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# ZOOPLANKTON DISTRIBUTION AND ASSOCIATED BIOLOGICAL, PHYSICAL AND CHEMICAL DATA: BARKLEY SOUND, VANCOUVER ISLAND, APRIL 1987 AND MAY 1988 (MASS Program)

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## Canadian Data Report Of Hydrography and Ocean Sciences

These reports provide a medium for the documentation and dissemination of data in a form directly useable by the scientific and engineering communities.

Generally, the reports will contain raw and/or analyzed data but will not contain interpretations of the data. Such compilations will commonly have been prepared in support of work related to the programs and interests of the Ocean Science and Surveys (OSS) sector of the Department of Fisheries and Oceans.

Data Reports are produced regionally but are numbered and indexed nationally. Requests for individual reports will be fulfilled by the issuing establishment listed on the front cover and title page. Out of stock reports will be supplied for a fee by commercial agents.

Regional and headquarters establishments of Ocean Science and Surveys ceased publication of their various report series as of December 1981. A complete listing of these publications and the last number issued under each title are published in the *Canadian Journal of Fisheries and Aquatic Sciences,* Volume 38: Index to Publications 1981. The current series began with Report Number 1 in January 1982.

## Rapport statistique canadien sur l'hydrographie et les sciences océaniques

Ces rapports servent de véhicule pour la compilation et la diffusion des données sous une forme directement utilisable par les scientifiques et les techniciens.

En général, les rapports contiennent des données brutes ou analysées mais ne fournissent pas d'interprétations des données. Ces compilations sont préparées le plus souvent à l'appui de travaux reliés aux programmes et intérêts du service des Sciences et Levés océaniques (SLO) du ministère des Pêches et des Océans.

Les rapports statistiques sont produits à l'échelon régional mais sont numérotés et placés dans l'index à l'échelon national. Les demandes de rapports seront satisfaites par l'établissement auteur dont le nom figure sur la couverture et la page de titre. Les rapports épuisés seront fournis contre rétribution par des agents commerciaux.

Les établissements des Sciences et Levés océaniques dans les régions et à l'administration centrale ont cessé de publier leurs diverses séries de rapports depuis décembre 1981. Vous trouverez dans l'index des publications du volume 38 du *Journal canadien des sciences halieutiques et aquatiques,* la liste de ces publications ainsi que le dernier numéro paru dans chaque catégorie. La nouvelle série a commencé avec la publication du Rapport n° 1 en janvier 1982.

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DATA SECTIONS

ABSTRACT

Forbes, J.R., D.L. Mackas, R.M. Brown, K.L. Denman and E.A. MacIsaac. 1990. Zooplankton distribution and associated biological, physical and chemical data: Barkley Sound, Vancouver Island, April 1987 and May 1988 (MASS Program). Can. Data Rep. Hydrogr. Ocean Sci. 76: 139 p.

Data collected during April 1987 and May 1988 in Barkley Sound, southwest Vancouver Island, as part of the Marine Survival of Salmon (MASS) Program are presented. The objectives of this component of MASS were to survey the distribution, abundance and size frequency of zooplankton and investigate underlying biological and oceanographic processes controlling the zooplankton community. For 1988, maps of the surface distribution of zooplankton biomass by size category, salinity and temperature, obtained by a flow-through sampling system, are provided. Zooplankton identity, abundance and size distribution determined from vertical net haul and BIONESS samples, together with biological, physical and chemical observations from CTD/rosette casts are reported. Data from 1987 are restricted to zooplankton identity, abundance and size distribution determined from vertical net haul samples.

Key words: data, zooplankton, oceanographic, Barkley Sound, Vancouver Island

RÉSUMÉ

Forbes, J.R.; D.L. Mackas, R.M. Brown, K.L. Denman and E.A. MacIsaac. 1990. Zooplankton distribution and associated biological, physical and chemical data: Barkley Sound, Vancouver Island, April 1987 and May 1988 (MASS Program). Can. Data Rep. Hydrogr. Ocean Sci. 76: 139 p.

Le document présente les données recueillies en avril 1987 et mai 1988 dans le détroit Barkley, au sud-ouest de l'île de Vancouver, dans le cadre du Programme de survie du saumon en mer (MASS). L'objet de cet élément du Programme était de relever la répartation, l'abondance et la fréquence des tailles de zooplancton et d'étudier les processus biologiques et océanographiques qui influent sur le zooplancton. Le document renferme des cartes de répartition en surface de la biomasse de zooplancton, selon la taille, la salinité et la température, établies à partir d'échantillonnages par instrument d'arpentage électronique. On y indique le type de zooplancton, l'abondance et la répartition par taille, déterminées à partir d'échantillons prélevés verticalement au moyen de filets et obliquement au moyen de système BIONESS, et à partir d'observations biologique, chimiques et physiques découlant de l'utilisation d'une système CTD/rosette. Les données recueillies en 1987 sont limités à le type, l'abondance et la répartition par taille de zooplancton, déterminées à partir d'échantillons prélevés verticalement.

Mot-clés: données, zooplancton, océanographiques, détroit Barkley, île de Vancouver

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We thank personnel of the **C.S.S. Vector** for their contribution to this project. Sharon Buckingham, Karen Burns, George Chase, Peter Clifford, Mark Gollner and Gedong Yin provided valuable field assistance. Alex Earmme performed some of the laboratory analyses while Shannon Cerniuk contributed to data reduction and analysis.

Specific analyses were performed under contract by the following individuals:

| | | |
|---|---|---|
| Nutrients | - | T. Smyth and staff, CB Research International Corp. |
| Bacteria | - | S. Severn and staff, CB Research International Corp. |
| Phytoplankton | - | R. Haigh and F.J.R. Taylor, U.B.C. |
| Zooplankton | - | M. Galbraith, Sy-Tech Research Ltd. |

## INTRODUCTION

The Marine Survival of Salmon (MASS) Program is an inter-disciplinary study focussed on the relationships between physical and biological oceanographic events and the dispersal and survival of salmon during their early sea life. The program was stimulated by the need to improve forecasting for Pacific salmon returns. The return of adults appears to be strongly influenced by environmental factors and it is considered likely that these factors are operating on juveniles. The objective of the MASS program is to evaluate whether or not the variation in return rate is due to these effects on juveniles.

A major effort within the MASS program has been directed at processes within Barkley Sound, on the west coast of Vancouver Island. The Ocean Ecology section at the Institute of Ocean Sciences (IOS) has contributed to the research in Barkley Sound by surveying the distribution, abundance and size frequency of zooplankton, and investigating underlying biological and oceanographic processes controlling the zooplankton community. This report describes the results of an intensive study undertaken during mid-May 1988, with zooplankton data from an initial survey in late April 1987 conducted by the West Vancouver Laboratory of the Department of Fisheries and Oceans. The results of two additional surveys conducted in early May and early June 1989 are reported in Forbes et al. (1990).

## SAMPLING AND ANALYTICAL METHODS

### 1. Project design

The initial survey in 1987, for which we report zooplankton data, focussed on description of inlet-scale spatial variability of size-fractioned primary productivity and phytoplankton. Other results are reported by MacIsaac et al. (1990). Vertical net hauls were conducted at nine stations (Fig. 4) throughout Barkley Sound to characterize the size distribution of the zooplankton. Detailed taxonomic identification and enumeration of animals was undertaken on samples from four of these locations.

The types of studies done in 1987 were repeated in 1988, but we placed an increased emphasis on understanding the distribution and size structure of the zooplankton community. Nocturnal continuous underway mapping was conducted throughout Barkley Sound (Fig. 1-3) to obtain the surface distribution of zooplankton biomass by size category, salinity and temperature. Navigation was by Loran-C and radar. This mapping was augmented by a dense network (Fig. 5) of vertical net hauls, to obtain areal measurements of size-fractioned zooplankton biomass, and a series of oblique tows (Fig. 6) in the upper 10m, the depth stratum in which migrating juvenile salmon are concentrated. At one location we conducted a time-series of tows with a Bioness (Fig. 7) multiple net system, which provided information on diel variability in depth distribution of zooplankton. An additional day and night pair of Bioness tows was obtained at a second station (Fig. 7).

The zooplankton data were supplemented with continuous profiles and discrete samples for physical, chemical and biological water properties, collected with a CTD/rosette instrument (Fig. 8).

2. Continuous underway mapping

Continuous underway data of zooplankton abundance and size categories, salinity, temperature and chlorophyll fluorescence were collected with a flow-through electronic particle counting system (EPCS) (Mackas et al. 1981) coupled to temperature, conductivity and fluorescence sensors (Mackas et al. 1980). Water was pumped from a nominal depth of 3m via a through-hull fitting in the bow-thruster compartment. Mapping was performed at night to improve sampling of vertically migrating zooplankton. Data are averaged over 3km, and plotted (Fig. 12-20) along the line tracks at the mid-point of each 3km bin.

The zooplankton sensor counts and sizes particles with an equivalent spherical diameter of 0.3 - 3.0mm (approximately 0.08 - 8.0$mm^3$). Resistive particles passing through the sensor cause amplitude modulation of an A.C. excitation signal. Output pulses derived from the demodulated signal are an approximately linear function of particle volume, which allows particles to be assigned to one of ten size categories. The sensor contains four independent sensing tubes to allow for a high flow rate (approximately 25$L.min^{-1}$). Precision of the size estimates ranges from about ±40% for the smallest detected particles to ±10% for the largest. The size categories of zooplankton are plotted as histograms, with the x axis as body size and the y axis as the amount ($mm^3.m^{-3}$).

Periodic discrete water samples were taken from the system outflow for calibration of the temperature, conductivity and fluorescence sensors. However, high fluorescence interference from dissolved organic matter and non-living particulates rendered the fluorescence data suspect for deriving estimates of chlorophyll concentrations and the fluorescence data are not reported.

3. CTD/rosette casts and discrete water samples

Vertical profiles of physical, chemical and biological data were collected with an integrated array of instruments, including CTD, *in situ* fluorometer, transmissometer, and irradiance sensor, mounted in a frame attached to a rosette sampler. Specific sensors for this cruise were a Guildline Model 8701 analog CTD, Variosens III fluorometer, configured to measure chlorophyll fluorescence, Sea Tech 25cm path length transmissometer to measure beam attenuance, and Licor 193SB spherical quantum irradiance sensor, to measure *in situ* photosynthetically active irradiance. Outputs from these sensors were multiplexed, digitized and communicated to the ship. A microcomputer stored data and provided a real-time display of temperature, salinity and chlorophyll fluorescence. During a typical cast of the instrument package, it was lowered at a rate of 0.5 - 1$m.s^{-1}$ and the depths to

collect water samples were determined from data acquired on the down-cast. The rosette sampler held an array of ten Niskin bottles. One or more of these bottles was tripped on the up-cast and data from all sensors were sampled and recorded at the time the bottle closed. Water collected by the Niskin bottles was used for discrete samples of salinity, chlorophyll a, dissolved inorganic nutrients, bacteria and phytoplankton.

The manufacturer of the CTD specifies an accuracy of ±0.01°C, with a resolution of 0.003°C for temperature, an accuracy of ±1.25dBar and a resolution of 0.25dBar for pressure, and an accuracy of ±0.01 equivalent salinity, with a resolution of 0.005. For % transmission, the manufacturer specified accuracy and resolution to be 0.5%, while the accuracy of the *in situ* PAR measurement is reported to be ±7.0% and the resolution to be 0.5%.

## 4. Salinity

Salinity samples were collected in 250mL bottles which were rinsed three times, capped and stored for later analysis at IOS. Salinity samples were analyzed on a Guildline Autosal (Model 8400A) standardized against Standard Sea Water (Standard Sea-water Service, Institute of Oceanographic Sciences, Wormley, Godalming, England). Batch P95 8/3 1983 was used, with a stated $K_{15}$ = 0.99997 (chlorinity = 19.373). Data are reported in practical salinity units (psu) (Lewis and Perkin 1978).

Precision (pooled variance of replicate samples) of this method has been estimated by Macdonald et al. (1988) to be 0.005.

## 5. Chlorophyll a

Extracted chlorophyll a was determined by fluorometry (Parsons et al. 1984). Water samples (generally 50mL) were filtered in duplicate onto 25mm diameter Whatman GF/F glass fiber filters with a vacuum of <100mm Hg. Just before filtration was completed approximately 1mL of $MgCO_3$ suspension was added to the sample and the sides of the filter funnel were rinsed with filtered seawater. Chlorophyll was extracted in 90% aqueous acetone by grinding the filters in a tissue grinder. The extract was clarified by filtration through a glass fiber filter and the fluorescence measured in a Turner Designs 10 fluorometer. The sample was acidified with two drops of 1.5N HCl and the fluorescence was redetermined after the reading had stabilized to obtain a phaeopigment correction factor.

Chlorophyll a content was calculated from the equations in Parsons et al. (1984). The fluorometer was previously calibrated against a Perkin-Elmer Hitachi 200 spectrophotometer using a standard prepared from pure crystalline chlorophyll a (Sigma Chemical Co.). Chlorophyll concentrations in the calibration samples were calculated using the equations of Jeffrey and Humphrey (1975). The mean coefficient of variation of this method is estimated to be 4.9% (Forbes et al. 1988).

6. Inorganic nutrients

Samples for the analysis of dissolved nitrate plus nitrite, ammonium, orthophosphate and reactive silicate were analyzed using Technicon II Auto-Analyzer instruments. Processing of samples was handled in two ways.

6.a Frozen samples (method A)

Samples for the analysis of dissolved nitrate plus nitrite and orthophosphate were collected in 50mL glass tubes with Teflon cap liners. Samples for dissolved reactive silicate were collected in 20mL polystyrene tubes, also with Teflon cap liners. All sample tubes had been previously acid-cleaned and were rinsed three times with sample before filling. All samples were quick frozen in an alcohol bath to -40°C and stored frozen until analysis.

A Technicon II Auto-Analyzer was used for the analyses, with Technicon Industrial Methods No. 186-72 W and 158-71 W (both revised June 1977) employed for nitrate plus nitrite and reactive silicate respectively. The modification of the Technicon method by Brynjolfson (1973) was used for the analysis of orthophosphate. All glassware and plasticware used was acid-washed overnight in 1 M hydrochloric acid and rinsed three times with deionized (Milli-Q) water before use. Acid-washed sample cups were rinsed with sample before use. The recommendations of Macdonald et al. (1986) regarding the thawing of samples were followed and the samples were mixed thoroughly prior to analysis. A synthetic seawater wash solution and standards containing 3.2% sodium chloride (equivalent to 28 psu) were used for all samples except a small number of low salinity samples. These samples were analyzed using a synthetic seawater wash and standards containing 1.6% sodium chloride (equivalent to 14 psu). The low salinity samples were 41-6, 76-8, 76-9, 80-9, 82-9 and 85F-9, where the first number is the station identifier and the second is the bottle identifier.

Working calibration standard solutions were calibrated against substandards prepared from certified Sagami nutrient standards. The calibration standards were prepared fresh every one or two days and run at the beginning and end of each day, as well as after every 30 - 35 samples.

Concentrations of calibration standards used (in $\mu$g-at.$L^{-1}$) were:

| $NO_2$+$NO_3$ | $PO_4$ | $SiO_2$ |
|---|---|---|
| 1.0 | 0.1 | 1.0 |
| 5.0 | 0.5 | 5.0 |
| 10.0 | 1.5 | 20.0 |
| 20.0 | 3.0 | 40.0 |
| 40.0 | 4.0 | 60.0 |

Turbidity samples were run on the orthophosphate channel (no reagents) for samples that were obviously turbid or of low salinity and sample concentrations were corrected accordingly.

The range of the method for nitrate plus nitrite is 0.1 to 140$\mu$g-at.$L^{-1}$, with a stated precision of ±0.19 at the 17$\mu$g-at.$L^{-1}$ level (standard deviation of four replicates). For orthophosphate, the range of the method is 0.01 to 16$\mu$g-at.$L^{-1}$, with a stated precision of ±0.01 at the 1.3$\mu$g-at.$L^{-1}$ level (standard deviation of four replicates). From a detection limit of 0.2$\mu$g-at.$L^{-1}$ the range for reactive silicate extends to 300$\mu$g-at.$L^{-1}$. The stated precision of the method at the 16$\mu$g-at.$L^{-1}$ level is ±0.14 (standard deviation of four replicates). Replicate subsamples representing at least 5% of the samples in each batch were analyzed as a check on method precision. In general, the precision of these replicates was within limits outlined for the respective methods.

6.b Direct analysis (method B)

Subsamples for nutrient analyses were removed directly from the Niskin bottle with an acid-washed syringe and gently filtered through acid-cleaned, combusted (460°C for 4 h) Whatman GF/F filters (mounted in 25 mm Millipore Swinnex® filter holders) into acid-washed polyethylene bottles. Nitrate plus nitrite, ammonium and silicate samples were analyzed immediately, while orthophosphate samples were stored frozen (-20°C) until analysis.

Nitrate plus nitrite and ammonium were determined following the procedures of Wood et al. (1967) and Slawyk and MacIsaac (1972), respectively. Silicate was determined following Armstrong *et al.* (1967), and orthophosphate according to Hager et al. (1968).

Precision of method B based on Technicon Industrial Methods specifications is:

| | Mean | 1 Std dev. | N |
|---|---|---|---|
| Ammonia | 1.00 | 0.06 | 10 |
| Nitrate | 5.00 | 0.06 | 10 |
| Silicate | 2.00 | 0.01 | 10 |
| Phosphate | 1.00 | 0.02 | 10 |

8. Bacteria

For total counts of bacteria in seawater, water samples (20mL) were preserved with unbuffered formaldehyde to a concentration of 2%. They were stored at 4°C in the dark prior to counting. Abundance was estimated by the method of Hobbie et al. (1977), with slight modification. Duplicate subsamples were stained for five minutes with buffered acridine orange (0.1% in 0.02 Mol tris-hydroxymethylaminomethane, pH 7.2), to a final concentration of 0.02% (Bunch 1987), and filtered onto 0.2$\mu$m pore-size Nuclepore polycarbonate filters, previously dyed with Irgalin Black (0.2% solution in 2.0% v/v acetic acid). Prior to filtration of the subsample, 1mL of surfactant (0.001M Triton-X) was passed through the filter to avert cell clumping due to the hydrophobic

property of the Nuclepore filters. Triton-X was selected because it does not affect the background fluorescence. Enumeration was by epi-fluorescence microscopy, with subsample volume (typically 5mL) chosen to distribute between 20 and 100 cells per field. Ten randomly chosen fields were counted. If the ten fields contained less than 300 cells, additional randomly chosen fields were counted until this number was reached.

The proportion of dividing cells was determined using the guidelines of Hagstrom et al. (1979). Bacteria cells showing a region of invagination, but no clear separation, were functionally designated as dividing cells. In general, the procedure for counting described above was used. However, if the dividing cell number was low (20 to 50 cells per ten fields), then an additional ten fields were counted.

A series of control samples was prepared by serial dilution, in filtered seawater, of a natural sample of bacteria. These were preserved with formaldehyde as above. These controls were counted several times during the counting of samples to ensure that temporal systematic variations in the procedures were not occurring. The mean coefficient of variation for 121 sets of duplicate subsamples was 17% with a range of 4 to 61%.

9. Phytoplankton

Samples (250mL) were drawn from the Niskin bottles and preserved with acid Lugol's solution (Throndsen 1978). Identification and enumeration was by settling and inverted microscopy, as outlined in Hasle (1978). Specifically, each sample was shaken gently by hand for approximately 1 min. A subsample was then settled in a 10mL settling chamber, to yield between 100 and 300 cells or chains of the more abundant, medium-sized species present. Medium-sized and larger taxa were enumerated from the entire bottom at 250x magnification, unless numbers of abundant species exceeded 200. In this case, every second or every fifth transect was counted, depending on cell density. Smaller taxa occurring in large numbers were counted at 250x or 500x from two or more transects. The entire chamber was scanned for rare or exotic taxa.

10. Zooplankton

Vertical net haul samples were collected with a bongo net (57cm diam., 0.25mm mesh, black netting) from 250m, or approximately 5m above the bottom where the depth was <250m. One subsample from each bongo haul was preserved with buffered formalin for identification and enumeration (only four samples analyzed); the other was frozen in an alcohol bath to -40°C for size-fractioned biomass determination. A series of oblique tows from 10m to the surface were also conducted with the bongo net. Samples were handled in the same manner as for the vertical hauls. Oblique tows through specific depth strata were performed with a BIONESS multiple opening and closing net system. A full tow consisted of up to seven samples, designated by station number and net number. For example, 52-2 represents the sample from net 2 at

station 52. Table 2 provides details of sample depths for each BIONESS sample. These samples were preserved with buffered formalin for identification and enumeration.

Size-fractioned biomass on frozen samples was determined as follows. Samples were thawed and passed through a stack of sieves with 4, 2, .85, .25 and .04mm mesh by gentle rinsing and backwashing in standing, filtered seawater. This was followed by a light rinse with isotonic ammonium formate (0.5N in deionized water) to remove salt. Subsamples were then filtered onto preweighed Whatman No.1 filter papers, dried for 24hr at 60°C, and the weight of the filter contents was determined. The .04mm sieve served as a check to detect animals passing through the .25mm mesh in a longitudinal direction. The occurrence of animals on this mesh is indicative of over vigorous sieving, requiring that the sample be re-sieved. The results are plotted (Fig. 9-11) in the form of histograms ($g/m^2$ for each sieve) on a map at station locations.

For identification and enumeration of zooplankton, preserved samples were initially passed through a 5mm sieve onto a 0.04mm sieve to remove the preservative and to separate the >5mm size fraction from the rest of the sample. The latter was visually examined for exotic taxa, which were removed for external verification of identity. Generally, all remaining individuals in this size fraction were identified to species, sex and developmental stage where possible. In the event of a very large number of individuals, this portion of the sample was subsampled to approximately 50 individuals. The remaining size fraction (0.04 to 5mm) was split to produce a subsample of no fewer than 300 individuals, which were identified and enumerated to genus, species, sex and developmental where feasible. All subsampling was performed with a Folsom splitter, which was regularly calibrated by splitting a known control sample. A complete list of taxa (Table 7) precedes the abundance data (Tables 8-10). In some cases taxa are staged, sexed, or both. For example, *Calanus marshallae* 1-4 refers to stages 1 to 4 and *C. marshallae* 6f to stage 6, female of this species. In the case of some higher taxa, size categories are specified, for example *Oikopleura* s1, s2 and s3. S1 indicates a length of less than 5mm, s2 between 5mm and 1cm, and s3 greater than 1cm.

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DATA SECTION 1

CONTINUOUS UNDERWAY MAPPING TRANSECTS AND STATION LOCATIONS

| | | |
|---|---|---|
| Fig. 1 | OE8805 | EPCS Line Track: 3 - 4 May 1988 |
| Fig. 2 | OE8805 | EPCS Line Track: 6 - 7 May 1988 |
| Fig. 3 | OE8805 | EPCS Line Track: 11 - 12 May 1988 |
| Fig. 4 | WV87 | Station Locations (Vertical Net Hauls) |
| Fig. 5 | OE8805 | Station Locations (Vertical Net Hauls) |
| Fig. 6 | OE8805 | Station Locations (Oblique Net Hauls) |
| Fig. 7 | OE8805 | Station Locations (Bioness Net Hauls) |
| Fig. 8 | OE8805 | Station Locations (CTD/Rosette Casts) |

(Note: map coordinates are in decimal degrees)

Fig. 1 OE8805 EPCS Line Track 3 - 4 May 1988

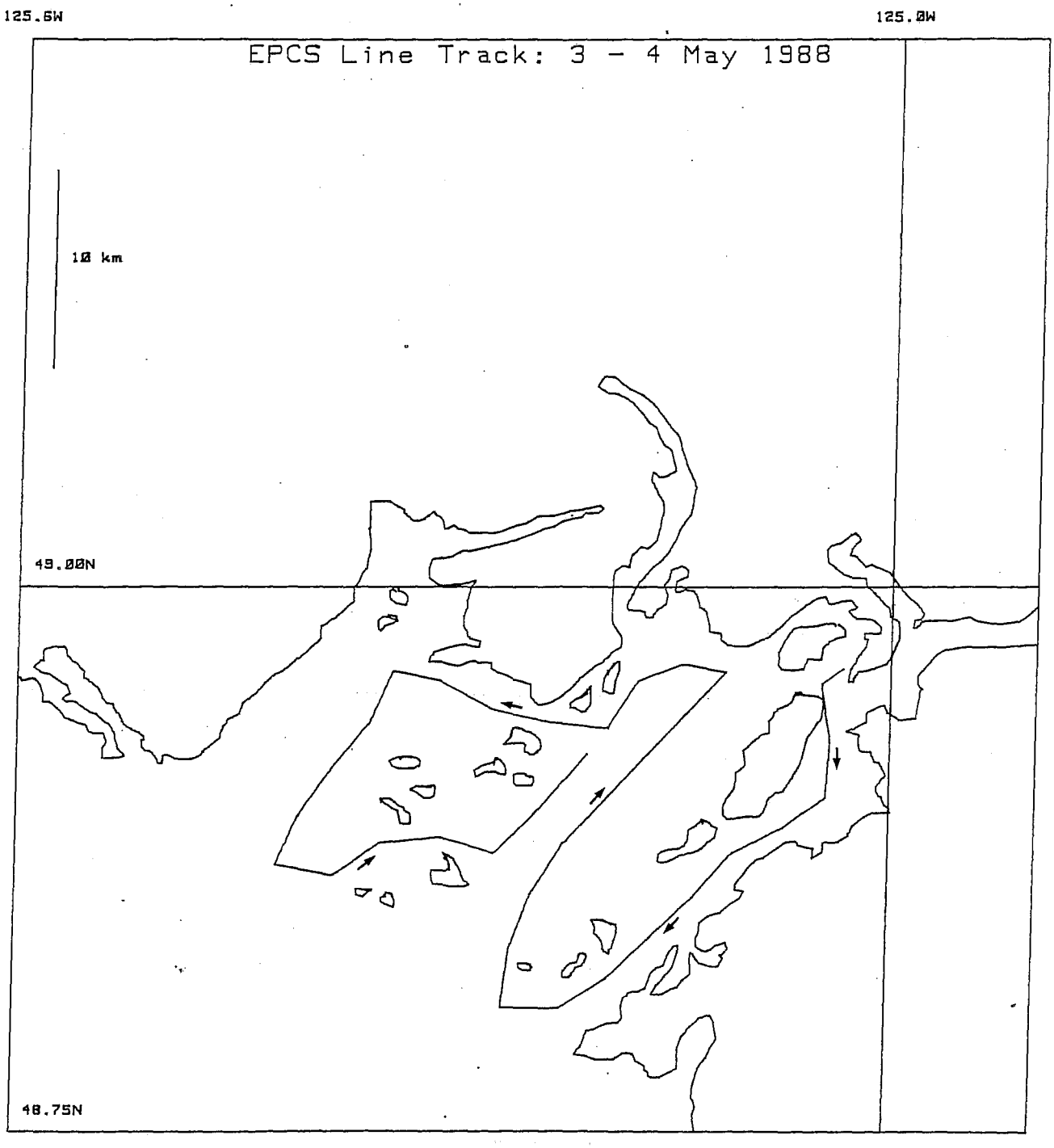


Fig. 2 OE8805 EPCS Line Track 6 - 7 May 1988

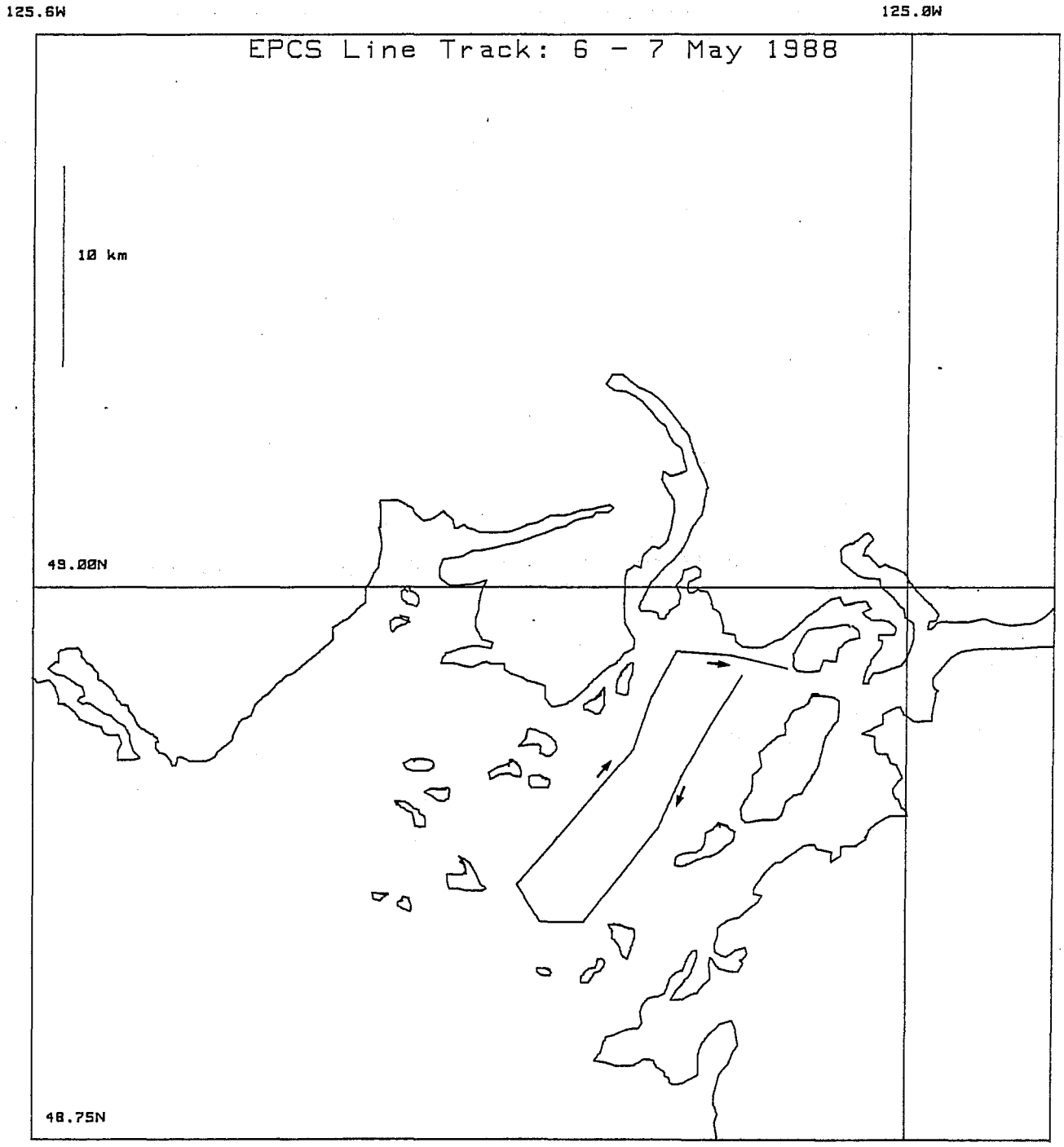


Fig. 3 OE8805 EPCS Line Track 11 - 12 May 1988

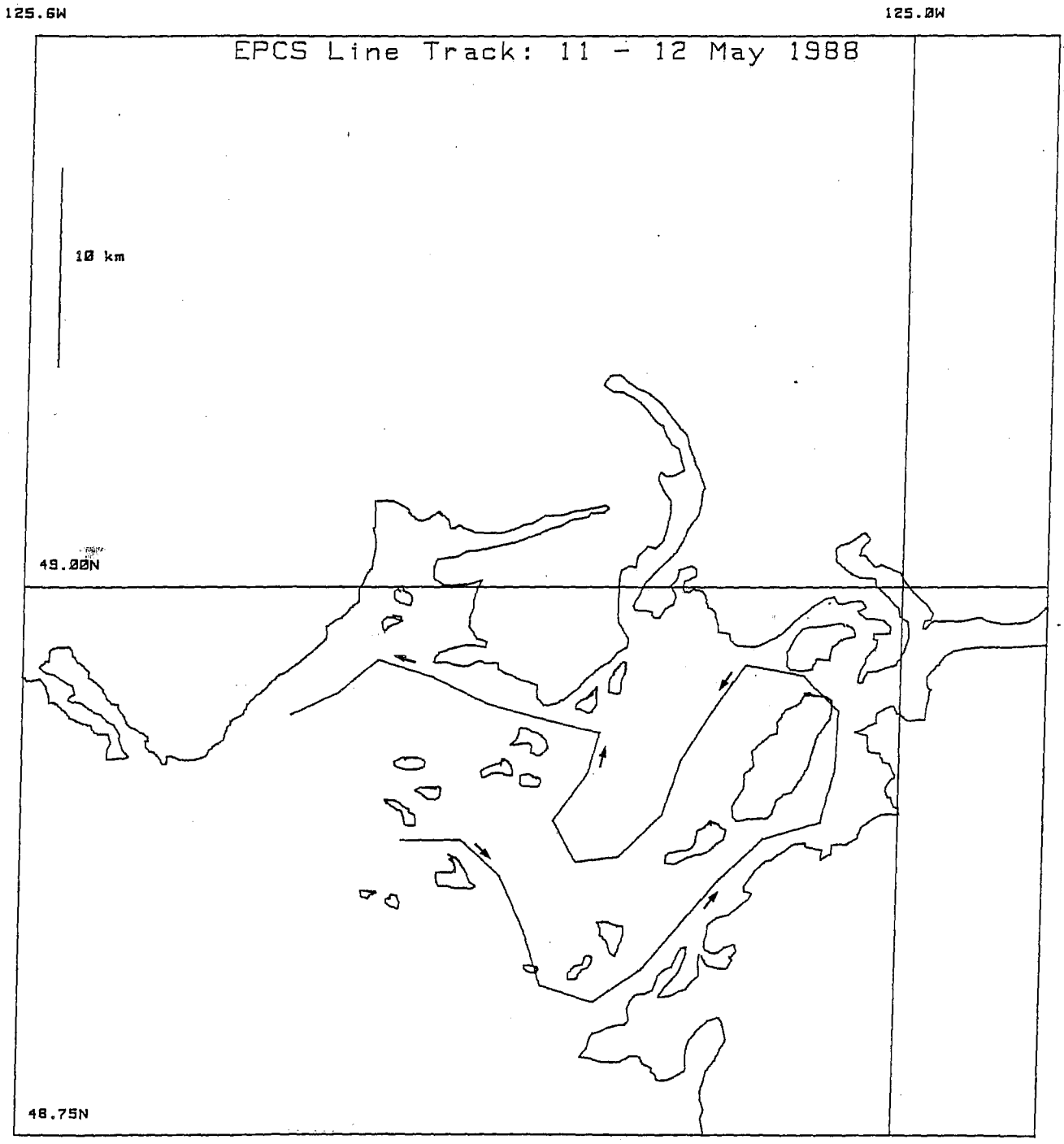


Fig. 4 WV87 Station Locations (Vertical Net Hauls)

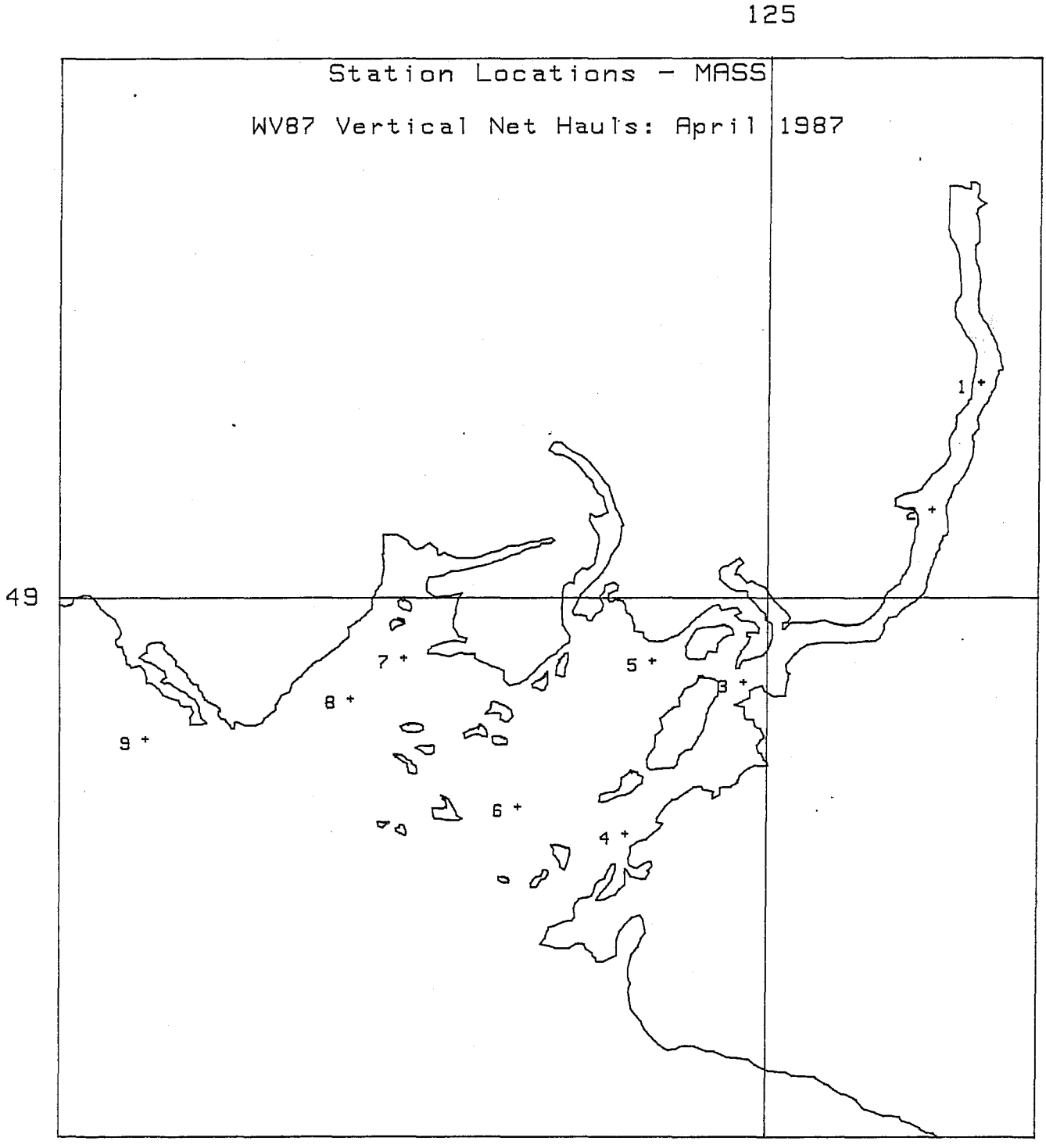


Fig. 5 OE8805 Station Locations (Vertical Net Hauls)

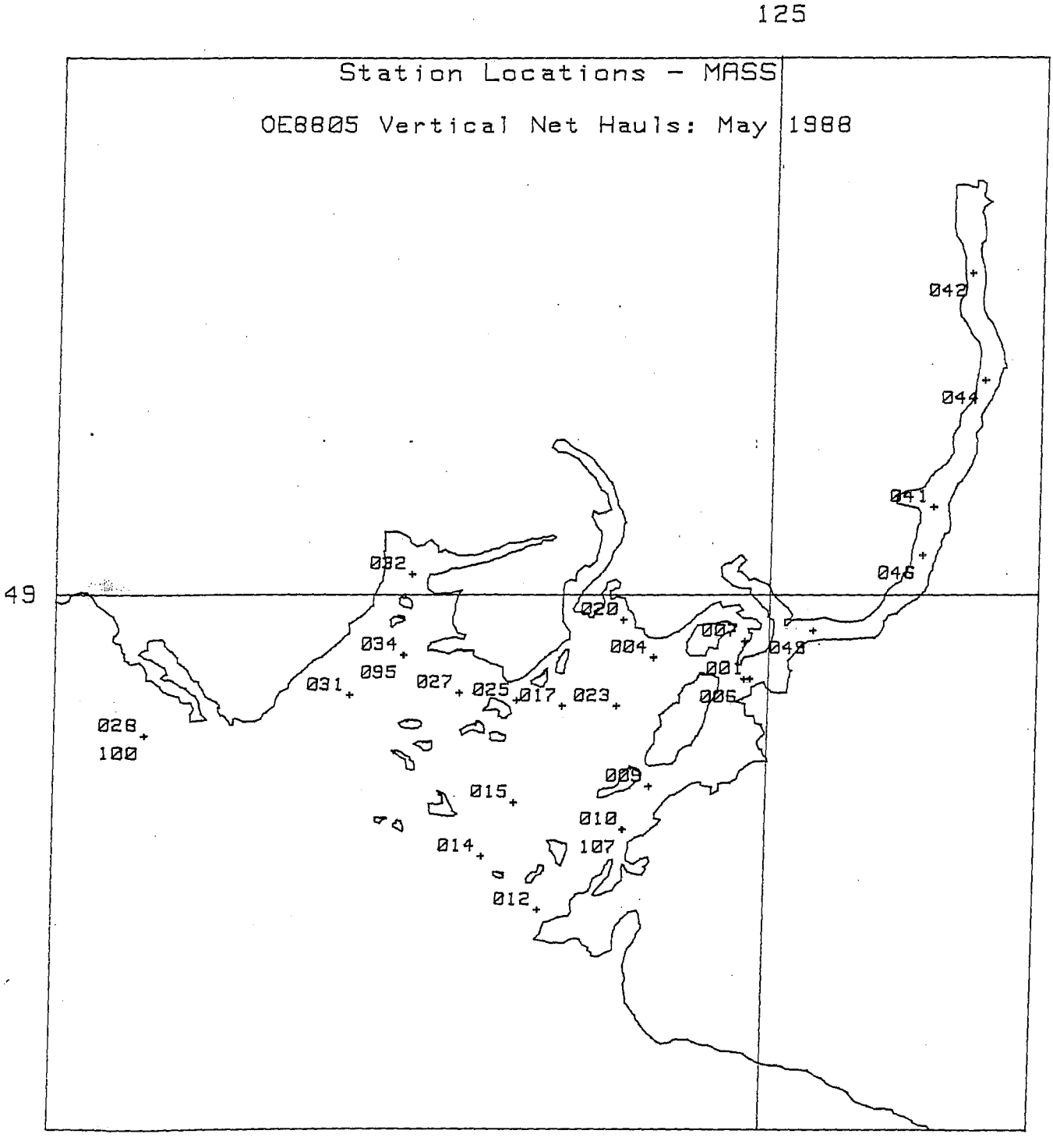


Fig. 6 OE8805 Station Locations (Oblique Net Hauls)

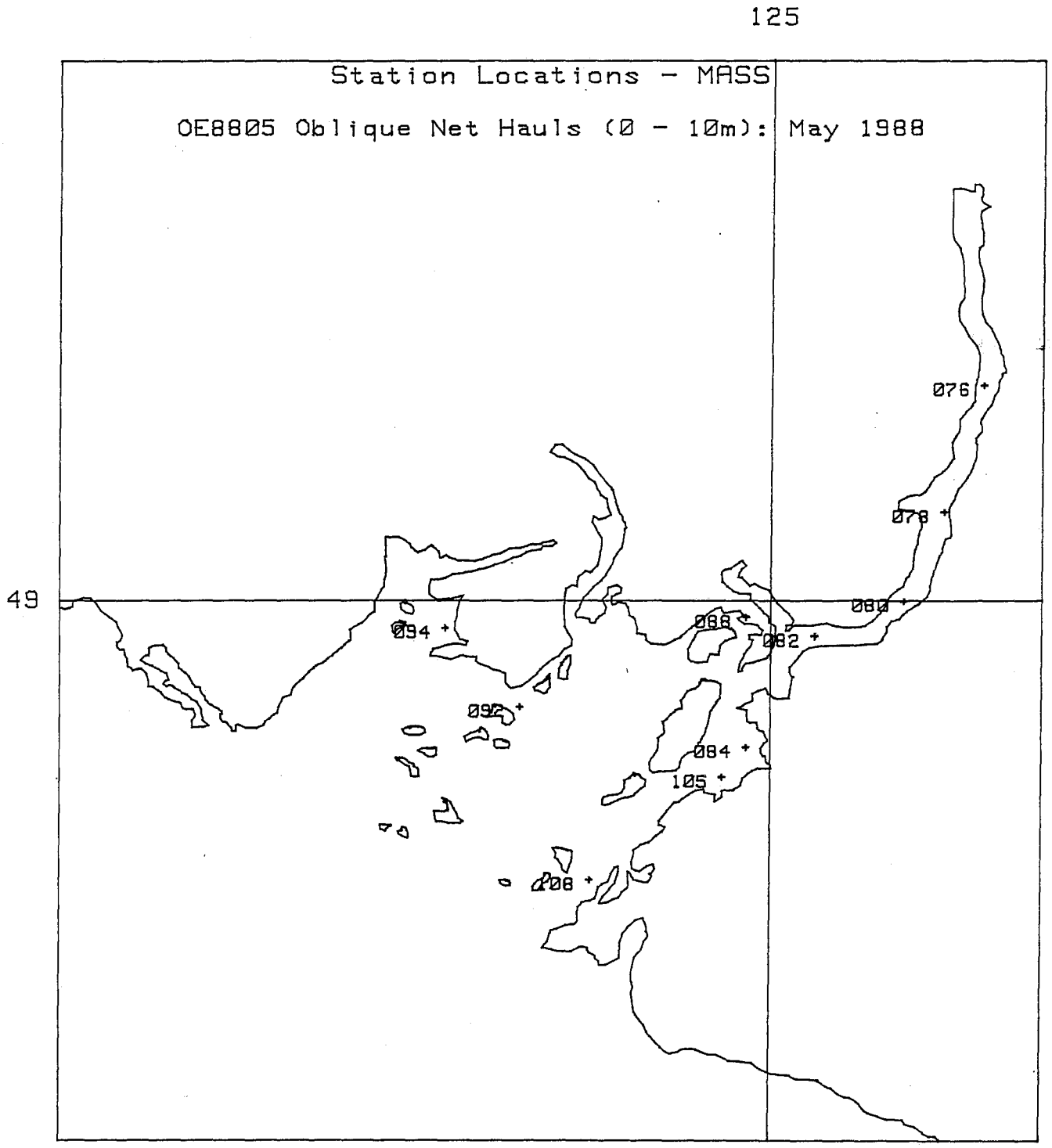


Fig. 7 OE8805 Station Locations (Bioness Net Hauls)

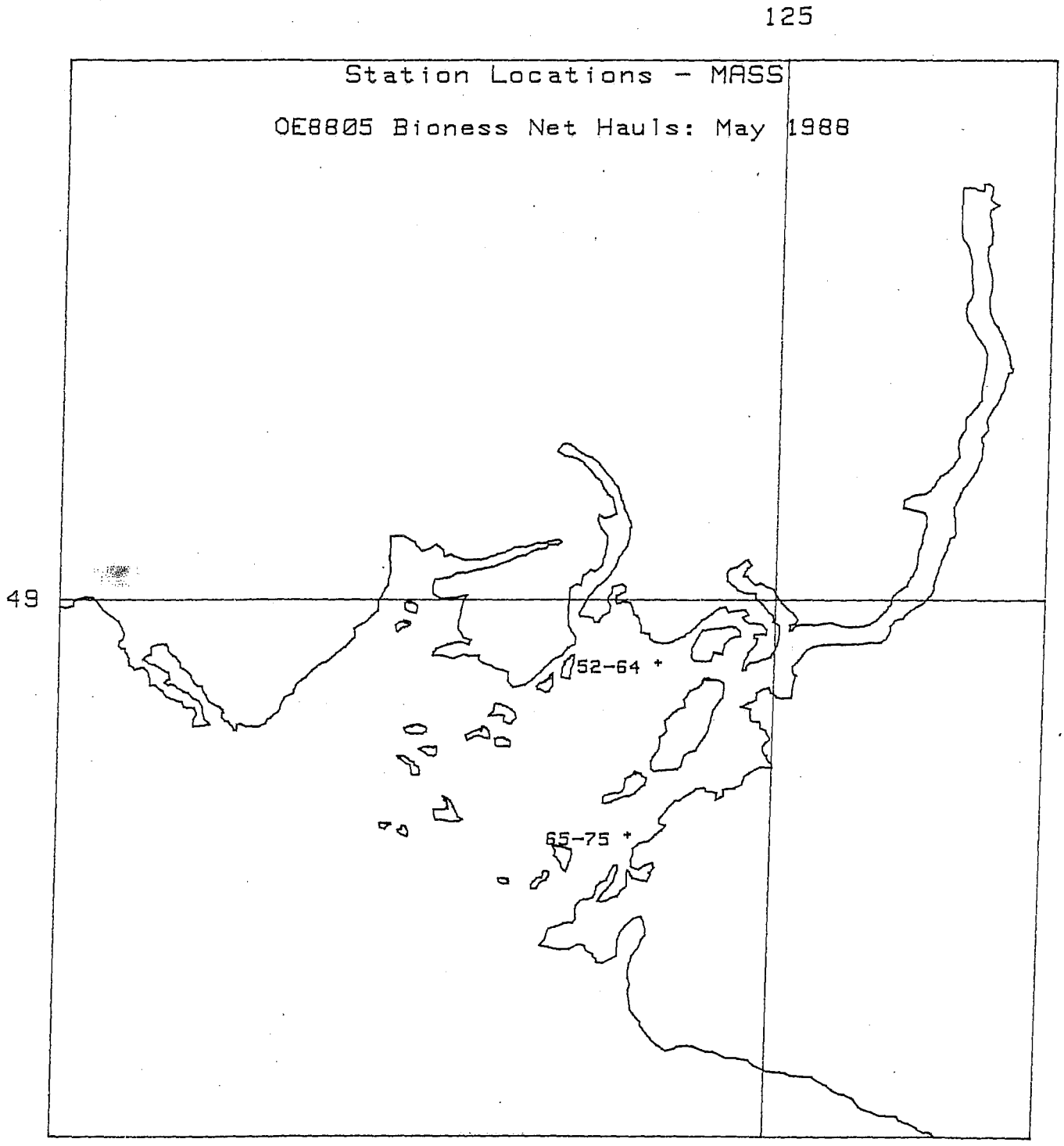
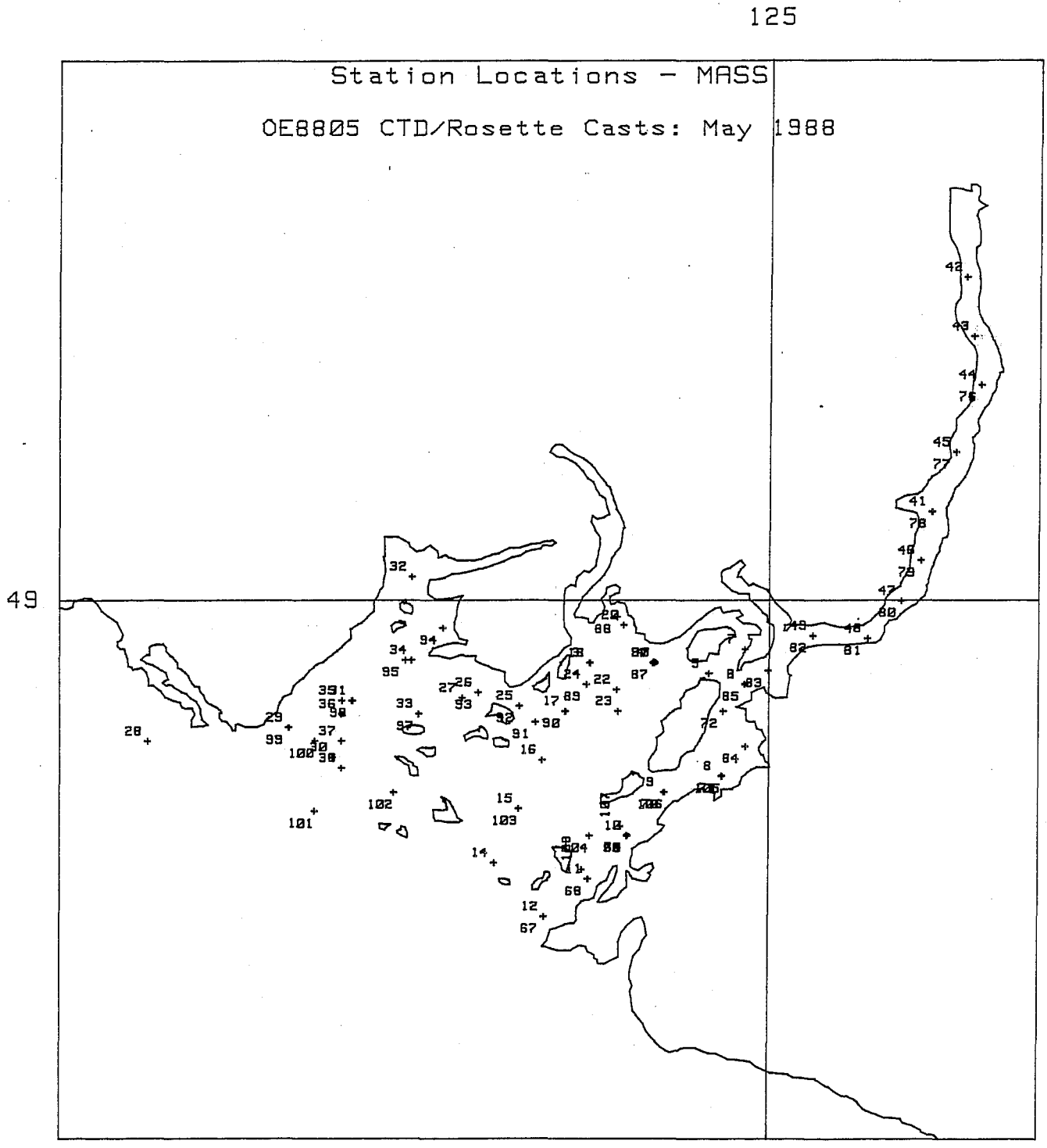


Fig. 8 OE8805 Station Locations (CTD/Rosette Casts)



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DATA SECTION 2

DATA INVENTORY

Table 1 OE8805 data collected

Table 2 WV87 and OE8805 zooplankton sample inventory

[Data invent. tables: + data collected
- data not collected]

TABLE 1: CRUISE OE8805: DATA COLLECTED

| Station | Date | Time | Latitude | Longitude | CTD | In situ fluor. | Beam Atten. | In situ irr. | Nut. | Chl a | POC/ PON | Bact. | Phyto. | Zoopl. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 03 05 | 1515 | 48 57.1' | 125 01.3' | – | – | – | – | – | – | – | – | – | + |
| 2 | 03 05 | 1610 | 48 57.1' | 125 01.3' | + | + | + | + | + | + | – | – | – | – |
| 2B | 03 05 | 1658 | 48 57.1' | 125 01.3' | + | + | + | + | – | – | – | – | + | – |
| 3 | 04 05 | 0528 | 48 57.9' | 125 10.0' | + | + | + | + | – | – | – | – | – | – |
| 4 | 04 05 | 0602 | 48 57.9' | 125 06.4' | + | + | + | + | + | + | – | – | + | + |
| 5 | 04 05 | 0637 | 48 57.5' | 125 03.3' | + | + | + | + | – | – | – | – | – | – |
| 6 | 04 05 | 0815 | 48 57.1' | 125 01.3' | + | + | + | + | + | + | – | – | + | + |
| 6B | 04 05 | 0907 | 48 57.1' | 125 01.3' | + | + | + | + | – | + | + | + | + | – |
| 6C | 04 05 | 0927 | 48 57.3' | 125 01.3' | + | + | + | + | – | – | – | – | + | – |
| 6D | 04 05 | 0946 | 48 57.1' | 125 01.3' | + | + | + | + | – | – | – | – | – | – |
| 7 | 04 05 | 1200 | 48 58.4' | 125 01.3' | + | + | + | + | + | + | – | – | + | + |
| 8 | 04 05 | 1259 | 48 53.7' | 125 02.6' | + | + | + | + | – | – | – | – | – | – |
| 9 | 04 05 | 1334 | 48 53.1' | 125 05.8' | + | + | + | + | – | – | – | – | – | + |
| 10 | 04 05 | 1425 | 48 51.5' | 125 07.9' | + | + | + | + | – | – | – | – | – | + |
| 10A | 04 05 | 1446 | 48 51.5' | 125 07.9' | + | + | + | + | + | + | – | – | – | – |
| 11 | 04 05 | 1522 | 48 49.9' | 125 10.1' | + | + | + | + | – | – | – | – | + | – |
| 12 | 04 05 | 1556 | 48 48.5' | 125 12.6' | + | + | + | + | + | + | – | – | + | + |
| 14 | 05 05 | 0913 | 48 50.5' | 125 15.4' | + | + | + | + | + | + | – | + | + | + |
| 15A | 05 05 | 1031 | 48 52.5' | 125 14.0' | + | + | + | + | + | – | + | + | + | + |
| 15B | 05 05 | 1052 | 48 52.5' | 125 14.0' | + | + | + | + | – | + | – | + | – | – |
| 16 | 05 05 | 1150 | 48 54.3' | 125 12.7' | + | + | + | + | – | – | – | – | + | – |
| 17 | 05 05 | 1218 | 48 56.1' | 125 11.4' | + | + | + | + | + | + | – | + | – | + |
| 18 | 05 05 | 1301 | 48 57.9' | 125 10.0' | + | + | + | + | – | – | – | – | – | – |
| 19 | 05 05 | 1325 | 48 56.1' | 125 11.4' | – | – | – | – | – | – | – | – | – | – |
| 20 | 05 05 | 1354 | 48 59.3' | 125 08.1' | + | + | + | – | – | – | – | – | – | + |
| 21 | 05 05 | 1413 | 48 57.9' | 125 06.4' | + | + | + | + | + | + | – | + | + | – |
| 22 | 05 05 | 1454 | 48 56.9' | 125 08.5' | + | + | + | + | – | + | – | – | – | – |
| 23 | 05 05 | 1507 | 48 56.1' | 125 08.4' | + | + | + | + | + | + | – | – | – | + |

| Station | Date | Time | Latitude | Longitude | CTD | In situ fluor. | Beam Atten. | In situ irr. | Nut. | Chl a | POC/ PON | Bact. | Phyto. | Zoopl. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 24 | 05 05 | 1541 | 48 57.1' | 125 10.2' | + | + | + | + | – | – | – | – | – | – |
| 25 | 05 05 | 1606 | 48 56.3' | 125 14.0' | + | + | + | + | + | + | – | – | + | + |
| 26 | 05 05 | 1636 | 48 56.8' | 125 16.3' | + | + | + | + | – | – | – | – | – | – |
| 27 | 05 05 | 1703 | 48 56.6' | 125 17.2' | + | + | + | + | + | + | – | – | + | + |
| 28 | 06 05 | 0826 | 48 55.0' | 125 35.0' | + | + | + | + | + | – | – | + | + | + |
| 29 | 06 05 | 0941 | 48 55.5' | 125 27.0' | + | + | + | + | – | – | – | – | – | – |
| 30 | 06 05 | 0953 | 48 54.4' | 125 24.5' | + | + | + | + | – | – | – | – | – | – |
| 31A | 06 05 | 1015 | 48 56.5' | 125 23.4' | + | + | + | + | + | – | + | + | + | + |
| 31B | 06 05 | 1047 | 48 56.5' | 125 23.4' | + | + | + | + | – | + | – | – | – | – |
| 32 | 06 05 | 1156 | 49 01.0' | 125 20.0' | + | + | + | + | – | – | – | – | – | + |
| 33 | 06 05 | 1240 | 48 56.0' | 125 19.6' | + | + | + | + | – | – | – | – | – | – |
| 34 | 06 05 | 1313 | 48 58.0' | 125 20.4' | + | + | + | + | + | + | + | + | + | + |
| 35 | 06 05 | 1351 | 48 56.5' | 125 24.0' | + | + | + | + | – | – | – | – | – | – |
| 36 | 06 05 | 1419 | 48 56.0' | 125 24.0' | + | + | + | + | – | – | – | – | – | – |
| 37 | 06 05 | 1429 | 48 55.0' | 125 24.0' | + | + | + | + | – | – | – | – | – | – |
| 38 | 06 05 | 1443 | 48 54.0' | 125 24.0' | + | + | + | + | – | – | – | – | – | – |
| 41A | 07 05 | 0845 | 49 03.5' | 124 50.9' | + | + | + | + | + | – | + | – | + | + |
| 41B | 07 05 | 0928 | 49 03.5' | 124 50.9' | + | + | + | + | – | + | – | – | – | – |
| 42A | 07 05 | 2027 | 49 12.2' | 124 49.0' | + | + | + | + | + | + | – | – | – | + |
| 43 | 07 05 | 2059 | 49 10.0' | 124 48.6' | + | + | + | + | – | – | – | – | – | – |
| 44 | 07 05 | 2129 | 49 08.2' | 124 48.2' | + | + | + | + | + | + | – | – | – | + |
| 45 | 07 05 | 2219 | 49 05.7' | 124 49.6' | + | + | + | + | – | – | – | – | – | – |
| 46 | 07 05 | 2248 | 49 01.7' | 124 51.5' | + | + | + | + | + | + | – | – | – | + |
| 47 | 07 05 | 2348 | 49 00.2' | 124 52.6' | + | + | + | + | – | – | – | – | – | – |
| 48 | 08 05 | 0021 | 48 58.8' | 124 54.5' | + | + | + | + | + | + | – | – | – | – |
| 49 | 08 05 | 0103 | 48 58.9' | 124 57.5' | + | + | + | + | + | + | – | – | – | + |
| 50 | 08 05 | 0819 | 48 57.9' | 125 06.4' | + | + | + | + | + | – | + | + | + | – |
| 50A | 08 05 | 0847 | 48 57.9' | 125 06.4' | + | + | + | + | – | + | – | – | – | – |
| 51 | 08 05 | 1137 | 48 57.9' | 125 06.4' | + | + | + | + | + | + | + | – | – | – |
| 52 | 08 05 | 1308 | 48 57.9' | 125 06.4' | + | – | – | – | – | – | – | – | – | + |
| 53 | 08 05 | 1504 | 48 57.9' | 125 06.4' | + | + | + | + | + | + | + | – | – | – |

| Station | Date | Time | Latitude | Longitude | CTD | In situ fluor. | Beam Atten. | In situ irr. | Nut. | Chl a | POC/ PON | Bact. | Phyto. | Zoopl. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 54 | 08 05 | 1639 | 48 57.9' | 125 06.4' | + | – | – | – | – | – | – | – | – | + |
| 55 | 08 05 | 1842 | 48 57.9' | 125 06.4' | – | – | – | – | – | + | + | – | – | – |
| 56 | 08 05 | 2051 | 48 57.9' | 125 06.4' | + | + | + | + | + | – | + | – | – | – |
| 57 | 08 05 | 2154 | 48 57.9' | 125 06.4' | + | – | – | – | – | – | – | – | – | + |
| 58 | 08 05 | 2354 | 48 57.9' | 125 06.4' | + | + | + | + | + | + | + | – | – | – |
| 59 | 09 05 | 0115 | 48 57.9' | 125 06.4' | + | – | – | – | – | – | – | – | – | + |
| 60 | 09 05 | 0252 | 48 57.9' | 125 06.4' | + | + | + | + | + | + | + | – | – | – |
| 61 | 09 05 | 0438 | 48 57.9' | 125 06.4' | + | – | – | – | – | – | – | – | – | + |
| 62A | 09 05 | 0600 | 48 57.9' | 125 06.4' | + | + | + | + | + | + | + | – | – | – |
| 63 | 09 05 | 0851 | 48 57.9' | 125 06.4' | + | + | + | + | + | + | + | + | + | – |
| 64 | 09 05 | 1000 | 48 57.9' | 125 06.4' | + | – | – | – | – | – | – | – | – | + |
| 65 | 09 05 | 1315 | 48 51.5' | 125 07.9' | + | – | – | – | – | – | – | – | – | + |
| 66 | 09 05 | 1341 | 48 51.5' | 125 07.9' | + | + | + | + | + | – | + | + | + | – |
| 66A | 09 05 | 1412 | 48 51.5' | 125 07.9' | + | + | + | + | – | + | – | – | – | – |
| 66B | 09 05 | 1433 | 48 51.5' | 125 07.9' | + | + | + | + | – | – | – | – | – | – |
| 67 | 09 05 | 1523 | 48 48.5' | 125 12.6' | + | + | + | + | + | – | – | – | – | – |
| 68 | 09 05 | 1559 | 48 49.9' | 125 10.1' | + | + | + | + | + | – | – | – | – | – |
| 69 | 09 05 | 1659 | 48 51.5' | 125 07.9' | + | + | + | + | – | – | – | – | – | – |
| 70 | 09 05 | 1752 | 48 53.1' | 125 05.8' | + | + | + | + | + | – | – | – | – | – |
| 71 | 09 05 | 1837 | 48 53.7' | 125 02.6' | + | + | + | + | + | – | – | – | – | – |
| 72 | 09 05 | 1923 | 48 56.1' | 125 02.5' | + | + | + | + | + | – | – | – | – | – |
| 73 | 09 05 | 1946 | 48 53.7' | 125 02.6' | + | + | + | + | + | – | – | – | – | – |
| 74 | 09 05 | 2253 | 48 51.5' | 125 07.9' | + | + | + | + | + | + | + | – | – | – |
| 75 | 09 05 | 2339 | 48 51.5' | 125 07.9' | + | – | – | – | – | – | – | – | – | + |
| 76 | 10 05 | 0819 | 49 08.2' | 124 48.2' | + | + | + | + | + | – | + | + | – | + |
| 76A | 10 05 | 0841 | 49 08.2' | 124 48.2' | + | + | + | + | – | + | – | – | – | – |
| 76B | 10 05 | 0912 | 49 08.2' | 124 48.2' | + | + | + | + | – | – | – | – | – | – |
| 76C | 10 05 | 0944 | 49 08.2' | 124 48.8' | + | + | + | + | – | – | – | – | – | – |
| 77 | 10 05 | 1015 | 49 05.7' | 124 49.6' | + | + | + | + | – | – | – | – | – | – |
| 78 | 10 05 | 1044 | 49 03.5' | 124 50.9' | + | + | + | + | + | + | – | – | – | + |
| 79 | 10 05 | 1131 | 49 01.7' | 124 51.5' | + | + | + | + | – | – | – | – | – | – |

| Station | Date | Time | Latitude | Longitude | CTD | In situ fluor. | Beam Atten. | In situ irr. | Nut. | Chl a | POC/ PON | Bact. | Phyto. | Zoopl. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 80 | 10 05 | 1203 | 49 00.2' | 124 52.6' | + | + | + | + | + | + | – | – | – | + |
| 81 | 10 05 | 1315 | 48 58.8' | 124 54.5' | + | + | + | + | – | – | – | – | – | – |
| 82 | 10 05 | 1357 | 48 58.9' | 124 57.5' | + | + | + | + | + | + | – | – | – | + |
| 83 | 10 05 | 1425 | 48 57.6' | 125 00.0' | + | + | + | + | – | – | – | – | – | – |
| 84 | 10 05 | 1536 | 48 54.8' | 125 01.3' | + | + | + | + | – | – | – | – | – | + |
| 85 | 10 05 | 1645 | 48 57.1' | 125 01.3' | + | + | + | + | – | – | – | – | – | – |
| 85A | 10 05 | 1645 | 48 57.1' | 125 01.3' | + | + | + | + | – | – | – | – | – | – |
| 85B | 10 05 | 1750 | 48 57.1' | 125 01.3' | + | + | + | + | – | – | – | – | – | – |
| 85C | 10 05 | 1823 | 48 57.1' | 125 01.3' | + | + | + | + | – | – | – | – | – | – |
| 85D | 10 05 | 1856 | 48 57.1' | 125 01.3' | + | + | + | + | – | – | – | – | – | – |
| 85E | 10 05 | 1925 | 48 57.1' | 125 01.3' | + | + | + | + | – | – | – | – | – | – |
| 85F | 10 05 | 1954 | 48 57.1' | 125 01.3' | + | + | + | + | + | + | – | – | – | – |
| 87 | 11 05 | 0655 | 48 57.9' | 125 06.4' | + | + | + | + | – | – | – | – | – | – |
| 88A | 11 05 | 0805 | 48 59.6' | 125 08.5' | + | + | + | + | + | + | – | – | – | + |
| 89 | 11 05 | 0854 | 48 57.1' | 125 10.2' | + | + | + | + | – | – | – | – | – | – |
| 90 | 11 05 | 0909 | 48 56.1' | 125 11.4' | + | + | + | + | – | – | – | – | – | – |
| 91 | 11 05 | 0941 | 48 55.7' | 125 13.1' | + | + | + | + | – | – | – | – | – | – |
| 92 | 11 05 | 0956 | 48 56.3' | 125 14.0' | + | + | + | + | + | + | – | – | – | + |
| 93 | 11 05 | 1038 | 48 56.8' | 125 16.3' | + | + | + | + | – | – | – | – | – | – |
| 94 | 11 05 | 1119 | 48 59.2' | 125 18.3' | + | + | + | + | – | – | – | – | – | + |
| 95 | 11 05 | 1207 | 48 58.0' | 125 20.4' | + | + | + | + | + | – | – | + | + | + |
| 95A | 11 05 | 1229 | 48 58.0' | 125 20.4' | + | + | + | + | – | + | – | – | – | – |
| 95B | 11 05 | 1253 | 48 58.0' | 125 20.4' | + | + | + | + | – | – | – | – | – | – |
| 96A | 11 05 | 1356 | 49 01.0' | 125 20.0' | + | + | + | + | – | – | – | – | – | – |
| 97 | 11 05 | 1406 | 48 56.0' | 125 19.6' | + | + | + | + | – | – | – | – | – | – |
| 98 | 11 05 | 1448 | 48 56.5' | 125 23.4' | + | + | + | + | + | + | – | – | + | – |
| 99 | 11 05 | 1525 | 48 55.5' | 125 27.0' | + | + | + | + | – | – | – | – | – | – |
| 100 | 12 05 | 0704 | 48 55.0' | 125 25.5' | + | + | + | + | + | + | + | + | + | + |
| 101 | 12 05 | 0953 | 48 52.4' | 125 25.5' | + | + | + | + | – | – | – | – | – | – |
| 102 | 12 05 | 1058 | 48 53.1' | 125 21.0' | + | + | + | + | – | – | – | – | – | – |
| 103 | 12 05 | 1208 | 48 52.5' | 125 14.0' | + | + | + | + | + | + | + | + | + | – |

| Station | Date | Time | Latitude | Longitude | CTD | In situ fluor. | Beam Atten. | In situ irr. | Nut. | Chl a | POC/ PON | Bact. | Phyto. | Zoopl. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 104 | 12 05 | 1319 | 48 51.5' | 125 10.0' | + | + | + | + | – | – | – | – | – | – |
| 105 | 12 05 | 1356 | 48 53.7' | 125 02.6' | + | + | + | + | – | – | – | – | – | + |
| 106 | 12 05 | 1423 | 48 53.1' | 125 05.8' | + | + | + | + | – | – | – | – | – | – |
| 107 | 12 05 | 1501 | 48 51.5' | 125 07.9' | + | + | + | + | + | – | + | – | – | + |
| 108 | 12 05 | 1538 | 48 49.9' | 125 10.1' | + | + | + | + | – | – | – | – | – | + |

## TABLE 2: WV87 AND OE8805 ZOOPLANKTON SAMPLE INVENTORY

### Bongo Net Samples

#### WV87

| Station | Date | Latitude | Longitude | Water depth | Net haul depth | Analysis types |
|---|---|---|---|---|---|---|
| 1 | 27 Apr 87 | 49 08 | 124 48 | 125 | 120 | sfb |
| 2 | 28 Apr 87 | 49 04 | 124 51 | 263 | 258 | sfb |
| 3 | 29 Apr 87 | 48 57 | 125 02 | 260 | 255 | sfb |
| 4 | 30 Apr 87 | 48 52 | 125 08 | 128 | 123 | sfb |
| 5 | 26 Apr 87 | 48 58 | 125 07 | 96 | 91 | sfb |
| 6 | 25 Apr 87 | 48 53 | 125 14 | 96 | 91 | sfb id/abun |
| 7 | 22 Apr 87 | 48 58 | 125 20 | 44 | 39 | sfb id/abun |
| 8 | 24 Apr 87 | 48 57 | 125 24 | 52 | 46 | sfb id/abun |
| 9 | 23 Apr 87 | 48 55 | 125 35 | 97 | 93 | sfb id/abun |

#### OE8805

| Station | Date | Latitude | Longitude | Water depth | Net haul depth | Analysis types |
|---|---|---|---|---|---|---|
| 1 | 3 May 88 | 48 57.1 | 125 01.3 | 246 | 240 | sfb |
| 4 | 4 May 88 | 48 57.9 | 125 06.4 | 95 | 90 | sfb |
| 6 | 4 May 88 | 48 57.1 | 125 01.3 | 250 | 240 | sfb |
| 7 | 4 May 88 | 48 58.4 | 125 01.3 | 40 | 40 | sfb |
| 9 | 4 May 88 | 48 53.1 | 125 05.8 | 148 | 140 | sfb |
| 10 | 4 May 88 | 48 51.5 | 125 07.9 | 130 | 120 | sfb |

OE8805 (cont.)

| Station | Date | Latitude | Longitude | Water depth | Net haul depth | Analysis types |
|---|---|---|---|---|---|---|
| 12 | 4 May 88 | 48 48.5 | 125 12.6 | 34 | 25 | sfb |
| 14 | 5 May 88 | 48 50.5 | 125 15.4 | 102 | 98 | sfb |
| 15 | 5 May 88 | 48 52.5 | 125 14.0 | 94 | 92 | sfb id/abun |
| 17 | 5 May 88 | 48 56.1 | 125 11.4 | 96 | 95 | sfb |
| 20 | 5 May 88 | 48 59.3 | 125 08.1 | 84 | 80 | sfb |
| 23 | 5 May 88 | 48 56.1 | 125 08.4 | 90 | 85 | sfb |
| 25 | 5 May 88 | 48 56.3 | 125 14.0 | 75 | 75 | sfb |
| 27 | 5 May 88 | 48 56.6 | 125 17.2 | 70 | 70 | sfb |
| 28 | 6 May 88 | 48 55.0 | 125 35.0 | 92 | 90 | sfb id/abun |
| 31 | 6 May 88 | 48 56.5 | 125 23.4 | 47 | 45 | sfb id/abun |
| 32 | 6 May 88 | 49 01.0 | 125 20.0 | 27 | 25 | sfb |
| 34 | 6 May 88 | 48 58.0 | 125 20.4 | 38 | 35 | sfb id/abun |
| 41 | 7 May 88 | 49 03.5 | 124 50.9 | 262 | 250 | sfb |
| 42 | 7 May 88 | 49 12.2 | 124 49.0 | 62 | 54 | sfb |
| 44 | 7 May 88 | 49 08.2 | 124 48.2 | 122 | 118 | sfb |
| 46 | 7 May 88 | 49 01.7 | 124 51.5 | 297 | 250 | sfb |
| 49 | 8 May 88 | 48 58.9 | 124 57.5 | 172 | 165 | sfb |
| 76 | 10 May 88 | 49 08.2 | 124 48.2 | 122 | 10 | sfb |
| 78 | 10 May 88 | 49 03.5 | 124 50.9 | 256 | 10 | sfb |
| 80 | 10 May 88 | 49 00.2 | 124 52.6 | 309 | 10 | sfb |
| 82 | 10 May 88 | 48 58.9 | 124 57.5 | 172 | 10 | sfb |
| 84 | 10 May 88 | 48 54.8 | 125 01.3 | 113 | 10 | sfb |
| 88 | 11 May 88 | 48 59.6 | 125 08.5 | 84 | 10 | sfb |
| 92 | 11 May 88 | 48 56.3 | 125 14.0 | 65 | 10 | sfb |
| 94 | 11 May 88 | 48 59.2 | 125 18.3 | 37 | 10 | sfb |
| 95 | 11 May 88 | 48 58.0 | 125 20.4 | 38 | 35 | sfb |
| 100 | 12 May 88 | 48 55.0 | 125 25.5 | 115 | 115 | sfb |
| 105 | 12 May 88 | 48 53.7 | 125 02.6 | 140 | 10 | sfb |
| 107 | 12 May 88 | 48 51.5 | 125 07.9 | 142 | 115 | sfb |
| 108 | 12 May 88 | 48 49.9 | 125 10.1 | 68 | 10 | sfb |

Bioness Samples

OE8805

| Station | Samples | Date | Start Lat. | Start Long. | Start (PDT) | Max. depth | |
|---|---|---|---|---|---|---|---|
| 52 | 6 | 8 May 88 | 48 57.9 | 125 6.4 | 1308 | 92 | id/abun |
| 54 | 6 | 8 May 88 | 48 57.9 | 125 6.4 | 1639 | 90 | id/abun |
| 57 | 5 | 8 May 88 | 48 57.9 | 125 6.4 | 2154 | 91 | id/abun |
| 59 | 5 | 9 May 88 | 48 57.9 | 125 6.4 | 0115 | 85 | id/abun |
| 61 | 5 | 9 May 88 | 48 57.9 | 125 6.4 | 0438 | 90 | id/abun |
| 64 | 5 | 9 May 88 | 48 57.9 | 125 6.4 | 1000 | 90 | id/abun |
| 65 | 5 | 9 May 88 | 48 51.5 | 125 7.9 | 1315 | 121 | id/abun |
| 75 | 6 | 9 May 88 | 48 51.5 | 125 7.9 | 2339 | 121 | id/abun |

Analysis types

sfb size–fractioned biomass

id/abun identity and abundance of animals

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DATA SECTION 3

ZOOPLANKTON SIZE DISTRIBUTION; SURFACE ZOOPLANKTON BIOMASS, SALINITY AND TEMPERATURE

| | | |
|---|---|---|
| Fig. 9 | WV87 | Zooplankton biomass (size-fractioned) (Vertical net haul data) |
| Fig. 10 | OE8805 | Zooplankton biomass (size-fractioned) (Vertical net haul data, note duplicate samples at some sites) |
| Fig. 11 | OE8805 | Zooplankton biomass (size-fractioned) (Oblique, 0-10m, net haul data) |
| Fig. 12 | OE8805 | EPCS zooplankton biomass 3 - 4 May 1988 |
| Fig. 13 | OE8805 | EPCS zooplankton biomass 6 - 7 May 1988 |
| Fig. 14 | OE8805 | EPCS zooplankton biomass 11 - 12 May 1988 |
| Fig. 15 | OE8805 | EPCS surface salinity 3 - 4 May 1988 (contour interval is 2psu) |
| Fig. 16 | OE8805 | EPCS surface salinity 6 - 7 May 1988 (contour interval is 2psu) |
| Fig. 17 | OE8805 | EPCS surface salinity 11 - 12 May 1988 (contour interval is 2psu) |
| Fig. 18 | OE8805 | EPCS surface temperature 3 - 4 May 1988 |
| Fig. 19 | OE8805 | EPCS surface temperature 6 - 7 May 1988 |
| Fig. 20 | OE8805 | EPCS surface temperature 11 - 12 May 1988 |

Fig. 9 WV87 Zooplankton biomass (size-fractioned)
(Vertical net haul data)

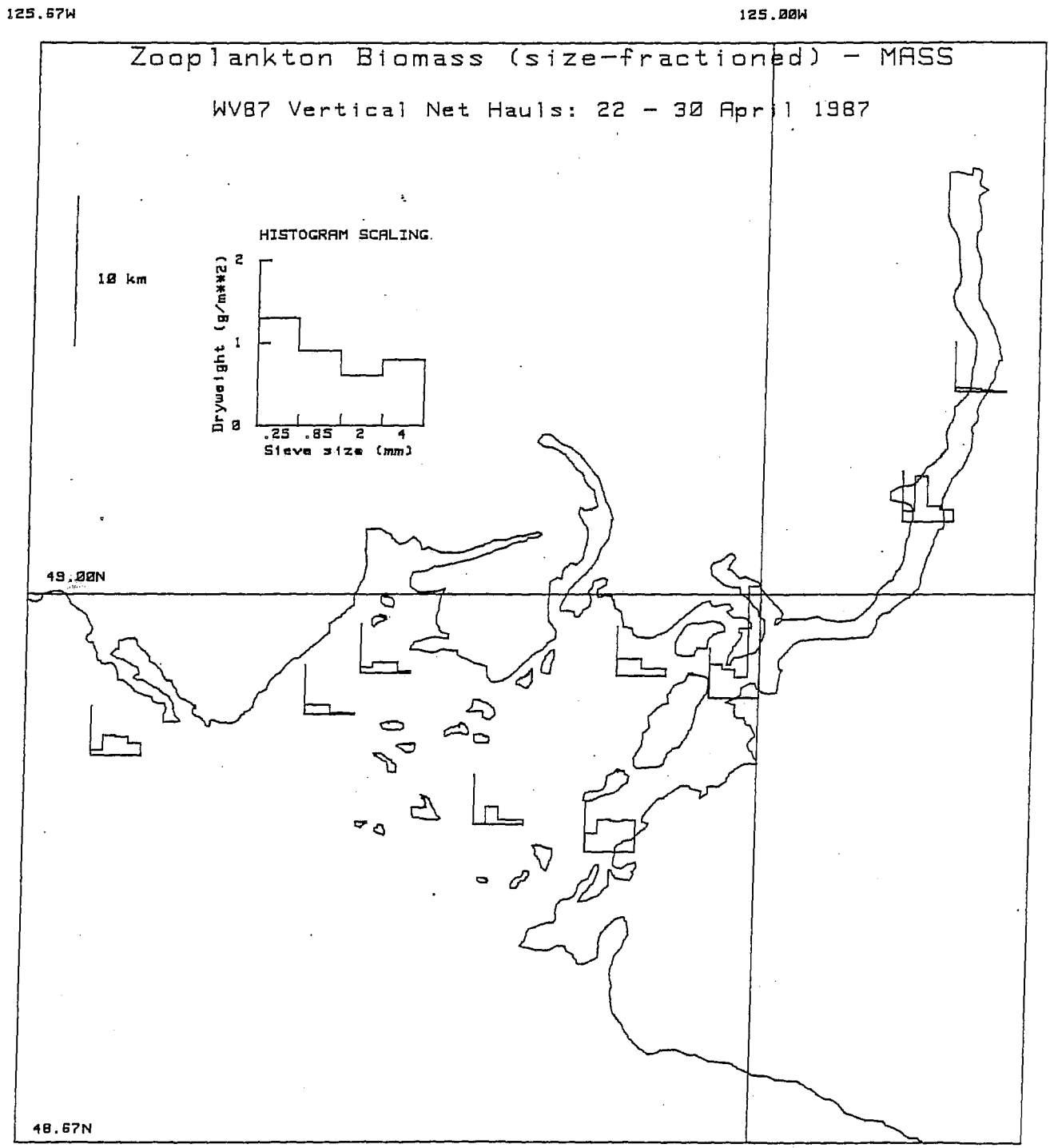


Fig. 10 OE8805 Zooplankton biomass (size-fractioned)
(Vertical net haul data)

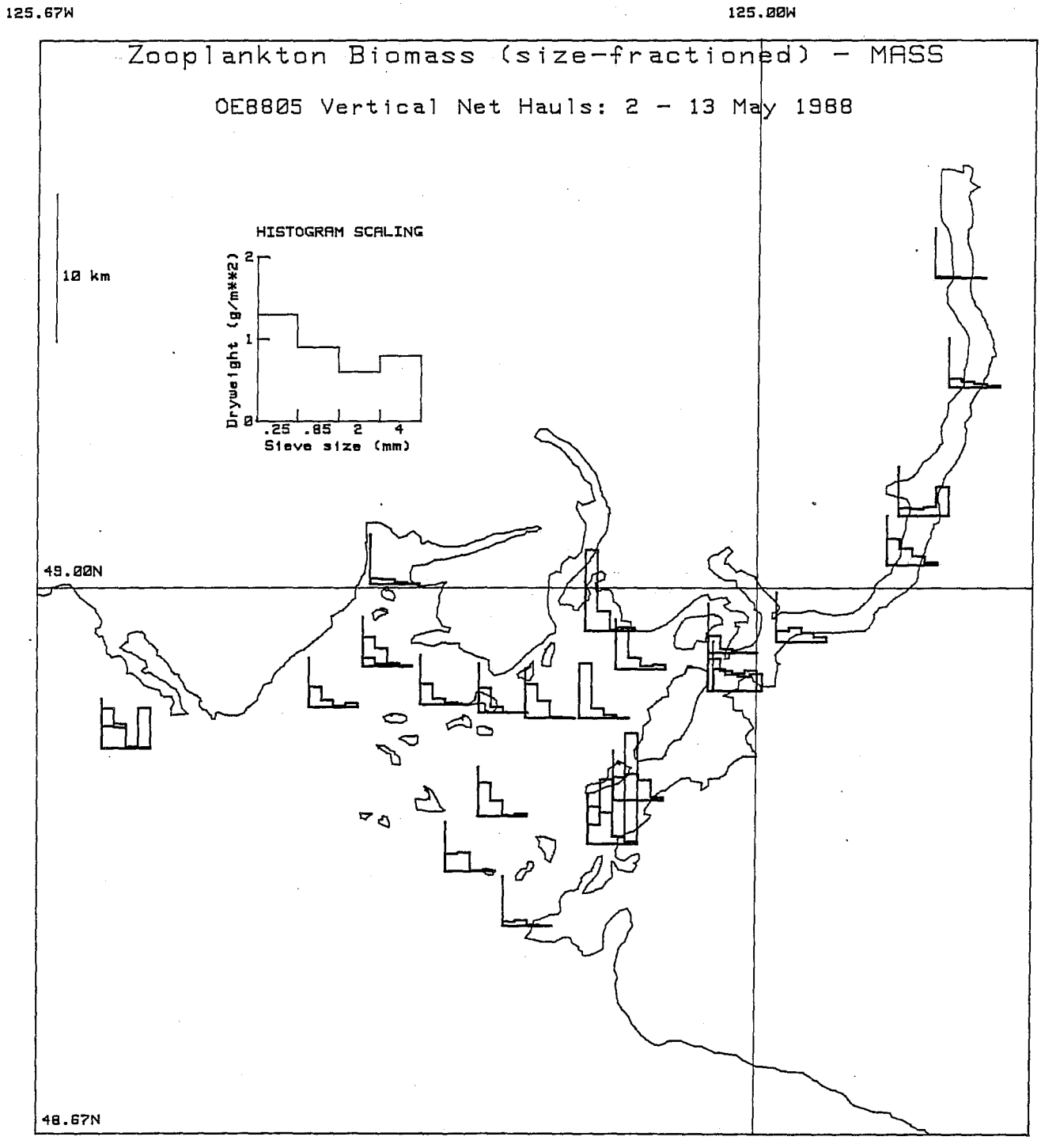


Fig. 11 OE8805 Zooplankton biomass (size-fractioned)
(Oblique, 0-10m, net haul data)

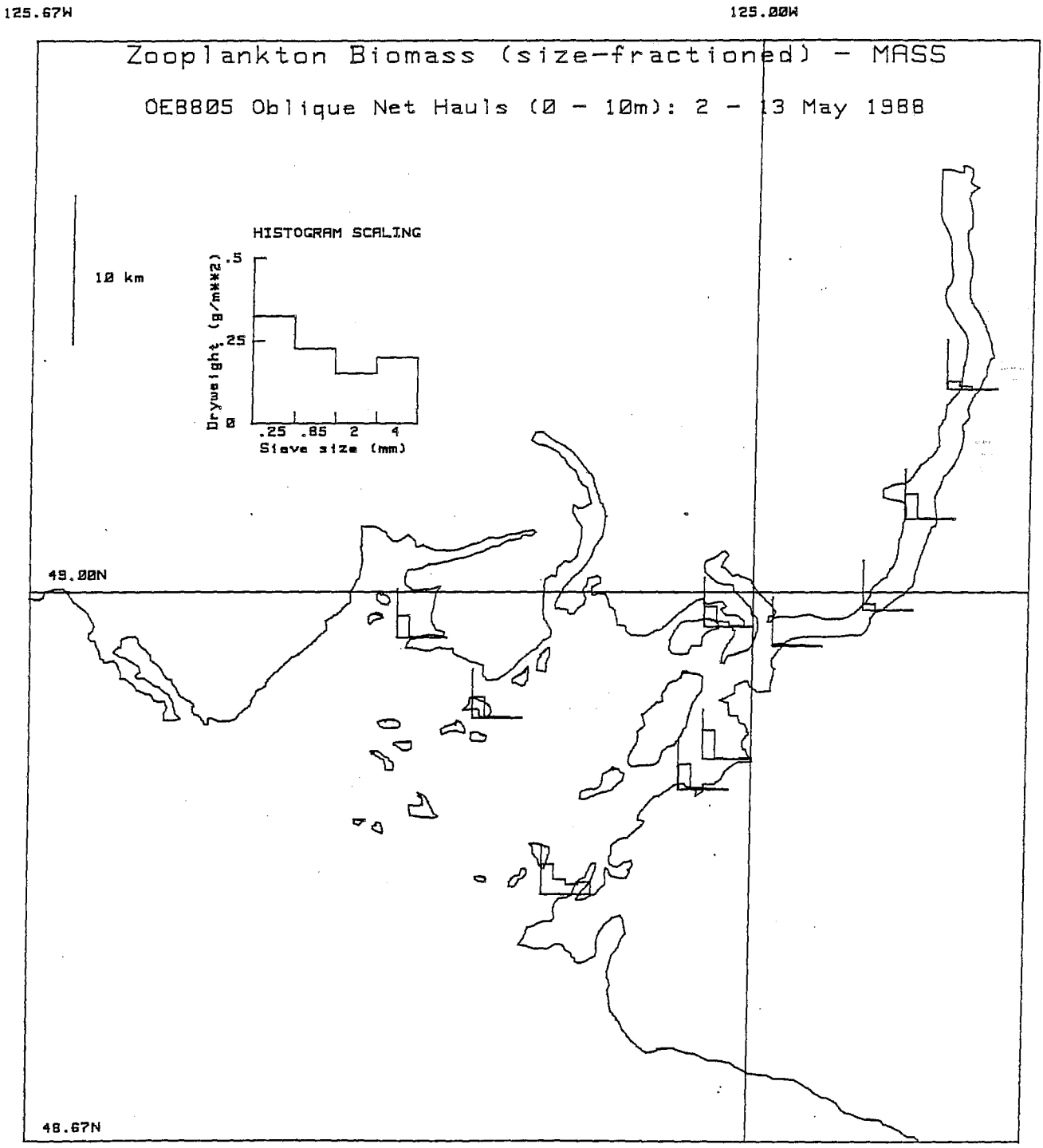


Fig. 12 OE8805 EPCS zooplankton biomass 3 - 4 May 1988

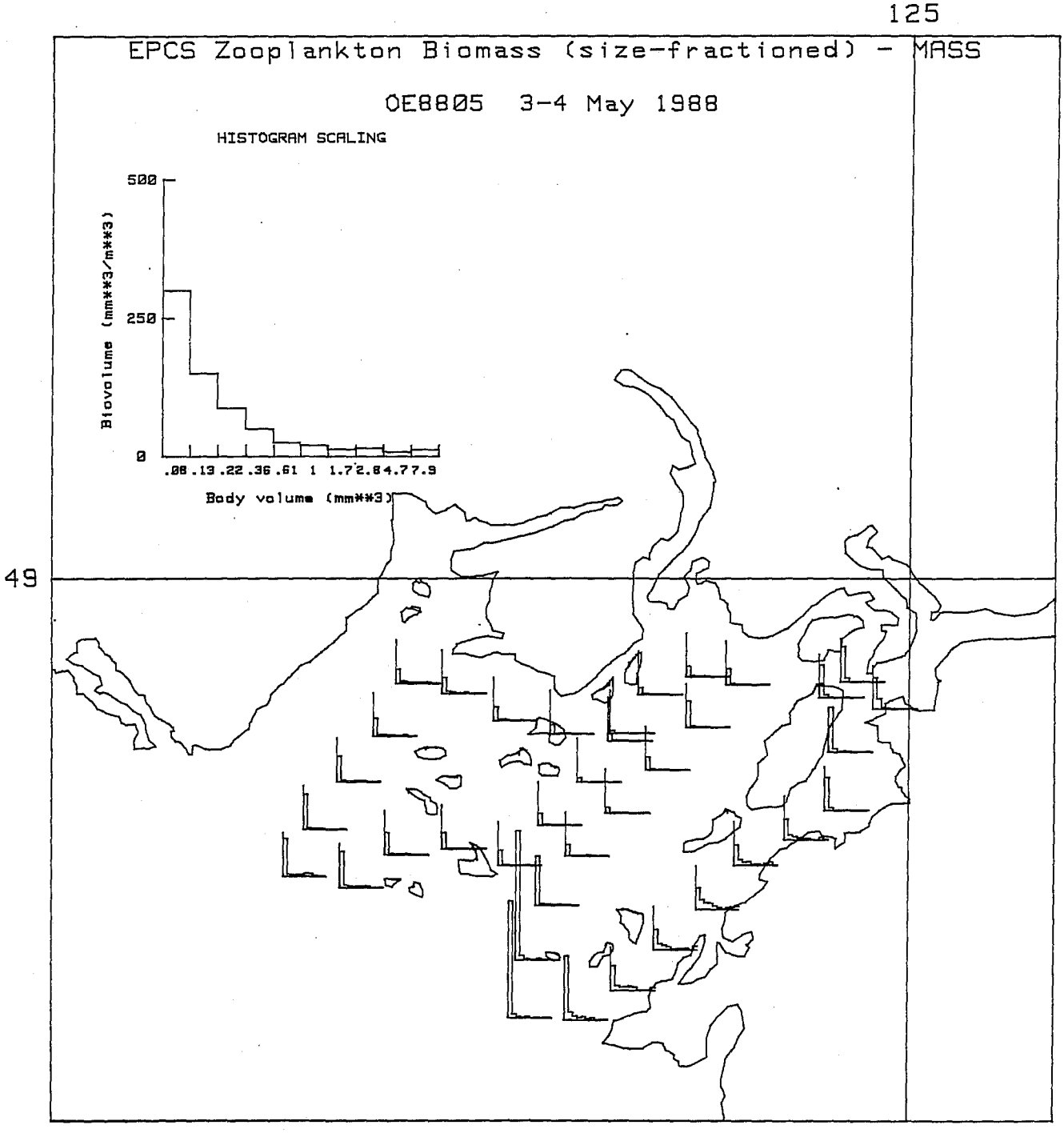


Fig. 13 OE8805 EPCS zooplankton biomass 6 - 7 May 1988

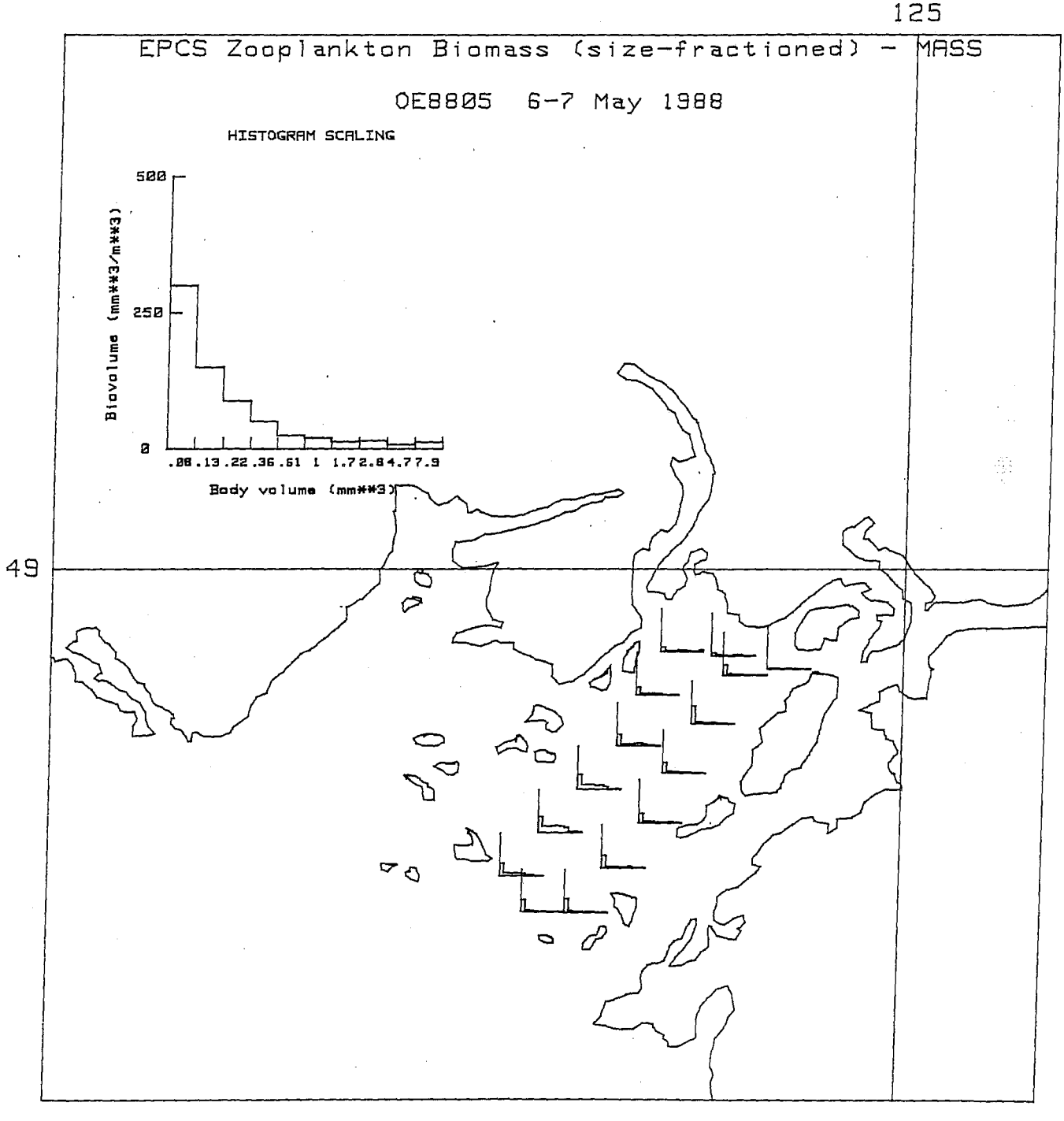


Fig. 14 OE8805 EPCS zooplankton biomass 11 - 12 May 1988

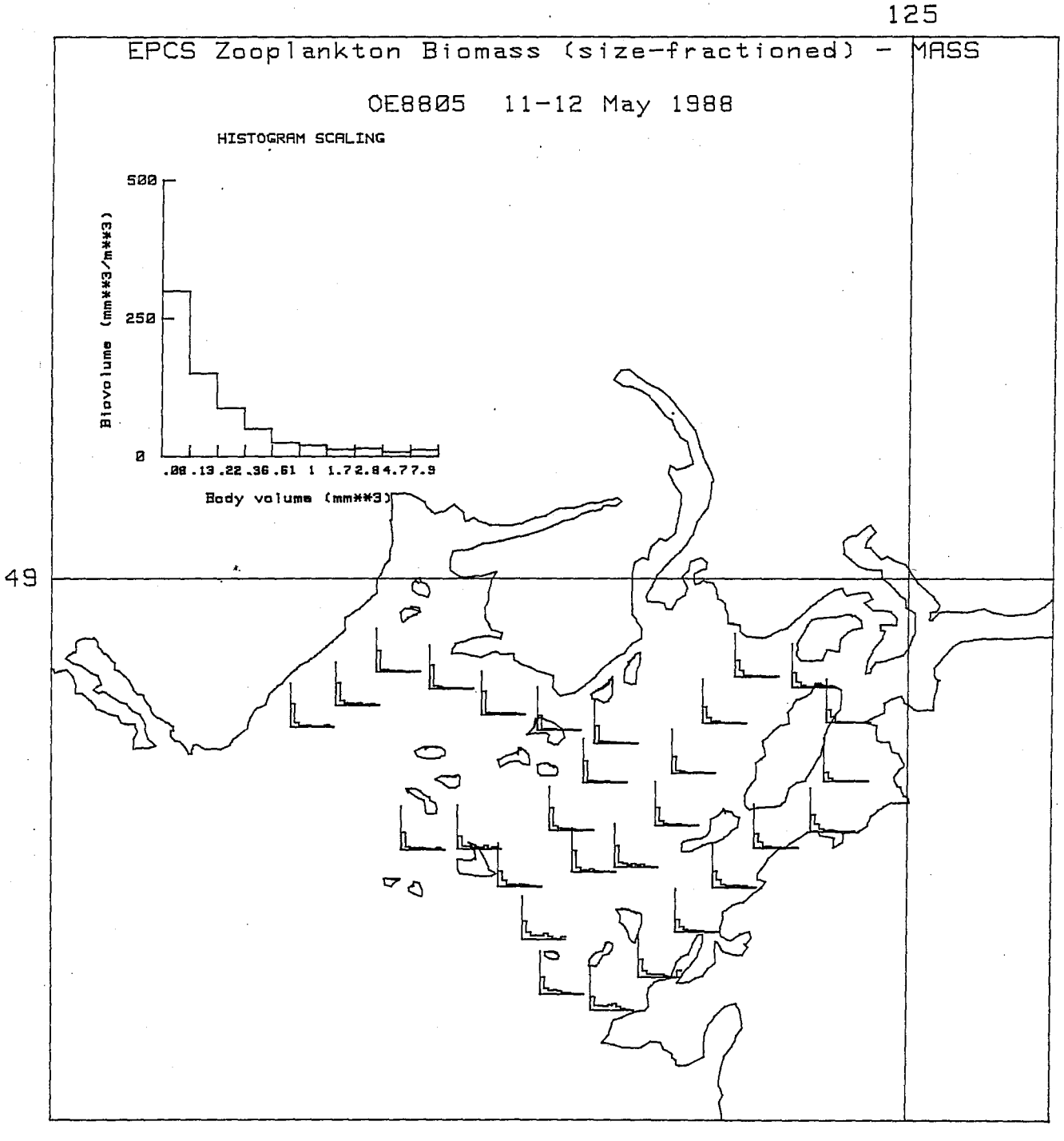


Fig. 15 OE8805 EPCS surface salinity 3 - 4 May 1988

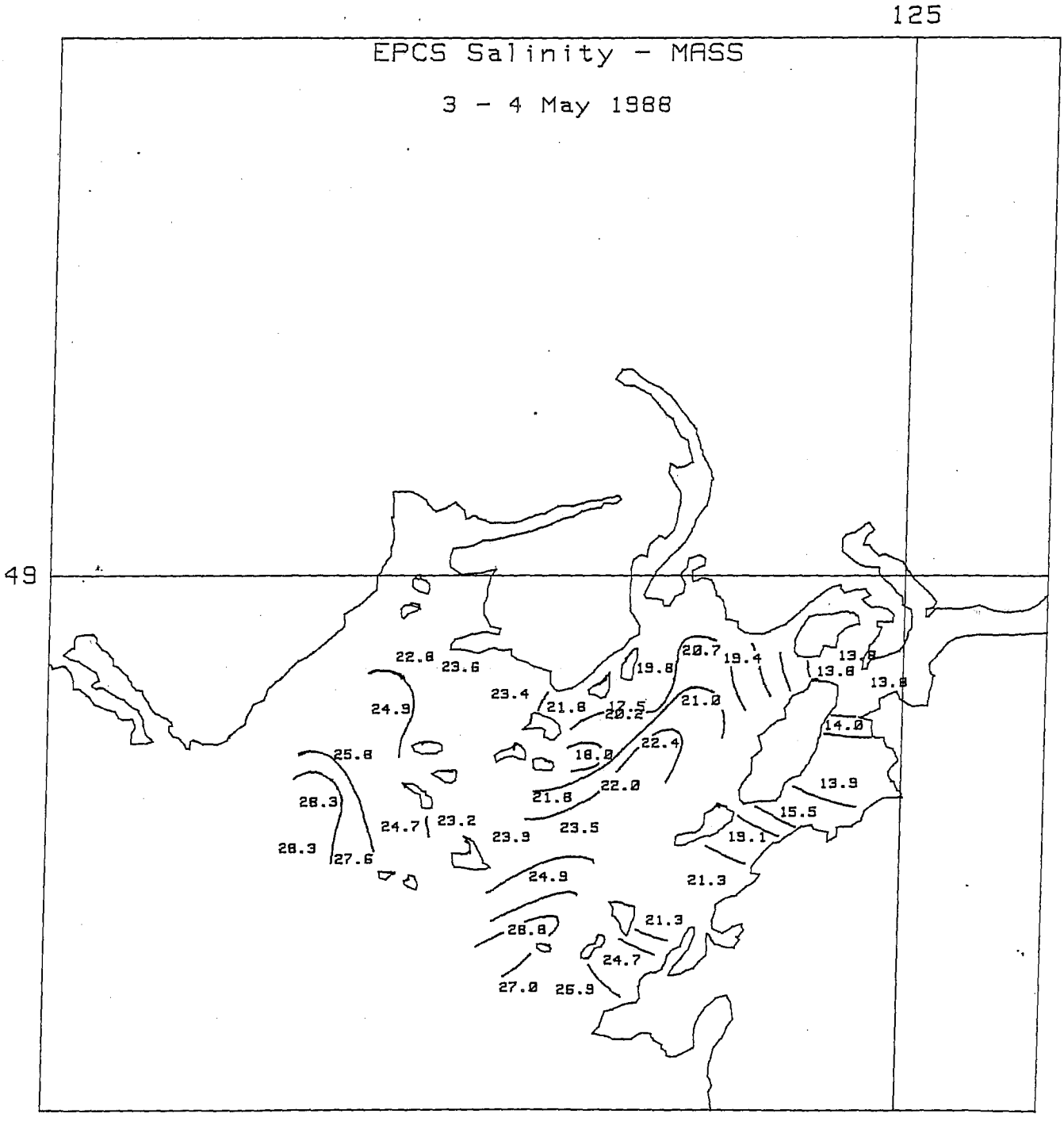


Fig. 16 OE8805 EPCS surface salinity 6 - 7 May 1988

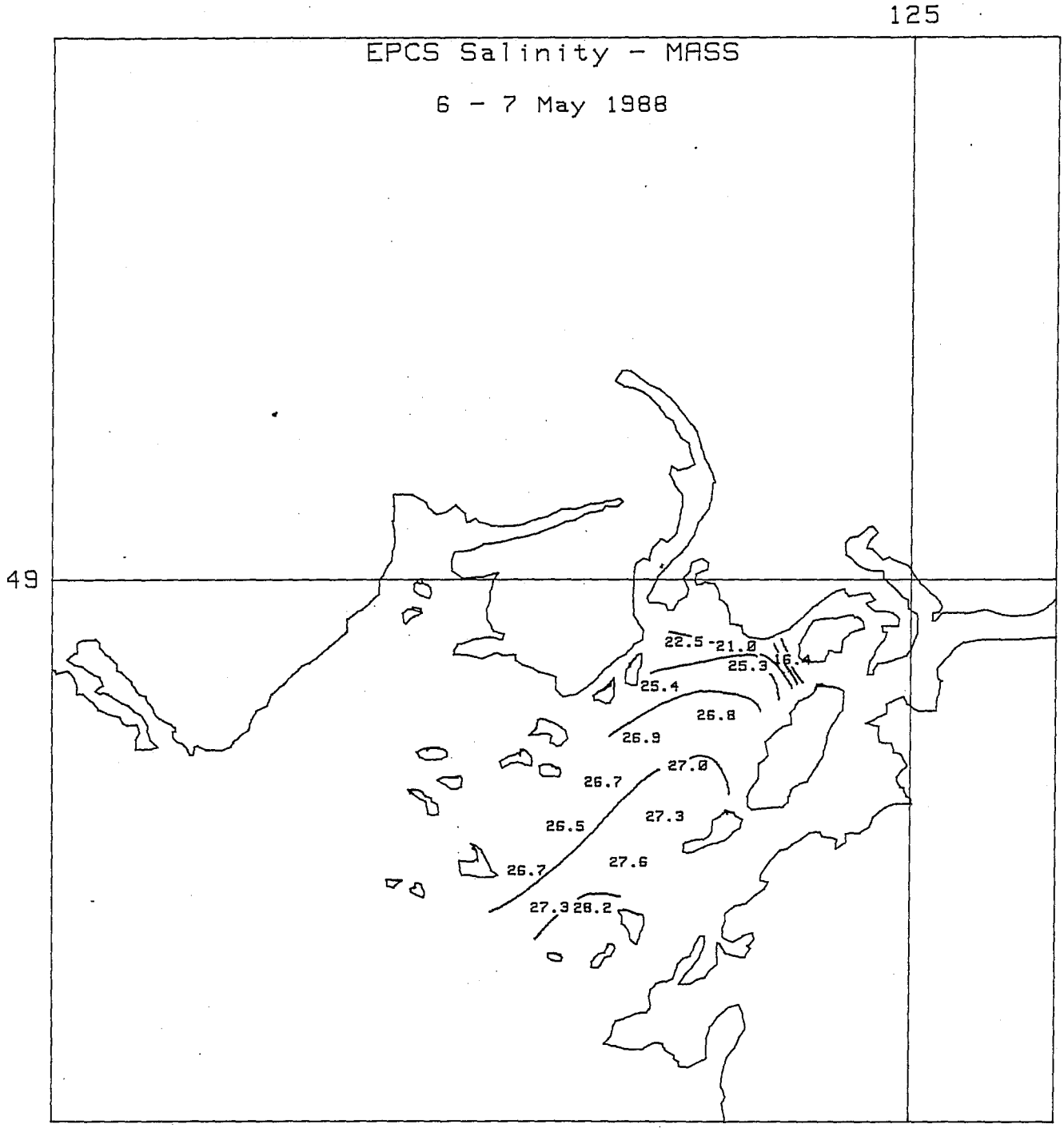


Fig. 17 OE8805 EPCS surface salinity 11 - 12 May 1988

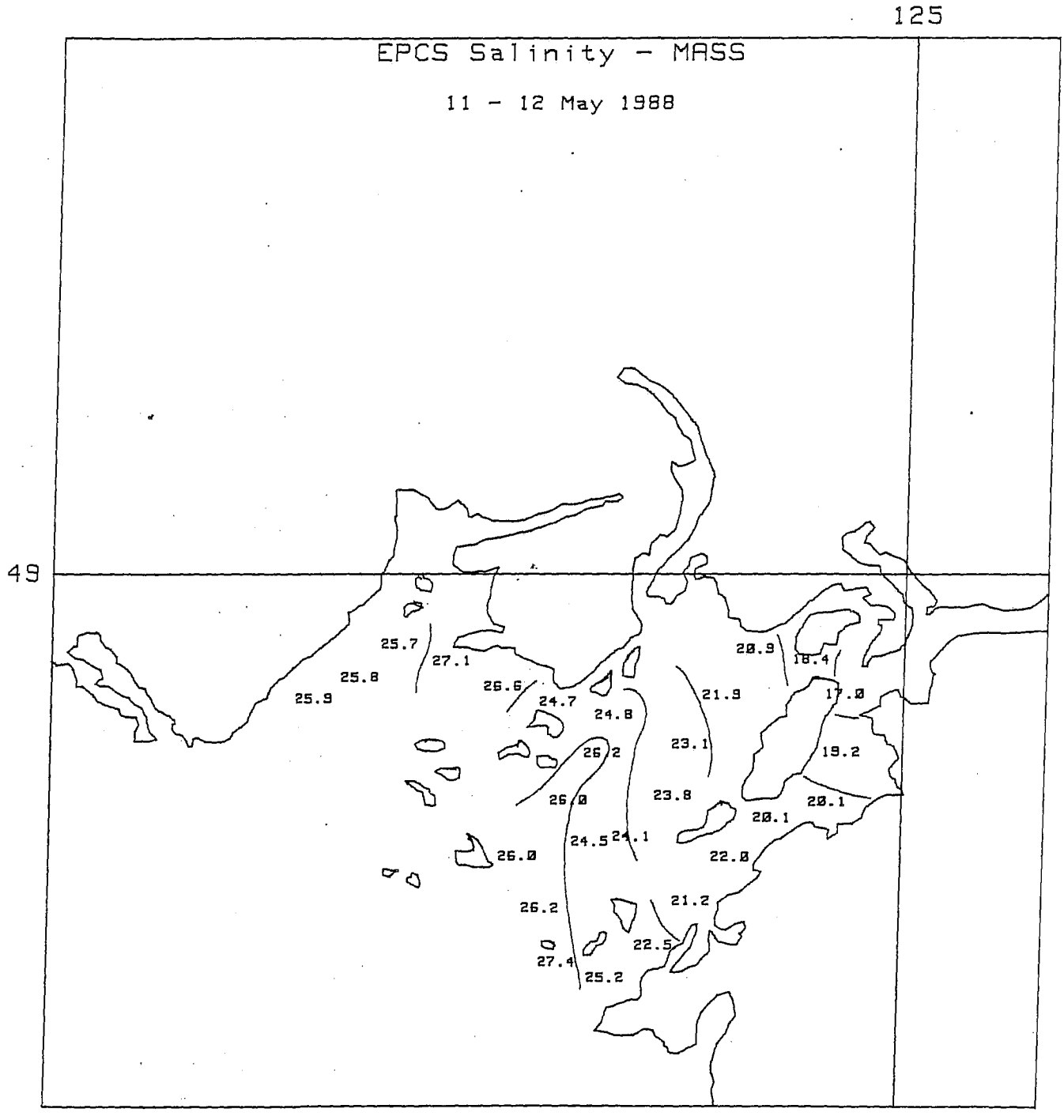


Fig. 18 OE8805 EPCS surface temperature 3 - 4 May 1988

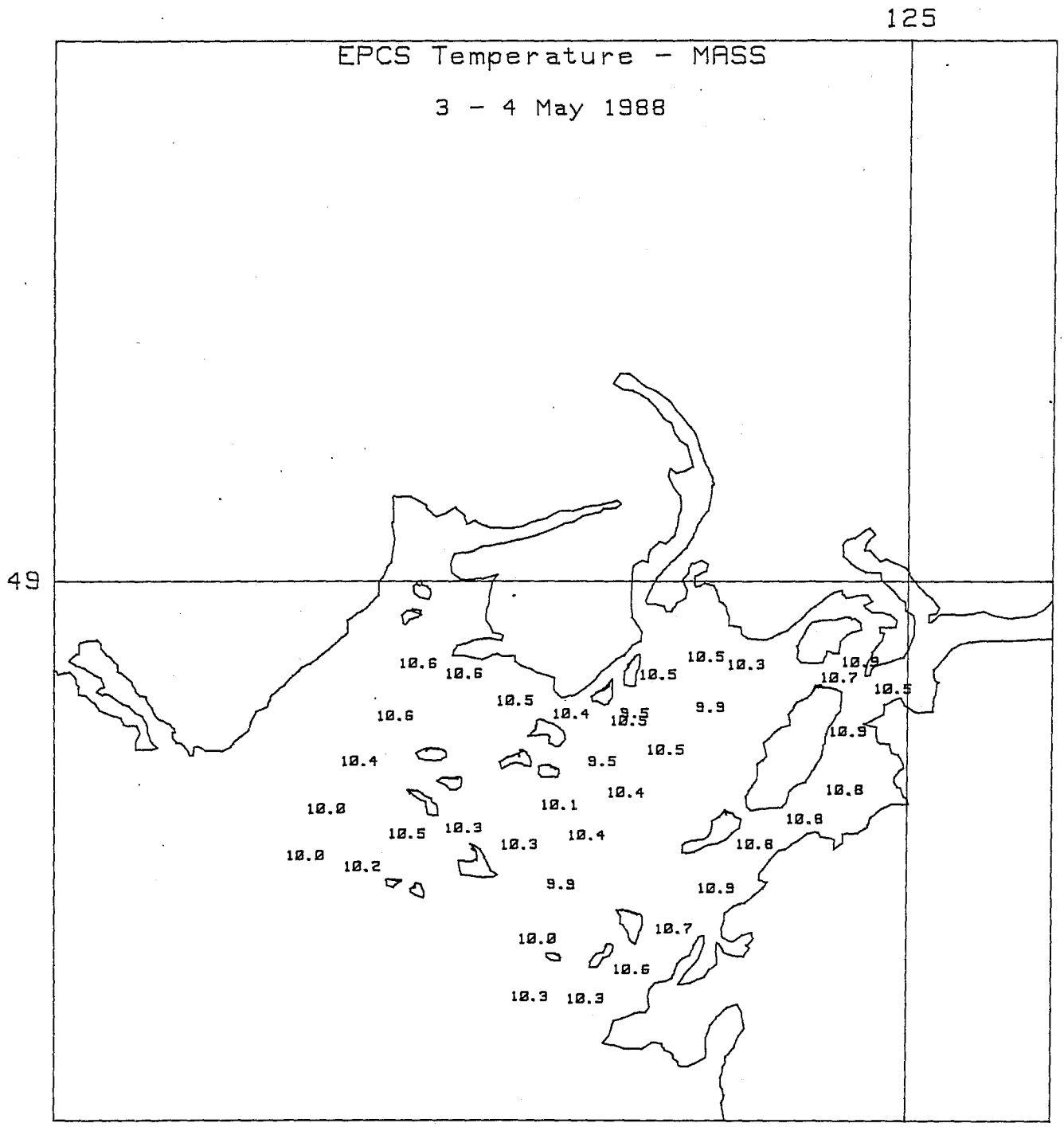


Fig. 19 OE8805 EPCS surface temperature 6 - 7 May 1988

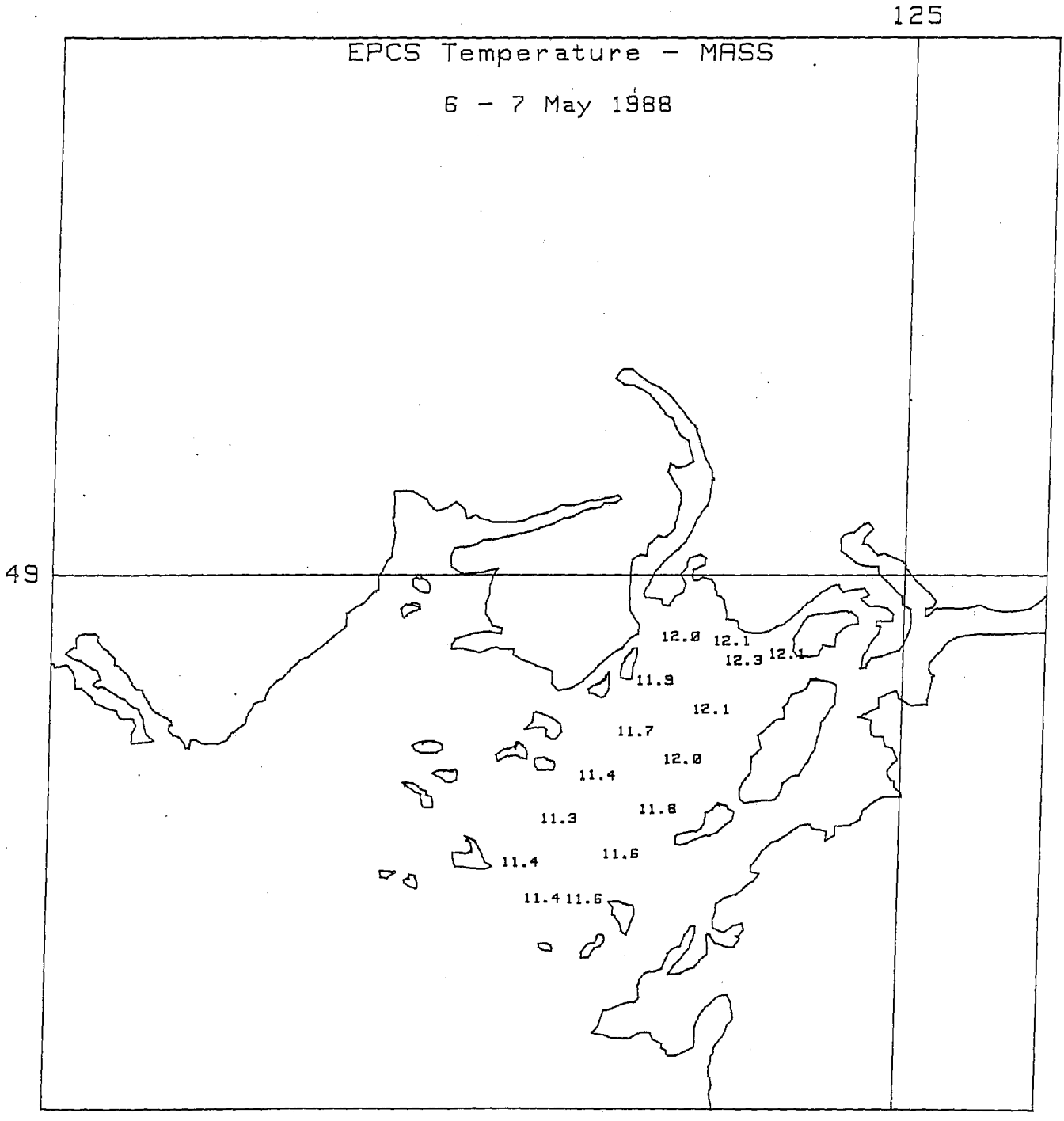
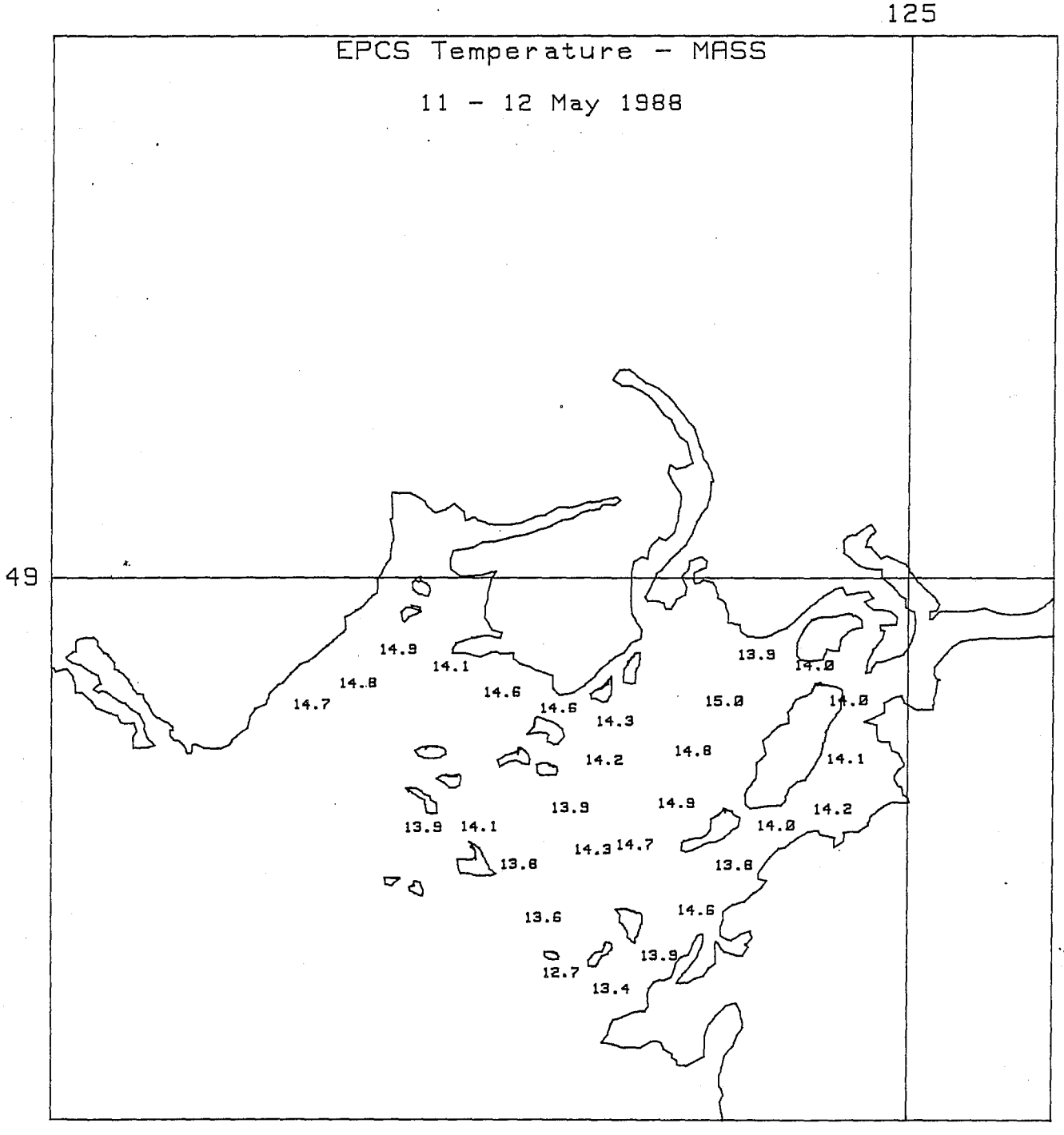


Fig. 20 OE8805 EPCS surface temperature 11 - 12 May 1988



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DATA SECTION 4

DISCRETE WATER SAMPLE DATA AND CTD SECTIONS

TABLE 3: DISCRETE WATER SAMPLE DATA: CRUISE OE8805

| Station | Bottle | Depth | *Temp. | *Sal. | Chl a | POC | PON | NO3+NO2 (A) | NO3+NO2 (B) | NH4 | PO4 (A) | PO4 (B) | Silicate (A) | Silicate (B) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 1 | 223.9 | 7.84 | 32.65 | | | | 26.8 | | 0.15 | 2.41 | | 43.1 | |
| 2 | 2 | 201.5 | 7.84 | 32.64 | | | | | 26.4 | | | 2.18 | | 43.2 |
| 2 | 3 | 151.6 | 7.88 | 32.59 | | | | 34.0 | | | 2.28 | | 43.3 | |
| 2 | 4 | 100.8 | 8.01 | 32.54 | | | | 26.1 | 26.1 | 0.08 | 2.40 | 2.27 | 43.8 | 43.7 |
| 2 | 5 | 49.7 | 8.50 | 32.24 | | | | 21.2 | 22.6 | 0.32 | 2.10 | 2.08 | 39.3 | 38.0 |
| 2 | 6 | 35.4 | 8.70 | 32.05 | 1.7 | | | 18.7 | | | 1.92 | | 34.7 | |
| 2 | 7 | 9.9 | 9.18 | 31.40 | 7.9 | | | 10.1 | 10.8 | 1.18 | 1.15 | 1.07 | 21.0 | 16.9 |
| 2 | 8 | 1.9 | 10.52 | 25.38 | 6.8 | | | 0.2 | | | 0.38 | | 13.5 | |
| 2B | 1 | 34.7 | 8.73 | 32.04 | | | | | | | | | | |
| 2B | 2 | 34.7 | 8.74 | 32.04 | | | | | | | | | | |
| 2B | 3 | 34.7 | 8.74 | 32.04 | | | | | | | | | | |
| 2B | 4 | 10.2 | 9.21 | 31.41 | | | | | | | | | | |
| 2B | 5 | 10.2 | 9.21 | 31.41 | | | | | | | | | | |
| 2B | 6 | 1.5 | 10.35 | 23.22 | | | | | | | | | | |
| 2B | 7 | 1.8 | 10.35 | 24.05 | | | | | | | | | | |
| 2B | 8 | 1.6 | 10.27 | 24.70 | | | | | | | | | | |
| 4 | 1 | 76.6 | 8.15 | 32.43 | | | | 24.9 | | | 2.31 | | 42.7 | |
| 4 | 3 | 51.5 | 9.16 | 31.62 | | | | 9.8 | | | 1.16 | | 16.9 | |
| 4 | 4 | 31.1 | 9.52 | 31.34 | | | | 6.9 | | | 0.91 | | 13.3 | |
| 4 | 5 | 20.5 | 9.73 | 31.28 | | | | 3.5 | | | 0.69 | | 9.1 | |
| 4 | 6 | 10.2 | 9.61 | 30.84 | 8.7 | | | 4.5 | | | 0.70 | | 9.8 | |
| 4 | 7 | 1.3 | 9.84 | 29.51 | 6.0 | | | 1.6 | | | 0.59 | | 8.7 | |
| 6 | 1 | 227.9 | 7.84 | 32.63 | | | | 25.2 | 27.2 | 0.00 | 2.63 | 2.25 | 41.9 | 46.9 |
| 6 | 3 | 150.0 | 7.88 | 32.59 | | | | 26.2 | 26.7 | 0.05 | 2.19 | 2.20 | 41.1 | 40.5 |
| 6 | 4 | 100.4 | 8.10 | 32.51 | | | | 25.4 | 26.4 | 0.02 | 2.28 | 2.28 | 43.2 | 44.4 |
| 6 | 5 | 43.5 | 8.81 | 31.93 | 3.1 | | | 17.7 | 19.5 | 0.20 | 1.78 | 1.86 | 32.4 | 32.9 |
| 6 | 6 | 19.1 | 9.13 | 31.50 | 6.3 | | | 10.8 | 11.9 | 1.26 | 1.15 | 1.20 | 20.3 | 18.3 |
| 6 | 7 | 1.5 | 10.18 | 23.60 | | | | 1.0 | 0.9 | 0.04 | 0.29 | 0.18 | 24.5 | 24.0 |

| Station | Bottle | Depth | *Temp. | *Sal. | Chl a | POC | PON | NO3+NO2 (A) | NO3+NO2 (B) | NH4 | PO4 (A) | PO4 (B) | Silicate (A) | Silicate (B) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6B | 1 | 45.8 | 8.78 | 32.11 | 1.8 | 94.9 | 14.8 | | | | | | | |
| 6B | 2 | 21.0 | 9.11 | 31.64 | 5.2 | | | | | | | | | |
| 6B | 3 | 0.5 | 10.04 | 23.33 | 4.8 | 498.4 | 98.9 | | | | | | | |
| 7 | 1 | 32.2 | 8.72 | 31.94 | | | | 18.2 | | | 1.77 | | 31.7 | |
| 7 | 2 | 25.6 | 9.09 | 31.53 | | | | 12.7 | | | 1.30 | | 21.5 | |
| 7 | 3 | 21.3 | 9.22 | 31.45 | 3.9 | | | 10.4 | | | 1.02 | | 17.1 | |
| 7 | 4 | 16.4 | 9.32 | 31.33 | | | | 9.0 | | | 0.92 | | 15.4 | |
| 7 | 5 | 8.3 | 9.62 | 30.80 | | | | 3.4 | | | 0.62 | | 9.7 | |
| 7 | 6 | 0.6 | 10.89 | 23.89 | 4.9 | | | 0.2 | | | 0.14 | | 8.1 | |
| 10A | 1 | 125.0 | | | | | | 27.0 | 28.3 | 0.14 | 2.90 | 2.81 | 57.6 | 65.1 |
| 10A | 2 | 97.4 | 8.51 | 32.56 | | | | 22.3 | 27.5 | 0.16 | 2.45 | 2.69 | 54.3 | 59.4 |
| 10A | 3 | 72.7 | 8.63 | 32.45 | | | | 25.7 | 25.7 | 0.12 | 2.53 | 2.44 | 45.4 | 50.6 |
| 10A | 4 | 46.7 | 8.78 | 32.08 | 4.4 | | | 20.4 | 20.8 | 0.55 | 1.99 | 1.95 | 34.2 | 33.3 |
| 10A | 5 | 10.8 | 9.62 | 31.09 | 3.6 | | | 6.1 | 6.9 | 1.11 | 0.69 | 0.81 | 13.7 | 12.3 |
| 10A | 6 | 1.8 | 10.27 | 27.64 | 6.0 | | | 0.7 | 0.5 | 0.34 | 0.22 | 0.18 | 20.5 | 18.3 |
| 12 | 1 | 25.2 | 9.67 | 31.21 | 2.7 | | | 5.6 | 7.7 | 1.06 | 0.90 | 0.88 | 12.8 | 12.1 |
| 12 | 2 | 15.0 | 9.97 | 30.68 | 3.4 | | | 4.7 | 5.2 | 0.74 | 0.74 | 0.69 | 9.6 | 9.1 |
| 12 | 3 | 5.8 | 10.05 | 30.45 | | | | 4.7 | 4.8 | 0.92 | 0.71 | 0.69 | 8.6 | 9.1 |
| 12 | 4 | 2.4 | 10.08 | 30.35 | 3.5 | | | 4.4 | 4.9 | 0.96 | 0.71 | 0.67 | 9.0 | 9.8 |
| 14 | 1 | 88.8 | 8.04 | 32.54 | | | | 23.3 | 26.2 | 0.42 | 2.46 | 2.25 | 19.5 | 43.2 |
| 14 | 2 | 75.8 | 8.19 | 32.41 | | | | 22.3 | 25.3 | 0.15 | 2.36 | 2.17 | 40.9 | 41.3 |
| 14 | 3 | 52.2 | 8.46 | 32.07 | | | | 20.0 | 21.1 | 0.67 | 2.10 | 1.89 | 32.8 | 31.7 |
| 14 | 4 | 31.2 | 9.32 | 31.51 | 2.1 | | | 9.9 | 10.3 | 1.27 | 1.22 | 1.08 | 16.8 | 16.1 |
| 14 | 5 | 10.7 | 10.17 | 30.73 | 4.9 | | | 2.9 | 3.2 | 0.51 | 0.59 | 0.54 | 6.7 | 6.7 |
| 14 | 6 | 2.3 | 10.41 | 29.77 | 5.3 | | | 1.8 | 2.4 | 0.50 | 0.41 | 0.49 | 6.6 | 5.3 |
| 15A | 1 | 87.8 | 7.94 | 32.61 | | | | 20.0 | 27.4 | 0.78 | 2.47 | 2.32 | 44.6 | 48.3 |
| 15A | 2 | 75.1 | 8.22 | 32.43 | | | | 23.9 | 25.2 | 0.00 | 2.57 | 2.13 | 38.6 | 40.2 |
| 15A | 3 | 51.1 | 8.51 | 32.02 | | | | 20.5 | 21.5 | 0.47 | 2.30 | 1.85 | 33.9 | 30.0 |
| 15A | 4 | 31.6 | 9.11 | 31.58 | | | | 11.8 | 12.2 | 1.57 | 1.40 | 1.20 | 19.2 | 17.0 |
| 15A | 5 | 22.5 | 9.72 | 31.20 | | | | 6.4 | 6.6 | 1.07 | 0.85 | 0.78 | 10.7 | 10.5 |
| 15A | 6 | 11.5 | 9.98 | 30.96 | | | | 4.0 | 4.2 | 0.68 | 0.66 | 0.61 | 7.4 | 7.9 |

| Station | Bottle | Depth | *Temp. | *Sal. | Chl a | POC | PON | NO3+NO2 (A) | NO3+NO2 (B) | NH4 | PO4 (A) | PO4 (B) | Silicate (A) | Silicate (B) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15A | 7 | 1.9 | 10.50 | 28.25 | | | | 2.4 | 1.4 | 0.06 | 0.48 | 0.29 | 7.1 | 8.9 |
| 15B | 1 | 30.8 | 9.16 | 31.46 | 2.2 | 189.1 | 40.3 | | | | | | | |
| 15B | 2 | 10.8 | 10.11 | 30.89 | 4.0 | 304.9 | 63.3 | | | | | | | |
| 15B | 3 | 1.8 | 10.55 | 27.47 | 4.8 | 494.0 | 96.0 | | | | | | | |
| 17 | 1 | 92.4 | 8.09 | 32.54 | | | | 25.2 | | | 2.35 | | 48.8 | |
| 17 | 2 | 76.8 | 8.21 | 32.47 | | | | 25.0 | | | 2.34 | | 52.1 | |
| 17 | 3 | 52.7 | 8.74 | 31.97 | | | | 19.3 | | | 1.96 | | 38.3 | |
| 17 | 4 | 32.0 | 9.18 | 31.53 | | | | 11.7 | | | 1.29 | | 25.4 | |
| 17 | 5 | 22.0 | 9.29 | 31.39 | 3.4 | | | 9.6 | | | 1.10 | | 22.2 | |
| 17 | 6 | 11.6 | 9.65 | 31.00 | 4.4 | | | 7.0 | | | 0.76 | | 13.5 | |
| 17 | 7 | 1.6 | 10.65 | 25.90 | 3.4 | | | 0.3 | | | 0.19 | | 13.5 | |
| 19 | 1 | 85.8 | 8.19 | 32.51 | | | | | | | | | | |
| 21 | 1 | 94.4 | 8.09 | 32.54 | | | | 26.2 | | | 2.38 | | 57.0 | |
| 21 | 2 | 51.1 | 8.99 | 31.78 | | | | 15.3 | | | 1.56 | | 28.1 | |
| 21 | 3 | 25.6 | 9.54 | 31.35 | 2.9 | | | 7.9 | | | 1.03 | | 20.7 | |
| 21 | 4 | 11.5 | 9.85 | 31.04 | 3.8 | | | 4.6 | | | 0.64 | | 11.8 | |
| 21 | 5 | 1.6 | 10.44 | 28.43 | 6.8 | | | 1.4 | | | 0.45 | | 10.1 | |
| 23 | 1 | 84.9 | 8.03 | 32.55 | | | | 26.2 | | | 2.45 | | 56.3 | |
| 23 | 2 | 51.9 | 8.64 | 32.02 | | | | 19.3 | | | 1.90 | | 31.3 | |
| 23 | 3 | 31.2 | 9.36 | 31.49 | | | | 9.0 | | | 0.72 | | 18.1 | |
| 23 | 4 | 22.2 | 9.56 | 31.32 | 2.8 | | | 6.6 | | | 0.87 | | 13.1 | |
| 23 | 5 | 12.1 | 9.72 | 30.95 | 3.7 | | | 4.9 | | | 0.77 | | 11.0 | |
| 23 | 6 | 2.1 | 10.63 | 28.17 | 4.4 | | | 0.6 | | | 0.42 | | 7.8 | |
| 25 | 1 | 67.0 | 8.36 | 32.21 | | | | 20.1 | 24.2 | 0.81 | 2.00 | 2.07 | 31.5 | 40.2 |
| 25 | 2 | 52.0 | 8.72 | 31.88 | | | | 16.0 | 18.6 | 1.55 | 1.68 | 1.67 | 22.4 | 28.2 |
| 25 | 3 | 31.7 | 9.14 | 31.54 | | | | 12.9 | 13.2 | 1.85 | 1.08 | 1.25 | 15.4 | 20.9 |
| 25 | 4 | 21.4 | 9.29 | 31.30 | 2.4 | | | 8.1 | 9.3 | 1.33 | 1.06 | 0.96 | 11.2 | 15.5 |
| 25 | 5 | 11.5 | 9.45 | 31.02 | 3.9 | | | 5.4 | 6.0 | 0.71 | 0.74 | 0.71 | 6.4 | 12.5 |
| 25 | 6 | 1.5 | 10.71 | 25.46 | 4.3 | | | 0.2 | 0.3 | 0.00 | 0.37 | 0.22 | 0.3 | 9.0 |
| 27 | 1 | 42.7 | 8.59 | 32.00 | | | | 16.4 | | | 1.87 | | 26.9 | |
| 27 | 2 | 20.1 | 9.30 | 31.23 | 3.7 | | | 7.9 | | | 0.96 | | 8.8 | |

| Station | Bottle | Depth | *Temp. | *Sal. | Chl a | POC | PON | NO3+NO2 (A) | NO3+NO2 (B) | NH4 | PO4 (A) | PO4 (B) | Silicate (A) | Silicate (B) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 27 | 5 | 10.8 | 9.43 | 30.95 | 4.4 | | | 5.6 | | | 0.73 | | 5.5 | |
| 27 | 6 | 1.5 | 10.86 | 26.07 | 4.5 | | | 0.2 | | | 0.35 | | 0.2 | |
| 28 | 1 | 83.3 | 8.17 | 32.30 | | | | 23.9 | | | 2.10 | | 36.3 | |
| 28 | 2 | 49.2 | 8.85 | 31.92 | | | | 15.3 | | | 1.53 | | 25.7 | |
| 28 | 3 | 28.8 | 9.45 | 31.58 | 7.7 | | | 3.5 | | | 0.73 | | 9.5 | |
| 28 | 4 | 19.9 | 9.74 | 31.38 | | | | 1.4 | | | 0.56 | | 7.1 | |
| 28 | 5 | 9.4 | 10.13 | 31.06 | 9.2 | | | 1.1 | | | 0.52 | | 6.7 | |
| 28 | 6 | 2.6 | 10.12 | 29.81 | | | | 0.9 | | | 0.44 | | 7.0 | |
| 31A | 1 | 43.4 | 8.51 | 32.00 | | | | 17.9 | | | 1.93 | | 34.8 | |
| 31A | 2 | 31.6 | 8.83 | 31.73 | | | | 13.8 | | | 1.49 | | 26.0 | |
| 31A | 3 | 21.3 | 9.36 | 31.42 | | | | 7.5 | | | 0.94 | | 14.6 | |
| 31A | 4 | 8.8 | 9.65 | 30.52 | | | | 2.9 | | | 0.60 | | 7.8 | |
| 31A | 5 | 2.0 | 10.99 | 26.62 | | | | 0.2 | | | 0.22 | | 4.7 | |
| 31B | 1 | 21.0 | 9.37 | 31.28 | 2.4 | 205.9 | 44.4 | | | | | | | |
| 31B | 2 | 8.9 | 9.71 | 30.29 | 7.1 | 417.2 | 93.9 | | | | | | | |
| 31B | 3 | 1.8 | 11.25 | 24.55 | 1.1 | 328.6 | 66.0 | | | | | | | |
| 34 | 1 | 35.1 | 8.66 | 31.66 | | | | 14.3 | | | 1.87 | | 24.5 | |
| 34 | 2 | 20.9 | 9.40 | 31.11 | 2.0 | 170.0 | 36.6 | 9.2 | | | 1.17 | | 7.6 | |
| 34 | 3 | 12.0 | 9.60 | 30.66 | 4.9 | 316.3 | 72.2 | 4.3 | | | 0.68 | | 1.7 | |
| 34 | 4 | 1.6 | 11.05 | 26.80 | 2.9 | 430.3 | 88.3 | 0.2 | | | 0.30 | | 0.2 | |
| 41A | 1 | 253.4 | 8.56 | 32.86 | | | | 32.0 | | | 3.27 | | 52.6 | |
| 41A | 2 | 100.0 | 8.58 | 32.59 | | | | 25.2 | | | 2.54 | | 39.9 | |
| 41A | 3 | 50.5 | 9.19 | 31.98 | | | | 12.8 | | | 1.83 | | 28.5 | |
| 41A | 4 | 25.8 | 9.29 | 31.35 | | | | 10.3 | | | 1.40 | | 13.2 | |
| 41A | 5 | 10.3 | 9.71 | 30.30 | | | | 6.3 | | | 1.00 | | 7.2 | |
| 41A | 6 | 0.0 | 10.87 | 13.38 | | | | 1.7 | | | 0.44 | | 33.7 | |
| 41B | 1 | 25.9 | 9.32 | 31.35 | 1.8 | 135.7 | 33.8 | | | | | | | |
| 41B | 2 | 11.0 | 9.76 | 30.11 | 3.3 | 246.3 | 57.4 | | | | | | | |
| 41B | 3 | 1.4 | 11.20 | 9.01 | 6.5 | 331.9 | 66.6 | | | | | | | |
| 42A | 1 | 57.1 | 9.19 | 32.16 | | | | | 17.2 | 0.35 | | 2.11 | | 43.6 |
| 42A | 2 | 32.0 | 9.62 | 31.92 | | | | | 12.9 | 0.79 | | 2.25 | | 45.2 |

| Station | Bottle | Depth | *Temp. | *Sal. | Chl a | POC | PON | NO3+NO2 (A) | NO3+NO2 (B) | NH4 | PO4 (A) | PO4 (B) | Silicate (A) | Silicate (B) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 42A | 3 | 21.9 | 9.51 | 31.39 | | | | | 14.9 | 0.22 | | 1.90 | | 38.8 |
| 42A | 4 | 10.3 | 9.55 | 30.35 | 2.5 | | | | 12.6 | 0.44 | | 1.46 | | 31.1 |
| 42A | 5 | 0.6 | 12.19 | 8.65 | 2.5 | | | | 1.9 | 0.11 | | 0.12 | | 45.5 |
| 44 | 1 | 118.4 | 9.00 | 32.28 | | | | | 20.2 | 0.32 | | 2.14 | | 39.4 |
| 44 | 2 | 75.1 | 9.06 | 32.22 | | | | | 20.0 | 0.00 | | 2.05 | | 37.9 |
| 44 | 3 | 50.5 | 9.18 | 32.15 | | | | | 19.0 | 0.04 | | 2.02 | | 37.9 |
| 44 | 4 | 30.7 | 9.56 | 31.98 | | | | | 16.2 | 0.06 | | 2.11 | | 41.7 |
| 44 | 5 | 10.6 | 9.68 | 30.52 | 1.9 | | | | 7.0 | 1.31 | | 0.89 | | 16.5 |
| 44 | 6 | 1.8 | 12.37 | 8.75 | 5.7 | | | | 1.5 | 0.01 | | 0.16 | | 42.6 |
| 46 | 1 | 258.2 | 8.55 | 32.86 | | | | | 31.6 | 0.00 | | 3.04 | | 62.6 |
| 46 | 2 | 150.6 | 8.48 | 32.74 | | | | | 29.4 | 0.01 | | 2.74 | | 55.2 |
| 46 | 3 | 99.2 | 8.39 | 32.63 | | | | | 27.4 | 0.01 | | 2.51 | | 50.7 |
| 46 | 4 | 47.2 | 9.12 | 32.07 | | | | | 18.9 | 0.04 | | 1.98 | | 34.9 |
| 46 | 5 | 15.9 | 9.52 | 30.90 | 1.7 | | | | 7.8 | 1.63 | | 0.94 | | 15.0 |
| 46 | 6 | 0.3 | 11.65 | 15.96 | | | | | 0.0 | 0.05 | | 0.15 | | 32.8 |
| 48 | 1 | 229.8 | 8.46 | 32.84 | | | | | 31.3 | 0.07 | | 3.01 | | 60.9 |
| 48 | 2 | 149.9 | 8.09 | 32.70 | | | | | 27.8 | 0.04 | | 2.46 | | 51.9 |
| 48 | 3 | 100.8 | 8.23 | 32.59 | | | | | 26.5 | 0.06 | | 2.38 | | 43.8 |
| 48 | 4 | 51.5 | 8.93 | 32.24 | | | | | 20.6 | 0.10 | | 2.05 | | 38.1 |
| 48 | 5 | 15.6 | 9.65 | 30.99 | 2.6 | | | | 6.1 | 1.73 | | 0.83 | | 11.3 |
| 48 | 6 | 1.5 | 11.36 | 22.71 | 5.5 | | | | 0.0 | 0.66 | | 0.17 | | 14.3 |
| 49 | 1 | 163.2 | 8.05 | 32.69 | | | | | 27.7 | 0.04 | | 2.41 | | 51.7 |
| 49 | 2 | 101.1 | 8.26 | 32.54 | | | | | | 0.17 | | | | 22.5 |
| 49 | 3 | 46.9 | 9.20 | 32.02 | | | | | 27.8 | 0.12 | | 2.42 | | 51.0 |
| 49 | 4 | 26.6 | 9.48 | 31.21 | | | | | 26.2 | 0.00 | | 2.32 | | 47.8 |
| 49 | 5 | 11.2 | 10.15 | 30.08 | | | | | 18.2 | 0.02 | | 1.96 | | 35.0 |
| 49 | 6 | 3.0 | 11.74 | 20.74 | 3.8 | | | | 7.4 | 1.83 | | 0.92 | | 13.1 |
| 50 | 1 | 93.0 | 8.00 | 32.57 | | | | 25.9 | 26.7 | 1.12 | 2.59 | 2.43 | 40.8 | 59.3 |
| 50 | 2 | 51.0 | 8.42 | 32.32 | | | | 23.0 | 23.8 | 0.21 | 2.26 | 2.14 | 34.5 | 41.3 |
| 50 | 3 | 26.2 | 9.47 | 31.34 | | | | 7.7 | 8.3 | 2.10 | 1.04 | 1.00 | 9.3 | 13.1 |
| 50 | 4 | 10.8 | 9.85 | 30.88 | | | | 9.0 | 4.2 | 0.81 | 0.68 | 0.62 | 2.8 | 9.4 |

| Station | Bottle | Depth | *Temp. | *Sal. | Chl a | POC | PON | NO3+NO2 (A) | NO3+NO2 (B) | NH4 | PO4 (A) | PO4 (B) | Silicate (A) | Silicate (B) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50 | 5 | 6.5 | 10.59 | 29.81 | | | | 0.2 | 0.0 | 0.09 | 0.36 | 0.24 | 0.2 | 4.6 |
| 50 | 6 | 0.1 | 11.77 | 27.65 | | | | 0.2 | 0.0 | 0.08 | 0.30 | 0.11 | 0.2 | 8.6 |
| 50A | 1 | 26.1 | 9.49 | 31.34 | 1.6 | 131.4 | 27.2 | | | | | | | |
| 50B | 2 | 7.4 | 10.64 | 29.65 | 6.7 | 527.8 | 105.2 | | | | | | | |
| 50C | 3 | 1.6 | 12.28 | 26.64 | 4.0 | 522.3 | 104.6 | | | | | | | |
| 51 | 1 | 89.1 | 8.00 | 32.58 | | | | | 26.4 | 0.89 | | 2.40 | | 49.5 |
| 51 | 2 | 75.1 | 8.14 | 32.51 | | | | | 25.8 | 0.17 | | 2.31 | | 46.5 |
| 51 | 3 | 49.7 | 8.40 | 32.33 | | | | | 22.9 | 0.15 | | 2.09 | | 40.9 |
| 51 | 4 | 32.0 | 9.09 | 31.68 | | | | | 13.1 | 1.69 | | 1.41 | | 20.9 |
| 51 | 5 | 24.3 | 9.38 | 31.39 | 1.2 | 133.6 | 26.4 | | 8.5 | 2.18 | | 0.99 | | 14.1 |
| 51 | 7 | 6.2 | 10.62 | 29.76 | 5.5 | 509.4 | 95.5 | | 0.6 | 0.27 | | 0.31 | | 4.4 |
| 51 | 9 | 1.9 | 11.63 | 26.16 | 5.7 | 535.2 | 104.9 | | 0.0 | 0.14 | | 0.14 | | 8.4 |
| 53 | 1 | 86.2 | 8.02 | 32.57 | | | | | 28.2 | 0.71 | | 2.37 | | 50.6 |
| 53 | 2 | 76.6 | 8.11 | 32.53 | | | | | 27.3 | 0.44 | | 2.31 | | 49.0 |
| 53 | 3 | 51.6 | 8.32 | 32.40 | | | | | 24.5 | 0.13 | | 2.16 | | 43.5 |
| 53 | 4 | 36.1 | 8.74 | 31.96 | | | | | 18.1 | 1.25 | | 1.73 | | 32.0 |
| 53 | 5 | 26.1 | 9.17 | 31.58 | 0.9 | 129.3 | 25.5 | | 11.1 | 2.11 | | 1.24 | | 20.5 |
| 53 | 6 | 5.7 | 10.46 | 30.12 | 8.2 | 373.7 | 78.3 | | 1.9 | 0.46 | | 0.49 | | 10.1 |
| 53 | 7 | 1.3 | 11.02 | 28.61 | 5.4 | 556.3 | 102.6 | | 0.9 | 0.24 | | 0.32 | | 9.1 |
| 55 | 1 | 25.0 | | | 0.9 | 440.4 | 72.6 | | | | | | | |
| 55 | 2 | 5.0 | | | 5.6 | 599.7 | 113.0 | | | | | | | |
| 55 | 3 | 1.5 | | | 4.2 | 579.0 | 97.7 | | | | | | | |
| 56 | 1 | 87.6 | 7.99 | 32.59 | | | | | 28.1 | 1.13 | | 2.39 | | 50.6 |
| 56 | 2 | 74.3 | 8.14 | 32.47 | | | | | 26.7 | 0.36 | | 2.31 | | 48.2 |
| 56 | 3 | 48.6 | 8.36 | 32.25 | | | | | 24.6 | 0.37 | | 2.08 | | 43.3 |
| 56 | 4 | 33.6 | 8.86 | 31.85 | | | | | 17.9 | 1.35 | | 1.68 | | 33.5 |
| 56 | 5 | 24.8 | 9.19 | 31.48 | | 105.9 | 22.5 | | 11.2 | 2.25 | | 1.20 | | 21.9 |
| 56 | 6 | 6.4 | 10.67 | 29.45 | | 645.7 | 121.1 | | | | | | | |
| 56 | 7 | 1.8 | 12.54 | 23.03 | | 626.3 | 104.0 | | 0.0 | 0.17 | | 0.09 | | 12.0 |
| 58 | 1 | 76.6 | 8.09 | 32.54 | | | | | 27.5 | 0.58 | | 2.32 | | 49.1 |
| 58 | 2 | 49.5 | 8.31 | 32.33 | | | | | 25.3 | 0.53 | | 2.10 | | 43.5 |

| Station | Bottle | Depth | *Temp. | *Sal. | Chl a | POC | PON | NO3+NO2 (A) | (B) | NH4 | PO4 (A) | (B) | Silicate (A) | (B) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 58 | 3 | 34.7 | 8.96 | 31.81 | | | | | | | | | | |
| 58 | 4 | 26.4 | 9.22 | 31.52 | 1.1 | 73.3 | 22.7 | | 11.2 | 2.23 | | 1.20 | | 21.6 |
| 58 | 5 | 6.3 | 10.87 | 29.40 | 3.8 | 491.9 | 103.2 | | 0.1 | 0.35 | | 0.25 | | 4.8 |
| 58 | 7 | 1.1 | 13.16 | 21.58 | 3.3 | 545.6 | 97.8 | | 0.0 | 0.30 | | 0.81 | | 10.5 |
| 60 | 1 | 89.4 | 7.98 | 32.64 | | | | | 26.8 | 1.08 | | 2.34 | | 48.6 |
| 60 | 2 | 75.1 | 8.12 | 32.52 | | | | | 27.1 | 1.27 | | 2.33 | | 48.4 |
| 60 | 3 | 51.1 | 8.38 | 32.29 | | | | | | | | | | |
| 60 | 4 | 36.0 | 8.98 | 31.79 | | | | | 24.3 | 0.40 | | 2.09 | | 43.8 |
| 60 | 5 | 25.8 | 9.43 | 31.36 | | | | | 15.3 | 1.65 | | 1.51 | | 30.4 |
| 60 | 6 | 8.4 | 10.27 | 29.99 | 4.1 | | | | | | | | | |
| 60 | 7 | 5.5 | 10.66 | 29.59 | 4.0 | 301.2 | 63.0 | | 2.4 | 0.80 | | 0.50 | | 9.8 |
| 60 | 8 | 1.4 | 12.84 | 22.35 | 3.3 | 438.4 | 91.5 | | 0.2 | 0.47 | | 0.26 | | 4.8 |
| 62A | 1 | 91.0 | 7.97 | 32.67 | | | | | 26.5 | 1.29 | | 2.35 | | 50.1 |
| 62A | 2 | 72.9 | 8.15 | 32.53 | | | | | 25.8 | 0.24 | | 2.28 | | 45.3 |
| 62A | 3 | 51.6 | 8.26 | 32.39 | | | | | 24.4 | 0.27 | | 2.12 | | 43.2 |
| 62A | 4 | 34.6 | 8.96 | 31.83 | | | | | 15.1 | 1.90 | | 1.49 | | 27.9 |
| 62A | 6 | 23.9 | 9.43 | 31.38 | 3.7 | 115.3 | 24.5 | | 8.0 | 2.46 | | 1.02 | | 17.5 |
| 62A | 7 | 6.7 | 10.47 | 29.84 | 4.0 | 410.4 | 86.4 | | 0.2 | 0.35 | | 0.26 | | 5.1 |
| 62A | 8 | 0.5 | 12.65 | 24.21 | | 544.5 | 112.0 | | 0.0 | 0.28 | | 0.08 | | 7.6 |
| 63 | 1 | 85.7 | 8.00 | 32.62 | | | | 24.6 | 26.6 | 0.96 | 2.46 | 2.34 | 40.6 | 48.2 |
| 63 | 2 | 75.3 | 8.11 | 32.52 | | | | 30.1 | 26.7 | 0.34 | 2.40 | 2.31 | 38.4 | 48.3 |
| 63 | 4 | 50.8 | 8.29 | 32.36 | | | | 21.7 | 24.6 | 0.41 | 2.12 | 2.14 | 35.2 | 44.6 |
| 63 | 5 | 34.6 | 8.94 | 31.83 | | | | 14.1 | 15.8 | 1.61 | 1.64 | 1.57 | 20.4 | 30.8 |
| 63 | 7 | 25.3 | 9.34 | 31.43 | 0.9 | 108.3 | 22.8 | 7.5 | 9.3 | 2.36 | 1.08 | 1.09 | 11.2 | 20.1 |
| 63 | 8 | 5.7 | 10.53 | 29.75 | 4.0 | 393.2 | 76.6 | 0.8 | 0.5 | 0.35 | 0.38 | 0.31 | 0.2 | 6.8 |
| 63 | 9 | 1.6 | 12.53 | 24.67 | 4.8 | 497.9 | 106.6 | 0.2 | 0.0 | 0.26 | 0.39 | 0.19 | 0.2 | 5.5 |
| 66 | 1 | 122.6 | 8.17 | 32.66 | | | | 23.5 | 25.5 | 0.13 | 2.40 | 2.36 | 47.8 | 51.1 |
| 66 | 2 | 100.3 | 8.39 | 32.62 | | | | 27.7 | 28.7 | 0.07 | 2.90 | 2.78 | 64.1 | 59.3 |
| 66 | 3 | 74.9 | 8.50 | 32.55 | | | | 24.4 | 28.2 | 0.05 | 2.45 | 2.63 | 50.9 | 55.0 |
| 66 | 4 | 50.0 | 8.67 | 32.35 | | | | 22.2 | 24.6 | 0.00 | 2.26 | 2.27 | 41.1 | 46.9 |
| 66 | 5 | 34.1 | 8.88 | 32.00 | | | | 18.1 | 19.1 | 0.80 | 1.76 | 1.80 | 31.0 | 36.1 |

| Station | Bottle | Depth | *Temp. | *Sal. | Chl a | POC | PON | NO3+NO2 (A) | NO3+NO2 (B) | NH4 | PO4 (A) | PO4 (B) | Silicate (A) | Silicate (B) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 66 | 6 | 25.8 | 8.97 | 31.85 | | | | 14.1 | 15.6 | 1.50 | 1.75 | 1.54 | 22.8 | 30.2 |
| 66 | 7 | 16.4 | 9.38 | 31.42 | | | | 7.8 | 9.6 | 1.68 | 1.00 | 1.08 | 16.6 | 19.5 |
| 66 | 8 | 7.1 | 10.09 | 30.51 | | | | 3.1 | 3.2 | 0.18 | 0.57 | 0.54 | 8.1 | 8.8 |
| 66 | 9 | 1.9 | 11.56 | 28.58 | | | | 0.2 | 0.2 | 0.17 | 0.28 | 0.25 | 5.3 | 6.2 |
| 66A | 1 | 25.2 | 8.94 | 31.85 | 0.9 | 93.5 | 27.5 | | | | | | | |
| 66A | 2 | 6.2 | 10.03 | 30.52 | 2.3 | 218.0 | 47.9 | | | | | | | |
| 66B | 3 | 1.8 | 11.86 | 27.57 | 4.8 | 554.9 | 106.7 | | | | | | | |
| 67 | 1 | 28.4 | 8.79 | 31.92 | | | | | 15.2 | 1.30 | | 1.46 | | 29.0 |
| 67 | 2 | 21.8 | 9.39 | 31.36 | | | | | 9.5 | 1.78 | | 1.07 | | 19.0 |
| 67 | 3 | 10.7 | 10.59 | 29.98 | | | | | 3.1 | 0.27 | | 0.48 | | 9.1 |
| 67 | 4 | 6.3 | 11.33 | 29.23 | | | | | 0.6 | 0.07 | | 0.28 | | 4.2 |
| 68 | 1 | 61.5 | 8.64 | 32.23 | | | | | 23.2 | 0.83 | | -2.24 | | 45.5 |
| 68 | 2 | 45.6 | 8.71 | 31.99 | | | | | 18.8 | 1.14 | | 1.77 | | 36.3 |
| 68 | 3 | 29.3 | 9.00 | 31.73 | | | | | 15.2 | 1.69 | | 1.54 | | 30.9 |
| 68 | 4 | 21.5 | 9.25 | 31.47 | | | | | 11.0 | 1.65 | | 1.23 | | 22.2 |
| 68 | 5 | 9.8 | 9.72 | 30.85 | | | | | 6.4 | 1.20 | | 0.82 | | 15.0 |
| 68 | 6 | 5.7 | 10.31 | 30.05 | | | | | 2.1 | 0.22 | | 0.43 | | 9.5 |
| 70 | 1 | 135.2 | 8.06 | 32.66 | | | | | 27.6 | 0.16 | | 2.46 | | 51.8 |
| 70 | 2 | 101.3 | 8.28 | 32.63 | | | | | 27.9 | 0.09 | | 2.58 | | 53.8 |
| 70 | 3 | 75.3 | 8.49 | 32.54 | | | | | 27.7 | 0.06 | | 2.57 | | 54.4 |
| 70 | 4 | 50.3 | 8.65 | 32.34 | | | | | 24.3 | 0.08 | | 2.19 | | 46.2 |
| 70 | 5 | 30.3 | 8.96 | 31.95 | | | | | 17.8 | 0.87 | | 1.71 | | 41.5 |
| 70 | 6 | 19.8 | 9.17 | 31.70 | | | | | 13.7 | 1.23 | | 1.48 | | 28.0 |
| 70 | 7 | 10.8 | 9.76 | 30.99 | | | | | 4.6 | 1.14 | | 0.69 | | 12.8 |
| 70 | 8 | 2.4 | 11.86 | 27.32 | | | | | 0.0 | 0.09 | | 0.12 | | 8.2 |
| 71 | 1 | 134.2 | 8.00 | 32.67 | | | | | | | | | | |
| 71 | 2 | 93.3 | 8.17 | 32.57 | | | | 27.1 | | | 2.66 | | 38.4 | |
| 71 | 3 | 68.3 | 8.40 | 32.50 | | | | 25.2 | | | 2.57 | | 39.3 | |
| 71 | 4 | 48.1 | 8.60 | 32.35 | | | | 21.2 | | | 2.32 | | 33.4 | |
| 71 | 5 | 29.2 | 9.07 | 31.92 | | | | 23.9 | | | 1.84 | | 21.9 | |
| 71 | 6 | 19.0 | 9.27 | 31.59 | | | | 12.0 | | | 1.54 | | 15.3 | |

| Station | Bottle | Depth | *Temp. | *Sal. | Chl a | POC | PON | NO3+NO2 (A) | NO3+NO2 (B) | NH4 | PO4 (A) | PO4 (B) | Silicate (A) | Silicate (B) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 7 | 9.4 | 9.77 | 30.94 | | | | 5.4 | | | 0.90 | | 6.5 | |
| 71 | 8 | 2.1 | 12.09 | 25.77 | | | | 0.4 | | | 0.48 | | 1.2 | |
| 72 | 2 | 159.9 | 7.90 | 32.66 | | | | | 26.9 | 0.00 | | 2.29 | | 47.6 |
| 72 | 3 | 140.4 | 7.97 | 32.62 | | | | | 27.0 | 0.01 | | 2.29 | | 47.0 |
| 72 | 4 | 100.3 | 8.11 | 32.53 | | | | | 27.0 | 0.23 | | 2.29 | | 46.2 |
| 72 | 5 | 74.3 | 8.22 | 32.45 | | | | | 26.4 | 0.40 | | 2.31 | | 47.3 |
| 72 | 6 | 49.8 | 8.60 | 32.23 | | | | | 25.9 | 0.11 | | 2.27 | | 47.0 |
| 72 | 7 | 26.3 | 9.17 | 31.75 | | | | | 23.3 | 0.03 | | 2.10 | | 43.7 |
| 72 | 8 | 19.3 | 9.30 | 31.45 | | | | | 16.6 | 0.62 | | 1.70 | | 33.5 |
| 72 | 9 | 4.8 | 11.27 | 27.37 | | | | | 12.7 | 1.32 | | 1.33 | | 26.3 |
| 72 | 10 | 2.0 | 11.74 | 25.18 | | | | | 2.1 | | | 0.42 | | 10.0 |
| 73 | 1 | 134.2 | 8.01 | 32.66 | 0.0 | | | | | | | | | |
| 73 | 2 | 134.2 | 8.01 | 32.66 | | | | | 27.1 | | | 2.38 | | 49.5 |
| 73 | 3 | 99.5 | 8.19 | 32.59 | | | | | 26.9 | | | 2.41 | | 50.5 |
| 73 | 4 | 73.5 | 8.41 | 32.47 | | | | | 25.9 | | | 2.37 | | 48.5 |
| 73 | 5 | 49.5 | 8.63 | 32.31 | | | | | 23.1 | | | 2.11 | | 42.2 |
| 74 | 1 | 50.8 | 8.71 | 32.22 | | | | | 23.5 | | | 2.32 | | 42.8 |
| 74 | 2 | 26.6 | 9.12 | 31.71 | 0.9 | 113.2 | 24.2 | | 14.2 | | | 1.32 | | 26.0 |
| 74 | 3 | 6.5 | 10.79 | 29.50 | 4.7 | 526.6 | 103.0 | | 1.0 | | | 0.47 | | 8.8 |
| 74 | 4 | 2.6 | 11.46 | 28.50 | 4.6 | 424.7 | 80.7 | | 1.0 | | | 0.40 | | 7.1 |
| 76 | 1 | 106.3 | 9.02 | 32.27 | | | | 17.7 | 19.4 | | 2.23 | 1.67 | 33.2 | 39.3 |
| 76 | 2 | 73.7 | 9.06 | 32.23 | | | | 17.7 | 20.3 | | 2.01 | 1.61 | 33.6 | 39.3 |
| 76 | 3 | 49.1 | 9.25 | 32.11 | | | | 16.8 | 18.7 | | 2.16 | 1.69 | 29.9 | 39.3 |
| 76 | 4 | 32.7 | 9.49 | 31.81 | | | | 12.4 | 16.8 | | 2.06 | 2.34 | 30.1 | 41.2 |
| 76 | 5 | 25.0 | 9.41 | 31.48 | | | | 11.6 | 15.1 | | 1.71 | 1.77 | 24.0 | 35.5 |
| 76 | 6 | 9.6 | 9.76 | 30.39 | | | | 4.9 | 6.5 | | 0.90 | 0.93 | 8.4 | 18.0 |
| 76 | 7 | 6.8 | 9.89 | 30.00 | | | | 5.0 | 5.5 | | 0.86 | 1.09 | 8.1 | 15.9 |
| 76 | 8 | 1.5 | 12.51 | 8.58 | | | | 5.8 | 1.3 | | 0.97 | 0.30 | 14.1 | 44.9 |
| 76A | 1 | 3.0 | 9.40 | 31.52 | 0.6 | | | | | | | | | |
| 76A | 2 | 5.9 | 9.91 | 29.85 | 2.4 | 142.5 | 30.6 | | | | | | | |
| 76A | 3 | 1.4 | 12.64 | 8.55 | 5.1 | 333.0 | 63.2 | | | | | | | |

| Station | Bottle | Depth | *Temp. | *Sal. | Chl a | POC | PON | NO3+NO2 (A) | NO3+NO2 (B) | NH4 | PO4 (A) | PO4 (B) | Silicate (A) | Silicate (B) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 78 | 1 | 226.6 | 8.56 | 32.88 | | | | | 32.9 | | | | | 56.4 |
| 78 | 2 | 149.8 | 8.49 | 32.76 | | | | | 30.9 | | | 4.66 | | 55.0 |
| 78 | 3 | 99.8 | 8.54 | 32.65 | | | | | 28.8 | | | 4.33 | | 51.5 |
| 78 | 4 | 75.4 | 8.58 | 32.58 | | | | | 26.6 | | | 3.33 | | 47.7 |
| 78 | 5 | 40.4 | 8.96 | 32.25 | | | | | 21.2 | | | 3.45 | | 39.4 |
| 78 | 6 | 21.3 | 9.28 | 31.58 | 0.7 | | | | 15.3 | | | 3.45 | | 29.2 |
| 78 | 7 | 10.6 | 9.71 | 30.65 | 0.9 | | | | 7.6 | | | 2.11 | | 16.5 |
| 78 | 8 | 1.8 | 12.40 | 9.10 | 9.3 | | | | 0.6 | | | 0.22 | | 43.0 |
| 80 | 1 | 252.1 | 8.49 | 32.86 | | | | 31.3 | 32.1 | | 3.19 | 2.37 | 65.6 | 64.5 |
| 80 | 2 | 149.6 | 8.26 | 32.73 | | | | 28.8 | 29.5 | | 2.69 | 2.32 | 57.5 | 56.0 |
| 80 | 3 | 100.4 | 8.23 | 32.61 | | | | 25.5 | 27.2 | | 2.46 | 2.01 | 50.2 | 53.3 |
| 80 | 4 | 75.0 | 8.29 | 32.54 | | | | 25.9 | 11.7 | | 2.44 | 1.51 | 47.6 | 19.9 |
| 80 | 5 | 49.2 | 8.64 | 32.37 | | | | 21.3 | 22.8 | | 2.11 | 1.87 | 43.3 | 42.1 |
| 80 | 6 | 28.3 | 9.22 | 31.85 | | | | 17.3 | 18.4 | | 1.92 | 2.78 | 42.8 | 36.5 |
| 80 | 7 | 18.9 | 9.28 | 31.43 | 0.7 | | | 11.5 | 26.2 | | 1.34 | 2.00 | 23.9 | 49.7 |
| 80 | 8 | 8.9 | 9.86 | 30.46 | 1.1 | | | 3.2 | 4.9 | | 0.85 | 0.97 | 12.6 | 12.0 |
| 80 | 9 | 1.8 | 12.23 | 14.13 | 10.4 | | | 0.7 | 0.4 | | 0.36 | 0.36 | 25.5 | 27.6 |
| 82 | 1 | 167.6 | 8.12 | 32.73 | | | | 30.5 | 29.0 | | 3.20 | 2.25 | | 52.2 |
| 82 | 2 | 149.6 | 8.16 | 32.71 | | | | | 28.8 | | 2.82 | 2.13 | | 52.2 |
| 82 | 3 | 98.7 | 8.08 | 32.58 | | | | 26.7 | 27.3 | | 2.55 | 2.23 | | 47.7 |
| 82 | 4 | 71.5 | 8.22 | 32.51 | | | | 24.9 | 26.7 | | 2.58 | 2.51 | | 46.7 |
| 82 | 5 | 48.6 | 8.71 | 32.27 | | | | 22.3 | 23.3 | | 2.40 | 2.32 | | 42.1 |
| 82 | 6 | 28.8 | 9.19 | 31.95 | | | | 27.0 | 18.5 | | 2.23 | 1.74 | | 34.9 |
| 82 | 7 | 20.6 | 9.20 | 31.61 | 0.6 | | | 13.3 | 14.2 | | 2.55 | 1.73 | | 22.6 |
| 82 | 8 | 8.8 | 9.76 | 30.82 | 1.0 | | | 5.8 | 6.0 | | 0.85 | 0.91 | | 12.1 |
| 82 | 9 | 1.4 | 11.63 | 20.75 | 6.5 | | | 1.4 | 1.5 | | 0.29 | 0.58 | | 18.7 |
| 85F | 1 | 242.6 | 7.94 | 32.72 | | | | 16.2 | 27.5 | | 1.70 | 3.61 | | 45.3 |
| 85F | 2 | 149.5 | 7.96 | 32.68 | | | | 24.5 | 26.6 | | 2.52 | 2.09 | | 46.4 |
| 85F | 3 | 101.3 | 8.03 | 32.61 | | | | 25.3 | 27.3 | | 2.53 | 2.57 | | 45.3 |
| 85F | 4 | 77.0 | 8.14 | 32.53 | | | | 27.1 | 26.9 | | 2.63 | 1.51 | | 47.0 |
| 85F | 5 | 52.6 | 8.49 | 32.35 | | | | | 23.5 | | | 2.56 | | 39.9 |

| Station | Bottle | Depth | *Temp. | *Sal. | Chl a | POC | PON | NO3+NO2 (A) | NO3+NO2 (B) | NH4 | PO4 (A) | PO4 (B) | Silicate (A) | Silicate (B) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 85F | 6 | 31.8 | 8.70 | 32.10 | | | | 19.4 | 20.9 | | 2.17 | 1.67 | | 33.5 |
| 85F | 7 | 21.1 | 9.09 | 31.75 | 0.5 | | | 14.3 | 15.0 | | 1.77 | 1.46 | | 25.2 |
| 85F | 8 | 10.3 | 9.74 | 30.99 | 1.5 | | | 11.1 | 6.0 | | 1.24 | 1.06 | | 12.4 |
| 85F | 9 | 1.4 | 12.02 | 19.17 | 4.9 | | | 1.3 | 6.1 | | 0.44 | 0.85 | | 11.7 |
| 88A | 1 | 76.6 | 8.08 | 32.59 | | | | 25.9 | 27.7 | | 2.72 | 2.52 | | 48.2 |
| 88A | 2 | 51.3 | 8.49 | 32.29 | | | | 21.6 | 23.6 | | 2.29 | 2.26 | | 40.4 |
| 88A | 3 | 30.3 | 9.01 | 31.74 | | | | 11.9 | 13.1 | | 1.58 | 1.58 | | 23.1 |
| 88A | 4 | 21.4 | 9.36 | 31.42 | 0.8 | | | | 8.5 | | 1.13 | 1.26 | | 16.7 |
| 88A | 5 | 7.4 | 10.30 | 30.02 | 3.9 | | | 0.3 | 0.3 | | 0.43 | 0.46 | | 8.9 |
| 88A | 6 | 1.3 | 12.86 | 23.64 | 3.6 | | | 0.2 | 0.1 | | 0.28 | 0.26 | | 7.8 |
| 92 | 1 | 68.7 | 8.10 | 32.53 | | | | 26.6 | 27.5 | | 2.62 | | | 42.9 |
| 92 | 2 | 40.1 | 8.55 | 32.20 | | | | 19.4 | 23.3 | | 2.09 | 2.26 | | 36.8 |
| 92 | 3 | 25.2 | 8.99 | 31.69 | | | | 12.4 | 14.8 | | 1.51 | 1.69 | | 23.4 |
| 92 | 4 | 15.4 | 9.37 | 31.21 | 1.1 | | | 8.2 | 9.2 | | 1.07 | 1.23 | | 16.5 |
| 92 | 5 | 9.9 | 9.69 | 30.72 | 4.8 | | | 3.7 | 4.3 | | 0.72 | 0.80 | | 10.6 |
| 92 | 6 | 2.1 | 12.86 | 25.14 | 2.7 | | | 0.2 | 0.1 | | 0.24 | 0.19 | | 4.4 |
| 95 | 1 | 36.8 | 8.61 | 31.89 | | | | 16.6 | 16.9 | | 2.00 | 1.07 | | 40.7 |
| 95 | 2 | 19.8 | 9.19 | 31.36 | | | | 8.3 | 9.5 | | 1.13 | 1.22 | | 18.0 |
| 95 | 3 | 9.8 | 9.60 | 30.67 | | | | 11.5 | 2.5 | | 0.63 | | | 11.1 |
| 95 | 4 | 4.9 | 11.91 | 29.18 | | | | 0.2 | 0.2 | | 0.32 | 0.34 | | 6.3 |
| 95 | 5 | 0.4 | 12.49 | 27.54 | | | | 0.2 | 0.1 | | 0.27 | 0.23 | | 5.2 |
| 95A | 1 | 21.1 | 9.19 | 31.31 | 0.8 | | | | | | | | | |
| 95A | 2 | 10.6 | 9.60 | 30.71 | 5.2 | | | | | | | | | |
| 95A | 3 | 1.5 | 12.52 | 27.10 | | | | | | | | | | |
| 98 | 1 | 43.2 | 8.47 | 32.04 | | | | 18.4 | 20.7 | | 2.15 | 2.30 | | 44.7 |
| 98 | 2 | 29.2 | 8.97 | 31.70 | | | | 12.4 | 14.6 | | 1.53 | 1.53 | | 23.8 |
| 98 | 3 | 20.6 | 9.43 | 31.28 | 0.5 | | | 7.5 | 8.8 | | 1.08 | 1.60 | | 15.1 |
| 98 | 4 | 8.3 | 11.19 | 29.62 | 5.8 | | | 0.2 | 0.2 | | 0.35 | 2.31 | | 6.7 |
| 98 | 5 | 1.6 | 12.12 | 28.88 | 3.7 | | | 0.2 | 0.1 | | 0.26 | 0.21 | | 4.5 |
| 100 | 1 | 87.8 | 7.90 | 32.79 | | | | 25.9 | 25.4 | | 2.25 | 2.39 | 53.0 | 34.4 |
| 100 | 2 | 74.6 | 7.94 | 32.72 | | | | 24.0 | 25.5 | | 2.14 | 2.24 | 46.2 | 36.5 |

| Station | Bottle | Depth | *Temp. | *Sal. | Chl a | POC | PON | NO3+NO2 (A) | NO3+NO2 (B) | NH4 | PO4 (A) | PO4 (B) | Silicate (A) | Silicate (B) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100 | 3 | 49.0 | 8.39 | 32.22 | | | | 20.2 | 22.3 | | 1.98 | 2.01 | 39.8 | 32.4 |
| 100 | 5 | 25.7 | 9.15 | 31.64 | 0.9 | 133.1 | 18.2 | 12.6 | 12.2 | | 1.40 | 1.33 | 24.9 | 18.3 |
| 100 | 7 | 14.1 | 10.99 | 29.99 | 6.5 | 452.4 | 92.9 | 0.3 | 0.2 | | 0.36 | 0.38 | 7.8 | 6.5 |
| 100 | 9 | 1.6 | 11.48 | 29.73 | 5.7 | 471.3 | 97.7 | 0.2 | 0.0 | | 0.33 | 0.33 | 6.7 | 7.3 |
| 103 | 1 | 83.4 | 7.94 | 32.76 | | | | 24.4 | 26.2 | | 2.10 | 2.14 | | 42.1 |
| 103 | 2 | 74.9 | 8.04 | 32.63 | | | | 24.3 | 26.7 | | 2.16 | 2.22 | | 46.0 |
| 103 | 3 | 50.2 | 8.36 | 32.34 | | | | 20.4 | 21.7 | | 1.92 | 2.23 | | 33.0 |
| 103 | 4 | 30.1 | 8.93 | 31.89 | | | | 13.7 | 25.9 | | 1.64 | 2.34 | | 42.1 |
| 103 | 5 | 18.4 | 9.36 | 31.55 | 1.1 | 179.6 | 25.3 | 8.4 | 9.3 | | 1.17 | 1.25 | | 15.2 |
| 103 | 7 | 11.3 | 10.06 | 30.61 | 7.1 | 392.0 | 74.6 | 1.5 | 1.3 | | 0.53 | 0.54 | | 7.5 |
| 103 | 8 | 2.3 | 12.29 | 27.74 | 3.4 | 524.2 | 79.7 | 0.2 | 0.0 | | 0.23 | 0.26 | | 2.8 |
| 107 | 1 | 131.9 | 8.09 | 32.67 | | | | 15.4 | 28.6 | | 1.55 | 2.76 | | 49.3 |
| 107 | 2 | 101.1 | 8.18 | 32.66 | | | | 26.9 | 28.8 | | 2.70 | 3.25 | | 48.8 |
| 107 | 3 | 76.1 | 8.45 | 32.60 | | | | 27.3 | 29.2 | | 2.87 | 2.95 | | 51.0 |
| 107 | 4 | 51.5 | 8.61 | 32.45 | | | | 16.2 | 26.8 | | 1.70 | 2.62 | | 41.6 |
| 107 | 5 | 29.6 | 8.88 | 31.96 | | | | 16.2 | 18.9 | | 1.86 | 1.95 | | 24.0 |
| 107 | 6 | 19.5 | 9.25 | 31.57 | | | | 10.7 | 12.5 | | 1.32 | 1.51 | | 15.4 |
| 107 | 7 | 10.2 | 10.05 | 30.68 | | | | 5.7 | 7.0 | | 0.83 | 0.96 | | 9.8 |
| 107 | 8 | 1.9 | 11.57 | 28.24 | | | | 0.2 | 0.1 | | 0.33 | 0.36 | | 6.4 |

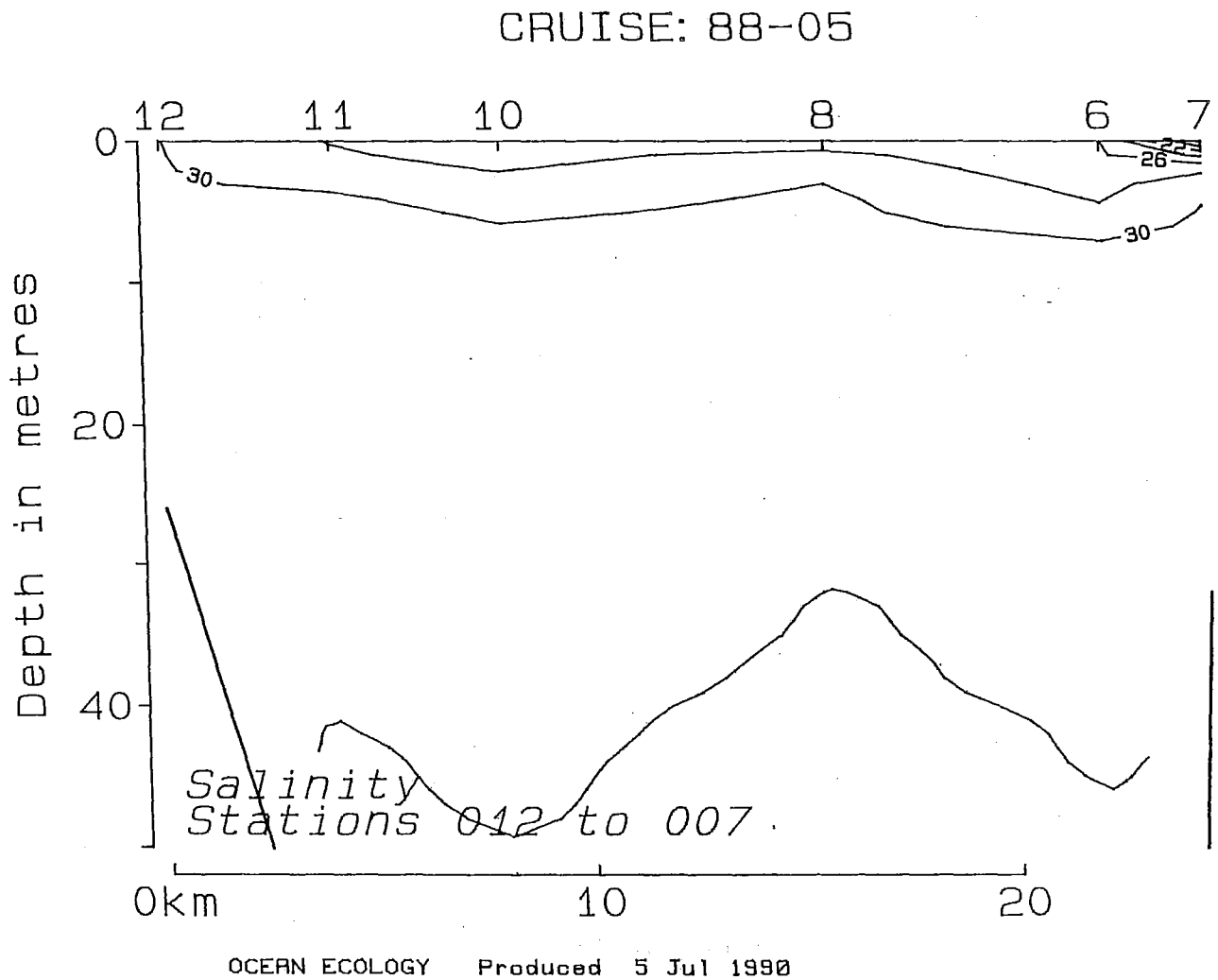
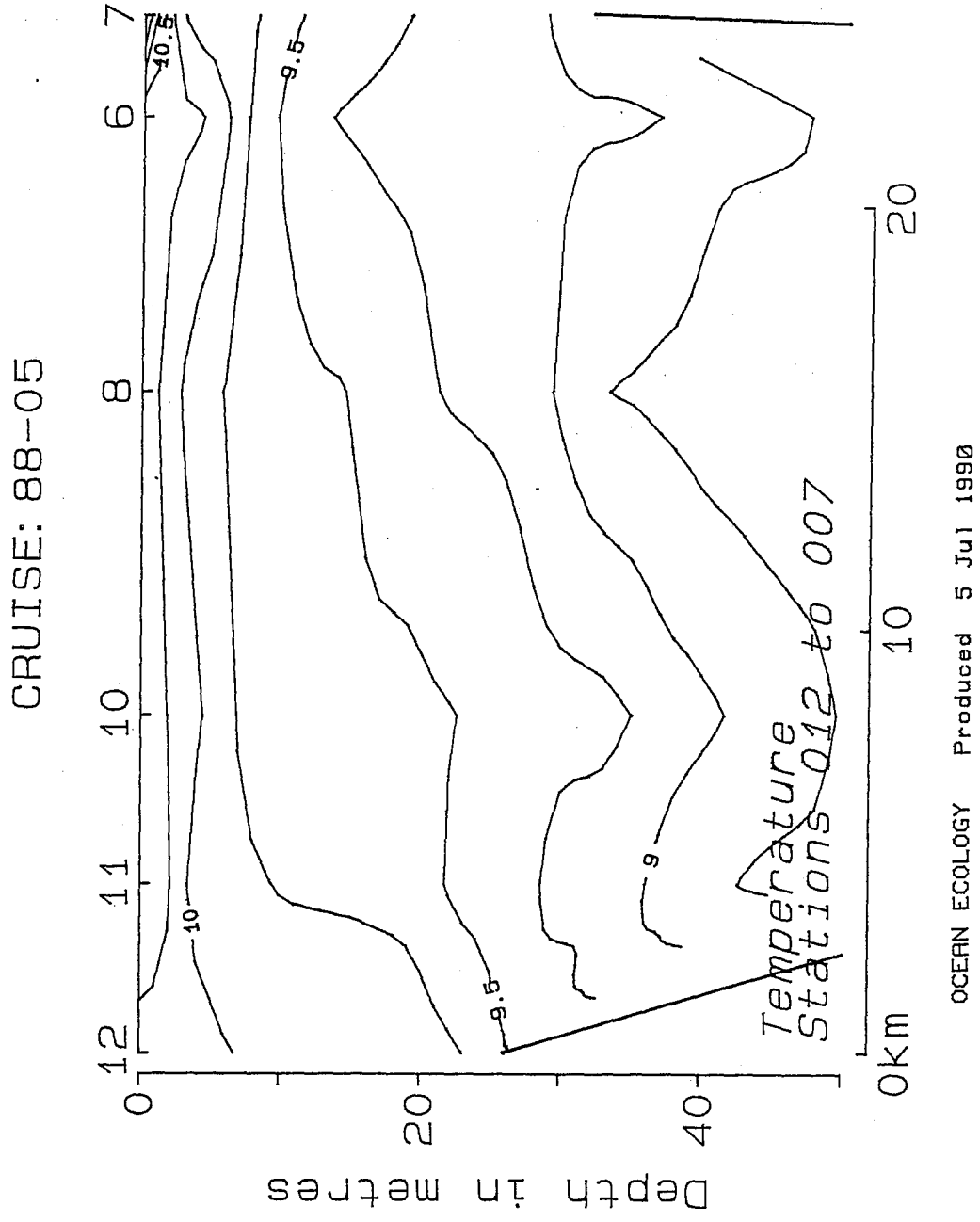



Fig. 21 OE8805 CTD salinity section (stn 12 - 7) (Trevor Channel)

Fig. 22 OE8805 CTD temperature section (stn 12 - 7) (Trevor Channel)



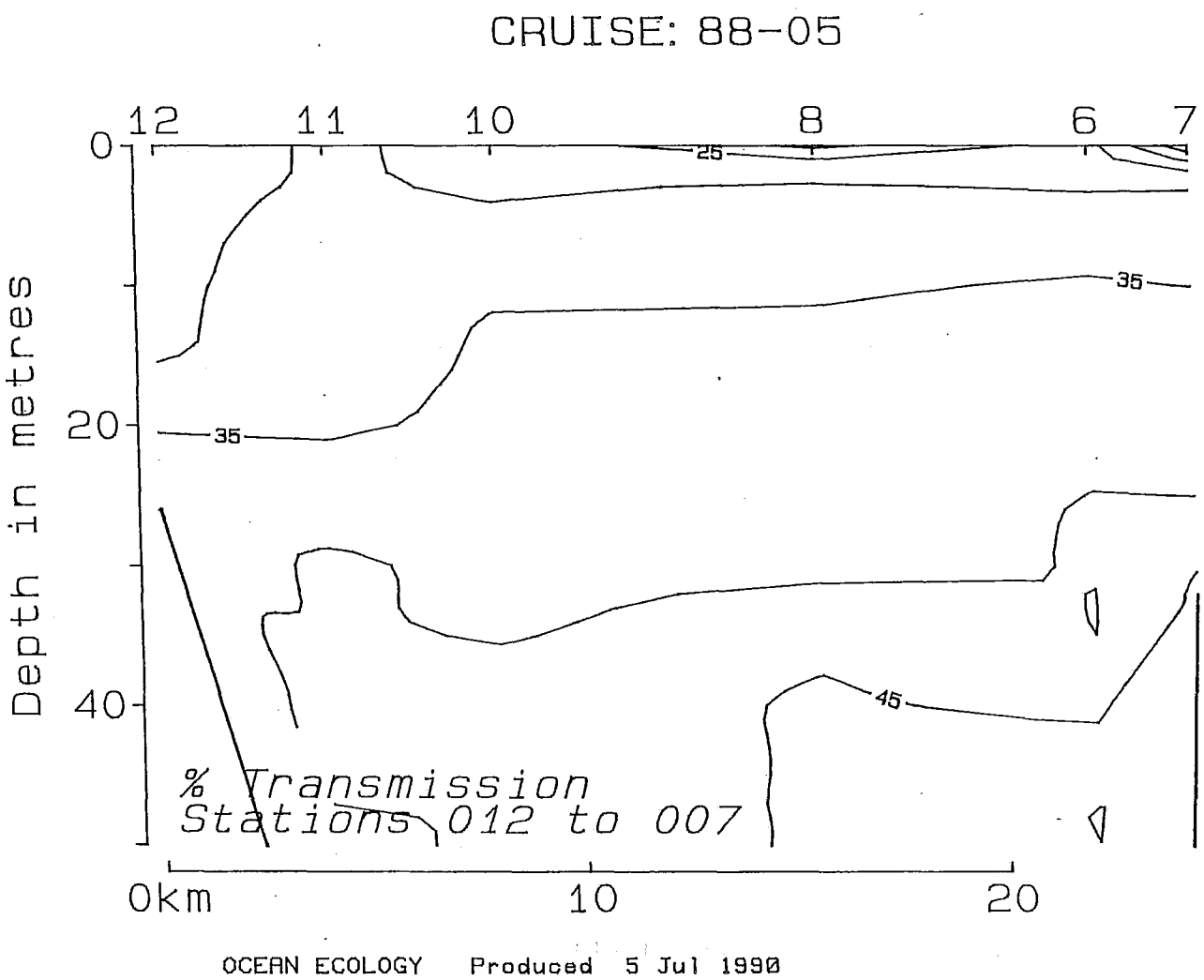



Fig. 23 OE8805 CTD % transmission section (stn 12 - 7) (Trevor Channel)

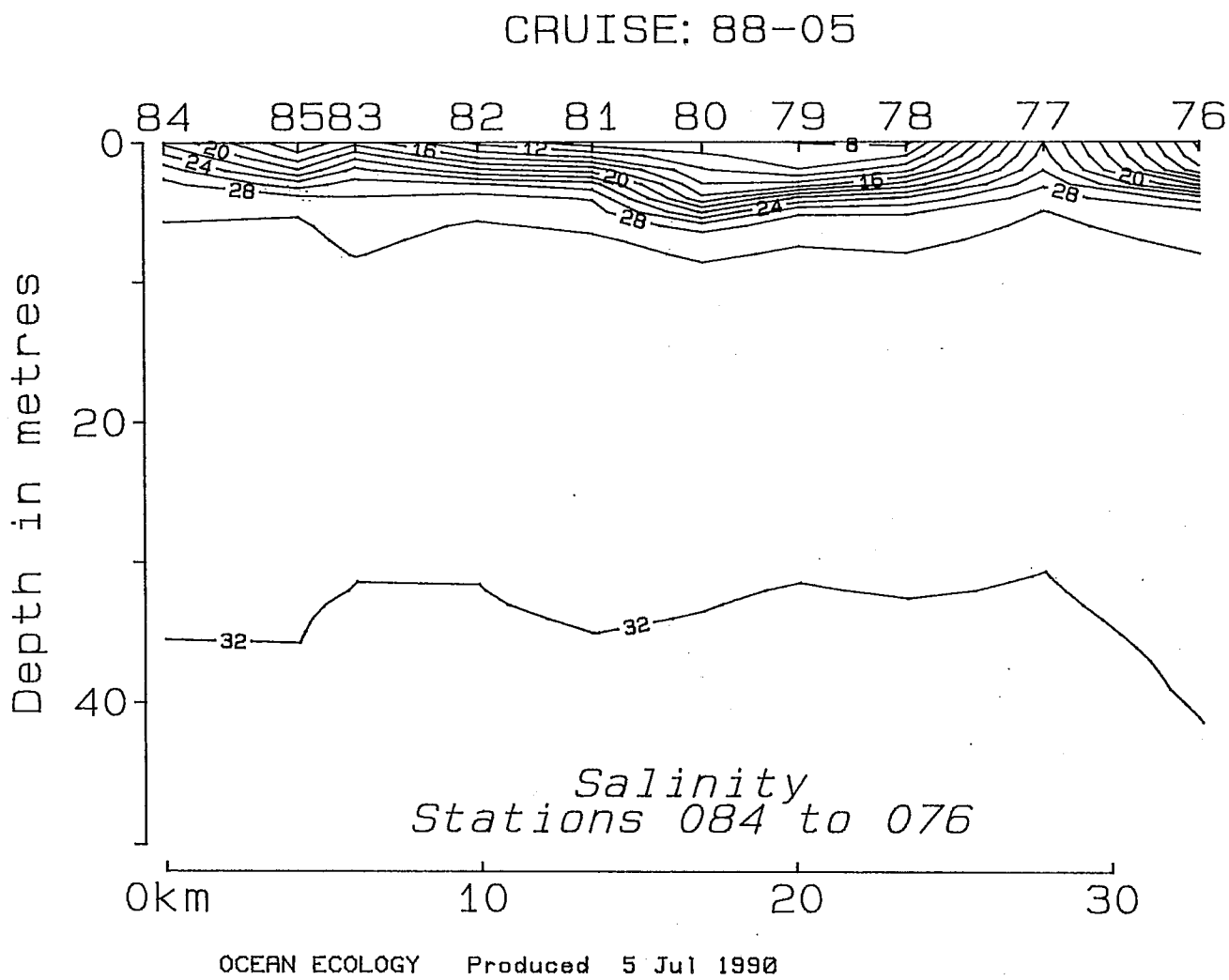



Fig. 24 OE8805 CTD salinity section (stn 84 - 76) (Alberni Inlet)

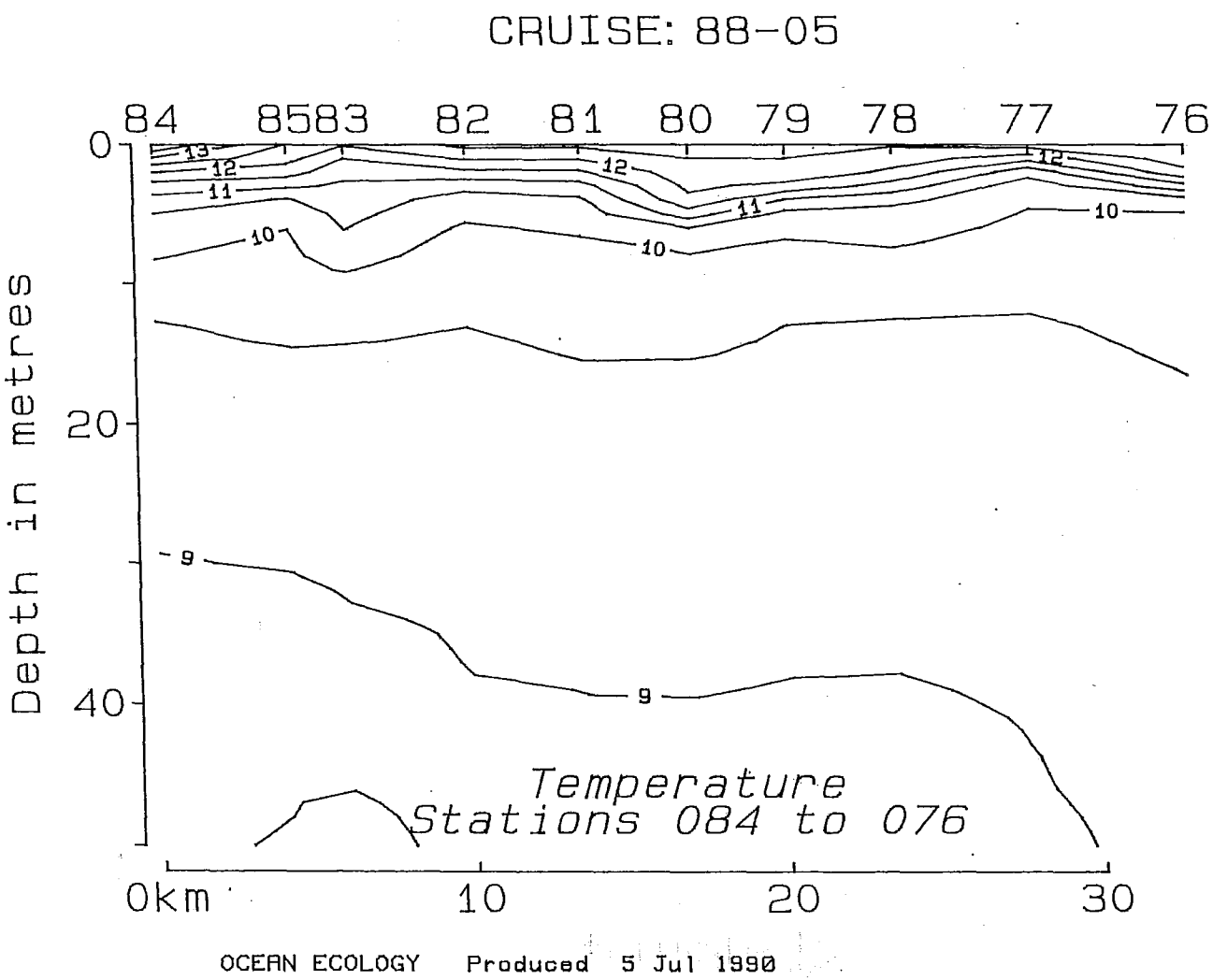
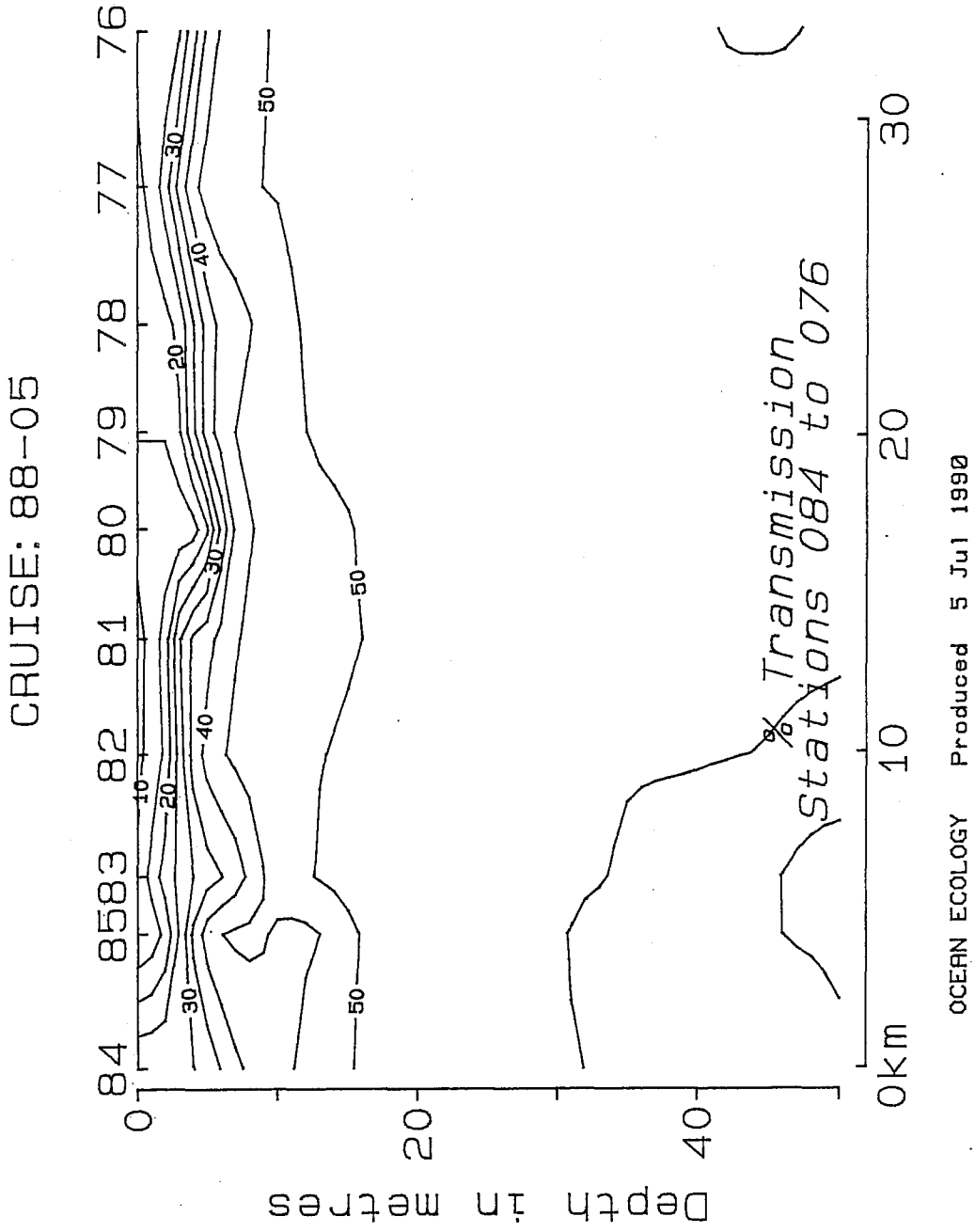



Fig. 25 OE8805 CTD temperature section (stn 84 - 76) (Alberni Inlet)

Fig. 26 OE8805 CTD % transmission section (stn 84 - 76) (Alberni Inlet)



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DATA SECTION 5

BACTERIA ABUNDANCE

Table 4 OE8805 Bacteria abundance and frequency of dividing cells

# TABLE 4: BACTERIA ABUNDANCE: CRUISE OE8805

Concentrations in cells.ml–1 x 10^–5

Std = 1 standard deviation of the count

| Station | Bottle | Depth | Concentration | % Div. | Std |
|---|---|---|---|---|---|
| 6B | 1 | 45.8 | 7.1 | 20 | 0.7 |
| 6B | 2 | 21.0 | 5.7 | 13 | 2.7 |
| 6B | 3 | 0.5 | 7.6 | 8 | 2.7 |
| 14 | 4 | 31.2 | 4.4 | 11 | 1.1 |
| 14 | 5 | 10.7 | 4.9 | 12 | 0.8 |
| 14 | 6 | 2.3 | 5.8 | 13 | 1.1 |
| 15A | 1 | 87.8 | 5.3 | 15 | 0.9 |
| 15A | 2 | 75.1 | 4.7 | 14 | 0.7 |
| 15A | 3 | 51.1 | 4.3 | 14 | 0.8 |
| 15A | 4 | 31.6 | 3.8 | 16 | 0.5 |
| 15A | 5 | 22.5 | 4.0 | 15 | 0.4 |
| 15A | 6 | 11.5 | 2.7 | 14 | 0.5 |
| 15A | 7 | 1.9 | 1.6 | 14 | 1.0 |
| 15B | 1 | 30.8 | 3.1 | 13 | 0.6 |
| 15B | 3 | 1.8 | 4.7 | 11 | 0.9 |
| 17 | 4 | 32.0 | 4.4 | 13 | 0.7 |
| 17 | 5 | 22.0 | 4.9 | 14 | 0.9 |
| 17 | 6 | 11.6 | 3.4 | 5 | 0.6 |
| 17 | 7 | 1.6 | 3.9 | 10 | 0.7 |
| 21 | 1 | 94.4 | 2.0 | 10 | 0.6 |
| 21 | 2 | 51.1 | 3.9 | 8 | 0.2 |
| 21 | 3 | 25.6 | 4.0 | 10 | 0.4 |
| 21 | 4 | 11.5 | 3.0 | 12 | 0.4 |
| 21 | 5 | 1.6 | 4.5 | 10 | 0.7 |
| 28 | 2 | 49.2 | 2.2 | 4 | 0.3 |
| 28 | 3 | 28.8 | 2.7 | 4 | 0.6 |
| 28 | 5 | 9.4 | 3.1 | 4 | 0.4 |

| Station | Bottle | Depth | Concentration | % Div. | Std |
|---|---|---|---|---|---|
| 31A | 1 | 43.4 | 2.4 | 4 | 0.4 |
| 31A | 2 | 31.6 | 2.6 | 4 | 0.3 |
| 31A | 3 | 21.3 | 2.4 | 3 | 0.5 |
| 31A | 4 | 8.8 | 2.9 | 4 | 0.3 |
| 31A | 5 | 2.0 | 2.8 | 5 | 0.3 |
| 34 | 1 | 35.1 | 2.3 | 5 | 0.2 |
| 34 | 2 | 20.9 | 3.0 | 5 | 0.4 |
| 34 | 3 | 12.0 | 3.0 | 5 | 0.6 |
| 34 | 4 | 1.6 | 4.1 | 7 | 0.7 |
| 41A | 1 | 253.4 | 3.3 | 20 | 0.1 |
| 41A | 2 | 100.0 | 6.9 | 14 | 0.3 |
| 41A | 3 | 50.5 | 1.7 | 8 | 0.2 |
| 41A | 4 | 25.8 | 2.1 | 7 | 0.5 |
| 41A | 5 | 10.3 | 3.5 | 8 | 0.5 |
| 41A | 6 | 0.0 | 4.7 | 12 | 0.7 |
| 50 | 1 | 93.0 | 2.1 | 13 | 0.2 |
| 50 | 2 | 51.0 | 1.9 | 10 | 0.3 |
| 50 | 3 | 26.2 | 2.6 | 9 | 0.4 |
| 50 | 4 | 10.8 | 5.4 | 10 | 0.7 |
| 50 | 5 | 6.5 | 7.5 | 11 | 0.8 |
| 50 | 6 | 0.1 | 9.1 | 12 | 2.2 |
| 63 | 1 | 85.7 | 1.4 | 10 | 0.4 |
| 63 | 2 | 75.3 | 1.8 | 9 | 0.4 |
| 63 | 4 | 50.8 | 1.8 | 8 | 0.3 |
| 63 | 5 | 34.6 | 2.1 | 10 | 0.3 |
| 63 | 7 | 25.3 | 2.4 | 8 | 0.4 |
| 63 | 8 | 5.7 | 11.7 | 7 | 1.9 |

| Station | Bottle | Depth | Concentration | % Div. | Std |
|---|---|---|---|---|---|
| 63 | 9 | 1.6 | 10.2 | 9 | 1.2 |
| 66 | 1 | 122.6 | 1.6 | 6 | 0.5 |
| 66 | 2 | 100.3 | 2.5 | 8 | 0.5 |
| 66 | 3 | 74.9 | 3.4 | 16 | 0.5 |
| 66 | 4 | 50.0 | 3.8 | 13 | 0.8 |
| 66 | 5 | 34.1 | 3.8 | 14 | 0.4 |
| 66 | 6 | 25.8 | 3.0 | 15 | 0.6 |
| 66 | 7 | 16.4 | 3.6 | 13 | 0.4 |
| 66 | 8 | 7.1 | 7.3 | 11 | 0.9 |
| 66 | 9 | 1.9 | 9.7 | 10 | 1.6 |
| 76 | 1 | 106.3 | 1.9 | 15 | 0.3 |
| 76 | 2 | 73.7 | 1.8 | 16 | 0.4 |
| 76 | 3 | 49.1 | 1.4 | 20 | 0.2 |
| 76 | 4 | 32.7 | 1.3 | 10 | 0.3 |
| 76 | 5 | 25.0 | 1.1 | 15 | 0.2 |
| 76 | 6 | 9.6 | 1.6 | 15 | 0.4 |
| 76 | 7 | 6.8 | 2.1 | 15 | 0.3 |
| 76 | 8 | 1.5 | 1.8 | 13 | 0.5 |
| 76 | 9 | 0.0 | 5.7 | 18 | 1.1 |
| 95 | 3 | 9.8 | 2.7 | 13 | 0.6 |
| 95 | 4 | 4.9 | 3.1 | 12 | 0.7 |
| 95 | 5 | 0.4 | 3.4 | 11 | 0.6 |
| 98 | 3 | 20.6 | 1.8 | 11 | 0.4 |
| 98 | 4 | 8.3 | 5.0 | 18 | 0.5 |
| 98 | 5 | 1.6 | 5.7 | 10 | 1.0 |
| 100 | 5 | 25.7 | 2.6 | 12 | 0.5 |
| 103 | 5 | 18.4 | 3.9 | 10 | 0.5 |
| 103 | 7 | 11.3 | 2.9 | 17 | 0.3 |
| 103 | 8 | 2.3 | 3.0 | 17 | 0.5 |

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DATA SECTION 6

PHYTOPLANKTON IDENTITY AND ABUNDANCE

Table 5 Phytoplankton taxonomic list

Table 6 OE8805 Phytoplankton identity and abundance

TABLE 5: PHYTOPLANKTON TAXONOMIC LIST (WITH ABBREVIATIONS USED IN DATA RECORDS)

| | Abbreviations in data records | |
|---|---|---|
| Chrysophyta | | |
| Chrysophyceae | | |
| Ochromonadales | | |
| Ochromonadaceae | | |
| Ochromonas spp. | ochromonas spp. | |
| Dinobryaceae | | |
| Dinobryon spp. | dinobryon spp. | |
| Dictyochales | | |
| Dictyochaceae | | |
| Dictyocha speculum | dictyocha speculum | |
| Chromulinales | | |
| Pedinellaceae | | |
| Apedinella spinifera | apedinella spinifera | |
| Haptophyta | | |
| Haptophyceae | | |
| Prymnesiales | | |
| Prymnesiaceae | | |
| Chrysochromulina spp. (0-5um) | chrysochro spp. | 0-5 |
| C. spp. (6-10 um) | chrysochro spp. | 6-10 |
| C. spp. (10-15 um) | chrysochro spp. | 10-15 |
| Corymbellus aureus | corymbellu aureus | |
| Bacillariophyta | | |
| Bacillariophyceae | | |
| Centrales | | |
| Corethronaceae | | |
| Corethron criophilum | corethron criophilum | |
| Leptocylindraceae | | |
| Schroederalla delicatula | schroedere delicatula | |
| Leptocylindrus danicus | leptocylin danicus | |
| L. minimus | leptocylin minimus | |
| Actinodiscaceae | | |
| Actinptychus undulatus | actinoptyc undulatus | |
| Coscinodiscaceae | | |
| Melosira moniliformis | melosira moniliformis | |
| Paralia sulcata | paralia sulcata | |
| Stephanopyxis nipponica | stephanopy nipponica | |
| Skeletonema costatum | skeletonem costatum | |
| Thalasiossira spp. | thalassios spp. | |
| T. spp. (<10 um) | thalassios spp. | <10 |
| T. gravida (syn. T. rotula) | thalassios rotula | |
| T. aestivalis | thalassios aestivalis | |
| T. anguste-lineatum | thalassios anguste-line | |
| T. eccentrica | thalassios eccentrica | |
| T. nordenskioldii | thalassios nordenskiold | |
| Coscinodiscus spp. | coscinodis spp. | |
| C. radiatus | coscinodis radiatus | |
| Biddulphiaceae | | |
| Eucampia zoodiacus | eucampia zoodiacus | |
| Cerataulina pelagica | cerataulin pelagica | |

| | | | | |
|---|---|---|---|---|
| Chaetoceraceae | | | | |
| | Chaetoceros spp. (cells) | chaetocero | spp. | cells |
| | C. affine | chaetocero | affine | |
| | C. compressum | chaetocero | compressum | |
| | C. concavicorne | chaetocero | concavicorne | |
| | C. convolutum | chaetocero | convolutum | |
| | C. debile | chaetocero | debile | |
| | C. decipiens | chaetocero | decipiens | |
| | C. laciniosum | chaetocero | laciniosum | |
| | C. pseudocrinitum | chaetocero | pseudocrinit | |
| | C. radicans | chaetocero | radicans | |
| | C. septentrionalis | chaetocero | septentrional | |
| | C. socialis | chaetocero | socialis | |
| Rhizosoleniaceae | | | | |
| | Rhizosolenia alata f. alata | rhizosolen | alata | f. alata |
| | R. fragilissima | rhizosolen | fragilissima | |
| | R. setigera | rhizosolen | setigera | |
| | R. stolterfothi | rhizosolen | stolterfothi | |
| Pennales | | | | |
| Fragilariaceae | | | | |
| | Fragilaria spp. | fragilaria | spp. | |
| | Asterionella formosa | asterionel | formosa | |
| | A. glaciales | asterionel | glacialis | |
| | Thalassiothrix frauenfeldii | thalassiot | frauenfeldii | |
| | Thalassionema nitzschiodes | thalassion | nitzschoides | |
| | Licmophora spp. | licmophora | spp. | |
| Naviculaceae | | | | |
| | Gyrosigma spp. and Pleurosigma spp. | gyrosigma | spp. | pleurosigma |
| | Navicula spp. | navicula | spp. | |
| | Navicula wawrikae | navicula | wawrikae | |
| Nitzschiaceae | | | | |
| | Nitzschia spp. | nitzschia | spp. | |
| | N. closterium | nitzschia | closterium | |
| | N. delicatissima | nitzschia | delicatissim | |
| | N. pacifica | nitzschia | pacifica | |
| | N. pungens | nitzschia | pungens | |
| Prasinophyta | | | | |
| Prasinophyceae | | | | |
| Pyramimonadales | | | | |
| Nephroselmidaceae | | | | |
| | Micromonas pusilla | micromonas | pusilla | |
| Polyblepharidaceae | | | | |
| | Pyramimonas spp. (3-8 um) | pyramimona | spp. | 3-8 |
| | Tetraselmis spp. | tetraselmi | spp. | |

| | | | |
|---|---|---|---|
| Euglenophyta | | | |
| Euglenophyceae | | | |
| Eutreptiales | | | |
| | Eutreptiella spp. | eutreptiel spp. | |
| Pyrrophyta | | | |
| Dinophyceae | | | |
| | spp. (5-15 um) | dinophycea spp. | 5-15 |
| Prorocentrales | | | |
| Prorocentraceae | | | |
| | Prorocentrum minimum | prorocentr minimum | |
| | P. minimum v. balticum | prorocentr minimum | v. balticum |
| | P. gracile | prorocentr gracile | |
| Dinophysiales | | | |
| Dinophysiaceae | | | |
| | Dinophysis spp. | dinophysis spp. | |
| | D. infundibulum | dinophysis infundibulum | |
| | D. ovum | dinophysis ovum | |
| Gymnodiniales | | | |
| Gymnodiniaceae | | | |
| | Gymnodinium spp. (5 - 10um) | gymnodiniu spp. | 5-10 |
| | G. spp. (10 - 15 um) | gymnodiniu spp. | 10-15 |
| | G. spp. (15 - 20 um) | gymnodiniu spp. | 15-20 |
| | G. spp. (20 - 50 um) | gymnodiniu spp. | 20-50 |
| | G. spp. (› 50um) | gymnodiniu spp. | › 50 |
| | G. simplex | gymnodiniu simplex | |
| | Gyrodinium spp. | gyrodinium spp. | |
| | Katodinium rotundatum | katodinium rotundatum | |
| | Torodinium robustum | torodinium robustum | |
| Peridiniales | | | |
| Peridiniaceae | | | |
| | Scripsiella sp.1 (small) | scripsiell sp.1 (small) | |
| | Heterocapsa triquetra | heterocaps triquetra | |
| Gonyaulaceae | | | |
| | Gonyaulax digitale | gonyaulax digitale | |
| | G. spinifer | gonyaulax spinifera | |
| | G. triacantha | gonyaulax triacantha | |
| | Alexandrium ostenfeldii | alexandriu ostenfeldii | |
| | Protogonyaulax catanella | protogonya catanella | |
| Ceratiaceae | | | |
| | Ceratium fusus | ceratium fusus | |
| | C. minutum | ceratium minutum | |
| Cryptophyta | | | |
| Cryptophyceae | | | |
| Cryptomonadales | | | |
| | spp. (0-5 um) | cryptomona spp. | 0-5 |
| | spp. (5-10 um) | cryptomona spp. | 5-10 |
| | spp. (10.1-15 um) | cryptomona spp. | 10.1-15 |
| | spp. (15.1-20 um) | cryptomona spp. | 15.1-20 |
| | spp. (20-25 um) | cryptomona spp. | 20-25 |

| | | |
|---|---|---|
| FLAGELLATES (autotrophic, unidentified) | spp. | flagellate spp. |
| Protozoa | Mesodinium rubrum | mesodinium rubrum |

TABLE 6

Cruise 88-05

Total Abundance (no./litre)

| Taxon | 2B-4 | 4-7 |
|---|---|---|
| ochromonas spp. | 4.91E+04 | 6.16E+04 |
| dinobryon spp. | 0.00E+00 | 3.51E+03 |
| dictyocha speculum | 0.00E+00 | 3.51E+03 |
| apedinella spinifera | 0.00E+00 | 1.17E+03 |
| dicrateria sp. | 9.83E+04 | 4.78E+05 |
| chrysochro spp. 0-5 | 1.60E+06 | 1.00E+06 |
| chrysochro spp. 6-10 | 1.18E+05 | 1.32E+06 |
| chrysochro spp. 10-15 | 1.97E+04 | 7.70E+04 |
| schroedere delicatula | 0.00E+00 | 2.34E+03 |
| leptocylin minimus | 1.48E+04 | 5.84E+03 |
| skeletonem costatum | 9.53E+05 | 1.17E+05 |
| thalassios spp. < 10 | 0.00E+00 | 1.17E+03 |
| thalassios rotula | 5.45E+03 | 8.18E+03 |
| thalassios aestivalis | 6.54E+04 | 9.35E+03 |
| thalassios nordenskiold | 6.70E+04 | 6.66E+04 |
| thalassios eccentrica | 2.34E+03 | 3.51E+03 |
| chaetocero spp. cells | 6.23E+03 | 5.84E+03 |
| chaetocero affine | 4.00E+02 | 0.00E+00 |
| chaetocero convolutum | 0.00E+00 | 1.00E+02 |
| chaetocero debile | 3.12E+03 | 1.87E+04 |
| chaetocero decipiens | 0.00E+00 | 5.84E+03 |
| chaetocero radicans | 6.23E+03 | 1.29E+04 |
| chaetocero socialis | 0.00E+00 | 2.10E+04 |
| rhizosolen fragilissima | 9.12E+04 | 9.70E+04 |
| asterionel glacialis | 0.00E+00 | 1.17E+03 |
| thalassion nitzschoides | 7.79E+03 | 5.84E+03 |
| navicula spp. | 1.56E+03 | 1.17E+03 |
| navicula wawrikae | 2.00E+02 | 2.34E+03 |
| nitzschia spp. | 0.00E+00 | 7.01E+03 |
| nitzschia delicatissim | 1.87E+04 | 9.35E+03 |
| nitzschia closterium | 2.34E+03 | 1.17E+03 |
| micromonas pusilla | 3.73E+05 | 6.32E+05 |
| pyramimona spp. 3-8 | 0.00E+00 | 6.16E+04 |
| tetraselmi spp. | 9.83E+03 | 0.00E+00 |
| eutreptiel spp. | 0.00E+00 | 1.00E+02 |

| | | |
|---|---|---|
| dinophycea spp. 5-15 | 1.56E+03 | 8.18E+03 |
| dinophysis ovum | 0.00E+00 | 2.00E+02 |
| gonyaulax triacantha | 0.00E+00 | 1.00E+02 |
| alexandriu ostenfeldii | 0.00E+00 | 2.00E+02 |
| scripsiell sp.1 (small) | 0.00E+00 | 9.35E+03 |
| gymnodiniu spp. 10-15 | 7.79E+02 | 0.00E+00 |
| gymnodiniu spp. 15-20 | 1.56E+03 | 0.00E+00 |
| gymnodiniu spp. 20-50 | 4.67E+03 | 3.51E+04 |
| gyrodinium spp. | 1.09E+04 | 8.18E+03 |
| torodinium robustum | 0.00E+00 | 1.00E+02 |
| heterocaps triquetra | 7.79E+02 | 5.84E+03 |
| ceratium minutum | 0.00E+00 | 2.00E+02 |
| cryptomona spp. 5-10 | 1.18E+05 | 2.16E+05 |
| cryptomona spp. 10.1-15 | 2.94E+04 | 1.54E+05 |
| cryptomona spp. 15.1-20 | 0.00E+00 | 7.70E+04 |
| cryptomona spp. 0-5 | 2.75E+05 | 2.46E+05 |
| cryptomona spp. 20-25 | 0.00E+00 | 1.54E+04 |
| flagellate spp. | 1.97E+04 | 1.85E+05 |
| mesodinium rubrum | 7.79E+02 | 3.51E+04 |

Cruise 88-05

Total Abundance (no./litre)

| Taxon | 6B-1 | 6C-4 | 6B-6 | 7-3 | 7-6 |
|---|---|---|---|---|---|
| ochromonas spp. | 2.95E+04 | 0.00E+00 | 1.40E+05 | 0.00E+00 | 0.00E+00 |
| dinobryon spp. | 9.83E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| dictyocha speculum | 7.79E+02 | 0.00E+00 | 2.34E+03 | 0.00E+00 | 0.00E+00 |
| dicrateria sp. | 5.90E+04 | 9.17E+04 | 4.49E+05 | 0.00E+00 | 0.00E+00 |
| chrysochro spp. 0-5 | 8.65E+05 | 6.29E+05 | 1.08E+06 | 0.00E+00 | 0.00E+00 |
| chrysochro spp. 6-10 | 0.00E+00 | 1.31E+04 | 1.54E+05 | 0.00E+00 | 0.00E+00 |
| schroedere delicatula | 0.00E+00 | 0.00E+00 | 6.00E+02 | 0.00E+00 | 0.00E+00 |
| leptocylin minimus | 0.00E+00 | 0.00E+00 | 4.67E+03 | 0.00E+00 | 0.00E+00 |
| skeletonem costatum | 4.70E+05 | 1.04E+06 | 3.19E+06 | 0.00E+00 | 0.00E+00 |
| thalassios rotula | 0.00E+00 | 0.00E+00 | 1.56E+03 | 0.00E+00 | 0.00E+00 |
| thalassios aestivalis | 6.23E+03 | 1.48E+04 | 5.45E+03 | 0.00E+00 | 0.00E+00 |
| thalassios nordenskiold | 5.69E+04 | 5.00E+04 | 1.64E+04 | 0.00E+00 | 0.00E+00 |
| chaetocero spp. cells | 0.00E+00 | 7.79E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| chaetocero compressum | 0.00E+00 | 0.00E+00 | 7.01E+03 | 0.00E+00 | 0.00E+00 |
| chaetocero debile | 6.00E+02 | 0.00E+00 | 3.90E+03 | 0.00E+00 | 0.00E+00 |
| chaetocero radicans | 0.00E+00 | 0.00E+00 | 3.90E+03 | 0.00E+00 | 0.00E+00 |
| rhizosolen delicatula | 0.00E+00 | 0.00E+00 | 2.00E+02 | 0.00E+00 | 0.00E+00 |
| rhizosolen fragilissima | 3.90E+03 | 3.12E+03 | 3.12E+03 | 0.00E+00 | 0.00E+00 |
| thalassion nitzschoides | 7.79E+02 | 1.00E+03 | 2.57E+04 | 0.00E+00 | 0.00E+00 |
| grammatoph marina | 0.00E+00 | 0.00E+00 | 8.00E+02 | 0.00E+00 | 0.00E+00 |
| navicula spp. | 0.00E+00 | 1.56E+03 | 7.79E+02 | 0.00E+00 | 0.00E+00 |
| nitzschia delicatissim | 7.79E+02 | 7.79E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| nitzschia closterium | 2.00E+02 | 7.79E+02 | 7.79E+02 | 0.00E+00 | 0.00E+00 |
| micromonas pusilla | 1.08E+06 | 3.60E+05 | 1.88E+06 | 0.00E+00 | 0.00E+00 |
| tetraselmi spp. | 1.97E+04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| eutreptiel spp. | 2.00E+02 | 0.00E+00 | 1.56E+03 | 0.00E+00 | 0.00E+00 |
| dinophycea spp. 5-15 | 1.56E+03 | 0.00E+00 | 1.48E+04 | 0.00E+00 | 0.00E+00 |
| gonyaulax spinifera | 0.00E+00 | 0.00E+00 | 2.00E+02 | 0.00E+00 | 0.00E+00 |
| gonyaulax triacantha | 0.00E+00 | 0.00E+00 | 2.00E+02 | 0.00E+00 | 0.00E+00 |
| scripsiell sp.1 (small) | 0.00E+00 | 7.79E+02 | 2.34E+03 | 0.00E+00 | 0.00E+00 |
| gymnodiniu spp. 10-15 | 3.12E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| gymnodiniu spp. 15-20 | 0.00E+00 | 2.34E+03 | 6.23E+03 | 0.00E+00 | 0.00E+00 |
| gymnodiniu spp. 20-50 | 6.00E+02 | 0.00E+00 | 2.34E+04 | 0.00E+00 | 0.00E+00 |
| gyrodinium spp. | 5.45E+03 | 7.79E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| katodinium rotundatum | 2.34E+03 | 7.79E+02 | 1.12E+05 | 0.00E+00 | 0.00E+00 |

| | | | | | |
|---|---|---|---|---|---|
| heterocaps triquetra | 2.00E+02 | 2.00E+02 | 1.56E+04 | 0.00E+00 | 0.00E+00 |
| micracanth spp. | 0.00E+00 | 0.00E+00 | 7.79E+02 | 0.00E+00 | 0.00E+00 |
| cryptomona spp. 5-10 | 0.00E+00 | 0.00E+00 | 2.81E+05 | 0.00E+00 | 0.00E+00 |
| cryptomona spp. 10.1-15 | 0.00E+00 | 1.31E+04 | 2.11E+05 | 0.00E+00 | 0.00E+00 |
| cryptomona spp. 0-5 | 5.90E+04 | 2.62E+04 | 7.16E+05 | 0.00E+00 | 0.00E+00 |
| flagellate spp. | 3.94E+04 | 0.00E+00 | 2.81E+04 | 0.00E+00 | 0.00E+00 |
| mesodinium rubrum | 0.00E+00 | 7.79E+02 | 1.40E+04 | 0.00E+00 | 0.00E+00 |

Cruise 88-05

Total Abundance (no./litre)

| Taxon | 12-4 | 14-4 | 14-5 | 14-6 |
|---|---|---|---|---|
| ochromonas spp. | 2.95E+04 | 1.97E+04 | 3.93E+04 | 0.00E+00 |
| dictyocha speculum | 1.56E+03 | 2.00E+02 | 2.00E+02 | 2.34E+03 |
| dicrateria sp. | 2.56E+05 | 2.26E+05 | 4.32E+05 | 1.97E+05 |
| chrysochro spp. 0-5 | 1.80E+06 | 1.84E+06 | 3.32E+06 | 9.24E+05 |
| chrysochro spp. 6 10 | 2.56E+05 | 2.75E+05 | 3.73E+05 | 1.67E+05 |
| chrysochro spp. 10-15 | 3.93E+04 | 0.00E+00 | 1.97E+04 | 0.00E+00 |
| paralia sulcata | 0.00E+00 | 6.00E+02 | 0.00E+00 | 0.00E+00 |
| stephanopy nipponica | 0.00E+00 | 0.00E+00 | 2.00E+02 | 0.00E+00 |
| leptocylin danicus | 1.17E+04 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| leptocylin minimus | 1.09E+04 | 8.57E+03 | 1.48E+04 | 1.71E+04 |
| skeletonem costatum | 9.53E+05 | 7.79E+04 | 2.80E+04 | 1.17E+04 |
| thalassios rotula | 0.00E+00 | 0.00E+00 | 7.79E+02 | 0.00E+00 |
| thalassios aestivalis | 5.45E+03 | 1.64E+04 | 1.32E+04 | 1.09E+04 |
| thalassios nordenskiold | 1.09E+04 | 3.19E+04 | 2.03E+04 | 3.90E+03 |
| eucampia zoodiacus | 2.00E+02 | 7.79E+02 | 0.00E+00 | 4.00E+02 |
| chaetocero spp. cells | 3.12E+03 | 3.90E+03 | 7.01E+03 | 1.79E+04 |
| chaetocero compressum | 3.12E+03 | 0.00E+00 | 7.79E+03 | 0.00E+00 |
| chaetocero convolutum | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.00E+02 |
| chaetocero debile | 1.56E+03 | 1.56E+03 | 5.45E+03 | 0.00E+00 |
| chaetocero decipiens | 4.00E+02 | 6.00E+02 | 7.01E+03 | 2.18E+04 |
| chaetocero radicans | 4.67E+03 | 2.34E+03 | 2.34E+03 | 0.00E+00 |
| chaetocero socialis | 0.00E+00 | 0.00E+00 | 3.12E+03 | 0.00E+00 |
| rhizosolen fragilissima | 2.34E+04 | 7.40E+04 | 1.25E+05 | 1.38E+05 |
| thalassiot frauenfeldii | 0.00E+00 | 2.00E+02 | 3.90E+03 | 0.00E+00 |
| thalassion nitzschoides | 9.35E+03 | 1.64E+04 | 1.87E+04 | 1.25E+04 |
| licmophora spp. | 2.00E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| gyrosigma spp. pleurosigma | 0.00E+00 | 4.00E+02 | 0.00E+00 | 0.00E+00 |
| navicula spp. | 2.34E+03 | 0.00E+00 | 5.45E+03 | 3.12E+03 |
| navicula wawrikae | 1.80E+03 | 0.00E+00 | 6.00E+02 | 2.00E+02 |
| nitzschia delicatissim | 3.12E+03 | 1.01E+04 | 3.90E+03 | 3.12E+03 |
| nitzschia pungens | 4.00E+02 | 1.00E+03 | 1.20E+03 | 2.34E+03 |
| nitzschia closterium | 4.67E+03 | 3.90E+03 | 8.57E+03 | 3.90E+03 |
| micromonas pusilla | 8.94E+05 | 1.38E+06 | 4.46E+06 | 1.29E+06 |
| tetraselmi spp. | 5.90E+04 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| eutreptiel spp. | 3.12E+03 | 0.00E+00 | 1.56E+03 | 6.00E+02 |

| | | | | |
|---|---|---|---|---|
| dinophycea spp. 5-15 | 6.23E+03 | 0.00E+00 | 4.67E+03 | 6.23E+03 |
| dinophysis ovum | 2.00E+02 | 0.00E+00 | 2.00E+02 | 0.00E+00 |
| scripsiell sp.1 (small) | 9.35E+03 | 0.00E+00 | 0.00E+00 | 2.34E+03 |
| gymnodiniu spp. 5-10 | 0.00E+00 | 0.00E+00 | 2.49E+04 | 0.00E+00 |
| gymnodiniu spp. 10-15 | 0.00E+00 | 0.00E+00 | 1.56E+04 | 0.00E+00 |
| gymnodiniu spp. 15-20 | 5.45E+03 | 7.79E+02 | 0.00E+00 | 2.03E+04 |
| gymnodiniu spp. 20-50 | 1.56E+04 | 0.00E+00 | 3.90E+03 | 1.40E+04 |
| gyrodinium spp. | 4.67E+03 | 8.57E+03 | 8.57E+03 | 0.00E+00 |
| katodinium rotundatum | 1.97E+04 | 0.00E+00 | 1.97E+04 | 6.88E+04 |
| heterocaps triquetra | 3.90E+03 | 0.00E+00 | 0.00E+00 | 2.49E+04 |
| micracanth spp. | 1.56E+03 | 0.00E+00 | 0.00E+00 | 4.67E+03 |
| cryptomona spp. 5-10 | 1.47E+05 | 2.95E+04 | 2.16E+05 | 1.47E+05 |
| cryptomona spp. 10.1-15 | 1.28E+05 | 1.97E+04 | 7.86E+04 | 1.28E+05 |
| cryptomona spp. 0-5 | 3.93E+05 | 3.44E+05 | 8.65E+05 | 1.97E+05 |
| flagellate spp. | 0.00E+00 | 5.90E+04 | 7.86E+04 | 9.83E+03 |
| mesodinium rubrum | 3.35E+04 | 0.00E+00 | 8.57E+03 | 1.95E+04 |

Cruise 88-05

Total Abundance (no./litre)

| Taxon | 15A-1 | 15A-2 | 15A-3 | 15A-4 | 15A-5 |
|---|---|---|---|---|---|
| ochromonas spp. | 0.00E+00 | 5.16E+04 | 6.55E+03 | 2.95E+04 | 3.93E+04 |
| dictyocha speculum | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.00E+02 |
| dicrateria sp. | 1.57E+05 | 2.21E+05 | 6.55E+04 | 1.77E+05 | 1.47E+05 |
| chrysochro spp. 0-5 | 2.36E+05 | 8.77E+05 | 9.11E+05 | 1.30E+06 | 1.81E+06 |
| chrysochro spp. 6-10 | 1.97E+04 | 7.37E+03 | 1.97E+04 | 1.47E+05 | 2.06E+05 |
| chrysochro spp. 10-15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.83E+03 |
| paralia sulcata | 3.80E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| corethron criophilum | 0.00E+00 | 0.00E+00 | 2.34E+03 | 0.00E+00 | 0.00E+00 |
| leptocylin minimus | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.35E+03 | 2.03E+04 |
| skeletonem costatum | 7.32E+04 | 3.48E+05 | 8.45E+05 | 1.67E+05 | 2.96E+04 |
| thalassios aestivalis | 2.10E+04 | 5.61E+04 | 3.66E+04 | 3.90E+03 | 5.45E+03 |
| thalassios nordenskiold | 4.36E+04 | 8.79E+04 | 6.78E+04 | 1.71E+04 | 1.64E+04 |
| coscinodis spp. | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.00E+02 | 0.00E+00 |
| chaetocero spp. cells | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.34E+03 | 1.56E+03 |
| chaetocero compressum | 2.34E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| chaetocero convolutum | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.00E+02 |
| chaetocero debile | 0.00E+00 | 9.35E+02 | 0.00E+00 | 5.45E+03 | 0.00E+00 |
| chaetocero decipiens | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.00E+02 | 8.00E+02 |
| chaetocero radicans | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.45E+03 | 0.00E+00 |
| rhizosolen fragilissima | 0.00E+00 | 1.87E+03 | 7.01E+03 | 9.12E+04 | 9.12E+04 |
| rhizosolen setigera | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.00E+02 | 2.00E+02 |
| asterionel glacialis | 0.00E+00 | 0.00E+00 | 7.79E+02 | 0.00E+00 | 0.00E+00 |
| thalassiot frauenfeldii | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.00E+02 |
| thalassion nitzschoides | 3.90E+03 | 3.74E+03 | 2.03E+04 | 1.40E+04 | 2.65E+04 |
| gyrosigma spp. pleurosigma | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.00E+02 |
| navicula spp. | 0.00E+00 | 2.00E+02 | 0.00E+00 | 2.34E+03 | 8.57E+03 |
| navicula wawrikae | 0.00E+00 | 2.00E+02 | 0.00E+00 | 0.00E+00 | 1.80E+03 |
| nitzschia delicatissim | 7.79E+02 | 9.35E+02 | 4.67E+03 | 7.01E+03 | 1.17E+04 |
| nitzschia pacifica | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.80E+03 | 0.00E+00 |
| nitzschia closterium | 1.56E+03 | 9.35E+02 | 0.00E+00 | 7.79E+02 | 7.01E+03 |
| micromonas pusilla | 1.20E+06 | 1.14E+06 | 5.31E+05 | 1.21E+06 | 6.68E+05 |
| tetraselmi spp. | 0.00E+00 | 1.47E+04 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| eutreptiel spp. | 0.00E+00 | 0.00E+00 | 7.79E+02 | 0.00E+00 | 0.00E+00 |
| dinophycea spp. 5-15 | 7.79E+02 | 0.00E+00 | 1.56E+03 | 0.00E+00 | 3.12E+03 |
| prorocentr minimum | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.90E+03 | 0.00E+00 |

| | | | | | |
|---|---|---|---|---|---|
| gymnodiniu spp. 10-15 | 1.56E+03 | 2.80E+03 | 3.12E+03 | 3.12E+03 | 2.34E+03 |
| gymnodiniu spp. 15-20 | 0.00E+00 | 0.00E+00 | 3.12E+03 | 3.90E+03 | 1.56E+03 |
| gymnodiniu spp. 20-50 | 7.79E+03 | 1.87E+03 | 8.00E+02 | 7.79E+02 | 1.56E+03 |
| gymnodiniu spp. > 50 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.00E+02 |
| gyrodinium spp. | 0.00E+00 | 4.67E+03 | 3.12E+03 | 9.35E+03 | 7.01E+03 |
| torodinium robustum | 0.00E+00 | 0.00E+00 | 2.00E+02 | 0.00E+00 | 0.00E+00 |
| cryptomona spp. 5-10 | 3.93E+04 | 5.16E+04 | 6.55E+03 | 3.93E+04 | 9.83E+04 |
| cryptomona spp. 10.1-15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.97E+04 | 5.90E+04 |
| cryptomona spp. 0-5 | 1.28E+05 | 3.54E+05 | 1.05E+05 | 2.16E+05 | 2.46E+05 |
| flagellate spp. | 2.95E+04 | 3.69E+04 | 5.24E+04 | 3.93E+04 | 0.00E+00 |
| mesodinium rubrum | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.00E+02 |

Cruise 88 05

Total Abundance (no./litre)

| Taxon | 15A-6 | 15A-7 | 17-6 | 21-1 | 21-2 |
|---|---|---|---|---|---|
| ochromonas spp. | 1.47E+05 | 3.38E+05 | 0.00E+00 | 0.00E+00 | 4.59E+04 |
| dictyocha speculum | 1.17E+03 | 7.79E+03 | 7.79E+02 | 0.00E+00 | 0.00E+00 |
| dicrateria sp. | 1.10E+06 | 1.01E+06 | 3.54E+05 | 1.40E+04 | 8.52E+04 |
| chrysochro spp. 0-5 | 3.45E+06 | 3.27E+06 | 2.72E+06 | 1.78E+05 | 7.27E+05 |
| chrysochro spp. 6-10 | 2.74E+05 | 9.02E+05 | 1.53E+05 | 9.36E+03 | 8.52E+04 |
| stephanopy nipponica | 2.00E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| corethron criophilum | 5.84E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| schroedere delicatula | 0.00E+00 | 6.00E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| leptocylin minimus | 5.55E+04 | 5.61E+04 | 4.05E+04 | 0.00E+00 | 3.12E+03 |
| skeletonem costatum | 2.05E+04 | 5.45E+04 | 2.59E+05 | 1.50E+05 | 3.41E+05 |
| thalassios spp. | 3.51E+03 | 1.56E+03 | 7.79E+02 | 0.00E+00 | 0.00E+00 |
| thalassios spp. < 10 | 1.75E+03 | 1.56E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| thalassios rotula | 0.00E+00 | 1.56E+03 | 7.79E+02 | 0.00E+00 | 0.00E+00 |
| thalassios anguste-line | 5.84E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| thalassios aestivalis | 3.51E+03 | 7.01E+03 | 3.90E+03 | 4.67E+03 | 1.64E+04 |
| thalassios nordenskiold | 6.43E+03 | 1.64E+04 | 1.64E+04 | 1.48E+04 | 3.82E+04 |
| eucampia zoodiacus | 2.34E+03 | 3.12E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| chaetocero spp. cells | 5.84E+02 | 0.00E+00 | 7.79E+02 | 0.00E+00 | 1.56E+03 |
| chaetocero compressum | 0.00E+00 | 0.00E+00 | 3.12E+03 | 0.00E+00 | 0.00E+00 |
| chaetocero debile | 8.77E+03 | 3.35E+04 | 4.67E+03 | 0.00E+00 | 1.56E+03 |
| chaetocero decipiens | 6.43E+03 | 4.67E+03 | 7.79E+02 | 0.00E+00 | 0.00E+00 |
| chaetocero laciniosum | 0.00E+00 | 1.56E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| chaetocero radicans | 5.84E+03 | 1.09E+04 | 1.56E+03 | 0.00E+00 | 0.00E+00 |
| chaetocero socialis | 0.00E+00 | 7.79E+02 | 3.12E+03 | 0.00E+00 | 0.00E+00 |
| rhizosolen alata f.alata | 2.00E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| rhizosolen fragilissima | 5.20E+04 | 3.90E+04 | 4.29E+04 | 0.00E+00 | 6.86E+04 |
| rhizosolen setigera | 0.00E+00 | 1.00E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| rhizosolen stolterfothi | 1.17E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| thalassiot frauenfeldii | 5.84E+02 | 0.00E+00 | 4.00E+02 | 0.00E+00 | 2.00E+02 |
| thalassion nitzschoides | 1.52E+04 | 0.00E+00 | 1.40E+04 | 7.79E+02 | 2.42E+04 |
| gyrosigma spp. pleurosigma | 1.00E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| navicula spp. | 5.26E+03 | 5.45E+03 | 4.67E+03 | 7.79E+02 | 0.00E+00 |
| navicula wawrikae | 2.34E+03 | 1.56E+03 | 4.00E+02 | 0.00E+00 | 2.00E+02 |
| nitzschia spp. | 5.84E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| nitzschia delicatissim | 1.46E+04 | 3.90E+03 | 4.67E+03 | 0.00E+00 | 4.67E+03 |

| | | | | | |
|---|---|---|---|---|---|
| nitzschia pacifica | 0.00E+00 | 0.00E+00 | 1.56E+03 | 0.00E+00 | 0.00E+00 |
| nitzschia pungens | 2.92E+03 | 2.34E+03 | 0.00E+00 | 0.00E+00 | 1.00E+03 |
| nitzschia closteruim | 1.05E+04 | 3.12E+03 | 2.34E+03 | 7.79E+02 | 7.79E+02 |
| micromonas pusilla | 3.47E+06 | 6.71E+06 | 1.82E+06 | 1.87E+04 | 5.83E+05 |
| pyramimona spp. 3-8 | 0.00E+00 | 5.64E+04 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| tetraselmi spp. | 2.11E+04 | 2.82E+05 | 1.18E+04 | 0.00E+00 | 0.00E+00 |
| eutreptiel spp. | 5.84E+02 | 7.79E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| dinophycea spp. 5-15 | 5.84E+03 | 1.79E+04 | 5.45E+03 | 1.56E+03 | 3.12E+03 |
| prorocentr minimum | 0.00E+00 | 0.00E+00 | 2.96E+04 | 0.00E+00 | 0.00E+00 |
| prorocentr gracile | 0.00E+00 | 1.00E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| dinophysis ovum | 0.00E+00 | 2.00E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| gonyaulax triacantha | 0.00E+00 | 1.00E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| scripsiell sp.1 (small) | 1.17E+03 | 3.27E+04 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| gymnodiniu spp. 10-15 | 2.92E+03 | 2.49E+04 | 1.56E+03 | 0.00E+00 | 3.12E+03 |
| gymnodiniu spp. 15-20 | 7.01E+03 | 6.23E+03 | 7.79E+04 | 3.12E+03 | 2.34E+03 |
| gymnodiniu spp. 20-50 | 1.17E+03 | 4.60E+04 | 1.32E+04 | 7.79E+02 | 2.34E+03 |
| gymnodiniu spp. > 50 | 5.84E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.00E+02 |
| gymnodiniu simplex | 4.21E+04 | 5.64E+04 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| gyrodinium spp. | 2.92E+03 | 1.09E+04 | 4.67E+03 | 0.00E+00 | 7.79E+03 |
| katodinium rotundatum | 0.00E+00 | 7.01E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| torodinium robustum | 5.84E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| heterocaps triquetra | 5.84E+02 | 4.05E+04 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| micracanth spp. | 1.17E+03 | 7.01E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| cryptomona spp. 5-10 | 2.95E+05 | 5.64E+05 | 3.07E+05 | 4.68E+03 | 5.24E+04 |
| cryptomona spp. 10.1-15 | 2.11E+04 | 1.69E+05 | 9.43E+04 | 9.36E+03 | 2.62E+04 |
| cryptomona spp. 0-5 | 8.42E+05 | 1.24E+06 | 6.49E+05 | 4.68E+04 | 9.83E+04 |
| cryptomona spp. 20-25 | 2.11E+04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| flagellate spp. | 2.11E+05 | 1.13E+05 | 0.00E+00 | 0.00E+00 | 3.93E+04 |
| mesodinium rubrum | 2.34E+03 | 5.45E+03 | 3.90E+03 | 0.00E+00 | 7.79E+02 |

Cruise 88-05

Total Abundance (no./litre)

| Taxon | 21-3 | 21 4 | 21-5 | 27-6 |
|---|---|---|---|---|
| ochromonas spp. | 9.83E+03 | 1.97E+04 | 0.00E+00 | 4.91E+03 |
| dictyocha speculum | 2.00E+02 | 7.79E+02 | 7.79E+02 | 2.34E+03 |
| apedinella spinifera | 0.00E+00 | 0.00E+00 | 9.35E+03 | 2.46E+04 |
| dicrateria sp. | 2.16E+05 | 1.47E+05 | 2.48E+05 | 8.84E+04 |
| chrysochro spp. 0-5 | 2.41E+06 | 2.51E+06 | 1.86E+06 | 3.64E+05 |
| chrysochro spp. 6-10 | 9.83E+04 | 2.56E+05 | 3.18E+05 | 7.86E+04 |
| chrysochro spp. 10-15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.91E+03 |
| stephanopy nipponica | 0.00E+00 | 2.00E+02 | 0.00E+00 | 0.00E+00 |
| schroedere delicatula | 0.00E+00 | 0.00E+00 | 8.00E+02 | 0.00E+00 |
| leptocylin danicus | 0.00E+00 | 2.00E+02 | 3.12E+03 | 4.67E+03 |
| leptocylin minimus | 2.65E+04 | 3.74E+04 | 1.64E+04 | 1.56E+03 |
| skeletonem costatum | 1.57E+05 | 1.28E+05 | 5.90E+05 | 3.43E+04 |
| thalassios rotula | 7.79E+02 | 1.56E+03 | 1.56E+03 | 7.79E+02 |
| thalassios aestivalis | 9.35E+03 | 1.17E+04 | 7.79E+03 | 0.00E+00 |
| thalassios nordenskiold | 1.71E+04 | 1.64E+04 | 3.35E+04 | 6.23E+03 |
| eucampia zoodiacus | 0.00E+00 | 1.56E+03 | 0.00E+00 | 7.79E+02 |
| chaetocero spp. cells | 2.34E+03 | 7.79E+02 | 5.45E+03 | 2.34E+03 |
| chaetocero compressum | 4.67E+03 | 7.79E+02 | 0.00E+00 | 3.12E+03 |
| chaetocero concavicorne | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.00E+02 |
| chaetocero convolutum | 0.00E+00 | 1.80E+03 | 0.00E+00 | 0.00E+00 |
| chaetocero debile | 0.00E+00 | 4.67E+03 | 3.12E+04 | 4.21E+04 |
| chaetocero decipiens | 0.00E+00 | 1.00E+03 | 2.34E+03 | 1.56E+03 |
| chaetocero laciniosum | 0.00E+00 | 2.34E+03 | 7.79E+02 | 0.00E+00 |
| chaetocero radicans | 0.00E+00 | 0.00E+00 | 2.10E+04 | 1.09E+04 |
| chaetocero socialis | 0.00E+00 | 0.00E+00 | 1.48E+04 | 0.00E+00 |
| rhizosolen fragilissima | 1.22E+05 | 5.69E+04 | 5.45E+03 | 3.90E+03 |
| rhizosolen setigera | 6.00E+02 | 2.00E+02 | 0.00E+00 | 0.00E+00 |
| thalassiot frauenfeldii | 1.00E+03 | 6.00E+02 | 0.00E+00 | 0.00E+00 |
| thalassion nitzschoides | 2.96E+04 | 2.34E+04 | 3.90E+03 | 0.00E+00 |
| gyrosigma spp. pleurosigma | 2.00E+02 | 2.00E+02 | 0.00E+00 | 0.00E+00 |
| navicula spp. | 7.79E+02 | 2.34E+03 | 3.90E+05 | 7.79E+02 |
| navicula wawrikae | 8.00E+02 | 2.00E+02 | 4.00E+02 | 0.00E+00 |
| nitzschia spp. | 0.00E+00 | 0.00E+00 | 1.56E+03 | 0.00E+00 |
| nitzschia delicatissim | 4.67E+03 | 8.57E+03 | 4.67E+03 | 0.00E+00 |
| nitzschia pacifica | 0.00E+00 | 0.00E+00 | 3.12E+03 | 0.00E+00 |

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|---|---|---|---|---|
| nitzschia pungens | 3.12E+03 | 0.00E+00 | 0.00E+00 | 7.79E+02 |
| nitzschia closterium | 3.12E+03 | 9.35E+03 | 3.12E+03 | 7.79E+02 |
| micromonas pusilla | 9.34E+05 | 2.02E+06 | 1.91E+06 | 4.13E+05 |
| pyramimona spp. 3-8 | 0.00E+00 | 0.00E+00 | 1.18E+04 | 0.00E+00 |
| tetraselmi spp. | 9.83E+03 | 9.83E+03 | 7.08E+04 | 5.90E+04 |
| eutreptiel spp. | 7.79E+02 | 3.90E+03 | 3.90E+03 | 7.01E+03 |
| dinophycea spp. 5-15 | 7.79E+02 | 3.12E+03 | 3.12E+03 | 0.00E+00 |
| prorocentr minimum | 1.95E+04 | 3.12E+04 | 2.73E+04 | 2.26E+04 |
| dinophysis spp. | 2.00E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| dinophysis ovum | 0.00E+00 | 0.00E+00 | 2.00E+02 | 0.00E+00 |
| gonyaulax digitale | 0.00E+00 | 0.00E+00 | 8.00E+02 | 0.00E+00 |
| gonyaulax triacantha | 0.00E+00 | 0.00E+00 | 2.00E+02 | 0.00E+00 |
| scripsiell sp.1 (small) | 0.00E+00 | 0.00E+00 | 8.57E+03 | 6.23E+03 |
| gymnodiniu spp. 5-10 | 3.12E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| gymnodiniu spp. 10-15 | 2.34E+03 | 0.00E+00 | 9.35E+03 | 5.45E+03 |
| gymnodiniu spp. 15-20 | 0.00E+00 | 7.79E+03 | 5.45E+03 | 2.34E+03 |
| gymnodiniu spp. 20-50 | 1.56E+03 | 7.79E+02 | 2.03E+04 | 4.05E+04 |
| gymnodiniu spp. > 50 | 4.00E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| gymnodiniu simplex | 0.00E+00 | 1.56E+03 | 0.00E+00 | 0.00E+00 |
| gyrodinium spp. | 7.79E+02 | 8.57E+03 | 6.23E+03 | 3.90E+03 |
| katodinium rotundatum | 1.97E+04 | 0.00E+00 | 3.12E+03 | 1.48E+04 |
| torodinium robustum | 0.00E+00 | 0.00E+00 | 7.79E+02 | 0.00E+00 |
| heterocaps triquetra | 0.00E+00 | 0.00E+00 | 6.23E+03 | 2.10E+04 |
| micracanth spp. | 0.00E+00 | 0.00E+00 | 3.90E+03 | 6.23E+03 |
| cryptomona spp. 5-10 | 1.18E+05 | 1.77E+05 | 9.43E+04 | 6.39E+04 |
| cryptomona spp. 10.1-15 | 0.00E+00 | 6.88E+04 | 1.18E+05 | 3.93E+04 |
| cryptomona spp. 15.1-20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.91E+03 |
| cryptomona spp. 0-5 | 3.24E+05 | 5.11E+05 | 5.42E+05 | 2.70E+05 |
| cryptomona spp. 20-25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.91E+03 |
| flagellate spp. | 3.93E+04 | 1.97E+04 | 0.00E+00 | 0.00E+00 |
| mesodinium rubrum | 7.79E+02 | 1.56E+03 | 1.16E+05 | 1.09E+05 |

Cruise 88-05

Total Abundance (no./litre)

| Taxon | 28-2 | 28-3 | 28-5 |
|---|---|---|---|
| ochromonas spp. | 9.83E+03 | 9.83E+03 | 0.00E+00 |
| dictyocha speculum | 0.00E+00 | 0.00E+00 | 1.17E+03 |
| dicrateria sp. | 7.86E+04 | 1.38E+05 | 1.53E+05 |
| chrysochro spp. 0-5 | 1.33E+06 | 1.96E+06 | 2.64E+06 |
| chrysochro spp. 6-10 | 1.97E+05 | 2.16E+05 | 5.90E+05 |
| chrysochro spp. 10 15 | 0.00E+00 | 0.00E+00 | 3.54E+04 |
| stephanopy nipponica | 0.00E+00 | 0.00E+00 | 4.00E+02 |
| schroedere delicatula | 0.00E+00 | 1.56E+03 | 0.00E+00 |
| leptocylin minimus | 7.79E+03 | 4.75E+04 | 1.05E+05 |
| skeletonem costatum | 1.43E+05 | 8.45E+05 | 4.84E+05 |
| thalassios rotula | 0.00E+00 | 5.45E+03 | 3.51E+03 |
| thalassios aestivalis | 2.03E+04 | 1.64E+04 | 8.18E+03 |
| thalassios decipiens | 0.00E+00 | 2.00E+02 | 0.00E+00 |
| thalassios nordenskiold | 7.95E+04 | 3.19E+04 | 1.87E+04 |
| eucampia zoodiacus | 0.00E+00 | 7.79E+02 | 1.17E+03 |
| chaetocero spp. cells | 7.79E+02 | 3.12E+03 | 2.34E+03 |
| chaetocero compressum | 0.00E+00 | 6.23E+03 | 1.64E+04 |
| chaetocero convolutum | 0.00E+00 | 0.00E+00 | 2.00E+02 |
| chaetocero debile | 0.00E+00 | 2.34E+03 | 1.17E+03 |
| chaetocero decipiens | 0.00E+00 | 0.00E+00 | 1.75E+04 |
| chaetocero socialis | 0.00E+00 | 4.67E+03 | 4.67E+03 |
| rhizosolen fragilissima | 2.26E+05 | 9.72E+05 | 8.18E+05 |
| fragilaria spp. | 0.00E+00 | 0.00E+00 | 2.34E+03 |
| thalassiot frauenfeldii | 2.00E+02 | 3.90E+03 | 2.34E+03 |
| thalassion nitzschoides | 5.06E+04 | 3.19E+04 | 2.34E+04 |
| gyrosigma spp. pleurosigma | 0.00E+00 | 2.00E+02 | 2.00E+02 |
| navicula spp. | 2.34E+03 | 3.90E+03 | 8.18E+03 |
| navicula wawrikae | 0.00E+00 | 4.00E+02 | 1.20E+03 |
| nitzschia delicatissim | 5.45E+03 | 7.79E+03 | 2.92E+04 |
| nitzschia pacifica | 0.00E+00 | 0.00E+00 | 9.35E+03 |
| nitzschia pungens | 2.00E+02 | 4.67E+03 | 0.00E+00 |
| nitzschia closterium | 3.90E+03 | 4.67E+03 | 1.17E+04 |
| micromonas pusilla | 1.03E+06 | 1.05E+06 | 1.75E+06 |
| pyramimona spp. 3-8 | 0.00E+00 | 0.00E+00 | 2.36E+04 |
| tetraselmi spp. | 0.00E+00 | 5.90E+04 | 3.54E+04 |

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|---|---|---|---|
| eutreptiel spp. | 0.00E+00 | 7.79E+02 | 7.01E+03 |
| dinophycea spp. 5-15 | 7.79E+02 | 7.79E+02 | 1.17E+04 |
| prorocentr minimum | 1.09E+04 | 1.71E+04 | 1.17E+04 |
| prorocentr minimum v.balticum | 0.00E+00 | 0.00E+00 | 1.99E+04 |
| dinophysis ovum | 0.00E+00 | 0.00E+00 | 2.00E+02 |
| gonyaulax spinifera | 2.00E+02 | 0.00E+00 | 0.00E+00 |
| gymnodiniu spp. 10-15 | 4.67E+03 | 3.12E+03 | 9.35E+03 |
| gymnodiniu spp. 15-20 | 2.34E+03 | 0.00E+00 | 5.84E+03 |
| gymnodiniu spp. 20-50 | 0.00E+00 | 0.00E+00 | 8.18E+03 |
| gymnodiniu simplex | 0.00E+00 | 0.00E+00 | 2.10E+04 |
| gyrodinium spp. | 2.57E+04 | 5.45E+03 | 1.40E+04 |
| katodinium rotundatum | 1.56E+03 | 7.79E+02 | 3.54E+04 |
| heterocaps triquetra | 0.00E+00 | 0.00E+00 | 2.00E+02 |
| micracanth spp. | 0.00E+00 | 0.00E+00 | 4.67E+03 |
| cryptomona spp. 5-10 | 2.95E+04 | 1.57E+05 | 4.13E+05 |
| cryptomona spp. 10.1-15 | 9.83E+03 | 0.00E+00 | 3.30E+05 |
| cryptomona spp. 0-5 | 3.54E+05 | 5.60E+05 | 9.79E+05 |
| flagellate spp. | 2.95E+04 | 0.00E+00 | 0.00E+00 |
| mesodinium rubrum | 0.00E+00 | 7.79E+02 | 8.18E+03 |

Cruise 88-05

Total Abundance (no./litre)

| Taxon | 31A-1 | 31A-2 | 31A-3 | 31A-4 | 31A-5 |
|---|---|---|---|---|---|
| ochromonas spp. | 0.00E+00 | 1.28E+04 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| dinobryon spp. | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.88E+04 | 4.59E+04 |
| dictyocha speculum | 0.00E+00 | 0.00E+00 | 2.34E+03 | 7.79E+02 | 2.00E+02 |
| apedinella spinifera | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.97E+04 |
| corymbellu aureus | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.06E+05 | 0.00E+00 |
| dicrateria sp. | 8.52E+04 | 4.49E+04 | 7.86E+04 | 2.36E+05 | 9.83E+04 |
| chrysochro spp. 0-5 | 5.57E+05 | 8.59E+05 | 1.23E+06 | 1.20E+06 | 5.70E+05 |
| chrysochro spp. 6-10 | 5.90E+04 | 1.22E+05 | 1.28E+05 | 9.83E+04 | 1.18E+05 |
| chrysochro spp. 10-15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.55E+03 |
| stephanopy nipponica | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.80E+03 | 0.00E+00 |
| corethron criophilum | 0.00E+00 | 0.00E+00 | 2.00E+02 | 0.00E+00 | 0.00E+00 |
| leptocylin danicus | 0.00E+00 | 1.40E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| leptocylin minimus | 1.56E+03 | 0.00E+00 | 2.42E+04 | 3.12E+03 | 3.90E+03 |
| skeletonem costatum | 3.01E+05 | 1.79E+05 | 2.26E+05 | 5.53E+04 | 1.25E+04 |
| thalassios rotula | 0.00E+00 | 3.90E+03 | 7.79E+02 | 2.10E+04 | 7.79E+02 |
| thalassios aestivalis | 1.56E+03 | 5.45E+03 | 3.12E+03 | 1.06E+05 | 7.79E+02 |
| thalassios nordenskiold | 5.45E+03 | 4.67E+03 | 7.79E+03 | 1.83E+05 | 0.00E+00 |
| eucampia zoodiacus | 0.00E+00 | 0.00E+00 | 1.56E+03 | 1.56E+03 | 0.00E+00 |
| chaetocero spp. cells | 3.12E+03 | 7.79E+02 | 2.34E+03 | 3.90E+03 | 1.56E+03 |
| chaetocero affine | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.56E+03 | 0.00E+00 |
| chaetocero compressum | 1.56E+03 | 0.00E+00 | 5.45E+03 | 4.20E+03 | 0.00E+00 |
| chaetocero debile | 7.79E+02 | 0.00E+00 | 7.79E+02 | 1.73E+05 | 7.01E+03 |
| chaetocero laciniosum | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.56E+03 | 0.00E+00 |
| chaetocero pseudocrinit | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.01E+03 | 0.00E+00 |
| chaetocero radicans | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.01E+04 | 5.45E+03 |
| chaetocero socialis | 0.00E+00 | 0.00E+00 | 4.67E+03 | 7.79E+02 | 0.00E+00 |
| rhizosolen delicatula | 1.40E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| rhizosolen fragilissima | 1.32E+04 | 3.12E+03 | 2.26E+04 | 2.34E+03 | 2.34E+03 |
| rhizosolen setigera | 0.00E+00 | 2.00E+02 | 4.00E+02 | 0.00E+00 | 0.00E+00 |
| asterionel glacialis | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.79E+03 | 0.00E+00 |
| thalassion nitzschoides | 0.00E+00 | 7.79E+02 | 3.12E+03 | 0.00E+00 | 0.00E+00 |
| gyrosigma spp. pleurosigma | 2.00E+02 | 0.00E+00 | 2.00E+02 | 0.00E+00 | 0.00E+00 |
| navicula spp. | 0.00E+00 | 7.79E+02 | 1.56E+03 | 1.56E+03 | 2.00E+02 |
| navicula wawrikae | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.00E+02 | 0.00E+00 |
| nitzschia delicatissim | 9.35E+03 | 3.12E+03 | 5.45E+03 | 9.35E+03 | 0.00E+00 |

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|---|---|---|---|---|---|
| nitzschia pacifica | 0.00E+00 | 0.00E+00 | 7.79E+02 | 4.00E+02 | 4.00E+02 |
| nitzschia pungens | 4.00E+02 | 1.00E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| nitzschia closterium | 1.56E+03 | 0.00E+00 | 1.56E+03 | 0.00E+00 | 0.00E+00 |
| micromonas pusilla | 1.09E+06 | 5.96E+05 | 9.63E+05 | 2.60E+06 | 3.58E+06 |
| pyramimona spp. 3-8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.95E+04 | 3.28E+04 |
| tetraselmi spp. | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.62E+04 |
| eutreptiel spp. | 0.00E+00 | 0.00E+00 | 2.00E+02 | 2.34E+03 | 7.79E+02 |
| dinophycea spp. 5-15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.67E+03 | 3.12E+03 |
| prorocentr minimum | 0.00E+00 | 3.12E+03 | 3.12E+03 | 1.09E+04 | 5.45E+03 |
| prorocentr minimum v.balticum | 0.00E+00 | 0.00E+00 | 1.17E+04 | 2.10E+04 | 6.23E+03 |
| scripsiell sp.1 (small) | 0.00E+00 | 0.00E+00 | 7.79E+02 | 0.00E+00 | 1.56E+03 |
| gymnodiniu spp. 10-15 | 3.90E+03 | 2.34E+03 | 7.79E+03 | 3.12E+03 | 4.67E+03 |
| gymnodiniu spp. 15-20 | 1.56E+03 | 2.34E+03 | 7.79E+02 | 7.79E+03 | 7.79E+02 |
| gymnodiniu spp. 20-50 | 1.32E+04 | 3.90E+03 | 8.57E+03 | 7.79E+03 | 1.32E+04 |
| gymnodiniu spp. > 50 | 0.00E+00 | 0.00E+00 | 4.00E+02 | 0.00E+00 | 0.00E+00 |
| gymnodiniu simplex | 0.00E+00 | 0.00E+00 | 2.34E+03 | 7.79E+02 | 0.00E+00 |
| gyrodinium spp. | 9.35E+03 | 2.18E+04 | 8.57E+03 | 3.12E+03 | 1.56E+03 |
| katodinium rotundatum | 0.00E+00 | 7.79E+02 | 7.79E+02 | 0.00E+00 | 3.28E+04 |
| torodinium robustum | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.79E+02 | 0.00E+00 |
| heterocaps triquetra | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.67E+03 |
| micracanth spp. | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.56E+03 | 2.34E+03 |
| cryptomona spp. 5-10 | 6.55E+03 | 3.85E+04 | 1.28E+05 | 1.08E+05 | 1.31E+05 |
| cryptomona spp. 10.1-15 | 0.00E+00 | 0.00E+00 | 3.93E+04 | 9.83E+03 | 5.24E+04 |
| cryptomona spp. 0-5 | 7.21E+04 | 7.69E+04 | 2.75E+05 | 5.99E+05 | 6.09E+05 |
| flagellate spp. | 3.28E+04 | 2.56E+04 | 0.00E+00 | 2.95E+04 | 0.00E+00 |
| mesodinium rubrum | 1.56E+03 | 0.00E+00 | 7.79E+02 | 2.49E+04 | 3.19E+04 |

Cruise 88-05

Total Abundance (no./litre)

| Taxon | 34-1 | 34-2 | 34-3 | 34-4 | 41A-1 |
|---|---|---|---|---|---|
| ochromonas spp. | 7.80E+04 | 0.00E+00 | 0.00E+00 | 3.93E+04 | 0.00E+00 |
| dinobryon spp. | 0.00E+00 | 0.00E+00 | 9.51E+03 | 4.91E+04 | 0.00E+00 |
| dictyocha speculum | 0.00E+00 | 0.00E+00 | 7.79E+02 | 1.56E+03 | 0.00E+00 |
| apedinella spinifera | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.91E+04 | 0.00E+00 |
| dicrateria sp. | 6.94E+04 | 3.93E+04 | 2.76E+05 | 0.00E+00 | 2.46E+04 |
| chrysochro spp. 0-5 | 3.64E+05 | 9.34E+05 | 1.09E+06 | 6.78E+05 | 4.91E+04 |
| chrysochro spp. 6-10 | 8.67E+03 | 9.83E+04 | 1.62E+05 | 2.95E+04 | 0.00E+00 |
| schroedere delicatula | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.23E+03 | 0.00E+00 |
| leptocylin danicus | 7.79E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| leptocylin minimus | 2.34E+03 | 2.26E+04 | 7.79E+03 | 0.00E+00 | 0.00E+00 |
| skeletonem costatum | 1.48E+04 | 2.96E+04 | 1.62E+05 | 3.12E+03 | 0.00E+00 |
| thalassios spp. < 10 | 7.01E+03 | 1.01E+04 | 1.56E+03 | 0.00E+00 | 0.00E+00 |
| thalassios rotula | 0.00E+00 | 7.79E+02 | 2.10E+04 | 6.00E+02 | 0.00E+00 |
| thalassios aestivalis | 1.56E+03 | 4.67E+03 | 4.21E+04 | 3.12E+03 | 0.00E+00 |
| thalassios nordenskiold | 7.79E+02 | 7.79E+02 | 3.12E+04 | 1.25E+04 | 0.00E+00 |
| actinoptyc undulatus | 7.79E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| eucampia zoodiacus | 0.00E+00 | 0.00E+00 | 3.12E+03 | 0.00E+00 | 0.00E+00 |
| chaetocero spp. cells | 7.79E+02 | 0.00E+00 | 1.56E+03 | 0.00E+00 | 0.00E+00 |
| chaetocero affine | 0.00E+00 | 0.00E+00 | 2.34E+03 | 0.00E+00 | 0.00E+00 |
| chaetocero compressum | 0.00E+00 | 0.00E+00 | 1.25E+04 | 3.74E+04 | 0.00E+00 |
| chaetocero debile | 0.00E+00 | 1.01E+04 | 5.92E+04 | 5.30E+04 | 0.00E+00 |
| chaetocero decipiens | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.00E+02 | 0.00E+00 |
| chaetocero laciniosum | 0.00E+00 | 0.00E+00 | 4.00E+02 | 0.00E+00 | 0.00E+00 |
| chaetocero pseudocrinit | 0.00E+00 | 0.00E+00 | 1.56E+03 | 0.00E+00 | 0.00E+00 |
| chaetocero radicans | 0.00E+00 | 4.67E+03 | 7.01E+03 | 4.67E+03 | 0.00E+00 |
| chaetocero socialis | 0.00E+00 | 3.90E+03 | 2.34E+03 | 0.00E+00 | 0.00E+00 |
| rhizosolen delicatula | 4.67E+03 | 6.00E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| rhizosolen fragilissima | 3.12E+03 | 6.23E+03 | 1.25E+04 | 0.00E+00 | 0.00E+00 |
| rhizosolen setigera | 2.00E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| asterionel glacialis | 0.00E+00 | 0.00E+00 | 2.34E+03 | 0.00E+00 | 0.00E+00 |
| thalassion nitzschoides | 1.56E+03 | 4.67E+03 | 7.79E+02 | 0.00E+00 | 3.90E+02 |
| gyrosigma spp. pleurosigma | 4.00E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| navicula spp. | 0.00E+00 | 7.79E+02 | 1.56E+03 | 0.00E+00 | 0.00E+00 |
| navicula wawrikae | 0.00E+00 | 0.00E+00 | 2.00E+02 | 3.12E+03 | 0.00E+00 |
| nitzschia spp. | 1.56E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

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|---|---|---|---|---|---|
| nitzschia delicatissim | 9.35E+03 | 2.34E+03 | 7.79E+02 | 0.00E+00 | 0.00E+00 |
| nitzschia pacifica | 2.20E+03 | 0.00E+00 | 4.00E+02 | 8.00E+02 | 0.00E+00 |
| nitzschia seriata | 0.00E+00 | 8.00E+02 | 0.00E+00 | 3.12E+03 | 0.00E+00 |
| nitzschia closterium | 2.00E+02 | 2.34E+03 | 7.79E+03 | 0.00E+00 | 0.00E+00 |
| micromonas pusilla | 4.94E+05 | 1.36E+06 | 1.88E+06 | 5.80E+05 | 1.67E+05 |
| pyramimona spp. 3-8 | 8.67E+03 | 0.00E+00 | 9.51E+03 | 6.88E+04 | 0.00E+00 |
| tetraselmi spp. | 0.00E+00 | 0.00E+00 | 1.90E+04 | 9.83E+03 | 0.00E+00 |
| eutreptiel spp. | 1.56E+03 | 7.79E+02 | 0.00E+00 | 7.79E+03 | 0.00E+00 |
| dinophycea spp. 5-15 | 7.79E+02 | 3.12E+03 | 2.34E+03 | 6.23E+03 | 0.00E+00 |
| prorocentr minimum | 7.79E+02 | 1.01E+04 | 1.25E+04 | 6.23E+03 | 0.00E+00 |
| prorocentr minimum v.balticum | 0.00E+00 | 0.00E+00 | 1.56E+04 | 1.87E+04 | 0.00E+00 |
| prorocentr gracile | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.00E+02 | 0.00E+00 |
| dinophysis ovum | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.00E+02 | 0.00E+00 |
| alexandriu ostenfeldii | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.00E+02 | 0.00E+00 |
| scripsiell sp.1 (small) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.67E+03 | 0.00E+00 |
| gymnodiniu spp. 10-15 | 1.56E+03 | 0.00E+00 | 2.34E+03 | 1.09E+04 | 0.00E+00 |
| gymnodiniu spp. 15-20 | 0.00E+00 | 2.34E+03 | 3.90E+03 | 6.23E+03 | 3.90E+02 |
| gymnodiniu spp. 20-50 | 9.35E+03 | 5.45E+03 | 1.32E+04 | 3.43E+04 | 0.00E+00 |
| gymnodiniu spp. > 50 | 2.00E+02 | 4.00E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| gyrodinium spp. | 2.02E+04 | 1.79E+04 | 5.45E+03 | 9.35E+03 | 1.17E+03 |
| katodinium rotundatum | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.93E+04 | 0.00E+00 |
| heterocaps triquetra | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.96E+04 | 0.00E+00 |
| micracanth spp. | 0.00E+00 | 0.00E+00 | 7.79E+02 | 7.79E+03 | 0.00E+00 |
| protogonya catanella | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.00E+02 | 0.00E+00 |
| cryptomona spp. 5-10 | 4.34E+04 | 9.83E+04 | 1.14E+05 | 1.47E+05 | 7.37E+03 |
| cryptomona spp. 10.1-15 | 2.60E+04 | 1.97E+04 | 9.76E+04 | 6.88E+04 | 0.00E+00 |
| cryptomona spp. 15.1-20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.09E+04 | 0.00E+00 |
| cryptomona spp. 0-5 | 1.73E+04 | 1.67E+05 | 4.47E+05 | 4.91E+05 | 1.97E+04 |
| cryptomona spp. 20-25 | 0.00E+00 | 0.00E+00 | 9.51E+03 | 1.25E+04 | 0.00E+00 |
| mesodinium rubrum | 1.56E+03 | 0.00E+00 | 5.45E+03 | 4.83E+04 | 0.00E+00 |

Cruise 88-05

Total Abundance (no./litre)

| Taxon | 41A-2 | 41A-3 | 41A-4 | 41A-5 | 41A-6 |
|---|---|---|---|---|---|
| ochromonas spp. | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.76E+04 | 4.52E+05 |
| dinobryon spp. | 6.55E+03 | 0.00E+00 | 1.97E+04 | 9.51E+03 | 1.97E+04 |
| dictyocha speculum | 0.00E+00 | 0.00E+00 | 2.00E+02 | 0.00E+00 | 7.79E+02 |
| dicrateria sp. | 2.95E+04 | 1.47E+04 | 1.77E+05 | 1.43E+05 | 4.32E+05 |
| chrysochro spp. 0-5 | 4.59E+04 | 2.31E+05 | 1.16E+06 | 1.07E+06 | 1.81E+06 |
| chrysochro spp. 6-10 | 0.00E+00 | 9.83E+03 | 4.91E+04 | 1.19E+05 | 2.95E+05 |
| melosira moniliformis | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.00E+02 |
| stephanopy nipponica | 0.00E+00 | 0.00E+00 | 2.00E+02 | 0.00E+00 | 0.00E+00 |
| corethron criophilum | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.90E+03 | 0.00E+00 |
| leptocylin minimus | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.57E+03 | 0.00E+00 |
| skeletonem costatum | 3.60E+04 | 3.74E+04 | 2.49E+04 | 2.52E+05 | 6.72E+06 |
| thalassios spp. < 10 | 0.00E+00 | 5.45E+03 | 5.45E+03 | 7.40E+03 | 1.87E+04 |
| thalassios rotula | 0.00E+00 | 0.00E+00 | 4.67E+03 | 3.90E+03 | 0.00E+00 |
| thalassios anguste-line | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.00E+02 | 0.00E+00 |
| thalassios aestivalis | 0.00E+00 | 3.12E+03 | 7.79E+03 | 1.25E+04 | 0.00E+00 |
| thalassios decipiens | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.00E+02 | 0.00E+00 |
| thalassios nordenskiold | 3.90E+02 | 0.00E+00 | 3.12E+03 | 7.01E+03 | 7.01E+03 |
| thalassios eccentrica | 0.00E+00 | 0.00E+00 | 2.00E+02 | 0.00E+00 | 0.00E+00 |
| eucampia zoodiacus | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.90E+02 | 0.00E+00 |
| cerataulin pelagica | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.90E+02 | 0.00E+00 |
| chaetocero compressum | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.12E+03 | 0.00E+00 |
| chaetocero debile | 0.00E+00 | 0.00E+00 | 1.64E+04 | 1.17E+03 | 0.00E+00 |
| chaetocero socialis | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.12E+03 | 0.00E+00 |
| rhizosolen fragilissima | 0.00E+00 | 4.67E+03 | 7.79E+02 | 1.32E+04 | 0.00E+00 |
| fragilaria spp. | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.56E+03 |
| asterionel glacialis | 0.00E+00 | 7.79E+02 | 0.00E+00 | 2.73E+03 | 0.00E+00 |
| asterionel formosa | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.79E+02 |
| thalassion nitzschoides | 7.79E+02 | 2.34E+03 | 2.34E+03 | 2.34E+03 | 6.00E+04 |
| navicula spp. | 0.00E+00 | 0.00E+00 | 7.79E+02 | 1.17E+03 | 0.00E+00 |
| navicula wawrikae | 0.00E+00 | 0.00E+00 | 4.00E+02 | 7.79E+02 | 0.00E+00 |
| nitzschia delicatissim | 3.90E+02 | 7.79E+02 | 7.79E+02 | 0.00E+00 | 0.00E+00 |
| nitzschia pacifica | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.00E+02 | 0.00E+00 |
| nitzschia closterium | 5.00E+02 | 7.79E+02 | 3.90E+03 | 1.17E+03 | 0.00E+00 |
| micromonas pusilla | 2.29E+05 | 3.24E+05 | 1.32E+06 | 3.95E+05 | 1.10E+06 |
| pyramimona spp. 3-8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.76E+03 | 7.86E+04 |

| | | | | | |
|---|---|---|---|---|---|
| tetraselmi spp. | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.86E+04 |
| eutreptiel spp. | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.45E+03 |
| dinophycea spp. 5-15 | 3.90E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.48E+04 |
| prorocentr minimum | 0.00E+00 | 7.79E+02 | 1.56E+04 | 7.01E+03 | 1.32E+04 |
| prorocentr minimum v.balticum | 0.00E+00 | 0.00E+00 | 7.01E+03 | 3.90E+02 | 5.45E+03 |
| dinophysis ovum | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.00E+02 |
| gymnodiniu spp. 10-15 | 1.56E+03 | 1.56E+03 | 3.12E+03 | 1.95E+03 | 0.00E+00 |
| gymnodiniu spp. 15-20 | 0.00E+00 | 0.00E+00 | 3.12E+03 | 7.79E+02 | 0.00E+00 |
| gymnodiniu spp. 20-50 | 3.90E+02 | 7.79E+02 | 1.56E+03 | 3.12E+03 | 7.79E+02 |
| gymnodiniu spp. > 50 | 0.00E+00 | 0.00E+00 | 2.00E+02 | 0.00E+00 | 0.00E+00 |
| gyrodinium spp. | 9.83E+03 | 7.79E+02 | 3.90E+03 | 1.60E+04 | 0.00E+00 |
| katodinium rotundatum | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.38E+05 |
| torodinium robustum | 3.90E+02 | 0.00E+00 | 0.00E+00 | 3.90E+02 | 0.00E+00 |
| ceratium minutum | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.00E+02 |
| cryptomona spp. 5-10 | 6.55E+03 | 1.47E+04 | 6.88E+04 | 9.03E+04 | 1.67E+06 |
| cryptomona spp. 10.1-15 | 0.00E+00 | 4.91E+03 | 4.91E+04 | 4.76E+04 | 8.65E+05 |
| cryptomona spp. 15.1-20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.76E+03 | 3.93E+04 |
| cryptomona spp. 0-5 | 1.97E+04 | 5.41E+04 | 3.54E+05 | 1.90E+05 | 3.14E+05 |
| flagellate spp. | 0.00E+00 | 0.00E+00 | 9.83E+03 | 0.00E+00 | 0.00E+00 |
| mesodinium rubrum | 0.00E+00 | 0.00E+00 | 7.79E+02 | 0.00E+00 | 1.09E+04 |

Cruise 88-05

Total Abundance (no./litre)

| Taxon | 50-1 | 50-2 | 50-3 | 50-4 | 50-5 |
|---|---|---|---|---|---|
| dinobryon spp. | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.97E+04 |
| dictyocha speculum | 1.56E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.17E+03 |
| apedinella spinifera | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.84E+04 |
| dicrateria sp. | 1.97E+04 | 2.62E+04 | 1.28E+05 | 0.00E+00 | 2.46E+05 |
| chrysochro spp. 0-5 | 1.97E+05 | 1.64E+05 | 1.26E+06 | 0.00E+00 | 1.44E+06 |
| chrysochro spp. 6-10 | 0.00E+00 | 1.97E+04 | 8.84E+04 | 0.00E+00 | 2.65E+05 |
| chrysochro spp. 10-15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.97E+04 |
| paralia sulcata | 2.00E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| schroedere delicatula | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.67E+03 |
| leptocylin danicus | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.34E+03 |
| leptocylin minimus | 0.00E+00 | 0.00E+00 | 1.71E+04 | 0.00E+00 | 4.32E+04 |
| skeletonem costatum | 3.12E+03 | 8.57E+03 | 1.87E+04 | 0.00E+00 | 2.92E+04 |
| thalassios spp. < 10 | 1.79E+04 | 5.45E+03 | 7.01E+03 | 0.00E+00 | 7.01E+03 |
| thalassios rotula | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.17E+03 |
| thalassios aestivalis | 4.99E+04 | 4.67E+03 | 7.79E+02 | 0.00E+00 | 1.17E+03 |
| thalassios nordenskiold | 4.75E+04 | 3.12E+03 | 1.56E+03 | 0.00E+00 | 7.01E+03 |
| chaetocero compressum | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.64E+04 |
| chaetocero convolutum | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.80E+03 |
| chaetocero debile | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.17E+05 |
| chaetocero decipiens | 2.34E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.91E+05 |
| chaetocero laciniosum | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.67E+03 |
| chaetocero radicans | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.17E+03 |
| rhizosolen fragilissima | 7.79E+02 | 2.34E+03 | 8.57E+03 | 0.00E+00 | 5.84E+03 |
| asterionel glacialis | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.17E+03 |
| thalassion nitzschoides | 6.23E+03 | 3.12E+03 | 9.35E+03 | 0.00E+00 | 2.00E+02 |
| navicula spp. | 1.56E+03 | 0.00E+00 | 2.34E+03 | 0.00E+00 | 3.51E+03 |
| nitzschia delicatissim | 0.00E+00 | 7.79E+02 | 2.34E+03 | 0.00E+00 | 1.17E+04 |
| nitzschia pacifica | 0.00E+00 | 0.00E+00 | 7.79E+02 | 0.00E+00 | 9.35E+03 |
| nitzschia closterium | 3.90E+03 | 7.79E+02 | 1.56E+03 | 0.00E+00 | 1.05E+04 |
| micromonas pusilla | 7.67E+05 | 5.04E+05 | 1.21E+06 | 0.00E+00 | 4.76E+06 |
| pyramimona spp. 3-8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.77E+05 |
| tetraselmi spp. | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.88E+04 |
| eutreptiel spp. | 0.00E+00 | 2.00E+02 | 0.00E+00 | 0.00E+00 | 1.17E+04 |
| dinophycea spp. 5-15 | 2.34E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.35E+03 |
| prorocentr minimum | 1.56E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.35E+03 |

| | | | | | |
|---|---|---|---|---|---|
| prorocentr minimum v.balticum | 0.00E+00 | 0.00E+00 | 7.79E+02 | 0.00E+00 | 1.06E+05 |
| dinophysis ovum | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.00E+02 |
| gonyaulax digitale | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.00E+02 |
| gonyaulax triacantha | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.00E+02 |
| scripsiell sp.1 (small) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.51E+03 |
| gymnodiniu spp. 10-15 | 6.23E+03 | 3.12E+03 | 0.00E+00 | 0.00E+00 | 1.64E+04 |
| gymnodiniu spp. 15 20 | 0.00E+00 | 1.56E+03 | 3.12E+03 | 0.00E+00 | 1.17E+04 |
| gymnodiniu spp. 20 50 | 4.00E+02 | 7.79E+02 | 3.12E+03 | 0.00E+00 | 8.18E+03 |
| gymnodiniu spp. > 50 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.00E+02 |
| gymnodiniu simplex | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.22E+04 |
| gyrodinium spp. | 1.56E+03 | 6.23E+03 | 9.35E+03 | 0.00E+00 | 7.01E+03 |
| katodinium rotundatum | 0.00E+00 | 0.00E+00 | 1.56E+03 | 0.00E+00 | 2.34E+03 |
| heterocaps triquetra | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.84E+03 |
| micracanth spp. | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.01E+03 |
| ceratium fusus | 2.34E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| ceratium minutum | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.00E+02 |
| cryptomona spp. 5-10 | 1.31E+04 | 6.55E+03 | 3.93E+04 | 0.00E+00 | 8.84E+04 |
| cryptomona spp. 10.1-15 | 0.00E+00 | 0.00E+00 | 1.97E+04 | 0.00E+00 | 1.77E+05 |
| cryptomona spp. 0-5 | 1.31E+04 | 2.62E+04 | 1.87E+05 | 0.00E+00 | 2.36E+05 |
| cryptomona spp. 20-25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.97E+04 |
| cryptomona spp. 25 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.93E+04 |
| mesodinium rubrum | 2.00E+02 | 7.79E+02 | 4.67E+03 | 0.00E+00 | 9.35E+03 |

Cruise 88-05

Total Abundance (no./litre)

| Taxon | 50-6 | 63-1 | 63-2 | 63-4 | 63-5 |
|---|---|---|---|---|---|
| ochromonas spp. | 0.00E+00 | 6.27E+03 | 0.00E+00 | 1.57E+04 | 0.00E+00 |
| dinobryon spp. | 5.90E+04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.31E+04 |
| dictyocha speculum | 2.34E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| apedinella spinifera | 2.95E+04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| dicrateria sp. | 4.91E+04 | 1.25E+04 | 2.62E+04 | 5.50E+04 | 3.93E+04 |
| chrysochro spp. 0-5 | 9.34E+05 | 7.53E+04 | 8.52E+04 | 1.34E+05 | 2.69E+05 |
| chrysochro spp. 6-10 | 6.88E+04 | 1.25E+04 | 6.55E+03 | 1.84E+04 | 0.00E+00 |
| chrysochro spp. 10-15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.93E+03 | 0.00E+00 |
| paralia sulcata | 0.00E+00 | 2.00E+03 | 7.00E+02 | 0.00E+00 | 0.00E+00 |
| schroedere delicatula | 1.56E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| leptocylin minimus | 5.45E+03 | 7.79E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| skeletonem costatum | 1.99E+06 | 5.65E+04 | 6.22E+04 | 1.95E+03 | 0.00E+00 |
| thalassios spp. < 10 | 2.34E+03 | 7.01E+03 | 1.56E+03 | 1.95E+03 | 3.12E+03 |
| thalassios aestivalis | 3.12E+03 | 9.35E+03 | 3.90E+03 | 2.34E+03 | 1.56E+03 |
| thalassios nordenskiold | 9.35E+03 | 1.32E+04 | 1.21E+04 | 4.67E+03 | 1.56E+03 |
| chaetocero compressum | 2.49E+04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.56E+03 |
| chaetocero debile | 7.40E+04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| chaetocero decipiens | 6.93E+04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| chaetocero laciniosum | 3.12E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| chaetocero pseudocrinit | 4.67E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| chaetocero radicans | 2.03E+04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| chaetocero socialis | 3.90E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| rhizosolen fragilissima | 3.12E+03 | 1.56E+03 | 0.00E+00 | 7.79E+02 | 6.23E+03 |
| thalassion nitzschoides | 1.56E+03 | 7.79E+02 | 7.79E+02 | 7.79E+02 | 7.01E+03 |
| navicula spp. | 1.56E+03 | 0.00E+00 | 0.00E+00 | 3.90E+02 | 7.79E+02 |
| navicula wawrikae | 0.00E+00 | 0.00E+00 | 1.00E+02 | 0.00E+00 | 0.00E+00 |
| nitzschia delicatissim | 7.79E+02 | 2.34E+03 | 0.00E+00 | 0.00E+00 | 1.56E+03 |
| nitzschia pacifica | 7.79E+02 | 0.00E+00 | 3.90E+02 | 0.00E+00 | 0.00E+00 |
| nitzschia closterium | 3.12E+03 | 4.67E+03 | 3.90E+02 | 1.17E+03 | 1.56E+03 |
| micromonas pusilla | 4.01E+06 | 5.77E+05 | 3.44E+05 | 3.46E+05 | 3.54E+05 |
| pyramimona spp. 3-8 | 3.93E+04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| tetraselmi spp. | 1.97E+04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| eutreptiel spp. | 2.34E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| dinophycea spp. 5-15 | 7.79E+03 | 0.00E+00 | 2.73E+03 | 3.90E+02 | 7.79E+02 |
| prorocentr minimum | 3.27E+04 | 3.90E+03 | 1.95E+03 | 1.95E+03 | 0.00E+00 |

| | | | | | |
|---|---|---|---|---|---|
| prorocentr minimum v.balticum | 1.56E+04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| prorocentr gracile | 7.79E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| dinophysis ovum | 8.00E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| gonyaulax spinifera | 4.00E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| alexandriu ostenfeldii | 6.00E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| scripsiell sp.1 (small) | 2.34E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| gymnodiniu spp. 10-15 | 3.90E+03 | 6.23E+03 | 7.79E+02 | 1.56E+03 | 5.45E+03 |
| gymnodiniu spp. 15-20 | 5.45E+03 | 8.57E+03 | 3.90E+02 | 3.90E+02 | 0.00E+00 |
| gymnodiniu spp. 20-50 | 2.88E+04 | 3.12E+03 | 1.17E+03 | 7.79E+02 | 0.00E+00 |
| gymnodiniu simplex | 7.79E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| gyrodinium spp. | 9.35E+03 | 3.90E+03 | 3.51E+03 | 7.40E+03 | 1.17E+04 |
| katodinium rotundatum | 9.83E+03 | 0.00E+00 | 0.00E+00 | 3.90E+02 | 7.79E+02 |
| heterocaps triquetra | 6.39E+04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| micracanth spp. | 1.17E+04 | 0.00E+00 | 3.90E+02 | 0.00E+00 | 0.00E+00 |
| cryptomona spp. 5-10 | 1.67E+05 | 1.25E+04 | 6.55E+03 | 7.86E+03 | 0.00E+00 |
| cryptomona spp. 10.1-15 | 8.84E+04 | 6.27E+03 | 3.28E+03 | 7.86E+03 | 0.00E+00 |
| cryptomona spp. 15.1-20 | 9.83E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| cryptomona spp. 0-5 | 4.82E+05 | 5.02E+04 | 2.29E+04 | 2.75E+04 | 3.28E+04 |
| flagellate spp. | 9.83E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| mesodinium rubrum | 1.17E+04 | 7.79E+02 | 0.00E+00 | 7.79E+02 | 3.12E+03 |

Cruise 88-05

Total Abundance (no./litre)

| Taxon | 63-7 | 63-8 | 63-9 | 66-3 | 66-4 |
|---|---|---|---|---|---|
| ochromonas spp. | 9.83E+03 | 3.93E+04 | 4.91E+04 | 6.55E+03 | 1.97E+04 |
| dinobryon spp. | 0.00E+00 | 0.00E+00 | 1.97E+04 | 0.00E+00 | 9.83E+03 |
| dictyocha speculum | 0.00E+00 | 2.00E+02 | 1.56E+03 | 0.00E+00 | 0.00E+00 |
| apedinella spinifera | 0.00E+00 | 1.08E+05 | 3.93E+04 | 0.00E+00 | 0.00E+00 |
| dicrateria sp. | 1.67E+05 | 2.46E+05 | 3.24E+05 | 1.97E+04 | 9.83E+03 |
| chrysochro spp. 0-5 | 5.26E+05 | 6.19E+05 | 8.55E+05 | 9.17E+04 | 8.19E+04 |
| chrysochro spp. 6-10 | 2.46E+04 | 8.84E+04 | 2.16E+05 | 1.31E+04 | 1.97E+04 |
| leptocylin danicus | 0.00E+00 | 1.20E+03 | 3.12E+03 | 0.00E+00 | 0.00E+00 |
| leptocylin minimus | 2.34E+03 | 1.17E+04 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| skeletonem costatum | 0.00E+00 | 9.83E+04 | 1.32E+06 | 6.23E+03 | 4.32E+05 |
| thalassios spp. < 10 | 2.34E+03 | 0.00E+00 | 0.00E+00 | 1.25E+04 | 1.32E+04 |
| thalassios aestivalis | 0.00E+00 | 0.00E+00 | 7.79E+02 | 4.67E+03 | 2.42E+04 |
| thalassios nordenskiold | 2.73E+03 | 2.34E+03 | 5.45E+03 | 1.87E+04 | 3.00E+04 |
| coscinodis radiatus | 0.00E+00 | 2.00E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| cerataulin pelagica | 0.00E+00 | 7.79E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| chaetocero compressum | 0.00E+00 | 1.64E+04 | 7.17E+04 | 0.00E+00 | 0.00E+00 |
| chaetocero constrictum | 0.00E+00 | 0.00E+00 | 1.09E+04 | 0.00E+00 | 0.00E+00 |
| chaetocero debile | 2.34E+03 | 5.06E+04 | 5.30E+04 | 0.00E+00 | 0.00E+00 |
| chaetocero decipiens | 0.00E+00 | 3.27E+04 | 6.47E+04 | 0.00E+00 | 0.00E+00 |
| chaetocero laciniosum | 0.00E+00 | 7.79E+02 | 6.23E+03 | 0.00E+00 | 0.00E+00 |
| chaetocero pseudocrinit | 0.00E+00 | 3.12E+03 | 3.12E+03 | 0.00E+00 | 0.00E+00 |
| chaetocero radicans | 0.00E+00 | 0.00E+00 | 9.35E+03 | 0.00E+00 | 0.00E+00 |
| chaetocero socialis | 0.00E+00 | 0.00E+00 | 3.90E+03 | 0.00E+00 | 0.00E+00 |
| rhizosolen delicatula | 0.00E+00 | 7.79E+02 | 9.35E+03 | 0.00E+00 | 0.00E+00 |
| rhizosolen fragilissima | 4.67E+03 | 7.79E+02 | 1.56E+03 | 0.00E+00 | 0.00E+00 |
| asterionel glacialis | 0.00E+00 | 3.90E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| thalassion nitzschoides | 1.95E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.34E+03 |
| navicula spp. | 0.00E+00 | 7.79E+02 | 7.79E+02 | 0.00E+00 | 3.90E+02 |
| nitzschia delicatissim | 3.90E+02 | 3.12E+03 | 0.00E+00 | 0.00E+00 | 1.95E+03 |
| nitzschia pacifica | 0.00E+00 | 7.01E+03 | 4.67E+03 | 0.00E+00 | 0.00E+00 |
| nitzschia closterium | 1.17E+03 | 6.23E+03 | 4.67E+03 | 0.00E+00 | 7.79E+02 |
| micromonas pusilla | 6.14E+05 | 2.08E+06 | 4.32E+05 | 2.23E+05 | 3.28E+04 |
| pyramimona spp. 3-8 | 0.00E+00 | 7.86E+04 | 5.90E+04 | 0.00E+00 | 0.00E+00 |
| tetraselmi spp. | 0.00E+00 | 0.00E+00 | 1.97E+04 | 0.00E+00 | 0.00E+00 |
| eutreptiel spp. | 3.90E+02 | 1.01E+04 | 2.34E+03 | 0.00E+00 | 0.00E+00 |

| | | | | | |
|---|---|---|---|---|---|
| dinophycea spp. 5-15 | 1.56E+03 | 4.67E+03 | 3.90E+03 | 1.56E+03 | 1.17E+03 |
| prorocentr minimum | 1.56E+03 | 1.56E+04 | 1.95E+04 | 0.00E+00 | 0.00E+00 |
| prorocentr minimum v.balticum | 0.00E+00 | 8.18E+04 | 4.60E+04 | 0.00E+00 | 0.00E+00 |
| prorocentr gracile | 0.00E+00 | 0.00E+00 | 7.79E+02 | 0.00E+00 | 0.00E+00 |
| dinophysis ovum | 0.00E+00 | 0.00E+00 | 4.00E+02 | 0.00E+00 | 0.00E+00 |
| dinophysis infundibulum | 0.00E+00 | 0.00E+00 | 2.00E+02 | 0.00E+00 | 0.00E+00 |
| gonyaulax digitale | 0.00E+00 | 0.00E+00 | 2.00E+02 | 0.00E+00 | 0.00E+00 |
| gonyaulax triacantha | 0.00E+00 | 0.00E+00 | 6.00E+02 | 0.00E+00 | 0.00E+00 |
| alexandriu ostenfeldii | 0.00E+00 | 0.00E+00 | 1.00E+03 | 0.00E+00 | 0.00E+00 |
| scripsiell sp.1 (small) | 0.00E+00 | 0.00E+00 | 1.56E+03 | 0.00E+00 | 0.00E+00 |
| gymnodiniu spp. 10-15 | 3.90E+02 | 1.56E+03 | 8.57E+03 | 3.12E+03 | 8.57E+03 |
| gymnodiniu spp. 15-20 | 1.95E+03 | 8.57E+03 | 7.79E+02 | 7.79E+02 | 7.79E+03 |
| gymnodiniu spp. 20-50 | 1.56E+03 | 2.34E+03 | 1.56E+04 | 0.00E+00 | 1.95E+03 |
| gymnodiniu spp. > 50 | 0.00E+00 | 7.79E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| gymnodiniu simplex | 1.95E+03 | 3.93E+04 | 1.25E+04 | 0.00E+00 | 0.00E+00 |
| gyrodinium spp. | 1.60E+04 | 7.79E+03 | 9.35E+03 | 9.35E+03 | 1.17E+04 |
| katodinium rotundatum | 0.00E+00 | 1.97E+04 | 0.00E+00 | 1.56E+03 | 0.00E+00 |
| heterocaps triquetra | 0.00E+00 | 2.34E+03 | 3.66E+04 | 0.00E+00 | 0.00E+00 |
| micracanth spp. | 0.00E+00 | 2.34E+03 | 3.12E+03 | 0.00E+00 | 0.00E+00 |
| ceratium minutum | 0.00E+00 | 0.00E+00 | 6.00E+02 | 0.00E+00 | 0.00E+00 |
| cryptomona spp. 5-10 | 3.44E+04 | 2.95E+04 | 1.08E+05 | 0.00E+00 | 1.31E+04 |
| cryptomona spp. 10.1-15 | 9.83E+03 | 5.90E+04 | 3.93E+04 | 0.00E+00 | 0.00E+00 |
| cryptomona spp. 15.1-20 | 4.91E+03 | 4.91E+04 | 9.83E+03 | 0.00E+00 | 0.00E+00 |
| cryptomona spp. 0-5 | 9.34E+04 | 1.77E+05 | 2.56E+05 | 0.00E+00 | 0.00E+00 |
| cryptomona spp. 20-25 | 0.00E+00 | 3.90E+03 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| mesodinium rubrum | 7.40E+03 | 1.95E+04 | 3.74E+04 | 0.00E+00 | 0.00E+00 |

Cruise 88-05

Total Abundance (no./litre)

| Taxon | 66-5 | 66-6 | 66-7 | 66-8 | 66-9 |
|---|---|---|---|---|---|
| ochromonas spp. | 0.00E+00 | 0.00E+00 | 6.55E+03 | 0.00E+00 | 0.00E+00 |
| dinobryon spp. | 1.88E+04 | 6.55E+03 | 6.55E+03 | 0.00E+00 | 3.54E+04 |
| dictyocha speculum | 0.00E+00 | 4.00E+02 | 0.00E+00 | 0.00E+00 | 1.87E+03 |
| apedinella spinifera | 0.00E+00 | 7.79E+02 | 0.00E+00 | 0.00E+00 | 4.72E+04 |
| dicrateria sp. | 5.65E+04 | 2.62E+04 | 3.93E+04 | 3.44E+05 | 4.60E+05 |
| chrysochro spp. 0-5 | 4.27E+05 | 2.03E+05 | 4.00E+05 | 1.15E+06 | 1.43E+06 |
| chrysochro spp. 6-10 | 5.65E+04 | 1.97E+04 | 5.24E+04 | 9.83E+04 | 2.00E+05 |
| chrysochro spp. 10-15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.18E+04 |
| melosira moniliformis | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.87E+03 |
| stephanopy nipponica | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.00E+02 |
| leptocylin danicus | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.00E+03 | 5.61E+03 |
| leptocylin minimus | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.80E+03 |
| skeletonem costatum | 6.90E+04 | 1.90E+05 | 1.17E+04 | 3.12E+03 | 2.95E+05 |
| thalassios spp. < 10 | 1.09E+04 | 7.01E+03 | 7.01E+03 | 1.09E+04 | 5.61E+03 |
| thalassios rotula | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.00E+02 | 0.00E+00 |
| thalassios aestivalis | 7.79E+02 | 5.45E+03 | 2.34E+03 | 6.23E+03 | 0.00E+00 |
| thalassios nordenskiold | 1.17E+04 | 4.67E+03 | 2.34E+03 | 7.79E+02 | 9.35E+02 |
| coscinodis radiatus | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.00E+02 | 0.00E+00 |
| chaetocero compressum | 0.00E+00 | 2.34E+03 | 5.45E+03 | 1.32E+04 | 2.24E+04 |
| chaetocero constrictum | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.61E+03 |
| chaetocero convolutum | 0.00E+00 | 0.00E+00 | 2.00E+02 | 2.00E+02 | 2.00E+02 |
| chaetocero debile | 0.00E+00 | 3.12E+03 | 3.90E+03 | 1.17E+04 | 6.83E+04 |
| chaetocero decipiens | 2.00E+02 | 1.56E+03 | 0.00E+00 | 2.96E+04 | 8.32E+04 |
| chaetocero gracile | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.35E+02 |
| chaetocero laciniosum | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.56E+03 | 1.03E+04 |
| chaetocero pseudocrinit | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.79E+02 | 1.40E+04 |
| chaetocero radicans | 0.00E+00 | 0.00E+00 | 1.56E+03 | 0.00E+00 | 1.87E+03 |
| chaetocero septentriona | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.56E+03 | 0.00E+00 |
| rhizosolen fragilissima | 5.45E+03 | 2.34E+03 | 7.79E+02 | 0.00E+00 | 9.35E+02 |
| asterionel glacialis | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.87E+03 |
| thalassiot frauenfeldii | 2.00E+02 | 4.00E+02 | 0.00E+00 | 6.00E+02 | 0.00E+00 |
| thalassion nitzschoides | 1.01E+04 | 3.12E+03 | 1.56E+03 | 2.34E+03 | 4.00E+02 |
| navicula spp. | 0.00E+00 | 7.79E+02 | 7.79E+02 | 3.12E+03 | 0.00E+00 |
| nitzschia spp. | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.35E+02 |
| nitzschia delicatissim | 7.79E+02 | 2.34E+03 | 0.00E+00 | 3.12E+03 | 0.00E+00 |

| | | | | | |
|---|---|---|---|---|---|
| nitzschia pacifica | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.45E+03 | 3.74E+03 |
| nitzschia closterium | 1.56E+03 | 4.67E+03 | 3.12E+03 | 7.01E+03 | 5.61E+03 |
| micromonas pusilla | 5.71E+05 | 1.90E+05 | 3.80E+05 | 2.59E+06 | 1.82E+06 |
| pyramimona spp. 3-8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.18E+04 |
| tetraselmi spp. | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.54E+04 |
| eutreptiel spp. | 0.00E+00 | 0.00E+00 | 2.00E+02 | 0.00E+00 | 1.59E+04 |
| dinophycea spp. 5-15 | 0.00E+00 | 7.79E+02 | 1.56E+03 | 0.00E+00 | 6.54E+03 |
| prorocentr minimum | 0.00E+00 | 2.34E+03 | 7.79E+02 | 7.01E+03 | 1.68E+04 |
| prorocentr minimum v.balticum | 0.00E+00 | 3.12E+03 | 1.56E+03 | 2.57E+04 | 8.13E+04 |
| prorocentr gracile | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.00E+02 |
| dinophysis spp. | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.00E+02 | 0.00E+00 |
| gonyaulax digitale | 0.00E+00 | 2.00E+02 | 0.00E+00 | 0.00E+00 | 4.00E+02 |
| gonyaulax triacantha | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.00E+02 |
| alexandriu ostenfeldii | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.00E+02 |
| scripsiell sp.1 (small) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.35E+02 |
| gymnodiniu spp. 10-15 | 1.09E+04 | 7.79E+02 | 2.34E+03 | 4.67E+03 | 4.67E+03 |
| gymnodiniu spp. 15-20 | 7.79E+02 | 7.79E+02 | 0.00E+00 | 7.01E+03 | 7.48E+03 |
| gymnodiniu spp. 20-50 | 0.00E+00 | 2.00E+02 | 7.79E+02 | 0.00E+00 | 2.52E+04 |
| gymnodiniu spp. > 50 | 2.00E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| gymnodiniu simplex | 0.00E+00 | 1.56E+03 | 0.00E+00 | 7.79E+02 | 1.87E+03 |
| gyrodinium spp. | 1.40E+04 | 1.17E+04 | 7.79E+03 | 1.47E+04 | 1.22E+04 |
| katodinium rotundatum | 1.56E+03 | 6.55E+03 | 0.00E+00 | 1.56E+03 | 1.18E+04 |
| torodinium robustum | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.00E+02 | 0.00E+00 |
| heterocaps triquetra | 0.00E+00 | 1.56E+03 | 0.00E+00 | 0.00E+00 | 1.50E+04 |
| micracanth spp. | 0.00E+00 | 7.79E+02 | 0.00E+00 | 7.79E+02 | 1.03E+04 |
| cryptomona spp. 5-10 | 1.25E+04 | 1.97E+04 | 1.97E+04 | 1.80E+05 | 1.30E+05 |
| cryptomona spp. 10.1-15 | 6.27E+03 | 1.31E+04 | 1.31E+04 | 6.55E+04 | 9.43E+04 |
| cryptomona spp. 15.1-20 | 0.00E+00 | 0.00E+00 | 7.79E+02 | 1.56E+03 | 0.00E+00 |
| cryptomona spp. 0-5 | 4.39E+04 | 0.00E+00 | 5.90E+04 | 4.75E+05 | 3.07E+05 |
| cryptomona spp. 20-25 | 0.00E+00 | 7.79E+02 | 0.00E+00 | 7.01E+03 | 1.18E+04 |
| cryptomona spp. 25-30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.18E+04 |
| mesodinium rubrum | 1.56E+03 | 4.67E+03 | 2.34E+03 | 3.58E+04 | 5.61E+04 |

Cruise 88-05

Total Abundance (no./litre)

| Taxon | 95-3 | 95-4 | 95-5 | 98-4 |
|---|---|---|---|---|
| ochromonas spp. | 2.31E+04 | 0.00E+00 | 0.00E+00 | 2.62E+04 |
| dinobryon spp. | 5.78E+03 | 3.93E+04 | 1.97E+04 | 6.55E+03 |
| dictyocha speculum | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.87E+03 |
| apedinella spinifera | 0.00E+00 | 6.55E+03 | 0.00E+00 | 1.97E+04 |
| dicrateria sp. | 5.78E+03 | 4.59E+04 | 4.91E+04 | 2.49E+05 |
| chrysochro spp. 0-5 | 1.10E+05 | 4.06E+05 | 4.52E+05 | 6.29E+05 |
| chrysochro spp. 6-10 | 1.73E+04 | 2.10E+05 | 0.00E+00 | 1.64E+05 |
| schroedere delicatula | 0.00E+00 | 7.79E+02 | 0.00E+00 | 0.00E+00 |
| leptocylin danicus | 3.12E+03 | 2.26E+04 | 0.00E+00 | 3.74E+03 |
| leptocylin minimus | 0.00E+00 | 3.43E+04 | 1.87E+04 | 0.00E+00 |
| skeletonem costatum | 9.90E+04 | 5.14E+04 | 1.39E+05 | 1.87E+03 |
| thalassios spp. < 10 | 0.00E+00 | 7.79E+02 | 0.00E+00 | 5.61E+03 |
| thalassios anguste-line | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.87E+03 |
| thalassios aestivalis | 1.56E+03 | 1.56E+03 | 0.00E+00 | 1.87E+03 |
| thalassios nordenskiold | 1.56E+03 | 0.00E+00 | 0.00E+00 | 1.87E+03 |
| coscinodis spp. | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.00E+02 |
| chaetocero compressum | 3.51E+04 | 4.77E+05 | 2.96E+05 | 1.08E+05 |
| chaetocero constrictum | 0.00E+00 | 1.87E+04 | 3.51E+03 | 1.40E+04 |
| chaetocero convolutum | 0.00E+00 | 2.00E+02 | 0.00E+00 | 2.00E+02 |
| chaetocero debile | 9.44E+05 | 4.18E+05 | 2.46E+05 | 1.26E+05 |
| chaetocero decipiens | 3.90E+04 | 1.17E+04 | 5.84E+03 | 5.61E+03 |
| chaetocero laciniosum | 0.00E+00 | 4.00E+02 | 1.87E+04 | 0.00E+00 |
| chaetocero pseudocrinit | 8.00E+02 | 3.51E+04 | 3.62E+04 | 3.55E+04 |
| chaetocero radicans | 4.67E+03 | 3.19E+04 | 1.01E+05 | 7.76E+04 |
| chaetocero septentriona | 7.79E+02 | 1.56E+03 | 0.00E+00 | 1.87E+03 |
| chaetocero socialis | 4.21E+04 | 2.57E+04 | 1.17E+03 | 4.67E+03 |
| rhizosolen fragilissima | 3.90E+03 | 1.56E+03 | 2.34E+03 | 6.54E+03 |
| rhizosolen setigera | 0.00E+00 | 2.00E+02 | 0.00E+00 | 0.00E+00 |
| asterionel glacialis | 0.00E+00 | 1.56E+03 | 3.51E+03 | 0.00E+00 |
| thalassiot frauenfeldii | 0.00E+00 | 1.20E+03 | 0.00E+00 | 0.00E+00 |
| thalassion nitzschoides | 0.00E+00 | 2.00E+02 | 0.00E+00 | 8.41E+03 |
| navicula spp. | 1.56E+03 | 0.00E+00 | 0.00E+00 | 1.87E+03 |
| navicula wawrikae | 2.00E+02 | 2.00E+02 | 0.00E+00 | 0.00E+00 |
| nitzschia spp. | 0.00E+00 | 1.56E+03 | 0.00E+00 | 0.00E+00 |
| nitzschia delicatissim | 3.12E+03 | 8.57E+03 | 1.17E+03 | 4.67E+03 |

| | | | | |
|---|---|---|---|---|
| nitzschia pacifica | 4.00E+02 | 1.71E+04 | 2.20E+03 | 6.54E+03 |
| nitzschia closterium | 3.90E+03 | 5.45E+03 | 2.34E+03 | 4.67E+03 |
| micromonas pusilla | 1.85E+05 | 5.70E+05 | 1.13E+06 | 4.39E+05 |
| pyramimona spp. 3-8 | 7.51E+04 | 5.24E+04 | 1.97E+04 | 8.52E+04 |
| tetraselmi spp. | 0.00E+00 | 0.00E+00 | 2.95E+04 | 4.59E+04 |
| eutreptiel spp. | 0.00E+00 | 4.67E+03 | 4.67E+03 | 0.00E+00 |
| dinophycea spp. 5-15 | 1.56E+03 | 4.67E+03 | 2.34E+03 | 7.48E+03 |
| prorocentr minimum | 2.34E+03 | 2.34E+03 | 1.05E+04 | 1.31E+04 |
| prorocentr minimum v.balticum | 5.45E+03 | 3.12E+03 | 1.05E+04 | 1.40E+04 |
| prorocentr gracile | 0.00E+00 | 7.79E+02 | 1.17E+03 | 0.00E+00 |
| gonyaulax digitale | 0.00E+00 | 0.00E+00 | 2.00E+02 | 0.00E+00 |
| gonyaulax triacantha | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.00E+02 |
| alexandriu ostenfeldii | 0.00E+00 | 0.00E+00 | 2.00E+02 | 2.00E+02 |
| scripsiell sp.1 (small) | 0.00E+00 | 1.56E+03 | 1.17E+03 | 5.61E+03 |
| gymnodiniu spp. 10-15 | 7.79E+02 | 3.90E+03 | 4.67E+03 | 2.80E+03 |
| gymnodiniu spp. 15-20 | 0.00E+00 | 3.90E+03 | 0.00E+00 | 5.61E+03 |
| gymnodiniu spp. 20-50 | 7.79E+02 | 6.23E+03 | 1.05E+04 | 2.80E+03 |
| gymnodiniu spp. > 50 | 2.00E+02 | 0.00E+00 | 0.00E+00 | 2.00E+02 |
| gymnodiniu simplex | 0.00E+00 | 9.35E+03 | 1.97E+04 | 2.90E+04 |
| gyrodinium spp. | 3.90E+03 | 1.17E+04 | 7.01E+03 | 1.12E+04 |
| katodinium rotundatum | 0.00E+00 | 7.79E+02 | 0.00E+00 | 1.97E+04 |
| heterocaps triquetra | 3.12E+03 | 1.09E+04 | 3.62E+04 | 2.06E+04 |
| micracanth spp. | 0.00E+00 | 7.79E+03 | 3.51E+03 | 2.80E+03 |
| protogonya catanella | 0.00E+00 | 2.00E+02 | 4.00E+02 | 0.00E+00 |
| ceratium minutum | 2.00E+02 | 2.00E+02 | 0.00E+00 | 2.00E+02 |
| cryptomona spp. 5-10 | 2.89E+04 | 4.59E+04 | 7.86E+04 | 9.83E+04 |
| cryptomona spp. 10.1-15 | 2.89E+04 | 3.28E+04 | 2.95E+04 | 6.55E+04 |
| cryptomona spp. 15.1-20 | 0.00E+00 | 0.00E+00 | 9.83E+03 | 1.31E+04 |
| cryptomona spp. 0-5 | 4.62E+04 | 9.17E+04 | 1.38E+05 | 2.03E+05 |
| cryptomona spp. 20-25 | 5.78E+03 | 6.55E+03 | 0.00E+00 | 0.00E+00 |
| mesodinium rubrum | 2.65E+04 | 2.03E+04 | 2.92E+04 | 4.11E+04 |

Cruise 88-05

Total Abundance (no./litre)

| Taxon | 100-5 | 100-7 | 100-9 | 103-7 |
|---|---|---|---|---|
| ochromonas spp. | 0.00E+00 | 2.62E+04 | 0.00E+00 | 0.00E+00 |
| dinobryon spp. | 0.00E+00 | 1.31E+04 | 2.46E+03 | 2.11E+04 |
| dictyocha speculum | 0.00E+00 | 2.34E+03 | 0.00E+00 | 0.00E+00 |
| apedinella spinifera | 7.79E+02 | 2.62E+04 | 0.00E+00 | 7.02E+03 |
| dicrateria sp. | 6.55E+03 | 1.51E+05 | 2.46E+03 | 7.02E+03 |
| chrysochro spp. 0-5 | 2.29E+05 | 7.73E+05 | 7.37E+03 | 1.68E+05 |
| chrysochro spp. 6-10 | 1.64E+04 | 2.42E+05 | 0.00E+00 | 6.32E+04 |
| chrysochro spp. 10-15 | 0.00E+00 | 2.62E+04 | 0.00E+00 | 0.00E+00 |
| stephanopy nipponica | 0.00E+00 | 2.00E+02 | 0.00E+00 | 0.00E+00 |
| leptocylin danicus | 6.00E+02 | 4.67E+03 | 0.00E+00 | 5.61E+03 |
| leptocylin minimus | 8.00E+02 | 1.19E+05 | 0.00E+00 | 7.48E+03 |
| skeletonem costatum | 6.23E+03 | 1.83E+05 | 0.00E+00 | 1.31E+05 |
| thalassios spp. < 10 | 1.64E+04 | 1.52E+04 | 0.00E+00 | 9.35E+02 |
| thalassios aestivalis | 0.00E+00 | 2.34E+04 | 0.00E+00 | 9.35E+02 |
| thalassios nordenskiold | 3.12E+03 | 9.35E+03 | 0.00E+00 | 0.00E+00 |
| eucampia zoodiacus | 7.79E+02 | 3.51E+03 | 0.00E+00 | 6.00E+02 |
| chaetocero spp. cells | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.35E+03 |
| chaetocero compressum | 0.00E+00 | 2.92E+04 | 0.00E+00 | 7.95E+04 |
| chaetocero convolutum | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.67E+03 |
| chaetocero debile | 0.00E+00 | 1.99E+04 | 0.00E+00 | 6.53E+05 |
| chaetocero decipiens | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.93E+04 |
| chaetocero laciniosum | 0.00E+00 | 6.00E+02 | 0.00E+00 | 9.35E+02 |
| chaetocero pseudocrinit | 0.00E+00 | 1.17E+03 | 0.00E+00 | 2.90E+04 |
| chaetocero radicans | 0.00E+00 | 4.00E+02 | 0.00E+00 | 8.51E+04 |
| chaetocero septentriona | 0.00E+00 | 1.17E+03 | 0.00E+00 | 3.74E+03 |
| chaetocero socialis | 0.00E+00 | 8.18E+03 | 0.00E+00 | 9.54E+04 |
| rhizosolen fragilissima | 3.04E+04 | 8.65E+04 | 0.00E+00 | 5.61E+03 |
| asterionel glacialis | 2.00E+02 | 3.51E+03 | 0.00E+00 | 2.80E+03 |
| thalassiot frauenfeldii | 2.00E+02 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| thalassion nitzschoides | 1.09E+04 | 2.80E+04 | 0.00E+00 | 2.80E+03 |
| gyrosigma spp. pleurosigma | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.00E+02 |
| navicula spp. | 2.34E+03 | 3.16E+04 | 0.00E+00 | 1.87E+03 |
| nitzschia spp. | 0.00E+00 | 0.00E+00 | 3.90E+02 | 1.87E+03 |
| nitzschia delicatissim | 7.79E+02 | 3.16E+04 | 0.00E+00 | 5.61E+03 |
| nitzschia pacifica | 2.34E+03 | 3.39E+04 | 0.00E+00 | 1.78E+04 |

| | | | | |
|---|---|---|---|---|
| nitzschia closterium | 3.90E+03 | 2.22E+04 | 0.00E+00 | 1.31E+03 |
| micromonas pusilla | 1.11E+05 | 3.08E+05 | 8.84E+04 | 4.07E+05 |
| pyramimona spp. 3-8 | 0.00E+00 | 6.55E+04 | 0.00E+00 | 2.81E+04 |
| eutreptiel spp. | 0.00E+00 | 1.17E+03 | 0.00E+00 | 0.00E+00 |
| dinophycea spp. 5-15 | 0.00E+00 | 3.51E+03 | 0.00E+00 | 3.74E+03 |
| prorocentr minimum | 0.00E+00 | 7.01E+03 | 0.00E+00 | 3.74E+03 |
| prorocentr minimum v.balticum | 1.56E+03 | 2.10E+04 | 0.00E+00 | 1.87E+03 |
| gonyaulax triacantha | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.00E+02 |
| gymnodiniu spp. 10-15 | 1.56E+03 | 7.01E+03 | 0.00E+00 | 1.87E+03 |
| gymnodiniu spp. 15-20 | 7.79E+02 | 2.34E+03 | 0.00E+00 | 2.80E+03 |
| gymnodiniu spp. 20-50 | 2.00E+02 | 0.00E+00 | 0.00E+00 | 9.35E+02 |
| gymnodiniu simplex | 0.00E+00 | 5.90E+04 | 0.00E+00 | 9.35E+02 |
| gyrodinium spp. | 5.45E+03 | 5.84E+03 | 0.00E+00 | 4.67E+03 |
| katodinium rotundatum | 7.79E+02 | 3.28E+04 | 0.00E+00 | 0.00E+00 |
| ceratium minutum | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.00E+02 |
| cryptomona spp. 5-10 | 1.64E+04 | 1.77E+05 | 0.00E+00 | 2.11E+04 |
| cryptomona spp. 10.1-15 | 3.28E+04 | 1.05E+05 | 0.00E+00 | 5.61E+04 |
| cryptomona spp. 0-5 | 2.95E+04 | 2.23E+05 | 2.46E+03 | 2.81E+04 |
| mesodinium rubrum | 0.00E+00 | 1.64E+04 | 0.00E+00 | 2.90E+04 |

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DATA SECTION 7

ZOOPLANKTON IDENTITY AND ABUNDANCE

# TABLE 7: ZOOPLANKTON SPECIES LIST: CRUISES WV87 AND OE8805

- Cnidaria
  - Medusae
- Hydrozoa
  - Hydroida
    - Euphysa
    - Sarsia
    - Phialidium
    - Eutonia
    - Proboscdactyla
  - Trachylida
    - Aglantha
    - Aegina
- Siphonophora
  - Muggiaea
  - Nanomia
- Ctenophora
  - Tentaculata
    - Pleurobrachia
- Nemertea
  - Nemertinea larvae
- Nematoda
- Mollusca
  - Gastropoda
    - Gastropod veligers
  - Pteropoda
    - Limacina
- Bivalvia
  - Bivalve veligers
- Annelida
  - Polychaeta
    - Polychaete trochophores
    - Polychaete larvae
    - Polychaete
    - Spionid larvae
    - Syllid
    - Tomopteris septentrionalis
- Bryozoa
  - Cyphonautes larvae
- Arthropoda
  - Crustacea
    - Cladocera
      - Evadne
      - Podon
    - Ostracoda
      - Conchoecia
    - Copepoda
      - Copepod nauplii
    - Calanoida
      - Calanoida (unidentified)
      - Acartia
      - Acartia clausi
      - Acartia longiremis
      - Acartia tonsa
      - Calanus
      - Calanus marshallae
      - Calanus pacificus
      - Calocalanus styliremis
      - Candacia columbiae
      - Centropages abdominalis
      - Chiridius gracilis
      - Clausocalanus parapergens
      - Clausocalanus pergens
      - Ctenocalanus vanus
      - Epilabidocera longipedata
      - Eucalanus bungii
      - Eucalanus californicus
      - Euchaeta
      - Euchaeta elongata
      - Gaetanus intermedius
      - Mesocalanus tenuicornis
      - Metridia
      - Metridia pacifica
      - Microcalanus pygmaeus pusillus
      - Neocalanus cristatus
      - Neocalanus plumchrus
      - Paracalanus parvus
      - Pleuromamma xiphias
      - Pseudocalanus minutus/elongata
      - Racovitzanus antarcticus
      - Scolecithricella minor
      - Tortanus discaudatus

**Cyclopoida**

- Corycaeus anglicus
- Oithona atlantica
- Oithona similis
- Oncaea conifera

**Harpacticoida**

- Harpacticoida (unidentified)

**Cirripedia**

- Barnacle nauplii
- Barnacle cyprids

**Euphausiacea**

- Euphausiid nauplii
- Euphausiid juveniles
- Euphausiid calyptopsis
- Euphausiid furcilia
- Euphausia pacifica
- Thysanoessa longipes
- Thysanoessa raschii
- Thysanoessa spinifera

**Decapoda**

**Caridea**

- Caridean zoea
- Caridean mysis
- Crangonidae
- Eualid
- Pandalidae
- Pandalus jordani
- Pasiphaea pacifica

**Anomura**

- Munida zoea
- Pagurid zoea
- Pagurid megalops
- Porcellanid zoea

**Brachyura**

- Brachyuran zoea
- Brachyuran megalops

**Mysida**

- Holmsiella anomola

**Cumacea**

**Isopoda**

**Amphipoda**

**Gammaridea**

- Cyphocaris
- Cyphocaris challengeri

**Hyperiidea**

- Hyperiidae
- Hyperia
- Hyperoche medusarum
- Parathemisto pacifica
- Primno
- Primno abyssalis

**Echinodermata**

- Echinoderm pluteus

**Chaetognatha**

- Chaetognatha
- Chaetognath juvenile
- Sagitta decipiens
- Sagitta elegans
- Sagitta scrippsae
- Eukrohnia hamata

**Urochordata**

**Larvacea**

- Oikopleura
- Fritillaria

**Vertebrata**

**Pisces**

- Fish larvae

**Pleuronectidae**

**Miscellaneous**

- Unclassified eggs

# TABLE 8: ZOOPLANKTON ABUNDANCE: WV87

Bongo vertical net haul: animals.m–2

| Taxon: | Stn 6 | Stn 7 | Stn 8 | Stn 9 |
|---|---|---|---|---|
| Acartia longiremis 5 | 6 | | | |
| Acartia longiremis 6f | | 8 | | |
| Acartia tonsa 6m | 6 | | | |
| Barnacle cyprids | 6 | 123 | 31 | 5 |
| Barnacle nauplii | 6 | 54 | | 14 |
| Bivalve veligers | | 92 | 19 | 14 |
| Brachyuran megalops s2 | * | | | |
| Brachyuran zoea s1 | 13 | 46 | 13 | |
| Calanoida 1–3 (unidentified) | 205 | 54 | 31 | 33 |
| Calanus 1–3 | | 8 | 19 | 43 |
| Calanus marshallae 4 | | 23 | 6 | 10 |
| Calanus marshallae 5 | 6 | | 19 | 5 |
| Calanus marshallae 6f | 13 | 15 | 19 | 5 |
| Calanus marshallae 6m | 13 | | 13 | 29 |
| Calocalanus styliremis 6f | | | 13 | |
| Caridean mysis s1 | | 8 | 6 | |
| Caridean mysis s2 | * | * | | * |
| Caridean zoea s2 | * | | | |
| Chaetognath juvenile s1 | 6 | 15 | | |
| Chaetognath juvenile s2 | 6 | 2 | 7 | 4 |
| Clausocalanus parapergens 6f | | | 6 | |
| Clausocalanus pergens 6f | 6 | | | |
| Conchoecia s1 | | | 6 | |
| Copepod nauplii | 6 | 15 | | 14 |
| Corycaeus anglicus 6f | | 8 | 6 | |
| Crangonidae s2 | | * | | * |
| Ctenocalanus vanus 5 | 13 | | | 10 |
| Ctenocalanus vanus 6f | 26 | | 6 | 19 |

| WV87 (cont.) | Stn 6 | Stn 7 | Stn 8 | Stn 9 |
|---|---|---|---|---|
| Ctenocalanus vanus 6m | 6 | | | 10 |
| Cyphonautes larvae | 6 | | | |
| Echinoderm pluteus s1 | 6 | | | |
| Eualid s3 | | * | | |
| Eucalanus bungii 6f | * | | | * |
| Euchaeta 4 | | | 6 | |
| Eukrohnia hamata s3 | * | | | |
| Euphausia pacifica s1 | 6 | | | |
| Euphausiid calyptopsis s1 | | 8 | 6 | 10 |
| Euphausiid furcilia s1 | | 15 | 13 | 10 |
| Euphausiid nauplii | | | 6 | 5 |
| Euphysa | | 8 | | |
| Eutonia | | * | * | * |
| Evadne s1 | | 69 | | |
| Fish larvae s2 | | * | | |
| Fish larvae s3 | | | | * |
| Gastropod veligers s1 | | 23 | 6 | 10 |
| Limacina s1 | 13 | 15 | | 43 |
| Medusae s1 | 13 | | 6 | |
| Metridia 1–4 | | 23 | | |
| Metridia pacifica 6f | | 8 | | |
| Metridia pacifica 6m | 6 | | | |
| Microcalanus pygmaeus pusillus 5 | | | 6 | |
| Mugglaea s2 | | * | * | |
| Nanomia s1 | | | | 5 |
| Nemertinea larvae s1 | | 8 | 6 | |
| Oikopleura s1 | | 169 | 50 | 10 |
| Oikopleura s2 | * | * | | |
| Oithona similis 1–5 | 301 | 100 | 270 | 234 |
| Oithona similis 6f | 256 | 108 | 213 | 287 |
| Oithona similis 6m | 32 | 15 | 25 | 14 |
| Pagurid zoea s2 | * | * | * | 8 |

| WV87 (cont.) | Stn 6 | Stn 7 | Stn 8 | Stn 9 |
|---|---|---|---|---|
| Pandalidae s2 | | | * | |
| Pandalidae s3 | * | | | * |
| Paracalanus parvus 6f | | | 6 | |
| Parathemisto pacifica f | | * | * | |
| Parathemisto pacifica m | | * | | |
| Phialidium s2 | 1 | * | * | * |
| Phialidium s3 | * | 1 | 1 | * |
| Pleurobrachia s1 | | 8 | | |
| Pleurobrachia s2 | * | * | 1 | * |
| Pleurobrachia s3 | * | | | |
| Podon s1 | | 15 | | |
| Polychaete larvae s1 | | 8 | | |
| Polychaete trochophores s1 | 6 | 8 | | |
| Probiscdactyla s2 | | | * | |
| Pseudocalanus min/el 5f | 32 | 23 | 6 | 33 |
| Pseudocalanus min/el 5m | 38 | 54 | 6 | 29 |
| Pseudocalanus min/el 6f | 198 | 531 | 527 | 72 |
| Pseudocalanus min/el 6m | 38 | 46 | 19 | 24 |
| Sagitta decipiens s2 | * | | 4 | 5 |
| Sagitta decipiens s3 | | 2 | 5 | 3 |
| Sagitta elegans s3 | 7 | | 4 | 3 |
| Sagitta scrippsae s2 | | * | | |
| Sagitta scrippsae s3 | | * | | |
| Scolecithricella minor 6m | | | | 5 |
| Spionid larvae s1 | 6 | 23 | 69 | 5 |
| Unclassified eggs | 307 | | | 14 |

# TABLE 9: ZOOPLANKTON ABUNDANCE: OE8805

**Bongo vertical net haul: animals.m–2**

| Taxon: | Stn 15A | Stn 28 | Stn 31A | Stn 34 |
|---|---|---|---|---|
| Acartia 1–4 | 130 | 173 | 212 | 394 |
| Acartia clausii 5 | | | | 16 |
| Acartia clausii 6f | 6 | | 12 | 8 |
| Acartia clausii 6m | 30 | | | 16 |
| Acartia longiremis 5 | 53 | 111 | 25 | 58 |
| Acartia longiremis 6f | 65 | 148 | 100 | 148 |
| Acartia longiremis 6m | 83 | 49 | 75 | 222 |
| Acartia tonsa 6m | | | | 8 |
| Barnacle nauplii | 30 | | 106 | 394 |
| Bivalve veligers | 71 | 99 | 100 | 99 |
| Brachyuran megalops s2 | * | | | |
| Brachyuran zoea s1 | | | 50 | 131 |
| Calanoida 1–3 (unidentified) | 65 | 457 | 62 | 58 |
| Calanus 1–3 | 42 | 124 | 19 | |
| Calanus marshallae 4 | | 25 | | |
| Calanus marshallae 5 | 6 | 12 | 19 | |
| Calanus marshallae 6f | | 111 | 12 | |
| Calanus pacificus 5 | | | 6 | |
| Caridean mysis s2 | * | * | * | * |
| Caridean mysis s3 | * | | * | |
| Caridean zoea s1 | | | 6 | 33 |
| Caridean zoea s2 | * | | | |
| Centropages abdominalis 5 | 12 | | | |
| Centropages abdominalis 6f | | | 6 | 8 |
| Centropages abdominalis 6m | | | 6 | 16 |
| Chaetognath juvenile s1 | | | | 16 |
| Chaetognath juvenile s2 | 1 | * | 1 | * |
| Chaetognatha s3 | * | 433 | * | |

| OE8805 Bongo (cont.) | Stn 15A | Stn 28 | Stn 31A | Stn 34 |
|---|---|---|---|---|
| Copepod nauplii | 457 | | 224 | 115 |
| Corycaeus anglicus 6f | | | 6 | |
| Crangonidae s1 | | | 12 | |
| Crangonidae s2 | * | | | * |
| Echinoderm pluteus s1 | 12 | 37 | | 33 |
| Eualid s2 | | | * | |
| Eucalanus bungii 6f | | * | | |
| Eucalanus californicus 6f | | * | | |
| Eukrohnia hamata s3 | * | * | | |
| Euphausia pacifica s2 | | * | | |
| Euphausiid calyptopsis s1 | 30 | | 6 | 8 |
| Euphausiid juveniles s1 | 6 | | | |
| Euphausiid juveniles s2 | * | | * | |
| Euphausiid nauplii | 231 | 37 | 44 | 90 |
| Evadne s1 | | | | 8 |
| Fish larvae s2 | | * | | * |
| Fish larvae s3 | * | * | | |
| Fritillaria s1 | 18 | | | |
| Gastropod veligers s1 | 6 | | 56 | 8 |
| Harpacticoida | | | | 8 |
| Hyperiidae s1 | | | | 8 |
| Isopoda s1 | | | | 16 |
| Limacina s1 | 12 | 111 | 6 | 33 |
| Mesocalanus tenuicornis 6f | | 12 | | |
| Metridia pacifica 5m | 30 | | | |
| Metridia pacifica 6f | 6 | 12 | | |
| Metridia pacifica 6m | 24 | | | |
| Muggiaea s2 | * | | * | * |
| Munida zoea s2 | * | | | |
| Oikopleura s1 | 77 | 161 | 50 | 99 |
| Oikopleura s2 | | * | * | |
| Oithona similis 1–5 | | 62 | | 58 |

| OE8805 Bongo (cont.) | Stn 15A | Stn 28 | Stn 31A | Stn 34 |
|---|---|---|---|---|
| Oithona similis 6f | | 569 | 305 | 304 |
| Oithona similis 6m | | 12 | | |
| Pagurid megalops s2 | | | * | |
| Pagurid zoea s1 | 6 | | * | 8 |
| Pagurid zoea s2 | * | * | | |
| Pandalidae s2 | * | * | * | |
| Paracalanus parvus 5 | 18 | | | 8 |
| Paracalanus parvus 6f | 12 | | 25 | 16 |
| Paracalanus parvus 6m | | | 19 | |
| Phialidium s2 | | * | * | * |
| Phialidium s3 | | * | 3 | 3 |
| Pleurobrachia s2 | * | 2 | * | * |
| Polychaete trochophores s1 | | | 19 | 8 |
| Porcellanidae zoea s1 | | | | 58 |
| Pseudocalanus min/el 1–4 | | | 19 | |
| Pseudocalanus min/el 5f | 83 | 198 | 118 | 156 |
| Pseudocalanus min/el 5m | 95 | 161 | 193 | 140 |
| Pseudocalanus min/el 6f | 427 | 1273 | 349 | 263 |
| Pseudocalanus min/el 6m | 101 | 470 | 69 | 58 |
| Sagitta decipiens s3 | * | 1 | | |
| Sagitta elegans s3 | 3 | 1 | * | |
| Spionid larvae s1 | | | | 8 |
| Syllid s2 | | * | | |
| Thysanoessa spinifera f | | * | * | |
| Thysanoessa spinifera m | * | * | * | |
| Thysanoessa spinifera s1 | 6 | | | |
| Thysanoessa spinifera s2 | | * | | |
| Tortanus discaudatus 6m | | | 6 | |
| Unclassified eggs | 12 | 507 | 206 | 58 |

# TABLE 10: ZOOPLANKTON ABUNDANCE: OE8805

Bioness oblique net haul: animals.m–3

• Taxa present in concentrations of less than 1.m–3

| | Stn 52–1 | Stn 52–2 | Stn 52–3 | Stn 52–5 | Stn 52–6 | Stn 52–7 | Stn 54–1 | Stn 54–3 | Stn 54–4 | Stn 54–5 | Stn 54–6 | Stn 54–7 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Depth of haul: | 92–86 | 86–75 | 75–52 | 52–25 | 25–10 | 10–0 | 90–86 | 86–74 | 74–50 | 50–24 | 24–20 | 10–0 |
| Taxon: | | | | | | | | | | | | |
| Acartia 1–4 | | | | | 328 | 360 | | | | | 15 | 2032 |
| Acartia clausi 6f | | | | | 591 | 254 | | | | | 67 | 449 |
| Acartia longiremis 5 | 7 | 5 | | 14 | 1182 | 381 | | 2 | | | 30 | 567 |
| Acartia longiremis 6f | | 5 | | 14 | 394 | 592 | | 2 | | | 45 | 254 |
| Acartia longiremis 6m | | | | | | | | | | | | |
| Aegina s2 | • | | | | | | | | | | | • |
| Aglantha s2 | | | | | | | | | | | | |
| Aglantha s3 | | | 12 | | | | | | | | | 254 |
| Barnacle cyprids | | | | | | 22 | | 2 | | | | 235 |
| Barnacle nauplii | | | | | 131 | | | | | | 3 | |
| Bivalve veligers | | | | | • | | | | | | | |
| Brachyuran megalops s1 | | • | | • | | • | | | | | | |
| Brachyuran megalops s2 | | | | | | | | | | | | |
| Brachyuran megalops s3 | | | 11 | | 14 | | 21 | | | | | |
| Brachyuran zoea s1 | | | | | | | | | | | 24 | 397 | 1622 |
| Brachyuran zoea s2 | 7 | | | 12 | 149 | 3610 | 1185 | 2 | | | | 15 | 20 |
| Calanoida 1–3 (unidentified) | | | | | 14 | 459 | 85 | | | | 3 | 15 | |
| Calanus 1–3 | | | 16 | | 41 | | | | 3 | 26 | | | 20 |
| Calanus marshallae 4 | 22 | 91 | | 61 | | | | 19 | 42 | 71 | | | |
| Calanus marshallae 5 | 30 | 123 | | 24 | | | | 33 | 105 | 110 | | | |
| Calanus marshallae 6f | 7 | 11 | | | | | | 7 | 6 | 45 | | | |
| Calanus marshallae 6m | | | | | | | | | | | | | |
| Calanus pacificus 5 | | | | | | | | 5 | | | | | |
| Calanus pacificus 6f | | | | | | | | | | | | | |
| Candacia columbiae 6f | | | | | | | | | | | | | |
| Candacia columbiae 6m | | | | | | | | | | | | | |
| Caridean mysis s1 | | | | | | | | | | | | | |

| OE8805 (cont.) | Stn 52–1 | Stn 52–2 | Stn 52–3 | Stn 52–5 | Stn 52–6 | Stn 52–7 | Stn 54–1 | Stn 54–3 | Stn 54–4 | Stn 54–5 | Stn 54–6 | Stn 54–7 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Depth of haul: | 92–86 | 86–75 | 75–52 | 52–25 | 25–10 | 10–0 | 90–86 | 86–74 | 74–50 | 50–24 | 24–20 | 10–0 |
| Caridean mysis s2 | 1 | * | * | * | * | * | 3 | * | * | * | * | * |
| Caridean mysis s3 | * | * | | | | | * | * | | | | |
| Caridean zoea s1 | | | | | | | | | | | | 20 |
| Centropages abdominalis 1–4 | | | | | | | | | | | | |
| Centropages abdominalis 5 | | | | | | 42 | | | | | | 20 |
| Centropages abdominalis 6f | | | | | 66 | 85 | | | | | | |
| Centropages abdominalis 6m | | | | | 131 | 106 | | | | | 7 | |
| Chaetognath juvenile s1 | | | | | | | | | 7 | | 7 | |
| Chaetognath juvenile s2 | | | 3 | * | * | * | | | 2 | * | * | * |
| Chaetognath juvenile s3 | | | | | | | | | | | | |
| Chaetognatha s2 | | | | | | | 7 | | | | | |
| Chaetognatha s3 | 3 | 3 | * | | * | * | | 3 | | | | |
| Chiridius gracilis 5 | | | | | | | | | | | | |
| Chiridius gracilis 6f | | | | | | | | | | | | |
| Conchoecia s1 | | | | | | | | | | | | |
| Copepod nauplii | | | 12 | 41 | 853 | 254 | | 3 | 7 | 17 | 82 | 176 |
| Corycaeus anglicus 5 | | | 12 | | | | | | | 7 | | |
| Corycaeus anglicus 6f | | | | | | | | | | | | |
| Corycaeus anglicus 6m | | | | | | | | | | | | |
| Crangonidae s2 | | | | | | | | | | | | |
| Crangonidae s3 | | | | | | | | | | | | |
| Ctenocalanus vanus 5 | | | | 14 | | | | | | | | |
| Ctenocalanus vanus 6f | | | | 14 | | | | | | | | |
| Cumacea s3 | | | | | | | | | | | | |
| Cyphocaris s1 | | | | | | | | | | | | |
| Cyphocaris challengeri s2 | * | * | | | | | 2 | * | * | | | |
| Cyphocaris challengeri s3 | | | | | | | | | | | | |
| Cyphonautes larvae | | | | | | | | | | | | |
| Echinoderm pluteus s1 | | | | | | 106 | | | | | | 39 |
| Epilabidocera longipedata 1–4 | | | | | | | | | | | | |
| Epilabidocera longipedata 5 | | | | | | | | | | | | |

| OE8805 (cont.) | Stn 52–1 | Stn 52–2 | Stn 52–3 | Stn 52–5 | Stn 52–6 | Stn 52–7 | Stn 54–1 | Stn 54–3 | Stn 54–4 | Stn 54–5 | Stn 54–6 | Stn 54–7 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Depth of haul: | 92–86 | 86–75 | 75–52 | 52–25 | 25–10 | 10–0 | 90–86 | 86–74 | 74–50 | 50–24 | 24–20 | 10–0 |
| Epilabidocera longipedata 6m | | | | | | | | | | 3 | | |
| Eucalanus bungii 5f | * | * | * | | | | | | | | | |
| Eucalanus bungii 5m | | | | | | | | | * | * | | |
| Eucalanus bungii 6f | * | | * | | | | | | | | | |
| Eucalanus californicus 6f | | | | | | | | | | | | |
| Euchaeta 3 | | | | | | | | | | | | |
| Euchaeta 4 | | | | | | | | | | | | |
| Euchaeta elongata 4 | | | | | | | | | | | | |
| Euchaeta elongata 5f | | | | | | | | | | | | |
| Euchaeta elongata 5m | | | | | | | | | | | | |
| Euchaeta elongata 6f | | | | | | | | | | | | |
| Euchaeta elongata 6m | | | | | | | | * | * | | | |
| Eukrohnia hamata s2 | | | | * | | | | * | * | | | |
| Eukrohnia hamata s3 | | * | 2 | * | | | | | | | | |
| Euphausia pacifica f | | | | * | | | | | | | | |
| Euphausia pacifica m | | * | | | * | | | * | | | | |
| Euphausia pacifica s1 | | | | | | | | | | * | | |
| Euphausia pacifica s2 | | * | 5 | * | | | | 9 | 9 | | | |
| Euphausia pacifica s3 | | | | | | | | | | | | |
| Euphausiacea | | | | * | | | | | | | | 117 |
| Euphausiid calyptopsis s1 | | | | | | 66 | 85 | | | | | |
| Euphausiid furcilia s1 | | | | | | | | | | | | |
| Euphausiid juveniles s2 | | * | * | | * | | | | | | | |
| Euphausiid nauplii | | 7 | 5 | 37 | 648 | 1575 | 169 | * | | 39 | 135 | 337 176 |
| Euphysa | | | | | | * | | | | | | |
| Eutonia | | | | | | | | | | | | * |
| Evadne s1 | | | | | | | 21 | | | | | |
| Fish larvae s1 | | | | | | * | | | | | | |
| Fish larvae s2 | | | | * | | | * | | | | * | |
| Fish larvae s3 | | * | * | | * | | * | * | * | | | * |
| Fritillaria s1 | | | | | | | | | | | | |

| OE8805 (cont.) | Stn 52–1 | Stn 52–2 | Stn 52–3 | Stn 52–5 | Stn 52–6 | Stn 52–7 | Stn 54–1 | Stn 54–3 | Stn 54–4 | Stn 54–5 | Stn 54–6 | Stn 54–7 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Depth of haul: | 92–86 | 86–75 | 75–52 | 52–25 | 25–10 | 10–0 | 90–86 | 86–74 | 74–50 | 50–24 | 24–20 | 10–0 |
| Gaetanus intermedius 6f | | | | | | | | | 7 | | | |
| Gastropod veligers s1 | | | | | | | | | | | | |
| Holmsiella anomola s3 | | | | | | | | | | | | |
| Hyperia s1 | | | | | | | | | | 3 | 7 | |
| Hyperiidae s1 | | | | | | | | | | | | |
| Hyperoche medusarum s2 | | | | | | | | | | | | |
| Hyperoche medusarum s3 | | | | | | | | | | | | |
| Isopoda s1 | | | | | | | | | | | | |
| Limacina s1 | | | | | | | | | | | | |
| Medusae s1 | | | | | | | | | | | | |
| Medusae s2 | | | | | | | | | | | | |
| Mesocalanus tenuicornis 5 | | | | | | | | 9 | | 32 | | |
| Metridia 1–4 | | | | 49 | | | | 2 | 9 | 7 | | |
| Metridia pacifica 1–4 | 7 | 16 | | | | | | 16 | 24 | 26 | | |
| Metridia pacifica 5f | 45 | 11 | 12 | | | | | 118 | 45 | 7 | | |
| Metridia pacifica 5m | 186 | 107 | 24 | | | | | 61 | 24 | | | |
| Metridia pacifica 6f | 141 | 16 | | | | | | 231 | 39 | | | |
| Metridia pacifica 6m | 467 | 219 | | | | | | 87 | 117 | 39 | | |
| Microcalanus pygmaeus pusillus | 67 | 80 | 37 | 27 | | | | 59 | 105 | 52 | | |
| Microcalanus pygmaeus pusillus | 30 | 37 | 49 | | | | | 16 | 15 | 7 | | |
| Microcalanus pygmaeus pusillus | 30 | 27 | 12 | | | | | | | | | |
| Mugglaea s2 | | | | | | | | | | | | |
| Nematoda s2 | | | | | | | | | | | | |
| Nematoda s3 | | | | | | | | | | | | |
| Neocalanus cristatus 5 | | | | | | | | | | | | |
| Neocalanus plumchrus 5 | | | | | | | 42 | | | | | |
| Oikopleura s1 | | | | | | | | | | | | |
| Oikopleura s2 | | | | | | | | | | | | |
| Oithona atlantica 1–5 | | | | | | | | 2 | 12 | | 75 | |
| Oithona atlantica 6f | | | 5 | | 14 | | | | | | | 78 |
| Oithona similis 1–5 | 22 | 21 | 12 | 41 | 197 | 148 | | 99 | | | | |

| OE8805 (cont.) | Stn 52–1 | Stn 52–2 | Stn 52–3 | Stn 52–5 | Stn 52–6 | Stn 52–7 | Stn 54–1 | Stn 54–3 | Stn 54–4 | Stn 54–5 | Stn 54–6 | Stn 54–7 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Depth of haul: | 92–86 | 86–75 | 75–52 | 52–25 | 25–10 | 10–0 | 90–86 | 86–74 | 74–50 | 50–24 | 24–20 | 10–0 |
| Olthona similis 6f | 200 | 85 | 85 | 311 | 853 | | | 99 | 104 | | | |
| Olthona similis 6m | | | | | | | | 6 | | | | |
| Oncaea conifera 6f | | | | | | | | | | 84 | | |
| Pagurid megalops s2 | * | | * | | | | | | | | | |
| Pagurid zoea s2 | * | * | * | * | * | * | 2 | * | * | * | * | * |
| Pagurid zoea s3 | | | | | | | | | | | | * |
| Pandalidae s1 | | | | | | | | | | | | |
| Pandalidae s2 | | | | * | | * | * | | | | | |
| Pandalidae s3 | * | | | | | | * | | | | | |
| Pandalus jordani | | | | | | | | | | | | |
| Paracalanus parvus 5 | | | | | | | | | | | 3 | 20 |
| Paracalanus parvus 6f | | | 5 | | 14 | 66 | 42 | | | | | |
| Paracalanus parvus 6m | | | 5 | | | | | | | | | |
| Parathemisto pacifica f | * | | | * | * | | * | | | | | * |
| Parathemisto pacifica m | | | | * | | * | | | | | | |
| Parathemisto pacifica s1 | | | | | | | | | | | | |
| Pasiphaea pacifica s3 | | | | | | | | | | | | * |
| Phialidium s2 | | | * | | | | | | | | * | * |
| Phialidium s3 | | | | | * | * | | | | | | |
| Pleurobrachia s2 | | | | | | * | * | | | | | * |
| Pleurobrachia s3 | | | | | | | | | | | | * |
| Pleuromamma xiphias 6f | | | | | | | | * | | | | |
| Pleuronectidae | | | | | | | | | | | | |
| Podon s1 | | | | | | | | | | | * | |
| Polychaete s2 | | | | | | | | | | | | |
| Polychaete larvae s1 | | | | | | | | | | | | |
| Polychaete trochophores s1 | | | | | | | | | | | | |
| Porcellanidae zoea s1 | | | | | | | | | | | | |
| Primno s1 | | | | | | | | | | | | |
| Primno abyssalis f | | | | | | | | | | | | |
| Primno abyssalis m | | | | | | | | | | | | |

| OE8805 (cont.) | Stn 52–1 | Stn 52–2 | Stn 52–3 | Stn 52–5 | Stn 52–6 | Stn 52–7 | Stn 54–1 | Stn 54–3 | Stn 54–4 | Stn 54–5 | Stn 54–6 | Stn 54–7 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Depth of haul: | 92–86 | 86–75 | 75–52 | 52–25 | 25–10 | 10–0 | 90–86 | 86–74 | 74–50 | 50–24 | 24–20 | 10–0 |
| Primno abyssalis s1 | | | | | | | | | | | | |
| Primno abyssalis s2 | | | | * | | | | | * | | | |
| Probiscdactyla s2 | | | | 14 | 197 | | | | | | 37 | |
| Pseudocalanus min/el 1–4 | 15 | 11 | 219 | 324 | 1510 | 402 | 12 | 9 | 84 | 44 | 142 | 332 |
| Pseudocalanus min/el 5f | 37 | 37 | 219 | 230 | 1838 | 360 | 21 | 12 | 52 | 27 | 135 | 645 |
| Pseudocalanus min/el 5m | 89 | 352 | 1609 | 608 | 3348 | 762 | 75 | 245 | 819 | 189 | 778 | 782 |
| Pseudocalanus min/el 6f | 59 | 53 | 731 | 1283 | 3479 | 169 | 31 | 42 | 214 | 387 | 606 | 156 |
| Pseudocalanus min/el 6m | | | | | | | | | | | | |
| Racovitzanus antarcticus 6f | | | | | | | 78 | | | | | |
| Sagitta elegans s2 | 36 | 55 | 3 | * | * | | | 86 | 12 | * | * | |
| Sagitta elegans s3 | | | | | | | | | | | | * |
| Sarsia s2 | | | | | | | | | | | | |
| Sarsia s3 | 7 | | | | | | | | | | | |
| Scolecithricella minor 5 | 7 | 5 | | | | | | | | | | |
| Scolecithricella minor 6f | | | | | | | | | | | | |
| Scolecithricella minor 6m | | | | | | | | | | | | |
| Thysanoessa longipes f | | | | | | | * | * | | | | |
| Thysanoessa longipes m | | | | | | | | | | | | |
| Thysanoessa raschii f | | | | | | | | | | | | |
| Thysanoessa raschii m | | | * | * | | | | * | | | | |
| Thysanoessa spinifera f | | * | | | | | | | | | | |
| Thysanoessa spinifera m | * | 2 | 2 | | * | | | 1 | 3 | * | * | |
| Thysanoessa spinifera s2 | | | | | | | | | | | | |
| Tomopteris septentrionalis s3 | 15 | 11 | 24 | 176 | 459 | 2623 | 7 | | | 44 | 172 | 4983 |
| Unclassified eggs | | | | | | | | | | | | |

## TABLE 10 (cont.)

Bioness oblique net haul: animals.m–3

* Taxa present in concentrations of less than 1.m–3

| Taxon: / Depth of haul: | Stn 57–1 91–75 | Stn 57–2 75–49 | Stn 57–3 49–30 | Stn 57–4 30–8 | Stn 57–5 8–0 | Stn 59–1 85–76 | Stn 59–2 76–51 | Stn 59–3 51–31 | Stn 59–4 31–9 | Stn 59–5 9–0 |
|---|---|---|---|---|---|---|---|---|---|---|
| Acartia 1–4 | | | | | 487 | 1465 | 19 | | | 3768 |
| Acartia clausi 6f | 5 | | | | | 16 | | | 11 | 48 |
| Acartia longiremis 5 | 5 | | | | 393 | 386 | 6 | | 11 | 721 | 290 |
| Acartia longiremis 6f | 10 | | | 39 | 377 | 676 | 6 | 4 | 68 | 697 | 580 |
| Acartia longiremis 6m | 10 | | | | 173 | 225 | 12 | | 23 | 288 | 290 |
| Aegina s2 | | | | | | | | | | | |
| Aglantha s2 | | | | | | | | | * | | |
| Aglantha s3 | | | | | | | | | | | 48 |
| Barnacle cyprids | | | | | 16 | 773 | | 4 | 6 | | 1159 |
| Barnacle nauplii | 5 | | | 39 | 16 | 32 | | 7 | | | |
| Bivalve veligers | | | | | | | | | | | |
| Brachyuran megalops s1 | | | | | | | | | | | |
| Brachyuran megalops s2 | | | | | | | | | | | |
| Brachyuran megalops s3 | | | | | | 16 | 25 | 7 | | 24 | 48 |
| Brachyuran zoea s1 | 5 | | | | | * | | | | | |
| Brachyuran zoea s2 | | | | | | | | | | | |
| Calanoida 1–3 (unidentified) | 35 | 24 | 158 | 1147 | 451 | 12 | 44 | 102 | 1394 | 1546 |
| Calanus 1–3 | | 16 | 39 | 63 | 177 | 6 | 4 | 164 | 264 | 97 |
| Calanus marshallae 4 | | 16 | | 16 | 16 | 6 | 11 | 23 | 24 | 97 |
| Calanus marshallae 5 | 25 | 32 | | | 16 | 12 | 15 | 11 | 72 | 48 |
| Calanus marshallae 6f | 25 | 16 | 49 | | 32 | 12 | 15 | 39 | 48 | 48 |
| Calanus marshallae 6m | | 8 | | | | 31 | 4 | | | |
| Calanus pacificus 5 | | | | | | | | | | |
| Calanus pacificus 6f | | | | | | | | | | |
| Candacia columbiae 6f | | | | | | | | | | |
| Candacia columbiae 6m | | | | | | | | | | 48 |
| Caridean mysis s1 | | | | | | | | | | |

| OE8805 (cont.) | Stn 57–1 | Stn 57–2 | Stn 57–3 | Stn 57–4 | Stn 57–5 | Stn 59–1 | Stn 59–2 | Stn 59–3 | Stn 59–4 | Stn 59–5 |
|---|---|---|---|---|---|---|---|---|---|---|
| Depth of haul: | 91–75 | 75–49 | 49–30 | 30–8 | 8–0 | 85–76 | 76–51 | 51–31 | 31–9 | 9–0 |
| Caridean mysis s2 | * | * | * | * | 5 | * | * | * | * | 2 |
| Caridean mysis s3 | * | | | | * | | * | * | * | * |
| Caridean zoea s1 | | | | | | | | | | |
| Centropages abdominalis 1–4 | | | | | | | | | 48 | 48 |
| Centropages abdominalis 5 | | | | 31 | 32 | | | | | |
| Centropages abdominalis 6f | | | | | 16 | | | | | 48 |
| Centropages abdominalis 6m | | | | 16 | | | | | | 48 |
| Chaetognath juvenile s1 | | | | | | | | | | |
| Chaetognath juvenile s2 | | | * | 2 | 6 | | * | * | 2 | 5 |
| Chaetognath juvenile s3 | | * | | | | | | | | |
| Chaetognatha s2 | | | | | | | | | | |
| Chaetognatha s3 | 2 | * | * | * | * | * | 1 | | | |
| Chiridius gracilis 5 | | | | | | | | | | |
| Chiridius gracilis 6f | | | | | | | | | | |
| Conchoecia s1 | | | | | | | | | | |
| Copepod nauplii | | 87 | 69 | | 531 | 31 | 51 | 175 | 24 | 1691 |
| Corycaeus anglicus 5 | | | | | | | | | | |
| Corycaeus anglicus 6f | | | | | | | | | | |
| Corycaeus anglicus 6m | | | | | | | | | | |
| Crangonidae s2 | * | | | * | | | | | | |
| Crangonidae s3 | | | | | * | | | | | |
| Ctenocalanus vanus 5 | | | | | | | | | | |
| Ctenocalanus vanus 6f | | | | | | | | | | |
| Cumacea s3 | * | | | | | | | | | |
| Cyphocaris s1 | | | | | | | | | | |
| Cyphocaris challengeri s2 | * | * | * | * | | * | 1 | * | * | |
| Cyphocaris challengeri s3 | | | * | | | * | * | * | | |
| Cyphonautes larvae | | | | | | | | | | |
| Echinoderm pluteus s1 | | | | 16 | 225 | | | | | 97 |
| Epilabidocera longipedata 1–4 | | | | | | | | | 24 | |
| Epilabidocera longipedata 5 | | | | | | | | | | |

| OE8805 (cont.) | Stn 57–1 | Stn 57–2 | Stn 57–3 | Stn 57–4 | Stn 57–5 | Stn 59–1 | Stn 59–2 | Stn 59–3 | Stn 59–4 | Stn 59–5 |
|---|---|---|---|---|---|---|---|---|---|---|
| Depth of haul: | 91–75 | 75–49 | 49–30 | 30–8 | 8–0 | 85–76 | 76–51 | 51–31 | 31–9 | 9–0 |
| Epilabidocera longipedata 6m | | | | | | | | | | |
| Eucalanus bungii 5f | | | | | | | | | | |
| Eucalanus bungii 5m | | | | | | | | | | * |
| Eucalanus bungii 6f | * | | | | | | | | | |
| Eucalanus californicus 6f | | | | | | | | | | |
| Euchaeta 3 | | | | | | | | | | |
| Euchaeta 4 | | | | | | | | | | |
| Euchaeta elongata 4 | | | | | | | | | | |
| Euchaeta elongata 5f | | | | | | | | | | |
| Euchaeta elongata 5m | | | | | | | | | | |
| Euchaeta elongata 6f | | | | | | | | | | |
| Euchaeta elongata 6m | | | | | | | * | | | |
| Eukrohnia hamata s2 | | | | | | | 1 | * | * | |
| Eukrohnia hamata s3 | 1 | | * | | | | | | | |
| Euphausia pacifica f | | | | | * | | | | * | * |
| Euphausia pacifica m | | | * | | * | | | * | * | * |
| Euphausia pacifica s1 | | | | | | | | | 2 | |
| Euphausia pacifica s2 | * | | 1 | * | 16 | 3 | 5 | 6 | | 2 |
| Euphausia pacifica s3 | | | | | | | | | | 2 |
| Euphausiacea | | | | | | | | | | |
| Euphausiid calyptopsis s1 | | | 8 | | | 16 | | | | 242 |
| Euphausiid furcilia s1 | | | 8 | | | | | | | 48 |
| Euphausiid juveniles s2 | * | | | | * | | | | | |
| Euphausiid nauplii | 10 | | 134 | 374 | 79 | 64 | 19 | 169 | 304 | 312 | 145 |
| Euphysa | | | | | | | | | | |
| Eutonia | | | | | | | | | | |
| Evadne s1 | | | | | | 32 | | | | 193 |
| Fish larvae s1 | | | | | | | | | | |
| Fish larvae s2 | | | | | | * | | | | |
| Fish larvae s3 | | * | * | * | | * | * | * | * | * |
| Fritillaria s1 | | | | | | | | | | 48 |

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| OE8805 (cont.) | Stn 57–1 | Stn 57–2 | Stn 57–3 | Stn 57–4 | Stn 57–5 | Stn 59–1 | Stn 59–2 | Stn 59–3 | Stn 59–4 | Stn 59–5 |
|---|---|---|---|---|---|---|---|---|---|---|
| Depth of haul: | 91–75 | 75–49 | 49–30 | 30–8 | 8–0 | 85–76 | 76–51 | 51–31 | 31–9 | 9–0 |
| Oithona similis 6f | | 110 | 69 | 126 | | 205 | 121 | 242 | | |
| Oithona similis 6m | | | | 16 | | | 11 | 6 | | |
| Oncaea conifera 6f | | | | | * | | | | * | * |
| Pagurid megalops s2 | * | * | * | | 1 | * | * | * | * | * |
| Pagurid zoea s2 | | | | | | | | | | |
| Pagurid zoea s3 | | | | | | | | | | |
| Pandalidae s1 | * | | * | | * | | | | | * |
| Pandalidae s2 | * | | | | * | | | | | |
| Pandalidae s3 | * | | | | | | | | | 48 |
| Pandalus jordani | | | | | | | | | | 193 |
| Paracalanus parvus 5 | | | | | | | | | | |
| Paracalanus parvus 6f | | | | | | | | | * | |
| Paracalanus parvus 6m | * | * | * | * | * | * | * | | | |
| Parathemisto pacifica f | * | | * | * | | * | * | | | |
| Parathemisto pacifica m | | | | | | | | | | |
| Parathemisto pacifica s1 | | | | | | | | | * | |
| Pasiphaea pacifica s3 | | | * | | | | | | * | |
| Phialidium s2 | * | * | * | * | | * | | | * | 1 |
| Phialidium s3 | | | | | * | | * | | | |
| Pleurobrachia s2 | | | | | | | | | | |
| Pleurobrachia s3 | | | | | | | | | | |
| Pleuromamma xiphias 6f | | | | | | | | | | 48 |
| Pleuronectidae | | | | | | | | | | |
| Podon s1 | | | | | | | | | | |
| Polychaete s2 | | | | | | | | | | 193 |
| Polychaete larvae s1 | | | | | | | | | | |
| Polychaete trochophores s1 | | | 8 | | | | | | | |
| Porcellanidae zoea s1 | | | | | | | | | | |
| Primno s1 | | | | | | | * | | | |
| Primno abyssalis f | | | | | | | | | | |
| Primno abyssalis m | | | | | | | | | | |

| OE8805 (cont.) | Stn 57–1 | Stn 57–2 | Stn 57–3 | Stn 57–4 | Stn 57–5 | Stn 59–1 | Stn 59–2 | Stn 59–3 | Stn 59–4 | Stn 59–5 |
|---|---|---|---|---|---|---|---|---|---|---|
| Depth of haul: | 91–75 | 75–49 | 49–30 | 30–8 | 8–0 | 85–76 | 76–51 | 51–31 | 31–9 | 9–0 |
| Primno abyssalis s1 | | | | | | | | | | |
| Primno abyssalis s2 | | | | | | | | | | |
| Probiscdactyla s2 | | | | | | | | | | |
| Pseudocalanus min/el 1–4 | 5 | | 10 | 63 | 113 | | 4 | 17 | 337 | 145 |
| Pseudocalanus min/el 5f | 10 | 95 | 79 | 487 | 918 | 37 | 29 | 73 | 529 | 580 |
| Pseudocalanus min/el 5m | 20 | 102 | 158 | 675 | 676 | 31 | 44 | 130 | 697 | 676 |
| Pseudocalanus min/el 6f | 258 | 1111 | 866 | 895 | 419 | 304 | 345 | 1038 | 2428 | 1401 |
| Pseudocalanus min/el 6m | 101 | 882 | 1142 | 361 | 97 | 155 | 315 | 1026 | 649 | 48 |
| Racovitzanus antarcticus 6f | | | | | | | | | | |
| Sagitta elegans s2 | | | | | | | | | | * |
| Sagitta elegans s3 | 3 | 11 | 21 | 12 | 2 | 9 | 31 | 10 | 2 | |
| Sarsia s2 | | | | | * | | | | | * |
| Sarsia s3 | | | | | | | | | | |
| Scolecithricella minor 5 | | | | | | | | | | |
| Scolecithricella minor 6f | | 8 | | | | | | | | |
| Scolecithricella minor 6m | | | | | | | | | | |
| Thysanoessa longipes f | | * | | | | | | | | |
| Thysanoessa longipes m | * | * | | | | | | | | |
| Thysanoessa raschii f | | | | | | | | | * | |
| Thysanoessa raschii m | | | * | | * | | | * | | |
| Thysanoessa spinifera f | * | * | * | * | * | | * | * | * | * |
| Thysanoessa spinifera m | * | * | * | * | | 1 | * | * | * | |
| Thysanoessa spinifera s2 | * | | * | 8 | 5 | * | * | 2 | 5 | 6 |
| Tomopteris septentrionalis s3 | | | | | | | | | | |
| Unclassified eggs | 15 | | 108 | 408 | 1723 | 19 | 18 | 73 | 697 | 3236 |

## TABLE 10 (cont.)

Bioness oblique net haul: animals.m–3

• Taxa present in concentrations of less than 1.m–3

| | Stn 61–1 | Stn 61–2 | Stn 61/3 | Stn 61–4 | Stn 61–5 | Stn 64–1 | Stn 64–2 | Stn 64–3 | Stn 64–4 | Stn 64–5 |
|---|---|---|---|---|---|---|---|---|---|---|
| Depth of haul: | 90–75 | 75–49 | 49–30 | 30–7 | 7–0 | 90–75 | 75–50 | 50–30 | 30–10 | 10–0 |
| Taxon: | | | | | | | | | | |
| Acartia 1–4 | 5 | 11 | | 502 | | | | | 186 | 2320 |
| Acartia clausi 6f | | | | | 83 | | | | | |
| Acartia longiremis 5 | 5 | 3 | 16 | 84 | 165 | 6 | | 10 | 120 | 747 |
| Acartia longiremis 6f | 5 | 8 | 40 | 134 | 358 | 12 | 10 | 10 | 197 | 507 |
| Acartia longiremis 6m | 5 | | 16 | 100 | 248 | 3 | | 10 | 164 | 107 |
| Aegina s2 | | | | | | | | | | |
| Aglantha s2 | | | | | | | | | | |
| Aglantha s3 | | | | | 55 | | | | | 53 |
| Barnacle cyprids | | | | | 936 | | 3 | | | 347 |
| Barnacle nauplii | 5 | 3 | | | | 22 | | | 22 | 213 |
| Bivalve veligers | 9 | | 32 | | | | | | | |
| Brachyuran megalops s1 | | | | | | | | | | |
| Brachyuran megalops s2 | | | | | | | | | | |
| Brachyuran megalops s3 | | | | | | | | | | |
| Brachyuran zoea s1 | | 8 | | | 55 | | | | | |
| Brachyuran zoea s2 | | | | | | | | | | |
| Calanoida 1–3 (unidentified) | 27 | 19 | 89 | 1723 | | | 22 | 38 | 897 | 2240 |
| Calanus 1–3 | 5 | | 48 | 33 | 138 | | 6 | 76 | 55 | 107 |
| Calanus marshallae 4 | 5 | 3 | 8 | 17 | 55 | | 16 | 19 | 11 | 27 |
| Calanus marshallae 5 | 54 | 8 | 8 | 17 | 165 | 18 | 86 | | | |
| Calanus marshallae 6f | 5 | 8 | 8 | 50 | 83 | 95 | 64 | 10 | | |
| Calanus marshallae 6m | 9 | 6 | | | 28 | 6 | 6 | | | |
| Calanus pacificus 5 | | | | 33 | | | 6 | | | |
| Calanus pacificus 6f | | | | | | 3 | 3 | | | |
| Candacia columbiae 6f | | | | | | | | | | |
| Candacia columbiae 6m | | | | | 55 | | | | | |
| Caridean mysis s1 | | | | | | | | | | |

| OE8805 (cont.) | Stn 61–1 | Stn 61–2 | Stn 61/3 | Stn 61–4 | Stn 61–5 | Stn 64–1 | Stn 64–2 | Stn 64–3 | Stn 64–4 | Stn 64–5 |
|---|---|---|---|---|---|---|---|---|---|---|
| Depth of haul: | 90–75 | 75–49 | 49–30 | 30–7 | 7–0 | 90–75 | 75–50 | 50–30 | 30–10 | 10–0 |
| Caridean mysis s2 | * | * | * | * | * | 1 | * | * | * | 2 |
| Caridean mysis s3 | * | * | * | * | | * | * | | | |
| Caridean zoea s1 | | | | | | | | | | 27 |
| Centropages abdominalis 1–4 | | | | | 55 | | | | 22 | 27 |
| Centropages abdominalis 5 | | | | | 165 | | | | | 53 |
| Centropages abdominalis 6f | | | | 17 | 83 | | | | | 53 |
| Centropages abdominalis 6m | | | | | | | | | | 27 |
| Chaetognath juvenile s1 | | | | | | | 3 | * | 1 | 2 |
| Chaetognath juvenile s2 | 1 | * | 1 | 2 | | | | | | |
| Chaetognath juvenile s3 | | | | | 2 | * | | | | |
| Chaetognatha s2 | | | | | | 2 | * | * | | |
| Chaetognatha s3 | * | | * | | | | | | | |
| Chiridius gracilis 5 | | | | | | | | | | |
| Chiridius gracilis 6f | | | | | | | | | | |
| Conchoecia s1 | | | | | | | | | | |
| Copepod nauplii | | 28 | 121 | 33 | 606 | 9 | 3 | 57 | 88 | 640 |
| Corycaeus anglicus 5 | | | | 17 | | | | | | |
| Corycaeus anglicus 6f | | | | | | | | 10 | 11 | |
| Corycaeus anglicus 6m | | | | | | | | * | | |
| Crangonidae s2 | * | | | | | | | | | |
| Crangonidae s3 | | | | | | | | | | |
| Ctenocalanus vanus 5 | | | | | | | | | | |
| Ctenocalanus vanus 6f | | | | | | | | | | |
| Cumacea s3 | | | | | | | | | | |
| Cyphocaris s1 | | | | | | | | | | |
| Cyphocaris challengeri s2 | 1 | * | * | * | | * | * | | * | |
| Cyphocaris challengeri s3 | | | * | | | | | | | |
| Cyphonautes larvae | | | | | | | | | | 53 |
| Echinoderm pluteus s1 | | | | 50 | 110 | | | | | |
| Epilabidocera longipedata 1–4 | | | | | | | | | | |
| Epilabidocera longipedata 5 | | | | | | | | | | |

| OE8805 (cont.) | Stn 61-1 | Stn 61-2 | Stn 61/3 | Stn 61-4 | Stn 61-5 | Stn 64-1 | Stn 64-2 | Stn 64-3 | Stn 64-4 | Stn 64-5 |
|---|---|---|---|---|---|---|---|---|---|---|
| Depth of haul: | 90-75 | 75-49 | 49-30 | 30-7 | 7-0 | 90-75 | 75-50 | 50-30 | 30-10 | 10-0 |
| Epilabidocera longipedata 6m | | | | | | | | | | |
| Eucalanus bungii 5f | | | | | | | | * | | |
| Eucalanus bungii 5m | | | | | | * | * | * | | * |
| Eucalanus bungii 6f | | * | | | | | | | | |
| Eucalanus californicus 6f | | | | | | | | | | |
| Euchaeta 3 | | | | | | | | * | | |
| Euchaeta 4 | | | | | | | | | | |
| Euchaeta elongata 4 | | | | | | | | | | |
| Euchaeta elongata 5f | | | | | | | | | | |
| Euchaeta elongata 5m | | | | | | | | | | |
| Euchaeta elongata 6f | | | | | | | | | | |
| Euchaeta elongata 6m | | | | | | | | * | | |
| Eukrohnia hamata s2 | | * | * | | | | 2 | * | | |
| Eukrohnia hamata s3 | | * | * | | | | * | | | |
| Euphausia pacifica f | | * | | * | | | 6 | | | |
| Euphausia pacifica m | | | | | | | | | | |
| Euphausia pacifica s1 | | | | | | | | * | | |
| Euphausia pacifica s2 | | 3 | 1 | 2 | 3 | 2 | | | | |
| Euphausia pacifica s3 | | | | | | | | | | |
| Euphausiacea | | | | | | | | | | |
| Euphausiid calyptopsis s1 | | | | | | | | 3 | | 11 |
| Euphausiid furcilia s1 | | | | | | | | * | * | |
| Euphausiid juveniles s2 | | | | | | | 37 | 38 | 487 | 241 | 373 |
| Euphausiid nauplii | | 36 | 136 | 242 | 318 | 385 | | | | |
| Euphysa | | | | | | | | | | * |
| Eutonia | | | * | | | | | | | 133 |
| Evadne s1 | | | | | | 633 | | | | |
| Fish larvae s1 | | | | | | | | | * | |
| Fish larvae s2 | | | | | * | | | | | * |
| Fish larvae s3 | | * | * | * | * | * | * | * | | |
| Fritillaria s1 | | | | | | | | | * | |

| OE8805 (cont.) | Stn 61–1 | Stn 61–2 | Stn 61/3 | Stn 61–4 | Stn 61–5 | Stn 64–1 | Stn 64–2 | Stn 64–3 | Stn 64–4 | Stn 64–5 |
|---|---|---|---|---|---|---|---|---|---|---|
| Depth of haul: | 90–75 | 75–49 | 49–30 | 30–7 | 7–0 | 90–75 | 75–50 | 50–30 | 30–10 | 10–0 |
| Gaetanus intermedius 6f | | | | | | | | | | |
| Gastropod veligers s1 | | | 8 | | | | | 10 | 11 | |
| Holmsiella anomola s3 | | | | | | | | | | |
| Hyperia s1 | | | | 17 | | | | | 22 | |
| Hyperiidae s1 | | | | | | | | | | |
| Hyperoche medusarum s2 | | | | | | | | | | * |
| Hyperoche medusarum s3 | | | | | | | 6 | | | |
| Isopoda s1 | | | | | | | | 19 | | 27 |
| Limacina s1 | 5 | | | | | | | | | |
| Medusae s1 | | | | | | | | | | |
| Medusae s2 | | | | | | | | | | |
| Mesocalanus tenuicornis 5 | | | | | | 9 | 25 | | | |
| Metridia 1–4 | 18 | | | | | | 6 | | | |
| Metridia pacifica 1–4 | 14 | | | | | 25 | 16 | | | |
| Metridia pacifica 5f | 50 | 8 | | | | 231 | 10 | | | |
| Metridia pacifica 5m | 86 | 36 | | | | 68 | | | | |
| Metridia pacifica 6f | 63 | 8 | 8 | | | 225 | 3 | | | |
| Metridia pacifica 6m | 221 | 33 | | | | 62 | 13 | | | |
| Microcalanus pygmaeus pusillus | 36 | 14 | | | | 25 | 22 | | | |
| Microcalanus pygmaeus pusillus | 18 | 33 | 8 | | | 15 | 6 | | | |
| Microcalanus pygmaeus pusillus | 14 | 8 | | | | | | | | |
| Muggiaea s2 | | | | * | | | | | | |
| Nematoda s2 | | | | | | | | | | |
| Nematoda s3 | | | | | | | | | | |
| Neocalanus cristatus 5 | | | | * | | | | | | |
| Neocalanus plumchrus 5 | | | | | | | | | | |
| Oikopleura s1 | | | | 17 | 468 | | 3 | | | 53 |
| Oikopleura s2 | 5 | * | * | * | | 3 | * | * | * | |
| Oithona atlantica 1–5 | | | | | | | | | | |
| Oithona atlantica 6f | | | 8 | | | | | | | |
| Oithona similis 1–5 | 77 | | | 50 | 55 | 102 | 25 | | 66 | |

| OE8805 (cont.) | Stn 61–1 | Stn 61–2 | Stn 61/3 | Stn 61–4 | Stn 61–5 | Stn 64–1 | Stn 64–2 | Stn 64–3 | Stn 64–4 | Stn 64–5 |
|---|---|---|---|---|---|---|---|---|---|---|
| Depth of haul: | 90–75 | 75–49 | 49–30 | 30–7 | 7–0 | 90–75 | 75–50 | 50–30 | 30–10 | 10–0 |
| Oithona similis 6f | 122 | 58 | 121 | 84 | 110 | 6 | 99 | 172 | | 27 |
| Oithona similis 6m | 9 | 11 | 16 | | | | 13 | 10 | | |
| Oncaea conifera 6f | | | | | | | | | | |
| Pagurid megalops s2 | | | * | | | | | | | |
| Pagurid zoea s2 | * | | * | * | | * | * | * | | * |
| Pagurid zoea s3 | * | | | | | | | | | |
| Pandalidae s1 | | | | | | | | | | |
| Pandalidae s2 | * | * | | | | | | | | |
| Pandalidae s3 | * | | * | * | | | | | * | |
| Pandalus jordani | | | | | | | | | | |
| Paracalanus parvus 5 | | | | 17 | | | | 10 | | 53 |
| Paracalanus parvus 6f | | | | | | | | 19 | 11 | 107 |
| Paracalanus parvus 6m | | | | | | | | | | |
| Parathemisto pacifica f | * | * | * | * | | * | | | | |
| Parathemisto pacifica m | * | * | * | * | | | | | | |
| Parathemisto pacifica s1 | | | | | | | 10 | | | |
| Pasiphaea pacifica s3 | | | | | | | | | | |
| Phialidium s2 | | * | | | * | | | | * | * |
| Phialidium s3 | * | * | * | * | * | * | * | * | | * |
| Pleurobrachia s2 | | | | * | 2 | | | * | * | 2 |
| Pleurobrachia s3 | | | | | | | | | * | * |
| Pleuromamma xiphias 6f | | | | | | | | | | |
| Pleuronectidae | | | | | | | | | | |
| Podon s1 | | | | | | | | | | |
| Polychaete s2 | | | | | | | | | | |
| Polychaete larvae s1 | | | | | | | | | | |
| Polychaete trochophores s1 | | 5 | | | | | | | | |
| Porcellanidae zoea s1 | | | | | | | | | | 27 |
| Primno s1 | | | | | | | | | | |
| Primno abyssalis f | | | | | | | | | | |
| Primno abyssalis m | | | | | | | * | | | |

| OE8805 (cont.) | Stn 61–1 | Stn 61–2 | Stn 61/3 | Stn 61–4 | Stn 61–5 | Stn 64–1 | Stn 64–2 | Stn 64–3 | Stn 64–4 | Stn 64–5 |
|---|---|---|---|---|---|---|---|---|---|---|
| Depth of haul: | 90–75 | 75–49 | 49–30 | 30–7 | 7–0 | 90–75 | 75–50 | 50–30 | 30–10 | 10–0 |
| Primno abyssalis s1 | | | | | | | | | | |
| Primno abyssalis s2 | | | | | | | | | | |
| Probiscdactyla s2 | | | | | | | | | | |
| Pseudocalanus min/el 1–4 | 14 | | 72 | 84 | 138 | 9 | 6 | 38 | 142 | 320 |
| Pseudocalanus min/el 5f | 41 | 14 | 169 | 251 | 330 | 31 | 22 | 220 | 689 | 1680 |
| Pseudocalanus min/el 5m | 32 | 28 | 97 | 318 | 523 | 25 | 32 | 229 | 186 | 1040 |
| Pseudocalanus min/el 6f | 198 | 208 | 853 | 2125 | 881 | 98 | 503 | 1022 | 645 | 1520 |
| Pseudocalanus min/el 6m | 63 | 263 | 829 | 1037 | 165 | 25 | 194 | 1099 | 361 | 187 |
| Racovitzanus antarcticus 6f | | | | | | | | | | |
| Sagitta elegans s2 | | | | | | | | | | |
| Sagitta elegans s3 | 18 | 13 | 5 | 1 | * | 111 | 11 | * | * | * |
| Sarsia s2 | | | | | * | | * | | | |
| Sarsia s3 | | | | | | | | | | |
| Scolecithricella minor 5 | | | | | | | 3 | | | |
| Scolecithricella minor 6f | | | | | | | 6 | | | |
| Scolecithricella minor 6m | | | | | | | | | | |
| Thysanoessa longipes f | | | | | | | | | | |
| Thysanoessa longipes m | | | | | | | | | | |
| Thysanoessa raschii f | | | | | | | | | | |
| Thysanoessa raschii m | | | * | | | | | | | |
| Thysanoessa spinifera f | | * | * | * | | | * | | | |
| Thysanoessa spinifera m | * | * | * | * | * | * | | | | |
| Thysanoessa spinifera s2 | * | * | 1 | 2 | 8 | 2 | * | * | | |
| Tomopteris septentrionalis s3 | | | | | | | | | | |
| Unclassified eggs | 27 | 14 | 209 | 602 | 908 | 15 | 38 | 210 | 284 | 7627 |

## TABLE 10 (cont.)

Bioness oblique net haul: animals.m–3

* Taxa present in concentrations of less than 1.m–3

| | Stn 65–1 | Stn 65–4 | Stn 65–5 | Stn 65–6 | Stn 65–7 | Stn 75–1 | Stn 75–2 | Stn 75–3 | Stn 75–4 | Stn 75–6 | Stn 75–7 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Depth of haul: | 121–104 | 99–74 | 74–49 | 49–28 | 28–0 | 121–98 | 98–76 | 76–50 | 50–34 | 34–10 | 10–0 |
| Taxon: | | | | | | | | | | | |
| Acartia 1–4 | | | | | 711 | | | | 5 | 232 | 776 |
| Acartia clausi 6f | | | | | 21 | | | | | | |
| Acartia longiremis 5 | 1 | | 2 | 7 | 982 | 8 | | | 24 | 150 | 520 |
| Acartia longiremis 6f | 1 | 2 | | 28 | 794 | 11 | 8 | 8 | 43 | 240 | 328 |
| Acartia longiremis 6m | 3 | | | 14 | 669 | 11 | | 3 | 24 | 269 | 376 |
| Aegina s2 | | | | | | * | | | | | |
| Aglantha s2 | | * | | | | * | | | | | |
| Aglantha s3 | | | | | | * | | | * | * | |
| Barnacle cyprids | | | | | | | 4 | | | | 16 |
| Barnacle nauplii | 3 | | 7 | | | 3 | | 3 | | 22 | 8 |
| Bivalve veligers | | | 2 | | 63 | | | 6 | 43 | 15 | |
| Brachyuran megalops s1 | | | | | | | | | | | |
| Brachyuran megalops s2 | | | | | | | | | * | | |
| Brachyuran megalops s3 | | | | | | | | | | | |
| Brachyuran zoea s1 | | 2 | | | 125 | 3 | | | 14 | | 16 |
| Brachyuran zoea s2 | | | | | * | * | * | | | * | 4 |
| Calanoida 1–3 (unidentified) | | | 2 | 117 | 585 | 19 | | | 43 | 75 | 336 |
| Calanus 1–3 | | | | 21 | 63 | | | | 47 | 30 | 32 |
| Calanus marshallae 4 | | | 7 | | | 5 | 8 | | 5 | | |
| Calanus marshallae 5 | 3 | 2 | 2 | | | 3 | 8 | 3 | 5 | 7 | |
| Calanus marshallae 6f | 4 | 8 | 31 | 4 | | | | 11 | 19 | 7 | |
| Calanus marshallae 6m | 1 | 4 | 11 | | | 14 | 8 | 3 | 5 | 15 | |
| Calanus pacificus 5 | | | 2 | | | | | | | | |
| Calanus pacificus 6f | | | 9 | | | | | | | | |
| Candacia columbiae 6f | | | | | | 3 | | | | | |
| Candacia columbiae 6m | | | | | | | 4 | | | | |
| Caridean mysis s1 | | | | | | | | | | | |

| OE8805 (cont.) | Stn 65–1 | Stn 65–4 | Stn 65–5 | Stn 65–6 | Stn 65–7 | Stn 75–1 | Stn 75–2 | Stn 75–3 | Stn 75–4 | Stn 75–6 | Stn 75–7 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Depth of haul: | 121–104 | 99–74 | 74–49 | 49–28 | 28–0 | 121–98 | 98–76 | 76–50 | 50–34 | 34–10 | 10–0 |
| Caridean mysis s2 | 8 | * | * | 1 | 2 | * | * | * | * | * | 7 |
| Caridean mysis s3 | * | * | * | | * | | | | | * | * |
| Caridean zoea s1 | | | | | | | | | | | 24 |
| Centropages abdominalis 1–4 | | | | | 42 | | | | | | |
| Centropages abdominalis 5 | | | | | 21 | | | | | | |
| Centropages abdominalis 6f | | | | | | | | | | 22 | |
| Centropages abdominalis 6m | | | | | | | | | | | |
| Chaetognath juvenile s1 | | | * | * | * | * | | | * | * | 2 |
| Chaetognath juvenile s2 | | | | | | | | | | | |
| Chaetognath juvenile s3 | | | | | * | | | * | | * | |
| Chaetognatha s2 | | | | * | * | 1 | * | * | * | * | |
| Chaetognatha s3 | 1 | | | | | 3 | | | | | |
| Chiridius gracilis 5 | | | | | | 5 | 4 | | | | |
| Chiridius gracilis 6f | | | | | | 106 | 16 | 17 | 19 | 7 | |
| Conchoecia s1 | 7 | 2 | 2 | | | | 4 | 6 | 228 | 180 | 64 |
| Copepod nauplii | | 6 | | 85 | 564 | | | | | | |
| Corycaeus anglicus 5 | | | | | 21 | | | | 5 | | |
| Corycaeus anglicus 6f | | | | | | | | | | | |
| Corycaeus anglicus 6m | | | | | | | | | | | |
| Crangonidae s2 | | * | | | | | | | | | |
| Crangonidae s3 | | | | | | | | | | | |
| Ctenocalanus vanus 5 | | | | | | | | | | | |
| Ctenocalanus vanus 6f | | | | | | | | | | | |
| Cumacea s3 | | | | | | 11 | 4 | | | 15 | |
| Cyphocaris s1 | 3 | | | | * | 2 | * | 3 | 3 | 3 | 5 |
| Cyphocaris challengeri s2 | 16 | * | | | | * | * | * | * | * | |
| Cyphocaris challengeri s3 | 1 | | | | | | 8 | 3 | | 7 | 24 |
| Cyphonautes larvae | | 4 | 4 | | | | | | | 30 | 96 |
| Echinoderm pluteus s1 | | | | | 63 | | | | | | |
| Epilabidocera longipedata 1–4 | | | | | | | | | | | |
| Epilabidocera longipedata 5 | | | | | 21 | | | | | | |

| OE8805 (cont.) | Stn 65–1 | Stn 65–4 | Stn 65–5 | Stn 65–6 | Stn 65–7 | Stn 75–1 | Stn 75–2 | Stn 75–3 | Stn 75–4 | Stn 75–6 | Stn 75–7 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Depth of haul: | 121–104 | 99–74 | 74–49 | 49–28 | 28–0 | 121–98 | 98–76 | 76–50 | 50–34 | 34–10 | 10–0 |
| Epilabidocera longipedata 6m | | | | | | | | | | | |
| Eucalanus bungii 5f | | * | * | * | | * | * | | | | |
| Eucalanus bungii 5m | | | * | | | | | | | | |
| Eucalanus bungii 6f | | * | | | * | * | * | | | | |
| Eucalanus californicus 6f | | | | | * | | | | | | |
| Euchaeta 3 | 3 | 4 | | | | 8 | | | | | |
| Euchaeta 4 | | | | | | | 4 | | 5 | | |
| Euchaeta elongata 4 | 15 | | | | | | | | | | |
| Euchaeta elongata 5f | 10 | | | | | * | 8 | 3 | * | * | |
| Euchaeta elongata 5m | 6 | | | | | 3 | 4 | * | * | * | |
| Euchaeta elongata 6f | 17 | * | | | | 2 | 4 | 5 | 4 | 2 | 3 |
| Euchaeta elongata 6m | 15 | | | * | | 2 | * | 2 | 1 | 2 | 1 |
| Eukrohnia hamata s2 | * | | * | * | | | * | | | | |
| Eukrohnia hamata s3 | 1 | 1 | * | * | * | 2 | * | * | | * | |
| Euphausia pacifica f | 1 | * | | | | * | * | * | | 4 | 11 |
| Euphausia pacifica m | | * | | | | * | * | * | * | 2 | 10 |
| Euphausia pacifica s1 | | | | | | | | | | | 4 |
| Euphausia pacifica s2 | | * | | | * | | | | * | 2 | |
| Euphausia pacifica s3 | | | | | | | | | | * | |
| Euphausiacea | | | | | | | | | | | |
| Euphausiid calyptopsis s1 | | | | | | | | | | 7 | 8 |
| Euphausiid furcilia s1 | | | | | | | | | 5 | | |
| Euphausiid juveniles s2 | | | * | * | * | | | | | * | * |
| Euphausiid nauplii | 3 | 12 | 40 | 50 | 293 | | | 17 | 81 | 30 | |
| Euphysa | | | | | | | | | | * | |
| Eutonia | | | | | | | | | | | 16 |
| Evadne s1 | | | | | | | | | | | |
| Fish larvae s1 | | | | | | * | | | | * | |
| Fish larvae s2 | | | | | | * | | | * | * | * |
| Fish larvae s3 | | | | | | | | | | | |
| Fritillaria s1 | | | | | | | | | | | |

| OE8805 (cont.) | Stn 65–1 | Stn 65–4 | Stn 65–5 | Stn 65–6 | Stn 65–7 | Stn 75–1 | Stn 75–2 | Stn 75–3 | Stn 75–4 | Stn 75–6 | Stn 75–7 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Depth of haul: | 121–104 | 99–74 | 74–49 | 49–28 | 28–0 | 121–98 | 98–76 | 76–50 | 50–34 | 34–10 | 10–0 |
| Gaetanus intermedius 6f | | | | | | 3 | | | | | |
| Gastropod veligers s1 | | | | | | * | | | | | |
| Holmsiella anomola s3 | | | | | | | | | | | 24 |
| Hyperia s1 | 1 | 2 | 2 | 4 | | 3 | 8 | 8 | | | |
| Hyperiidae s1 | | | | | | | | | | | |
| Hyperoche medusarum s2 | | | | | | | | | | | |
| Hyperoche medusarum s3 | | | | | | | | | 9 | | |
| Isopoda s1 | 1 | 4 | 4 | | | | | | 19 | 15 | |
| Limacina s1 | | | 2 | | | | | | | | |
| Medusae s1 | | | | | | | | | | | |
| Medusae s2 | | | | | | | | | | | |
| Mesocalanus tenuicornis 5 | | | 2 | | | | | | | | |
| Metridia 1–4 | | | 13 | | | 11 | 16 | | 5 | | |
| Metridia pacifica 1–4 | | 4 | 2 | | | | 4 | | | | |
| Metridia pacifica 5f | 9 | 13 | 2 | | | 11 | 8 | 11 | 5 | | |
| Metridia pacifica 5m | 4 | 17 | 4 | | | 11 | 8 | 20 | 9 | 7 | |
| Metridia pacifica 6f | 167 | 108 | | | | 54 | 500 | 262 | 52 | 15 | |
| Metridia pacifica 6m | 63 | 71 | | | | 165 | 120 | 20 | 24 | | |
| Microcalanus pygmaeus pusillus | 10 | 194 | 42 | 11 | | 35 | 68 | 6 | 5 | | |
| Microcalanus pygmaeus pusillus | 3 | 96 | 76 | 18 | | 84 | 20 | 6 | | | |
| Microcalanus pygmaeus pusillus 6m | | 23 | 4 | 4 | | 14 | 8 | 3 | | | |
| Muggiaea s2 | | | | | | | | | | | |
| Nematoda s2 | | | | | | | | | | | |
| Nematoda s3 | | | | | | | * | | | | * |
| Neocalanus cristatus 5 | * | | | | | | | | | | |
| Neocalanus plumchrus 5 | | | | | | | | | | 22 | 40 |
| Oikopleura s1 | | | 2 | | 125 | | | | | | |
| Oikopleura s2 | | | * | | | * | | | | | |
| Oithona atlantica 1–5 | | 2 | | | | 8 | | 3 | | | |
| Oithona atlantica 6f | | 2 | | | 21 | | | | | | |
| Oithona similis 1–5 | 12 | 8 | 7 | 11 | 84 | 35 | 20 | 11 | 33 | 22 | |

| OE8805 (cont.) | Stn 65–1 | Stn 65–4 | Stn 65–5 | Stn 65–6 | Stn 65–7 | Stn 75–1 | Stn 75–2 | Stn 75–3 | Stn 75–4 | Stn 75–6 | Stn 75–7 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Depth of haul: | 121–104 | 99–74 | 74–49 | 49–28 | 28–0 | 121–98 | 98–76 | 76–50 | 50–34 | 34–10 | 10–0 |
| Oithona similis 6f | 4 | 283 | 268 | 217 | 148 | 155 | 196 | 85 | 299 | 82 | |
| Oithona similis 6m | | 2 | 9 | 14 | | 8 | | 3 | 14 | 15 | 8 |
| Oncaea conifera 6f | | 2 | | | | | 4 | | | | |
| Pagurid megalops s2 | | | | | | | | | | | |
| Pagurid zoea s2 | | | * | * | * | * | | | | | |
| Pagurid zoea s3 | | | | | | | | | | | |
| Pandalidae s1 | | | | | | | | | | | |
| Pandalidae s2 | | | | | | | | | | | |
| Pandalidae s3 | * | | | | | | | | * | | |
| Pandalus jordani | | | | | | | | | | | |
| Paracalanus parvus 5 | | | | | | | | | | | |
| Paracalanus parvus 6f | | | | | | | | | | | |
| Paracalanus parvus 6m | | | | | | | | | | | |
| Parathemisto pacifica f | 16 | 3 | | | * | 2 | 2 | 3 | * | * | 3 |
| Parathemisto pacifica m | 5 | 2 | | | * | * | * | 1 | * | * | 3 |
| Parathemisto pacifica s1 | 3 | | 9 | | | 3 | 4 | 3 | 5 | | |
| Pasiphaea pacifica s3 | | | | | | | * | * | | | |
| Phialidium s2 | | | * | | | | * | | * | | |
| Phialidium s3 | | | | | * | | | | * | | |
| Pleurobrachia s2 | | | | | * | | | | | | |
| Pleurobrachia s3 | | | | | | | | | | | |
| Pleuromamma xiphias 6f | * | | | | | | | | | | |
| Pleuronectidae | | | | | | | | | | | |
| Podon s1 | | | | | 21 | | | | | | |
| Polychaete s2 | | | | | | | | | | | |
| Polychaete larvae s1 | | | | | | | 4 | 3 | 5 | | 8 |
| Polychaete trochophores s1 | | | | | | | | | | | |
| Porcellanidae zoea s1 | | | | | 42 | | | | 5 | | |
| Primno s1 | 3 | 2 | | | | | | | | | |
| Primno abyssalis f | 2 | * | * | | * | * | * | * | | * | |
| Primno abyssalis m | 1 | | * | | | * | * | * | * | * | |

| OE8805 (cont.) | Stn 65–1 | Stn 65–4 | Stn 65–5 | Stn 65–6 | Stn 65–7 | Stn 75–1 | Stn 75–2 | Stn 75–3 | Stn 75–4 | Stn 75–6 | Stn 75–7 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Depth of haul: | 121–104 | 99–74 | 74–49 | 49–28 | 28–0 | 121–98 | 98–76 | 76–50 | 50–34 | 34–10 | 10–0 |
| Primno abyssalis s1 | | | | | | 3 | | | | | |
| Primno abyssalis s2 | 1 | | | | | | * | * | * | * | |
| Probiscdactyla s2 | | | | | | | | | | | |
| Pseudocalanus min/el 1-4 | | | | 4 | 42 | | | | | 7 | 8 |
| Pseudocalanus min/el 5f | | 4 | 4 | 18 | 376 | | 4 | | 28 | 7 | 32 |
| Pseudocalanus min/el 5m | | 6 | 7 | 7 | 188 | | 4 | | 28 | 67 | 168 |
| Pseudocalanus min/el 6f | | 12 | 40 | 383 | 711 | 33 | 56 | 130 | 299 | 427 | 328 |
| Pseudocalanus min/el 6m | | | 7 | 153 | 334 | 8 | 16 | 14 | 161 | 202 | 248 |
| Racovitzanus antarcticus 6f | | | | | | 8 | | | | | |
| Sagitta elegans s2 | | | | | | | * | | | | |
| Sagitta elegans s3 | | 28 | 18 | * | * | * | | * | 6 | 6 | 17 |
| Sarsia s2 | | | | | | | | | | | |
| Sarsia s3 | | | | | | | | | | | |
| Scolecithricella minor 5 | 3 | | 7 | | | | | | | | |
| Scolecithricella minor 6f | 1 | | 7 | | | 3 | 4 | 6 | | | |
| Scolecithricella minor 6m | 1 | | | | | | | | | | |
| Thysanoessa longipes f | | | | | | | | | | | |
| Thysanoessa longipes m | | | | | | | | | | | |
| Thysanoessa raschii f | | | | | | | | | | * | * |
| Thysanoessa raschii m | | | | | | | | | | * | |
| Thysanoessa spinifera f | | * | | | | | | | | * | * |
| Thysanoessa spinifera m | | | | | | | | * | | | |
| Thysanoessa spinifera s2 | | | * | | | | | | | * | 2 |
| Tomopteris septentrionalis s3 | | | | | | | | | * | | |
| Unclassified eggs | 10 | 12 | 20 | 117 | 4242 | 14 | 16 | | 142 | 846 | 368 |