8	8.0	3	35	0.7
Thecosomata <5mm	5	8.0	2	22	0.4
Metriididae C-3	4	8.0	2	17	0.3
Pseudocalanus spp. C-5 M	4	8.0	2	17	0.3
Natantia - larva	4	8.0	2	17	0.3
Cirripedia - nauplius <5mm	3	8.0	1	13	0.3
Neocalanus cristatus C-3	3	8.0	1	13	0.3
Calanus pacificus C-5	3	8.0	1	13	0.3
Chaetognatha >20mm	2	8.0	1	9	0.2
Pseudocalanus spp. C-4 F	2	8.0	1	9	0.2
Neocalanus cristatus C-4	2	8.0	1	9	0.2
Hyperiididae >5mm	2	8.0	1	9	0.2
Euphausia pacifica A&J	2	8.0	1	9	0.2
Other Copepoda 2-5mm	2	8.0	1	9	0.2
Eucalanus bungii C-5 F	2	8.0	1	9	0.2
Hyperiididae <5mm	2	8.0	1	9	0.2
Invertebrata - egg <5mm	2	8.0	1	9	0.2
Metriididae C-2	1	8.0	< 1	4	0.1
Other zooplankton <5mm	1	8.0	< 1	4	0.1
Thysanoessa raschii A&J	1	8.0	< 1	4	0.1
Metridia spp. - adult F	1	8.0	< 1	4	0.1
Gammaridea <5mm	1	8.0	< 1	4	0.1
Teleostei - egg <5mm	1	8.0	< 1	4	0.1
Pseudocalanus spp. C-4 M	1	8.0	< 1	4	0.1
Invertebrata <5mm	1	8.0	< 1	4	0.1
Gammaridea >5mm	1	8.0	< 1	4	0.1
Teleostei - larva >5mm	1	8.0	< 1	4	0.1

Mysidacea >5mm	1	8.0	< 1	4	0.1
Brachyura - larva	1	8.0	< 1	4	0.1
Larvacea	1	8.0	< 1	4	0.1
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		478		5165	100.

STA. G130A 57 29.1 N 154 43.5 W 12 Apr 87 6:10

DEPTH 108 SAMPLING INTERVAL 0 - 103 VOLUME FILTERED 18.6 NET MESH 150

Taxon	Number counted	Sub/fac	No./10m3	No./m2	%
Oithona spp.	568	8.0	2449	26453	37.8
Other Copepoda <2mm	267	8.0	1151	12435	17.8
?Pseudocalanus spp. C-3	126	8.0	543	5868	8.4
Pseudocalanus spp. C-4 F	86	8.0	371	4005	5.7
Pseudocalanus spp. - adult F	45	8.0	194	2096	3.0
Pseudocalanus spp. C-4 M	37	8.0	160	1723	2.5
Neocalanus plumchrus C-4	32	8.0	138	1490	2.1
Pseudocalanus spp. C-5 F	32	8.0	138	1490	2.1
Cirripedia - nauplius <5mm	25	8.0	108	1164	1.7
Pseudocalanus spp. C-5 M	23	8.0	99	1071	1.5
?Pseudocalanus spp. C-1	22	8.0	95	1025	1.5
Metridia pacifica - adult F	21	8.0	91	978	1.4
Calanus marshallae - adult F	17	8.0	73	792	1.1
Thysanoessa inermis A&J	67	2.0	72	780	1.1
Neocalanus plumchrus C-3	15	8.0	65	699	1.0
Metridia pacifica C-4	14	8.0	60	652	0.9
?Pseudocalanus spp. C-2	14	8.0	60	652	0.9
Metridia pacifica C-5 F	14	8.0	60	652	0.9
Metriididae C-1	14	8.0	60	652	0.9
Metridia pacifica C-5 M	11	8.0	47	512	0.7
Acartia spp.	9	8.0	39	419	0.6
Foraminifera <5mm	9	8.0	39	419	0.6
Gastropoda <5mm	7	8.0	30	326	0.5
Pseudocalanus spp. - adult M	7	8.0	30	326	0.5
Metridia spp. - adult F	7	8.0	30	326	0.5
Chaetognatha 5-20mm	26	2.0	28	303	0.4
Metridia pacifica - adult M	6	8.0	26	279	0.4
Other Copepoda - nauplius	6	8.0	26	279	0.4
Calanus marshallae - adult M	6	8.0	26	279	0.4
Metriididae C-3	5	8.0	22	233	0.3
Neocalanus plumchrus C-4	5	8.0	22	233	0.3
Cnidaria - medusa >5mm	15	2.0	16	175	0.2
Metriididae C-2	3	8.0	13	140	0.2
Ostracoda <5mm	3	8.0	13	140	0.2
Cladocera <5mm	3	8.0	13	140	0.2
Invertebrata <5mm	3	8.0	13	140	0.2
Calanus marshallae C-5	2	8.0	9	93	0.1
Thecosomata <5mm	2	8.0	9	93	0.1
Hyperiididae <5mm	2	8.0	9	93	0.1
Natantia - larva	2	8.0	9	93	0.1
Chaetognatha >20mm	4	2.0	4	47	0.1
Bivalvia - veliger <5mm	1	8.0	4	47	0.1
Other Copepoda 2-5mm	1	8.0	4	47	0.1
Brachyura - larva	1	8.0	4	47	0.1
Thysanoessa spinifera A&J	4	2.0	4	47	0.1
Euphausia pacifica A&J	1	2.0	1	12	< 0.1
Teleostei - larva >5mm	1	2.0	1	12	< 0.1

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6479      69973      100.

STA. G146A      57 27.9 N      154 47.0 W      16 Apr 87      12:39

DEPTH              SAMPLING INTERVAL      VOLUME FILTERED      NET MESH

116                      0 - 102                      167.6                      333

Taxon	Number counted	Sub/ fac	No./ 10m3	No./ m2
Neocalanus plumchrus C-3	120	16.0	115	1329
Neocalanus plumchrus C-4	67	16.0	64	742
Cirripedia - nauplius <5mm	30	16.0	29	332
Thysanoessa inermis A&J	100	4.0	24	277
Metridia pacifica C-5 M	16	16.0	15	177
Thecosomata <5mm	15	16.0	14	166
Metridia pacifica C-5 F	10	16.0	10	111
Metridia pacifica - adult F	14	8.0	7	78
Natantia - larva	6	16.0	6	66
Chaetognatha 5-20mm	21	4.0	5	58
Teleostei - egg <5mm	5	16.0	5	55
Calanus marshallae - adult F	9	8.0	4	50
Metridia pacifica - adult M	8	8.0	4	44
Larvacea	4	16.0	4	44
Chaetognatha <5mm	3	16.0	3	33
Gastropoda - veliger <5mm	3	16.0	3	33
Anomura - larva	3	16.0	3	33
Cirripedia - cypris <5mm	2	16.0	2	22
Calanus marshallae - adult M	3	8.0	1	17
Thysanoessa spinifera A&J	6	4.0	1	17
Gammaridea <5mm	1	16.0	1	11
Metridia spp. - adult M	1	16.0	1	11
Hyperiidia <5mm	1	16.0	1	11
Teleostei - larva >5mm	4	4.0	1	11
Brachyura - larva	1	16.0	1	11
Other Copepoda 2-5mm	1	16.0	1	11
Other zooplankton <5mm	1	16.0	1	11
Natantia A&J >5mm	2	4.0	< 1	6
Neocalanus plumchrus C-5	1	8.0	< 1	6
Calanus marshallae C-5	1	8.0	< 1	6
Cnidaria - medusa >5mm	1	4.0	< 1	3
Euphausia pacifica A&J	1	4.0	< 1	3
Neocalanus cristatus C-4	1	4.0	< 1	3
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			326	3787

STA. G146A      57 27.9 N      154 47.0 W      16 Apr 87      12:39

DEPTH            SAMPLING INTERVAL      VOLUME FILTERED      NET MESH

116              0 - 102              19.3              150

Taxon	Number counted	Sub/ fac	No./ 10m3	No./ m2
Oithona spp.	159	64.0	5283	61288
Other Copepoda - nauplius	67	64.0	2226	25826
Invertebrata - egg <5mm	46	64.0	1529	17731
Other Copepoda <2mm	43	64.0	1429	16575
?Pseudocalanus spp. C-1	18	64.0	598	6938
?Pseudocalanus spp. C-2	17	64.0	565	6553
Euphausiacea - nauplius	16	64.0	532	6167
?Pseudocalanus spp. C-3	15	64.0	498	5782
Cirripedia - nauplius <5mm	12	64.0	399	4625
Foraminifera <5mm	10	64.0	332	3855
Pseudocalanus spp. C-4 M	41	12.8	272	3161
Pseudocalanus spp. - adult F	40	12.8	266	3084
Chaetognatha <5mm	7	64.0	233	2698
Pseudocalanus spp. C-4 F	25	12.8	166	1927
Pseudocalanus spp. C-5 M	16	12.8	106	1233
Pseudocalanus spp. C-5 F	16	12.8	106	1233
Acartia spp.	15	12.8	100	1156
Metriididae C-2	10	12.8	66	771
Neocalanus plumchrus C-2	9	12.8	60	694
Pseudocalanus spp. - adult M	9	12.8	60	694
Metriididae C-3	9	12.8	60	694
Metridia pacifica C-4	8	12.8	53	617
Metriididae C-1	1	64.0	33	385
Gastropoda - veliger <5mm	1	64.0	33	385
Bivalvia - veliger <5mm	1	64.0	33	385
Euphausiacea - calyptopis 1	5	12.8	33	385
Unidentified Calanoida C-1	4	12.8	27	308
Neocalanus plumchrus C-1	2	12.8	13	154
Unidentified Calanoida C-2	1	12.8	7	77
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			15119	175383

STA. G147A      57 30.3 N      154 45.9 W      16 Apr 87      13:18

DEPTH                      SAMPLING INTERVAL                      VOLUME FILTERED                      NET MESH  
 184                                      0 - 184                                      279.9                                      333

Taxon	Number counted	Sub/ fac	No./ 10m3	No./ m2
Neocalanus plumchrus C-3	70	128.0	320	5889
Neocalanus plumchrus C-4	45	128.0	206	3786
Metridia pacifica C-5 F	31	128.0	142	2608
Metridia pacifica - adult M	23	128.0	105	1935
Teleostei - egg <5mm	18	128.0	82	1514
Metridia pacifica C-5 M	16	128.0	73	1346
Metridia pacifica - adult F	16	128.0	73	1346
Cirripedia - nauplius <5mm	10	128.0	46	841
Thecosomata <5mm	9	128.0	41	757
Metridia spp. - adult F	7	128.0	32	589
Invertebrata - egg <5mm	5	128.0	23	421
Metridia spp. C-4	4	128.0	18	337
Larvacea	2	128.0	9	168
Chaetognatha >20mm	59	4.0	8	155
Chaetognatha 5-20mm	44	4.0	6	116
Thysanoessa inermis A&J	41	4.0	6	108
Other Copepoda 2-5mm	1	128.0	5	84
Calanus marshallae C-4	1	128.0	5	84
Siphonophora >5mm	19	4.0	3	50
Neocalanus cristatus C-4	16	4.0	2	42
Thysanoessa spinifera A&J	14	4.0	2	37
Teleostei - larva >5mm	12	4.0	2	32
Euphausia pacifica A&J	4	4.0	1	11
Eucalanus bungii C-5 F	3	4.0	< 1	8
Mysidacea >5mm	2	4.0	< 1	5
Other Copepoda >5mm	2	4.0	< 1	5
Thysanoessa longipes A&J	1	4.0	< 1	3
Neocalanus cristatus C-5	1	4.0	< 1	3
Natantia A&J >5mm	1	4.0	< 1	3
			-----	-----
			1211	22282



STA. G147A      57 30.3 N      154 45.9 W      16 Apr 87      13:18

DEPTH                      SAMPLING INTERVAL                      VOLUME FILTERED                      NET MESH  
184                                      0 - 184                                      31.3                                      150

Taxon	Number counted	Sub/fac	No./10m3	No./m2
Oithona spp.	182	64.0	3722	68481
Other Copepoda - nauplius	68	64.0	1391	25586
Other Copepoda <2mm	52	64.0	1063	19566
Cirripedia - nauplius <5mm	36	64.0	736	13546
?Pseudocalanus spp. C-1	30	64.0	613	11288
Invertebrata - egg <5mm	29	64.0	593	10912
?Pseudocalanus spp. C-2	16	64.0	327	6020
?Pseudocalanus spp. C-3	12	64.0	245	4515
Pseudocalanus spp. - adult F	49	12.8	200	3687
Metriididae C-1	9	64.0	184	3386
Metriididae C-2	37	12.8	151	2784
Neocalanus plumchrus C-2	29	12.8	119	2182
Acartia spp.	5	64.0	102	1881
Euphausiacea - nauplius	5	64.0	102	1881
Pseudocalanus spp. C-4 M	24	12.8	98	1806
Pseudocalanus spp. C-5 M	23	12.8	94	1731
Pseudocalanus spp. C-4 F	22	12.8	90	1656
Pseudocalanus spp. C-5 F	21	12.8	86	1580
Neocalanus plumchrus C-1	18	12.8	74	1355
Gastropoda - veliger <5mm	3	64.0	61	1129
Thecosomata <5mm	3	64.0	61	1129
Metridia pacifica C-4	11	12.8	45	828
Metriididae C-3	11	12.8	45	828
Polychaeta <5mm	2	64.0	41	753
Pseudocalanus spp. - adult M	8	12.8	33	602
Unidentified Calanoida C-1	7	12.8	29	527
Teleostei - egg <5mm	1	64.0	20	376
Foraminifera <5mm	1	64.0	20	376
Chaetognatha <5mm	1	64.0	20	376
Euphausiacea - calyptopis 1	1	12.8	4	75
			-----	-----
			10372	190844

STA. G148A      57 33.1 N      154 52.8 W      16 Apr 87      14:12

DEPTH                      SAMPLING INTERVAL      VOLUME FILTERED      NET MESH

236                              0 - 219                      361.0                      333

Taxon	Number counted	Sub/fac	No./10m3	No./m2
Neocalanus plumchrus C-3	61	128.0	216	5104
Metridia pacifica C-5 M	39	128.0	138	3263
Neocalanus plumchrus C-4	30	128.0	106	2510
Metridia pacifica C-5 F	27	128.0	96	2259
Metridia pacifica - adult M	16	128.0	57	1339
Metridia pacifica - adult F	10	128.0	35	837
Invertebrata - egg <5mm	8	128.0	28	669
Teleostei - egg <5mm	6	128.0	21	502
Cirripedia - nauplius <5mm	5	128.0	18	418
Larvacea	3	128.0	11	251
Calanus marshallae - adult F	23	14.2	9	214
Gastropoda - veliger <5mm	2	128.0	7	167
Metridia spp. - adult M	2	128.0	7	167
Thecosomata <5mm	2	128.0	7	167
Calanus pacificus C-5	17	14.2	7	158
Chaetognatha 5-20mm	60	4.0	7	157
Neocalanus cristatus C-4	51	4.0	6	133
Ostracoda <5mm	1	128.0	4	84
Hyperidea <5mm	1	128.0	4	84
Other Copepoda 2-5mm	1	128.0	4	84
Chaetognatha >20mm	22	4.0	2	58
Thysanoessa spinifera A&J	13	4.0	1	34
Thysanoessa inermis A&J	11	4.0	1	29
Neocalanus plumchrus C-5	3	14.2	1	28
Teleostei - larva >5mm	7	4.0	1	18
Other Copepoda >5mm	6	4.0	1	16
Mysidacea >5mm	6	4.0	1	16
Siphonophora >5mm	4	4.0	< 1	10
Calanus marshallae - adult M	1	14.2	< 1	9
Calanus marshallae C-4	1	14.2	< 1	9
Hyperidea >5mm	3	4.0	< 1	8
Polychaeta >5mm	2	4.0	< 1	5
Neocalanus cristatus C-5	2	4.0	< 1	5
Gammaridea >5mm	2	4.0	< 1	5
Cnidaria - medusa >5mm	1	4.0	< 1	3
Eucalanus bungii C-5 M	1	4.0	< 1	3
Eucalanus bungii - adult M	1	4.0	< 1	3
			798	18826

STA. G148A      57 33.1 N      154 52.8 W      16 Apr 87      14:12

DEPTH                  SAMPLING INTERVAL      VOLUME FILTERED      NET MESH  
236                      0 - 219                  38.7                      150

Taxon	Number counted	Sub/ fac	No./ 10m3	No./ m2
Oithona spp.	281	64.0	4641	109530
Other Copepoda <2mm	59	64.0	974	22997
Invertebrata - egg <5mm	56	64.0	925	21828
Cirripedia - nauplius <5mm	33	64.0	545	12863
?Pseudocalanus spp. C-1	32	64.0	529	12473
?Pseudocalanus spp. C-2	32	64.0	529	12473
Other Copepoda - nauplius	24	64.0	396	9355
?Pseudocalanus spp. C-3	15	64.0	248	5847
Metriididae C-1	15	64.0	248	5847
Pseudocalanus spp. - adult F	29	21.3	159	3762
Gastropoda - veliger <5mm	9	64.0	149	3508
Metridia pacifica C-4	27	21.3	148	3503
Metriididae C-2	24	21.3	132	3113
Pseudocalanus spp. C-4 F	22	21.3	121	2854
Foraminifera <5mm	6	64.0	99	2339
Metriididae C-3	18	21.3	99	2335
Pseudocalanus spp. C-5 M	17	21.3	93	2205
Pseudocalanus spp. C-4 M	16	21.3	88	2076
Euphausiacea - nauplius	5	64.0	83	1949
Polychaeta <5mm	5	64.0	83	1949
Thecosomata <5mm	5	64.0	83	1949
Neocalanus plumchrus C-2	14	21.3	77	1816
Acartia spp.	4	64.0	66	1559
Pseudocalanus spp. C-5 F	8	21.3	44	1038
Pseudocalanus spp. - adult M	7	21.3	38	908
Unidentified Calanoida C-1	7	21.3	38	908
Other zooplankton <5mm	2	64.0	33	780
Ostracoda <5mm	2	64.0	33	780
Teleostei - larva <5mm	1	64.0	17	390
Invertebrata <5mm	1	64.0	17	390
Neocalanus plumchrus C-1	3	21.3	16	389
Calanus marshallae C-2	1	21.3	5	130
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			10756	253842

STA. G149A 57 36.6 N 155 00.8 W 16 Apr 87 17:37

DEPTH 239 SAMPLING INTERVAL 0 - 224 VOLUME FILTERED 286.5 NET MESH 333

Taxon	Number counted	Sub/fac	No./10m3	No./m2
Neocalanus plumchrus C-3	172	64.0	384	9184
Neocalanus plumchrus C-4	118	64.0	264	6301
Metridia pacifica C-5 F	90	64.0	201	4806
Metridia pacifica C-5 M	81	64.0	181	4325
Invertebrata - egg <5mm	58	64.0	130	3097
Metridia pacifica - adult M	44	64.0	98	2349
Teleostei - egg <5mm	39	64.0	87	2082
Metridia pacifica - adult F	35	64.0	78	1869
Thecosomata <5mm	16	64.0	36	854
Ostracoda <5mm	10	64.0	22	534
Calanus marshallae - adult F	8	64.0	18	427
Calanus marshallae C-3	7	64.0	16	374
Larvacea	6	64.0	13	320
Natantia - larva	6	64.0	13	320
Calanus pacificus C-5	4	64.0	9	214
Cirripedia - nauplius <5mm	4	64.0	9	214
Chaetognatha >20mm	59	4.0	8	197
Other Copepoda damaged	3	64.0	7	160
Teleostei - larva <5mm	3	64.0	7	160
Metridia spp. - adult M	3	64.0	7	160
Siphonophora <5mm	3	64.0	7	160
Chaetognatha 5-20mm	37	4.0	5	123
Metridia spp. - adult F	2	64.0	4	107
Hyperiidia <5mm	2	64.0	4	107
Anomura - larva	1	64.0	2	53
Chaetognatha <5mm	1	64.0	2	53
Calanus marshallae - adult M	1	64.0	2	53
Calanus marshallae C-5	1	64.0	2	53
Polychaeta <5mm	1	64.0	2	53
Foraminifera <5mm	1	64.0	2	53
Mysidacea <5mm	1	64.0	2	53
Neocalanus plumchrus C-5	1	64.0	2	53
Neocalanus cristatus C-4	16	4.0	2	53
Calanus marshallae C-4	1	64.0	2	53
Thysanoessa inermis A&J	11	4.0	2	37
Neocalanus cristatus C-5	8	4.0	1	27
Cnidaria - medusa >5mm	5	4.0	1	17
Gammaridea >5mm	5	4.0	1	17
Thysanoessa spinifera A&J	4	4.0	1	13
Thysanoessa raschii A&J	3	4.0	< 1	10
Other Copepoda >5mm	2	4.0	< 1	7
Teleostei - larva >5mm	2	4.0	< 1	7
Euphausia pacifica A&J	1	4.0	< 1	3
Hyperiidia >5mm	1	4.0	< 1	3
Mysidacea >5mm	1	4.0	< 1	3
			1637	39123

STA. G149A      57 36.6 N      155 00.8 W      16 Apr 87      17:37

DEPTH                  SAMPLING INTERVAL      VOLUME FILTERED      NET MESH  
239                      0 - 224                  31.9                      150

Taxon	Number counted	Sub/ fac	No./ 10m3	No./ m2
Oithona spp.	283	64.0	5684	135840
Invertebrata - egg <5mm	117	64.0	2350	56160
Other Copepoda - nauplius	74	64.0	1486	35520
Other Copepoda <2mm	58	64.0	1165	27840
Cirripedia - nauplius <5mm	57	64.0	1145	27360
?Pseudocalanus spp. C-1	46	64.0	924	22080
?Pseudocalanus spp. C-3	27	64.0	542	12960
?Pseudocalanus spp. C-2	23	64.0	462	11040
Euphausiacea - nauplius	17	64.0	341	8160
Pseudocalanus spp. - adult F	79	12.8	317	7584
Metriididae C-1	15	64.0	301	7200
Metriididae C-2	67	12.8	269	6432
Pseudocalanus spp. C-5 M	45	12.8	181	4320
Pseudocalanus spp. C-4 M	42	12.8	169	4032
Pseudocalanus spp. C-4 F	42	12.8	169	4032
Gastropoda - veliger <5mm	8	64.0	161	3840
Foraminifera <5mm	8	64.0	161	3840
Neocalanus plumchrus C-2	37	12.8	149	3552
Metriididae C-3	34	12.8	137	3264
Pseudocalanus spp. C-5 F	34	12.8	137	3264
Metridia pacifica C-4	31	12.8	125	2976
Acartia spp.	3	64.0	60	1440
Thecosomata <5mm	3	64.0	60	1440
Chaetognatha <5mm	3	64.0	60	1440
Pseudocalanus spp. - adult M	11	12.8	44	1056
Teleostei - egg <5mm	2	64.0	40	960
Unidentified Calanoida C-1	6	12.8	24	576
Echinodermata - larva <5mm	1	64.0	20	480
Polychaeta <5mm	1	64.0	20	480
Bryozoa - cyphonautes <5mm	1	64.0	20	480
Neocalanus plumchrus C-1	4	12.8	16	384
Unidentified Calanoida C-2	2	12.8	8	192
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			16746	400223

STA. G150A 57 38.7 N 155 05.7 W 16 Apr 87 18:23

DEPTH 261 SAMPLING INTERVAL 0 - 230 VOLUME FILTERED 284.6 NET MESH 333

Taxon	Number counted	Sub/fac	No./10m3	No./m2
Teleostei - egg <5mm	185	64.0	416	10859
Neocalanus plumchrus C-4	124	64.0	279	7279
Neocalanus plumchrus C-3	114	64.0	256	6692
Metridia pacifica C-5 M	82	64.0	184	4813
Metridia pacifica C-5 F	82	64.0	184	4813
Metridia pacifica - adult F	69	64.0	155	4050
Invertebrata - egg <5mm	28	64.0	63	1644
Metridia pacifica - adult M	27	64.0	61	1585
Thecosomata <5mm	18	64.0	40	1057
Calanus marshallae - adult F	15	64.0	34	880
Cirripedia - nauplius <5mm	12	64.0	27	704
Larvacea	11	64.0	25	646
Ostracoda <5mm	7	64.0	16	411
Calanus pacificus C-5	7	64.0	16	411
Anomura - larva	6	64.0	13	352
Gastropoda - veliger <5mm	4	64.0	9	235
Metridia spp. - adult M	3	64.0	7	176
Other Copepoda 2-5mm	3	64.0	7	176
Natantia - larva	3	64.0	7	176
Other zooplankton <5mm	2	64.0	4	117
Neocalanus plumchrus C-5	2	64.0	4	117
Cnidaria - medusa <5mm	2	64.0	4	117
Metridia spp. C-4	2	64.0	4	117
Siphonophora <5mm	2	64.0	4	117
Neocalanus cristatus C-3	2	64.0	4	117
Neocalanus cristatus C-4	24	4.0	3	88
Chaetognatha 5-20mm	19	4.0	3	70
Mysidacea <5mm	1	64.0	2	59
Gammaridea <5mm	1	64.0	2	59
Teleostei - larva <5mm	1	64.0	2	59
Chaetognatha <5mm	1	64.0	2	59
Brachyura - larva	1	64.0	2	59
Polychaeta <5mm	1	64.0	2	59
Calanus marshallae C-4	1	64.0	2	59
Calanus marshallae C-3	1	64.0	2	59
Hyperiidia <5mm	1	64.0	2	59
Neocalanus cristatus C-2	1	64.0	2	59
Metridia spp. - adult F	1	64.0	2	59
Cnidaria - medusa >5mm	10	4.0	1	37
Chaetognatha >20mm	8	4.0	1	29
Thysanoessa spinifera A&J	6	4.0	1	22
Thysanoessa inermis A&J	6	4.0	1	22
Neocalanus cristatus C-5	6	4.0	1	22
Gammaridea >5mm	4	4.0	1	15
Other Copepoda >5mm	2	4.0	< 1	7
Hyperiidia >5mm	2	4.0	< 1	7
Teleostei - larva >5mm	2	4.0	< 1	7

Nematoda >5mm	1	4.0	< 1	4
Eucalanus bungii - adult F	1	4.0	< 1	4
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		1864		48643





STA. G150A      57 38.7 N      155 05.7 W      16 Apr 87      18:23

DEPTH                  SAMPLING INTERVAL      VOLUME FILTERED      NET MESH

261                      0 - 230                      31.6                      150

Taxon	Number counted	Sub/ fac	No./ 10m3	No./ m2
Oithona spp.	233	64.0	4720	123183
Invertebrata - egg <5mm	80	64.0	1620	42295
Other Copepoda - nauplius	65	64.0	1317	34364
Cirripedia - nauplius <5mm	57	64.0	1155	30135
Other Copepoda <2mm	46	64.0	932	24319
?Pseudocalanus spp. C-1	39	64.0	790	20619
?Pseudocalanus spp. C-2	25	64.0	506	13217
?Pseudocalanus spp. C-3	17	64.0	344	8988
Pseudocalanus spp. - adult F	41	21.3	276	7214
Teleostei - egg <5mm	13	64.0	263	6873
Euphausiacea - nauplius	10	64.0	203	5287
Metriididae C-1	9	64.0	182	4758
Pseudocalanus spp. C-4 M	25	21.3	169	4399
Pseudocalanus spp. C-5 M	24	21.3	162	4223
Pseudocalanus spp. C-4 F	22	21.3	148	3871
Acartia spp.	7	64.0	142	3701
Foraminifera <5mm	6	64.0	122	3172
Metridia pacifica C-4	16	21.3	108	2815
Metriididae C-2	16	21.3	108	2815
Pseudocalanus spp. C-5 F	15	21.3	101	2639
Neocalanus plumchrus C-2	11	21.3	74	1935
Metriididae C-3	10	21.3	67	1760
Gastropoda - veliger <5mm	3	64.0	61	1586
Thecosomata <5mm	3	64.0	61	1586
Pseudocalanus spp. - adult M	9	21.3	61	1584
Ostracoda <5mm	2	64.0	41	1057
Calanus marshallae C-2	6	21.3	40	1056
Echinodermata - larva <5mm	1	64.0	20	529
Bryozoa - cyphonautes <5mm	1	64.0	20	529
Chaetognatha <5mm	1	64.0	20	529
Other zooplankton <5mm	1	64.0	20	529
Neocalanus plumchrus C-1	3	21.3	20	528
Calanus marshallae C-1	2	21.3	13	352
			-----	-----
			13887	362446

STA. G151A 57 41.2 N 155 11.3 W 16 Apr 87 19:22

DEPTH 293 SAMPLING INTERVAL 0 - 250 VOLUME FILTERED 295.3 NET MESH 333

Taxon	Number counted	Sub/fac	No./10m3	No./m2
Neocalanus plumchrus C-3	134	128.0	581	17019
Teleostei - egg <5mm	104	128.0	451	13208
Neocalanus plumchrus C-4	95	128.0	412	12065
Invertebrata - egg <5mm	17	128.0	74	2159
Metridia pacifica - adult M	10	128.0	43	1270
Metridia pacifica - adult F	8	128.0	35	1016
Larvacea	7	128.0	30	889
Ostracoda <5mm	6	128.0	26	762
Thecosomata <5mm	6	128.0	26	762
Neocalanus cristatus C-3	4	128.0	17	508
Calanus marshallae - adult F	2	128.0	9	254
Cirripedia - nauplius <5mm	2	128.0	9	254
Chaetognatha 5-20mm	48	4.0	7	191
Neocalanus cristatus C-4	38	4.0	5	151
Gastropoda - veliger <5mm	1	128.0	4	127
Calanus pacificus C-5	1	128.0	4	127
Mysidacea <5mm	1	128.0	4	127
Metridia pacifica C-5 M	51	2.4	4	121
Cnidaria - medusa >5mm	28	4.0	4	111
Teleostei - larva >5mm	16	4.0	2	64
Thysanoessa spinifera A&J	15	4.0	2	60
Metridia pacifica C-5 F	24	2.4	2	57
Thysanoessa inermis A&J	12	4.0	2	48
Mysidacea >5mm	3	4.0	< 1	12
Chaetognatha >20mm	3	4.0	< 1	12
Metridia spp. - adult F	4	2.4	< 1	10
Siphonophora >5mm	2	4.0	< 1	8
Metridia spp. C-4	3	2.4	< 1	7
Metridia spp. - adult M	3	2.4	< 1	7
Eucalanus bungii - adult M	1	4.0	< 1	4
Gammaridea >5mm	1	4.0	< 1	4
Neocalanus cristatus C-5	1	4.0	< 1	4
Euphausia pacifica A&J	1	4.0	< 1	4
Other Copepoda 2-5mm	1	2.4	< 1	2
			1755	51423

STA. G151A      57 41.2 N      155 11.3 W      16 Apr 87      19:22

DEPTH                  SAMPLING INTERVAL      VOLUME FILTERED      NET MESH  
293                      0 - 250                  30.2                  150

Taxon	Number counted	Sub/ fac	No./ 10m3	No./ m2
Oithona spp.	242	64.0	5134	150427
Invertebrata - egg <5mm	81	64.0	1718	50349
Other Copepoda - nauplius	33	64.0	700	20513
Other Copepoda <2mm	32	64.0	679	19891
?Pseudocalanus spp. C-1	30	64.0	636	18648
Pseudocalanus spp. - adult F	57	21.3	402	11792
Teleostei - egg <5mm	12	64.0	255	7459
Pseudocalanus spp. C-5 M	32	21.3	226	6620
?Pseudocalanus spp. C-2	10	64.0	212	6216
?Pseudocalanus spp. C-3	10	64.0	212	6216
Metridia pacifica C-4	28	21.3	198	5793
Euphausiacea - nauplius	9	64.0	191	5594
Cirripedia - nauplius <5mm	9	64.0	191	5594
Neocalanus plumchrus C-2	22	21.3	155	4551
Pseudocalanus spp. C-4 M	20	21.3	141	4138
Pseudocalanus spp. C-5 F	20	21.3	141	4138
Metriididae C-1	6	64.0	127	3730
Metriididae C-2	17	21.3	120	3517
Acartia spp.	5	64.0	106	3108
Pseudocalanus spp. C-4 F	14	21.3	99	2896
Polychaeta <5mm	4	64.0	85	2486
Pseudocalanus spp. - adult M	11	21.3	78	2276
Gastropoda <5mm	3	64.0	64	1865
Foraminifera <5mm	3	64.0	64	1865
Metriididae C-3	9	21.3	64	1862
Chaetognatha <5mm	2	64.0	42	1243
Neocalanus plumchrus C-1	6	21.3	42	1241
Calanus marshallae C-1	6	21.3	42	1241
Thecosomata <5mm	1	64.0	21	622
Other zooplankton <5mm	1	64.0	21	622
Calanus marshallae C-2	2	21.3	14	414
Unidentified Calanoida C-1	1	21.3	7	207
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			12189	357133

STA. G152A      57 42.6 N      155 14.1 W      16 Apr 87      19:57

DEPTH                      SAMPLING INTERVAL      VOLUME FILTERED      NET MESH

297                              0 - 271                      341.5                      333

Taxon	Number counted	Sub/fac	No./10m3	No./m2
Neocalanus plumchrus C-3	158	256.0	1184	35175
Neocalanus plumchrus C-4	72	256.0	540	16029
Teleostei - egg <5mm	70	256.0	525	15584
Metridia pacifica C-5 M	27	256.0	202	6011
Metridia pacifica C-5 F	16	256.0	120	3562
Metridia pacifica - adult F	10	256.0	75	2226
Invertebrata - egg <5mm	10	256.0	75	2226
Metridia pacifica - adult M	9	256.0	67	2004
Metridia spp. - adult F	9	256.0	67	2004
Thecosomata <5mm	7	256.0	52	1558
Cirripedia - nauplius <5mm	6	256.0	45	1336
Larvacea	5	256.0	37	1113
Metridia spp. - adult M	5	256.0	37	1113
Ostracoda <5mm	4	256.0	30	891
Other Copepoda 2-5mm	3	256.0	22	668
Chaetognatha 5-20mm	33	8.0	8	230
Calanus marshallae C-3	1	256.0	7	223
Calanus marshallae - adult F	1	256.0	7	223
Metridia spp. C-5 F	1	256.0	7	223
Mysidacea <5mm	1	256.0	7	223
Teleostei - larva <5mm	1	256.0	7	223
Neocalanus plumchrus C-5	1	256.0	7	223
Neocalanus cristatus C-4	28	4.0	3	97
Thysanoessa spinifera A&J	15	4.0	2	52
Hyperiidia >5mm	6	4.0	1	21
Cnidaria - medusa >5mm	6	4.0	1	21
Other Copepoda >5mm	4	4.0	< 1	14
Teleostei - larva >5mm	4	4.0	< 1	14
Neocalanus cristatus C-5	2	4.0	< 1	7
Mysidacea >5mm	2	4.0	< 1	7
Nematoda >5mm	1	4.0	< 1	3
Euphausiacea A&J damaged	1	4.0	< 1	3
Thysanoessa inspinata A&J	1	4.0	< 1	3
Gymnosomata >5mm	1	4.0	< 1	3
Siphonophora >5mm	1	4.0	< 1	3
Thysanoessa inermis A&J	1	4.0	< 1	3
			-----	-----
			3142	93320

STA. G152A 57 42.6 N 155 14.1 W 16 Apr 87 19:57

DEPTH 297 SAMPLING INTERVAL 0 - 271 VOLUME FILTERED 34.9 NET MESH 150

Taxon	Number counted	Sub/fac	No./10m3	No./m2
Oithona spp.	335	64.0	6145	182498
Cirripedia - nauplius <5mm	90	64.0	1651	49029
Invertebrata - egg <5mm	82	64.0	1504	44671
Other Copepoda - nauplius	62	64.0	1137	33776
?Pseudocalanus spp. C-1	49	64.0	899	26694
Other Copepoda <2mm	42	64.0	770	22880
?Pseudocalanus spp. C-2	26	64.0	477	14164
Neocalanus plumchrus C-2	24	64.0	440	13074
Pseudocalanus spp. - adult F	20	64.0	367	10895
?Pseudocalanus spp. C-3	18	64.0	330	9806
Teleostei - egg <5mm	17	64.0	312	9261
Metriididae C-1	16	64.0	293	8716
Metriididae C-2	13	64.0	238	7082
Pseudocalanus spp. C-4 M	13	64.0	238	7082
Pseudocalanus spp. C-5 F	12	64.0	220	6537
Pseudocalanus spp. C-5 M	11	64.0	202	5992
Gastropoda - veliger <5mm	11	64.0	202	5992
Foraminifera <5mm	9	64.0	165	4903
Pseudocalanus spp. C-4 F	9	64.0	165	4903
Acartia spp.	8	64.0	147	4358
Metridia pacifica C-4	6	64.0	110	3269
Euphausiacea - nauplius	6	64.0	110	3269
Neocalanus plumchrus C-1	4	64.0	73	2179
Calanus marshallae C-1	4	64.0	73	2179
Metriididae C-3	3	64.0	55	1634
Chaetognatha <5mm	3	64.0	55	1634
Polychaeta <5mm	3	64.0	55	1634
Bryozoa - cyphonautes <5mm	2	64.0	37	1090
Pseudocalanus spp. - adult M	2	64.0	37	1090
Other zooplankton <5mm	2	64.0	37	1090
Cnidaria - medusa <5mm	1	64.0	18	545
Echinodermata - larva <5mm	1	64.0	18	545
Teleostei - larva <5mm	1	64.0	18	545
			16600	493017



Appendix 2. Abundance of zooplankton taxa at each station sampled during FOCI cruise 3MF87 in Shelikof Strait, 18-29 May 1987. Below is a summary of the samples collected on this cruise and the procedures used when they were enumerated (see Methods). P=enumerated for all organisms S=enumerated for selected organisms (see Table 2). Blanks mean no sample was collected.

<u>STATION #</u>	<u>333 <math>\mu</math>m MESH</u>	<u>150 <math>\mu</math>m MESH</u>
G002A	S	S
G003A	S	S
G005A	S	S
G006A	S	S
G007A	S	S
G008A	S	S
G009A	S	S
G062A	P	P
G068A	P	P
G079A	P	
G080A	P	
G108A	P	

STA. G002A	57 40.6 N	155 10.1 W	19 May 87	16:18
DEPTH 294	SAMPLING INTERVAL 0 - 294	VOLUME FILTERED 320.1	NET MESH 333	
Taxon	Number counted	Sub/ fac	No./ 10m3	No./ m2
Neocalanus plumchrus C-5	123	256.0	984	28921
Metridia pacifica - adult M	59	256.0	472	13873
Metridia pacifica - adult F	52	256.0	416	12227
Metridia pacifica C-5 F	25	256.0	200	5878
Invertebrata - egg <5mm	23	256.0	184	5408
Metridia pacifica C-5 M	15	256.0	120	3527
Calanus marshallae C-4	26	128.0	104	3057
Calanus marshallae C-5	26	128.0	104	3057
Larvacea	11	256.0	88	2586
Calanus marshallae C-3	19	128.0	76	2234
Thecosomata <5mm	9	256.0	72	2116
Other Copepoda 2-5mm	9	256.0	72	2116
Neocalanus plumchrus C-4	16	128.0	64	1881
Euphausiacea - furcilia	12	128.0	48	1411
Cirripedia - cypris <5mm	12	128.0	48	1411
Ostracoda <5mm	5	256.0	40	1176
Cirripedia - nauplius <5mm	4	256.0	32	941
Calanus marshallae - adult F	7	128.0	28	823
Polychaeta <5mm	3	256.0	24	705
Calanus marshallae - adult M	4	128.0	16	470
Cnidaria - medusa <5mm	2	256.0	16	470
Invertebrata <5mm	2	256.0	16	470
Chaetognatha <5mm	2	256.0	16	470
Chaetognatha 5-20mm	202	2.0	13	371
Calanus pacificus C-5	3	128.0	12	353
Gastropoda - veliger <5mm	1	256.0	8	235
Brachyura - larva	1	256.0	8	235
Echinodermata - larva <5mm	1	256.0	8	235
Neocalanus cristatus C-5	121	2.0	8	222
Neocalanus plumchrus - adult M	1	128.0	4	118
Chaetognatha >20mm	32	2.0	2	59
Hyperiidia >5mm	16	2.0	1	29
Neocalanus cristatus C-4	16	2.0	1	29
Other Copepoda >5mm	14	2.0	1	26
Teleostei - larva >5mm	12	2.0	1	22
Mysidacea >5mm	12	2.0	1	22
Thysanoessa inermis A&J	9	2.0	1	17
Cnidaria - medusa >5mm	8	2.0	< 1	15
Gammaridea >5mm	7	2.0	< 1	13
Cumacea >5mm	6	2.0	< 1	11
Siphonophora >5mm	4	2.0	< 1	7
Thysanoessa spinifera A&J	4	2.0	< 1	7
Eucalanus bungii - adult F	3	2.0	< 1	6
Polychaeta >5mm	3	2.0	< 1	6
Thysanoessa raschii A&J	2	2.0	< 1	4
Euphausia pacifica A&J	1	2.0	< 1	2
Invertebrata >5mm	1	2.0	< 1	2



Other zooplankton >5mm	1	2.0	< 1	2
Eucalanus bungii C-5 F	1	2.0	< 1	2
Natantia A&J >5mm	1	2.0	< 1	2
		-----	-----	
		3309		97279



STA. G002A      57 40.6 N      155 10.1 W      19 May 87      16:18

DEPTH                  SAMPLING INTERVAL      VOLUME FILTERED      NET MESH  
294                      0 - 294                  36.5                      150

Taxon	Number counted	Sub/ fac	No./ 10m3	No./ m2
Oithona spp.	43	512.0	6038	177513
Other Copepoda - nauplius	34	512.0	4774	140359
?Pseudocalanus spp. C-1	12	512.0	1685	49538
?Pseudocalanus spp. C-2	11	512.0	1545	45410
Other Copepoda 2-5mm	10	512.0	1404	41282
Pseudocalanus spp. - adult F	28	170.7	1311	38537
Invertebrata - egg <5mm	9	512.0	1264	37154
Euphausiacea - nauplius	8	512.0	1123	33026
Pseudocalanus spp. - adult M	18	170.7	843	24774
Pseudocalanus spp. C-5 F	17	170.7	796	23398
Pseudocalanus spp. C-5 M	16	170.7	749	22021
?Pseudocalanus spp. C-3	46	46.5	587	17247
Polychaeta <5mm	3	512.0	421	12385
Bivalvia - veliger <5mm	2	512.0	281	8256
Other Copepoda damaged	2	512.0	281	8256
Invertebrata <5mm	2	512.0	281	8256
Acartia spp.	2	512.0	281	8256
Pseudocalanus spp. C-4 M	18	46.5	230	6749
Pseudocalanus spp. C-4 F	16	46.5	204	5999
Gastropoda - veliger <5mm	1	512.0	140	4128
Cirripedia - cypris <5mm	1	512.0	140	4128
Echinodermata - larva <5mm	1	512.0	140	4128
Bryozoa - cyphonautes <5mm	1	512.0	140	4128
Euphausiacea - calyptopis 1	8	46.5	102	2999
Metriididae C-3	7	46.5	89	2624
Metriididae C-2	5	46.5	64	1875
Metridia pacifica C-4	4	46.5	51	1500
Euphausiacea - calyptopis 3	3	46.5	38	1125
Euphausiacea - calyptopis 2	3	46.5	38	1125
Unidentified Calanoida C-1	1	46.5	13	375
Calanus marshallae C-1	1	46.5	13	375
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			25066	736928

STA. G003A    57 43.1 N    155 15.9 W    19 May 87    18:42

DEPTH            SAMPLING INTERVAL    VOLUME FILTERED    NET MESH  
 160                0 - 160                170.6                333

Taxon	Number counted	Sub/ fac	No./ 10m3	No./ m2
Neocalanus plumchrus C-5	78	512.0	2341	37457
Metridia pacifica - adult F	26	512.0	780	12486
Metridia pacifica C-5 M	57	170.7	570	9126
Calanus marshallae C-5	46	170.7	460	7365
Neocalanus plumchrus C-4	37	170.7	370	5924
Calanus marshallae C-4	29	170.7	290	4643
Metridia pacifica C-5 F	21	170.7	210	3362
Calanus marshallae C-3	17	170.7	170	2722
Metridia pacifica - adult M	5	512.0	150	2401
Brachyura - larva	1	512.0	30	480
Other Copepoda 2-5mm	1	512.0	30	480
Calanus marshallae - adult M	2	170.7	20	320
Neocalanus cristatus C-5	43	4.0	10	161
Unidentified Calanoida C-3	1	170.7	10	160
Eucalanus bungii C-3	1	170.7	10	160
Neocalanus plumchrus C-3	1	170.7	10	160
Chaetognatha 5-20mm	30	4.0	7	113
Cirripedia - nauplius <5mm	2	51.2	6	96
Invertebrata - egg <5mm	2	51.2	6	96
Neocalanus cristatus C-4	20	4.0	5	75
Invertebrata <5mm	1	51.2	3	48
Teleostei - egg <5mm	1	51.2	3	48
Foraminifera <5mm	1	51.2	3	48
Chaetognatha >20mm	9	4.0	2	34
Thysanoessa inermis A&J	9	4.0	2	34
Cnidaria - medusa >5mm	4	4.0	1	15
Eucalanus bungii - adult F	2	4.0	< 1	8
Teleostei - larva >5mm	2	4.0	< 1	8
Thysanoessa spinifera A&J	1	4.0	< 1	4
Hyperiidia >5mm	1	4.0	< 1	4
			5502	88036

STA. G003A	57 43.1 N	155 15.9 W	19 May 87	18:42
DEPTH 160	SAMPLING INTERVAL 0 - 160	VOLUME FILTERED 20.2	NET MESH 150	
Taxon	Number counted	Sub/ fac	No./ 10m3	No./ m2
Other Copepoda - nauplius	65	256.0	8225	131595
Oithona spp.	57	256.0	7212	115399
Pseudocalanus spp. - adult F	34	256.0	4302	68834
?Pseudocalanus spp. C-1	27	256.0	3416	54663
Invertebrata - egg <5mm	20	256.0	2531	40491
?Pseudocalanus spp. C-3	84	51.2	2126	34012
?Pseudocalanus spp. C-2	15	256.0	1898	30368
Pseudocalanus spp. - adult M	10	256.0	1265	20245
Pseudocalanus spp. C-4 M	37	51.2	936	14982
Other Copepoda <2mm	7	256.0	886	14172
Acartia spp.	6	256.0	759	12147
Pseudocalanus spp. C-5 M	6	256.0	759	12147
Pseudocalanus spp. C-4 F	29	51.2	734	11742
Pseudocalanus spp. C-5 F	4	256.0	506	8098
Metriididae C-3	6	51.2	152	2429
Metridia pacifica C-4	6	51.2	152	2429
Echinodermata <5mm	1	256.0	127	2025
Gastropoda - veliger <5mm	1	256.0	127	2025
Euphausiacea - nauplius	1	256.0	127	2025
Calanus marshallae C-1	4	51.2	101	1620
Unidentified Calanoida C-2	3	51.2	76	1215
Unidentified Calanoida C-1	2	51.2	51	810
Calanus marshallae C-2	2	51.2	51	810
Metriididae C-2	2	51.2	51	810
			36568	585092

STA. G005A 57 31.1 N 154 47.9 W 20 May 87 1:23

DEPTH 200 SAMPLING INTERVAL 0 - 188 VOLUME FILTERED 223.1 NET MESH 333

Taxon	Number counted	Sub/fac	No./10m3	No./m2
Metridia pacifica - adult M	49	256.0	562	11246
Neocalanus plumchrus C-5	38	256.0	436	8721
Metridia pacifica C-5 F	18	256.0	207	4131
Metridia pacifica C-5 M	17	256.0	195	3902
Metridia pacifica - adult F	17	256.0	195	3902
Invertebrata - egg <5mm	15	256.0	172	3443
Calanus marshallae C-4	57	51.2	131	2616
Larvacea	9	256.0	103	2066
Calanus marshallae C-5	45	51.2	103	2066
Calanus marshallae C-5	43	51.2	99	1974
Cirripedia - nauplius <5mm	8	256.0	92	1836
Thecosomata <5mm	6	256.0	69	1377
Neocalanus plumchrus C-4	27	51.2	62	1239
Cirripedia - cypris <5mm	5	256.0	57	1148
Gastropoda - veliger <5mm	4	256.0	46	918
Polychaeta <5mm	4	256.0	46	918
Euphausiacea - furcilia	16	51.2	37	734
Chaetognatha <5mm	3	256.0	34	689
Natantia - larva	3	256.0	34	689
Chaetognatha 5-20mm	80	8.0	29	574
Calanus marshallae - adult M	11	51.2	25	505
Other Copepoda 2-5mm	2	256.0	23	459
Neocalanus cristatus C-5	44	8.0	16	316
Other zooplankton <5mm	1	256.0	11	230
Calanus marshallae - adult F	5	51.2	11	230
Metridia spp. - adult F	1	256.0	11	230
Siphonophora <5mm	1	256.0	11	230
Neocalanus cristatus C-4	22	8.0	8	158
Unidentified Calanoida C-3	2	51.2	5	92
Teleostei - larva >5mm	9	8.0	3	65
Calanus pacificus C-5	1	51.2	2	46
Cnidaria - medusa >5mm	2	8.0	1	14
Gammaridea >5mm	1	8.0	< 1	7
Chaetognatha >20mm	1	8.0	< 1	7
Euphausia pacifica A&J	1	8.0	< 1	7
Eucalanus bungii - adult F	1	8.0	< 1	7
Thysanoessa inermis A&J	1	8.0	< 1	7
Siphonophora >5mm	1	8.0	< 1	7
			2840	56803

STA. G005A      57 31.1 N      154 47.9 W      20 May 87      1:23

DEPTH                      SAMPLING INTERVAL                      VOLUME FILTERED                      NET MESH  
 200                                      0 - 188                                      26.9                                      150

Taxon	Number counted	Sub/ fac	No./ 10m3	No./ m2
Oithona spp.	69	256.0	6577	131538
Invertebrata - egg <5mm	54	256.0	5147	102942
Other Copepoda - nauplius	39	256.0	3717	74347
Other Copepoda <2mm	22	256.0	2097	41940
?Pseudocalanus spp. C-1	22	256.0	2097	41940
Pseudocalanus spp. - adult F	44	85.3	1397	27949
?Pseudocalanus spp. C-2	14	256.0	1334	26689
?Pseudocalanus spp. C-3	31	85.3	985	19691
Pseudocalanus spp. - adult M	30	85.3	953	19056
Pseudocalanus spp. C-5 F	22	85.3	699	13974
Pseudocalanus spp. C-4 F	14	85.3	445	8893
Euphausiacea - nauplius	4	256.0	381	7625
Pseudocalanus spp. C-4 M	12	85.3	381	7622
Pseudocalanus spp. C-5 M	11	85.3	349	6987
Metriididae C-3	25	23.3	217	4338
Metriididae C-2	22	23.3	191	3817
Gastropoda - veliger <5mm	2	256.0	191	3813
Metridia pacifica C-4	15	23.3	130	2603
Thecosomata <5mm	1	256.0	95	1906
Polychaeta <5mm	1	256.0	95	1906
Acartia spp.	1	256.0	95	1906
Euphausiacea - calyptopis 1	6	23.3	52	1041
Calanus marshallae C-2	6	23.3	52	1041
Calanus marshallae C-1	3	23.3	26	521
Euphausiacea - calyptopis 2	2	23.3	17	347
			27722	554432

STA. G006A      57 28.6 N      154 42.1 W      20 May 87      4:30

DEPTH                  SAMPLING INTERVAL      VOLUME FILTERED      NET MESH  
66                      0 - 34                  50.3                  333

Taxon	Number counted	Sub/ fac	No./ 10m3	No./ m2
Invertebrata - egg <5mm	234	64.0	2979	19663
Neocalanus plumchrus C-5	46	64.0	586	3865
Larvacea	30	64.0	382	2521
Euphausiacea - furcilia	27	64.0	344	2269
Cnidaria - medusa <5mm	26	64.0	331	2185
Cirripedia - cypris <5mm	23	64.0	293	1933
Polychaeta <5mm	23	64.0	293	1933
Cirripedia - nauplius <5mm	20	64.0	255	1681
Gastropoda - veliger <5mm	13	64.0	166	1092
Chaetognatha <5mm	12	64.0	153	1008
Brachyura - larva	10	64.0	127	840
Metridia pacifica - adult F	29	21.3	123	811
Calanus marshallae C-3	27	21.3	114	755
Chaetognatha 5-20mm	268	2.0	107	704
Thecosomata <5mm	8	64.0	102	672
Calanus marshallae C-4	19	21.3	81	531
Other zooplankton <5mm	5	64.0	64	420
Anomura - larva	4	64.0	51	336
Unidentified Calanoida C-3	10	21.3	42	280
Natantia - larva	3	64.0	38	252
Other Copepoda 2-5mm	2	64.0	25	168
Metridia pacifica C-5 M	5	21.3	21	140
Metridia pacifica C-5 F	4	21.3	17	112
Metridia pacifica - adult M	4	21.3	17	112
Teleostei - larva <5mm	1	64.0	13	84
Other Copepoda damaged	1	64.0	13	84
Teleostei - larva >5mm	12	2.0	5	32
Neocalanus plumchrus C-4	1	21.3	4	28
Cnidaria - medusa >5mm	10	2.0	4	26
Neocalanus cristatus C-5	2	2.0	1	5
Siphonophora >5mm	2	2.0	1	5
Other Copepoda >5mm	1	2.0	< 1	3
			6750	44551



STA. G006A      57 28.6 N      154 42.1 W      20 May 87      4:30

DEPTH            SAMPLING INTERVAL      VOLUME FILTERED      NET MESH

66                    0 - 33                    4.4                    150

Taxon	Number counted	Sub/fac	No./10m3	No./m2
Invertebrata - egg <5mm	66	128.0	18987	125314
Other Copepoda - nauplius	48	128.0	13809	91138
Oithona spp.	24	128.0	6904	45569
Acartia spp.	10	128.0	2877	18987
?Pseudocalanus spp. C-1	9	128.0	2589	17088
Polychaeta <5mm	7	128.0	2014	13291
Metriididae C-1	4	128.0	1151	7595
?Pseudocalanus spp. C-3	33	14.2	1053	6951
Pseudocalanus spp. - adult F	29	14.2	926	6108
Euphausiacea - nauplius	3	128.0	863	5696
Bivalvia - veliger <5mm	3	128.0	863	5696
Pseudocalanus spp. C-5 M	23	14.2	734	4845
Gastropoda - veliger <5mm	2	128.0	575	3797
Foraminifera <5mm	2	128.0	575	3797
Pseudocalanus spp. - adult M	14	14.2	447	2949
Pseudocalanus spp. C-4 M	13	14.2	415	2738
Calanus marshallae C-1	11	14.2	351	2317
Pseudocalanus spp. C-5 F	11	14.2	351	2317
Pseudocalanus spp. C-4 F	11	14.2	351	2317
Cnidaria - medusa <5mm	1	128.0	288	1899
Other zooplankton <5mm	1	128.0	288	1899
?Pseudocalanus spp. C-2	1	128.0	288	1899
Metriididae C-2	9	14.2	287	1896
Calanus marshallae C-2	8	14.2	255	1685
Euphausiacea - calyptopis 1	4	14.2	128	843
Euphausiacea - calyptopis 2	4	14.2	128	843
Euphausiacea - calyptopis 3	2	14.2	64	421
Metriididae C-3	2	14.2	64	421
Unidentified Calanoida C-1	1	14.2	32	211
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			57655	380526

STA. G007A      57 33.3 N      154 33.0 W      20 May 87      6:05

DEPTH                      SAMPLING INTERVAL                      VOLUME FILTERED                      NET MESH  
233                                      0 - 227                                      258.5                                      333

Taxon	Number counted	Sub/fac	No./10m3	No./m2
Neocalanus plumchrus C-5	117	256.0	1159	26993
Metridia pacifica - adult M	43	256.0	426	9921
Metridia pacifica - adult F	33	256.0	327	7613
Invertebrata - egg <5mm	22	256.0	218	5076
Metridia pacifica C-5 M	20	256.0	198	4614
Metridia pacifica C-5 F	17	256.0	168	3922
Calanus marshallae C-4	36	85.3	119	2767
Calanus marshallae C-3	30	85.3	99	2306
Calanus marshallae C-5	29	85.3	96	2229
Cirripedia - nauplius <5mm	8	256.0	79	1846
Thecosomata <5mm	8	256.0	79	1846
Larvacea	7	256.0	69	1615
Euphausiacea - furcilia	18	85.3	59	1384
Neocalanus plumchrus C-4	16	85.3	53	1230
Cirripedia - cypris <5mm	5	256.0	50	1154
Calanus marshallae - adult F	11	85.3	36	846
Calanus marshallae - adult M	10	85.3	33	769
Ostracoda <5mm	3	256.0	30	692
Calanus pacificus C-5	8	85.3	26	615
Chaetognatha 5-20mm	64	8.0	20	461
Metridia spp. C-5 F	2	256.0	20	461
Gammaridea <5mm	1	256.0	10	231
Other zooplankton <5mm	1	256.0	10	231
Natantia - larva	1	256.0	10	231
Brachyura - larva	1	256.0	10	231
Metridia spp. C-4	1	256.0	10	231
Gastropoda - veliger <5mm	1	256.0	10	231
Mysidacea <5mm	1	256.0	10	231
Metridia spp. - adult F	1	256.0	10	231
Neocalanus cristatus C-5	29	8.0	9	209
Chaetognatha >20mm	17	8.0	5	123
Teleostei - larva >5mm	8	8.0	2	58
Mysidacea >5mm	6	8.0	2	43
Neocalanus cristatus C-4	6	8.0	2	43
Other Copepoda >5mm	5	8.0	2	36
Hyperiidia >5mm	5	8.0	2	36
Eucalanus bungii - adult F	3	8.0	1	22
Cnidaria - medusa >5mm	3	8.0	1	22
Thysanoessa inermis A&J	3	8.0	1	22
Eucalanus bungii - adult M	3	8.0	1	22
Gammaridea >5mm	1	8.0	< 1	7
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			3470	80847

STA. G007A      57 33.3 N      154 53.0 W      20 May 87      6:05

DEPTH                      SAMPLING INTERVAL                      VOLUME FILTERED                      NET MESH  
233                                      0 - 227                                      30.0                                      150

Taxon	Number counted	Sub/ fac	No./ 10m3	No./ m2
Oithona spp.	143	128.0	6098	142085
Invertebrata - egg <5mm	67	128.0	2857	66571
Other Copepoda - nauplius	64	128.0	2729	63590
Other Copepoda <2mm	44	128.0	1876	43718
?Pseudocalanus spp. C-1	36	128.0	1535	35770
Pseudocalanus spp. - adult F	24	128.0	1023	23846
?Pseudocalanus spp. C-2	23	128.0	981	22853
?Pseudocalanus spp. C-3	19	128.0	810	18878
Pseudocalanus spp. - adult M	18	128.0	768	17885
Pseudocalanus spp. C-5 M	15	128.0	640	14904
Pseudocalanus spp. C-4 M	11	128.0	469	10930
Metriididae C-1	10	128.0	426	9936
Pseudocalanus spp. C-5 F	9	128.0	384	8942
Pseudocalanus spp. C-4 F	8	128.0	341	7949
Acartia spp.	7	128.0	299	6955
Thecosomata <5mm	7	128.0	299	6955
Euphausiacea - nauplius	7	128.0	299	6955
Other zooplankton <5mm	4	128.0	171	3974
Metriididae C-2	28	14.2	132	3086
Metridia pacifica C-4	28	14.2	132	3086
Polychaeta <5mm	3	128.0	128	2981
Echinodermata - larva <5mm	3	128.0	128	2981
Metriididae C-3	24	14.2	114	2645
Euphausiacea - calytopis 2	22	14.2	104	2425
Euphausiacea - calytopis 1	19	14.2	90	2094
Cirripedia - nauplius <5mm	2	128.0	85	1987
Calanus marshallae C-1	11	14.2	52	1213
Cirripedia - cypris <5mm	1	128.0	43	994
Invertebrata <5mm	1	128.0	43	994
Foraminifera <5mm	1	128.0	43	994
Bryozoa - cyphonautes <5mm	1	128.0	43	994
Euphausiacea - calytopis 3	5	14.2	24	551
Calanus marshallae C-2	5	14.2	24	551
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			23188	540273

STA. G008A      57 35.3 N      154 57.6 W      20 May 87      8:30

DEPTH                      SAMPLING INTERVAL      VOLUME FILTERED      NET MESH

237                              0 - 226                      271.2                      333

Taxon	Number counted	Sub/fac	No./10m3	No./m2
Neocalanus plumchrus C-5	77	512.0	1454	34458
Metridia pacifica - adult M	35	512.0	661	15663
Metridia pacifica - adult F	31	512.0	585	13873
Metridia pacifica C-5 F	16	512.0	302	7160
Calanus marshallae C-4	40	170.7	252	5968
Calanus marshallae C-5	35	170.7	220	5222
Metridia pacifica C-5 M	11	512.0	208	4923
Invertebrata - egg <5mm	10	512.0	189	4475
Thysanoessa inermis A&J	302	8.0	89	2112
Calanus marshallae C-3	13	170.7	82	1940
Larvacea	4	512.0	76	1790
Calanus marshallae - adult F	9	170.7	57	1343
Neocalanus plumchrus C-4	9	170.7	57	1343
Cirripedia - cypris <5mm	3	512.0	57	1343
Euphausiacea - furcilia	8	170.7	50	1194
Other Copepoda 2-5mm	2	512.0	38	895
Metridia spp. - adult M	2	512.0	38	895
Thecosomata <5mm	2	512.0	38	895
Brachyura - larva	2	512.0	38	895
Ostracoda <5mm	2	512.0	38	895
Chaetognatha 5-20mm	87	8.0	26	608
Calanus marshallae - adult M	3	170.7	19	448
Siphonophora <5mm	1	512.0	19	448
Calanus pacificus C-5	2	170.7	13	298
Neocalanus cristatus C-5	32	8.0	9	224
Unidentified Calanoida C-3	1	170.7	6	149
Chaetognatha >20mm	19	8.0	6	133
Neocalanus cristatus C-4	32	4.0	5	112
Teleostei - larva >5mm	6	8.0	2	42
Other Copepoda >5mm	6	8.0	2	42
Gammaridea >5mm	6	8.0	2	42
Cnidaria - medusa >5mm	3	8.0	1	21
Hyperiidea >5mm	2	8.0	1	14
Mysidacea >5mm	2	8.0	1	14
Natantia A&J >5mm	2	8.0	1	14
Teleostei - larva >5mm	1	8.0	< 1	7
Siphonophora >5mm	1	8.0	< 1	7
Polychaeta >5mm	1	8.0	< 1	7
Nematoda >5mm	1	8.0	< 1	7
Thysanoessa spinifera A&J	1	8.0	< 1	7
Thysanoessa longipes A&J	1	8.0	< 1	7
Thysanoessa raschii A&J	1	8.0	< 1	7
Eucalanus bungii - adult F	2	4.0	< 1	7
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			4639	109944

STA. G008A      57 35.3 N      154 57.6 W      20 May 87      8:30

DEPTH                  SAMPLING INTERVAL      VOLUME FILTERED      NET MESH  
 237                      0 - 226                      30.9                      150

Taxon	Number counted	Sub/ fac	No./ 10m3	No./ m2
Oithona spp.	98	256.0	8112	192260
Other Copepoda - nauplius	44	256.0	3642	86321
Invertebrata - egg <5mm	33	256.0	2732	64740
?Pseudocalanus spp. C-1	22	256.0	1821	43160
Pseudocalanus spp. - adult F	22	256.0	1821	43160
Other Copepoda <2mm	13	256.0	1076	25504
?Pseudocalanus spp. C-2	12	256.0	993	23542
Euphausiacea - nauplius	11	256.0	911	21580
Pseudocalanus spp. - adult M	10	256.0	828	19618
?Pseudocalanus spp. C-3	47	51.2	778	18441
Metriididae C-1	9	256.0	745	17656
Pseudocalanus spp. C-5 M	37	51.2	613	14518
Metriididae C-2	26	51.2	430	10202
Foraminifera <5mm	5	256.0	414	9809
Acartia spp.	5	256.0	414	9809
Pseudocalanus spp. C-4 M	25	51.2	414	9809
Pseudocalanus spp. C-5 F	24	51.2	397	9417
Cirripedia - cypris <5mm	4	256.0	331	7847
Metriididae C-3	15	51.2	248	5885
Thecosomata <5mm	3	256.0	248	5885
Pseudocalanus spp. C-4 F	13	51.2	215	5101
Metridia pacifica C-4	11	51.2	182	4316
Echinodermata - larva <5mm	2	256.0	166	3924
Polychaeta <5mm	1	256.0	83	1962
Bivalvia - veliger <5mm	1	256.0	83	1962
Euphausiacea - calytopis 1	5	51.2	83	1962
Other zooplankton <5mm	1	256.0	83	1962
Gastropoda - veliger <5mm	1	256.0	83	1962
Euphausiacea - calytopis 2	4	51.2	66	1569
Calanus marshallae C-1	3	51.2	50	1177
Calanus marshallae C-2	3	51.2	50	1177
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			28111	666238

STA. G009A      57 38.6 N      155 03.9 W      20 May 87      10:02

DEPTH                  SAMPLING INTERVAL          VOLUME FILTERED          NET MESH  
258                      0 - 229                      283.4                      333

Taxon	Number counted	Sub/ fac	No./ 10m3	No./ m2
Neocalanus plumchrus C-5	84	512.0	1518	39160
Metridia pacifica - adult M	49	512.0	885	22843
Metridia pacifica - adult F	34	512.0	614	15850
Metridia pacifica C-5 M	23	512.0	416	10722
Invertebrata - egg <5mm	18	512.0	325	8391
Metridia pacifica C-5 F	16	512.0	289	7459
Neocalanus plumchrus C-4	51	102.4	184	4755
Calanus marshallae C-5	48	102.4	173	4475
Larvacea	9	512.0	163	4196
Calanus marshallae C-4	28	102.4	101	2611
Thecosomata <5mm	5	512.0	90	2331
Calanus marshallae C-3	23	102.4	83	2144
Calanus marshallae - adult M	18	102.4	65	1678
Calanus marshallae - adult F	11	102.4	40	1026
Brachyura - larva	2	512.0	36	932
Metridia spp. C-4	2	512.0	36	932
Neocalanus cristatus C-5	82	8.0	23	597
Cirripedia - cypris <5mm	1	512.0	18	466
Hyperiidia <5mm	1	512.0	18	466
Metridia spp. C-5 M	1	512.0	18	466
Metridia spp. - adult F	1	512.0	18	466
Cirripedia - nauplius <5mm	1	512.0	18	466
Thysanoessa inermis A&J	42	8.0	12	306
Chaetognatha 5-20mm	38	8.0	11	277
Neocalanus cristatus C-4	27	8.0	8	197
Chaetognatha >20mm	23	8.0	6	168
Thysanoessa spinifera A&J	13	8.0	4	95
Unidentified Calanoida C-3	1	102.4	4	93
Other Copepoda >5mm	3	8.0	1	22
Eucalanus bungii - adult M	2	8.0	1	15
Euphausia pacifica A&J	2	8.0	1	15
Cnidaria - medusa >5mm	1	8.0	< 1	7
Siphonophora >5mm	1	8.0	< 1	7
Teleostei - larva >5mm	1	8.0	< 1	7
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			5180	133644

STA. G009A      57 38.6 N      155 03.9 W      20 May 87      10:02

DEPTH                  SAMPLING INTERVAL      VOLUME FILTERED      NET MESH  
258                      0 - 229                  33.5                  150

Taxon	Number counted	Sub/ fac	No./ 10m3	No./ m2
Oithona spp.	73	512.0	11173	288261
Other Copepoda - nauplius	33	512.0	5051	130310
Invertebrata - egg <5mm	23	512.0	3520	90822
Pseudocalanus spp. - adult F	20	512.0	3061	78976
?Pseudocalanus spp. C-1	14	512.0	2143	55283
Other Copepoda <2mm	9	512.0	1377	35539
Euphausiacea - nauplius	8	512.0	1224	31590
?Pseudocalanus spp. C-3	70	56.9	1191	30719
Pseudocalanus spp. C-5 F	64	56.9	1089	28086
Pseudocalanus spp. - adult M	7	512.0	1071	27641
Pseudocalanus spp. C-5 M	53	56.9	901	23258
Pseudocalanus spp. C-4 M	39	56.9	663	17115
Foraminifera <5mm	4	512.0	612	15795
Pseudocalanus spp. C-4 F	31	56.9	527	13604
?Pseudocalanus spp. C-2	3	512.0	459	11846
Gastropoda - veliger <5mm	3	512.0	459	11846
Acartia spp.	3	512.0	459	11846
Other zooplankton <5mm	2	512.0	306	7898
Metridia pacifica C-4	15	56.9	255	6583
Metriididae C-2	9	56.9	153	3950
Cirripectida - cypris <5mm	1	512.0	153	3949
Cladocera <5mm	1	512.0	153	3949
Euphausiacea - calytopis 1	7	56.9	119	3072
Metriididae C-3	4	56.9	68	1755
Unidentified Calanoida C-2	1	56.9	17	439
Euphausiacea - calytopis 2	1	56.9	17	439
Calanus marshallae C-2	1	56.9	17	439
Euphausiacea - calytopis 3	1	56.9	17	439
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			36258	935449

STA. G062A 56 23.7 N 156 55.0 W 23 May 87 1:58

DEPTH 134 SAMPLING INTERVAL 0 - 125 VOLUME FILTERED 176.0 NET MESH 333

Taxon	Number counted	Sub/fac	No./10m3	No./m2	%
Neocalanus plumchrus C-5	500	64.0	1818	24360	31.9
Pseudocalanus spp. - adult F	280	64.0	1018	13642	17.9
Pseudocalanus spp. C-5 M	118	64.0	429	5749	7.5
Pseudocalanus spp. C-5 F	104	64.0	378	5067	6.6
Pseudocalanus spp. - adult M	70	64.0	255	3410	4.5
Acartia spp.	61	64.0	222	2972	3.9
Thecosomata <5mm	60	64.0	218	2923	3.8
Chaetognatha 5-20mm	106	32.0	193	2582	3.4
Calanus marshallae C-4	46	64.0	167	2241	2.9
Neocalanus plumchrus C-3	39	64.0	142	1900	2.5
Other Copepoda <2mm	31	64.0	113	1510	2.0
Pseudocalanus spp. C-4 F	22	64.0	80	1072	1.4
Calanus marshallae C-5	21	64.0	76	1023	1.3
Neocalanus plumchrus C-4	21	64.0	76	1023	1.3
Pseudocalanus spp. C-4 M	20	64.0	73	974	1.3
Neocalanus plumchrus C-2	15	64.0	55	731	1.0
Chaetognatha <5mm	12	64.0	44	585	0.8
Oithona spp.	11	64.0	40	536	0.7
Neocalanus plumchrus C-1	8	64.0	29	390	0.5
Cirripedia - cypris <5mm	7	64.0	25	341	0.4
Metridia pacifica C-4	7	64.0	25	341	0.4
Metridia pacifica C-5 M	6	64.0	22	292	0.4
Metriididae C-2	6	64.0	22	292	0.4
Metridia pacifica - adult F	6	64.0	22	292	0.4
Euphausiacea - furcilia	5	64.0	18	244	0.3
Metriididae C-3	5	64.0	18	244	0.3
Larvacea	5	64.0	18	244	0.3
Thysanoessa inermis A&J	9	32.0	16	219	0.3
Euphausiacea - calytopis 3	4	64.0	15	195	0.3
Euphausiacea - nauplius	3	64.0	11	146	0.2
Calanus marshallae - adult F	2	64.0	7	97	0.1
Invertebrata - egg <5mm	2	64.0	7	97	0.1
Metridia pacifica C-5 F	2	64.0	7	97	0.1
Natantia - larva	2	64.0	7	97	0.1
Calanus marshallae - adult M	2	64.0	7	97	0.1
Hyperiididae <5mm	2	64.0	7	97	0.1
Echinodermata - larva <5mm	1	64.0	4	49	0.1
Cirripedia - nauplius <5mm	1	64.0	4	49	0.1
Euphausiacea - calytopis 2	1	64.0	4	49	0.1
Euphausiacea - calytopis 1	1	64.0	4	49	0.1
Other zooplankton <5mm	1	64.0	4	49	0.1
Neocalanus cristatus C-5	1	32.0	2	24	< 0.1
Thysanoessa spinifera A&J	1	32.0	2	24	< 0.1
			5703	76417	100.



STA. G062A      56 23.7 N      156 55.0 W      23 May 87      1:58

DEPTH                      SAMPLING INTERVAL                      VOLUME FILTERED                      NET MESH  
134                              0 - 125                              21.6                              150

Taxon	Number counted	Sub/ fac	No./ 10m3	No./ m2	%
Oithona spp.	605	128.0	35847	480354	61.3
?Pseudocalanus spp. C-2	85	128.0	5036	67488	8.6
?Pseudocalanus spp. C-3	64	128.0	3792	50814	6.5
?Pseudocalanus spp. C-1	63	128.0	3733	50020	6.4
Neocalanus plumchrus C-5	29	128.0	1718	23025	2.9
Pseudocalanus spp. - adult F	28	128.0	1659	22231	2.8
Pseudocalanus spp. C-5 M	24	128.0	1422	19055	2.4
Other Copepoda - nauplius	19	128.0	1126	15085	1.9
Pseudocalanus spp. C-5 F	12	128.0	711	9528	1.2
Pseudocalanus spp. C-4 M	11	128.0	652	8734	1.1
Pseudocalanus spp. - adult M	7	128.0	415	5558	0.7
Other Copepoda 2-5mm	5	128.0	296	3970	0.5
Chaetognatha 5-20mm	157	4.0	291	3895	0.5
Acartia spp.	4	128.0	237	3176	0.4
Pseudocalanus spp. C-4 F	4	128.0	237	3176	0.4
Metriididae C-2	3	128.0	178	2382	0.3
Neocalanus plumchrus C-4	3	128.0	178	2382	0.3
Invertebrata - egg <5mm	3	128.0	178	2382	0.3
Neocalanus plumchrus C-3	2	128.0	119	1588	0.2
Gastropoda <5mm	2	128.0	119	1588	0.2
Larvacea	1	128.0	59	794	0.1
Euphausiacea - nauplius	1	128.0	59	794	0.1
Metriididae C-1	1	128.0	59	794	0.1
Neocalanus plumchrus C-2	1	128.0	59	794	0.1
Chaetognatha <5mm	1	128.0	59	794	0.1
Cirripedia - nauplius <5mm	1	128.0	59	794	0.1
Thecosomata <5mm	1	128.0	59	794	0.1
Calanus marshallae - adult F	1	128.0	59	794	0.1
Thysanoessa inermis A&J	10	4.0	19	248	< 0.1
Teleostei - larva >5mm	6	4.0	11	149	< 0.1
Neocalanus cristatus C-5	2	4.0	4	50	< 0.1
			58450	783230	100.

STA. G068A      55 55.8 N      156 21.4 W      23 May 87      7:53

DEPTH                  SAMPLING INTERVAL      VOLUME FILTERED      NET MESH

239                      0 - 232                  307.4                  333

Taxon	Number counted	Sub/fac	No./10m3	No./m2	%
Pseudocalanus spp. - adult F	276	128.0	1149	27465	18.1
Neocalanus plumchrus C-5	236	128.0	983	23484	15.5
Metridia pacifica - adult F	149	128.0	620	14827	9.8
Pseudocalanus spp. C-5 F	95	128.0	396	9453	6.2
Metridia pacifica - adult M	85	128.0	354	8458	5.6
Metridia pacifica C-5 M	77	128.0	321	7662	5.1
Metridia pacifica C-5 F	71	128.0	296	7065	4.7
Metridia pacifica C-4	68	128.0	283	6767	4.5
Pseudocalanus spp. C-5 M	63	128.0	262	6269	4.1
Pseudocalanus spp. - adult M	60	128.0	250	5971	3.9
Acartia spp.	34	128.0	142	3383	2.2
Chaetognatha 5-20mm	122	32.0	127	3035	2.0
Pseudocalanus spp. C-4 F	25	128.0	104	2488	1.6
Other Copepoda <2mm	23	128.0	96	2289	1.5
Invertebrata - egg <5mm	22	128.0	92	2189	1.4
Metriididae C-3	21	128.0	87	2090	1.4
Oithona spp.	21	128.0	87	2090	1.4
Thecosomata <5mm	20	128.0	83	1990	1.3
Ostracoda <5mm	18	128.0	75	1791	1.2
Pseudocalanus spp. C-4 M	17	128.0	71	1692	1.1
Calanus marshallae C-5	16	128.0	67	1592	1.1
Neocalanus plumchrus - adult M	9	128.0	37	896	0.6
Calanus marshallae C-3	8	128.0	33	796	0.5
Calanus marshallae C-4	7	128.0	29	697	0.5
Metriididae C-2	7	128.0	29	697	0.5
Gastropoda <5mm	7	128.0	29	697	0.5
Calanus marshallae - adult F	7	128.0	29	697	0.5
Cirripedia - cypris <5mm	6	128.0	25	597	0.4
Metridia spp. - adult F	6	128.0	25	597	0.4
Calanus marshallae C-2	6	128.0	25	597	0.4
Calanus marshallae - adult M	5	128.0	21	498	0.3
Larvacea	4	128.0	17	398	0.3
Thysanoessa inermis A&J	12	32.0	12	299	0.2
Siphonophora <5mm	3	128.0	12	299	0.2
Neocalanus cristatus C-5	11	32.0	11	274	0.2
Neocalanus plumchrus C-4	2	128.0	8	199	0.1
Calanus pacificus C-5	2	128.0	8	199	0.1
Siphonophora >5mm	5	32.0	5	124	0.1
Unidentified Calanoida C-1	1	128.0	4	100	0.1
Hyperidea <5mm	1	128.0	4	100	0.1
Cnidaria - medusa >5mm	4	32.0	4	100	0.1
Mysidacea >5mm	4	32.0	4	100	0.1
Metridia spp. - adult M	1	128.0	4	100	0.1
Other Copepoda 2-5mm	1	128.0	4	100	0.1
Anomura - larva	1	128.0	4	100	0.1
Euphausiacea - nauplius	1	128.0	4	100	0.1
Brachyura - larva	1	128.0	4	100	0.1

Hyperiidea >5mm	1	32.0	1	25	< 0.1
Polychaeta >5mm	1	32.0	1	25	< 0.1
Eucalanus bungii C-5 F	1	32.0	1	25	< 0.1
Other Copepoda >5mm	1	32.0	1	25	< 0.1
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			6343	151604	100.

STA. G068A 55 55.8 N 156 21.4 W 23 May 87 7:53

DEPTH 239 SAMPLING INTERVAL 0 - 232 VOLUME FILTERED 36.1 NET MESH 150

Taxon	Number counted	Sub/fac	No./10m3	No./m2	%
Oithona spp.	499	32.0	4427	105794	28.9
Other Copepoda <2mm	203	32.0	1801	43039	11.8
Other Copepoda - nauplius	120	32.0	1064	25441	7.0
Pseudocalanus spp. - adult F	106	32.0	940	22473	6.1
Neocalanus plumchrus C-5	95	32.0	843	20141	5.5
Pseudocalanus spp. C-5 M	69	32.0	612	14629	4.0
?Pseudocalanus spp. C-3	64	32.0	568	13569	3.7
?Pseudocalanus spp. C-2	59	32.0	523	12509	3.4
?Pseudocalanus spp. C-1	49	32.0	435	10389	2.8
Metridia pacifica - adult F	48	32.0	426	10177	2.8
Metriididae C-1	40	32.0	355	8480	2.3
Pseudocalanus spp. C-5 F	36	32.0	319	7632	2.1
Metridia pacifica C-4	34	32.0	302	7208	2.0
Pseudocalanus spp. - adult M	34	32.0	302	7208	2.0
Metridia pacifica - adult M	30	32.0	266	6360	1.7
Pseudocalanus spp. C-4 M	27	32.0	240	5724	1.6
Metridia pacifica C-5 M	26	32.0	231	5512	1.5
Invertebrata - egg <5mm	21	32.0	186	4452	1.2
Metridia pacifica C-5 F	20	32.0	177	4240	1.2
Pseudocalanus spp. C-4 F	18	32.0	160	3816	1.0
Metriididae C-2	16	32.0	142	3392	0.9
Metriididae C-3	16	32.0	142	3392	0.9
Larvacea	16	32.0	142	3392	0.9
Chaetognatha 5-20mm	110	4.0	122	2915	0.8
Acartia spp.	12	32.0	106	2544	0.7
Thecosomata <5mm	10	32.0	89	2120	0.6
Euphausiacea - nauplius	6	32.0	53	1272	0.3
Ostracoda <5mm	5	32.0	44	1060	0.3
Calanus marshallae - adult M	4	32.0	35	848	0.2
Neocalanus plumchrus - adult M	3	32.0	27	636	0.2
Calanus marshallae C-5	3	32.0	27	636	0.2
Metridia spp. - adult F	3	32.0	27	636	0.2
Polychaeta <5mm	2	32.0	18	424	0.1
Calanus marshallae C-2	2	32.0	18	424	0.1
Calanus marshallae C-4	2	32.0	18	424	0.1
Cirripedia - cypris <5mm	2	32.0	18	424	0.1
Calanus marshallae C-3	2	32.0	18	424	0.1
Other Copepoda 2-5mm	1	32.0	9	212	0.1
Siphonophora >5mm	8	4.0	9	212	0.1
Cnidaria - medusa <5mm	1	32.0	9	212	0.1
Metridia spp. - adult M	1	32.0	9	212	0.1
Metridia spp. C-5 M	1	32.0	9	212	0.1
Cirripedia - nauplius <5mm	1	32.0	9	212	0.1
Siphonophora <5mm	1	32.0	9	212	0.1
Euphausiacea - calyptopis 1	1	32.0	9	212	0.1
Thysanoessa inermis A&J	5	4.0	6	133	< 0.1
Neocalanus cristatus C-5	5	4.0	6	133	< 0.1

Hyperiidea >5mm	2	4.0	2	53	< 0.1
Thysanoessa spinifera A&J	1	4.0	1	27	< 0.1
Cnidaria - medusa >5mm	1	4.0	1	27	< 0.1
Other Copepoda >5mm	1	4.0	1	27	< 0.1
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			15308	365854	100.

STA. G079A      56 33.6 N      156 32.2 W      25 May 87      13:40

DEPTH                      SAMPLING INTERVAL                      VOLUME FILTERED                      NET MESH  
198                                      0 - 196                                      228.0                                      333

Taxon	Number counted	Sub/fac	No./10m3	No./m2	%
Neocalanus plumchrus C-5	136	256.0	1527	30230	39.2
Metridia pacifica - adult F	36	256.0	404	8002	10.4
Calanus marshallae C-5	62	85.3	232	4592	6.0
Calanus marshallae C-4	49	85.3	183	3629	4.7
Metridia pacifica C-5 M	44	85.3	165	3259	4.2
Metridia spp. - adult F	13	256.0	146	2890	3.7
Calanus marshallae C-3	39	85.3	146	2889	3.7
Metridia pacifica - adult M	11	256.0	123	2445	3.2
Larvacea	10	256.0	112	2223	2.9
Euphausiacea - furcilia	30	85.3	112	2222	2.9
Metridia pacifica C-5 F	27	85.3	101	2000	2.6
Thecosomata <5mm	8	256.0	90	1778	2.3
Calanus marshallae - adult F	23	85.3	86	1704	2.2
Invertebrata - egg <5mm	7	256.0	79	1556	2.0
Chaetognatha 5-20mm	211	8.0	74	1466	1.9
Calanus marshallae - adult M	14	85.3	52	1037	1.3
Chaetognatha <5mm	4	256.0	45	889	1.2
Metridia spp. C-4	2	256.0	22	445	0.6
Cirripedia - cypris <5mm	2	256.0	22	445	0.6
Other Copepoda 2-5mm	2	256.0	22	445	0.6
Other zooplankton <5mm	2	256.0	22	445	0.6
Gastropoda - veliger <5mm	2	256.0	22	445	0.6
Neocalanus cristatus C-5	59	8.0	21	410	0.5
Metridia spp. - adult M	1	256.0	11	222	0.3
Nematoda <5mm	1	256.0	11	222	0.3
Echinodermata - larva <5mm	1	256.0	11	222	0.3
Polychaeta <5mm	1	256.0	11	222	0.3
Ostracoda <5mm	1	256.0	11	222	0.3
Unidentified Calanoida C-3	3	85.3	11	222	0.3
Teleostei - larva >5mm	16	8.0	6	111	0.1
Neocalanus plumchrus C-4	1	85.3	4	74	0.1
Cnidaria - medusa >5mm	8	8.0	3	56	0.1
Chaetognatha >20mm	4	8.0	1	28	< 0.1
Neocalanus cristatus C-4	2	8.0	1	14	< 0.1
Thysanoessa inermis A&J	2	8.0	1	14	< 0.1
Thysanoessa spinifera A&J	2	8.0	1	14	< 0.1
Gammaridea >5mm	1	8.0	< 1	7	< 0.1
Hyperiidia >5mm	1	8.0	< 1	7	< 0.1
Euphausia pacifica A&J	1	8.0	< 1	7	< 0.1
Mysidacea >5mm	1	8.0	< 1	7	< 0.1
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			3895	77114	100.

STA. G080A      56 29.9 N      156 39.8 W      25 May 87      15:10

DEPTH                      SAMPLING INTERVAL                      VOLUME FILTERED                      NET MESH  
177                                      0 - 170                                      240.2                                      333

Taxon	Number counted	Sub/ fac	No./ 10m3	No./ m2	%
Neocalanus plumchrus C-5	149	256.0	1588	28103	42.2
Metridia pacifica - adult F	31	256.0	330	5847	8.8
Metridia pacifica C-5 F	27	256.0	288	5093	7.6
Metridia pacifica - adult M	23	256.0	245	4338	6.5
Calanus marshallae C-3	35	128.0	186	3301	5.0
Calanus marshallae C-4	27	128.0	144	2546	3.8
Euphausiacea - furcilia	25	128.0	133	2358	3.5
Metridia pacifica C-5 M	12	256.0	128	2263	3.4
Calanus marshallae C-5	23	128.0	123	2169	3.3
Thecosomata <5mm	11	256.0	117	2075	3.1
Calanus marshallae - adult M	16	128.0	85	1509	2.3
Chaetognatha 5-20mm	511	4.0	85	1506	2.3
Gastropoda - veliger <5mm	4	256.0	43	754	1.1
Neocalanus plumchrus C-4	6	128.0	32	566	0.8
Calanus marshallae - adult F	5	128.0	27	472	0.7
Natantia - larva	2	256.0	21	377	0.6
Metridia spp. - adult F	2	256.0	21	377	0.6
Cirripectida - cypris <5mm	2	256.0	21	377	0.6
Cirripectida - nauplius <5mm	2	256.0	21	377	0.6
Invertebrata - egg <5mm	2	256.0	21	377	0.6
Bryozoa - cyphonautes <5mm	1	256.0	11	189	0.3
Larvacea	1	256.0	11	189	0.3
Brachyura - larva	1	256.0	11	189	0.3
Unidentified Calanoida C-3	2	128.0	11	189	0.3
Calanus pacificus C-5	2	128.0	11	189	0.3
Polychaeta <5mm	1	256.0	11	189	0.3
Cnidaria - medusa <5mm	1	256.0	11	189	0.3
Metridia spp. C-4	1	256.0	11	189	0.3
Teleostei - larva >5mm	30	4.0	5	88	0.1
Neocalanus cristatus C-5	30	4.0	5	88	0.1
Chaetognatha >20mm	14	4.0	2	41	0.1
Neocalanus cristatus C-4	9	4.0	1	27	< 0.1
Cnidaria - medusa >5mm	9	4.0	1	27	< 0.1
Thysanoessa inermis A&J	6	4.0	1	18	< 0.1
Thysanoessa spinifera A&J	4	4.0	1	12	< 0.1
Eucalanus bungii - adult F	4	4.0	1	12	< 0.1
Hyperiidia >5mm	2	4.0	< 1	6	< 0.1
Siphonophora >5mm	2	4.0	< 1	6	< 0.1
Eucalanus bungii C-5 M	1	4.0	< 1	3	< 0.1
Eucalanus bungii - adult M	1	4.0	< 1	3	< 0.1
Eucalanus bungii C-5 F	1	4.0	< 1	3	< 0.1
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			3764	66628	100.

STA. G108A 56 33.5 N 156 32.7 W 27 May 87 21:02

DEPTH 195 SAMPLING INTERVAL 0 - 188 VOLUME FILTERED 243.2 NET MESH 333

Taxon	Number counted	Sub/fac	No./10m3	No./m2	%
Pseudocalanus spp. - adult F	247	256.0	2600	50705	23.5
Neocalanus plumchrus C-5	70	256.0	737	14370	6.6
Pseudocalanus spp. C-5 F	69	256.0	726	14164	6.6
Pseudocalanus spp. C-5 M	67	256.0	705	13754	6.4
Metridia pacifica - adult F	57	256.0	600	11701	5.4
Pseudocalanus spp. - adult M	54	256.0	568	11085	5.1
Metridia pacifica - adult M	45	256.0	474	9238	4.3
Metridia pacifica C-4	33	256.0	347	6774	3.1
Metridia pacifica C-5 F	31	256.0	326	6364	2.9
Metriididae C-3	27	256.0	284	5543	2.6
Metridia pacifica C-5 M	26	256.0	274	5337	2.5
Thecosomata <5mm	25	256.0	263	5132	2.4
Metriididae C-2	23	256.0	242	4721	2.2
Acartia spp.	21	256.0	221	4311	2.0
Calanus marshallae C-4	21	256.0	221	4311	2.0
Metridia spp. - adult F	20	256.0	211	4106	1.9
Oithona spp.	18	256.0	189	3695	1.7
Euphausiacea - nauplius	17	256.0	179	3490	1.6
Invertebrata - egg <5mm	15	256.0	158	3079	1.4
Other Copepoda <2mm	14	256.0	147	2874	1.3
Euphausiacea - furcilia	13	256.0	137	2669	1.2
Calanus marshallae C-5	11	256.0	116	2258	1.0
Calanus marshallae C-3	10	256.0	105	2053	0.9
?Pseudocalanus spp. C-3	10	256.0	105	2053	0.9
Pseudocalanus spp. C-4 F	10	256.0	105	2053	0.9
Gastropoda <5mm	9	256.0	95	1848	0.9
Cirripedia - cypris <5mm	9	256.0	95	1848	0.9
Larvacea	9	256.0	95	1848	0.9
Euphausiacea - calyptopis 1	7	256.0	74	1437	0.7
Chaetognatha 5-20mm	98	16.0	64	1257	0.6
Calanus marshallae - adult M	6	256.0	63	1232	0.6
Brachyura - larva	6	256.0	63	1232	0.6
Calanus marshallae C-2	5	256.0	53	1026	0.5
Calanus marshallae - adult F	5	256.0	53	1026	0.5
Neocalanus plumchrus - adult M	4	256.0	42	821	0.4
Euphausiacea - calyptopis 3	4	256.0	42	821	0.4
Chaetognatha <5mm	4	256.0	42	821	0.4
Metridia spp. C-4	4	256.0	42	821	0.4
Euphausiacea - calyptopis 2	3	256.0	32	616	0.3
Echinodermata - larva <5mm	3	256.0	32	616	0.3
Cnidaria - medusa <5mm	3	256.0	32	616	0.3
Calanus marshallae C-1	2	256.0	21	411	0.2
Polychaeta <5mm	2	256.0	21	411	0.2
Pseudocalanus spp. C-4 M	2	256.0	21	411	0.2
Ostracoda <5mm	1	256.0	11	205	0.1
Cirripedia - nauplius <5mm	1	256.0	11	205	0.1
Metridia spp. C-5 F	1	256.0	11	205	0.1



Metriididae C-1	1	256.0	11	205	0.1
Neocalanus cristatus C-5	12	16.0	8	154	0.1
Chaetognatha >20mm	11	16.0	7	141	0.1
Neocalanus cristatus C-4	3	16.0	2	38	< 0.1
Other Copepoda >5mm	2	16.0	1	26	< 0.1
Thysanoessa inermis A&J	1	16.0	1	13	< 0.1
Cnidaria - medusa >5mm	1	16.0	1	13	< 0.1
Eucalanus bungii - adult F	1	16.0	1	13	< 0.1
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			11086	216174	100.



Appendix 3. Abundance of zooplankton taxa at each station sampled during FOCI cruise 4MF87 in Shelikof Strait, 17 June-16 July 1987. Below is a summary of the samples collected on this cruise and the procedures used when they were enumerated (see Methods). P=enumerated for all organisms S=enumerated for selected organisms (see Table 2). Blanks mean no sample was collected.

<u>STATION #</u>	<u>333 <math>\mu</math>m MESH</u>	<u>150 <math>\mu</math>m MESH</u>
G010A	P	
G015A	P	
G016A	P	
G017A	P	
G023A	P	
G024A	P	
G025A	P	
G033A	P	
G034A	P	
G035A	P	
G036A	P	
G040A	P	
G059A	P	P
G061B	P	P
G064A	P	P
F061A	S	S
F060A	S	S
F058A	S	S
F056A	S	S



STA. G010A      55 04.9 N      161 20.4 W      20 Jun 87      0:14

DEPTH                      SAMPLING INTERVAL                      VOLUME FILTERED                      NET MESH  
72                                      0 - 45                                      92.0                                      333

Taxon	Number counted	Sub/fac	No./10m3	No./m2	%
Acartia spp.	245	64.0	1704	12268	25.5
Pseudocalanus spp. C-5 M	69	64.0	480	3455	7.2
Pseudocalanus spp. C-5 F	66	64.0	459	3305	6.9
Brachyura - larva	60	64.0	417	3004	6.3
Calanus marshallae C-2	56	64.0	389	2804	5.8
Euphausiacea - calyptopis 1	55	64.0	383	2754	5.7
Euphausiacea - nauplius	52	64.0	362	2604	5.4
Invertebrata - egg <5mm	52	64.0	362	2604	5.4
Gastropoda <5mm	50	64.0	348	2504	5.2
Pseudocalanus spp. - adult F	50	64.0	348	2504	5.2
Other Copepoda <2mm	36	64.0	250	1803	3.8
Calanus marshallae C-3	31	64.0	216	1552	3.2
Cirripedia - nauplius <5mm	26	64.0	181	1302	2.7
Euphausiacea - calyptopis 2	23	64.0	160	1152	2.4
Thecosomata <5mm	17	64.0	118	851	1.8
Euphausiacea - furcilia	11	64.0	77	551	1.1
Calanus marshallae C-4	11	64.0	77	551	1.1
Pseudocalanus spp. - adult M	8	64.0	56	401	0.8
Pseudocalanus spp. C-4 M	8	64.0	56	401	0.8
Euphausiacea - calyptopis 3	8	64.0	56	401	0.8
Calanus marshallae C-1	5	64.0	35	250	0.5
Pseudocalanus spp. C-4 F	5	64.0	35	250	0.5
Anomura - larva	3	64.0	21	150	0.3
Chaetognatha 5-20mm	87	2.0	19	136	0.3
Calanus marshallae C-5	2	64.0	14	100	0.2
Neocalanus plumchrus C-5	2	64.0	14	100	0.2
Natantia - larva	2	64.0	14	100	0.2
Teleostei - larva >5mm	33	2.0	7	52	0.1
Oithona spp.	1	64.0	7	50	0.1
Larvacea	1	64.0	7	50	0.1
Cirripedia - cypris <5mm	1	64.0	7	50	0.1
Eucalanus bungii - adult M	3	2.0	1	5	< 0.1
Eucalanus bungii C-5 M	1	2.0	< 1	2	< 0.1
Eucalanus bungii C-5 F	1	2.0	< 1	2	< 0.1
			6676	48066	100.

STA. G015A      54 25.9 N      159 52.0 W      20 Jun 87      10:25

DEPTH                  SAMPLING INTERVAL      VOLUME FILTERED      NET MESH  
160                      0 - 147                  212.4                  333

Taxon	Number counted	Sub/fac	No./10m3	No./m2	%
Pseudocalanus spp. - adult F	463	32.0	698	11162	30.5
Pseudocalanus spp. - adult M	131	32.0	197	3158	8.6
Metridia pacifica C-4	127	32.0	191	3062	8.4
Calanus marshallae C-3	92	32.0	139	2218	6.1
Oithona spp.	70	32.0	105	1688	4.6
Acartia spp.	64	32.0	96	1543	4.2
Calanus marshallae C-2	56	32.0	84	1350	3.7
Pseudocalanus spp. C-5 F	54	32.0	81	1302	3.6
Calanus marshallae C-4	46	32.0	69	1109	3.0
Thecosomata <5mm	45	32.0	68	1085	3.0
Metriididae C-3	37	32.0	56	892	2.4
Neocalanus plumchrus C-5	36	32.0	54	868	2.4
Other Copepoda <2mm	33	32.0	50	796	2.2
Euphausiacea - furcilia	31	32.0	47	747	2.0
Pseudocalanus spp. C-5 M	29	32.0	44	699	1.9
Calanus marshallae C-5	25	32.0	38	603	1.6
Eucalanus bungii C-2	22	32.0	33	530	1.4
Calanus marshallae - adult F	21	32.0	32	506	1.4
Metridia pacifica C-5 M	13	32.0	20	313	0.9
Metridia pacifica - adult F	9	32.0	14	217	0.6
Eucalanus bungii C-4 F	9	32.0	14	217	0.6
Eucalanus bungii C-5 F	36	8.0	14	217	0.6
Eucalanus bungii C-3	9	32.0	14	217	0.6
Chaetognatha 5-20mm	35	8.0	13	211	0.6
Metriididae C-2	8	32.0	12	193	0.5
Thysanoessa inermis A&J	32	8.0	12	193	0.5
Pseudocalanus spp. C-4 F	8	32.0	12	193	0.5
Eucalanus bungii C-5 M	29	8.0	11	175	0.5
Eucalanus bungii C-4 M	7	32.0	11	169	0.5
Pseudocalanus spp. C-4 M	5	32.0	8	121	0.3
Calanus marshallae - adult M	5	32.0	8	121	0.3
Calanus marshallae C-1	4	32.0	6	96	0.3
Echinodermata - larva <5mm	3	32.0	5	72	0.2
Neocalanus plumchrus C-4	3	32.0	5	72	0.2
Other zooplankton <5mm	2	32.0	3	48	0.1
Eucalanus bungii C-1	2	32.0	3	48	0.1
Metridia pacifica - adult M	2	32.0	3	48	0.1
Metridia pacifica C-5 F	2	32.0	3	48	0.1
Thysanoessa spinifera A&J	6	8.0	2	36	0.1
?Pseudocalanus spp. C-1	1	32.0	2	24	0.1
?Pseudocalanus spp. C-3	1	32.0	2	24	0.1
Euphausiacea - nauplius	1	32.0	2	24	0.1
Polychaeta <5mm	1	32.0	2	24	0.1
Siphonophora <5mm	1	32.0	2	24	0.1
?Pseudocalanus spp. C-2	1	32.0	2	24	0.1
Cirripedia - cypris <5mm	1	32.0	2	24	0.1
Teleostei - larva >5mm	3	8.0	1	18	< 0.1

Neocalanus cristatus C-4	3	8.0	1	18	< 0.1
Eucalanus bungii - adult F	2	8.0	1	12	< 0.1
Euphausia pacifica A&J	2	8.0	1	12	< 0.1
Neocalanus cristatus C-5	1	8.0	< 1	6	< 0.1
Cnidaria - medusa >5mm	1	8.0	< 1	6	< 0.1
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			2287	36584	100.





STA. G016A 54 38.9 N 160 06.7 W 20 Jun 87 13:01

DEPTH 95 SAMPLING INTERVAL 0 - 62 VOLUME FILTERED 145.5 NET MESH 333

Taxon	Number counted	Sub/fac	No./10m3	No./m2	%
Acartia spp.	763	8.0	419	3985	48.9
Pseudocalanus spp. - adult F	166	8.0	91	867	10.6
Calanus marshallae C-4	119	8.0	65	621	7.6
Calanus marshallae C-3	111	8.0	61	580	7.1
Calanus marshallae C-2	59	8.0	32	308	3.8
Thecosomata <5mm	42	8.0	23	219	2.7
Calanus marshallae C-5	38	8.0	21	198	2.4
Eucalanus bungii C-2	32	8.0	18	167	2.1
Chaetognatha 5-20mm	118	2.0	16	154	1.9
Pseudocalanus spp. C-5 F	29	8.0	16	151	1.9
Euphausiacea - furcilia	23	8.0	13	120	1.5
Pseudocalanus spp. C-5 M	22	8.0	12	115	1.4
Gastropoda <5mm	18	8.0	10	94	1.2
Calanus marshallae - adult F	15	8.0	8	78	1.0
Calanus marshallae - adult M	9	8.0	5	47	0.6
Oithona spp.	8	8.0	4	42	0.5
Hyperiidia <5mm	7	8.0	4	37	0.4
Siphonophora <5mm	7	8.0	4	37	0.4
Pseudocalanus spp. - adult M	6	8.0	3	31	0.4
Eucalanus bungii C-3	6	8.0	3	31	0.4
Metridia pacifica C-4	5	8.0	3	26	0.3
Metriididae C-3	4	8.0	2	21	0.3
Eucalanus bungii C-1	4	8.0	2	21	0.3
Neocalanus plumchrus C-5	4	8.0	2	21	0.3
Thysanoessa inermis A&J	13	2.0	2	17	0.2
?Pseudocalanus spp. C-1	3	8.0	2	16	0.2
Other Copepoda <2mm	3	8.0	2	16	0.2
Eucalanus bungii C-4 F	3	8.0	2	16	0.2
Thysanoessa spinifera A&J	11	2.0	2	14	0.2
Hyperiidia >5mm	11	2.0	2	14	0.2
Teleostei - larva >5mm	9	2.0	1	12	0.1
Brachyura - larva	2	8.0	1	10	0.1
Metridia pacifica - adult F	2	8.0	1	10	0.1
?Pseudocalanus spp. C-2	2	8.0	1	10	0.1
Cnidaria - medusa >5mm	7	2.0	1	9	0.1
Metridia pacifica C-5 M	1	8.0	1	5	0.1
Pseudocalanus spp. C-4 F	1	8.0	1	5	0.1
Eucalanus bungii C-4 M	1	8.0	1	5	0.1
Anomura - larva	1	8.0	1	5	0.1
Chaetognatha >20mm	2	2.0	< 1	3	< 0.1
			857	8140	100.

STA. G017A 54 50.8 N 160 21.6 W 20 Jun 87 15:30

DEPTH 88 SAMPLING INTERVAL 0 - 69 VOLUME FILTERED 24.6 NET MESH 333

Taxon	Number counted	Sub/fac	No./10m3	No./m2	%
Acartia spp.	319	32.0	4153	36544	22.6
Brachyura - larva	159	32.0	2070	18215	11.3
Pseudocalanus spp. - adult F	129	32.0	1679	14778	9.2
Thecosomata <5mm	111	32.0	1445	12716	7.9
Pseudocalanus spp. C-5 F	69	32.0	898	7904	4.9
Euphausiacea - calyptopis 3	68	32.0	885	7790	4.8
Euphausiacea - furcilia	67	32.0	872	7675	4.8
Calanus marshallae C-3	51	32.0	664	5842	3.6
Euphausiacea - calyptopis 2	48	32.0	625	5499	3.4
Pseudocalanus spp. C-5 M	48	32.0	625	5499	3.4
Calanus marshallae C-4	38	32.0	495	4353	2.7
Cirripedia - nauplius <5mm	36	32.0	469	4124	2.6
Other Copepoda <2mm	35	32.0	456	4010	2.5
Calanus marshallae C-2	25	32.0	325	2864	1.8
Pseudocalanus spp. - adult M	23	32.0	299	2635	1.6
Oithona spp.	23	32.0	299	2635	1.6
Calanus marshallae C-5	21	32.0	273	2406	1.5
Euphausiacea - nauplius	19	32.0	247	2177	1.3
Euphausiacea - calyptopis 1	19	32.0	247	2177	1.3
Gastropoda <5mm	18	32.0	234	2062	1.3
Natantia - larva	9	32.0	117	1031	0.6
Cirripedia - cypris <5mm	8	32.0	104	916	0.6
Neocalanus plumchrus C-5	8	32.0	104	916	0.6
Pseudocalanus spp. C-4 F	8	32.0	104	916	0.6
Chaetognatha 5-20mm	107	2.0	87	766	0.5
Anomura - larva	6	32.0	78	687	0.4
Eucalanus bungii C-2	5	32.0	65	573	0.4
Calanus marshallae - adult F	4	32.0	52	458	0.3
Pseudocalanus spp. C-4 M	4	32.0	52	458	0.3
Larvacea	3	32.0	39	344	0.2
Cnidaria - medusa <5mm	2	32.0	26	229	0.1
Metridia pacifica C-4	2	32.0	26	229	0.1
Gastropoda - veliger <5mm	2	32.0	26	229	0.1
Hyperiidia <5mm	2	32.0	26	229	0.1
?Pseudocalanus spp. C-2	2	32.0	26	229	0.1
?Pseudocalanus spp. C-3	2	32.0	26	229	0.1
Calanus marshallae C-1	1	32.0	13	115	0.1
Other Copepoda - nauplius	1	32.0	13	115	0.1
Calanus marshallae - adult M	1	32.0	13	115	0.1
Eucalanus bungii C-1	1	32.0	13	115	0.1
Polychaeta <5mm	1	32.0	13	115	0.1
Eucalanus bungii C-3	1	32.0	13	115	0.1
Teleostei - larva <5mm	1	32.0	13	115	0.1
Teleostei - larva >5mm	11	2.0	9	79	< 0.1
Thysanoessa inermis A&J	9	2.0	7	64	< 0.1
Eucalanus bungii C-5 M	8	2.0	7	57	< 0.1
Hyperiidia >5mm	4	2.0	3	29	< 0.1

Chaetognatha >20mm	2	2.0	2	14	< 0.1
Eucalanus bungii - adult F	2	2.0	2	14	< 0.1
Eucalanus bungii C-5 M	2	2.0	2	14	< 0.1
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		18343	161418	100.	

STA. G023A 54 39.3 N 159 23.2 W 21 Jun 87 15:17

DEPTH 77 SAMPLING INTERVAL 0 - 70 VOLUME FILTERED 114.2 NET MESH 333

Taxon	Number counted	Sub/fac	No./10m3	No./m2	%
Pseudocalanus spp. - adult F	179	32.0	502	3862	18.0
Oithona spp.	135	32.0	378	2913	13.6
Thecosomata <5mm	110	32.0	308	2373	11.1
Neocalanus plumchrus C-5	53	32.0	149	1143	5.3
Euphausiacea - furcilia	43	32.0	120	928	4.3
Calanus marshallae C-4	43	32.0	120	928	4.3
Pseudocalanus spp. C-5 M	42	32.0	118	906	4.2
Pseudocalanus spp. C-5 F	41	32.0	115	885	4.1
Pseudocalanus spp. - adult M	38	32.0	106	820	3.8
Invertebrata - egg <5mm	28	32.0	78	604	2.8
Calanus marshallae - adult F	26	32.0	73	561	2.6
Calanus marshallae C-3	26	32.0	73	561	2.6
Echinodermata <5mm	21	32.0	59	453	2.1
Calanus marshallae C-5	21	32.0	59	453	2.1
Metridia pacifica C-4	19	32.0	53	410	1.9
Gastropoda <5mm	17	32.0	48	367	1.7
Calanus marshallae C-2	17	32.0	48	367	1.7
Eucalanus bungii C-5 M	50	8.0	35	270	1.3
Eucalanus bungii C-5 F	45	8.0	32	243	1.1
Brachyura - larva	11	32.0	31	237	1.1
Siphonophora <5mm	9	32.0	25	194	0.9
Eucalanus bungii C-4 F	7	32.0	20	151	0.7
Other Copepoda <2mm	7	32.0	20	151	0.7
Metriididae C-3	6	32.0	17	129	0.6
Hyperiididae <5mm	6	32.0	17	129	0.6
Chaetognatha 5-20mm	23	8.0	16	124	0.6
Metridia pacifica C-5 M	4	32.0	11	86	0.4
Calanus marshallae - adult M	4	32.0	11	86	0.4
Euphausiacea - calyptopis 1	4	32.0	11	86	0.4
Acartia spp.	4	32.0	11	86	0.4
Metridia pacifica C-5 F	4	32.0	11	86	0.4
Eucalanus bungii C-3	4	32.0	11	86	0.4
Eucalanus bungii C-4 M	3	32.0	8	65	0.3
Unidentified Calanoida C-1	2	32.0	6	43	0.2
Cnidaria - medusa >5mm	8	8.0	6	43	0.2
Natantia - larva	2	32.0	6	43	0.2
Neocalanus cristatus C-5	7	8.0	5	38	0.2
Teleostei - larva >5mm	6	8.0	4	32	0.2
Hyperiididae >5mm	6	8.0	4	32	0.2
Gymnosomata >5mm	5	8.0	4	27	0.1
Polychaeta <5mm	1	32.0	3	22	0.1
Eucalanus bungii C-2	1	32.0	3	22	0.1
Euphausiacea - nauplius	1	32.0	3	22	0.1
Pseudocalanus spp. C-4 F	1	32.0	3	22	0.1
Neocalanus plumchrus C-4	1	32.0	3	22	0.1
Eucalanus bungii C-1	1	32.0	3	22	0.1
Pseudocalanus spp. C-4 M	1	32.0	3	22	0.1

Gymnosomata <5mm	1	32.0	3	22	0.1
Euphausiacea - calyptopis 2	1	32.0	3	22	0.1
Larvacea	1	32.0	3	22	0.1
Neocalanus plumchrus C-3	1	32.0	3	22	0.1
Neocalanus plumchrus C-2	1	32.0	3	22	0.1
Cirripedia - nauplius <5mm	1	32.0	3	22	0.1
Euphausiacea - calyptopis 3	1	32.0	3	22	0.1
Cnidaria - medusa <5mm	1	32.0	3	22	0.1
Neocalanus cristatus C-3	1	32.0	3	22	0.1
Thysanoessa inermis A&J	3	8.0	2	16	0.1
Neocalanus cristatus C-4	3	8.0	2	16	0.1
Eucalanus bungii - adult F	3	8.0	2	16	0.1
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			2779	21397	100.

STA. G024A      54 26.3 N      159 11.1 W      21 Jun 87      19:24

DEPTH                  SAMPLING INTERVAL      VOLUME FILTERED      NET MESH

541                      0 - 300                  422.2                  333

Taxon	Number counted	Sub/fac	No./10m3	No./m2	%
Metridia pacifica - adult F	261	128.0	791	42811	25.3
Metridia pacifica C-4	79	128.0	240	12958	7.6
Metridia pacifica C-5 M	64	128.0	194	10498	6.2
Invertebrata - egg <5mm	59	128.0	179	9678	5.7
Pseudocalanus spp. - adult F	55	128.0	167	9021	5.3
Metridia pacifica C-5 F	53	128.0	161	8693	5.1
Other Copepoda <2mm	39	128.0	118	6397	3.8
Thecosomata <5mm	37	128.0	112	6069	3.6
Ostracoda <5mm	33	128.0	100	5413	3.2
Chaetognatha 5-20mm	51	64.0	77	4183	2.5
Oithona spp.	23	128.0	70	3773	2.2
Metriididae C-3	21	128.0	64	3445	2.0
Eucalanus bungii C-5 F	36	64.0	55	2952	1.7
Metridia pacifica - adult M	16	128.0	49	2624	1.5
Larvacea	16	128.0	49	2624	1.5
Pseudocalanus spp. C-5 F	15	128.0	45	2460	1.5
Euphausiacea - furcilia	14	128.0	42	2296	1.4
Pseudocalanus spp. C-5 M	12	128.0	36	1968	1.2
Eucalanus bungii C-1	12	128.0	36	1968	1.2
Euphausiacea - calytopis 1	10	128.0	30	1640	1.0
Neocalanus plumchrus C-5	10	128.0	30	1640	1.0
Eucalanus bungii C-5 M	19	64.0	29	1558	0.9
Acartia spp.	9	128.0	27	1476	0.9
Euphausiacea - calytopis 2	9	128.0	27	1476	0.9
Pseudocalanus spp. - adult M	8	128.0	24	1312	0.8
Polychaeta <5mm	7	128.0	21	1148	0.7
Other Copepoda - nauplius	7	128.0	21	1148	0.7
Hyperiidia <5mm	7	128.0	21	1148	0.7
Euphausiacea - nauplius	7	128.0	21	1148	0.7
Echinodermata <5mm	7	128.0	21	1148	0.7
Metridia spp. C-4	6	128.0	18	984	0.6
Eucalanus bungii C-2	6	128.0	18	984	0.6
Eucalanus bungii C-4 F	6	128.0	18	984	0.6
Calanus marshallae C-5	6	128.0	18	984	0.6
Neocalanus plumchrus C-4	5	128.0	15	820	0.5
Eucalanus bungii C-3	5	128.0	15	820	0.5
Calanus marshallae C-4	4	128.0	12	656	0.4
Euphausiacea - calytopis 3	4	128.0	12	656	0.4
Metridia spp. C-5 M	4	128.0	12	656	0.4
Neocalanus cristatus C-5	7	64.0	11	574	0.3
Eucalanus bungii C-4 M	3	128.0	9	492	0.3
Pseudocalanus spp. C-4 M	3	128.0	9	492	0.3
Calanus marshallae - adult M	3	128.0	9	492	0.3
Siphonophora >5mm	5	64.0	8	410	0.2
Metriididae C-2	2	128.0	6	328	0.2
Pseudocalanus spp. C-4 F	2	128.0	6	328	0.2
Eucalanus bungii - adult F	4	64.0	6	328	0.2

Neocalanus cristatus C-2	2	128.0	6	328	0.2
Hyperiidea >5mm	4	64.0	6	328	0.2
Siphonophora <5mm	2	128.0	6	328	0.2
Metridiā spp. C-5 F	2	128.0	6	328	0.2
Other Copepoda 2-5mm	2	128.0	6	328	0.2
Brachyura - larva	2	128.0	6	328	0.2
Chaetognatha >20mm	3	64.0	5	246	0.1
Teleostei - larva >5mm	2	64.0	3	164	0.1
Cirripedia - cypris <5mm	1	128.0	3	164	0.1
Metridia spp. - adult F	1	128.0	3	164	0.1
Gastropoda - veliger <5mm	1	128.0	3	164	0.1
Gastropoda <5mm	1	128.0	3	164	0.1
Cirripedia - nauplius <5mm	1	128.0	3	164	0.1
Neocalanus plumchrus C-3	1	128.0	3	164	0.1
Neocalanus cristatus C-1	1	128.0	3	164	0.1
Neocalanus cristatus C-4	1	64.0	2	82	< 0.1
Thysanoessa inermis A&J	1	64.0	2	82	< 0.1
Polychaeta >5mm	1	64.0	2	82	< 0.1
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			3132	169440	100.

STA. G025A 54 14.0 N 158 52.5 W 22 Jun 87 0:51

DEPTH 2030 SAMPLING INTERVAL 0 - 300 VOLUME FILTERED 441.5 NET MESH 333

Taxon	Number counted	Sub/fac	No./10m3	No./m2	%
Chaetognatha 5-20mm	86	64.0	125	25308	16.1
Invertebrata - egg <5mm	60	64.0	87	17657	11.2
Neocalanus cristatus C-5	54	64.0	78	15891	10.1
Cnidaria - medusa <5mm	29	64.0	42	8534	5.4
Other Copepoda <2mm	26	64.0	38	7651	4.9
Neocalanus plumchrus C-4	26	64.0	38	7651	4.9
Eucalanus bungii - adult F	22	64.0	32	6474	4.1
Neocalanus plumchrus C-2	21	64.0	30	6180	3.9
Siphonophora <5mm	18	64.0	26	5297	3.4
Eucalanus bungii C-4 M	15	64.0	22	4414	2.8
Metridia pacifica C-4	15	64.0	22	4414	2.8
Larvacea	13	64.0	19	3826	2.4
Ostracoda <5mm	13	64.0	19	3826	2.4
Chaetognatha <5mm	13	64.0	19	3826	2.4
Eucalanus bungii C-5 F	12	64.0	17	3531	2.2
Eucalanus bungii C-4 F	12	64.0	17	3531	2.2
Neocalanus cristatus C-1	9	64.0	13	2648	1.7
Neocalanus plumchrus C-5	7	64.0	10	2060	1.3
Eucalanus bungii C-5 M	7	64.0	10	2060	1.3
Thecosomata <5mm	6	64.0	9	1766	1.1
Neocalanus plumchrus C-3	6	64.0	9	1766	1.1
Metridia pacifica - adult F	5	64.0	7	1471	0.9
Other Copepoda 2-5mm	5	64.0	7	1471	0.9
Neocalanus cristatus C-3	5	64.0	7	1471	0.9
Eucalanus bungii C-3	5	64.0	7	1471	0.9
Other Copepoda >5mm	4	64.0	6	1177	0.7
Metridia pacifica C-5 F	3	64.0	4	883	0.6
Siphonophora >5mm	3	64.0	4	883	0.6
Neocalanus cristatus C-2	3	64.0	4	883	0.6
Neocalanus cristatus C-4	3	64.0	4	883	0.6
Pseudocalanus spp. - adult F	3	64.0	4	883	0.6
Metriididae C-3	3	64.0	4	883	0.6
Polychaeta <5mm	3	64.0	4	883	0.6
Oithona spp.	3	64.0	4	883	0.6
Hyperiididae <5mm	2	64.0	3	589	0.4
Neocalanus plumchrus - adult M	2	64.0	3	589	0.4
Neocalanus plumchrus C-1	2	64.0	3	589	0.4
Chaetognatha >20mm	1	64.0	1	294	0.2
Other Copepoda - nauplius	1	64.0	1	294	0.2
Calanus pacificus C-5	1	64.0	1	294	0.2
Decapoda (Mollusca) >5mm	1	64.0	1	294	0.2
Metridia pacifica C-5 M	1	64.0	1	294	0.2
Neocalanus plumchrus - adult F	1	64.0	1	294	0.2
Gymnosomata <5mm	1	64.0	1	294	0.2
Acartia spp.	1	64.0	1	294	0.2
Echinodermata <5mm	1	64.0	1	294	0.2
Calanus pacificus - adult F	1	64.0	1	294	0.2



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774      157144      100.



STA. G033A      55 30.5 N      158 51.3 W      22 Jun 87      19:22

DEPTH                  SAMPLING INTERVAL                  VOLUME FILTERED                  NET MESH  
120                                  0 - 99                                  144.7                                  333

Taxon	Number counted	Sub/fac	No./10m3	No./m2	%
Pseudocalanus spp. - adult F	598	64.0	2646	31749	56.0
Thecosomata <5mm	66	64.0	292	3504	6.2
Pseudocalanus spp. C-5 F	55	64.0	243	2920	5.1
Pseudocalanus spp. - adult M	53	64.0	234	2814	5.0
Euphausiacea - furcilia	35	64.0	155	1858	3.3
Pseudocalanus spp. C-5 M	35	64.0	155	1858	3.3
Metridia pacifica C-4	31	64.0	137	1646	2.9
Calanus marshallae C-5	29	64.0	128	1540	2.7
Chaetognatha 5-20mm	94	16.0	104	1248	2.2
Gastropoda <5mm	17	64.0	75	903	1.6
Calanus marshallae C-3	16	64.0	71	849	1.5
Oithona spp.	15	64.0	66	796	1.4
Acartia spp.	15	64.0	66	796	1.4
Calanus marshallae C-5	12	64.0	53	637	1.1
Neocalanus plumchrus C-5	9	64.0	40	478	0.8
Other Copepoda <2mm	7	64.0	31	372	0.7
Foraminifera <5mm	7	64.0	31	372	0.7
Metriididae C-3	6	64.0	27	319	0.6
Metridia pacifica C-5 M	6	64.0	27	319	0.6
Cirripedia - cypris <5mm	3	64.0	13	159	0.3
Calanus marshallae - adult F	3	64.0	13	159	0.3
Pseudocalanus spp. C-4 F	3	64.0	13	159	0.3
Calanus marshallae C-2	3	64.0	13	159	0.3
Brachyura - larva	3	64.0	13	159	0.3
Hyperiididea <5mm	2	64.0	9	106	0.2
?Pseudocalanus spp. C-3	2	64.0	9	106	0.2
Metridia pacifica - adult F	2	64.0	9	106	0.2
Larvacea	2	64.0	9	106	0.2
Cnidaria - medusa >5mm	5	16.0	6	66	0.1
Cnidaria - medusa <5mm	1	64.0	4	53	0.1
Eucalanus bungii C-2	1	64.0	4	53	0.1
Metridia pacifica C-5 F	1	64.0	4	53	0.1
Pseudocalanus spp. C-4 M	1	64.0	4	53	0.1
Euphausiacea - calyptopis 3	1	64.0	4	53	0.1
Invertebrata - egg <5mm	1	64.0	4	53	0.1
Metridia spp. - adult F	1	64.0	4	53	0.1
Teleostei - larva >5mm	2	16.0	2	27	< 0.1
Eucalanus bungii C-5 M	2	16.0	2	27	< 0.1
Eucalanus bungii C-5 F	1	16.0	1	13	< 0.1
Gymnosomata >5mm	1	16.0	1	13	< 0.1
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			4726	56716	100.

STA. G034A      55 18.5 N      158 36.5 W      22 Jun 87      22:09

DEPTH                  SAMPLING INTERVAL      VOLUME FILTERED      NET MESH

181                      0 - 171                  229.4                  333

Taxon	Number counted	Sub/fac	No./10m3	No./m2	%
Pseudocalanus spp. - adult F	153	64.0	427	7726	10.8
Neocalanus plumchrus C-5	151	64.0	421	7625	10.7
Metridia pacifica C-4	95	64.0	265	4797	6.7
Metridia pacifica - adult F	82	64.0	229	4141	5.8
Eucalanus bungii C-5 M	75	64.0	209	3787	5.3
Chaetognatha 5-20mm	62	64.0	173	3131	4.4
Eucalanus bungii C-5 F	55	64.0	153	2777	3.9
Thecosomata <5mm	46	64.0	128	2323	3.3
Neocalanus plumchrus - adult M	43	64.0	120	2171	3.0
Calanus marshallae C-2	41	64.0	114	2070	2.9
Metriididae C-3	38	64.0	106	1919	2.7
Pseudocalanus spp. C-5 F	37	64.0	103	1868	2.6
Euphausiacea - furcilia	35	64.0	98	1767	2.5
Eucalanus bungii C-4 M	33	64.0	92	1666	2.3
Echinodermata <5mm	33	64.0	92	1666	2.3
Metridia pacifica C-5 M	32	64.0	89	1616	2.3
Calanus marshallae C-3	32	64.0	89	1616	2.3
Oithona spp.	31	64.0	86	1565	2.2
Pseudocalanus spp. C-5 M	30	64.0	84	1515	2.1
Eucalanus bungii C-4 F	29	64.0	81	1464	2.1
Metridia pacifica - adult M	27	64.0	75	1363	1.9
Metridia pacifica C-5 F	26	64.0	73	1313	1.8
Pseudocalanus spp. - adult M	25	64.0	70	1262	1.8
Calanus marshallae C-4	22	64.0	61	1111	1.6
Acartia spp.	22	64.0	61	1111	1.6
Other Copepoda <2mm	20	64.0	56	1010	1.4
Calanus marshallae C-5	18	64.0	50	909	1.3
Neocalanus plumchrus - adult F	18	64.0	50	909	1.3
Eucalanus bungii C-3	16	64.0	45	808	1.1
Neocalanus plumchrus C-4	13	64.0	36	656	0.9
Calanus marshallae - adult F	10	64.0	28	505	0.7
Gastropoda <5mm	8	64.0	22	404	0.6
Neocalanus cristatus C-5	6	64.0	17	303	0.4
Calanus marshallae - adult M	6	64.0	17	303	0.4
Euphausiacea - calytopis 2	5	64.0	14	252	0.4
Euphausiacea - calytopis 1	4	64.0	11	202	0.3
Neocalanus cristatus C-4	3	64.0	8	151	0.2
Natantia - larva	3	64.0	8	151	0.2
Larvacea	3	64.0	8	151	0.2
Euphausiacea - calytopis 3	3	64.0	8	151	0.2
Eucalanus bungii C-2	3	64.0	8	151	0.2
Cirripedia - cypris <5mm	2	64.0	6	101	0.1
Teleostei - larva >5mm	2	64.0	6	101	0.1
Brachyura - larva	2	64.0	6	101	0.1
Euphausiacea - nauplius	2	64.0	6	101	0.1
Gymnosomata <5mm	2	64.0	6	101	0.1
Octopoda (Mollusca) <5mm	2	64.0	6	101	0.1

Calanus marshallae C-1	1	64.0	3	50	0.1
Chaetognatha >20mm	1	64.0	3	50	0.1
Hyperiidia <5mm	1	64.0	3	50	0.1
Eucalanus bungii - adult F	1	64.0	3	50	0.1
Cnidaria - medusa >5mm	1	64.0	3	50	0.1
Neocalanus cristatus C-3	1	64.0	3	50	0.1
Metridia spp. - adult F	1	64.0	3	50	0.1
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			3942	71354	100.

STA. G035A 55 06.5 N 158 21.3 W 23 Jun 87 0:57

DEPTH 184 SAMPLING INTERVAL 0 - 175 VOLUME FILTERED 256.4 NET MESH 333

Taxon	Number counted	Sub/fac	No./10m3	No./m2	%
Metridia pacifica - adult F	155	64.0	387	7118	12.9
Pseudocalanus spp. - adult F	129	64.0	322	5924	10.8
Neocalanus plumchrus C-5	125	64.0	312	5741	10.4
Eucalanus bungii C-5 F	87	64.0	217	3995	7.3
Eucalanus bungii C-5 M	64	64.0	160	2939	5.3
Metridia pacifica C-4	57	64.0	142	2618	4.8
Chaetognatha 5-20mm	48	64.0	120	2204	4.0
Acartia spp.	40	64.0	100	1837	3.3
Metridia pacifica - adult M	40	64.0	100	1837	3.3
Oithona spp.	39	64.0	97	1791	3.3
Metridia pacifica C-5 M	36	64.0	90	1653	3.0
Euphausiacea - furcilia	29	64.0	72	1332	2.4
Thecosomata <5mm	29	64.0	72	1332	2.4
Eucalanus bungii C-4 F	26	64.0	65	1194	2.2
Pseudocalanus spp. C-5 F	19	64.0	47	873	1.6
Calanus marshallae C-3	18	64.0	45	827	1.5
Eucalanus bungii C-3	18	64.0	45	827	1.5
Eucalanus bungii C-4 M	17	64.0	42	781	1.4
Metridia pacifica C-5 F	17	64.0	42	781	1.4
Echinodermata <5mm	16	64.0	40	735	1.3
Pseudocalanus spp. - adult M	15	64.0	37	689	1.3
Metriididae C-3	15	64.0	37	689	1.3
Pseudocalanus spp. C-5 M	13	64.0	32	597	1.1
Calanus marshallae C-4	12	64.0	30	551	1.0
Neocalanus plumchrus - adult F	11	64.0	27	505	0.9
Neocalanus cristatus C-5	11	64.0	27	505	0.9
Calanus marshallae C-2	8	64.0	20	367	0.7
Calanus marshallae C-5	8	64.0	20	367	0.7
Larvacea	8	64.0	20	367	0.7
Cnidaria - medusa <5mm	8	64.0	20	367	0.7
Invertebrata - egg <5mm	8	64.0	20	367	0.7
Other Copepoda <2mm	7	64.0	17	321	0.6
Brachyura - larva	7	64.0	17	321	0.6
Eucalanus bungii C-2	6	64.0	15	276	0.5
Siphonophora <5mm	5	64.0	12	230	0.4
Calanus marshallae - adult M	3	64.0	7	138	0.3
Euphausiacea - calyptopis 1	3	64.0	7	138	0.3
Euphausiacea - calyptopis 3	3	64.0	7	138	0.3
Calanus marshallae - adult F	3	64.0	7	138	0.3
Pseudocalanus spp. C-4 F	3	64.0	7	138	0.3
Chaetognatha >20mm	2	64.0	5	92	0.2
Metriididae C-2	2	64.0	5	92	0.2
Teleostei - egg <5mm	2	64.0	5	92	0.2
Neocalanus plumchrus C-3	2	64.0	5	92	0.2
Cnidaria - medusa >5mm	2	64.0	5	92	0.2
Neocalanus plumchrus - adult M	2	64.0	5	92	0.2
Polychaeta <5mm	2	64.0	5	92	0.2

Neocalanus plumchrus C-2	2	64.0	5	92	0.2
Gymnosomata <5mm	2	64.0	5	92	0.2
Neocalanus plumchrus C-4	2	64.0	5	92	0.2
Cirripedia - cypris <5mm	2	64.0	5	92	0.2
Neocalanus cristatus C-4	1	64.0	2	46	0.1
Hyperiididea >5mm	1	64.0	2	46	0.1
Gastropoda <5mm	1	64.0	2	46	0.1
Eucalanus bungii - adult F	1	64.0	2	46	0.1
Ostracoda <5mm	1	64.0	2	46	0.1
Other Copepoda 2-5mm	1	64.0	2	46	0.1
Teleostei - larva >5mm	1	64.0	2	46	0.1
Chaetognatha <5mm	1	64.0	2	46	0.1
Metriididae C-1	1	64.0	2	46	0.1
Neocalanus cristatus C-3	1	64.0	2	46	0.1
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			2990	55017	100.

STA. G036A 54 53.7 N 158 05.5 W 23 Jun 87 3:42

DEPTH 102 SAMPLING INTERVAL 0 - 95 VOLUME FILTERED 139.8 NET MESH 333

Taxon	Number counted	Sub/fac	No./10m3	No./m2	%
Metridia pacifica C-4	189	64.0	866	8829	15.6
Pseudocalanus spp. - adult F	104	64.0	476	4858	8.6
Metriididae C-3	78	64.0	357	3644	6.4
Thecosomata <5mm	64	64.0	293	2990	5.3
Oithona spp.	64	64.0	293	2990	5.3
Invertebrata - egg <5mm	49	64.0	224	2289	4.0
Other Copepoda <2mm	46	64.0	211	2149	3.8
Eucalanus bungii C-1	40	64.0	183	1868	3.3
Eucalanus bungii C-2	37	64.0	169	1728	3.1
Acartia spp.	37	64.0	169	1728	3.1
Pseudocalanus spp. - adult M	35	64.0	160	1635	2.9
Pseudocalanus spp. C-5 F	34	64.0	156	1588	2.8
Eucalanus bungii C-5 F	34	64.0	156	1588	2.8
Metridia pacifica C-5 M	30	64.0	137	1401	2.5
Eucalanus bungii C-3	29	64.0	133	1355	2.4
Larvacea	28	64.0	128	1308	2.3
Chaetognatha 5-20mm	25	64.0	114	1168	2.1
Pseudocalanus spp. C-5 M	22	64.0	101	1028	1.8
Euphausiacea - furcilia	20	64.0	92	934	1.6
Eucalanus bungii C-5 M	18	64.0	82	841	1.5
Neocalanus plumchrus C-4	17	64.0	78	794	1.4
Other Copepoda - nauplius	15	64.0	69	701	1.2
Metriididae C-2	15	64.0	69	701	1.2
Neocalanus plumchrus C-5	15	64.0	69	701	1.2
Eucalanus bungii C-4 M	14	64.0	64	654	1.2
Calanus marshallae C-3	13	64.0	60	607	1.1
Calanus marshallae C-2	12	64.0	55	561	1.0
Euphausiacea - calytopis 2	12	64.0	55	561	1.0
Eucalanus bungii C-4 F	11	64.0	50	514	0.9
Euphausiacea - calytopis 3	10	64.0	46	467	0.8
Euphausiacea - calytopis 1	8	64.0	37	374	0.7
Metridia pacifica - adult F	8	64.0	37	374	0.7
Echinodermata - larva <5mm	7	64.0	32	327	0.6
Neocalanus cristatus C-5	7	64.0	32	327	0.6
Metridia pacifica C-5 F	6	64.0	27	280	0.5
Euphausiacea - nauplius	6	64.0	27	280	0.5
Eucalanus bungii - adult F	5	64.0	23	234	0.4
Polychaeta <5mm	4	64.0	18	187	0.3
Chaetognatha >20mm	4	64.0	18	187	0.3
Hyperiidia <5mm	4	64.0	18	187	0.3
Siphonophora <5mm	4	64.0	18	187	0.3
Brachyura - larva	3	64.0	14	140	0.2
Neocalanus cristatus C-4	3	64.0	14	140	0.2
Calanus marshallae C-4	3	64.0	14	140	0.2
Pseudocalanus spp. C-4 F	3	64.0	14	140	0.2
Siphonophora >5mm	2	64.0	9	93	0.2
Pseudocalanus spp. C-4 M	2	64.0	9	93	0.2



Teleostei - larva >5mm	2	64.0	9	93	0.2
Cnidaria - medusa >5mm	2	64.0	9	93	0.2
Chaetognatha <5mm	2	64.0	9	93	0.2
Calanus marshallae C-1	1	64.0	5	47	0.1
Calanus pacificus - adult F	1	64.0	5	47	0.1
Neocalanus plumchrus - adult M	1	64.0	5	47	0.1
Calanus marshallae - adult F	1	64.0	5	47	0.1
Metriididae C-1	1	64.0	5	47	0.1
Calanus marshallae C-5	1	64.0	5	47	0.1
Natantia - larva	1	64.0	5	47	0.1
Cnidaria - medusa <5mm	1	64.0	5	47	0.1
Polychaeta >5mm	1	64.0	5	47	0.1
Neocalanus plumchrus C-2	1	64.0	5	47	0.1
Neocalanus plumchrus C-1	1	64.0	5	47	0.1
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			5555	56661	100.

STA. G040A 55 32.6 N 158 07.5 W 23 Jun 87 12:28

DEPTH 136 SAMPLING INTERVAL 0 - 114 VOLUME FILTERED 221.8 NET MESH 333

Taxon	Number counted	Sub/fac	No./10m3	No./m2	%
Pseudocalanus spp. - adult F	169	64.0	488	6631	17.1
Metridia pacifica C-4	108	64.0	312	4237	10.9
Acartia spp.	65	64.0	188	2550	6.6
Metridia pacifica C-5 M	51	64.0	147	2001	5.2
Euphausiacea - furcilia	50	64.0	144	1962	5.1
Thecosomata <5mm	48	64.0	138	1883	4.9
Calanus marshallae C-3	41	64.0	118	1609	4.1
Metriididae C-3	40	64.0	115	1569	4.0
Pseudocalanus spp. C-5 F	34	64.0	98	1334	3.4
Calanus marshallae C-4	27	64.0	78	1059	2.7
Oithona spp.	25	64.0	72	981	2.5
Eucalanus bungii C-3	24	64.0	69	942	2.4
Eucalanus bungii C-4 M	23	64.0	66	902	2.3
Calanus marshallae C-2	21	64.0	61	824	2.1
Eucalanus bungii C-5 F	42	32.0	61	824	2.1
Metridia pacifica C-5 F	20	64.0	58	785	2.0
Pseudocalanus spp. C-5 M	20	64.0	58	785	2.0
Eucalanus bungii C-5 M	36	32.0	52	706	1.8
Eucalanus bungii C-4 F	18	64.0	52	706	1.8
Calanus marshallae C-5	16	64.0	46	628	1.6
Neocalanus plumchrus C-5	16	64.0	46	628	1.6
Chaetognatha 5-20mm	23	32.0	33	451	1.2
Metridia pacifica - adult F	11	64.0	32	432	1.1
Pseudocalanus spp. - adult M	11	64.0	32	432	1.1
Other Copepoda <2mm	10	64.0	29	392	1.0
Eucalanus bungii C-2	9	64.0	26	353	0.9
Neocalanus plumchrus C-4	7	64.0	20	275	0.7
Invertebrata - egg <5mm	7	64.0	20	275	0.7
Echinodermata <5mm	7	64.0	20	275	0.7
Gastropoda <5mm	6	64.0	17	235	0.6
Calanus marshallae - adult F	5	64.0	14	196	0.5
Cirripedia - cypris <5mm	5	64.0	14	196	0.5
Cnidaria - medusa >5mm	9	32.0	13	177	0.5
Larvacea	3	64.0	9	118	0.3
Brachyura - larva	3	64.0	9	118	0.3
Neocalanus cristatus C-3	3	64.0	9	118	0.3
Neocalanus plumchrus C-2	3	64.0	9	118	0.3
Neocalanus plumchrus C-3	3	64.0	9	118	0.3
Gymnosomata <5mm	3	64.0	9	118	0.3
Neocalanus cristatus C-5	5	32.0	7	98	0.3
Metridia pacifica - adult M	2	64.0	6	78	0.2
Neocalanus cristatus C-4	4	32.0	6	78	0.2
Hyperidea <5mm	2	64.0	6	78	0.2
Polychaeta <5mm	2	64.0	6	78	0.2
Pseudocalanus spp. C-4 F	1	64.0	3	39	0.1
Euphausiacea - calyptopis 2	1	64.0	3	39	0.1
Euphausiacea - calyptopis 1	1	64.0	3	39	0.1

Natantia - larva	1	64.0	3	39	0.1
Cnidaria - medusa <5mm	1	64.0	3	39	0.1
Eucalanus bungii C-1	1	64.0	3	39	0.1
Chaetognatha <5mm	1	64.0	3	39	0.1
Siphonophora <5mm	1	64.0	3	39	0.1
Neocalanus cristatus C-2	1	64.0	3	39	0.1
Mysidacea >5mm	2	32.0	3	39	0.1
Teleostei - larva >5mm	1	32.0	1	20	0.1
Chaetognatha >20mm	1	32.0	1	20	0.1
Siphonophora >5mm	1	32.0	1	20	0.1
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			2853	38803	100.

STA. G064A 55 22.9 N 155 40.2 W 27 Jun 87 0:08

DEPTH 995 SAMPLING INTERVAL 0 - 370 VOLUME FILTERED 444.5 NET MESH 333

Taxon	Number counted	Sub/fac	No./10m3	No./m2	%
Other Copepoda <2mm	93	64.0	134	13323	11.4
Chaetognatha 5-20mm	80	64.0	115	11460	9.8
Metridia pacifica C-4	76	64.0	109	10887	9.3
Pseudocalanus spp. - adult F	67	64.0	96	9598	8.2
Ostracoda <5mm	55	64.0	79	7879	6.7
Metridia pacifica C-5 M	47	64.0	68	6733	5.7
Chaetognatha <5mm	47	64.0	68	6733	5.7
Oithona spp.	46	64.0	66	6590	5.6
Metridia pacifica - adult F	36	64.0	52	5157	4.4
Metridia pacifica - adult M	33	64.0	48	4727	4.0
Acartia spp.	26	64.0	37	3725	3.2
Metridia pacifica C-5 F	21	64.0	30	3008	2.6
Neocalanus cristatus C-5	19	64.0	27	2722	2.3
Invertebrata - egg <5mm	17	64.0	24	2435	2.1
Other Copepoda 2-5mm	15	64.0	22	2149	1.8
Thecosomata <5mm	14	64.0	20	2006	1.7
Neocalanus plumchrus C-5	14	64.0	20	2006	1.7
Hyperiidia <5mm	7	64.0	10	1003	0.9
Polychaeta <5mm	7	64.0	10	1003	0.9
Pseudocalanus spp. - adult M	7	64.0	10	1003	0.9
Pseudocalanus spp. C-5 F	7	64.0	10	1003	0.9
Calanus marshallae C-5	7	64.0	10	1003	0.9
Neocalanus cristatus C-4	6	64.0	9	860	0.7
Neocalanus plumchrus C-4	6	64.0	9	860	0.7
Siphonophora >5mm	6	64.0	9	860	0.7
Metriididae C-3	5	64.0	7	716	0.6
Polychaeta >5mm	3	64.0	4	430	0.4
Euphausiacea - calyptopis 1	3	64.0	4	430	0.4
Euphausiacea - nauplius	3	64.0	4	430	0.4
Pseudocalanus spp. C-5 M	3	64.0	4	430	0.4
Other Copepoda >5mm	3	64.0	4	430	0.4
Euphausiacea - furcilia	3	64.0	4	430	0.4
Eucalanus bungii C-2	2	64.0	3	287	0.2
Gastropoda <5mm	2	64.0	3	287	0.2
Metridia spp. C-5 F	2	64.0	3	287	0.2
Eucalanus bungii - adult F	2	64.0	3	287	0.2
Neocalanus plumchrus - adult M	2	64.0	3	287	0.2
Chaetognatha >20mm	2	64.0	3	287	0.2
Larvacea	2	64.0	3	287	0.2
Eucalanus bungii C-1	2	64.0	3	287	0.2
Eucalanus bungii - adult M	2	64.0	3	287	0.2
Brachyura - larva	2	64.0	3	287	0.2
Calanus marshallae C-2	2	64.0	3	287	0.2
Calanus marshallae C-4	1	64.0	1	143	0.1
Calanus marshallae - adult F	1	64.0	1	143	0.1
Calanus pacificus - adult M	1	64.0	1	143	0.1
Eucalanus bungii C-5 M	1	64.0	1	143	0.1

Foraminifera <5mm	1	64.0	1	143	0.1
Calanus marshallae C-3	1	64.0	1	143	0.1
Eucalanus bungii C-5 F	1	64.0	1	143	0.1
Cnidaria - medusa >5mm	1	64.0	1	143	0.1
Hyperiidia >5mm	1	64.0	1	143	0.1
Calanus pacificus C-5	1	64.0	1	143	0.1
Eucalanus bungii C-3	1	64.0	1	143	0.1
Pseudocalanus spp. C-4 M	1	64.0	1	143	0.1
Siphonophora <5mm	1	64.0	1	143	0.1
Euphausiacea - calyptopis 2	1	64.0	1	143	0.1
Neocalanus plumchrus C-3	1	64.0	1	143	0.1
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			1179	117326	100.

STA. G064A 55 22.9 N 155 40.2 W 27 Jun 87 0:08

DEPTH 995 SAMPLING INTERVAL 0 - 370 VOLUME FILTERED 43.2 NET MESH 150

Taxon	Number counted	Sub/fac	No./10m3	No./m2	%
Oithona spp.	473	64.0	7013	697833	43.7
Other Copepoda <2mm	306	64.0	4537	451452	28.3
Invertebrata - egg <5mm	28	64.0	415	41309	2.6
Pseudocalanus spp. - adult F	24	64.0	356	35408	2.2
Other Copepoda - nauplius	20	64.0	297	29507	1.8
Metriididae C-2	20	64.0	297	29507	1.8
Acartia spp.	16	64.0	237	23605	1.5
?Pseudocalanus spp. C-3	15	64.0	222	22130	1.4
Metridia pacifica - adult F	14	64.0	208	20655	1.3
Euphausiacea - nauplius	13	64.0	193	19179	1.2
Metriididae C-1	13	64.0	193	19179	1.2
Chaetognatha <5mm	13	64.0	193	19179	1.2
Chaetognatha 5-20mm	164	4.0	152	15122	0.9
Metridia pacifica - adult M	10	64.0	148	14753	0.9
Pseudocalanus spp. C-5 F	10	64.0	148	14753	0.9
Ostracoda <5mm	9	64.0	133	13278	0.8
Metridia pacifica C-5 M	9	64.0	133	13278	0.8
?Pseudocalanus spp. C-2	8	64.0	119	11803	0.7
Metridia pacifica C-4	7	64.0	104	10327	0.6
Metriididae C-3	7	64.0	104	10327	0.6
Larvacea	6	64.0	89	8852	0.6
Pseudocalanus spp. C-5 M	6	64.0	89	8852	0.6
Pseudocalanus spp. C-4 F	5	64.0	74	7377	0.5
Gastropoda <5mm	5	64.0	74	7377	0.5
Pseudocalanus spp. C-4 M	4	64.0	59	5901	0.4
Pseudocalanus spp. - adult M	4	64.0	59	5901	0.4
Metridia pacifica C-5 F	3	64.0	44	4426	0.3
Neocalanus plumchrus C-5	3	64.0	44	4426	0.3
?Pseudocalanus spp. C-1	3	64.0	44	4426	0.3
Hyperiidia <5mm	2	64.0	30	2951	0.2
Euphausiacea - furcilia	2	64.0	30	2951	0.2
Calanus marshallae C-5	2	64.0	30	2951	0.2
Neocalanus cristatus C-5	25	4.0	23	2305	0.1
Gastropoda - veliger <5mm	1	64.0	15	1475	0.1
Other Copepoda 2-5mm	1	64.0	15	1475	0.1
Cirripedia - nauplius <5mm	1	64.0	15	1475	0.1
Euphausiacea - calyptopis 3	1	64.0	15	1475	0.1
Neocalanus plumchrus C-4	1	64.0	15	1475	0.1
Eucalanus bungii C-3	1	64.0	15	1475	0.1
Euphausiacea - calyptopis 2	1	64.0	15	1475	0.1
Brachyura - larva	1	64.0	15	1475	0.1
Chaetognatha >20mm	5	4.0	5	461	< 0.1
Siphonophora >5mm	4	4.0	4	369	< 0.1
Neocalanus cristatus C-4	4	4.0	4	369	< 0.1
Other Copepoda >5mm	3	4.0	3	277	< 0.1
Polychaeta >5mm	3	4.0	3	277	< 0.1
Eucalanus bungii - adult F	2	4.0	2	184	< 0.1

Eucalanus bungii C-5 F	2	4.0	2	184	< 0.1
Hyperiidia >5mm	1	4.0	1	92	< 0.1
Cnidaria - medusa >5mm	1	4.0	1	92	< 0.1
Eucalanus bungii C-5 M	1	4.0	1	92	< 0.1
Eucalanus bungii - adult M	1	4.0	1	92	< 0.1
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			16036	1595574	100.

STA. G059A 56 21.6 N 156 54.4 W 30 Jun 87 17:12

DEPTH 132 SAMPLING INTERVAL 0 - 116 VOLUME FILTERED 183.2 NET MESH 333

Taxon	Number counted	Sub/fac	No./10m3	No./m2	%
Pseudocalanus spp. - adult F	660	512.0	18450	243546	69.9
Pseudocalanus spp. - adult M	66	512.0	1845	24355	7.0
Pseudocalanus spp. C-5 F	62	512.0	1733	22879	6.6
Acartia spp.	51	512.0	1426	18819	5.4
Pseudocalanus spp. C-5 M	38	512.0	1062	14022	4.0
Thecosomata <5mm	16	512.0	447	5904	1.7
Oithona spp.	8	512.0	224	2952	0.8
Calanus marshallae C-5	5	512.0	140	1845	0.5
Neocalanus plumchrus C-5	5	512.0	140	1845	0.5
Calanus marshallae - adult F	4	512.0	112	1476	0.4
Metridia pacifica C-5 M	3	512.0	84	1107	0.3
Calanus marshallae C-4	3	512.0	84	1107	0.3
Calanus marshallae - adult M	3	512.0	84	1107	0.3
Metridia pacifica - adult M	3	512.0	84	1107	0.3
Brachyura - larva	2	512.0	56	738	0.2
Metridia pacifica C-4	2	512.0	56	738	0.2
Other Copepoda <2mm	2	512.0	56	738	0.2
Metridia pacifica C-5 F	1	512.0	28	369	0.1
Euphausiacea - furcilia	1	512.0	28	369	0.1
Calanus marshallae C-3	1	512.0	28	369	0.1
Siphonophora <5mm	1	512.0	28	369	0.1
Natantia - larva	1	512.0	28	369	0.1
Ostracoda <5mm	1	512.0	28	369	0.1
Calanus marshallae C-2	1	512.0	28	369	0.1
Pseudocalanus spp. C-4 M	1	512.0	28	369	0.1
Hyperiidia <5mm	1	512.0	28	369	0.1
Chaetognatha 5-20mm	51	8.0	22	294	0.1
Chaetognatha >20mm	23	8.0	10	133	< 0.1
Thysanoessa inermis A&J	14	8.0	6	81	< 0.1
Neocalanus cristatus C-5	3	8.0	1	17	< 0.1
Eucalanus bungii - adult F	3	8.0	1	17	< 0.1
Eucalanus bungii - adult M	2	8.0	1	12	< 0.1
Eucalanus bungii C-5 F	2	8.0	1	12	< 0.1
Teleostei - larva >5mm	2	8.0	1	12	< 0.1
Cnidaria - medusa >5mm	1	8.0	< 1	6	< 0.1
Neocalanus cristatus C-4	1	8.0	< 1	6	< 0.1
			26378	348194	100.



STA. G059A      56 21.6 N      156 54.4 W      30 Jun 87      17:12

DEPTH                  SAMPLING INTERVAL      VOLUME FILTERED      NET MESH  
132                      0 - 116                  19.8                      150

Taxon	Number counted	Sub/ fac	No./ 10m3	No./ m2	%
Oithona spp.	507	128.0	32777	432654	35.2
Pseudocalanus spp. - adult F	248	128.0	16033	211633	17.2
?Pseudocalanus spp. C-3	113	128.0	7305	96430	7.9
Pseudocalanus spp. C-5 M	106	128.0	6853	90456	7.4
Pseudocalanus spp. C-5 F	79	128.0	5107	67416	5.5
?Pseudocalanus spp. C-2	60	128.0	3879	51202	4.2
Pseudocalanus spp. C-4 M	59	128.0	3814	50348	4.1
Pseudocalanus spp. C-4 F	57	128.0	3685	48642	4.0
Acartia spp.	43	128.0	2780	36695	3.0
?Pseudocalanus spp. C-1	38	128.0	2457	32428	2.6
Pseudocalanus spp. - adult M	36	128.0	2327	30721	2.5
Thecosomata <5mm	22	128.0	1422	18774	1.5
Other Copepoda - nauplius	21	128.0	1358	17921	1.5
Invertebrata - egg <5mm	10	128.0	646	8534	0.7
Other Copepoda <2mm	9	128.0	582	7680	0.6
Calanus marshallae C-3	3	128.0	194	2560	0.2
Calanus marshallae C-5	3	128.0	194	2560	0.2
Metridia pacifica C-5 F	3	128.0	194	2560	0.2
Calanus marshallae C-4	3	128.0	194	2560	0.2
Metriididae C-3	3	128.0	194	2560	0.2
Neocalanus plumchrus C-5	2	128.0	129	1707	0.1
Metridia pacifica C-4	2	128.0	129	1707	0.1
Chaetognatha <5mm	2	128.0	129	1707	0.1
Metridia pacifica - adult F	2	128.0	129	1707	0.1
Euphausiacea - furcilia	1	128.0	65	853	0.1
Metridia pacifica - adult M	1	128.0	65	853	0.1
Calanus marshallae - adult F	1	128.0	65	853	0.1
Echinodermata - larva <5mm	1	128.0	65	853	0.1
Calanus marshallae C-1	1	128.0	65	853	0.1
Metriididae C-2	1	128.0	65	853	0.1
Metriididae C-1	1	128.0	65	853	0.1
Chaetognatha 5-20mm	57	1.0	29	380	< 0.1
Chaetognatha >20mm	22	1.0	11	147	< 0.1
Neocalanus cristatus C-5	6	1.0	3	40	< 0.1
Cnidaria - medusa >5mm	5	1.0	3	33	< 0.1
Thysanoessa inermis A&J	4	1.0	2	27	< 0.1
Other Copepoda >5mm	1	1.0	1	7	< 0.1
Eucalanus bungii - adult F	1	1.0	1	7	< 0.1
Hyperiidia >5mm	1	1.0	1	7	< 0.1
Eucalanus bungii C-5 F	1	1.0	1	7	< 0.1
Teleostei - larva >5mm	1	1.0	1	7	< 0.1
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			93015	1227793	100.

STA. G061B 55 56.8 N 156 23.0 W 01 Jul 87 2:46

DEPTH 223 SAMPLING INTERVAL 0 - 194 VOLUME FILTERED 315.4 NET MESH 333

Taxon	Number counted	Sub/fac	No./10m3	No./m2	%
Pseudocalanus spp. - adult F	485	128.0	1969	43899	37.7
Oithona spp.	132	128.0	536	11948	10.3
Pseudocalanus spp. C-5 M	104	128.0	422	9413	8.1
Pseudocalanus spp. - adult M	84	128.0	341	7603	6.5
Pseudocalanus spp. C-5 F	81	128.0	329	7332	6.3
Neocalanus plumchrus C-5	43	128.0	175	3892	3.3
Metridia pacifica - adult F	42	128.0	170	3802	3.3
Metridia pacifica - adult M	37	128.0	150	3349	2.9
Acartia spp.	31	128.0	126	2806	2.4
Other Copepoda - nauplius	26	128.0	106	2353	2.0
Metridia pacifica C-5 M	20	128.0	81	1810	1.6
?Pseudocalanus spp. C-3	18	128.0	73	1629	1.4
Calanus marshallae C-5	17	128.0	69	1539	1.3
Invertebrata - egg <5mm	16	128.0	65	1448	1.2
?Pseudocalanus spp. C-1	15	128.0	61	1358	1.2
Metridia pacifica C-4	13	128.0	53	1177	1.0
?Pseudocalanus spp. C-2	13	128.0	53	1177	1.0
Pseudocalanus spp. C-4 F	11	128.0	45	996	0.9
Pseudocalanus spp. C-4 M	9	128.0	37	815	0.7
Calanus marshallae C-4	9	128.0	37	815	0.7
Euphausiacea - nauplius	9	128.0	37	815	0.7
Thecosomata <5mm	7	128.0	28	634	0.5
Chaetognatha 5-20mm	52	16.0	26	588	0.5
Calanus marshallae C-3	5	128.0	20	453	0.4
Neocalanus plumchrus - adult F	5	128.0	20	453	0.4
Calanus marshallae - adult M	5	128.0	20	453	0.4
Calanus marshallae - adult F	4	128.0	16	362	0.3
Chaetognatha >20mm	30	16.0	15	339	0.3
Metridia pacifica C-5 F	3	128.0	12	272	0.2
Euphausiacea - furcilia	3	128.0	12	272	0.2
Larvacea	3	128.0	12	272	0.2
Metridia spp. C-5 F	3	128.0	12	272	0.2
Metriididae C-2	2	128.0	8	181	0.2
Other Copepoda <2mm	2	128.0	8	181	0.2
Metridia spp. C-5 M	2	128.0	8	181	0.2
Metriididae C-3	2	128.0	8	181	0.2
Brachyura - larva	2	128.0	8	181	0.2
Calanus marshallae C-2	2	128.0	8	181	0.2
Metriididae C-1	2	128.0	8	181	0.2
Neocalanus cristatus C-5	9	16.0	5	102	0.1
Neocalanus plumchrus - adult M	1	128.0	4	91	0.1
Calanus marshallae C-1	1	128.0	4	91	0.1
Polychaeta <5mm	1	128.0	4	91	0.1
Chaetognatha <5mm	1	128.0	4	91	0.1
Natantia - larva	1	128.0	4	91	0.1
Neocalanus plumchrus C-4	1	128.0	4	91	0.1
Gastropoda <5mm	1	128.0	4	91	0.1

Teleostei - larva >5mm	4	16.0	2	45	< 0.1
Thysanoessa inermis A&J	2	16.0	1	23	< 0.1
Eucalanus bungii - adult F	2	16.0	1	23	< 0.1
Cnidaria - medusa >5mm	1	16.0	1	11	< 0.1
Siphonophora >5mm	1	16.0	1	11	< 0.1
Mysidacea >5mm	1	16.0	1	11	< 0.1
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			5223	116468	100.



STA. G061B 55 56.8 N 156 23.0 W 01 Jul 87 2:46

DEPTH 223 SAMPLING INTERVAL 0 - 194 VOLUME FILTERED 31.3 NET MESH 150

Taxon	Number counted	Sub/fac	No./10m3	No./m2	%
Oithona spp.	449	128.0	18338	408930	35.1
?Pseudocalanus spp. C-3	126	128.0	5146	114755	9.9
?Pseudocalanus spp. C-2	120	128.0	4901	109291	9.4
Pseudocalanus spp. - adult F	113	128.0	4615	102916	8.8
Pseudocalanus spp. C-5 M	87	128.0	3553	79236	6.8
Pseudocalanus spp. C-5 F	79	128.0	3226	71950	6.2
Pseudocalanus spp. - adult M	58	128.0	2369	52824	4.5
Pseudocalanus spp. C-4 M	56	128.0	2287	51002	4.4
Pseudocalanus spp. C-4 F	47	128.0	1920	42806	3.7
?Pseudocalanus spp. C-1	41	128.0	1674	37341	3.2
Acartia spp.	22	128.0	899	20037	1.7
Other Copepoda <2mm	12	128.0	490	10929	0.9
Thecosomata <5mm	11	128.0	449	10018	0.9
Invertebrata - egg <5mm	9	128.0	368	8197	0.7
Other Copepoda - nauplius	8	128.0	327	7286	0.6
Metridia pacifica - adult M	5	128.0	204	4554	0.4
Metridia pacifica - adult F	4	128.0	163	3643	0.3
Neocalanus plumchrus C-5	4	128.0	163	3643	0.3
Metridia pacifica C-5 M	4	128.0	163	3643	0.3
Metridia pacifica C-5 F	3	128.0	123	2732	0.2
Metridia pacifica C-4	3	128.0	123	2732	0.2
Metriididae C-3	2	128.0	82	1822	0.2
Metridia spp. C-4	2	128.0	82	1822	0.2
Chaetognatha 5-20mm	70	2.0	45	996	0.1
Larvacea	1	128.0	41	911	0.1
Metriididae C-1	1	128.0	41	911	0.1
Other Copepoda 2-5mm	1	128.0	41	911	0.1
Euphausiacea - nauplius	1	128.0	41	911	0.1
Brachyura - larva	1	128.0	41	911	0.1
Calanus marshallae - adult F	1	128.0	41	911	0.1
Metridia spp. - adult F	1	128.0	41	911	0.1
Calanus marshallae C-4	1	128.0	41	911	0.1
Neocalanus plumchrus C-3	1	128.0	41	911	0.1
Calanus marshallae C-1	1	128.0	41	911	0.1
Calanus marshallae C-5	1	128.0	41	911	0.1
Metridia spp. - adult F	1	128.0	41	911	0.1
Chaetognatha >20mm	32	2.0	20	455	< 0.1
Neocalanus cristatus C-5	8	2.0	5	114	< 0.1
Thysanoessa inermis A&J	3	2.0	2	43	< 0.1
Cnidaria - medusa >5mm	3	2.0	2	43	< 0.1
Hyperiididae >5mm	3	2.0	2	43	< 0.1
Mysidacea >5mm	1	2.0	1	14	< 0.1
Teleostei - larva >5mm	1	2.0	1	14	< 0.1
Siphonophora >5mm	1	2.0	1	14	< 0.1
			52232	1164773	100.

STA. F061A      57 43.0 N      155 16.2 W      11 Jul 87      14:31

DEPTH                  SAMPLING INTERVAL      VOLUME FILTERED      NET MESH  
297                      0 - 293                  365.7                  333

Taxon	Number counted	Sub/ fac	No./ 10m3	No./ m2
Metridia pacifica - adult M	51	512.0	714	21208
Calanus marshallae C-5	23	512.0	322	9564
Neocalanus plumchrus - adult F	22	512.0	308	9149
Metridia spp. - adult F	15	512.0	210	6238
Metridia pacifica - adult F	14	512.0	196	5822
Neocalanus plumchrus C-5	13	512.0	182	5406
Metridia pacifica C-5 M	11	512.0	154	4574
Metridia pacifica C-5 F	8	512.0	112	3327
Calanus marshallae - adult F	7	512.0	98	2911
Invertebrata - egg <5mm	7	512.0	98	2911
Metridia spp. C-5 F	6	512.0	84	2495
Thecosomata <5mm	5	512.0	70	2079
Larvacea	5	512.0	70	2079
Brachyura - larva	4	512.0	56	1663
Calanus marshallae C-4	4	512.0	56	1663
Metridia spp. C-5 M	4	512.0	56	1663
Chaetognatha <5mm	4	512.0	56	1663
Ostracoda <5mm	4	512.0	56	1663
Chaetognatha 5-20mm	85	16.0	37	1105
Neocalanus cristatus C-5	42	16.0	18	546
Gastropoda - veliger <5mm	1	512.0	14	416
Cnidaria - medusa <5mm	1	512.0	14	416
Metridia spp. C-4	1	512.0	14	416
Neocalanus plumchrus - adult M	1	512.0	14	416
Siphonophora <5mm	1	512.0	14	416
Chaetognatha >20mm	24	16.0	11	312
Gammaridea >5mm	6	16.0	3	78
Thysanoessa inermis A&J	6	16.0	3	78
Mysidacea >5mm	6	16.0	3	78
Other Copepoda >5mm	5	16.0	2	65
Eucalanus bungii - adult F	4	16.0	2	52
Hyperiidea >5mm	4	16.0	2	52
Cnidaria - medusa >5mm	3	16.0	1	39
Siphonophora >5mm	2	16.0	1	26
Teleostei - larva >5mm	2	16.0	1	26
Euphausia pacifica A&J	1	16.0	< 1	13
Neocalanus cristatus C-4	1	16.0	< 1	13
Natantia A&J >5mm	1	16.0	< 1	13
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			3052	90654

STA. F061A      57 43.0 N      155 16.2 W      11 Jul 87      14:31

DEPTH                  SAMPLING INTERVAL      VOLUME FILTERED      NET MESH  
297                      0 - 293                  43.1                      150

Taxon	Number counted	Sub/ fac	No./ 10m3	No./ m2
Other Copepoda - nauplius	145	1024.0	34448	102310
Oithona spp.	72	1024.0	17105	508026
Invertebrata - egg <5mm	51	1024.0	12116	359852
?Pseudocalanus spp. C-1	23	1024.0	5464	162286
?Pseudocalanus spp. C-3	96	204.8	4561	135474
Pseudocalanus spp. - adult F	91	204.8	4324	128418
Pseudocalanus spp. C-5 M	73	204.8	3469	103016
?Pseudocalanus spp. C-2	14	1024.0	3326	98783
Other Copepoda <2mm	13	1024.0	3088	91727
Pseudocalanus spp. C-5 F	58	204.8	2756	81849
Acartia spp.	9	1024.0	2138	63503
Gastropoda - veliger <5mm	8	1024.0	1901	56447
Pseudocalanus spp. - adult M	34	204.8	1615	47980
Pseudocalanus spp. C-4 M	30	204.8	1425	42336
Pseudocalanus spp. C-4 F	22	204.8	1045	31046
Cirripedia - nauplius <5mm	3	1024.0	713	21168
Chaetognatha <5mm	2	1024.0	475	14112
Other zooplankton <5mm	2	1024.0	475	14112
Echinodermata - larva <5mm	1	1024.0	238	7056
Polychaeta <5mm	1	1024.0	238	7056
Calanus marshallae C-3	4	204.8	190	5645
Calanus marshallae C-1	4	204.8	190	5645
Metriididae C-3	3	204.8	143	4234
Calanus marshallae C-2	1	204.8	48	1411
Metridia pacifica C-4	1	204.8	48	1411
			101539	3015702

STA. F060A      57 40.1 N      155 11.2 W      11 Jul 87      16:15

DEPTH                  SAMPLING INTERVAL      VOLUME FILTERED      NET MESH  
 291                      0 - 285                  361.8                  333

Taxon	Number counted	Sub/fac	No./10m3	No./m2
Metridia pacifica - adult M	56	256.0	396	11530
Calanus marshallae C-5	34	256.0	241	7001
Metridia pacifica - adult F	33	256.0	233	6795
Metridia pacifica C-5 M	26	256.0	184	5353
Neocalanus plumchrus C-5	25	256.0	177	5148
Calanus marshallae C-4	24	256.0	170	4942
Neocalanus plumchrus - adult F	20	256.0	142	4118
Calanus marshallae - adult F	18	256.0	127	3706
Metridia spp. C-5 F	15	256.0	106	3089
Thecosomata <5mm	14	256.0	99	2883
Metridia spp. - adult F	12	256.0	85	2471
Brachyura - larva	10	256.0	71	2059
Metridia pacifica C-5 F	8	256.0	57	1647
Neocalanus plumchrus - adult M	8	256.0	57	1647
Metridia spp. C-5 M	8	256.0	57	1647
Larvacea	8	256.0	57	1647
Invertebrata - egg <5mm	6	256.0	42	1235
Chaetognatha <5mm	4	256.0	28	824
Calanus marshallae C-3	4	256.0	28	824
Chaetognatha 5-20mm	97	8.0	21	624
Hyperiidia <5mm	3	256.0	21	618
Ostracoda <5mm	3	256.0	21	618
Other zooplankton <5mm	2	256.0	14	412
Neocalanus cristatus C-5	45	8.0	10	290
Gymnosomata <5mm	1	256.0	7	206
Cnidaria - medusa <5mm	1	256.0	7	206
Bivalvia - veliger <5mm	1	256.0	7	206
Anomura - larva	1	256.0	7	206
Foraminifera <5mm	1	256.0	7	206
Gammaridea <5mm	1	256.0	7	206
Chaetognatha >20mm	30	8.0	7	193
Mysidacea >5mm	18	8.0	4	116
Thysanoessa inermis A&J	11	8.0	2	71
Gammaridea >5mm	9	8.0	2	58
Neocalanus cristatus C-4	7	8.0	2	45
Eucalanus bungii - adult F	7	8.0	2	45
Other Copepoda >5mm	4	8.0	1	26
Teleostei - larva >5mm	3	8.0	1	19
Eucalanus bungii C-5 F	3	8.0	1	19
Hyperiidia >5mm	2	8.0	< 1	13
Cnidaria - medusa >5mm	2	8.0	< 1	13
Eucalanus bungii C-5 M	2	8.0	< 1	13
Thysanoessa inermis A&J	1	8.0	< 1	6
Siphonophora >5mm	1	8.0	< 1	6
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			2509	73005



STA. F060A      57 40.1 N      155 11.2 W      11 Jul 87      16:15

DEPTH                  SAMPLING INTERVAL      VOLUME FILTERED      NET MESH  
291                      0 - 285                  40.1                      150

Taxon	Number counted	Sub/ fac	No./ 10m3	No./ m2
Oithona spp.	130	512.0	16582	482522
Other Copepoda - nauplius	114	512.0	14541	423135
Pseudocalanus spp. - adult F	93	512.0	11862	345189
Invertebrata - egg <5mm	44	512.0	5612	163315
Pseudocalanus spp. - adult M	36	512.0	4592	133621
Pseudocalanus spp. C-5 F	24	512.0	3061	89081
Gastropoda - veliger <5mm	24	512.0	3061	89081
?Pseudocalanus spp. C-2	21	512.0	2679	77946
?Pseudocalanus spp. C-1	20	512.0	2551	74234
Other Copepoda <2mm	19	512.0	2423	70522
Pseudocalanus spp. C-5 M	18	512.0	2296	66811
?Pseudocalanus spp. C-3	17	512.0	2168	63099
Acartia spp.	16	512.0	2041	59387
Pseudocalanus spp. C-4 M	8	512.0	1020	29694
Pseudocalanus spp. C-4 F	7	512.0	893	25982
Other zooplankton <5mm	6	512.0	765	22270
Euphausiacea - nauplius	2	512.0	255	7423
Chaetognatha <5mm	2	512.0	255	7423
Echinodermata - larva <5mm	1	512.0	128	3712
Metriididae C-2	1	512.0	128	3712
Calanus marshallae C-3	1	512.0	128	3712
Bivalvia - veliger <5mm	1	512.0	128	3712
			77168	2245584

STA. F058A 57 36.1 N 155 00.1 W 11 Jul 87 18:27

DEPTH 236 SAMPLING INTERVAL 0 - 229 VOLUME FILTERED 378.1 NET MESH 333

Taxon	Number counted	Sub/fac	No./10m3	No./m2
Neocalanus plumchrus C-5	77	256.0	521	12304
Metridia pacifica - adult M	66	256.0	447	10546
Neocalanus plumchrus - adult F	39	256.0	264	6232
Metridia pacifica - adult F	30	256.0	203	4794
Calanus marshallae C-5	21	256.0	142	3356
Calanus marshallae C-4	19	256.0	129	3036
Metridia pacifica C-5 M	18	256.0	122	2876
Thecosomata <5mm	17	256.0	115	2716
Metridia pacifica C-5 F	17	256.0	115	2716
Brachyura - larva	15	256.0	102	2397
Neocalanus plumchrus - adult M	12	256.0	81	1917
Calanus marshallae C-3	9	256.0	61	1438
Metridia spp. - adult F	6	256.0	41	959
Chaetognatha 5-20mm	96	16.0	41	959
Invertebrata - egg <5mm	6	256.0	41	959
Metridia spp. C-5 F	4	256.0	27	639
Larvacea	3	256.0	20	479
Neocalanus cristatus C-5	47	16.0	20	469
Chaetognatha >20mm	33	16.0	14	330
Chaetognatha <5mm	2	256.0	14	320
Calanus marshallae - adult F	2	256.0	14	320
Metridia spp. C-5 M	2	256.0	14	320
Calanus marshallae - adult M	2	256.0	14	320
Ostracoda <5mm	2	256.0	14	320
Invertebrata <5mm	1	256.0	7	160
Polychaeta <5mm	1	256.0	7	160
Euphausiacea - furcilia	1	256.0	7	160
Metridia spp. C-4	1	256.0	7	160
Anomura - larva	1	256.0	7	160
Natantia - larva	1	256.0	7	160
Hyperiidia >5mm	10	16.0	4	100
Mysidacea >5mm	5	16.0	2	50
Cnidaria - medusa >5mm	5	16.0	2	50
Other Copepoda >5mm	4	16.0	2	40
Eucalanus bungii C-5 M	2	16.0	1	20
Neocalanus cristatus C-4	2	16.0	1	20
Eucalanus bungii - adult F	2	16.0	1	20
Teleostei - larva >5mm	1	16.0	< 1	10
Thysanoessa inermis A&J	1	16.0	< 1	10
Gammaridea >5mm	1	16.0	< 1	10
Gymnosomata >5mm	1	16.0	< 1	10
Eucalanus bungii C-5 F	1	16.0	< 1	10
Eucalanus bungii - adult M	1	16.0	< 1	10
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			2629	62038

STA. F058A      57 36.1 N      155 00.1 W      11 Jul 87      18:27

DEPTH                      SAMPLING INTERVAL                      VOLUME FILTERED                      NET MESH  
236                                      0 - 226                                      40.4                                      150

Taxon	Number counted	Sub/ fac	No./ 10m3	No./ m2
Oithona spp.	173	512.0	21919	517289
Other Copepoda - nauplius	136	512.0	17231	406655
?Pseudocalanus spp. C-1	49	512.0	6208	146515
Pseudocalanus spp. - adult F	45	512.0	5701	134555
?Pseudocalanus spp. C-3	39	512.0	4941	116614
?Pseudocalanus spp. C-2	30	512.0	3801	89703
Pseudocalanus spp. C-5 F	30	512.0	3801	89703
Gastropoda - veliger <5mm	27	512.0	3421	80733
Acartia spp.	26	512.0	3294	77743
Invertebrata - egg <5mm	22	512.0	2787	65782
Pseudocalanus spp. C-5 M	22	512.0	2787	65782
Pseudocalanus spp. C-4 F	20	512.0	2534	59802
Other Copepoda <2mm	20	512.0	2534	59802
Pseudocalanus spp. - adult M	17	512.0	2154	50832
Pseudocalanus spp. C-4 M	12	512.0	1520	35881
Other zooplankton <5mm	6	512.0	760	17941
Foraminifera <5mm	5	512.0	633	14951
Thecosomata <5mm	2	512.0	253	5980
Cirripedia - nauplius <5mm	2	512.0	253	5980
Chaetognatha <5mm	1	512.0	127	2990
Euphausiacea - calyptopis 2	1	512.0	127	2990
Euphausiacea - calyptopis 1	1	512.0	127	2990
Hyperiidia <5mm	1	512.0	127	2990
Metridia pacifica C-4	1	512.0	127	2990
Calanus marshallae C-2	1	512.0	127	2990
Calanus marshallae C-1	1	512.0	127	2990
			87423	2063177

STA. F056A      57 30.9 N      154 47.3 W      11 Jul 87      21:23

DEPTH                  SAMPLING INTERVAL          VOLUME FILTERED          NET MESH  
217                          0 - 209                          247.1                          333

Taxon	Number counted	Sub/fac	No./10m3	No./m2
Brachyura - larva	122	128.0	632	13713
Metridia pacifica - adult M	56	128.0	290	6295
Metridia spp. C-5 F	36	128.0	186	4047
Neocalanus plumchrus C-5	31	128.0	161	3485
Neocalanus plumchrus - adult F	30	128.0	155	3372
Metridia pacifica C-5 M	28	128.0	145	3147
Metridia spp. C-5 M	18	128.0	93	2023
Metridia pacifica C-5 F	15	128.0	78	1686
Metridia pacifica - adult F	13	128.0	67	1461
Calanus marshallae C-5	13	128.0	67	1461
Calanus marshallae C-4	12	128.0	62	1349
Chaetognatha <5mm	9	128.0	47	1012
Calanus marshallae C-3	8	128.0	41	899
Thecosomata <5mm	6	128.0	31	674
Invertebrata - egg <5mm	6	128.0	31	674
Chaetognatha 5-20mm	67	8.0	22	471
Other Copepoda 2-5mm	4	128.0	21	450
Neocalanus plumchrus - adult M	4	128.0	21	450
Metridia spp. - adult F	3	128.0	16	337
Ostracoda <5mm	3	128.0	16	337
Metridia spp. C-4	3	128.0	16	337
Neocalanus cristatus C-5	34	8.0	11	239
Calanus marshallae - adult M	2	128.0	10	225
Hyperiidea <5mm	2	128.0	10	225
Larvacea	2	128.0	10	225
Mysidacea >5mm	21	8.0	7	148
Foraminifera <5mm	1	128.0	5	112
Calanus marshallae - adult F	1	128.0	5	112
Cnidaria - medusa <5mm	1	128.0	5	112
Anomura - larva	1	128.0	5	112
Neocalanus cristatus C-3	1	128.0	5	112
Chaetognatha >20mm	15	8.0	5	105
Gammaridea >5mm	6	8.0	2	42
Cnidaria - medusa >5mm	5	8.0	2	35
Eucalanus bungii C-5 M	4	8.0	1	28
Eucalanus bungii C-5 F	4	8.0	1	28
Teleostei - larva >5mm	3	8.0	1	21
Thysanoessa inermis A&J	2	8.0	1	14
Eucalanus bungii - adult F	2	8.0	1	14
Neocalanus cristatus C-4	2	8.0	1	14
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			2286	49606

STA. F056A      57 30.9 N      154 47.3 W      11 Jul 87      21:23

DEPTH                  SAMPLING INTERVAL      VOLUME FILTERED      NET MESH  
217                      0 - 209                  28.0                      150

Taxon	Number counted	Sub/ fac	No./ 10m3	No./ m2
Other Copepoda - nauplius	77	512.0	14096	305876
Oithona spp.	67	512.0	12265	266152
Pseudocalanus spp. - adult F	44	512.0	8055	174786
Acartia spp.	33	512.0	6041	131090
?Pseudocalanus spp. C-1	27	512.0	4943	107255
?Pseudocalanus spp. C-2	20	512.0	3661	79448
Pseudocalanus spp. - adult M	12	512.0	2197	47669
Invertebrata - egg <5mm	11	512.0	2014	43697
Other Copepoda <2mm	9	512.0	1648	35752
Pseudocalanus spp. C-5 M	9	512.0	1648	35752
Pseudocalanus spp. C-5 F	7	512.0	1281	27807
?Pseudocalanus spp. C-3	7	512.0	1281	27807
Gastropoda - veliger <5mm	4	512.0	732	15890
Pseudocalanus spp. C-4 M	3	512.0	549	11917
Other zooplankton <5mm	2	512.0	366	7945
Pseudocalanus spp. C-4 F	2	512.0	366	7945
Hyperiidia <5mm	2	512.0	366	7945
Echinodermata - larva <5mm	2	512.0	366	7945
Foraminifera <5mm	1	512.0	183	3972
Chaetognatha <5mm	1	512.0	183	3972
Metriididae C-2	1	512.0	183	3972
Metriididae C-1	1	512.0	183	3972
Calanus marshallae C-1	1	512.0	183	3972
Bivalvia - veliger <5mm	1	512.0	183	3972
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