

Zoobenthos Data from Upper Frobisher Bay, 1967-1973

J. W. Wacasey, E. G. Atkinson, and L. Glasspoole

Arctic Biological Station
Department of Fisheries and Oceans
Ste. Anne de Bellevue, Quebec H9X 3L6

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ABSTRACT

Wacasey, J. W., E. G. Atkinson, and L. Glasspoole. 1979. Zoobenthos data from upper Frobisher Bay, 1967-1973. Can. Data Rep. Fish. Aquat. Sci. 164: 99 p.

Data on marine zoobenthic invertebrates were obtained from samples collected from 1967 to 1973 by grab, trawl, and dredge in depths of water of 25 to 90 m in an area of 1.2 km² located in upper Frobisher Bay, southern Baffin Island. Methods of collecting and processing samples, and directions for the presentation of data are given.

Results are presented in tabular form and consist of density and biomass of species collected by grab, species representation and biomass of species collected by trawl and dredge, and values of substances in the substrate. Associated collecting data together with some data on benthic fish and macrophytes are included.

Key words: Zoobenthos: density, biomass, distribution; marine invertebrates; Canada; Arctic; Frobisher Bay; marine sediments.

RESUME

Wacasey, J. W., E. G. Atkinson, and L. Glasspoole. 1979. Zoobenthos data from upper Frobisher Bay, 1967-1973. Can. Data Rep. Fish. Aquat. Sci. 164: 99 p.

Des données relatives aux invertébrés benthiques ont été recueillies à partir d'échantillons prélevés de 1967 à 1973, à la benne, à la drague et au chalut à des profondeurs allant de 25 à 30 mètres sur une superficie de 1,2 km² située dans le haut de la Baie de Frobisher, au sud de l'île de Baffin.

La description des méthodes de prélèvement et de préparation des échantillons ainsi que des indications sur la présentation des données sont incluses.

Les résultats, présentés sous forme tabulaire, comprennent la biomasse et la densité des espèces prises à la benne, les noms et la biomasse des espèces prises au chalut et à la drague et une description quantitative des composants du substrat. A ceci se rejoignent des données relatives aux prélèvements ainsi que certaines données relatives aux poissons démersaux et aux macrophytes.

INTRODUCTION

Zoobenthic studies were initiated in 1967 in upper Frobisher Bay, southern Baffin Island, as part of a multidiscipline program devised by the Biological Oceanography Section of the Arctic Biological Station. The objective of these continuing studies is to determine the nature and magnitude of the role of benthic invertebrates in an arctic marine ecosystem.

The presentation of these data was intended as the fourth in a series of related technical reports pertaining to the station 5 area; however, the zoobenthic studies were interrupted by more urgent projects in other parts of the Canadian arctic. With the termination of the above projects, attention was again turned to the Frobisher Bay studies, and this report represents the first of a series of planned data reports on the zoobenthos of Frobisher Bay. At the beginning of the zoobenthic studies in 1967 a standard procedure for collecting and processing samples was developed for the presentation of similar kinds of data from different stations. Such an approach allows the data to be used in comparing benthic communities in different parts of the arctic, and in other areas of the world.

The data in the present report were derived from collections made periodically from 1967 to 1973, excluding the years 1971 and 1972 in which no samples were taken. The data were derived from grab, trawl, dredge, and substrate samples and are presented in tabular form in this order. Data from grab samples, taken to measure infauna, are listed chronologically by station and consist of values of density and biomass of species. Trawls and dredges were taken to measure the epifauna, and the derived data consist of species representation and biomass values. Samples of substrate were usually collected when grab samples were taken. Substrate data consist of values of particle-size distribution, pH, nitrate-nitrogen, ammonia-nitrogen, total nitrogen, organic carbon, carbon-nitrogen ratio, calcium, potassium, magnesium, phosphorus, manganese, zinc, copper, and silicon. Associated collecting data are presented in tabular form and are included in each of the sections pertaining to the method of sampling. Some data on biomass of benthic algae and fish are included.

Zoobenthic studies together with the chemical, zooplankton, and phytoplankton studies (Grainger, 1971a; Grainger, 1971b; Bursa, 1971) have resulted in substantial amounts of data pertaining to the station 5 area. These data have been amassed from several years of replicate sampling and have provided an insight into the structure and level of activity of an arctic marine ecosystem. The study area has become one of the most thoroughly worked locations of the Canadian arctic. The zoobenthic community, excluding the protozoans, consists of 448 species which account for 12 to 137 g m⁻² of dry weight biomass. This area as compared to other areas that have been sampled (Wacasey, 1974; Wacasey, Atkinson, and Kinlough, 1976; Wacasey, Atkinson, Derick, and Weinstein, 1977) has a diverse and abundant zoobenthic fauna which is contrary to the general impression that prevails about arctic regions.

DESCRIPTION OF STUDY AREA

The 1.2 km² area of study (stations 5, 5a, 5c-g) is located between Cairn and Mair Islands, approximately 8 km south of the settlement of Frobisher Bay (Fig. 1). The bottom, which is irregular, slopes from each of the islands towards a trench which bisects the area along its long axis. The depth of the water at the upper end of the trench is about 60 m. The trench bifurcates as it courses towards the lower end of the study area, and the depth of water of the trench is 100 m at the southern boundary of the area. The bottom is soft, consisting of fine sediment, with scattered rocks and boulders. Bottom temperatures and salinities at the sampled depths of 25 to 90 m are fairly constant, varying by no more than 2°C and 2‰ respectively.

Ice begins to form in late November or early December, depending on the year, gradually increasing to a depth of about 2 m by late May or early June when the snow cover melts, and ice breakup commences.

The tides in upper Frobisher Bay are semi-diurnal with a mean range of 7.3 m and a large range of 11.6 m.

METHODS

ASSOCIATED DATA

Associated data, most of which are self-explanatory, are presented in Tables 3, 11, and 14. The depth of water of a station is that recorded at the time of sampling. Temperature and salinity values are listed for all grab stations. Calibrated reversing thermometers were used to determine temperatures. Prior to 1973 salinity values from collected samples were determined at Bedford Institute in Dartmouth, Nova Scotia. The salinity values for the collections in 1973 were determined at the Arctic Biological Station using a Bissett-Berman model 6230 laboratory salinometer. The temperature and salinity values were usually obtained at a depth within 5 m of the bottom.

ZOOBENTHOS

Grab

Station 5a was sampled 5 times at depths of 26 to 37 m from December 1967 to August 1968. Station 5 was sampled 9 times at depths of 45 to 72 m from July 1968 to August 1970. Stations 5c, 5d, 5e, and 5f were sampled on 23 August 1969. The latter 4 stations make up a depth series of 31 m, 43 m, 58 m, and 73 m, respectively. The locations of the stations are shown in Fig. 1.

A "Petterson" grab (Foerst, Chicago) was used to collect samples, from the M.V. *Calanus* during the open water season, and from the surface of the ice in winter. This grab samples an area of 0.065 m² and has a volume of 5 L. On soft bottoms the grab penetrates from 6 to 15 cm of substrate, varying with the type of substrate. Grabs with less than 2 L of substrate or with rocks wedged in the jaws were not kept. Usually, a sample consisted of 6 grabs for a combined surface area of 0.39 m² (Table 3).

Following the collection of a set of grabs from a station, substrate and organisms were washed on a stainless steel screen with a mesh size of 0.5 mm; however, the first three collections from station 5a (Dec., Feb., and Apr.) were washed on a screen with a mesh size of 1 mm. Retained invertebrates and debris were preserved in formalin (1 part formaldehyde with 9 parts water) for transporting to the Arctic Biological Station where they were processed.

Processing consisted of sorting, identifying, counting, and weighing the specimens in each sample.

Each sample was sorted by hand using a Wild M5 dissecting microscope. Specimens were identified to species in most cases, and counts of specimens of each species were recorded. Species identification was not attempted for some taxa, such as nematodes, nemerteans, hydroids, and bryozoans, and although several species were involved, they were listed by taxon on a collective basis. In a similar manner sponges, bryozoans, hydroids, and other colonial forms were regarded as one individual or their presence was indicated by an "X". The names of some species are not necessarily the most recent. The name that was decided upon when the species was initially identified has been retained to allow for consistent referral to the species presence at different localities in the Canadian arctic. Protozoans are arbitrarily excluded from this report.

After sorting and identification, specimens were dried (drying oven at 100°C overnight) and weighed on a Sartorius gravimetric balance in grams to four decimal places. The dry weight excludes the tubes of polychaetes and the shells of molluscs, but no effort was made to eliminate the gut contents of the organisms. The calcareous parts of echinoderms and the skeletal spicules of sponges are included in the dry weight because of difficulty in separating organic and inorganic parts.

Data are presented on a m² basis. In each sample, number and weight of individuals of each species were multiplied by a factor to convert sample values to m² values. For example, values derived from a sample area of 0.39 m² were multiplied by the factor 2.5 to obtain the m² values. The factor was rounded off to the nearest 0.5 for convenience; thus, a factor of 2.5 instead of 2.6 was used to multiply values of a sample with an area of 0.39 m² in converting to m² values. A greater degree of accuracy was considered to be unnecessary. Most species collected by grab were considered

to be representative, and the sample values were converted to m^2 equivalents in a consistent manner. In a few cases, as indicated, the sample values were used without converting, because representation of occasionally collected, large, epifaunal species was not known.

Species data for stations and samples are presented in Tables 5 to 10. Density and biomass values for each station are summarized in Table 4.

Benthic algae that was brought up by the grab was retained, dried, and weighed. Station 5a, the 35 m station, yielded sizeable amounts of *Phyllophora* sp. Biomass values of dry algae are listed by collection in Table 17.

Trawl

Trawls were taken for identifying and measuring the epifaunal components of the bottom community. Three preliminary trawls, using a large otter trawl with a trawling width of 4 m, were made in 1967. Data from these trawls are not presented, but identified species that were not found in other collections are included in the species list for the area (Table 1).

In 1968 five small otter trawls were made in depths of water from 55 to 74 m in the vicinity of station 5 (Fig. 2). The small otter trawl had a trawling width of about 2.5 m and the mesh size of the cod end of the net was 0.5 cm. The speed of the ship was 3 to 4 knots and the estimated trawling time varied from 1 to 5 minutes. After collecting, specimens were washed on a 0.5 cm stainless steel screen, separated into taxa, and a wet weight was obtained for each taxa. The animals were preserved in formalin for transporting to the Arctic Biological Station, where they were identified and dried. Dry weight was determined in the same manner as that described for the infauna. Associated data and biomass values are presented in Table 11. Dry weight values of taxa are presented in Table 12 and trawled species are listed in Table 13.

Since it is difficult to measure the effective trawling distance, a method was developed using a dredge to obtain more reliable biomass estimates of the epifauna.

Dredge

The dredge consisted of an iron frame with a 2 m length net attached. The width of the dredge was 36 inches and the mesh size of the net at the cod end was 0.5 cm. This dredge was employed in the following way. The M.V. *Calanus* was anchored in the spot of the desired depth to be sampled. The dredge was carried in a powered canoe to a distance of about 100 m from the *Calanus* and dropped into the water. After the dredge had settled

to the bottom, it was winched in from the *Calanus*. The length of wire was determined from the meter-block when the dredge started to move, as indicated by a change in the angle of the wire. Knowing the depth of water and the amount of wire that was out at the beginning of a dredge haul, the horizontal distance that the dredge traversed along the bottom was calculated to within about 5 metres. Thirteen dredge samples were taken on the bottom in depths of water from 40 to 68 m in 1969, 1970, and 1973 (Fig. 3). Each sample consisted of 1 to 5 dredge hauls. After collection, the specimens were treated in a similar manner to those described above in the section on trawls. Associated data and biomass values of the dredges are presented in Table 14. Dry weight values of taxa are presented in Table 15 and identified dredged species are listed in Table 16. Tables 18 and 19 include biomass data for algae and fish.

SUBSTRATE ANALYSIS

Samples of sediments were obtained from stations 5a, 5, 5c, 5d, 5e, and 5f at the time that grab samples were taken. Only a substrate sample was taken at station 5g. Most of the substrate samples were dried soon after collection. Substrate samples were not taken when trawl and dredge samples were collected.

Mechanical and chemical analyses of sediments were made by the Macdonald College Soil Testing Laboratory under the supervision of A. F. MacKenzie. Synoptic procedures provided by Dr. MacKenzie are presented below. Where applicable, values are related to 1 g of oven-dried sediment. In most cases the values of the determined substances are presented as levels of the substances in forms that are available to zoobenthos and phytobenthos; however, the significance and relationship of the substances to the biota remain to be evaluated. Data from sediment analyses are presented in Tables 21-24.

Synoptic procedures for sediment analysis

1. Particle size analysis was made by the hydrometer method described by Day (1). Three fractions were recognized; particles of 0.05-2.00 mm, particles of 0.002-0.05 mm, and particles less than 0.002 mm effective diameter.

For this report, values were transformed to the Wentworth Scale, with particle-size fractions of 0.063-2.00 mm, 0.004-0.063 mm, and less than 0.004 mm.

2. pH was determined with a glass calomel electrode combination on a suspension of sample/0.01M CaCl₂ in a 1:3 ratio.
3. Nitrogen was determined for total and inorganic forms of nitrogen. Total nitrogen was determined by the semi-micro Kjeldahl procedure described by Bremner (2).

Inorganic forms of nitrogen were extracted with 1N KCl from freshly thawed samples by modification of the method described by Bremner (3). Nitrate and ammonia levels in the extracts were determined colorimetrically by the methods currently in use at the Macdonald College Soil Testing Laboratory.

4. Organic carbon was determined by the Walkley-Black procedure as described by Allison (4).
5. Potassium, calcium, and magnesium were extracted by the procedure described by Jackson (5) with a sample/extractant ratio of 1:10 and an extraction time of 15 minutes. Potassium was determined by flame photometry and calcium and magnesium were determined by atomic absorption spectrophotometry.
6. Phosphorus was extracted using a modification of the procedure for available P (phosphorus soluble in dilute acid-fluoride) as described by Jackson (6). The sample/extractant ratio was 1:10 with an extraction time of 1 minute. Determination was made by the chlorostannous-reduced molybdophosphoric blue color method (7) adapted to automated analysis.
7. Total phosphorus was obtained from dried ground samples digested with 60% perchloric acid (HClO_4) by the method described in Black (9). Total P was determined colorimetrically according to Jackson (8) by the vanadomolybdophosphoric yellow color method at 470 nm.
8. Iron, manganese, and zinc were extracted from samples using 1N HCl with a sample/extractant ratio of 1:10 and an extraction time of 30 minutes. Concentrations in the extracts were determined by atomic absorption spectrophotometry (10).
9. Copper was obtained by the EDTA extraction method as modified by Makhan (11). Sample/extractant ratio was 1:10 with an extraction time of 30 minutes. Extracted copper concentrations were determined by atomic absorption spectrophotometry.
10. Silicon was extracted by the method described by McKeague and Cline (12). Dried ground sediments were shaken in a 1:1 ratio with 0.01M CaCl_2 for 24 hours and centrifuged. Supernatant was diluted and silicon content was determined colorimetrically at 830 nm after reduction of the yellow silicomolybdate complex according to the method of Voinovitch et al. (13).

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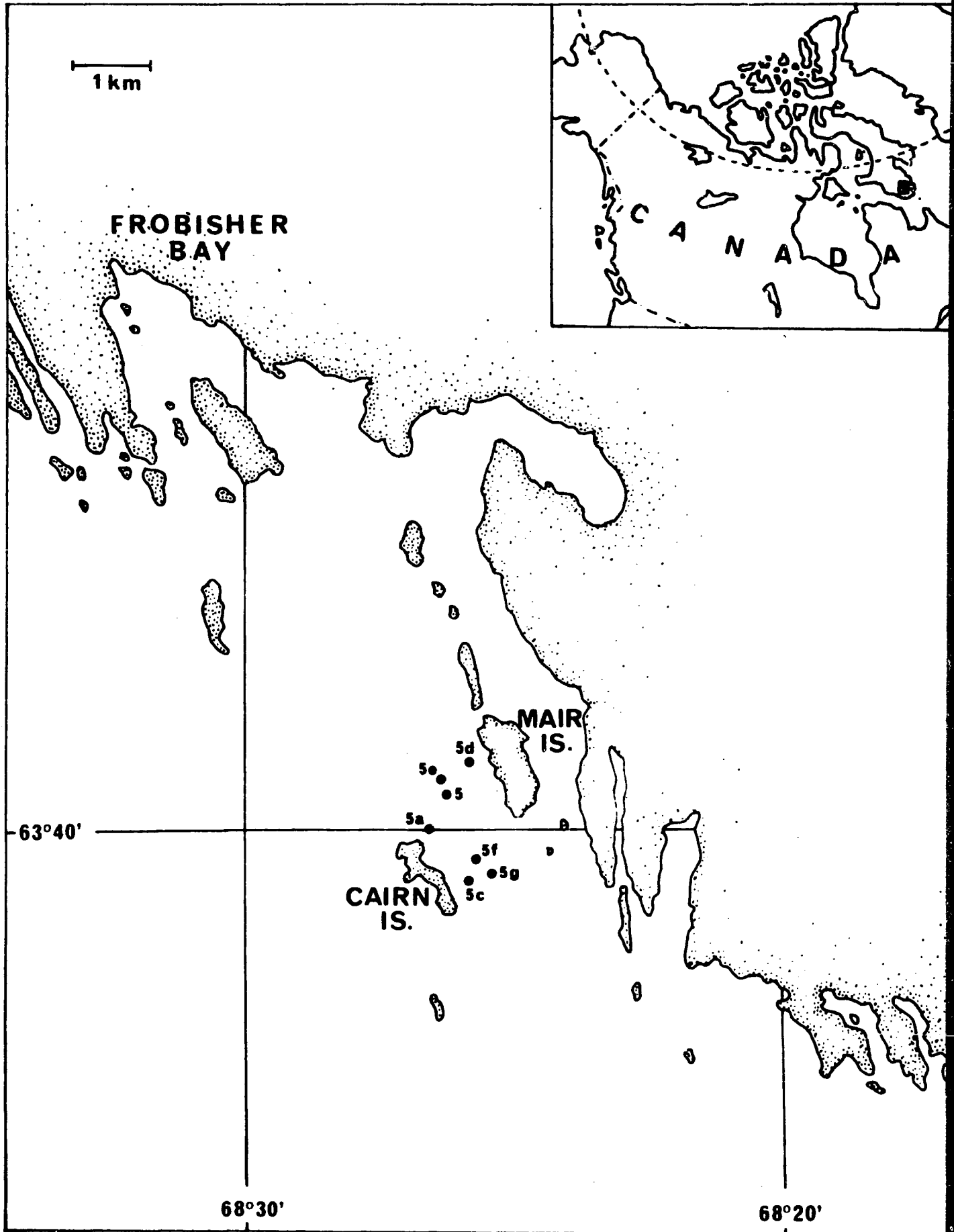


Fig. 1. Stations sampled by grab in upper Frobisher Bay, 1967-1970.

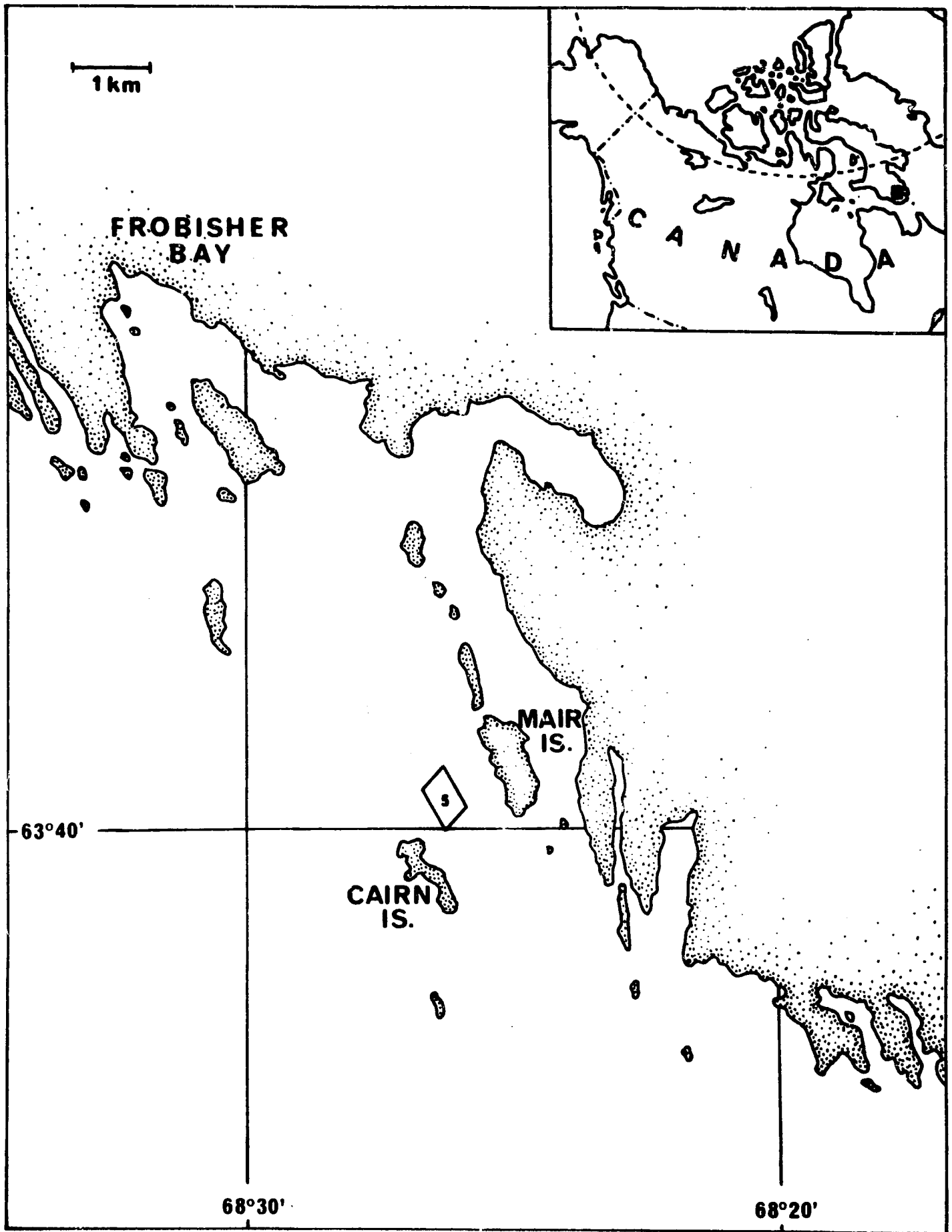


Fig. 2. Area sampled by trawl in upper Frobisher Bay, 1967-1968.

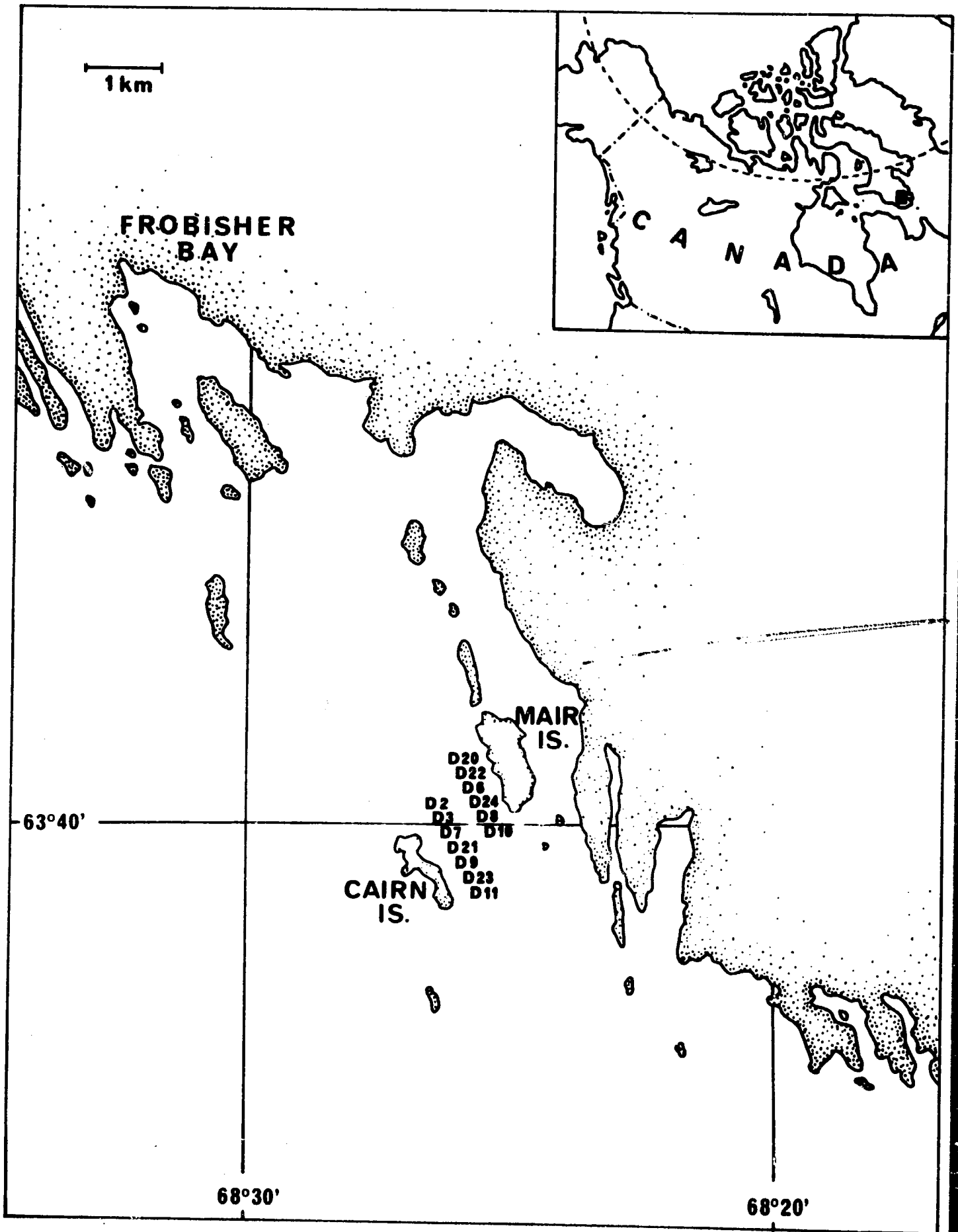


Fig. 3. Stations sampled by dredge in upper Frobisher Bay, 1969-1973.

Table 1. Species of invertebrates collected from the station 5 area in upper Frobisher Bay, 1967-1973.

Species	No.	Species	No.
ANNELIDA:Hirudinea	1	<i>Fabricia sabella</i>	
Leech		<i>Flabelligera affinis</i>	
		<i>Gattyana cirrosa</i>	
ANNELIDA:Polychaeta	116	<i>Harmothoe extenuata</i>	
<i>Ammotrypane breviata</i>		<i>Harmothoe imbricata</i>	
<i>Ampharete acutifrons</i>		<i>Harmothoe nodosa*</i>	
<i>Ampharete arctica</i>		<i>Harmothoe oerstedii*</i>	
<i>Amphitrite cirrata</i>		Hesionid	
<i>Amphitrite groenlandica</i>		<i>Heteromastus</i> sp.	
<i>Antinoella badia</i>		<i>Lanassa venusta</i>	
<i>Apistobranchus tullbergi</i>		<i>Laonice cirrata</i>	
<i>Aricidea jeffreysi</i>		<i>Lacnome kroyeri</i>	
<i>Aricidea suecica</i>		<i>Laphania boeckii</i>	
<i>Autotytus cornutus**</i>		<i>Leaena abranchiata</i>	
<i>Brada granosa</i>		<i>Leiochone polaris</i>	
<i>Brada inhabilis</i>		<i>Lumbriclymene minor</i>	
<i>Brada villosa</i>		<i>Lumbrineris fragilis</i>	
<i>Branchiomma infarcta</i>		<i>Lumbrineris minuta</i>	
<i>Capitella capitata</i>		<i>Lumbrineris tenuis</i>	
<i>Chaetozone setosa</i>		<i>Maldane sarsi</i>	
<i>Chaetozone</i> sp.		<i>Melinna cristata</i>	
<i>Chitinopoma fabricii</i>		<i>Micronephthys minuta</i>	
<i>Chone dumeri</i>		<i>Microspio</i> sp.	
<i>Chone infundibuliformis</i>		<i>Myriochele heeri</i>	
<i>Chone</i> sp. a		<i>Mystides borealis</i>	
<i>Chone</i> sp. b.		<i>Nephtys ciliata</i>	
<i>Cossura longocirrata</i>		<i>Nephtys paradoxa</i>	
<i>Diplocirrus glaucus</i>		<i>Nereimyra aphroditoides</i>	
<i>Enipo gracilis</i>		<i>Nereis zonata*</i>	
<i>Ephesiella minuta</i>		<i>Nicolea zostericola</i>	
<i>Ephesiella peripatus</i>		<i>Nicomache lumbricalis</i>	
<i>Eteone barbata</i>		<i>Nicomache quadrispinata</i>	
<i>Eteone flava</i>		<i>Owenia fusiformis</i>	
<i>Eteone longa</i>		<i>Parahesion</i> sp.	
<i>Eteone spetsbergensis</i>		<i>Paraonis gracilis</i>	
<i>Euchone analis</i>		<i>Paraonis</i> sp. a	
<i>Euchone papillosa</i>		<i>Paraonis</i> sp. b	
<i>Eumida</i> sp. a		<i>Petaloproctus tenuis</i>	
<i>Eumida</i> sp. b		<i>Pherusa plumosa</i>	
<i>Euphrosine borealis</i>		<i>Pholoe minuta</i>	
<i>Euphrosine cirrata</i>		<i>Phyllodoce groenlandica</i>	
<i>Eusyllis blomstrandii</i>		<i>Pionosyllis compacta</i>	
<i>Exogone dispar</i>		<i>Pionosyllis</i> sp.	
<i>Exogone naidina</i>		<i>Pista flexuosa</i>	

Table 1. (cont'd.)

Species	No.	Species	No.
ANNELIDA: Polychaeta			
<i>Pista maculata</i>		<i>Andaniella pectinata</i>	
<i>Polycirrus medusa</i>		<i>Anonyx compactus</i>	
<i>Polydora caeca</i>		<i>Anonyx debruynei</i>	
<i>Polydora caulleryi</i>		<i>Anonyx lilljeborgi</i>	
<i>Polydora quadrilobata</i>		<i>Anonyx nugax</i>	
<i>Polydora</i> sp.		<i>Anonyx</i> sp.	
<i>Potamilla neglecta</i>		<i>Argissa hamatipes</i>	
<i>Praxillella affinis</i>		<i>Arrhinopsis longicornis</i>	
<i>Praxillella gracilis</i>		<i>Arrhinopsis</i> sp.	
<i>Praxillella praetermissa</i>		<i>Bathymedon obtusifrons</i>	
<i>Prionospio steenstrupi</i>		<i>Boeckosimus edwardsi</i>	
<i>Proclea graffi</i>		<i>Byblis gaimardi</i>	
<i>Pygospio elegans</i>		<i>Caprella dubia</i>	
<i>Rhodine loveni</i>		<i>Caprella septentrionalis</i>	
<i>Sabella crassicornis</i>		<i>Dulichia porrecta</i>	
<i>Sabellides borealis</i>		<i>Eriethonius tolli</i>	
<i>Sabellides octocirrata</i>		<i>Eusirus cuspidatus*</i>	
<i>Scalibregma inflatum</i>		<i>Gammaropsis maculata</i>	
<i>Scoloplos armiger</i>		<i>Gitanopsis inermis</i>	
<i>Sphaerodorum gracile</i>		<i>Guernea nordenskioldi</i>	
<i>Sphaerosyllis erinaceus</i>		<i>Halirages fulvocinctus</i>	
<i>Spio filicornis</i>		<i>Halirages megalops</i>	
<i>Spirorbis</i> sp.		<i>Haploops laevis</i>	
<i>Spirorbis</i> sp.		<i>Haploops tubicola</i>	
<i>Spirorbis</i> sp.		<i>Harpinia serrata</i>	
<i>Stauronereis caecus</i>		<i>Harpinia</i> sp.**	
<i>Syllis cornuta</i>		<i>Hippomedon propinquus</i>	
<i>Syllis fasciata</i>		<i>Ischyrocerus anguipes</i>	
<i>Terebellides stroemi</i>		<i>Ischyrocerus latipes</i>	
<i>Tharyx acutus</i>		<i>Ischyrocerus megalops</i>	
<i>Thelepus cincinnatus</i>		<i>Ischyrocerus nanoides</i>	
<i>Trichobranchus glacialis</i>		<i>Lembos</i> sp.	
		<i>Lepidepecreum umbo*</i>	
		<i>Melita dentata</i>	
	91	<i>Melita quadrispinosa</i>	
		<i>Melita</i> sp.	
ARTHROPODA: Amphipoda		<i>Mesopleustes</i> sp.	
<i>Acanthonotozoma cristatum*</i>		<i>Metopa boeckii</i>	
<i>Acanthonotozoma inflatum*</i>		<i>Metopa bruzelii</i>	
<i>Acanthonotozoma serratum</i>		<i>Metopa cariana</i>	
<i>Aceroides l. latipes</i>		<i>Metopa groenlandica</i>	
<i>Aceroides</i> sp.		<i>Metopa robusta</i>	
<i>Aeginina longicornis</i>		<i>Metopa</i> sp.	
<i>Ampelisca eschrichti</i>		<i>Metopella nasuta</i>	
<i>Ampelisca macrocephala</i>			
<i>Amphithopsis longicaudata</i>			

Table 1. (cont'd.)

Species	No.	Species	No.
ARTHROPODA: Amphipoda		ARTHROPODA: Cumacea	19
<i>Metopella</i> sp.		<i>Brachydiastylis resima</i>	
<i>Monoculodes latimanus</i>		<i>Cumella</i> sp.	
<i>Monoculodes tuberculatus</i>		<i>Diastylis goodsiri</i>	
<i>Monoculodes</i> sp. c		<i>Diastylis lepechini</i>	
<i>Odius carinatus</i>		<i>Diastylis lucifera</i>	
<i>Oediceros borealis</i>		<i>Diastylis scorpioides</i>	
<i>Oediceros</i> sp.		<i>Diastylis</i> sp.	
<i>Orchomene groenlandica</i>		<i>Eudorella emarginata</i>	
<i>Orchomene macroserrata</i>		<i>Eudorella truncatula</i>	
<i>Orchomene minuta</i>		<i>Eudorellopsis deformis</i>	
<i>Orchomene serrata</i>		<i>Lamprops fuscata</i>	
<i>Paradulichia typica</i>		<i>Leptostylis ampullacea</i>	
<i>Paramphithoe hystrix</i> *		<i>Leptostylis longimana</i>	
<i>Pardalisca cuspidata</i>		<i>Leptostylis villosa</i>	
<i>Pardalisca tenuipes</i>		<i>Leucon acutirostris</i>	
<i>Paroediceros lynceus</i> **		<i>Leucon fulvus</i>	
<i>Paroediceros</i> sp.		<i>Leucon nasica</i>	
<i>Photis tenuicornis</i>		<i>Leucon nasicoides</i>	
<i>Phorocephalus holbolli</i>		<i>Leucon pallidus</i>	
<i>Pleustes media</i>		ARTHROPODA: Decapoda	8
<i>Pleustes panopla</i>		<i>Argis dentata</i> *	
<i>Pleusymtes</i> sp.		<i>Eualus gaimardi</i> *	
<i>Pontoporeia femorata</i>		<i>Lebbeus groenlandica</i> *	
<i>Protomedeia fasciata</i>		<i>Lebbeus polaris</i> *	
<i>Rhachotropis aculeata</i> *		<i>Sabinea septemcarinata</i> *	
<i>Schisturella pulchra</i> *		<i>Sclerocrangon boreas</i> *	
<i>Socarnes bidenticulatus</i>		<i>Spirontocaris phippii</i> *	
<i>Socarnes vahli</i>		<i>Spirontocaris spinus</i>	
<i>Socarnes</i> sp.		ARTHROPODA: Isopoda	21
<i>Stegocephalus inflatus</i> *		<i>Arcturus baffini</i>	
<i>Stenopleustes pulchella</i>		<i>Desmosoma lineare</i>	
<i>Syrrhoe crenulata</i>		<i>Eugerda globiceps</i>	
<i>Syrrhoe</i> sp.		<i>Eurycope mutica</i>	
<i>Tiron spiniferum</i>		<i>Eurycope pygmaea</i>	
<i>Tryphosella schneideri</i>		<i>Eurycope</i> sp.	
<i>Unciola leucopis</i>		<i>Gnathia dentata</i>	
<i>Westwoodilla brevicalar</i>		<i>Gnathia elongata</i>	
<i>Westwoodilla megalops</i>		<i>Gnathia maxillaris</i>	
ARTHROPODA: Cirripedia	2	<i>Iollella erostrata</i>	
<i>Balanus balanus</i>		<i>Janiropsis</i> sp.	
<i>Balanus crenatus</i>			

Table 1. (cont'd.)

Species	No.	Species	No.
ARTHROPODA: Isopoda	21	ARTHROPODA: Tanaidacea	10
<i>Munna boeckii</i>		<i>Cryptocope arctica</i>	
<i>Munna fabricii</i>		<i>Heterotanais oerstedii</i>	
<i>Munna kroyeri</i>		<i>Leptognathia longiremis</i>	
<i>Munna limicola</i>		<i>Paratanais batei</i>	
<i>Pleurogonium inerme</i>		<i>Pseudotanais lilljeborgi</i>	
<i>Pleurogonium spinosissimum</i>		<i>Pseudotanais macrocheles</i>	
<i>Pseudarachna hirsuta</i>		<i>Pseudotanais</i> sp.	
<i>Synidotea bicuspida</i> *		<i>Sphyrapus anomalus</i>	
<i>Synidotea</i> sp. a		<i>Typhlotanais aquiremis</i>	
<i>Synidotea</i> sp. b*		<i>Typhlotanais finmarchicus</i>	
ARTHROPODA: Mysidacea	1	ASCHELMINTHES: Nematoda	1
<i>Erythropros erythroptalma</i> **		Nematode	
ARTHROPODA: Nebaliacea	1	BRACHIOPODA	2
<i>Nebalia hipes</i>		<i>Atretia gnomon</i>	
ARTHROPODA: Ostracoda	11	<i>Hemithyris psittacea</i>	
<i>Cythereis tuberculata</i>		CHORDATA: Ascidiacea	17
<i>Cytheridea</i> sp.		<i>Aplidium glabrum</i>	
<i>Cytherois</i> sp.		<i>Ascidia callosa</i>	
<i>Cytheropteron punctatum</i>		<i>Boltenia echinata</i>	
<i>Cytheropteron</i> sp.		<i>Boltenia ovifera</i> *	
<i>Hemicythere finmarchica</i>		<i>Botrylloides aureum</i>	
<i>Hemicythere quadridentata</i>		<i>Chelyosoma</i> sp.	
<i>Hemicythere</i> sp. a		<i>Ciona intestinalis</i>	
<i>Hemicythere</i> sp. b		<i>Cnemidocarpa</i> sp.	
<i>Macrocythere simplex</i>		<i>Didemnum albidum</i>	
<i>Philomedes globosus</i>		<i>Halocynthia pyriformis</i>	
ARTHROPODA: Pycnogonida	12	<i>Kukenthalia borealis</i>	
<i>Boreonymphon abyssorum</i> *		<i>Molgula</i> sp.	
<i>Colossendeis proboscidea</i> *		<i>Pelonaia corrugata</i>	
<i>Eurycyde hispida</i>		<i>Polycitor vitreus</i>	
<i>Nymphon elegans</i> *		<i>Styela coriacea</i>	
<i>Nymphon hirtipes</i>		<i>Styela rustica</i>	
<i>Nymphon longitarse</i> *		<i>Synoicum pulmonaria</i>	
<i>Nymphon macrum</i> *		COELENTERATA: Anthozoa	5
<i>Nymphon mixtum</i> ?*		<i>Drifa glomerata</i> *	
<i>Nymphon serratum</i> *		<i>Edwardsia</i> sp.	
<i>Nymphon stromi</i> *		<i>Gersemia rubiformis</i>	
<i>Pseudopallene brevicollis</i> *		<i>Halocampa arctica</i> *	
<i>Pseudopallene circularis</i>		<i>Hormathia nodosa</i> *	

Table 1. (cont'd.)

Species	No.	Species	No.
COELENTERATA:Hydrozoa Hydrozoan	1	MOLLUSCA:Amphineura <i>Lophyrochiton albus</i> <i>Tonicella marmorea</i>	2
ECHINODERMATA:Asteroidea <i>Ctenodiscus crispatus*</i> <i>Henricia eschrichti</i> <i>Henricia scabrior</i> <i>Leptasterias groenlandica</i> <i>Leptasterias polaris</i> <i>Lophaster furcifer*</i> <i>Poraniomorpha tumida</i> <i>Pteraster militaris*</i> <i>Pteraster obscurus*</i> <i>Pteraster pulvillus*</i> <i>Solaster endeca*</i> <i>Solaster papposus</i> <i>Solaster syrtensis*</i> <i>Stephanasterias albula</i>	14	MOLLUSCA:Cephalopoda <i>Bathypolypus arcticus*</i> <i>Rossia molleri*</i> <i>Rossia palpebrosa*</i>	3
ECHINODERMATA:Crinoidea <i>Heliometra glacialis</i>	1	Mollusca:Gastropoda <i>Acmaea rubella</i> <i>Admete couthouyi</i> <i>Alvania sp.</i> <i>Aquilonaria turneri (shell)*</i> <i>Astyris rosacea</i> <i>Boreotrophon clathratus</i> <i>Boreotrophon fabricii</i> <i>Boreotrophon truncatus*</i> <i>Buccinum hydrophanum*</i> <i>Buccinum tenue*</i> <i>Buccinum undatum</i> <i>Cadlina laevis</i> <i>Capulaacmaea radiata*</i> <i>Cingula arenaria</i> <i>Cingula moerchi</i> <i>Colus islandicus*</i> <i>Colus pubescens</i> <i>Colus stimpsoni</i> <i>Colus tortuosus</i> <i>Cylichna alba</i> <i>Cylichna occulta</i> <i>Hydrobia minuta</i> <i>Lepeta caeca</i> <i>Lunatia pallida</i> <i>Margarites costalis</i> <i>Margarites groenlandicus</i> <i>Margarites olivaceus</i> <i>Margarites umbilicalis</i> <i>Margarites vahli</i> <i>Marsenia glabra*</i> <i>Moelleria costulata</i> <i>Natica clausa*</i> <i>Neptunea despecta*</i> <i>Nudibranch*</i> <i>Oenopota arctica</i> <i>Oenopota declivis*</i>	55
ECHINODERMATA:Echinoidea <i>Strongylocentrotus droebachiensis</i>	1		
ECHINODERMATA:Holothuroidea <i>Cucumaria calcigera*</i> <i>Myriotrochus rinki</i> <i>Psolus fabricii</i> <i>Psolus phantapus</i> <i>Thyonidium sp.</i> Holothuroid	6		
ECHINODERMATA:Ophiuroidea <i>Amphiura sundevalli</i> <i>Ophiacantha bidentata</i> <i>Ophiocten sericeum*</i> <i>Ophiopus arcticus</i> <i>Ophiura robusta</i> <i>Ophiura sarsi*</i> <i>Stegophiura nodosa</i>	7		
ECTOPROCTA <i>Alcyonidium gelatinosum</i> <i>Microporina articulata</i>	2		

Table 1. (cont'd.)

Species	No.	Species	No.
MOLLUSCA:Gastropoda			
<i>Oenopota incisula</i>		<i>Periploma abyssorum</i>	
<i>Oenopota obliqua?*</i>		<i>Serripes groenlandicus</i>	
<i>Oenopota turricula</i>		<i>Thracia myopsis?*</i>	
<i>Onchidiopsis sp.*</i>		<i>Thyasira gouldi</i>	
<i>Philine finmarchia</i>			
<i>Puncturella noachina</i>		NEMERTINA	3
<i>Retusa obtusa</i>		Nemertean	
<i>Scissurella crispata</i>		Nemertean	
<i>Tachyrhynchus reticulatus</i>		Nemertean	
<i>Taranis amoena</i>			
Tectibranch*		PLATYHELMINTHES:Turbellaria	1
<i>Trichotropis bicarinata</i>		Turbellarian	
<i>Trichotropis borealis</i>			
<i>Trichotropis conica</i>		PORIFERA	7
<i>Velutina plicatilis*</i>		<i>Mycale lingua*</i>	
<i>Velutina undata</i>		<i>Polymastia mammillaris*</i>	
<i>Velutina velutina</i>		<i>Polymastia sp.</i>	
<i>Velutina sp.*</i>		<i>Tetilla sibirica*</i>	
<i>Volutopsius norvegicus*</i>		Sponge	
		Sponge	
		Sponge	
MOLLUSCA:Pelecypoda	24		
<i>Astarte borealis</i>		PRIAPULIDA	1
<i>Astarte crenata*</i>		<i>Priapululus caudatus</i>	
<i>Astarte montagui</i>			
<i>Axinopsida orbiculata**</i>		SIPUNCULIDA	2
<i>Chlamys islandica*</i>		<i>Golfingia eremita</i>	
<i>Clinocardium ciliatum</i>		<i>Golfingia margaritacea</i>	
<i>Dacrydium vitreum</i>			
<i>Hiatella arctica</i>		TOTAL	448
<i>Macoma calcarea</i>			
<i>Macoma moesta</i>			
<i>Macoma torelli</i>			
<i>Musculus corrugatus*</i>			
<i>Musculus discors</i>			
<i>Musculus niger</i>			
<i>Mya truncata</i>			
<i>Nucula belloti</i>			
<i>Nuculana minuta</i>			
<i>Nuculana pernula</i>			
<i>Pandora glacialis</i>			
<i>Pecten groenlandicus</i>			

* Collected by dredge or trawl.

** Collected from grab samples not included in this report.

Table 2. Coordinates of stations sampled by grab in the station 5 area of upper Frobisher Bay, 1967-1970.

Station	North Latitude	West Longitude
5a	63°40'	68°26.7'
5	63°40.2'	68°26.3'
5c	63°39'	68°25.9'
5d	63°40.4'	68°26.2'
5e	63°40.3'	68°26.2'
5f	63°39.8'	68°26.1'
5g	63°39.6'	68°25.7'

Table 3. Associated data for stations sampled by grab in upper Frobisher Bay, 1967-1970.

Station	Date	Time		No. of Grabs	Sampled Area (m ²)	Water Depth (m)	Temp. (°C)	Sal. (‰)
		(AST)	(GMT)					
67-5a	10 Dec 67	1030	1430	6	0.39	37	-1.81	33.19
68-5a	13 Feb 68	1700	2100	5	0.33	30	-1.80	33.69
68-5a	30 Apr 68	1530	1930	6	0.39	26	-1.82	33.56
68-5a	1 Aug 68	1000	1400	6	0.39	26	-1.35	32.15
68-5a	20 Aug 68	1430	1830	6	0.39	32	-1.08	32.33
68-5	23 Jul 68	1700	2100	6	0.39	45	-1.62	32.49
68-5	20 Aug 68	1330	1730	6	0.39	60	-1.03	32.40
68-5	3 Sep 68	1415	1815	6	0.39	60	-0.51	32.51
68-5	8 Oct 68	1415	1815	6	0.39	62	-0.19	32.61
69-5	5 Jan 69	0130	0530	6	0.39	52	-1.81	33.10
69-5	14 Mar 69	1800	2200	6	0.39	53	-1.83	33.09
69-5	14 Jun 69	1645	2045	6	0.39	50	-1.75	33.11
70-5	23 May 70	1630	2030	6	0.39	57	-1.74	33.06
70-5	6 Aug 70	1300	1700	6	0.39	72	-0.64	32.38
69-5c	23 Aug 69	1330	1730	6	0.39	31	0.22	32.38
69-5d	23 Aug 69	1235	1635	6	0.39	43	0.22	32.38
69-5e	23 Aug 69	1055	1455	6	0.39	58	0.11	32.42
69-5f	23 Aug 69	1005	1405	6	0.39	73	0.11	32.42

Table 4. Number of species, density, and biomass of invertebrates collected by grab from stations in upper Frobisher Bay, 1967-1970.

Station	Date	Number of Species	Density (no. m ⁻²)	Biomass (g m ⁻²)
67-5a	10 Dec 67	151	6740	59.35
68-5a	13 Feb 68	80	2856	30.65
68-5a	30 Apr 68	110	3990	131.00
68-5a	1 Aug 68	123	6418	32.37
68-5a	20 Aug 68	172	11881	137.86
68-5	23 Jul 68	139	6633	35.37
68-5	20 Aug 68	135	7683	21.75
68-5	3 Sep 68	124	5123	39.59
68-5	8 Oct 68	129	13407	27.87
69-5	5 Jan 69	111	11115	12.32
69-5	14 Mar 69	132	25343	12.39
69-5	14 Jun 69	125	12855	12.73
70-5	23 May 70	138	9210	17.31
70-5	6 Aug 70	159	7703	25.82
69-5c	23 Aug 69	170	15994	78.28
69-5d	23 Aug 69	175	10833	73.78
69-5e	23 Aug 69	159	8970	33.90
69-5f	23 Aug 69	132	7343	21.78

Table 5. Densities of benthic invertebrates collected by grab from station 5a in upper Frobisher Bay, 1967-1968. Data expressed as number of individuals per square meter (no. m⁻²).

Species	10 Dec	13 Feb	30 Apr	1 Aug	20 Aug
ANNELIDA: Polychaeta					
<i>Ammotrypane breviata</i>	7.5			7.5	
<i>Ampharete arctica</i>	2.5				2.5
<i>Amphitrite cirrata</i>			2.5	2.5	
<i>Apistobranchus tullbergi</i>			5.0	17.5	2.5
<i>Aricidea jeffreysi</i>	7.5	9.0	7.5	55.0	20.0
<i>Aricidea suecica</i>	40.0	39.0	30.0	57.5	55.0
<i>Brada inhabilis</i>					2.5
<i>Branchiomma infarcta</i>	10.0	3.0	15.0	2.5	22.5
<i>Capitella capitata</i>	10.0	3.0	5.0	57.5	32.5
<i>Chaetozone setosa</i>	137.5	54.0	112.5	105.0	157.5
<i>Chaetozone sp.</i>	17.5		10.0	12.5	67.5
<i>Chitinopora fabricii</i>	22.5	3.0	12.5		22.5
<i>Chone dumeri</i>	5.0		2.5	2.5	7.5
<i>Chone sp. a</i>	455.0	243.0	212.5	87.5	577.5
<i>Chone sp. b</i>	165.0		20.0	50.0	242.5
<i>Cossura longocirrata</i>	97.5	57.0	155.0	570.0	667.5
<i>Diplocirrus glaucus</i>	22.5	3.0	7.5	25.0	15.0
<i>Enipo gracilis</i>		9.0	5.0		
<i>Ephesiella minuta</i>	7.5				17.5
<i>Eteone barbata</i>	10.0		2.5	2.5	
<i>Eteone flava</i>	10.0	3.0	12.5	7.5	5.0
<i>Eteone longa</i>		3.0	2.5	7.5	
<i>Eteone spetsbergensis</i>	2.5				
<i>Euchone analis</i>	37.5		20.0	10.0	50.0
<i>Euchone papillosa</i>	30.0	3.0	5.0	40.0	15.0
<i>Eumida sp. a</i>	2.5			5.0	12.5
<i>Eumida sp. b</i>					2.5
<i>Euphrosine borealis</i>		3.0			10.0
<i>Euphrosine cirrata</i>	2.5	3.0	2.5		7.5
<i>Eusyllis blomstrandii</i>	2.5				2.5
<i>Exogone dispar</i>			2.5	45.0	7.5
<i>Exogone naidina</i>	5.0		5.0	37.5	57.5
<i>Fabricia sabella</i>	100.0			7.5	7.5
<i>Flabelligera affinis</i>	12.5			5.0	10.0
<i>Gattyana cirrosa</i>				10.0	2.5
<i>Harmothoe extenuata</i>	2.5	3.0	5.0	10.0	35.0
<i>Harmothoe imbricata</i>	7.5		2.5		12.5
<i>Heteromastus sp.</i>	22.5	15.0	15.0	50.0	70.0
<i>Lanassa venusta</i>	7.5	3.0	12.5	47.5	22.5
<i>Laonome kroyeri</i>	5.0			2.5	
<i>Laphania boeckii</i>	7.5	3.0		2.5	2.5

Table 5. (cont'd.)

Species	10 Dec	13 Feb	30 Apr	1 Aug	20 Aug
ANNELIDA: Polychaeta					
<i>Lumbrineris fragilis</i>					2.5
<i>Lumbrineris minuta</i>	37.5	30.0	55.0	42.5	112.5
<i>Lumbrineris tenuis</i>	25.0				
<i>Maldane sarsi</i>	300.0	189.0	227.5	272.5	460.0
<i>Micronephthys minuta</i>				7.5	2.5
<i>Myriochele heeri</i>	87.5	42.0	62.5	47.5	22.5
<i>Mystides borealis</i>	12.5		7.5	7.5	10.0
<i>Nephtys ciliata</i>	2.5		2.5	5.0	
<i>Nephtys paradoxa</i>	5.0	9.0	15.0		7.5
<i>Nereimyra aphroditoides</i>				5.0	2.5
<i>Nicolea zostericola</i>	2.5				2.5
<i>Nicomache lumbricalis</i>	7.5	9.0	5.0	2.5	2.5
<i>Paraonis gracilis</i>	170.0	99.0	62.5	10.0	65.0
<i>Paraonis</i> sp. a			97.5	275.0	235.0
<i>Petaloproctus tenuis</i>	35.0		5.0	17.5	47.5
<i>Pholoe minuta</i>	217.5	27.0	122.5	357.5	575.0
<i>Phyllodoce groenlandica</i>	7.5	3.0	2.5	2.5	2.5
<i>Pionosyllis compacta</i>	22.5	6.0	22.5	82.5	137.5
<i>Pionosyllis</i> sp.					5.0
<i>Pista maculata</i>	195.0	72.0	72.5	57.5	152.5
<i>Polycirrus medusa</i>	37.5		7.5	42.5	135.0
<i>Polydora caeca</i>	60.0	6.0	37.5	15.0	80.0
<i>Polydora caulleryi</i>	20.0		5.0		2.5
<i>Polydora quadrilobata</i>			2.5	15.0	2.5
<i>Praxillella affinis</i>	17.5	27.0	42.5	152.5	152.5
<i>Prionospio steenstrupi</i>	10.0	3.0		12.5	5.0
<i>Rhodine loveni</i>				2.5	2.5
<i>Sabella crassicornis</i>	2.5				15.0
<i>Sabellides borealis</i>	2.5				
<i>Sabellides octocirrata</i>	140.0	9.0	32.5	180.0	122.5
<i>Scalibregma inflatum</i>	2.5	3.0	2.5	10.0	10.0
<i>Scoloplos armiger</i>	7.5	3.0	17.5	7.5	17.5
<i>Sphaerodorum gracile</i>	17.5	3.0	7.5		7.5
<i>Sphaerosyllis erinaceus</i>	17.5		2.5	37.5	107.5
<i>Spio filicornis</i>	7.5				10.0
<i>Spirorbis</i> sp.			2.5	5.0	
<i>Stauronereis caecus</i>		3.0	7.5	5.0	15.0
<i>Syllis cornuta</i>	50.0	30.0	27.5		45.0
<i>Syllis fasciata</i>	217.5	42.0	57.5	45.0	177.5
<i>Terebellides stroemi</i>	10.0	3.0	2.5	15.0	10.0
<i>Tharyx acutus</i>	55.0	33.0	72.5	117.5	157.5
<i>Thelepus cincinnatus</i>	67.5	21.0	30.0	10.0	85.0
<i>Trichobranchus glacialis</i>		3.0	10.0	10.0	10.0
Pieces of polychaetes				X	X

Table 5. (cont'd.)

Species	10 Dec	13 Feb	30 Apr	1 Aug	20 Aug
ARTHROPODA: Amphipoda					
<i>Aceroides l. latipes</i>				5.0	5.0
<i>Amphithops' longicaudata</i>		3.0			2.5
<i>Andaniella pectinata</i>					22.5
<i>Anonyx nugax</i>	15.0		7.5		7.5
<i>Arrhinopsis longicornis</i>				15.0	2.5
<i>Arrhinopsis sp.</i>				5.0	12.5
<i>Bathymedon obtusifrons</i>	5.0				
<i>Dulichia porrecta</i>	2.5				
<i>Gammaropsis maculata</i>	5.0				
<i>Gitanopsis inermis</i>	5.0				12.5
<i>Guernea nordenskioldi</i>	5.0			5.0	10.0
<i>Halirages megalops</i>				2.5	12.5
<i>Haploops laevis</i>			10.0		
<i>Ischyrocerus megalops</i>					5.0
<i>Metopa groenlandica</i>	5.0		2.5		5.0
<i>Metopella nasuta</i>					2.5
<i>Monoculodes latimanus</i>	7.5			5.0	7.5
<i>Monoculodes tuberculatus</i>	10.0		2.5	7.5	37.5
<i>Monoculodes sp. c</i>				7.5	15.0
<i>Odius carinatus</i>			2.5		
<i>Oediceros sp.</i>	7.5	3.0			
<i>Orchomene minuta</i>	2.5				
<i>Orchomene serrata</i>	12.5	3.0			10.0
<i>Pardalisca cuspidata</i>	5.0				10.0
<i>Phoxocephalus holbolli</i>	2.5			5.0	20.0
<i>Pontoporeia femerata</i>				10.0	
<i>Socarnes vahli</i>					5.0
<i>Syrrhoe crenulata</i>	20.0			7.5	27.5
<i>Syrrhoe sp.</i>				5.0	25.0
<i>Tryphosella schneideri</i>	115.0		2.5	5.0	12.5
<i>Westwoodilla brevicalar</i>	17.5		7.5	32.5	67.5
<i>Westwoodilla megalops</i>	5.0		2.5	2.5	5.0
Amphipod					7.5
ARTHROPODA: Cirripedia					
<i>Balanus balanus:</i>	5.0				
ARTHROPODA: Cumacea					
<i>Brachydiastylis resima</i>	7.5		2.5		7.5
<i>Cumella sp.</i>	140.0	18.0	15.0	100.0	250.0
<i>Diastylis scorpioides</i>	7.5		2.5		
<i>Eudorella emarginata</i>	2.5		2.5		20.0
<i>Eudorella truncatula</i>			5.0		7.5

Table 5. (cont'd.)

Species	10 Dec	13 Feb	30 Apr	1 Aug	20 Aug
ARTHROPODA: Cumacea					
<i>Leptostylis ampullacea</i>	5.0				10.0
<i>Leucon acutirostris</i>				5.0	52.5
<i>Leucon nasica</i>	2.5				
<i>Leucon nasicoides</i>	7.5	6.0		20.0	50.0
<i>Leucon pallidus</i>	2.5				
ARTHROPODA: Isopoda					
<i>Arcturus baffini</i>	2.5				
<i>Desmosoma lineare</i>	2.5			97.5	95.0
<i>Eurycope pygmaea</i>				2.5	2.5
<i>Gnathia elongata</i>					5.0
<i>Gnathia maxillaris</i>	2.5				10.0
<i>Janiropsis</i> sp.	17.5	6.0			50.0
<i>Munna boeckii</i>					2.5
<i>Munna fabricii</i>	5.0			2.5	10.0
<i>Munna kroyeri</i>					5.0
<i>Munna limicola</i>					7.5
ARTHROPODA: Ostracoda					
<i>Cythereis tuberculata</i>					12.5
<i>Cytheropteron punctatum</i>					2.5
<i>Hemicythere finmarchica</i>					7.5
<i>Hemicythere quadridentata</i>					5.0
<i>Hemicythere</i> sp. a					12.5
<i>Hemicythere</i> sp. b					10.0
<i>Philomedes globosus</i>	1170.0	537.0	717.5	1205.0	2625.0
ARTHROPODA: Pycnogonida					
<i>Eurycyde hispida</i>	10.0		5.0		
<i>Nymphon hirtipes</i>	30.0				
<i>Pseudopallene circularis</i>		6.0	7.5		7.5
Pycnogonid	2.5		7.5		5.0
ARTHROPODA: Tanaidacea					
<i>Cryptocope arctica</i>				22.5	55.0
<i>Heterotanais oerstedii</i>				12.5	
<i>Leptognathia longiremis</i>				17.5	
<i>Pseudotanais lilljeborgi</i>				15.0	2.5
ASCHELMINTHES: Nematoda					
Nematode	967.5	705.0	907.5	932.5	1895.0
BRACHIOPODA					
<i>Atretia gnomon</i>	5.0				
<i>Hemithyris psittacea</i>	65.0	21.0	15.0	7.5	32.5

Table 5. (cont'd.)

Species	10 Dec	13 Feb	30 Apr	1 Aug	20 Aug
CHORDATA: Ascidiacea					
<i>Ascidia callosa</i>	72.5		10.0	7.5	12.5
<i>Boltenia echinata</i>	2.5				
<i>Chelyosoma</i> sp.	2.5				
<i>Ciona intestinalis</i>	2.5				
<i>Didemnum albidum</i>	2.5				
<i>Halocynthia pyriiformis</i>	2.5				5.0
<i>Kukenthalia borealis</i>	7.5				
<i>Pelonaia corrugata</i>					10.0
<i>Styela coriacea</i>	2.5				
Ascidian	2.5	45.0	5.0		27.5
COELENTERATA: Anthozoa					
Anemone		3.0	5.0		2.5
ECHINODERMATA: Asteroidea					
<i>Henricia eschrichti</i>			2.5		
<i>Henricia scabrior</i>				5.0	
<i>Solaster papposus</i>				7.5	2.5
<i>Stephanasterias albula</i>	2.5			12.5	37.5
ECHINODERMATA: Echinoidea					
<i>Strongylocentrotus droebachiensis</i>			2.5	5.0	
ECHINODERMATA: Holothuroidea					
<i>Psolus fabricii</i>	2.5		2.5		2.0*
<i>Thyo idium</i> sp.					2.5
Holothuroid	5.0		7.5	2.5	2.5
Holothuroid			2.5		
ECHINODERMATA: Ophiuroidea					
<i>Amphiura sundevalli</i>	5.0	6.0	2.5	15.0	12.5
<i>Ophiacantha bidentata</i>	22.5	3.0	15.0	10.0	5.0
<i>Ophiopus arcticus</i>	142.5	111.0	70.0	57.5	160.0
<i>Stegophiura nodosa</i>	10.0		5.0	10.0	5.0
ECTOPROCTA					
<i>Microporina articulata</i>	2.5				
MOLLUSCA: Amphineura					
<i>Lophyrochiton albus</i>		6.0		7.5	
<i>Tonicella marmorea</i>					2.5
MOLLUSCA: Gastropoda					
<i>Acmaea rubella</i>	27.5		2.5		22.5

Table 5. (cont'd.)

Species	10 Dec	13 Feb	30 Apr	1 Aug	20 Aug
MOLLUSCA:Gastropoda					
<i>Astyris rosacea</i>	5.0				
<i>Buccinum undatum</i>					2.5
<i>Cingula arenaria</i>					2.5
<i>Colus tortuosus</i>	5.0				
<i>Cylichna alba</i>	15.0	6.0	7.5	5.0	5.0
<i>Lepeta caeca</i>	17.5	18.0	17.5	5.0	
<i>Lunatia pallida</i>					5.0
<i>Margarites olivaceus</i>	12.5		12.5	40.0	10.0
<i>Margarites umbilicalis</i>	42.5	12.0	35.0	5.0	15.0
<i>Margarites vahli</i>	12.5				20.0
<i>Moelleria costulata</i>					2.5
<i>Oenopota turricula</i>	5.0				
<i>Philine finmarchia</i>	2.5				
<i>Puncturella noachina</i>	7.5	6.0		7.5	37.5
<i>Retusa obtusa</i>	5.0				2.5
<i>Scissurella crispata</i>	32.5	3.0	2.5		32.5
<i>Tachyrhynchus reticulatus</i>	7.5			5.0	5.0
<i>Trichotropis bicarinata</i>					2.5
<i>Trichotropis conica</i>	5.0	6.0	5.0		5.0
<i>Velutina velutina</i>	10.0	3.0	2.5	2.5	2.5
Gastropod				15.0	5.0
MOLLUSCA:Pelecypoda					
<i>Astarte borealis</i>		6.0	5.0	7.5	5.0
<i>Astarte montagui</i>	17.5	15.0	12.5	15.0	15.0
<i>Dacrydium vitreum</i>	15.0	3.0	12.5		
<i>Hiatella arctica</i>	30.0	18.0	15.0		35.0
<i>Macoma calcarea</i>		9.0		5.0	
<i>Musculus discors</i>	27.5	12.0	10.0	20.0	37.5
<i>Musculus niger</i>				2.5	
<i>Mya truncata</i>	10.0	18.0	30.0	7.5	15.0
<i>Nucula belloti</i>	10.0	27.0	12.5	107.5	37.5
<i>Nuculana minuta</i>	60.0	6.0	22.5	25.0	20.0
<i>Pandora glacialis</i>	2.5				
<i>Thyasira gouldi</i>	52.5	27.0	52.5	95.0	95.0
NEMERTINA					
Nemertean	52.5	18.0	17.5	67.5	100.0
PLATYHEMINTHES:Turbellaria					
Turbellarian				5.0	20.0
PORIFERA					
Sponge	32.5	9.0	40.0	27.5	125.0

Table 5. (cont'd.)

Species	10 Dec	13 Feb	30 Apr	1 Aug	20 Aug
PRIAPULIDA					
<i>Priapulus caudatus</i>	15.0	3.0		5.0	2.5
SIPUNCULIDA					
<i>Golfingia eremita</i>	5.0				
<i>Golfingia margaritacea</i>	55.0	12.0	2.5	25.0	32.5
TOTAL	6740.0	2856.0	3990.0	6417.5	11880.5

*Sample value used for density because of disproportionate representation.

Table 6. Biomass of benthic invertebrates collected by grab from station 5a in upper Frobisher Bay, 1967-1968. Data expressed as grams per square meter (g m^{-2}).

Species	10 Dec	13 Feb	30 Apr	1 Aug	20 Aug
ANNELIDA: Polychaeta					
<i>Ammotrypane breviata</i>	0.0010			0.0008	
<i>Ampharete arctica</i>	0.0038				0.0035
<i>Amphitrite cirrata</i>			0.0735	0.0025	
<i>Apistobranchnus tullbergi</i>			0.0005	0.0005	0.0005
<i>Aricidea jeffreysi</i>	0.0003	0.0006	0.0003	0.0025	0.0010
<i>Aricidea suecica</i>	0.0050	0.0129	0.0053	0.0053	0.0058
<i>Brada inhabilis</i>					0.0318
<i>Branchiomma infareta</i>	0.8665	0.3120	0.8880	0.7335	1.6653
<i>Capitella capitata</i>	0.0013	0.0006	0.0015	0.0028	0.0050
<i>Chaetozone setosa</i>	0.0260	0.0471	0.0720	0.0833	0.0925
<i>Chaetozone sp.</i>	0.0073		0.0065	0.0063	0.0118
<i>Chitinopoma fabricii</i>	0.0045	0.0006	0.0013		0.0043
<i>Chone duneri</i>	0.0050		0.0038	0.0038	0.0140
<i>Chone sp. a</i>	0.2275	0.2340	0.1150	0.0220	0.2528
<i>Chone sp. b</i>	0.0330		0.0108	0.0050	0.0613
<i>Cossura longocirrata</i>	0.0015	0.0012	0.0035	0.0133	0.0138
<i>Diplocirrus glaucus</i>	0.0128	0.0018	0.0043	0.0228	0.0158
<i>Enipo gracilis</i>		0.3852	0.1040		
<i>Ephesiella minuta</i>	0.0028				0.0065
<i>Eteone barbata</i>	0.0103		0.0028	0.0038	
<i>Eteone flava</i>	0.0050	0.0042	0.0200	0.0048	0.0038
<i>Eteone longa</i>		0.0006	0.0013	0.0020	
<i>Eteone spetsbergensis</i>	0.0010				
<i>Euchone analis</i>	0.0315		0.0418	0.0058	0.0533
<i>Euchone papilloso</i>	0.0093	0.0030	0.0045	0.0020	0.0125
<i>Eumida sp. a</i>	0.0005			0.0005	0.0023
<i>Eumida sp. b</i>					0.0003
<i>Euphrosine borealis</i>		0.0033			0.0675
<i>Euphrosine cirrata</i>	0.0005	0.0006	0.0005		0.0005
<i>Eusyllis blomstrandii</i>	0.0008				0.0010
<i>Exogone dispar</i>			0.0001	0.0015	0.0003
<i>Exogone naidina</i>	0.0003		0.0003	0.0010	0.0013
<i>Fabricia sabella</i>	0.0030			0.0008	0.0005
<i>Flabelligera affinis</i>	0.2185			0.0125	0.0930
<i>Gattyana cirrosa</i>				0.0035	0.0050
<i>Harmothoe extenuata</i>	0.0020	0.0291	0.0020	0.0105	0.0520
<i>Harmothoe imbricata</i>	0.0163		0.0033		0.0110
<i>Heteromastus sp.</i>	0.0040	0.0033	0.0013	0.0085	0.0125
<i>Lanassa venusta</i>	0.0103	0.0042	0.0143	0.0330	0.0960
<i>Laonome kroyeri</i>	0.0018			0.0008	
<i>Laphania boeckii</i>	0.0048	0.0021		0.0005	0.0030

Table 6. (cont'd.)

Species	10 Dec	13 Feb	30 Apr	1 Aug	20 Aug
ANNELIDA: Polychaeta					
<i>Lumbrineris fragilis</i>					0.8045
<i>Lumbrineris minuta</i>	0.0400	0.0588	0.0915	0.0823	0.1558
<i>Lumbrineris tenuis</i>	0.0033				
<i>Maldane sarsi</i>	0.2068	0.2259	0.2080	0.2125	0.4023
<i>Micronephthys minuta</i>				0.0013	0.0005
<i>Myriochele heeri</i>	0.0645	0.0627	0.1160	0.0503	0.0388
<i>Mystides borealis</i>	0.0025		0.0010	0.0010	0.0018
<i>Nephtys ciliata</i>	0.1005		0.0915	0.7920	
<i>Nephtys paradoxa</i>	0.3848	0.5388	5.5353		2.8270
<i>Nereimyra aphroditoides</i>				0.0005	0.0018
<i>Nicolea zostericola</i>	0.0023				0.0013
<i>Nicomache lumbricalis</i>	0.5913	1.6803	1.3905	0.3835	0.2805
<i>Paraonis gracilis</i>	0.0073	0.0111	0.0075	0.0010	0.0075
<i>Paraonis</i> sp. a			0.0048	0.0103	0.0088
<i>Petaloproctus tenuis</i>	0.0103		0.0043	0.0098	0.0323
<i>Pholoe minuta</i>	0.0265	0.0057	0.0285	0.0528	0.0840
<i>Phyllodoce groenlandica</i>	0.2113	0.0015	0.0045	0.0395	0.0308
<i>Pionosyllis compacta</i>	0.0035	0.0015	0.0038	0.0148	0.0145
<i>Pionosyllis</i> sp.					0.0005
<i>Pista maculata</i>	7.3215	2.5941	1.7568	1.9010	6.7703
<i>Polycirrus medusa</i>	0.0318		0.0083	0.0610	0.1858
<i>Polydora caeca</i>	0.0375	0.0042	0.0268	0.0028	0.0403
<i>Polydora caulleryi</i>	0.0013		0.0005		0.0003
<i>Polydora quadrilobata</i>			0.0010	0.0060	0.0010
<i>Praxillella affinis</i>	0.0143	0.0186	0.0173	0.1075	0.0810
<i>Prionospio steenstrupi</i>	0.0025	0.0009		0.0025	0.0010
<i>Rhodine loveni</i>				0.0018	0.0018
<i>Sabella crassicornis</i>	0.0083				0.0850
<i>Sabellides borealis</i>	0.0045				
<i>Sabellides octocirrata</i>	0.0113	0.0021	0.0060	0.0258	0.0370
<i>Scalibregma inflatum</i>	0.0003	0.0012	0.0005	0.0005	0.0018
<i>Scoloplos armiger</i>	0.0068	0.0027	0.0085	0.0133	0.0178
<i>Sphaerodorum gracile</i>	0.0065	0.0102	0.0028		0.0010
<i>Sphaerosyllis erinaceus</i>	0.0005		0.0001	0.0005	0.0013
<i>Spio filicornis</i>	0.0005				0.0008
<i>Spirorbis</i> sp.			0.0008	0.0013	
<i>Stauronereis caecus</i>		0.0003	0.0008	0.0010	0.0013
<i>Syllis cornuta</i>	0.0208	0.0105	0.0108		0.0403
<i>Syllis fasciata</i>	0.2135	0.1266	0.1233	0.0475	0.2418
<i>Terebellides stroemi</i>	0.0010	0.0168	0.0040	0.0275	0.0040
<i>Tharyx acutus</i>	0.0213	0.0270	0.0243	0.0135	0.0410
<i>Thelepus cincinnatus</i>	3.5278	1.4511	2.3890	1.2725	6.7180
<i>Trichobranchus glacialis</i>		0.0048	0.0135	0.0178	0.0138
Pieces of polychaetes				0.0638	0.1350

Table 6. (cont'd.)

Species	10 Dec	13 Feb	30 Apr	1 Aug	20 Aug
ARTHROPODA:Amphipoda					
<i>Aceroides l. latipes</i>				0.0053	0.0020
<i>Amphithopsis longicaudata</i>		0.0006			0.0005
<i>Andaniella pectinata</i>					0.0013
<i>Anonyx nugax</i>	0.2050		0.4453		0.0310
<i>Arrhinopsis longicornis</i>				0.0025	0.0003
<i>Arrhinopsis</i> sp.				0.0008	0.0013
<i>Bathymedon obtusifrons</i>	0.0005				
<i>Dulichia porrecta</i>	0.0003				
<i>Gammaropsis maculata</i>	0.0023				
<i>Gitanopsis inermis</i>	0.0005				0.0005
<i>Guernea nordenskioldi</i>	0.0003			0.0008	0.0005
<i>Halirages megalops</i>				0.0001	0.0005
<i>Haplocps laevis</i>			0.0235		
<i>Ischyrocerus megalops</i>					0.0001
<i>Metopa groenlandica</i>	0.0013		0.0005		0.0008
<i>Metopella nasuta</i>					0.0001
<i>Monoculodes latimanus</i>	0.0038			0.0018	0.0038
<i>Monoculodes tuberculatus</i>	0.0043		0.0008	0.0020	0.0088
<i>Monoculodes</i> sp. c				0.0015	0.0033
<i>Odius carinatus</i>			0.0008		
<i>Oedicerus</i> sp.	0.0020	0.0021			
<i>Orchomene minuta</i>	0.0003				
<i>Orchomene serrata</i>	0.0100	0.0042			0.0025
<i>Pardalisca cuspidata</i>	0.0013				0.0030
<i>Phoxocephalus holbolli</i>	0.0005			0.0008	0.0060
<i>Pontoporeia femorata</i>				0.0093	
<i>Socarnes vahli</i>					0.0008
<i>Syrrhoe crenulata</i>	0.0133			0.0048	0.0130
<i>Syrrhoe</i> sp.				0.0001	0.0008
<i>Tryphosella schneideri</i>	0.0400		0.0008	0.0010	0.0010
<i>Westwoodilla brevicular</i>	0.0028		0.0008	0.0013	0.0048
<i>Westwoodilla megalops</i>	0.0010		0.0005	0.0001	0.0003
Amphipod					0.0001
ARTHROPODA:Cirripedia					
<i>Balanus balanus</i>	0.0318				
ARTHROPODA:Cumacea					
<i>Brachydiastylis resima</i>	0.0008		0.0005		0.0008
<i>Cumella</i> sp.	0.0450	0.0039	0.0033	0.0135	0.0598
<i>Diastylis scorpioides</i>	0.0025		0.0028		
<i>Eudorella emarginata</i>	0.0005		0.0013		0.0010
<i>Eudorella truncatula</i>			0.0010		0.0028

Table 6. (cont'd.)

Species	10 Dec	13 Feb	30 Apr	1 Aug	20 Aug
ARTHROPODA: Cumacea					
<i>Leptostylis ampullacea</i>	0.0023				0.0013
<i>Leucon acutirostris</i>				0.0003	0.0020
<i>Leucon nasica</i>	0.0003				
<i>Leucon nazicoides</i>	0.0008	0.0009		0.0018	0.0040
<i>Leucon pallidus</i>	0.0003				
ARTHROPODA: Isopoda					
<i>Arcturus baffini</i>	0.0118				
<i>Desmosoma lineare</i>	0.0003			0.0023	0.0023
<i>Eurycope pygmaea</i>				0.0001	0.0001
<i>Gnathia elongata</i>					0.0013
<i>Gnathia maxillaris</i>	0.0003				0.0013
<i>Janiropsis</i> sp.	0.0088	0.0075			0.0165
<i>Munna boeckii</i>					0.0001
<i>Munna fabricii</i>	0.0003			0.0003	0.0005
<i>Munna kroyeri</i>					0.0003
<i>Munna limicola</i>					0.0004
ARTHROPODA: Ostracoda					
<i>Cythereis tuberculata</i>					0.0008
<i>Cytheropteron punctatum</i>					0.0001
<i>Hemicythere finmarchica</i>					0.0003
<i>Hemicythere quadridentata</i>					0.0003
<i>Hemicythere</i> sp. a					0.0008
<i>Hemicythere</i> sp. b					0.0005
<i>Philomedes globosus</i>	0.3410	0.1110	0.1715	0.2225	0.2925
ARTHROPODA: Pyconogonida					
<i>Eurycyde hispida</i>	0.0113		0.0055		
<i>Nymphon hirtipes</i>	0.2500				
<i>Pseudopallene circularis</i>		0.0027	0.0035		0.0035
<i>Pycnogonid</i>	0.0023		0.0068		0.0003
ARTHROPODA: Tanaidacea					
<i>Cryptocope arctica</i>				0.0010	0.0035
<i>Heterotanais oerstedii</i>				0.0005	
<i>Leptognathia longiremis</i>				0.0005	
<i>Pseudotanais lilljeborgi</i>				0.0003	0.0001
ASCHELMINTHES: Nematoda					
<i>Nematode</i>	0.0500	0.0192	0.0350	0.0328	0.0523
BRACHIOPODA					
<i>Atretia gnomon</i>	0.0015				
<i>Hemithyris psittacea</i>	0.0968	0.0663	0.0068	0.0025	0.0548

Table 6. (cont'd.)

Species	10 Dec	13 Feb	30 Apr	1 Aug	20 Aug
CHORDATA: Ascidiacea					
<i>Ascidia callosa</i>	4.0380		0.4658	0.1768	1.9435
<i>Boltenia echinata</i>	0.0260				
<i>Chelyosoma</i> sp.	0.0040				
<i>Ciona intestinalis</i>	0.1510				
<i>Didemnum albidum</i>	0.7595				0.0495
<i>Halocynthia pyriformis</i>	0.0573				
<i>Kukenthalia borealis</i>	0.0445				
<i>Pelonaia corrugata</i>					0.1270
<i>Styela coriacea</i>	0.0718				
Ascidian	0.0308	0.2337	0.0783		0.1495
COELENTERATA: Anthozoa					
Anemone		0.0057	0.0098		0.0200
ECHINODERMATA: Asteroidea					
<i>Henricia eschrichti</i>			0.1828		
<i>Henricia scabrior</i>				0.0573	
<i>Solaster papposus</i>				0.0063	0.0628
<i>Stephanasterias albula</i>	0.0083			0.1210	0.1725
ECHINODERMATA: Echinoidea					
<i>Strongylocentrotus droebachiensis</i>			0.0013	9.8293	
ECHINODERMATA: Holothuroidea					
<i>Psolus fabricii</i>	0.0200		0.0003		14.8300*
<i>Thyonidium</i>					0.2628
Holothuroid	0.0083		0.0105	0.0035	0.0023
Holothuroid			2.2580		
ECHINODERMATA: Ophiuroidea					
<i>Amphiura sundevalli</i>	0.2525	0.2685	0.0520	0.3625	0.3818
<i>Ophiacantha bidentata</i>	2.5468	0.3246	2.8710	1.6868	0.5410
<i>Ophiopus arcticus</i>	2.0633	0.7338	0.8918	1.7965	2.5435
<i>Stegophiura nodosa</i>	0.0283		0.0365	0.1085	0.0473
ECTOPROCTA					
<i>Microporina articulata</i>	0.0180				
MOLLUSCA: Amphineura					
<i>Lophyrochiton albus</i>		0.0021		0.0030	
<i>Tonicella marmorea</i>					0.0670
MOLLUSCA: Gastropoda					
<i>Acmaea rubella</i>	0.0095		0.0025		0.0410

Table 6. (cont'd.)

Species	10 Dec	13 Feb	30 Apr	1 Aug	20 Aug
MOLLUSCA:Gastropoda					
<i>Astyris rosacea</i>	0.0095				
<i>Buccinum undatum</i>					7.3178
<i>Cingula arenaria</i>					0.0025
<i>Colus tortuosus</i>	0.00040				
<i>Cylichna alba</i>	0.0540	0.0522	0.0385	0.0123	0.0153
<i>Lepeta caeca</i>	0.1338	0.0825	0.1020	0.0038	
<i>Lunatia pallida</i>					0.0053
<i>Margarites olivaceus</i>	0.0540		0.0588	0.0425	0.0440
<i>Margarites umbilicalis</i>	0.2430	0.0852	0.2485	0.1750	0.0258
<i>Margarites vahli</i>	0.0083				0.0043
<i>Moelleria costulata</i>					0.0025
<i>Oenopota turricula</i>	0.0095				
<i>Philine finmarchia</i>	0.0013				
<i>Puncturella noachina</i>	0.0023	0.0018		0.0038	0.0060
<i>Retusa obtusa</i>	0.0015				0.0010
<i>Scissurella crispata</i>	0.0065	0.0006	0.0003		0.0030
<i>Tachyrhynchus reticulatus</i>	0.0488			0.0293	0.0075
<i>Trichotropis bicarinata</i>					0.0010
<i>Trichotropis conica</i>	0.0043	0.0006	0.0033		0.0028
<i>Velutina velutina</i>	0.0468	0.0015	0.0015	0.0003	0.0005
Gastropod				0.0028	0.0013
MOLLUSCA:Pelecypoda					
<i>Astarte borealis</i>		1.6323	2.3673	2.2853	1.8515
<i>Astarte montagui</i>	0.8505	0.5838	0.8890	0.6730	1.3400
<i>Dacrydium vitreum</i>	0.0018	0.0015	0.0028		
<i>Hiatella arctica</i>	12.3250	8.2800	3.0025		19.2250
<i>Macoma calcarea</i>		1.6263		0.0723	
<i>Musculus discors</i>	1.0775	0.4323	0.7275	1.7300	1.0630
<i>Musculus niger</i>				0.2593	
<i>Mya truncata</i>	17.6750	7.8600	100.0000	6.1250	62.5000
<i>Nucula belloti</i>	0.0033	0.1668	0.0125	0.0163	0.0295
<i>Nuculana minuta</i>	0.0943	0.0237	0.0428	0.0488	0.0520
<i>Pandora glacialis</i>	0.0648				
<i>Thyasira gouldi</i>	0.0135	0.0054	0.0165	0.0288	0.0270
NEMERTINA					
Nemertean	0.4700	0.0144	0.0165	0.0393	0.0940
PLATYHELMINTHES:Turbellaria					
Turbellarian				0.0010	0.0420
PORIFERA					
Sponge	0.2375	0.0954	2.6350	0.0983	0.6008

Table 6. (cont'd.)

Species	10 Dec	13 Feb	30 Apr	1 Aug	20 Aug
PRIAPULIDA					
<i>Priapulus caudatus</i>	0.0053	0.0003		0.0005	0.0003
SIPUNCULIDA					
<i>Golfingia eremita</i>	0.0985				
<i>Golfingia margaritacea</i>	0.1045	0.0150	0.0005	0.0465	0.0430
TOTAL	59.3493	30.6522	131.0022	32.3714	137.8572

*Sample value used for biomass because of disproportionate representation.

Table 7. Densities of benthic invertebrates collected by grab from station 5 in upper Frobisher Bay, 1968-1970. Data expressed as number of individuals per square meter (no. m⁻²).

Species	1968				1969			1970	
	23 Jul	20 Aug	3 Sep	8 Oct	5 Jan	14 Mar	14 Jun	23 May	6 Aug
ANNELIDA: Polychaeta									
<i>Ammotrypane breviata</i>	2.5	2.5			2.5	25.0	15.0	17.5	2.5
<i>Ampharete acutifrons</i>						2.5	2.5	2.5	2.5
<i>Amphitrite groenlandica</i>		2.5							
<i>Antinoella badia</i>	7.5	27.5		22.5	57.5	100.0	17.5	102.5	85.0
<i>Apistobranchus tullbergi</i>	7.5	7.5		30.0	27.5	160.0	20.0	7.5	10.0
<i>Aricidea jeffreysi</i>	102.5	140.0	70.0	62.5	97.5	325.0	187.5	242.5	227.5
<i>Aricidea suecica</i>		2.5							
<i>Brada villosa</i>	12.5	10.0	5.0	2.5		5.0	2.5		
<i>Branchioma infareta</i>	62.5	327.5	20.0	92.5	170.0	152.5	212.5	310.0	120.0
<i>Chaetozone setosa</i>	7.5	47.5	12.5	60.0	17.5	25.0	22.5	37.5	170.0
<i>Chaetozone</i> sp.	35.0		17.5	25.0	7.5	15.0	10.0	10.0	35.0
<i>Chitinopoma fabricii</i>	2.5	27.5		15.0		20.0	5.0	10.0	12.5
<i>Chone dumeri</i>	2.5					12.5	2.5	5.0	10.0
<i>Chone infundibuliformis</i>	230.0	60.0	75.0	72.5	17.5	32.5	17.5	210.0	212.5
<i>Chone</i> sp. a	35.0	310.0	2.5	72.5	355.0	247.5	137.5	702.5	182.5
<i>Chone</i> sp. b	537.5	295.0	50.0	527.5	537.5	1762.5	742.5	15.0	397.5
<i>Cossura longocirrata</i>	10.0	42.5	7.5	7.5	42.5	22.5	10.0	17.5	12.5
<i>Diplocirrus glaucus</i>	2.5	5.0	7.5	5.0	5.0		17.5	5.0	15.0
<i>Enipo gracilis</i>		2.5	2.5			5.0			
<i>Ephesiella minuta</i>						10.0			
<i>Eteone barbata</i>	2.5	5.0			10.0	10.0	5.0	12.5	5.0
<i>Eteone flava</i>								7.5	5.0
<i>Eteone longa</i>	17.5	35.0	2.5	7.5	12.5		5.0	10.0	5.0
<i>Euchone analis</i>	40.0	175.0	10.0	20.0	235.0	225.0	252.5	225.0	290.0
<i>Euchone papillosa</i>		2.5				2.5			10.0
<i>Eumida</i> sp. a						2.5			2.5
<i>Eumida</i> sp. b						2.5			5.0
<i>Euphrosine borealis</i>			2.5	2.5					
<i>Euphrosine cirrata</i>									
<i>Eusyllis blonstrandii</i>	2.5			2.5	7.5	25.0	2.5	2.5	2.5
<i>Exogone dispar</i>				2.5	7.5	25.0	15.0	2.5	7.5

Table 7. (cont'd.)

Species	1968				1969			1970	
	23 Jul	20 Aug	3 Sep	8 Oct	5 Jan	14 Mar	14 Jun	23 May	6 Aug
ANNELIDA: Polychaeta									
<i>Tharyx acutus</i>	150.0	335.0	12.5	132.5	185.0	367.5	220.0	212.5	625.0
<i>Thelepus cincinnatus</i>	7.5				2.5		2.5		
<i>Trichobranchus glacialis</i>	2.5	5.0			X	X	X	X	X
Pieces of polychaetes	X		X						
ARTHROPODA: Amphipoda									
<i>Acanthonotozoma serratum</i>	2.5	2.5	2.5		5.0		10.0		2.5
<i>Aceroides l. latipes</i>									2.5
<i>Aeginina longicornis</i>	2.5			2.5		2.5	2.5		5.0
<i>Ampelisca eschrichti</i>						2.5			
<i>Ampelisca macrocephala</i>									
<i>Amphithopsis longicaudata</i>	2.5			2.5		2.5	5.0	5.0	
<i>Andaniella pectinata</i>	5.0	7.5	42.5	2.5					
<i>Anonyx debruyini</i>	2.5			2.5				7.5	
<i>Anonyx lilljeborgi</i>						5.0			
<i>Anonyx nugar</i>	2.5								
<i>Anonyx</i> sp.		5.0							
<i>Argissa hamatipes</i>	5.0		2.5						2.5
<i>Arrhinopsis longicornis</i>							7.5	22.5	7.5
<i>Arrhinopsis</i> sp.	5.0	25.0	5.0	7.5	17.5	17.5	7.5		2.5
<i>Bathymedon obtusifrons</i>		10.0	5.0	2.5	2.5	2.5			2.5
<i>Boeckosimus edwardsi</i>			5.0		2.5				7.5
<i>Byblis gaimardi</i>				302.5		2.5			
<i>Caprella dubia</i>				2.5					
<i>Caprella septentrionalis</i>				5.0	5.0	17.5	2.5	10.0	2.5
<i>Dulichia porrecta</i>				50.0			5.0	2.5	7.5
<i>Erichthonius tolli</i>		25.0	2.5	2.5					
<i>Gammaropsis maculata</i>			5.0						
<i>Gitanopsis inermis</i>		2.5	2.5	2.5	5.0	30.0	2.5	10.0	
<i>Guerneia nordenskioldi</i>		2.5	2.5	2.5			12.5		
<i>Haploops tubicola</i>	37.5	57.5	45.0	2.5	7.5	42.5	42.5	10.0	40.0
<i>Harpinia serrata</i>	10.0								