

**Weight and length data of zooplankton  
in the Weddell Sea  
in austral spring 1986 (ANT V/3)**

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## **Introduction**

Very little is known about the composition and biomass of zooplankton in the Antarctic pack-ice zone in winter.

During the third leg of the Winter Weddell Sea Project (WWSP '86) with RV "Polarstern", from 28 September to 14 December 1986, zooplankton samples were taken for biomass studies. The following data lists and diagrams show wet weight, dry weight and weight of organic matter (ash-free dry weight) of zooplankton organisms of various taxa and size classes at different stations. Further quantitative investigations of the total zooplankton biomass in the Weddell Sea during late winter will make use of these weight data in addition to the catch data and the number of individuals in each taxa. The smallest organism that was sorted out, measured 0.25 mm, the largest 160 mm. For detailed information about cruise track, station lists and gear see Annex and Schnack-Schiel (1987).

## **Methods**

Most of the zooplankton organisms were taken from Bongo net hauls (mesh size 300  $\mu\text{m}$ ). A Nansen net (mesh size 100  $\mu\text{m}$ ) was used for copepods and larvae smaller than about 1 mm, and adult euphausiids and other large specimens were obtained from a RMT (Rectangular Midwater Trawl) and a Krill net. The locations of the stations are shown in Figures 1 - 5.

The fresh samples were kept cool in ice boxes and sorted fresh as far as possible according to species, developmental stage and sex. Siphonophores, gastropods, polychaets, ostracods, euphausiids (furcillae - adult), decapods, amphipods, chaetognaths, salps and fish larvae were caught by forceps and measured (total length; fish larvae: standard length) on board. Then 1 - 60 similar specimens were placed in a glass vial and frozen at  $-80^{\circ}\text{C}$ . Fresh copepods from the Bongo hauls were identified and sorted according to stages and sex. Here up to 200 specimens were used for one sam-

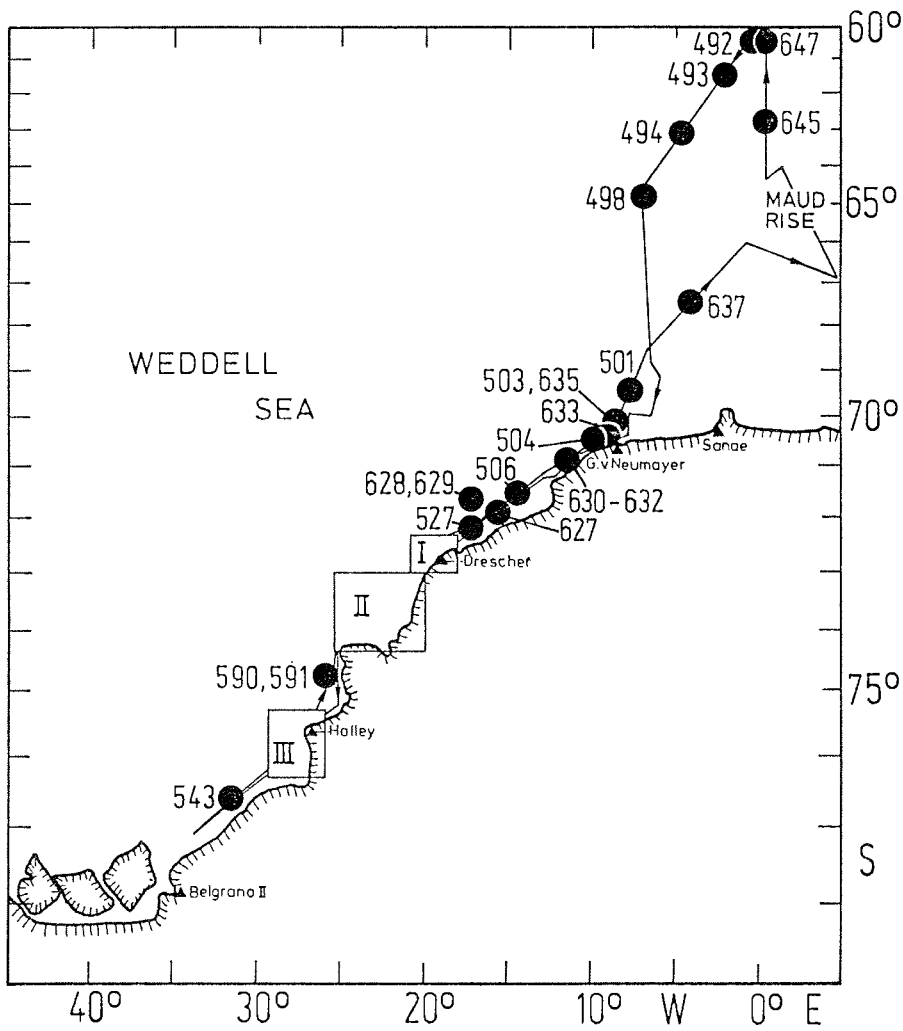


Fig.1. Cruise track of RV "Polarstern" during ANT V/3 with stations outside the main investigation areas.

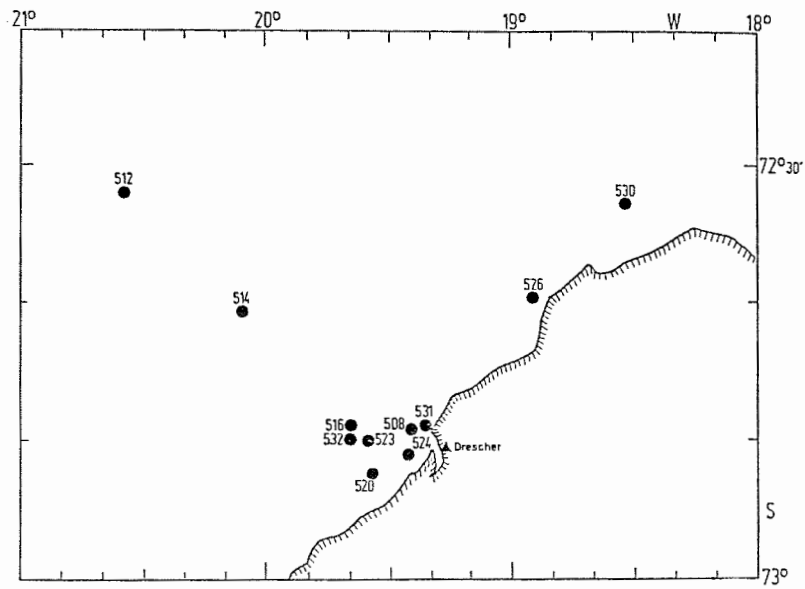


Fig.2. Station map of investigation area I (October 1986)

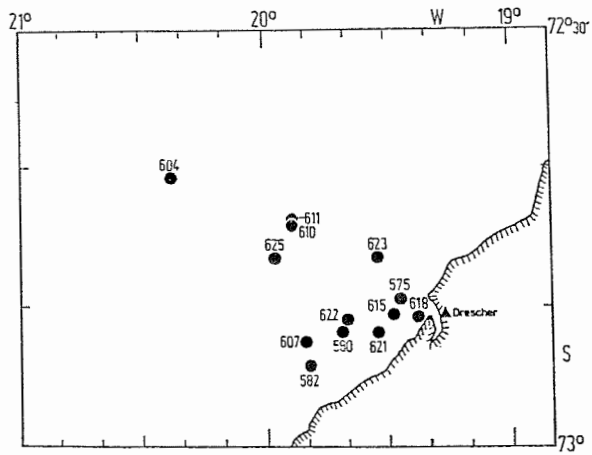


Fig.3. Station map of investigation area I (November 1986)

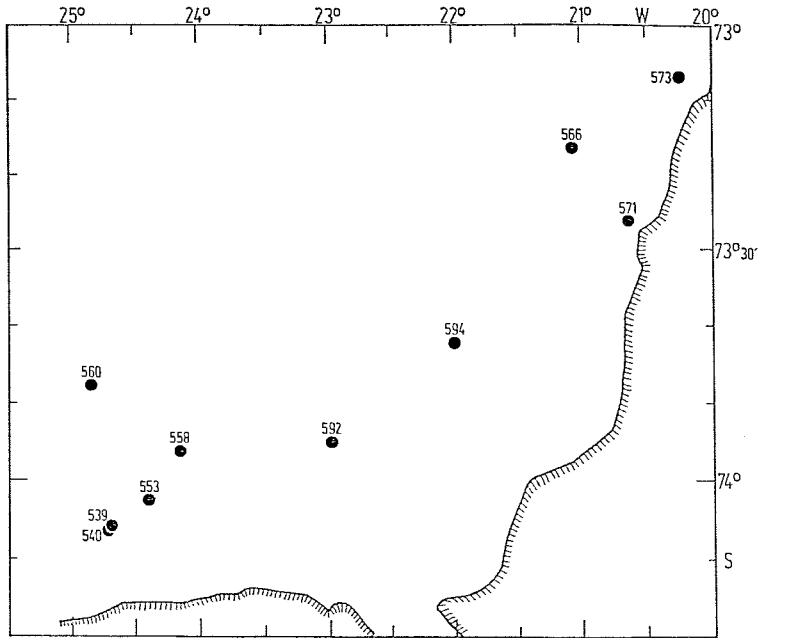


Fig.4. Station map of investigation area II

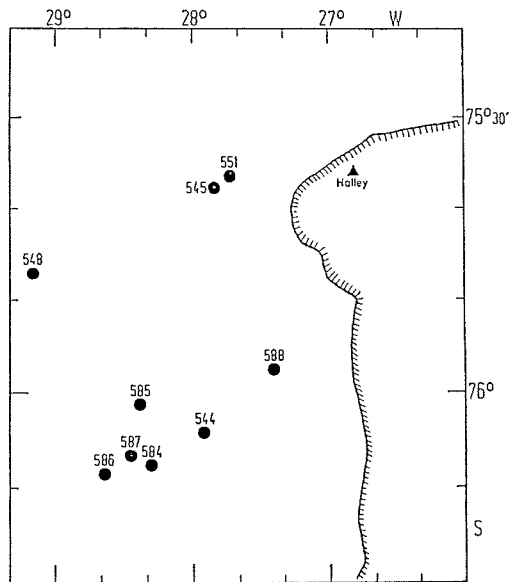


Fig.5. Station map of investigation area III



ple. Formalin-preserved copepods of some representative stations were measured in the laboratory for total length. While most of the stages showed little size variation *Calanus propinquus* copepodite stage V (CV) and females of *Calanoides acutus* showed a broad range of lengths. These stages were therefore subdivided into two size categories, sorted and measured separately once a sufficient number of individuals had been found.

The small cyclopoid copepods, copepod nauplii and the euphausiid brood were sorted with a pipette and washed onto pre-combusted and pre-weighed GF/C-filters (also up to 200 specimens per filter). To correct the weighing results, filters with seawater only were frozen and dealt with in the same manner. Altogether 1192 samples were taken of 54 taxa (Table 1).

Table 1. List of analyzed taxa.

Coelenterata:	<i>Calycopsis borchgrevinki</i> (BROWNE, 1910) <i>Diphyes antarctica</i> MOSER, 1925 <i>Diphyes</i> sp. <i>Pyrostephos vanhoeffeni</i> MOSER, 1925	
Gastropoda:	<i>Clione limacina</i> (PHIPPS, 1774) <i>Clio pyramidata</i> LINNAEUS, 1767 <i>Limacina helicina</i> (PHIPPS, 1774) "Echinospira"-larvae	
Polychaeta:	<i>Pelagobia longicirrata</i> GREEF, 1879 <i>Tomopteris</i> sp. <i>Vanadis antarctica</i> McINTOSH, 1885	
Ostracoda:	<i>Conchoecia</i> sp.	
Copepoda:	<i>Calanus propinquus</i> BRADY, 1883: <i>Calanoides acutus</i> (GIESBRECHT, 1902): <i>Rhincalanus gigas</i> BRADY, 1883: <i>Metridia gerlachei</i> GIESBRECHT, 1902: <i>Metridia curticauda</i> GIESBRECHT, 1889: <i>Heterorhabdus austrinus</i> GIESBRECHT, 1902: <i>Heterorhabdus farrani</i> BRADY, 1918: <i>Euchaeta antarctica</i> GIESBRECHT, 1902: <i>Gaidius tenuispinus</i> (G.O. SARS, 1900): <i>Aetideopsis minor</i> (WOLFENDEN, 1911): <i>Euchirella rostromagna</i> WOLFENDEN, 1911: <i>Haloptilus ocellatus</i> WOLFENDEN, 1905: <i>Haloptilus oxycephalus</i> (GIESBRECHT, 1888):	F, M, C III - V F, M, C III - V F, M, C II - V F, M, C III - V F, M, C V F, M, C V F, M, C IV - V F, C I - V F, M, C III - V F F F, CV F, CV

- Copepoda cont.: *Racovitzanus antarctica* GIESBRECHT, 1902  
*Scolecithricella minor* (BRADY, 1883)  
*Scaphocalanus* sp.  
*Spinocalanus* sp.  
*Ctenocalanus* sp.  
*Microcalanus pygmaeus* (G.O. SARS, 1900)  
*Stephus longipes* GIESBRECHT, 1902  
*Oncaea* spp.  
*Oithona* spp.  
Copepod nauplii
- Euphausiacea: *Euphausia superba* DANA, 1850: F, M, juv., furc.  
*Euphausia crystallorophias* HOLT & TATTERSALL, 1906: F, M, juv., MN, N, eggs  
*Euphausia frigida* HANSEN, 1911: calypt. I + II  
*Thysanoëssa macrura* G.O. SARS, 1883: F, M, juv., furc., calypt. I
- Decapoda: *Acantephyra pelagica* (RISSO, 1816)
- Amphipoda: a) Hyperiidea: *Cylopus lucasii* BATE, 1862  
*Hyperiella dilatata* STEBBING, 1888  
*Hyperiella macronyx* (WALKER, 1906)  
*Hyperoche* sp.  
*Primno macropa* GUERIN-MENEVILLE, 1836  
*Scina* sp.
- b) Gammaridea: *Cyphocaris* sp.  
*Eusirus* sp.  
*Orchomene plebs* (HURLEY, 1965)  
*Orchomene* sp.
- Chaetognatha: *Eukrohnia hamata* (MÖBIUS, 1875)  
*Sagitta gazellae* VON RITTER-ZAHONY, 1909  
*Sagitta marri* DAVID, 1956
- Tunicata: *Salpa* sp.
- Pisces: *Pleuragramma antarcticum* BOULENGER, 1902

In the Alfred Wegener Institute the samples were stored in a -30°C room. For weight measurements the animals were unfrozen and put into pre-combusted and pre-weighed aluminium vials. Wet weight was measured using a Sartorius 1712MP8 balance. Dry weights and ash-free dry weights were determined as in Båmstedt (1974). The samples were dried in an oven at 60°C for 24 hours (adult and juvenile *Euphausia* spp. for 48 hours). Following measurement of the dry weight the samples were incinerated in a muffle furnace at 500°C for 12 hours (adult and juvenile *Euphausia* spp. for

24 hours) and ash weight was subtracted from dry weight to calculate ash-free dry weight. Both dry weight and ash weight were measured on Sartorius supermicro 4504MP8 after cooling the samples in a desiccator. For the species on filters only dry weight and ash-free dry weight was determined.

All results are presented in tables. The length/dry weight, length/organic matter and dry weight/organic matter relationships for *Euphausia superba*, *Euphausia crystallorophias*, *Thysanoessa macrura*, *Calanus propinquus*, *Calanoides acutus*, *Rhincalanus gigas*, *Metridia gerlachei* and *Euchaeta antarctica* are shown in Figures 6 - 29.

## Results

Tab. 2: *Calycopsis borchgrevinki*

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
540	13.00	347.6429	23.7898	11.4769
540	13.00	460.4129	28.3618	14.6315
540	16.00	574.3838	39.9577	19.3833
540	18.00	1361.9066	96.7132	48.2682
540	18.00	1150.4095	65.4862	28.0291
540	18.00	981.7897	56.6583	24.2980
540	18.00	1114.2893	66.3904	34.2346

Tab. 3: *Diphyes antarctica*

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
492	16.00	106.0027	5.0946	1.4560
530	17.00	218.3529	10.0270	2.8313
631	17.00	199.3793	8.6112	2.5452
551	18.00	304.3353	7.1071	2.3585
560	18.00	254.7997	11.5657	3.1674
633	18.00	198.2001	9.2829	2.5334
523	18.50	234.2804	9.3227	3.4954
584	20.00	306.1095	12.1794	3.6350
506	21.00	464.0898	15.1678	4.7469
508	21.00	396.6086	19.0971	5.8935
584	21.50	576.6610	28.7837	10.3591
492	22.00	958.2645	46.3899	16.0227
493	22.00	438.1210	14.6524	4.6506
512	23.00	611.6459	24.7494	7.5765
558	23.00	573.7979	28.9142	9.3447
540	24.00	459.2346	27.2379	11.2321
551	24.50	751.6298	13.2964	5.2111
582	24.50	746.9790	15.8614	6.4730
607	24.50	697.8101	28.9810	10.2074
571	25.00	528.3329	26.9035	10.6323

Tab. 4: Siphonophora indet.

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
493	4.00	4.4592	0.2308	0.0807
526	7.00	21.7139	1.0567	0.3246
532	7.00	17.0460	0.8747	0.3202
516	8.00	35.7779	1.6200	0.4700
530	8.00	29.3524	1.4553	0.4843
539	8.00	39.1050	1.7919	0.5262
548	8.50	29.1684	1.4867	0.5218
545	11.00	64.0078	3.1632	1.0586
512	13.00	75.8414	3.6629	1.1140
607	13.00	93.1294	4.0787	1.1009
514	13.50	82.0723	3.8355	0.9660
548	13.50	109.7057	4.9402	1.3971
503	15.00	299.0616	9.9384	2.6649
526	15.00	122.8982	5.5192	1.4876

Tab. 5: *Pyrostephos vanhoeffeni*

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
631	11.00	115.2490	5.2497	1.6636
607	17.00	154.5547	6.7928	2.0537

Tab. 6: *Clione limacina*

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
512	2.50	1.4997	0.4313	0.3630
516	3.50	0.5637	0.3342	0.2435
514	4.00	2.0301	0.5793	0.4928
629	4.00	0.9317	0.5022	0.4004
621	4.50	7.2083	2.2596	2.0073
631	5.00	4.7088	1.4759	1.2822
512	6.00	4.6230	1.7420	1.5487
544	6.00	4.7934	1.7720	1.5866
501	6.50	10.3786	3.3926	3.0663
501	6.50	6.9218	2.3303	2.0966
585	6.50	13.5128	1.9719	1.5374
544	7.00	8.5415	2.4123	2.1323
545	7.00	3.3234	1.4377	1.2690
585	9.50	33.8309	5.1939	4.2263
575	10.00	28.2938	5.7091	4.9064
582	15.00	108.1996	17.5083	14.6229
592	16.00	162.2382	18.3492	13.3003

Tab. 7: *Clio pyramidata*

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
512	7.50	6.3582	1.3175	0.6449
512	7.50	4.0246	0.7890	0.2385
512	7.50	5.0335	1.0979	0.5590
512	7.50	5.1051	1.2168	0.6136
512	7.50	13.4830	1.7700	0.6875
512	7.50	10.6700	1.2944	0.4091
491	8.50	6.0740	1.0814	0.7709
530	10.00	8.3183	1.7161	0.7982
530	10.00	20.3069	3.4811	2.0172
506	11.00	12.5357	2.3589	1.3366
491	12.00	22.2699	2.8136	1.7531
506	12.00	20.2457	3.7158	2.2848
604	13.00	21.2358	4.0634	2.3401
575	15.00	131.8425	28.5115	19.1382
647	15.00	23.7981	6.1427	4.6738
647	15.00	42.7139	9.5719	7.0454
647	16.00	40.6705	9.6346	7.7580
647	17.00	74.1333	17.3909	13.3390
523	18.00	149.8310	27.2283	17.1417
647	18.00	105.7397	22.7276	17.8038
575	20.00	153.6480	24.2878	17.5322
575	20.00	200.2055	40.3989	31.276

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
575	25.00	159.8740	28.1129	19.5422
575	25.00	255.9529	40.4226	30.8449
575	25.00	204.7678	36.8051	24.9447
582	25.00	290.3934	38.7863	27.4564
582	25.00	243.0289	28.3845	19.6323
582	25.00	233.5964	38.6969	23.4714
582	25.00	185.7422	27.1674	16.2881
575	30.00	300.6515	38.7355	26.6637

Tab. 8: *Limacina helicina*

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
543	0.90	0.4843	0.1506	0.0425
543	0.90	0.5399	0.1581	0.0446
551	0.90	0.4664	0.1738	0.0466
548	1.00	0.3384	0.1210	0.0349
548	1.00	0.4229	0.1332	0.0388
548	1.10	0.5936	0.1767	0.0522
585	1.10	0.6975	0.1953	0.0608
584	1.20	0.8330	0.2331	0.0791
584	1.20	0.9461	0.2363	0.0736
548	1.30	0.8704	0.2394	0.0776
548	1.30	0.9718	0.2600	0.0810
551	1.30	0.8355	0.2436	0.0764
545	1.40	0.7938	0.2208	0.0666
585	1.40	1.1422	0.3125	0.1059
551	1.50	0.9509	0.2718	0.0849

Tab. 9: "Echinospira"-larvae

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
584	5.00	21.9617	1.4246	0.5763
580	5.50	17.1796	1.7546	1.1957
585	6.00	60.1474	3.2570	1.2610
575	6.50	129.8046	5.9126	2.3547
582	7.00	122.9414	6.0328	2.0780
615	7.00	121.9027	6.7258	2.8970
585	8.00	151.5924	7.7760	2.8189
582	9.00	63.0872	3.3245	1.2302

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
585	10.00	323.6209	12.9880	4.9549
575	13.00	388.5654	27.9674	14.9676
584	14.00	796.2242	37.1937	16.5604

Tab. 10: *Pelagobia longicirrata*

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
647	4.00	0.4508	0.1726	0.1489
625	5.00	0.9926	0.2891	0.2429
629	7.00	2.6712	0.4473	0.3564
604	8.00	1.7113	0.3636	0.2973

Tab. 11: *Tomopteris* sp.

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
539	4.00	0.1182	0.0874	0.0434
526	7.00	0.2705	0.1938	0.1415
530	7.00	0.4316	0.1928	0.1296
501	7.50	1.6079	0.2337	0.1385
645	8.50	3.2158	0.4845	0.3665
492	9.00	7.9538	1.7880	0.6883
493	9.50	5.7561	0.4785	0.2836
512	10.00	9.1787	1.5031	1.1270
647	10.00	0.6710	0.4624	0.3940
630	11.00	2.1191	0.4466	0.2964
498	13.00	3.5714	0.7856	0.5752
506	16.00	7.0341	0.9248	0.5851

Tab. 12: *Vanadis antarctica*

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
645	8.00	0.5746	0.1661	0.1428
498	9.00	0.6591	0.1433	0.1147
493	12.00	1.6559	0.2949	0.2472
625	14.00	2.1024	0.5841	0.4675



Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
539	15.00	3.1899	0.6348	0.5020
501	17.00	2.7766	0.6256	0.5183
607	17.00	2.8646	0.7713	0.6377
558	20.00	4.8443	1.0619	0.8757
560	20.00	2.8138	0.6201	0.5039
539	25.00	3.2317	0.9350	0.7937
575	160.00	962.7194	102.8069	80.5003
575	200.00	1427.3754	124.3624	91.8689

Tab. 13: *Conchoecia* sp.

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
514	0.70	0.0209	0.0176	0.0096
539	0.80	-	0.0190	0.0118
514	0.90	0.0938	0.0376	0.0230
539	1.00	0.0914	0.0360	0.0222
514	1.30	0.4226	0.0986	0.0637
645	1.40	0.1853	0.0991	0.0692
526	1.50	0.5120	0.1021	0.0627
539	1.50	0.5235	0.1022	0.0656
548	1.70	2.5254	0.5156	0.3869
526	1.80	0.7673	0.2227	0.1461
514	1.90	1.1445	0.2826	0.1965
647	2.00	1.0803	0.2467	0.1704
645	2.10	1.3143	0.2629	0.1832
539	2.50	2.4569	0.4658	0.3505
543	2.50	2.6622	0.4572	0.3204
503	2.80	2.8276	0.5972	0.4295
514	3.20	2.7666	0.6438	0.4966
647	3.30	1.1558	0.4053	0.2834

Tab. 14: *Calanus propinquus*, female

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
498	5.15	5.7080	1.1950	1.0475
501	5.15	8.1346	1.4664	1.2687
512	5.15	7.6494	1.3538	1.1735
514	5.15	7.1833	1.1707	0.9965
516	5.15	6.6899	0.7805	0.5926
530	5.15	6.4100	1.0825	0.9110
531	5.15	5.5562	0.8650	0.6988
532	5.15	6.7872	1.2248	1.0545
548	5.15	6.6740	1.0182	0.8087
558	5.15	7.4333	1.2733	1.0912
560	5.15	6.3555	0.6887	0.5027
592	5.15	6.2002	1.1820	1.0181
604	5.15	6.8677	1.1099	0.9484
607	5.15	7.7273	1.2483	1.0382
631	5.15	6.4684	0.8940	0.7165
633	5.15	6.4543	0.9968	0.8218
637	5.15	5.5348	0.8551	0.6833
645	5.15	5.8785	0.8487	0.6866

Tab. 15: *Calanus propinquus*, male

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
498	4.95	1.4703	0.6858	0.6117
501	4.95	7.3842	0.9482	0.7213
506	4.95	5.1425	0.8653	0.7218
514	4.95	4.9433	0.8622	0.7167
514	4.95	5.7297	0.8713	0.7042
532	4.95	4.8857	0.8828	0.7486
558	4.95	3.6093	0.9120	0.7691
558	4.95	4.3094	0.9877	0.8390
560	4.95	4.6552	0.9905	0.8039
604	4.95	5.5105	0.8562	0.6895
607	4.95	4.5556	0.8762	0.7357
633	4.95	4.8490	0.8189	0.6542
637	4.95	3.0677	1.0014	0.8681
645	4.95	3.3228	0.8025	0.6833

Tab. 16: *Calanus propinquus*, C V

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
514	4.00	2.5345	0.3730	0.2982
516	4.00	3.0676	0.3597	0.2748
530	4.00	1.7700	0.3090	0.2425
531	4.00	2.4280	0.3413	0.2573
532	4.00	3.1737	0.3859	0.2967
544	4.00	3.1317	0.4313	0.3346
592	4.00	3.1932	0.3406	0.2448
607	4.00	2.1286	0.2665	0.1906
625	4.00	1.9916	0.4065	0.3415
645	4.00	3.0922	0.3945	0.3008
543	4.20	3.7056	0.8811	0.7848
548	4.20	2.9638	0.4702	0.3800
558	4.20	3.7680	0.8630	0.7614
560	4.20	2.9825	0.4635	0.3794
631	4.20	3.6965	0.6086	0.5125
633	4.20	3.5592	0.6995	0.6007
498	4.45	4.6730	1.1703	1.0557
501	4.45	4.8103	1.0007	0.8913
514	4.45	4.4592	1.0926	0.9908
516	4.45	4.8815	1.0988	0.9929
530	4.45	4.2962	1.0428	0.9458
531	4.45	4.7060	0.9500	0.8254
532	4.45	4.2077	1.0827	0.9659
592	4.45	5.5790	0.8904	0.7620
607	4.45	4.5947	0.9763	0.8701
621	4.45	4.4059	0.8985	0.7971
622	4.45	4.9206	1.0591	0.9456

Tab. 17: *Calanus propinquus*, C IV

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
512	2.85	1.2765	0.1725	0.1519
516	2.85	0.9326	0.1510	0.1126
530	2.85	0.9986	0.1330	0.1007
532	2.85	1.1032	0.1617	0.1267
543	2.85	1.2448	0.2182	0.1789
544	2.85	1.2253	0.1559	0.1150
548	2.85	1.0250	0.1712	0.1319
548	2.85	0.7807	0.1321	0.1000
558	2.85	1.0510	0.1470	0.1142
560	2.85	0.9855	0.1525	0.1160
592	2.85	1.0860	0.1447	0.1080
604	2.85	0.7700	0.1320	0.1040

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
607	2.85	0.9240	0.1204	0.0864
625	2.85	0.9235	0.1322	0.1054
633	2.85	0.9086	0.1198	0.0887
645	2.85	0.6342	0.0993	0.0782

Tab. 18: *Calanus propinquus*, C III

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
498	1.95	0.2932	0.0425	0.0296
512	1.95	0.3763	0.0461	0.0321
516	1.95	0.3540	0.0475	0.0313
530	1.95	0.3475	0.0421	0.0304
532	1.95	0.3102	0.0460	0.0342
543	1.95	0.3634	0.0623	0.0466
548	1.95	0.2976	0.0523	0.0367
558	1.95	0.2533	0.0416	0.0280
592	1.95	0.2902	0.0428	0.0320
604	1.95	0.2578	0.0462	0.0348
607	1.95	0.2183	0.0370	0.0270
625	1.95	0.2276	0.0486	0.0373
633	1.95	0.1720	0.0444	0.0309
645	1.95	0.1281	0.0396	0.0288

Tab. 19: *Calanoides acutus*, female

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
625	4.50	3.4743	0.2893	0.2112
498	4.85	4.9902	0.6166	0.5210
506	4.85	4.9148	0.5692	0.4637
516	4.85	4.3093	0.6297	0.5086
530	4.85	3.3040	0.4575	0.3845
543	4.85	2.9850	0.2917	0.2182
548	4.85	2.7417	0.2657	0.1907
560	4.85	5.1025	0.7374	0.6285
604	4.85	3.8642	0.5290	0.4476
607	4.85	5.0999	0.6821	0.5766
631	4.85	3.0780	0.3360	0.2642
633	4.85	3.8105	0.3677	0.2719
645	4.85	3.4414	0.3174	0.2339
625	5.00	4.8842	0.7485	0.6415

Tab. 20: *Calanoides acutus*, male

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
498	3.95	3.4442	0.5341	0.4518
514	3.95	3.8035	0.6233	0.5157
543	3.95	2.1528	0.3649	0.2926
558	3.95	2.5757	0.4141	0.3240
604	3.95	2.9925	0.3807	0.2926
607	3.95	2.8797	0.6726	0.5473
625	3.95	2.9511	0.4150	0.3148

Tab. 21: *Calanoides acutus*, C V

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
498	4.10	2.8858	0.4100	0.3450
501	4.10	2.7282	0.2666	0.2050
512	4.10	2.7599	0.3509	0.2908
514	4.10	2.5085	0.3051	0.2447
530	4.10	-	0.1425	0.0675
548	4.10	1.4844	0.1351	0.0846
560	4.10	1.8856	0.1601	0.1064
604	4.10	1.8556	0.1857	0.1341
607	4.10	1.7099	0.1496	0.1006
637	4.10	0.7561	0.0753	0.0494
645	4.10	1.2822	0.1027	0.0668

Tab. 22: *Calanoides acutus*, C IV

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
498	3.30	1.1547	0.0946	0.0664
530	3.30	1.0855	0.0988	0.0688
543	3.30	1.4150	0.1481	0.1210
545	3.30	1.1561	0.1039	0.0743
548	3.30	1.3287	0.1203	0.0921
558	3.30	1.0254	0.1014	0.0689
560	3.30	1.3230	0.1044	0.0738
604	3.30	1.4189	0.1248	0.0901
607	3.30	1.4005	0.1178	0.0886
625	3.30	0.8479	0.0779	0.0513

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
631	3.30	0.7663	0.0677	0.0448
637	3.30	0.8335	0.0877	0.0640
645	3.30	0.8800	0.0799	0.0561

Tab. 23: *Calanoides acutus*, C III

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
530	2.35	0.1150	0.0400	0.0200
543	2.35	-	0.0569	0.0424
558	2.35	0.3224	0.0338	0.0245
592	2.35	0.1262	0.0532	0.0307
604	2.35	0.1411	0.0433	0.0331
607	2.35	0.1035	0.0635	0.0394
625	2.35	0.2642	0.0439	0.0240
633	2.35	-	0.0599	0.0393
637	2.35	0.1289	0.0544	0.0311
645	2.35	0.1842	0.0263	0.0154

Tab. 24: *Rhincalanus gigas*, female

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
498	7.80	15.1026	1.4864	1.2306
501	7.80	15.1064	1.4764	1.1618
506	7.80	13.0256	1.2519	0.9684
512	7.80	13.3085	1.2000	0.9472
530	7.80	14.0500	1.2800	0.9700
531	7.80	11.4000	1.2000	1.0200
607	7.80	8.4400	0.7466	0.5166
622	7.80	11.4400	1.5400	1.3800
631	7.80	13.2837	1.1184	0.8721
637	7.80	10.5637	1.2573	0.9938
645	7.80	12.6632	1.3971	1.1117

Tab. 25: *Rhincalanus gigas*, male

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
516	6.60	6.6300	0.8500	0.5600
516	6.60	5.4100	1.2600	1.0200
531	6.60	8.3200	1.6400	1.5200
604	6.60	9.1325	0.9225	0.6825
607	6.60	7.1950	0.8900	0.7050
631	6.60	9.4980	1.0681	0.8562
645	6.60	8.2569	1.0315	0.7978

Tab. 26: *Rhincalanus gigas*, C V

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
498	6.50	7.2651	0.7204	0.5686
506	6.50	7.9562	0.7293	0.5587
512	6.50	8.1921	0.7557	0.6000
516	6.50	8.9825	0.8175	0.5750
530	6.50	7.6450	0.7125	0.5525
531	6.50	6.6333	0.6366	0.4966
592	6.50	6.7425	0.6625	0.5095
604	6.50	3.6900	0.4600	0.3700
607	6.50	7.6216	0.6141	0.4400
631	6.50	6.6228	0.5406	0.3824
637	6.50	7.1517	0.7427	0.5794
645	6.50	8.3444	0.7921	0.6052
645	6.50	6.3035	0.5486	0.3936

Tab. 27: *Rhincalanus gigas*, C IV

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
498	4.95	3.2785	0.2994	0.2228
498	4.95	3.4354	0.2898	0.2119
501	4.95	4.5481	0.3404	0.2322
506	4.95	3.4658	0.2655	0.1862
512	4.95	4.0594	0.3500	0.2637
516	4.95	3.9268	0.3150	0.1838
530	4.95	2.1211	0.1633	0.0967
592	4.95	2.7850	0.2666	0.1700
604	4.95	2.3450	0.2400	0.1500
604	4.95	2.6900	0.2380	0.1720

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
607	4.95	3.6624	0.2493	0.1628
631	4.95	2.6027	0.2110	0.1478
645	4.95	3.1672	0.2784	0.2095

Tab. 28: *Rhincalanus gigas*, C III

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
498	3.65	0.2220	0.0887	0.0077
512	3.65	1.0383	0.1183	0.0767
530	3.65	0.6150	0.0700	0.0500
560	3.65	0.8373	0.0937	0.0556
592	3.65	0.2433	0.0900	0.0600
604	3.65	0.9650	0.0950	0.0570
604	3.65	1.0240	0.1120	0.1040
607	3.65	0.7766	0.0966	0.0833
607	3.65	1.0280	0.1180	0.0680
625	3.65	1.4852	0.1058	0.0611
631	3.65	0.3885	0.1063	0.0646
637	3.65	-	0.0828	0.0551
645	3.65	0.9738	0.0992	0.0628

Tab. 29: *Rhincalanus gigas*, C II

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
498	2.70	0.0834	0.0369	-
604	2.70	0.1000	0.0600	0.0400
637	2.70	0.0577	0.0445	0.0293
645	2.70	0.2986	0.0349	0.0188

Tab. 30: *Metridia gerlachei*, female

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
501	3.70	1.9873	0.2488	0.1904
506	3.70	2.2622	0.2615	0.1955
508	3.70	2.2635	0.2522	0.1901



Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
512	3.70	2.0517	0.2782	0.2193
512	3.70	2.2566	0.2871	0.2245
516	3.70	2.0898	0.2614	0.2026
516	3.70	2.0647	0.2531	0.1955
531	3.70	2.0616	0.2330	0.1692
543	3.70	2.0337	0.2533	0.1931
544	3.70	1.7965	0.2344	0.1748
545	3.70	2.0910	0.2371	0.1761
548	3.70	1.9630	0.2202	0.1612
558	3.70	2.0874	0.2418	0.1796
560	3.70	1.9357	0.2358	0.1804
592	3.70	2.0338	0.2719	0.2055
604	3.70	1.8495	0.2415	0.1836
607	3.70	1.8163	0.2102	0.1513
625	3.70	1.8147	0.2398	0.1823
631	3.70	2.3420	0.2692	0.1730
631	3.70	1.7400	0.2310	0.1692
631	3.70	2.2856	0.2838	0.1949
633	3.70	1.8716	0.2306	0.1721
633	3.70	1.2933	0.1686	0.1131
633	3.70	1.5495	0.1942	0.1322
633	3.70	1.5215	0.1923	0.1308

Tab. 31: *Metridia gerlachei*, male

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
543	2.40	0.5752	0.0741	0.0560
544	2.40	0.4035	0.0632	0.0477
592	2.40	0.3299	0.0568	0.0409

Tab. 32: *Metridia gerlachei*, C.V

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
498	2.40	0.2411	0.0647	0.0487
501	2.40	0.7051	0.0813	0.0601
543	2.40	0.6272	0.0782	0.0580
544	2.40	0.3727	0.0448	0.0312
548	2.40	0.3995	0.0608	0.0376
558	2.40	0.4686	0.0556	0.0370
592	2.40	0.4850	0.0693	0.0514

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
592	2.40	0.3529	0.0574	0.0432
604	2.40	0.1581	0.0315	0.0154
607	2.40	0.2848	0.0476	0.0327
625	2.40	0.2798	0.0394	0.0220
631	2.40	0.1463	0.0357	0.0221
631	2.40	0.1396	0.0359	0.0235
631	2.40	0.1441	0.0329	0.0190
633	2.40	0.1576	0.0312	0.0194
633	2.40	0.1529	0.0295	0.0186
633	2.40	0.1590	0.0294	0.0191
645	2.40	0.3078	0.0418	0.0267
645	2.40	0.2485	0.0357	0.0234
645	2.40	0.3048	0.0518	0.0355

Tab. 33: *Metridia gerlachei*, C IV

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
543	1.55	0.1477	0.0253	0.0181
544	1.55	0.0514	0.0245	0.0170
548	1.55	0.1312	0.0267	0.0162
558	1.55	0.1064	0.0184	0.0129
592	1.55	0.0989	0.0251	0.0184
592	1.55	0.0755	0.0207	0.0147
604	1.55	0.0802	0.0156	0.0106
607	1.55	0.0771	0.0161	0.0069
625	1.55	0.0891	0.0145	0.0104
633	1.55	0.1067	0.0197	0.0129

Tab. 34: *Metridia gerlachei*, C III

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
543	1.15	0.0440	0.0096	0.0065
544	1.15	0.0457	0.0111	0.0077
604	1.15	0.0234	0.0104	0.0062
625	1.15	0.0196	0.0097	0.0062
633	1.15	0.0124	0.0118	0.0076

Tab. 35: *Metridia curticauda*, female

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
498	2.70	1.5917	0.1750	0.1275

Tab. 36: *Metridia curticauda*, male

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
498	2.00	0.5135	0.0728	0.0539

Tab. 37: *Metridia curticauda*, CV

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
498	2.10	0.4754	0.1275	0.1064

Tab. 38: *Heterorhabdus austrinus*, female

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
492	3.30	0.4488	0.1889	0.0773
493	3.30	-	0.1674	0.0808
498	3.30	1.0586	0.1604	0.1050
498	3.30	1.1056	0.2086	0.1384
560	3.30	-	0.2136	0.1497
604	3.30	0.9067	0.2129	0.1527
645	3.30	0.3604	0.2384	0.1652
647	3.30	0.4312	0.2813	0.2119

Tab. 39: *Heterorhabdus austrinus*, male

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
498	3.10	-	0.1910	0.0546
498	3.10	0.9089	0.1561	0.1123
498	3.10	0.9423	0.1746	0.1150
526	3.10	0.2565	0.1530	0.1035
604	3.10	0.3292	0.1534	0.1060
645	3.10	-	0.2911	0.1696

Tab. 40: *Heterorhabdus austrinus*, C V

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
604	2.30	0.2010	0.0812	0.0622

Tab. 41: *Heterorhabdus farrani*, female

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
498	3.70	3.6970	0.2885	0.1853
604	3.70	1.7942	0.2732	0.1717
637	3.70	2.5663	0.2681	0.1552
645	3.70	2.7983	0.2584	0.1687
647	3.70	2.5487	0.2443	0.1676

Tab. 42: *Heterorhabdus farrani*, male

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
498	3.70	3.2937	0.2568	0.1597
498	3.70	3.3874	0.2699	0.1773
604	3.70	1.8734	0.2405	0.1591
637	3.70	0.9330	0.2141	0.1329
645	3.70	3.0231	0.2537	0.1650
647	3.70	2.4009	0.2167	0.1543

Tab. 43: *Heterorhabdus farrani*, C V

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
498	2.65	1.2981	0.1217	0.0761
498	2.65	1.2337	0.1168	0.0817
604	2.65	0.5641	0.1376	0.0983
637	2.65	0.7092	0.0998	0.0712
645	2.65	0.5452	0.0770	0.0549
647	2.65	0.7574	0.1090	0.0802

Tab. 44: *Heterorhabdus farrani*, C IV

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
498	1.70	0.1806	0.0274	0.0166
604	1.70	0.1900	0.0372	0.0268
637	1.70	-	0.0360	0.0250
645	1.70	0.0955	0.0395	0.0269

Tab. 45: *Euchaeta antarctica*, female

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
591	9.20	21.0497	5.2533	4.7224
627	9.20	23.4454	3.4223	2.8526
627	9.20	23.3266	5.1489	4.5702

Tab. 46: *Euchaeta antarctica*, C V

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
512	6.00	5.8761	1.0883	0.8738
516	6.00	6.9346	1.1962	1.0082
531	6.00	9.4356	1.8796	1.5602
532	6.00	5.4805	1.7217	1.5576
543	6.00	6.6344	1.7364	1.5110
544	6.00	5.9329	2.0018	1.7605
558	6.00	4.7294	1.3570	1.1985
558	6.00	8.3356	1.2329	1.0029

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
560	6.00	7.1568	1.1112	0.9056
592	6.00	7.6370	1.2853	1.0689
604	6.00	9.4680	2.0281	1.7554
607	6.00	7.2709	1.2626	1.0586
633	6.00	5.7896	0.9370	0.7107
645	6.00	5.9278	1.7319	1.4937

Tab. 47: *Euchaeta antarctica*, C IV

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
516	4.00	1.5723	0.2823	0.2145
531	4.00	1.8100	0.5294	0.4355
543	4.00	1.2320	0.4833	0.3377
544	4.00	1.8321	0.3781	0.3133
558	4.00	1.7447	0.4223	0.3400
592	4.00	0.5207	0.2348	0.1068
607	4.00	0.8909	0.4464	0.3709
607	4.00	0.5233	0.3886	0.3521
633	4.00	1.0568	0.3317	0.2807

Tab. 48: *Euchaeta antarctica*, C III

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
516	2.55	0.0750	0.0501	0.0396
530	2.55	0.1316	0.0708	0.0348
544	2.55	-	0.1210	0.0805
592	2.55	0.1906	0.0550	0.0357
604	2.55	0.3599	0.0625	0.0426
607	2.55	0.1587	0.0606	0.0398
625	2.55	0.3686	0.0645	0.0450
633	2.55	0.2848	0.0455	0.0296
645	2.55	0.1546	0.1062	0.0742
645	2.55	0.3978	0.0783	0.0557

Tab. 49: *Euchaeta antarctica*, C II

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
530	1.70	0.0958	0.0274	0.0179
532	1.70	-	0.0319	0.0161
558	1.70	0.1254	0.0210	0.0145
560	1.70	0.0989	0.0329	0.0161
592	1.70	0.0975	0.0232	0.0142
604	1.70	0.1023	0.0259	0.0186
607	1.70	0.0682	0.0165	0.0112
625	1.70	0.1107	0.0243	0.0180
633	1.70	0.0824	0.0291	0.0206
633	1.70	0.0924	0.0264	0.0146
633	1.70	-	0.0216	0.0137

Tab. 50: *Euchaeta antarctica*, C I

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
526	1.10	0.0193	0.0158	0.0109
530	1.10	0.0569	0.0140	0.0107
532	1.10	0.0450	0.0131	0.0114
558	1.10	0.0496	0.0128	0.0100
560	1.10	0.0467	0.0158	0.0116
604	1.10	0.0345	0.0125	0.0099
607	1.10	-	0.0128	0.0058
625	1.10	0.0211	0.0132	0.0092
633	1.10	-	0.0151	0.0100

Tab. 51: *Gaidius tenuispinus*, female

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
498	3.35	2.2549	0.3976	0.3174
591	3.35	1.6350	0.4434	0.3458
604	3.35	1.9191	0.4076	0.3242
647	3.35	1.6223	0.2630	0.1731
650	3.35	1.4815	0.3926	0.2933

Tab. 52: *Gaidius tenuispinus*, male

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
498	3.10	1.5331	0.3358	0.2892
498	3.10	1.3518	0.3183	0.2670

Tab. 53: *Gaidius tenuispinus*, C V

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
498	2.70	1.4627	0.2255	0.1785
548	2.70	1.4403	0.3007	0.2536
591	2.70	0.8600	0.2606	0.2166
604	2.70	1.5846	0.2517	0.2012
647	2.70	0.4120	0.1958	0.1330

Tab. 54: *Gaidius tenuispinus*, C IV

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
645	2.10	0.2259	0.0626	0.0373

Tab. 55: *Gaidius tenuispinus*, C III

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
645	1.50	0.1649	0.0335	0.0241



Tab. 56: *Aetideopsis minor*, female

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
498	3.05	1.6494	0.3297	0.2713
498	3.05	1.5235	0.3502	0.2873
512	3.05	1.1545	0.2703	0.2136
514	3.05	1.1485	0.2832	0.2280

Tab. 57: *Euchirella rostromagna*, female

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
494	5.70	12.2355	2.2803	1.9157
494	5.70	12.7628	2.1152	1.7492
501	5.70	11.7398	2.0156	1.5713

Tab. 58: *Haloptilus ocellatus*, female

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
491	7.70	4.3681	0.4745	0.2296
498	7.70	11.4914	0.7344	0.2648

Tab. 59: *Haloptilus ocellatus*, C V

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
604	4.60	1.0075	0.1319	0.0705
629	4.60	0.5436	0.1216	0.0724
637	4.60	0.4053	0.0844	0.0355

Tab. 60: *Haloptilus oxycephalus*, female

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
498	4.10	0.6281	0.1677	0.0966
512	4.10	1.0607	0.0949	0.0474
604	4.10	0.4670	0.0998	0.0517
607	4.10	0.3058	0.0780	0.0418
629	4.10	0.1961	0.1096	0.0585
637	4.10	0.1061	0.0883	0.0421

Tab. 61: *Haloptilus oxycephalus*, C V

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
604	3.00	0.0755	0.0245	0.0139
607	3.00	0.0462	0.0288	0.0162

Tab. 62: *Racovitzanus antarcticus*, female + C V

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
645	1.60	0.1061	0.0338	0.0250
499	1.90	0.3335	0.0500	0.0363
512	1.90	0.3323	0.0499	0.0370
548	1.90	0.2425	0.0587	0.0457
558	1.90	0.3044	0.0582	0.0433
560	1.90	-	0.0526	0.0420
604	1.90	0.1445	0.0577	0.0465
629	1.90	0.2804	0.0583	0.0458
493	2.20	0.4429	0.0678	0.0513
498	2.20	0.2740	0.0677	0.0513
516	2.20	0.2506	0.0677	0.0466
526	2.20	0.1514	0.0667	0.0499
625	2.20	0.2723	0.0697	0.0570
633	2.20	0.1476	0.0733	0.0583
637	2.20	0.3863	0.0704	0.0524
645	2.20	0.4739	0.0725	0.0569

Tab. 63: *Scolecithricella minor*, adult + C V

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
512	1.30	0.0778	0.0234	0.0181
516	1.30	0.0722	0.0305	0.0208
526	1.30	0.0656	0.0198	0.0155
530	1.30	0.0885	0.0230	0.0177
539	1.30	0.0584	0.0242	0.0182
558	1.30	0.0970	0.0229	0.0187
560	1.30	0.0246	0.0195	0.0150
587	1.30	0.0412	0.0232	0.0188
604	1.30	0.0625	0.0262	0.0209
625	1.30	0.0955	0.0263	0.0224
629	1.30	0.0763	0.0261	0.0220
633	1.30	0.0416	0.0322	0.0256
645	1.30	0.0299	0.0222	0.0167
645	1.30	0.0285	0.0204	0.0157

Tab. 64: *Scaphocalanus* sp., female + C V

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
512	1.70	0.1377	0.0379	0.0316
560	1.70	0.0706	0.0387	0.0304
604	1.70	0.0750	0.0397	0.0345
645	1.70	0.0935	0.0338	0.0277
645	1.70	0.1072	0.0340	0.0282
645	1.70	0.0612	0.0278	0.0227

Tab. 65: *Spinocalanus* sp., female + C V

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
604	1.30	0.0125	0.0100	0.0071
625	1.30	0.0185	0.0157	0.0114

Tab. 66: Total length, dry weight and ash-free dry weight (median values) of the copepods weighed on filters.

Species/stage	Length (mm)	Dry weight (mg)	Ash-free dry weight (mg)	No. of samples
<i>Ctenocalanus</i> sp., ad.+ CV	1.10	0.0149	0.0067	7
<i>Microcalanus pygmaeus</i> , ad.	0.75	0.0213	0.0062	1
" " , CV	0.60	0.0089	0.0033	2
<i>Stephus longipes</i> , ad.+ CV	0.85	0.0367	0.0064	5
<i>Oncaea</i> spp., ad. + copepodites	0.35 - 1.15	0.0152	0.0037	30
<i>Oithona</i> spp., ad. + copepodites	0.75	0.0094	0.0010	15
Copepod nauplii	0.25	0.0198	0.0021	20

Tab. 67: *Euphausia superba*, female

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
492	32.00	195.4798	31.0953	24.5607
492	35.00	254.8254	49.0945	40.3606
582	35.00	239.4528	41.2538	33.6511
615	35.00	273.4075	60.2880	52.4195
492	36.00	253.4890	53.0198	44.8526
584	38.00	308.6922	61.4076	51.4117
584	39.00	419.0533	84.9444	71.5047
551	40.00	401.9553	76.3197	64.1510
584	40.00	375.5182	76.9768	65.2105
584	41.00	430.5167	87.6337	73.8056
588	41.00	484.0077	94.0822	78.7333
585	42.00	488.5980	84.8233	71.1859
588	42.00	486.9503	82.1908	66.1747
584	43.00	541.4769	101.5575	84.4638
584	43.00	551.5231	115.2409	98.3544
588	43.00	601.8215	125.4491	107.3235
615	43.00	462.7729	92.1820	78.2509
588	44.00	637.1889	121.4716	101.3588
615	44.00	511.2390	93.8206	77.6480
584	46.00	543.1612	107.1766	93.4428
586	47.00	679.4034	127.9722	106.4805
586	48.00	678.6717	131.1308	110.0494
586	48.00	737.7557	127.7278	103.7314
586	50.00	773.9763	153.0457	128.5618

Tab. 68: *Euphausia superba*, male

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
551	30.00	156.2772	31.0981	26.1428
492	33.00	194.3596	42.6302	36.1775
584	36.00	312.6968	55.5839	47.5063
492	39.00	404.8757	86.9350	73.6310
551	40.00	448.1120	94.5095	84.9008
584	40.00	387.1671	74.6395	61.5471
615	40.00	482.1896	87.8451	71.2866
551	41.00	477.9944	87.5850	76.2147
584	41.00	452.7071	97.7659	83.5622
551	42.00	410.1386	81.2283	71.4278
588	43.00	600.2932	122.2411	103.3477
551	44.00	586.5975	117.9805	104.1641
575	44.00	538.4818	90.2869	72.3167
586	45.00	637.8132	114.7638	91.7451
585	46.00	695.8702	143.3235	120.3019
585	48.00	686.2582	134.6736	112.0026

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
586	48.00	705.8962	149.9991	127.3311
586	48.00	769.0347	152.2520	124.9523
586	51.00	935.8954	200.0566	169.0527
585	52.00	962.4949	197.0738	165.1274

Tab. 69: *Euphausia superba*, juv.

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
490	8.00	4.1946	0.6466	0.4644
490	8.00	2.8321	0.5099	0.3743
489	9.00	2.5681	0.7963	0.5938
489	11.50	9.4278	1.4183	1.0589
489	12.50	22.1656	2.2361	1.4073
575	25.00	91.7352	15.6881	13.0352

Tab. 70: *Euphausia crystallorophias*, female

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
575	23.00	59.7882	12.9077	11.0433
575	25.00	71.0128	15.3860	13.3935
575	25.00	81.0877	16.3878	14.0073
551	26.00	91.9858	19.5456	17.2123
551	28.00	146.6182	30.4018	26.2949
551	28.00	127.1585	29.4570	25.8004
584	28.00	138.9012	31.5743	27.4351
551	29.00	162.7285	31.7303	27.3416
575	29.00	136.6812	27.0474	23.2964
584	29.00	163.3348	38.2677	33.4593
585	29.00	153.5263	33.7856	29.4612
571	30.00	141.7333	30.7427	26.8857
611	30.00	172.9932	29.8588	24.2361
571	31.00	189.4622	39.2333	33.9444
571	31.00	171.7277	39.1531	35.0356
575	31.00	192.7773	42.1423	36.5686
575	31.00	185.1454	37.4163	32.2132
582	31.00	194.9822	41.9079	36.7371
585	31.00	177.1600	41.8091	36.9915
571	32.00	221.1212	52.7897	47.3470
571	32.00	205.8998	44.4246	38.6915
571	32.00	217.7756	49.3306	43.8860

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
575	32.00	197.2569	43.4437	38.2068
584	32.00	179.6384	36.1848	30.8302
611	32.00	235.7696	45.9508	39.0099
571	33.00	249.1749	53.5438	47.0516
611	33.00	216.6298	39.8378	33.3438
631	33.00	241.9729	42.0369	35.0387
571	34.00	220.1617	45.0683	38.4916
571	34.00	240.2801	54.8541	48.6070
571	34.00	291.9431	70.4629	63.3449
571	34.00	257.9806	59.0447	51.9194
582	34.00	255.8724	54.1372	47.0429
582	34.00	271.1488	58.7478	51.0403
584	34.00	238.8068	54.8730	47.6953
585	34.00	279.2166	65.8755	58.3026
615	34.00	239.3425	49.2631	42.5253
551	35.00	292.4767	71.7620	63.6585
571	35.00	315.0878	70.1971	62.1659
585	35.00	317.7816	76.1952	67.6551
584	36.00	327.9060	74.0103	64.4500
571	37.00	329.7678	62.8935	53.5180
585	37.00	390.8168	85.9542	74.8979
585	38.00	399.2552	95.8752	84.5964
584	39.00	438.2690	100.6175	88.1507
585	39.00	397.9483	97.3096	86.4313

Tab. 71: *Euphausia crystallorophias*, male

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
575	20.00	44.8290	9.2718	7.8009
631	21.00	117.3523	23.1191	19.4667
582	22.00	55.5947	11.0222	9.2304
633	22.00	56.2539	11.7302	9.8955
584	24.00	80.6236	17.4960	14.9768
539	25.00	93.1442	20.3422	17.3215
548	25.00	85.9167	18.8072	15.8832
575	27.00	120.4941	22.5708	18.7909
571	28.00	123.8870	26.6068	22.4504
575	28.00	117.0019	22.3778	18.4776
582	28.00	124.3330	24.1289	20.0677
611	28.00	119.9228	23.5176	19.5270
611	28.00	137.1810	29.0422	24.7925
527	29.00	124.0106	29.6132	25.7213
575	29.00	137.6064	27.0402	22.4207
575	29.00	149.7944	29.7065	24.8091
611	29.00	134.0284	26.7015	22.4699

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
633	29.00	148.4566	30.8161	26.3404
539	30.00	185.8155	36.8350	30.5767
539	30.00	133.1399	28.2665	23.9105
539	30.00	165.6837	35.2743	30.0098
571	30.00	145.4327	28.1489	23.3185
575	30.00	162.9511	31.8154	26.7912
575	30.00	139.1776	29.3226	24.5123
575	30.00	155.4526	30.5835	25.5092
575	30.00	159.3047	30.2558	24.9024
575	31.00	198.1861	38.2784	31.9648
584	31.00	157.9216	30.9195	25.5306
551	32.00	213.4542	43.0889	36.4938
571	32.00	188.4680	36.4412	30.5763
575	32.00	170.8926	32.8225	27.0602
575	32.00	174.7245	34.2067	28.5568
575	32.00	209.0307	40.9204	34.3446

Tab. 72: *Euphausia crystallorophias*, juv.

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
592	8.00	2.8621	0.6445	0.4822
531	9.00	1.7331	0.6252	0.4625
607	9.00	3.6470	0.7476	0.5635
539	9.50	3.0784	0.5527	0.3957
539	9.50	4.4159	0.8854	0.7007
543	10.00	2.6551	0.6463	0.5049
548	10.00	5.2530	0.8880	0.6945
558	10.00	1.7510	0.7255	0.6203
560	10.00	1.5255	0.6899	0.6035
587	10.00	2.4865	0.7253	0.5952
591	10.00	4.1157	0.7894	0.5868
610	10.00	3.0930	0.7462	0.6267
627	11.00	2.6745	0.6563	0.5042
627	11.00	3.9572	0.8013	0.6356
539	15.00	13.9678	3.1502	2.6293
587	16.00	15.6705	3.3956	2.7876
524	17.00	20.0251	4.4825	3.8349
571	17.00	24.0916	5.9129	5.0754
575	17.00	20.8725	4.5427	3.7880
575	18.00	27.4842	6.1877	5.2005
575	18.00	27.2685	5.9945	5.0960
582	18.00	28.7446	6.1788	5.1899
629	18.00	26.8336	5.4775	4.4597
575	19.00	33.9857	6.8499	5.7448
575	19.00	24.0138	5.4758	4.6721



Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
582	19.00	37.6253	8.0599	6.8421
551	19.50	42.3045	9.3087	8.1477
551	19.50	44.2308	9.9229	8.7018
571	20.00	35.0883	8.2253	6.9955
575	20.00	33.8959	7.5133	6.3581
575	20.00	43.9177	9.0739	7.6119
575	20.00	40.1925	7.6750	6.4091
575	20.00	34.6049	7.5519	6.4517
582	20.00	39.0981	8.3294	7.0078
582	20.00	42.2301	8.5076	7.1799
582	20.00	41.5604	8.1174	6.7489
585	20.00	45.3929	9.9996	8.6000
551	20.50	38.1936	8.3262	7.2596
551	20.50	41.7022	9.0375	7.8990
551	20.50	48.7466	11.1863	9.8743
551	20.50	44.1628	10.2715	9.0928
551	20.50	43.3157	9.4967	8.3319
575	21.00	45.1326	9.1053	7.7054
575	21.00	29.7146	7.7234	6.7092
582	21.00	45.2130	10.4043	9.0594
633	21.00	44.2657	10.8716	9.1571
523	24.00	71.3275	13.4872	10.5754
523	25.00	75.7561	17.0924	14.6881

Tab. 73: *Thysanoessa macrura*, female

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
645	15.00	11.9504	2.5621	2.0834
645	15.00	13.3179	3.2054	2.7974
524	16.00	17.7163	3.8669	3.2613
629	16.00	14.1682	3.3777	2.9144
629	16.00	15.4348	3.2229	2.7127
524	17.00	26.7455	5.5099	4.6062
582	17.00	23.9589	5.7096	4.8373
575	18.00	30.1736	6.2284	5.2792
575	18.00	27.0009	5.1476	4.3564
575	18.00	29.2786	5.4234	4.5618
575	18.00	26.5061	5.6873	4.8710
575	18.00	31.2726	6.1979	5.2467
575	18.00	25.4727	5.0790	4.3237
582	18.00	31.2955	7.8132	6.8772
580	19.00	37.3969	7.6498	6.4278
575	20.00	27.0164	6.3792	5.3498
635	22.00	64.4031	13.3976	11.1700

Tab. 74: *Thysanoessa macrura*, male

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
629	15.00	15.0399	3.4080	2.9060
629	15.00	17.7285	3.5680	2.9658
629	15.00	12.9591	2.8446	2.4168
629	15.00	12.3532	2.7925	2.4154
629	15.00	11.6191	2.4854	2.1103
645	15.00	15.3152	3.3123	2.7513
575	17.00	15.5706	3.3287	2.7726
575	17.00	27.8562	5.5830	4.6511
575	17.00	19.8251	3.8533	3.2159
575	17.00	15.4557	2.9669	2.4524

Tab. 75: *Thysanoessa macrura*, juv.

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
530	5.60	0.6736	0.2329	0.1837
592	5.80	-	0.2228	0.1898
514	6.00	0.4763	0.2065	0.1600
532	6.00	0.6356	0.2373	0.1958
532	6.00	-	0.2000	0.1635
498	6.50	0.5599	0.2985	0.2278
512	6.50	0.3994	0.3576	0.3305
514	6.80	1.2142	0.2393	0.2012
545	6.90	1.0314	0.3626	0.2930
494	7.00	1.3355	0.4045	0.2914
604	7.00	0.7649	0.3335	0.2574
629	7.00	1.4287	0.2871	0.2227
506	7.50	2.2063	0.5478	0.4505
592	7.50	0.4307	0.4121	0.3102
512	8.00	1.5070	0.3909	0.3154
587	8.00	1.1942	0.4423	0.3893
592	8.00	0.6678	0.5315	0.5090
604	8.00	2.3425	0.5166	0.4174
631	8.50	2.7117	0.5144	0.4243
631	8.50	2.8947	0.4614	0.3682
645	8.50	0.9671	0.4909	0.4381
491	9.00	3.4899	0.9012	0.7054
498	9.00	2.9718	0.5530	0.4324
629	9.00	3.8314	0.8585	0.6934
645	9.50	4.3723	1.0551	0.9040
645	9.50	2.5922	0.8037	0.6638
490	10.00	2.8956	1.1239	0.9435
611	11.00	3.0644	1.3463	1.1466

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
489	12.50	14.3294	3.0040	2.4631
543	12.50	1.6461	0.4117	0.3122
491	13.00	17.3917	3.3058	2.6888
629	13.50	14.9630	3.0059	2.5431
629	13.50	12.9585	2.5235	2.1196
629	13.50	14.9230	3.0489	2.5710
498	14.50	15.8205	3.7009	3.2772
498	14.50	14.2937	3.7366	3.2656
508	15.30	0.7801	0.3929	0.2974
489	15.50	23.2955	4.0586	3.2999
489	15.50	19.5667	4.0772	3.4929
494	18.00	39.7002	8.3785	7.0746
635	20.00	45.7325	9.8682	8.4417

Tab. 76: Total length, dry weight and ash-free dry weight (median values) of the euphausiid brood.

Species/stage	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)	No. of samples
<i>E. crystallorophias</i>					
eggs	0.60	-	0.0416	0.0231	6
nauplii	0.65	-	0.0427	0.0181	4
metanauplii	0.70	-	0.0513	0.0184	2
<i>E. frigida</i>					
calyptopes I	1.00	0.1112	0.0248	0.0144	2
calyptopes II	1.70	0.2693	0.0443	0.0291	1
<i>T. macrura</i>					
calyptopes I	1.05	-	0.0193	0.0071	2

Tab. 77: *Acartephyra pelagica*

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
633	9.50	0.9205	0.5765	0.3951
560	11.00	0.4625	0.3104	0.2196
604	11.00	0.8188	0.3318	0.2014
633	11.00	0.4348	0.3797	0.2401
625	11.50	0.8201	0.4065	0.2464
560	12.00	0.4320	0.3552	0.2439
630	12.00	0.5114	0.3696	0.2423
501	14.00	0.8127	0.3123	0.2003

Tab. 78: *Cylopus lucasii*

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
582	16.00	78.8278	13.2930	9.0652
584	17.00	91.9713	18.9083	14.7827
575	20.00	164.7151	35.2167	27.4752
615	22.00	248.3325	53.4312	41.4046

Tab. 79: *Hyperielliella dilatata*

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
543	3.50	1.2204	0.5443	0.3669
501	4.00	3.4106	0.7474	0.5283
512	4.00	1.9831	0.9391	0.6975
532	4.00	3.8700	1.1700	0.8700
625	4.00	4.6496	0.9668	0.6962
492	5.00	6.7862	1.2865	0.9036
514	5.00	3.2183	0.6414	0.4374
516	5.00	8.2137	1.7328	1.2869
532	5.00	6.7100	2.1200	1.6500
544	5.00	4.5593	1.1764	0.8401
582	5.00	6.4432	1.3165	0.8279
582	5.00	4.4993	1.4364	1.0639
592	5.00	6.7823	2.0118	1.4192
637	5.00	1.4915	1.2117	0.9100
544	5.50	7.8294	2.2283	1.7257
580	5.50	11.3339	2.3683	1.6918
590	5.50	4.2491	1.5573	1.1090
610	5.50	9.0255	1.6876	1.1989
629	5.50	6.7326	1.3488	0.9103
527	6.00	8.1301	1.7205	1.1891
530	6.00	8.0709	1.9310	1.3551
558	6.00	6.7764	1.2922	0.7835
560	6.00	10.9845	2.8930	2.2325
582	6.00	13.2666	2.5417	1.9095
584	6.00	5.0772	1.8375	1.3931
584	6.00	11.1770	2.1311	1.4570
585	6.00	8.3709	1.7921	1.2643
615	6.00	5.8603	1.5021	1.0100
637	6.00	1.8421	1.4185	0.9434
645	6.00	4.5306	1.2441	0.8293
647	6.00	2.5577	0.9805	0.6961
647	6.00	2.4659	0.6763	0.4703

Tab. 80: *Hyperiella* spp.

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
551	5.00	11.3176	3.9987	3.4901
551	6.00	15.6224	4.3843	3.6705
506	6.50	8.7337	1.6449	1.1496
526	7.00	12.7204	2.0223	1.3844
526	7.00	7.3203	1.4575	1.0160
526	7.00	7.8208	1.6097	1.1438
526	7.00	7.3124	1.3600	0.8595

Tab. 81: *Hyperiella macronyx*

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
558	7.00	17.3359	3.4770	2.5960
551	10.00	34.2080	7.5907	6.0094
590	10.00	32.2395	10.1095	8.4665
630	10.00	45.4498	11.4547	9.5652
580	11.00	26.0673	7.3448	6.0664
580	12.00	49.3966	12.5878	10.4139
558	15.00	63.4571	11.9808	8.8759

Tab. 82: *Hyperoche* sp.

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
585	10.00	30.6910	5.9577	4.8815
575	11.00	42.8669	8.9079	7.4342
582	12.00	47.2755	9.8988	8.2165
580	15.00	62.9433	13.6574	11.1840
582	15.00	66.0893	13.1180	10.6031
575	16.00	71.4762	14.4579	11.7917
575	16.00	120.0291	23.1346	18.9857

Tab. 83: *Primno macropa*

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
539	3.50	0.4835	0.2237	0.1640
647	3.50	1.0628	0.2613	0.1809
501	4.00	0.5978	0.3995	0.2483
514	4.00	-	0.4626	0.3613
524	4.00	2.6424	0.9912	0.8065
532	4.00	0.6811	0.3147	0.2229
553	4.00	0.6783	0.6480	0.5412
610	4.00	0.7108	0.3573	0.2794
512	5.00	1.8777	0.3336	0.2248
560	5.00	2.0018	0.6373	0.4373
610	5.00	1.7692	0.6919	0.5321
631	5.50	3.0662	0.7324	0.5337
503	6.00	3.5304	0.9319	0.6513
512	6.00	4.8460	1.1022	0.8083
514	6.00	4.0410	0.7669	0.5411
544	6.00	3.4514	0.9899	0.7316
592	6.00	1.6504	0.8515	0.6029
506	6.50	3.7795	1.4851	1.1311
531	6.50	2.3808	0.7635	0.5019
539	6.80	2.2182	1.7363	1.3502
526	7.00	6.2703	1.4153	0.9917
610	7.00	8.4853	2.1430	1.6831
625	7.00	6.0979	1.6277	1.2390
501	7.50	9.2794	1.9937	1.4988
498	8.00	12.9680	1.6694	0.9383
498	8.00	6.2821	1.3620	0.9160
508	8.00	11.5073	2.1196	1.4491
516	8.00	8.0645	2.2931	1.7912
524	8.00	13.0813	4.1788	3.5038
610	8.00	8.2588	2.7640	2.2851
514	8.50	10.3531	2.7512	2.2023
503	9.50	22.9312	5.1858	4.1841
498	10.00	16.7267	2.3204	1.6521
582	10.00	22.1736	4.9893	3.7662
530	11.00	28.5211	6.8892	5.3796
582	12.00	36.1472	6.7149	4.7482

Tab. 84: *Scina* sp.

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
512	2.50	-	0.1818	0.1426
512	2.50	-	0.1843	0.1423
512	2.50	0.3706	0.2946	0.2073
512	2.50	0.2093	0.1992	0.1414
625	4.00	-	0.3750	0.2893
508	5.50	0.4287	0.3714	0.3085

Tab. 85: *Cyphocaris* sp.

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
498	13.00	22.9601	4.0067	2.5827

Tab. 86: *Eusirus* sp.

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
610	11.50	15.7941	3.1139	1.8553
584	16.00	56.4831	12.5021	8.9590

Tab. 87: *Orchomene plebs*

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
590	6.00	7.7436	3.7708	3.0545
590	12.00	37.3223	11.4048	8.0426
590	12.00	35.9191	13.6157	10.6589
592	12.00	70.3952	27.7543	22.8816
590	15.00	93.7705	30.2313	24.6245
590	18.00	139.4627	59.2349	50.1554
590	20.00	270.6462	70.9454	53.3785
590	20.00	180.9124	75.3452	64.5127
590	20.00	196.6068	75.1434	64.1497
590	22.00	245.0600	101.9102	86.0390
590	22.00	331.4015	118.0857	97.6577

Tab. 88: *Orchomene* sp.

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
548	7.00	8.6077	1.9082	1.2877
585	7.00	13.8404	3.6558	2.6372
591	7.50	11.9280	5.3699	4.4261
584	9.00	22.4274	6.8728	5.2213
592	9.00	22.2521	9.8391	8.0591
584	10.00	35.1075	12.7435	10.1541
548	13.50	59.1973	16.2005	11.8458
548	16.00	93.3747	26.0544	19.7816
551	18.00	115.0707	33.4949	25.3396
551	18.50	157.5126	43.3901	34.4998
551	20.00	236.3038	79.1425	64.6066
591	22.00	251.0444	99.9240	84.8604

Tab. 89: *Eukrohnia hamata*

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
625	12.00	1.3197	0.1498	0.0988
587	13.60	1.7495	0.1828	0.1120
604	15.00	1.1183	0.1692	0.1206
645	15.00	1.6806	0.2511	0.1682
501	16.00	3.7931	0.3593	0.2122
587	17.00	1.8869	0.3080	0.2165
610	18.00	-	0.6777	0.4238
604	20.00	7.6089	0.7175	0.4666
625	20.00	16.7742	1.5554	0.9782
645	20.00	7.7746	0.8381	0.5626
637	22.00	17.8531	1.7492	1.1439
604	25.00	25.1360	2.3990	1.6532
629	25.00	19.1286	1.8772	1.2702
647	28.00	24.2765	2.8444	1.9917



Tab. 90: *Sagitta gazellae*

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
501	30.00	23.9187	1.6279	0.6986
587	38.00	63.6605	3.7566	1.4847
530	40.00	64.3314	3.7406	1.4872
587	40.00	89.1262	4.8111	1.8706
645	40.00	47.0727	2.8354	1.1908
501	45.00	138.3358	8.1402	3.0797
625	46.00	159.4797	8.4326	3.3147
498	50.00	184.2064	10.8553	4.4273
545	50.00	151.2175	9.3564	4.0941
492	53.00	163.4859	9.3237	3.5865
607	53.00	269.1256	14.4983	6.2039
637	53.00	266.2145	11.3316	4.7487
645	55.00	239.3975	11.3144	4.9392
647	55.00	252.1206	14.1716	6.0808
610	57.00	282.6227	15.8564	6.4963
604	58.00	310.7216	16.5408	6.3924
551	60.00	352.5726	21.3147	9.9387
625	68.00	498.4722	27.7301	11.8240
631	69.00	636.9599	41.0758	20.2067
607	70.00	717.1513	41.1716	17.0103
629	70.00	537.2228	32.9748	15.7430
610	73.00	653.1873	41.5155	20.4488
610	73.00	366.0313	28.4147	17.0449
630	75.00	650.6423	31.2114	13.6631
591	77.00	925.6058	48.5874	20.2994
571	80.00	956.0553	49.1343	19.6663
610	80.00	748.6570	43.9784	20.3040

Tab. 91: *Sagitta marri*

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
647	9.30	0.1180	0.1065	0.0784
630	12.00	0.2692	0.1491	0.1321
604	14.00	1.9594	0.3354	0.2765
610	14.00	0.4791	0.3228	0.2780
645	14.50	0.7551	0.2823	0.2383
629	15.00	1.7387	0.3868	0.3271
647	17.50	7.1477	0.8472	0.6228
498	20.00	11.5287	1.2854	1.0426

Tab. 92: *Salpa* sp.

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
493	15.00	69.6974	3.6656	1.3690
637	15.00	420.3321	11.2393	3.1922
498	20.00	282.6372	13.1253	3.3142
498	20.00	418.2572	19.4297	5.2236
498	20.00	544.2103	24.8426	6.9405
498	22.00	561.7643	24.3279	5.8421
498	25.00	824.9554	37.2698	9.8220
498	25.00	1056.7126	46.3704	12.0381
498	27.00	1044.5638	46.9167	12.1405
498	28.00	982.5902	37.6963	9.2041
498	35.00	1374.5165	42.9875	11.9454
498	35.00	1458.2610	30.4477	8.4664
575	50.00	2219.4726	59.7393	20.7494

Tab. 93: *Pleuragramma antarcticum*

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
610	7.02	0.1979	0.1440	0.1192
610	7.18	0.2253	0.1691	0.1353
610	7.96	0.4246	0.2905	0.2450
610	7.96	0.2533	0.2018	0.1768
610	8.27	0.3648	0.2245	0.1817
610	8.89	0.5909	0.2403	0.1973
610	9.05	0.4826	0.2903	0.2406
610	9.36	0.4058	0.2578	0.2156
610	9.36	0.3880	0.2633	0.2151
618	10.00	0.5803	0.1808	0.1435
618	10.00	0.5345	0.1708	0.1280
618	10.00	0.5380	0.1563	0.1187
618	10.00	0.5599	0.1712	0.1178
618	10.00	0.8325	0.2508	0.1987
618	10.00	0.6485	0.2129	0.1720
618	10.00	1.0609	0.2543	0.1906
618	10.00	0.5106	0.1659	0.1242
618	10.00	0.4992	0.1773	0.1375
618	10.00	0.7149	0.1881	0.1417
623	10.00	1.1843	0.3303	0.2539
623	10.00	1.5068	0.2786	0.2236
623	10.00	1.4327	0.2830	0.2155
623	10.00	1.3927	0.2765	0.2117
623	10.00	1.5718	0.2918	0.2183
623	10.00	1.5269	0.2921	0.2243
623	10.00	1.4990	0.2993	0.2334

Station	Length (mm)	Wet weight (mg)	Dry weight (mg)	Ash-free dry weight (mg)
623	10.00	1.9337	0.3186	0.2504
623	10.00	1.9508	0.3350	0.2540
623	10.00	1.7511	0.3001	0.2241
610	11.08	1.1285	0.3195	0.2457
584	31.00	51.9382	8.6543	7.0463
584	33.00	86.2283	12.0802	9.9281
584	35.00	95.6286	14.9389	12.7307
584	35.00	101.3578	13.8040	11.3427
585	35.90	123.1697	16.5876	13.0777
585	36.90	176.7879	26.9731	21.4782
585	37.50	114.0146	14.2859	10.0362
584	38.00	133.6457	18.8198	15.9639
585	40.40	206.1725	27.3681	21.9943
585	40.60	168.2693	18.6604	12.4745
584	42.00	121.1551	16.9179	14.2005
585	44.10	233.5839	31.0328	24.7300

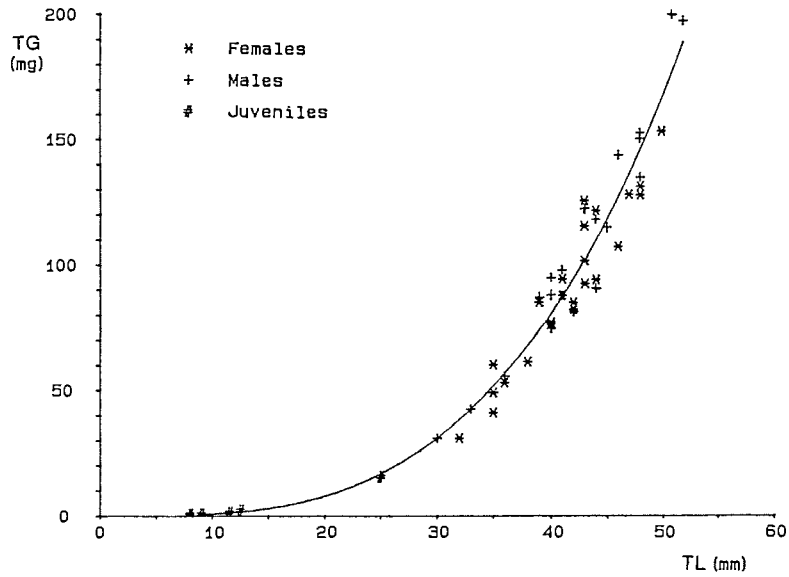


Fig.6. Relationship between total length (TL) and dry weight (TG) in *Euphausia superba* showing the curve with the best fit ( $y = -0,4982 + 0,1981x - 0,02295x^2 + 0,001712x^3$ )

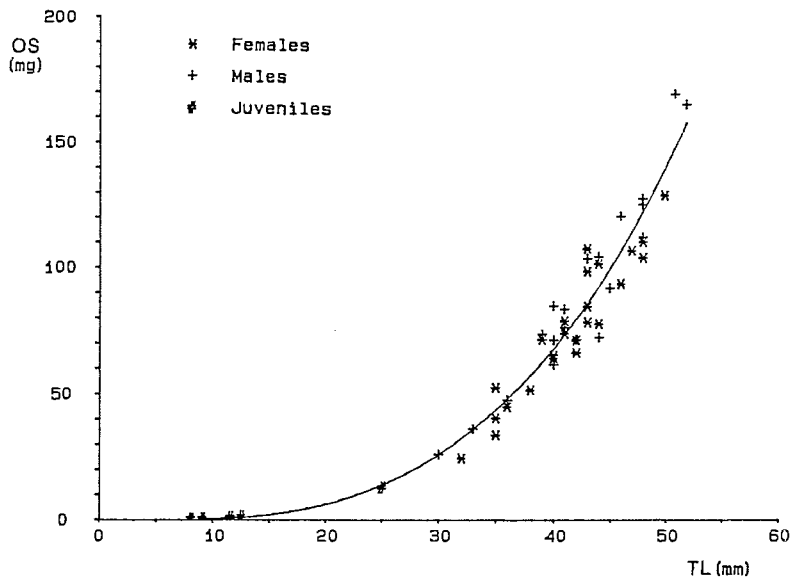


Fig.7. Relationship between total length (TL) and organic matter (OS) in *Euphausia superba* showing the curve with the best fit ( $y = 1,258 - 0,1384x - 0,006317x^2 + 0,001283x^3$ )

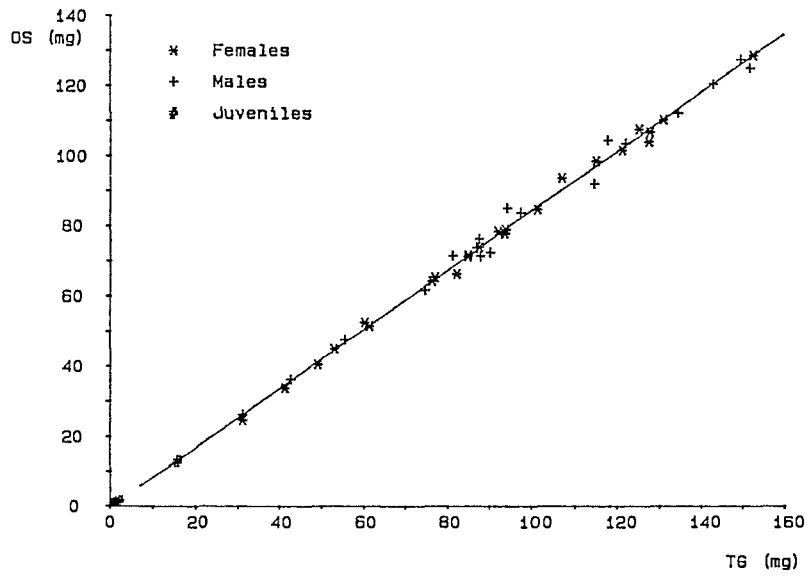


Fig.8. Relationship between dry weight (TG) and organic matter (OS) in *Euphausia superba* showing the curve with the best fit ( $y = -0,04277 + 0,8409x$ )

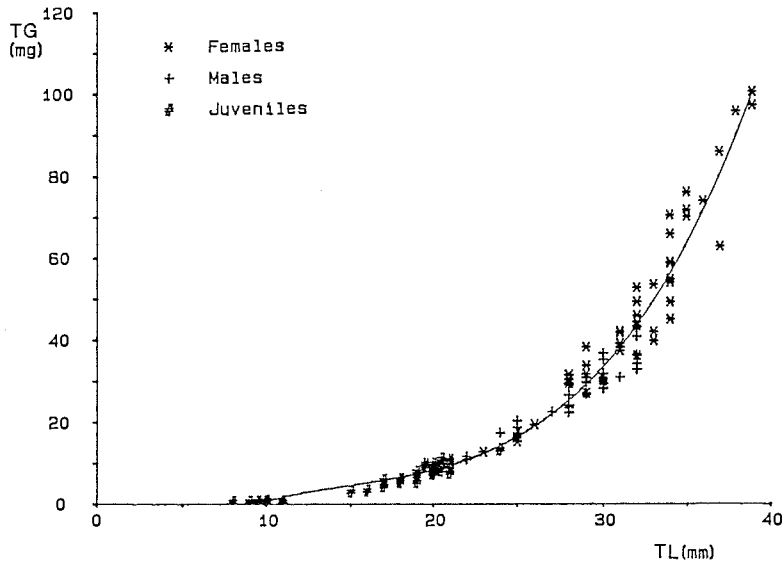


Fig.9. Relationship between total length (TL) and dry weight (TG) in *Euphausia crystallophias* showing the curve with the best fit ( $y = -24,73 + 4,653x - 0,2680x^2 + 0,005922x^3$ )

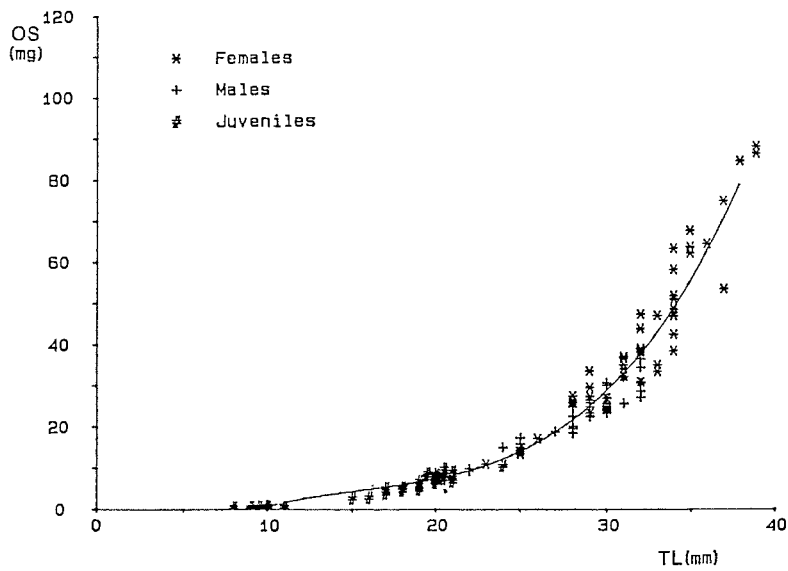


Fig.10. Relationship between total length (TL) and organic matter (OS) in *Euphausia crystallophias* showing the curve with the best fit ( $y = -25,25 + 4,696x - 0,2663x^2 + 0,005659x^3$ )

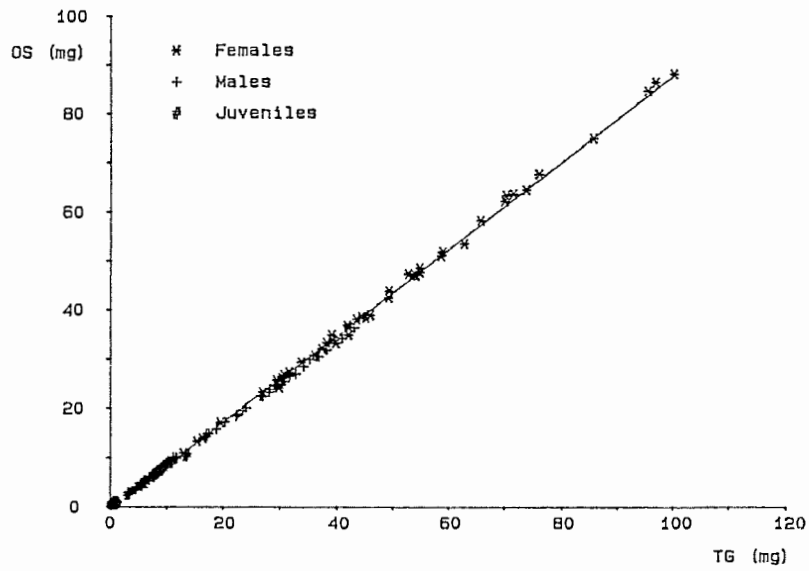


Fig.11. Relationship between dry weight (TG) and organic matter (OS) in *Euphausia crystallophias* showing the curve with the best fit ( $y=-0,3028+0,8765x$ )

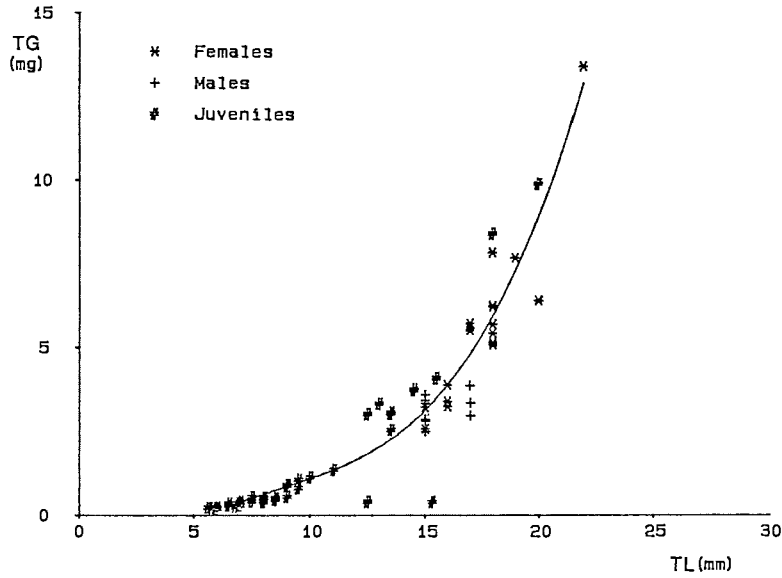


Fig.12. Relationship between total length (TL) and dry weight (TG) in *Thysanoessa macrura* showing the curve with the best fit ( $y = -4,017 + 1,191x - 0,1087x^2 + 0,004068x^3$ )

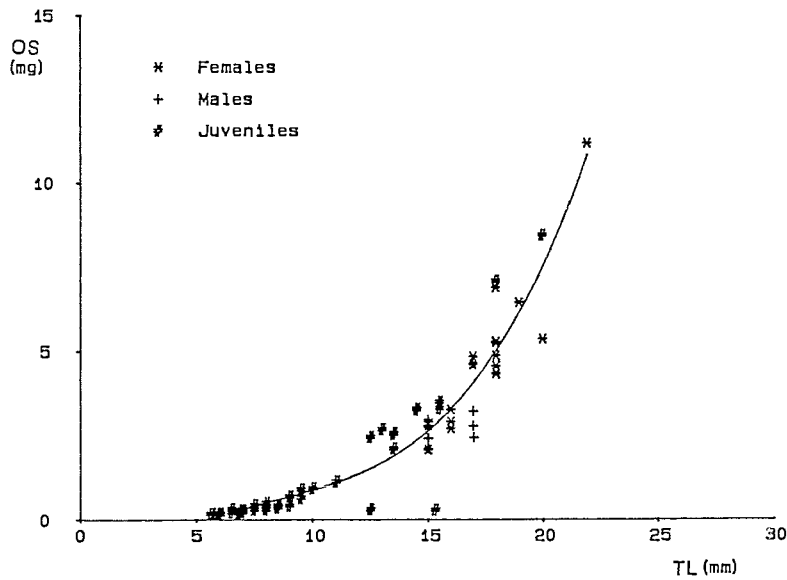


Fig.13. Relationship between total length (TL) and organic matter (OS) in *Thysanoessa macrura* showing the curve with the best fit ( $y = -3,116 + 0,9260x - 0,008507x^2 + 0,003262x^3$ )



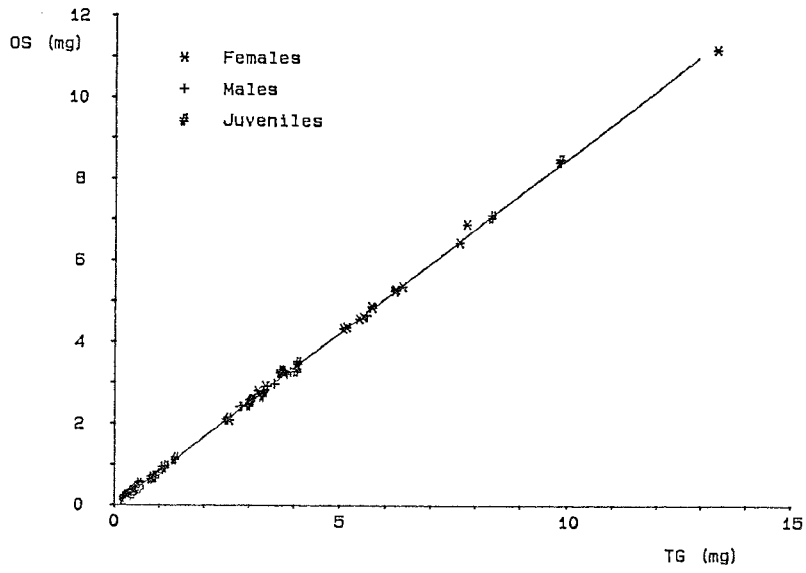


Fig.14. Relationship between dry weight (TG) and organic matter (OS) in *Thysanoessa macrura* showing the curve with the best fit ( $y = -0,01039 + 0,8471x$ )

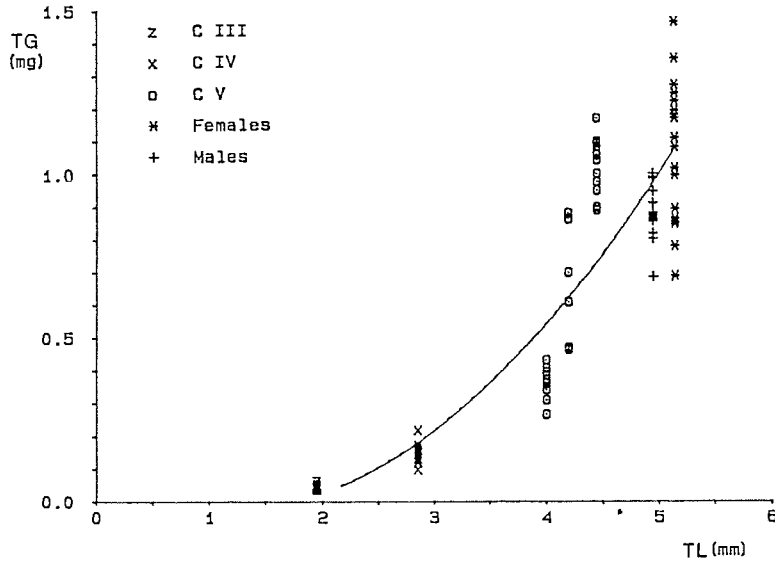


Fig.15. Relationship between total length (TL) and dry weight (TG) in *Calanus propinquus* showing the curve with the best fit ( $y=0,04627-0,1432x+0,06677x^2$ )

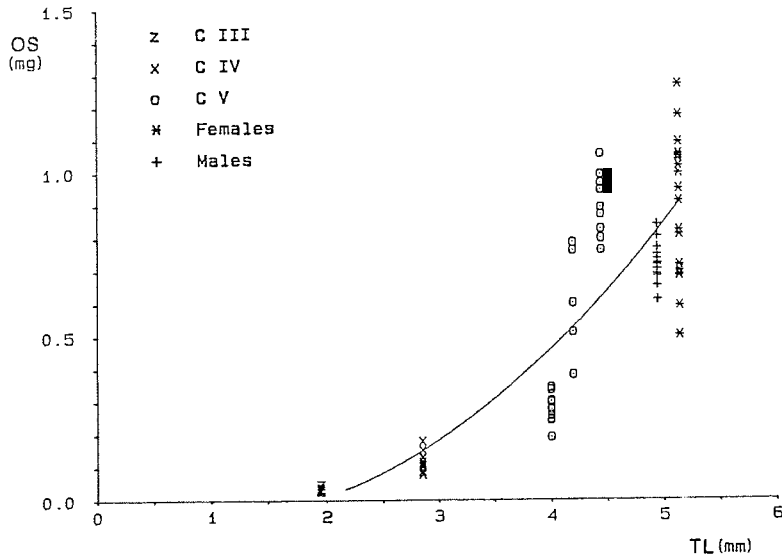


Fig.16. Relationship between total length (TL) and organic matter (OS) in *Calanus propinquus* showing the curve with the best fit ( $y=-0,01444-0,09172x+0,05254x^2$ )

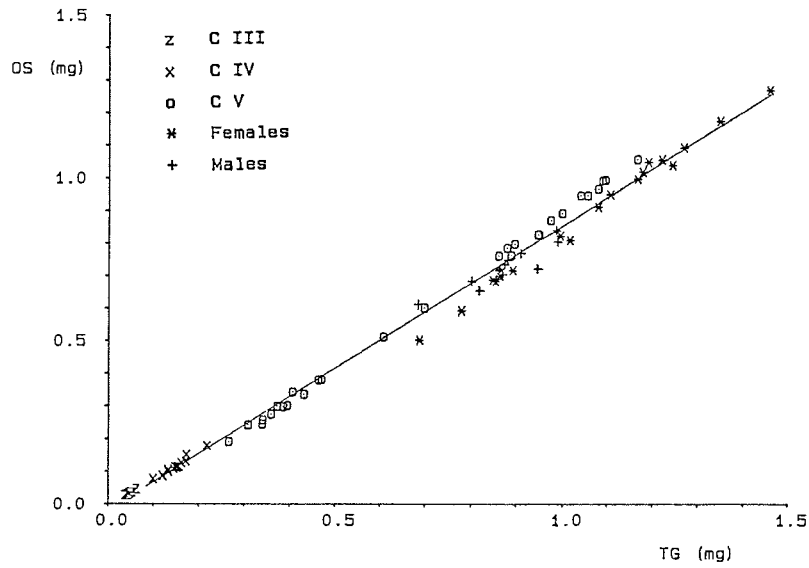


Fig.17. Relationship between dry weight (TG) and organic matter (OS) in *Calanus propinquus* showing the curve with the best fit ( $y = -0,01831 + 0,8695x$ )

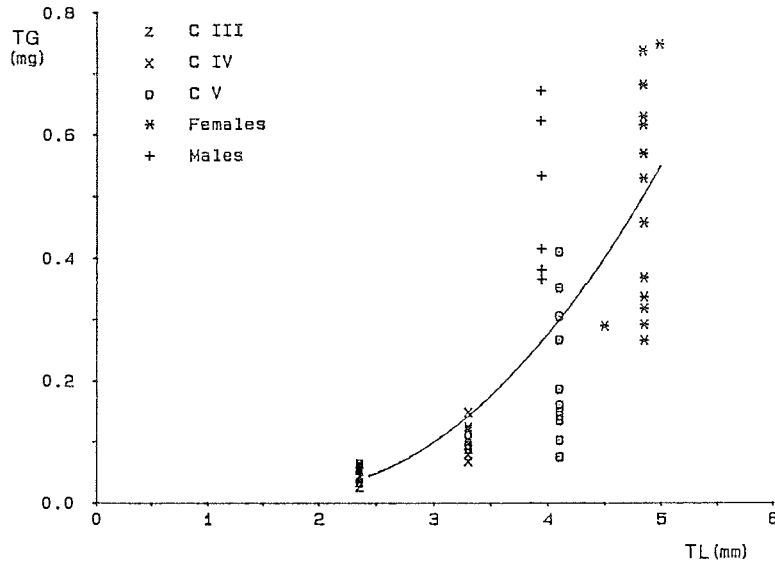


Fig.18. Relationship between total length (TL) and dry weight (TG) in *Calanoides acutus* showing the curve with the best fit ( $y=0,1608-0,1670x+0,04891x^2$ )

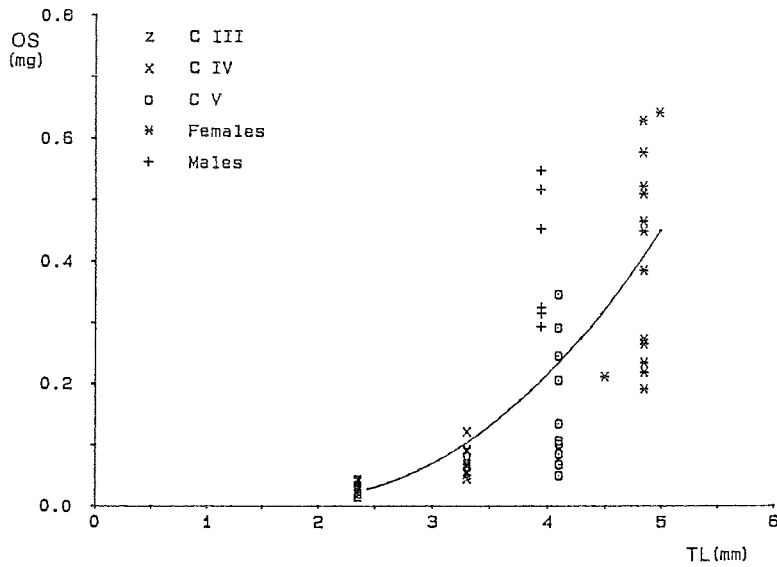


Fig.19. Relationship between total length (TL) and organic matter (OS) in *Calanoides acutus* showing the curve with the best fit ( $y=0,1750-0,1698x+0,04492x^2$ )

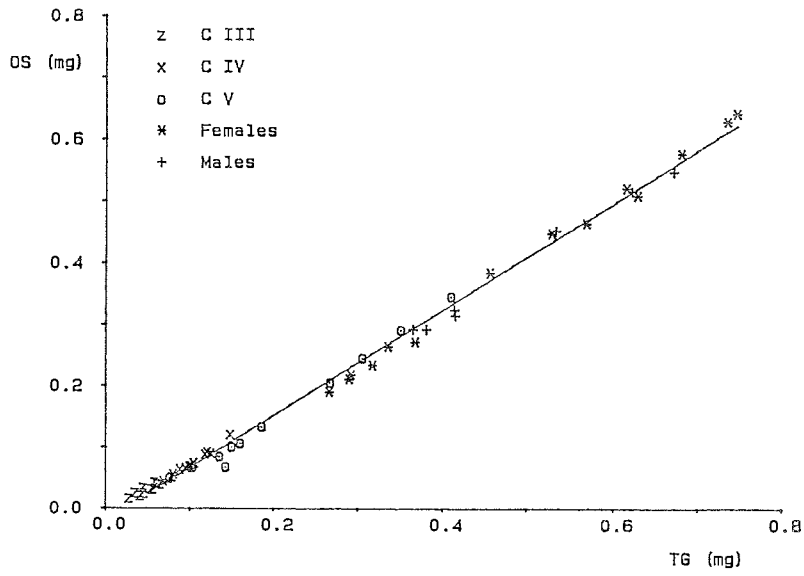


Fig.20. Relationship between dry weight (TG) and organic matter (OS) in *Calanoides acutus* showing the curve with the best fit ( $y = -0,01809 + 0,8550x$ )

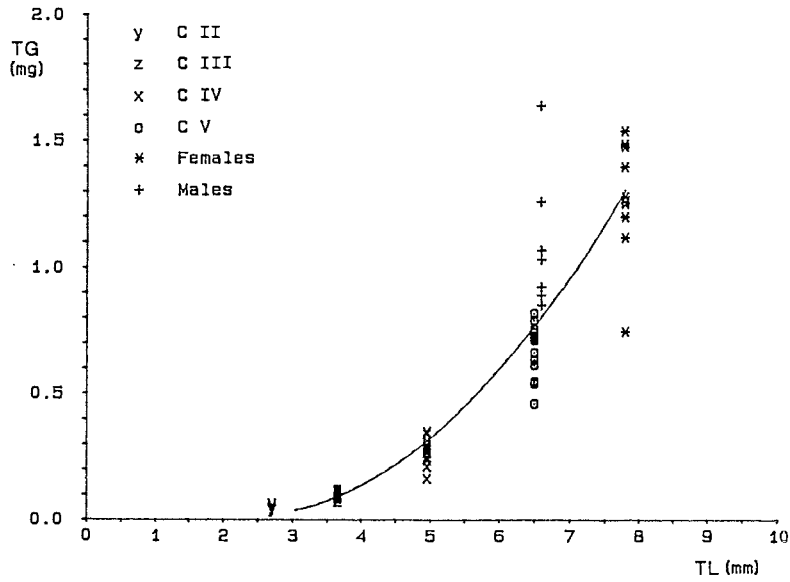


Fig.21. Relationship between total length (TL) and dry weight (TG) in *Rhinocalanus gigas* showing the curve with the best fit ( $y=0,2341-0,1939x+0,04244x^2$ )

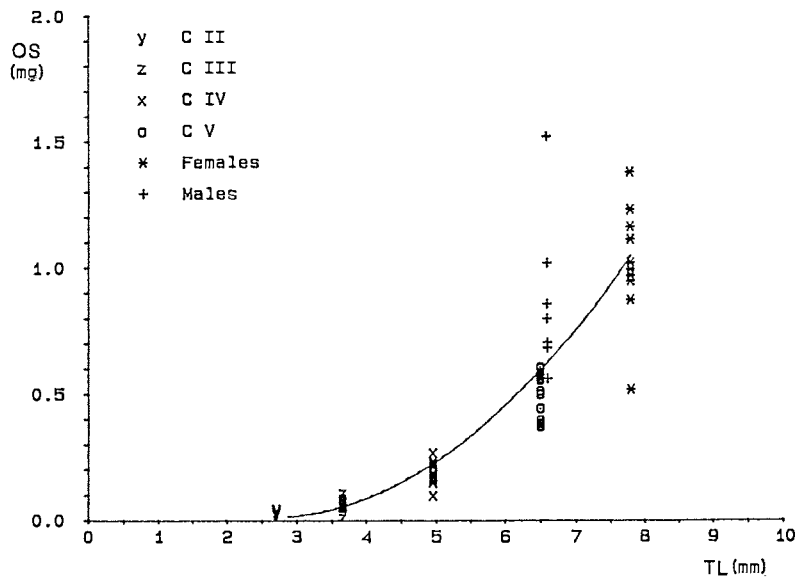


Fig.22. Relationship between total length (TL) and organic matter (OS) in *Rhinocalanus gigas* showing the curve with the best fit ( $y=0,2701-0,1981x+0,03816x^2$ )

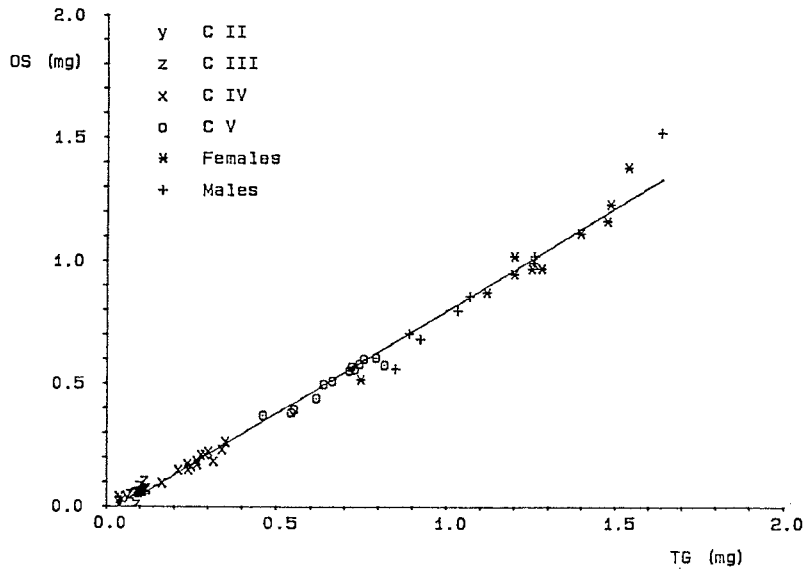


Fig.23. Relationship between dry weight (TG) and organic matter (OS) in *Rhinocalanus gigas* showing the curve with the best fit ( $y = -0,03491 + 0,8331x$ )

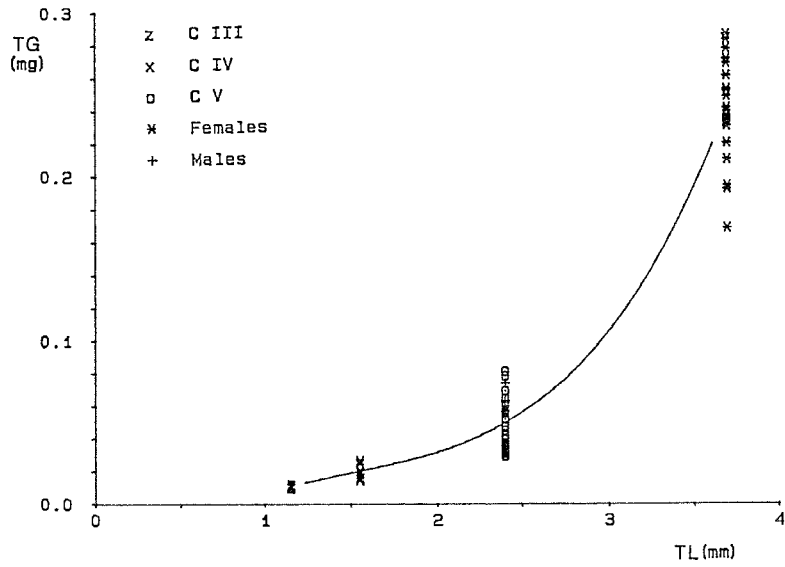


Fig.24. Relationship between total length (TL) and dry weight (TG) in *Metridia gerlachei* showing the curve with the best fit ( $y = -0,07753 + 0,1464x - 0,08054x^2 + 0,01737x^3$ )

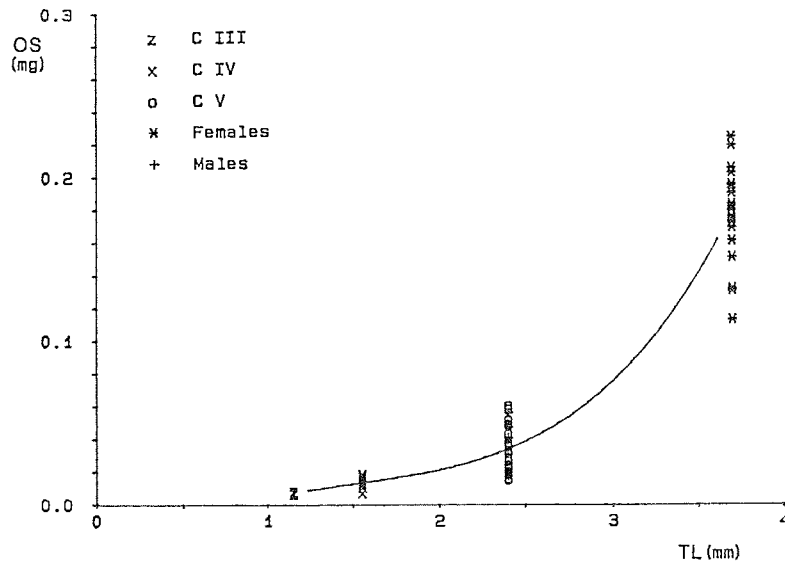


Fig.25. Relationship between total length (TL) and organic matter (OS) in *Metridia gerlachei* showing the curve with the best fit ( $y = -0,05927 + 0,1119x - 0,06264x^2 + 0,01345x^3$ )



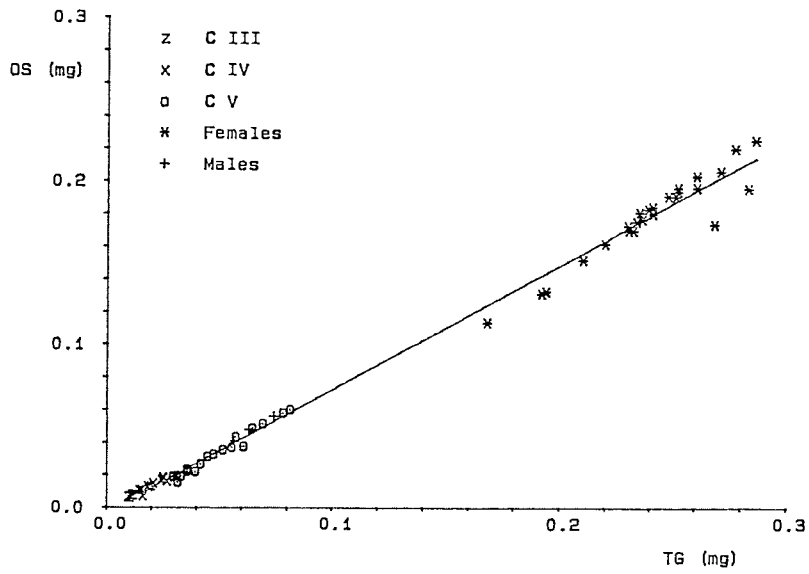


Fig.26. Relationship between dry weight (TG) and organic matter (OS) in *Metridia gerlachei* showing the curve with the best fit ( $y = -0,002877 + 0,7532x$ )

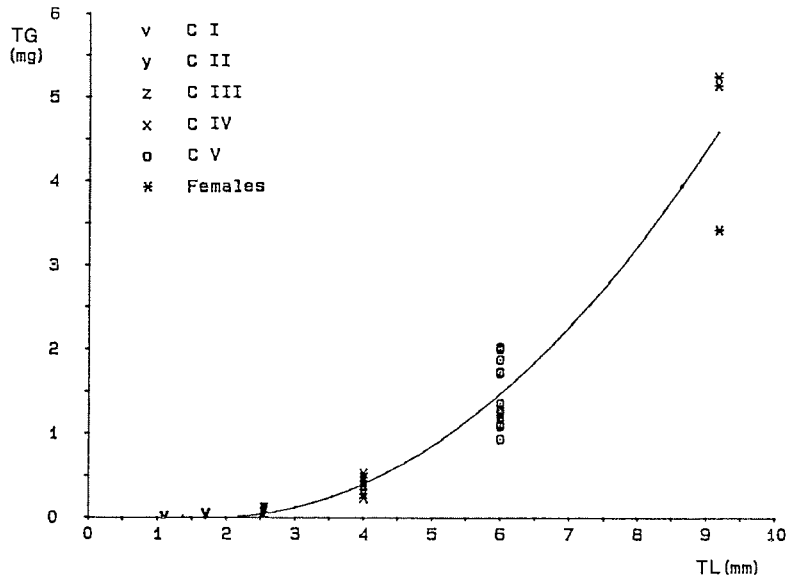


Fig.27. Relationship between total length (TL) and dry weight (TG) in *Euchaeta antarctica* showing the curve with the best fit ( $y=0,2826-0,3072x+0,08434x^2$ )

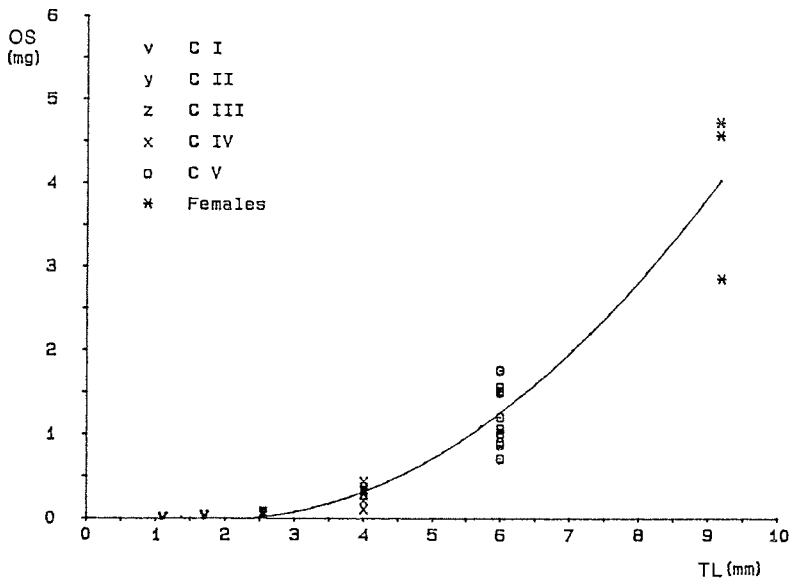


Fig.28. Relationship between total length (TL) and organic matter (OS) in *Euchaeta antarctica* showing the curve with the best fit ( $y=0,2776-0,2960x+0,07653x^2$ )

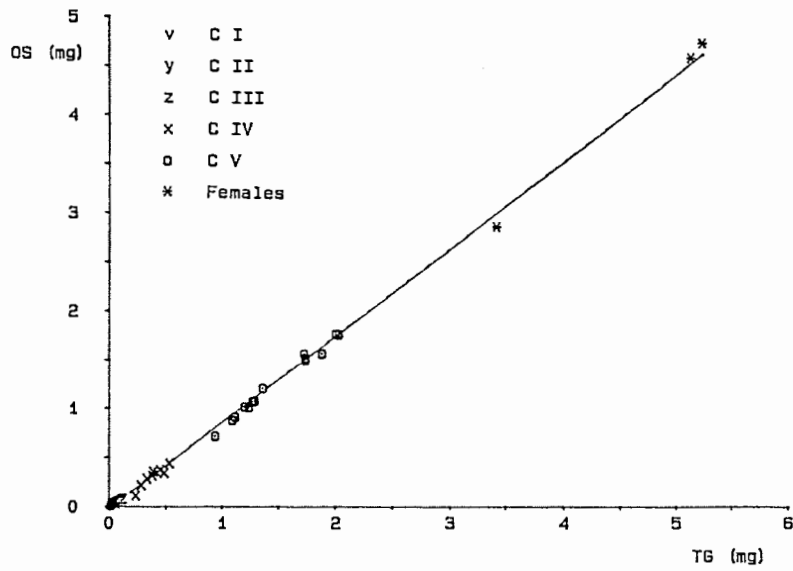


Fig.29. Relationship between dry weight (TG) and organic matter (OS) in *Euchaeta antarctica* showing the curve with the best fit ( $y = -0,02263 + 0,8811x$ )

## **Acknowledgements**

First of all I would like to thank Dr. S. Schiel for continuous advise during the work at sea and in the laboratory.

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## **References**

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**Annex**

Station List (after Schnack-Schiel 1987)

Stat. No.	Date	Position	Echo depth (m)	Gear	Haul No.	Day time	Start (GMT)	Haul dur. (min)	Depth (m)
489	04/10/86	57°50,7'S 002°26,5'O	3.500	BO	2	M	06:53	12	200
490	04/10/86	58°05,6'S 002°14,3'O	4.950	BO	3	T	09:30	7	200
491	05/10/86	59°53,3'S 000°04,2'O	5.397	BO	4	T	07:25	10	200
492	05/10/86	60°36,3'S 000°45,3'W	5.351	BO	5	A	18:26	10	200
493	06/10/86	61°36,7'S 002°22,8'W	5.344	BO	6	T	10:04	10	200
494	07/10/86	63°24,0'S 004°48,6'W	5.265	BO	7	T	09:10	10	200
498	08/10/86	65°07,3'S 007°10,1'W	5.097	BO	9	T	11:46	36	1.000
501	10/10/86	69°25,8'S 006°09,7'W	2.361	BO	12	T	17:00	18	500
503	11/10/86	70°02,2'S 007°21,9'W	1.685	BO	13	T	13:30	7	200
504	12/10/86	70°30,4'S 008°02,5'W	300	BO	15	T	08:00	12	230
506	13/10/86	71°24,8'S 015°04,4'W	2.035	BO	17	T	15:30	25	500
508	15/10/86	72°49,3'S 019°25,0'W	485	BO	19	T	15:50	15	330
512	17/10/86	72°32,1'S 020°34,7'W	3.575	BO	21	N	23:12	10	500
514	18/10/86	72°40,7'S 020°05,5'W	3.050	BO	24	A	19:40	10	500
516	19/10/86	72°48,9'S 019°39,6'W	1.675	BO	27	T	15:20	10	500
523	21/10/86	72°49,9'S 019°35,5'W	840	RMT	1	T	06:11	40	200
524	21/10/86	72°51,0'S 019°25,7'W	465	RMT	2	T	10:15	40	200
526	21/10/86	72°39,6'S 018°54,5'W	2.535	BO	31	T	17:30	10	500
527	22/10/86	72°23,5'S 016°37,4'W	314	BO	33	T	12:34	15	260
				RMT	4	T	13:22	35	200
530	23/10/86	72°32,9'S 018°32,0'W	1.965	BO	37	T	10:06	10	500
532	23/10/86	72°49,9'S 019°39,6'W	956	BO	39	T	19:40	10	500
539	25/10/86	74°06,1'S 024°39,7'W	519	BO	40	T	16:47	17	500
540	25/10/86	74°06,5'S 024°41,2'W	1.100	KN	1	T	17:30	95	
543	27/10/86	76°32,6'S 032°38,0'W	527	BO	42	T	15:20	10	500
544	28/10/86	76°04,2'S 027°54,8'W	340	BO	43	T	11:20	30	320
				NSN	9	T	12:05	9	300
545	28/10/86	75°37,6'S 027°50,1'W	269	NSN	10	N	00:23	7	200
				BO	45	A	20:36	5	250
548	30/10/86	75°47,1'S 029°09,6'W	426	BO	48	T	09:45	7	400
551	30/10/86	75°36,4'S 027°43,6'W	257	RMT	7	T	17:45	30	200
				RMT	8	T	18:30	30	200
553	31/10/86	74°02,4'S 024°22,7'W	350	RMT	9	A	18:10	50	350
558	02/11/86	73°56,3'S 024°08,4'W	782	BO	52	T	07:15	10	500
				NSN	11	T	09:16	10	500

Stat. No.	Date	Position		Echo depth (m)	Gear	Haul No.	Day time	Start (GMT)	Haul dur. (min)	Depth (m)
560	02/11/86	73°47,9'S	024°49,6'W	2.130	BO	55	T	14:20	4	500
					NSN	12	T	15:50	10	500
571	05/11/86	73°26,1'S	020°38,3'W	350	RMT	11	T	09:45	35	265
					RMT	12	T	10:37	36	305
					RMT	13	T	12:00	45	360
575	07/11/86	72°49,6'S	019°26,7'W	670	RMT	14	T	06:10	75	400
					RMT	15	T	07:52	56	300
					RMT	16	T	09:03	39	200
580	08/11/86	72°51,4'S	019°41,4'W	710	RMT	17	T	08:34	36	200
582	08/11/86	72°54,3'S	019°49,7'W	1.210	RMT	18	T	17:31	46	400
					RMT	19	A	18:28	38	200
584	10/11/86	76°07,7'S	028°18,2'W	362	RMT	20	T	15:40	35	300
					BO	66	T	18:47	33	210
585	11/11/86	76°01,2'S	028°22,4'W	368	RMT	21	M	06:11	44	310
586	11/11/86	76°08,5'S	028°38,2'W	324	KN	10	T	16:00	80	320
587	12/11/86	76°06,7'S	028°27,0'W	376	BO	68	T	11:50	10	395
588	12/11/86	75°57,5'S	027°24,6'W	443	KN	12	T	16:15	95	400
590	13/11/86	74°54,7'S	025°58,5'W	583	RMT	22	T	11:46	49	370
591	13/11/86	74°53,2'S	026°00,1'W	422	BO	72	T	17:20	10	400
592	14/11/86	73°55,0'S	022°58,6'W	211	RMT	23	T	06:30	40	230
					BO	74	T	12:32	5	200
604	17/11/86	72°40,8'S	020°22,5'W	3.253	BO	85	T	17:00	10	500
607	18/11/86	72°52,5'S	019°50,4'W	1.732	BO	86	T	10:18	10	500
610	19/11/86	72°43,9'S	019°53,8'W	2.730	BO	94	T	19:36	60	500
611	20/11/86	72°43,8'S	019°53,7'W	2.891	BO	95	T	10:22	35	200
615	21/11/86	72°50,8'S	019°28,9'W	1.447	RMT	25	T	11:18	60	500
					RMT	26	T	12:30	40	300
					RMT	27	T	13:20	25	50
618	22/11/86	72°51,0'S	019°22,6'W	1.133	BO	101	T	14:08	42	
621	24/11/86	72°52,0'S	019°32,9'W	441	BO	105	T	17:40	10	420
622	24/11/86	72°51,1'S	019°40,7'W	973	BO	107	A	21:13	10	500
623	24/11/86	72°46,5'S	019°32,5'W	1.538	BO	108	N	23:55	37	200
625	25/11/86	72°46,8'S	019°57,4'W	2.620	BO	112	T	10:00	10	200
627	26/11/86	72°03,5'S	015°27,6'W	434	NSN	13	T	10:50	15	400
					BO	115	T	11:27	9	430
628	26/11/86	71°48,9'S	015°40,1'W	1.155	NSN	14	T	15:37	11	400

Stat. No.	Date	Position		Echo depth (m)	Gear	Haul No.	Day time	Start (GMT)	Haul dur. (min)	Depth (m)
629	26/11/86	71°44,7'S	015°44,4'W	1.319	BO	117	T	17:10	10	500
630	27/11/86	70°58,3'S	012°30,3'W	1.877	BO	118	T	04:20	10	500
631	27/11/86	71°05,8'S	012°23,7'W	891	BO	119	T	06:15	10	500
632	27/11/86	71°12,4'S	011°33,3'W	231	BO	120	T	08:36	19	50
633	28/11/86	70°25,0'S	008°16,0'W	607	BO	122	T	08:26	10	490
					BO	123	T	16:06	10	500
635	28/11/86	70°07,4'S	008°33,2'W	1.904	BO	126	A	21:03	15	500
637	30/11/86	67°31,9'S	003°56,1'W	4.566	BO	129	T	09:53	10	500
645	04/12/86	62°58,3'S	000°22,8'O	5.318	BO	131	T	10:14	10	500
647	05/12/86	60°00,0'S	000°22,0'O	5.365	BO	133	T	09:55	15	500
650	06/12/86	57°59,7'S	000°23,7'O	4.090	BO	137	T	10:30	10	500

#### Abbreviations

BO Bongo net  
 KN Krill net  
 NSN Nansen closing net  
 RMT Rectangular Midwater Trawl

T Day  
 M Dawn  
 N Night  
 A Dusk