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G. W. Hosie, T. Ikeda, M. Stolp and R. Williams

ANTARCTIC DIVISION
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DEPARTMENT OF THE ARTS, SPORT,
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ADBEX III CRUISE KRILL/ZOOPLANKTON SAMPLING DATA

by

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ABSTRACT

During the ADBEX III cruise (September to December 1985) to the western Prydz Bay region, Antarctica, nine shallow hauls (0-200 m), six deep hauls (200-1000 m) and one target trawl were made with a RMT 1+8 net, as well as eleven vertical hauls with an ORI-2000 net. From these samples abundance of euphausiids, notably krill *Euphausia superba*, and other zooplankton was investigated. A diving program was also carried out to observe and collect *Euphausia superba* from under the pack-ice. For postlarval krill, size (length, weight), sex and maturity composition are reported.

1. INTRODUCTION

As part of the International BIOMASS (Biological Investigation of Marine Antarctic Systems and Stocks) program, the Australian Antarctic Division has been conducting a long term field survey to provide data on the distribution, abundance and population structure of the krill *Euphausia superba* in the Prydz Bay region, Antarctica. Five *Nella Dan* marine science cruises have been made;

First International BIOMASS Experiment (FIBEX), December 1980 to March 1981;
Antarctic Division BIOMASS Experiment, Phase I (ADBEX I), November to December 1982;
Antarctic Division BIOMASS Experiment, Phase II (ADBEX II), January to February 1983;
Second International BIOMASS Experiment, Phase II (SIBEX II), December 1984 to February 1985; and the
Antarctic Division BIOMASS Experiment, Phase III (ADBEX III), September to December 1985.

The prime purpose of ADBEX III was to study the ecology of the Crabeater seal. A limited net sampling program was carried out to determine the distribution and abundance of krill in the post-winter pack-ice zone. The net sampling was supplemented by under-ice diving to collect and observe krill. The diving was mainly carried out after *Nella Dan* became beset off Enderby Land at the end of October 1985. At each net sampling station, a CTD cast and water collection for phytoplankton pigment, nutrients and primary production measurements were made.

2. SAMPLING METHODS

An RMT 1+8 Rectangular Midwater Trawl and an ORI-2000 conical net were used for collecting krill *Euphausia superba* and other zooplankton.

2.1 RMT 1+8

The RMT 1+8 designed by Baker et al. (1973) had a mesh of 300 μm for the RMT 1 and 4.5 mm for the RMT 8. The effective mouth areas of the RMT 1+8 are a function of the towing speed and trajectory (Roe et al. 1980, Pommeranz et al. 1982). In this study, the towing speed of the RMT 8 ranged between 1.5 and 4 knots. However, the assumption was made that the originally designed mouth areas of 1 m^2 (RMT 1) and 8 m^2 (RMT 8) remained constant.

At each station, a shallow oblique haul (0-200 m) was made. When ice conditions permitted an additional deep oblique haul (200-1000 m) was also made. An electro-mechanical net release system was mounted above the RMT 1+8. The net could be opened and closed by commands transmitted via the electrically conducting towing wire. Combined with the release was a depth monitor which displayed the depth of the net in real time on deck. One specific horizontal tow was also made at one target located by a Simrad EK 120 echo sounder.

To register the amount of water that passed through the nets, a flowmeter (General Oceanics) was hung by a cord over the upper net bars and positioned near the centre of the net mouths.

2.2 ORI-2000

The ORI-2000 net had a mouth area of 2 m^2 , mesh of 2 mm. This net was used when it was unsafe to haul the RMT 1+8 net due to ice, or the ship had stopped for the night. Vertical hauls were made usually from 1000 m, although occasional hauls varied between 10 and 2000 m. The cod end was weighted to facilitate deployment to the required depth. Hauling speed varied between 0.7 and 1.3 ms^{-1} . The volume of water filtered was determined by multiplying the mouth area by the amount of wire out.

2.3 DIVING

Under-ice diving was carried out either from the ship or through two ice-holes nearby. During this study the ship was beset and constantly drifting. Krill were collected by hand nets carried by the diver. These nets were difficult to move through the water with any speed but proved to be the most successful method at hand. Observations on the behaviour of krill were also achieved by means of underwater video and 16 mm cine-camera, the results of which are published in detail by O'Brien (1987).

3. PROCESSING OF SAMPLES

On board the ship, large and fragile zooplankton (jellyfish, salps, etc.) were sorted from the rest of the specimens. All specimens were preserved in Steedman's solution (Steedman 1976) for later examination at the Antarctic Division.

After the cruise the krill were sorted into juvenile, male or female. Then body length (standard 1 and reference measurements, Mauchline 1980) and body weight were measured. Body length was measured using a slide caliper (accuracy: 0.01 mm) and body weight by a Mettler top-pan balance (accuracy: 0.001 g). Male and female krill were further classified into maturation stages according to the system of Makarov and Denys (1981). Non-krill zooplankton in the RMT 8 samples were speciated, weighed and counted.

Larvae of the euphausiid species *Euphausia frigida* and *Thysanoessa macrura* were extracted from the RMT 1, staged and counted under a dissecting microscope. For identification of diagnostic features, Makarov (1980) was consulted. The larvae of other euphausiids *E. superba*, *E. crystallophias* and *E. triacantha* were not collected by the RMT 1. No further sorting of the RMT 1 samples was made for zooplankton other than euphausiid larvae mentioned above, although the total catch was wet weighed.

4. DATA

Table 1. Flowmeter data.

FLOWMETER NUMBER	FLOWMETER MAKE AND MODEL	CALIBRATION (Counts per metre)
1	General Oceanics - 2031 (B084 85)	35.98
2	General Oceanics - 2030R (B08296)	35.69
3	General Oceanics - 2031 (B08484)	34.60
4	General Oceanics - 2030R (B08292)	35.99

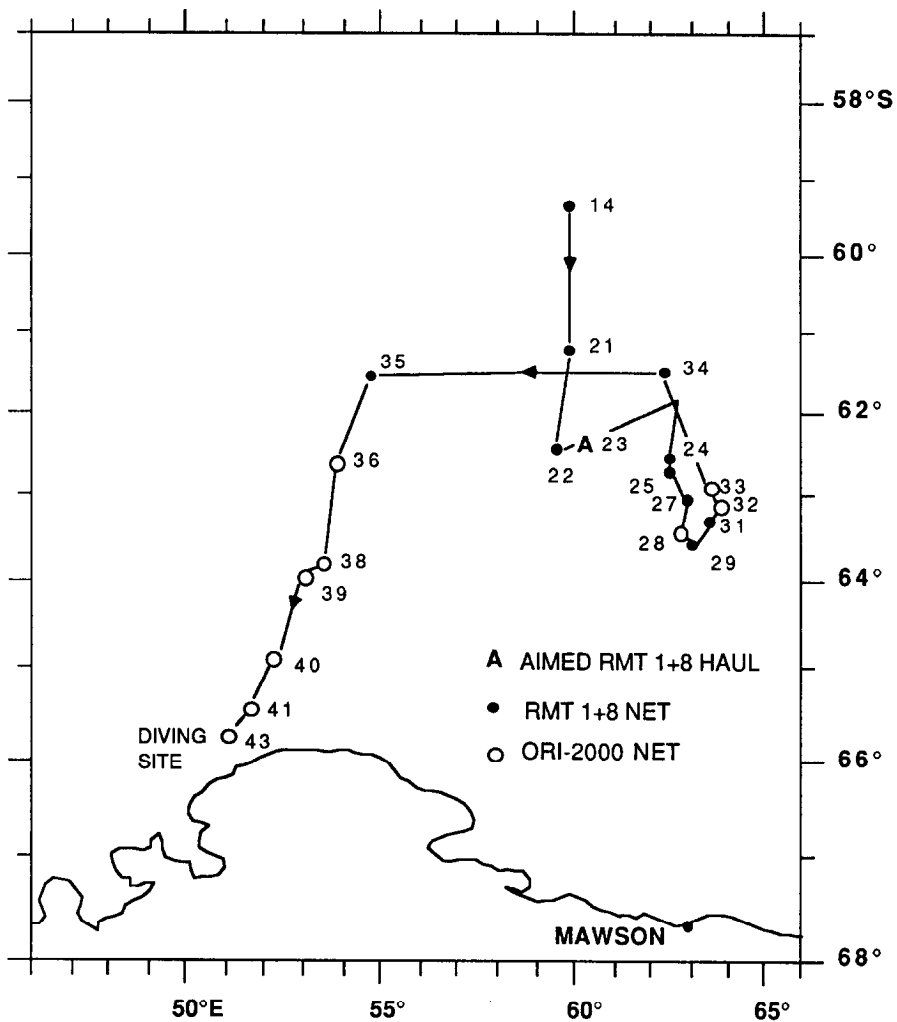


Figure 1. Cruise track and net sampling station. The cruise track shown is only for the duration of the net sampling program.

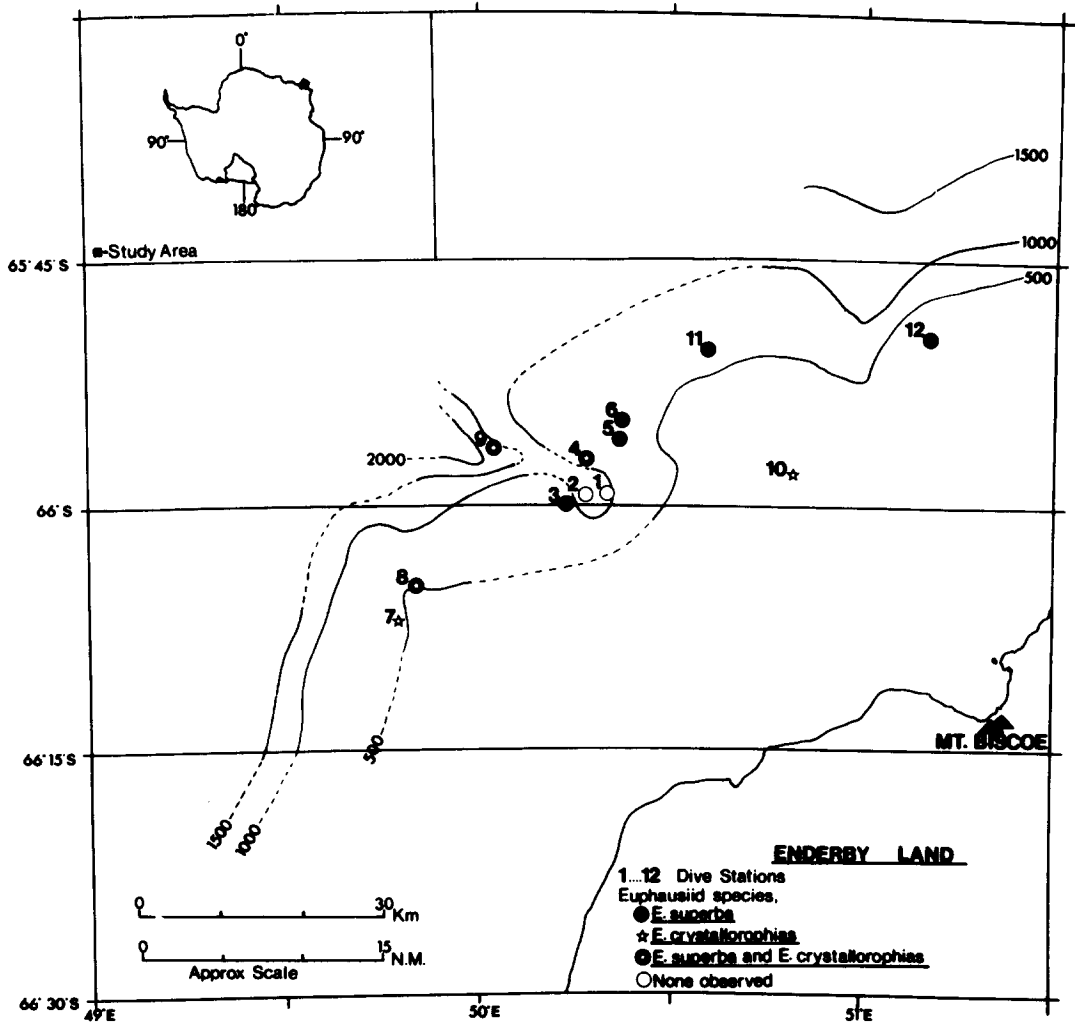


Figure 2. Dive stations off Enderby Land. Reprinted from O'Brien (1987).

Table 2. RMT 1+8 and ORI-2000 sampling data.

*: Denotes previous day. #: Depth of target. †: Graded from 0 to 10 depending on the degree of ice coverage, 0= no ice, 10= complete ice cover. Haul type: S,D,T, refer to shallow, deep and target hauls (RMT 1+8 net), V refers to vertical haul (ORI-2000 net).

STN NO.	DATE LOCAL	NET IN-OUT SHIP TIME	NET IN-OUT GMT TIME	START POSITION		HAUL TYPE	WIRE OUT (m)	WIRE ANGLE °	DEPTH RANGE (m)	ICE†	SEA STATE
				LAT. (S)	LONG. (E)						
	Oct-85										
14	8	0823-0829	0223-0229	59° 19.0'	060° 12.8'	S	350	40	0-225	0	5
		0845-1010	0245-0410	59° 19.1'	060° 06.2'	D	2028	28	0-974	0	5
21	9	1317-1341	0717-0741	61° 13.1'	060° 01.7'	S	468	28	0-200	9	2
		1438-1614	0838-1014	61° 16.0'	060° 01.4'	D	-	-	200-700	9	2
22	10	2102-2117	1502-1517	62° 26.1'	059° 54.7'	S	300	70	0-267	10	1
		2153-2231	1553-1631	62° 26.7'	059° 56.0'	D	1280	-	200-974	10	1
23	11	1300-1305	0700-0705	62° 22.8'	060° 25.0'	T	80-60	44	45-55	9	1
24	12	2247-2307	1647-1707	62° 33.0'	062° 37.9'	V	1000	86	998-0	9	1
25	13	0905-0955	0305-0355	62° 45.7'	062° 37.0'	D	1700	28	200-973	6	1
		1025-1036	0425-0436	62° 45.7'	062° 37.0'	S	300	38	0-185	8	1
∞	27	1847-1919	1247-1319	63° 04.3'	063° 02.5'	S	-	-	0-200	9	2
		1926-2019	1326-1419	63° 03.8'	063° 01.2'	D	1601	26	200-702	9	2
28	16	0046-0105	*1846-1905	63° 23.3'	062° 56.3'	V1	1000	88	999-0	9	1
		1355-1540	0755-1140	63° 22.9'	063° 04.8'	V2	2000	82	1980-0	10	0
29	17	1904-1955	1304-1355	63° 33.6'	063° 08.7'	V	1000	82	990-0	9	0
31	18	1546-1559	0946-0959	63° 17.9'	063° 36.2'	S	330	36	0-194	6	2
32	19	0040-0134	*1840-1934	63° 07.4'	063° 51.6'	V	1000	80	985-0	9	0
33	19	2227-2325	1627-1725	62° 53.4'	063° 39.0'	V	1000	90	1000-0	9	0
34	20	2316-2327	1716-1727	61° 28.9'	062° 33.2'	S	293	35	0-168	9	0
		2344-0032	1744-1832	61° 28.3'	062° 33.7'	D	1530	34	200-1000	9	0
35	22	1033-1053	0433-0453	61° 33.1'	054° 42.6'	S1	350	25	0-148	7	2
		1123-1139	0523-0539	61° 31.0'	054° 41.2'	S2	400	30	0-233	7	2
36	23	0008-0105	*1808-1905	62° 36.8'	053° 52.7'	V	1000	89	1000-0	9	0
38	24	0008-0016	*1808-1816	63° 46.7'	053° 39.4'	V	100	45	70-0	8	1
39	24	2050-2126	1450-1526	64° 01.3'	053° 02.2'	V	75	36	44-0	9	0
40	26	0037-0042	*1837-1842	64° 55.0'	052° 21.0'	V	10	44	7-0	9	0
41	27	0014-0039	*1814-1839	65° 24.0'	051° 40.3'	V	520+260	90	520+260-0	9	0
	Nov-85										
43	25	1644-1738	1044-1138	65° 40.0'	051° 11.5'	V	1000	78	978-0	10	0

Table 3. RMT 8 and ORI-2000 krill and zooplankton abundance data.

Haul Type: S,D,T, refer to shallow, deep, and target hauls (RMT 8); V, refers to vertical haul (ORI-2000 net). +: biomass < 0.01 g 1000 m⁻³. Actual numbers and total weight of krill collected are shown in parentheses.

STN NO.	HAUL TYPE	FLOWMETER NO.	FLOWMETER READING	VOLUME FILTERED (m ⁻³)	KRILL DENSITY (NO.1000m ⁻³)	KRILL BIOMASS (g.1000m ⁻³)	TOTAL DENSITY (NO.1000m ⁻³)	TOTAL BIOMASS (g.1000m ⁻³)
14	S	1	46706	10385	0.00	0.00	171.50	6.90
	D	1	202658	45060	0.00	0.00	33.02	25.88
21	S	1	85139	18928	0.11(2)	+(0.04)	59.23	162.03
	D	1	128885	28657	0.04(1)	+(0.02)	96.17	8.41
22	S	3	29637	6852	0.00	0.00	83.48	3.96
	D	3	61297	14173	0.00	0.00	50.87	4.97
23	T	3	17153	3966	0.00	0.00	1579.68	10.98
24	V	—	—	2000	0.00	0.00	153.00	7.56
25	D	3	100720	23288	0.00	0.00	53.43	136.74
	S	3	23619	5461	0.00	0.00	71.97	2.01
27	S	3	60713	14038	0.36(5)	0.01(0.15)	25.15	80.93
	D	3	141950	32821	0.00	0.00	53.90	13.81
28	V1	—	—	2000	0.00	0.00	240.00	258.63
	V2	—	—	4000	0.00	0.00	178.25	20.39
29	V	—	—	2000	0.00	0.00	303.00	9.06
31	S	3	26671	6167	0.00	0.00	11.51	2.37
32	V	—	—	2000	0.00	0.00	375.50	8.28
33	V	—	—	2000	0.00	0.00	265.00	15.42
34	S	3	26941	6229	0.00	0.00	297.16	5.94
	D	3	108078	24989	0.00	0.00	65.75	6.89
35	S1	3	65115	15055	0.20(3)	0.01(0.17)	224.98	4.20
	S2	3	34266	7617	0.00	0.00	236.45	7.01
36	V	—	—	2000	0.00	0.00	377.50	12.42
38	V	—	—	200	0.00	0.00	835.01	21.01
39	V	—	—	2002	0.00	0.00	28.97	0.78
40	V	—	—	20	0.00	0.00	2650.00	27.07
41	V	—	—	1560	1.92(3)	0.65(1.01)	51.92	3.59
43	V	—	—	2000	0.00	0.00	154.50	3.40

Table 4. Diving sampling data.

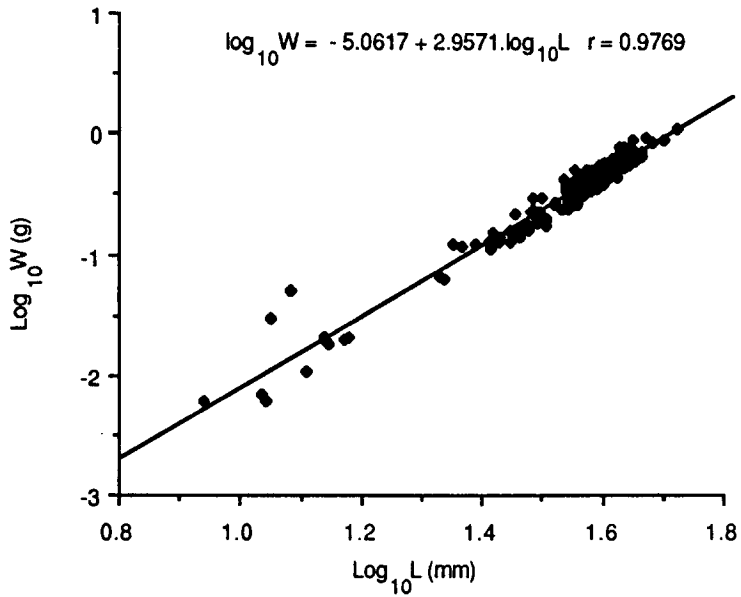
The numbers of euphausiids collected by the divers are shown. *: refers to previous day.

DIVE NO.	DATE	TIME (SHIP)	TIME (GMT)	LATITUDE (S)	LONGITUDE (E)	SEA FLOOR (metres)	<i>E. superba</i> (Numbers)	<i>E. crystal-lorophias</i>
	OCT.-85							
1	29	1850	1250	65° 59.4'	050° 17.6'	1040	—	—
2	30	1730	1130	65° 59.2'	050° 16.9'	1200	—	—
	NOV.-85							
3	1	1215	0615	66° 00.0'	050° 14.0'	700-900	Observed	Observed
4	2	0835	0235	65° 56.5'	050° 19.1'	900	16	Observed
5	3	0910	0310	65° 55.6'	050° 21.9'	530	24	—
6	4	1345	0745	65° 54.5'	050° 22.8'	545	47	—
7	7	0055	*1855	66° 06.1'	049° 47.8'	600	—	Observed
8	8	1345	0745	66° 03.3'	049° 52.7'	450-600	10	Observed
9	9	1415	0815	65° 54.6'	050° 05.5'	1330	7	Observed
10	15	1155	0555	65° 56.3'	050° 52.2'	390	—	Observed
11	20	1305-1520	0705-0920	65° 50.2'	050° 37.2'	540	64	—
12	27	1415	0815	65° 49.8'	051° 10.4'	460	Observed	—

Table 5. Krill population structure data.

Percentage frequency of occurrence of body length-class (standard 1 measurement, Mauchline, 1980), wet weight-class and maturity stage (classification of Makarov and Denys 1981). FV and FVI: furcilia larval stages 5 and 6.

BODY LENGTH-CLASS (mm)	PERCENTAGE FREQUENCY	WEIGHT-CLASS (wet wt., g)	PERCENTAGE FREQUENCY	MATURITY STAGE	PERCENTAGE FREQUENCY
8-9.9	0.58	0.0-0.099	8.57	FV	1.00
10-11.9	1.75	0.1-0.199	15.43	FVI	4.00
12-13.9	2.92	0.2-0.299	12.57		
14-15.9	1.75	0.3-0.399	18.29	1	18.00
16-17.9	0.00	0.4-0.499	16.00		
18-19.9	0.00	0.5-0.599	14.29	2M	18.00
20-21.9	1.17	0.6-0.699	6.86	3AM	3.00
22-23.9	1.17	0.7-0.799	4.57	3BM	13.00
24-25.9	1.17	0.8-0.899	1.71		
26-27.9	4.09	0.9-0.999	1.14	2F	19.00
28-29.9	4.09	1.0-1.099	0.00	3AF	22.00
30-31.9	8.19	1.1-1.199	0.57	3BF	2.00
32-33.9	2.92			3CF	0.00
34-35.9	9.94	n = 175		3DF	0.00
36-37.9	16.37			3EF	0.00
38-39.9	10.53				
40-41.9	12.87			n = 100	
42-43.9	10.53				
44-45.9	4.68				
46-47.9	3.51				
48-49.9	0.58				
50-51.9	0.58				
52-53.9	0.58				
n = 171					



n	$\Sigma \log_{10} L$	$\Sigma \log_{10} W$	$\Sigma (\log_{10} L)^2$	$\Sigma (\log_{10} W)^2$	$\Sigma (\log_{10} L)(\log_{10} W)$
171	261.5928	-91.9979	403.5213	80.1084	-130.8569

Figure 3. Krill length/weight regression analysis. *W* is wet weight in g, *L* is standard 1 measurement in mm.

Table 6. RMT 8 and ORI-2000 zooplankton densities and biomass data.

Haul Type: S,D,T, refers to shallow, deep and target hauls (RMT 8 net); V refers to vertical haul (ORI-2000 net). DENS.: density as No. 1000 m⁻³. BIOM.: biomass as g. 1000 m⁻³. +: biomass <0.001 g. 1000 m⁻³. Indet.: Indeterminable.

STATION NO. HAUL TYPE	14 S		14 D		21 S		21 D	
	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.
TAXA								
<i>Euphausia superba</i>	0.000	0.000	0.000	0.000	0.106	0.001	0.035	0.001
<i>E. frigida</i>	5.200	0.123	0.155	0.005	0.000	0.000	0.035	0.001
<i>E. crystallorophias</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>E. triacantha</i>	4.333	0.905	0.000	0.000	0.000	0.000	0.279	0.055
<i>Thysanoessa macrura</i>	0.867	0.034	0.000	0.000	12.732	0.516	0.593	0.079
Euphausiid indet	1.637	0.029	0.000	0.000	0.000	0.000	0.000	0.000
<i>Amalothrix emarginata</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.384	0.002
<i>Amalothrix dentipes</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.558	0.001
<i>Arietellus simplex</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Bathycalanus bradyi</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.035	0.001
<i>Calanoides acutus</i>	48.339	0.094	0.377	0.001	3.804	0.004	7.014	0.014
<i>Calanus propinquus</i>	0.385	0.022	0.178	0.001	1.109	0.006	1.535	0.005
<i>Candacia falcifera</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.035	+
<i>Candacia maxima</i>	0.096	+	0.089	+	0.000	0.000	0.070	+
<i>Centraugaptilus rattrayi</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Chiridius polaris</i>	0.000	0.000	0.044	+	0.000	0.000	0.000	0.000
<i>Cornucalanus chelifer</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.070	0.001
<i>Cornucalanus robustus</i>	0.000	0.000	0.111	0.002	0.000	0.000	0.733	0.010
<i>Euaugaptilus laticeps</i>	0.000	0.000	0.044	0.001	0.000	0.000	1.152	0.024
<i>Euaugaptilus cf. magnus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.384	0.006
<i>Euchaeta antarctica</i>	0.000	0.000	0.732	0.009	0.000	0.000	2.303	0.035
<i>Euchaeta biloba</i>	0.000	0.000	0.200	0.001	0.000	0.000	0.454	0.002
<i>Euchaeta dactylifera</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.035	0.001
<i>Euchaeta farrani</i>	0.000	0.000	0.111	0.002	0.000	0.000	0.349	0.010
<i>Euchaeta parvula</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.035	0.001
<i>Euchaeta rasa</i>	0.000	0.000	0.133	0.002	0.000	0.000	0.070	0.001
<i>Eucaeta sp.</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Euchaeta indet. copepodite</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Euchirella rostramagna</i>	0.385	0.005	0.444	0.006	0.000	0.000	0.558	0.008
<i>Farrania frigida</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Gaetanus antarcticus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.035	0.001
<i>Gaidius intermedius</i>	0.000	0.000	0.089	+	0.000	0.000	0.105	0.001
<i>Gaidius tenuispinus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.454	0.001
<i>Haloptilus ocellatus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.733	0.004
<i>Heterostylites major</i>	0.000	0.000	0.022	+	0.000	0.000	0.000	0.000
<i>Heterorhabdus austrinus</i>	0.193	+	0.000	0.000	0.106	+	0.314	0.001
<i>Heterorhabdus farrani</i>	0.000	0.000	0.155	+	0.000	0.000	2.129	0.005
<i>Lucicutia curta</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Lucicutia macrocera</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.174	+
<i>Lucicutia wolfendeni</i>	0.000	0.000	0.178	0.001	0.000	0.000	0.209	0.002
<i>Metridia curticauda</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.558	0.001
<i>Metridia gerlachei</i>	0.096	+	0.000	0.000	0.000	0.000	0.035	+
<i>Metridia princeps</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Oncaea sp.</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.035	+
<i>Onchocalanus magnus</i>	0.000	0.000	0.022	+	0.000	0.000	0.419	0.006

STATION NO. HAUL TYPE	14		14		21		21	
	S	D	S	D	S	D	S	D
TAXA	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.
<i>Pachyptilus eurygnathus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.070	0.001
<i>Pleuromamma robusta</i>	0.000	0.000	0.155	+	0.000	0.000	0.907	0.002
<i>Pseudaugaptilus longiremis</i>	0.000	0.000	0.022	+	0.000	0.000	0.174	0.001
<i>Pseudochirella hirsuta</i>	0.000	0.000	0.022	0.001	0.000	0.000	0.558	0.017
<i>Pseudochirella polyspina</i>	0.000	0.000	0.022	+	0.000	0.000	0.768	0.005
<i>Rhincalanus gigas</i>	71.160	0.369	11.917	0.066	13.261	0.057	24.636	0.180
<i>Scaphocalanus affinis</i>	0.000	0.000	0.022	+	0.000	0.000	0.000	0.000
<i>Scaphocalanus magnus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.384	0.002
<i>Valdiviella insignis</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.070	0.002
Gammaridea	0.000	0.000	0.155	0.014	0.000	0.000	0.174	0.012
<i>Cylopus</i> sp.	0.289	0.027	0.022	0.001	0.475	0.020	0.105	+
<i>Hyperiella dilatata</i>	0.289	0.003	0.044	+	0.106	0.002	0.035	0.001
<i>Parathemisto gaudichaudi</i>	0.578	0.045	0.022	0.001	0.000	0.000	0.000	0.000
<i>Primno macropa</i>	0.096	0.008	0.044	0.003	0.106	0.005	0.419	0.032
<i>Vibilia</i> sp.	3.659	0.093	0.111	0.006	0.053	0.003	0.000	0.000
Phronimoidea	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Platysceloidea	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Amphipod indet.	0.000	0.000	0.000	0.000	0.000	0.000	0.384	0.001
Decapoda	0.000	0.000	0.044	0.025	0.000	0.000	0.174	0.016
Ostracoda	0.000	0.000	0.044	+	0.000	0.000	2.931	0.391
Mysidacea	0.000	0.000	0.000	0.000	0.053	0.001	0.419	0.004
Thecosomata	0.481	0.039	0.044	0.018	1.215	0.070	0.070	0.001
Gymnosomata	1.444	0.018	0.022	+	1.215	0.094	0.140	0.006
Cephalopoda	0.096	0.001	0.044	0.011	0.000	0.000	0.105	0.091
<i>Sagitta gazellae</i>	1.830	0.084	1.997	0.131	9.932	0.326	7.258	1.566
<i>Sagitta maxima</i>	0.000	0.000	0.510	0.027	0.000	0.000	4.850	0.405
<i>Sagitta marri</i>	0.000	0.000	0.155	0.003	0.000	0.000	3.769	0.069
<i>Eukrohnia hamata</i>	2.311	0.008	4.572	0.042	3.804	0.006	15.528	0.175
Chaetognatha indet.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Tomopteris</i> sp.	0.385	0.017	0.022	0.004	2.060	0.071	0.140	0.007
Alciopidae	0.096	0.010	0.022	0.001	0.528	0.010	0.035	0.003
Typhloscollecidae	0.000	0.000	0.000	0.000	0.000	0.000	0.070	0.001
<i>Salpa thompsoni</i>	22.918	3.989	8.300	0.570	0.158	0.144	1.396	0.137
<i>Atolla wyvillei</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.105	1.705
<i>Periphylla periphylla</i>	0.000	0.000	0.022	22.193	0.053	158.495	0.070	0.220
Hydromedusae	0.289	0.578	0.710	1.684	1.057	1.446	4.222	1.364
Siphonophora (bracts)	0.000	0.000	0.000	0.056	0.000	0.000	0.000	0.730
Siphonophora (nectophore)	4.044	0.164	0.289	0.017	7.079	0.326	3.141	0.006
<i>Beroe</i> sp.	0.000	0.000	0.000	0.000	0.053	0.254	0.000	0.000
<i>Callianira cristata</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Nemertea	0.000	0.000	0.000	0.000	0.000	0.000	0.035	+
Appendicularia	0.000	0.000	0.000	0.000	0.053	+	0.000	0.000
<i>Bathylagus antarcticus</i>	0.000	0.000	0.044	0.082	0.000	0.000	0.140	0.011
<i>Benthalbella elongata</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Cyclothone</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.105	0.020
<i>Electrona antarctica</i>	0.000	0.000	0.222	0.596	0.000	0.000	0.733	0.753
<i>Gymnoscopelus braueri</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Krefflichthys anderssoni</i>	0.000	0.000	0.178	0.018	0.000	0.000	0.000	0.000
<i>Melanonus</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Myctophid larva	0.000	0.000	0.022	0.002	0.053	0.002	0.000	0.000
<i>Notolepis coatsi</i>	0.000	0.000	0.044	0.004	0.053	0.002	0.140	0.018
<i>Protomyctophum bolini</i>	0.000	0.000	0.067	0.099	0.000	0.000	0.000	0.000
Fish larva indet.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Residue	0.000	0.237	0.000	0.168	0.000	0.166	0.000	0.178

STATION NO. HAUL TYPE	22		22		23		24	
	S		D		T		V	
TAXA	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.
<i>Euphausia superba</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>E. frigida</i>	0.146	0.004	0.000	0.000	0.000	0.000	0.000	0.000
<i>E. crystallorophias</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>E. triacantha</i>	0.146	0.006	0.212	0.020	0.000	0.000	0.000	0.000
<i>Thysanoessa macrura</i>	3.211	0.085	0.776	0.056	57.489	0.458	5.500	0.120
Euphausiid indet	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Amalothrix emarginata</i>	0.000	0.000	0.141	+	0.000	0.000	0.000	0.000
<i>Amalothrix dentipes</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Arietellus simplex</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Bathycalanus bradyi</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Calanoides acutus</i>	3.065	0.023	5.645	0.009	1.261	0.001	4.500	0.005
<i>Calanus propinquus</i>	1.313	0.006	0.141	0.001	1491.931	9.463	1.000	0.005
<i>Candacia falcifera</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Candacia maxima</i>	0.000	0.000	0.141	+	0.000	0.000	0.000	0.000
<i>Centraugaptilus rattrayi</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Chiridius polaris</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Cornucalanus chelifer</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Cornucalanus robustus</i>	0.000	0.000	0.282	0.003	0.000	0.000	0.500	0.005
<i>Euaugaptilus laticeps</i>	0.000	0.000	0.282	0.004	0.000	0.000	0.500	0.011
<i>Euaugaptilus cf. magnus</i>	0.000	0.000	0.071	0.001	0.000	0.000	0.000	0.000
<i>Euchaeta antarctica</i>	0.584	0.006	0.282	0.006	0.000	0.000	1.500	0.029
<i>Euchaeta biloba</i>	0.000	0.000	0.071	+	0.000	0.000	0.000	0.000
<i>Euchaeta dactylifera</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.012
<i>Euchaeta farrani</i>	0.000	0.000	0.071	0.002	0.000	0.000	0.000	0.000
<i>Euchaeta parvula</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Euchaeta rasa</i>	0.000	0.000	0.141	0.001	0.000	0.000	1.000	0.009
<i>Eucheata sp.</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Euchaeta indet. copepodite</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Euchirella rostramagna</i>	0.292	0.004	0.000	0.000	0.000	0.000	0.000	0.000
<i>Farrania frigida</i>	0.000	0.000	0.071	+	0.000	0.000	0.000	0.000
<i>Gaetanus antarcticus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Gaidius intermedius</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Gaidius tenuispinus</i>	0.000	0.000	0.141	+	0.000	0.000	0.000	0.000
<i>Haloptilus ocellatus</i>	0.584	0.006	0.212	+	0.000	0.000	0.500	0.003
<i>Heterostylites major</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Heterorhabdus austrinus</i>	0.292	+	0.071	+	0.000	0.000	0.500	0.001
<i>Heterorhabdus farrani</i>	0.000	0.000	0.282	0.001	0.000	0.000	0.000	0.000
<i>Lucicutia curta</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Lucicutia macrocera</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Lucicutia wolfendeni</i>	0.000	0.000	0.000	0.000	0.000	0.000	1.500	0.010
<i>Metridia curticauda</i>	0.000	0.000	0.282	+	0.000	0.000	0.000	0.000
<i>Metridia gerlachei</i>	0.438	+	0.000	0.000	0.000	0.000	0.000	0.000
<i>Metridia princeps</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.005
<i>Oncaea sp.</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Onchocalanus magnus</i>	0.000	0.000	0.071	0.001	0.000	0.000	0.500	0.007

STATION NO. HAUL TYPE	22		22		23		24	
	S	S	D	D	T	T	V	V
TAXA	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.
<i>Pachyptilus eurygnathus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Pleuromamma robusta</i>	0.000	0.000	0.212	+	0.000	0.000	0.500	0.002
<i>Pseudaugaptilus longiremis</i>	0.000	0.000	0.071	+	0.000	0.000	0.000	0.000
<i>Pseudochirella hirsuta</i>	0.000	0.000	0.212	0.002	0.000	0.000	0.500	0.006
<i>Pseudochirella polyspina</i>	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.011
<i>Rhincalanus gigas</i>	41.010	0.186	18.768	0.109	1.009	0.002	101.000	0.784
<i>Scaphocalanus affinis</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.002
<i>Scaphocalanus magnus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Valdiviella insignis</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Gammaridea	0.000	0.000	0.212	0.010	0.000	0.000	0.000	0.000
<i>Cylopus</i> sp.	0.438	0.007	0.000	0.000	0.000	0.000	0.000	0.000
<i>Hyperietta dilatata</i>	0.146	0.001	0.000	0.000	0.000	0.000	0.000	0.000
<i>Parathemisto gaudichaudi</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Primno macropa</i>	0.000	0.000	0.000	0.000	0.252	0.017	0.000	0.000
<i>Vibilia</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Phronimoidea	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Platysceloidea	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Amphipod indet.	0.292	0.002	0.071	+	0.000	0.000	0.000	0.000
Decapoda	0.000	0.000	0.071	0.049	0.000	0.000	0.000	0.000
Ostracoda	0.000	0.000	0.212	0.008	0.000	0.000	1.500	0.177
Mysidacea	0.000	0.000	0.071	0.001	0.000	0.000	0.000	0.000
Thecosomata	1.897	0.064	0.141	0.002	0.000	0.000	1.000	0.017
Gymnosomata	1.459	0.208	0.141	0.018	1.009	0.082	0.500	0.015
Cephalopoda	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Sagitta gazellae</i>	11.967	0.433	3.669	0.362	18.406	0.560	7.000	2.133
<i>Sagitta maxima</i>	0.000	0.000	1.552	0.145	0.000	0.000	0.000	0.000
<i>Sagitta marri</i>	0.000	0.000	1.623	0.024	0.000	0.000	0.500	0.007
<i>Eukrohnia hamata</i>	4.232	0.016	10.936	0.086	1.765	0.021	5.000	0.051
Chaetognatha indet.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Tomopteris</i> sp.	0.584	0.001	0.000	0.000	5.295	0.006	0.000	0.000
Alciopidae	0.146	+	0.071	+	0.252	0.016	0.000	0.000
Typhloscolecidae	0.000	0.000	0.071	0.013	0.000	0.000	0.000	0.000
<i>Salpa thompsoni</i>	0.146	0.051	0.071	0.001	0.252	+	0.000	0.000
<i>Atolla wyvillei</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Periphylla periphylla</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Hydromedusae	3.649	2.392	2.187	1.182	0.000	0.030	7.500	1.446
Siphonophora (bracts)	0.000	0.125	0.000	0.245	0.000	0.007	0.000	2.018
Siphonophora (nectophore)	7.151	0.251	0.635	0.006	0.504	0.017	8.000	0.026
<i>Beroe</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Callianira cristata</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Nemertea	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Appendicularia	0.000	0.000	0.000	0.000	0.252	0.002	0.000	0.000
<i>Bathylagus antarcticus</i>	0.000	0.000	0.212	0.104	0.000	0.000	0.000	0.000
<i>Benthalbella elongata</i>	0.000	0.000	0.071	2.352	0.000	0.000	0.000	0.000
<i>Cylothone</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Electrona antarctica</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Gymnoscopelus braueri</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Krefflichthys anderssoni</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Melanonus</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Myctophid larva	0.000	0.000	0.071	0.004	0.000	0.000	0.000	0.000
<i>Notolepis coatsi</i>	0.146	0.001	0.141	0.015	0.000	0.000	0.000	0.000
<i>Protomyctophum bolini</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Fish larva indet.	0.146	+	0.000	0.000	0.000	0.000	0.000	0.000
Residue	0.000	0.082	0.000	0.126	0.000	0.296	0.000	0.649

STATION NO. HAUL TYPE	25		25		27		27	
	S		D		S		D	
TAXA	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.
<i>Euphausia superba</i>	0.000	0.000	0.000	0.000	0.356	0.011	0.000	0.000
<i>E. frigida</i>	0.000	0.000	0.043	0.001	0.000	0.000	0.152	0.013
<i>E. crystallorophias</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>E. triacantha</i>	0.000	0.000	0.215	0.056	0.000	0.000	0.061	0.004
<i>Thysanoessa macrura</i>	8.057	0.272	0.301	0.025	1.638	0.069	1.706	0.035
Euphausiid indet	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Amallothrix emarginata</i>	0.000	0.000	0.086	+	0.000	0.000	0.000	0.000
<i>Amallothrix dentipes</i>	0.000	0.000	0.043	+	0.000	0.000	0.000	0.000
<i>Arietellus simplex</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Bathycalanus bradyi</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Calanoides acutus</i>	4.578	0.005	8.760	0.009	0.214	0.000	6.733	0.008
<i>Calanus propinquus</i>	1.099	0.004	0.816	0.002	1.282	0.005	1.402	0.007
<i>Candacia falcifera</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.030	+
<i>Candacia maxima</i>	0.000	0.000	0.043	+	0.000	0.000	0.091	+
<i>Centraugaptilus rattrayi</i>	0.000	0.000	0.043	0.001	0.000	0.000	0.000	0.000
<i>Chiridius polaris</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Cornucalanus chelifer</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Cornucalanus robustus</i>	0.000	0.000	0.172	0.001	0.000	0.000	0.091	0.001
<i>Euaugaptilus laticeps</i>	0.000	0.000	0.215	0.006	0.000	0.000	0.152	0.004
<i>Euaugaptilus cf. magnus</i>	0.000	0.000	0.086	0.002	0.000	0.000	0.000	0.000
<i>Euchaeta antarctica</i>	0.000	0.000	0.429	0.008	0.000	0.000	0.518	0.008
<i>Euchaeta biloba</i>	0.000	0.000	0.129	+	0.000	0.000	0.122	+
<i>Euchaeta dactylifera</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Euchaeta farrani</i>	0.000	0.000	0.043	0.001	0.000	0.000	0.030	0.001
<i>Euchaeta parvula</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Euchaeta rasa</i>	0.000	0.000	0.043	+	0.000	0.000	0.000	0.000
<i>Eucheata</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Euchaeta</i> indet. copepodite	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Euchirella rostramagna</i>	0.000	0.000	0.043	0.001	0.000	0.000	0.305	0.002
<i>Farrania frigida</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Gaetanus antarcticus</i>	0.000	0.000	0.043	0.001	0.000	0.000	0.030	0.001
<i>Gaidius intermedius</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.030	+
<i>Gaidius tenuispinus</i>	0.000	0.000	0.043	+	0.000	0.000	0.122	+
<i>Haloptilus ocellatus</i>	0.183	0.001	0.258	0.002	0.000	0.000	0.213	0.001
<i>Heterostylites major</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.030	+
<i>Heterorhabdus austrinus</i>	0.000	0.000	0.086	+	0.000	0.000	0.000	0.000
<i>Heterorhabdus farrani</i>	0.000	0.000	0.558	0.001	0.071	+	0.518	0.001
<i>Lucicutia curta</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Lucicutia macrocera</i>	0.000	0.000	0.086	+	0.000	0.000	0.152	+
<i>Lucicutia wolfendeni</i>	0.000	0.000	0.129	+	0.000	0.000	0.152	0.001
<i>Metridia curticauda</i>	0.000	0.000	0.129	+	0.000	0.000	0.000	0.000
<i>Metridia gerlachei</i>	0.000	0.000	0.086	+	0.000	0.000	0.000	0.000
<i>Metridia princeps</i>	0.000	0.000	0.086	0.001	0.071	+	0.061	+
<i>Oncaea</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Onchocalanus magnus</i>	0.000	0.000	0.043	+	0.000	0.000	0.000	0.000

STATION NO. HAUL TYPE	25		25		27		27	
	S		D		S		D	
TAXA	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.
<i>Pachytilus eurygnathus</i>	0.000	0.000	0.086	0.001	0.000	0.000	0.030	+
<i>Pleuromamma robusta</i>	0.000	0.000	0.129	+	0.000	0.000	0.366	0.001
<i>Pseudogaptilus longiremis</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.061	+
<i>Pseudochirella hirsuta</i>	0.000	0.000	0.043	0.001	0.000	0.000	0.122	0.003
<i>Pseudochirella polyspina</i>	0.000	0.000	0.043	+	0.000	0.000	0.030	+
<i>Rhincalanus gigas</i>	20.692	0.110	24.906	0.182	6.839	0.018	21.846	0.122
<i>Scaphocalanus affinis</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Scaphocalanus magnus</i>	0.000	0.000	0.043	+	0.000	0.000	0.000	0.000
<i>Valdiviella insignis</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Gammaridea	0.000	0.000	0.043	0.005	0.000	0.000	0.030	0.003
<i>Cylopus</i> sp.	0.000	0.000	0.086	0.001	0.000	0.000	0.000	0.000
<i>Hyperiella dilatata</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Parathemisto gaudichaudi</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Primno macropa</i>	0.000	0.000	0.000	0.000	0.214	0.014	0.000	0.000
<i>Vibilia</i> sp.	0.000	0.000	0.000	0.000	0.071	0.003	0.000	0.000
Phronimoidea	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Platysceloidea	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Amphipod indet.	0.000	0.000	0.258	0.001	0.000	0.000	0.152	+
Decapoda	0.000	0.000	0.086	0.005	0.000	0.000	0.091	0.095
Ostracoda	0.183	0.002	0.858	0.092	0.000	0.000	0.183	+
Mysidacea	0.000	0.000	0.215	0.003	0.000	0.000	0.030	0.002
Thecosomata	0.916	0.093	0.000	0.000	0.142	0.014	0.061	0.002
Gymnosomata	0.366	0.012	0.000	0.000	0.499	0.061	0.061	0.005
Cephalopoda	0.000	0.000	0.086	0.051	0.071	0.142	0.060	0.037
<i>Sagitta gazellae</i>	16.847	0.390	3.607	0.411	2.849	0.036	3.595	0.177
<i>Sagitta maxima</i>	0.000	0.000	1.804	0.096	0.000	0.000	1.341	0.064
<i>Sagitta marri</i>	0.183	0.001	0.558	0.012	0.071	+	0.792	0.011
<i>Eukrohnia hamata</i>	7.874	0.019	5.368	0.033	0.499	0.004	8.683	0.044
Chaetognatha indet.	0.000	0.000	0.000	0.000	0.000	0.000	0.487	0.005
<i>Tomopteris</i> sp.	0.732	0.018	0.000	0.000	0.570	0.010	0.122	0.004
Alciopidae	0.732	0.001	0.000	0.000	0.285	0.008	0.030	0.004
Typhloscolecidae	0.183	+	0.000	0.000	0.000	0.000	0.030	0.001
<i>Salpa thompsoni</i>	0.000	0.000	0.043	+	0.214	0.080	0.000	0.000
<i>Atolla wyvillei</i>	0.000	0.000	0.215	5.771	0.000	0.000	0.091	2.586
<i>Periphylla periphylla</i>	0.000	0.000	0.043	128.822	0.071	78.359	0.030	9.140
Hydromedusae	0.549	0.721	0.816	0.353	0.784	1.355	0.823	0.745
Siphonophora (bracts)	0.000	0.000	0.000	0.088	0.000	0.000	0.000	0.063
Siphonophora (nectophore)	8.790	0.284	0.344	0.002	8.192	0.623	1.493	0.099
<i>Beroe</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Callianira cristata</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Nemertea	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Appendicularia	0.000	0.000	0.000	0.000	0.071	0.001	0.000	0.000
<i>Bathylagus antarcticus</i>	0.000	0.000	0.086	0.075	0.000	0.000	0.061	0.195
<i>Benthaibella elongata</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Cyclothone</i> sp.	0.000	0.000	0.086	0.037	0.000	0.000	0.091	0.080
<i>Electrona antarctica</i>	0.000	0.000	0.344	0.249	0.000	0.000	0.122	0.018
<i>Gymnoscopelus braueri</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Krefflichthys anderssoni</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.030	0.043
<i>Melanonus</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Mycetophid larva	0.000	0.000	0.000	0.000	0.071	0.001	0.061	0.001
<i>Notolepis coatsi</i>	0.000	0.000	0.172	0.010	0.000	0.000	0.152	0.037
<i>Protomyctophum bolini</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.030	0.043
Fish larva indet.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Residue	0.000	0.080	0.000	0.321	0.000	0.096	0.000	0.089

STATION NO. HAUL TYPE	28		28		29		29	
	V1		V2		V		S	
TAXA	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.
<i>Euphausia superba</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>E. frigida</i>	1.000	0.028	0.250	0.009	0.000	0.000	0.000	0.000
<i>E. crystallorophias</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>E. triacantha</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Thysanoessa macrura</i>	8.500	0.215	2.500	0.086	3.000	0.087	1.459	0.098
Euphausiid indet	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Amalothrix emarginata</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Amalothrix dentipes</i>	1.000	0.001	0.500	0.001	0.000	0.000	0.000	0.000
<i>Arietellus simplex</i>	0.500	0.005	0.000	0.000	0.000	0.000	0.000	0.000
<i>Bathycalanus bradyi</i>	0.000	0.000	0.250	0.003	0.000	0.000	0.000	0.000
<i>Calanoides acutus</i>	12.000	0.013	6.000	0.009	10.000	0.013	0.000	0.000
<i>Calanus propinquus</i>	5.000	0.024	0.000	0.000	0.000	0.000	0.324	0.001
<i>Candacia falcifera</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Candacia maxima</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Centraugaptilus rattrayi</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Chiridius polaris</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Cornucalanus chelifera</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Cornucalanus robustus</i>	0.000	0.000	0.500	0.006	0.500	0.006	0.000	0.000
<i>Euaugaptilus laticeps</i>	1.500	0.028	2.000	0.043	4.500	0.096	0.000	0.000
<i>Euaugaptilus cf. magnus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Euchaeta antarctica</i>	2.500	0.030	1.250	0.019	3.500	0.052	0.000	0.000
<i>Euchaeta biloba</i>	0.000	0.000	0.750	0.003	0.000	0.000	0.000	0.000
<i>Euchaeta dactylifera</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Euchaeta farrani</i>	0.000	0.000	0.000	0.000	1.000	0.014	0.000	0.000
<i>Euchaeta parvula</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Euchaeta rasa</i>	0.000	0.000	0.250	0.002	0.000	0.000	0.000	0.000
<i>Eucheata</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Euchaeta</i> indet. copepodite	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Euchirella rostramagna</i>	1.000	0.013	0.250	0.003	0.500	0.006	0.000	0.000
<i>Farrania frigida</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Gaetanus antarcticus</i>	0.500	0.014	0.250	0.007	0.000	0.000	0.000	0.000
<i>Gaidius intermedius</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Gaidius tenuispinus</i>	0.000	0.000	0.250	0.001	0.000	0.000	0.000	0.000
<i>Haloptilus ocellatus</i>	0.000	0.000	0.500	0.002	3.000	0.012	0.000	0.000
<i>Heterostylites major</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Heterorhabdus austrinus</i>	0.000	0.000	0.250	+	0.500	0.001	0.000	0.000
<i>Heterorhabdus farrani</i>	0.500	0.001	0.500	0.001	0.500	0.001	0.000	0.000
<i>Lucicutia curta</i>	0.500	0.001	0.000	0.000	0.000	0.000	0.000	0.000
<i>Lucicutia macrocera</i>	0.000	0.000	0.250	+	0.500	0.001	0.000	0.000
<i>Lucicutia wolfendeni</i>	0.000	0.000	0.750	0.004	0.000	0.000	0.000	0.000
<i>Metridia curticauda</i>	2.000	0.002	1.250	0.002	1.500	0.002	0.000	0.000
<i>Metridia gerlachei</i>	0.000	0.000	0.250	0.001	0.000	0.000	0.000	0.000
<i>Metridia princeps</i>	0.500	0.006	2.500	0.033	0.500	0.005	0.000	0.000
<i>Oncaea</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Onchocalanus magnus</i>	1.500	0.016	0.750	0.008	0.500	0.006	0.000	0.000

STATION NO. HAUL TYPE	28		28		29		29	
	V1		V2		V		S	
TAXA	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.
<i>Pachyptilus eurygnathus</i>	0.000	0.000	0.500	0.006	0.500	0.006	0.000	0.000
<i>Pleuromamma robusta</i>	0.000	0.000	0.000	0.000	0.500	0.001	0.000	0.000
<i>Pseudaugaptilus longiremis</i>	0.000	0.000	0.250	0.001	0.500	0.002	0.000	0.000
<i>Pseudochirella hirsuta</i>	0.000	0.000	0.500	0.013	0.000	0.000	0.000	0.000
<i>Pseudochirella polyspina</i>	0.000	0.000	0.750	0.005	0.000	0.000	0.000	0.000
<i>Rhincalanus gigas</i>	143.000	0.953	115.000	1.001	205.500	1.545	1.459	0.008
<i>Scaphocalanus affinis</i>	0.000	0.000	0.250	0.001	0.000	0.000	0.000	0.000
<i>Scaphocalanus magnus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Valdiviella insignis</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Gammaridea	0.000	0.000	0.500	0.019	0.500	0.042	0.000	0.000
<i>Cylopus</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Hyperietta dilatata</i>	0.000	0.000	0.500	0.008	0.000	0.000	0.000	0.000
<i>Parathemisto gaudichaudi</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Primno macropa</i>	0.500	0.005	0.000	0.000	0.500	0.005	0.000	0.000
<i>Vibilia</i> sp.	0.500	0.027	0.000	0.000	0.000	0.000	0.000	0.000
Phronimoidea	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Platysceloidea	0.500	0.034	0.250	0.008	0.000	0.000	0.000	0.000
Amphipod indet.	0.000	0.000	2.500	0.144	1.500	0.010	0.000	0.000
Decapoda	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Ostracoda	0.500	0.004	0.250	0.003	0.000	0.000	0.000	0.000
Mysidacea	1.000	0.098	0.500	0.210	0.500	0.006	0.000	0.000
Thecosomata	1.000	0.041	0.500	0.006	3.500	0.085	0.649	0.003
Gymnosomata	0.000	0.000	0.250	0.031	1.000	0.186	0.000	0.000
Cephalopoda	1.000	0.730	0.250	0.007	0.500	0.007	0.000	0.000
<i>Sagitta gazellae</i>	14.500	2.119	4.750	0.413	13.000	2.587	2.108	0.035
<i>Sagitta maxima</i>	3.000	0.270	0.500	0.035	3.500	0.463	0.000	0.000
<i>Sagitta marri</i>	0.500	0.005	0.000	0.000	1.000	0.011	0.000	0.000
<i>Eukrohnia hamata</i>	14.500	0.165	11.000	0.181	12.500	0.153	0.811	0.005
Chaetognatha indet.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Tomopteris</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Alciopidae	0.000	0.000	0.000	0.000	0.500	1.350	0.162	0.021
Typhloscolecidae	0.000	0.000	0.250	0.092	0.000	0.000	0.000	0.000
<i>Salpa thompsoni</i>	0.500	0.728	0.250	0.003	0.000	0.000	0.000	0.000
<i>Atolla wyvillei</i>	0.000	0.000	0.250	8.707	0.000	0.000	0.000	0.000
<i>Periphylla periphylla</i>	0.500	250.000	0.000	0.000	0.000	0.000	0.000	0.000
Hydromedusae	8.000	1.157	5.250	7.545	6.500	0.406	0.649	1.524
Siphonophora (bracts)	0.000	0.218	0.000	0.277	0.000	1.255	0.000	0.007
Siphonophora (nectophore)	10.500	0.059	10.750	0.063	21.000	0.647	3.730	0.640
<i>Beroe</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Callianira cristata</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Nemertea	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Appendicularia	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Bathylagus antarcticus</i>	0.500	0.365	0.000	0.000	0.000	0.000	0.000	0.000
<i>Benthalbella elongata</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Cylothone</i> sp.	0.500	0.300	0.000	0.000	0.000	0.000	0.000	0.000
<i>Electrona antarctica</i>	0.000	0.000	0.250	0.028	0.000	0.000	0.162	0.005
<i>Gymnoscopelus braueri</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Krefflichthys anderssoni</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Melanonus</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Myctophid larva	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Notolepis coatsi</i>	0.500	0.030	0.250	0.003	0.000	0.000	0.000	0.000
<i>Protomyctophum bolini</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Fish larva indet.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Residue	0.000	0.933	0.000	1.338	0.000	0.000	0.000	0.020

STATION NO. HAUL TYPE	32		33		34		34	
	V		V		S		D	
TAXA	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.
<i>Euphausia superba</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>E. frigida</i>	2.000	0.037	2.000	0.043	5.458	0.158	0.000	0.000
<i>E. crystallorophias</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>E. triacantha</i>	0.000	0.000	0.000	0.000	1.605	0.227	0.360	0.035
<i>Thysanoessa macrura</i>	34.000	0.680	22.500	0.408	13.967	0.340	2.561	0.127
Euphausiid indet	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Amallothrix emarginata</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.040	+
<i>Amallothrix dentipes</i>	0.000	0.000	1.000	0.001	0.000	0.000	0.080	+
<i>Arietellus simplex</i>	0.500	0.006	0.000	0.000	0.000	0.000	0.040	0.001
<i>Bathycalanus bradyi</i>	0.500	0.002	0.000	0.000	0.000	0.000	0.000	0.000
<i>Calanoides acutus</i>	9.500	0.012	8.500	0.011	77.059	0.087	3.562	0.003
<i>Calanus propinquus</i>	0.500	0.003	1.500	0.009	1.445	0.006	0.160	0.001
<i>Candacia falcifera</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Candacia maxima</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Centraugaptilus rattrayi</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Chiridius polaris</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.040	+
<i>Cornucalanus chelifer</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Cornucalanus robustus</i>	0.000	0.000	1.000	0.011	0.000	0.000	0.200	0.001
<i>Euaugaptilus laticeps</i>	3.500	0.075	2.000	0.043	0.000	0.000	0.360	0.009
<i>Euaugaptilus cf. magnus</i>	0.500	0.011	1.000	0.021	0.000	0.000	0.000	0.000
<i>Euchaeta antarctica</i>	7.000	0.104	3.000	0.045	0.000	0.000	0.360	0.005
<i>Euchaeta biloba</i>	0.000	0.000	0.000	0.000	0.161	+	0.400	0.002
<i>Euchaeta dactylifera</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Euchaeta farrani</i>	0.500	0.013	0.000	0.000	0.000	0.000	0.120	0.004
<i>Euchaeta parvula</i>	0.000	0.000	0.500	0.010	0.000	0.000	0.040	0.001
<i>Euchaeta rasa</i>	0.000	0.000	0.500	0.005	0.000	0.000	0.040	+
<i>Eucheata sp.</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Euchaeta indet. copepodite</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Euchirella rostramagna</i>	3.500	0.043	1.500	0.018	0.321	0.004	0.000	0.000
<i>Farrania frigida</i>	0.500	0.000	0.000	0.000	0.000	0.000	0.040	+
<i>Gaetanus antarcticus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.040	0.001
<i>Gaidius intermedius</i>	0.500	0.002	0.000	0.000	0.000	0.000	0.120	+
<i>Gaidius tenuispinus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.120	+
<i>Haloptilus ocellatus</i>	1.500	0.006	0.000	0.000	0.803	0.001	0.720	0.003
<i>Heterostylites major</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Heterorhabdus austrinus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.120	+
<i>Heterorhabdus farrani</i>	0.000	0.000	0.000	0.000	0.321	+	0.560	0.001
<i>Lucicutia curta</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Lucicutia macrocera</i>	0.000	0.000	0.500	0.001	0.000	0.000	0.040	+
<i>Lucicutia wolfendeni</i>	1.000	0.006	0.500	0.003	0.000	0.000	0.080	+
<i>Metridia curticauda</i>	1.500	0.002	0.000	0.000	0.000	0.000	0.040	+
<i>Metridia gerlachei</i>	0.000	0.000	0.000	0.000	0.321	+	0.000	0.000
<i>Metridia princeps</i>	0.500	0.005	0.500	0.005	0.000	0.000	0.080	+
<i>Oncaea sp.</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Onchocalanus magnus</i>	0.000	0.000	0.500	0.006	0.000	0.000	0.040	+

STATION NO. HAUL TYPE	32		33		34		34	
	V		V		S		D	
TAXA	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.
<i>Pachytilus eurygnathus</i>	0.000	0.000	0.500	0.006	0.000	0.000	0.040	+
<i>Pleuromamma robusta</i>	1.000	0.002	0.500	0.001	1.124	0.003	0.040	+
<i>Pseudaugaptilus longiremis</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Pseudochirella hirsuta</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Pseudochirella polyspina</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.080	0.001
<i>Rhincalanus gigas</i>	226.500	1.664	159.500	1.162	150.265	0.757	11.565	0.055
<i>Scaphocalanus affinis</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.040	0.000
<i>Scaphocalanus magnus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Valdiviella insignis</i>	0.500	0.003	0.000	0.000	0.000	0.000	0.000	0.000
Gammaridea	0.000	0.000	0.500	0.055	0.000	0.000	0.040	0.004
<i>Cylopus</i> sp.	0.000	0.000	0.500	0.031	0.000	0.000	0.080	0.001
<i>Hyperiella dilatata</i>	0.500	0.011	1.000	0.013	0.161	0.001	0.000	0.000
<i>Parathemisto gaudichaudi</i>	0.000	0.000	0.000	0.000	0.161	0.003	0.000	0.000
<i>Primno macropa</i>	0.000	0.000	0.000	0.000	0.161	0.012	0.040	0.005
<i>Vibilia</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Phronimoidea	0.000	0.000	0.500	0.217	0.000	0.000	0.000	0.000
Platysceloidea	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Amphipod indet.	2.500	0.008	1.500	0.009	0.642	0.001	0.680	0.048
Decapoda	0.000	0.000	0.000	0.000	0.000	0.000	0.040	+
Ostracoda	0.500	0.004	0.500	0.004	0.000	0.000	0.640	0.018
Mysidacea	0.500	0.006	1.000	0.008	0.000	0.000	0.200	0.008
Thecosomata	7.000	0.143	1.500	0.058	1.124	0.061	0.360	0.023
Gymnosomata	0.500	0.055	0.000	0.000	0.482	0.056	0.080	0.009
Cephalopoda	0.500	0.007	0.500	0.009	0.000	0.000	0.000	0.000
<i>Sagitta gazellae</i>	18.000	2.483	12.500	2.697	13.485	0.561	8.884	0.831
<i>Sagitta maxima</i>	5.000	0.356	3.500	0.127	0.000	0.000	3.962	0.317
<i>Sagitta marri</i>	1.500	0.034	2.000	0.015	0.642	0.003	2.321	0.027
<i>Eukrohnia hamata</i>	18.000	0.273	15.000	1.773	10.114	0.003	21.529	0.154
Chaetognatha indet.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Tomopteris</i> sp.	1.000	0.046	0.500	0.045	1.926	0.007	0.120	0.003
Alciopidae	0.000	0.000	0.000	0.000	0.642	0.002	0.040	0.005
Typhloscolecidae	0.500	0.008	0.500	0.001	0.000	0.000	0.120	0.004
<i>Salpa thompsoni</i>	1.000	0.013	0.500	0.009	1.284	0.424	0.240	0.002
<i>Atolla wyvillei</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.040	1.999
<i>Periphylla periphylla</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.040	0.459
Hydromedusae	8.000	0.355	6.000	6.747	2.087	2.724	2.681	1.161
Siphonophora (bracts)	0.000	0.451	0.000	0.753	0.000	0.000	0.000	0.118
Siphonophora (nectophore)	13.000	0.076	8.000	0.121	11.238	0.056	0.720	0.006
<i>Beroe</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Callianira cristata</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Nemertea	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Appendicularia	0.000	0.000	0.000	0.000	0.000	0.000	0.040	+
<i>Bathylagus antarcticus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.160	0.015
<i>Benthalbella elongata</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Cyclothone</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.040	0.063
<i>Electrona antarctica</i>	1.000	0.025	0.500	0.040	0.000	0.000	0.160	0.567
<i>Gymnoscopelus braueri</i>	0.000	0.000	0.000	0.000	0.161	0.363	0.000	0.000
<i>Krefflichthys anderssoni</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.120	0.016
<i>Melanonus</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.040	0.593
Myctophid larva	0.000	0.000	0.000	0.000	0.000	0.000	0.040	0.001
<i>Notolepis coatsi</i>	1.000	0.040	1.000	0.010	0.000	0.000	0.160	0.005
<i>Protomyctophum bolini</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Fish larva indet.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Residue	0.000	1.218	0.000	0.867	0.000	0.075	0.000	0.174

STATION NO. HAUL TYPE	35		35		36		38	
	S1		S1		V		V	
TAXA	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.
<i>Euphausia superba</i>	0.199	0.011	0.000	0.000	0.000	0.000	0.000	0.000
<i>E. frigida</i>	0.066	0.003	0.000	0.000	0.000	0.000	0.000	0.000
<i>E. crystallorophias</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>E. triacantha</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Thysanoessa macrura</i>	13.019	0.768	4.332	0.023	13.000	0.295	45.000	0.675
Euphausiid indet	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000
<i>Amallothrix emarginata</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Amallothrix dentipes</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Arietellus simplex</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Bathycalanus bradyi</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Calanoides acutus</i>	57.323	0.046	42.143	0.054	14.000	0.018	10.000	0.013
<i>Calanus propinquus</i>	3.055	0.012	8.927	0.043	1.500	0.009	0.000	0.000
<i>Candacia falcifera</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Candacia maxima</i>	0.000	0.000	0.131	+	0.000	0.000	0.000	0.000
<i>Centraugaptilus rattrayi</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Chiridius polaris</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Cornucalanus chelifer</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Cornucalanus robustus</i>	0.000	0.000	0.000	0.000	1.500	0.017	5.000	0.057
<i>Euaugaptilus laticeps</i>	0.000	0.000	0.000	0.000	0.500	0.011	0.000	0.000
<i>Euaugaptilus cf. magnus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Euchaeta antarctica</i>	0.000	0.000	0.000	0.000	6.000	0.089	15.000	0.224
<i>Euchaeta biloba</i>	0.000	0.000	0.000	0.000	1.500	0.007	0.000	0.000
<i>Euchaeta dactylifera</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Euchaeta farrani</i>	0.000	0.000	0.000	0.000	1.500	0.038	10.000	0.256
<i>Euchaeta parvula</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Euchaeta rasa</i>	0.000	0.000	0.000	0.000	0.500	0.005	0.000	0.000
<i>Eucheata sp.</i>	0.000	0.000	0.131	+	0.000	0.000	0.000	0.000
<i>Euchaeta indet. copepodite</i>	0.000	0.000	0.000	0.000	0.500	+	0.000	0.000
<i>Euchirella rostramagna</i>	0.000	0.000	0.000	0.000	1.000	0.012	5.000	0.061
<i>Farrania frigida</i>	0.000	0.000	0.000	0.000	0.500	+	0.000	0.000
<i>Gaetanus antarcticus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Gaidius intermedius</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Gaidius tenuispinus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Haloptilus ocellatus</i>	0.465	+	0.788	0.001	2.000	0.008	5.000	0.021
<i>Heterostylites major</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Heterorhabdus austrinus</i>	0.066	+	0.000	0.000	0.000	0.000	0.000	0.000
<i>Heterorhabdus farrani</i>	0.000	0.000	0.000	0.000	0.500	0.001	0.000	0.000
<i>Lucicutia curta</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Lucicutia macrocera</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Lucicutia wolfendeni</i>	0.000	0.000	0.000	0.000	1.500	0.009	0.000	0.000
<i>Metridia curticauda</i>	0.000	0.000	0.000	0.000	1.500	0.002	0.000	0.000
<i>Metridia gerlachei</i>	0.066	+	0.000	0.000	0.000	0.000	5.000	0.006
<i>Metridia princeps</i>	0.000	0.000	0.000	0.000	1.000	0.010	0.000	0.000
<i>Oncaea sp.</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Onchocalanus magnus</i>	0.000	0.000	0.000	0.000	1.000	0.013	0.000	0.000

STATION NO. HAUL TYPE	35		35		36		38	
	S1		S1		V		V	
TAXA	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.
<i>Pachyptilus eurygnathus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Pleuromamma robusta</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Pseudaugaptilus longiremis</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Pseudochirella hirsuta</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Pseudochirella polypsina</i>	0.000	0.000	0.000	0.000	0.500	0.003	0.000	0.000
<i>Rhincalanus gigas</i>	104.550	0.348	120.389	0.637	225.000	1.884	535.000	3.089
<i>Scaphocalanus affinis</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Scaphocalanus magnus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Valdiviella insignis</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Gammaridea	0.000	0.000	0.000	0.000	1.000	0.009	0.000	0.000
<i>Cylopus</i> sp.	0.133	0.011	0.000	0.000	0.000	0.000	5.000	0.230
<i>Hyperiella dilatata</i>	0.000	0.000	0.000	0.000	1.000	0.014	15.000	0.165
<i>Parathemisto gaudichaudi</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Primno macropa</i>	0.066	0.005	0.131	0.001	1.500	0.039	0.000	0.000
<i>Vibilia</i> sp.	0.133	0.006	0.000	0.000	0.000	0.000	0.000	0.000
Phronimoidea	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Platysceloidea	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Amphipod indet.	0.000	0.000	0.000	0.000	2.500	0.011	0.000	0.000
Decapoda	0.000	0.000	0.000	0.000	0.000	0.000	10.000	0.135
Ostracoda	0.000	0.000	0.131	0.001	4.000	0.041	0.000	0.000
Mysidacea	0.000	0.000	0.000	0.000	0.500	0.004	5.000	0.095
Thecosomata	0.133	0.029	1.969	0.083	1.500	0.063	0.000	0.000
Gymnosomata	0.199	0.012	0.263	0.033	0.500	0.017	0.000	0.000
Cephalopoda	0.000	0.000	0.000	0.000	0.500	0.004	0.007	+
<i>Sagitta gazellae</i>	6.709	0.140	11.553	0.600	16.500	3.491	45.000	4.515
<i>Sagitta maxima</i>	0.000	0.000	0.000	0.000	6.000	0.491	0.000	0.000
<i>Sagitta marri</i>	0.133	0.001	0.656	0.011	0.500	0.005	0.000	0.000
<i>Eukrohnia hamata</i>	4.052	0.039	16.148	0.040	23.000	0.192	85.000	1.370
Chaetognatha indet.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Tomopteris</i> sp.	0.266	0.011	0.788	+	0.000	0.000	5.000	1.370
Alciopidae	0.266	0.005	0.263	0.001	0.500	0.062	0.000	0.000
Typhloscollecidae	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Salpa thompsoni</i>	23.315	1.163	17.592	1.198	2.000	0.383	10.000	0.065
<i>Atolla wyvillei</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Periphylla periphylla</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Hydromedusae	0.531	1.076	2.101	4.119	24.500	1.929	0.000	0.000
Siphonophora (bracts)	0.000	0.000	0.000	0.000	0.000	0.012	0.000	0.000
Siphonophora (nectophore)	10.030	0.348	7.483	0.150	15.500	0.069	20.000	0.135
<i>Beroe</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Callianira cristata</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Nemertea	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Appendicularia	0.000	0.000	0.394	0.003	0.000	0.000	0.000	0.000
<i>Bathylagus antarcticus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Benthalbella elongata</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Cyclothone</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Electrona antarctica</i>	0.000	0.000	0.131	0.008	0.500	0.175	0.000	0.000
<i>Gymnoscopelus braueri</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Krefflichthys anderssoni</i>	0.000	0.000	0.000	0.000	0.500	1.650	0.000	0.000
<i>Melanonus</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Myctophid larva	0.199	0.040	0.000	0.000	0.000	0.000	0.000	0.000
<i>Notolepis coatsi</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Protomyctophum bolini</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Fish larva indet.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Residue	0.000	0.125	0.000	0.000	0.000	1.328	0.000	8.625

STATION NO. HAUL TYPE	39		40		41		43	
	V		V		V		V	
TAXA	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.
<i>Euphausia superba</i>	0.000	0.000	0.000	0.000	1.923	0.649	0.000	0.000
<i>E. frigida</i>	0.500	0.005	50.000	0.200	0.000	0.000	0.000	0.000
<i>E. crystallorophias</i>	0.000	0.000	0.000	0.000	0.000	0.000	1.500	0.089
<i>E. triacantha</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Thysanoessa macrura</i>	9.990	0.168	550.000	6.500	0.641	0.001	1.500	0.012
Euphausiid indet	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Amallothrix emarginata</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Amallothrix dentipes</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.001
<i>Arietellus simplex</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Bathycalanus bradyi</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Calanoides acutus</i>	0.000	0.000	50.000	0.064	1.282	0.002	66.000	0.085
<i>Calanus propinquus</i>	0.500	0.003	0.000	0.000	1.923	0.012	3.500	0.022
<i>Candacia falcifera</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Candacia maxima</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Centraugaptilus rattrayi</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Chiridius polaris</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Cornucalanus chelifera</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Cornucalanus robustus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Euaugaptilus laticeps</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.011
<i>Euaugaptilus cf. magnus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Euchaeta antarctica</i>	0.000	0.000	50.000	0.745	3.205	0.048	14.000	0.209
<i>Euchaeta biloba</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Euchaeta dactylifera</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Euchaeta farrani</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Euchaeta parvula</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Euchaeta rasa</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Eucheata</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Euchaeta</i> indet. copepodite	0.000	0.000	0.000	0.000	0.000	0.000	1.500	+
<i>Euchirella rostramagna</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Farrania frigida</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Gaetanus antarcticus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Gaidius intermedius</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Gaidius tenuispinus</i>	0.000	0.000	0.000	0.000	0.000	0.000	1.500	0.003
<i>Haloptilus ocellatus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.002
<i>Heterostylites major</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Heterorhabdus austrinus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Heterorhabdus farrani</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Lucicutia curta</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Lucicutia macrocera</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Lucicutia wolfendeni</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Metridia curticauda</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.001
<i>Metridia gerlachei</i>	0.000	0.000	100.000	0.125	5.128	0.006	7.000	0.004
<i>Metridia princeps</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Oncaea</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Onchocalanus magnus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

STATION NO. HAUL TYPE	39		40		41		43	
	V		V		V		V	
TAXA	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.
<i>Pachyptilus eurygnathus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Pleuromamma robusta</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Pseudaugaptilus longiremis</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Pseudochirella hirsuta</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.013
<i>Pseudochirella polypspina</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Rhincalanus gigas</i>	8.492	0.049	300.000	1.732	1.282	0.007	21.500	0.124
<i>Scaphocalanus affinis</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.002
<i>Scaphocalanus magnus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Valdiviella insignis</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Gammaridea	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Hyllopus</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Hyperiella dilatata</i>	3.996	0.064	250.000	3.200	5.128	0.046	1.500	0.010
<i>Parathemisto gaudichaudi</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Primno macropa</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.025
<i>Vibilia</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Phronimoidea	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Platysceloidea	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Amphipod indet.	0.000	0.000	50.000	0.050	0.000	0.000	0.000	0.000
Decapoda	0.000	0.000	0.000	0.000	0.000	0.000	2.500	0.026
Ostracoda	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.008
Mysidacea	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Thecosomata	0.000	0.000	0.000	0.000	2.564	0.033	0.000	0.000
Gymnosomata	0.500	0.055	0.000	0.000	0.641	0.056	0.500	0.027
Cephalopoda	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Sagitta gazellae</i>	3.497	0.302	1250.000	14.450	10.256	0.436	2.500	0.707
<i>Sagitta maxima</i>	0.000	0.000	0.000	0.000	0.641	0.051	0.500	0.005
<i>Sagitta marri</i>	0.000	0.000	0.000	0.000	0.000	0.000	1.500	0.034
<i>Eukrohnia hamata</i>	0.500	0.003	0.000	0.000	0.000	0.000	12.000	0.348
Chaetognatha indet.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Tomopteris</i> sp.	0.500	+	0.000	0.000	1.282	0.044	0.000	0.000
Alciopidae	0.000	0.000	0.000	0.000	0.641	0.633	0.000	0.000
Typhloscolecidae	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Salpa thompsoni</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Atolla wyvillei</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Periphylla periphylla</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Hydromedusae	0.500	0.132	0.000	0.000	0.000	0.000	0.500	+
Siphonophora (bracts)	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.309
Siphonophora (nectophore)	0.000	0.000	0.000	0.000	10.897	0.271	5.000	0.026
<i>Beroe</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Callianira cristata</i>	0.000	0.000	0.000	0.000	4.487	0.247	5.500	0.582
Nemertea	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Appendicularia	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Bathylagus antarcticus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Benthalbella elongata</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Cyclothone</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Electrona antarctica</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Gymnoscopelus braueri</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Krefflichthys anderssoni</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Melanonus</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Myctophid larva	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Notolepis coatsi</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Protomyctophum bolini</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Fish larva indet.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Residue	0.000	0.000	0.000	0.000	0.000	1.048	0.000	0.713

Table 7. RMT 1 sampling data.

Haul Type: S,D,T, refer to shallow, deep and target hauls.

STN. NO.	HAUL TYPE	FLOWMETER NO.	READING	VOLUME FILTERED (m ⁻³)	TOTAL BIOMASS (g.1000m ⁻³)
14	S	2	50956	1428	8.93
	D	2	131574	3686	4.25
21	S	2	84531	2368	17.94
	D	2	139500	3909	35.10
22	S	4	34802	967	8.68
	D	4	77605	2156	74.44
23	T	4	14699	408	291.87
25	D	4	111576	3100	11.31
	S	4	36610	1017	4.72
27	S	4	53998	1506	9.20
	D	4	120220	3340	10.06
31	S	4	37206	1034	1.38
34	S	4	31422	873	10.89
	D	4	104826	2913	8.71
35	S1	4	60480	1680	26.19
	S2	4	40797	1134	26.47

STN. NO.	HAUL TYPE	STAGE	<i>Thysanoessa macrura</i>	<i>Euphausia frigida</i>
27	S	CI	17.26	0.66
		CII	—	—
		CIII	—	—
27	D	CI	32.93	0.30
		CII	—	—
		CIII	—	—
31	S	CI	6.77	—
		CII	—	—
		CIII	—	—
34	S	CI	289.81	8.02
		CII	1.15	1.15
		CIII	—	—
34	D	CI	16.13	1.03
		CII	0.34	—
		CII	—	—
35	S1	CI	736.31	18.45
		CII	9.52	27.38
		CIII	—	1.79
35	S2	CI	842.15	14.11
		CII	10.58	9.70
		CIII	—	—

Table 9. RMT 1 fish densities and biomass data.

Haul Type: S,D,T, refers to shallow, deep and target hauls . DENS.: density as No. 1000 m⁻³. BIOM.: biomass as g. 1000 m⁻³. +: biomass <0.001 g. 1000 m⁻³.

STATION NO.	14		14		21		21	
HAUL TYPE	S		D		S		D	
SPECIES	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.
<i>Bathylagus antarcticus</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Electrona antarctica</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.256	0.292
Myctophid larva	0.000	0.000	0.000	0.000	2.534	0.025	0.000	0.000
<i>Notolepis coatsi</i>	0.700	0.000	0.000	0.000	2.111	0.063	0.256	0.000
<i>Protomyctophum</i> sp.	0.000	0.000	0.543	0.288	0.000	0.000	0.000	0.000

STATION NO.	22		22		25		25	
HAUL TYPE	S		D		S		D	
SPECIES	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.
<i>Bathylagus antarcticus</i>	1.034	0.000	0.000	0.000	0.000	0.000	0.323	0.000
<i>Electrona antarctica</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Myctophid larva	3.102	0.000	0.000	0.000	0.983	0.000	0.000	0.000
<i>Notolepis coatsi</i>	1.034	0.062	0.464	0.000	0.000	0.000	0.000	0.000
<i>Protomyctophum</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

STATION NO.	27		27		34		34	
HAUL TYPE	S		D		S		D	
SPECIES	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.	DENS.	BIOM.
<i>Bathylagus antarcticus</i>	0.000	0.000	0.299	0.000	0.000	0.000	0.000	0.000
<i>Electrona antarctica</i>	0.000	0.000	0.299	1.976	0.000	0.000	0.000	0.000
Myctophid larva	0.664	0.000	0.299	0.000	1.145	0.000	0.000	0.000
<i>Notolepis coatsi</i>	0.000	0.000	0.599	0.006	0.000	0.000	0.687	0.010
<i>Protomyctophum</i> sp.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

STATION NO.	35		35	
HAUL TYPE	S1		S2	
SPECIES	DENS.	BIOM.	DENS.	BIOM.
<i>Bathylagus antarcticus</i>	0.000	0.000	0.000	0.000
<i>Electrona antarctica</i>	0.595	0.315	0.000	0.000
Myctophid larva	1.190	0.000	2.646	0.000
<i>Notolepis coatsi</i>	0.000	0.000	0.000	0.000
<i>Protomyctophum</i> sp.	0.000	0.000	0.000	0.000

5. ORGANISMS CAUGHT

Alciopidae
Amallothrix dentipes
Amallothrix emarginata
Arietellus simplex
Atolla wyvillei
Bathycalanus bradyi
Bathylagus antarcticus
Benthalbella elongata
Beroe sp.
Calanoides acutus
Calanus propinquus
Callianira cristata
Candacia falcifera
Candacia maxima
Centraugaptilus rattrayi
Chiridius polaris
Cornucalanus chelifer
Cornucalanus robustus
Cyclothone sp.
Electrona antarctica
Euaugaptilus cf. *magnus*
Euaugaptilus laticeps
Euchaeta antarctica
Euchaeta biloba
Euchaeta dactylifera
Euchaeta farrani
Euchaeta parvula
Euchaeta rasa
Euchirella rostramagna
Eukrohnia hamata
Euphausia crystallorophias
Euphausia frigida
Euphausia superba
Euphausia triacantha
Farrania frigida
Gaetanus antarcticus
Gaidius intermedius
Gaidius tenuispinus
 Gammaridea
Gymnoscopelus braueri
 Gymnosomata
Haloptilus ocellatus
Heterorhabdus austrinus
Heterorhabdus farrani
Heterostylites major
Hyperliella dilatata
Krefflichthys anderssoni
Lucicutia curta
Lucicutia macrocera
Lucicutia wolfendeni
Melanonus sp.
Metridia curticauda

Polychaeta
 Copepoda: Calanoida
 Copepoda: Calanoida
 Copepoda: Calanoida
 Scyphozoa: Coronatae
 Copepoda: Calanoida
 Osteichthyes: Bathylagidae
 Osteichthyes: Scopelarchidae
 Ctenophora: Beroidae
 Copepoda: Calanoida
 Copepoda: Calanoida
 Ctenophora: Merternsiidae
 Copepoda: Calanoida
 Copepoda: Calanoida
 Copepoda: Calanoida
 Copepoda: Calanoida
 Copepoda: Calanoida
 Copepoda: Calanoida
 Osteichthyes: Gonostomatidae
 Osteichthyes: Myctophidae
 Copepoda: Calanoida
 Copepoda: Calanoida
 Copepoda: Calanoida
 Copepoda: Calanoida
 Copepoda: Calanoida
 Copepoda: Calanoida
 Copepoda: Calanoida
 Copepoda: Calanoida
 Chaetognatha: Eukrohniidae
 Crustacea: Euphausiacea
 Crustacea: Euphausiacea
 Crustacea: Euphausiacea
 Crustacea: Euphausiacea
 Copepoda: Calanoida
 Copepoda: Calanoida
 Copepoda: Calanoida
 Copepoda: Calanoida
 Amphipoda
 Osteichthyes: Myctophidae
 Gastropoda
 Copepoda: Calanoida
 Copepoda: Calanoida
 Copepoda: Calanoida
 Copepoda: Calanoida
 Copepoda: Calanoida
 Amphipoda: Hyperiidae
 Osteichthyes: Myctophidae
 Copepoda: Calanoida
 Copepoda: Calanoida
 Copepoda: Calanoida
 Osteichthyes: Melanonidae
 Copepoda: Calanoida

Metridia gerlachei
Metridia princeps
Notolepis coatsi
Oncaea sp.
Onchocalanus magnus
Pachyptilus eurygnathus
Parathemisto gaudichaudi
Periphylla periphylla
 Phronimoidea
 Platysceloidea
Pleuromamma robusta
Primno macropa
Protomyctophum bolini
Pseudaugaptilus longiremis
Pseudochirella hirsuta
Pseudochirella polyspina
Rhincalanus gigas
Sagitta gazellae
Sagitta marri
Sagitta maxima
Salpa thompsoni
Scaphocalanus affinis
Scaphocalanus magnus
 Siphonophora (bracts)
 Siphonophora (nectophore)
 Thecosomata
Thysanoessa macrura
Tomopteris sp.
 Typhloscolecidae
Valdiviella insignis
Vibilia sp.

Copepoda: Calanoida
 Copepoda: Calanoida
 Osteichthyes: Paralepididae
 Copepoda: Cyclopoida
 Copepoda: Calanoida
 Copepoda: Calanoida
 Amphipoda: Hyperiididae
 Scyphozoa: Coronatae
 Amphipoda: Hyperiididae
 Amphipoda: Hyperiididae
 Copepoda: Calanoida
 Amphipoda: Hyperiididae
 Osteichthyes: Myctophidae
 Copepoda: Calanoida
 Copepoda: Calanoida
 Copepoda: Calanoida
 Copepoda: Calanoida
 Chaetognatha: Sagittidae
 Chaetognatha: Sagittidae
 Chaetognatha: Sagittidae
 Tunicata: Salpida
 Copepoda: Calanoida
 Copepoda: Calanoida
 Scyphozoa
 Scyphozoa
 Gastropoda
 Crustacea: Euphausiacea
 Polychaeta: Tomopteridae
 Polychaeta
 Copepoda: Calanoida
 Amphipoda: Hyperiididae

6. STUDIES UNDERTAKEN BY OTHER SCIENTISTS

Name and affiliation

Miss S.A. Harrington,
New England University

Mr. D.P. O'Brien,
University of Tasmania

Projects

Fecundity and egg hatchability
experiments on euphausiids

Histological study on reproductive
systems in krill

Behavioural study on krill and
other euphausiids in the laboratory and
under the ice

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