

PLANKTON STUDIES IN SAN FRANCISCO BAY. V.
ZOOPLANKTON SPECIES COMPOSITION AND ABUNDANCE
IN THE SOUTH BAY, 1980 - 1981
Anne Hutchinson

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Dallas L. Peck, Director

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for additional information write to:

Regional Hydrologist
Water Resources Division
U. S. Geological Survey
345 Middlefield Road
Menlo Park, CA 94025

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PLANKTON STUDIES IN SAN FRANCISCO BAY. V.
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By Anne Hutchinson

ABSTRACT

Data are presented that summarize zooplankton species composition and abundance in South San Francisco Bay during 1980 and 1981. Sampling was conducted at least twice monthly at thirteen stations, from the southern extremity of the South Bay to the Golden Gate Bridge between January 1980 and May 1981. Samples were collected by pump at three depths in the shipping channel and one depth over the shoals. Subsamples were enumerated while alive. Total zooplankton biomass as carbon was calculated from estimated carbon quotas and abundances of each organism enumerated.

INTRODUCTION

The 1980 and 1981 data in this report are a continuation of the author's 1978 and 1979 study of South San Francisco Bay zooplankton (Hutchinson, 1981). The study was expanded in 1980 from sampling once to twice per month (Table I) and the number of sampling stations was increased from seven to thirteen (Figure 1). All the new stations were located over the shoals where the average water depth is 2 m or less. The 1980 sampling scheme was continued until February 1981. The remainder of the 1981 samples were from two stations sampled weekly during March and April.

Zooplankton studies in San Francisco Bay by other researchers are summarized in the first data report (Hutchinson, 1981).

METHODS

The 545 samples in this study were collected on 40 cruises between January 1980 and May 1981.

Sampling stations (Figure 2) were located in the ship channel (depth \approx 10 m) and over the shoals (depth \approx 2 m). In the ship channel three depths were sampled: near-surface, mid-depth, and near-bottom. Over the shoals one sample was taken at mid-depth. Samples were taken with a Jabsco¹ (Model No. 18270-0000) 2-inch bronze and brass pump with a neoprene impeller, powered by an electric Baldor (Model No. M3609) 3-phase, 220-v motor. The intake end of a 2-inch PVC reinforced hose (B. F. Goodrich Radial Flex) was lowered with a hydrowire in the shipping channel or by hand over the shoals to depth. Zooplankton were collected by pumping water through a 64- μ mesh net. Total volume sampled was about 1.5 m³.

¹Brand names are for identification purposes only and do not constitute endorsement by the U. S. Geological Survey.

All counts were done on live animals. The samples were placed in a pharmaceutical cylinder to settle, and wet volume was measured. Bay-water, filtered through a 20- μ mesh screen, was added to make up a volume approximately 100 times the settled volume. The made up volume was usually 300 to 500 ml but ranged from 100 to 1000 ml. A 1-ml aliquot was removed with a Hensen-Stemple pipette and placed in a counting tray. The Plexiglas counting trays have short narrow cells which reduce animal movement from ship motion and swimming. All the animals in the 1-ml aliquot were enumerated; usually at least 50 individuals of the most abundant species were enumerated. Since only one aliquot was counted, rare species were either missed altogether or overestimated if present in the single aliquot. All samples were preserved in buffered formalin after counting.

An attempt was made to identify all animals to species level (Table II). Common copepod species were identified as females (F), males (M), copepodites (C), and nauplii (N). Unidentifiable organisms are referenced by letters (Table III and Figure 2). Estimates of the precision of the sampling and counting methods are given in Hutchinson (1981). Replicate samples were taken on 3 September 1980 (page 88).

While zooplankton were being collected, water samples were taken to measure vertical distributions of salinity (SALIN), temperature (TEMP), and chlorophyll a. Light extinction coefficient (EXCOF) was determined from vertical profiles of quantum irradiance. All discrete measurements of hydrographic data do not correspond to the same depths at which zooplankton were collected. In these cases hydrographic data were based upon linear interpolation of data collected at depths above and below depths of zooplankton sampling. In all cases the depth given is where the zooplankton were sampled and is not necessarily the depth of the

The hydrographic parameters and chlorophyll a measurements included here are the closest measurements (in time and space) taken. For the actual data see Smith and Herndon (1982).

Semi-quantitative detritus measurements were made for each sample. See Table IV for relative values. No attempt has been made to correct the data for tidal stage at the time of collection (tidal excursion is about 10 km in South Bay), but the data summary sheets note whether the tide was ebbing (-1), slack (0), or flooding (1).

Total zooplankton biomass is estimated in terms of carbon (mg C/m^3). The carbon content of each taxon was estimated from the literature by conversion from volume measurements or by carbon analysis. Table II lists the estimates of carbon for each taxon used to calculate zooplankton carbon per cubic meter.

Most of the samples were collected by the author and Jim Cloern with assistance from Andrea Alpine, Brian Cole, Michael McGowan, and Ray Wong. All the samples were enumerated by the author with tabulation help from many people. Computer assistance was provided by Richard Smith, Grant Eisen, and David Fitzjarrald.

REFERENCES

Hutchinson, A., 1981, Plankton studies in San Francisco Bay. III.

Zooplankton species composition and abundance in the South Bay, 1978 -
1979: U. S. Geological Survey Open-File Report 81-132, 107 p.

Smith, R. E., and Herndon, R. E., 1982, Physical and chemical properties of
San Francisco Bay waters, January 1980 - February 1981: U. S.
Geological Survey Open-File Report, (in prep).

TABLE I. SAMPLING DATES AND STATIONS

DATE	STATIONS SAMPLED														
	CHANNEL						SHOALS								
1980															
8 JAN	30,	27,	24,	19			102,	118,	128,	142,	156,	162,	168,	262	
23 JAN	36,	32,	30,	27,	24,	19									
5 FEB	36,	30,	27,	24,	19										
20 FEB	36,	32,	30				118,	126,	142,	156,	162,	168,	180,	186	
27 FEB	30,	27,	24				118,	156,	168						
4 MAR	36,	32,	30,	27,	24,	19	118,	126,	142,	156,	162,	168,	180		
18 MAR	36,	32,	30,	27,	24,	19									
25 MAR	30,	27					156,	168							
2 APR	30,	27,	24				142,	156,	168						
8 APR	36,	32,	30,	27,	24,	19	118,	128,	142,	156,	162,	168,	180,	188	
15 APR	30,	27,	24				142,	156,	162,	168					
22 APR	36,	32,	30,	27,	24,	22,	19	118,	126,	142,	156,	162,	168		
7 MAY	36,	32,	30,	27,	24,	21,	19	118,	126,	142,	156,	162,	168,	180,	188
21 MAY	30,	27,	24				118,	126,	142,	156,	168,	180			
4 JUN	36,	32,	30,	27,	24,	19	118,	126,	142,	156,	168,	180			
17 JUN	36,	32,	30,	27,	24,	19	118,	126,	142,	156,	162,	168,	180		
1 JUL	36,	32,	30,	27,	24,	21									
16 JUL	36,	32,	30,	27,	24,	19	118,	126,	142,	156,	162,	168,	180		
4 AUG	36,	32,	30,	27,	24,	21	118,	126,	142,	156,	162,	168,	180		
18 AUG	36,	32,	30,	27,	24,	19	118,	126,	142,	156,	162,	180			
3 SEP	36,	32,	30,	27,	24,	19	118,	126,	142,	156,	162,	168,	180		
16 SEP	36,	32,	27,	24,	19										
15 OCT	36,	32,	30,	27,	24,	19	118,	126,	142,	156,	162,	168,	180		
28 OCT	32,	30,	27,	24,	19										
12 NOV	36,	32,	30,	27,	24,	19	118,	126,	156,	162,	168,	180			
16 DEC	36,	32,	30,	27,	24,	19	118,	126,	142,	156,	162,	168,	180		
1981															
9 FEB	36,	32,	30,	27,	24,	19	126,	156,	162						
26 FEB	30						162								
5 MAR	30						162								
12 MAR	30						162								
16 MAR							162								
20 MAR	30						162								
27 MAR	30,	26					160,	197,	200						
2 APR	30						162								
7 APR	30						162								
14 APR	30						162								
20 APR	30						162								
22 APR	30						162								
24 APR	30						162								
5 MAY	30														

TABLE II. SPECIES LIST
With codes, carbon values and sources

F = Female, M = Male, C = Copepodite, N = Nauplius

Code	Species	us C/animal	Source
5	<i>Acartia clausi</i> F	2.770	1
6	<i>Acartia clausi</i> M	1.400	1
7	<i>Acartia clausi</i> C	0.800	3
8	<i>Acartia clausi</i> N	0.100	3
10	<i>Acartia californiensis</i> F	2.900	4
11	<i>Acartia californiensis</i> M	1.600	4
12	<i>Acartia californiensis</i> C	0.800	4
13	<i>Acartia californiensis</i> N	0.100	4
17	<i>Acartia tonsa</i> F	2.900	4
18	<i>Acartia tonsa</i> M	1.600	4
27	<i>Tortanus discaudatus</i> F	8.000	4
28	<i>Tortanus discaudatus</i> M	6.000	4
29	<i>Tortanus discaudatus</i> C	3.000	4
30	<i>Calanus pacificus</i> F	67.800	3
31	<i>Calanus pacificus</i> M	60.000	3
32	<i>Calanus pacificus</i> C	20.000	4
35	<i>Calanus tenuicornis</i> M	8.000	4
36	<i>Calanus tenuicornis</i> C	5.000	4
60	<i>Paracalanus parvus</i> F	2.500	4
61	<i>Paracalanus parvus</i> M	2.500	4
62	<i>Paracalanus parvus</i> C	0.500	4
63	<i>Paracalanus parvus</i> N	0.100	4
70	<i>Pseudocalanus</i> sp. A F	8.000	4
72	<i>Pseudocalanus</i> sp. A C	3.000	4
100	<i>Eurytemora affinis</i> F	3.200	2
101	<i>Eurytemora affinis</i> M	2.500	2
102	<i>Eurytemora affinis</i> C	1.000	4
103	<i>Eurytemora affinis</i> N	0.200	4
140	<i>Centropages abdominalis</i> F	8.000	4
142	<i>Centropages abdominalis</i> C	3.000	4
143	<i>Sinocalanus dorii</i> F	8.000	4
144	<i>Sinocalanus dorii</i> M	6.000	4
145	<i>Sinocalanus dorii</i> C	3.000	4
161	<i>Pseudodiaptomus euryhalinus</i> M	4.000	4
162	<i>Pseudodiaptomus euryhalinus</i> C	2.000	4
190	<i>Epilabidocera lonsipedata</i> F	40.000	4
191	<i>Epilabidocera lonsipedata</i> M	30.000	4
192	<i>Epilabidocera lonsipedata</i> C	12.000	4
194	copepodite (unknown)	3.000	4
195	copepod nauplius D	0.200	4
196	copepod nauplius A	0.100	4
197	copepod nauplius B	0.100	4
198	copepod nauplius C	0.100	4
199	copepod nauplius	0.100	4
200	Cyclopoida	3.000	4
201	Cyclopoid A (large-low sal)	4.000	4
210	<i>Oithona</i> spp.	0.600	4
213	<i>Oithona spinirostris</i>	0.700	4
220	<i>Corycaeus</i> sp.	1.400	4
250	Harpacticoida	1.200	4
251	Harpacticoid B (bronze)	1.000	4
260	<i>Sapphirina</i> spp.	1.800	4
270	<i>Microsetella</i> sp.	0.800	4
280	Harpacticoid sp. A	0.800	4
281	Harpacticoid A N	0.080	4
300	Amphipoda	0.000	
305	<i>Ampelisca milleri</i>	0.000	
320	Isopoda	0.000	
321	Isopoda imm.	0.000	
325	<i>Synidotea laticauda</i> imm.	0.000	
331	Mysid Juvenile	0.000	
332	<i>Neomysis mercedis</i>	0.000	

1. CHN analysis
2. Carbon value from literature
3. Estimated from literature dry wt.
4. Estimated from volume measurements

If no carbon is listed, the species was not included in carbon estimates.

Table II. SPECIES LIST continued

333	Neomysis mercedis Juv.	0.000	
340	Reptantia zoea	0.000	
345	Grapsid zoea	0.000	
350	Xanthid zoea	0.000	
355	Cancer zoea	0.000	
360	Pinnotherid zoea	0.000	
370	Natantia zoea	0.000	
375	Caridean zoea	0.000	
376	Cranson sp.	0.000	
391	euphausiid nauplius	0.000	
401	barnacle nauplius	1.500	4
402	barnacle cypris	2.000	4
420	Ostracoda	1.000	4
440	Cladocera	1.000	4
441	Bosmina sp.	1.700	4
444	Daphnia sp.	0.000	4
445	Daphnia pulex	1.000	4
505	echinoderm pleuteus larva	0.800	4
520	Chaetosnatha	5.000	4
521	Sasitta spp.	5.000	4
540	Larvacea	1.000	4
541	Oikopleuridae	1.000	4
545	Ascidian larva	1.000	4
551	Engraulis mordax egg	1.000	4
559	other fish egg	1.000	4
560	fish larva	0.000	
570	Gobiidae larva	0.000	
581	Clupea harengus	0.000	
582	Engraulis mordax larva	0.000	
601	tintinnid spp.	0.010	4
602	Tintinnopsis sp. A	0.020	4
603	Tintinnopsis sp. B	0.008	1
604	Tintinnid sp. C	0.008	4
605	Eutintinnus neriticus	0.020	4
608	Parafavella sp.	0.010	4
609	Tintinnopsis sp. E (1/4B)	0.001	4
630	coiled Foraminifera	0.050	4
640	Hydrozoa	0.000	
646	Polyorchis sp.	0.000	
681	flatworm sp. A	1.500	4
682	flatworm sp. B	1.500	4
690	Nemertina	2.000	4
691	Pilidium larva	0.500	4
692	Nemertine larva	1.000	4
700	Rotifera	0.050	4
701	Synchaeta sp.	0.050	4
702	Synchaeta sp. egg	0.050	4
703	Brachionus sp.	0.030	4
704	Kellicottia sp.	0.030	4
705	Keratella sp.	0.030	4
713	Asplancha sp.	0.070	4
715	Polyarthra sp.	0.030	4
719	Filinia sp.	0.030	4
740	Nematoda	2.000	4
748	Phoronida larva	0.500	4
750	Ectoprocta (Bryozoa)	0.000	4
751	Ectoprocta larva	0.200	4
770	Sipunculoidea	0.000	4
790	Mollusca	0.000	4
801	Gastropod veliger	0.300	4
821	Bivalvia veliger	0.300	4
850	Polychaeta	0.000	4
851	polychaete trochophore	1.200	4
852	polychaete larva	0.000	4
855	spionid larva	2.300	4
856	Polydora ligna	3.000	4
860	Eteone longa	3.000	4
880	scaevora larva	2.300	4
881	Harmothoe imbricata	3.000	4
899	pelagic polychaete	4.000	4
901	Insecta	0.000	
905	Chironomidae larva	0.000	

1. CHN analysis

2. Carbon value from literature

3. Estimated from literature dry wt.

4. Estimated from volume measurements

If no carbon is listed, the species was not included in carbon estimates.

TABLE III. NOTES ON UNIDENTIFIED SPECIES

<u>CODE</u>	<u>NAME</u>	<u>NOTES</u>
195	Copepod nauplius D	Fig. 2A
196	Copepod nauplius A	Probably a parasitic copepod, not a nauplius. Fig. 2B
197	Copepod nauplius B	Perhaps <u>Eurytemora affinis</u> nauplius. Fig. 2C
198	Copepod nauplius C	Fig. 2D
280	Harpacticoid sp. A	Red color in live animal. Fig. 2E
281	Harpacticoid sp. A N	Distinguishable only by red color in live animal.
602	<u>Tintinnopsis</u> sp. A	Fig. 2F
603	<u>Tintinnopsis</u> sp. B	Fig. 2G
604	Tintinnid sp. C	Probably preserved <u>Parafavella</u> sp.
681	Flatworm sp. A	Polyclad turbellaria Fig. 2H
682	Flatworm sp. B	Nonpolyclad turbellaria. May contain several species.
855	Spionid larva	Probably <u>Polydora ligna</u>
880	Scale worm larva	Probably <u>Hermothoe imbricata</u>

TABLE IV. DEFINITION OF DETRITUS MEASUREMENT

<u>DETRITUS MEASUREMENT</u>	<u>VOLUME (in ml) OF NONLIVING MATERIAL IN 1.5 m³ OF WATER</u>
-	Not measured
0	0
1	<1
2	1-4
3	5-10
4	>10

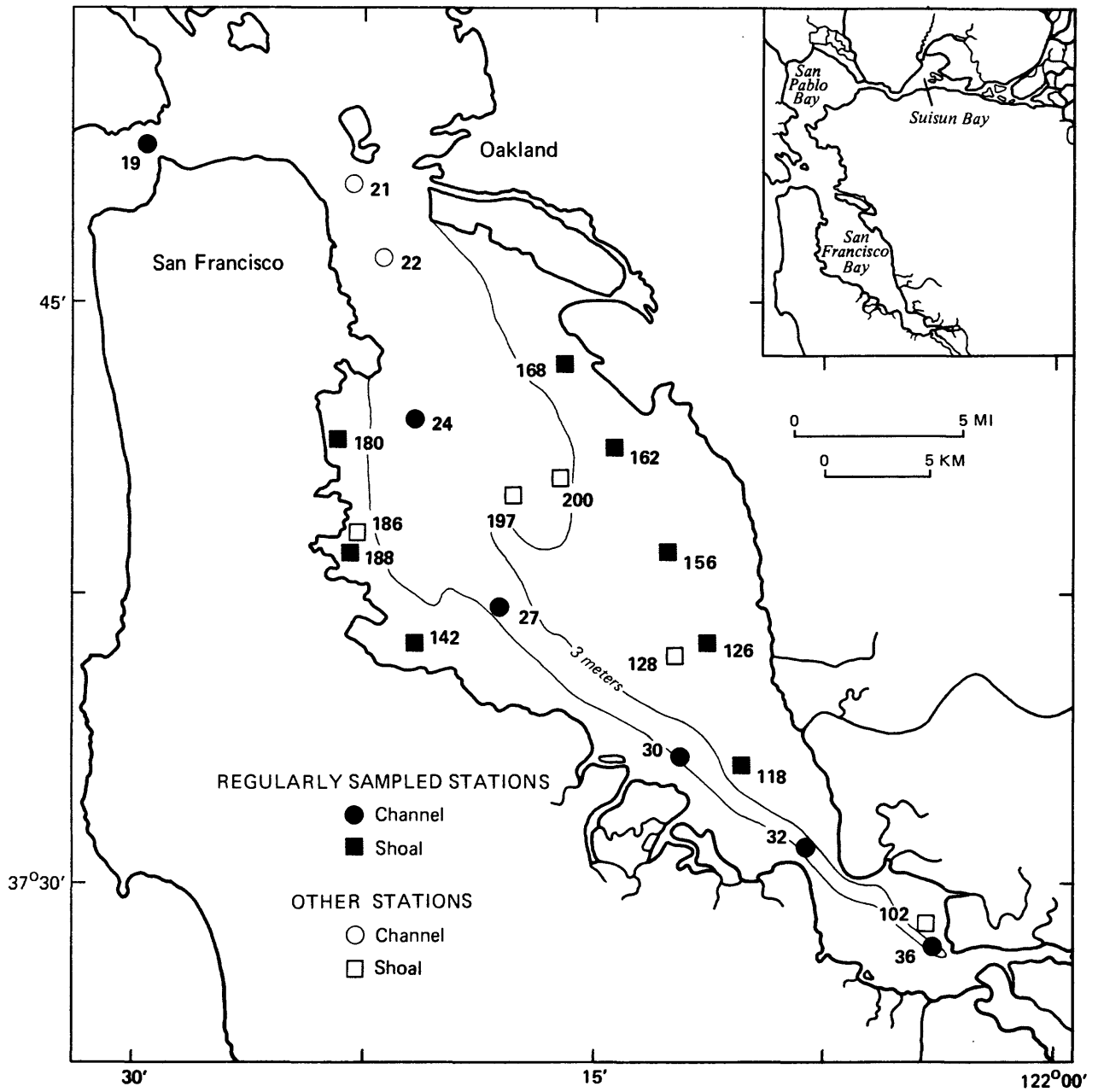


Figure 1. Map of South San Francisco Bay showing sampling stations.

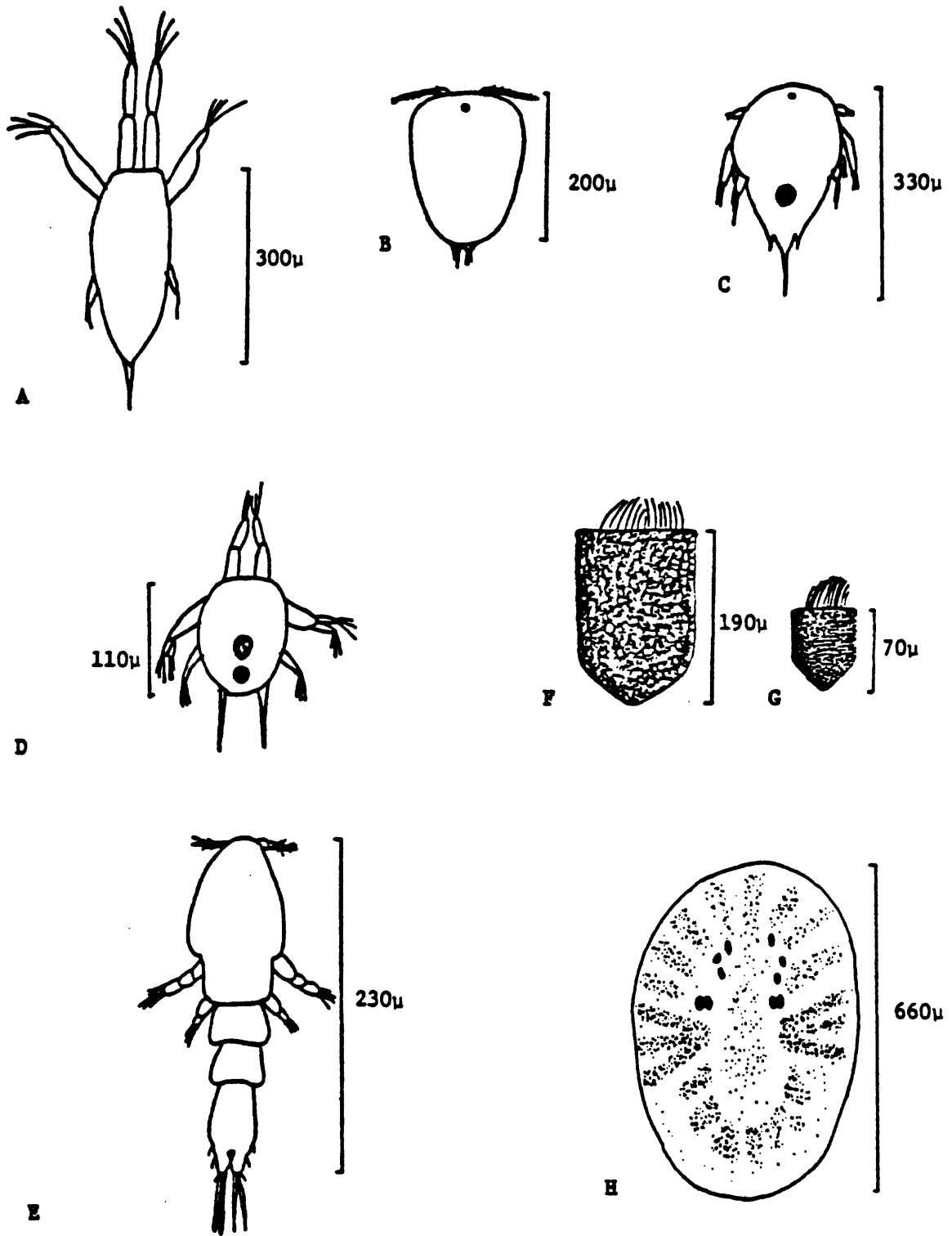


Figure 2. Illustrations of Unknown Species. A, copepod nauplius D; B, copepod nauplius A; C, copepod nauplius B; D, copepod nauplius C; E, harpacticoid sp. A; F, Tintinnopsis sp. A; G, Tintinnopsis sp. B; H, Flatworm sp. A.

APPENDIX A. ZOOPLANKTON DATA TABLES

U.S. GEOLOGICAL SURVEY - WATER RESOURCES

ESTUARINE STUDIES GROUP
ZOOPLANKTON

Page 1

DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE										
80180	80008	South S.F. Bay	Polaris	64										
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type					
1135	30	12.0	11.3	28.1	1.9	1.2	0	1	ship					
1141	30	6.0	11.3	28.0	1.9	1.1	0	1	ship					
1147	30	1.0	11.6	27.6	1.9	1.1	0	1	ship					
1246	27	10.0	11.2	27.8	0.9	1.0	0	1	ship					
1252	27	5.0	11.2	27.8	1.4	0.8	0	1	ship					
1258	27	1.0	11.3	27.2	2.0	0.7	0	1	ship					
1353	24	9.0	11.2	26.1	1.2	0.9	0	1	ship					
1359	24	5.0	11.2	25.6	1.2	0.9	0	1	ship					
1405	24	1.0	11.5	24.8	1.2	0.8	0	1	ship					
				Station Depth	30 12.0	6.0	1.0	10.0	27 5.0	1.0	9.0	24 5.0	1.0	
Code	Name	Number per cubic meter												
5	Acartia clausi F	3000	1600	0	800	1000	267	800	1200	1125				
6	Acartia clausi M	4000	3000	200	1400	600	0	2200	1600	1250				
7	Acartia clausi C	9000	4000	1200	4600	26200	16000	1400	400	1875				
8	Acartia clausi N	1000	200	6800	1400	15800	24000	200	0	125				
36	Calanus tenuicornis C	0	0	0	0	0	0	0	0	0				
61	Paracalanus parvus M	0	0	0	0	0	0	0	0	0				
62	Paracalanus parvus C	0	0	0	0	0	0	0	0	0				
70	Pseudocalanus sp. A F	0	0	0	0	0	0	0	200	0				
192	Epilabidocera longipedata C	0	0	0	0	200	0	0	0	0				
195	copepod nauplius D	0	0	200	0	0	0	0	0	0				
210	Oithona spp.	0	0	0	0	0	0	0	0	0				
213	Oithona spirostris	0	0	0	0	200	0	0	0	0				
220	Corycaeus sp.	0	0	0	0	800	0	0	0	0				
250	Harpacticoida	1000	0	0	0	600	0	0	0	0				
401	barnacle nauplius	0	0	0	0	0	0	0	0	0				
602	Tintinnopsis sp. A	0	0	0	0	0	0	0	0	0				
603	Tintinnopsis sp. B	0	100000	7200	20400	42000	253333	74000	21200	31250				
605	Eutintinnus neriticus	0	200	0	0	2000	0	0	0	250				
750	Ectoprocta (Bryozoa)	1000	0	0	0	0	0	0	0	0				
821	Bivalvia veliger	0	0	0	0	0	0	0	0	0				
851	polychaete trochophore	0	0	200	200	0	0	0	0	0				
855	spionid larva	0	0	0	0	0	0	0	0	0				
				mg Carbon per cubic meter										
				22	13	2	8	31	18	7	8	7		

U.S. GEOLOGICAL SURVEY - WATER RESOURCES

ESTUARINE STUDIES GROUP
ZOOPLANKTON

page 2

DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
80180	80008	South S.F. Bay	Polaris	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
1633	19	14.0	11.9	30.0	0.9	0.7	0	-1	ship	
1639	19	7.0	11.8	28.3	0.8	0.7	0	-1	ship	
1645	19	1.0	11.7	27.7	0.8	0.7	0	-1	ship	

Code	Name	Station Depth	14.0	19 7.0	1.0	Number per cubic meter
5	Acartia clausi F		200	400	100	
6	Acartia clausi M		100	133	0	
7	Acartia clausi C		700	1200	500	
8	Acartia clausi N		100	800	2000	
36	Calanus tenuicornis C		200	0	0	
61	Paracalanus parvus M		0	133	0	
62	Paracalanus parvus C		100	0	0	
70	Pseudocalanus sp. A F		0	0	0	
192	Epilabidocera longipedata C		0	0	0	
195	copepod nauplius D		0	0	0	
210	Oithona spp.		0	533	100	
213	Oithona spinirostris		0	267	0	
220	Corycaeus sp.		0	0	300	
250	Harpacticoida		400	133	100	
401	barnacle nauplius		100	133	0	
602	Tintinnopsis sp. A		0	0	0	
603	Tintinnopsis sp. B		1000	5867	500	
605	Eutintinnus neriticus		0	0	0	
750	Ectoprocta (Bryozoa)		0	133	100	
821	Bivalvia veliger		100	1067	0	
851	polychaete trochophore		0	0	300	
855	spionid larva		100	0	100	
			3	4	2	mg Carbon per cubic meter

U.S. GEOLOGICAL SURVEY - WATER RESOURCES

ESTUARINE STUDIES GROUP
ZOOPLANKTON

page 4

DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
80180	80008	South S.F. Bay	Estero	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCDF /m	DETRITUS	TIDE	COUNT type	
1228	142	1.0	11.8	26.4	1.4	0.9	0	1	ship	
1330	156	1.0	11.7	27.9	2.0	0.8	0	1	ship	
1400	162	2.0	11.6	27.5	1.4	0.7	0	1	ship	
				Station	142			156	162	
				Depth	1.0			1.0	2.0	
Code	Name	Number per cubic meter								
5	Acartia clausi F	527 0 0								
6	Acartia clausi M	132 0 263								
7	Acartia clausi C	7112 1580 2766								
8	Acartia clausi N	21993 3556 3951								
62	Paracalanus parvus C	0 0 0								
192	Epilabidocera longipedata C	0 132 0								
198	copepod nauplius C	132 1712 1185								
199	copepod nauplius	0 132 0								
220	Corycaeus sp.	0 132 0								
250	Harpacticoida	395 1054 395								
401	barnacle nauplius	0 395 0								
603	Tintinnopsis sp. B	79017 37928 26866								
666	Polysorchis sp.	0 0 0								
701	Synchaeta sp.	132 0 0								
801	Gastropod veliger	0 263 0								
821	Bivalvia veliger	0 263 0								
851	polychaete trochophore	132 132 263								
855	spionid larva	132 395 1054								
880	scaeworm larva	0 0 0								
					mg Carbon per cubic meter					
					11				7	

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE					
80180	80008	South S.F. Bay	Estero	64					
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type
1432	168	2.0	11.3	26.5	6.9	0.9	0	1	ship
1637	262	2.0	11.2	21.6	1.0	1.0	0	1	ship

Station 168 262
Depth 2.0 2.0

Code	Name		Number per cubic meter
5	Acartia clausi F	1580	110
6	Acartia clausi M	263	110
7	Acartia clausi C	5136	1756
8	Acartia clausi N	922	1427
62	Paracalanus parvus C	0	110
192	Epilabidocera longipedata C	0	0
198	copepod nauplius C	132	110
199	copepod nauplius	0	0
220	Corycaeus sp.	0	0
250	Harpacticoida	132	219
401	barnacle nauplius	132	219
603	Tintinnopsis sp. B	14223	5487
666	Polysorchis sp.	0	0
701	Synchaeta sp.	0	0
801	Gastropod veliger	0	0
821	Bivalvia veliger	0	0
851	Polyschaete trochophore	0	0
855	spionid larva	132	0
880	scaeworm larva	132	0
		10	ms Carbon per cubic meter 3

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
230180	80023	South S.F. Bay	Polaris	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type
737	36	7.0	11.4	21.2	2.2	1.4	0	-1	SHIP
743	36	4.0	11.4	21.0	2.2	1.4	0	-1	SHIP
749	36	1.0	11.2	20.7	2.3	1.6	0	-1	SHIP
845	32	10.0	11.4	21.1	2.0	1.5	0	-1	SHIP
851	32	5.0	11.4	21.1	2.0	1.4	0	-1	SHIP
857	32	1.0	11.4	21.0	2.2	1.4	0	-1	SHIP
931	30	10.0	11.6	20.8	1.2	1.6	0	-1	SHIP
937	30	6.0	11.6	20.7	1.4	1.4	0	-1	SHIP
943	30	1.0	11.6	19.2	1.6	1.2	0	-1	SHIP

Code	Name	Station	Number per cubic meter								
		Depth	7.0	36 4.0	1.0	10.0	32 5.0	1.0	10.0	30 6.0	1.0
5	Acartia clausi F		1200	667	0	1733	2400	600	800	400	0
6	Acartia clausi M		933	1600	0	400	2000	0	1000	600	0
7	Acartia clausi C		5733	6800	933	11333	17400	13000	8000	5000	600
8	Acartia clausi N		3867	2000	133	20000	25200	29400	3600	4200	6800
10	Acartia californiensis F		0	0	0	0	0	0	0	0	0
28	Tortanus discaudatus M		0	0	0	0	200	0	0	0	0
29	Tortanus discaudatus C		0	0	0	0	0	0	0	0	0
30	Calanus pacificus F		0	0	0	0	0	0	0	0	0
31	Calanus pacificus M		0	0	0	0	0	0	0	0	0
32	Calanus pacificus C		0	0	0	0	0	0	0	0	0
36	Calanus tenuicornis C		0	0	0	0	0	0	0	0	0
60	Paracalanus parvus F		0	0	0	133	0	0	200	0	0
61	Paracalanus parvus M		0	0	0	0	0	0	0	0	0
62	Paracalanus parvus C		0	0	0	0	0	0	0	0	0
100	Eurytemora affinis F		0	0	0	0	0	200	0	0	0
102	Eurytemora affinis C		0	0	0	0	0	200	0	0	0
192	Epilabidocera lonsipedata C		0	0	0	0	0	0	0	0	0
199	copepod nauplius		0	0	0	0	0	0	0	0	0
200	Cyclopoida		0	0	0	0	200	0	0	0	0
210	Dithona spp.		0	0	0	0	0	0	0	0	0
220	Corycaeus sp.		0	0	0	133	0	200	0	0	0
250	Harpacticoida		133	0	133	133	0	200	0	0	200
300	Amphipoda		0	0	0	0	0	0	0	0	0
331	Mysid juvenile		0	0	0	0	0	0	0	0	0
345	Grapsid zoea		0	0	0	0	0	0	0	0	0
350	Xanthid zoea		0	0	0	0	0	0	0	0	0
355	Cancer zoea		0	0	0	0	0	0	0	0	0
360	Pinnotherid zoea		0	0	0	0	0	0	0	0	0
370	Natantia zoea		0	0	0	0	0	0	0	0	0
401	barnacle nauplius		0	0	0	0	0	200	0	0	200
520	Chaetosnatha		0	0	0	0	0	0	0	0	0
603	Tintinnopsis sp. B		24267	56667	57733	279333	300000	300000	160000	160000	116400
605	Eutintinnus neriticus		0	0	0	0	0	0	0	267	600
630	coiled Foraminifera		0	0	0	133	0	0	0	0	0
701	Synchaeta sp.		133	0	0	0	0	400	0	0	0
801	Gastropod veliger		0	0	0	0	200	0	0	0	0
821	Bivalvia veliger		0	0	0	0	200	400	0	0	0

Code	Name	Station	36	1.0	10.0	32	1.0	10.0	30	1.0
		Depth	7.0	4.0	10.0	5.0	10.0	6.0	1.0	
			Number per cubic meter							
851	polychaete trochophore	133	0	0	0	0	0	0	0	0
855	spionid larva	0	0	0	0	0	0	0	0	0
899	pelagic polychaete	0	0	0	0	0	0	0	0	0
			mg Carbon per cubic meter							
		10	10	1	19	30	19	12	8	3

Code	Name	Station	27			24			19		
		Depth	10.0	5.0	1.0	8.0	4.0	1.0	11.0	6.0	1.0
			Number per cubic meter								
851	polychaete trochophore		0	0	0	0	0	0	0	0	0
855	spionid larva		0	0	0	0	0	0	600	167	0
899	pelagic polychaete		0	0	0	0	0	0	1	0	0
			mg Carbon per cubic meter								
			12	26	22	1	13	8	10	4	5

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE										
50280	80036	South S.F. Bay	Polaris	64										
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCDF /m	DETRITUS	TIDE	COUNT type					
742	36	7.0	11.9	17.5	5.7	1.2	0	-1	ship					
748	36	4.0	11.9	17.4	5.7	1.2	0	-1	ship					
756	36	1.0	11.9	17.3	5.7	1.5	0	-1	ship					
931	30	12.0	11.8	17.9	3.0	1.2	0	0	ship					
937	30	6.0	11.7	17.8	2.9	1.2	0	0	ship					
943	30	1.0	11.6	17.7	2.2	1.2	0	0	ship					
1049	27	11.0	11.1	17.3	1.8	1.4	0	1	ship					
1055	27	6.0	11.1	17.3	1.8	1.3	0	1	ship					
1101	27	1.0	11.1	17.3	1.8	1.3	0	1	ship					
					Station Depth	36 4.0	30 1.0	30 12.0	30 6.0	27 1.0	27 11.0	27 6.0	27 1.0	
Code	Name	Number per cubic meter												
5	Acartia clausi F	8000	6200	2400	1400	3200	2400	600	2800	2000				
6	Acartia clausi M	1600	3400	400	1400	1400	1000	1200	2000	0				
7	Acartia clausi C	3000	4200	2000	3400	13400	12600	1200	5000	3000				
8	Acartia clausi N	3800	6400	14000	8400	13000	10400	200	0	2600				
27	Tortanus discaudatus F	0	0	0	0	200	0	0	0	0				
30	Calanus pacificus F	0	0	0	0	0	0	0	0	0				
60	Paracalanus parvus F	0	0	0	0	0	0	0	0	0				
61	Paracalanus parvus M	0	0	0	0	0	0	0	0	0				
62	Paracalanus parvus C	0	0	0	0	0	0	0	0	0				
70	Pseudocalanus sp. A F	0	0	0	0	0	0	0	0	0				
72	Pseudocalanus sp. A C	0	0	0	0	0	0	0	0	0				
102	Eurytemora affinis C	0	0	200	200	0	0	0	0	0				
199	copepod nauplius	0	0	0	0	0	0	0	0	0				
210	Oithona spp.	0	0	0	0	0	0	0	0	0				
213	Oithona spirostris	0	0	0	0	0	0	0	0	0				
220	Corycaeus sp.	0	0	0	0	0	0	0	0	0				
250	Harpacticoida	0	0	0	200	0	200	0	0	0				
280	Harpacticoid sp. A	0	0	0	0	0	0	200	0	0				
321	Isopoda imm.	0	0	0	0	0	0	0	0	0				
370	Natantia zoea	0	0	0	0	0	0	0	0	0				
401	barnacle nauplius	0	0	0	0	0	0	0	0	0				
603	Tintinnopsis sp. B	1400	1600	13000	63600	60000	68000	23600	76000	160000				
605	Eutintinnus neriticus	0	0	0	0	1200	3600	1200	7800	1400				
607	Tintinnopsis sp. D (2B)	0	200	0	400	0	0	0	200	1200				
700	Rotifera	0	200	200	200	200	200	0	0	0				
701	Synchaeta sp.	0	0	0	0	200	100	200	0	0				
702	Synchaeta sp. egg	200	0	0	0	0	0	0	0	0				
821	Bivalvia veliger	0	0	0	0	200	0	0	0	0				
851	polyschaete trochophore	0	0	0	200	0	100	0	0	0				
855	spionid larva	0	0	0	200	200	0	0	0	0				
880	scaeworm larva	0	0	0	200	200	0	0	200	0				
				mg Carbon per cubic meter										
				27	26	11	12	26	20	5	16	10		

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
50280	80036	South S.F. Bay	Polaris	64						
TIME	STATION	DEPTH #	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /#	DETRITUS	TIDE	COUNT type	
1202	24	9.0	11.5	20.2	1.4	1.7	1	1	SHIP	
1208	24	4.0	11.4	20.1	1.2	1.4	1	1	SHIP	
1214	24	1.0	11.5	18.9	1.2	1.2	0	1	SHIP	
1451	19	13.0	12.3	29.4	1.1	2.6	0	0	SHIP	
1457	19	8.0	12.3	29.3	1.1	2.6	0	0	SHIP	
1504	19	1.0	12.2	26.3	0.9	2.6	0	0	SHIP	

Code	Name	Station Depth							Number per cubic meter
		9.0	4.0	1.0	13.0	8.0	1.0		
5	Acartia clausi F	100	400	533	400	400	933		
6	Acartia clausi M	200	267	133	133	0	133		
7	Acartia clausi C	400	1067	5467	667	800	1733		
8	Acartia clausi N	100	800	18667	533	0	0		
27	Tortanus discaudatus F	0	0	0	0	0	0		
30	Calanus pacificus F	200	0	0	0	0	0		
60	Paracalanus parvus F	200	133	0	400	200	0		
61	Paracalanus parvus M	100	0	0	0	0	0		
62	Paracalanus parvus C	100	0	0	667	0	0		
70	Pseudocalanus sp.A F	0	0	0	0	400	0		
72	Pseudocalanus sp.A C	0	0	0	0	200	0		
102	Eurytemora affinis C	0	0	0	0	0	0		
199	copepod nauplius	0	267	133	9333	12400	36000		
210	Oithona spp.	0	133	0	133	400	133		
213	Oithona spirostris	0	0	0	0	800	0		
220	Corycaeus sp.	0	0	133	267	0	0		
250	Harpacticoida	0	0	0	0	0	0		
280	Harpacticoid sp.A	0	0	0	0	0	0		
321	IsoPoda imm.	0	133	0	0	0	0		
370	Natantia zoea	0	0	0	133	0	0		
401	barnacle nauplius	0	0	0	133	0	533		
603	Tintinnopsis sp. B	6000	8933	146667	3733	1400	0		
605	Eutintinnus neriticus	0	800	0	0	0	0		
607	Tintinnopsis sp.D (2B)	100	0	0	0	0	0		
700	Rotifera	100	0	0	0	0	0		
701	Synchaeta sp.	0	0	0	0	0	0		
702	Synchaeta sp. egg	0	0	0	0	0	0		
821	Bivalvia veliger	0	0	133	533	800	133		
851	Polychaete trochophore	0	0	0	0	0	0		
855	spionid larva	0	0	133	133	600	133		
880	scaleworm larva	0	0	0	0	0	0		
		15	3	10	5	10	9		

mg Carbon per cubic meter

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
50280	80036	South S.F. Bay	Estero	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
810	118	1.0	11.7	17.8	3.4	1.4	0	-1	ship	
850	126	1.0	11.5	17.6	2.2	1.2	0	0	ship	
1000	142	1.5	11.3	16.3	3.0	1.2	0	0	ship	
		Station		Depth						
			118		126				142	
			1.0		1.0				1.5	
Code	Name			Number per cubic meter						
5	Acartia clausi F		1000		0				0	
6	Acartia clausi M		0		0				0	
7	Acartia clausi C		3400		0				267	
8	Acartia clausi N		1600		1330				4390	
102	Eurytemora affinis C		0		133				0	
250	Harpacticoida		0		0				133	
401	barnacle nauplius		0		0				133	
603	Tintinnopsis sp. B		50000		31122				34200	
605	Eutintinnus neriticus		0		0				0	
607	Tintinnopsis sp. D (2B)		600		0				931	
630	coiled Foraminifera		0		0				0	
681	flatworm sp. A		0		133				0	
700	Rotifera		0		0				0	
701	Synchaeta sp.		200		133				0	
821	Bivalvia veliger		0		0				0	
851	polychaete trochophore		0		0				0	
855	spionid larva		0		0				267	
				ms Carbon per cubic meter						
				6					1	
									2	

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
50280	80036	South S.F. Bay	Estero	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
1100	156	1.5	11.8	17.7	4.8	1.0	0	1	ship	
1140	162	2.0	11.8	17.7	35.3	1.6	0	1	ship	
1205	168	2.5	11.8	17.6	7.6	1.3	0	1	ship	
				Station	156			162	168	
				Depth	1.5			2.0	2.5	
Code	Name	Number per cubic meter								
5	Acartia clausi F				533			533	533	
6	Acartia clausi M				133			267	400	
7	Acartia clausi C				1333			1733	3867	
8	Acartia clausi N				2133			6800	267	
102	Eurytemora affinis C				0			0	0	
250	Harpacticoida				0			0	0	
401	barnacle nauplius				0			533	0	
603	Tintinnopsis sp. B				35000			22000	30667	
605	Eutintinnus neriticus				0			0	533	
607	Tintinnopsis sp.D (2B)				0			0	133	
630	coiled Foraminifera				133			133	0	
681	flatworm sp. A				0			0	0	
700	Rotifera				0			0	0	
701	Synchaeta sp.				0			0	0	
821	Bivalvia veliger				0			0	133	
851	polychaete trochophore				0			0	0	
855	spionid larva				400			0	0	
					4	mg Carbon per cubic meter			5	

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
50280	80036	South S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
1325	180	2.0	11.9	18.3	2.3	1.4	0	1	ship
1355	186	2.5	11.9	17.4	3.7	1.1	0	1	ship

Code	Name	Station		Number per cubic meter	
		180	186	180	186
		Depth	Depth		
		2.0	2.5		
5	Acartia clausi F			667	1767
6	Acartia clausi M			400	1067
7	Acartia clausi C			11333	8000
8	Acartia clausi N			16667	4167
102	Eurytemora affinis C			0	0
250	Harpacticoida			0	0
401	barnacle nauplius			133	0
603	Tintinnopsis sp. B			20000	56400
605	Eutintinnus neriticus			133	0
607	Tintinnopsis sp. D (2B)			0	0
630	coiled Foraminifera			0	0
681	flatworm sp. A			0	0
700	Rotifera			0	133
701	Synchaeta sp.			0	0
821	Bivalvia veliger			0	133
851	polychaete trochophore			0	133
855	spionid larva			267	0
					ms Carbon per cubic meter
				14	14

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
200280	80051	South S.F. Bay	Polaris	64						
TIME	STATION	DEPTH #	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
856	36	5.0	13.4	7.6	2.5	18.9	4	-1	SHIP	
902	36	1.0	13.3	4.3	2.6	18.9	4	-1	SHIP	
957	32	4.5	13.3	13.3	1.4	3.4	3	-1	SHIP	
1140	30	5.0	12.9	16.4	2.2	4.0	1	-1	SHIP	
		Station Depth								
			5.0	36	1.0			32	30	
								4.5	5.0	
Code	Name	Number per cubic meter								
5	Acartia clausi F		2800		0			2667	600	
6	Acartia clausi M		600		0			4267	1500	
7	Acartia clausi C		4000		200			8533	6150	
8	Acartia clausi N		3800		1100			533	150	
100	Eurytemora affinis F		400		0			0	0	
102	Eurytemora affinis C		600		0			0	0	
143	Sinocalanus dorii F		0		0			133	0	
197	copepod nauplius B		800		0			0	0	
200	Cyclopoida		400		0			0	0	
300	Amphipoda		20		10			0	0	
320	Isopoda		200		0			0	0	
321	Isopoda imm.		20		10			0	0	
325	Synidotea laticauda imm.		1		0			0	0	
521	Sagitta spp.		0		0			133	0	
603	Tintinnopsis sp. B		200		2000			59467	109500	
605	Eutintinnus neriticus		0		0			1333	150	
630	coiled Foraminifera		0		0			133	0	
701	Synchaeta sp.		0		200			533	0	
702	Synchaeta sp. egg		0		0			133	0	
705	Keratella sp.		0		300			0	0	
801	Gastropod veliger		0		0			133	0	
855	spionid larva		0		0			133	0	
880	scaleworm larva		0		0			0	150	
				mg Carbon per cubic meter						
				15	0			23	10	

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
200280	80051	South S.F. Bay	Estero	64

TIME	STATION	DEPTH #	TEMP C	SALIN oo/o	CHL _a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
855	118	1.0	12.8	16.5	2.3	9.3	3	-1	ship
930	126	0.5	12.9	12.6	3.9	12.4	3	-1	ship
1030	142	1.5	13.0	20.9	2.4	1.3	2	-1	ship

Code	Name	Station Depth	118 1.0	126 0.5	142 1.5
				Number per cubic meter	
5	Acartia clausi F		1400	400	133
6	Acartia clausi M		800	0	133
7	Acartia clausi C		7600	3000	6800
8	Acartia clausi N		400	600	3333
250	Harpacticoida		400	0	0
280	Harpacticoid sp. A		200	0	0
545	Ascidian larva		0	0	133
603	Tintinnopsis sp. B		46000	7800	36000
701	Synchaeta sp.		0	400	701
855	spionid larva		0	0	133
			12	mg Carbon per cubic meter	
				4	7

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
270280	80058	South S.F. Bay	Estero	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
906	30	5.0	13.6	12.5	5.6	0.8	0	1	ship	
1010	27	5.0	13.5	11.1	4.4	1.1	0	0	ship	
1050	24	5.0	13.0	9.6	1.3	1.6	0	-1	ship	
		Station		30				27		24
		Depth		5.0				5.0		5.0
Code	Name	Number per cubic meter								
5	Acartia clausi F			1054				0		2371
6	Acartia clausi M			0				0		2371
7	Acartia clausi C			1580				2897		10536
8	Acartia clausi N			4390				11326		0
62	Paracalanus parvus C			176				0		0
250	Harpacticoida			176				0		1054
401	barnacle nauplius			176				263		0
602	Tintinnopsis sp. A			0				263		0
603	Tintinnopsis sp. B			149254				355575		126427
701	Synchaeta sp.			0				527		0
821	Bivalvia veliger			0				1054		8165
855	spionid larva			0				263		0
				mg Carbon per cubic meter						
				6					8	23

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
270280	80058	South S.F. Bay	Estero	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
1508	118	1.0	14.5	13.9	3.2	3.3	0	-1	ship	
1256	156	1.5	14.8	14.9	4.9	2.2	0	-1	ship	
1158	168	2.0	13.9	12.4	2.7	3.3	1	-1	ship	
		Station		118				156	168	
		Depth		1.0				1.5	2.0	
Code	Name	Number per cubic meter								
5	Acartia clausi F	0								
6	Acartia clausi M	878								
7	Acartia clausi C	5707								
8	Acartia clausi N	14486								
603	Tintinnopsis sp. B	526778								
701	Synchaeta sp.	0								
855	spionid larva	3512								
					mg Carbon per cubic meter					
					4				20	
									5	

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
40380	80064	South S.F. Bay	Polaris	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
933	36	4.0	13.8	11.1	3.6	3.6	2	1	ship	
939	36	1.0	13.5	9.6	4.2	2.5	0	1	ship	
1043	32	5.0	14.1	13.2	2.4	1.5	1	1	ship	
1128	30	10.0	14.1	13.6	2.0	1.6	1	1	ship	
1134	30	6.0	14.1	13.6	2.1	1.6	1	1	ship	
1140	30	1.0	14.2	13.6	2.6	1.2	1	1	ship	
		Station Depth	36		32		30		1.0	
		4.0	1.0	5.0	10.0	6.0	1.0			
Code	Name	Number per cubic meter								
5	Acartia clausi F	5333	0	2400	2333	533	467			
6	Acartia clausi M	1333	0	1333	0	267	0			
7	Acartia clausi C	5067	2400	23467	26000	11467	12600			
8	Acartia clausi N	4533	9333	15467	23667	9067	31500			
62	Paracalanus parvus C	0	0	0	0	0	0			
63	Paracalanus parvus N	0	0	0	0	0	0			
101	Eurytemora affinis M	267	0	0	0	0	0			
102	Eurytemora affinis C	533	0	0	333	0	467			
197	copepod nauplius B	267	0	0	0	0	0			
199	copepod nauplius	0	267	0	0	0	0			
210	Oithona spp.	0	0	0	0	0	0			
220	Corycaeus sp.	0	0	0	0	0	0			
250	Harpacticoida	267	267	0	0	0	233			
270	Microsetella sp.	0	0	0	0	0	0			
321	Isopoda imm.	267	0	0	0	0	0			
401	barnacle nauplius	0	0	0	667	267	0			
582	Endraulis mordax larva	0	0	0	0	0	0			
602	Tintinnopsis sp. A	0	0	0	0	267	0			
603	Tintinnopsis sp. B	9333	240000	128000	116667	133333	128333			
681	flatworm sp. A	267	0	0	0	0	0			
700	Rotifera	0	0	0	0	267	0			
701	Synchaeta sp.	533	2400	1867	6000	800	7467			
702	Synchaeta sp. egg	267	0	0	2000	267	0			
801	Gastropod veliger	0	0	0	0	0	0			
821	Bivalvia veliger	0	0	0	333	0	233			
855	spionid larva	0	0	0	1667	267	700			
		23	5	ms Carbon per cubic meter		36	14	18		

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
40380	80064	South S.F. Bay	Polaris	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
1253	27	11.0	13.5	13.1	1.6	2.3	2	1	SHIP	
1259	27	6.0	13.5	13.1	1.7	2.2	1	1	SHIP	
1305	27	1.0	13.6	13.0	1.9	1.7	1	1	SHIP	
1414	24	10.0	13.3	16.2	0.6	1.5	0	1	SHIP	
1420	24	5.0	13.3	15.7	0.6	1.4	0	1	SHIP	
1426	24	1.0	13.2	13.0	0.8	1.3	0	1	SHIP	
1754	19	14.0	13.6	17.3	1.3	1.3	0	-1	SHIP	

Code	Name	Station Depth	11.0	27 6.0	1.0	10.0	24 5.0	1.0	19 14.0
		Number per cubic meter							
5	Acartia clausi F		1067	0	1000	533	1600	833	0
6	Acartia clausi M		800	533	0	7733	600	167	0
7	Acartia clausi C		5867	1600	12600	3200	1600	2333	1667
8	Acartia clausi N		2400	1333	6800	267	600	1167	1000
62	Paracalanus parvus C		0	0	0	267	0	0	3667
63	Paracalanus parvus N		0	0	0	0	0	0	333
101	Eurytemora affinis M		0	0	0	0	0	0	0
102	Eurytemora affinis C		0	0	0	0	0	0	0
197	copepod nauplius B		0	0	200	267	0	0	0
199	copepod nauplius		0	0	0	0	0	0	667
210	Oithona spp.		0	0	0	0	0	0	333
220	Corycaeus sp.		0	0	0	0	0	0	333
250	Harpacticoida		267	0	0	267	0	167	333
270	Microsetella sp.		0	0	200	0	0	0	333
321	Isopoda imm.		0	0	0	0	0	0	0
401	barnacle nauplius		0	0	0	0	0	0	0
582	Ensaaulis mordax larva		0	0	0	0	0	0	1
602	Tintinnopsis sp. A		0	0	0	0	0	0	0
603	Tintinnopsis sp. B		253333	200000	136000	93333	117800	119167	32667
681	flatworm sp. A		0	0	0	0	0	0	0
700	Rotifera		0	0	0	0	0	0	0
701	Synchaeta sp.		0	0	0	267	0	0	0
702	Synchaeta sp. egg		0	0	0	0	0	0	0
801	Gastropod veliger		0	0	0	267	0	0	0
821	Bivalvia veliger		0	0	0	1333	1600	0	2000
855	spionid larva		0	533	0	267	0	0	333
			11	5	15	17	8	6	6
			µg Carbon per cubic meter						

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
40380	80064	South S.F. Bay	Estero	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
845	118	1.0	12.8	13.2	3.4	2.0	0	1	ship	
925	126	1.0	13.0	13.4	5.4	3.0	1	1	ship	
1025	142	2.0	13.0	12.1	2.0	1.2	0	1	ship	
		Station		118				126		142
		Depth		1.0				1.0		2.0
Code	Name	Number per cubic meter								
5	Acartia clausi F			273				545		1364
6	Acartia clausi M			273				273		273
7	Acartia clausi C			7364				9273		5455
8	Acartia clausi N			12818				20182		4364
197	copepod nauplius B			273				0		0
198	copepod nauplius C			0				0		273
401	barnacle nauplius			273				0		273
603	Tintinnopsis sp. B			109091				180000		245455
630	coiled Foraminifera			273				0		0
700	Rotifera			0				0		0
701	Synchaeta sp.			5455				1091		0
702	Synchaeta sp. egg			545				0		273
740	Nematoda			0				0		0
821	Bivalvia veliger			0				0		0
855	spionid larva			273				1091		0
880	scaeworm larva			273				0		0
					mg Carbon per cubic meter					
				11	15					11

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE					
40380	80064	South S.F. Bay	Estero	64					
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type
1125	156	2.0	13.4	13.2	6.5	3.2	1	1	ship
1200	162	2.0	13.9	13.1	18.9	3.8	0	1	ship
1220	168	2.0	14.0	12.7	9.3	1.7	0	1	ship
		Station		156				162	168
		Depth		2.0				2.0	2.0
Code	Name	Number per cubic meter							
5	Acartia clausi F			364				1091	1818
6	Acartia clausi M			364				1455	0
7	Acartia clausi C			14545				9455	1818
8	Acartia clausi N			6909				12364	2909
197	copepod nauplius B			0				0	364
198	copepod nauplius C			0				0	0
401	barnacle nauplius			727				0	0
603	Tintinnopsis sp. B			127273				381818	98182
630	coiled Foraminifera			0				0	0
700	Rotifera			364				0	0
701	Synchaeta sp.			2545				364	0
702	Synchaeta sp. egg			0				0	0
740	Nematoda			364				0	0
821	Bivalvia veliger			0				364	0
855	spionid larva			9818				5818	4727
880	scaleworm larva			364				0	0
								ms Carbon per cubic meter	
				40				30	18

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
40380	80064	South S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCDF /m	DETRITUS	TIDE	COUNT type
1305	180	1.5	13.5	13.3	1.8	1.3	0	1	ship

Station 180
Depth 1.5

Code	Name	Number per cubic meter
5	Acartia clausi F	364
6	Acartia clausi M	364
7	Acartia clausi C	5091
8	Acartia clausi N	2545
197	copepod nauplius B	0
198	copepod nauplius C	0
401	barnacle nauplius	0
603	Tintinnopsis sp. B	200000
630	coiled Foraminifera	0
700	Rotifera	0
701	Synchaeta sp.	0
702	Synchaeta sp. egg	0
740	Nematoda	0
821	Bivalvia veliger	0
855	spionid larva	0
880	scaeworm larva	0

mg Carbon per cubic meter

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
180380	80078	South S.F. Bay	Polaris	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
1428	27	12.0	13.6	16.3	2.0	2.7	3	1	SHIP	
1434	27	6.0	13.7	16.3	2.1	2.3	3	1	SHIP	
1440	27	1.0	13.6	16.2	2.0	2.2	3	1	SHIP	
1527	24	9.0	13.5	18.3	1.9	4.4	5	-1	SHIP	
1533	24	5.0	13.5	18.2	1.7	2.1	3	-1	SHIP	
1539	24	1.0	13.5	18.1	1.7	2.0	2	-1	SHIP	
1746	19	10.0	13.4	22.1	1.5	1.8	2	-1	SHIP	
1740	19	1.0	13.3	22.6	1.5	1.9	3	-1	SHIP	

Code	Name	Station									
		Depth	12.0	6.0	1.0	9.0	5.0	1.0	10.0	19	1.0
		Number per cubic meter									
5	Acartia clausi F		4333	4667	3333	11333	9667	11333		0	133
6	Acartia clausi M		4000	2667	667	1667	1333	5000		0	0
7	Acartia clausi C		31667	50333	58667	9000	38000	29667		0	133
8	Acartia clausi N		13333	63333	157667	0	26667	28333		0	667
31	Calanus pacificus M		0	0	0	0	0	0		0	0
60	Paracalanus parvus F		0	0	0	333	0	0		0	0
62	Paracalanus parvus C		0	0	0	0	333	0		0	133
100	Eurytemora affinis F		0	0	0	0	0	0		0	0
101	Eurytemora affinis M		0	0	0	0	0	0		0	0
102	Eurytemora affinis C		333	0	0	0	0	0		0	0
199	copepod nauplius		0	0	0	0	0	0		7500	0
200	Cyclopoida		0	0	0	0	0	667		0	0
250	Harpacticoida		0	0	0	333	667	667		500	133
280	Harpacticoid sp. A		0	0	0	333	0	0		0	0
281	Harpacticoid A N		0	0	0	0	0	0		0	0
401	barnacle nauplius		0	333	667	0	667	0		0	0
602	Tintinnopsis sp. A		0	333	0	0	0	0		0	0
603	Tintinnopsis sp. B		256667	275667	351000	2667	61000	10000		10000	0
605	Eutintinnus neriticus		0	0	0	0	0	0		0	0
630	coiled Foraminifera		0	0	0	0	0	0		0	0
701	Synchaeta sp.		0	6333	15000	0	2667	0		0	0
740	Nematoda		0	0	0	0	0	0		0	0
801	Gastropod veliger		0	0	0	333	0	0		0	133
821	Bivalvia veliger		667	0	667	0	0	0		500	0
855	spionid larva		2000	1000	667	0	1000	333		0	0
880	scaeworm larva		0	0	333	0	0	0		0	0
			51	69	80	43	67	69		2	1
			mg Carbon per cubic meter								

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
250380	80085	South S.F. Bay	Estero	64

TIME	STATION	DEPTH #	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
630	30	5.0	13.0	12.6	8.2	4.9	0	-1	ship
737	27	5.0	12.9	15.5	4.6	0.5	0	-1	ship
743	27	1.0	12.9	15.5	4.6	0.5	0	-1	ship

Code	Name	Station Depth	30 5.0	27 5.0	1.0	Number per cubic meter
5	Acartia clausi F		5333	333	667	
6	Acartia clausi M		1600	1333	1000	
7	Acartia clausi C		7733	10667	56000	
8	Acartia clausi N		5866	3333	21000	
603	Tintinnopsis sp. B		0	300000	355000	
701	Synchaeta sp.		1333	0	1000	
821	Bivalvia veliger		533	0	333	
855	spionid larva		2933	333	0	
880	scaleworm larva		0	333	0	
			31	ms Carbon per cubic meter		
				16	53	

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
250380	80085	South S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCDF /m	DETRITUS	TIDE	COUNT type
957	156	1.0	12.9	14.4	6.2	12.2	2	-1	ship
859	168	2.0	13.5	14.3	23.2	4.1	1	-1	ship

Station	156	168
Depth	1.0	2.0

Code	Name		Number per cubic meter
5	Acartia clausi F	4000	3611
6	Acartia clausi M	1666	3611
7	Acartia clausi C	23000	29167
8	Acartia clausi N	667	555
10	Acartia californiensis F	0	833
11	Acartia californiensis M	0	1111
12	Acartia californiensis C	0	833
401	barnacle nauplius	0	277
460	Halocarida	0	278
560	fish larva	1	0
603	Tintinnopsis sp. B	80000	69444
630	coiled Foraminifera	333	277
855	spionid larva	333	0
			ms Carbon per cubic meter
		33	45

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
20480	80093	South S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type
624	30	1.0	12.9	13.7	25.2	3.8	1	-1	ship
723	27	5.0	13.0	16.1	12.4	2.3	0	-1	ship
730	27	1.0	13.0	16.1	12.4	2.3	0	-1	ship
812	24	5.0	12.7	19.8	5.2	1.4	0	0	ship
818	24	1.0	12.7	19.8	5.2	1.4	0	0	ship

Code	Name	Station		27		24	
		Depth	30	5.0	1.0	5.0	1.0
		Number per cubic meter					
5	Acartia clausi F		10000	7000	333	5000	1667
6	Acartia clausi M		2667	5000	333	5000	333
7	Acartia clausi C		24667	9667	32333	18333	6333
8	Acartia clausi N		11667	667	15667	333	5000
28	Tortanus discaudatus M		0	333	0	0	0
197	copepod nauplius B		0	0	0	0	667
250	Harpacticoida		0	0	1000	0	1000
280	Harpacticoid sp. A		0	0	0	0	333
401	barnacle nauplius		333	333	1000	0	333
602	Tintinnopsis sp. A		0	1333	0	666	0
603	Tintinnopsis sp. B		283333	833333	183333	933333	300000
605	Eutintinnus neriticus		0	0	1667	5333	333
701	Synchaeta sp.		0	0	0	0	333
855	spionid larva		0	5000	0	333	333
		mg Carbon per cubic meter					
			55	55	33	44	16

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE					
20480	80093	South S.F. Bay	Estero	64					
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type
1055	142	1.0	12.8	20.4	10.6	1.4	0	1	ship
956	156	1.0	13.0	14.1	8.4	8.2	1	1	ship
858	168	1.5	13.2	17.0	29.9	3.3	0	1	ship
904	168	0.5	13.2	17.0	29.9	3.3	0	1	ship
				Station	142	156	168		
				Depth	1.0	1.0	1.5	0.5	
Code	Name	Number per cubic meter							
5	Acartia clausi F			12000	15417	10667	11667		
6	Acartia clausi M			667	5417	23000	3667		
7	Acartia clausi C			5000	24167	37000	12333		
8	Acartia clausi N			12333	0	3333	333		
250	Harpacticoida			1000	0	333	0		
401	barnacle nauplius			333	0	0	0		
602	Tintinnopsis sp. A			667	0	0	3667		
603	Tintinnopsis sp. B			366667	375000	301333	266667		
855	spionid larva			7000	1250	1333	667		
					mg Carbon per cubic meter				
				60	75	98	51		

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
80480	80099	South S.F. Bay	Polaris	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
933	36	4.0	13.9	15.4	20.0	3.1	0	-1	ship	
936	36	1.0	14.3	11.8	22.0	3.8	0	-1	ship	
1028	32	11.0	13.9	17.1	6.0	2.9	1	-1	ship	
1034	32	6.0	13.9	15.8	40.0	2.5	0	-1	ship	
1040	32	1.0	14.2	14.7	50.2	2.2	0	-1	ship	
1118	30	11.0	13.6	19.7	21.0	1.9	0	-1	ship	
1125	30	6.0	14.0	17.5	21.3	1.9	0	-1	ship	
1139	30	1.0	13.9	15.8	38.1	1.9	0	-1	ship	

Code	Name	Station Depth																	
		4.0	36 1.0		11.0	32 6.0 1.0		11.0	30 6.0 1.0										
		Number per cubic meter																	
5	Acartia clausi F	13000	667	11000	10333	0	21000	8667	667										
6	Acartia clausi M	5000	667	7667	9333	333	23667	1667	333										
7	Acartia clausi C	16667	15333	6333	2800	11667	13333	20333	9333										
8	Acartia clausi N	11667	133333	3333	37000	240000	333	4000	26000										
195	copepod nauplius D	0	0	0	0	0	0	0	0										
197	copepod nauplius B	0	333	0	0	0	333	0	0										
199	copepod nauplius	0	0	0	0	0	0	0	0										
200	Cyclopoida	0	333	0	0	0	0	0	0										
213	Oithona spirostris	0	0	0	0	0	0	0	0										
250	Haracticoida	333	0	0	0	0	0	0	0										
270	Microsetella sp.	667	0	0	333	0	0	0	0										
321	Isopoda imm.	0	0	0	0	0	0	0	0										
333	Neomysis mercedis juv.	0	0	0	0	0	0	0	0										
401	barnacle nauplius	333	1333	0	0	0	0	0	667										
520	Chaetognatha	0	0	0	0	0	0	0	0										
602	Tintinnopsis sp. A	0	0	667	1333	2000	1333	5667	1667										
603	Tintinnopsis sp. B	0	0	0	0	0	0	0	0										
605	Eutintinnus neriticus	0	0	0	0	0	0	0	0										
630	coiled Foraminifera	0	0	333	0	0	0	0	0										
682	flatworm sp. B	0	0	1000	0	0	0	0	0										
701	Synchaeta sp.	2667	3000	1000	2000	2333	333	1667	4333										
702	Synchaeta sp. egg	2333	333	333	667	0	0	667	1000										
801	Gastropod veliger	0	0	0	0	0	0	0	0										
821	Bivalvia veliger	0	0	0	0	0	0	0	0										
855	spionid larva	1000	0	4000	333	3333	4000	10333	7667										
880	scaleworm larva	0	0	0	0	0	0	0	0										
		61			32		57			49		42		111		67		31	
		ms Carbon per cubic meter																	

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
80480	80099	South S.F. Bay	Polaris	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
1230	27	11.0	13.2	22.1	3.8	1.2	0	-1	ship	
1236	27	6.0	13.4	21.1	5.7	1.1	0	-1	ship	
1242	27	1.0	14.0	18.4	21.5	1.5	0	-1	ship	
1333	24	8.0	12.3	21.9	4.1	4.7	0	1	ship	
1339	24	4.0	12.8	23.1	4.0	2.0	0	1	ship	
1345	24	1.0	13.4	24.1	3.9	1.0	0	1	ship	
1647	19	14.0	11.0	30.0	2.6	0.7	0	1	ship	
1653	19	8.0	11.1	29.0	2.6	0.7	1	1	ship	
1659	19	1.0	11.3	28.2	2.7	0.7	1	1	ship	

Code	Name	Number per cubic meter										
		Station Depth	11.0	6.0	1.0	8.0	4.0	1.0	14.0	8.0	1.0	
5	Acartia clausi F		8667	1000	0	3000	1000	2000	333	333	0	
6	Acartia clausi M		8000	3333	0	6667	3000	667	0	333	0	
7	Acartia clausi C		14333	11333	3000	6667	13667	3667	1667	667	1333	
8	Acartia clausi N		0	1333	68333	333	1000	2333	2333	2667	3667	
195	copepod nauplius D		0	0	0	0	0	0	0	333	0	
197	copepod nauplius B		0	0	0	0	0	0	0	0	0	
199	copepod nauplius		0	0	0	0	0	0	0	0	1000	
200	Cyclopoida		0	0	0	0	0	0	0	0	0	
213	Oithona spinirostris		0	0	0	0	0	0	333	667	0	
250	Harpacticoida		0	0	0	0	0	333	333	667	0	
270	Microsetella sp.		0	0	0	0	0	0	333	0	0	
321	Isopoda imm.		333	0	0	0	0	0	0	0	0	
333	Neomysis mercedis Juv.		0	0	0	0	0	0	0	0	0	
401	barnacle nauplius		0	0	1000	0	0	0	0	333	667	
520	Chaetognatha		0	0	0	0	1	0	0	0	0	
602	Tintinnopsis sp. A		333	4333	1000	333	333	0	1000	333	0	
603	Tintinnopsis sp. B		7000	333	0	1000	667	0	0	0	333	
605	Eutintinnus neriticus		333	17333	333	1333	3667	0	1000	667	333	
630	coiled Foraminifera		0	0	0	0	0	0	0	0	0	
682	flatworm sp. B		0	0	0	0	0	1667	0	333	0	
701	Synchaeta sp.		0	3333	4667	0	0	1667	333	1000	667	
702	Synchaeta sp. egg		0	333	0	0	0	0	0	0	0	
801	Gastropod veliger		0	333	0	0	0	0	0	0	0	
821	Bivalvia veliger		0	333	0	0	0	0	0	333	0	
855	spionid larva		1333	66667	13000	1000	333	2667	1667	2333	1667	
880	scaeworm larva		0	333	0	333	0	0	1000	0	0	
		mg Carbon per cubic meter										
			50	172	41	26	19	19	10	10	6	

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
80480	80099	South S.F. Bay	Estero	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
845	118	2.0	13.8	16.3	42.6	2.1	0	-1	ship	
945	128	1.0	14.3	17.6	48.1	2.3	0	-1	ship	
1045	142	1.0	14.3	21.0	14.2	1.5	0	-1	ship	
		Station		118				128	142	
		Depth		2.0				1.0	1.0	
Code	Name			Number per cubic meter						
5	Acartia clausi F			5151				1288	2253	
6	Acartia clausi M			4507				322	1610	
7	Acartia clausi C			7404				12877	9014	
8	Acartia clausi N			26719				40884	56336	
250	Harpacticoida			0				0	0	
401	barnacle nauplius			0				644	0	
602	Tintinnopsis sp. A			966				322	0	
603	Tintinnopsis sp. B			0				0	0	
682	flatworm sp. B			0				0	0	
701	Synchaeta sp.			3219				4507	7082	
751	Ectoprocta larva			0				0	0	
855	spionid larva			2575				3541	1610	
880	scaeworm larva			0				0	0	
				35	mg Carbon per cubic meter				28	25

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE							
80480	80099	South S.F. Bay	Estero	64							
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type		
1145	156	1.0	15.6	14.9	59.9	3.0	0	1	ship		
1230	162	1.0	16.1	14.5	20.0	2.2	0	1	ship		
1300	168	1.0	15.4	16.4	28.4	1.7	0	1	ship		
		Station		156				162	168		
		Depth		1.0				1.0	1.0		
Code	Name				Number per cubic meter						
5	Acartia clausi F				7082				2453	402	
6	Acartia clausi M				4507				2146	805	
7	Acartia clausi C				70822				7971	1610	
8	Acartia clausi N				11589				3372	4024	
250	Harpacticoida				0				0	0	
401	barnacle nauplius				2253				0	402	
602	Tintinnopsis sp. A				0				0	0	
603	Tintinnopsis sp. B				0				183954	34606	
682	flatworm sp. B				0				0	0	
701	Synchaeta sp.				0				0	402	
751	Ectoprocta larva				0				0	805	
855	spionid larva				11267				5519	11670	
880	scaeworm larva				0				0	0	
				113					ms Carbon per cubic meter	31	32

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
80480	80099	South S.F. Bay	Estero	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
1400	180	1.0	14.4	21.1	5.0	0.9	0	1	ship	
1500	188	1.0	14.6	20.3	5.6	2.4	0	1	ship	
		Station		180						
		Depth		1.0						
					188					
					1.0					
Code	Name				Number per cubic meter					
5	Acartia clausi F				966	0				
6	Acartia clausi M				0	0				
7	Acartia clausi C				12233	966				
8	Acartia clausi N				103014	66959				
250	Harpacticoida				0	322				
401	barnacle nauplius				966	322				
602	Tintinnopsis sp. A				0	0				
603	Tintinnopsis sp. B				2897	322				
682	flatworm sp. B				322	322				
701	Synchaeta sp.				644	1610				
751	Ectoprocta larva				0	0				
855	spionid larva				4185	1932				
880	scaeworm larva				322	0				
					mg Carbon per cubic meter					
					35	13				

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
150480	80106	South S.F. Bay	Estero	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
632	30	5.0	15.5	18.1	34.3	2.4	0	-1	ship	
1323	30	5.0	16.8	19.7	14.6	-	0	1	ship	
745	27	4.0	15.0	19.8	12.9	1.9	0	-1	ship	
		Station		30				30	27	
		Depth		5.0				5.0	4.0	
Code	Name				Number per cubic meter					
5	Acartia clausi F			2356				1010	1010	
6	Acartia clausi M			3366				337	673	
7	Acartia clausi C			11443				22213	12789	
8	Acartia clausi N			34665				90533	11443	
199	copepod nauplius			0				337	0	
250	Harpacticoida			0				337	0	
321	Isopoda imm.			337				0	0	
401	barnacle nauplius			1010				0	0	
602	Tintinnopsis sp. A			8750				2692	5385	
605	Eutintinnus neriticus			0				673	337	
682	flatworm sp. B			337				0	0	
701	Synchaeta sp.			3366				24905	6731	
801	Gastropod veliger			0				0	337	
821	Bivalvia veliger			337				0	0	
855	spionid larva			3029				16491	1346	
880	scaeworm larva			0				337	0	
				33	mg Carbon per cubic meter				71	19

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
150480	80106	South S.F. Bay	Estero	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
857	24	3.0	14.9	10.0	8.7	1.4	4	-1	ship	

Station 24
Depth 3.0

Code	Name	Number per cubic meter
5	Acartia clausi F	1683
6	Acartia clausi M	841
7	Acartia clausi C	7572
8	Acartia clausi N	4207
199	copepod nauplius	0
250	Harpacticoida	0
321	Isopoda imm.	0
401	barnacle nauplius	841
602	Tintinnopsis sp. A	0
605	Eutintinnus neriticus	5890
682	flatworm sp. B	2524
701	Synchaeta sp.	0
801	Gastropod veliger	0
821	Bivalvia veliger	0
855	spionid larva	7572
880	scaleworm larva	0

mg Carbon per cubic meter

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
150480	80106	South S.F. Bay	Estero	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
1211	142	1.0	15.2	22.2	7.9	1.1	0	1	ship	
1105	156	1.0	17.5	17.2	6.5	2.1	0	1	ship	
1015	162	1.0	16.8	16.9	8.2	2.0	0	1	ship	
				Station	142	156	162			
				Depth	1.0	1.0	1.0			
Code	Name	Number per cubic meter								
5	Acartia clausi F	0 673 0								
7	Acartia clausi C	2692 13799 5721								
8	Acartia clausi N	32982 28270 13126								
505	echinoderm pleuteus larva	337 0 0								
602	Tintinnopsis sp. A	3029 337 2692								
605	Eutintinnus neriticus	3029 337 1010								
701	Synchaeta sp.	9760 1010 0								
751	Ectoprocta larva	0 673 0								
821	Bivalvia veliger	1010 337 673								
855	spionid larva	2356 2019 3702								
880	scaleworm larva	0 0 337								
					mg Carbon per cubic meter					
					12	21	15			

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
150480	80106	South S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
947	168	1.5	16.6	17.1	10.0	1.6	0	1	ship

Station 168
Depth 1.5

Code	Name	Number per cubic meter
5	Acartia clausi F	0
7	Acartia clausi C	4375
8	Acartia clausi N	14135
505	echinoderm pleuteus larva	0
602	Tintinnopsis sp. A	5721
605	Eutintinnus neriticus	0
701	Synchaeta sp.	2692
751	Ectoprocta larva	0
821	Bivalvia veliger	337
855	spionid larva	15481
880	scaleworm larva	0

mg Carbon per cubic meter

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
220480	80113	South S.F. Bay	Polaris	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
935	36	6.0	15.8	17.8	9.4	3.6	0	-1	ship
941	36	1.0	15.6	16.3	17.4	2.2	0	-1	ship
1056	32	8.0	15.8	18.7	9.1	2.6	2	-1	ship
1101	32	5.0	15.8	18.7	9.1	2.6	1	-1	ship
1107	32	1.0	15.8	18.2	10.5	1.9	0	-1	ship
1127	30	10.0	16.0	20.1	6.0	4.5	1	-1	ship
1133	30	5.0	15.9	19.6	6.2	2.6	1	-1	ship
1139	30	1.0	15.8	19.2	9.6	1.9	0	-1	ship

Code	Name	Station									
		Depth	6.0	36	1.0	8.0	32	1.0	10.0	5.0	1.0
		Number per cubic meter									
5	Acartia clausi F		3333		0	2667	3333	333	5833	1333	0
6	Acartia clausi M		2000		0	333	667	0	3750	4000	0
7	Acartia clausi C		24000		16667	9333	6000	22333	4167	17333	8333
8	Acartia clausi N		45333		70000	2000	667	20667	0	2000	10333
190	Epilabidocera lonsipedata F		0		0	0	0	0	0	0	0
191	Epilabidocera lonsipedata M		0		0	0	0	0	0	0	0
194	copepodite (unknown)		0		0	0	0	0	0	0	0
196	copepod nauplius A		0		0	0	0	0	0	0	0
197	copepod nauplius B		667		1333	333	0	2333	0	0	667
198	copepod nauplius C		0		0	0	0	0	0	0	0
199	copepod nauplius		0		0	0	0	0	0	0	0
200	Cyclopoida		0		0	0	0	333	0	0	0
210	Oithona spp.		0		0	0	0	0	0	0	0
220	Corycaeus sp.		0		0	0	0	0	0	0	0
250	Harpacticoida		0		0	0	0	667	0	0	0
401	barnacle nauplius		667		333	333	0	0	0	333	0
402	barnacle cypris		0		0	333	0	333	0	0	0
420	Ostracoda		0		0	0	0	0	0	333	0
521	Sasitta spp.		0		0	0	0	0	0	0	0
601	tintinnid spp.		0		0	333	0	0	0	0	0
602	Tintinnopsis sp. A		16000		35333	167333	149333	126000	270417	349000	93000
603	Tintinnopsis sp. B		0		0	667	0	0	0	0	0
605	Eutintinnus neriticus		0		0	0	0	0	0	333	0
608	Parafavella sp.		0		0	0	0	0	0	0	0
682	flatworm sp. B		0		0	0	0	0	1250	333	0
701	Synchaeta sp.		0		0	0	0	0	0	0	0
740	Nematoda		0		0	0	0	0	0	0	0
751	Ectoprocta larva		0		0	0	0	0	0	0	0
801	Gastropod veliger		0		0	333	0	0	417	667	0
821	Bivalvia veliger		0		0	0	333	0	417	333	333
851	polychaete trochophore		0		0	0	0	0	0	0	0
852	polychaete larva		0		0	0	0	0	0	0	0
855	spionid larva		3667		1333	667	2000	13333	2500	13667	15667
880	scaeworm larva		333		0	0	0	0	833	667	0
		mg Carbon per cubic meter									
		46		25		22	23	57	40	65	46

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
220480	80113	South S.F. Bay	Polaris	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
1257	27	9.0	15.9	21.6	4.9	1.7	0	-1	ship	
1303	27	5.0	15.8	20.9	4.9	1.3	1	-1	ship	
1309	27	1.0	15.8	20.8	6.3	1.3	0	-1	ship	
1359	24	7.0	15.0	24.0	2.8	0.6	0	1	ship	
1405	24	4.0	15.0	24.0	2.8	0.6	0	1	ship	
1411	24	1.0	14.9	24.0	2.9	0.6	0	1	ship	
1720	22	1.0	13.8	21.3	3.4	0.7	0	1	ship	

Code	Name	Station Depth	27 9.0	27 5.0	24 1.0	24 7.0	24 4.0	22 1.0	22 1.0
			Number per cubic meter						
5	Acartia clausi F	7000	1000	333	2333	790	1404	0	0
6	Acartia clausi M	6667	0	0	1333	2372	1754	0	0
7	Acartia clausi C	4333	4667	17000	4667	5929	6316	2000	0
8	Acartia clausi N	0	3000	12333	333	1976	1404	5000	0
190	Epilabidocera longipedata F	5	0	0	0	0	0	0	0
191	Epilabidocera longipedata M	5	0	0	0	0	0	0	0
194	copepodite (unknown)	0	0	0	0	0	0	0	0
196	copepod nauplius A	0	0	0	0	0	0	0	1000
197	copepod nauplius B	0	0	0	0	0	0	0	0
198	copepod nauplius C	0	0	333	0	0	0	0	0
199	copepod nauplius	0	0	0	0	0	0	0	0
200	Cyclopoida	0	0	0	0	0	0	0	0
210	Oithona spp.	0	0	0	0	0	0	0	0
220	Corycaeus sp.	0	0	0	0	0	0	0	667
250	Harpacticoida	0	0	0	0	395	0	0	1000
401	barnacle nauplius	0	0	667	333	1186	0	0	667
402	barnacle cypris	0	0	0	333	0	0	0	333
420	Ostracoda	0	0	0	0	0	0	0	0
521	Sasitta spp.	0	0	0	0	0	0	0	0
601	tintinnid spp.	0	0	0	0	0	0	0	0
602	Tintinnopsis sp. A	24333	26667	45000	1000	395	0	0	1000
603	Tintinnopsis sp. B	0	0	0	0	0	0	0	0
605	Eutintinnus neriticus	1333	1000	0	333	0	0	0	2333
608	Parafavella sp.	0	0	0	0	0	0	0	667
682	flatworm sp. B	0	333	333	0	0	2456	0	0
701	Synchaeta sp.	0	0	0	0	0	0	0	0
740	Nematoda	0	0	0	0	0	0	0	0
751	Ectoprocta larva	0	0	0	0	0	0	0	333
801	Gastropod veliger	0	0	0	333	0	0	0	0
821	Bivalvia veliger	0	0	333	333	790	351	0	0
851	polychaete trochophore	1000	0	0	333	0	0	0	0
852	polychaete larva	0	0	0	0	0	0	0	0
855	spionid larva	2000	23000	11667	0	13043	11579	4333	0
880	scaeworm larva	1000	0	0	333	0	0	667	0
			mg Carbon per cubic meter						
		41	61	45	15	43	42	18	

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
220480	80113	South S.F. Bay	Polaris	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
1624	19	15.0	11.5	31.0	6.0	1.2	1	1	ship
1630	19	5.0	11.7	30.0	3.9	0.9	0	1	ship
1635	19	1.0	11.8	29.9	3.7	0.9	1	1	ship

Code	Name	Station Depth	15.0	19 5.0	1.0	Number per cubic meter
5	Acartia clausi F		533	0	0	
6	Acartia clausi M		0	0	0	
7	Acartia clausi C		1067	1000	417	
8	Acartia clausi N		1600	3333	4167	
190	Epilabidocera lonsipedata F		0	0	0	
191	Epilabidocera lonsipedata M		0	0	0	
194	copepodite (unknown)		267	0	0	
196	copepod nauplius A		0	0	0	
197	copepod nauplius B		0	0	0	
198	copepod nauplius C		0	0	0	
199	copepod nauplius		267	0	0	
200	Cyclopoida		0	0	0	
210	Oithona spp.		267	667	416	
220	Corycaeus sp.		0	0	0	
250	Harpacticoida		0	333	416	
401	barnacle nauplius		267	0	0	
402	barnacle cypris		0	0	0	
420	Ostracoda		0	0	0	
521	Sasitta spp.		267	0	0	
601	tintinnid spp.		0	0	0	
602	Tintinnopsis sp. A		1067	333	2917	
603	Tintinnopsis sp. B		0	0	0	
605	Eutintinnus neriticus		2667	1000	2917	
608	Parafavella sp.		1333	333	2917	
682	flatworm sp. B		267	333	0	
701	Synchaeta sp.		800	0	833	
740	Nematoda		0	333	0	
751	Ectoprocta larva		0	0	0	
801	Gastropod veliger		0	0	0	
821	Bivalvia veliger		267	333	833	
851	polychaete trochophore		0	0	0	
852	polychaete larva		1067	1333	417	
855	spionid larva		3200	4000	2083	
880	scaeworm larva		267	333	417	
			14	13	8	ms Carbon per cubic meter

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
220480	80113	South S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
1135	118	1.0	17.3	19.9	14.1	3.8	0	0	SHIP
1215	126	0.5	15.1	49.7	10.0	7.7	2	0	SHIP
1325	142	1.0	14.3	23.9	7.5	1.7	0	1	SHIP

Code	Name	Station Depth	Number per cubic meter
		118	126
		1.0	0.5
			142
			1.0
5	Acartia clausi F		5618
6	Acartia clausi M		2497
7	Acartia clausi C		86142
8	Acartia clausi N		1248
197	COPEPOD NAUPLIUS B		333
198	COPEPOD NAUPLIUS C		0
401	barnacle nauplius		0
450	Evadne		0
602	Tintinnopsis sp. A		16000
603	Tintinnopsis sp. B		0
605	Eutintinnus neriticus		333
801	Gastropod veliger		0
852	polychaete larva		0
855	spionid larva		3333
880	scaeworm larva		0
			57
			124
			50

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE					
220480	80113	South S.F. Bay	Estero	64					
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type
1425	156	1.0	15.4	18.0	8.0	7.0	1	1	ship
1505	162	1.0	15.5	19.0	14.1	3.6	0	1	ship
1535	168	0.5	15.0	21.3	15.1	1.7	0	1	ship
			Station	156				162	168
			Depth	1.0				1.0	0.5
Code	Name			Number per cubic meter					
5	Acartia clausi F		1333		833				0
6	Acartia clausi M		0		0				0
7	Acartia clausi C		18667		25000				952
8	Acartia clausi N		2667		3333				476
197	copepod nauplius B		0		0				0
198	copepod nauplius C		0		0				0
401	barnacle nauplius		0		0				476
450	Evadne		0		0				0
602	Tintinnopsis sp. A		2000		2500				8571
603	Tintinnopsis sp. B		0		1667				0
605	Eutintinnus neriticus		667		0				0
801	Gastropod veliger		1333		0				476
852	polychaete larva		0		0				0
855	spionid larva		2667		6667				0
880	scaeworm larva		0		0				476
				ms Carbon per cubic meter					
				25				38	3

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
70580	80128	South S.F. Bay	Polaris	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type
938	36	5.0	17.2	18.6	4.1	2.5	0	-1	ship
950	36	1.0	17.4	17.7	4.6	2.3	0	-1	ship
1040	32	12.0	17.3	19.8	10.0	4.9	2	-1	ship
1046	32	6.0	17.3	19.8	10.0	3.8	2	-1	ship
1052	32	1.0	17.4	19.5	15.4	1.8	1	-1	ship
1127	30	9.0	17.4	20.9	4.0	2.5	1	-1	ship
1133	30	5.0	17.3	20.8	4.0	2.2	1	-1	ship
1139	30	1.0	17.6	20.5	6.3	1.3	1	-1	ship

Code	Name	Station Depth									
		5.0	36 1.0	12.0	32 6.0	1.0	9.0	30 5.0	1.0		
Number per cubic meter											
5	Acartia clausi F	3200	533	667	0	667	1333	1000	0		
6	Acartia clausi M	3467	267	0	0	0	667	1667	0		
7	Acartia clausi C	14667	46400	9000	8000	4667	7000	12667	444		
8	Acartia clausi N	22667	25333	10000	16000	6667	1000	11333	2222		
102	Eurytemora affinis C	267	0	0	0	0	0	0	0		
195	copepod nauplius D	0	0	0	0	0	0	0	0		
197	copepod nauplius B	3466	2400	333	1000	2333	0	667	444		
198	copepod nauplius C	0	0	0	0	0	0	0	1333		
199	copepod nauplius	0	0	0	0	0	0	0	0		
250	Harpacticoida	800	2333	0	0	0	0	333	444		
280	Harpacticoid sp. A	0	0	0	0	0	0	0	0		
281	Harpacticoid A N	0	0	0	0	0	1333	333	444		
401	barnacle nauplius	0	1333	1333	4667	9667	1000	1333	888		
570	Gobiidae larva	0	0	0	0	0	0	1	0		
602	Tintinnopsis sp. A	0	0	2000	2000	1000	10667	5667	888		
603	Tintinnopsis sp. B	0	0	8333	4667	18667	4667	6000	44000		
608	Parafavella sp.	0	0	0	0	0	0	0	0		
625	ciliate	0	0	0	0	0	0	0	0		
682	flatworm sp. B	267	0	0	0	0	0	0	0		
700	Rotifera	0	0	0	0	0	0	0	0		
701	Synchaeta sp.	0	0	0	0	0	0	0	0		
748	Phoronida larva	0	0	0	0	0	0	0	0		
751	Ectoprocta larva	0	0	333	0	667	0	0	0		
801	Gastropod veliger	1333	0	0	2000	667	0	667	0		
821	Bivalvia veliger	267	0	0	0	0	333	333	0		
851	Polychaete trochophore	0	0	0	0	0	0	667	0		
855	spionid larva	267	1067	667	1000	8667	3000	5333	3111		
880	scaevorm larva	533	267	0	0	333	333	333	0		
899	pelagic polychaete	0	0	0	0	0	0	0	0		
		32	50	14	18	42	20	33	10	mg Carbon per cubic meter	

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
70580	80128	South S.F. Bay	Polaris	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
1256	27	10.0	16.7	23.5	5.0	0.9	0	-1	ship	
1303	27	6.0	16.8	22.9	5.0	0.8	0	-1	ship	
1308	27	1.0	17.3	21.8	6.5	0.7	0	-1	ship	
1402	24	8.0	15.7	25.0	3.6	0.6	0	1	ship	
1408	24	4.0	16.1	24.9	3.7	0.6	0	1	ship	
1414	24	1.0	16.1	24.8	3.7	0.6	0	1	ship	
1538	21	5.0	14.9	26.1	4.0	0.7	0	1	ship	
1544	21	1.0	15.2	24.6	4.2	0.8	0	1	ship	

	Station	27	24	21							
	Depth	10.0	6.0	1.0	8.0	4.0	1.0	5.0	1.0		
Code	Name	Number per cubic meter									
5	Acartia clausi F	333	0	0	0	0	0	0	0		
6	Acartia clausi M	0	0	0	0	0	0	0	0		
7	Acartia clausi C	10667	571	400	4000	600	1600	200	2666		
8	Acartia clausi N	6000	285	1200	1066	400	1600	0	13666		
102	Eurytemora affinis C	0	0	0	0	0	0	0	0		
195	copepod nauplius D	0	0	0	0	0	0	0	0		
197	copepod nauplius B	0	0	800	0	0	0	0	166		
198	copepod nauplius C	0	0	200	0	0	0	0	0		
199	copepod nauplius	0	0	0	0	0	0	0	0		
250	Harpacticoida	0	0	0	0	0	0	0	0		
280	Harpacticoid sp. A	0	0	200	0	0	200	0	333		
281	Harpacticoid A N	0	0	0	0	0	0	0	0		
401	barnacle nauplius	0	285	600	0	0	0	0	166		
570	Gobiidae larva	0	0	0	0	0	0	0	0		
602	Tintinnopsis sp. A	0	0	0	0	0	0	0	0		
603	Tintinnopsis sp. B	1667	571	0	0	0	0	0	0		
608	Parafavella sp.	0	0	0	0	0	0	0	0		
625	ciliate	0	2286	1600	0	0	0	0	0		
682	flatworm sp. B	0	0	0	0	0	200	0	0		
700	Rotifera	0	0	0	0	0	0	0	0		
701	Synchaeta sp.	0	0	0	0	200	200	0	0		
748	Phoronida larva	0	0	0	0	0	0	200	0		
751	Ectoprocta larva	0	0	0	0	0	0	0	0		
801	Gastropod veliger	0	0	0	0	0	0	0	0		
821	Bivalvia veliger	1000	0	0	0	600	0	0	0		
851	polychaete trochophore	333	0	0	266	0	0	0	0		
855	spionid larva	9333	1142	1600	1333	600	800	800	333		
880	scaevorn larva	2333	0	1000	1333	2000	2400	0	166		
899	pelagic polychaete	0	0	0	0	0	0	0	0		
		38	4	8	ms Carbon per cubic meter		10	7	9	2	5

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
70580	80128	South S.F. Bay	Polaris	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
1650	19	14.0	12.2	30.8	8.6	1.1	1	1	ship
1656	19	8.0	12.2	30.6	6.0	1.1	1	1	ship
1703	19	1.0	12.8	30.0	4.1	1.1	1	1	ship

Station 19
Depth 14.0 8.0 1.0

Code	Name	Number per cubic meter		
5	Acartia clausi F	857	286	417
6	Acartia clausi M	0	0	208
7	Acartia clausi C	286	2000	833
8	Acartia clausi N	857	571	833
102	Eurytemora affinis C	0	0	0
195	copepod nauplius D	0	571	0
197	copepod nauplius B	0	0	0
198	copepod nauplius C	0	0	0
199	copepod nauplius	0	0	417
250	Harpacticoida	0	0	0
280	Harpacticoid sp. A	0	286	208
281	Harpacticoid A N	0	0	0
401	barnacle nauplius	0	0	0
570	Gobiidae larva	0	0	0
602	Tintinnopsis sp. A	0	0	0
603	Tintinnopsis sp. B	0	0	0
608	Parafavella sp.	856	2857	5416
625	ciliate	0	0	0
682	flatworm sp. B	0	0	0
700	Rotifera	0	0	417
701	Synchaeta sp.	0	0	208
748	Phoronida larva	571	857	0
751	Ectoprocta larva	0	286	0
801	Gastropod veliger	0	0	0
821	Bivalvia veliger	286	0	208
851	polychaete trochophore	0	286	0
855	spionid larva	1714	1142	2500
880	scaevorn larva	286	0	0
899	pelagic polychaete	286	286	0

mg Carbon per cubic meter

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
70580	80128	South S.F. Bay	Estero	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
900	118	1.0	17.2	21.3	5.2	1.7	1	-1	ship	
955	126	1.0	17.1	21.4	3.5	1.1	0	-1	ship	
1055	142	1.0	16.2	25.5	3.3	0.7	0	-1	ship	
				Station	118		126		142	
				Depth	1.0		1.0		1.0	
Code	Name	Number per cubic meter								
6	Acartia clausi M	0								
7	Acartia clausi C	3667								
8	Acartia clausi N	10667								
195	copepod nauplius D	333								
197	copepod nauplius B	0								
198	copepod nauplius C	0								
200	Cyclopoida	0								
250	Harpacticoida	0								
280	Harpacticoid sp. A	333								
281	Harpacticoid A N	0								
321	Isopoda imm.	0								
401	barnacle nauplius	667								
602	Tintinnopsis sp. A	333								
603	Tintinnopsis sp. B	0								
740	Nematoda	0								
748	Phoronida larva	0								
801	Gastropod veliger	0								
821	Bivalvia veliger	1000								
851	polychaete trochophore	0								
855	spionid larva	3000								
880	scaeworm larva	0								
					mg Carbon per cubic meter					
					13					
					19					
					6					

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE					
70580	80128	South S.F. Bay	Estero	64					
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
1150	156	1.0	17.8	23.2	2.2	1.5	1	0	ship
1230	162	1.0	20.0	18.7	7.8	2.4	0	0	ship
1310	168	1.0	19.1	19.2	20.4	1.5	0	1	ship

Code	Name	Station Depth	156 1.0	162 1.0	168 1.0
			Number per cubic meter		
6	Acartia clausi M		0	0	267
7	Acartia clausi C		7333	400	5067
8	Acartia clausi N		2333	3600	4800
195	copepod nauplius D		0	0	0
197	copepod nauplius B		0	0	0
198	copepod nauplius C		0	0	0
200	Cyclopoida		0	0	0
250	Harpacticoida		333	0	0
280	Harpacticoid sp. A		0	200	800
281	Harpacticoid A N		0	0	1067
321	Isopoda imm.		0	0	267
401	barnacle nauplius		6000	1200	1867
602	Tintinnopsis sp. A		0	0	0
603	Tintinnopsis sp. B		0	0	0
740	Nematoda		0	0	0
748	Phoronida larva		0	0	0
801	Gastropod veliger		333	200	0
821	Bivalvia veliger		1000	0	1067
851	polychaete trochophore		0	0	0
855	spionid larva		5333	800	0
880	scaeworm larva		0	0	0
			28	ms Carbon per cubic meter 5	9

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
70580	80128	South S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
1400	180	1.0	17.4	25.8	0.8	1.1	0	1	ship
1510	188	1.0	16.5	25.7	1.5	1.0	1	1	ship

Station	180	188
Depth	1.0	1.0

Code	Name	Number per cubic meter
6	Acartia clausi M	0
7	Acartia clausi C	2667
8	Acartia clausi N	4667
195	copepod nauplius D	333
197	copepod nauplius B	0
198	copepod nauplius C	333
200	Cyclopoida	333
250	Harpacticoida	333
280	Harpacticoid sp. A	0
281	Harpacticoid A N	0
321	Isopoda imm.	0
401	barnacle nauplius	1333
602	Tintinnopsis sp. A	0
603	Tintinnopsis sp. B	0
740	Nematoda	333
748	Phoronida larva	0
801	Gastropod veliger	0
821	Bivalvia veliger	0
851	polychaete trochophore	0
855	spionid larva	333
880	scaleworm larva	667

ms Carbon per cubic meter	9	8
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U.S. GEOLOGICAL SURVEY - WATER RESOURCES

ESTUARINE STUDIES GROUP
ZOOPLANKTON

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE										
210580	80142	South S.F. Bay	Polaris	64										
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type					
908	30	12.0	17.2	23.4	1.4	1.5	1	-1	ship					
914	30	6.0	17.4	22.8	3.4	1.1	0	-1	ship					
920	30	1.0	17.4	22.7	4.3	0.9	0	-1	ship					
1007	27	10.0	16.7	25.1	0.9	1.5	1	-1	ship					
1013	27	5.0	16.9	24.5	1.4	0.9	1	-1	ship					
1019	27	1.0	17.0	24.5	2.5	0.9	0	-1	ship					
1110	24	8.0	15.4	26.2	1.2	0.9	0	-1	ship					
1116	24	5.0	15.4	26.2	1.2	0.9	0	-1	ship					
1122	24	1.0	15.4	26.2	1.6	0.9	0	-1	ship					
					Station	30	27		24					
					Depth	12.0	6.0	1.0	10.0	5.0	1.0	8.0	5.0	1.0
Code	Name				Number per cubic meter									
5	Acartia clausi F				2250	0	0	3400	200	0	1083	200	0	
6	Acartia clausi M				2500	0	0	1600	0	0	0	0	0	
7	Acartia clausi C				4250	3600	400	3800	3600	1200	5633	3400	4167	
8	Acartia clausi N				1500	2200	1200	400	800	200	0	1800	1500	
197	copepod nauplius B				0	200	200	0	0	200	217	400	1333	
250	Harpacticoida				0	0	0	200	0	200	867	0	333	
270	Microsetella sp.				250	0	0	0	0	0	0	0	0	
345	Grapsid zoea				0	0	0	0	0	0	0	0	167	
401	barnacle nauplius				250	200	1000	0	0	600	0	0	667	
602	Tintinnopsis sp. A				0	200	0	400	0	0	217	0	0	
603	Tintinnopsis sp. B				15500	22800	32000	1200	65200	19000	0	0	0	
625	ciliate				0	0	0	0	4000	0	0	0	0	
681	flatworm sp. A				0	0	0	0	600	0	0	0	0	
748	Phoronida larva				0	0	0	0	0	0	433	200	167	
801	Gastropod veliger				270	0	0	200	200	0	0	0	0	
821	Bivalvia veliger				7750	0	0	2000	400	0	216	0	0	
851	polyschaete trochophore				0	0	0	0	800	400	0	2800	5333	
855	spionid larva				0	0	400	200	2800	1000	433	600	6833	
880	scaleworm larva				0	0	200	0	0	0	0	200	333	
					mg Carbon per cubic meter									
					16	4	4	16	13	5	10	9	28	

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 DATE JULIAN DATE LOCATION VESSEL MESH SIZE
 210580 80142 South S.F. Bay Estero 64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
635	118	2.0	17.5	22.8	2.0	1.2	0	1	ship
710	126	1.5	18.1	24.1	3.2	1.1	0	1	ship
810	142	2.0	17.5	26.2	3.3	0.7	0	0	ship

 Station 118 126 142
 Depth 2.0 1.5 2.0

Code	Name	Number per cubic meter
7	Acartia clausi C	1333
8	Acartia clausi N	1500
196	copepod nauplius A	0
197	copepod nauplius B	333
198	copepod nauplius C	167
199	copepod nauplius	0
250	Harpacticoida	0
280	Harpacticoid sp. A	0
370	Natantia zoea	0
401	barnacle nauplius	2333
460	Halocarida	0
602	Tintinnopsis sp. A	0
603	Tintinnopsis sp. B	3667
681	flatworm sp. A	0
713	Asplanchna sp.	0
801	Gastropod veliger	0
821	Bivalvia veliger	0
851	polychaete trochophore	167
855	spionid larva	500
880	scaeworm larva	0
		ms Carbon per cubic meter
		6 16 9

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
210580	80142	South S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCDF /m	DETRITUS	TIDE	COUNT type
910	156	1.5	17.6	24.8	2.6	1.4	1	-1	ship
1000	168	1.5	19.2	23.4	2.6	1.3	1	-1	ship
1100	180	1.0	16.7	26.3	1.8	1.3	0	-1	ship

Station	156	168	180
Depth	1.5	1.5	1.0

Code	Name	Number per cubic meter		
7	Acartia clausi C	2667	333	1600
8	Acartia clausi N	3333	500	1000
196	copepod nauplius A	0	0	0
197	copepod nauplius B	167	0	0
198	copepod nauplius C	500	0	0
199	copepod nauplius	0	167	0
250	Harpacticoida	0	0	1600
280	Harpacticoid sp. A	0	167	0
370	Natantia zoea	0	167	0
401	barnacle nauplius	333	2000	400
460	Halocarida	167	0	0
602	Tintinnopsis sp. A	0	0	200
603	Tintinnopsis sp. B	0	0	0
681	flatworm sp. A	0	0	0
713	Asplancha sp.	0	167	0
801	Gastropod veliger	0	0	0
821	Bivalvia veliger	833	3667	600
851	polychaete trochophore	667	167	400
855	spionid larva	2500	0	600
880	scaeworm larva	167	0	0

ms Carbon per cubic meter	11	5	6
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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE									
40680	80156	South S.F. Bay	Polaris	64									
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCDF /m	DETRITUS	TIDE	COUNT type				
1104	27	10.0	16.6	24.6	1.4	3.3	4	-1	ship				
1110	27	5.0	16.6	24.6	2.4	2.5	3	-1	ship				
1116	27	1.0	16.7	24.6	2.3	2.5	3	-1	ship				
1212	24	8.0	15.7	25.9	1.4	0.7	1	0	ship				
1218	24	5.0	15.7	25.9	1.4	1.0	0	0	ship				
1224	24	1.0	16.8	25.8	1.6	0.7	0	0	ship				
1450	19	13.0	12.4	30.1	3.6	0.9	1	1	ship				
1456	19	7.0	12.6	30.0	3.5	1.0	0	1	ship				
1502	19	1.0	13.2	29.2	3.4	0.9	0	1	ship				
				Station Depth	27 10.0	27 5.0	1.0	8.0	24 5.0	1.0	13.0	19 7.0	1.0
Code	Name	Number per cubic meter											
5	Acartia clausi F	167	3333	167	0	333	0	0	0	0	0	0	0
6	Acartia clausi M	167	960	0	167	0	0	200	0	0	0	0	0
7	Acartia clausi C	3333	3333	4667	4333	3000	3467	400	167	167	167	167	167
8	Acartia clausi N	167	1100	1667	833	1000	667	2000	167	333	333	333	333
10	Acartia californiensis F	167	400	0	0	0	0	0	0	0	0	0	0
11	Acartia californiensis M	0	100	0	0	0	0	0	0	0	0	0	0
12	Acartia californiensis C	333	400	500	0	0	0	0	0	0	0	0	0
13	Acartia californiensis N	167	100	167	0	0	0	0	0	0	0	0	0
36	Calanus tenuicornis C	0	0	0	0	0	0	0	0	0	0	167	0
197	copepod nauplius B	0	267	0	0	0	0	0	0	0	0	0	0
198	copepod nauplius C	0	133	0	167	167	0	0	0	0	0	0	0
199	copepod nauplius	0	0	0	0	0	0	0	0	0	0	0	0
250	Harpacticoida	333	0	333	0	167	0	400	167	0	0	0	0
270	Microsetella sp.	0	0	0	0	0	0	0	0	0	0	0	0
280	Harpacticoid sp. A	167	533	333	0	167	133	0	0	0	0	0	0
321	Isopoda imm.	0	0	0	0	0	0	0	0	0	0	0	0
350	Xanthid zoea	0	0	0	0	0	0	0	167	167	167	167	167
376	Cranion sp.	1	0	0	0	0	0	0	0	0	0	0	0
401	barnacle nauplius	0	0	833	0	500	400	1400	1167	167	167	167	167
420	Ostracoda	167	0	0	0	0	0	0	0	0	0	0	0
460	Halocarida	0	0	0	0	0	0	0	0	0	0	0	0
551	Endraulis mordax egg	0	0	0	0	0	0	0	0	0	0	0	0
601	tintinnid spp.	0	0	0	0	0	0	0	0	0	0	0	0
602	Tintinnopsis sp. A	0	267	0	333	0	0	0	0	0	0	0	0
603	Tintinnopsis sp. B	0	5067	14000	8333	3667	1200	6800	5000	4000	4000	4000	4000
609	Tintinnopsis sp. E (1/4B)	0	0	0	0	0	0	0	0	0	0	0	0
630	coiled Foraminifera	0	0	0	0	0	0	0	0	0	0	0	0
681	flatworm sp. A	0	0	333	0	0	0	0	0	0	0	0	0
740	Nematoda	0	0	0	0	0	0	200	0	0	0	0	0
748	Phoronida larva	0	0	0	0	0	133	0	333	333	333	333	333
751	Ectoprocta larva	0	0	0	0	0	0	0	0	0	0	0	0
801	Gastropod veliger	167	933	0	0	167	133	0	0	0	0	0	0
821	Bivalvia veliger	167	933	0	0	500	0	200	0	0	0	0	0
851	polychaete trochophore	0	133	0	167	500	0	200	0	0	0	0	0
855	spionid larva	0	400	833	333	167	266	1600	833	2167	2167	2167	2167
880	scaeworm larva	0	0	500	0	333	0	200	0	833	833	833	833
				ms Carbon per cubic meter	5	17	10	5	7	4	8	4	8

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
40680	80156	South S.F. Bay	Estero	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
635	118	2.0	16.6	24.5	4.3	2.2	2	0	ship	
715	126	1.0	16.7	25.0	4.4	2.0	2	-1	ship	
820	142	1.0	16.0	26.7	3.7	1.0	1	-1	ship	
			Station	118	126	142				
			Depth	2.0	1.0	1.0				
Code	Name	Number per cubic meter								
5	Acartia clausi F	300	1000	0						
6	Acartia clausi M	300	300	0						
7	Acartia clausi C	2700	2667	1400						
8	Acartia clausi N	1600	267	7500						
10	Acartia californiensis F	100	200	0						
11	Acartia californiensis M	100	100	0						
12	Acartia californiensis C	700	667	350						
13	Acartia californiensis N	400	0	2000						
197	copepod nauplius B	0	133	350						
198	copepod nauplius C	0	0	817						
199	copepod nauplius	0	0	0						
250	Harpacticoida	0	0	0						
270	Microsetella sp.	0	133	0						
280	Harpacticoid sp. A	200	0	0						
320	Isopoda	0	0	0						
401	barnacle nauplius	1000	667	1167						
603	Tintinnopsis sp. B	2400	667	467						
609	Tintinnopsis sp. E (1/4B)	608	0	0						
681	flatworm sp. A	0	133	0						
682	flatworm sp. B	0	133	0						
748	Phoronida larva	0	0	117						
801	Gastropod veliger	400	0	233						
821	Bivalvia veliger	600	267	0						
851	polychaete trochophore	200	133	933						
855	spionid larva	400	533	1283						
880	scaleworm larva	0	0	0						
					mg Carbon per cubic meter					
					8	10	8			

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
40680	80156	South S.F. Bay	Estero	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCDF /m	DETRITUS	TIDE	COUNT type	
930	156	0.5	17.6	24.8	6.2	3.6	2	-1	ship	
1045	168	1.0	17.5	25.2	4.4	3.9	4	-1	ship	
1135	180	1.0	16.4	26.8	2.3	2.1	2	-1	ship	
				Station	156		168		180	
				Depth	0.5		1.0		1.0	
Code	Name	Number per cubic meter								
5	Acartia clausi F	400	0	0						
6	Acartia clausi M	400	0	0						
7	Acartia clausi C	1000	2222	700						
8	Acartia clausi N	800	2000	2100						
10	Acartia californiensis F	133	0	0						
11	Acartia californiensis M	133	0	0						
12	Acartia californiensis C	333	0	0						
13	Acartia californiensis N	267	0	0						
197	copepod nauplius B	0	0	0						
198	copepod nauplius C	0	0	0						
199	copepod nauplius	0	222	0						
250	Harpacticoida	133	0	350						
270	Microsetella sp.	0	0	0						
280	Harpacticoid sp. A	0	222	0						
320	Isopoda	0	222	0						
401	barnacle nauplius	0	222	350						
603	Tintinnopsis sp. B	267	0	350						
609	Tintinnopsis sp. E (1/4B)	0	0	0						
681	flatworm sp. A	0	0	0						
682	flatworm sp. B	0	0	0						
748	Phoronida larva	0	0	117						
801	Gastropod veliger	667	667	117						
821	Bivalvia veliger	1733	4889	117						
851	polychaete trochophore	267	0	117						
855	spionid larva	267	3111	117						
880	scaeworm larva	133	444	0						
				µg Carbon per cubic meter	6		12		2	

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
170680	80169	South S.F. Bay	Polaris	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
707	36	6.0	19.2	23.9	1.4	4.7	2	-1	ship
713	36	1.0	19.2	23.4	1.5	4.6	1	-1	ship
818	32	10.0	19.2	24.7	2.0	4.0	4	-1	ship
824	32	5.0	19.2	24.7	2.0	4.0	4	-1	ship
830	32	1.0	19.1	24.6	1.9	3.0	2	-1	ship
907	30	10.0	18.8	24.8	2.0	6.5	4	-1	ship
913	30	5.0	18.8	24.8	1.8	5.5	4	-1	ship
919	30	1.0	18.8	24.9	1.8	3.7	4	-1	ship

Code	Name	Station Depth								
		6.0	36 1.0	10.0	32 5.0	1.0	10.0	30 5.0	1.0	
		Number per cubic meter								
5	Acartia clausi F	500	400	400	200	0	0	800	0	
6	Acartia clausi M	800	100	0	600	0	0	0	0	
7	Acartia clausi C	600	1067	1600	3600	700	1700	1400	2500	
8	Acartia clausi N	2000	0	200	700	200	0	0	0	
10	Acartia californiensis F	900	667	200	200	0	0	400	0	
11	Acartia californiensis M	1200	300	600	600	0	0	0	0	
12	Acartia californiensis C	1000	2000	2400	3600	700	1700	600	1167	
13	Acartia californiensis N	3000	133	200	700	200	0	0	0	
37	Calanus tenuicornis N	0	0	0	0	0	0	0	0	
100	Eurytemora affinis F	200	0	0	0	0	0	0	0	
102	Eurytemora affinis C	200	0	0	0	0	0	0	0	
196	copepod nauplius A	0	0	0	0	0	0	0	0	
197	copepod nauplius B	0	0	0	0	0	400	0	0	
198	copepod nauplius C	0	0	400	0	0	0	0	0	
199	copepod nauplius	0	0	0	0	0	0	0	0	
250	Harpacticoida	200	0	400	1000	0	0	0	167	
280	Harpacticoid sp. A	400	0	200	0	0	400	0	333	
281	Harpacticoid A N	200	0	200	0	0	0	0	0	
321	Isopoda imm.	0	0	0	100	0	0	0	0	
345	Grapsid zoea	0	0	0	0	0	0	0	167	
401	barnacle nauplius	0	0	400	400	0	0	200	333	
460	Halocarida	0	0	0	100	0	0	0	0	
551	Endraulis mordax egg	0	0	0	0	10	200	0	0	
602	Tintinnopsis sp. A	0	0	200	0	0	0	0	0	
603	Tintinnopsis sp. B	1800	50667	60000	100000	52000	38000	42000	45833	
608	Parafavella sp.	0	0	0	0	0	0	0	0	
630	coiled Foraminifera	0	0	400	100	0	0	0	0	
681	flatworm sp. A	0	0	0	200	0	0	200	0	
700	Rotifera	0	0	0	0	0	0	0	0	
701	Synchaeta sp.	0	0	0	0	0	0	0	0	
748	Phoronida larva	0	0	0	0	0	200	0	0	
801	Gastropod veliger	600	667	400	600	400	200	200	167	
821	Bivalvia veliger	400	0	200	600	0	200	0	500	
851	polychaete trochophore	0	0	0	0	0	0	0	0	
855	spionid larva	0	133	0	0	0	400	200	333	
880	scaleworm larva	600	0	0	0	0	0	0	0	
		mg Carbon per cubic meter								
		12	7	8	12	2	5	6	5	

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
170680	80169	South S.F. Bay	Polaris	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
1020	27	10.0	18.1	25.6	1.3	4.9	4	0	ship	
1026	27	5.0	18.1	25.6	1.3	3.8	1	0	ship	
1032	27	1.0	18.2	25.5	1.4	2.8	3	0	ship	
1142	24	9.0	16.5	27.4	1.2	0.7	2	0	ship	
1148	24	5.0	16.5	27.4	1.1	0.8	1	0	ship	
1154	24	1.0	17.2	27.0	1.2	0.7	0	0	ship	
1310	19	13.0	13.3	30.3	2.1	0.8	2	1	ship	
1316	19	7.0	13.3	30.4	2.1	0.8	1	1	ship	
1322	19	1.0	13.4	30.6	2.1	0.8	1	1	ship	

Code	Name	Station Depth	10.0	27 5.0	1.0	9.0	24 5.0	1.0	13.0	19 7.0	1.0	
		Number per cubic meter										
5	Acartia clausi F		667	0	500	0	267	0	0	0	0	
6	Acartia clausi M		533	133	333	167	0	0	0	0	0	
7	Acartia clausi C		2133	800	2267	1667	2133	3467	800	667	400	
8	Acartia clausi N		133	267	167	833	3600	12400	2400	1500	2667	
10	Acartia californiensis F		0	0	167	0	0	0	0	0	0	
11	Acartia californiensis M		267	0	0	0	0	0	0	0	0	
12	Acartia californiensis C		533	133	533	0	0	0	0	0	0	
13	Acartia californiensis N		0	0	0	0	0	0	0	0	0	
37	Calanus tenuicornis N		0	0	0	0	0	0	133	0	0	
100	Eurytemora affinis F		0	0	0	0	0	0	0	0	0	
102	Eurytemora affinis C		0	0	0	0	0	0	0	0	0	
196	copepod nauplius A		0	0	0	0	0	133	0	0	0	
197	copepod nauplius B		0	133	0	0	0	0	0	0	0	
198	copepod nauplius C		0	267	0	167	0	1067	0	0	133	
199	copepod nauplius		0	0	0	0	133	0	0	167	0	
250	Harpacticoida		533	133	167	500	133	0	267	167	0	
280	Harpacticoid sp. A		0	0	333	0	133	0	0	0	0	
281	Harpacticoid A N		0	0	0	0	0	0	0	0	0	
321	Isopoda imm.		0	0	0	0	0	0	0	0	0	
345	Grapsid zoea		0	0	0	0	0	0	0	0	0	
401	barnacle nauplius		133	133	333	167	0	0	2533	833	667	
460	Halocarida		0	0	0	0	0	0	0	0	0	
551	Endraulis mordax egg		0	0	10	0	0	0	0	0	0	
602	Tintinnopsis sp. A		0	0	0	0	0	0	0	0	0	
603	Tintinnopsis sp. B		10133	22000	24500	167	3200	36000	0	0	0	
608	Parafavella sp.		0	0	0	0	0	0	2000	1667	4800	
630	coiled Foraminifera		0	0	167	0	0	0	0	0	0	
681	flatworm sp. A		0	267	333	0	0	0	0	0	0	
700	Rotifera		0	0	0	0	0	0	0	167	0	
701	Synchaeta sp.		0	0	0	0	0	0	133	667	800	
748	Phoronida larva		0	0	0	0	0	0	133	0	133	
801	Gastropod veliger		0	133	0	0	133	0	133	500	0	
821	Bivalvia veliger		0	0	1000	0	133	0	0	167	133	
851	polychaete trochophore		0	0	167	0	667	133	133	0	0	
855	spionid larva		0	0	0	333	0	0	1467	1167	0	
880	scaeworm larva		0	0	333	0	267	133	0	167	267	
			mg Carbon per cubic meter									
			6	2	8	3	5	5	9	5	2	

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DATE JULIAN DATE LOCATION VESSEL MESH SIZE
170680 80169 South S.F. Bay Estero 64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type
615	118	1.5	18.7	25.4	2.4	2.9	3	-1	ship
655	126	1.0	18.3	25.8	2.8	1.4	1	-1	ship
754	142	1.0	17.9	27.3	6.8	2.2	1	-1	ship

Station 118 126 142
Depth 1.5 1.0 1.0

Code	Name	Number per cubic meter		
5	Acartia clausi F	0	0	0
6	Acartia clausi M	0	0	0
7	Acartia clausi C	800	400	100
8	Acartia clausi N	1100	400	100
10	Acartia californiensis F	0	133	0
11	Acartia californiensis M	0	0	0
12	Acartia californiensis C	800	400	200
13	Acartia californiensis N	1100	400	200
197	copepod nauplius B	400	133	600
198	copepod nauplius C	200	133	300
199	copepod nauplius	0	0	600
270	Microsetella sp.	0	0	100
280	Harpacticoid sp. A	0	267	0
281	Harpacticoid A N	0	0	0
401	barnacle nauplius	200	400	0
603	Lintinnopsis sp. B	14000	6000	600
681	flatworm sp. A	0	0	0
682	flatworm sp. B	0	0	0
701	Synchaeta sp.	0	133	0
801	Gastropod veliger	200	133	0
821	Bivalvia veliger	0	1067	200
851	polychaete trochophore	0	267	400
855	spionid larva	0	0	500
880	scaeworm larva	200	0	100

ms Carbon per cubic meter
2 3 2

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ZOOPLANKTON

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
170680	80169	South S.F. Bay	Estero	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
856	156	0.5	18.1	26.1	1.7	0.9	2	-1	ship	
936	162	1.0	18.3	25.9	1.6	0.8	1	-1	ship	
1010	168	1.0	20.7	25.4	4.1	1.8	1	-1	ship	
		Station Depth		156 0.5				162 1.0		168 1.0
Code	Name	Number per cubic meter								
5	Acartia clausi F			133				200		167
6	Acartia clausi M			133				0		0
7	Acartia clausi C			2000				800		667
8	Acartia clausi N			300				200		667
10	Acartia californiensis F			133				0		0
11	Acartia californiensis M			0				0		0
12	Acartia californiensis C			400				200		0
13	Acartia californiensis N			100				0		0
197	copepod nauplius B			267				200		0
198	copepod nauplius C			0				0		167
199	copepod nauplius			0				0		0
270	Microsetella sp.			0				0		167
280	Harpacticoid sp. A			0				0		1167
281	Harpacticoid A N			0				100		333
401	barnacle nauplius			533				1000		667
603	Tintinnopsis sp. B			6000				5500		10500
681	flatworm sp. A			0				0		0
682	flatworm sp. B			0				0		0
701	Synchaeta sp.			0				0		0
801	Gastropod veliger			0				200		0
821	Bivalvia veliger			0				100		667
851	Polychaete trochophore			0				0		167
855	spionid larva			133				500		2333
880	scaeworm larva			133				100		500
					4	mg Carbon per cubic meter			4	10

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
170680	80169	South S.F. Bay	Estero	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
1055	180	0.5	17.2	27.6	1.2	1.5	1	-1	ship	

Station 180
Depth 0.5

Code	Name	Number per cubic meter
5	Acartia clausi F	0
6	Acartia clausi M	0
7	Acartia clausi C	667
8	Acartia clausi N	3333
10	Acartia californiensis F	0
11	Acartia californiensis M	0
12	Acartia californiensis C	0
13	Acartia californiensis N	0
197	copepod nauplius B	0
198	copepod nauplius C	133
199	copepod nauplius	0
270	Microsetella sp.	0
280	Harpacticoid sp. A	0
281	Harpacticoid A N	0
401	barnacle nauplius	267
603	Tintinnopsis sp. B	1333
681	flatworm sp. A	133
682	flatworm sp. B	133
701	Synchaeta sp.	0
801	Gastropod veliger	0
821	Bivalvia veliger	0
851	polychaete trochophore	533
855	spionid larva	533
880	scaleworm larva	0

ms Carbon per cubic meter

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
10780	80183	South S.F. Bay	Polaris	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
707	36	4.0	20.6	23.5	4.3	3.9	4	-1	ship	
713	36	1.0	20.6	23.5	3.1	4.4	2	-1	ship	
801	32	8.0	20.7	25.2	2.1	2.8	4	-1	ship	
807	32	5.0	20.7	25.3	1.9	2.2	4	-1	ship	
813	32	1.0	20.7	25.1	1.8	1.9	3	-1	ship	
854	30	10.0	20.6	25.7	2.0	2.7	3	-1	ship	
900	30	5.0	20.6	25.7	1.7	2.0	3	-1	ship	
906	30	1.0	20.6	25.6	1.6	1.7	2	-1	ship	

		Station	36		32		30			
		Depth	4.0	1.0	8.0	5.0	1.0	10.0	5.0	1.0
Code	Name	Number per cubic meter								
5	Acartia clausi F	300	150	133	200	0	300	300	167	
6	Acartia clausi M	0	0	0	0	0	0	250	0	
7	Acartia clausi C	0	0	0	0	1350	300	333	2000	
8	Acartia clausi N	0	0	0	0	1200	100	0	500	
10	Acartia californiensis F	4700	2350	1700	2000	0	600	900	167	
11	Acartia californiensis M	1000	500	1283	1600	0	200	750	0	
12	Acartia californiensis C	2000	1333	1100	4400	1350	600	1000	5833	
13	Acartia californiensis N	2600	1000	367	2000	1200	400	333	1333	
100	Eurytemora affinis F	200	0	0	0	0	0	0	0	
101	Eurytemora affinis M	200	0	0	0	0	0	0	0	
102	Eurytemora affinis C	0	0	183	0	0	0	0	0	
177	copepod nauplius B	0	0	0	1800	300	300	167	333	
198	copepod nauplius C	0	0	0	600	300	0	0	0	
199	copepod nauplius	0	0	0	0	0	0	0	0	
220	Corycaeus sp.	0	0	0	100	0	0	0	0	
250	Harpacticoida	400	167	183	1600	0	0	167	500	
251	Harpacticoid B (bronze)	0	0	0	333	0	0	0	0	
280	Harpacticoid sp. A	600	500	733	0	300	300	0	333	
281	Harpacticoid A N	0	0	0	133	0	0	0	167	
321	Isopoda imm.	0	0	0	200	0	0	0	0	
345	Grapsid zoea	0	0	0	0	0	0	0	0	
360	Pinnotherid zoea	0	0	0	0	0	0	0	0	
401	barnacle nauplius	0	0	183	400	150	200	0	0	
402	barnacle cypris	0	0	0	0	0	0	0	0	
420	Ostracoda	0	0	0	100	0	0	0	0	
545	Ascidian larva	0	0	0	0	0	100	0	167	
551	Endraulix mordax egg	0	0	0	0	0	0	0	0	
603	Tintinnopsis sp. B	250000	27500	9167	26000	12000	6000	15833	1667	
605	Eutintinnus neriticus	0	0	0	0	0	0	0	0	
608	Parafavella sp.	0	0	0	0	0	0	0	0	
609	Tintinnopsis sp. E (1/4B)	0	0	183	0	0	100	0	0	
630	coiled Foraminifera	0	0	367	600	0	100	0	0	
681	flatworm sp. A	0	0	0	0	0	0	0	0	
700	Rotifera	0	0	0	0	0	0	0	0	
701	Synchaeta sp.	0	0	0	0	0	0	0	0	
748	Phoronida larva	0	0	0	0	0	0	0	0	
751	Ectoprocta larva	0	0	0	0	0	0	0	0	
801	Gastropod veliger	0	0	0	500	0	300	667	167	

Code	Name	Station	36		32			30		
		Depth	4.0	1.0	8.0	5.0	1.0	10.0	5.0	1.0
		Number per cubic meter								
821	Bivalvia veliger	200	0	0	183	833	150	300	500	167
851	polychaete trochophore	0	0	0	0	0	0	0	0	0
855	spionid larva	200	0	0	0	133	150	200	167	333
856	Polydora ligna	0	0	0	0	0	0	0	0	0
880	scaleworm larva	0	0	0	0	0	0	0	0	167
		mg Carbon per cubic meter								
		23	10		10	17	3	5	7	10

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE							
10780	80183	South S.F. Bay	Polaris	64							
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type		
1012	27	10.0	20.1	26.3	1.0	1.7	3	-1	ship		
1018	27	5.0	20.1	26.3	1.2	1.5	1	-1	ship		
1024	27	1.0	20.2	26.2	1.4	1.3	1	-1	ship		
1146	24	8.0	18.2	27.7	0.8	1.4	4	1	ship		
1152	24	5.0	18.2	27.7	0.8	1.3	3	1	ship		
1158	24	1.0	18.4	27.2	0.6	0.8	1	1	ship		
1257	21	10.0	15.3	28.8	2.1	2.1	4	1	ship		
1303	21	5.0	15.5	28.5	2.0	1.7	3	1	ship		
1309	21	1.0	16.2	27.9	1.9	1.3	2	1	ship		

Code	Name	Station Depth	27 10.0	27 5.0	27 1.0	24 8.0	24 5.0	24 1.0	21 10.0	21 5.0	21 1.0
		Number per cubic meter									
5	Acartia clausi F		1067	133	350	1500	150	0	0	233	0
6	Acartia clausi M		2000	133	350	1000	0	0	0	0	0
7	Acartia clausi C		1733	5000	5250	5000	2550	1867	1950	2217	2267
8	Acartia clausi N		133	300	1400	300	750	533	150	583	2933
10	Acartia californiensis F		533	0	150	0	0	0	0	0	0
11	Acartia californiensis M		933	133	150	0	0	0	0	0	0
12	Acartia californiensis C		800	2200	2250	0	0	0	0	0	0
13	Acartia californiensis N		0	100	600	0	0	0	0	0	0
100	Eurytemora affinis F		0	0	0	0	0	0	0	0	0
101	Eurytemora affinis M		0	0	0	0	0	0	0	0	0
102	Eurytemora affinis C		0	0	0	0	0	0	0	0	0
197	COPEPOD NAUPLIUS B		0	0	0	0	300	267	0	233	0
198	COPEPOD NAUPLIUS C		0	133	0	600	0	0	0	0	0
199	COPEPOD NAUPLIUS		0	0	0	0	750	267	150	0	133
220	Corycaeus sp.		0	0	0	0	0	0	0	0	0
250	Harpacticoida		400	533	0	333	150	0	600	1283	133
251	Harpacticoid B (bronze)		0	0	0	0	0	0	0	0	0
280	Harpacticoid sp. A		133	533	1167	0	0	800	0	0	0
281	Harpacticoid A N		0	133	0	0	0	0	0	0	0
321	Isopoda imm.		0	0	0	0	0	0	0	0	0
345	Grapsid zoea		0	0	0	0	0	0	0	0	0
360	Pinnotherid zoea		0	0	0	0	0	133	0	0	0
401	barnacle nauplius		0	667	1000	200	0	0	1500	2100	1200
402	barnacle cypris		0	0	0	200	150	133	0	117	0
420	Ostracoda		0	0	0	0	0	0	0	0	0
545	Ascidian larva		0	133	133	500	750	133	0	117	0
551	Engraulis mordax egg		133	133	0	0	0	0	0	0	0
603	Tintinnopsis sp. B		5067	8000	2500	0	300	0	600	117	0
605	Eutintinnus neriticus		0	0	0	200	0	0	0	117	0
608	Parafavella sp.		0	0	0	0	0	0	0	583	400
609	Tintinnopsis sp. E (1/4B)		0	0	0	0	0	0	0	0	0
630	coiled Foraminifera		0	0	0	800	0	0	0	0	0
681	flatworm sp. A		0	0	167	167	0	0	0	0	133
700	Rotifera		0	0	0	0	150	0	0	0	0
701	Synchaeta sp.		0	0	333	0	150	0	0	117	400
748	Phoronida larva		0	0	0	0	0	0	0	117	267
751	Ectoprocta larva		0	0	0	0	0	0	150	0	0

Code	Name	Station	27		24			21		1.0	
		Depth	10.0	5.0	1.0	8.0	5.0	1.0	10.0		5.0
			Number per cubic meter								
801	Gastropod veliger		133	0	0	0	0	0	0	0	133
821	Bivalvia veliger		400	0	167	0	0	0	150	0	533
851	polychaete trochophore		133	0	0	0	0	0	0	117	0
855	spionid larva		0	133	167	167	0	0	0	350	400
856	Polydora ligna		0	133	0	0	0	0	0	0	0
880	scaleworm larva		0	0	0	0	0	0	0	233	400
			mg Carbon per cubic meter								
			12	10	12	12	4	3	5	9	6

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
160780	80198	South S.F. Bay	Polaris	64						

TIME	STATION	DEPTH #	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type
743	36	6.0	21.0	23.8	3.0	4.7	4	-1	ship
749	36	1.0	20.9	23.3	2.0	2.6	2	-1	ship
839	32	10.0	20.6	25.6	2.3	2.5	4	-1	ship
845	32	5.0	20.6	25.6	2.3	2.5	3	-1	ship
851	32	1.0	20.7	25.5	2.0	1.8	2	-1	ship
934	30	12.0	20.7	25.9	2.0	1.8	3	-1	ship
940	30	6.0	20.7	25.9	2.0	2.0	2	-1	ship
946	30	1.0	20.9	25.7	2.2	2.4	2	-1	ship

		Station Depth	6.0	36 1.0	10.0	32 5.0	1.0	12.0	30 6.0	1.0
Code	Name	Number per cubic meter								
5	Acartia clausi F		0	0	0	0	0	0	0	0
6	Acartia clausi M		0	0	0	0	0	0	0	0
7	Acartia clausi C		0	0	0	0	0	0	0	0
8	Acartia clausi N		0	0	0	0	0	0	0	0
10	Acartia californiensis F		133	5200	2000	2133	933	4133	2800	400
11	Acartia californiensis M		133	1467	1867	667	667	3600	800	133
12	Acartia californiensis C		267	1333	2533	3200	16000	3467	2533	7467
13	Acartia californiensis N		0	133	933	667	6667	400	400	2267
29	Tortanus discaudatus C		0	0	0	0	0	0	0	0
60	Paracalanus parvus F		0	0	0	0	0	0	0	0
61	Paracalanus parvus M		0	0	0	0	0	0	0	0
62	Paracalanus parvus C		0	0	0	0	0	0	0	0
100	Eurytemora affinis F		0	133	0	0	0	0	0	0
101	Eurytemora affinis M		0	0	0	0	0	0	133	0
102	Eurytemora affinis C		133	0	0	0	133	0	133	0
194	copepodite (unknown)		0	0	0	0	0	0	0	0
195	copepod nauplius D		0	0	0	0	0	0	0	133
196	copepod nauplius A		133	0	0	0	0	0	0	0
197	copepod nauplius B		0	1067	133	0	400	133	533	400
198	copepod nauplius C		0	0	0	133	133	0	0	133
199	copepod nauplius		133	133	133	0	0	0	0	0
200	Cyclopoida		0	0	0	0	0	0	0	0
213	Oithona spinirostris		0	0	0	0	0	0	0	0
250	Harpacticoida		0	400	133	133	133	0	133	400
280	Harpacticoid sp. A		133	1200	533	0	0	133	133	667
321	Isopoda imm.		0	267	0	133	0	0	0	0
376	Cranson sp.		1	0	0	0	0	0	0	0
401	barnacle nauplius		0	0	0	0	533	0	0	1067
402	barnacle cypris		0	0	0	0	0	0	0	0
420	Ostracoda		133	0	0	0	0	0	267	0
451	Podon		0	0	0	0	0	0	0	0
545	Ascidian larva		0	0	0	0	0	0	0	0
551	Engraulis mordax egg		0	0	133	0	133	0	0	0
570	Gobiidae larva		0	0	133	0	0	0	0	0
582	Engraulis mordax larva		0	0	0	0	0	133	0	0
601	tintinnid spp.		0	0	0	0	0	0	0	0
602	Tintinnopsis sp. A		0	0	0	0	0	267	0	0
603	Tintinnopsis sp. B		5733	6667	22000	24667	4000	10933	18667	7333

Code	Name	Station	36		32			30		
		Depth	6.0	1.0	10.0	5.0	1.0	12.0	6.0	1.0
		Number per cubic meter								
605	Eutintinnus neriticus		0	0	0	0	0	0	0	0
608	Parafavella sp.		0	0	0	0	0	0	0	0
630	coiled Foraminifera		133	0	0	0	0	0	0	0
661	Hydroids (stalked)		0	0	1	0	0	0	0	0
681	flatworm sp. A		0	0	0	0	133	0	0	0
682	flatworm sp. B		0	0	0	0	0	0	0	0
690	Nemertina		0	0	0	0	0	0	0	0
692	Nemertine larva		0	0	0	0	0	0	0	0
701	Synchaeta sp.		0	0	0	0	0	0	0	0
740	Nematoda		0	0	0	0	0	0	0	0
801	Gastropod veliger		0	267	1067	400	0	667	533	133
821	Bivalvia veliger		0	133	400	133	0	267	400	400
851	polychaete trochophore		0	0	0	0	0	0	133	0
852	polychaete larva		0	0	0	0	0	0	0	0
855	spionid larva		0	0	267	167	133	0	133	800
880	scaevorn larva		0	0	0	0	0	0	133	0
899	pelagic polychaete		0	0	0	0	0	0	0	0
		ms Carbon per cubic meter								
			1	21	13	11	19	21	14	12

Code	Name	Station	27		24			19		1.0
		Depth	9.0	5.0	1.0	10.0	5.0	1.0	13.0	
		Number per cubic meter								
603	Tintinnopsis sp. B	133	267	0	300	0	0	0	0	0
605	Eutintinnus neriticus	0	0	200	0	0	0	0	0	0
608	Parafavella sp.	0	0	0	0	0	0	0	133	1200
630	coiled Foraminifera	0	0	0	100	0	0	0	0	0
661	Hydroids (stalked)	0	0	0	0	0	0	0	0	0
681	flatworm sp. A	400	800	0	0	200	133	0	0	267
682	flatworm sp. B	0	0	0	0	0	133	267	0	0
690	Nemertina	0	0	0	0	0	0	0	133	0
692	Nemertine larva	0	0	0	0	0	0	133	0	0
701	Synchaeta sp.	0	0	0	0	0	0	400	133	800
740	Nematoda	0	0	0	0	0	0	0	133	133
801	Gastropod veliger	800	267	0	300	100	400	0	133	0
821	Bivalvia veliger	267	133	0	400	400	133	533	0	0
851	Polychaete trochophore	0	0	0	0	0	0	267	133	133
852	Polychaete larva	0	0	0	0	0	0	0	0	133
855	spionid larva	667	133	133	100	100	0	400	667	400
880	scaleworm larva	0	0	0	0	0	0	667	267	267
899	pelagic polychaete	0	0	0	0	0	0	133	0	0
		ms Carbon per cubic meter								
		9	21	3	9	7	2	23	11	7

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
160780	80198	South S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
630	118	2.0	20.8	26.3	1.9	2.0	2	-1	ship
705	126	1.0	20.8	26.8	2.5	1.6	1	-1	ship
805	142	1.5	19.9	28.4	1.7	1.2	0	-1	ship

Station	118	126	142
Depth	2.0	1.0	1.5

Code	Name	Number per cubic meter		
10	Acartia californiensis F	14667	267	0
12	Acartia californiensis C	0	11333	133
13	Acartia californiensis N	13067	8667	5600
102	Eurytemora affinis C	0	0	0
197	copepod nauplius B	533	267	400
198	copepod nauplius C	133	0	2400
200	Cyclopoida	0	0	0
250	Harpacticoida	267	267	133
280	Harpacticoid sp. A	533	667	0
321	Isopoda imm.	0	0	0
325	Synidotea laticauda imm.	133	0	0
401	barnacle nauplius	0	0	0
603	Tintinnopsis sp. B	0	133	0
681	flatworm sp. A	0	133	0
801	Gastropod veliger	0	0	400
821	Bivalvia veliger	0	0	0
851	polychaete trochophore	0	0	0
855	spionid larva	667	267	400
			ms Carbon per cubic meter	
		46	12	2

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
160780	80198	South S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
910	156	1.0	20.7	27.2	1.9	1.3	0	0	ship
1000	162	1.0	21.1	27.3	1.1	1.1	1	1	ship
1030	168	1.0	21.3	27.0	1.4	1.0	1	1	ship

Station	156	162	168
Depth	1.0	1.0	1.0

Code	Name	Number per cubic meter		
10	Acartia californiensis F	0	0	78
12	Acartia californiensis C	1067	544	0
13	Acartia californiensis N	1467	622	1804
102	Eurytemora affinis C	0	0	78
197	copepod nauplius B	133	156	157
198	copepod nauplius C	0	544	78
200	Cyclopoida	0	0	0
250	Harpacticoida	0	0	78
280	Harpacticoid sp. A	0	78	1020
321	Isopoda imm.	133	0	0
325	Synidotea laticauda imm.	0	0	0
401	barnacle nauplius	267	0	1176
603	Tintinnopsis sp. B	0	0	0
681	flatworm sp. A	133	0	157
801	Gastropod veliger	133	0	0
821	Bivalvia veliger	0	3033	1490
851	polychaete trochophore	267	217	0
855	spionid larva	0	117	314
		mg Carbon per cubic meter		
		2	2	5

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE					
160780	80198	South S.F. Bay	Estero	64					
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type
1130	180	1.0	19.6	28.3	1.4	1.6	1	1	ship

Station 180
Depth 1.0

Code	Name	Number per cubic meter
10	Acartia californiensis F	0
12	Acartia californiensis C	4083
13	Acartia californiensis N	3306
102	Eurytemora affinis C	0
197	copepod nauplius B	194
198	copepod nauplius C	194
200	Cyclopoida	194
250	Harpacticoida	389
280	Harpacticoid sp. A	0
321	Isopoda imm.	0
325	Synidotea laticauda imm.	0
401	barnacle nauplius	583
603	Tintinnopsis sp. B	389
681	flatworm sp. A	0
801	Gastropod veliger	0
821	Bivalvia veliger	194
851	polychaete trochophore	0
855	spionid larva	194

mg Carbon per cubic meter

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
40880	80217	South S.F. Bay	Polaris	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
704	36	6.0	22.9	26.4	2.2	2.8	1	1	ship
710	36	1.0	22.8	25.8	2.2	3.5	1	1	ship
830	32	13.0	22.4	27.4	1.6	2.4	2	1	ship
836	32	7.0	22.4	27.4	1.5	2.0	2	1	ship
842	32	1.0	22.3	27.4	1.5	1.5	1	1	ship
926	30	13.0	22.0	27.8	1.7	1.1	1	1	ship
932	30	7.0	22.0	27.8	1.9	1.1	1	1	ship
938	30	1.0	22.0	27.7	2.2	1.1	0	1	ship

Code	Name	Station Depth								
		6.0	36 1.0	13.0	32 7.0	1.0	13.0	30 7.0	1.0	
		Number per cubic meter								
5	Acartia clausi F	0	0	0	0	0	0	0	0	
6	Acartia clausi M	0	0	0	0	0	0	0	0	
7	Acartia clausi C	0	0	0	0	0	0	0	0	
8	Acartia clausi N	0	0	0	0	0	0	0	0	
10	Acartia californiensis F	2800	1667	400	334	0	0	0	0	
11	Acartia californiensis M	1867	0	200	0	167	0	0	0	
12	Acartia californiensis C	20800	30500	25400	17500	7833	6500	10000	9000	
13	Acartia californiensis N	6533	1333	600	1167	7333	1333	3500	12600	
62	Paracalanus parvus C	0	0	0	0	0	0	0	0	
195	copepod nauplius D	0	0	0	0	0	0	0	0	
197	copepod nauplius B	0	0	0	0	0	0	0	0	
198	copepod nauplius C	0	0	0	0	0	0	0	600	
200	Cyclopoida	133	0	0	0	0	167	0	0	
250	Haracticoida	133	0	0	0	0	0	0	0	
280	Haracticoid sp. A	133	333	0	333	0	0	167	300	
281	Haracticoid A N	0	0	0	0	0	0	0	0	
300	Amphipoda	133	0	0	0	0	0	0	0	
325	Synidotea laticauda imm.	133	0	0	0	0	0	0	0	
345	Grapsid zoea	0	0	0	0	0	0	0	0	
360	Pinnotherid zoea	0	0	0	0	0	0	0	0	
401	barnacle nauplius	0	0	200	0	333	0	167	0	
545	Ascidian larva	0	0	0	0	0	0	0	150	
551	Endraulis mordax egg	0	0	200	0	0	0	0	0	
601	tintinnid spp.	0	0	0	0	0	0	0	0	
603	Tintinnopsis sp. B	533	167	0	167	0	0	0	150	
605	Eutintinnus neriticus	0	0	0	0	0	0	0	600	
608	Parafavella sp.	0	0	0	0	0	0	0	0	
630	coiled Foraminifera	0	0	0	0	0	0	0	0	
681	flatworm sp. A	0	0	0	2167	667	167	1000	0	
682	flatworm sp. B	0	167	0	167	0	0	0	0	
691	Filidium larva	0	0	0	0	0	0	0	0	
701	Synchaeta sp.	0	0	0	0	0	0	0	0	
801	Gastropod veliger	133	0	600	0	0	667	1000	300	
821	Bivalvia veliger	533	333	0	167	500	167	0	900	
851	Polychaete trochophore	0	0	0	0	0	0	0	0	
852	Polychaete larva	133	0	0	0	0	0	0	0	
855	spionid larva	133	167	600	500	667	167	333	1800	
880	scaeworm larva	0	0	0	0	0	167	0	0	

Code	Name	Station	36		32			30		
		Depth	6.0	1.0	13.0	7.0	1.0	13.0	7.0	1.0
			Number per cubic meter							
990	Polysiphonia		5	2	4	167	0	0	0	0
			mg Carbon per cubic meter							
			30	30	24	20	10	7	11	13

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
40880	80217	South S.F. Bay	Polaris	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
1034	27	12.0	21.4	28.2	0.6	1.0	0	1	ship
1040	27	6.0	21.6	28.1	0.8	0.7	0	1	ship
1046	27	1.0	21.6	28.0	1.0	0.7	0	1	ship
1139	24	9.0	19.5	29.0	1.1	0.7	1	-1	ship
1145	24	5.0	19.5	29.0	1.1	0.8	0	-1	ship
1151	24	1.0	19.7	29.0	1.5	0.9	0	-1	ship
1245	21	14.0	18.3	29.4	1.0	1.3	1	-1	ship
1253	21	1.0	19.4	29.2	1.4	0.7	1	-1	ship

Code	Name	Station Depth									
		12.0	6.0	1.0	9.0	5.0	1.0	14.0	21	1.0	
		Number per cubic meter									
5	Acartia clausi F	0	0	0	265	0	0	500	0		
6	Acartia clausi M	0	0	0	0	58	83	333	0		
7	Acartia clausi C	0	0	0	1500	758	916	8500	5200		
8	Acartia clausi N	0	0	0	0	291	333	1000	4933		
10	Acartia californiensis F	267	0	0	265	0	0	0	0		
11	Acartia californiensis M	0	0	0	0	58	83	0	0		
12	Acartia californiensis C	3333	8667	18900	1500	758	916	0	0		
13	Acartia californiensis N	1067	800	150	0	291	333	0	0		
62	Paracalanus parvus C	0	0	0	0	117	0	0	0		
195	copepod nauplius D	0	0	0	0	117	0	167	0		
197	copepod nauplius B	0	0	0	0	233	0	0	133		
198	copepod nauplius C	0	0	0	0	0	500	0	133		
200	Cyclopoida	0	0	0	133	233	0	0	267		
250	Harpacticoida	133	267	300	0	0	0	333	133		
280	Harpacticoid sp. A	0	667	0	0	0	333	167	133		
281	Harpacticoid A N	0	0	0	133	117	1000	333	0		
300	Amphipoda	0	0	0	0	0	0	0	0		
325	Synidotea laticauda imm.	0	0	0	0	0	0	0	0		
345	Grapsid zoea	0	0	0	0	117	0	0	0		
360	Pinnotherid zoea	0	0	0	3	0	0	0	0		
401	barnacle nauplius	0	0	0	0	0	0	0	0		
545	Ascidian larva	0	0	0	133	117	167	0	0		
551	Engraulis mordax egg	133	0	0	133	0	0	0	0		
601	tintinnid spp.	0	0	0	0	0	0	167	0		
603	Tintinnopsis sp. B	0	0	0	0	0	0	0	0		
605	Eutintinnus neriticus	0	0	0	667	5250	2500	500	0		
608	Parafavella sp.	0	0	0	0	0	0	0	533		
630	coiled Foraminifera	0	0	0	133	0	0	0	0		
681	flatworm sp. A	267	2933	2250	667	2917	2500	833	267		
682	flatworm sp. B	0	0	0	0	0	0	0	0		
691	Pilidium larva	0	0	0	0	117	0	0	0		
701	Synchaeta sp.	0	0	0	0	0	0	166	400		
801	Gastropod veliger	267	0	0	133	117	167	0	133		
821	Bivalvia veliger	400	267	1050	1867	4783	3667	1667	0		
851	Polyschaete trochophore	0	0	150	0	0	0	0	0		
852	Polyschaete larva	0	0	0	0	0	0	0	0		
855	spionid larva	0	400	600	0	117	0	333	800		
880	scaleworm larva	0	0	150	0	0	0	0	133		

Code	Name	Station	27			24			21	
		Depth	12.0	6.0	1.0	9.0	5.0	1.0	14.0	1.0
990	Polysiphonia		0	0	0	0	0	0	0	0
			4	13	21	6	9	7	12	8

Number per cubic meter

mg Carbon per cubic meter

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
40880	80217	South S.F. Bay	Estero	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
630	118	2.0	22.2	27.4	1.4	1.6	0	1	ship	
700	126	2.0	21.7	28.2	1.9	3.1	1	1	ship	
800	142	2.0	20.2	28.8	2.4	1.0	1	1	ship	

Code	Name	Station Depth	118 2.0	126 2.0	142 2.0
			Number per cubic meter		
10	Acartia californiensis F		2133	3200	833
11	Acartia californiensis M		267	533	1000
12	Acartia californiensis C		10667	7467	833
13	Acartia californiensis N		1333	533	1000
197	copepod nauplius B		0	0	833
198	copepod nauplius C		267	0	167
250	Harpacticoida		0	0	167
251	Harpacticoid B (bronze)		267	0	0
270	Microsetella sp.		0	0	0
280	Harpacticoid sp.A		533	0	333
300	Amphipoda		0	0	0
325	Synidotea laticauda imm.		0	0	0
350	Xanthid zoea		0	0	0
602	Tintinnopsis sp. A		0	0	0
681	flatworm sp. A		0	6133	167
682	flatworm sp. B		0	0	0
701	Synchaeta sp.		0	0	13333
740	Nematoda		0	0	0
801	Gastropod veliger		533	533	1167
821	Bivalvia veliger		0	533	8833
851	Polychaete trochophore		0	0	333
855	spionid larva		1067	1067	4167
880	scaletworm larva		0	0	0
			mg Carbon per cubic meter		
			19	28	19

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
40880	80217	South S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
845	156	1.5	21.6	28.2	2.5	1.5	0	0	ship
930	162	2.0	21.9	28.2	1.3	1.5	0	-1	ship
1000	168	2.0	21.8	28.8	2.2	1.2	2	-1	ship

Station	Depth	156	162	168
		1.5	2.0	2.0

Code	Name	Number per cubic meter		
10	Acartia californiensis F	800	333	267
11	Acartia californiensis M	267	222	0
12	Acartia californiensis C	1600	2444	2400
13	Acartia californiensis N	1067	0	2133
197	copepod nauplius B	0	0	267
198	copepod nauplius C	0	0	0
250	Harpacticoida	0	111	800
251	Harpacticoid B (bronze)	0	111	0
270	Microsetella sp.	0	222	0
280	Harpacticoid sp. A	267	0	533
300	Amphipoda	0	0	267
325	Synidotea laticauda imm.	0	0	1
350	Xanthid zoea	0	0	0
602	Tintinnopsis sp. A	0	0	0
681	flatworm sp. A	2667	3000	533
682	flatworm sp. B	0	111	0
701	Synchaeta sp.	0	0	0
740	Nematoda	0	0	267
801	Gastropod veliger	0	0	0
821	Bivalvia veliger	267	0	1333
851	polychaete trochophore	0	0	0
855	spionid larva	0	0	2133
880	scaeworm larva	267	0	0

ms Carbon per cubic meter	9	8	11

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
40880	80217	South S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
1045	180	1.0	19.6	29.2	1.9	1.6	3	-1	ship

Station 180
Depth 1.0

Code	Name	Number per cubic meter
10	Acartia californiensis F	181
11	Acartia californiensis M	0
12	Acartia californiensis C	4000
13	Acartia californiensis N	11091
197	copepod nauplius B	364
198	copepod nauplius C	727
250	Harpacticoida	181
251	Harpacticoid B (bronze)	0
270	Microsetella sp.	363
280	Harpacticoid sp.A	181
300	Amphipoda	0
325	Synidotea laticauda imm.	0
350	Xanthid zoea	181
602	Tintinnopsis sp. A	181
681	flatworm sp. A	181
682	flatworm sp. B	0
701	Synchaeta sp.	0
740	Nematoda	0
801	Gastropod veliger	0
821	Bivalvia veliger	0
851	polychaete trochophore	0
855	spionid larva	1636
880	scaevorm larva	181

mg Carbon per cubic meter

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
180880	80231	South S.F. Bay	Polaris	64						
TIME	STATION	DEPTH #	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
708	36	5.0	20.5	26.7	2.8	2.6	1	-1	ship	
713	36	1.0	20.3	26.1	2.6	2.2	1	-1	ship	
800	32	12.0	20.4	27.7	2.0	1.9	1	-1	ship	
806	32	6.0	20.4	27.7	2.1	1.9	1	-1	ship	
812	32	1.0	20.4	27.7	2.2	1.9	1	-1	ship	
850	30	12.0	19.9	28.0	2.8	1.4	1	-1	ship	
856	30	6.0	19.9	28.1	2.8	1.4	1	-1	ship	
902	30	1.0	19.9	28.1	3.1	1.5	0	-1	ship	

		Station	36		32		30			
		Depth	5.0	1.0	12.0	6.0	1.0	12.0	6.0	1.0
Code	Name	Number per cubic meter								
5	Acartia clausi F	0	0	0	0	0	0	0	0	0
6	Acartia clausi M	0	0	0	0	0	0	0	0	0
7	Acartia clausi C	0	0	0	0	0	0	0	0	0
8	Acartia clausi N	0	0	0	0	0	0	0	0	0
10	Acartia californiensis F	3000	1333	1067	6050	0	8617	5683	200	
11	Acartia californiensis M	5833	2000	1733	3117	0	1650	3850	0	
12	Acartia californiensis C	13333	17733	11733	25483	22833	5867	3117	6600	
13	Acartia californiensis N	833	7733	4800	18883	43500	733	367	11600	
17	Acartia tonsa F	0	0	0	0	0	0	0	0	0
60	Paracalanus parvus F	0	0	0	0	0	0	0	0	0
61	Paracalanus parvus M	0	0	0	0	0	0	0	0	0
62	Paracalanus parvus C	0	0	0	0	0	0	0	0	0
70	Pseudocalanus sp. A F	0	0	0	0	0	0	0	0	0
131	Metridia pacifica M	0	0	0	0	0	0	0	0	0
132	Metridia pacifica C	0	0	0	0	0	0	0	0	0
195	COPEPOD NAUPLIUS D	0	0	0	0	0	0	0	0	0
197	COPEPOD NAUPLIUS B	333	0	0	0	0	0	183	0	0
198	COPEPOD NAUPLIUS C	0	267	0	367	333	0	183	400	0
199	COPEPOD NAUPLIUS	0	0	0	0	0	0	0	0	0
200	Cyclopoida	0	0	0	183	0	0	0	0	0
210	Oithona spp.	500	0	400	183	0	183	183	0	0
213	Oithona spinirostris	0	0	0	0	0	0	0	0	0
250	Harpacticoida	0	0	267	183	0	0	183	0	0
270	Microsetella sp.	0	0	0	0	0	183	0	0	0
280	Harpacticoid sp. A	167	133	0	367	333	0	183	200	0
281	Harpacticoid A N	0	0	0	0	0	0	0	0	0
321	Isopoda imm.	0	0	0	0	0	183	183	0	0
325	Synidotea laticauda imm.	0	0	133	0	0	1	0	0	0
345	Grapsid zoea	0	0	0	0	0	0	0	0	0
355	Cancer zoea	0	0	0	0	0	0	0	0	0
401	barnacle nauplius	167	533	133	0	1167	0	0	0	0
551	Engraulis mordax egg	0	0	0	183	0	367	0	200	0
602	Tintinnopsis sp. A	0	0	0	0	0	183	0	0	0
603	Tintinnopsis sp. B	25000	12000	6000	24750	21000	0	7150	34000	0
605	Eutintinnus neriticus	167	533	133	550	333	0	0	200	0
608	Parafavella sp.	0	0	0	0	0	0	0	0	0
609	Tintinnopsis sp. E (1/4B)	23333	8000	4667	0	0	0	0	0	0
681	flatworm sp. A	0	0	0	367	167	0	0	0	0

Code	Name	Station	36			32			30		
		Depth	5.0	1.0	12.0	6.0	1.0	12.0	6.0	1.0	
		Number per cubic meter									
701	Synchaeta sp.		0	0	0	0	0	0	0	0	0
705	Keratella sp.		0	0	133	0	0	0	0	0	0
801	Gastropod veliger		1000	267	267	917	333	3117	367	2200	
821	Bivalvia veliger		0	133	267	0	333	1467	183	0	
855	spionid larva		167	400	400	183	1167	0	367	0	
880	scaleworm larva		0	0	0	0	0	0	183	0	
		ms Carbon per cubic meter									
			30	24	18	48	28	34	27	8	

Code	Name	Station	27	1.0	9.0	24	1.0	14.0	19	1.0
		Depth	10.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0
Number per cubic meter										
681	flatworm sp. A		0	800	600	400	400	0	0	0
701	Synchaeta sp.		0	1200	1000	0	0	0	333	533
705	Keratella sp.		0	0	0	0	0	0	0	0
801	Gastropod veliger		0	400	200	200	400	300	167	0
821	Bivalvia veliger		200	200	0	0	600	0	167	133
855	spionid larva		0	800	1000	400	200	300	0	133
880	scaleworm larva		0	0	400	0	0	0	167	267
mg Carbon per cubic meter										
			17	11	11	7	5	4	15	17

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
180880	80231	South S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
615	118	1.5	20.0	27.8	1.2	1.2	1	-1	ship
700	126	1.5	19.8	28.5	2.2	2.0	1	-1	ship
820	142	1.5	18.9	29.5	2.6	1.0	1	-1	ship

Station	118	126	142
Depth	1.5	1.5	1.5

Code	Name		Number per cubic meter	
10	Acartia californiensis F	108	2333	0
11	Acartia californiensis M	270	4889	0
12	Acartia californiensis C	33946	10000	1625
13	Acartia californiensis N	15297	3778	1250
197	COPEPOD NAUPLIUS B	432	111	500
198	COPEPOD NAUPLIUS C	432	111	625
199	COPEPOD NAUPLIUS	0	0	250
210	Dithona spp.	0	0	0
250	Harpacticoida	108	111	0
270	Microsetella sp.	0	0	125
280	Harpacticoid sp. A	540	111	0
281	Harpacticoid A N	162	111	0
401	barnacle nauplius	108	222	0
551	Endraulis mordax egg	54	0	0
602	Tintinnopsis sp. A	0	0	125
603	Tintinnopsis sp. B	34919	0	0
605	Eutintinnus neriticus	649	47778	0
681	flatworm sp. A	54	222	625
701	Synchaeta sp.	0	0	6500
801	Gastropod veliger	649	222	4000
821	Bivalvia veliger	162	555	875
851	Polychaete trochophore	0	0	500
855	scionid larva	378	222	2000
			ms Carbon per cubic meter	
		32	26	10

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
180880	80231	South S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
930	156	1.5	19.9	28.5	3.9	3.1	1	0	ship
1000	162	2.0	19.8	28.6	5.9	1.9	0	0	ship
1130	180	1.5	19.0	29.8	1.3	2.2	1	1	ship

Station	156	162	180
Depth	1.5	2.0	1.5

Code	Name	Number per cubic meter		
10	Acartia californiensis F	500	0	0
11	Acartia californiensis M	750	0	0
12	Acartia californiensis C	4250	4000	4125
13	Acartia californiensis N	2500	5333	6646
197	copepod nauplius B	500	0	458
198	copepod nauplius C	1750	667	229
199	copepod nauplius	0	0	229
210	Oithona spp.	750	0	0
250	Harpacticoida	0	0	0
270	Microsetella sp.	0	0	0
280	Harpacticoid sp. A	0	333	458
281	Harpacticoid A N	0	0	458
401	barnacle nauplius	0	0	0
551	Ensaerulis mordax egg	0	0	0
602	Tintinnopsis sp. A	0	0	0
603	Tintinnopsis sp. B	0	0	0
605	Eutintinnus neriticus	70000	13333	0
681	flatworm sp. A	2500	1000	229
701	Synchaeta sp.	250	0	0
801	Gastropod veliger	0	0	229
821	Bivalvia veliger	2500	0	0
851	polychaete trochophore	0	0	0
855	spionid larva	500	0	3208
			mg Carbon per cubic meter	
		14	6	12

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
30980	80247	South S.F. Bay	Polaris	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type
701	36	5.0	20.8	26.3	1.9	1.9	5	1	ship
708	36	1.0	20.8	26.0	1.7	1.7	2	1	ship

Station	36
Depth	5.0 1.0

Code	Name	Number per cubic meter	
5	Acartia clausi F	0	0
7	Acartia clausi C	0	0
8	Acartia clausi N	0	0
10	Acartia californiensis F	6000	400
11	Acartia californiensis M	3000	200
12	Acartia californiensis C	7000	6400
13	Acartia californiensis N	600	1800
60	Paracalanus parvus F	0	0
62	Paracalanus parvus C	0	0
195	copepod nauplius D	0	0
196	copepod nauplius A	0	0
197	copepod nauplius B	0	0
198	copepod nauplius C	0	0
199	copepod nauplius	0	0
200	Cyclopoida	0	200
210	Oithona spp.	200	400
250	Harpacticoida	200	0
280	Harpacticoid sp. A	200	200
281	Harpacticoid A N	0	0
300	Amphipoda	200	0
321	Isopoda imm.	0	0
401	barnacle nauplius	200	0
420	Ostracoda	0	0
551	Endraulis mordax egg	0	0
603	Tintinnopsis sp. B	0	0
605	Eutintinnus neriticus	0	0
608	Parafavella sp.	0	0
609	Tintinnopsis sp. E (1/4B)	0	0
630	coiled Foraminifera	0	0
681	flatworm sp. A	0	0
682	flatworm sp. B	0	0
701	Synchaeta sp.	0	0
801	Gastropod veliger	1000	800
821	Bivalvia veliger	0	200
851	polychaete trochophore	0	0
852	polychaete larva	0	0
855	spionid larva	0	0
899	pelagic polychaete	0	0

mg Carbon per cubic meter

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
30980	80247	South S.F. Bay	Polaris	64

TIME	STATION	DEPTH #	TEMP C	SALIN oo/o	CHL a us/l	EXCDF /#	DETRITUS	TIDE	COUNT type
756	32	13.0	20.3	28.2	1.6	1.6	3	1	ship
802	32	6.0	20.3	28.2	1.6	1.6	3	1	ship
814	32	1.0	20.3	28.1	1.3	1.3	1	1	ship

Station 32
Depth 13.0 6.0 1.0

Code	Name	Number per cubic meter		
5	Acartia clausi F	0	0	0
7	Acartia clausi C	0	0	0
8	Acartia clausi N	0	0	0
10	Acartia californiensis F	3466	4433	0
11	Acartia californiensis M	0	583	9317
12	Acartia californiensis C	9600	6183	3033
13	Acartia californiensis N	267	1517	0
60	Paracalanus parvus F	0	0	0
62	Paracalanus parvus C	0	0	0
195	copepod nauplius D	0	0	0
196	copepod nauplius A	0	0	0
197	copepod nauplius B	0	0	867
198	copepod nauplius C	0	0	867
199	copepod nauplius	0	0	0
200	Cyclopoida	2133	583	867
210	Oithona spp.	0	0	0
250	Harpacticoida	0	0	0
280	Harpacticoid sp. A	0	233	650
281	Harpacticoid A N	0	0	217
300	Amphipoda	0	0	0
321	Isopoda imm.	0	116	0
401	barnacle nauplius	267	0	217
420	Ostracoda	0	0	0
551	Engraulis mordax egg	0	0	0
603	Tintinnopsis sp. B	0	0	0
605	Eutintinnus neriticus	0	0	0
608	Parafavella sp.	0	0	0
609	Tintinnopsis sp. E (1/4B)	267	0	0
630	coiled Foraminifera	0	0	0
681	flatworm sp. A	0	0	0
682	flatworm sp. B	0	0	0
701	Synchaeta sp.	0	0	0
801	Gastropod veliger	800	933	217
821	Rivalvia veliger	0	233	217
851	Polychaete trochophore	0	0	0
852	Polychaete larva	0	0	0
855	spionid larva	0	116	217
899	pelagic polychaete	0	0	0

ms Carbon per cubic meter

25 21 22

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
30980	80247	South S.F. Bay	Polaris	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
854	30	12.0	19.8	28.7	2.1	2.1	2	1	ship
900	30	6.0	19.8	28.7	1.5	1.5	2	1	ship
906	30	6.0	19.8	28.7	1.5	1.5	2	1	ship
912	30	6.0	19.8	28.7	1.5	1.5	2	1	ship
918	30	1.0	19.8	28.7	1.4	1.4	1	1	ship

Station
Depth 12.0 6.0 6.0 6.0 1.0³⁰

Code	Name	Number per cubic meter				
5	Acartia clausi F	0	0	0	0	0
7	Acartia clausi C	0	0	0	0	0
8	Acartia clausi N	0	0	0	0	0
10	Acartia californiensis F	1517	3733	4333	2200	0
11	Acartia californiensis M	433	1000	600	533	0
12	Acartia californiensis C	1950	2133	4333	2800	2600
13	Acartia californiensis N	1300	533	800	867	9200
60	Paracalanus parvus F	0	0	0	0	0
62	Paracalanus parvus C	0	0	0	0	0
195	copepod nauplius D	0	0	0	0	0
196	copepod nauplius A	0	67	0	0	0
197	copepod nauplius B	0	67	133	0	200
198	copepod nauplius C	0	267	200	400	400
199	copepod nauplius	0	0	0	0	0
200	Cyclopoida	1300	733	1200	600	400
210	Oithona spp.	217	0	0	0	0
250	Harpacticoida	650	200	267	333	200
280	Harpacticoid sp. A	217	0	67	0	0
281	Harpacticoid A N	217	0	0	0	0
300	Amphipoda	0	0	0	0	0
321	Isopoda imm.	0	0	0	0	0
401	barnacle nauplius	0	67	0	0	0
420	Ostracoda	217	0	0	0	0
551	Ensaerulis mordax egg	0	0	67	0	0
603	Tintinnopsis sp. B	0	67	200	0	0
605	Eutintinnus neriticus	0	0	200	0	0
608	Parafavella sp.	0	0	0	0	0
609	Tintinnopsis sp. E (1/4B)	0	0	0	0	0
630	coiled Foraminifera	0	0	0	67	0
681	flatworm sp. A	0	67	333	67	0
682	flatworm sp. B	0	67	0	67	0
701	Synchaeta sp.	0	0	133	0	400
801	Gastropod veliger	1083	1467	1133	933	200
821	Bivalvia veliger	650	867	800	1800	1400
851	polychaete trochophore	0	0	67	0	0
852	polychaete larva	217	0	0	0	0
855	spionid larva	0	467	533	1800	1800
899	pelagic polychaete	0	0	0	0	0

mg Carbon per cubic meter
13 19 24 17 9

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
30980	80247	South S.F. Bay	Polaris	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
1014	27	12.0	19.0	29.5	1.2	1.2	1	1	ship
1020	27	6.0	19.0	29.5	1.2	1.2	1	1	ship
1026	27	1.0	19.0	29.5	1.2	1.2	1	1	ship

Station 27
Depth 12.0 6.0 1.0

Code	Name	Number per cubic meter		
5	Acartia clausi F	0	0	0
7	Acartia clausi C	0	0	0
8	Acartia clausi N	0	0	0
10	Acartia californiensis F	600	400	0
11	Acartia californiensis M	400	800	0
12	Acartia californiensis C	2600	3400	1800
13	Acartia californiensis N	400	400	14000
60	Paracalanus parvus F	200	0	0
62	Paracalanus parvus C	0	0	0
195	copepod nauplius D	0	0	0
196	copepod nauplius A	0	0	200
197	copepod nauplius B	0	0	0
198	copepod nauplius C	0	200	0
199	copepod nauplius	0	0	0
200	Cyclopoida	400	800	0
210	Oithona spp.	0	0	0
250	Harpacticoida	0	400	200
280	Harpacticoid sp. A	0	0	0
281	Harpacticoid A N	0	0	0
300	Amphipoda	0	0	0
321	Isopoda imm.	0	0	0
401	barnacle nauplius	0	0	0
420	Ostracoda	0	0	0
551	Ensaerulis mordax egg	0	0	0
603	Tintinnopsis sp. B	0	0	0
605	Eutintinnus neriticus	800	400	0
608	Parafavella sp.	0	0	0
609	Tintinnopsis sp. E (1/4B)	0	0	0
630	coiled Foraminifera	0	0	200
681	flatworm sp. A	200	2200	600
682	flatworm sp. B	200	0	0
701	Synchaeta sp.	0	0	800
801	Gastropod veliger	600	400	0
821	Bivalvia veliger	400	2200	1000
851	Polyschaete trochophore	0	0	0
852	Polyschaete larva	0	0	0
855	spionid larva	800	400	200
899	pelagic polyschaete	0	0	0

9	13	5
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ms Carbon per cubic meter

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
30980	80247	South S.F. Bay	Polaris	64

TIME	STATION	DEPTH #	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type
1127	24	10.0	17.9	30.2	1.4	1.4	1	-1	ship
1133	24	5.0	17.9	30.2	1.2	1.2	2	-1	ship
1139	24	1.0	18.2	30.2	1.0	1.0	0	-1	ship

Station
Depth 10.0 5.0 1.0 24

Code	Name	Number per cubic meter		
5	Acartia clausi F	0	0	0
7	Acartia clausi C	0	0	0
8	Acartia clausi N	0	0	0
10	Acartia californiensis F	600	667	0
11	Acartia californiensis M	0	167	0
12	Acartia californiensis C	3600	4333	2800
13	Acartia californiensis N	400	0	11000
60	Paracalanus parvus F	0	0	0
62	Paracalanus parvus C	0	0	0
195	copepod nauplius D	0	0	100
196	copepod nauplius A	0	0	0
197	copepod nauplius B	0	0	0
198	copepod nauplius C	0	0	100
199	copepod nauplius	0	0	500
200	Cyclopoida	0	500	0
210	Oithona spp.	0	0	0
250	Harpacticoida	200	667	100
280	Harpacticoid sp. A	0	0	0
281	Harpacticoid A N	0	0	0
300	Amphipoda	0	0	0
321	Isopoda imm.	0	0	0
401	barnacle nauplius	0	0	0
420	Ostracoda	0	0	0
551	Endraulis mordax egg	0	0	0
603	Tintinnopsis sp. B	0	0	200
605	Eutintinnus neriticus	0	0	0
608	Parafavella sp.	0	0	0
609	Tintinnopsis sp. E (1/4B)	0	0	0
630	coiled Foraminifera	0	0	0
681	flatworm sp. A	800	3833	0
682	flatworm sp. B	200	0	0
701	Synchaeta sp.	0	0	0
801	Gastropod veliger	0	0	0
821	Rivalvia veliger	1400	2667	300
851	polychaete trochophore	0	0	0
852	polychaete larva	0	0	0
855	spionid larva	400	0	0
899	pelagic polychaete	0	0	0

ms Carbon per cubic meter

8 15 4

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
30980	80247	South S.F. Bay	Polaris	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
1410	19	28.0	15.3	31.6	0.9	0.9	1	0	ship
1416	19	14.0	15.3	31.6	0.9	0.9	1	0	ship
1422	19	1.0	15.3	31.5	0.8	0.8	1	0	ship

Station 19
Depth 28.0 14.0 1.0

Code	Name	Number per cubic meter		
5	Acartia clausi F	200	400	0
7	Acartia clausi C	2000	400	200
8	Acartia clausi N	600	0	0
10	Acartia californiensis F	0	0	0
11	Acartia californiensis M	0	0	0
12	Acartia californiensis C	0	0	0
13	Acartia californiensis N	0	0	0
60	Paracalanus parvus F	0	0	0
62	Paracalanus parvus C	0	200	0
195	copepod nauplius D	0	0	0
196	copepod nauplius A	0	0	0
197	copepod nauplius B	0	0	0
198	copepod nauplius C	0	0	0
199	copepod nauplius	3400	6000	2000
200	Cyclopoida	0	400	0
210	Oithona spp.	0	0	0
250	Harpacticoida	0	200	200
280	Harpacticoid sp. A	0	0	0
281	Harpacticoid A N	0	0	0
300	Amphipoda	0	0	0
321	Isopoda imm.	0	0	0
401	barnacle nauplius	400	0	200
420	Ostracoda	0	0	0
551	Engraulis mordax egg	0	0	0
603	Tintinnopsis sp. B	0	0	600
605	Eutintinnus neriticus	0	0	0
608	Parafavella sp.	1400	1000	0
609	Tintinnopsis sp. E (1/4B)	400	0	0
630	coiled Foraminifera	0	0	0
681	flatworm sp. A	0	0	200
682	flatworm sp. B	200	0	0
701	Synchaeta sp.	400	200	200
801	Gastropod veliger	0	0	0
821	Bivalvia veliger	400	0	0
851	polychaete trochophore	0	200	0
852	polychaete larva	0	0	0
855	spionid larva	200	400	0
899	pelagic polychaete	200	0	0

ms Carbon per cubic meter

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE					
30980	80247	South S.F. Bay	Estero	64					
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
620	118	2.0	20.3	28.1	1.2	1.2	1	1	ship
655	126	1.5	19.8	29.0	1.2	1.4	1	1	ship
800	142	2.0	18.8	30.0	3.4	1.0	1	3	ship
		Station		118				126	
		Depth		2.0				1.5	
									142
									2.0
Code	Name	Number per cubic meter							
10	Acartia californiensis F	800						0	200
11	Acartia californiensis M	0						200	0
12	Acartia californiensis C	11800						9200	2000
13	Acartia californiensis N	10600						9000	3400
197	copepod nauplius B	0						400	400
198	copepod nauplius C	1000						0	400
199	copepod nauplius	0						200	11000
200	Cyclopoida	800						0	800
250	Harpacticoida	600						0	400
270	Microsetella sp.	1400						0	0
280	Harpacticoid sp. A	0						200	0
281	Harpacticoid A N	200						0	200
401	barnacle nauplius	1000						0	0
420	Ostracoda	200						0	0
540	Larvacea	0						0	200
545	Ascidian larva	0						0	400
605	Eutimninus neriticus	0						0	0
609	Tintinnopsis sp. E (1/4B)	0						0	0
681	flatworm sp. A	400						0	0
701	Synchaeta sp.	0						0	2000
801	Gastropod veliger	200						200	0
821	Bivalvia veliger	200						1000	42000
851	polychaete trochophore	0						0	600
852	polychaete larva	0						800	0
855	spionid larva	2200						0	7000
880	scaleworm larva	0						0	200
					mg Carbon per cubic meter				
					25			9	37

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
30980	80247	South S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
845	156	2.0	19.7	29.2	2.6	0.8	0	0	ship
915	162	1.0	19.7	29.4	2.9	1.3	1	-1	ship
940	168	2.0	19.7	29.6	0.9	0.9	0	-1	ship

Code	Name	Station Depth	156 2.0	162 1.0	168 2.0
			Number per cubic meter		
10	Acartia californiensis F		0	0	0
11	Acartia californiensis M		0	0	0
12	Acartia californiensis C		1400	2000	8000
13	Acartia californiensis N		2400	2800	600
197	copepod nauplius B		400	0	0
198	copepod nauplius C		1000	200	0
199	copepod nauplius		0	400	0
200	Cyclopoida		400	200	2400
250	Harpacticoida		200	200	200
270	Microsetella sp.		0	0	0
280	Harpacticoid sp. A		0	0	0
281	Harpacticoid A N		0	0	200
401	barnacle nauplius		0	1000	600
420	Ostracoda		0	0	0
540	Larvacea		0	0	0
545	Ascidian larva		0	0	0
605	Eutimninus neriticus		0	0	2000
609	Tintinnopsis sp. E (1/4B)		0	800	0
681	flatworm sp. A		400	3800	4200
701	Synchaeta sp.		200	0	0
801	Gastropod veliger		0	600	400
821	Bivalvia veliger		4600	600	2400
851	polychaete trochophore		0	0	200
852	polychaete larva		0	0	0
855	spionid larva		1200	1800	1200
880	scaleworm larva		0	200	0
			ug Carbon per cubic meter		
			8	15	25

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE					
30980	80247	South S.F. Bay	Estero	64					

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
1030	180	2.0	18.1	30.4	1.5	1.5	1	-1	ship

Station 180
Depth 2.0

Code	Name	Number per cubic meter
10	Acartia californiensis F	0
11	Acartia californiensis M	0
12	Acartia californiensis C	7400
13	Acartia californiensis N	6600
197	copepod nauplius B	0
198	copepod nauplius C	0
199	copepod nauplius	0
200	Cyclopoida	0
250	Harpacticoida	200
270	Microsetella sp.	0
280	Harpacticoid sp.A	0
281	Harpacticoid A N	0
401	barnacle nauplius	0
420	Ostracoda	0
540	Larvacea	0
545	Ascidian larva	0
605	Eutintinnus neriticus	0
609	Tintinnopsis sp. E (1/4B)	0
681	flatworm sp. A	1200
701	Synchaeta sp.	0
801	Gastropod veliger	0
821	Bivalvia veliger	1200
851	polychaete trochophore	0
852	polychaete larva	0
855	spionid larva	1000
880	scaevorm larva	0

ug Carbon per cubic meter

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE					
160980	80260	South S.F. Bay	Polaris	64					
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type
936	36	1.0	19.4	26.4	1.4	1.3	0	-1	ship
1022	32	12.0	19.6	27.9	2.0	1.4	1	-1	ship
1028	32	6.0	19.6	27.7	1.9	1.2	1	-1	ship
1034	32	1.0	19.6	27.6	2.5	1.0	1	-1	ship
1213	27	12.0	19.0	29.5	0.6	1.3	1	1	ship
1219	27	6.0	19.1	29.2	0.6	1.2	0	1	ship
1225	27	1.0	19.5	29.1	2.5	1.3	0	1	ship

Code	Name	Station Depth	36 1.0	12.0	32 6.0	1.0	12.0	27 6.0	1.0
		Number per cubic meter							
5	Acartia clausi F		0	0	0	0	0	0	0
6	Acartia clausi M		0	0	0	0	0	0	0
7	Acartia clausi C		0	0	0	0	0	0	0
8	Acartia clausi N		0	0	0	0	0	0	0
10	Acartia californiensis F		0	2250	450	0	2000	0	0
11	Acartia californiensis M		400	1800	450	0	1000	400	0
12	Acartia californiensis C		24261	15150	14400	9800	7600	12200	13800
13	Acartia californiensis N		15733	19150	0	5000	1000	2600	19200
17	Acartia tonsa F		0	0	0	0	0	0	0
18	Acartia tonsa M		0	0	0	0	0	0	0
36	Calanus tenuicornis C		0	0	0	0	0	0	0
60	Paracalanus parvus F		0	0	0	0	0	0	0
61	Paracalanus parvus M		0	0	0	0	0	0	0
62	Paracalanus parvus C		0	0	0	0	0	0	0
63	Paracalanus parvus N		0	0	0	0	0	0	0
70	Pseudocalanus sp. A F		0	0	0	0	0	0	0
194	copepodite (unknown)		0	0	0	0	0	0	0
196	copepod nauplius A		0	0	0	0	0	0	0
197	copepod nauplius B		0	150	300	200	200	200	0
198	copepod nauplius C		0	0	0	0	0	0	0
199	copepod nauplius		0	0	0	0	0	0	0
200	Cyclopoida		133	0	1050	0	0	0	0
210	Oithona spp.		400	5700	10200	7000	14200	4000	600
213	Oithona spirostris		0	0	0	0	0	0	0
220	Corycaeus sp.		133	0	0	0	0	0	0
250	Harpacticoida		0	450	150	0	400	0	0
280	Harpacticoid sp. A		800	0	300	1600	0	0	0
281	Harpacticoid A N		0	0	0	400	0	0	0
300	Amphipoda		0	0	150	0	0	0	0
401	barnacle nauplius		1066	0	0	0	0	0	0
402	barnacle cypris		0	0	0	0	0	0	0
545	Ascidian larva		0	0	0	0	0	0	0
551	Endraulis mordax egg		0	0	0	0	0	0	0
602	Tintinnopsis sp. A		0	0	0	0	0	0	0
603	Tintinnopsis sp. B		0	0	0	0	0	200	200
605	Eutintinnus neriticus		0	750	300	0	0	200	0
608	Parafavella sp.		0	0	0	0	0	0	0
630	coiled Foraminifera		0	0	0	0	0	0	0
681	flatworm sp. A		0	0	0	0	400	0	0

Code	Name	Station	32			27		
		Depth	12.0	6.0	1.0	12.0	6.0	1.0
		36						
		1.0						
			Number per cubic meter					
682	flatworm sp. B	0	0	0	0	0	0	0
701	Synchaeta sp.	0	150	0	400	0	0	200
751	Ectoprocta larva	0	0	0	0	0	0	0
790	Mollusca	0	1050	2250	0	0	0	0
801	Gastropod veliger	1066	0	0	1200	600	1400	0
821	Bivalvia veliger	0	0	0	400	0	600	0
851	polychaete trochophore	0	0	0	0	0	0	0
852	polychaete larva	400	0	0	0	0	800	0
855	spionid larva	0	0	450	0	800	0	200
880	scaleworm larva	0	0	150	200	0	0	0
			ms Carbon per cubic meter					
		25	27	25	15	25	14	14

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE					
160980	80260	South S.F. Bay	Polaris	64					
TIME	STATION	DEPTH #	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type
1316	24	9.0	18.1	30.4	0.1	1.1	1	1	lab
1322	24	5.0	18.1	30.4	0.1	0.8	1	1	ship
1328	24	1.0	18.4	30.2	1.7	0.5	0	1	ship
1602	19	14.0	15.0	32.1	8.0	0.8	0	1	ship
1608	19	7.0	15.1	31.9	16.9	0.8	0	1	ship
1614	19	1.0	15.3	31.9	13.9	0.8	0	1	ship

Code	Name	Station Depth						
		9.0	24 5.0	1.0	14.0	19 7.0	1.0	
		Number per cubic meter						
5	Acartia clausi F	3200	200	0	200	200	0	
6	Acartia clausi M	6733	0	0	0	0	0	
7	Acartia clausi C	9600	2000	2400	1800	1200	400	
8	Acartia clausi N	333	400	1600	0	600	0	
10	Acartia californiensis F	0	0	0	0	0	0	
11	Acartia californiensis M	0	0	0	0	0	0	
12	Acartia californiensis C	0	0	0	0	0	0	
13	Acartia californiensis N	0	0	0	0	0	0	
17	Acartia tonsa F	0	0	0	1000	200	0	
18	Acartia tonsa M	67	0	0	200	600	0	
36	Calanus tenuicornis C	0	0	0	0	0	0	
60	Paracalanus parvus F	133	0	0	0	200	0	
61	Paracalanus parvus M	67	0	0	0	200	0	
62	Paracalanus parvus C	0	0	0	0	200	0	
63	Paracalanus parvus N	0	0	0	200	0	0	
70	Pseudocalanus sp. A F	0	0	0	200	0	0	
194	copepodite (unknown)	0	0	0	0	0	200	
196	copepod nauplius A	0	0	0	200	0	0	
197	copepod nauplius B	0	0	400	0	0	0	
198	copepod nauplius C	67	0	200	200	0	0	
199	copepod nauplius	0	400	0	2800	0	12000	
200	Cyclopoida	133	0	0	200	0	0	
210	Oithona spp.	2467	2200	0	200	400	200	
213	Oithona sp. inirostris	467	0	0	0	0	0	
220	Corycaeus sp.	0	0	0	0	400	0	
250	Harpacticoida	800	1600	400	600	800	400	
280	Harpacticoid sp. A	0	0	0	0	0	0	
281	Harpacticoid A N	0	0	0	0	0	0	
300	Amphipoda	0	0	0	0	0	0	
401	barnacle nauplius	0	200	0	400	400	0	
402	barnacle cypris	67	0	0	0	0	0	
545	Ascidian larva	400	200	0	0	0	0	
551	Engraulis mordax egg	67	0	0	0	0	0	
602	Tintinnopsis sp. A	67	0	200	0	0	0	
603	Tintinnopsis sp. B	0	0	0	0	0	0	
605	Eutintinnus neriticus	667	600	0	0	0	0	
608	Parafavella sp.	0	0	0	0	400	600	
630	coiled Foraminifera	200	0	0	0	0	0	
681	flatworm sp. A	333	2200	0	200	400	0	
682	flatworm sp. B	0	0	0	400	0	0	

Code	Name	Station	24			19		
		Depth	9.0	5.0	1.0	14.0	7.0	1.0
		Number per cubic meter						
701	Synchaeta sp.		0	0	0	1200	1200	3400
751	Ectoprocta larva		67	0	0	0	0	0
790	Mollusca		0	0	0	0	0	0
801	Gastropod veliger		1400	400	400	0	0	400
821	Bivalvia veliger		2533	3200	800	400	200	0
851	polychaete trochophore		67	200	200	1000	400	400
852	polychaete larva		0	0	0	0	0	0
855	spionid larva		267	800	200	1000	400	200
880	scaeworm larva		0	0	0	0	0	0
		mg Carbon per cubic meter						
			33	12	4	14	9	4

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
160980	80260	South S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
844	118	1.5	18.7	28.6	3.4	1.3	1	-1	ship
1038	142	1.0	18.7	30.2	1.6	1.0	0	0	ship
1205	162	1.5	19.2	29.6	4.6	1.7	0	1	ship

Station	118	142	162
Depth	1.5	1.0	1.5

Code	Name	Number per cubic meter	
10	Acartia californiensis F	167	0
11	Acartia californiensis M	667	400
12	Acartia californiensis C	10167	3200
13	Acartia californiensis N	13333	4600
197	copepod nauplius B	333	800
198	copepod nauplius C	1000	1000
200	Cyclopoida	0	0
210	Dithona spp.	0	0
250	Harpacticoida	166	200
280	Harpacticoid sp.A	1833	200
401	barnacle nauplius	833	0
603	Tintinnopsis sp. B	0	0
605	Eutintinnus neriticus	0	0
608	Parafavella sp.	0	400
680	Platyhelminthes	0	0
701	Synchaeta sp.	0	1000
801	Gastropod veliger	1500	0
821	Bivalvia veliger	0	1200
851	polychaete trochophore	0	0
852	polychaete larva	0	400
855	spionid larva	1667	0
880	scaeworm larva	167	0
		19	ms Carbon per cubic meter
			5

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE										
151080	80289	South S.F. Bay	Polaris	64										
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type					
1015	36	6.0	17.3	27.4	2.7	1.9	0	-1	ship					
1021	36	1.0	17.1	26.4	2.9	1.9	0	-1	ship					
1106	32	12.0	17.8	28.6	2.4	1.9	0	-1	ship					
1112	32	6.0	17.6	28.5	2.4	1.7	0	-1	ship					
1118	32	1.0	17.4	28.3	2.3	1.2	0	-1	ship					
1204	30	12.0	18.0	29.2	1.9	1.0	1	-1	ship					
1210	30	6.0	18.0	29.2	1.8	1.0	1	-1	ship					
1216	30	1.0	18.1	29.1	2.4	0.6	0	-1	ship					
		Station	Depth	6.0	36	1.0	12.0	32	6.0	1.0	12.0	30	6.0	1.0
Code	Name	Number per cubic meter												
5	Acartia clausi F	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Acartia clausi M	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Acartia clausi C	0	0	0	0	0	0	0	0	0	0	0	0	0
8	Acartia clausi N	0	0	0	0	0	0	0	0	0	0	0	0	0
10	Acartia californiensis F	9800	1000	11200	2100	200	1000	0	267					
11	Acartia californiensis M	7200	200	9067	1867	200	1200	200	267					
12	Acartia californiensis C	4400	25800	11733	19133	17400	4400	7200	42133					
13	Acartia californiensis N	6000	8800	2933	1400	17400	800	200	0					
17	Acartia tonsa F	0	0	0	0	0	0	0	0					
29	Tortanus discaudatus C	0	0	0	0	0	0	0	0					
61	Paracalanus parvus M	0	0	0	0	0	0	0	0					
62	Paracalanus parvus C	0	0	0	0	0	0	0	0					
196	copepod nauplius A	0	0	0	0	0	0	0	0					
198	copepod nauplius C	0	0	0	0	0	0	0	533					
199	copepod nauplius	0	0	0	0	0	0	0	7200					
200	Cyclopoids	0	0	0	0	0	200	0	0					
210	Dithona spp.	31600	6400	24000	23800	19200	18200	24000	22933					
213	Dithona spinirostris	200	0	0	0	0	0	0	0					
220	Corycaeus sp.	0	0	0	0	0	0	0	0					
250	Harpacticoids	0	0	0	0	600	200	0	267					
270	Microsetella sp.	0	0	0	0	0	0	0	0					
280	Harpacticoid sp. A	200	0	0	233	400	600	0	0					
281	Harpacticoid A N	0	0	0	0	400	0	0	0					
360	Pinnotherid zoea	0	0	0	0	0	0	0	0					
401	barnacle nauplius	0	0	0	0	0	0	0	267					
402	barnacle cypris	0	0	0	0	0	0	0	0					
545	Ascidian larva	0	0	267	233	0	0	0	0					
681	flatworm sp. A	0	0	0	233	0	0	0	533					
801	Gastropod veliger	600	400	5300	1167	400	200	1200	533					
821	Bivalvia veliger	200	0	0	233	0	0	0	0					
855	spionid larva	200	0	2400	233	1000	800	200	2133					
880	scaevorm larva	0	0	0	0	0	0	0	0					
				mg Carbon per cubic meter										
				64	29	78	41	32	23	21	56			

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE										
151080	80289	South S.F. Bay	Polaris	64										
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type					
1313	27	14.0	18.3	29.7	0.9	0.9	0	-1	ship					
1319	27	7.0	18.3	29.7	1.1	0.7	0	-1	ship					
1325	27	1.0	18.5	29.5	1.6	0.7	0	-1	ship					
1432	24	9.0	17.7	30.0	1.2	1.1	1	-1	ship					
1438	24	5.0	17.7	30.0	1.2	1.0	2	-1	ship					
1444	24	1.0	17.8	30.0	1.5	0.9	1	-1	ship					
1751	19	14.0	14.2	32.0	1.5	0.7	1	0	ship					
1757	19	7.0	14.7	31.6	1.5	0.6	1	0	ship					
1803	19	1.0	14.8	13.6	1.5	0.6	0	0	ship					
					Station	27	24	19						
					Depth	14.0	7.0	1.0	9.0	5.0	1.0	14.0	7.0	1.0
Code	Name	Number per cubic meter												
5	Acartia clausi F	0	0	0	0	0	0	0	533	1867	800			
6	Acartia clausi M	0	0	0	0	0	0	0	0	267	800			
7	Acartia clausi C	0	0	0	0	0	0	0	2667	0	2400			
8	Acartia clausi N	0	0	0	0	0	0	0	800	1333	1400			
10	Acartia californiensis F	4000	800	0	2133	1067	0	0	0	0	0			
11	Acartia californiensis M	4267	1067	267	1333	533	0	0	0	0	0			
12	Acartia californiensis C	4800	10400	1253	11467	8267	4533	0	0	0	0			
13	Acartia californiensis N	0	0	267	1600	4000	2933	0	0	0	0			
17	Acartia tonsa F	0	0	0	0	0	0	0	0	533	0			
29	Tortanus discaudatus C	0	0	0	0	0	267	0	0	267	0			
61	Paracalanus parvus M	0	0	0	0	0	0	0	0	267	0			
62	Paracalanus parvus C	0	0	0	0	0	0	0	0	267	0			
196	copepod nauplius A	0	0	0	0	0	0	0	0	267	0			
198	copepod nauplius C	533	533	0	267	0	533	267	0	200	0			
199	copepod nauplius	0	0	1867	0	0	0	0	0	0	0			
200	Cyclopoida	0	0	0	0	0	0	0	0	0	0			
210	Oithona spp.	12800	24533	15733	5067	4000	3733	267	267	0	0			
213	Oithona spinirostris	0	0	0	0	0	0	267	0	0	0			
220	Corycaeus sp.	0	0	0	0	0	0	267	267	400	0			
250	Harpacticoida	0	0	0	1600	800	1333	2933	533	200	0			
270	Microsetella sp.	0	0	0	0	0	0	0	0	600	0			
280	Harpacticoid sp. A	0	267	1333	0	0	0	267	0	0	0			
281	Harpacticoid A N	0	0	0	0	533	0	0	0	0	0			
360	Pinnotherid zoea	0	0	0	0	0	0	0	0	200	0			
401	barnacle nauplius	0	0	0	0	0	0	0	1333	200	0			
402	barnacle cypris	0	0	0	0	0	0	0	0	200	0			
545	Ascidian larva	0	0	0	0	267	0	267	0	0	0			
681	flatworm sp. A	0	0	0	0	267	1067	800	0	0	0			
801	Gastropod veliger	800	533	0	0	533	533	0	0	0	0			
821	Bivalvia veliger	0	0	0	0	1067	1067	267	533	0	0			
855	spionid larva	0	0	267	0	267	0	0	533	800	0			
880	scaeworm larva	0	0	0	0	0	0	267	0	0	0			
					mg Carbon per cubic meter									
					30	27	13	23	16	11	10	13	9	

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
151080	80289	South S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type
900	118	2.0	17.0	29.0	2.6	1.8	0	-1	ship
930	126	1.5	16.9	29.3	2.8	1.1	0	-1	ship
1030	142	2.0	17.4	30.0	3.0	1.1	0	0	ship

Station	118	126	142
Depth	2.0	1.5	2.0

Code	Name	Number per cubic meter		
10	Acartia californiensis F	600	800	182
11	Acartia californiensis M	800	400	0
12	Acartia californiensis C	13000	4600	6000
13	Acartia californiensis N	1400	4000	2545
60	Paracalanus parvus F	0	0	0
198	copepod nauplius C	200	800	1273
199	copepod nauplius	0	0	8182
200	Cyclopoida	0	0	0
210	Oithona spp.	7000	26200	26727
220	Corycaeus sp.	0	0	182
250	Harpacticoida	0	0	2545
280	Harpacticoid sp. A	0	400	0
281	Harpacticoid A N	0	200	0
402	barnacle cypris	0	0	0
545	Ascidian larva	0	0	182
681	flatworm sp. A	200	200	0
801	Gastropod veliger	0	200	182
821	Bivalvia veliger	0	0	1273
851	polychaete trochophore	0	0	0
855	spionid larva	0	1000	6182
880	scaevorm larva	0	0	0
			ms Carbon per cubic meter	
		18	26	41

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
151080	80289	South S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type
1130	156	1.5	17.4	29.3	5.0	1.6	0	1	ship
1200	162	2.0	17.9	29.5	1.7	0.9	0	1	ship
1230	168	2.0	18.1	29.8	2.1	1.0	0	1	ship

Station	156	162	168
Depth	1.5	2.0	2.0

Code	Name	Number per cubic meter		
10	Acartia californiensis F	267	0	800
11	Acartia californiensis M	267	0	0
12	Acartia californiensis C	8800	8267	6933
13	Acartia californiensis N	800	2133	0
60	Paracalanus parvus F	0	0	0
198	copepod nauplius C	2400	1333	1333
199	copepod nauplius	0	533	29333
200	Cyclopoida	0	0	0
210	Uithona spp.	43200	10933	1333
220	Corycaeus sp.	0	0	0
250	Harpacticoida	800	267	267
280	Harpacticoid sp.A	800	533	0
281	Harpacticoid A N	0	0	0
402	barnacle cypris	267	0	0
545	Ascidian larva	0	0	0
681	flatworm sp. A	0	801	0
801	Gastropod veliger	533	1333	800
821	Bivalvia veliger	0	0	267
851	polychaete trochophore	0	0	267
855	spionid larva	1867	1067	4533
880	scaleworm larva	267	0	0
			mg Carbon per cubic meter	
		42	18	23

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
151080	80289	South S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
1320	180	2.0	18.1	30.0	2.5	1.1	0	1	ship

Station 180
Depth 2.0

Code	Name	Number per cubic meter
10	Acartia californiensis F	267
11	Acartia californiensis M	267
12	Acartia californiensis C	4533
13	Acartia californiensis N	0
60	Paracalanus parvus F	267
198	copepod nauplius C	1067
199	copepod nauplius	5600
200	Cyclopoida	267
210	Oithona spp.	3467
220	Corycaeus sp.	0
250	Harpacticoida	2933
280	Harpacticoid sp. A	267
281	Harpacticoid A N	0
402	barnacle cypris	0
545	Ascidian larva	0
681	flatworm sp. A	0
801	Gastropod veliger	0
821	Bivalvia veliger	1067
851	polychaete trochophore	0
855	spionid larva	9867
880	scaevorm larva	0

mg Carbon per cubic meter

36

Code	Name	Station	32	1.0	30	1.0	27	1.0			
		Depth	10.0	5.0	10.0	5.0	10.0	5.0	1.0		
			Number per cubic meter								
851	polychaete trochophore		0	0	0	0	0	0	0	0	
852	polychaete larva		0	0	0	0	0	0	0	0	
855	spionid larva		0	0	200	0	600	267	0	0	200
			ms Carbon per cubic meter								
			16	25	19	13	56	29	14	14	14

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
281080	80302	South S.F. Bay	Polaris	64

TIME	STATION	DEPTH m	TEMP C	SALIN ‰	CHL a µs/l	EXCOF /m	DETRITUS	TIDE	COUNT type
1332	24	8.0	15.3	29.8	1.2	1.6	3	1	ship
1338	24	5.0	15.3	29.8	1.2	1.5	2	1	ship
1344	24	1.0	15.3	29.8	1.3	1.2	3	1	ship
1615	19	14.0	13.3	31.9	1.6	0.8	1	0	ship
1621	19	7.0	13.4	31.8	1.5	0.7	1	0	ship
1627	19	1.0	13.8	31.4	1.4	0.7	1	0	ship

Code	Name	Station Depth						
		8.0	5.0	1.0	14.0	7.0	1.0	
		Number per cubic meter						
5	Acartia clausi F	0	0	0	1000	200	400	
6	Acartia clausi M	0	0	0	600	600	100	
7	Acartia clausi C	0	0	0	2800	2000	400	
8	Acartia clausi N	0	0	0	200	1600	1600	
10	Acartia californiensis F	2200	1600	200	0	0	0	
11	Acartia californiensis M	600	1000	200	0	0	0	
12	Acartia californiensis C	5400	7800	5800	0	0	0	
13	Acartia californiensis N	0	0	8800	0	0	0	
29	Tortanus discaudatus C	0	0	0	0	0	200	
60	Paracalanus parvus F	600	0	0	0	0	0	
61	Paracalanus parvus M	400	0	0	0	200	0	
62	Paracalanus parvus C	400	0	0	400	0	300	
196	copepod nauplius A	0	0	0	0	0	100	
198	copepod nauplius C	0	200	0	0	0	0	
199	copepod nauplius	0	4600	0	200	0	100	
200	Cyclopoids	0	0	0	200	0	0	
210	Oithona spp.	1200	1400	1600	0	0	100	
213	Oithona spinirostris	0	0	0	0	0	200	
220	Corycaeus sp.	0	0	0	0	400	0	
250	Harpacticoida	0	0	200	1600	400	1600	
270	Microsetella sp.	0	0	0	0	0	300	
280	Harpacticoid sp. A	0	200	0	0	0	100	
321	Isopoda imm.	200	0	0	0	0	0	
360	Pinnotherid zoea	0	0	200	0	0	0	
401	barnacle nauplius	0	0	200	200	200	200	
402	barnacle cypris	0	0	0	0	0	100	
603	Tintinnopsis sp. B	0	0	0	0	200	0	
605	Eutintinnus neriticus	0	0	0	600	0	0	
608	Parafavella sp.	0	0	0	0	600	800	
630	coiled Foraminifera	200	0	0	0	0	0	
681	flatworm sp. A	200	0	0	0	0	0	
701	Synchaeta sp.	0	0	0	0	600	0	
748	Phoronida larva	200	400	0	0	0	0	
750	Ectoprocta (Bryozoa)	0	0	0	0	200	0	
751	Ectoprocta larva	0	200	0	0	0	0	
801	Gastropod veliger	0	200	200	0	200	200	
821	Bivalvia veliger	0	400	0	0	0	700	
851	Polychaete trochophore	0	0	0	0	200	0	
852	Polychaete larva	0	0	0	0	0	700	
855	spionid larva	0	0	200	200	800	0	

Code	Name	Station	24	1.0	19	1.0
		Depth	8.0		5.0	
989	Rhodophyta sp.A		1	0	0	0
			15	14	8	6

ms Carbon per cubic meter

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DATE JULIAN DATE LOCATION VESSEL MESH SIZE
281080 80302 South S.F. Bay Estero 64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
848	118	1.5	16.3	28.2	2.0	1.8	1	0	ship
1023	142	1.5	16.7	30.0	3.1	1.1	1	0	ship
1156	162	1.5	16.5	29.3	1.8	0.9	1	1	ship

Station 118 142 162
Depth 1.5 1.5 1.5

Code	Name	Number per cubic meter		
10	Acartia californiensis F	600	0	2400
11	Acartia californiensis M	200	0	200
12	Acartia californiensis C	4800	1400	4000
192	Epilabidocera longipedata C	600	0	0
197	copepod nauplius B	0	0	1000
198	copepod nauplius C	400	2200	2200
199	copepod nauplius	19800	5400	9600
210	Dithona spp.	29200	4000	5000
250	Harpacticoida	0	1400	0
401	barnacle nauplius	0	200	0
545	Ascidian larva	200	0	0
681	flatworm sp. A	0	0	200
701	Synchaeta sp.	0	800	0
801	Gastropod veliger	0	200	400
821	Bivalvia veliger	200	0	200
851	polychaete trochophore	0	1000	0
855	spionid larva	400	3200	3400
			ms Carbon per cubic meter	
		34	15	23

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
121180	80317	South S.F. Bay	Polaris	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
1010	36	6.0	15.6	27.7	2.3	1.3	2	1	ship	
1016	36	1.0	14.8	26.0	2.6	1.3	1	1	ship	
1104	32	10.0	15.9	29.1	2.2	2.9	2	1	ship	
1121	32	5.0	15.8	28.0	2.2	2.0	1	1	ship	
1127	32	1.0	15.7	28.5	2.3	1.4	1	1	ship	
1216	30	12.0	15.9	29.6	1.6	1.5	1	1	ship	
1222	30	6.0	15.9	29.6	1.6	1.2	1	1	ship	
1228	30	1.0	16.0	29.5	2.1	0.8	2	1	ship	
		Station Depth	36		32		30			
		6.0	1.0	10.0	5.0	1.0	12.0	6.0	1.0	
Code	Name	Number per cubic meter								
5	Acartia clausi F	0	0	0	0	0	0	0	0	
6	Acartia clausi M	0	0	0	0	0	0	0	0	
7	Acartia clausi C	0	0	0	0	0	0	0	0	
10	Acartia californiensis F	7200	200	1400	1800	267	1867	1600	267	
11	Acartia californiensis M	2800	200	600	800	533	1167	0	0	
12	Acartia californiensis C	11600	6200	12200	11400	17067	7700	10933	28800	
13	Acartia californiensis N	0	13400	0	0	1333	0	0	533	
60	Paracalanus parvus F	0	0	0	0	0	0	0	0	
62	Paracalanus parvus C	0	0	0	0	0	0	0	0	
102	Eurytemora affinis C	0	200	0	0	0	0	0	0	
190	Epilabidocera lonsipedata F	0	0	0	0	0	0	0	0	
191	Epilabidocera lonsipedata M	0	0	0	0	0	0	0	0	
192	Epilabidocera lonsipedata C	0	0	0	0	0	0	233	0	
194	copepodite (unknown)	0	0	0	0	0	0	0	0	
197	copepod nauplius B	0	0	0	0	0	233	0	267	
198	copepod nauplius C	0	400	0	0	0	0	233	267	
199	copepod nauplius	0	0	200	13800	21333	0	1333	8000	
210	Dithona spp.	35200	7600	37000	60600	25067	18900	22667	16800	
213	Dithona spinirostris	0	0	0	0	0	0	0	0	
220	Corycaeus sp.	0	0	0	0	0	0	0	0	
250	Harpacticoida	0	0	0	0	267	700	1867	267	
280	Harpacticoid sp. A	0	600	0	0	0	233	0	0	
345	Grapsid zoea	0	0	0	0	0	0	0	0	
401	barnacle nauplius	0	0	0	0	0	0	0	0	
402	barnacle cypris	0	0	0	0	0	0	0	0	
520	Chaetosnatha	0	0	0	0	0	0	0	0	
559	other fish egg	0	0	0	0	0	0	0	0	
603	Tintinnopsis sp. B	0	0	0	0	0	0	0	0	
605	Eutintinnus neriticus	0	0	0	0	0	0	233	533	
681	flatworm sp. A	0	0	0	0	0	0	0	0	
740	Nematoda	0	200	0	0	0	0	0	0	
748	Phoronida larva	0	0	0	0	0	0	0	0	
751	Ectoprocta larva	0	0	0	0	0	0	0	0	
801	Gastropod veliger	600	0	400	600	0	0	233	0	
821	Bivalvia veliger	0	0	0	0	0	0	0	0	
851	polychaete trochophore	0	0	200	0	0	0	233	0	
855	spionid larva	0	200	0	400	533	233	1600	800	
				ms Carbon per cubic meter						
		56	13	37	54	34	26	36	37	

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE							
121180	80317	South S.F. Bay	Polaris	64							
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type		
1327	27	12.0	15.9	29.9	1.4	1.4	1	1	ship		
1333	27	6.0	15.9	29.9	1.4	1.3	1	1	ship		
1339	27	1.0	16.0	29.9	1.9	1.0	1	1	ship		
1442	24	9.0	14.6	29.9	1.3	1.0	1	1	ship		
1448	24	5.0	14.7	29.9	1.3	0.9	1	1	ship		
1454	24	1.0	14.9	29.9	1.4	0.8	1	1	ship		
1702	19	14.0	13.0	32.0	1.6	1.0	4	-1	ship		
1706	19	4.0	13.2	31.9	1.4	0.5	3	-1	ship		
		Station								19	
		Depth	12.0	6.0	1.0	9.0	5.0	1.0	14.0		4.0
Code	Name	Number per cubic meter									
5	Acartia clausi F	0	0	0	0	0	0	0	333	278	
6	Acartia clausi M	0	0	0	0	0	0	0	0	278	
7	Acartia clausi C	0	0	0	0	0	0	0	667	1111	
10	Acartia californiensis F	0	563	0	200	800	600	0	0	0	
11	Acartia californiensis M	0	0	0	0	0	0	0	0	0	
12	Acartia californiensis C	3733	2438	3600	11000	4800	9000	0	0	278	
13	Acartia californiensis N	0	375	400	0	0	0	0	0	0	
60	Paracalanus parvus F	0	0	0	200	0	0	0	0	278	
62	Paracalanus parvus C	0	0	0	800	400	400	0	0	2222	
102	Eurytemora affinis C	0	0	0	0	0	0	0	0	0	
190	Epilabidocera lonsipedata F	0	0	0	0	0	0	0	1	0	
191	Epilabidocera lonsipedata M	0	0	0	0	0	0	0	1	0	
192	Epilabidocera lonsipedata C	0	0	0	0	0	0	0	0	0	
194	copepodite (unknown)	0	0	0	0	0	0	0	667	556	
197	copepod nauplius B	0	0	0	0	0	0	0	0	0	
198	copepod nauplius C	0	0	7400	600	0	0	0	0	0	
199	copepod nauplius	0	0	6800	0	0	2400	333	1111		
210	Oithona spp.	2567	6938	2800	200	600	1000	0	0	0	
213	Oithona spirostris	0	0	0	0	0	0	333	0		
220	Corycaeus sp.	0	0	0	0	0	0	0	0	833	
250	Harpacticoida	933	1500	3600	600	200	1400	2333	2500		
280	Harpacticoid sp.A	0	0	0	0	0	0	0	0	0	
345	Grapsid zoea	0	0	0	0	0	1	0	0	0	
401	barnacle nauplius	0	0	0	0	200	200	333	278		
402	barnacle cypris	0	0	0	0	0	200	0	278		
520	Chaetognatha	233	0	0	0	0	0	0	0	0	
559	other fish egg	0	0	0	200	0	0	0	0	0	
603	Tintinnopsis sp. B	0	0	0	200	200	0	0	0	0	
605	Eutintinnus neriticus	0	0	200	200	0	0	0	0	0	
681	flatworm sp. A	0	0	0	0	0	0	1	0	0	
740	Nematoda	0	0	0	0	0	0	0	0	0	
748	Phoronida larva	0	0	0	0	0	0	0	0	278	
751	Ectoprocta larva	0	0	0	0	0	0	0	0	278	
801	Gastropod veliger	0	0	0	0	400	200	0	278		
821	Bivalvia veliger	0	188	0	400	0	0	667	1111		
851	polychaete trochophore	0	0	600	0	0	0	0	556		
855	spionid larva	700	188	800	0	0	200	1000	0		
				mg Carbon per cubic meter							
				8	10	13	12	7	13	10	12

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
121180	80317	South S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type
852	118	1.5	14.4	28.1	3.5	1.5	1	-1	ship
928	126	1.0	14.9	29.2	2.5	1.2	1	1	ship
1133	156	1.5	15.4	29.2	2.1	1.0	1	1	ship

Station	118	126	156
Depth	1.5	1.0	1.5

Code	Name	Number per cubic meter		
10	Acartia californiensis F	200	250	0
11	Acartia californiensis M	0	0	0
12	Acartia californiensis C	12000	5250	2095
13	Acartia californiensis N	1600	750	952
29	Tortanus discaudatus C	0	0	0
60	Paracalanus parvus F	0	0	0
194	copepodite (unknown)	400	0	0
197	copepod nauplius B	0	0	0
198	copepod nauplius C	600	6250	190
199	copepod nauplius	12200	18250	15238
210	Oithona spp.	23000	61750	12952
250	Harpacticoida	400	1500	2857
345	Grapsid zoea	0	0	0
402	barnacle cypris	0	0	190
605	Eutimninus neriticus	0	0	0
801	Gastropod veliger	0	250	190
821	Bivalvia veliger	0	0	0
851	polychaete trochophore	0	250	381
855	spionid larva	400	2000	952
			mg Carbon per cubic meter	
		28	51	18

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
121180	80317	South S.F. Bay	Estero	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
1205	162	2.0	15.7	29.1	1.4	1.0	2	1	ship	
1235	168	2.0	16.1	28.8	1.4	1.0	1	1	ship	
1330	180	2.0	15.9	29.8	1.9	1.1	1	1	ship	
		Station		Depth	162		168		180	
					2.0		2.0		2.0	
Code	Name				Number per cubic meter					
10	Acartia californiensis F				167		167		0	
11	Acartia californiensis M				0		167		0	
12	Acartia californiensis C				3833		16167		6000	
13	Acartia californiensis N				333		4500		13833	
29	Tortanus discaudatus C				0		167		0	
60	Paracalanus parvus F				0		167		0	
194	copepodite (unknown)				0		0		0	
197	copepod nauplius B				167		0		0	
198	copepod nauplius C				1000		333		1000	
199	copepod nauplius				5667		0		1167	
210	Oithona spp.				81667		45667		2000	
250	Harpacticoida				667		0		1833	
345	Grapsid zoea				0		0		167	
402	barnacle cypris				0		0		0	
605	Eutimninus neriticus				0		0		167	
801	Gastropod veliger				167		1167		500	
821	Bivalvia veliger				333		333		0	
851	polychaete trochophore				167		0		0	
855	spionid larva				11333		4333		2500	
					80		mg Carbon per cubic meter		53	
									16	

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
161280	80351	South S.F. Bay	Polaris	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
939	36	6.0	10.7	28.1	1.4	1.4	1	-1	ship	
945	36	1.0	10.4	27.4	1.4	1.4	0	-1	ship	
1027	32	12.0	10.0	28.7	1.4	2.4	3	-1	ship	
1033	32	6.0	10.9	28.7	1.4	1.7	3	-1	ship	
1039	32	1.0	10.8	28.4	1.5	1.5	2	-1	ship	
1135	30	10.0	11.2	29.2	1.3	1.8	2	-1	ship	
1141	30	5.0	11.2	29.2	1.3	1.6	2	-1	ship	
1147	30	1.0	11.3	29.0	1.2	1.2	1	-1	ship	

		Station	36		32		30			
		Depth	6.0	1.0	12.0	6.0	1.0	10.0	5.0	1.0
Code	Name	Number per cubic meter								
5	Acartia clausi F	400	933	400	533	267	1067	667	0	
6	Acartia clausi M	400	0	1800	267	0	133	0	0	
7	Acartia clausi C	2000	2000	2200	5467	2000	2667	4267	1733	
8	Acartia clausi N	267	933	200	133	2000	0	400	267	
10	Acartia californiensis F	0	0	600	0	0	0	0	0	
11	Acartia californiensis M	0	0	200	0	0	0	0	0	
12	Acartia californiensis C	0	0	0	0	0	0	0	0	
29	Tortanus discaudatus C	0	0	0	0	0	0	0	0	
60	Paracalanus parvus F	0	0	0	0	0	0	0	0	
61	Paracalanus parvus M	0	0	0	0	0	0	0	0	
62	Paracalanus parvus C	0	0	0	0	0	0	0	0	
161	Pseudodiaptomus euryhalinus M	0	0	0	0	0	0	0	0	
194	copepodite (unknown)	0	0	0	0	0	0	0	0	
196	copepod nauplius A	0	0	200	0	0	0	0	133	
197	copepod nauplius B	0	0	0	0	0	0	0	0	
198	copepod nauplius C	0	0	0	0	0	0	0	0	
199	copepod nauplius	0	0	400	0	0	0	0	0	
210	Oithona spp.	6267	267	2800	1333	667	1333	1467	1333	
213	Oithona spirostris	0	0	0	0	0	0	0	0	
220	Corycaeus sp.	0	0	0	0	0	0	0	0	
250	Harpacticoida	0	0	0	0	0	400	133	0	
270	Microsetella sp.	0	0	0	0	0	0	0	0	
281	Harpacticoid A N	133	0	0	133	0	0	0	0	
360	Pinnotherid zoea	0	0	0	0	133	0	0	0	
376	Crandon sp.	0	0	1	0	0	0	0	0	
541	Oikopleuridae	0	0	0	0	0	0	0	0	
605	Eutimninus neriticus	0	0	0	0	0	0	0	0	
740	Nematoda	0	0	0	0	0	0	0	0	
751	Ectoprocta larva	0	0	0	0	0	0	0	0	
801	Gastropod veliger	133	0	0	133	133	0	0	400	
821	Bivalvia veliger	0	0	0	0	0	0	0	133	
851	polychaete trochophore	0	0	0	0	0	0	0	0	
855	spionid larva	0	0	0	0	0	0	267	0	
				ms Carbon per cubic meter						
			7	4	9	7	3	7	7	2

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE								
161280	80351	South S.F. Bay	Polaris	64								
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type			
1235	27	11.0	11.4	29.6	1.1	1.9	4	-1	ship			
1241	27	5.0	11.4	29.6	1.0	1.8	3	-1	ship			
1247	27	1.0	11.5	29.6	1.0	1.8	4	-1	ship			
1342	24	9.0	11.6	29.3	1.3	1.4	2	-1	lab			
1348	24	5.0	11.6	29.3	1.3	1.2	2	-1	ship			
1354	24	1.0	11.7	29.3	1.3	1.3	1	-1	ship			
1634	19	14.0	11.5	30.8	1.4	0.8	3	1	ship			
1640	19	7.0	11.5	30.7	1.4	0.5	2	1	ship			
1646	19	1.0	11.4	30.6	1.4	0.5	2	1	ship			
		Station Depth										
		11.0	27 5.0	1.0	9.0	24 5.0	1.0	14.0	19 7.0	1.0		
Code	Name	Number per cubic meter										
5	Acartia clausi F	267	0	0	1200	900	0	533	267	267		
6	Acartia clausi M	533	0	0	933	0	0	133	0	0		
7	Acartia clausi C	667	2000	1500	3867	6100	6300	1467	133	0		
8	Acartia clausi N	267	267	2200	1467	600	7200	0	267	133		
10	Acartia californiensis F	133	0	0	0	0	0	0	0	0		
11	Acartia californiensis M	133	0	0	0	0	0	0	0	0		
12	Acartia californiensis C	267	0	0	0	0	0	0	0	0		
29	Tortanus discaudatus C	133	0	0	0	0	0	0	0	0		
60	Paracalanus parvus F	133	133	0	100	200	0	400	0	0		
61	Paracalanus parvus M	0	0	0	0	0	0	133	0	133		
62	Paracalanus parvus C	0	267	0	267	0	0	800	800	267		
161	Pseudodiaptomus eurshalinus M	1	0	0	0	0	0	0	0	0		
194	copepodite (unknown)	0	0	0	0	0	0	533	0	400		
196	copepod nauplius A	0	0	0	0	0	0	0	0	0		
197	copepod nauplius B	0	133	0	0	0	0	0	0	0		
198	copepod nauplius C	0	0	200	0	0	0	0	0	0		
199	copepod nauplius	0	0	0	0	0	0	800	2000	800		
210	Oithona spp.	1067	1200	800	2133	900	600	267	0	0		
213	Oithona spinirostris	0	0	0	133	0	0	0	400	133		
220	Corycaeus sp.	0	0	0	0	0	100	0	0	0		
250	Harpacticoida	133	667	700	800	400	900	1467	800	400		
270	Microsetella sp.	0	0	0	133	0	0	0	0	0		
281	Harpacticoid A N	0	0	100	0	0	0	0	0	0		
360	Pinnotherid zoea	0	0	0	0	0	0	0	133	0		
376	Crandon sp.	1	0	0	0	0	0	0	0	0		
541	Dikopleuridae	0	0	0	0	0	0	0	133	0		
605	Eutimninus neriticus	2	0	0	1733	0	0	0	0	0		
740	Nematoda	0	0	0	0	0	0	0	133	0		
751	Ectoprocta larva	0	0	0	0	0	0	1	400	0		
801	Gastropod veliger	0	0	100	133	100	0	0	0	0		
821	Bivalvia veliger	0	0	0	0	0	100	1600	400	667		
851	polychaete trochophore	0	0	100	0	0	200	0	0	0		
855	spionid larva	0	0	200	0	0	200	133	133	400		
				ms Carbon per cubic meter								
				4	4	3	11	9	8	9	4	4

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
161280	80351	South S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
858	118	2.0	11.4	28.6	1.2	1.6	1	-1	ship
927	126	1.5	11.7	28.9	1.0	1.4	1	-1	ship
1027	142	1.5	11.7	29.5	1.9	1.1	1	-1	ship

Code	Name	Station Depth	Number per cubic meter
		118 2.0	
		126 1.5	
		142 1.5	
5	Acartia clausi F		133
6	Acartia clausi M		0
7	Acartia clausi C		1333
8	Acartia clausi N		1467
62	Paracalanus parvus C		0
195	copepod nauplius D		0
198	copepod nauplius C		0
199	copepod nauplius		933
210	Oithona spp.		2000
220	Corycaeus sp.		0
250	Harpacticoida		0
281	Harpacticoid A N		0
345	Grapsid zoea		0
360	Pinnotherid zoea		0
401	barnacle nauplius		133
602	Tintinnopsis sp. A		0
603	Tintinnopsis sp. B		0
630	coiled Foraminifera		0
701	Synchaeta sp.		0
801	Gastropod veliger		0
821	Bivalvia veliger		0
851	polychaete trochophore		0
855	spionid larva		267
880	scaleworm larva		0
			ms Carbon per cubic meter
			4
			5
			16

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
161280	80351	South S.F. Bay	Estero	64						
TIME	STATION	DEPTH #	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
1125	156	1.5	11.6	28.7	1.5	1.0	1	-1	ship	
1155	162	1.5	10.2	27.6	4.2	0.9	2	-1	ship	
1221	168	1.5	10.1	26.6	4.5	1.0	1	-1	ship	
		Station Depth			156 1.5			162 1.5		168 1.5
Code	Name	Number per cubic meter								
5	Acartia clausi F				0			0	1333	
6	Acartia clausi M				267			133	133	
7	Acartia clausi C				2667			933	667	
8	Acartia clausi N				2667			533	1200	
62	Paracalanus parvus C				0			0	0	
195	copepod nauplius D				133			0	0	
198	copepod nauplius C				400			133	0	
199	copepod nauplius				2800			1333	0	
210	Oithona spp.				933			1600	5067	
220	Corycaeus sp.				0			0	0	
250	Harpacticoida				533			400	0	
281	Harpacticoid A N				267			0	133	
345	Grapsid zoea				0			0	0	
360	Pinnotherid zoea				0			0	133	
401	barnacle nauplius				0			0	0	
602	Tintinnopsis sp. A				0			0	0	
603	Tintinnopsis sp. B				0			0	0	
630	coiled Foraminifera				0			0	133	
701	Synchaeta sp.				0			0	0	
801	Gastropod veliger				133			133	267	
821	Bivalvia veliger				133			0	0	
851	polychaete trochophore				0			0	133	
855	spionid larva				0			0	0	
880	scalegorn larva				0			133	0	
					ms Carbon per cubic meter					
					4			3	8	

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
161280	80351	South S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
1319	180	1.5	12.1	28.8	1.8	1.1	0	-1	ship

Station 180
Depth 1.5

Code	Name	Number per cubic meter
5	Acartia clausi F	400
6	Acartia clausi M	533
7	Acartia clausi C	7333
8	Acartia clausi N	333
62	Paracalanus parvus C	133
195	copepod nauplius D	133
198	copepod nauplius C	133
199	copepod nauplius	0
210	Oithona spp.	400
220	Corycaeus sp.	133
250	Harpacticoida	400
281	Harpacticoid A N	267
345	Grapsid zoea	133
360	Pinnotherid zoea	0
401	barnacle nauplius	0
602	Tintinnopsis sp. A	0
603	Tintinnopsis sp. B	1600
630	coiled Foraminifera	0
701	Synchaeta sp.	0
801	Gastropod veliger	267
821	Bivalvia veliger	133
851	polychaete trochophore	0
855	spionid larva	167
880	scaeworm larva	0

mg Carbon per cubic meter

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
90281	81040	South S.F. Bay	Polaris	64						
TIME	STATION	DEPTH #	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
1029	36	2.5	11.8	21.9	2.7	2.5	1	1	ship	
1114	32	10.0	11.8	25.8	2.0	3.1	1	1	ship	
1121	32	5.0	11.8	25.5	2.0	2.1	1	1	ship	
1128	32	1.0	12.0	25.2	2.5	1.4	1	1	ship	
1223	30	10.0	11.7	27.0	1.7	2.5	1	1	ship	
1229	30	5.0	11.7	26.9	1.6	1.9	1	1	ship	
1235	30	1.0	11.9	26.7	1.7	1.6	0	1	ship	

Code	Name	Station Depth	36 2.5	32 10.0	32 5.0	30 1.0	30 10.0	30 5.0	30 1.0			
			Number per cubic meter									
5	Acartia clausi F		2267	2083	972	0	833	2000	1500			
6	Acartia clausi M		2933	2222	556	0	1000	1167	0			
7	Acartia clausi C		6267	1944	4528	10139	6500	10667	11167			
8	Acartia clausi N		6000	0	1528	12639	667	333	7167			
31	Calanus pacificus M		0	0	0	0	0	0	0			
36	Calanus tenuicornis C		0	0	0	0	0	0	0			
60	Paracalanus parvus F		0	0	0	0	0	0	0			
61	Paracalanus parvus M		0	0	0	0	0	0	0			
62	Paracalanus parvus C		0	0	0	0	0	0	0			
190	Epilabidocera lonsipedata F		0	0	0	0	0	0	0			
191	Epilabidocera lonsipedata M		0	0	0	0	0	0	0			
199	copepod nauplius		0	0	0	0	0	0	0			
200	Cyclopoids		0	0	0	0	0	0	0			
210	Oithona spp.		2923	417	556	139	333	167	0			
220	Corycaeus sp.		0	0	0	0	0	0	0			
250	Haracticoids		0	0	0	0	0	0	0			
321	Isopods imm.		0	0	0	0	0	0	0			
355	Cancer zoea		0	0	0	0	0	0	0			
401	barnacle nauplius		0	0	0	0	0	0	0			
541	Oikopleuridae		0	0	0	0	0	0	0			
560	fish larva		0	0	0	0	0	0	0			
602	Tintinnopsis sp. A		0	0	0	0	0	0	0			
603	Tintinnopsis sp. B		0	0	0	0	0	0	2500			
605	Eutintinnus neriticus		0	0	278	0	500	167	500			
608	Parafavella sp.		0	0	0	0	0	0	0			
609	Tintinnopsis sp. E (1/4B)		0	0	0	1111	0	167	0			
666	Polyorchis sp.		0	0	0	0	0	0	0			
801	Gastropod veliger		0	0	139	0	0	0	167			
821	Bivalvia veliger		0	0	0	0	0	0	0			
855	spionid larva		0	0	0	0	0	0	0			
880	scaeworm larva		0	0	0	0	0	0	167			
			18	ms Carbon per cubic meter			11	9	9	9	16	14

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
90281	81040	South S.F. Bay	Polaris	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
1334	27	14.0	11.6	27.2	1.6	4.5	3	1	ship	
1340	27	7.0	11.6	27.2	1.8	3.8	2	1	ship	
1346	27	1.0	11.8	27.2	1.8	1.6	1	1	ship	
1437	24	8.0	12.1	25.9	2.0	6.7	3	1	ship	
1443	24	2.0	12.2	25.9	1.4	2.4	2	1	ship	
1709	19	14.0	12.6	30.4	1.4	1.1	1	0	ship	
1715	19	2.0	12.6	29.3	1.6	0.9	0	0	ship	

Code	Name	Station	27		24		19	
		Depth	14.0	7.0	1.0	8.0	2.0	14.0
		Number per cubic meter						
5	Acartia clausi F	500	1333	267	167	1200	667	0
6	Acartia clausi M	167	0	133	833	0	133	0
7	Acartia clausi C	3333	3200	8400	1667	2667	1067	533
8	Acartia clausi N	167	133	1200	0	133	0	667
31	Calanus pacificus M	0	0	0	167	0	0	0
36	Calanus tenuicornis C	0	0	0	0	0	133	0
60	Paracalanus parvus F	0	133	0	167	267	0	0
61	Paracalanus parvus M	0	0	0	167	0	0	0
62	Paracalanus parvus C	0	0	0	333	533	933	267
190	Epilabidocera longipedata F	0	3	0	167	0	0	0
191	Epilabidocera longipedata M	0	4	0	0	0	0	0
199	copepod nauplius	0	0	0	0	0	2000	5467
200	Cyclopoida	0	0	0	0	0	533	133
210	Dithona spp.	167	267	0	0	0	133	0
220	Corycaeus spp.	0	0	0	0	0	267	267
250	Harpacticoida	0	133	0	167	133	1867	133
321	Isopoda imm.	0	0	0	0	133	0	0
355	Cancer zoea	0	0	0	0	0	0	400
401	barnacle nauplius	0	0	0	0	0	0	133
541	Oikopleuridae	0	0	0	0	133	0	0
560	fish larva	0	0	0	0	133	0	0
602	Tintinnopsis sp. A	0	133	0	0	0	0	0
603	Tintinnopsis sp. B	0	133	0	0	0	0	0
605	Eutintinnus neriticus	167	2800	18400	0	2400	400	667
608	Parafavella sp.	0	0	0	0	0	0	133
609	Tintinnopsis sp. E (1/4B)	0	0	0	0	0	0	0
666	Polyorchis sp.	0	0	1	0	0	0	0
801	Gastropod veliger	0	0	133	0	0	0	0
821	Bivalvia veliger	0	133	0	0	133	800	533
855	spionid larva	0	0	0	0	0	0	400
880	scaeworm larva	0	0	267	0	0	0	0
		mg Carbon per cubic meter						
		4	7	9	21	7	9	3

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
90281	B1040	South S.F. Bay	Estero	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
1000	126	0.5	12.1	26.0	2.4	1.4	1	-1	ship	
1200	156	1.0	12.2	26.2	2.7	0.9	1	1	ship	
1233	162	1.5	12.2	25.5	2.1	1.0	1	1	ship	
		Station		126				156	162	
		Depth		0.5				1.0	1.5	
Code	Name	Number per cubic meter								
5	Acartia clausi F			0				0	133	
7	Acartia clausi C			2667				667	6400	
8	Acartia clausi N			14267				12533	52533	
198	copepod nauplius C			267				400	7733	
210	Oithona spp.			267				0	0	
250	Harpacticoida			0				0	133	
260	Sapphirina spp.			0				0	133	
401	barnacle nauplius			267				0	133	
420	Ostracoda			0				0	133	
603	Tintinnopsis sp. B			0				0	133	
801	Gastropod veliger			0				133	0	
851	Polychaete trochophore			0				0	400	
855	spionid larva			0				267	0	
880	scaeworm larva			0				0	267	
					mg Carbon per cubic meter					
				4					2	13

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
260281	81057	South S.F. Bay	Estero	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
852	30	8.0	13.4	26.4	2.0	2.0	1	-1	ship	
900	30	1.0	13.4	26.4	1.8	2.1	1	-1	ship	
1157	162	1.0	13.3	25.9	4.2	0.8	1	-1	ship	
		Station Depth	8.0	30	1.0	162	1.0			
Code	Name	Number per cubic meter								
5	Acartia clausi F	1800	1500	833						
6	Acartia clausi M	1500	1000	0						
7	Acartia clausi C	9750	17000	2333						
8	Acartia clausi N	1800	1667	58333						
198	copepod nauplius C	150	0	29167						
210	Oithona spp.	0	0	167						
250	Harpacticoida	0	167	167						
321	Isopoda imm.	150	0	0						
345	Grapsid zoea	0	167	0						
360	Pinnotherid zoea	0	0	167						
603	Tintinnopsis sp. B	0	167	0						
821	Bivalvia veliger	0	167	0						
851	polychaete trochophore	0	167	500						
855	spionid larva	150	0	1833						
		15	20	ms Carbon per cubic meter	18					

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
50381	81064	South S.F. Bay	Estero	64

TIME	STATION	DEPTH #	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /#	DETRITUS	TIDE	COUNT type
1456	30	10.0	13.6	26.0	2.2	1.2	2	-1	ship
1453	30	1.0	13.9	26.0	2.4	1.2	1	-1	ship
1138	162	1.0	12.4	26.0	13.1	1.3	0	-1	ship

Code	Name	Station Depth	30 10.0	162 1.0	Number per cubic meter
5	Acartia clausi F		833	200	0
6	Acartia clausi M		1000	0	0
7	Acartia clausi C		4167	3000	14800
8	Acartia clausi N		2000	11600	47600
195	copepod nauplius D		0	200	0
198	copepod nauplius C		1000	200	16200
220	Corycaeus sp.		167	200	0
250	Harpacticoida		333	0	1200
360	Pinnotherid zoea		0	0	400
401	barnacle nauplius		0	0	600
603	Tintinnopsis sp. B		0	600	0
630	coiled Foraminifera		0	200	0
851	polychaete trochophore		167	0	0
855	spionid larva		833	400	0
880	scaeworm larva		0	0	200
			10	5	ms Carbon per cubic meter
					21

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE					
120381	81071	South S.F. Bay	Estero	64					
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
1350	30	10.0	14.9	25.4	3.2	1.0	2	1	ship
1344	30	0.5	14.8	25.3	2.9	1.4	0	1	ship
1023	162	2.0	15.3	25.8	58.8	1.6	1	-1	ship
		Station Depth	10.0	30	0.5	162	2.0		
Code	Name			Number per cubic meter					
5	Acartia clausi F	5800	267	333					
6	Acartia clausi M	3800	0	0					
7	Acartia clausi C	17800	5467	15000					
8	Acartia clausi N	6200	12533	54000					
195	copepod nauplius D	0	133	0					
198	copepod nauplius C	200	667	11667					
210	Oithona spp.	200	133	0					
250	Harpacticoids	0	0	0					
401	barnacle nauplius	0	0	333					
801	Gastropod veliger	400	0	0					
821	Rivalvis veliger	0	0	0					
851	polychaete trochophore	0	0	333					
855	spionid larva	1000	400	3667					
		39	7	ms Carbon per cubic meter		29			

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
160381	81075	South S.F. Bay	Estero	64

TIME	STATION	DEPTH	TEMP	SALIN	CHL a	EXCOF	DETRITUS	TIDE	COUNT
		m	C	oo/o	us/l	/m			type
1255	162	1.0	14.8	25.1	7.9	-	1	-1	ship

Station 162
Depth 1.0

Code	Name	Number per cubic meter
7	Acartia clausi C	28400
8	Acartia clausi N	24400
195	copepod nauplius D	200
198	copepod nauplius C	2400
210	Oithona spp.	200
250	Harpacticoida	600
401	barnacle nauplius	1800
420	Ostracoda	200
630	coiled Foraminifera	200
701	Synchaeta sp.	1600
801	Gastropod veliger	400
821	Bivalvia veliger	11800
855	spionid larva	1800
880	scaevora larva	600

ms Carbon per cubic meter

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
200381	81079	South S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCDF /m	DETRITUS	TIDE	COUNT type
823	30	8.0	13.8	25.1	2.6	-	2	1	ship
839	30	2.0	13.8	24.9	2.9	-	2	1	ship
1132	162	1.0	13.8	25.4	7.8	-	4	1	ship

Code	Name	Station Depth	8.0	30 2.0	162 1.0	Number per cubic meter
5	Acartia clausi F		2750	250		600
6	Acartia clausi M		2000	250		0
7	Acartia clausi C		23250	6250		58400
8	Acartia clausi N		3750	9250		13200
198	copepod nauplius C		0	0		600
210	Oithona spp.		250	250		200
250	Harpacticoida		500	0		200
401	barnacle nauplius		250	0		2000
402	barnacle cypris		0	0		200
602	Tintinnopsis sp. A		250	0		0
605	Eutintinnus neriticus		0	0		200
681	flatworm sp. A		0	0		200
801	Gastropod veliger		0	0		200
821	Bivalvia veliger		0	0		800
851	polychaete trochophore		0	0		5200
855	spionid larva		500	0		4200
880	scaeworm larva		0	0		400
			32	7		ms Carbon per cubic meter 71

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE					
270381	81086	South S.F. Bay	Estero	64					
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
846	30	8.0	14.4	24.9	5.3	-	0	-1	ship
852	30	2.0	14.5	24.5	9.0	1.8	0	-1	ship
1201	160	1.0	14.8	24.8	90.0	-	2	0	ship
1230	200	2.0	14.8	25.7	3.7	-	0	0	ship
1236	200	1.0	14.8	25.7	3.7	-	0	0	ship

Code	Name	Station Depth					Number per cubic meter				
		8.0	30	2.0	160	200	1.0	2.0	200	1.0	
5	Acartia clausi F	3000	200		0	600	0				
6	Acartia clausi M	1600	0		0	200	0				
7	Acartia clausi C	12600	4800		11200	9600	9600				
8	Acartia clausi N	9400	15000		9067	2600	4400				
62	Paracalanus parvus C	0	0		0	0	0				
192	Epilabidocera longipedata C	0	0		0	0	200				
195	copepod nauplius D	0	0		0	400	200				
198	copepod nauplius C	0	1000		1600	800	1200				
200	Cyclopoida	200	0		0	0	200				
210	Oithona spp.	200	0		0	0	0				
220	Corycaeus sp.	0	0		0	0	0				
250	Harpacticoida	0	0		0	200	200				
280	Harpacticoid sp. A	200	0		0	200	200				
281	Harpacticoid A N	0	0		0	0	0				
345	Grapsid zoea	0	0		0	0	0				
360	Pinnotherid zoea	0	200		0	0	0				
401	barnacle nauplius	0	200		0	0	0				
602	Tintinnopsis sp. A	3000	0		0	400	600				
603	Tintinnopsis sp. B	0	1400		0	1000	0				
605	Eutintinnus neriticus	0	0		0	0	200				
609	Tintinnopsis sp. E (1/4B)	0	0		533	0	0				
630	coiled Foraminifera	0	0		533	0	0				
700	Rotifera	0	0		1333	0	0				
701	Synchaeta sp.	0	0		1067	0	0				
801	Gastropod veliger	300	0		0	600	0				
821	Bivalvia veliger	200	0		4000	200	0				
851	polychaete trochophore	600	0		267	0	0				
855	spionid larva	600	200		800	400	200				
880	scaeworm larva	0	0		0	400	200				
		25	7	mg Carbon per cubic meter		14	13	13			

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
270381	81086	South S.F. Bay	Estero	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
1256	197	5.0	14.9	26.1	0.0	-	1	1	ship	
1302	197	2.0	14.9	26.1	0.0	-	1	1	ship	
1326	26	10.0	15.2	25.4	3.1	-	0	1	ship	
1332	26	2.0	15.2	25.4	3.1	-	0	1	ship	

Code	Name	Station 197		Station 26	
		Depth 5.0	2.0	10.0	2.0
		Number per cubic meter			
5	Acartia clausi F	800	200	400	0
6	Acartia clausi M	600	0	1800	0
7	Acartia clausi C	14400	7600	20400	13600
8	Acartia clausi N	7800	6200	7200	23000
62	Paracalanus parvus C	0	200	200	0
192	Epilabidocera longiredata C	0	0	0	0
195	copepod nauplius D	0	0	0	0
198	copepod nauplius C	800	2000	400	800
200	Cyclopoida	0	0	0	0
210	Oithona spp.	0	0	200	0
220	Corucaeus sp.	0	200	0	0
250	Harpacticoida	400	1400	400	200
280	Harpacticoid sp. A	0	0	0	400
281	Harpacticoid A N	200	0	0	0
345	Grapsid zoea	400	0	0	0
360	Pinnotherid zoea	0	0	0	0
401	barnacle nauplius	200	0	0	0
602	Tintinnopsis sp. A	0	200	200	2600
603	Tintinnopsis sp. B	200	200	400	2000
605	Eutintinnus neriticus	0	0	0	0
609	Tintinnopsis sp. E (1/4B)	0	0	0	0
630	coiled Foraminifera	0	0	0	0
700	Rotifera	0	0	0	0
701	Synchaeta sp.	0	0	0	0
801	Gastropod veliger	0	0	200	0
821	Bivalvia veliger	0	200	0	0
851	polychaete trochophore	0	0	0	0
855	spionid larva	1800	1200	1200	1000
880	scaeworm larva	0	600	200	0
		20	14	25	16
		mg Carbon per cubic meter			

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE						
20481	81092	South S.F. Bay	Estero	64						
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type	
1405	30	8.0	15.6	24.8	8.0	1.4	3	-1	ship	
1411	30	2.0	15.6	24.8	9.1	1.4	1	-1	ship	
1056	162	1.5	15.3	24.1	18.1	1.6	1	0	ship	
		Station Depth		8.0	30	2.0		162	1.5	
Code	Name	Number per cubic meter								
5	Acartia clausi F	4400	1800	800						
6	Acartia clausi M	4600	2600	0						
7	Acartia clausi C	18000	24600	15733						
8	Acartia clausi N	18000	22000	20267						
192	Epilabidocera longipedata C	200	0	267						
198	copepod nauplius C	400	600	9333						
210	Oithona spp.	200	400	0						
250	Harpacticoida	0	400	1333						
280	Harpacticoid sp.A	400	0	533						
281	Harpacticoid A N	200	0	0						
401	barnacle nauplius	0	0	267						
402	barnacle cypris	0	400	0						
602	Tintinnopsis sp. A	11200	16200	533						
605	Eutintinnus neriticus	200	0	0						
608	Parafavella sp.	0	0	1067						
701	Synchaeta sp.	0	200	800						
751	Ectoprocta larva	200	0	0						
801	Gastropod veliger	200	200	0						
821	Bivalvia veliger	0	0	267						
851	polychaete trochophore	200	200	0						
855	spionid larva	4000	3800	267						
880	scaeworm larva	400	0	0						
		48	41	ms Carbon per cubic meter	24					

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE					
140481	81104	South S.F. Bay	Estero	64					
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type
950	30	8.0	14.8	24.7	10.8	5.1	5	1	ship
956	30	2.0	14.9	24.6	10.5	2.9	2	1	ship
1005	162	1.5	16.0	25.2	19.8	1.7	0	-1	ship
		Station Depth		8.0	30	2.0		162	1.5
Code	Name			Number per cubic meter					
5	Acartia clausi F			10059	1067				0
6	Acartia clausi M			8118	2133				200
7	Acartia clausi C			53118	52533				15400
8	Acartia clausi N			1418	3467				4400
162	Pseudodiaptomus euryhalinus C			177	0				0
198	copepod nauplius C			177	0				1200
250	Harpacticoida			353	267				800
280	Harpacticoid sp. A			177	0				0
321	Isopoda imm.			177	0				0
401	barnacle nauplius			529	0				800
420	Ostracoda			0	0				200
460	Halocarida			177	0				0
602	Tintinnopsis sp. A			23648	30133				1200
603	Tintinnopsis sp. B			353	2933				1800
605	Eutintinnus neriticus			3353	5600				0
801	Gastropod veliger			353	0				0
821	Bivalvia veliger			0	0				400
850	Polychaeta			0	533				0
851	polychaete trochophore			0	0				400
855	spionid larva			177	267				0
880	scaleworm larva			0	0				200
				85	50	ms Carbon per cubic meter		17	

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE					
200481	81110	South S.F. Bay	Estero	64					
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type
800	30	11.0	15.7	24.1	11.5	2.3	4	1	ship
808	30	1.0	15.8	24.2	11.5	2.3	1	1	ship
1110	162	1.0	16.1	25.4	8.9	1.8	1	1	ship
		Station Depth		11.0	30	1.0		162	
								1.0	
Code	Name	Number per cubic meter							
5	Acartia clausi F	10000	0	0					
6	Acartia clausi M	4800	0	200					
7	Acartia clausi C	39400	25667	7200					
8	Acartia clausi N	6800	37333	6800					
162	Pseudodiaptomus euryhalinus C	200	333	0					
195	copepod nauplius D	200	0	0					
197	copepod nauplius B	0	0	600					
198	copepod nauplius C	0	333	2000					
250	Harpacticoida	400	333	600					
281	Harpacticoid A N	200	0	1200					
391	euphausiid nauplius	0	0	200					
401	barnacle nauplius	200	666	0					
602	Tintinnopsis sp. A	96400	85667	1400					
603	Tintinnopsis sp. B	2800	97333	28000					
604	Tintinnid sp. C	30200	9000	0					
630	coiled Foraminifera	600	0	0					
701	Synchaeta sp.	200	0	0					
801	Gastropod veliger	200	0	0					
821	Bivalvia veliger	1600	0	1000					
851	polychaete trochophore	0	333	600					
855	spionid larva	9800	3330	800					
880	scaleworm larva	600	0	0					
				ms Carbon per cubic meter					
				95	37			11	

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE					
220481	81112	South S.F. Bay	Estero	64					
TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a ug/l	EXCOF /m	DETRITUS	TIDE	COUNT type
745	30	10.0	16.4	24.3	9.5	4.2	5	-1	ship
750	30	2.0	16.5	24.3	9.4	3.1	3	-1	ship
1040	162	0.5	17.7	25.2	10.0	1.6	0	1	ship
		Station Depth		10.0	30	2.0		162	0.5
Code	Name			Number per cubic meter					
5	Acartia clausi F		4234		267			200	
6	Acartia clausi M		1600		267			0	
7	Acartia clausi C		20000		33867			600	
8	Acartia clausi N		30000		34400			400	
10	Acartia californiensis F		200		0			0	
13	Acartia californiensis N		1000		0			0	
160	Pseudodiaptomus euryhalinus F		166		0			0	
195	copepod nauplius D		0		267			0	
197	copepod nauplius B		0		800			0	
198	copepod nauplius C		0		533			2800	
210	Oithona spp.		0		267			0	
250	Harpacticoida		734		267			200	
270	Microsetella sp.		200		0			0	
280	Harpacticoid sp.A		0		533			0	
281	Harpacticoid A N		0		533			200	
401	barnacle nauplius		534		800			0	
602	Tintinnopsis sp. A		52166		29333			0	
603	Tintinnopsis sp. B		136000		120000			16400	
605	Eutintinnus neriticus		77000		34667			0	
609	Tintinnopsis sp. E (1/4B)		0		0			1800	
630	coiled Foraminifera		150		800			0	
801	Gastropod veliger		430		267			400	
821	Bivalvia veliger		430		1067			600	
855	spionid larva		2030		3733			800	
880	scaevorn larva		0		267			0	
				45	46	ms Carbon per cubic meter			
						4			

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
240481	81114	South S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type
755	30	10.0	17.3	24.4	11.7	3.1	2	-1	ship
745	30	2.0	16.4	24.3	11.0	2.8	1	-1	ship
1030	162	1.0	18.3	25.2	5.5	1.8	0	1	ship

Code	Name	Station Depth	10.0	30 2.0	162 1.0	Number per cubic meter
5	Acartia clausi F		7734	667	0	
6	Acartia clausi M		1300	1000	0	
7	Acartia clausi C		26333	33333	200	
8	Acartia clausi N		29000	44000	2200	
10	Acartia californiensis F		200	0	0	
13	Acartia californiensis N		2000	2000	0	
197	copepod nauplius B		0	333	0	
198	copepod nauplius C		266	667	1400	
210	Oithona spp.		166	333	0	
250	Harpacticoida		833	667	0	
280	Harpacticoid sp.A		333	333	0	
281	Harpacticoid A N		333	0	200	
401	barnacle nauplius		333	667	0	
602	Tintinnopsis sp. A		47200	23000	1000	
603	Tintinnopsis sp. B		202000	244333	33800	
605	Eutintinnus neriticus		39300	45000	0	
609	Tintinnopsis sp. E (1/4B)		0	0	2400	
801	Gastropod veliger		667	333	0	
821	Bivalvia veliger		1000	1333	400	
851	polychaete trochophore		0	333	0	
855	spionid larva		2000	10000	0	
880	scaevora larva		1500	1000	0	
			62	66	ms Carbon per cubic meter	1

U.S. GEOLOGICAL SURVEY - WATER RESOURCES

ESTUARINE STUDIES GROUP
ZOOPLANKTON

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DATE	JULIAN DATE	LOCATION	VESSEL	MESH SIZE
50581	81125	South S.F. Bay	Estero	64

TIME	STATION	DEPTH m	TEMP C	SALIN oo/o	CHL a us/l	EXCOF /m	DETRITUS	TIDE	COUNT type
859	30	8.0	99.9	99.9	1.0	1.0	1	0	ship
905	30	2.0	16.9	24.0	1.0	1.0	1	0	ship

Station
Depth 8.0 30 2.0

Code	Name	Number per cubic meter	
5	Acartia clausi F	1333	0
6	Acartia clausi M	852	0
7	Acartia clausi C	7274	3066
8	Acartia clausi N	7829	5333
10	Acartia californiensis F	1067	0
11	Acartia californiensis M	467	0
12	Acartia californiensis C	5792	2600
13	Acartia californiensis N	6238	4267
195	copepod nauplius D	133	133
197	copepod nauplius B	200	800
198	copepod nauplius C	1800	1066
200	Cyclopoida	0	133
210	Oithona spp.	66	133
250	Harpacticoida	1400	800
270	Microsetella sp.	400	466
280	Harpacticoid sp. A	600	0
281	Harpacticoid A N	267	0
300	Amphipoda	133	0
401	barnacle nauplius	0	133
602	Tintinnopsis sp. A	1267	400
603	Tintinnopsis sp. B	133	5733
630	coiled Foraminifera	133	133
682	flatworm sp. B	0	133
801	Gastropod veliger	867	133
821	Bivalvia veliger	133	66
855	spionid larva	2133	2000

mg Carbon per cubic meter

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