ANALYSIS OF HARRISON BAY ZOOPLANKTON SAMPLES

by

Rita Homer

4211 N.E. 88th Street
Seattle, Washington 98115

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Methods

Zooplankton samples were collected by LGL personnel at eight stations in Harrison Bay (Table 1), 8-9 Aug 1980. All samples were collected with a 0.75 m ring net, mesh size 308 µm. One vertical and one double oblique tow were taken at each station. However, the boat drifted with the wind so most of the vertical tows had some horizontal component as well. Maximum depth of tow was generally 6-9 m.

Three apparently benthic samples were also sent to us for analysis. These samples, all from station 5, did not have haul sheets, so we do not know how they were collected. Perhaps they were collected when the plankton net inadvertently dragged along the bottom or perhaps they were sent to us by mistake. We assumed they were benthic samples from the presence of sediment and other debris and the number of burrowing amphipods.

Except for the double oblique tow from sta 6 that was split with a Folsom plankton splitter (McEwan et al. 1954), all organisms other than copepods were identified from the whole sample. Copepods were subsampled using an automatic pipet. All sorting and counting were done using dissecting microscopes. Compound microscopes were used to verify identifications when necessary. References used to identify the organisms are listed in Table 2.

Equations used to calculate the number of animals per unit volume were:

1. Volume of water filtered (V):
   a. Double oblique tow: V = (ship speed) x (duration of tow) x (mouth area of net)
   b. Vertical tow: V = (sampling depth) x (mouth area of net)

2. Mouth area of net = $\pi r^2 = \pi\left(\frac{.75}{2}\right)^2$

3. Concentration (m^3)
   a. Non copepods: Conc (m^3) $= \frac{(A)\,(2^n)}{V}$
   b. Copepods: Conc (m^3) $= \frac{(A)\left(\frac{\text{sample vol}}{\text{vol pipetted}}\right)}{V}$

where A = number of animals counted; V = volume of water filtered, and n = the number of splits.

Results and Discussion

Copepods were by far the most abundant organisms in the plankton samples (Table 3). *Pseudocalanus elongatus*, with all stages present, was the dominant species. Other copepod species present in large numbers were *Microcalanus pygmaeus*, especially stage V; *Derjuginia tolli*, all stages; *Metiridia longa*, especially stages II and III; and *Calanus hyperboreus*, stages I, II, and 111.

Other abundant taxa were hydrozoans, *Mysis* spp. juveniles, and juvenile amphipods from several genera. Other taxa were present and sometimes abundant, i.e. , unidentified barnacle larvae in the vertical tow at sta 8.

Table 1. Collection information for zooplankton samples collected in Harrison Bay, 8-9 Aug 1980;

Sta	Date (GMT)	Time (GMT)	Latitude (N)	Longitude (W)	Max Depth Tow (m)
1	9 Aug	0105	70°45'	151°53'	6
2	9 Aug	0240	70°40'	151"46'	6
3	9 Aug	0432	70°37.3'	151"28.7'	6
4	10 Aug	0235	70°43'	151°47'	8
5	10 Aug	0204	70°40'	151°35'	9
6	10 Aug	0340	70°36.7'	151°13.9'	9
7	10 Aug	0704	70°35'	151°30'	9
8	10 Aug	0805	70°35'	150°15'	9

Table 2. References used to identify zooplankton species collected in Harrison Bay, 8-9 Aug 1980.

General
- Broad, A. C., *et al.*, 1979
- Cooney, R. T., and J. J. Crane, 1972
- Hyman, L. H., 1951, 1959
- MacGinitie, G. E., 1955
- Smith, D. L., 1977

Cnidaria
- Carlgren, O., 1933
- Hartlaub, C., 1933
- Kramp, P. L., 1961
- Naumov, D. V., 1960
- Shirley, D. W., and Y. M. Leung, 1970

Annelida
- Dales, R. P., 1957
- Hartman, O., 1959
- Yingst, D. R., 1972

Mollusca
- Leung, Y. M., 1971

Arthropoda - Crustacea
- Sars, G. O., 1900b

Arthropoda - Crustacea - Ostracoda
- Howe, H. V., 1962
- Leung, Y. M., 1972c
- Sars, G. O., 1928
- van Morkhoven, F. , 1962, 1963

Arthropoda - Crustacea - Copepoda
- Jaschnov, W. A., 1947, 1955
- Lang, K., 1948
- Sars, G. O., 1903-1911

Arthropoda - Crustacea - Cirripedia
- Hock, P. P. C., 1913

Arthropoda - Crustacea - Mysidacea
- Holmquist, C., 1959
- Leung, Y. M., 1972b
- Zimmer, C., 1909

Arthropoda - Crustacea - Cumacea
- Sars, G. O., 1900a

Arthropoda - Crustacea - Isopoda
- Sars, G. O., 1899

Table 2. (cent.)

Arthropoda - Crustacea - Amphipoda
Bernard, J. L,, 1969
Bousfield, E., 1979
Chevreux, E., 1906
Gurjanova, E., 1951
Sars, G. O., 1895
Schellenberg, D., 1929
Tencati, J. R., 1970
Arthropoda - Crustacea - Decapoda
Hart, J. F. L., 1960, 1971
Haynes, E. B., 1973
Motoh, H., 1973
Arthropoda - Crustacea - Euphausiacea
Leung, Y. M., 1970
Chaetognatha
Dawson, J. K., 1971
Chordata - Larvacea
Leung, Y. M., 1972a
Chordata - Pisces
Ehrenbaum, E. H., 1909
Musienko, L. N., 1970
Rass, T. S., 1949

Table 3. Abundance (number per 1000 m^3*) of zooplankton taxa found in net hauls from Harrison Bay, 8-9 Aug 1980. All samples collected with a 0.75 m ring net, mesh size 308 µm. Where no number is present, no animals were found.

Taxon	Station Number / Tow Type†	1 V	1 DO	2 V	2 DO	3 V	3 DO	4 V	4 DO
Cnidaria - Hydrozoa									
Aeginopsis laurentii		2593	226	741	10		59	530	239
Aglantha digitale		1111	50						25
Eumedusa birulai									
Euphysa flammea		370							
Halitholus cirratus			50	741	30	370	151		63
Obelia sp.									
Plotocnide borealis		741	25					265	25
Sarsia princeps			25			370		265	
Actinula larvae			251						163
Nematoda - unidentified		1111							
Annelida - Polychaeta									
Iospilidae		22222		370	20			265	
Polynoidae		370							
Unidentified larvae		11111	478	370	90		8	530	704
Mollusca									
Gastropoda									
Pteropoda									
Limacina helicina			25				17		
Unidentified veliger larvae			25						
Bivalvia - unidentified larvae					10				

* Volume of double oblique tows estimated as ship speed x mouth area of net x duration of tow; volume of vertical tows estimated as depth x mouth area of net

† V = vertical tow; DO = double oblique tow

Table 3. (cent.)

Taxon	Station Number / Tow Type+	1 V	1 DO	2 V	2 DO	3 V	3 DO	4 V	4 DO
Arthropoda - Crustacea									
Ostracoda									
Conchoecia sp.			25						
Polycope sp.									
Cyprideis sorbyana		1481							
Cytheridea papillosa		4815			10				
Cytheromorpha fuscata		2593							
Cytherideidae		2963			20			265	
Bythocytheridae									38
Copepoda									
Calanus glacialis II									
Calanus hyperboreus III			7039	1852	201		2933	2652	1257
	II			35185	4223	240741	6285	2652	8798
	I			3704	1006	18518	1257	5305	
Pseudocalanus elongatus	VI f	2325926	194067	33333	7843	2796296	68292	623342	212418
	VI m			1852			838		
	V f	44444	3017		201			2652	1257
	V m		1006				838	2652	1257
	IV f	14815	2001	20370	5631	629630	7542	5305	5028
	IV m			27778	4022	685185	7122	5305	7542
	III	162963	8044	233333	43841	2018518	31423	106101	62846
	II			16666	4625	74074	6285	103448	22624
	I					18518		2562	
Microcalanus pygmaeus	VI f							5305	
	VI m								1257
	V f	59259	1006					5305	1257
	V m							23873	1257
Derjuginia tolli	V f								
	V m								
	IV f	74074						18568	3771
	IV m	59259	3017		201	55556		15915	6285
	III	59259	1006		402	74074		31830	7542

Table 3. (cont.)

Taxon	Station Number / Tow Type[+]	1 V	1 DO	2 V	2 DO	3 V	3 DO	4 V	4 DO
	II					18518	419	7958	
	I								
Eurytemora herdmani	VI f	14815			201				
	VI m								
Metridia longa	V m						419		
	IV f						419		
	IV m	14815			201	55556	838		1257
	III	14815		1852		74074	838	5305	1257
	II	29630	2011		201				
Limnocalanus macrurus	VI f								
	V f			3704	201			2652	
	V m		1006	3704			419		
	IV f							2652	5028
	IV m						419	2652	
	III								
	II				201		419		
Acartia bifilosa	VI m								
Acartia clausii	VI m			1852					
	IV f			1852					
	IV m			1852					
Acartia longiremis	VI f				201		419		
	IV f								1257
	IV m					18518			1257
Oithona similis	VI f								1257
Harpacticus uniremis	VI f	14815						2652	1257
	VI m							2652	
	V f								1257
Cirripedia - unidentified nauplii								265	264

Table 3. (cent.)

Taxon — Station Number / Tow Type †	1 V	1 DO	2 V	2 DO	3 V	3 DO	4 V	4 DO
Mysidacea								
Mysis litoralis f								
Mysis litoralis m								
Mysis litoralis juvenile								
Mysis spp. juvenile			21481	151	14074	8		
Unidentified damaged mysids								
Cumacea								
Leuconidae								
Diastylidae	1111							
Isopoda								
Unidentified epicaridean larvae	741	50		20		17		
Amphipoda								
Gammaridea								
Onisimus glacialis juvenile	1111	50					265	
Onisimus litoralis f								
Metopa sp. juvenile		25						
Acanthostepheia behringiensis								
Monoculodes sp. juvenile	20741	25						
Monoculodes sp. damaged								
Oedicerotidae juvenile	13704		370	30				
Apherusa glacialis f								
Apherusa glacialis juvenile		50		30			265	
Apherusa megalops juvenile								
Weyprechtia pinguis m								
Weyprechtia pinguis juvenile								
Marinogammarus sp. *cf.* juvenile								
Gammaridae juvenile damaged								
Hyperiidea								
Parathemisto abyssorum juvenile								
Hyperia galba f								
Hyperia galba m						8		
Hyperia galba juvenile						8		

Table 3. (cent.)

Taxon — Station Number / Tow Type†	1 V	1 DO	2 V	2 DO	3 V	3 DO	4 V	4 DO
Unidentified hyperiid larvae	370	25	370					13
Decapoda								
Anomura								
Paguridae - unidentified zoea	1852	151			1481	126	265	88
Brachyura								
Hyas sp. stage I zoea						8		
Caridea								
Hippolytidae - unidentified zoea	741	25						13
Euphausiacea								
Thysanoëssa raschii juvenile								13
Calyptopis stage III								
Unidentified crustacean larvae								
Unidentified crustacean eggs	1111	1408			370		7958	1458
Chaetognatha								
Sagitta elegans	1111	201					1592	364
Unidentified immature chaetognaths								13
Chordata								
Larvacea								
Fritillaria borealis	1481	50			370		1592	867
Pisces (larvae)								
Cyclopteridae								
Gadidae							265	
Unidentified damaged larvae								
Other organisms								
Foraminifera	18148							138
Trochophore larvae	370	25						50

Table 3. (cent.)

Taxon / Station Number / Tow Type+	5 V	5 DO	6 V	6 DO	7 v	7 DO	8 v	8 DO
Cnidaria - Hydrozoa								
Aeginopsis laurentii	1980	855	6188	4290	12871	2278	26238	1043
Aglantha digitale		13	248		248	15	495	38
Eumedusa birulai	248		248		248			
Euphysa flammea								25
Halitholus cirratus	495	188	1733	2011	2723	603	2228	75
Obelia sp.								13
Plotocnide borealis	248	25	495		248	136	248	50
Sarsia princeps	495		248	134	248		495	
Actinula larvae	990	126	3218	3888	11634	1840	10396	1358
Nematoda - unidentified						15		
Annelida - **Polychaeta**								
Iospilidae								
Polynoidae								
Unidentified larvae	5693	75	1485	536	1238	60	2475	327
Mollusca								
Gastropoda								
Pteropoda								
Limacina helicina	248		248		495	75	495	13
Unidentified veliger larvae					743	30		
Bivalvia - unidentified larvae								

Table 3. (cent.)

Taxon	Station Number / Tow Type[t]	5 V	5 DO	6 V	6 DO	7 V	7 DO	8 V	8 DO
Arthropoda - Crustacea									
Ostracoda									
Conchoecia sp.									
Polycope Sp.				248					
Cyprideis sorbyana									
Cytheridea papillosa									
Cytheromorpha fuscata									
Cytherideidae									
Bythocytheridae		248							
Copepoda									
Calanus glacialis	II		1257				3771		
Calanus hyperboreus	III	86634	8798	24752	12569			123762	1257
	II	37129	2514		8379		7542	24752	3142
	I								628
Pseudocalanus elongatus	VI f	1893564	358220	5866337	2547344	4084158	1591252	6311881	166541
	VI m	24752		24752	8379	24752	3771		628
	V f	12376	7542	24752	4190		41478	24752	628
	V m	12376	11312	24752	12569	99010	116893		
	IV f	24752	36450	198020	83794	49505	184766	247525	13198
	IV m	37129	57818	396040	150830	74257	297888	198020	7542
	III	569307	142031	767327	356125	866337	241327	1757426	60960
	II	49506		24752		99010			1257
	I								
Microcalanus pygmaeus	VI f							24752	1257
	VI m								
	V f	24752		24752				24752	1257
	V m	49506		24752				24752	2514
Derjuginia tolli	V f	12376							
	V m							24752	628
	IV f	24752			50276	123762	7542		1885
	IV m	86634		49505	46087	272277	18854		2514
	III	86634	2514	420792	113122	396040	33937	247525	2514

Table 3. (cent.)

Taxon / Station Number / Tow Type+	5 V	5 DO	6 V	6 DO	7 V	7 DO	8 V	8 DO
II	222772		*346535*	*92174*	99010	3771		**1257**
I				*4190*				
Eurytemora herdmani **VI** f							49505	
VI m		1257						
Metridia longs V m								
IV f								
IV m							24752	1257
III	24752	2514	24752	12569	74257	3771	247525	5656
II	12376			4190		3771	74257	1885
Limnocalanus macrurus VI f		1257		4190				
V f	12376							
V m		1257			24752	7542	24752	
Iv **f**				4190		**3771**		
IV m						3771		
III		1257		4190				
11								
Acartia bifilosa **VI m**						3771		
Acartia clausii **VI** m								
IV f								
IV m								
Acartia longiremis **VI** f								
IV f								
IV m				4190				
Oithona similis **VI f**					24752			628
Harpacticus uniremis **VI** f								
VI m								
V f								
Cirripedia - unidentified **nauplii**		38			1733	106	13366	1571

Table 3. (cent.)

Taxon / Station Number / Tow Type[t]	5 V	5 DO	6 v	6 DO	7 v	7 DO	8 v	8 DO
Mysidacea								
Mysis litoralis f								
Mysis litoralis m								
Mysis litoralis juvenile					495			
Mysis spp. juvenile	495	666	14356	57919	24010	1659	248	
Unidentified damaged mysids					2228			
Cumacea								
Leuconidae								
Diastylidae								
Isopoda								
Unidentified epicaridean larvae	743	38	2228		1238	90	990	88
Amphipoda								
Gammaridea								
Onisimus glacialis juvenile	248							
Onisimus litoralis f								
Metopa sp. juvenile						15	248	13
Acanthostepheia behringiensis								
Monoculodes sp. juvenile	495							
Monoculodes sp. damaged								
Oediceroticlae juvenile	990							
Apherusa glacialis f					248	15	495	38
Apherusa glacialis juvenile	1485	63	248		248	15	990	63
Apherusa megalops juvenile			248	268				
Weyprechtia pinguis m		25				15		
Weyprechtia pinguis juvenile			2 4 8		248	15	248	
Marinogammarus sp. *cf.* -juvenile		13				15		
Gammaridae juvenile damaged			248					
Hyperiidea								
Parathemisto abyssorum -juvenile						15		
Hyperia galba f		25	248	268	248	30		
Hyperia galba m				134			248	
Hyperia galba juvenile				268	743	15	248	13

Table 3. (cont.)

Taxon / Station Number, Tow Type[†]	5 V	5 DO	6 V	6 DO	7 V	7 DO	7 V	7 DO
Unidentified hyperiid larvae	248	38			248	30	248	
Decapoda								
Anomura								
Paguridae, unidentified zoea	495	214	990	402	248	362	2970	214
Brachyura								
Hyas sp. stage I zoea		25	248			15	248	
Caridea								
Hippolytidae - unidentified zoea		38				60		38
Euphausiacea								
Thysanoëssa raschii juvenile					248		495	
Calyptopis stage 111					248			
Unidentified crustacean larvae			248	268	743	30		38
Unidentified crustacean eggs	1238	1269	248	536	743	2081	1238	75
Chaetognatha								
Sagitta elegans	248		495		248	15	743	
Unidentified immature chaetognaths						15		
Chordata								
Larvacea								
Fritillaria borealis	2970	767	3713	402	1980	468	18812	2313
Pisces (larvae								
Cyclopteridae		25		536	743	90	248	25
Gadidae			248		248	106	495	75
Unidentified damaged larvae							248	
Other organisms								
Foraminifera	743	2.5	248		248			
Trochophore larvae		13	495	134	495	256	495	138

It is likely that *Pseudocalanus elongatus* and *Derjuginia tolli* breed in Harrison Bay because both young copepodid stages and mature adults were present at the same time. More than one immature stage of several other species was present, suggesting that at least part of their life cycle is adapted for survival in shallow water.

Calanus hyperboreus, *Microcalanus pygmaeus*, and *Metridia longa* are known to breed independently of their food supply (Heinrich 1962), with *C. hyperboreus* and *M. longs* apparently not feeding extensively until stage II or III (Hansen *et al.* 1971). Adults of these two species were collected only in one of the benthic samples.

Calanus glacialis was present as stage II copepodids in two samples. Grainger (1965) reported that stage I copepodids developed from nauplii in late July and early August, with stage II's developing in early September. He suggested that this species probably overwintered as stage 111 with development continuing during a second summer. This species is reported to breed when phytoplankton is abundant (Heinrich 1962).

Calanus hyperboreus stages I, II, and III were found in most plankton tows, but adult females (stage V) were only found in a benthic sample. This species probably also overwinters as stage III (Hansen *etal.* 1971), In the Gulf of Maine, this species lives below the photic zone, coming to the surface only during the spring phytoplankton bloom (Conover 1967). In laboratory experiments Conover (1967) found that adequate egg production could occur even when food was scarce or absent.

Pseudocalanus elongatus was the dominant species in all of the plankton hauls. Few adult males were present, but many of the adult females were carrying eggs attached to the genital segment and eggs could be seen in the oviducts. Ussing (1938) reported *P. elongatus* to be abundant in all seasons in East Greenland fjords with a population explosion in July and August. This agrees witn RU 359's data from Stefansson Sound where *P. elongatus* was the most abundant species in Nov 1978, March and May 1979, and off Narwhal Island in Apr, May, and Jun 1980 (Homer and Schrader 1981).

Microcalanus pygmaeus is considered to be a deep-living animal (Ussing 1938) . Only adults and stage V individuals were found in the Harrison Bay samples. It apparently develops during winter and is not dependent on phytoplankton for food,

The distribution of *Derjuginia tolli* is closely related to the presence of brackish water (Jaschnov 1947). It has been reported from the High Polar Basin, but Johnson (1963) considered it *to* be an expatriate from coastal areas.

Eurytemora herdmani is another brackish water species occurring in coastal waters of northeastern and northwestern North America and north-eastern Asia, but it is not found in fresh water or water with very low salinity (Wilson and Tash 1966, Johnson 1966). Adults were found in Harrison Bay and females carried eggs.

Metridia longa was present in all the plankton tows from Harrison Bay. An adult male was found in one of the benthic samples. This species was common during winter in East Greenland fjords (Ussing 1938). Spawning occurred in August, with most of the adults dying in Sep-Ott. Eggs and nauplii descended to deeper water where development occurred in winter. Distinct diurnal migrations occurred in late summer as soon as there was a difference between night and day (Ussing 1938). *Metridia longa* apparently does not feed much until stage II or III (Hansen *et al.* 1971).

Limnocalanus macrurus, present in all Harrison Bay samples, has a widespread, circumpolar distribution and occurs in fresh as well as brackish water (Holmquist 1970).

Adult males of *Acartia bifilosa* were found in the double oblique tow from sta 7. It is a brackish water species, common in the northern Baltic (Segerstråle 1957) and has been reported to be abundant in some northwestern Alaska lagoons (Johnson 1961). It is probably an expatriate in Harrison Bay.

Acartia clausii and *A. longiremis* were not abundant in Harrison Bay. *Acartia clausii* is considered to be an inshore, estuarine species (Willey 1920), while *A. longiremis* is a widespread, neritic species (Johnson 1961).

Oithona similis is a small-sized, common, boreal cyclopoid species that was rare in Harrison Bay samples probably because of the relatively large meshed net we used.

Harpacticus uniremis is a widespread, littoral harpacticoid species, probably caught when the net was towed near the bottom or contained debris to which the animal was attached.

All of the hydrozoans are common, widespread species in Arctic coastal seas. *Aeginopsis laurentii* and *Aglantha digitale* are common pelagic species, while *Halitholus cirratus*, *Plotocnide borealis*, and *Sarsia princeps* are meroplanktonic species having pelagic medusae and attached polyp stages. *Halitholus cirratus* is reported to occur in freshened water in bays and at river mouths. All of these species have been reported from plankton samples collected previously by RU 359.

Polychaete larvae were most abundant at sta 1, but were present at all stations. Larvae are pelagic while adults may be either pelagic or benthic. Pelagic barnacle larvae were also present, primarily at sta 7 & 8. Adult barnacles are benthic. The ostracods, most abundant at sta 1, are probably also benthic species.

Most of the mysids and amphipods collected in Harrison Bay were juveniles; none were present in large numbers, although this may be an artifact caused by our sampling gear. All have been reported from previous OCSEAP samples. Juvenile mysids were most abundant at sta 2, 3, 6, & 7. Juvenile amphipods were most numerous at sta 1. Decapod zoea were present in low numbers at all stations. Unidentified crustacean eggs were also common at all stations.

Chaetognaths were present at all stations except 2 & 3 and were identified as *Sagitta elegans*, a common nearshore species.

Fritillaria borealis was the only larvacean in these samples and was present at all stations except sta. 2.

Fish larvae were most abundant at stations 7 & 8. Larvae were identified only to family with Cyclopteridae and Gadidae being present.

With the exception of the copepod *Acartia bifilosa* and perhaps some of the Ostracoda, all of the species identified in these samples have been reported previously from the Beaufort Sea by OCSEAP investigators. The presence of many juveniles among the larger crustaceans and young stages of many copepods relatively late in the season suggests that much development must occur during winter when food from phytoplankton productivity is low. Or if development does not occur, then the juveniles and young must be able to overwinter at low metabolic rates. Some copepods have young stages that apparently do not feed much (Hansen *et al.* 1971) and others, such as *Calanus hyperboreus*, can complete their life cycles using stored lipids as a carbon source (Conover 1967). It is not known what most animals do in winter. Schneider and Koch (1979) have shown that few amphipods are able to utilize carbon from terrestrial sources. It is gradually becoming known that some copepod species may be more opportunistic feeders than previously thought. Berk *et al.* (1977) have reported ciliates to be an important food source for one species of *Eurytemora* and suggested that they might be important for copepods in general. Ciliates have not been studied at all by OCSEAP investigators, and nothing is known about their occurrence or importance in Beaufort Sea coastal areas, although they have been abundant in some phytoplankton net samples from the Barrow area and in some ice cores collected for ice algae studies (Homer personal observations). They are known to utilize bacteria and particulate organic material as well as diatoms, flagellates, and other ciliates as food sources (Fenchel 1968). Perhaps they help provide a carbon source when phytoplankton carbon is not available.

Animals found in the three benthic samples are listed in Table 4. The numbers given are the number of specimens counted in the entire sample. Numbers per unit volume cannot be calculated because there is no haul data, Most of the species are benthic ones.

Acknowledgements

LGL personnel collected the samples and sent them to us. Marc Weinstein identified the non-copepod organisms and provided the table of references used for identification. Gayle Heron identified the copepods and provided the information and references on life history, food habits, and ecology.

Table 4. Relative abundance* of animals found in samples taken at station 5, Harrison Bay, 14 Aug 1980. Method of collection unknown. Where no number is present, no animals were found.

Taxon Sample Number	1	2	3
Cnidaria - Hydrozoa			
Aeginopsis laurentii	1	3	1
Nematoda - unidentified		21	27
Annelida - Polychaeta			
Unidentified benthic spp.	14	51	32
Mollusca - Bivalvia - unidentified	4	7	1
Arthropoda - Crustacea			
Ostracoda			
Cyprideis sorbyana	1		
Copepoda			
Calanus hyperboreus VI f		1	
V m		1	
III	4		2
Pseudocalanus elongatus VI f	1	1	
Euchaeta glacialis IV f	1		
Limnocalanus macrurus V f			1
Metridia longs VI m		1	
Mysidacea			
Mysis spp. juveniles	10	17	33
Cumac ea			
Diastylidae female		2	
juveniles	7	14	16
Amphipoda			
Gammaridea			
Aceroides latipes female (gravid)		1	
female		8	11
male		7	6
juvenile		12	12
Paroediceros lynceus juvenile		1	
Oedicerotidae juvenile			5
Apherusa megalops juvenile			2
Unidentified crustacean eggs		25	56
Priapulida			
Halicryptus spinulosus		1	
Chordata - Pisces			
Gadidae		1	
Foraminifera	9	23	14

* Numbers given are number counted in entire sample. Lack of haul data prevents calculation of abundance per unit volume. Most animals are benthic.

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