



Scientific Excellence • Resource Protection & Conservation • Benefits for Canadians  
Excellence scientifique • Protection et conservation des ressources • Bénéfices aux Canadiens

21008

CA9φ06659

## **The Vertical Distribution of Zooplankton and Ichthyoplankton on the Nova Scotia Shelf during September 1985**

M.K. Lewis and D.D. Sameoto

Biological Sciences Branch  
Department of Fisheries and Oceans

Bedford Institute of Oceanography  
P.O. Box 1006  
Dartmouth, Nova Scotia  
Canada B2Y 4A2

June 1990

**Canadian Data Report of  
Fisheries & Aquatic Sciences  
No. 803**



Fisheries  
and Oceans

Pêches  
et Océans

Canada

## Canadian Data Report of Fisheries and Aquatic Sciences

Data reports provide a medium for filing and archiving data compilations where little or no analysis is included. Such compilations commonly will have been prepared in support of other journal publications or reports. The subject matter of data reports reflects the broad interests and policies of the Department of Fisheries and Oceans, namely, fisheries and aquatic sciences.

Data reports are not intended for general distribution and the contents must not be referred to in other publications without prior written authorization from the issuing establishment. The correct citation appears above the abstract of each report. Data reports are abstracted in *Aquatic Sciences and Fisheries Abstracts* and indexed in the Department's annual index to scientific and technical publications.

Numbers 1-25 in this series were issued as Fisheries and Marine Service Data Records. Numbers 26-160 were issued as Department of Fisheries and the Environment, Fisheries and Marine Service Data Reports. The current series name was introduced with the publication of report number 161.

Data reports are produced regionally but are numbered nationally. Requests for individual reports will be filled 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.

## Rapport statistique canadien des sciences halieutiques et aquatiques

Les rapports statistiques servent à classer et à archiver les compilations de données pour lesquelles il y a peu ou point d'analyse. Ces compilations auront d'ordinaire été préparées à l'appui d'autres publications ou rapports. Les sujets des rapports statistiques reflètent la vaste gamme des intérêts et des politiques du ministère des Pêches et des Océans, c'est-à-dire les sciences halieutiques et aquatiques.

Les rapports statistiques ne sont pas destinés à une vaste distribution et leur contenu ne doit pas être mentionné dans une publication sans autorisation écrite préalable de l'établissement auteur. Le titre exact paraît au-dessus du résumé de chaque rapport. Les rapports statistiques sont résumés dans la revue *Résumés des sciences aquatiques et halieutiques*, et ils sont classés dans l'index annuel des publications scientifiques et techniques du Ministère.

Les numéros 1 à 25 de cette série ont été publiés à titre de relevés statistiques, Services des pêches et de la mer. Les numéros 26 à 160 ont été publiés à titre de rapports statistiques du Service des pêches et de la mer, ministère des Pêches et de l'Environnement. Le nom actuel de la série a été établi lors de la parution du numéro 161.

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

*C49ΦΦΦ659*

Canadian Data Report of  
Fisheries and Aquatic Sciences No. 803

June 1990

THE VERTICAL DISTRIBUTION OF ZOOPLANKTON  
AND ICHTHYOPLANKTON ON THE NOVA SCOTIA SHELF  
DURING SEPTEMBER 1985

by

M.K. Lewis and D.D. Sameoto

Biological Sciences Branch  
Department of Fisheries and Oceans

Bedford Institute of Oceanography  
P.O. Box 1006  
Dartmouth, Nova Scotia  
Canada B2Y 4A2

©Minister of Supply and Services Canada 1990  
Cat. No. FS 97-13/803E ISSN 0706-6465

Correct citation for this publication:

Lewis, M.K. and D.D. Sameoto. 1990. The vertical distribution of zooplankton and ichthyoplankton on the Nova Scotia shelf during September 1985. Can. Data Rep. Fish. Aquat. Sci. No. 803: iv + 149 p.

**ABSTRACT**

CA9ΦΦΦ659

Lewis, M.K. and D.D. Sameoto. 1990. The vertical distribution of zooplankton and ichthyoplankton on the Nova Scotia shelf during September 1985. Can. Data Rep. Fish. Aquat. Sci. No. 803: iv + 149 p.

During September 16 to 30, 1985, zooplankton and micronekton samples were collected from the surface down to approximately 20m off the bottom down to a maximum depth of 1427m at various locations on the Nova Scotia shelf and slope. These samples provided data on the major sources of zooplankton on the Nova Scotia shelf with major emphasis placed on *Calanus finmarchicus*. In this report we make available the raw data for all species plus depth profiles for selected species.

**RESUMÉ**

Lewis, M.K. and D.D. Sameoto. 1990. The vertical distribution of zooplankton and ichthyoplankton on the Nova Scotia shelf during September 1985. Can. Data Rep. Fish. Aquat. Sci. No. 803: iv + 149 p.

Au cours de la période du 16 au 30 septembre 1985, des échantillons de zooplancton et de micronecton ont été prélevés dans la région du talus continental au large de la Nouvelle Ecosse, à des profondeurs allant de la surface à environ 20m au-dessus du fond, jusqu'à un maximum de 1427m. Cette étude vise à déterminer la principale composante des populations de zooplancton de la zone côtière de Nouvelle Ecosse, en se référant particulièrement à l'espèce *Calanus finmarchicus*. Nous donnons dans ce rapport les résultats bruts pour toutes les espèces, ainsi que les répartitions verticales de quelques espèces sélectionnées.

**CONTENTS**

Abstract/Resumé .....	iii
Introduction .....	1
Methods .....	1
Biological Sampling .....	1
Sample Analysis .....	3
Results .....	4
Temperature/Salinity/Depth Profiles .....	4
Zooplankton Composition and Depth Distribution ..	4
Length Frequencies .....	5
References .....	6
Figures .....	7
Tables .....	95

## INTRODUCTION

The following is a report of BIONESS data collected during C.S.S. Dawson cruise #85028 on the Nova Scotia shelf between September 16-30, 1985. The primary objective of this cruise was to determine the vertical distribution of zooplankton species in the basins on the Scotian shelf using the BIONESS. In addition, these samples provide data on the major source of zooplankton on the shelf with emphasis on *Calanus finmarchicus*. The third objective was to use the optical zooplankton counter mounted on the BIONESS and compare its data with the biological samples.

## METHODS

### Biological Sampling

All zooplankton samples and oceanographic data described below were collected with the BIONESS sampler (Sameoto et al., 1980). The BIONESS was equipped with ten one  $m^2$  243 $\mu m$  mesh nets. The BIONESS was towed at 3-5 knots along an oblique path through the various depth strata. The volume of water sampled per sample varied from 13 to 1057 $m^3$ . The winch speed during sampling was constant and therefore the volume filtered depended upon the depth range of the sample. Flow through each net and the net depth were constantly monitored.

For six BIONESS tows, 50-80 $\mu\text{m}$  mesh nets 12cm<sup>2</sup> in diameter, were fitted into the mouths of the standard nets (tows 7, 9, 12, 14, 16 and 26). This data will be published in a future data report on microzooplankton.

During most shallow tows, (0-100m), depth strata were sampled from the surface downward whereas for deep tows (i.e. >100m), the net was lowered to the deepest depth strata and sampled from the bottom up. The BIONESS provided simultaneous data on the temperature and salinity, time of sampling, speed through the water, net flow and volume of water filtered. Conductivity, (salinity), and temperature were measured by a Guildline Instruments digital conductivity cell model 87410 and temperature probe model 87401. Values for the time, depth, flow, volume, temperature, conductivity, and salinity were recorded on magnetic tape once every second during the tows. Oxygen data is not available for this cruise.

The BIONESS tows were conducted at stations along 3 lines across the Scotian shelf (Fig. 1). The first series of BIONESS tows (#1-11) were taken along the Halifax line which included 4 stations in Emerald basin (tows 3-5,10,11). The second line, tows 12-17, ran from shallow water off the coast of Louisbourg, Cape Breton to the edge of the shelf. Tow 20 was in Louisbourg basin. Tow 21 was on the edge of the Laurentian Channel. The third line, tows 22-27 ran through the center of the Laurentian Channel into slope water.

The optical zooplankton sampler (Herman 1988) was mounted on the side of the BIONESS frame for 8 tows (tows 10, 11, 20-22, 24-26). Data from the counter provided numbers and sizes of zooplankton in the 0.2 to 30mm size range. This data was stored for future analysis and is not presented in this report.

### **Sample Analysis**

All zooplankton samples were preserved in 4% buffered formalin and seawater solution. In the lab, the total sample was wet weighed and all fish larvae and other organisms >1cm were removed. These >1cm animals were identified to the lowest taxon possible and a wet weight for each group recorded. A subsample of each group was measured for length to the nearest millimeter. The fish were measured for standard length. The euphausiids were measured from the tip of the rostrum to the tip of the telson.

The remainder of the sample containing zooplankton <1cm in length was split using a Motoda splitter (Motoda 1959) and/or a pipette down to approximately 400 individuals. All individuals in this subsample were identified to species for the Copepoda and genus for other classes and phyla. *Calanus finmarchicus*, *C. glacialis* and *C. hyperboreus* were staged. Stage VI *Calanus* were sexed and females were examined and classified as immature, gravid or spent (Lewis and Sameoto, 1989). This analysis was completed by Spry Tech Biological Services, Elmsdale, N.S. All data were entered into the Cyber computer and an IBM microcomputer.

Calanus spp. were identified down to species stage level and then measured for future comparison with the bugcounter data. The number of individuals measured as well as the stage centroid length and standard deviation is presented for tows 10, 11 and 20 in table 1.

## **RESULTS**

Twenty-seven BIONESS tows were made on the twenty-four stations.

### **Temperature/Salinity/Depth Profiles**

Temperature and salinity depth profiles from the BIONESS ctd data are presented (Fig. 2), plus TS diagrams. Data were not available for tows 13, 18, 16, 22 and 25.

### **Zooplankton Composition and Depth Distribution**

Numbers per cubic meter and numbers per square meter for all species (<1cm) are listed in Table 2.

Depth profiles are included for all species of Copepoda with an abundance greater than ten occurrences over the entire cruise. Depth distributions for these species in the three areas are shown in Fig. 3. Tows 16-17 and 26-27 were combined to provide a complete depth profile for day and night on the Louisbourg Basin and Laurentian Channel lines.

### **Length Frequencies**

Histograms of length frequencies are presented for: amphipoda; mysidacea; euphausiacea (*Meganyctiphanes norvegica*, *Thysanoessa inermis*, *T. longicaudata*); Chaetognatha and three fish (*Benthosema glaciale*, *Cyclothona* sp. and *Merluccius bilinearis*). (Fig. 4).

**REFERENCES**

Herman, Alex W., 1988. Simultaneous measurement of zooplankton and light attenuance with a new optical plankton counter. Continental Shelf Res., Vol. 8, pg.205-221.

Lewis, M.K. and D.D. Sameoto, 1989. The vertical distribution of zooplankton and ichthyoplankton on the Nova Scotia Shelf. September - October 1986. Can. Data Rep. Fish and Aquat. Sci. No. 763, iv + 37p.

Motoda, S. 1959. Devices of simple plankton apparatus. Mem. Fac. Fish. Hollaido Univ. 3: 181-186.

Sameoto, D.D., L.O. Jaroszynski, and W.B. Fraser, 1980. BIONESS, a new design in multiple net zooplankton samplers. Can. J. Fish. Aquat. Sci. 37: 722-724.

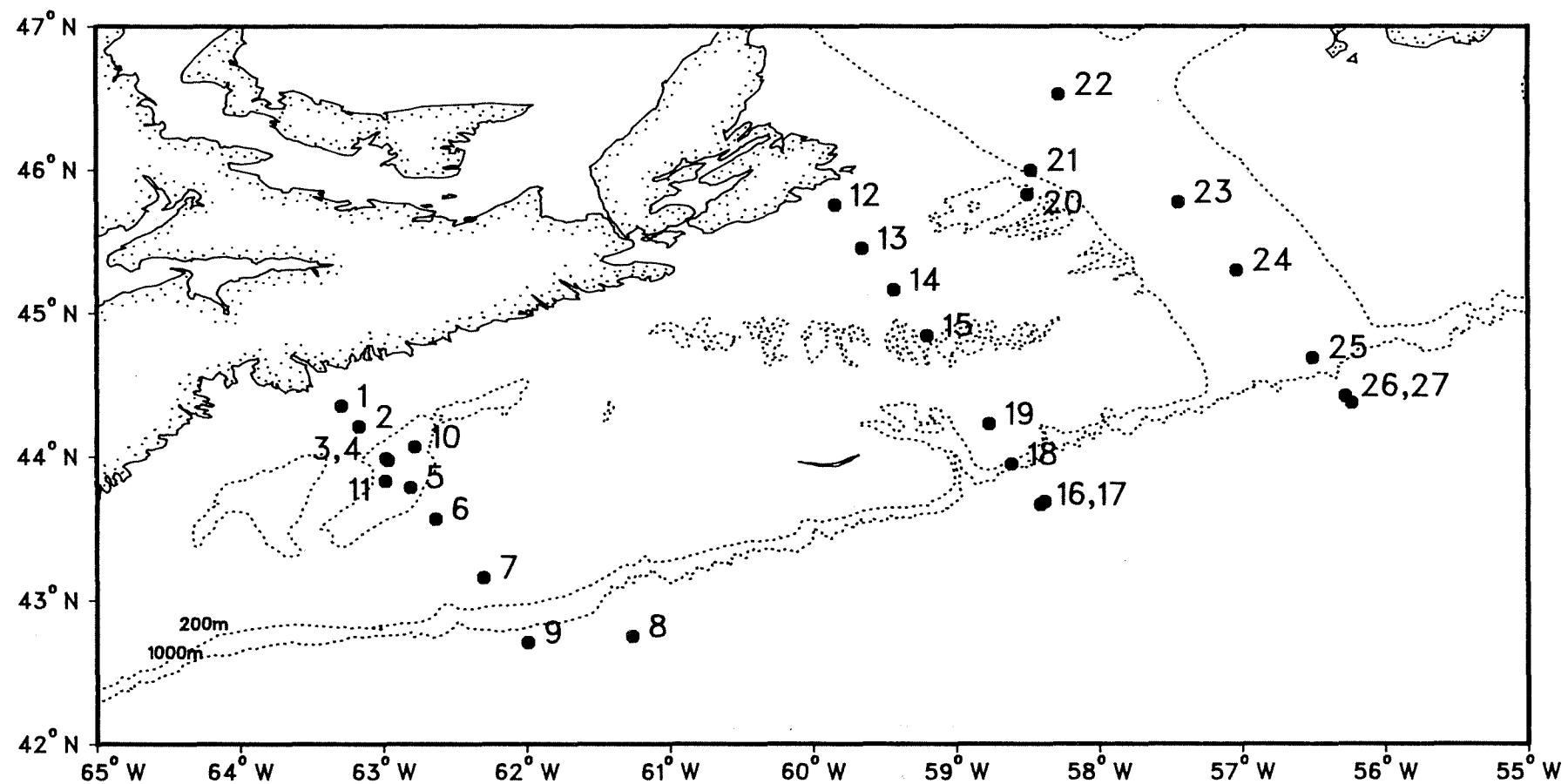
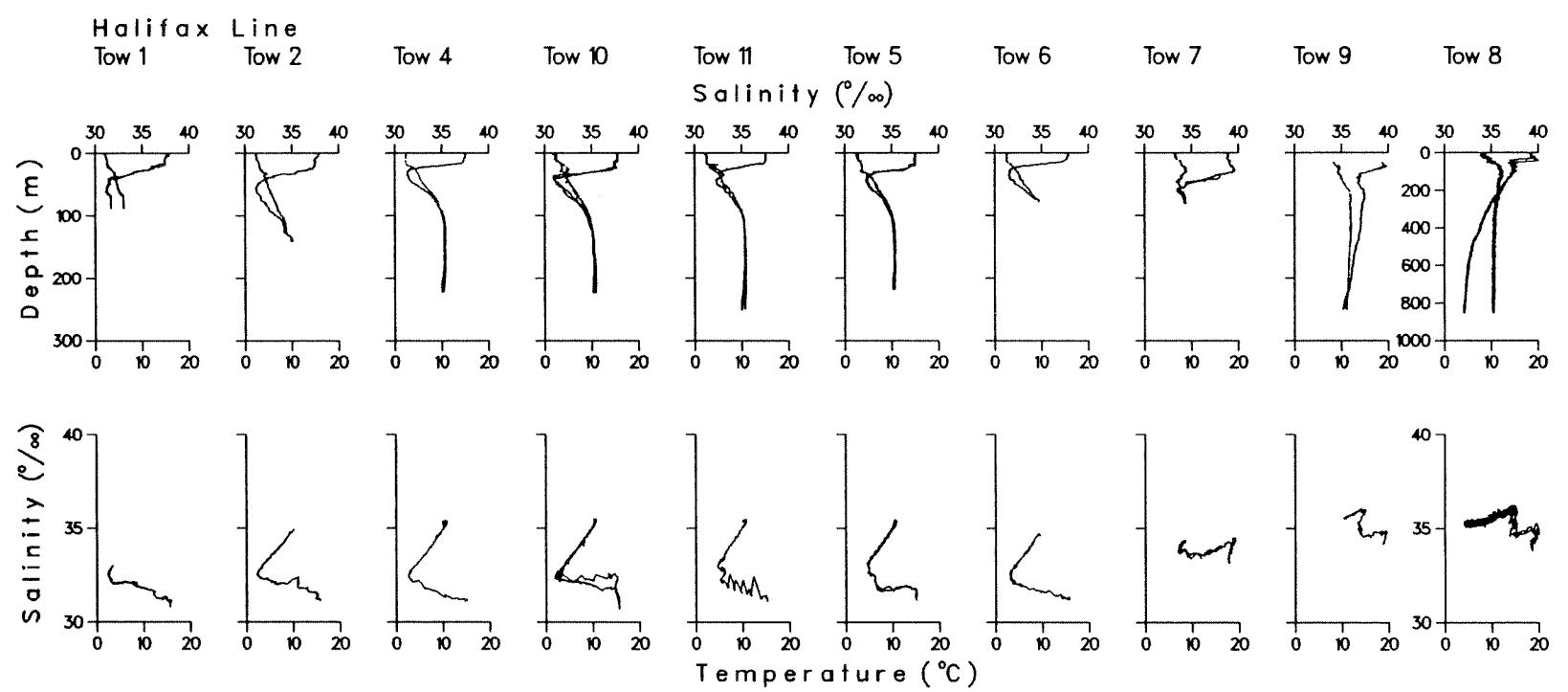
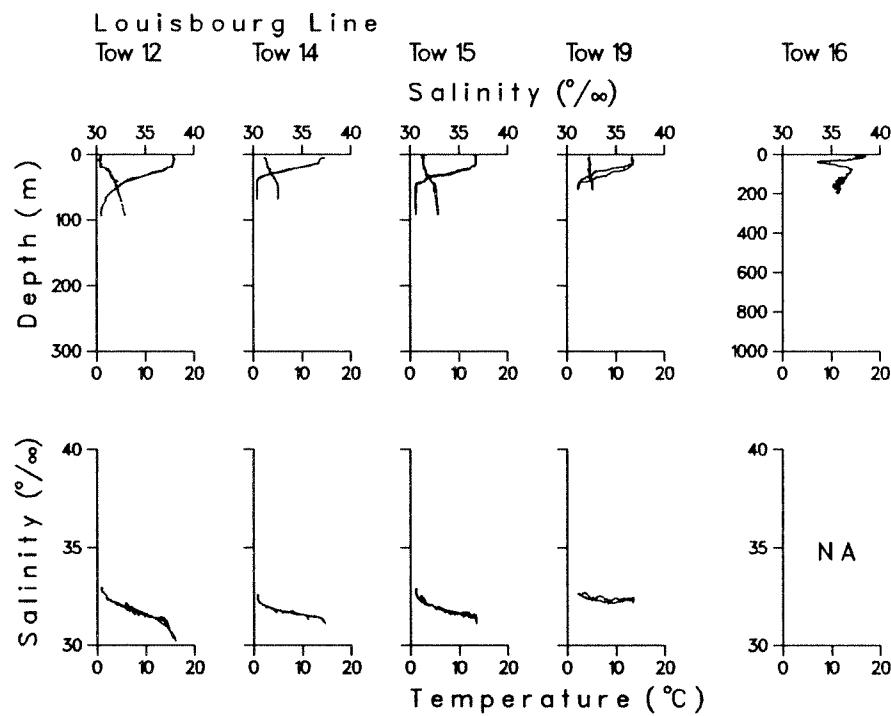


Fig. 1. Location of Sampling. (Halifax Line = tows 1-11; Louisbourg Line = tows 12-19; Laurentian Channel Line = tows 22-27).

Fig. 2. Temperature and salinity depth profiles and TS diagrams for representative tows in the four areas: a) Halifax line including Emerald Basin; b) the Louisbourg line; c) Louisbourg Basin and surrounding region; and d) the Laurentian Channel line.





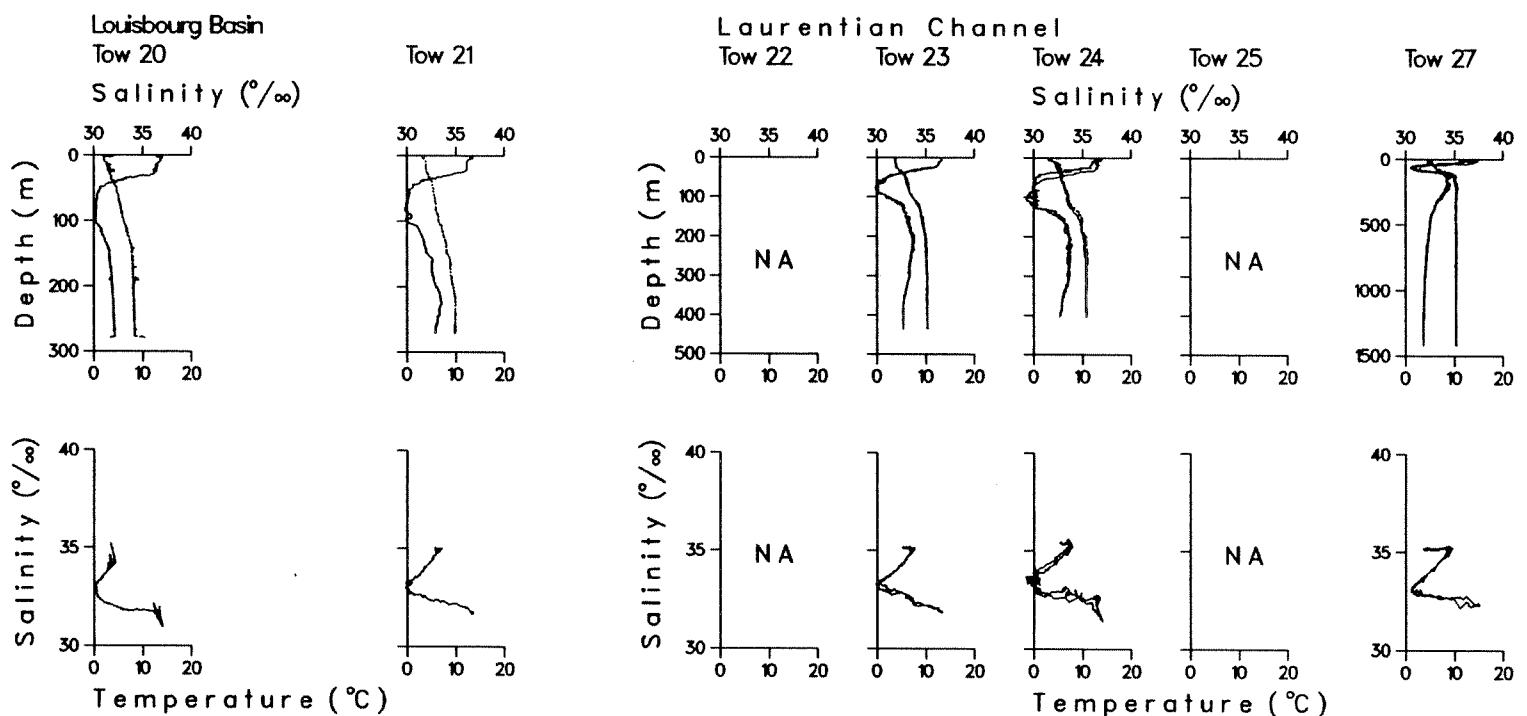
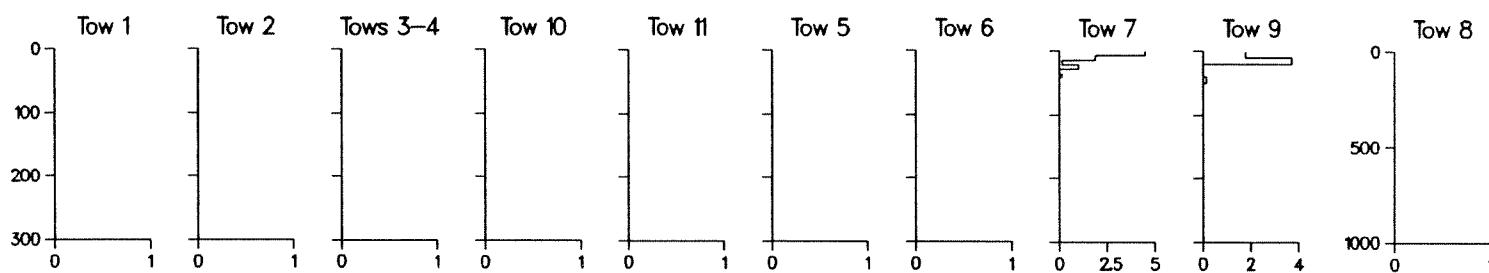


Fig. 3. Vertical distributions for species of Copepoda which occurred in more than 10 BIONESS samples. The profiles are arranged according to the position of the tows on the shelf: the Halifax line including Emerald Basin (tows 1-11); the Louisbourg line (tows 12-18); Louisbourg Basin (tow 20) and surrounding region (tow 21) and the Laurentian Channel line (tows 22-27). *Calanus* spp. were identified down to stage level. *Calanus* spp. stage VI females were subdivided according to maturity: developing (D), gravid (G) or spent (S). The total for *Calanus* spp. was also plotted (T). Unidentified, damaged and exoskeletons of copepoda were lumped together to produce one profile labeled "U/D/E Copepoda".

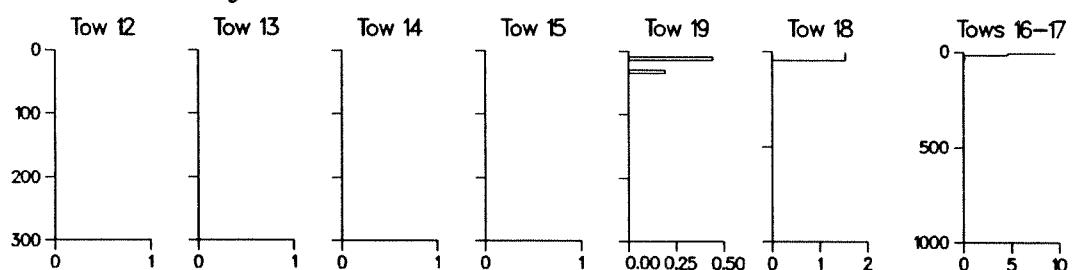
Fig. 3. (Continued)

*Acartia clausi*

Halifax Line

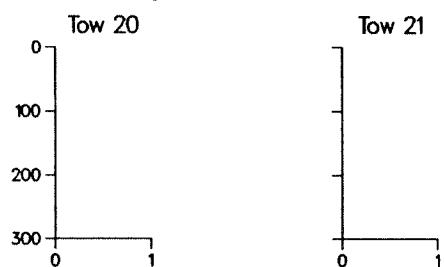


Louisbourg Line



DEPTH (m)

Louisbourg Basin



Laurentian Channel Line

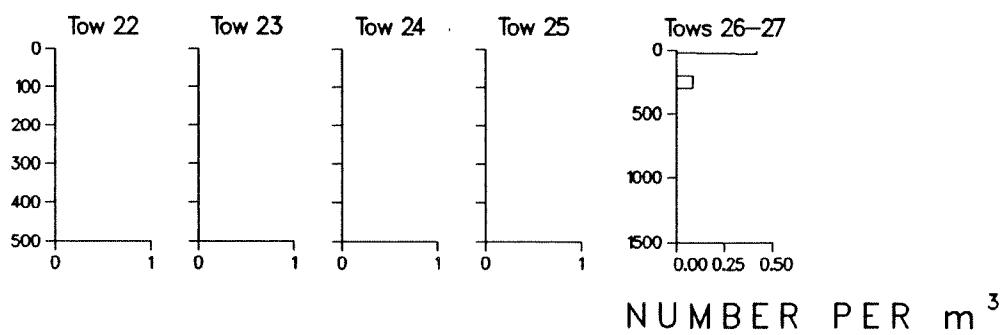


Fig. 3. (Continued)

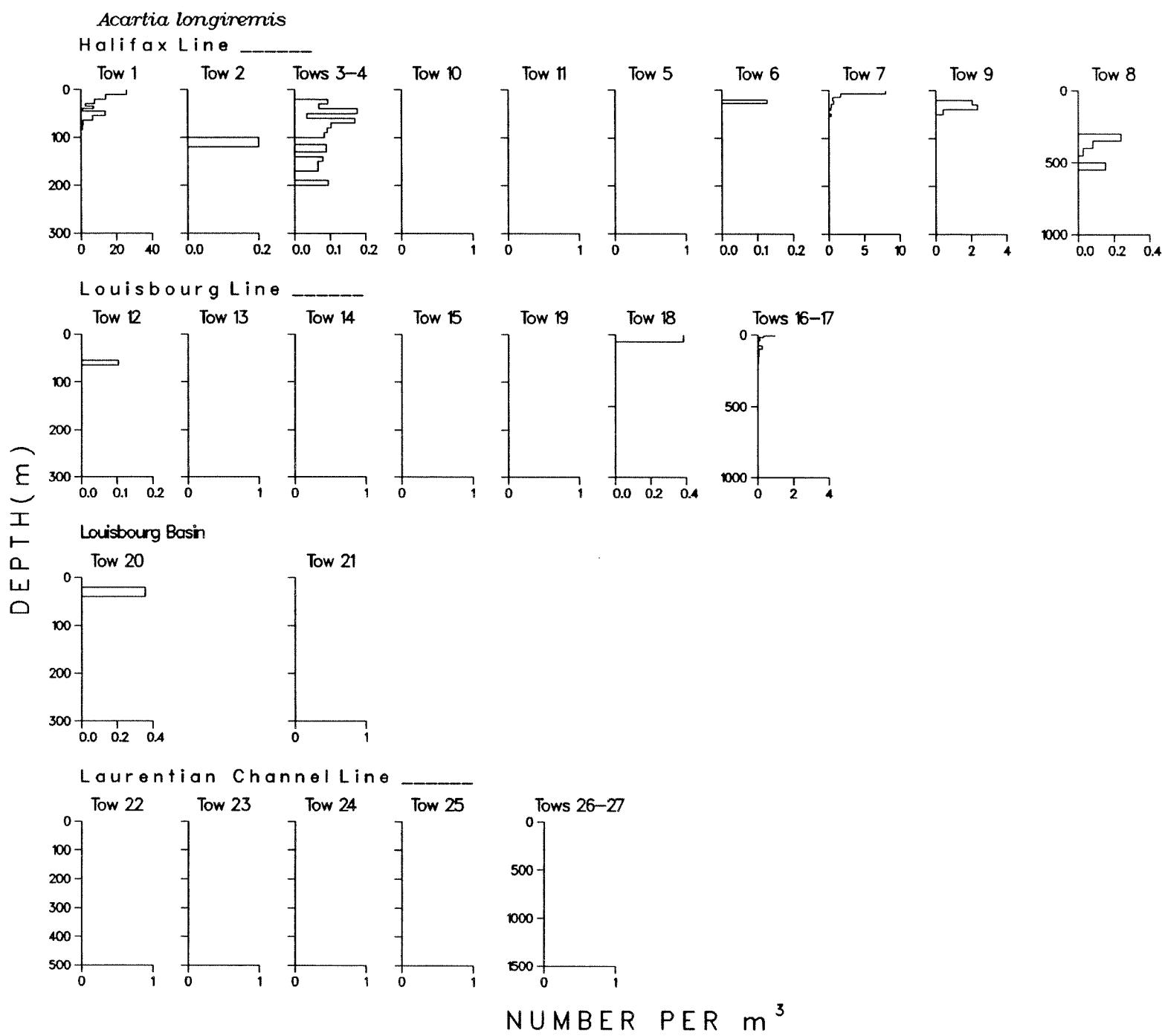


Fig. 3. (Continued)

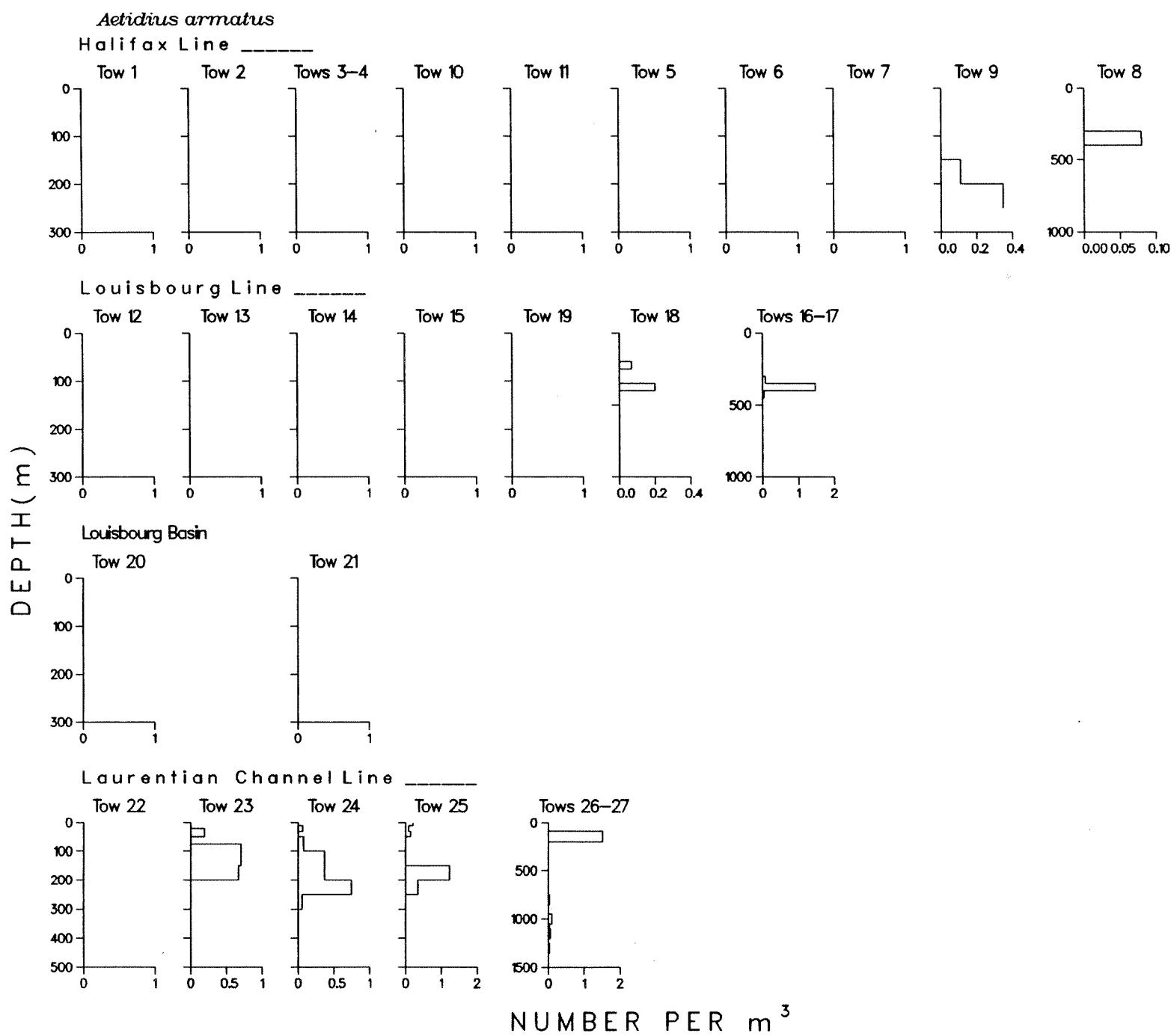


Fig. 3. (Continued)

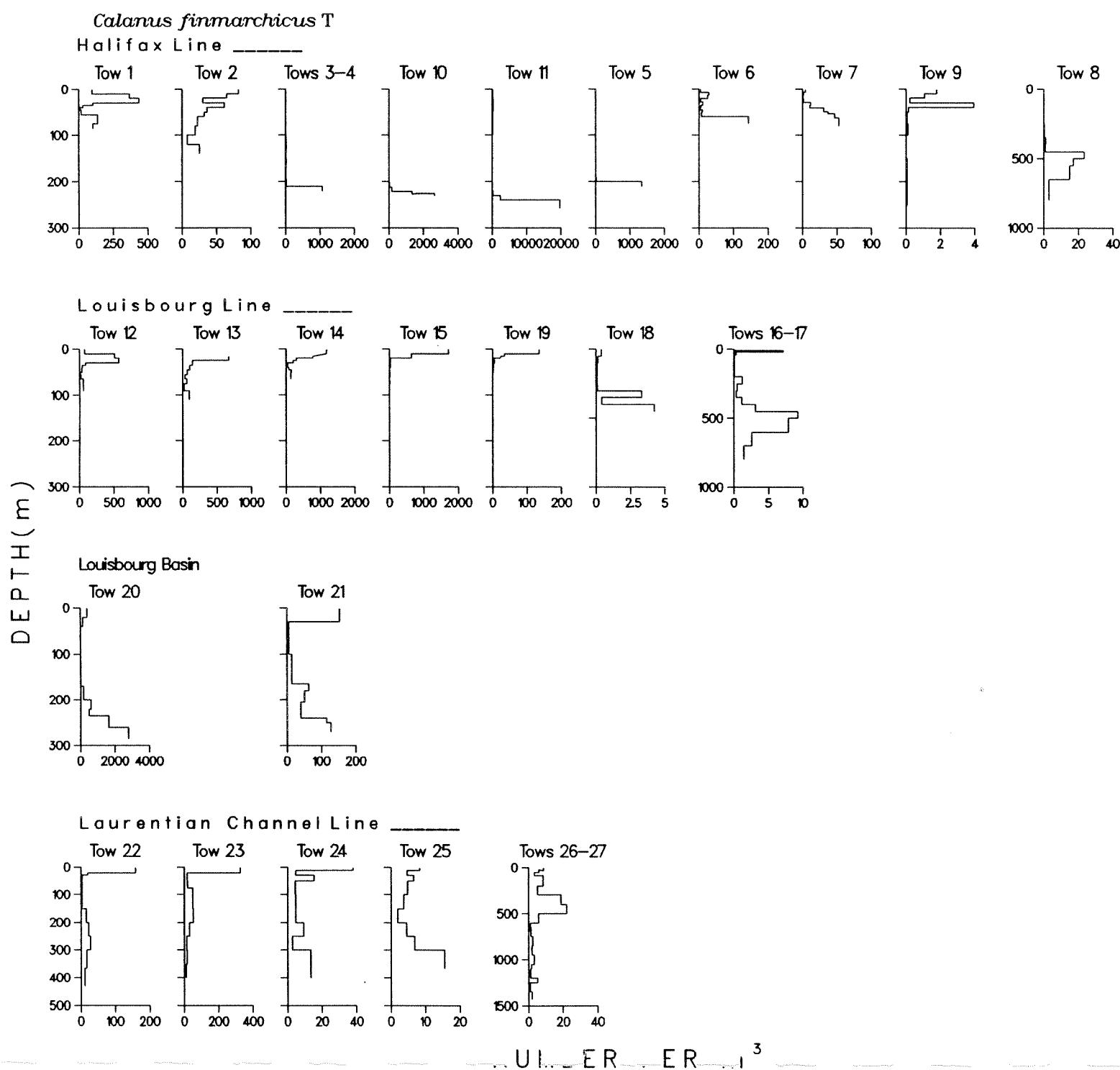


Fig. 3. (Continued)

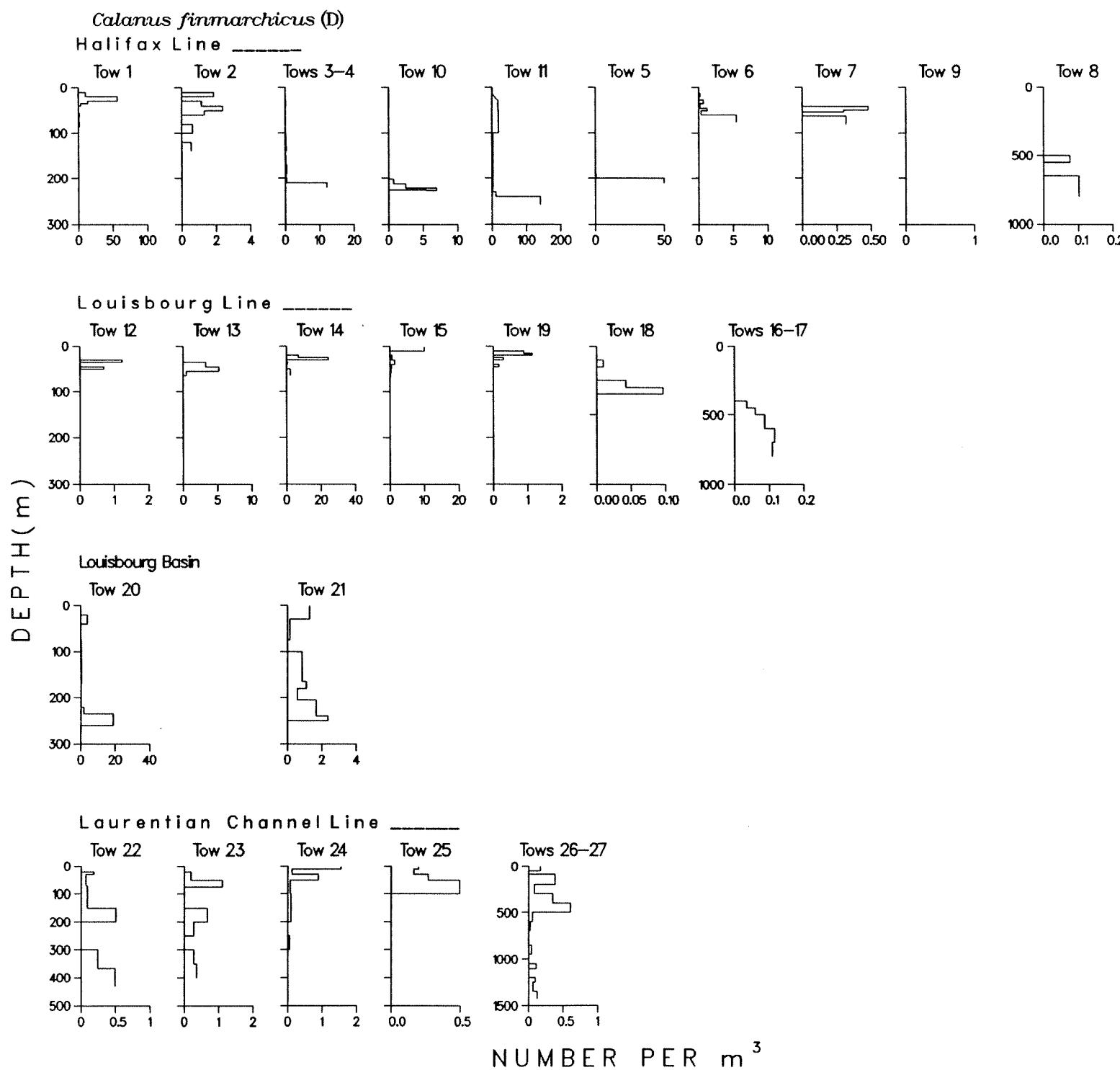
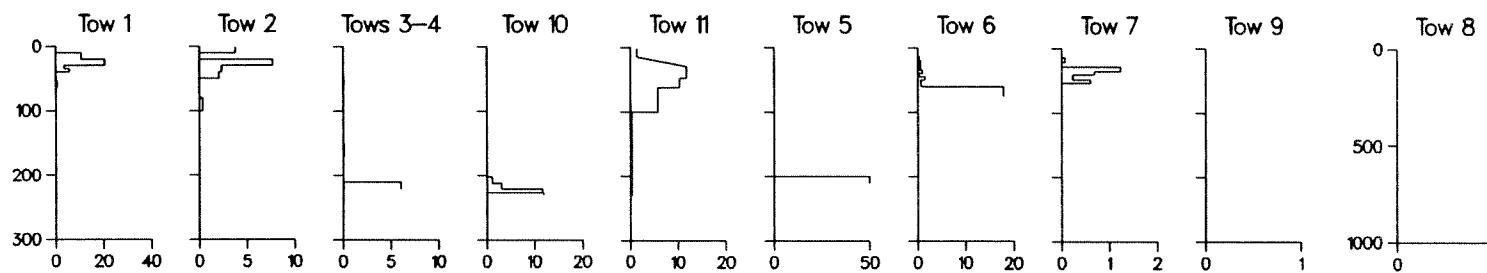


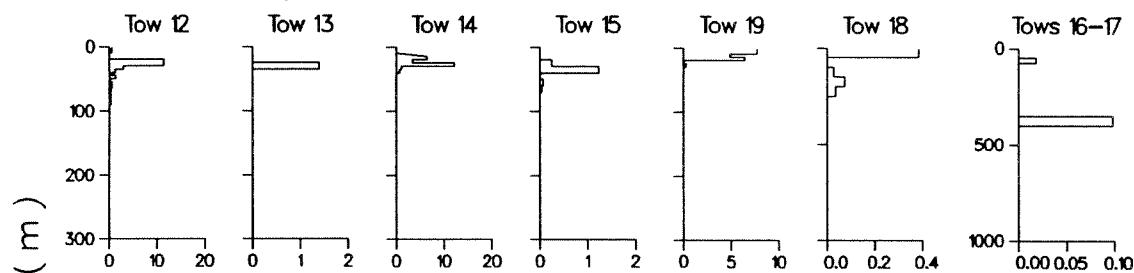
Fig. 3. (Continued)

*Calanus finmarchicus* (G)

Halifax Line

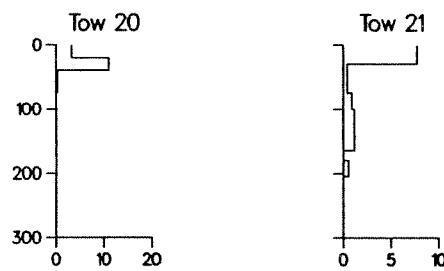


Louisbourg Line

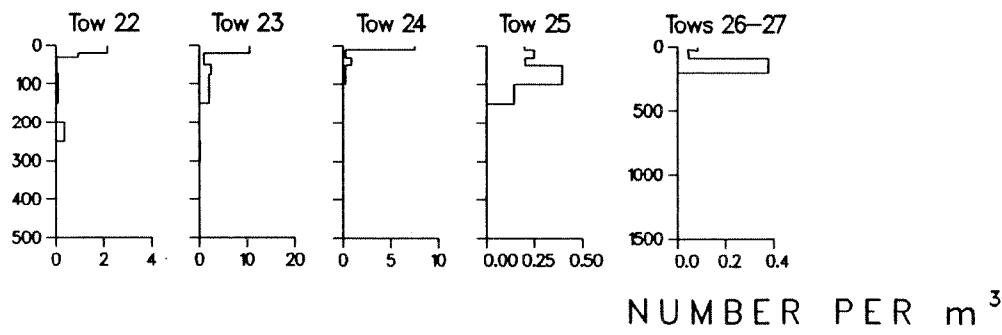


DEPTH (m)

Louisbourg Basin



Laurentian Channel Line



NUMBER PER m<sup>3</sup>

Fig. 3. (Continued)

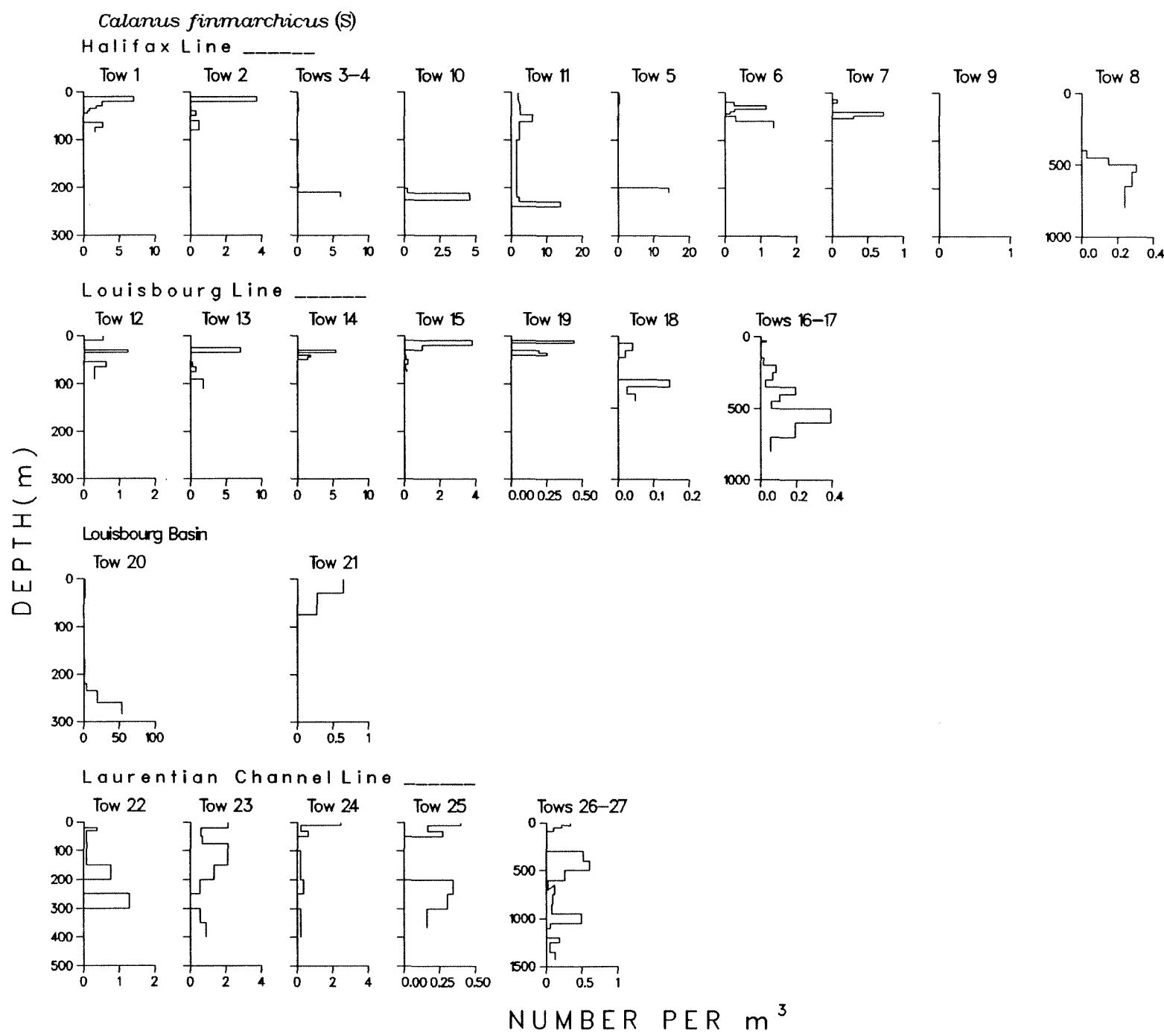


Fig. 3. (Continued)

### *Calanus finmarchicus* VIF

Halifax Line \_\_\_\_\_

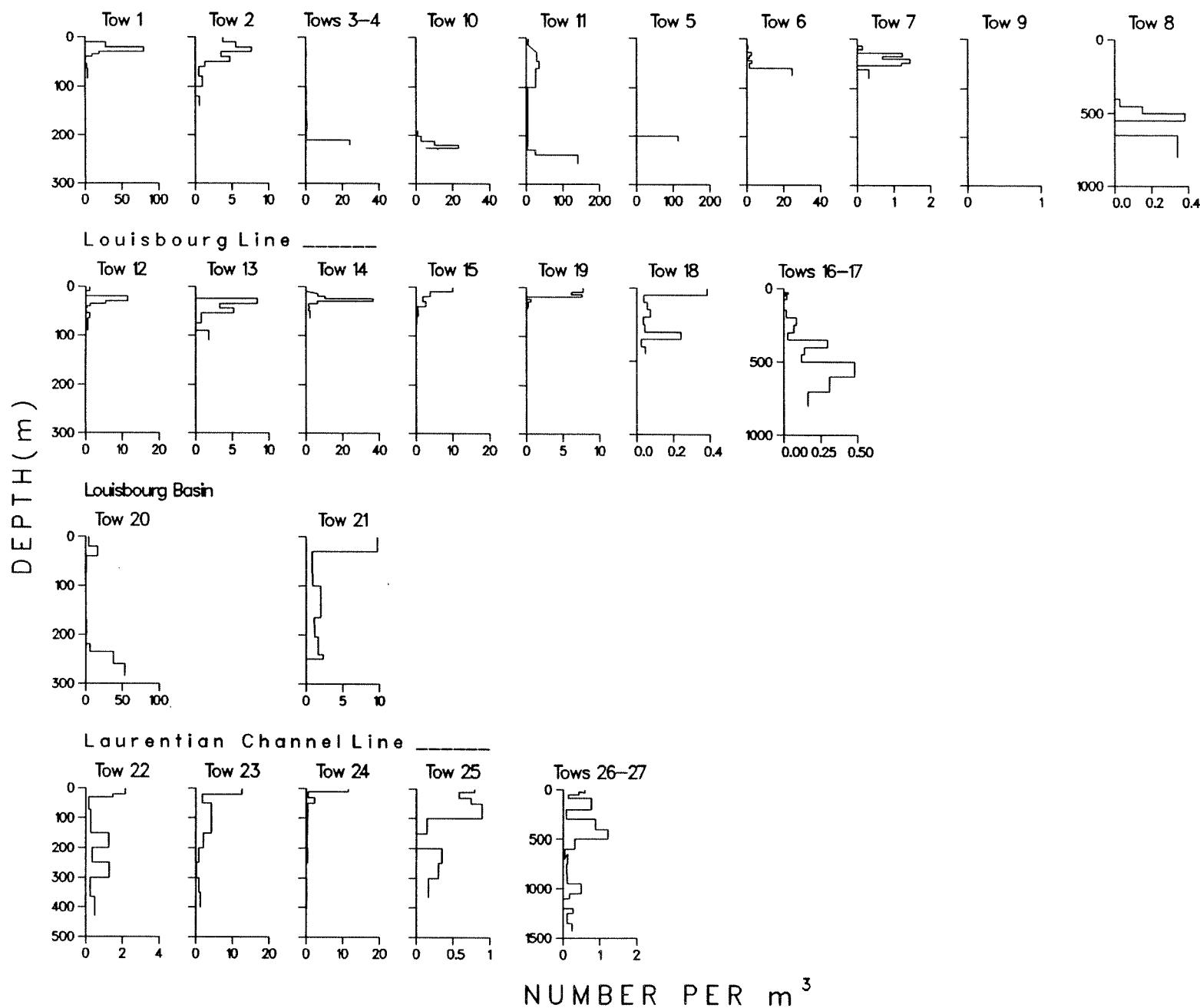


Fig. 3. (Continued)

*Calanus finmarchicus* VIM

### Halifax Line

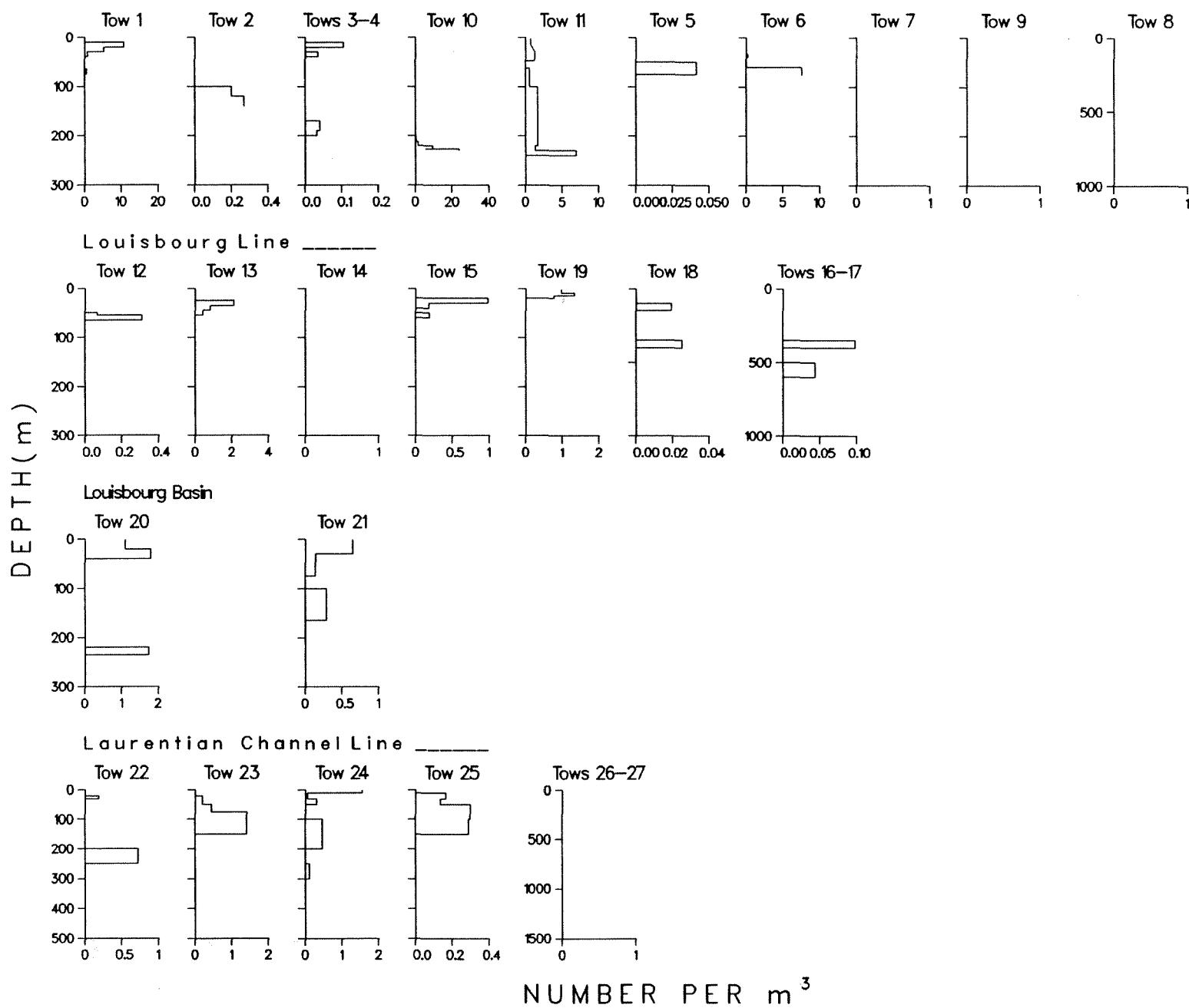


Fig. 3. (Continued)

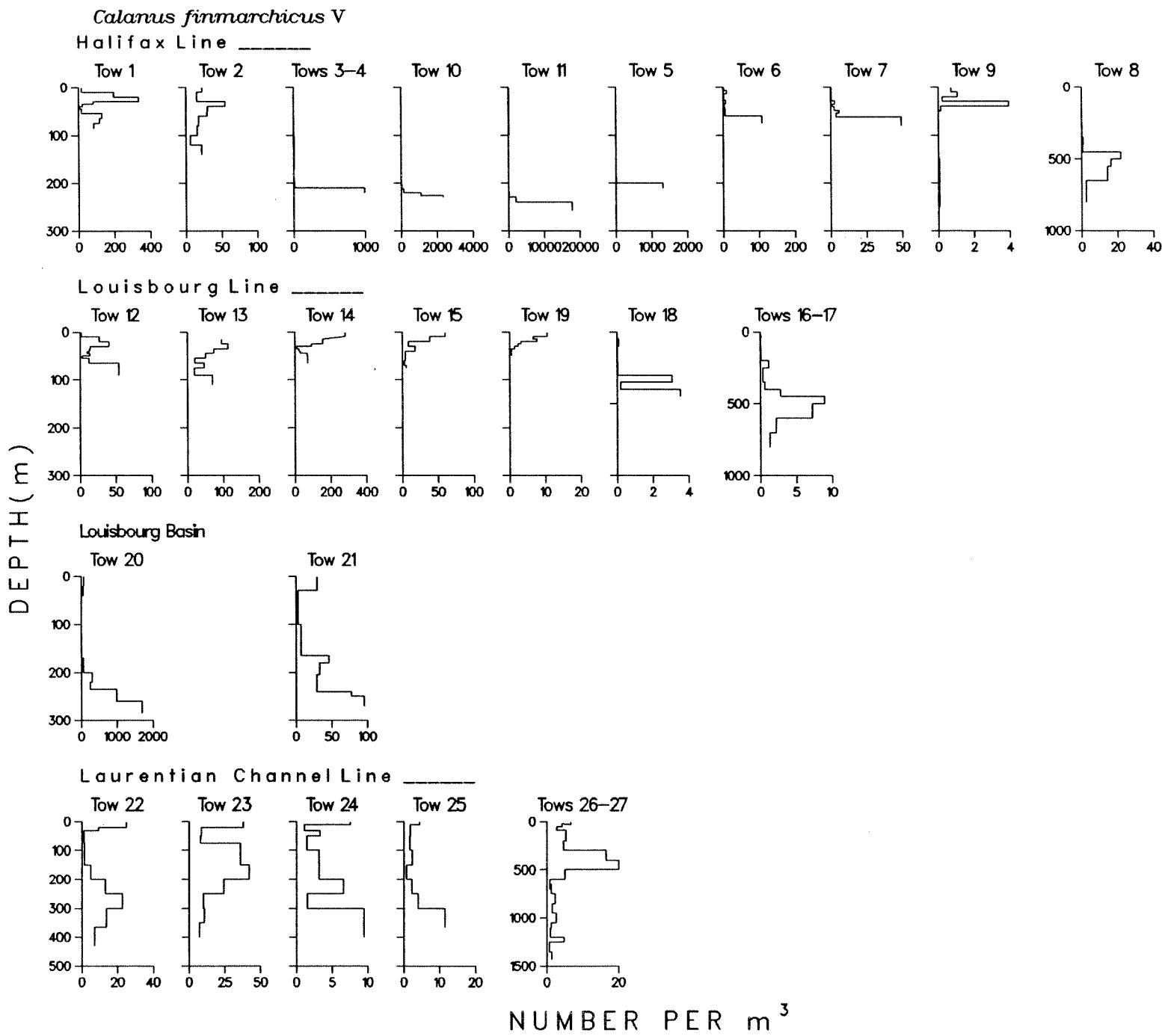
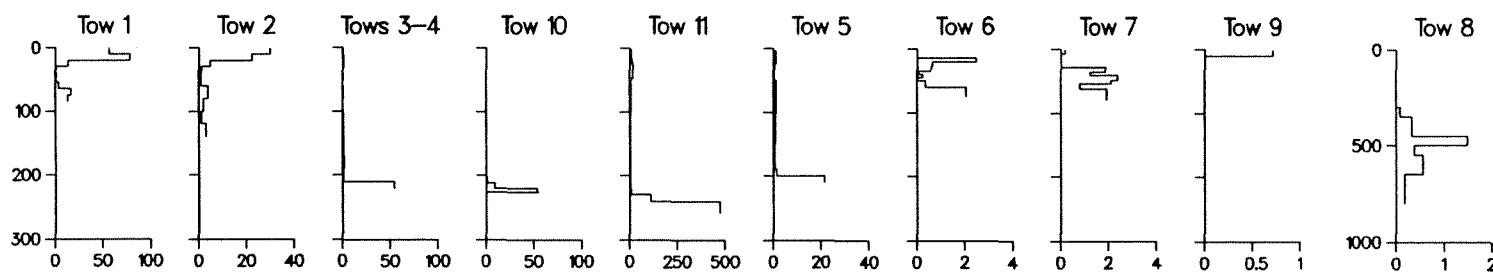


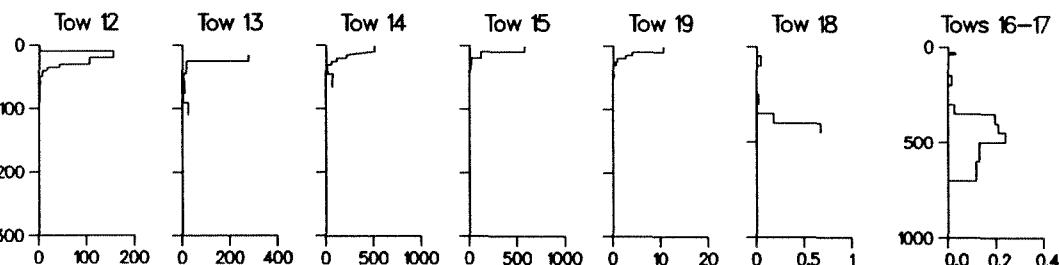
Fig. 3. (Continued)

*Calanus finmarchicus* IV

Halifax Line

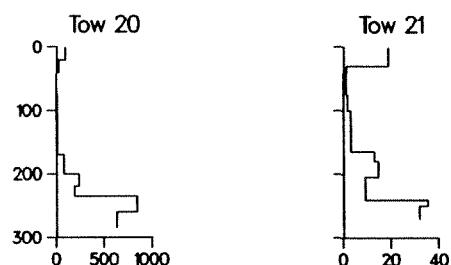


Louisbourg Line



DEPTH (m)

Louisbourg Basin



Laurentian Channel Line

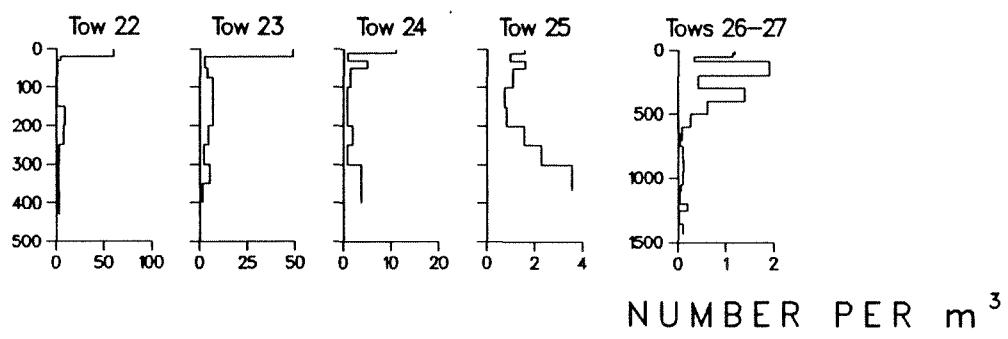
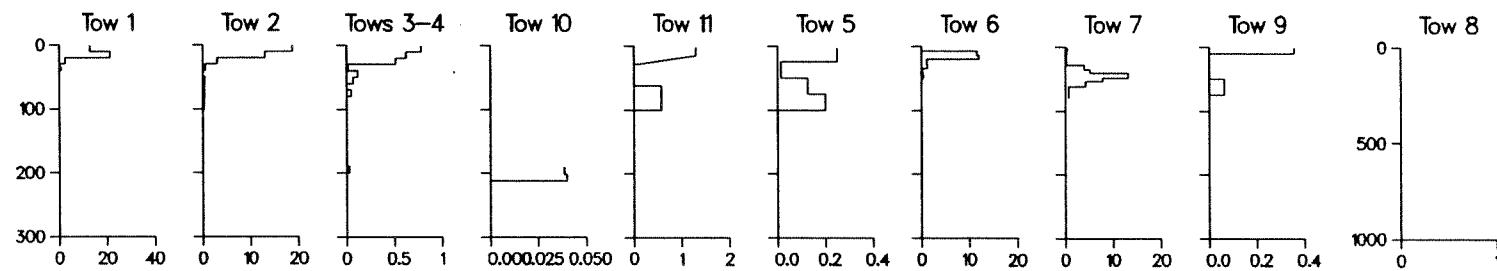


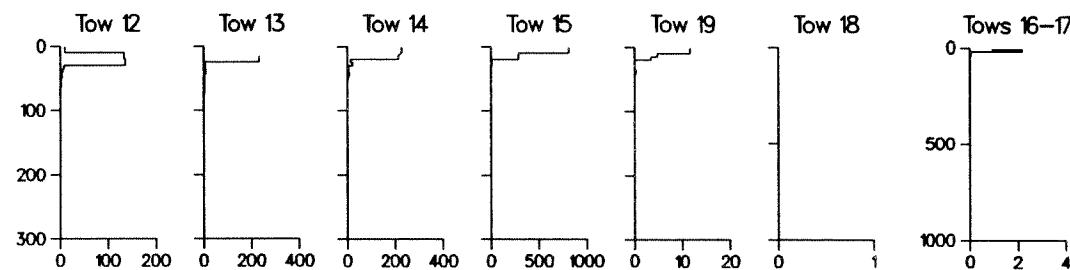
Fig. 3. (Continued)

*Calanus finmarchicus* III

Halifax Line



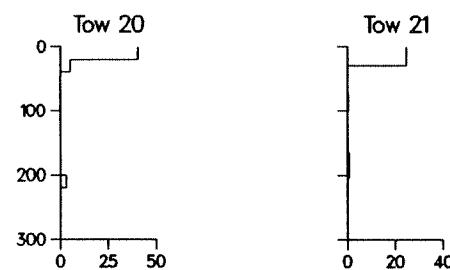
Louisbourg Line



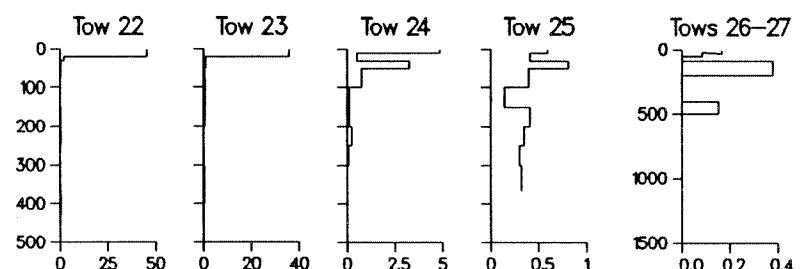
DEPTH (m)

24

Louisbourg Basin



Laurentian Channel Line



NUMBER PER  $m^3$

Fig. 3. (Continued)

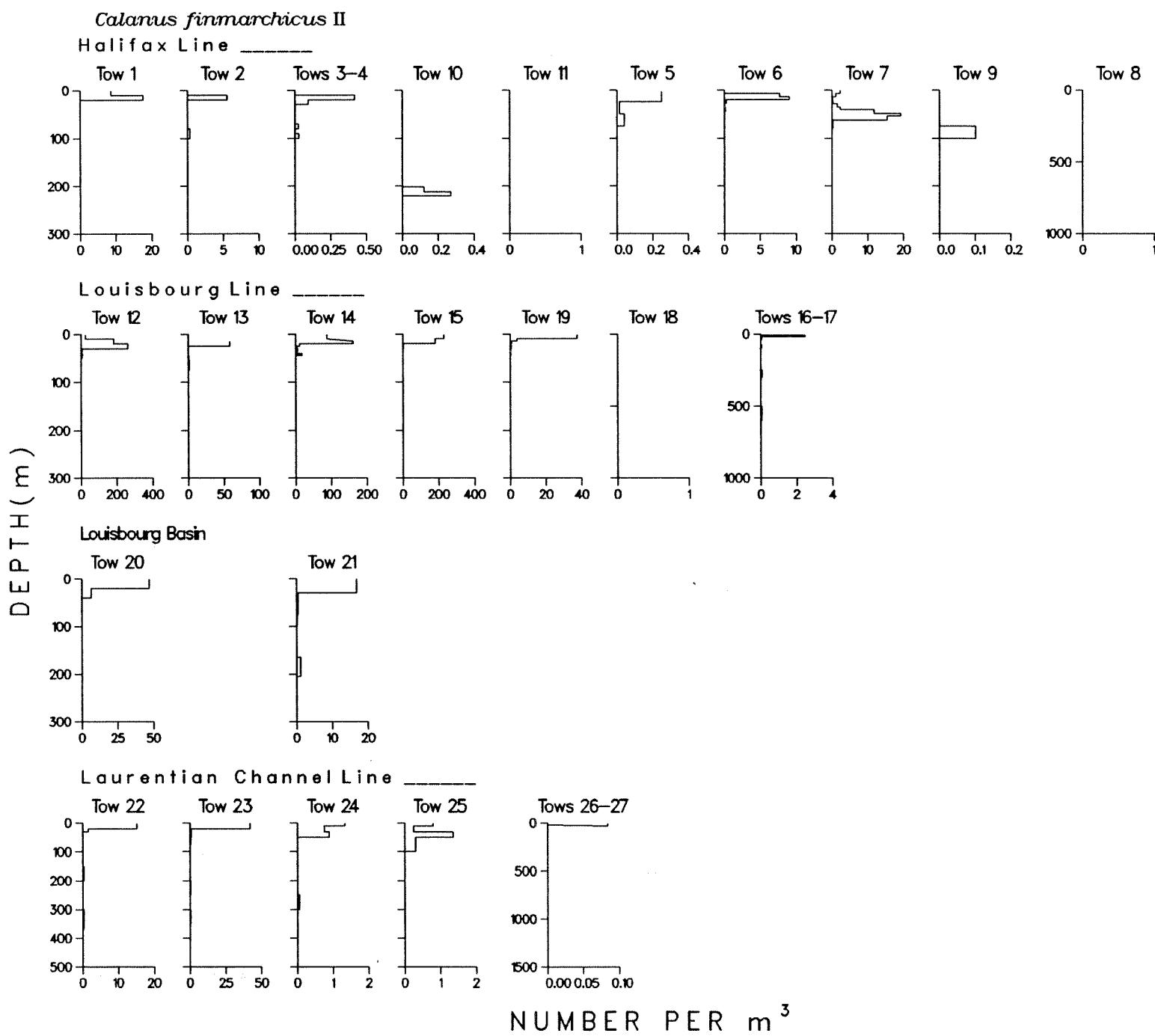


Fig. 3. (Continued)

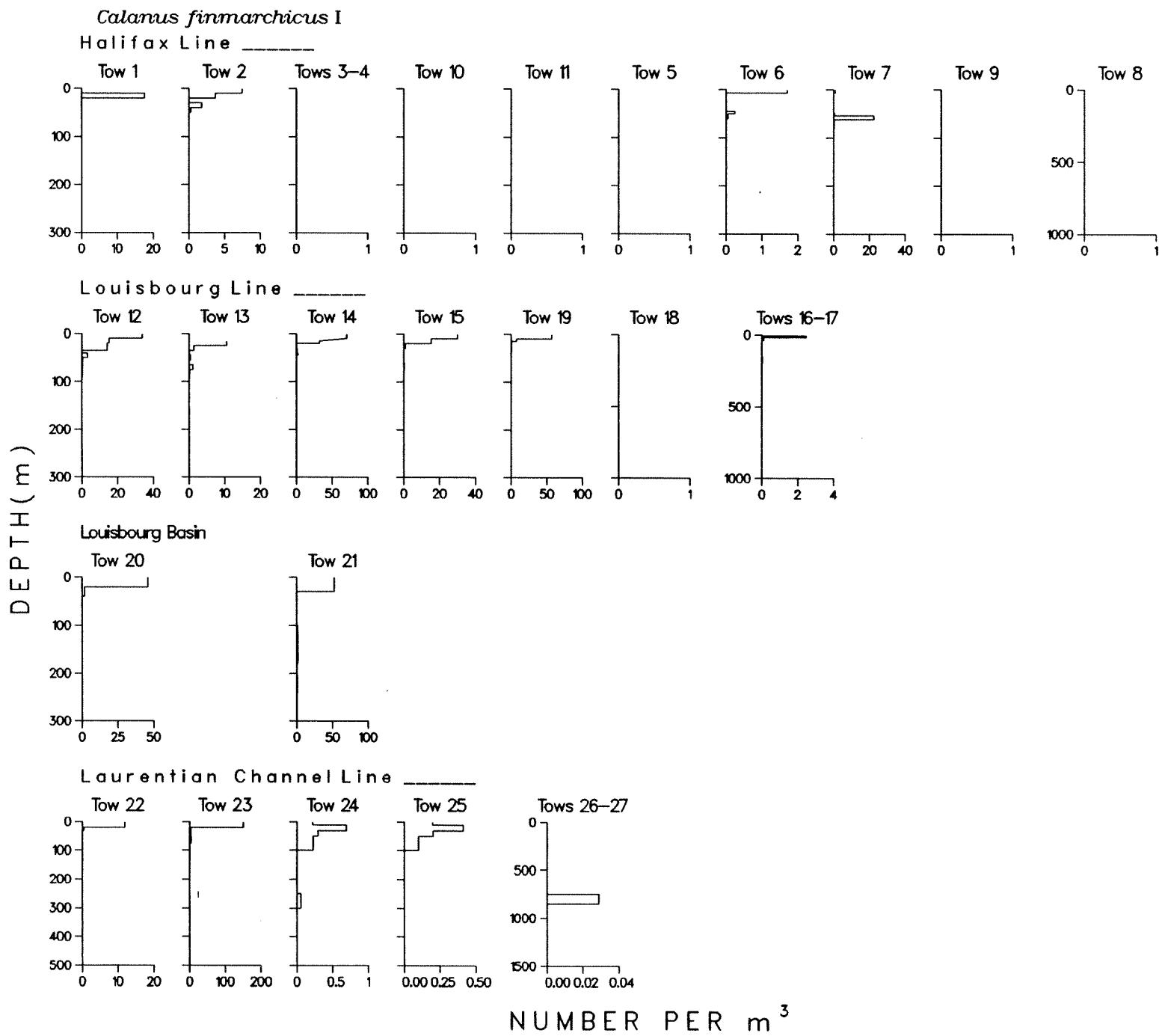
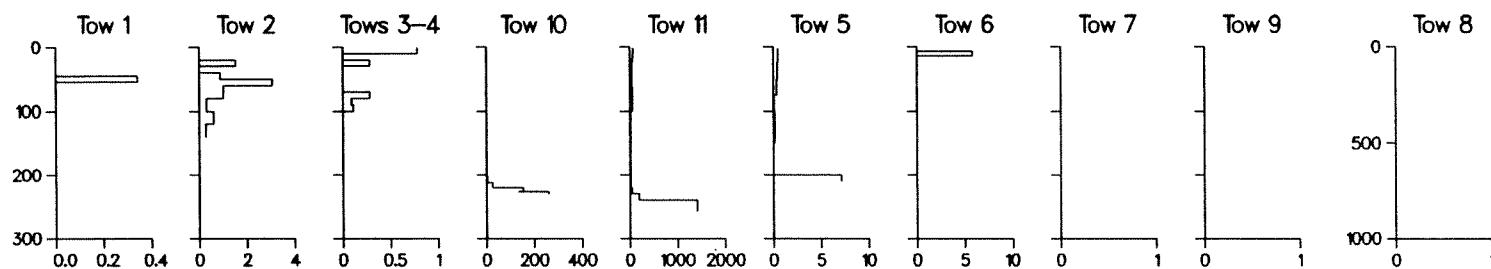


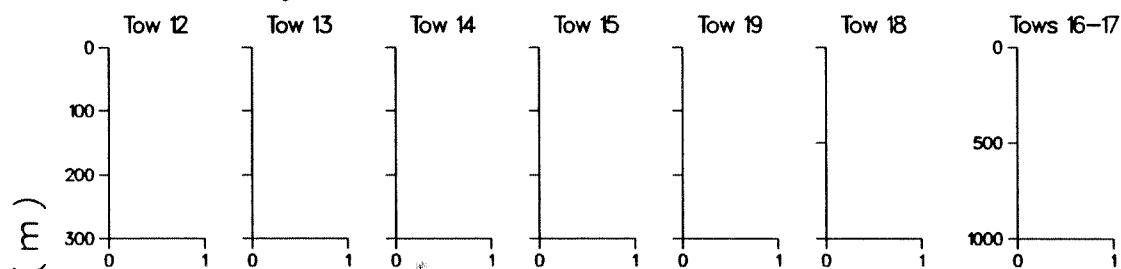
Fig. 3. (Continued)

*Calanus finmarchicus* damaged

Halifax Line

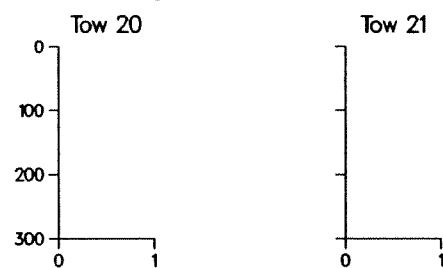


Louisbourg Line



DEPTH (m)

Louisbourg Basin



Laurentian Channel Line

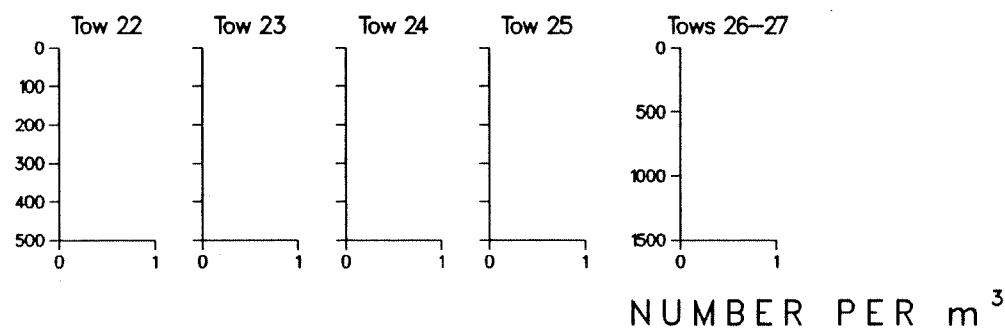


Fig. 3. (Continued)

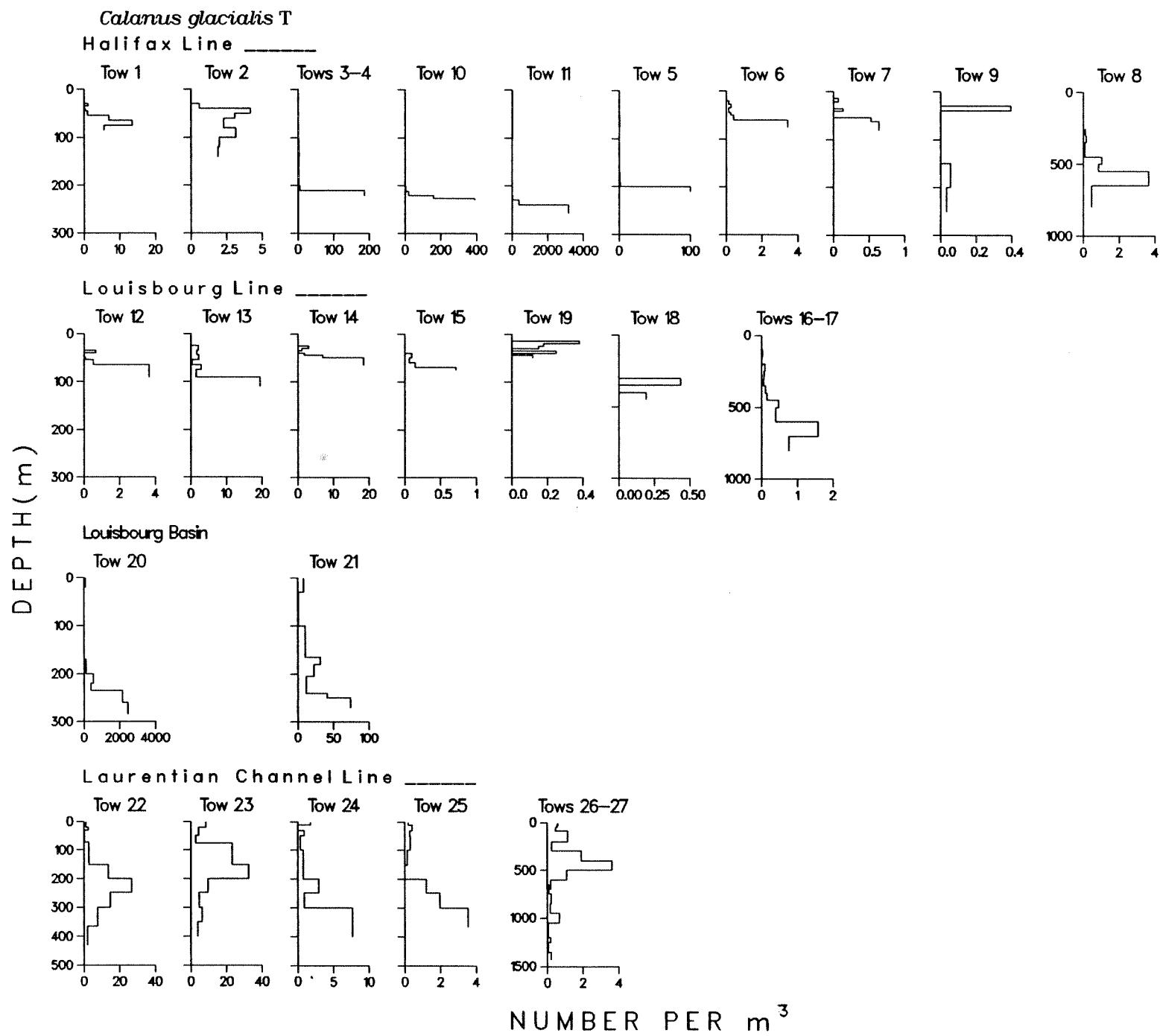


Fig. 3. (Continued)

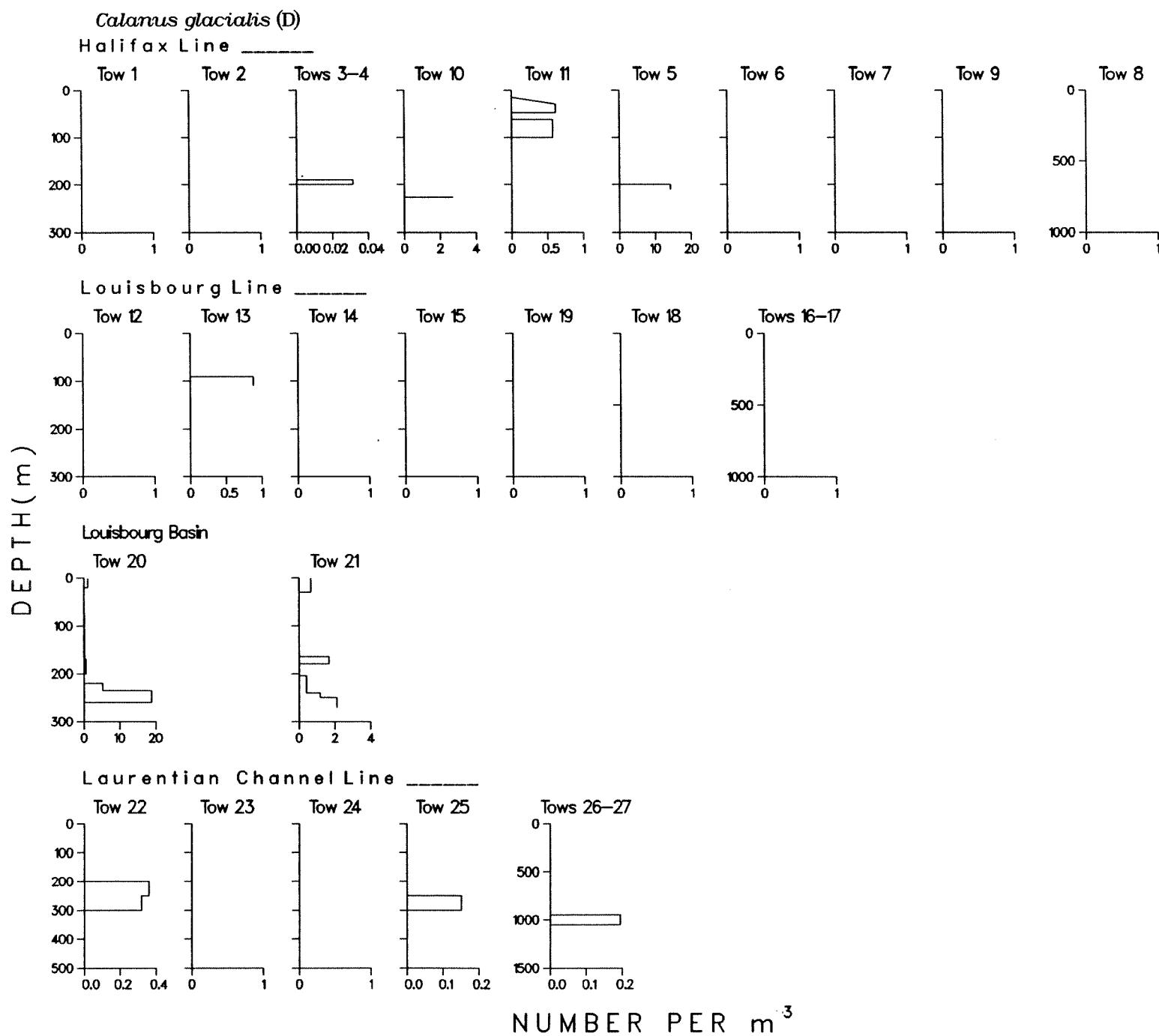


Fig. 3. (Continued)

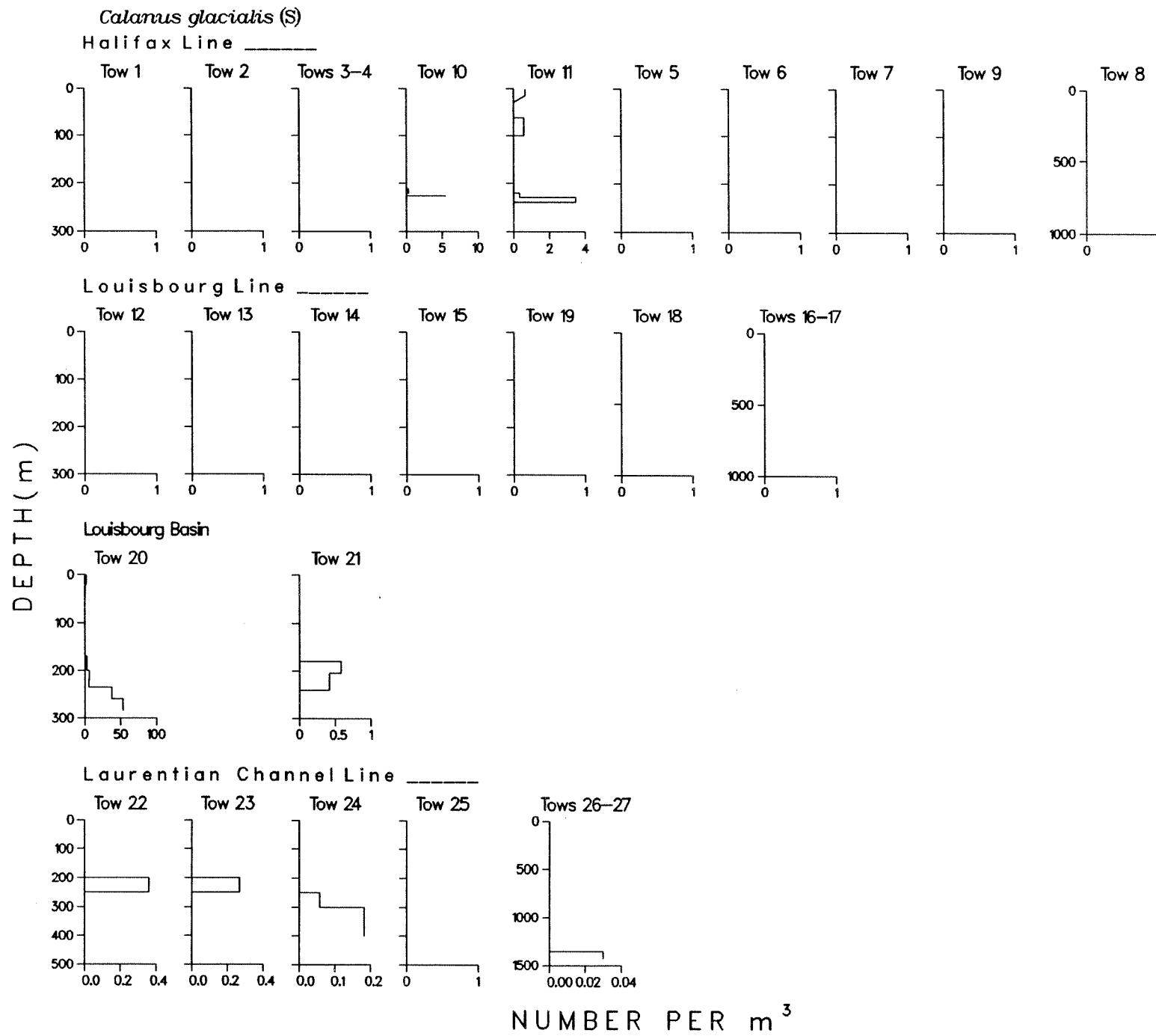


Fig. 3. (Continued)

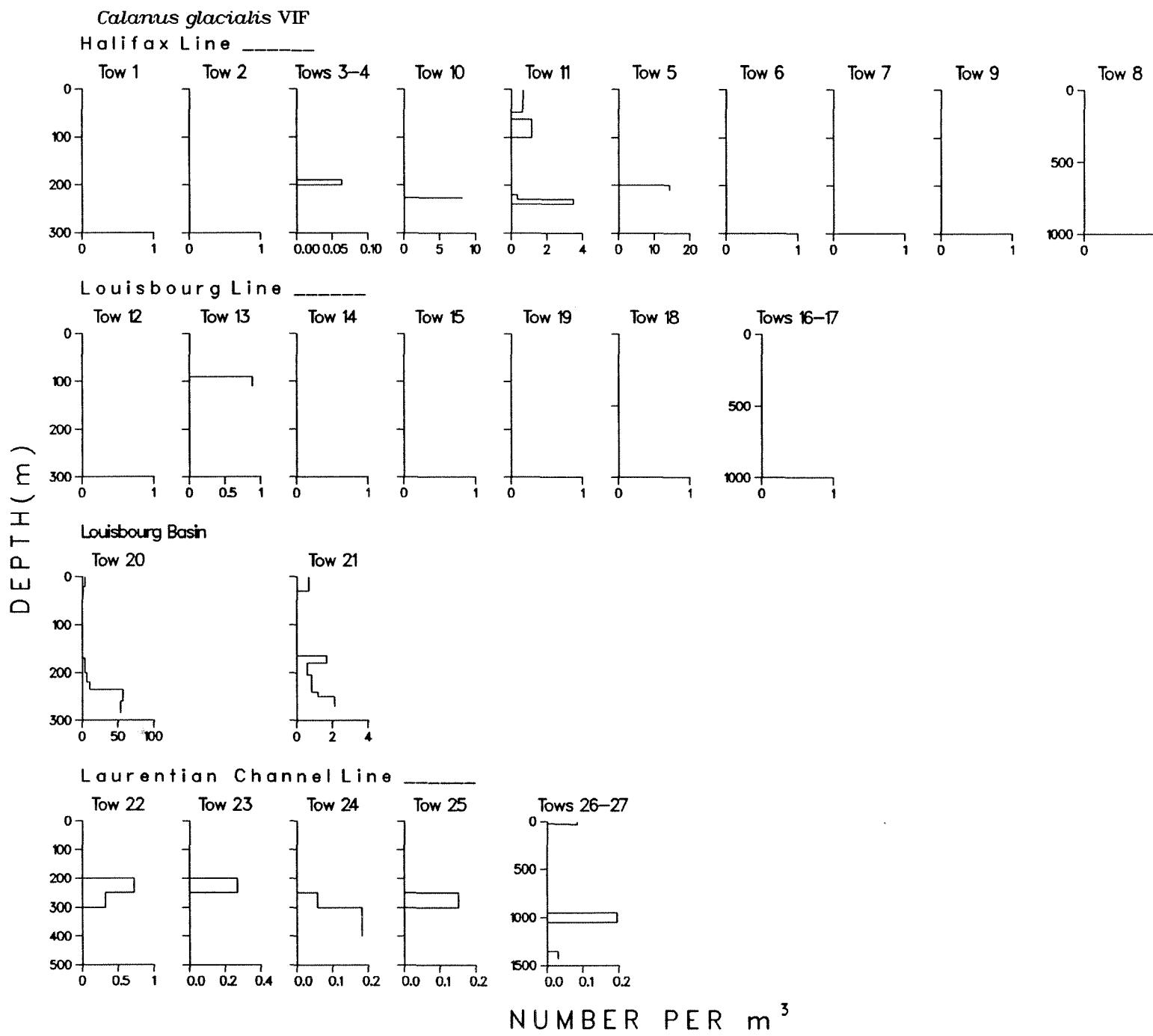


Fig. 3. (Continued)

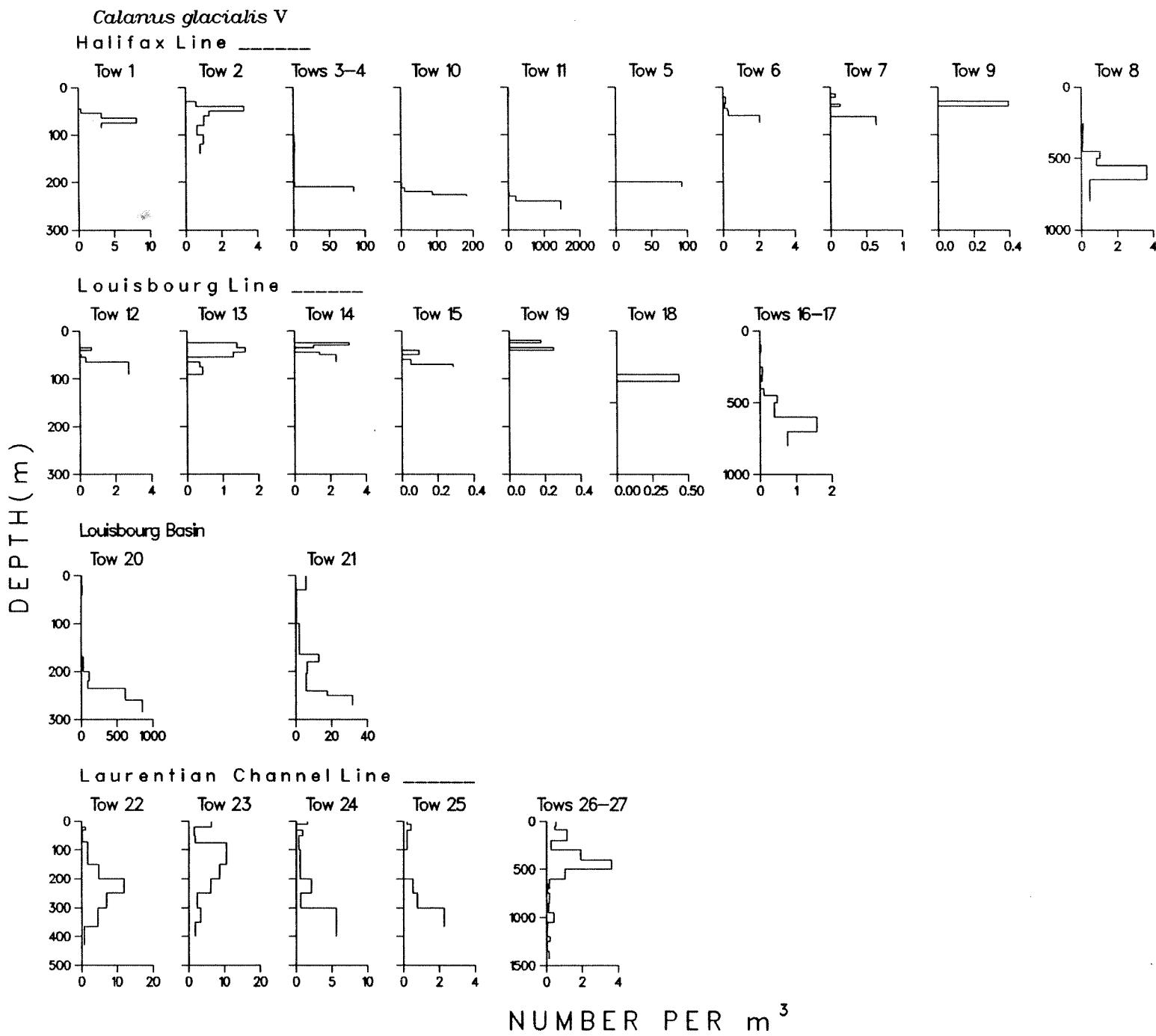


Fig. 3. (Continued)

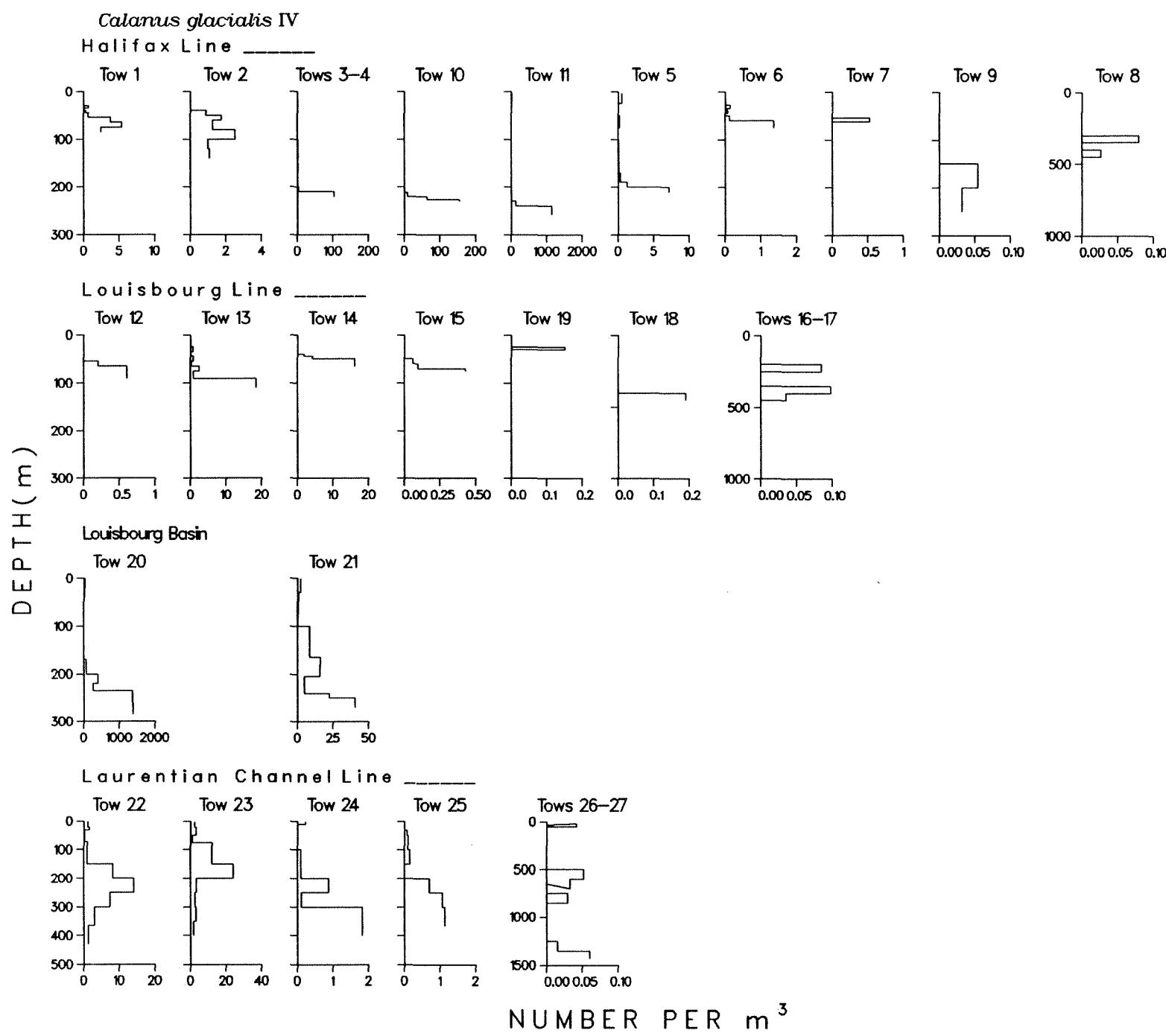


Fig. 3. (Continued)

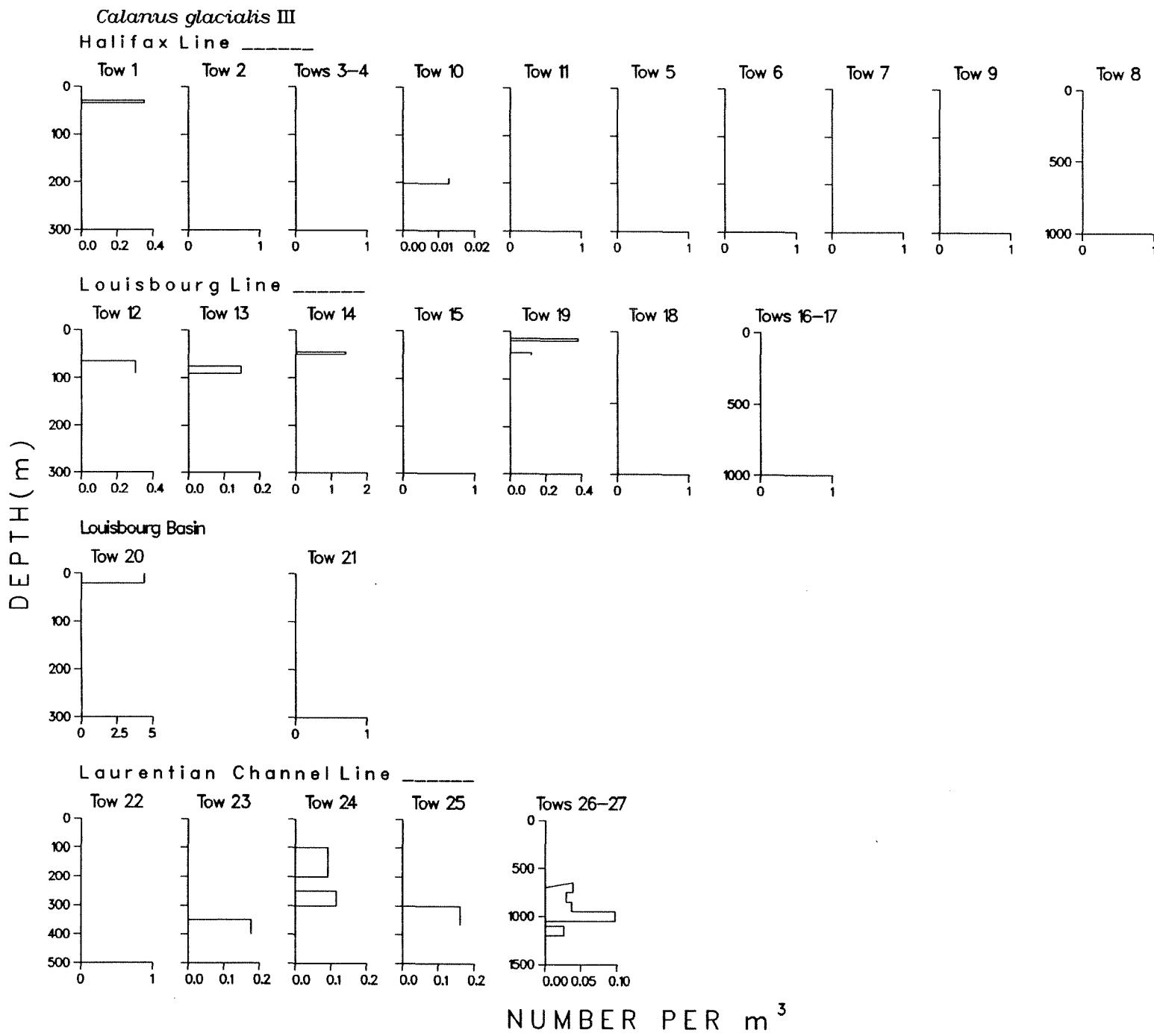


Fig. 3. (Continued)

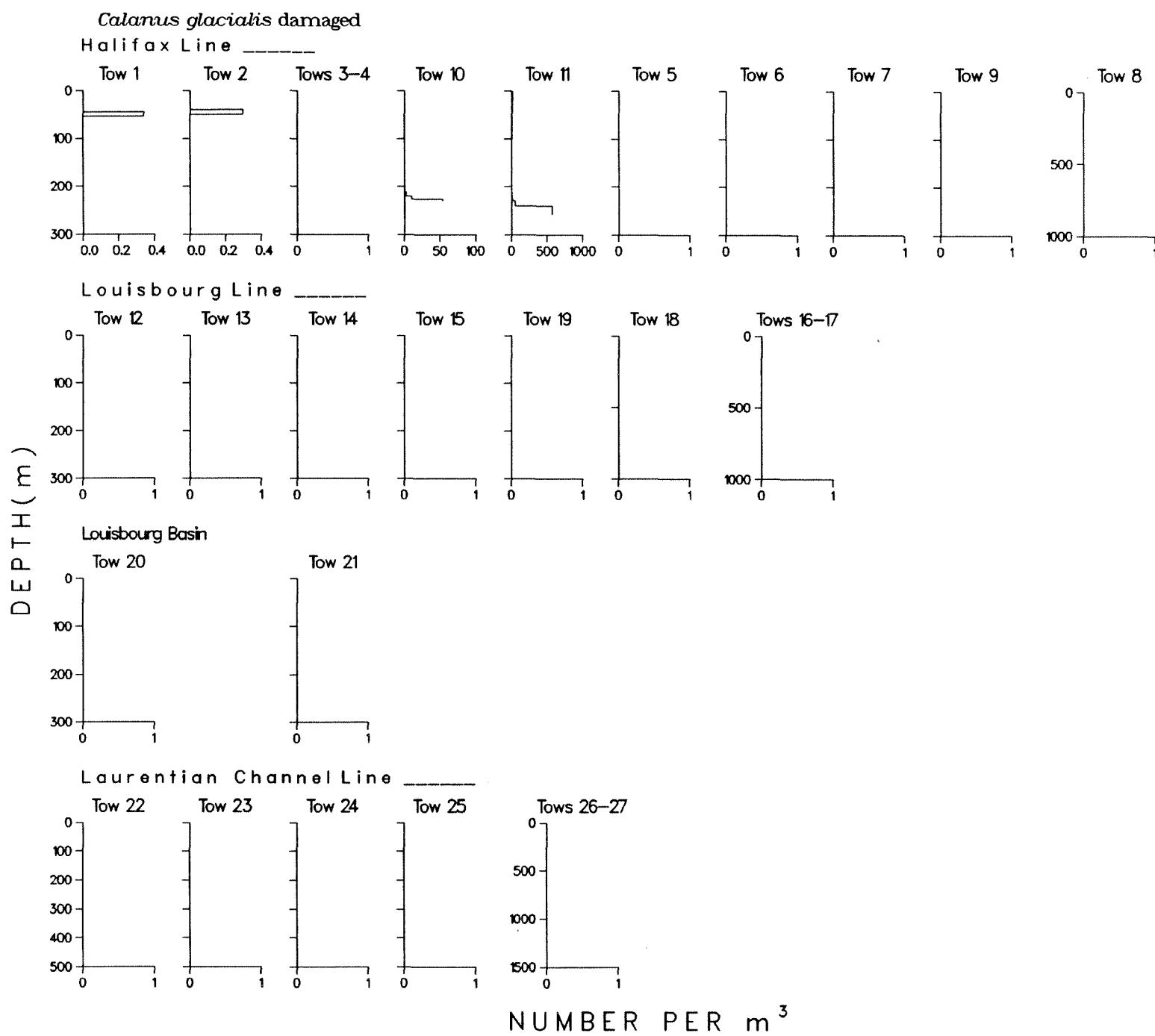


Fig. 3. (Continued)

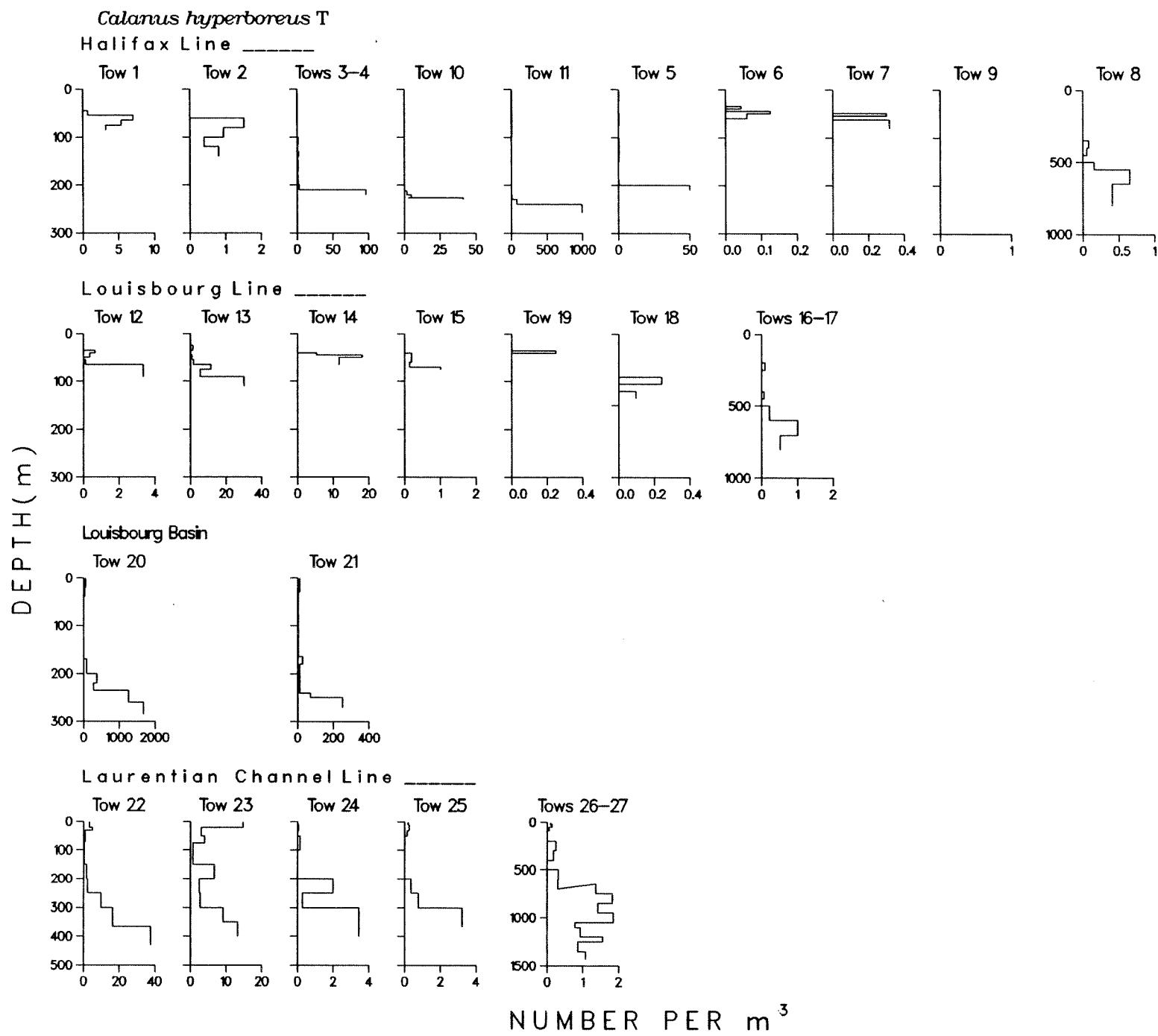


Fig. 3. (Continued)

*Calanus hyperboreus* (D)

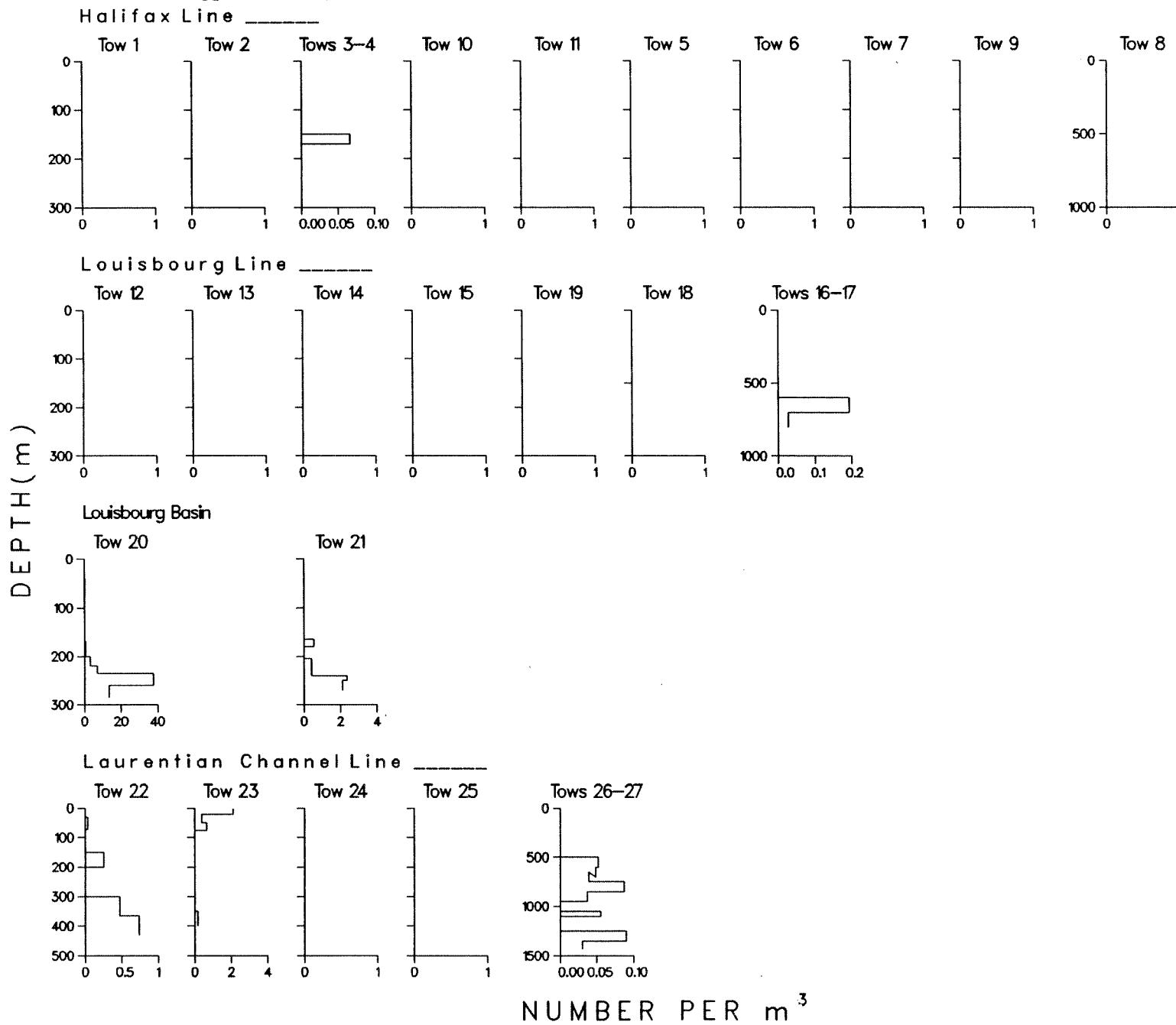
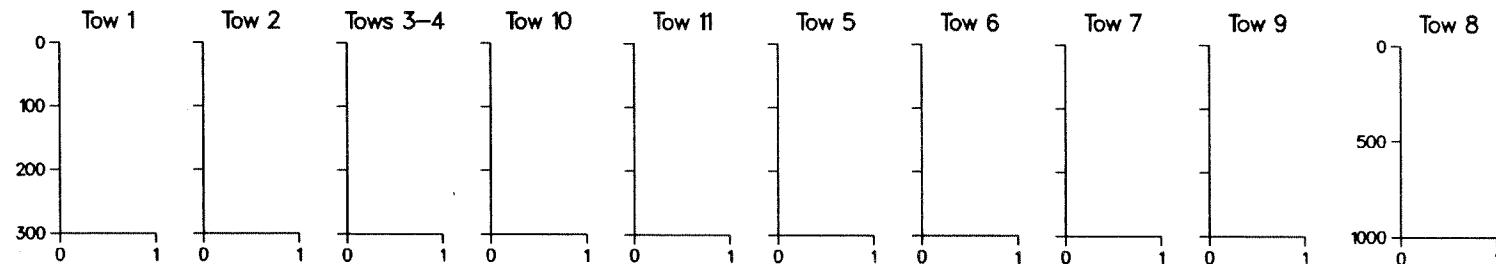


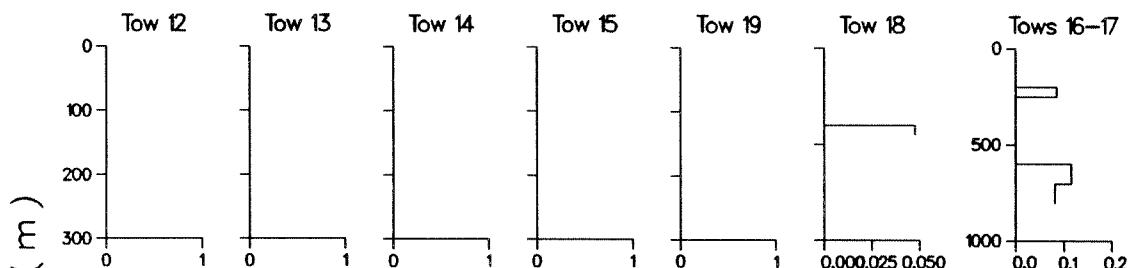
Fig. 3. (Continued)

*Calanus hyperboreus* (S)

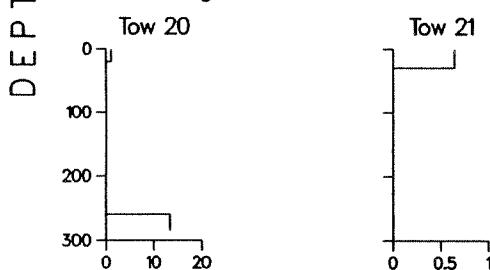
**Halifax Line** \_\_\_\_\_



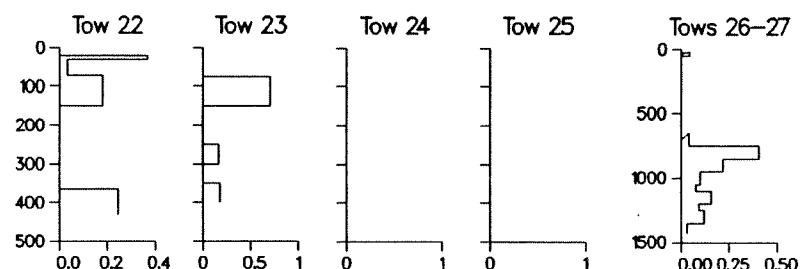
## Louisbourg Line



Louisbourg Basin



### **Laurentian Channel Line**



NUMBER PER m<sup>3</sup>

Fig. 3. (Continued)

## *Calanus hyperboreus* VIF

Halifax Line \_\_\_\_\_

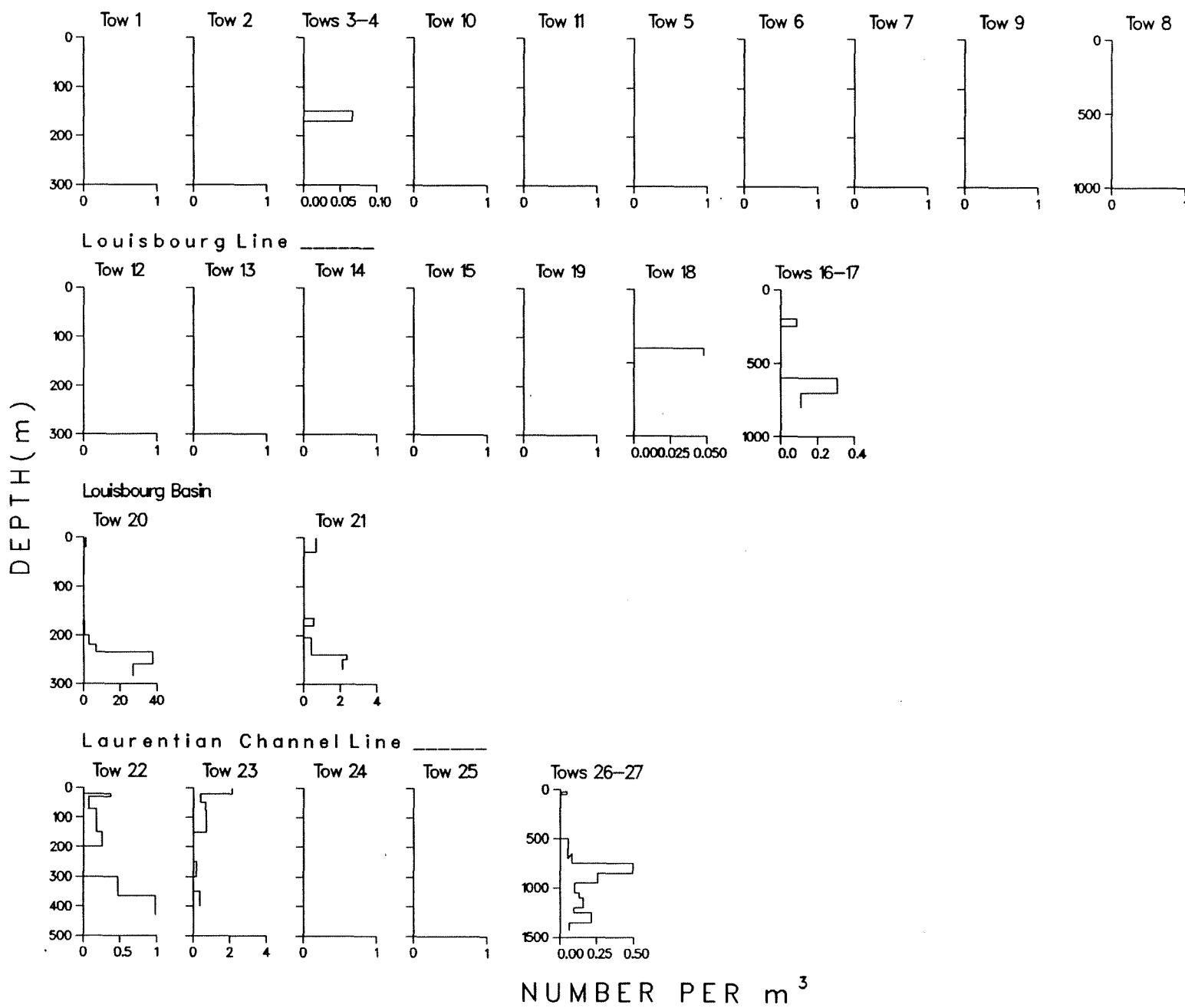


Fig. 3. (Continued)

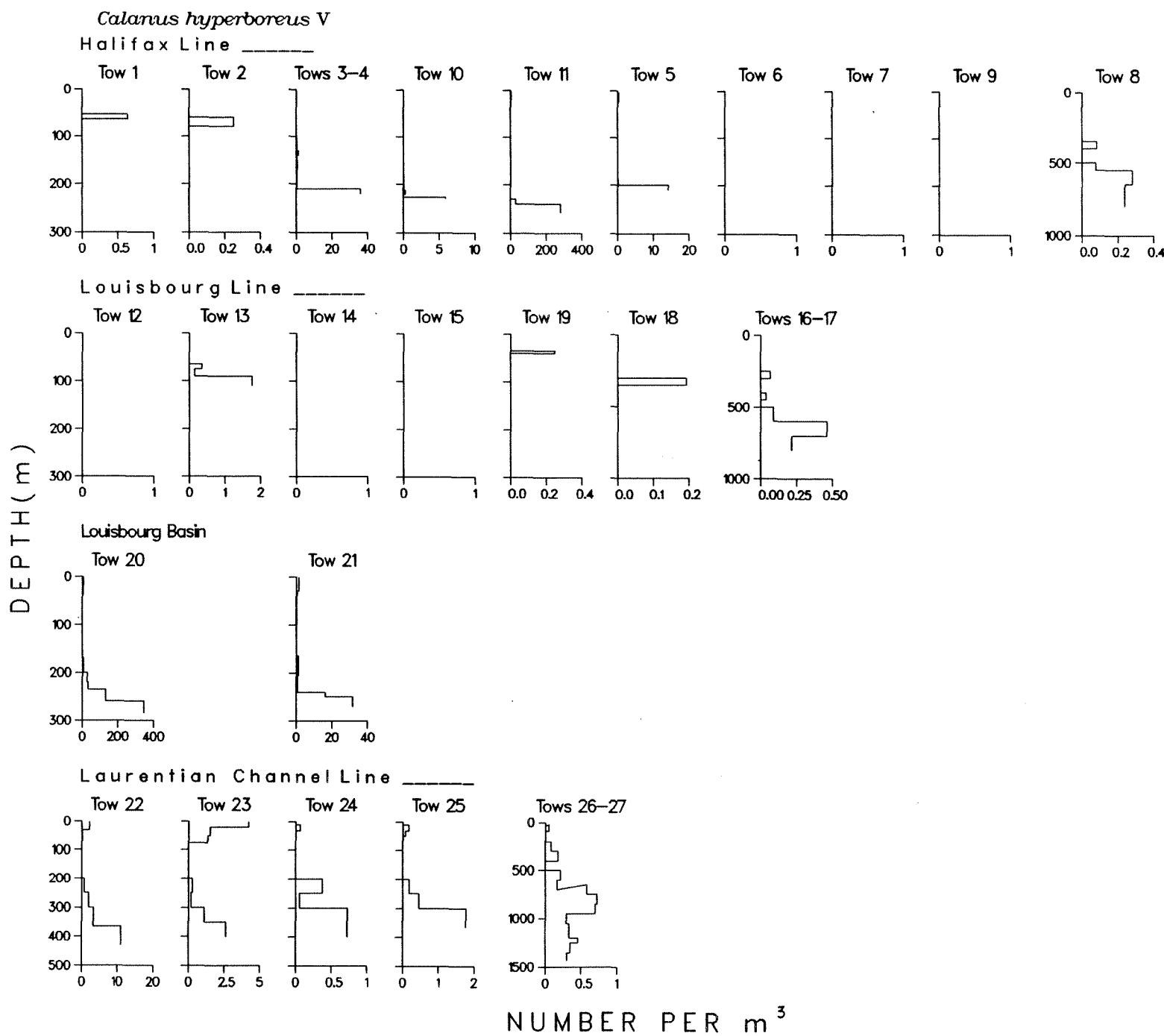
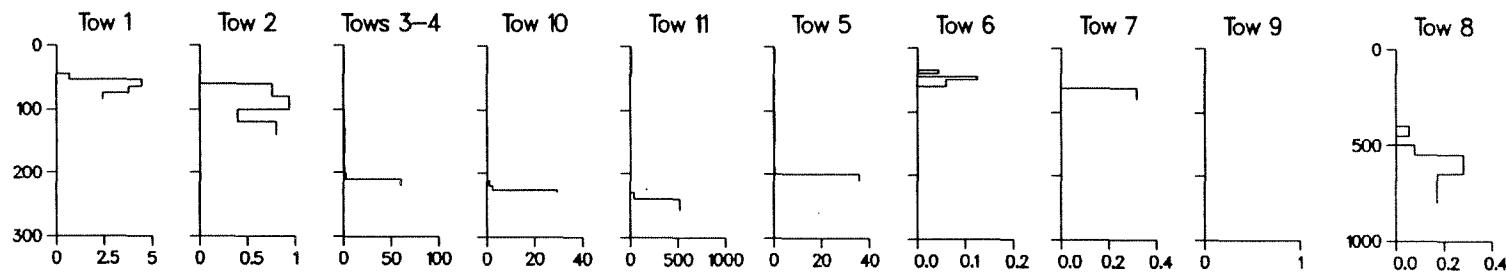


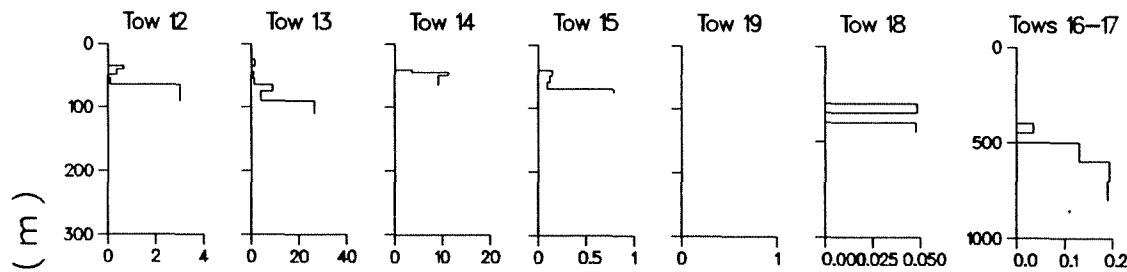
Fig. 3. (Continued)

*Calanus hyperboreus* IV

Halifax Line



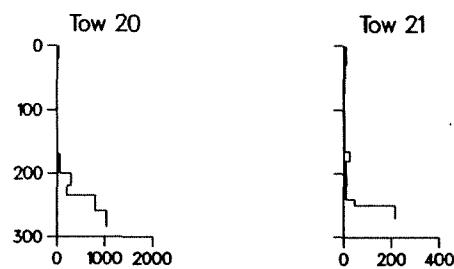
Louisbourg Line



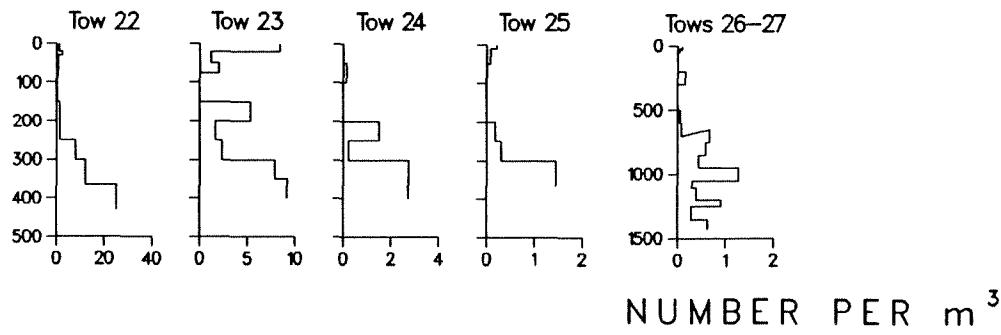
DEPTH (m)

41

Louisbourg Basin



Laurentian Channel Line



NUMBER PER  $m^{-3}$

Fig. 3. (Continued)

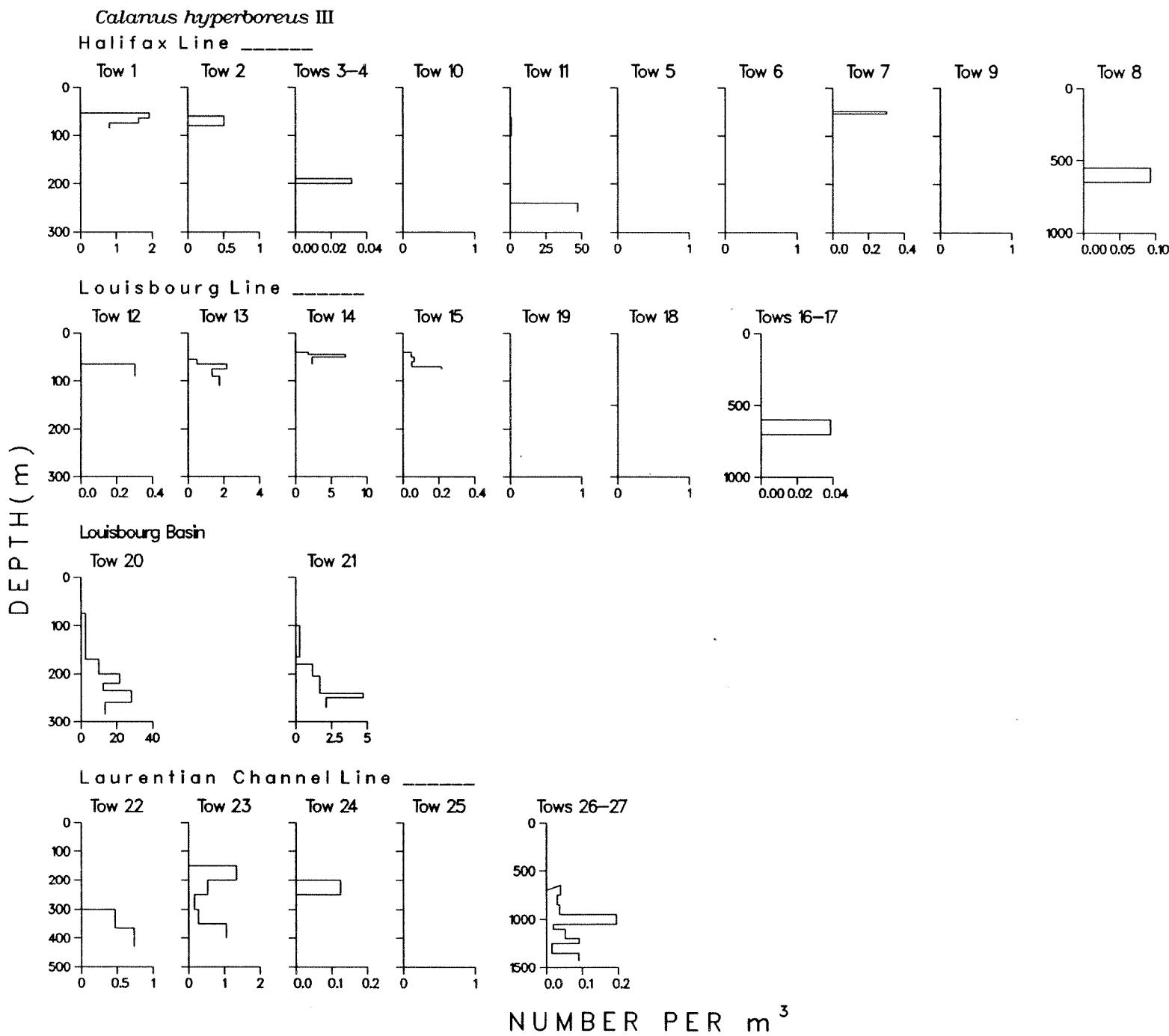


Fig. 3. (Continued)

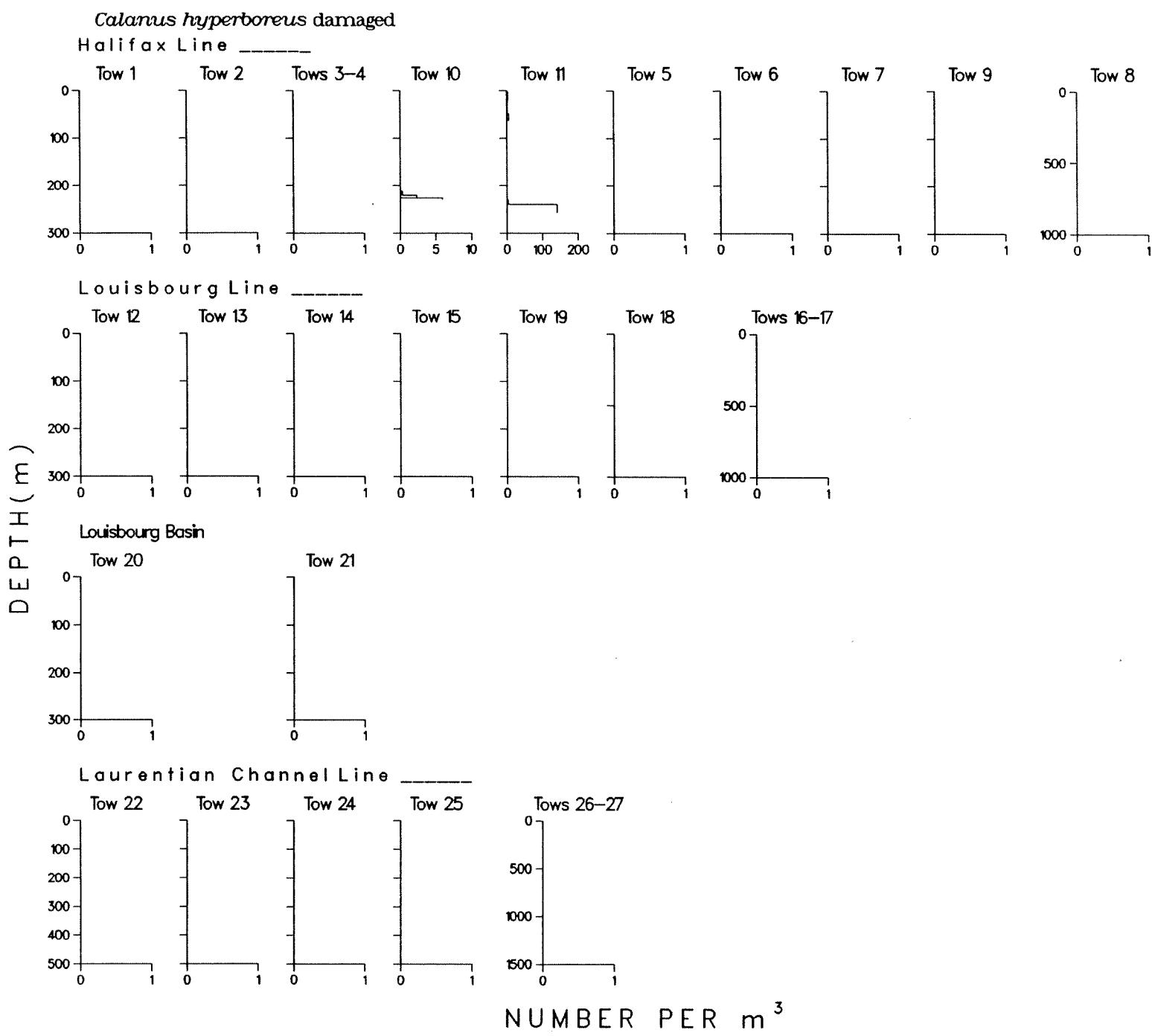


Fig. 3. (Continued)

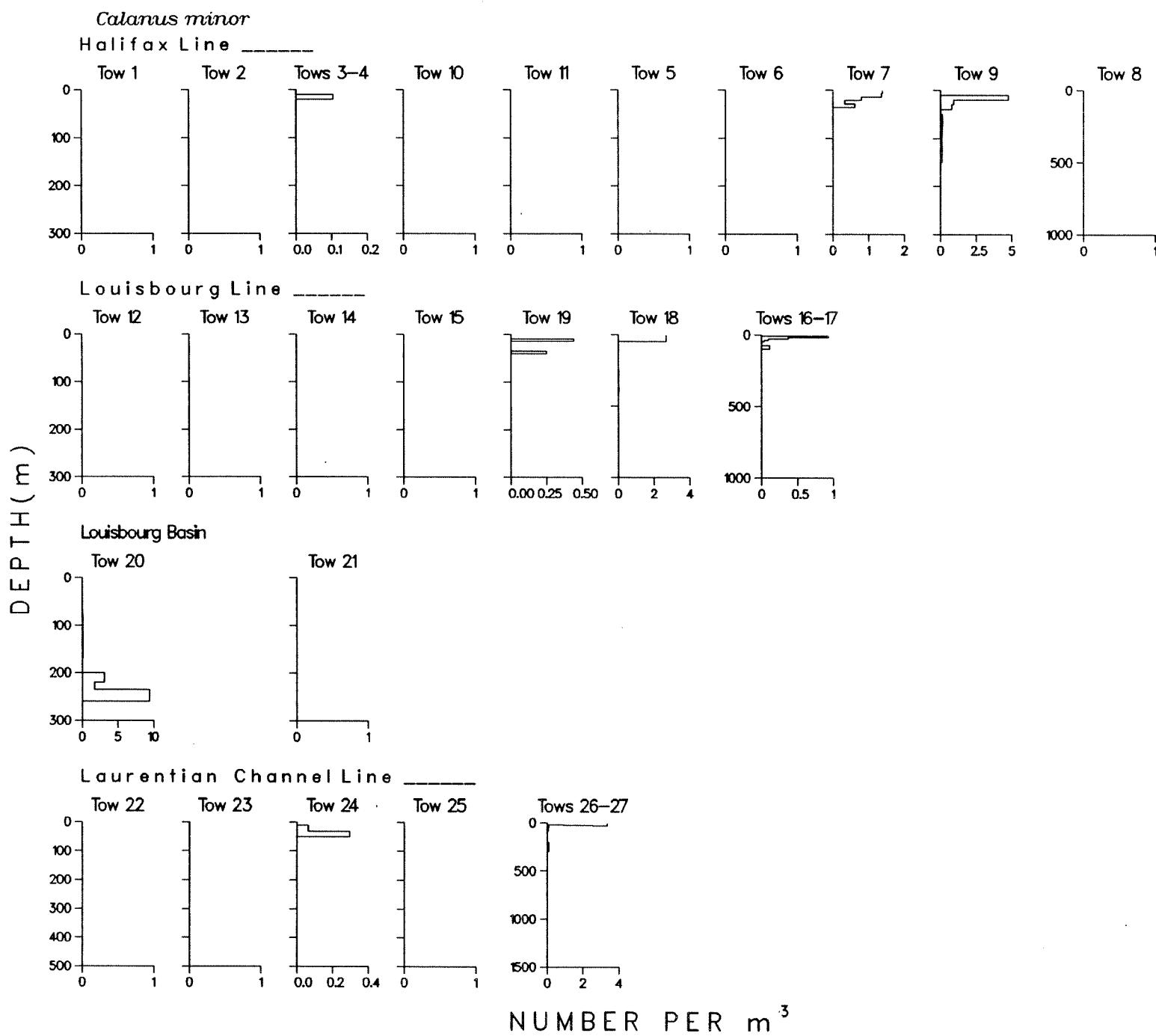


Fig. 3. (Continued)

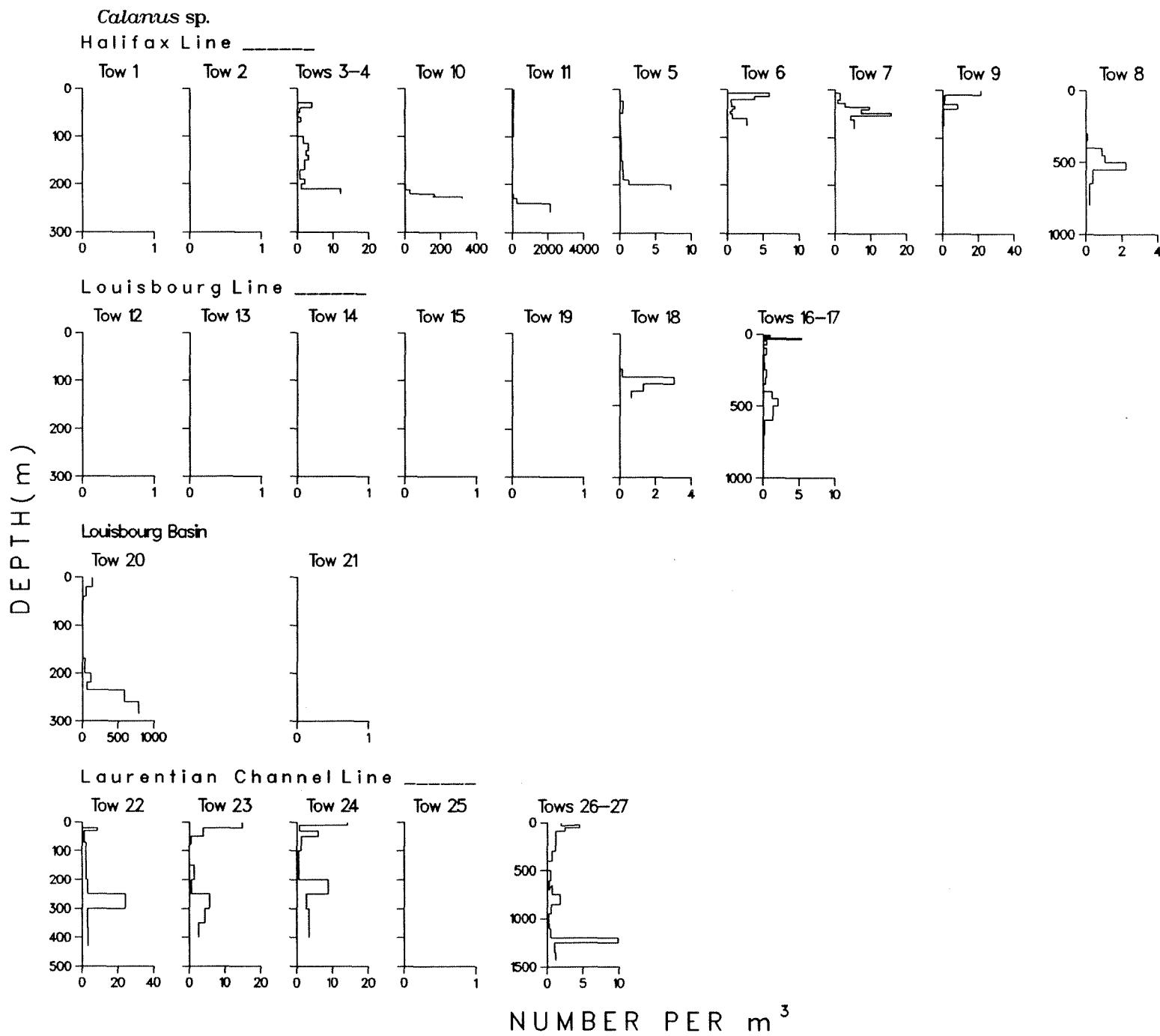


Fig. 3. (Continued)

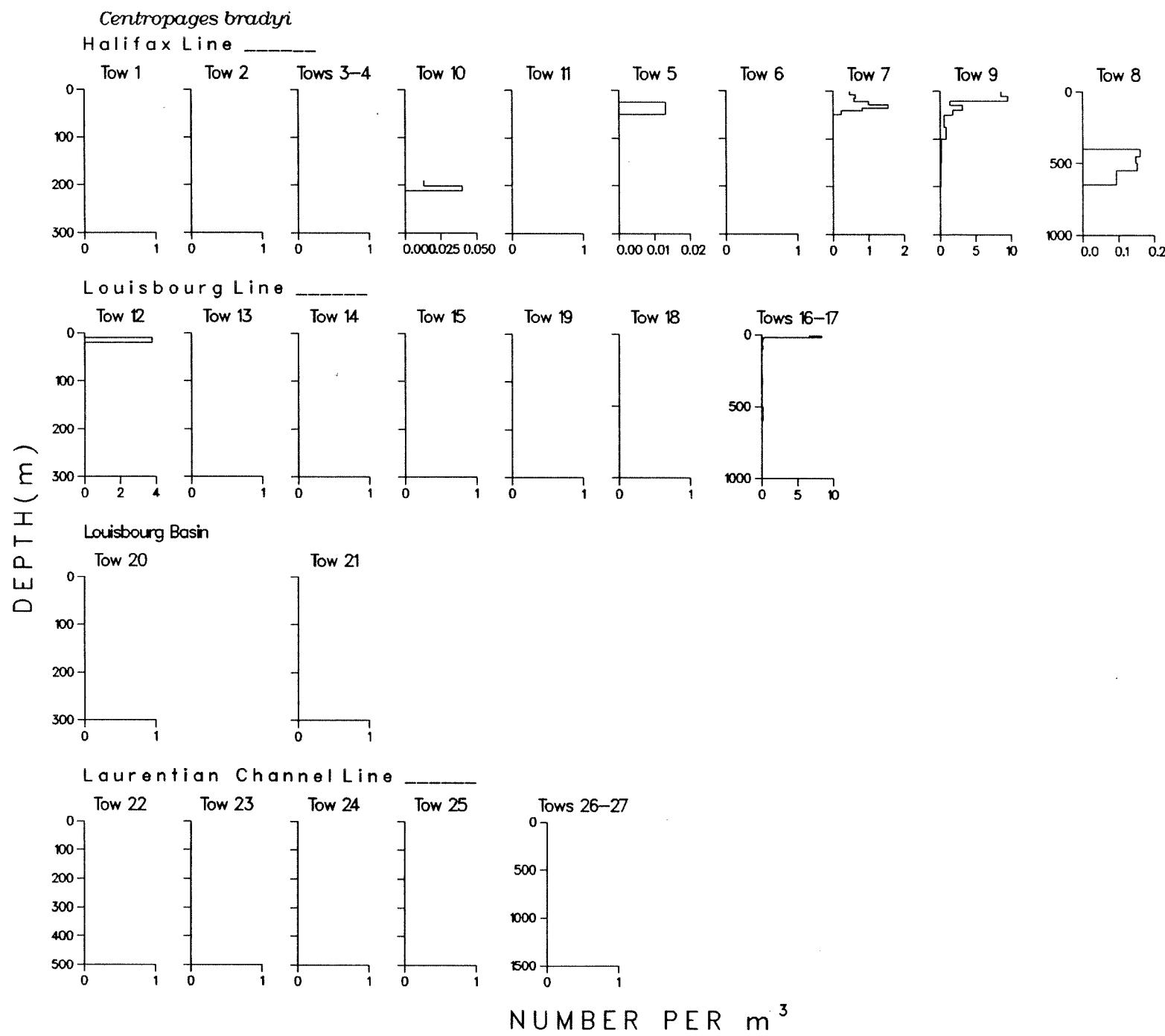
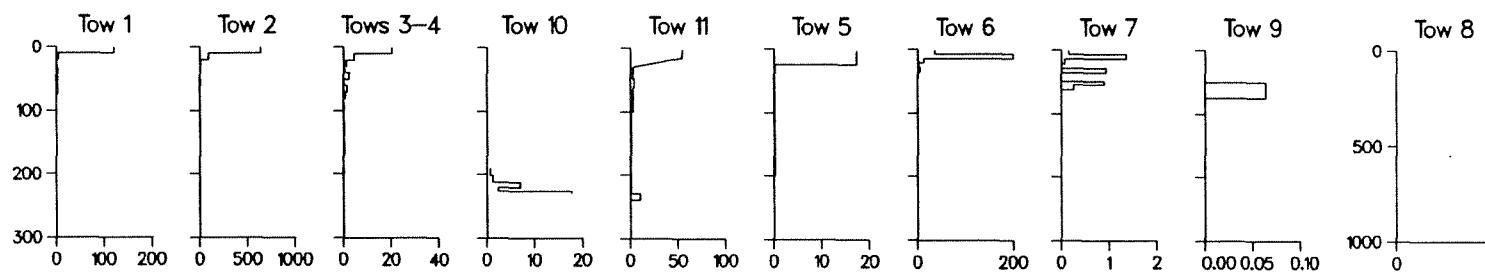


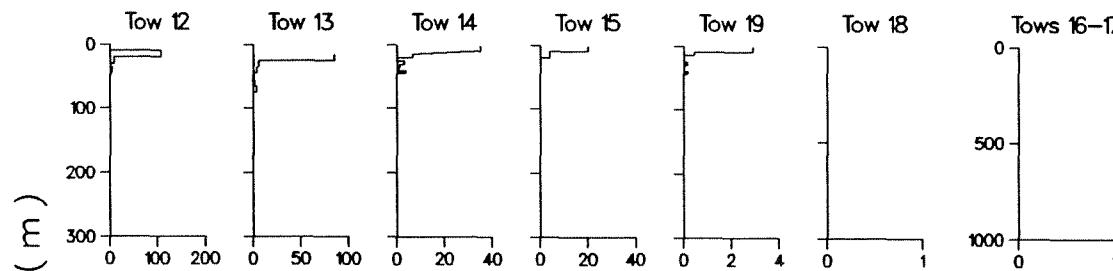
Fig. 3. (Continued)

*Centropages typicus*

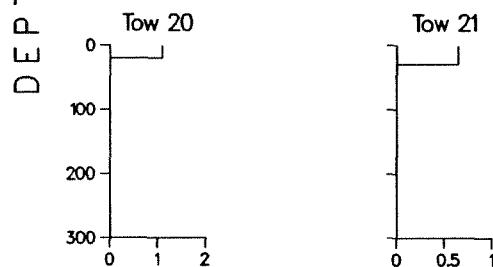
Halifax Line



Louisbourg Line



Louisbourg Basin



Laurentian Channel Line

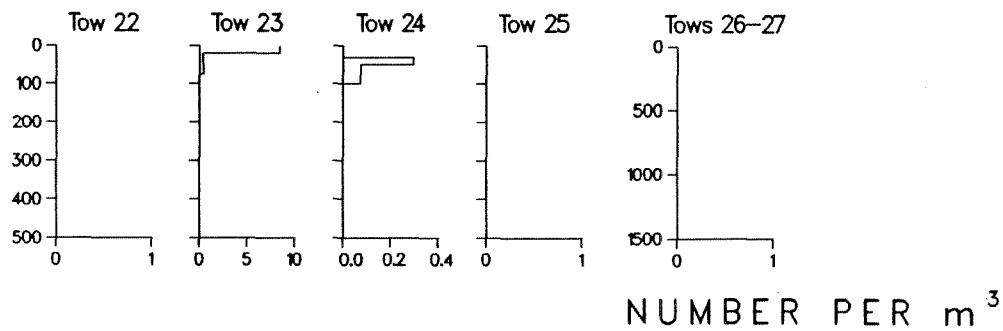


Fig. 3. (Continued)

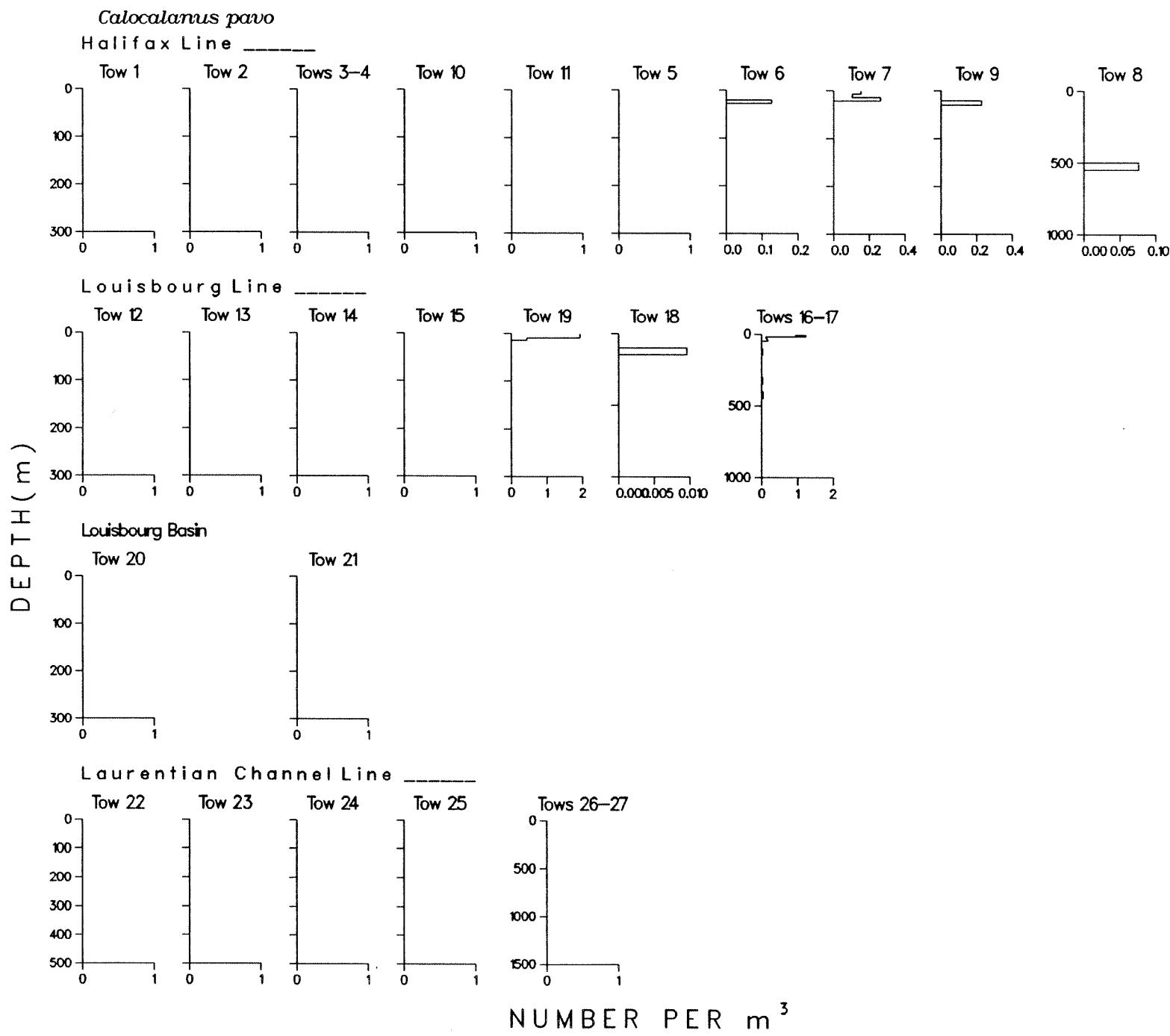


Fig. 3. (Continued)

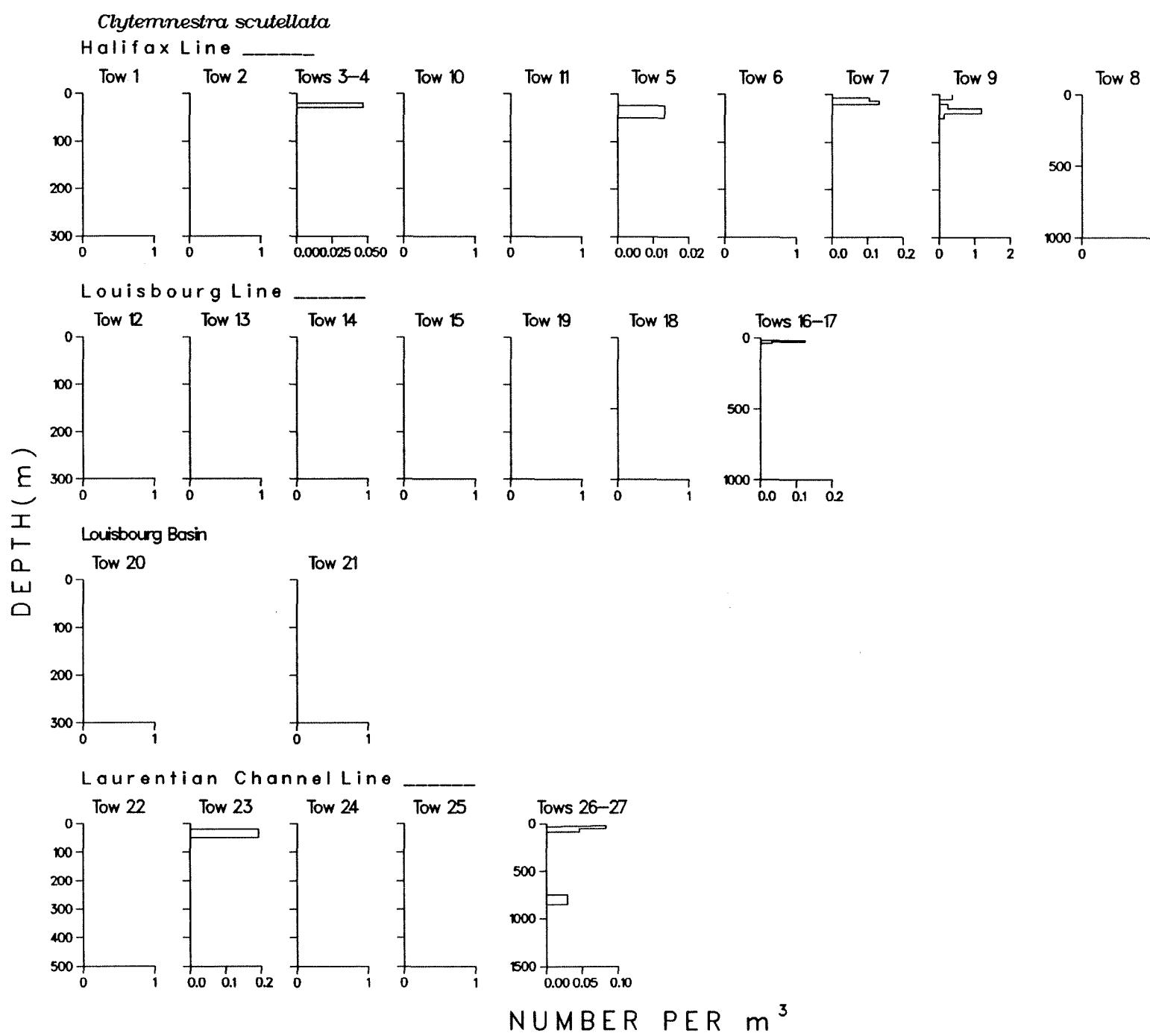


Fig. 3. (Continued)

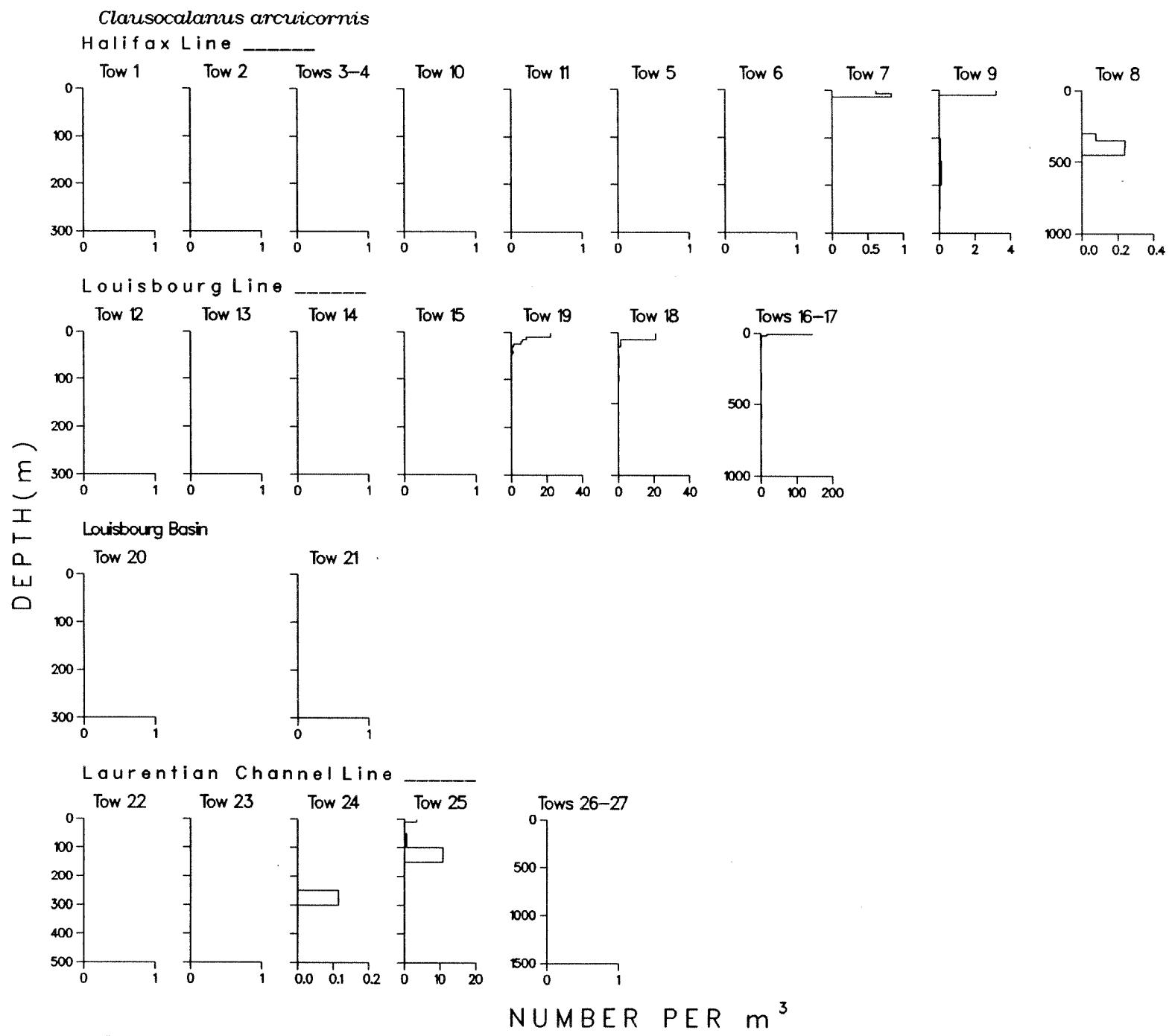


Fig. 3. (Continued)

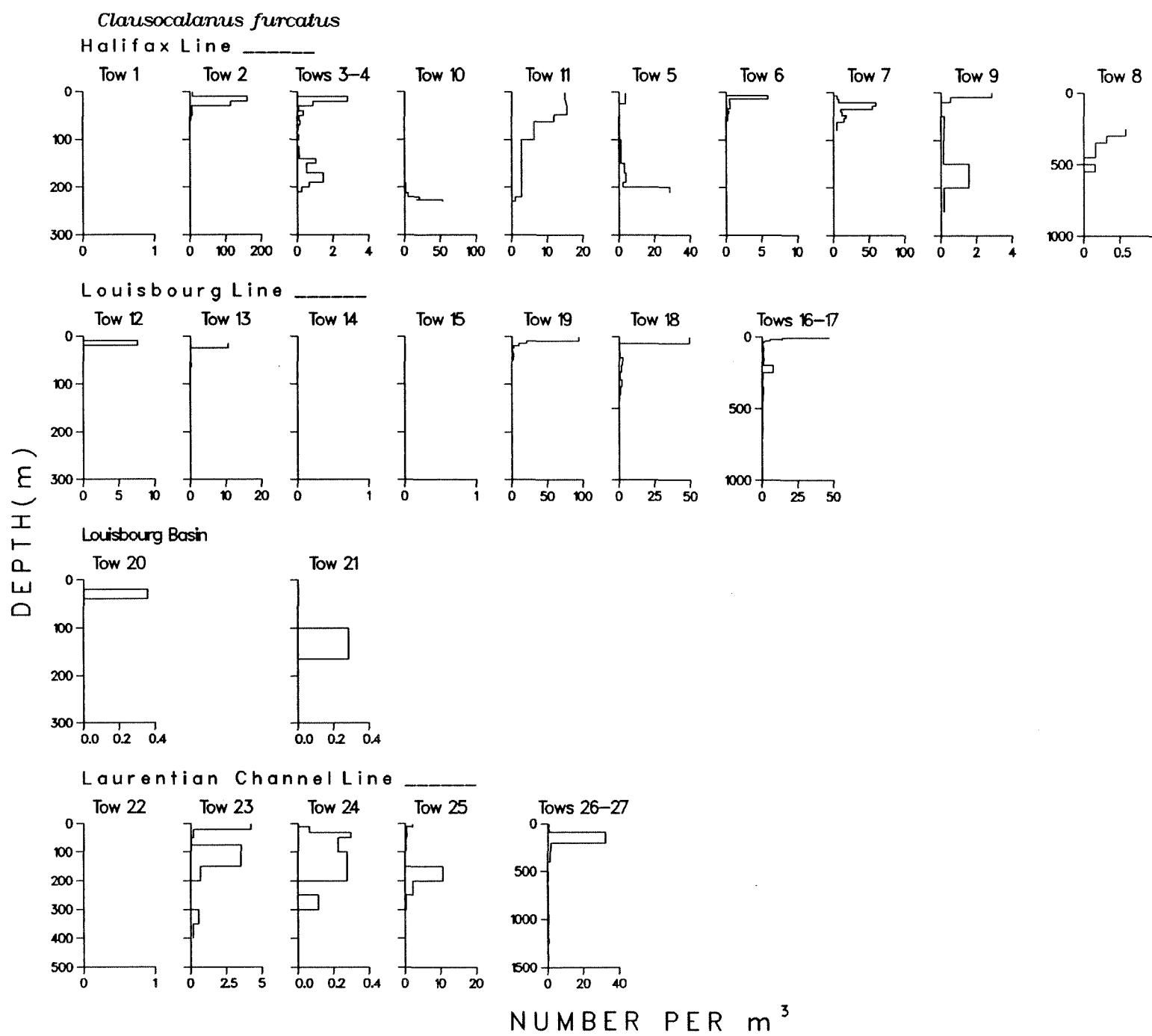


Fig. 3. (Continued)

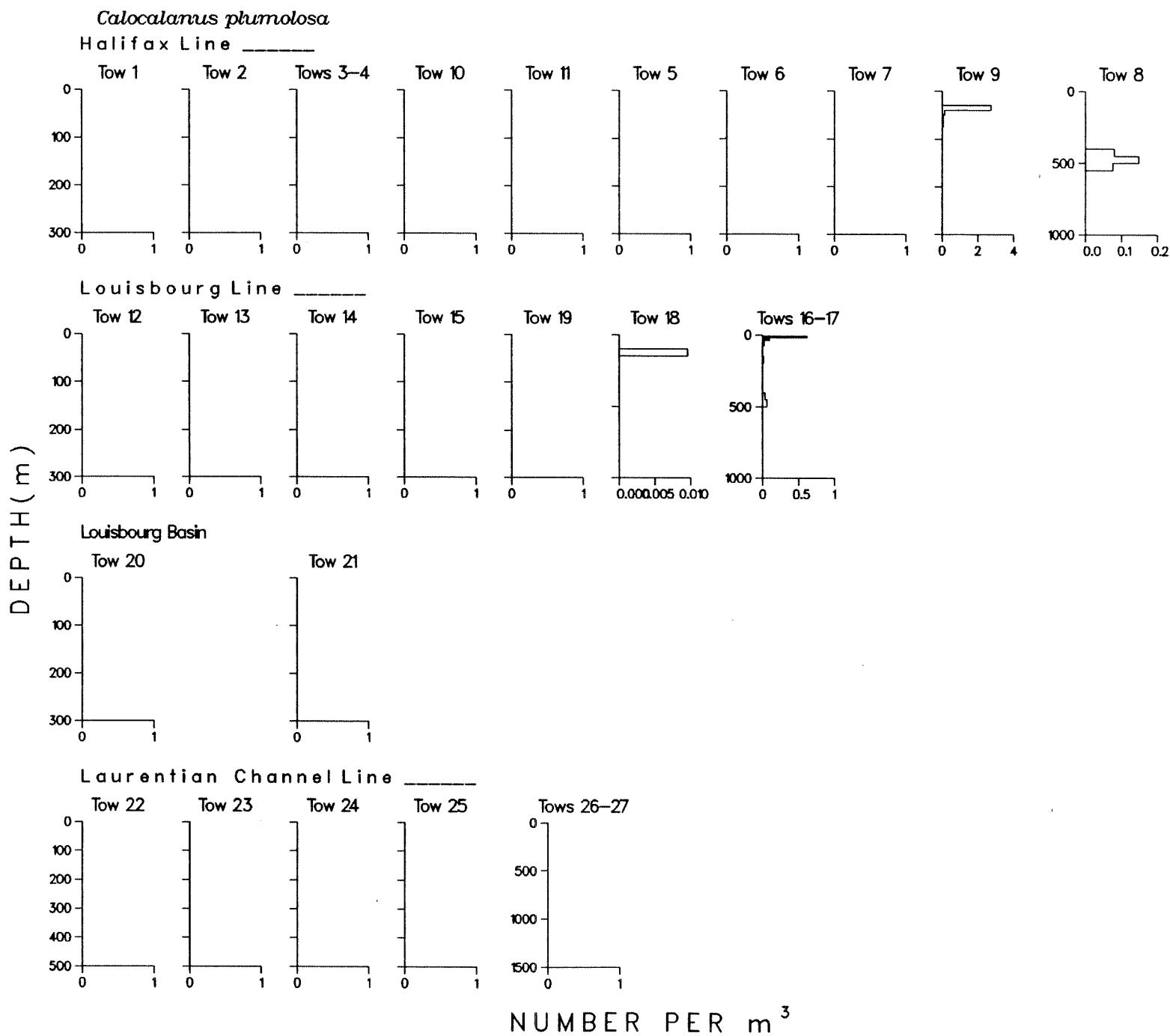
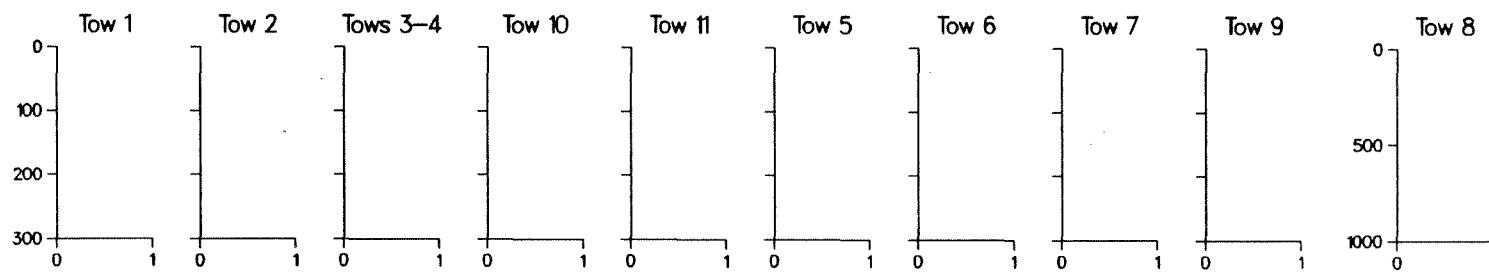


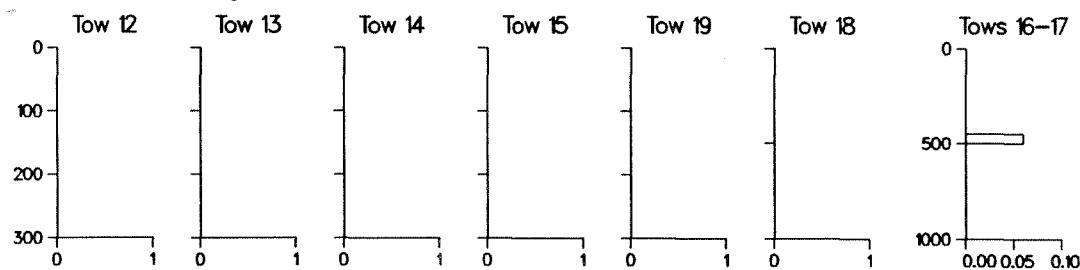
Fig. 3. (Continued)

*Eucalanus attenuatus*

Halifax Line \_\_\_\_\_



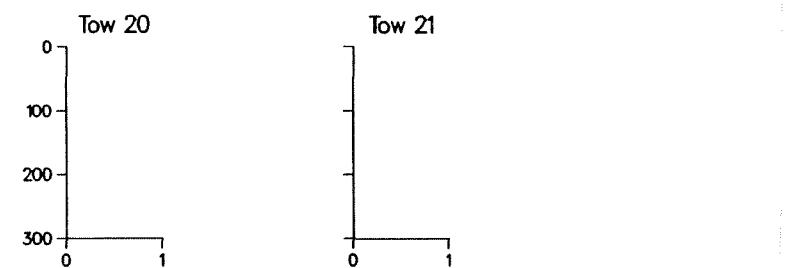
Louisbourg Line \_\_\_\_\_



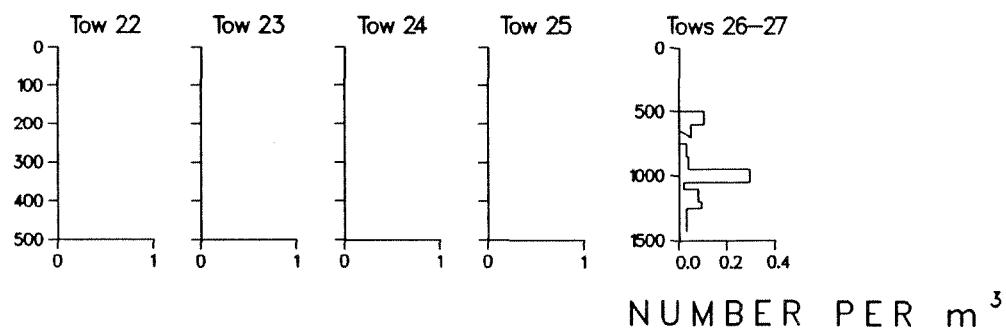
DEPTH (m)

53

Louisbourg Basin



Laurentian Channel Line \_\_\_\_\_



NUMBER PER  $m^{-3}$

Fig. 3. (Continued)

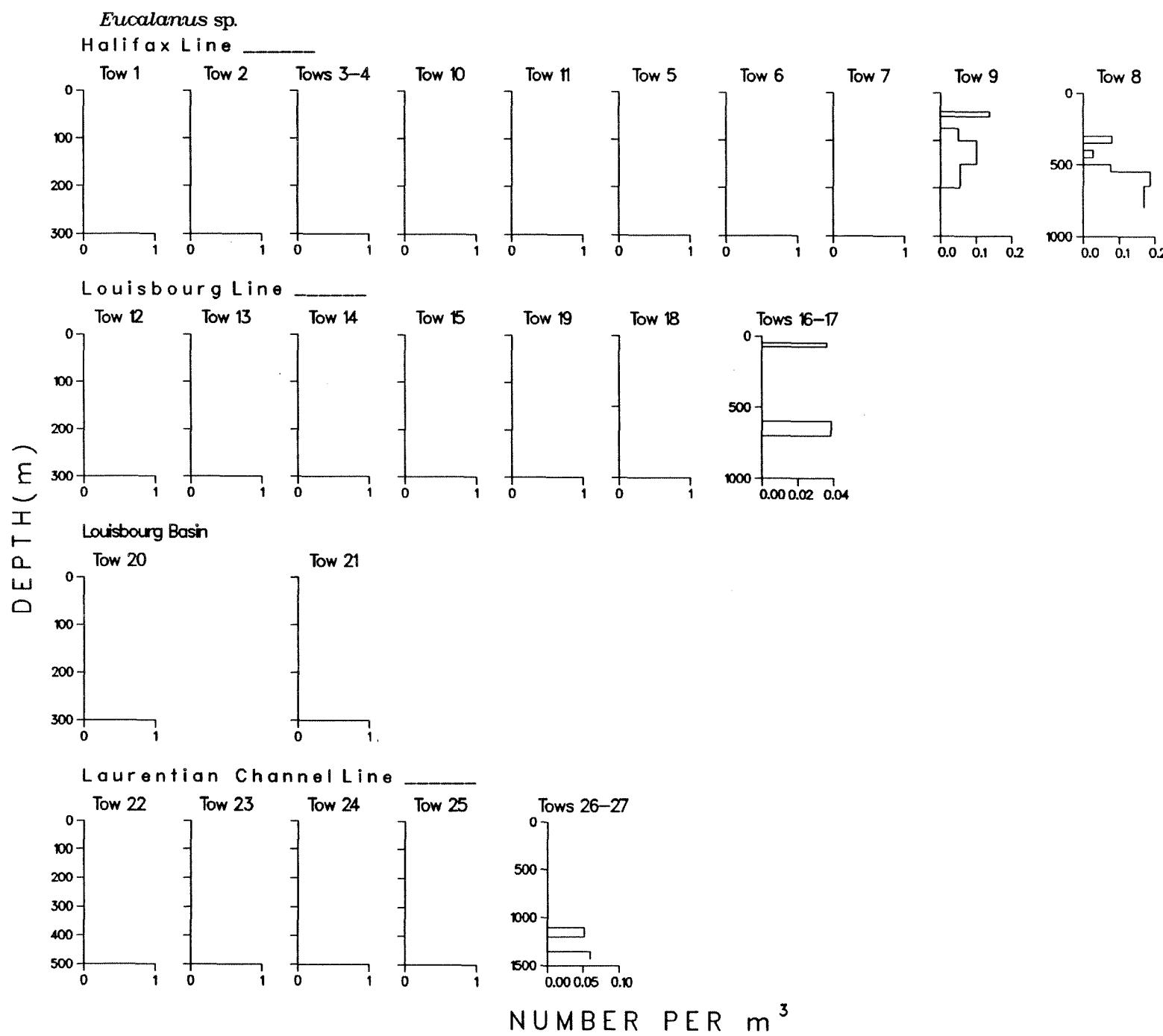


Fig. 3. (Continued)

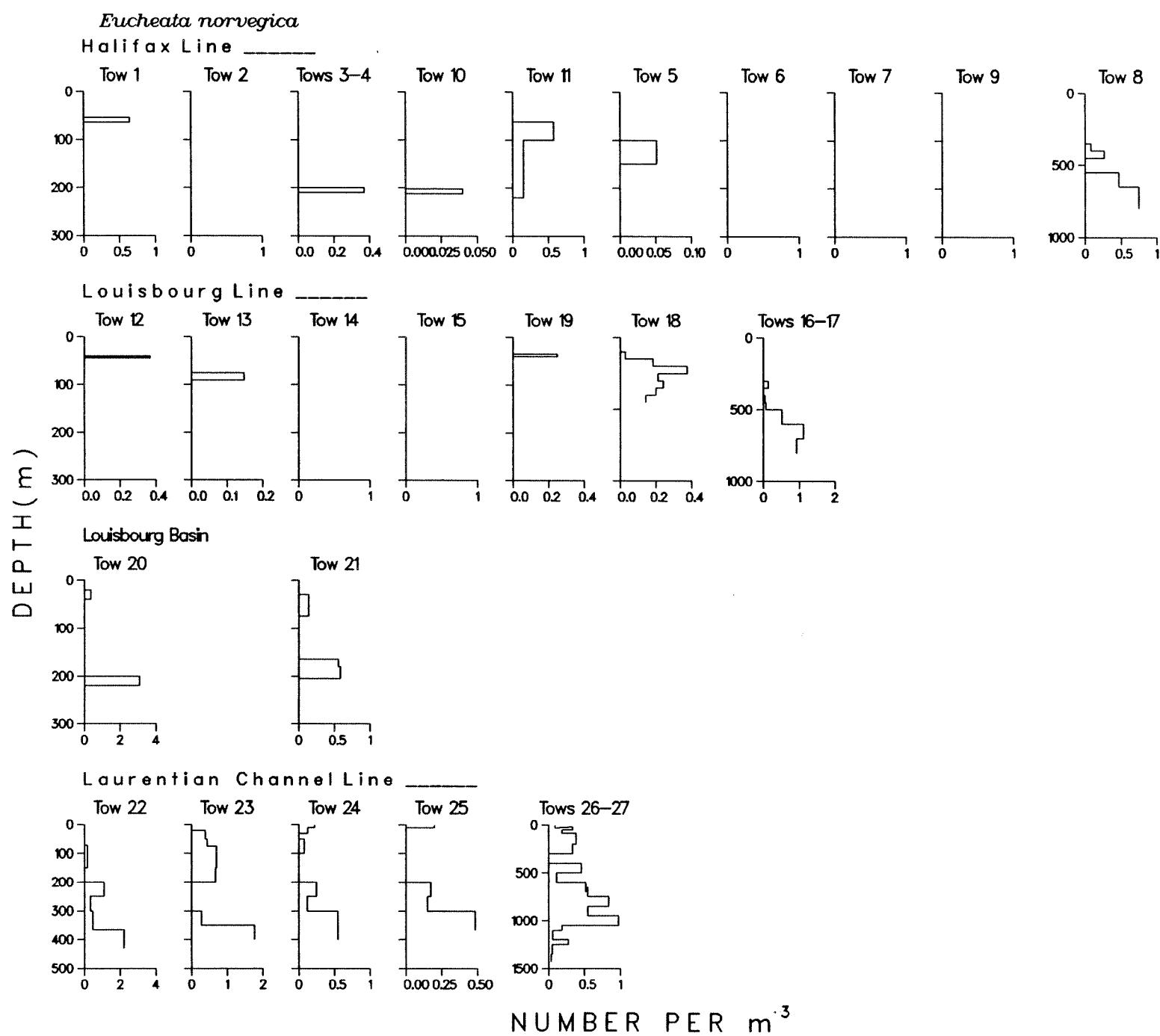


Fig. 3. (Continued)

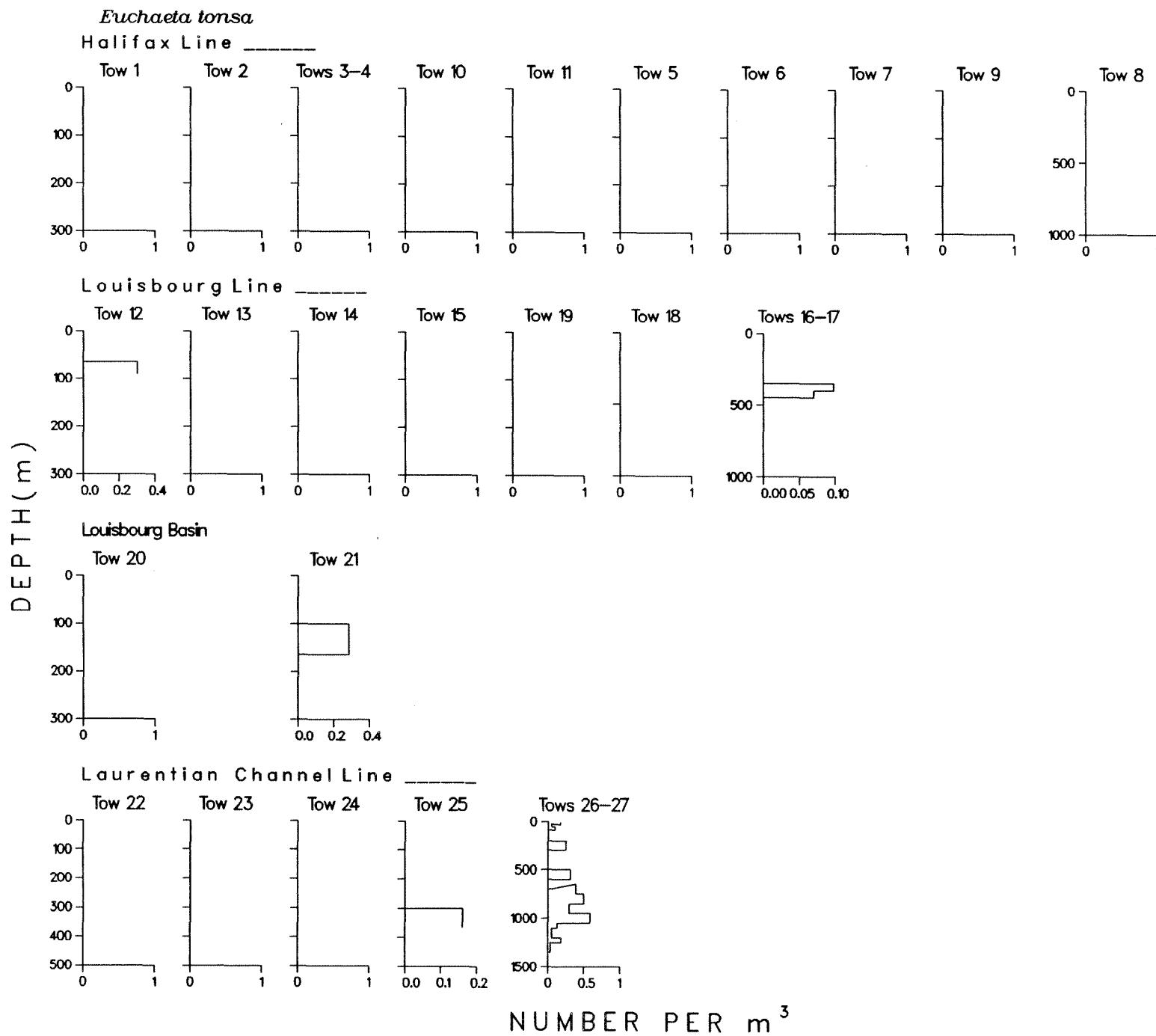


Fig. 3. (Continued)

Eucheata sp.

Halifax Line

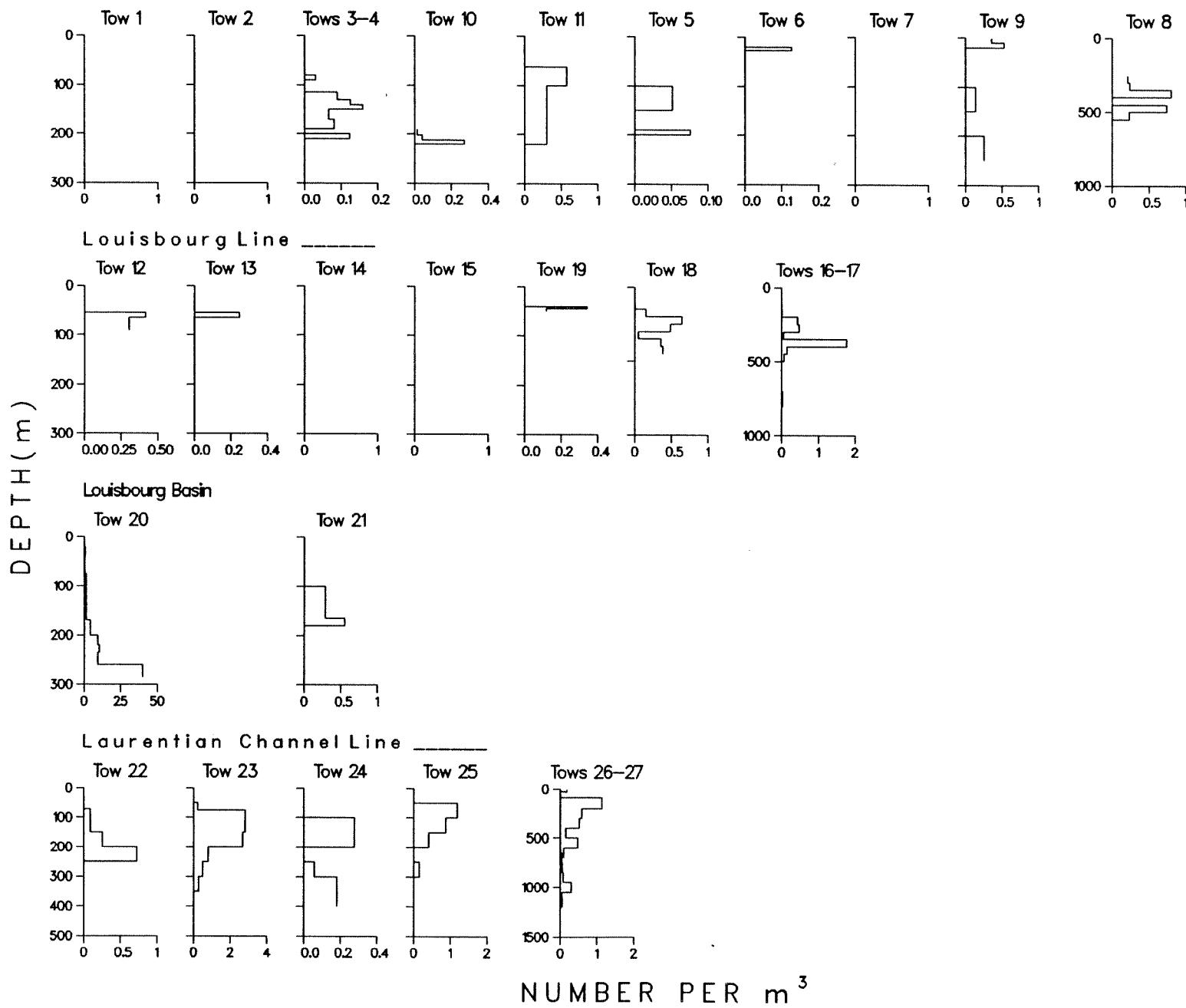


Fig. 3. (Continued)

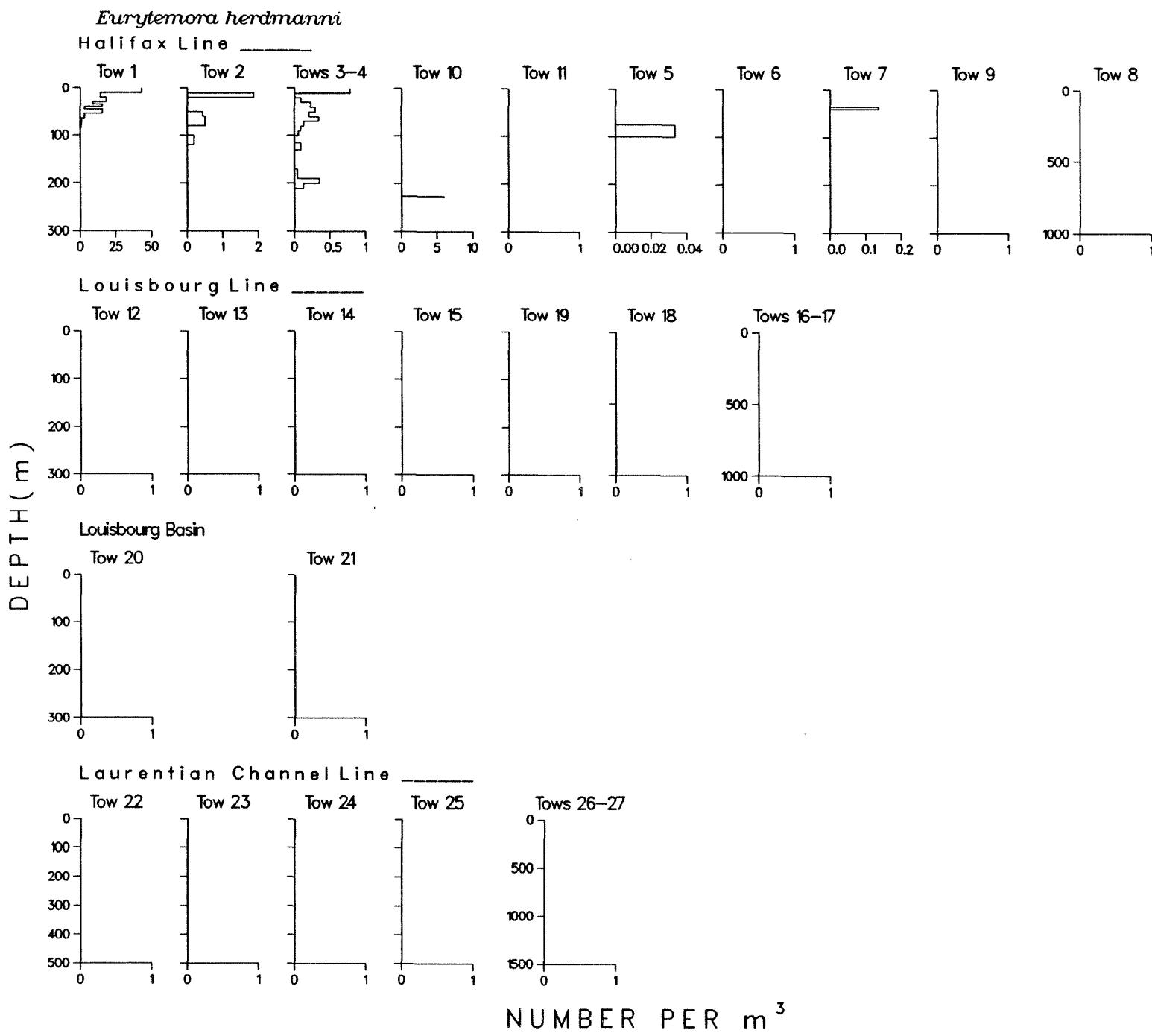


Fig. 3. (Continued)

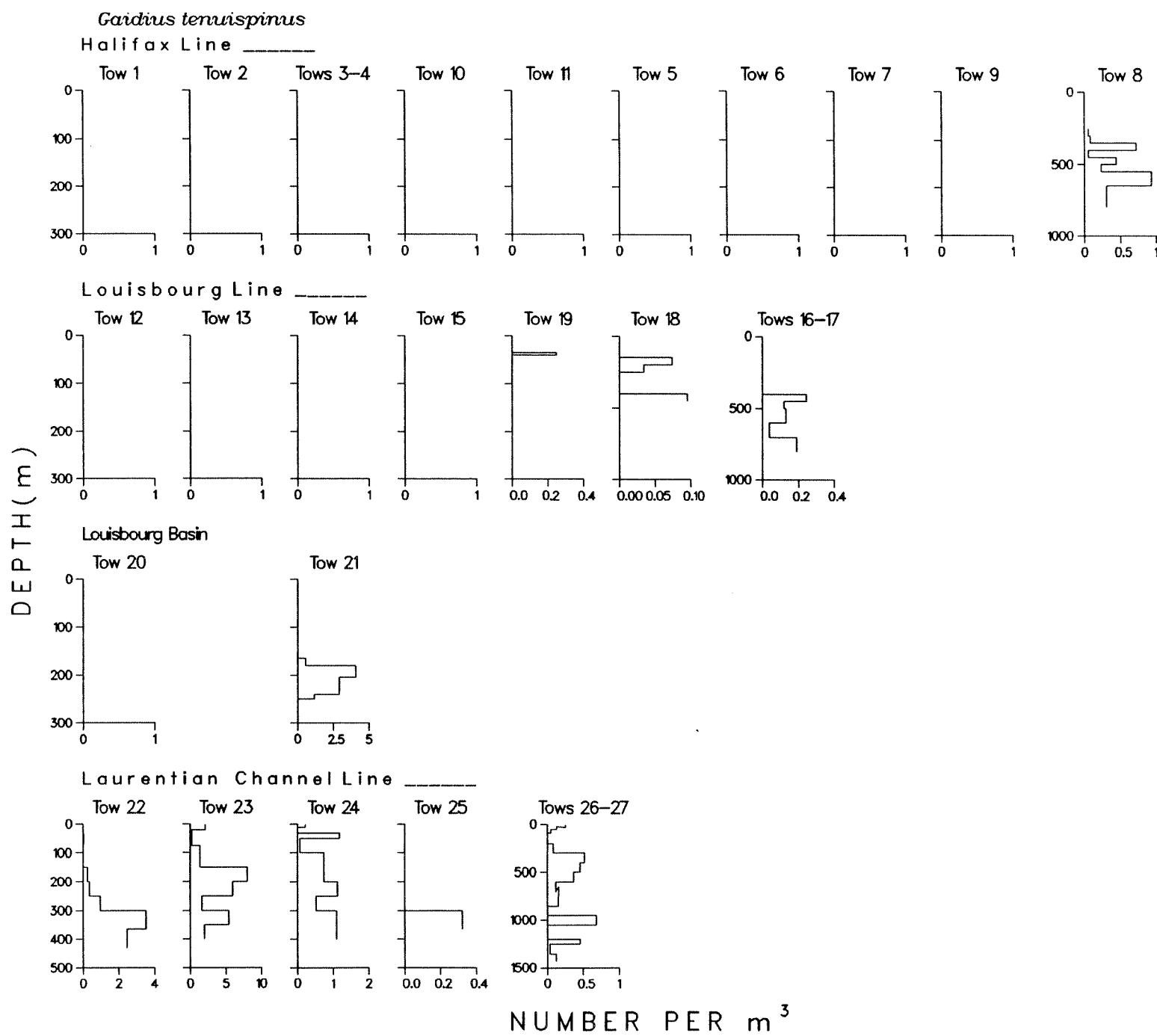


Fig. 3. (Continued)

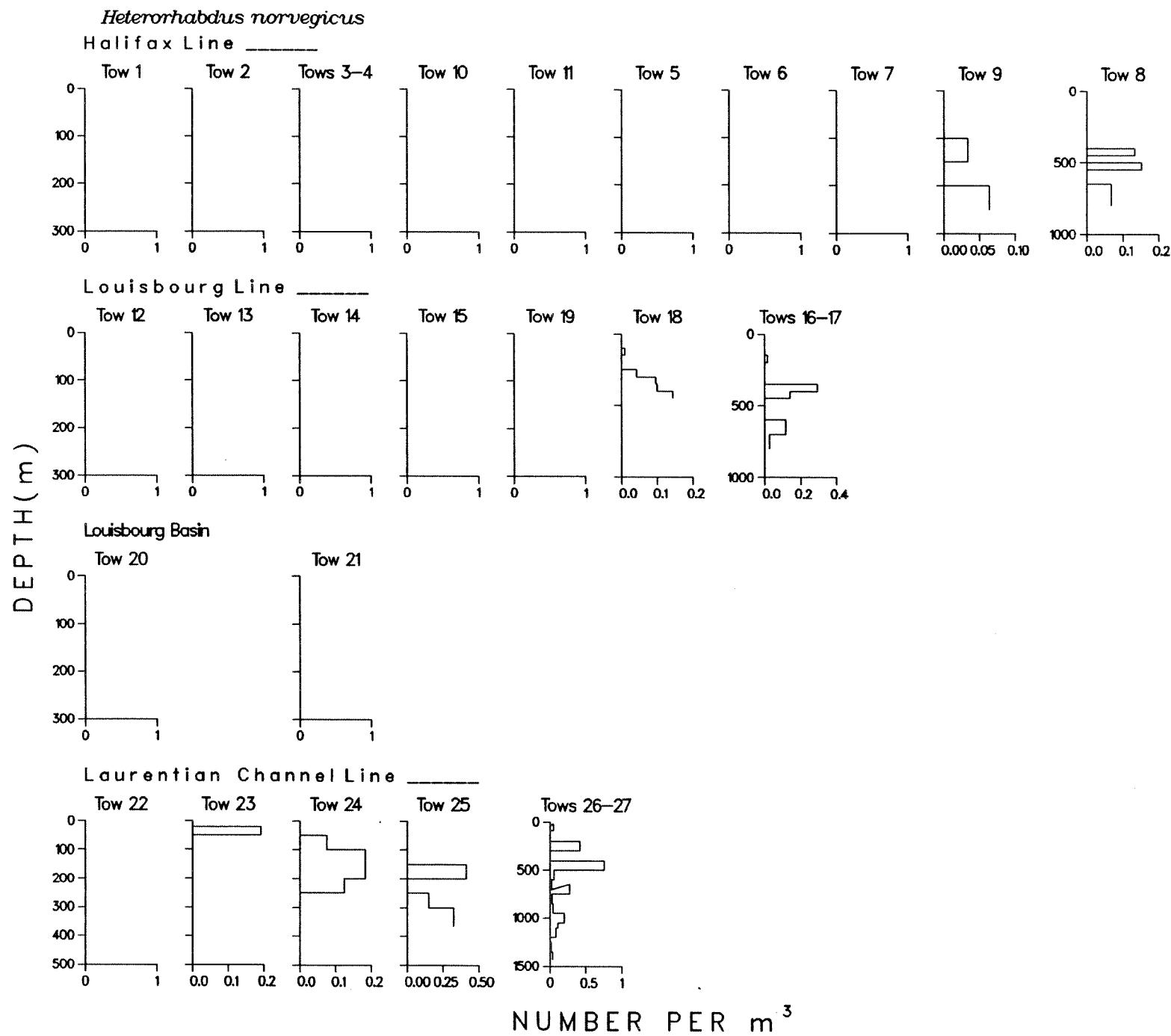


Fig. 3. (Continued)

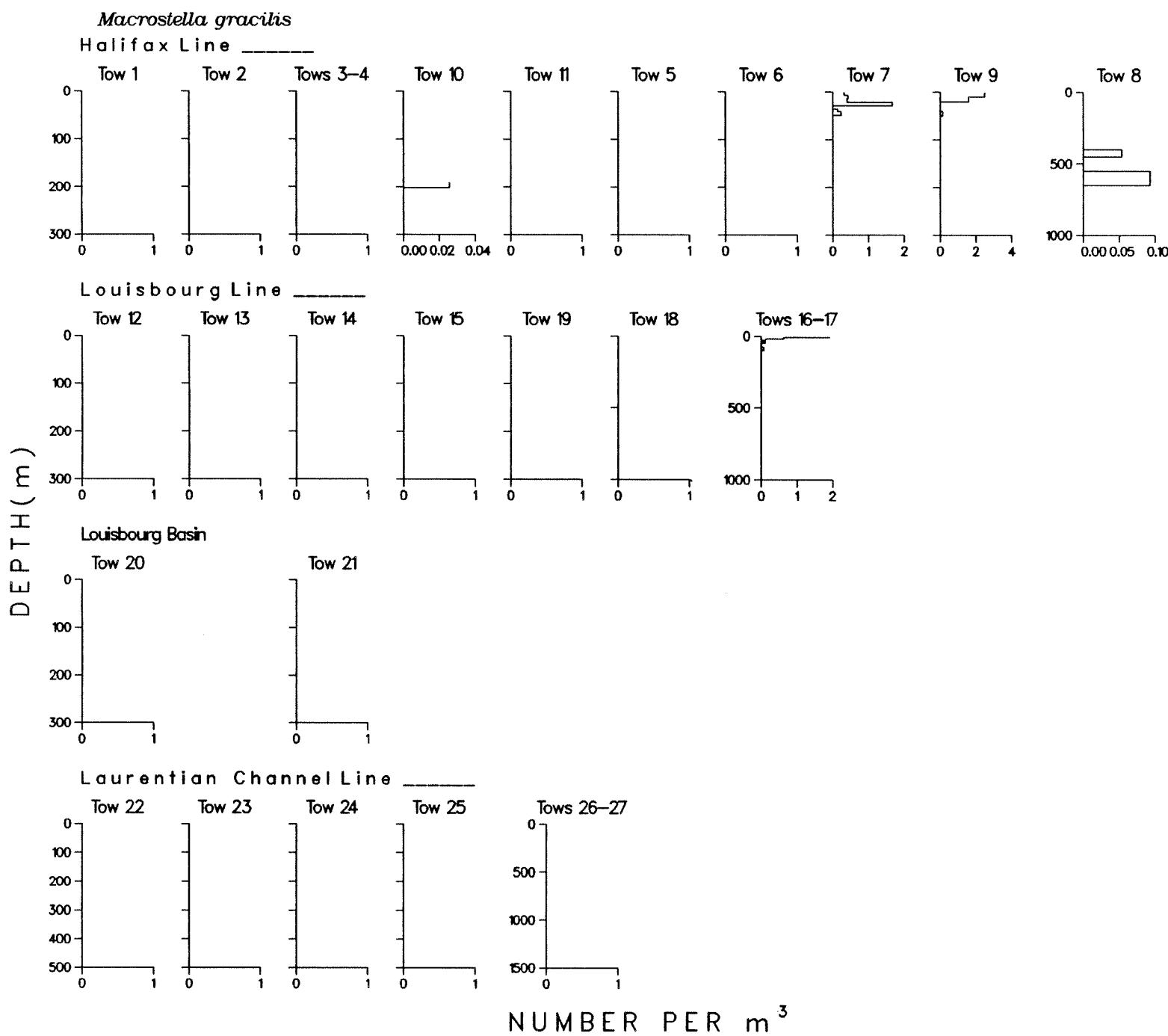
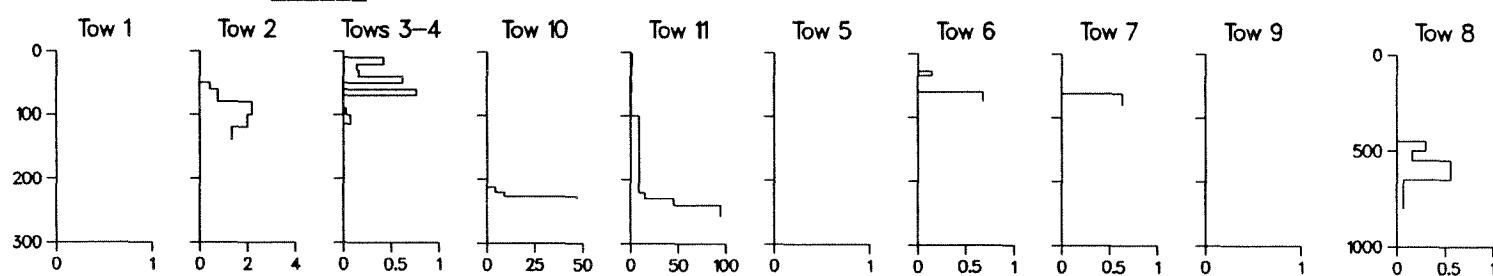


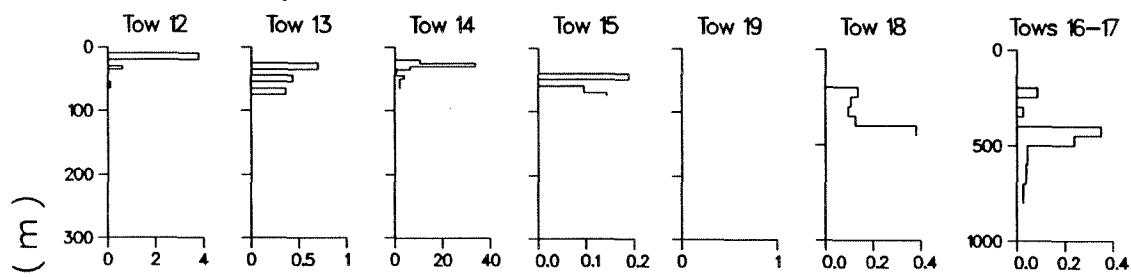
Fig. 3. (Continued)

*Metridia longa*

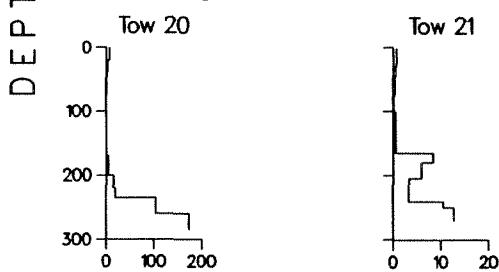
Halifax Line



Louisbourg Line



Louisbourg Basin



Laurentian Channel Line

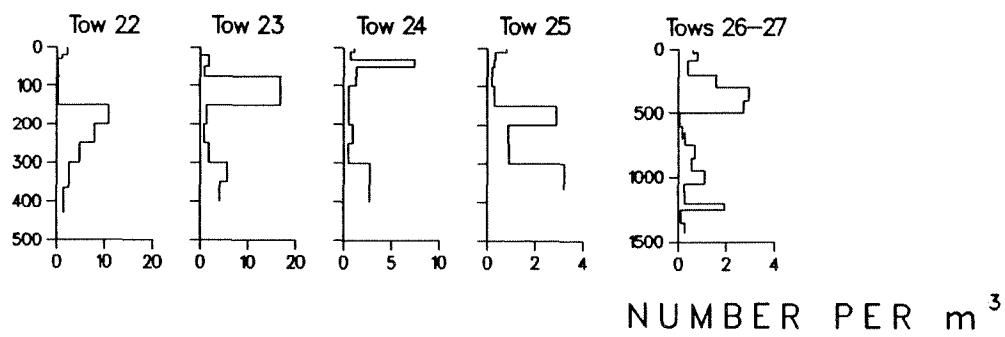


Fig. 3. (Continued)

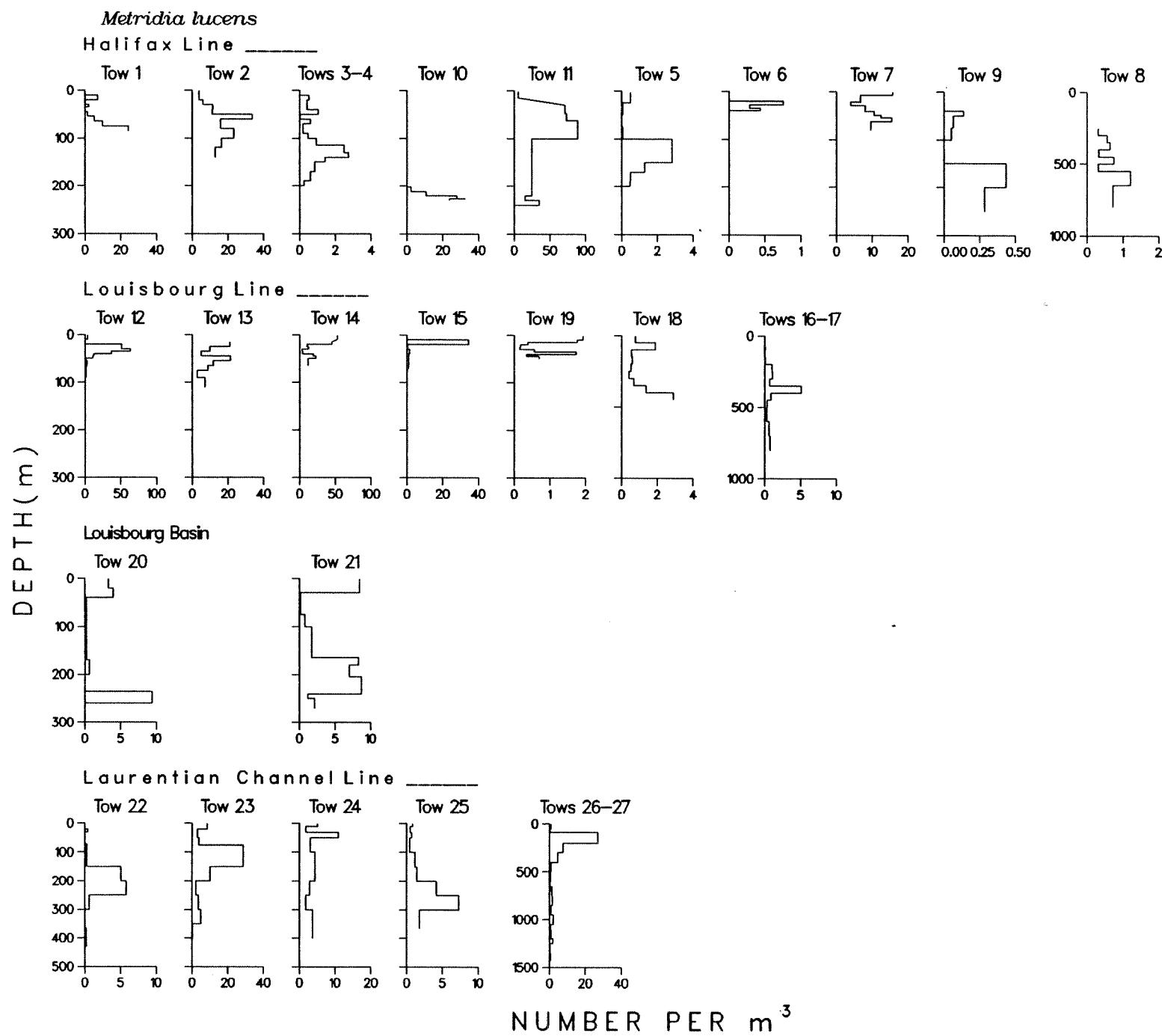


Fig. 3. (Continued)

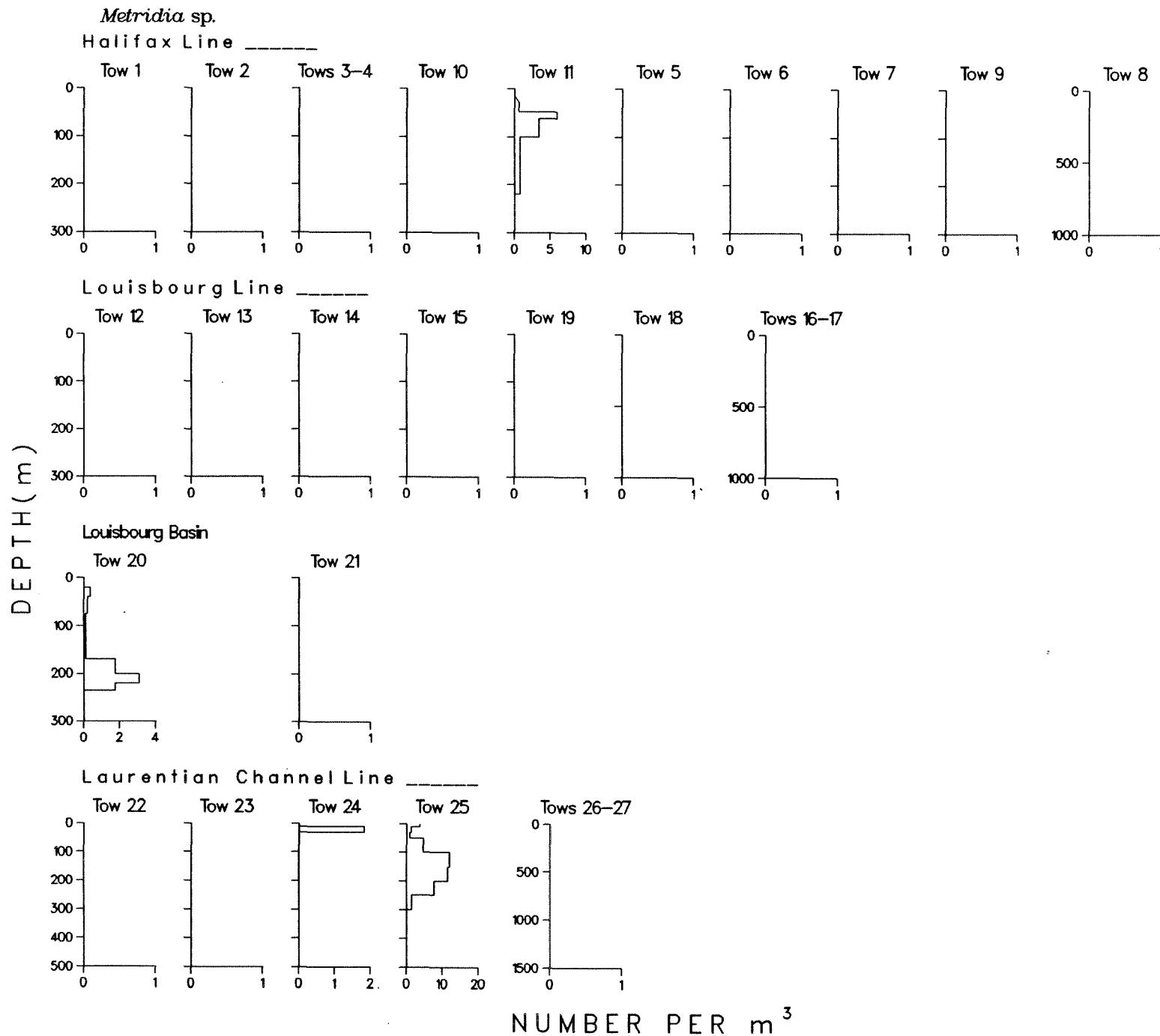


Fig. 3. (Continued)

*Mecynocera clausi*

Halifax Line \_\_\_\_\_

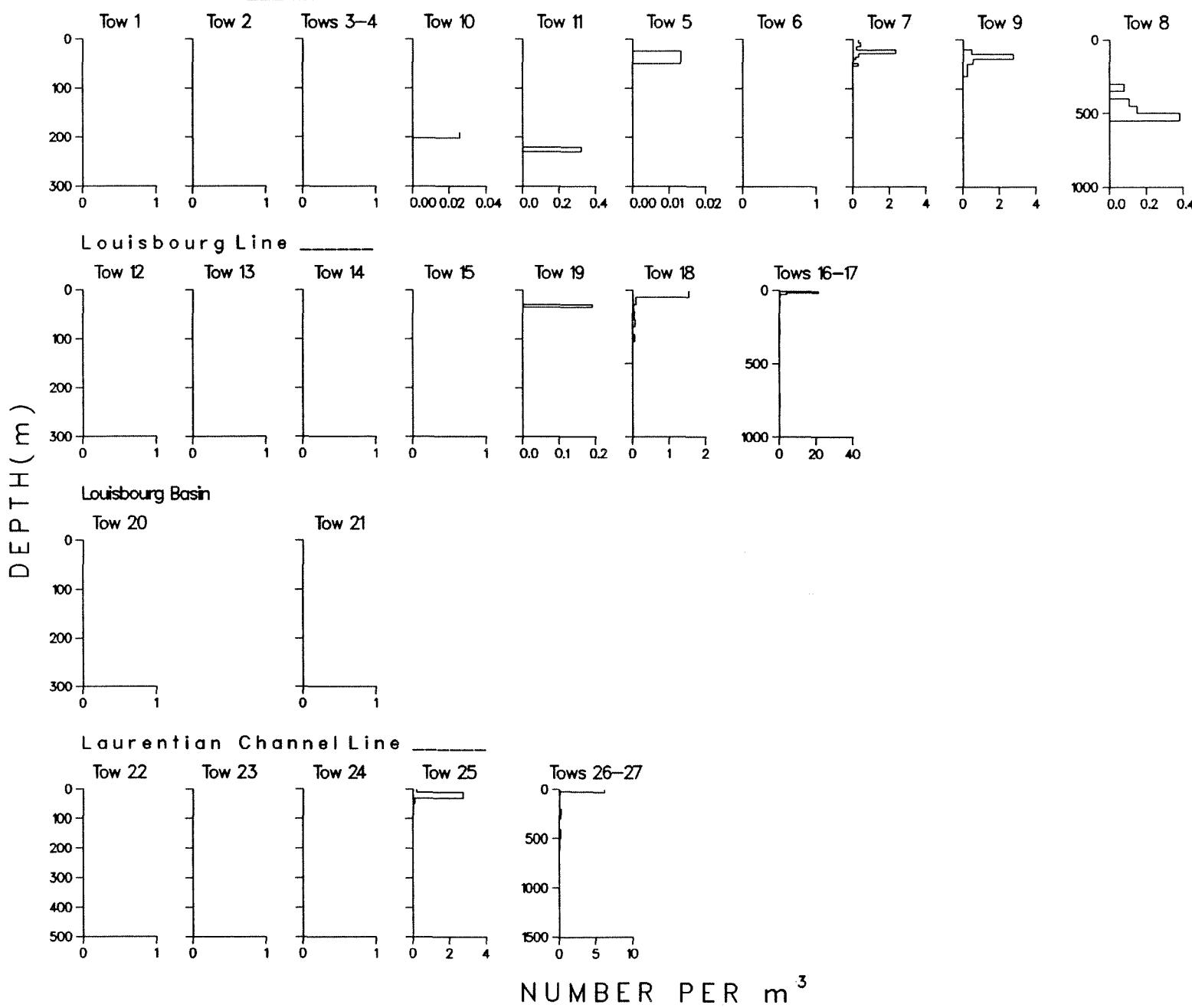


Fig. 3. (Continued)

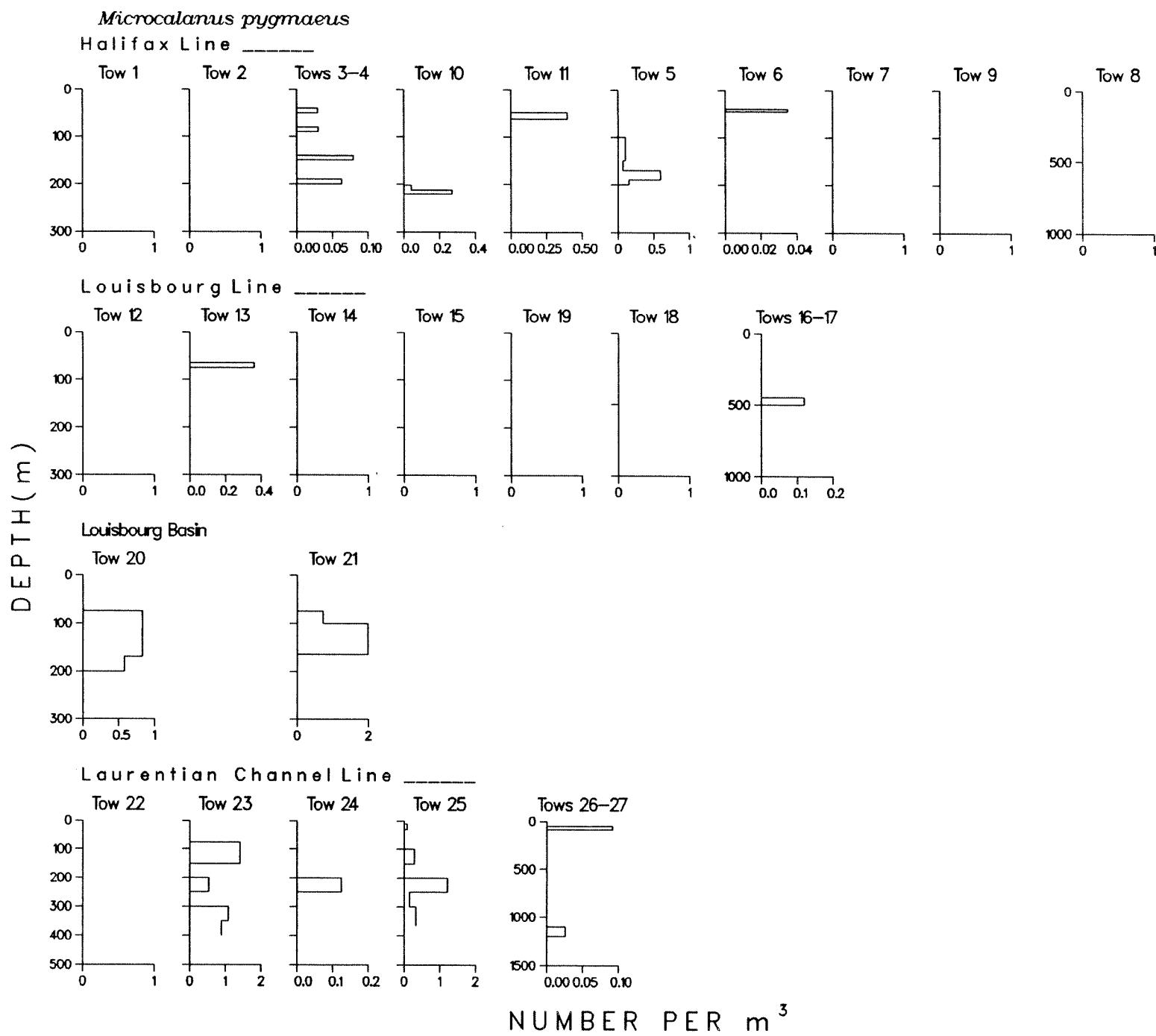


Fig. 3. (Continued)

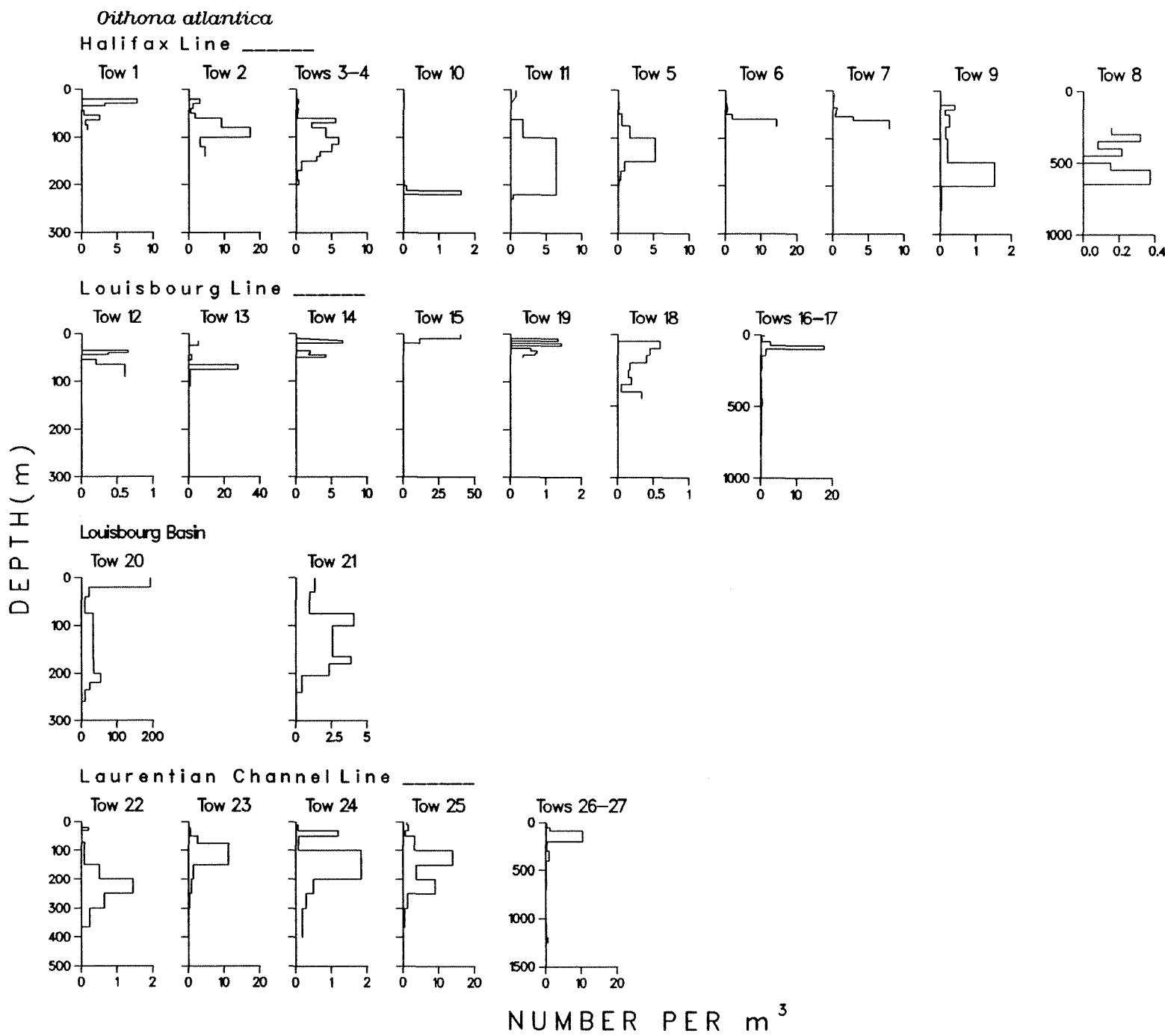


Fig. 3. (Continued)

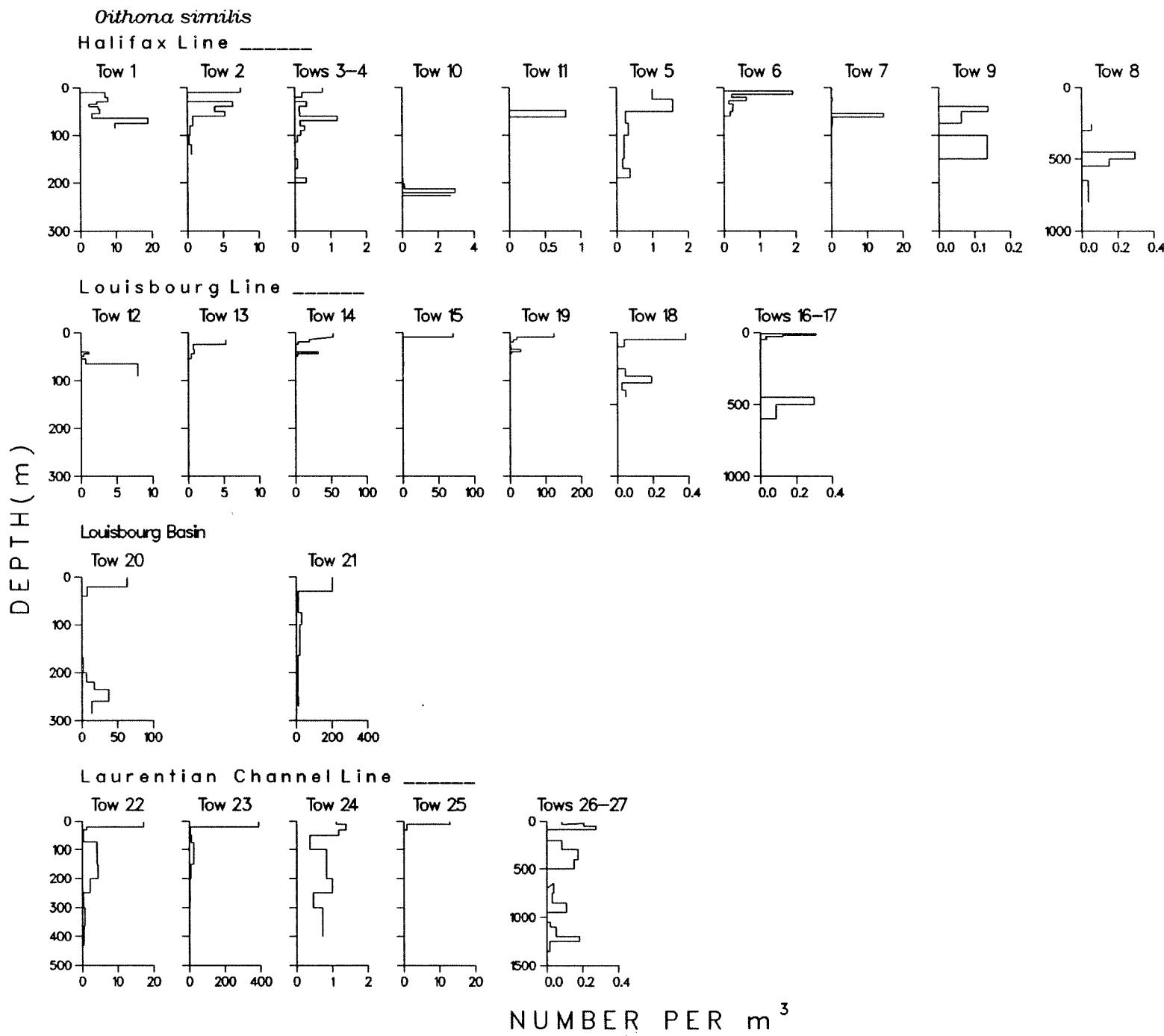


Fig. 3. (Continued)

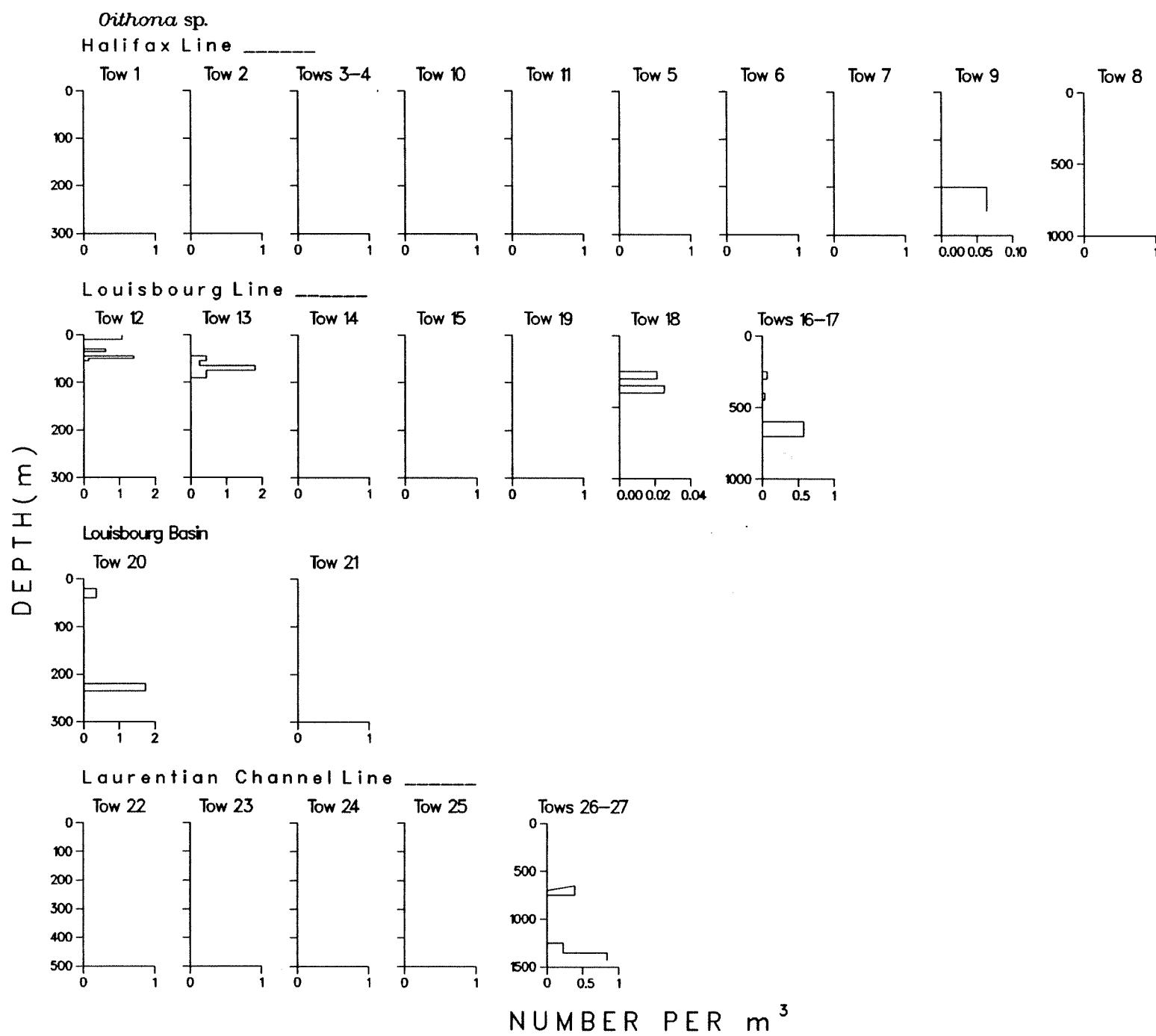


Fig. 3. (Continued)

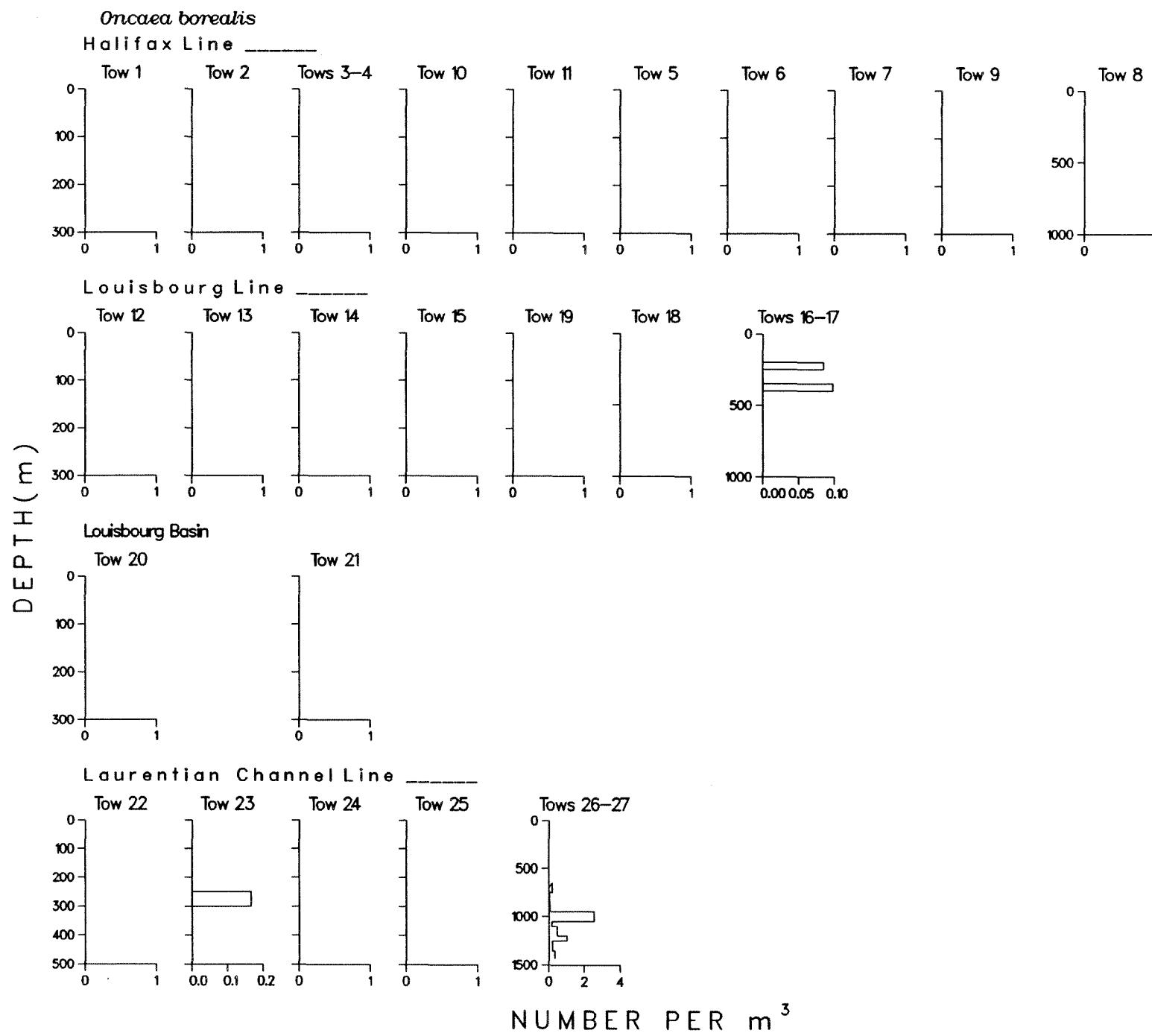


Fig. 3. (Continued)

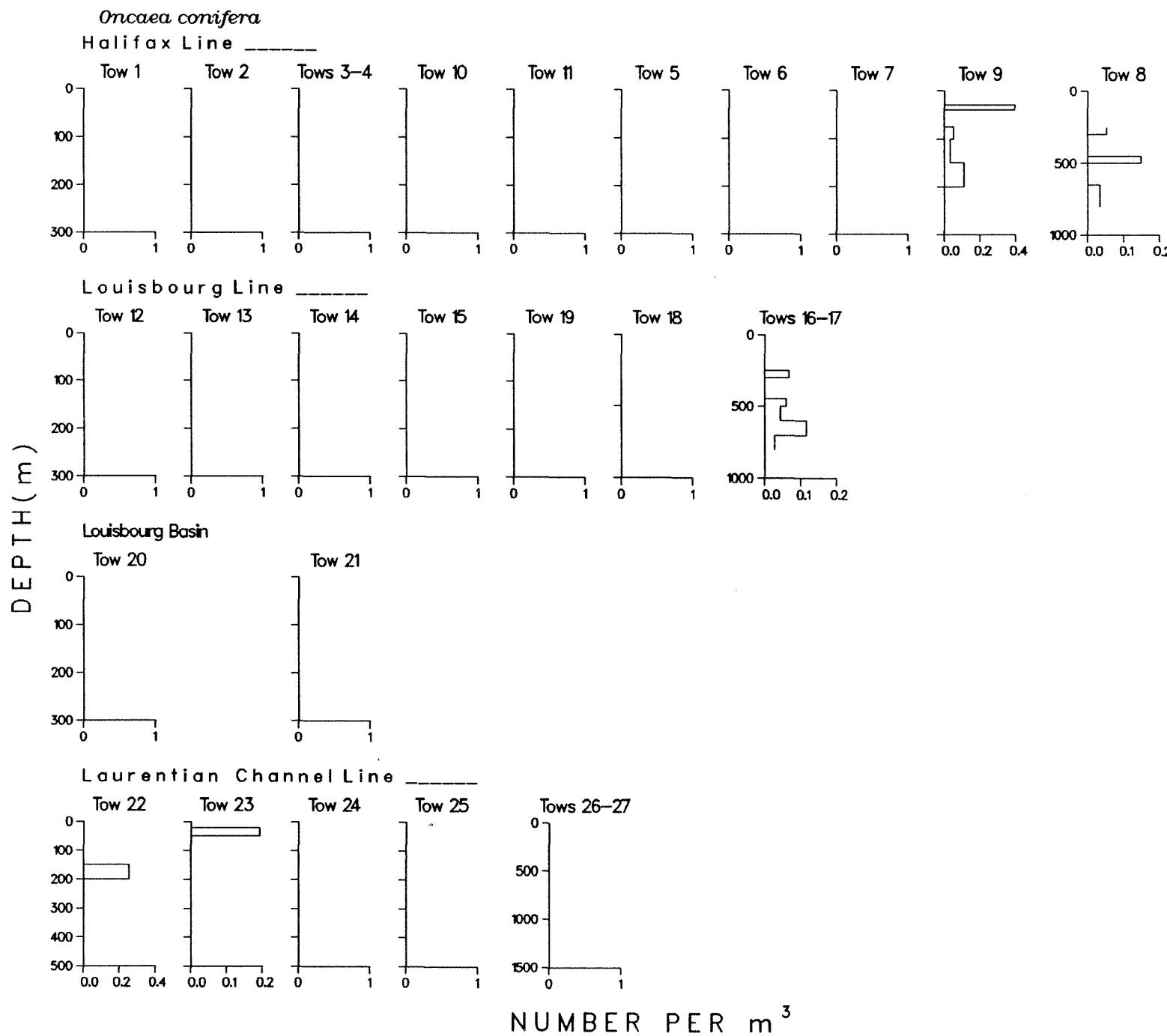


Fig. 3. (Continued)

*Oncaea* sp.

Halifax Line \_\_\_\_\_

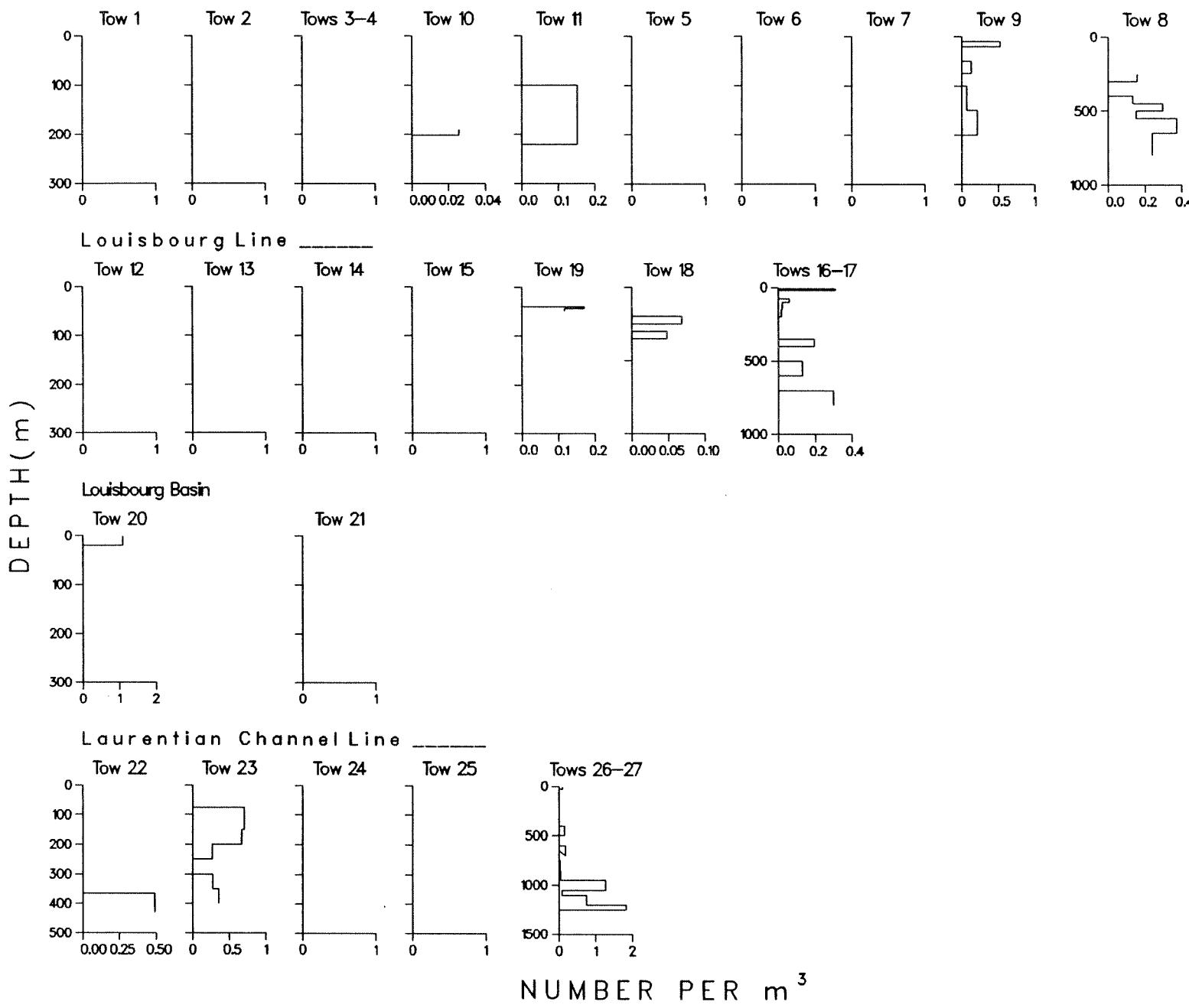


Fig. 3. (Continued)

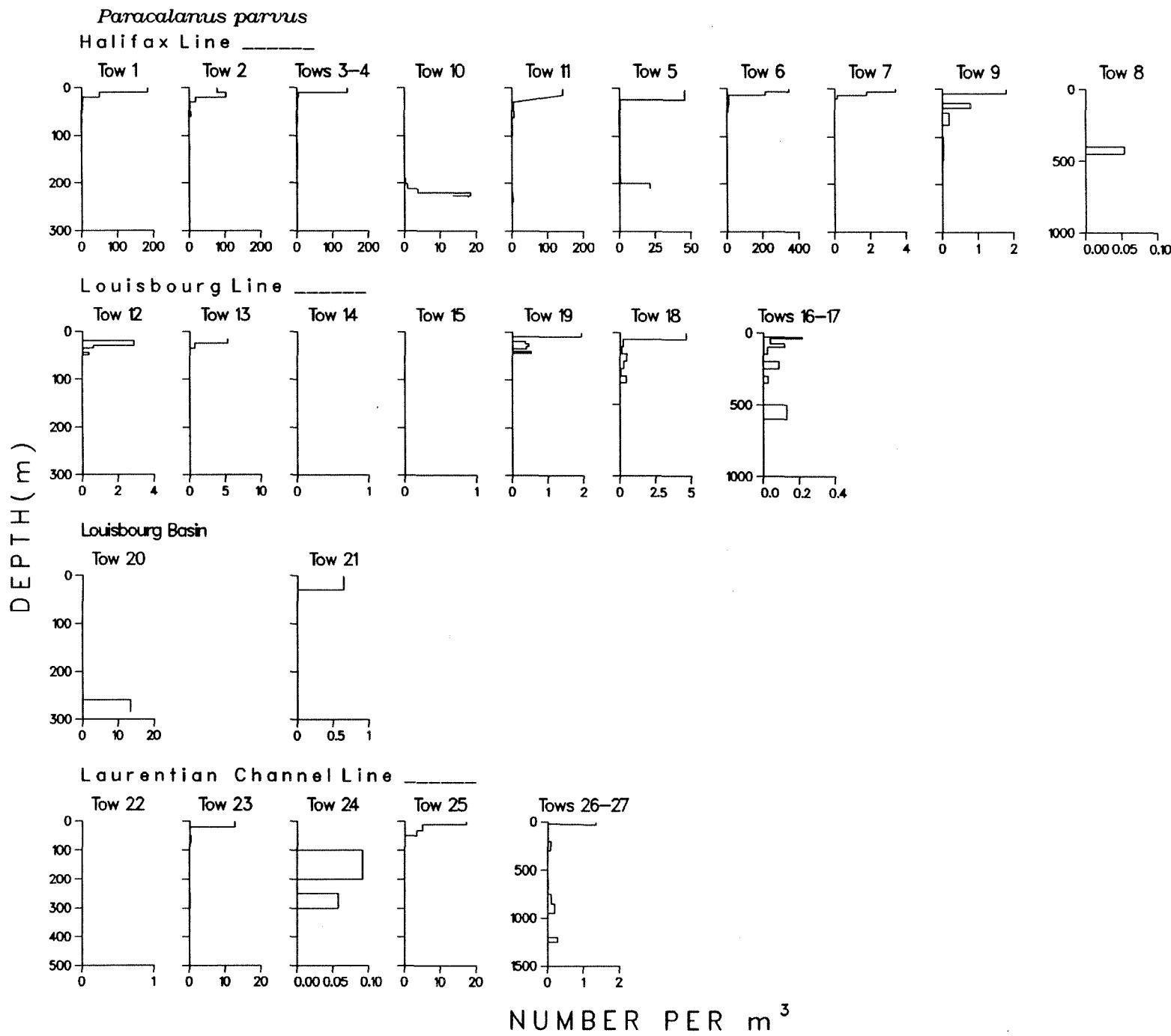


Fig. 3. (Continued)

*Paracalanus/Clausocalanus* sp.

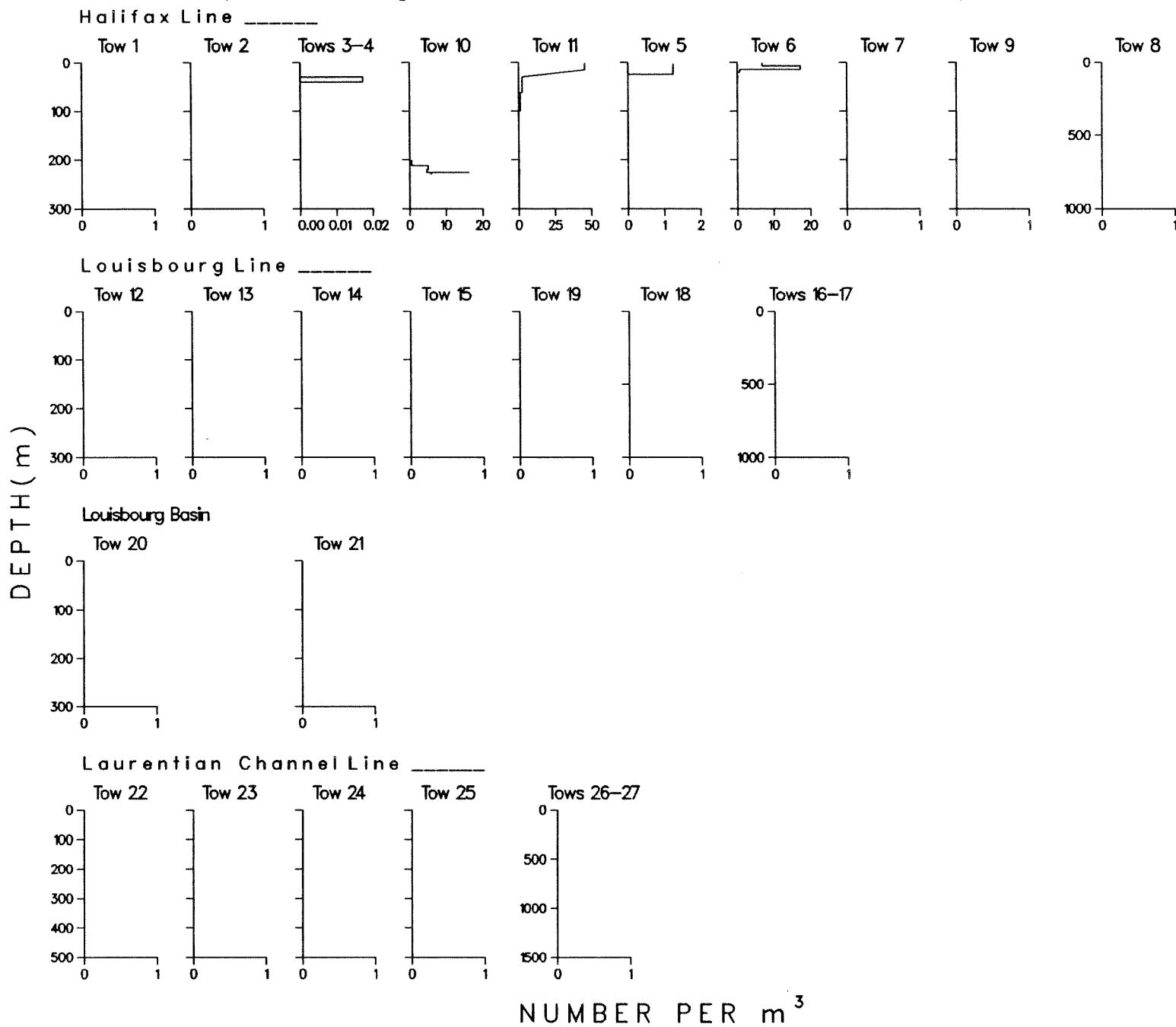


Fig. 3. (Continued)

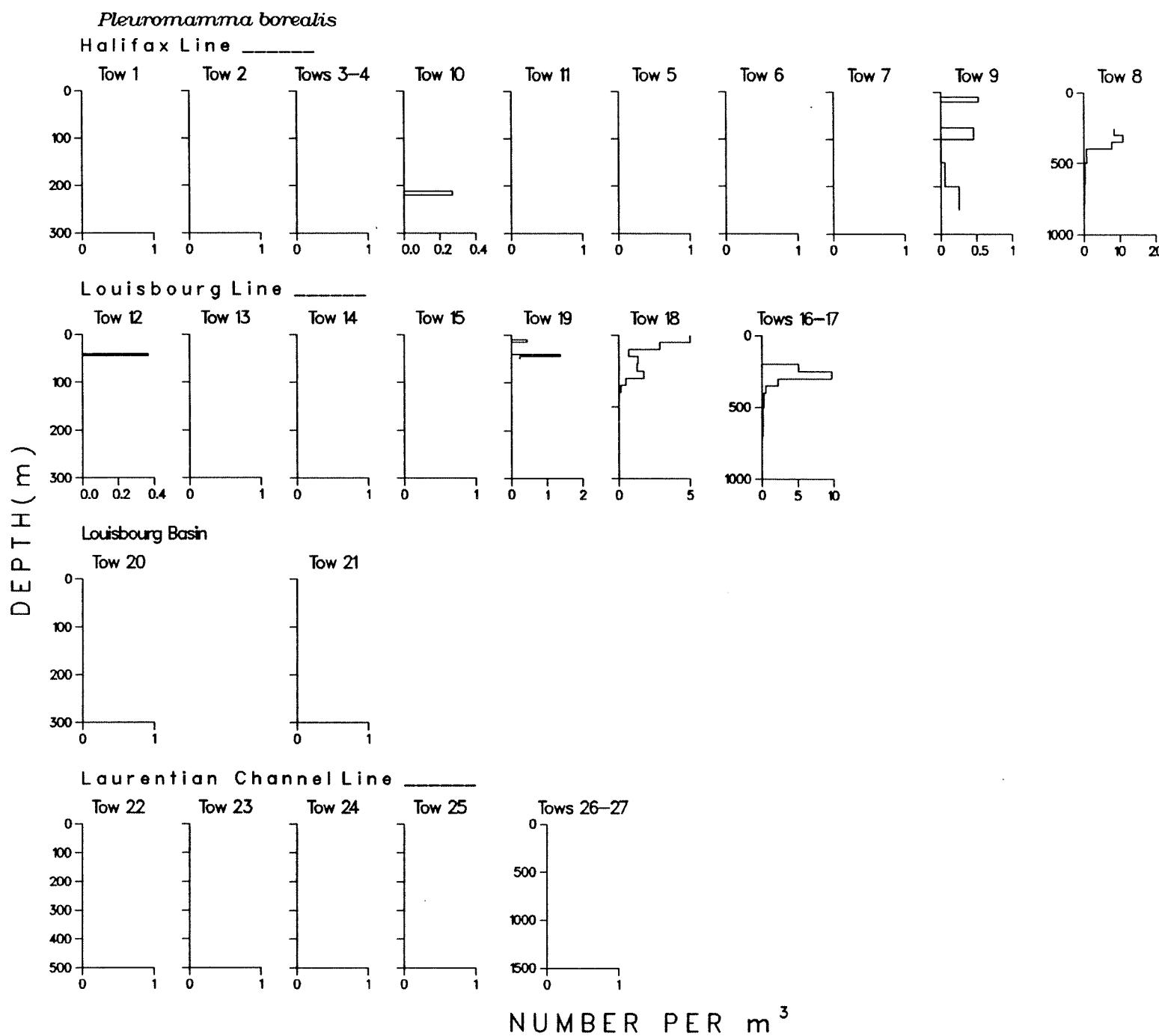


Fig. 3. (Continued)

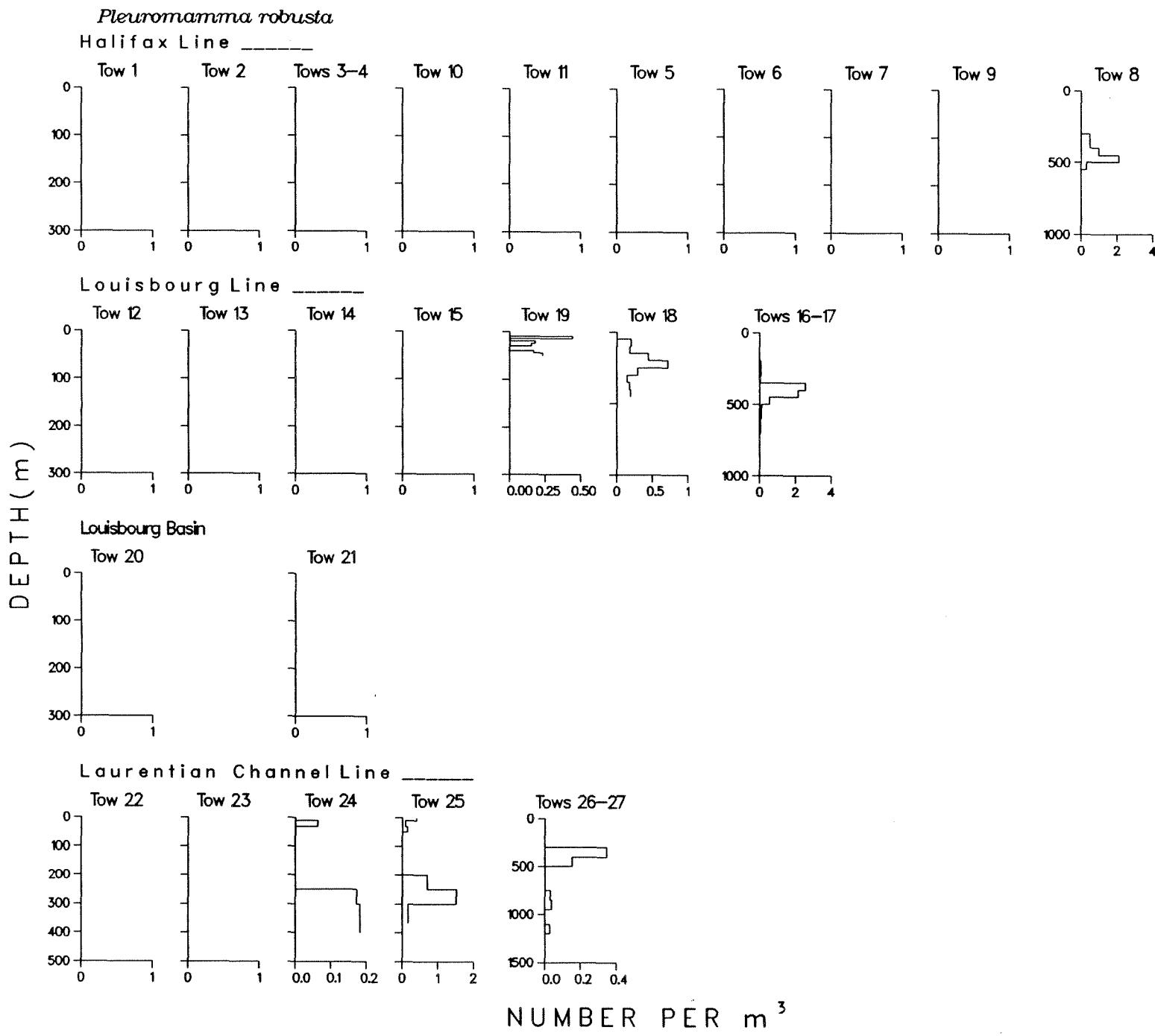
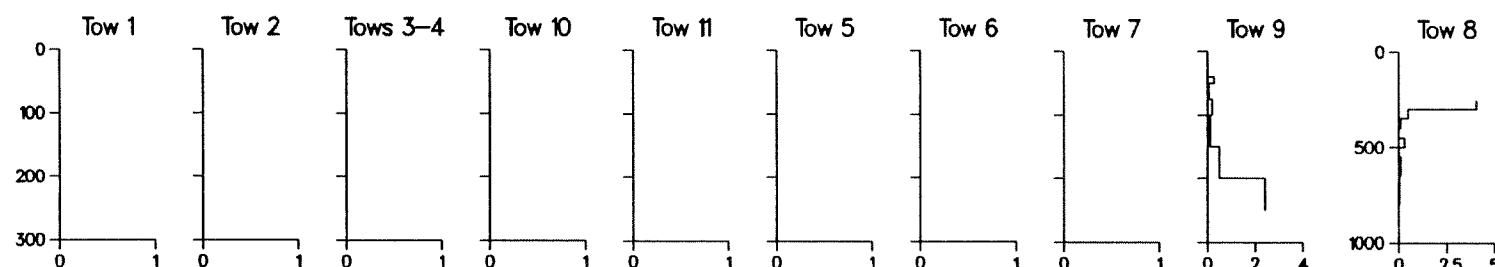


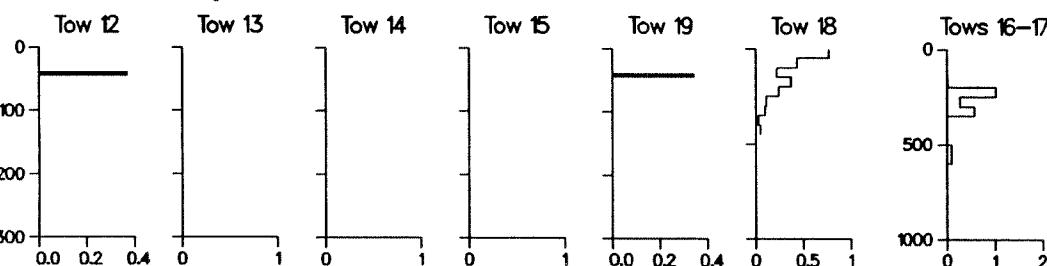
Fig. 3. (Continued)

*Pleuromamma* sp.

Halifax Line \_\_\_\_\_

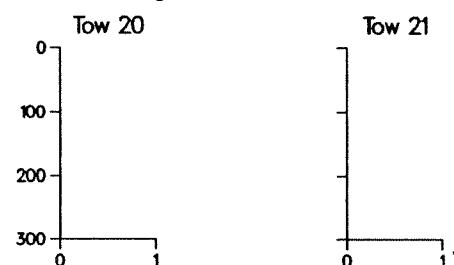


**Louisbourg Line** \_\_\_\_\_

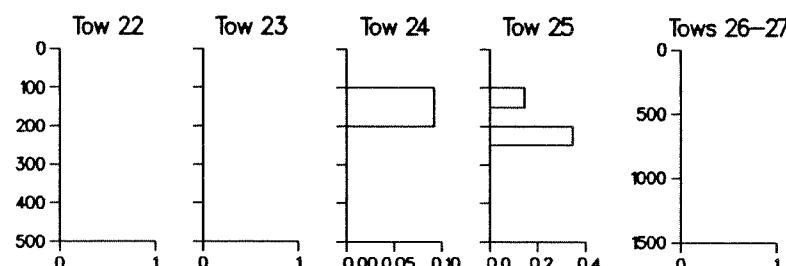


DEPTH (m)

Louisbourg Basin



### Laurentian Channel Line



NUMBER PER  $\cdot m^3$

Fig. 3. (Continued)

*Pseudocalanus minutus*

Halifax Line \_\_\_\_\_

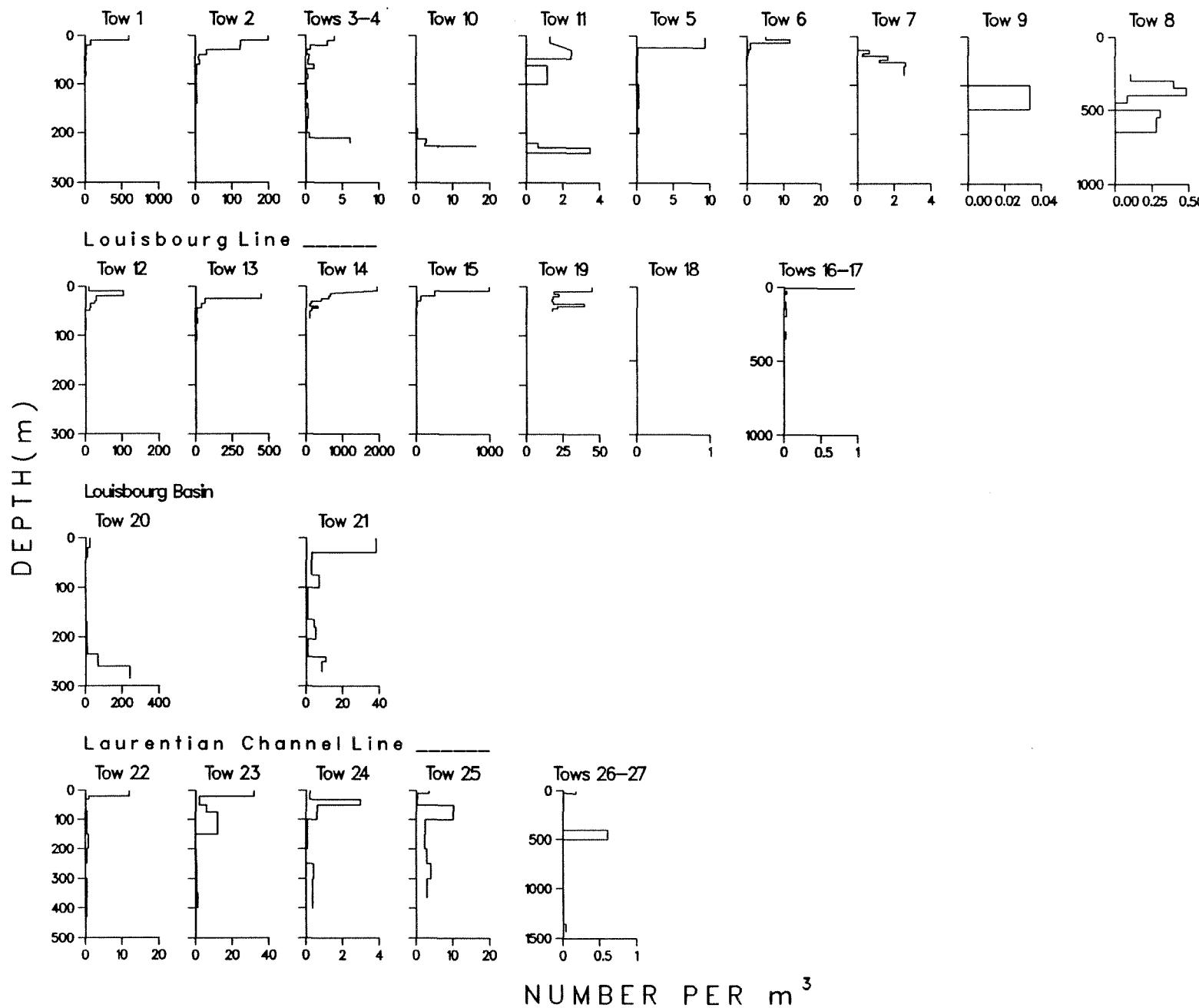


Fig. 3. (Continued)

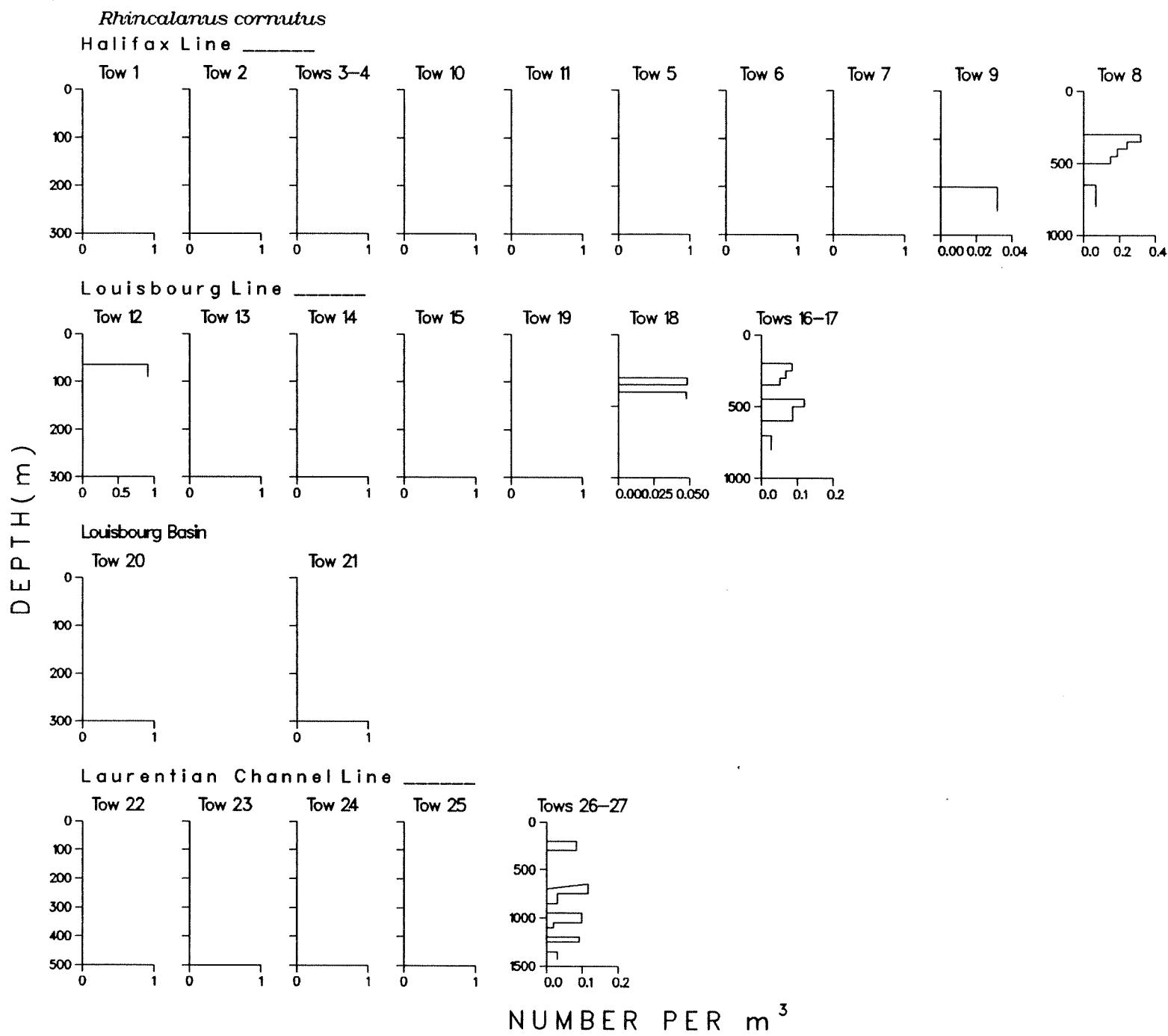


Fig. 3. (Continued)

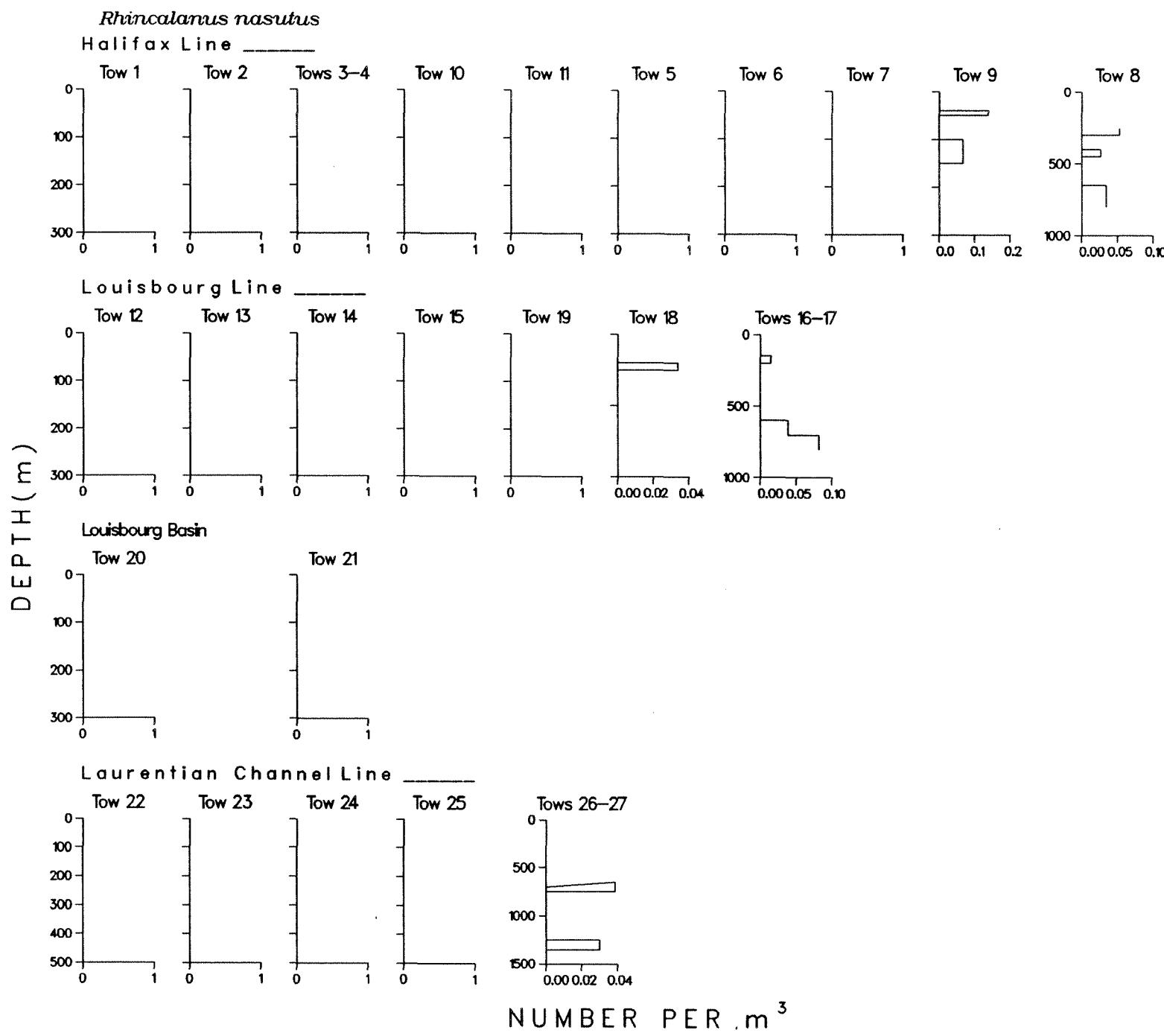


Fig. 3. (Continued)

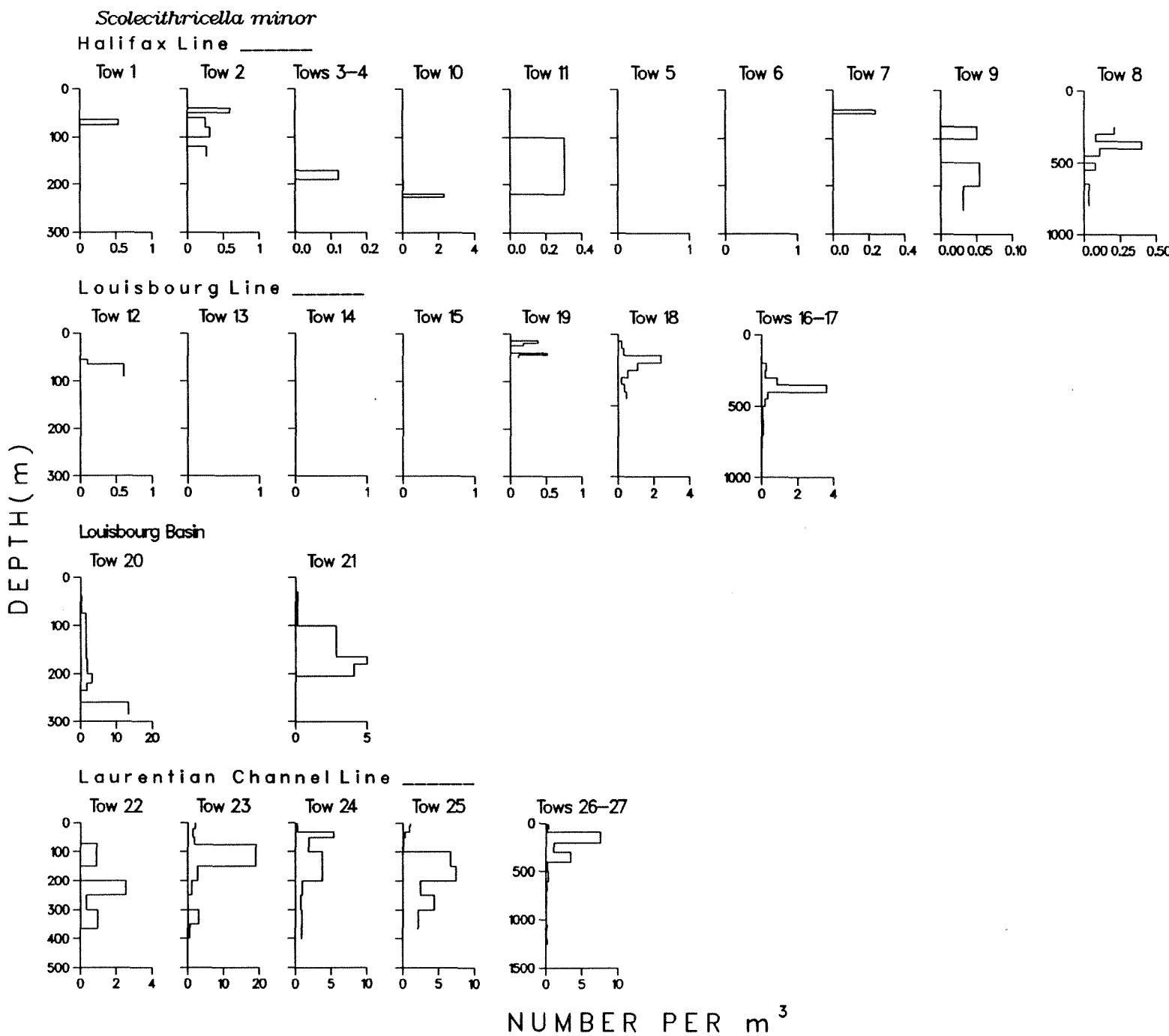


Fig. 3. (Continued)

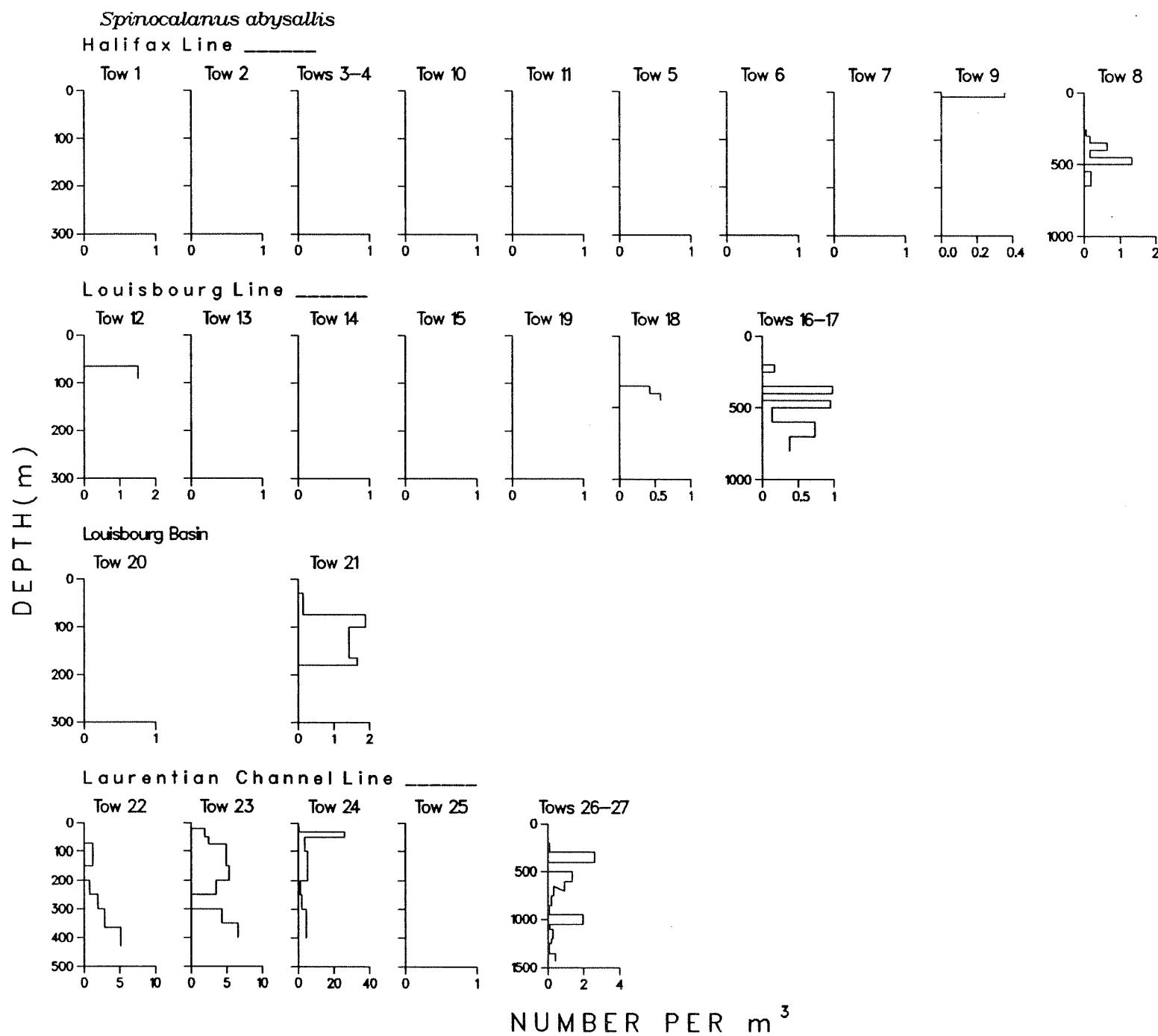
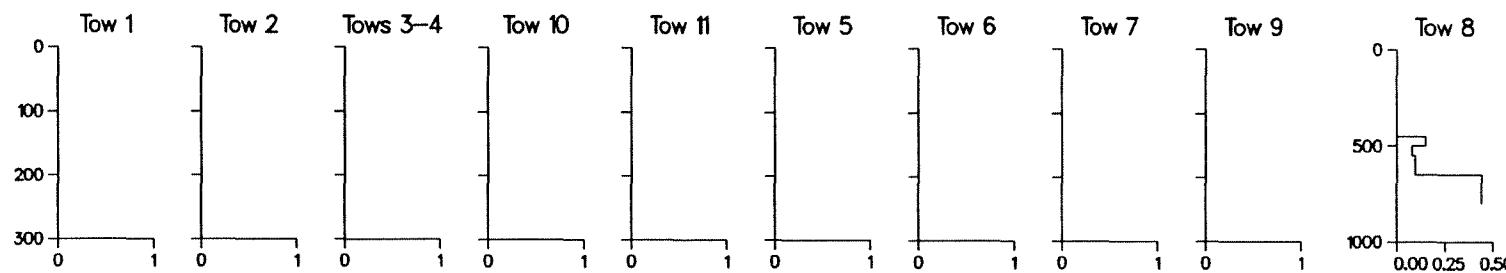


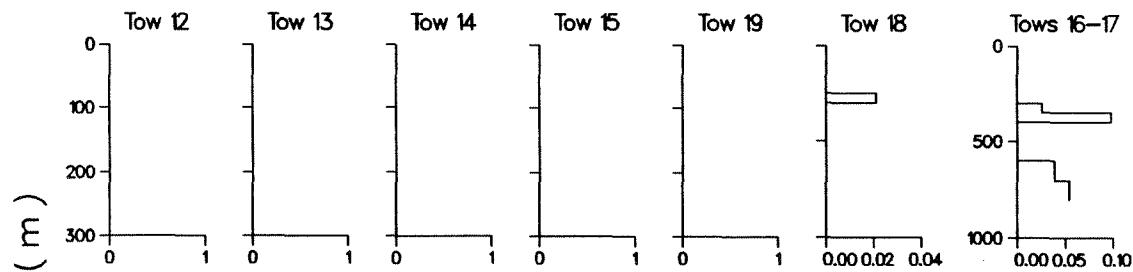
Fig. 3. (Continued)

*Spinocalanus* sp.

Halifax Line



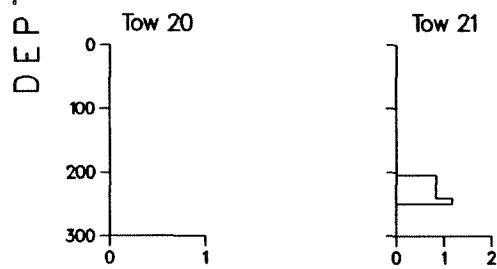
Louisbourg Line



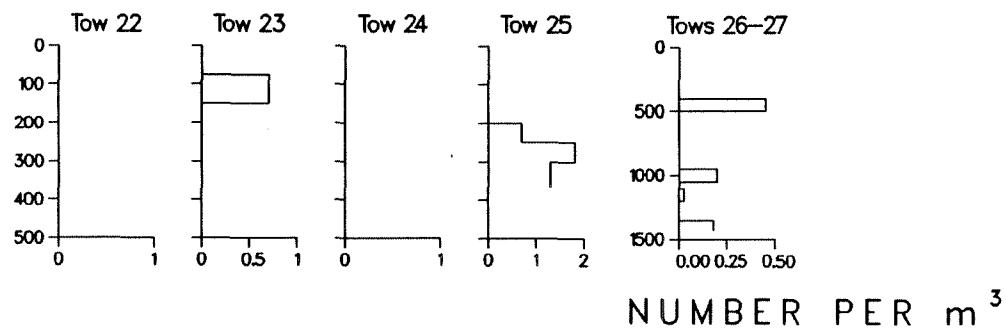
DEPTH (m)

83

Louisbourg Basin



Laurentian Channel Line



NUMBER PER  $m^{-3}$

Fig. 3. (Continued)

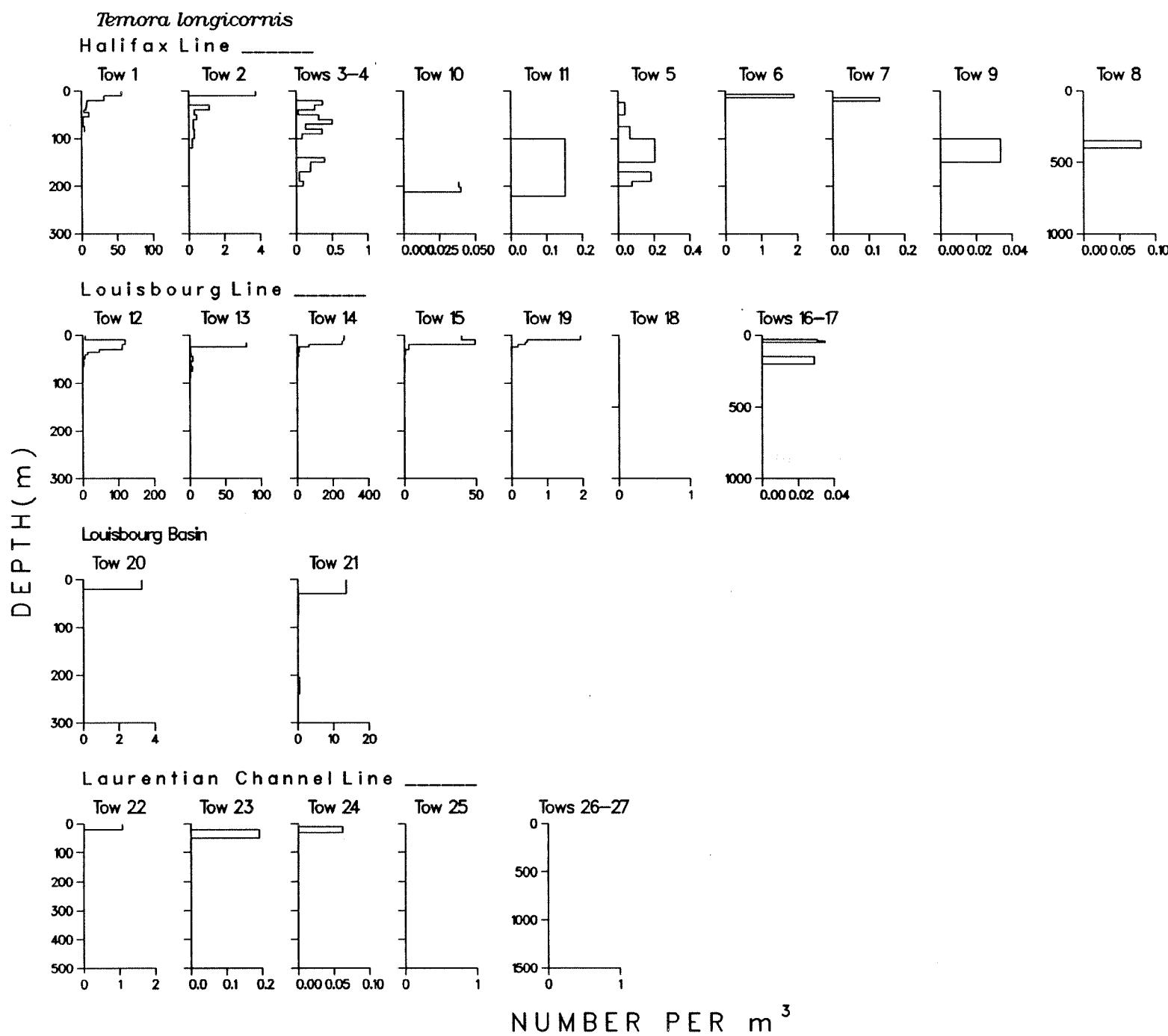


Fig. 3. (Continued)

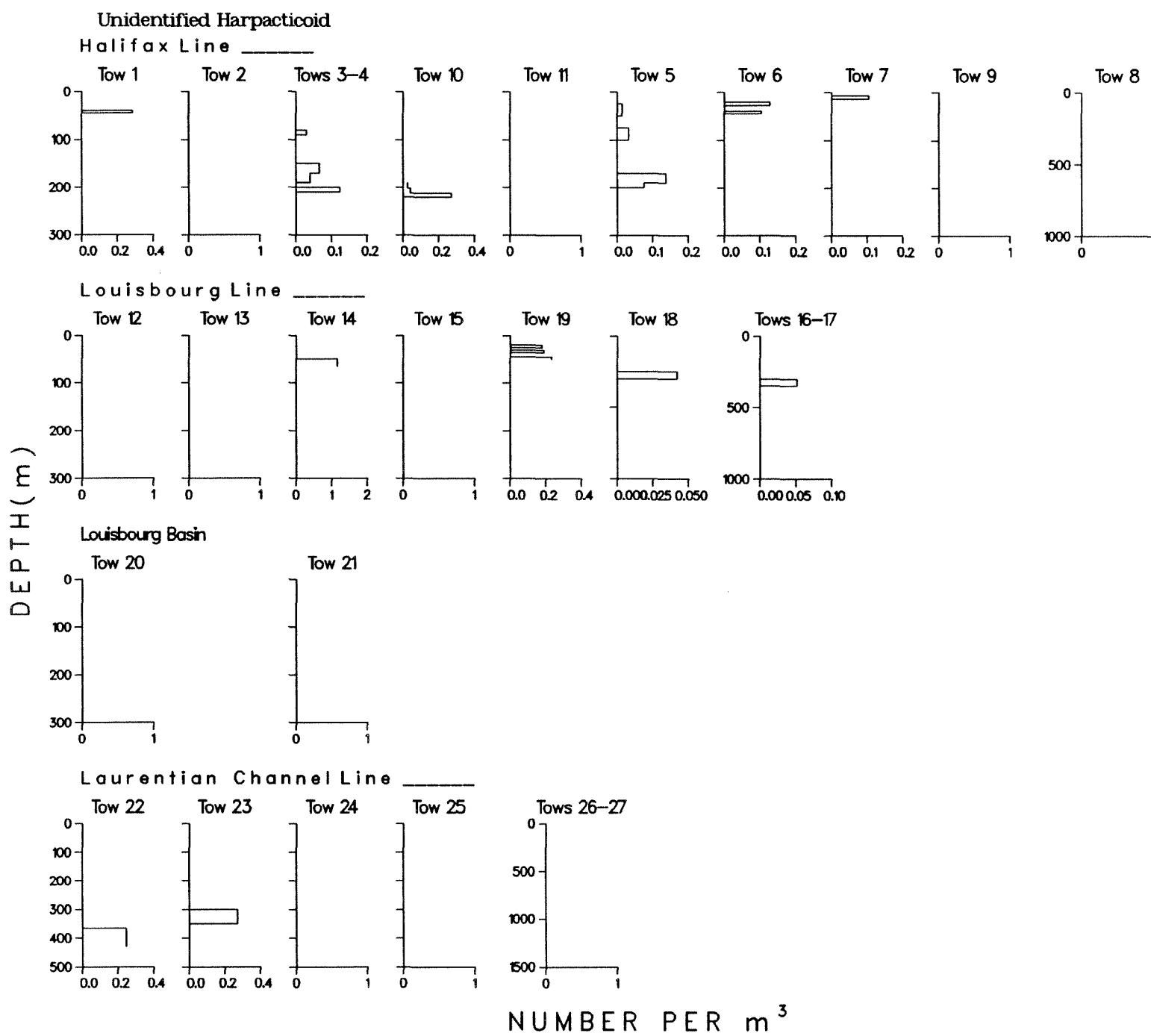


Fig. 3. (Continued)

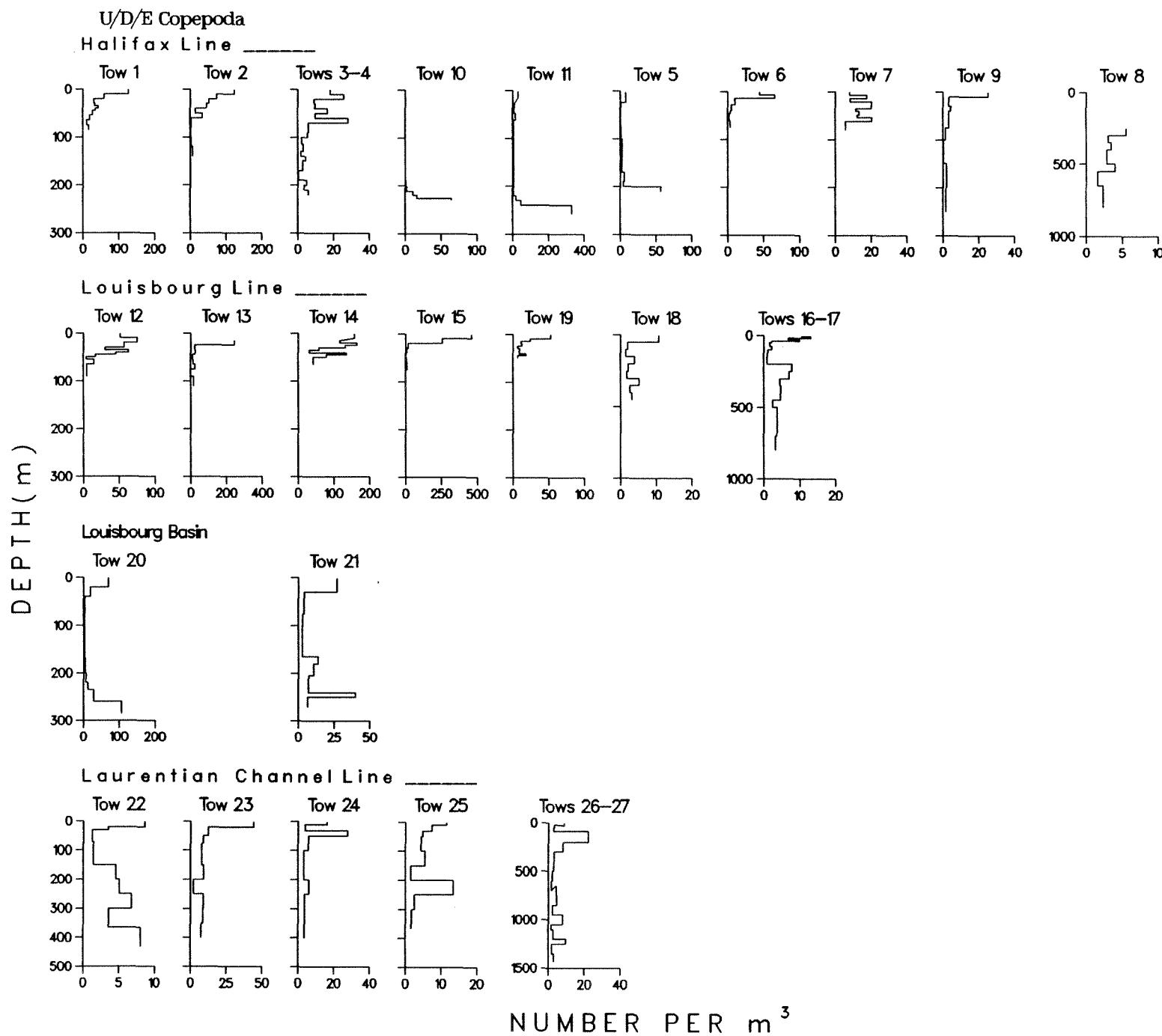


Fig. 3. (Continued)

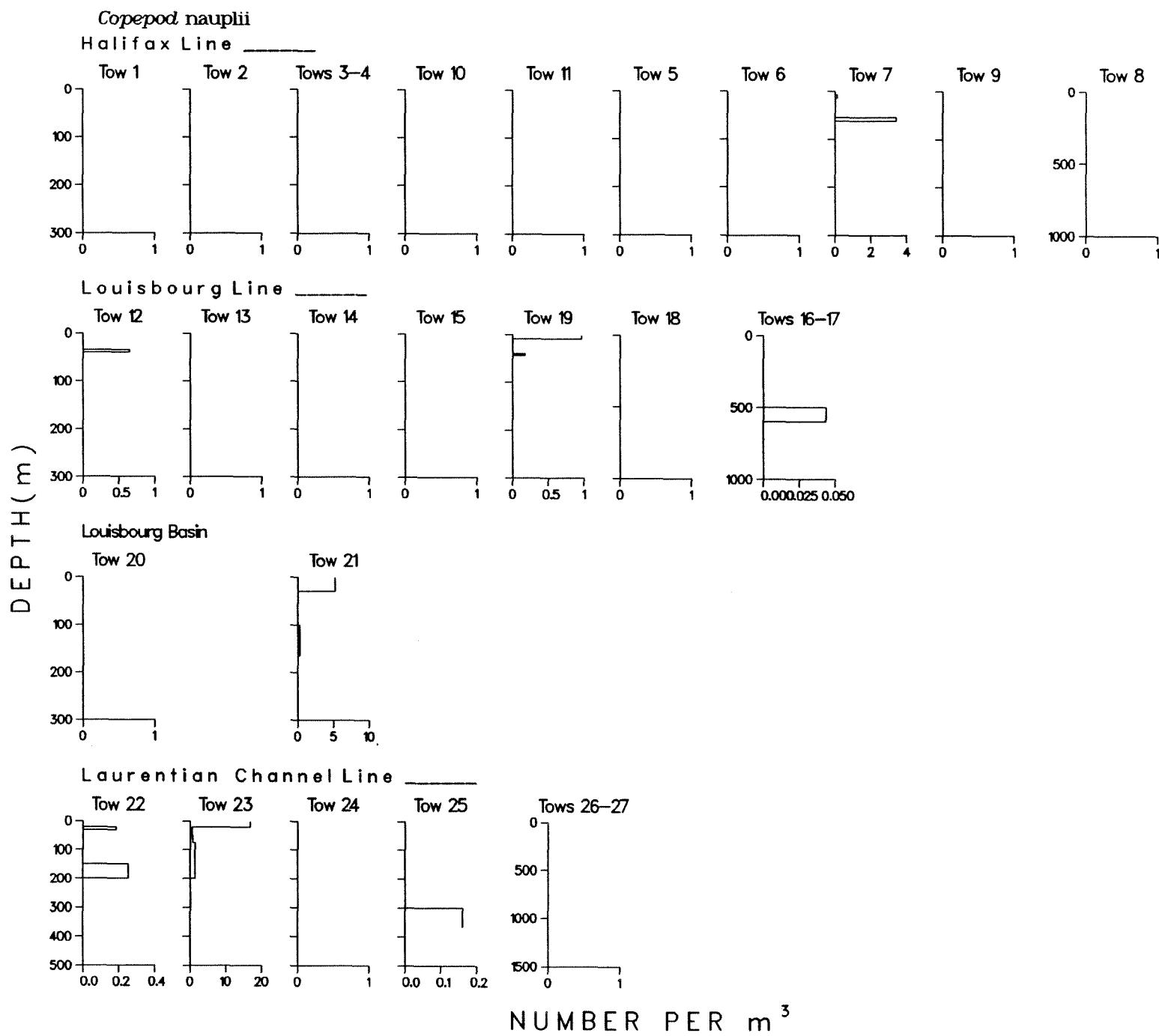


Fig. 4. Length frequencies for: a) amphipoda;  
b) mysidacea;  
euphausiacea c) *Meganyctiphanes norvegica*;  
d) *Thysanoessa inermis*;  
e) *T. longicaudata*;  
f) Chaetognatha;  
and three fish g) *Benthosema glaciale*;  
h) *Cyclothona* sp.;  
i) *Merluccius bilinearis*).

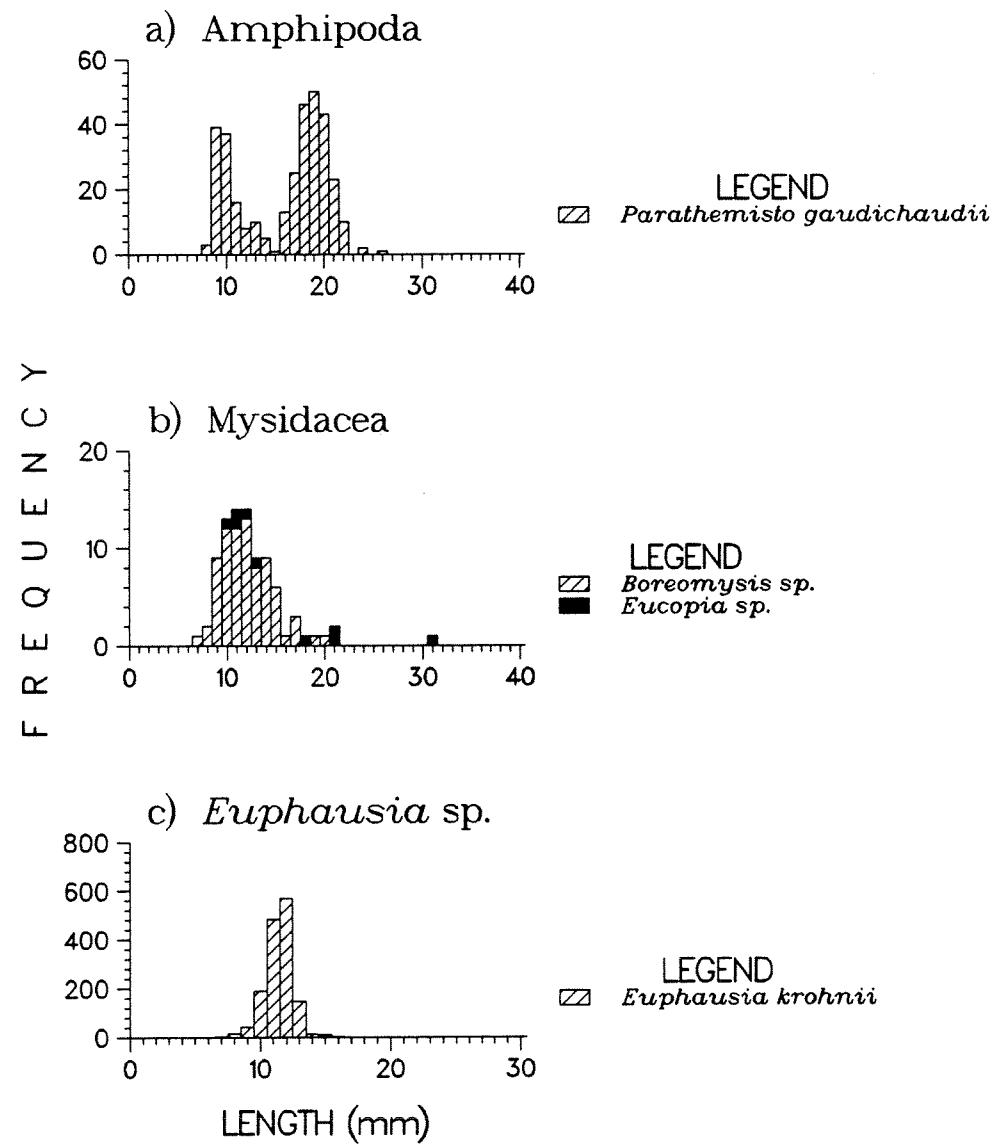


Fig. 4. Continued

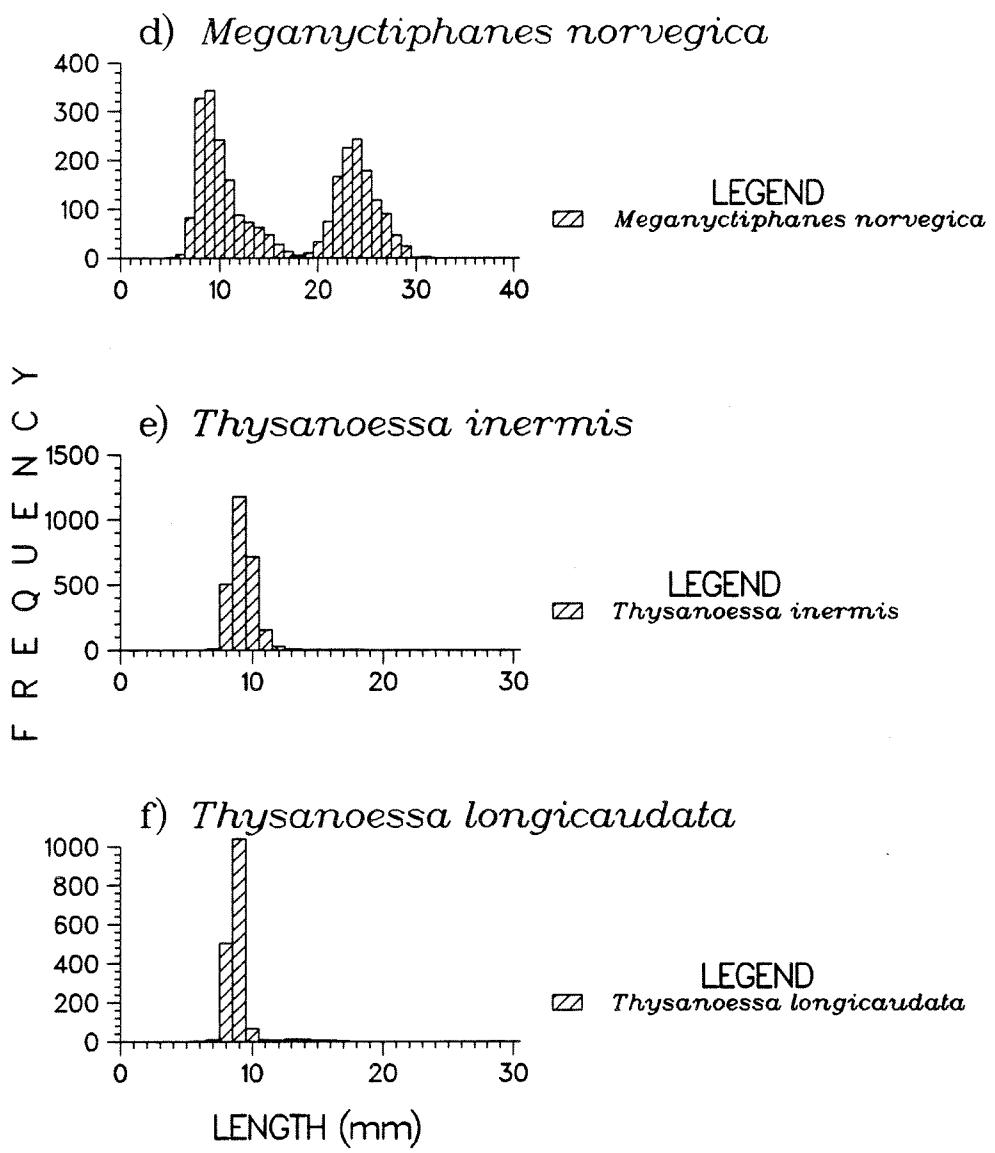


Fig. 4. Continued

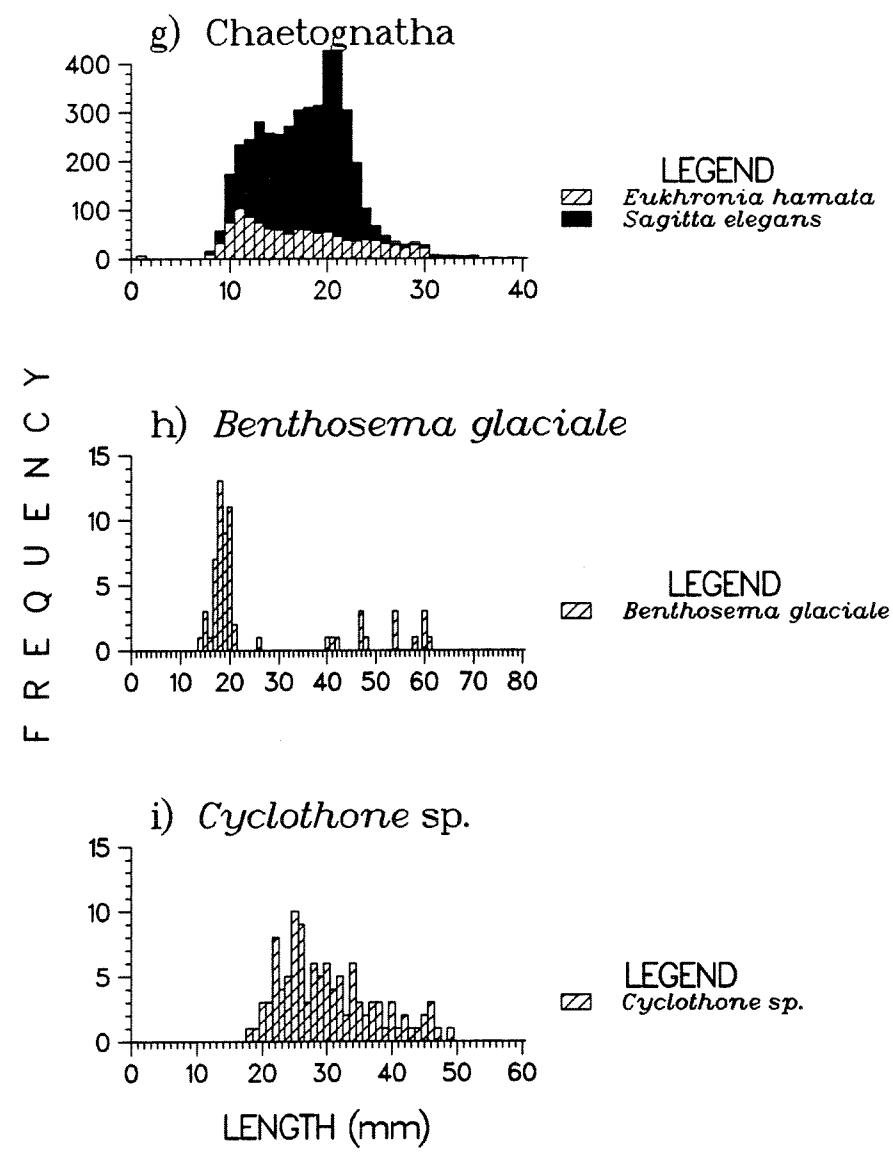


Fig. 4. Continued

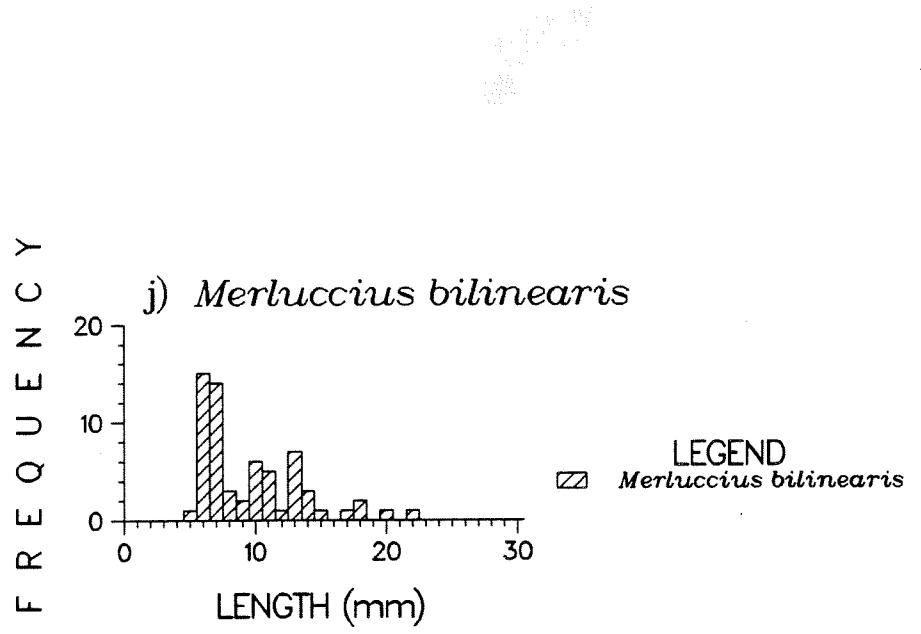


Fig. 4. Continued

**Table 2.** Centroid  $\pm$  standard deviations for length measurements(mm) of stages of *Calanus* spp..

Sample	<i>Calanus finmarchicus</i>						
	Male	Female	V	IV	III	II	I
	Cent. $\pm$ S.D. (N)	Cent. $\pm$ S.D. (N)	Cent. $\pm$ S.D. (N)	Cent. $\pm$ S.D. (N)	Cent. $\pm$ S.D. (N)	Cent. $\pm$ S.D. (N)	Cent. $\pm$ S.D. (N)
10-2			2.170 $\pm$ .154 (357)	1.660 $\pm$ .189 (23)			
10-3		2.581 $\pm$ .173 (69)	2.190 $\pm$ .151 (447)	1.592 $\pm$ .106 (18)			
10-4		2.519 $\pm$ .145 (38)	2.179 $\pm$ .159 (459)	1.723 $\pm$ .232 (33)			
10-5		2.504 $\pm$ .170 (10)	2.198 $\pm$ .154 (478)	1.956 $\pm$ .206 (23)			
10-6			2.162 $\pm$ .145 (483)	1.930 $\pm$ .236 (20)			
10-7			2.172 $\pm$ .158 (397)	1.948 $\pm$ .156 (23)			
10-8		2.464 $\pm$ .161 (14)	2.193 $\pm$ .152 (541)	1.824 $\pm$ .250 (15)			
10-9		2.583 $\pm$ .199 (24)	2.128 $\pm$ .154 (132)	1.584 $\pm$ .189 (21)			
10-10			2.109 $\pm$ .177 (35)	1.584 $\pm$ .146 (22)			
11-2			2.197 $\pm$ .163 (376)	1.965 $\pm$ .195 (10)			
11-3			2.172 $\pm$ .154 (577)	1.971 $\pm$ .143 (31)			
11-4		2.467 $\pm$ .154 (11)	2.156 $\pm$ .158 (287)	1.839 $\pm$ .211 (16)			
11-5		2.583 $\pm$ .155 (30)	2.161 $\pm$ .169 (169)	1.692 $\pm$ .220 (27)			
11-6		2.524 $\pm$ .164 (46)	2.155 $\pm$ .167 (180)				
11-7		2.480 $\pm$ .171 (88)	2.145 $\pm$ .169 (233)	1.604 $\pm$ .114 (22)			
11-8		2.478 $\pm$ .126 (46)	2.171 $\pm$ .168 (240)	1.552 $\pm$ .180 (26)			
11-10			2.154 $\pm$ .169 (161)	1.825 $\pm$ .236 (12)			
20-2			2.178 $\pm$ .172 (127)	2.001 $\pm$ .103 (47)			
20-3			2.155 $\pm$ .153 (105)	2.021 $\pm$ .072 (89)			
20-4			2.154 $\pm$ .157 (145)	2.022 $\pm$ .077 (106)			
20-5			2.154 $\pm$ .147 (96)	2.024 $\pm$ .075 (76)			
20-6			2.143 $\pm$ .158 (97)	2.017 $\pm$ .099 (126)			
20-7			2.245 $\pm$ .218 (54)	1.998 $\pm$ .119 (44)			
20-8			2.193 $\pm$ .174 (102)	2.016 $\pm$ .098 (54)			
20-9		2.652 $\pm$ .194 (45)	2.241 $\pm$ .189 (154)	1.839 $\pm$ .172 (66)	1.218 $\pm$ .075 (14)	.818 $\pm$ .036 (18)	
20-10	2.400 $\pm$ .134 (11)	2.548 $\pm$ .169 (62)	2.202 $\pm$ .188 (57)	1.790 $\pm$ .175 (79)	1.217 $\pm$ .061 (37)	.871 $\pm$ .039 (43)	.630 $\pm$ .039 (42)

*Calanus glacialis*

Sample	V	IV
	Cent. $\pm$ S.D. ( N )	Cent. $\pm$ S.D. ( N )
10-2	2.761 $\pm$ .205 ( 12)	
10-3	2.998 $\pm$ .325 ( 26)	2.370 $\pm$ .143 ( 19)
10-4	3.019 $\pm$ .313 ( 34)	2.295 $\pm$ .106 ( 30)
10-5	2.912 $\pm$ .256 ( 38)	2.370 $\pm$ .170 ( 27)
10-6	2.902 $\pm$ .280 ( 44)	2.349 $\pm$ .136 ( 33)
10-7	2.891 $\pm$ .267 ( 31)	2.308 $\pm$ .105 ( 26)
10-8	2.980 $\pm$ .314 ( 56)	2.364 $\pm$ .139 ( 26)
11-2	2.734 $\pm$ .183 ( 31)	2.354 $\pm$ .135 ( 24)
11-3	2.886 $\pm$ .254 ( 60)	2.338 $\pm$ .141 ( 37)
11-4	2.937 $\pm$ .259 ( 23)	2.354 $\pm$ .142 ( 21)
11-5	2.835 $\pm$ .202 ( 14)	
11-6	2.695 $\pm$ .113 ( 10)	2.377 $\pm$ .194 ( 10)
11-7	2.729 $\pm$ .170 ( 13)	
11-10	2.797 $\pm$ .198 ( 17)	2.357 $\pm$ .282 ( 14)
20-2	3.048 $\pm$ .291 ( 64)	2.318 $\pm$ .109 (103)
20-3	3.072 $\pm$ .276 ( 65)	2.318 $\pm$ .116 (145)
20-4	3.022 $\pm$ .269 ( 53)	2.341 $\pm$ .135 (151)
20-5	3.003 $\pm$ .285 ( 35)	2.324 $\pm$ .131 (128)
20-6	2.994 $\pm$ .239 ( 43)	2.294 $\pm$ .107 (120)
20-7	3.167 $\pm$ .251 ( 19)	2.340 $\pm$ .165 ( 53)
20-8	2.897 $\pm$ .265 ( 41)	2.343 $\pm$ .141 ( 80)
20-9	2.900 $\pm$ .388 ( 32)	2.354 $\pm$ .129 ( 34)
20-10		2.322 $\pm$ .127 ( 29)

*Calanus hyperboreus*

Sample	IV	III	II
	Cent. $\pm$ S.D. ( N )	Cent. $\pm$ S.D. ( N )	Cent. $\pm$ S.D. ( N )
11-2		3.169 $\pm$ .211 ( 11)	
11-3		3.086 $\pm$ .165 ( 12)	
11-4		3.179 $\pm$ .159 ( 11)	
20-2	4.500 $\pm$ .329 ( 23)	3.265 $\pm$ .213 ( 78)	
20-3	4.513 $\pm$ .225 ( 13)	3.291 $\pm$ .192 ( 86)	
20-4	4.650 $\pm$ .284 ( 17)	3.257 $\pm$ .179 (119)	
20-5		3.281 $\pm$ .178 ( 91)	
20-6		3.240 $\pm$ .171 (105)	2.253 $\pm$ .120 ( 17)
20-7		3.300 $\pm$ .179 ( 26)	2.258 $\pm$ .124 ( 23)
20-8	4.348 $\pm$ .527 ( 18)	3.296 $\pm$ .176 ( 75)	
20-9		3.296 $\pm$ .120 ( 23)	
20-10		3.272 $\pm$ .111 ( 23)	

Table 2. Number and biomass  $m^{-3}$  and  $m^{-2}$  for samples taken with the BIONESS over the Nova Scotian shelf. Depth1 is the depth at which the sampling started and Depth2 is the depth when it stopped for each sample. Volume of water filtered and total biomass  $m^{-3}$  for each depth strata sampled, date of the sample and the latitude and longitude for the tows are given.



TOW 1	17/09/85	1800H	44	21.24	N	63	17.55					
SAMPLE			1	2	3	4	5	6	7	8	9	10
DEPTH1 (M)			.0	10.0	20.0	30.0	35.0	40.0	45.0	55.0	65.0	75.0
DEPTH2 (M)			10.0	20.0	30.0	35.0	40.0	45.0	55.0	65.0	75.0	85.0
VOLUME OF WATER SAMPLED (M3)			.50.	.91.	.83.	.45.	.50.	.47.	.78.	.111.	.118.	.66.
TOTAL BIOMASS (G/M3)			.199	.101	.523	.202	.220	.157	.067	.160	.194	.175
EUPHAUSIACEA BIOMASS (G/M3)			.000	.000	.000	.000	.001	.002	.002	.002	.001	.002

SPECIES	NUMBER PER CUBIC METER										#/M2
UNIDENTIFIED/DAMAGED MEDUSA	.00	.00	.00	.00	.00	.28	.00	.00	.00	.00	1.
LIMACINA BULIMOIDES	.00	.00	488.94	3.89	.80	.28	.00	.00	.00	.00	4914.
LIMACINA HELICOIDES	47.22	74.01	10.29	1.41	3.21	1.42	5.47	1.92	1.63	.00	1435.
LIMACINA INFILATA	.00	3.52	.00	.00	.00	.00	.00	.00	.00	.81	43.
LIMACINA LESUEURI	51.51	162.11	257.34	.71	2.40	.57	1.37	2.56	1.08	2.42	4802.
LIMACINA TROCHIFORMIS	12.88	52.86	393.73	1.06	3.21	.28	.34	.00	.00	.81	4628.
GYMNOSOMATA	.00	7.05	5.15	.00	.00	.00	.00	.00	.00	.00	121.
BIVALVE LARVAE	8.58	.00	.00	.00	.80	.00	.68	.00	.00	.00	96.
PODON LEUCKARTI	.00	.00	.00	.35	.80	.57	1.37	.64	.54	.00	34.
DAMAGED CLADOCERA	4.29	3.52	.00	.35	.00	.28	.00	.00	.00	.00	81.
PODON INTERMEDIUS	.00	.00	.00	.00	.80	.00	.00	.00	.00	.00	4.
ACARTIA LONGIREMIS	25.75	14.10	7.72	2.47	7.21	.85	13.68	6.41	1.08	.81	748.
ANOMALOCERA PATERSONII	.00	.00	.00	.71	.00	.00	.00	.00	.00	.00	3.
CALANUS FINMARCHICUS-TOTAL	94.43	370.04	437.47	103.49	32.06	6.52	18.46	137.10	137.65	101.66	13678.
CALANUS FINMARCHICUS (D)	.00	10.57	56.61	13.77	3.21	.00	.34	1.28	.54	1.61	794.
CALANUS FINMARCHICUS (G)	.00	10.57	20.59	3.53	5.61	.00	.00	.64	.00	.00	363.
CALANUS FINMARCHICUS (S)	.00	7.05	2.57	1.77	.80	.57	.00	.00	2.71	1.61	155.
CALANUS FINMARCHICUS VIM	.00	10.57	5.15	.71	.80	.00	.00	.00	.54	.00	170.
CALANUS FINMARCHICUS VIF	.00	28.19	79.77	19.07	9.62	.57	.34	1.92	3.25	3.23	1313.
CALANUS FINMARCHICUS V	17.17	197.36	337.11	83.00	20.84	4.82	16.75	131.97	117.05	85.53	9572.
CALANUS FINMARCHICUS IV	55.80	77.53	12.87	.71	.00	1.13	1.03	3.20	16.80	12.91	1810.
CALANUS FINMARCHICUS III	12.88	21.15	2.57	.00	.80	.00	.00	.00	.00	.00	369.
CALANUS FINMARCHICUS II	8.58	17.62	.00	.00	.00	.00	.00	.00	.00	.00	262.
CALANUS FINMARCHICUS I	.00	17.62	.00	.00	.00	.00	.00	.00	.00	.00	176.
CALANUS FINMARCHICUS DAMAGED	.00	.00	.00	.00	.00	.00	.34	.00	.00	.00	3.
CALANUS GLACIALIS V	.00	.00	.00	.00	.00	.00	.34	3.20	8.13	3.23	149.
CALANUS GLACIALIS IV	.00	.00	.00	.71	.00	.28	.68	3.84	5.42	2.42	128.
CALANUS GLACIALIS III	.00	.00	.00	.35	.00	.00	.00	.00	.00	.00	1.
CALANUS GLACIALIS DAMAGED	.00	.00	.00	.00	.00	.00	.34	.00	.00	.00	3.
CALANUS HYPERBOREUS-TOTAL	.00	.00	.00	.00	.00	.00	.68	7.05	5.42	3.23	163.
CALANUS HYPERBOREUS V	.00	.00	.00	.00	.00	.00	.00	.64	.00	.00	6.
CALANUS HYPERBOREUS IV	.00	.00	.00	.00	.00	.00	.68	4.48	3.79	2.42	113.
CANDACIA ARMATA	.00	.00	.00	.35	.00	.00	.00	.00	.00	.00	1.
CENTROPAGES TYPICUS	120.19	3.52	.00	1.41	3.21	1.99	2.74	2.56	2.71	.00	1350.
EUCHEATA NORVEGICA	.00	.00	.00	.00	.00	.00	.00	.64	.00	.00	6.
EURYTEMORA HERDMANI	42.92	14.10	18.01	8.48	15.23	3.12	15.73	3.20	1.08	.81	1092.
LUCICUTIA FLAVICORNIS	4.29	.00	.00	.00	.00	.00	.00	.00	.00	.00	42.
METRIDIA LUCENS	.00	7.05	.00	2.12	.00	.00	1.37	5.13	9.75	24.21	485.
OITHONA ATLANTICA	.00	.00	7.72	3.18	.00	.00	.34	2.56	.54	.81	135.
OITHONA SIMILIS	.00	7.05	7.72	4.59	2.40	5.11	5.47	3.20	18.97	9.68	581.
PARACALANUS PARVUS	184.57	49.34	2.57	.00	3.21	.85	1.71	.00	1.63	.81	2426.
PSEUDOCALANUS MINUTUS	592.35	74.01	15.44	10.24	13.63	5.11	13.33	9.61	7.59	11.30	7381.
SCOЛЕCITHRICELLA MINOR	.00	.00	.00	.00	.00	.00	.00	.00	.54	.00	5.
TEMORA LONGICORNIS	55.80	31.72	7.72	6.71	6.41	3.40	10.26	1.92	2.17	4.03	1218.
UNID/DAM/EXO COPEPOD	128.77	59.91	30.88	34.61	44.09	35.18	27.69	19.22	10.84	16.14	3503.
UNIDENTIFIED HARPACTICOID	.00	.00	.00	.00	.00	.28	.00	.00	.00	.00	1.
PARATHEMISTO SP.	.00	3.52	.00	.00	.80	3.97	.00	1.28	.00	.00	71.
M. NORVEGICA CALYPTOSIS	.00	3.52	.00	.00	.00	.00	.00	.00	.00	.00	35.
M. NORVEGICA FURCILIA	.00	.00	.00	.00	32.06	24.68	5.81	.64	.00	.00	348.
THYSANOESSA RASCHII FURCILIA	.00	.00	.00	.00	.00	3.97	.00	.00	.00	.00	19.
T. LONGICAUDATA FURCILIAE	.00	.00	5.15	7.77	44.09	4.82	.34	1.28	.54	.00	356.
THYSANOESSA SP. FURCILIAE	.00	.00	.00	3.18	.00	.57	.00	.00	.00	.00	18.
EUPHAUSIID EGGS	68.68	14.10	.00	.00	.80	.00	.00	.00	.00	.00	831.
DAMAGED EUPHAUSID	.00	.00	.00	.35	.00	2.27	.68	.00	.00	.81	28.
DECAPOD LARVAE	.00	.00	.00	.00	.80	.00	.00	.00	.00	.00	4.
SAGITTA SETOSA	.00	.00	.00	.00	.00	.28	.00	.00	.00	.00	1.
OIKOPLEURA SP.	.00	.00	.00	.00	.80	.00	.00	.00	.00	.00	4.
OIKOPLEURA VANHOEFFENI	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.
DAMAGED APPENDICULARIA	.00	.00	.00	.00	.00	.00	.34	.00	.00	.00	3.

TOW 1 17/09/85 1800H  
SAMPLE

(CONTINUED)

	1	2	3	4	5	6	7	8	9	10
--	---	---	---	---	---	---	---	---	---	----

SPECIES	NUMBER PER CUBIC METER										#/M2
---------	------------------------	--	--	--	--	--	--	--	--	--	------

L A R G E M E S O Z O O P L A N K T O N & I C H T H Y O P L A N K T O N

UNIDENTIFIED SIPHONOPHORE	.000	.000	.000	.000	.000	.000	.000	.009	.000	.000	.090
CTENOPHORA	.000	.000	.000	.000	.000	.000	.018	.000	.000	.000	.180
CLIONE SP.	.000	.000	.000	.022	.000	.043	.026	.000	.008	.000	.664
TOMOPTERIS SP.	.000	.000	.000	.000	.000	.000	.000	.000	.000	.015	.151
AMPHIPODA	.000	.000	.000	.000	.020	.021	.026	.018	.000	.000	.643
PARATHEMISTO GAUDICHAUDII	.000	.000	.000	.000	.020	.021	.026	.018	.000	.000	.643
EUPHAUSIACEA	.040	.000	.000	.044	.240	.574	.282	.486	.229	.303	17.695
MEGANYCTIPHANES NORVEGICA	.000	.000	.000	.000	.000	.106	.026	.000	.008	.000	.873
STYLOCHEIRON SP.	.000	.000	.000	.000	.000	.000	.000	.000	.000	.303	3.026
THYSANODESSA INERMIS	.040	.000	.000	.022	.100	.404	.256	.486	.220	.000	12.666
THYSANODESSA LONGICAUDATA	.000	.000	.000	.022	.140	.064	.000	.000	.000	.000	1.131
CHAETOGNATHA	.000	.000	.181	.839	1.002	.319	.282	1.649	3.489	4.191	108.708
SAGITTA ELEGANS	.000	.000	.181	.839	1.002	.319	.282	1.649	3.489	4.191	108.708
UNIDENTIFIED	.000	.000	.000	.000	.381	.213	.026	.000	.034	.000	3.563
PICES	.000	.000	.012	.331	.281	.021	.026	.000	.000	.000	3.542
MERLUCCIUS BILINEARIS	.000	.000	.012	.331	.281	.021	.026	.000	.000	.000	3.542

TOW	2	17/09/85	2230H	44	12.54	N	63	10.11	1	2	3	4	5	6	7	8	9	10
SAMPLE																		
DEPTH1 (M)				.0	10.0		20.0		30.0	40.0	50.0	60.0	80.0	100.0	120.0			
DEPTH2 (M)				10.0	20.0		30.0		40.0	50.0	60.0	80.0	100.0	120.0	140.0			
VOLUME OF WATER SAMPLED (M3)				86.	115.		105.		92.	108.	91.	211.	256.	134.	75.			
TOTAL BIOMASS (G/M3)				.436	.383		.446		.303	.134	.096	.063	.073	.052	.058	22.908		
EUPHAUSIACEA BIOMASS (G/M3)				.139	.165		.128		.171	.071	.051	.025	.033	.026	.016			

SPECIES																			#/M2
MEDUSA																		8.	
UNIDENTIFIED/DAMAGED MEDUSA																		25.	
LIMACINA BULIMOIDES																		102.	
LIMACINA HELICOIDES																		126.	
LIMACINA LESUEURII																		278.	
LIMACINA TROCHIFORMIS																		325.	
LIMACINA SP.																		6.	
GYMNOSOMATA																		83.	
ACARTIA LONGIREMIS																		3.	
CALANUS FINMARCHICUS-TOTAL	82.05	64.93	30.48	61.45	36.15	31.98	22.50	19.38	7.36	25.33	4561.								
CALANUS FINMARCHICUS (D)																		90.	
CALANUS FINMARCHICUS (G)																		163.	
CALANUS FINMARCHICUS (S)																		50.	
CALANUS FINMARCHICUS VIM																		9.	
CALANUS FINMARCHICUS VIF																		304.	
CALANUS FINMARCHICUS V																		2898.	
CALANUS FINMARCHICUS IV																		787.	
CALANUS FINMARCHICUS III																		368.	
CALANUS FINMARCHICUS II																		61.	
CALANUS FINMARCHICUS I																		132.	
CALANUS FINMARCHICUS DAMAGED																		98.	
CALANUS GLACIALIS V																		120.	
CALANUS GLACIALIS IV																		142.	
CALANUS GLACIALIS DAMAGED																		2.	
CALANUS HYPERBOREUS-TOTAL																		73.	
CALANUS HYPERBOREUS V																		5.	
CALANUS HYPERBOREUS IV																		57.	
CENTROPAGES TYPICUS	634.03	87.19	7.62	1.74	1.48	7.45	.51	2.19	.60	.53	7471.								
CLAUSOCALANUS FURCATUS																		2956.	
EURYTEMORA HERDMANI																		37.	
METRIDIA LONGA																		129.	
METRIDIA LUCENS																		2068.	
OITHONA ATLANTICA																		745.	
OITHONA SIMILIS																		265.	
PARACALANUS PARVUS																		2085.	
PSEUDOCALANUS MINUTUS																		5185.	
SCOLOCITHRICELLA MINOR																		22.	
TEMORA LONGICORNIS																		71.	
UNID/DAM/EXO COPEPOD																		3732.	
PARATHEMISTO ABYSSORUM																		8.	
PARATHEMISTO SP.																		70.	
M. NORVEGICA FURCILIA																		758.	
THYSANOESSA INERMIS FURCILIAE																		33.	
T. LONGICAUDATA FURCILIAE																		76.	
EUPHAUSIID EGGS																		716.	
EUPHAUSIID NAUPLII																		5.	
DAMAGED FURCILIAE																		41.	
SAGITTA SP.																		37.	
SAGITTA SETOSA																		5.	

## L A R G E M E S O Z O O P L A N K T O N &amp; I C H T H Y O P L A N K T O N

UNIDENTIFIED SIPHONOPHORE	.000	.000	.000	.000	.000	.000	.043	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.8
UNIDENTIFIED MEDUSA	.851	.009	.010	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.8.6
CTENOPHORA	.070	.539	.867	.293	.019	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.013	.18.1	

TOW 2 17/09/85 2230H  
SAMPLE

## (CONTINUED)

	1	2	3	4	5	6	7	8	9	10
--	---	---	---	---	---	---	---	---	---	----

SPECIES				NUMBER	PER	CUBIC	METER		#/M2
CLIONE SP.	.000	.000	.010	.000	.000	.000	.000	.000	.095
AMPHIPODA	.023	.009	.067	.033	.009	.033	.005	.004	.007
PARATHEMISTO GAUDICHAUDII	.023	.009	.067	.033	.009	.033	.005	.004	.000
EUPHAUSIACEA	3.427	2.339	2.895	8.239	2.250	.778	.972	2.723	1.201
MEGANYCTIPHANES NORVEGICA	3.427	2.313	2.771	.587	.306	.274	.109	.059	.067
THYSANOESSA INERMIS	.000	.026	.124	7.652	1.944	.504	.863	2.664	1.104
CHAETOGNATHA	.606	.478	2.571	1.891	.222	.110	.137	.156	.179
SAGITTA ELEGANS	.606	.478	2.571	1.891	.222	.110	.137	.156	.179
PICES	.117	.070	.029	.000	.000	.011	.009	.000	.000
MERLUCCIUS BILINEARIS	.117	.070	.029	.000	.000	.011	.009	.000	.000

SPECIES	NUMBER PER CUBIC METER									#/M2
	.00	.00	.00	.00	.03	.00	.17	.00	.00	
LIMACINA BULIMOIDES	.00	.00	.00	.00	.03	.00	.17	.00	.00	1.
LIMACINA HELICOIDES	.00	.10	.00	.00	.03	.00	.17	.21	.09	.00
LIMACINA INFLATA	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00
LIMACINA LESUEURII	.00	.42	.14	.00	.00	.03	.25	.03	.03	.08
LIMACINA TROCHIFORMIS	.00	.21	.19	.00	.00	.00	.17	.00	.00	.00
GYMNOSOMATA	.00	.42	.09	.03	.09	.03	.76	1.15	1.73	1.44
BIVALVE LARVAE	.78	.10	.00	.02	.00	.00	.00	.03	.00	.00
PODON LEUCKARTI	.00	.00	.00	.00	.03	.03	.00	.00	.03	.00
ACARTIA LONGIREMIS	.00	.00	.09	.07	.18	.03	.17	.10	.09	.08
CALANUS FINMARCHICUS-TOTAL	1.56	2.60	2.45	2.38	1.56	.59	2.04	.69	.55	.72
CALANUS FINMARCHICUS (D)	.00	.00	.05	.07	.00	.00	.00	.00	.03	.00
CALANUS FINMARCHICUS (G)	.00	.00	.00	.00	.00	.03	.00	.03	.00	.03
CALANUS FINMARCHICUS (S)	.00	.10	.05	.12	.00	.00	.00	.00	.00	.00
CALANUS FINMARCHICUS VIM	.00	.10	.00	.03	.00	.00	.00	.00	.00	.00
CALANUS FINMARCHICUS VIF	.00	.10	.09	.19	.00	.00	.00	.03	.03	.03
CALANUS FINMARCHICUS V	.78	.52	.79	1.90	.94	.31	1.53	.15	.24	.44
CALANUS FINMARCHICUS IV	.00	.83	.97	.24	.50	.21	.51	.44	.27	.22
CALANUS FINMARCHICUS III	.78	.63	.51	.02	.12	.07	.00	.05	.00	.00
CALANUS FINMARCHICUS II	.00	.42	.09	.00	.00	.00	.00	.03	.00	.03
CALANUS FINMARCHICUS DAMAGED	.78	.00	.28	.00	.00	.00	.00	.28	.09	.11
CALANUS GLACIALIS V	.00	.10	.00	.02	.00	.00	.08	.00	.00	.00
CALANUS GLACIALIS IV	.00	.00	.00	.02	.06	.07	.17	.00	.00	.03
CALANUS HYPERBOREUS-TOTAL	.00	.00	.00	.00	.00	.00	.08	.00	.00	.00
CALANUS HYPERBOREUS IV	.00	.00	.00	.00	.00	.00	.08	.00	.00	.00
CALANUS SP.	.00	.00	.00	3.98	.74	.07	1.02	.00	.00	.00
CALANUS MINOR	.00	.10	.00	.00	.00	.00	.00	.00	.00	.00
CANDACIA ARMATA	.00	.00	.00	.00	.03	.00	.00	.00	.00	.00
CENTROPAGES TYPICUS	20.27	4.48	1.06	.21	2.38	.31	1.70	.74	.03	.14
CLAUSOCALANUS FURCATUS	.00	2.81	.88	.05	.32	.10	.17	.05	.00	.08
CLYTEMNESTRA SCUTELLATA	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00
EUCHEATA SP.	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00
EURYTEMORA HERDMAN	.78	.00	.09	.22	.29	.21	.34	.13	.09	.06
METRIDIA LONGA	.00	.42	.14	.16	.62	.00	.76	.00	.00	.03
METRIDIA LUCENS	.00	.52	.42	.41	1.03	.03	.59	.21	.18	.47
MICROCALANUS PYGMAEUS	.00	.00	.00	.00	.03	.00	.00	.00	.03	.00
OITHONA ATLANTICA	.00	.00	.28	.05	.26	.14	5.51	2.18	4.15	4.17
OITHONA SIMILIS	.78	.21	.00	.33	.12	.14	1.19	.15	.27	.17
PARACALANUS PARVUS	141.13	3.65	1.39	.69	1.00	.90	3.22	1.03	.48	.50
PARACALANUS/CLAUSOCALANUS	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00
PSEUDOCALANUS MINUTUS	3.90	2.92	.60	.17	.44	.34	1.19	.13	.33	.11
TEMORA LONGICORNIS	.00	.00	.37	.26	.03	.31	.51	.13	.36	.08
UNID/DAM/EXO COPEPOD	17.93	25.63	8.89	9.53	16.65	9.79	28.16	6.05	6.03	5.44
UNIDENTIFIED HARPACTICOID	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00
PARATHEMISTO ABYSSORUM	.00	.00	.05	.00	.06	.00	.08	.00	.09	.00
PARATHEMISTO SP.	.78	.00	1.39	.76	.09	.07	.00	.00	.36	.03
THYSANOESSA INERMIS FURCILIAE	.00	.10	.05	.07	.06	.00	.00	.00	.00	.00
THYSANOESSA SP. CALYPTOSIS	.00	.00	.00	.00	.00	.00	.08	.00	.00	.00
EUPHAUSIID EGGS	.00	.83	.00	.00	.00	.00	.08	.00	.06	.00
EUPHAUSIID NAUPLII	.00	.31	.09	.02	.00	.00	.00	.00	.00	.03
DAMAGED FURCILIAE	.00	.73	.09	.07	.03	.00	.17	.00	.00	.00
DECAPOD LARVAE	.00	.00	.05	.02	.00	.00	.00	.00	.03	.00
DECAPOD ZOEA-BRACHYURAN	.00	.00	.00	.00	.03	.00	.00	.00	.00	.00
SAGITTA MAXIMA	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00

TOW 3 18/09/85 0830H  
SAMPLE

## (CONTINUED)

	1	2	3	4	5	6	7	8	9	10
--	---	---	---	---	---	---	---	---	---	----

SPECIES	NUMBER PER CUBIC METER									#/M <sup>2</sup>
---------	------------------------	--	--	--	--	--	--	--	--	------------------

## L A R G E M E S O Z O O P L A N K T O N &amp; I C H T H Y O P L A N K T O N

UNIDENTIFIED MEDUSA	.000	.000	.000	.000	.059	.000	.000	.000	.000	.000	.588
CTENOPHORA	.156	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.559
AMPHIPODA	.000	.000	.000	.017	.000	.000	.000	.000	.030	.000	.475
PARATHEMISTO GAUDICHAUDII	.000	.000	.000	.017	.000	.000	.000	.000	.030	.000	.475
EUPHAUSIACEA	.019	.063	.093	.448	.471	.207	.382	.077	.061	.056	18.751
MEGANYCTIPHANES NORVEGICA	.019	.021	.056	.086	.147	.069	.191	.051	.061	.056	7.564
THYSANOESSA INERMIS	.000	.042	.037	.362	.324	.138	.191	.026	.000	.000	11.187
CHAETOGNATHA	.019	.042	.000	.103	.000	.000	.229	.026	.182	.000	.011
SAGITTA ELEGANS	.000	.000	.000	.000	.000	.000	.026	.000	.000	.000	.256
UNIDENTIFIED CHAETOGNATH	.019	.042	.000	.103	.000	.000	.229	.000	.182	.000	5.754



TOW 10	20/09/85	1730H	44	04.05	N	62	46.86					
SAMPLE			2	3	4	5	6	7				
DEPTH1 (M)	190.0	202.0	212.0	221.0	227.0	227.0	226.0					
DEPTH2 (M)	202.0	212.0	221.0	227.0	226.0	226.0	230.0					
VOLUME OF WATER SAMPLED (M3)	155.	100.	119.	221.	94.	87.						
TOTAL BIOMASS (G/M3)	.012	.040	.108	.511	.641	.961	9.056					
EUPHAUSIACEA BIOMASS (G/M3)	.003	.002	.005	.006	.002	.002						

LIMACINA HELICOIDES	.00	.00	.00	.00	2.72	.00	2.72
LIMACINA INFILATA	.00	.08	.27	.00	.00	.00	3.22
LIMACINA LESUEURII	.10	.16	.81	.00	2.72	.00	12.82
LIMACINA TROCHIFORMIS	.03	.00	.81	.00	.00	.00	7.58
LIMACINA SP.	.01	.00	.00	.00	.00	.00	.15
GYMNOSOMATA	.14	.44	1.61	9.25	5.44	35.47	223.47
CONCHOECIA SP.	.01	.00	.00	.00	.00	.00	.15
CALANUS FINMARCHICUS-TOTAL	6.55	24.16	168.21	1343.60	1511.00	2642.77	21977.79
CALANUS FINMARCHICUS (D)	.00	.68	2.42	6.94	5.44	.00	75.66
CALANUS FINMARCHICUS (G)	.00	1.04	2.96	11.56	.00	11.82	153.72
CALANUS FINMARCHICUS (S)	.00	.20	4.58	4.63	.00	.00	70.93
CALANUS FINMARCHICUS VIM	.01	.36	1.35	9.25	5.44	23.65	171.40
CALANUS FINMARCHICUS VIF	.80	2.76	10.23	23.13	5.44	11.82	320.73
CALANUS FINMARCHICUS V	4.61	17.88	123.53	1105.40	1312.61	2347.16	18679.53
CALANUS FINMARCHICUS IV	.30	.72	8.88	53.19	54.35	.00	464.18
CALANUS FINMARCHICUS III	.04	.04	.00	.00	.00	.00	.86
CALANUS FINMARCHICUS II	.00	.12	.27	.00	.00	.00	3.62
CALANUS FINMARCHICUS DAMAGED	.79	2.28	23.95	152.63	133.16	260.14	2337.31
CALANUS GLACIALIS (D)	.00	.00	.00	.00	2.72	.00	2.72
CALANUS GLACIALIS (S)	.00	.04	.27	.00	5.44	.00	8.26
CALANUS GLACIALIS VIF	.01	.04	.00	.00	8.15	.00	8.71
CALANUS GLACIALIS V	.15	1.04	9.15	87.88	119.58	183.28	1474.57
CALANUS GLACIALIS IV	.09	.76	8.07	62.44	89.68	153.72	1160.54
CALANUS GLACIALIS III	.01	.00	.00	.00	.00	.00	.15
CALANUS GLACIALIS DAMAGED	.00	.12	2.42	9.25	21.74	53.21	313.08
CALANUS HYPERBOREUS-TOTAL	.04	.12	1.61	4.63	2.72	41.39	212.21
CALANUS HYPERBOREUS V	.01	.08	.27	.00	.00	5.91	27.03
CALANUS HYPERBOREUS IV	.01	.04	1.08	2.31	2.72	29.56	145.08
CALANUS HYPERBOREUS DAMAGED	.01	.00	.27	2.31	.00	5.91	40.10
CALANUS SP.	.80	2.40	26.64	164.19	154.90	319.26	2690.50
CENTROPAGES BRADYI	.01	.04	.00	.00	.00	.00	.55
CENTROPAGES TYPICUS	.74	1.24	7.00	2.31	16.31	17.74	185.33
CLAUSOCALANUS FURCATUS	1.65	1.12	5.11	20.81	16.31	53.21	431.07
EUCHEATA NORVEGICA	.00	.04	.00	.00	.00	.00	.40
EUCHEATA SP.	.01	.04	.27	.00	.00	.00	2.98
EURYTEMORA HERDMANI	.00	.00	.00	.00	.00	5.91	23.65
MACROSTELLA GRACILIS	.03	.00	.00	.00	.00	.00	.31
MECYNOCERA CLAUSI	.03	.00	.00	.00	.00	.00	.31
METRIDIA LONGA	.00	.08	4.58	9.25	24.46	47.30	311.13
METRIDIA LUCENS	.15	2.08	10.77	27.75	32.61	23.65	413.26
MICROCALANUS PYGMÆUS	.00	.04	.27	.00	.00	.00	2.82
OITHONA ATLANTICA	.01	.08	1.61	.00	.00	.00	15.49
OITHONA SIMILIS	.04	.12	2.96	.00	2.72	.00	31.03
ONCAEA SP.	.03	.00	.00	.00	.00	.00	.31
PARACALANUS PARVUS	.31	.88	3.77	18.50	13.59	17.74	241.96
PARACALANUS/CLAUSOCALANUS	.03	.52	5.11	4.63	16.31	5.91	119.24
PLEUROMAMMA BOREALIS	.00	.00	.27	.00	.00	.00	2.42
PSEUDOCALANUS MINUTUS	.22	.28	2.69	2.31	16.31	5.91	83.48
SAPPHIRINA OPALINA	.01	.04	.00	.00	.00	.00	.55
SAPPHIRINA SALI	.00	.00	.00	.00	16.31	.00	16.31
SAPPHIRINA SP.	.01	.00	.00	.00	.00	.00	.15
SCOЛЕCITHRICELLA MINOR	.03	.04	.00	2.31	.00	.00	14.59
TEMORA LONGICORNIS	.04	.04	.00	.00	.00	.00	.86
UNID/DAM/EXO COPEPOD	.89	1.84	10.77	16.19	29.89	65.03	513.13
UNIDENTIFIED HARPACTICOID	.03	.04	.27	.00	.00	.00	3.13
M. NORVEGICA ADULT	.03	.04	.27	.00	.00	.00	3.13
THYSANOESSA SP. CALYPTOSIS	.00	.04	.00	.00	.00	.00	.40
EUPHAUSIID EGGS	.00	.08	.00	.00	.00	.00	.80
DAMAGED EUPHAUSID	.00	.00	.27	.00	.00	.00	2.42
SAGITTA MAXIMA	.00	.04	.00	.00	.00	.00	.40

TOW 10 20/09/85 1730H  
SAMPLE

(CONTINUED)

2 3 4 5 6 7

## L A R G E M E S O Z O O P L A N K T O N &amp; I C H T H Y O P L A N K T O N

CTENOPHORA	.000	.000	.000	.000	.011	.000	.011
EUPHAUSIACEA	.026	.040	.177	.384	.170	.185	5.512
MEGANYCTIPHANES NORVEGICA	.026	.040	.143	.384	.170	.185	5.209
THYSANOESSA INERMIS	.000	.000	.008	.000	.000	.000	.076
THYSANOESSA LONGICAUDATA	.000	.000	.017	.000	.000	.000	.151
DAMAGED/UNIDENTIFIED EUPHAUS	.000	.000	.008	.000	.000	.000	.076
CHAETOGNATHA	.000	.010	.000	.018	.011	.058	.450
EUKHRONIA HAMATA	.000	.000	.000	.005	.000	.023	.119
SAGITTA ELEGANS	.000	.000	.000	.014	.000	.035	.220
SAGITTA HEXAPTERA	.000	.000	.000	.000	.011	.000	.011
UNIDENTIFIED CHAETOGNATH	.000	.010	.000	.000	.000	.000	.100

TOW 11	20/09/85	2000H	43	49.61	N	62	58.96					
SAMPLE			2	3	4	5	6	7	8	9	10	
DEPTH1 (M)			257.0	240.0	230.0	220.0	100.0	63.0	48.6	15.8		
DEPTH2 (M)			240.0	230.0	220.0	100.0	63.0	48.6	29.5	1.0		
VOLUME OF WATER SAMPLED (M3)			87.	74.	100.	423.	112.	40.	52.	49.		
TOTAL BIOMASS (G/M3)			5.493	.819	.136	.057	.163	.171	.170	.255	125.309	
EUPHAUSIACEA BIOMASS (G/M3)			.064	.034	.042	.021	.032	.017	.024	.092		

LIMACINA LESUEURII	.00	.00	.00	.00	.00	.40	.00	.00	5.70		
LIMACINA-DAMAGED	.00	.00	.00	.00	.00	.40	.00	.00	5.70		
GYMNOSOMATA	47.08	13.88	.96	1.66	4.02	.79	.62	.65	1329.91		
CALANUS FINMARCHICUS-TOTAL	*****	2327.59	141.44	45.09	184.83	183.37	208.19	192.78	381763.36		
CALANUS FINMARCHICUS (D)	141.24	10.41	.96	2.72	18.37	19.01	17.30	1.95	4154.12		
CALANUS FINMARCHICUS (G)	.00	.00	.32	.30	5.74	10.30	11.74	1.30	643.56		
CALANUS FINMARCHICUS (S)	.00	13.88	2.24	1.51	2.30	5.94	2.47	1.95	589.23		
CALANUS FINMARCHICUS VIM	.00	6.94	1.28	1.66	.57	.00	1.24	.65	336.34		
CALANUS FINMARCHICUS VIF	141.24	24.28	3.52	4.54	26.40	34.85	28.42	5.19	5322.21		
CALANUS FINMARCHICUS V	*****	2001.52	91.84	25.57	103.32	92.28	148.26	104.50	334470.28		
CALANUS FINMARCHICUS IV	470.80	107.53	5.12	4.09	5.17	8.71	16.06	7.79	10359.09		
CALANUS FINMARCHICUS III	.00	.00	.00	.00	.57	.00	.00	1.30	40.45		
CALANUS FINMARCHICUS DAMAGED	1412.41	187.32	39.68	9.23	48.79	47.52	43.86	73.35	31801.36		
CALANUS GLACIALIS (D)	.00	.00	.00	.00	.57	.00	.62	.00	33.04		
CALANUS GLACIALIS (S)	.00	3.47	.32	.00	.57	.00	.00	.65	68.73		
CALANUS GLACIALIS VIF	.00	3.47	.32	.00	1.15	.00	.62	.65	101.77		
CALANUS GLACIALIS V	1459.49	208.13	7.36	2.12	5.74	5.15	5.56	9.09	27747.69		
CALANUS GLACIALIS IV	1129.93	128.35	6.72	1.06	5.74	.40	2.47	9.09	21086.36		
CALANUS GLACIALIS DAMAGED	564.97	45.09	7.04	2.57	4.02	9.50	6.80	11.03	11013.05		
CALANUS HYPERBOREUS-TOTAL	988.69	76.31	4.48	.91	4.02	8.32	6.18	9.09	18245.51		
CALANUS HYPERBOREUS V	282.48	31.22	.64	.00	1.15	.79	1.24	1.95	5227.10		
CALANUS HYPERBOREUS IV	517.89	41.63	3.52	.61	2.30	2.38	3.71	4.54	9585.34		
CALANUS HYPERBOREUS DAMAGED	141.24	3.47	.32	.30	.00	5.15	1.24	2.60	2611.47		
CALANUS SP.	2118.62	235.88	47.04	12.10	52.81	62.18	51.89	86.98	45425.88		
CENTROPAGES TYPICUS	.00	10.41	.64	.76	2.87	3.96	2.47	53.87	1209.00		
CLAUSOCALANUS FURCATUS	.00	.00	.96	2.72	6.31	11.88	15.44	14.93	1257.04		
EUCHEATA NORVEGICA	.00	.00	.00	.15	.57	.00	.00	.00	39.39		
EUCHEATA SP.	.00	.00	.00	.30	.57	.00	.00	.00	57.55		
MECYNOCERA CLAUSI	.00	.00	.32	.00	.00	.00	.00	.00	3.20		
METRIDIA LONGA	94.16	45.09	14.72	8.78	.57	1.58	.62	1.30	3327.00		
METRIDIA LUCENS	.00	34.69	14.72	24.36	88.97	72.87	71.04	5.84	9201.76		
METRIDIA SP.	.00	.00	.00	.76	3.44	5.94	.62	.00	315.55		
MICROCALANUS PYGMAEUS	.00	.00	.00	.00	.00	.40	.00	.00	5.70		
OITHONA ATLANTICA	.00	.00	.32	6.35	1.72	.00	.00	.65	839.07		
OITHONA SIMILIS	.00	.00	.00	.00	.00	.79	.00	.00	11.41		
ONCAEA SP.	.00	.00	.00	.15	.00	.00	.00	.00	18.16		
PARACALANUS PARVUS	.00	3.47	1.92	.45	1.15	7.52	3.71	141.50	2424.20		
PARACALANUS/CLAUSOCALANUS	.00	.00	.32	.15	1.15	2.38	2.47	45.44	817.70		
PSEUDOCALANUS MINUTUS	.00	3.47	.64	.00	1.15	.00	2.47	1.30	149.97		
SCOLECITHRICELLA MINOR	.00	.00	.00	.30	.00	.00	.00	.00	36.31		
TEMORA LONGICORNIS	.00	.00	.00	.15	.00	.00	.00	.00	18.16		
UNID/DAM/EXO COPEPOD	329.56	45.09	19.84	4.54	6.89	16.63	8.65	29.86	7898.07		
AMPHIPOD-DAMAGED	.00	.00	.00	.15	.57	.40	.00	3.89	102.74		
PARATHEMISTO GAUDICHAUDI	.00	.00	.00	.00	.00	.00	.00	.65	9.61		
PARATHEMISTO SP.	.00	.00	.00	.00	.00	.00	.00	1.30	19.21		
PARATHEMISTO-IMMATURE	.00	.00	.00	.15	.00	.00	.00	.00	18.16		
M. NORVEGICA ADULT	.00	.00	.32	.00	.57	.00	.00	.65	34.04		
M. NORVEGICA FURCILIA	.00	.00	.00	.00	.00	.00	.62	8.44	136.68		
THYSANOESSA INERMIS FURCILIAE	.00	.00	.00	.00	.00	.62	.00	.00	11.80		
EUPHAUSIID EGGS	.00	.00	.00	.15	.00	.00	.00	.00	18.16		
EUPHAUSIID NAUPLII	.00	.00	.00	.15	.00	.00	.00	.00	18.16		
DAMAGED EUPHAUSID	.00	.00	.32	.00	.00	.00	.00	1.95	32.02		
DAMAGED FURCILIAE	.00	.00	.00	.00	.00	.00	.00	.65	9.61		
SAGITTA ELEGANS	.00	.00	.00	.00	.00	.40	.00	.00	5.70		

TOW 11 20/09/85 2000H  
SAMPLE

(CONTINUED)

	2	3	4	5	6	7	8	10
--	---	---	---	---	---	---	---	----

## L A R G E M E S O Z O O P L A N K T O N &amp; I C H T H Y O P L A N K T O N

UNIDENTIFIED SIPHONOPHORE	.000	.000	.000	.000	.009	.000	.000	.000	.332
CTENOPHORA	.000	.000	.010	.000	.000	.000	.000	.000	.100
TOMOPTERIS SP.	.011	.000	.000	.000	.009	.000	.000	.000	.527
AMPHIPODA	.000	.000	.000	.009	.000	.000	.000	.000	1.135
PARATHEMISTO GAUDICHAUDII	.000	.000	.000	.009	.000	.000	.000	.000	1.135
EUPHAUSIACEA	.299	.203	.230	.118	.215	.248	.502	5.152	120.964
MEGANYCTIPHANES NORVEGICA	.299	.190	.230	.109	.188	.173	.270	5.112	112.604
THYSANOESSA INERMIS	.000	.000	.000	.000	.000	.074	.232	.041	6.094
THYSANOESSA LONGICAUDATA	.000	.014	.000	.009	.009	.000	.000	.000	1.602
DAMAGED/UNIDENTIFIED EUPHAUS	.000	.000	.000	.000	.018	.000	.000	.000	.664
CHAETOGNATHA	.172	.068	.070	.014	.027	.173	.116	.203	14.716
EUKHRONIA HAMATA	.000	.014	.020	.002	.000	.025	.000	.000	.976
SAGITTA ELEGANS	.172	.054	.050	.012	.027	.149	.116	.203	13.740

TOW 5 18/09/85 1330H 43 47.13 N 62 48.80  
 SAMPLE 2 3 4 5 6 7 8 9 10  
 DEPTH1 (M) 210.0 200.0 190.0 170.0 150.0 100.0 75.0 50.0 25.0  
 DEPTH2 (M) 200.0 190.0 170.0 150.0 100.0 75.0 50.0 25.0 2.0  
 VOLUME OF WATER SAMPLED (M3) 60. 33. 73. 76. 196. 86. 80. 76. 80.  
 TOTAL BIOMASS (G/M3) 1.325 .013 .005 .005 .006 .004 .008 .022 .049 15.866  
 EUPHAUSIACEA BIOMASS (G/M3) .012 .000 .000 .001 .000 .000 .002 .000 .000

SPECIES											#/M2
LIMACINA BULIMOIDES	.00	.08	.05	.03	.00	.00	.00	.00	.00	.00	2.33
LIMACINA HELICOIDES	.00	.08	.05	.00	.00	.00	.42	.00	.25	.00	17.80
LIMACINA LESUEURII	.00	.00	.05	.00	.00	.00	.08	.00	.00	.00	2.99
LIMACINA TROCHIFORMIS	.00	.15	.09	.07	.00	.00	.00	.00	.00	.00	4.65
GYMNOSONATA	.00	.68	.32	.52	.82	1.96	1.66	.75	1.75	214.04	
BIVALVE LARVAE	.00	.08	.00	.00	.00	.10	.08	.01	.00	.00	5.65
CALANUS FINMARCHICUS-TOTAL	1336.89	10.00	3.93	2.00	3.72	1.96	3.99	1.87	4.75	14078.27	
CALANUS FINMARCHICUS (D)	49.78	.15	.09	.00	.05	.00	.00	.04	.00	.00	504.66
CALANUS FINMARCHICUS (G)	49.78	.08	.09	.00	.00	.00	.04	.00	.00	.00	501.40
CALANUS FINMARCHICUS (S)	14.22	.00	.05	.00	.00	.03	.08	.00	.25	.00	151.79
CALANUS FINMARCHICUS VIM	.00	.00	.00	.00	.00	.00	.04	.00	.00	.00	1.04
CALANUS FINMARCHICUS VIF	113.78	.23	.23	.00	.05	.03	.12	.04	.25	.00	1157.85
CALANUS FINMARCHICUS V	1315.56	8.41	3.11	1.48	2.76	.76	2.70	1.58	3.25	13669.81	
CALANUS FINMARCHICUS IV	21.33	1.36	.59	.52	.92	.96	.95	.22	.75	.00	366.06
CALANUS FINMARCHICUS III	.00	.00	.00	.00	.00	.20	.12	.01	.25	.00	14.18
CALANUS FINMARCHICUS II	.00	.00	.00	.00	.00	.00	.04	.01	.25	.00	7.12
CALANUS FINMARCHICUS DAMAGED	7.11	.00	.00	.00	.15	.07	.33	.41	.50	.00	110.42
CALANUS GLACIALIS (D)	14.22	.00	.00	.00	.00	.00	.00	.00	.00	.00	142.22
CALANUS GLACIALIS VIF	14.22	.00	.00	.00	.00	.00	.00	.00	.00	.00	142.22
CALANUS GLACIALIS V	92.44	.23	.18	.16	.05	.03	.17	.16	.00	.00	945.13
CALANUS GLACIALIS IV	7.11	1.21	.27	.10	.05	.00	.21	.03	.50	.00	110.58
CALANUS HYPERBOREUS-TOTAL	49.78	.38	.05	.07	.31	.00	.17	.08	.50	.00	536.72
CALANUS HYPERBOREUS V	14.22	.08	.05	.03	.05	.00	.00	.00	.25	.00	152.85
CALANUS HYPERBOREUS IV	35.56	.30	.00	.03	.26	.00	.17	.08	.25	.00	383.87
CALANUS SP.	7.11	1.21	.46	.36	.15	.07	.00	.41	.00	.00	119.09
CENTROPAGES BRADYI	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.33
CENTROPAGES TYPICUS	.00	.30	.23	.16	.15	.10	.08	.16	17.25	.00	423.80
CLAUSOCALANUS FURCATUS	28.44	2.20	3.88	2.92	.97	.23	.12	.07	3.50	.00	581.98
CLYTEMNESTRA SCUTELLATA	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.33
EUCHEATA NORVEGICA	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	2.55
EUCHEATA SP.	.00	.08	.00	.00	.05	.00	.00	.00	.00	.00	3.31
EURYTEMORA HERDMANI	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00	.83
MECYNOCERA CLAUSI	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.33
METRIDIA LUCENS	.00	.45	.50	1.28	2.81	.07	.00	.07	.50	.00	195.29
MICROCALANUS PYGMAEUS	.00	.15	.59	.07	.10	.00	.00	.00	.00	.00	19.80
OITHONA ATLANTICA	.00	.15	.37	.85	5.20	1.63	.58	.07	.00	.00	342.96
OITHONA SIMILIS	.00	.00	.37	.16	.20	.33	.25	1.58	1.00	.00	97.80
PARACALANUS PARVUS	21.33	.68	.18	.26	.20	.23	.29	.30	45.25	.00	1300.65
PARACALANUS/CLAUSOCALANUS	.00	.00	.00	.00	.00	.00	.00	.00	1.25	.00	28.75
PSEUDOCALANUS MINUTUS	.00	.30	.05	.07	.31	.10	.17	.12	9.25	.00	242.92
TEMORA LONGICORNIS	.00	.08	.18	.00	.20	.07	.00	.04	.00	.00	17.26
UNID/DAM/EXO COPEPOD	56.89	3.79	5.53	2.20	2.50	1.13	.71	.96	7.25	.00	1122.88
UNIDENTIFIED HARPACTICOID	.00	.08	.14	.00	.00	.03	.00	.01	.00	.00	4.66
PARATHEMISTO ABYSSORUM	.00	.00	.00	.00	.05	.00	.00	.01	.00	.00	2.88
PARATHEMISTO SP.	.00	.08	.00	.00	.41	.00	.04	.09	.25	.00	30.26
THYSANOESSA INERMIS FURCILIAE	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	2.55
UNIDENTIFIED CALYPTOSIS	.00	.00	.00	.00	.00	.03	.04	.03	.00	.00	2.53
T. LONGICAUDATA FURCILIAE	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.33
EUPHAUSIID NAUPLII	.00	.08	.00	.00	.10	.20	.08	.01	.25	.00	19.00
DAMAGED EUPHAUSID	.00	.00	.00	.03	.00	.00	.00	.00	.00	.00	.66

## L A R G E M E S O Z O O P L A N K T O N &amp; I C H T H Y O P L A N K T O N

UNIDENTIFIED MEDUSA	.000	.000	.000	.000	.000	.000	.000	.000	.188	4.313
CTENOPHORA	.000	.000	.000	.000	.000	.000	.000	.118	.000	2.961
TOMOPTERIS SP.	.000	.000	.014	.000	.000	.000	.000	.000	.000	.274
AMPHIPODA	.000	.000	.000	.000	.005	.000	.000	.013	.000	.584
PARATHEMISTO GAUDICHAUDII	.000	.000	.000	.000	.005	.000	.000	.013	.000	.584

TOW 5 18/09/85 1330H  
SAMPLE

## (CONTINUED)

2 3 4 5 6 7 8 9 10

SPECIES		NUMBER	PER	CUBIC	METER				#/M2
EUPHAUSIACEA	.133	.000	.000	.052	.005	.000	.262	.026	.000 9.834
MEGANCTIPHANES NORVEGICA	.117	.000	.000	.000	.000	.000	.000	.000	.000 1.167
THYSANOESSA INERMIS	.000	.000	.000	.052	.005	.000	.112	.026	.000 4.765
THYSANOESSA LONGICAUDATA	.000	.000	.000	.000	.000	.000	.149	.000	.000 3.736
DAMAGED/UNIDENTIFIED EUPHAUS	.017	.000	.000	.000	.000	.000	.000	.000	.000 .167
CHAETOGNATHA	.033	.000	.000	.000	.000	.000	.000	.000	.013 .621
SAGITTA ELEGANS	.033	.000	.000	.000	.000	.000	.000	.000	.013 .621
PICES	.000	.000	.000	.000	.010	.000	.000	.039	.000 1.497
MERLUCCIUS BILINEARIS	.000	.000	.000	.000	.010	.000	.000	.039	.000 1.497

TOW 6 18/09/85 1530H 43 33.95 N 62 38.08  
 SAMPLE 1 2 3 4 5 6 7 8 9 10  
 DEPTH1 (M) .0 7.0 14.0 21.0 28.0 35.0 40.0 45.0 50.0 60.0  
 DEPTH2 (M) 7.0 14.0 21.0 28.0 35.0 40.0 45.0 50.0 60.0 75.0  
 VOLUME OF WATER SAMPLED (M3) 63. 28. 30. 32. 28. 23. 29. 32. 41. 78.  
 TOTAL BIOMASS (G/M3) .037 .121 .050 .009 .015 .011 .009 .036 .026 .169 4.693  
 EUPHAUSIACEA BIOMASS (G/M3) .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

SPECIES	NUMBER PER CUBIC METER									#/M2
MEDUSA	.00	.00	.00	.00	.00	.00	.00	.00	.00	.69 10.38
GYMNOSOMATA	.00	1.93	.67	.25	.71	.13	.45	.38	.67	3.43 87.96
ACARTIA LONGIREMIS	.00	.00	.00	.13	.00	.00	.00	.00	.00	.89
CALANUS FINMARCHICUS-TOTAL	3.41	28.99	25.33	3.94	10.57	4.96	3.24	9.25	7.14	142.77 2805.88
CALANUS FINMARCHICUS (D)	.00	.00	.22	.00	.71	.22	.10	1.25	.36	5.49 100.42
CALANUS FINMARCHICUS (G)	.00	.00	.22	.51	.57	.91	.10	1.50	.73	17.85 296.66
CALANUS FINMARCHICUS (S)	.00	.00	.00	.25	1.14	.26	.14	.00	.30	1.37 35.40
CALANUS FINMARCHICUS VIM	.00	.00	.00	.00	.00	.22	.03	.00	.06	7.55 115.12
CALANUS FINMARCHICUS VIF	.00	.00	.44	.00	2.43	1.39	.35	2.75	1.39	24.71 427.11
CALANUS FINMARCHICUS V	1.70	9.66	1.33	1.90	6.29	3.13	2.20	5.88	5.27	108.45 1881.66
CALANUS FINMARCHICUS IV	.00	.00	2.44	.63	.57	.04	.24	.00	.36	2.06 61.51
CALANUS FINMARCHICUS III	.00	11.59	12.00	1.14	1.29	.13	.28	.38	.00	.00 186.00
CALANUS FINMARCHICUS II	.00	7.73	9.11	.25	.00	.04	.14	.00	.00	.00 120.58
CALANUS FINMARCHICUS I	1.70	.00	.00	.00	.00	.00	.00	.25	.06	.00 13.78
CALANUS FINMARCHICUS DAMAGED	.00	5.80	.00	.00	.00	.00	.00	.00	.00	.00 40.58
CALANUS GLACIALIS V	.00	.00	.00	.13	.14	.09	.07	.25	.38	2.06 37.84
CALANUS GLACIALIS IV	.00	.00	.00	.00	.14	.04	.07	.00	.12	1.37 23.31
CALANUS HYPERBOREUS-TOTAL	.00	.00	.00	.00	.00	.04	.00	.13	.06	.00 1.44
CALANUS HYPERBOREUS IV	.00	.00	.00	.00	.00	.04	.00	.13	.06	.00 1.45
CALANUS SP.	.00	5.80	3.78	.51	.57	1.00	.70	.38	.67	2.75 132.78
CALOCALANUS PAVO	.00	.00	.00	.13	.00	.00	.00	.00	.00	.00 .89
CANDACIA ARMATA	.00	.00	.00	.00	.14	.04	.00	.00	.00	.00 1.21
CENTROPAGES TYPICUS	35.78	199.03	12.22	1.02	3.43	1.35	.98	.75	.12	.69 1787.26
CLAUSOCALANUS FURCATUS	.00	5.80	.44	.51	.57	.04	.31	.13	.18	.00 55.47
EUCHEATA SP.	.00	.00	.00	.13	.00	.00	.00	.00	.00	.00 .89
METRIDIA LONGA	.00	.00	.00	.00	.14	.00	.00	.00	.00	.00 11.38
METRIDIA LUCENS	.00	.00	.00	.76	.29	.43	.00	.00	.00	.00 9.51
MICROCALANUS PYGMAEUS	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00 .17
OITHONA ATLANTICA	.00	.00	.00	.00	.29	.43	.56	.25	1.88	14.41 243.19
OITHONA SIMILIS	.00	1.93	.22	.63	.14	.26	.24	.25	.18	.00 26.12
PARACALANUS PARVUS	345.90	212.56	8.22	7.37	7.86	4.43	3.14	4.88	.73	1.37 4163.42
PARACALANUS/CLAUSOCALANUS	6.82	17.39	.67	.00	.14	.00	.00	.00	.00	.00 175.12
PSEUDOCALANUS MINUTUS	5.11	11.59	.89	1.02	.43	.09	.14	.13	.00	.00 135.03
TEMORA LONGICORNIS	.00	1.93	.00	.00	.00	.00	.00	.00	.00	.00 13.53
UNID/DAM/EXO COPEPOD	44.30	65.70	9.56	10.41	4.57	6.39	3.94	3.00	2.42	3.43 1084.10
UNIDENTIFIED HARPACTICOID	.00	.00	.00	.13	.00	.00	.10	.00	.00	.00 1.41
PARATHEMISTO ABYSSORUM	.00	.00	.22	.08	.08	.09	.14	1.50	.91	.00 19.27
PARATHEMISTO GAUDICHAUDI	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00 .17
PARATHEMISTO LIBELLULA	.00	.00	.00	.00	.00	.00	.00	.00	.12	.00 1.21
PARATHEMISTO SP.	.00	.00	1.11	.38	.00	.74	.42	8.25	1.69	1.37 95.02
M. NORVEGICA FURCILIA	.00	.00	.00	.13	.00	.00	.00	.00	.00	.00 .89
UNIDENTIFIED CALYPTOSIS	.00	1.93	.00	.00	.00	.00	.00	.00	.00	.00 13.53
THYSANOESSA SP. FURCILIAE	.00	.00	.00	.00	.00	.00	.00	.00	.06	.00 .61
EUPHAUSIID EGGS	3.41	.00	2.00	13.33	7.71	.52	3.10	1.00	.12	.69 219.81
EUPHAUSIID NAUPLII	1.70	32.85	.00	.00	.00	.00	.03	.00	.00	.00 242.05
SAGITTA SETOSA	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00 .17
FRITILLARIA BOREALIS	.00	.00	.00	.00	.00	.04	.00	.00	.00	.00 .22
FISH EGGS	.00	.00	.00	.00	.00	.00	.00	.00	.06	.00 .61

## L A R G E M E S O Z O O P L A N K T O N &amp; I C H T H Y O P L A N K T O N

UNIDENTIFIED MEDUSA	.000	.072	.033	.000	.000	.000	.000	.000	.000	.000	.741
TOMOPTERIS SP.	.000	.000	.000	.032	.000	.000	.000	.000	.000	.013	.415
AMPHIPODA	.016	.000	.000	.000	.000	.000	.035	.281	.169	.026	3.773
PARATHEMISTO GAUDICHAUDI	.016	.000	.000	.000	.000	.000	.035	.281	.169	.026	3.773
EUPHAUSIACEA	.016	.000	.000	.000	.000	.000	.000	.000	.048	.013	.789
THYSANOESSA INERMIS	.016	.000	.000	.000	.000	.000	.000	.000	.024	.013	.547
THYSANOESSA LONGICAUDATA	.000	.000	.000	.000	.000	.000	.000	.000	.024	.000	.242
DECAPODA	.000	.000	.000	.000	.000	.000	.000	.000	.031	.000	.039
IMMATURE DECAPOD	.000	.000	.000	.000	.000	.000	.000	.000	.000	.039	.579
UNIDENTIFIED DECAPOD	.000	.000	.000	.000	.000	.000	.000	.031	.000	.000	.156
CHAETOGNATHA	.000	.000	.033	.000	.000	.000	.000	.000	.024	.026	.862
SAGITTA ELEGANS	.000	.000	.033	.000	.000	.000	.000	.000	.024	.026	.862

TOW 7 18/09/85 2015H 43 09.43 N 62 17.98

SAMPLE	1	2	3	4	5	6	7	8	9	10
DEPTH1 (M)	.0	7.0	14.0	22.0	29.0	36.0	41.0	49.0	54.0	63.0
DEPTH2 (M)	7.0	14.0	22.0	29.0	36.0	41.0	49.0	54.0	63.0	80.0
VOLUME OF WATER SAMPLED (M3)	65.	48.	51.	40.	43.	24.	34.	22.	38.	84.
TOTAL BIOMASS (G/M3)	.029	.047	.059	.075	.067	.005	.122	.119	.094	.168
EUPHAUSIACEA BIOMASS (G/M3)	.008	.027	.039	.048	.032	.055	.026	.066	.037	.022

SPECIES	NUMBER PER CUBIC METER								#/M2
UNIDENTIFIED/DAMAGED MEDUSA	.00	.00	.00	.00	.00	.14	.00	.00	.00
SIPHONOPHORA	.00	.00	.00	.00	.00	.00	.00	.26	5.70
LIMACINA BULIMOIDES	.15	.42	.00	.00	.62	.00	.00	.00	.00
LIMACINA HELICOIDES	.31	.84	.20	.33	.00	.00	.00	.00	.00
LIMACINA INFILATA	.46	.52	.65	2.66	.00	.27	.00	.00	.00
LIMACINA LESUEURII	.15	.00	.00	.00	.00	.00	.00	.00	.00
LIMACINA RETROVERSA	.00	.00	.00	.00	.31	.00	.00	.00	.00
GYMNOSOMATA	.31	.31	.20	.00	.00	.27	.00	.00	3.48
BIVALVE LARVAE	.15	.21	.00	.00	.00	.00	.00	.30	.00
ACARTIA CLAUSI	4.45	1.88	.13	1.00	.00	.14	.00	.00	.00
ACARTIA LONGIREMIS	7.99	1.67	.59	.67	.31	.27	.00	.30	.00
ACARTIA SP.	.15	.00	.00	.33	.31	.00	.00	.00	.00
CALANUS FINMARCHICUS-TOTAL	3.99	1.77	.92	1.00	11.42	10.56	31.04	36.80	46.86
CALANUS FINMARCHICUS (D)	.00	.00	.00	.00	.00	.00	.48	.30	.00
CALANUS FINMARCHICUS (G)	.00	.00	.07	.00	1.23	.69	.24	.60	.00
CALANUS FINMARCHICUS (S)	.00	.00	.07	.00	.00	.00	.72	.30	.00
CALANUS FINMARCHICUS VIF	.00	.00	.13	.00	1.23	.69	1.43	1.21	.00
CALANUS FINMARCHICUS V	.31	.21	.46	.33	2.78	1.10	2.39	5.73	3.93
CALANUS FINMARCHICUS IV	.15	.00	.00	.00	1.85	1.23	2.39	2.11	.79
CALANUS FINMARCHICUS III	.46	.31	.13	.33	4.01	5.21	13.13	7.84	4.19
CALANUS FINMARCHICUS II	2.30	1.15	.13	.33	1.54	2.33	11.70	19.31	15.45
CALANUS FINMARCHICUS I	.77	.10	.07	.00	.00	.00	.00	.60	22.51
CALANUS GLACIALIS V	.00	.00	.07	.00	.00	.14	.00	.00	.63
CALANUS GLACIALIS IV	.00	.00	.00	.00	.00	.00	.00	.00	.52
CALANUS HYPERBOREUS-TOTAL	.00	.00	.00	.00	.00	.00	.00	.30	.32
CALANUS HYPERBOREUS IV	.00	.00	.00	.00	.00	.00	.00	.00	.32
CALANUS SP.	.00	1.36	1.31	.67	2.78	9.60	7.40	15.69	4.45
CALANUS MINOR	1.38	1.36	.79	.33	.62	.00	.00	.00	.00
CALOCALANUS PAVO	.15	.10	.26	.00	.00	.00	.00	.00	.00
CENTROPAGES BRADYI	.46	.63	.59	1.00	1.54	.82	.24	.00	.00
CENTROPAGES TYPICUS	.15	1.36	.07	.00	.93	.00	.00	.90	.26
CLAUSOCALANUS ARCUICORNIS	.61	.84	.00	.00	.00	.00	.00	.00	.00
CLAUSOCALANUS FURCATUS	.15	4.80	6.55	58.52	54.01	9.74	11.46	17.80	14.92
CLYTEMNESTRA SCUTELLATA	.00	.10	.13	.00	.00	.00	.00	.00	.00
CONAEA RAPAX	.00	.00	.00	.00	.00	.00	.00	.00	.52
EURYTEMORA HERDMANI	.00	.00	.00	.00	.00	.14	.00	.00	.00
MACROSTELLA GRACILIS	.31	.42	.39	1.66	.00	.14	.24	.00	.00
MECYNOCERA CLAUSI	.31	.42	.20	2.33	.31	.14	.00	.30	.00
METRIDIA LONGA	.00	.00	.00	.00	.00	.00	.00	.00	.63
METRIDIA LUCENS	15.67	6.68	6.68	3.99	8.02	7.96	10.51	12.37	15.45
OITHONA ATLANTICA	.00	.10	.07	.00	.00	.55	.48	.30	2.88
OITHONA SIMILIS	.15	.00	.00	.33	.00	.00	.00	14.66	.32
PARACALANUS PARVUS	3.38	1.77	.13	.00	.00	.00	.00	.00	.00
PSEUDOCALANUS MINUTUS	.00	.00	.00	.00	.62	.27	1.67	1.21	2.62
SCOЛЕCITHRICELLA MINOR	.00	.00	.00	.00	.00	.24	.00	.00	.00
TEMORA LONGICORNIS	.00	.00	.13	.00	.00	.00	.00	.00	.00
UNID/DAM/EXO COPEPOD	8.14	17.75	8.58	20.62	20.06	11.39	13.37	12.37	20.42
UNIDENTIFIED HARPACTICOID	.00	.10	.00	.00	.00	.00	.00	.00	.00
COPEPOD NAUPLII	.00	.10	.00	.00	.00	.00	.00	3.40	.00
PARATHEMISTO ABYSSORUM	.00	.00	.13	.33	.00	.00	.00	.30	.26
PARATHEMISTO SP.	.15	.21	.33	.00	.00	.00	.24	.00	.95
UNIDENTIFIED AMPHIPOD	.31	.00	.00	.00	.00	.00	.24	.00	.00
M. NORVEGICA FURCILIA	.31	.10	.13	.00	.00	.00	.00	.00	.00
T. LONGICAUDATA FURCILAE	.00	.00	.00	.00	.31	.14	.00	.00	.00
EUPHAUSIID EGGS	.00	.00	.00	.00	.00	.00	.24	.00	.00
EUPHAUSIID NAUPLII	.00	.00	.00	.00	.00	.00	.00	.00	.32
DAMAGED FURCILAE	.00	.21	.13	.33	.00	.14	.00	.00	.00
DECAPOD LARVAE	.00	.00	.00	.33	.62	.00	.00	.00	.00
SAGITTA ELEGANS	.15	.52	.46	.00	.62	.00	.00	.00	.00
SAGITTA SP.	.00	.00	.00	.33	.00	.00	.00	.00	.00
DAMAGED CHAETOGNATH	.00	.31	.07	.33	.00	.00	.00	.00	.00
OIKOPLEURA SP.	.00	.00	.00	.00	.00	.00	.00	.26	.00
FRITILLARIA SP.	.00	.00	.00	.00	.00	.00	.00	.26	.00
FISH EGGS	.15	.42	.20	.33	.00	.00	.00	.30	.00

TOW 7 18/09/85 2015H  
SAMPLE

(CONTINUED)

1            2            3            4            . 5            6            7            8            9            10



TOW 9 19/09/85 1030H  
SAMPLE

(CONTINUED)

SPECIES	NUMBER PER CUBIC METER								#/M2		
TEMORA LONGICORNIS	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	1.69
UNID/DAM/EXO COPEPOD	25.24	3.17	2.96	4.31	3.17	3.23	1.37	.40	1.84	1.71	700.95
PARATHEMISTO SP.	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	1.69
UNIDENTIFIED AMPHIPOD	.36	.00	.00	.00	.14	.06	.00	.00	.00	.35	23.91
UNIDENTIFIED CALYPTOSIS	.00	.00	.46	.00	.00	.00	.00	.00	.00	.00	4.55
THYSANOESSA SP. FURCILIAE	.36	.53	.00	.00	.00	.00	.00	.00	.00	.00	8.85
THYSANOESSA SP. CALYPTOSIS	1.78	1.59	.00	.00	.00	.06	.05	.00	.11	.00	41.90
EUPHAUSIID EGGS	.36	.00	.00	.39	.00	.00	.05	.00	.00	.03	10.32
EUPHAUSIID NAUPLII	.00	.53	.00	.39	.00	.00	.00	.00	.05	.00	11.91
DAMAGED EUPHAUSID	.00	.00	.00	.78	.14	.00	.10	.00	.00	.00	11.75
DAMAGED FURCILIAE	.36	1.06	.23	.00	.00	.00	.00	.00	.00	.06	19.58
DECAPOD LARVAE	.00	.00	.23	.00	.00	.06	.00	.00	.00	.00	3.86
SAGITTA ELEGANS	1.07	.00	.00	.00	.00	.06	.00	.00	.00	.00	12.25
SAGITTA MAXIMA	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	1.69
SAGITTA SP.	.36	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.56
DAMAGED CHAETOGNATH	.71	.00	.00	.00	.14	.00	.05	.00	.00	.03	11.34
OIKOPLEURA SP.	.00	.00	.00	.00	.14	.00	.00	.00	.00	.00	1.38
SALP	42.31	80.95	54.38	122.35	14.07	6.46	.86	.07	.43	.00	3348.71

## LARGE MESOZOOPLANKTON & ICHTHYOPLANKTON

TOW	8	19/09/85	0830H	42	44.89	N	61	15.80						
SAMPLE				9	8		7	6	5	4	3		2	
DEPTH1 (M)				250.0	300.0	350.0	400.0	450.0	500.0	550.0	600.0			
DEPTH2 (M)				300.0	350.0	400.0	450.0	500.0	550.0	600.0	650.0			
VOLUME OF WATER SAMPLED (M3)				252.	201.	199.	187.	154.	175.	285.	391.			
TOTAL BIOMASS (G/M3)				.016	.015	.014	.021	.045	.036	.045	.045		18.551	
EUPHAUSIACEA BIOMASS (G/M3)				.000	.000	.000	.004	.001	.001	.000	.000			

SIPHONOPHORA	.00	.00	.00	.00	.00	.00	.00	.00	.19	.00	.00		18.69
LIMACINA HELICOIDES	.05	.00	.00	.05	.15	.00	.09	.00	.00	.00	.00		22.08
LIMACINA INFILATA	.16	.88	.00	.45	.89	.38	.28	.10	.00	.00	.00		181.47
LIMACINA LESUEURII	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00		2.67
GYMNOSOMATA	.00	.16	.08	.00	.00	.00	.00	.00	.00	.00	.00		11.99
EVADNE SP.	.00	.00	.00	.00	1.04	.00	.00	.00	.00	.00	.00		51.98
DAMAGED CLADOCERA	.00	.00	.00	.00	.15	.00	.00	.00	.00	.03	.00		12.54
CONCHOECIA AMETRA	.00	.00	.00	.00	.00	.00	.00	.00	.00	.07	.00		10.22
CONCHOECIA BOREALIS	.00	.00	.00	.00	.15	.00	.00	.00	.00	.34	.00		58.54
CONCHOECIA CURTA	.53	.96	1.13	.64	.59	.08	.19	.00	.00	.00	.00		214.82
CONCHOECIA DAPHOIDES	.00	.00	.00	.00	.00	.08	.00	.00	.00	.00	.00		3.82
CONCHOECIA INERMIS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00		5.11
CONCHOECIA OBTUSATA	.00	.00	.00	.05	.00	.08	.00	.00	.00	.07	.00		16.71
CONCHOECIA SPINIFERA	.05	.00	.00	.00	.15	.00	.00	.00	.00	.00	.00		10.07
CONCHOECIA ATLANTICA	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00		5.11
CONCHOECIA SPINIROSTRIS	.00	.00	.08	.00	.30	.00	.00	.00	.00	.07	.00		29.10
CONCHOECIA SP.	.48	.00	.48	.08	.30	.00	.19	.00	.17	.00	.00		111.02
CONCHOECIA IMBRICATA	.00	.00	.08	.00	.00	.00	.00	.00	.00	.00	.00		4.02
ACARTIA LONGIREMIS	.00	.24	.08	.03	.00	.15	.00	.00	.00	.00	.00		24.95
AETIDEUS ARMATUS	.00	.08	.08	.00	.00	.00	.00	.00	.00	.00	.00		8.01
AMALLOTHRIX SP.	.00	.00	.00	.00	.00	.00	.09	.00	.00	.00	.00		9.34
ARIETELLUS SP.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00		5.11
CALANUS FINMARCHICUS-TOTAL	.16	.24	.97	.80	23.32	17.10	14.95	.2.93				4063.41	
CALANUS FINMARCHICUS (D)	.00	.00	.00	.00	.00	.08	.00	.00	.10	.00	.00		19.15
CALANUS FINMARCHICUS (S)	.00	.00	.00	.03	.15	.31	.28	.24	.00	.00	.00		87.83
CALANUS FINMARCHICUS VIF	.00	.00	.00	.03	.15	.38	.00	.00	.34	.00	.00		78.95
CALANUS FINMARCHICUS V	.16	.16	.64	.45	21.68	16.33	14.39	.2.42				3773.41	
CALANUS FINMARCHICUS IV	.00	.08	.32	.32	1.49	.38	.56	.17	.00	.00	.00		211.05
CALANUS GLACIALIS V	.11	.08	.08	.05	1.04	.84	3.64	.44	.00	.00	.00		540.77
CALANUS GLACIALIS IV	.00	.08	.00	.03	.00	.00	.00	.00	.00	.00	.00		5.32
CALANUS HYPERBOREUS-TOTAL	.00	.00	.08	.05	.00	.15	.65	.41	.00	.00	.00		141.06
CALANUS HYPERBOREUS V	.00	.00	.08	.00	.00	.08	.28	.24	.00	.00	.00		71.65
CALANUS HYPERBOREUS IV	.00	.00	.00	.05	.00	.08	.28	.17	.00	.00	.00		60.07
CALANUS SP.	.00	.08	.00	.85	1.04	2.21	.37	.17	.00	.00	.00		272.28
CALOCALANUS PAVO	.00	.00	.00	.00	.00	.08	.00	.00	.00	.00	.00		3.82
CALOCALANUS PLUMULOSUS	.00	.00	.00	.08	.15	.08	.00	.00	.00	.00	.00		15.25
CENTROPAGES BRADYI	.00	.00	.00	.16	.15	.15	.09	.00	.00	.00	.00		32.41
CHIRIDIUS GRACILIS	.11	.00	.16	.00	.00	.00	.00	.00	.00	.00	.00		13.33
CLAUSOCALANUS ARCUICORNIS	.00	.08	.24	.24	.00	.00	.00	.00	.00	.00	.00		28.07
CLAUSOCALANUS FURCATUS	.58	.32	.16	.16	.00	.15	.00	.00	.00	.00	.00		68.71
CORYCAEUS GIESBRECHTI	.00	.00	.00	.03	.00	.00	.00	.00	.00	.00	.00		1.33
CORYCAEUS SP.	.00	.08	.00	.00	.00	.00	.00	.00	.00	.00	.00		3.99
EUAUGAPTILUS SP.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00		5.11
EUCHAETA ACUTA	.00	.08	.00	.00	.00	.00	.00	.00	.00	.00	.00		3.99
EUCHEATA NORVEGICA	.00	.00	.08	.27	.00	.00	.47	.75	.00	.00	.00		176.53
EUCHEATA SP.	.21	.24	.80	.00	.74	.23	.00	.00	.00	.00	.00		111.33
GAETANUS MINOR	.00	.08	.08	.00	.00	.00	.00	.00	.00	.00	.00		8.01
GAETANUS SP. IMMATURE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.10	.00		15.33
GAIIDIUS TENUISPINUS	.05	.08	.72	.05	.45	.23	.93	.31	.00	.00	.00		218.66
GAIIDIUS BREVISPINUS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00		5.11
HALOPTILUS LONGICORNIS	.05	.08	.00	.00	.00	.00	.00	.00	.00	.00	.00		6.63
MACROSTELLA GRACILIS	.00	.00	.00	.05	.00	.00	.09	.00	.00	.00	.00		12.01
MECYNOCERA CLAUSI	.00	.08	.00	.11	.15	.38	.00	.00	.00	.00	.00		35.83
METRIDIA LONGA	.00	.00	.00	.00	.30	.15	.56	.07	.00	.00	.00		88.77
METRIDIA LUCENS	.32	.56	.64	.32	.74	.31	1.21	.72	.00	.00	.00		373.15
OITHONA ATLANTICA	.16	.32	.08	.21	.00	.15	.37	.00	.00	.00	.00		83.58
OITHONA SIMILIS	.05	.00	.00	.00	.30	.15	.00	.03	.00	.00	.00		30.24
ONCAEA CONIFERA	.05	.00	.00	.00	.15	.00	.00	.03	.00	.00	.00		15.18
ONCAEA SP.	.16	.00	.00	.13	.30	.15	.37	.24	.00	.00	.00		110.24
PARACALANUS PARVUS	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00		2.67
PLEUROMAMMA BOREALIS	8.46	10.84	7.80	.67	.74	.15	.19	.07	.00	.00	.00		1462.23
PLEUROMAMMA GRACILIS	.05	.08	.00	.00	.00	.00	.00	.00	.00	.00	.00		6.63
PLEUROMAMMA ROBUSTA	.00	.48	.48	.99	2.08	.31	.00	.00	.00	.00	.00		216.66
PLEUROMAMMA SP.	4.07	.48	.08	.00	.30	.00	.09	.03	.00	.00	.00		260.79
PLEUROMAMMA XIPHIAS	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00		2.67
PSEUDOCALANUS MINUTUS	.11	.40	.48	.08	.00	.31	.28	.00	.00	.00	.00		96.65
RHINCALANUS CORNUTUS	.00	.32	.24	.19	.15	.00	.00	.07	.00	.00	.00		55.00

TOW 8 19/09/85 0830H  
SAMPLE

## (CONTINUED)

9 8 7 6 5 4 3 2

RHINCALANUS NASUTUS	.05	.00	.00	.03	.00	.00	.00	.03	9.09
SCAPHOCALANUS BREVICORNIS	.00	.00	.00	.00	.15	.00	.00	.03	12.54
SCAPHOCALANUS MAGNUS	.00	.00	.00	.13	.30	.00	.00	.00	21.53
SCAPHOCALANUS MEDIUS	.00	.00	.00	.00	.00	.00	.09	.00	9.34
SCAPHOCALANUS SP.	.00	.00	.08	.00	.00	.00	.00	.00	4.02
SCOLECTHRICELLA MINOR	.21	.08	.40	.11	.00	.08	.00	.03	48.94
SCOTTICALANUS SECURIFRONS	.00	.00	.00	.00	.00	.15	.00	.00	7.63
SPINOCALANUS ABYSALLIS	.05	.16	.64	.16	1.34	.00	.19	.00	136.32
SPINOCALANUS SP.	.00	.00	.00	.00	.15	.08	.09	.44	87.03
TEMORA LONGICORNIS	.00	.00	.08	.00	.00	.00	.00	.00	4.02
XANTHOCALANUS BOREALIS	.00	.00	.08	.00	.00	.00	.09	.10	28.70
UNID/DAM/EXO COPEPOD	5.60	3.03	3.46	2.86	2.82	4.05	1.59	2.32	1597.19
AMPHIPOD-DAMAGED	.00	.00	.00	.00	.00	.00	.00	.03	5.11
PARATHEMISTO SP.	.00	.00	.00	.00	.00	.00	.09	.10	24.68
UNIDENTIFIED AMPHIPOD	.05	.00	.00	.00	.00	.00	.00	.03	7.75
UNIDENTIFIED CALYPTOSIS	.00	.00	.00	.00	.00	.00	.09	.00	9.34
T. LONGICAUDATA FURCILIAE	.05	.00	.00	.00	.00	.00	.00	.00	2.64
THYSANOESSA SP. CALYPTOSIS	.00	.08	.00	.03	.00	.00	.00	.00	5.32
DAMAGED FURCILIAE	.00	.00	.08	.03	.00	.00	.00	.00	5.36
ECHINODERMATA-LARVAE	.00	.00	.00	.00	.15	.00	.00	.00	7.43
SAGITTA ELEGANS	.00	.00	.00	.00	.00	.08	.00	.00	3.82
SAGITTA MAXIMA	.00	.00	.00	.00	.00	.00	.00	.03	5.11
DAMAGED CHAETOGNATH	.00	.00	.00	.00	.00	.00	.00	.03	5.11
OIKOPLEURA SP.	.00	.00	.08	.00	.00	.00	.00	.00	4.02
AMMODYTES SP.	.00	.00	.00	.03	.00	.00	.00	.00	1.33

## L A R G E M E S O Z O O P L A N K T O N &amp; I C H T H Y O P L A N K T O N

UNIDENTIFIED SIPHONOPHORE	.000	.000	.000	.000	.000	.000	.000	.003	.383
PERIPHYLLA	.000	.000	.000	.000	.000	.000	.004	.005	1.117
UNIDENTIFIED MEDUSA	.000	.000	.000	.000	.000	.000	.014	.000	1.402
CTENOPHORA	.000	.000	.000	.000	.000	.000	.000	.003	.383
LIMACINA SP.	.000	.000	.000	.000	.000	.000	.000	.003	.383
THECOSOMATA	.000	.005	.000	.000	.000	.000	.000	.000	.249
UNIDENTIFIED POLYCHAET	.000	.000	.000	.000	.000	.000	.000	.003	.383
AMPHIPODA	.000	.000	.005	.000	.000	.000	.004	.003	.985
UNIDENTIFIED GAMMARID	.000	.000	.005	.000	.000	.000	.004	.000	.602
UNIDENTIFIED AMPHIPOD	.000	.000	.000	.000	.000	.000	.000	.003	.383
MYSIDACEA	.000	.000	.000	.000	.000	.000	.011	.023	4.581
BOREOMYSIS SP.	.000	.000	.000	.000	.000	.000	.011	.015	3.351
EUCOPIA SP.	.000	.000	.000	.000	.000	.000	.000	.008	1.150
EUPHAUSIACEA	.032	.025	.010	.037	.039	.029	.000	.000	8.583
MEGANYCTIPHANES NORVEGICA	.000	.000	.000	.027	.000	.000	.000	.000	1.335
NEMATOSCELIS MEGALOPS	.008	.000	.000	.000	.019	.011	.000	.000	1.944
THYSANOESSA LONGICAUDATA	.000	.010	.005	.005	.019	.011	.000	.000	2.564
THYSANOPODA SP.	.024	.010	.005	.005	.000	.006	.000	.000	2.492
DAMAGED/UNIDENTIFIED EUPHAUS	.000	.005	.000	.000	.000	.000	.000	.000	.249
DECAPODA	.000	.000	.010	.011	.052	.029	.018	.010	8.352
CARIDEA	.000	.000	.000	.005	.006	.000	.000	.000	.592
GENNADAS SP.	.000	.000	.000	.000	.000	.000	.004	.003	.734
SERGESTES SP.	.000	.000	.005	.005	.045	.017	.011	.003	5.086

TOW 8 19/09/85 0830H  
SAMPLE

## (CONTINUED)

	9	8	7	6	5	4	3	2
UNIDENTIFIED DECAPOD	.000	.000	.005	.000	.000	.011	.004	.003 1.558
CHAETOGNATHA	.024	.060	.025	.005	.019	.034	.074	.074 26.870
EUKHRONIA FOWLERI	.000	.000	.000	.000	.000	.000	.000	.015 2.300
EUKHRONIA HAMATA	.000	.005	.025	.005	.019	.017	.053	.036 14.229
SAGITTA ELEGANS	.004	.000	.000	.000	.000	.000	.004	.000 .549
SAGITTA MAXIMA	.000	.000	.000	.000	.000	.000	.000	.008 1.150
UNIDENTIFIED CHAETOGNATH	.000	.025	.000	.000	.000	.017	.018	.015 6.156
SAGITTA SP.	.020	.030	.000	.000	.000	.000	.000	.000 2.486
PICES	.004	.005	.010	.000	.006	.006	.077	.028 13.486
ANGUILLA ROSTRATA	.000	.000	.000	.000	.000	.000	.000	.003 .383
BENTHOSEMA GLACIALE	.004	.000	.000	.000	.000	.000	.000	.003 .582
CERATOSCOPELUS SP.	.000	.000	.000	.000	.000	.000	.004	.000 .350
CHAULIODIUS SP.	.000	.000	.000	.000	.006	.000	.000	.000 .325
CYCLOTHONE SP.	.000	.000	.000	.000	.000	.000	.063	.023 9.757
DIAPHUS SP.	.000	.005	.010	.000	.000	.000	.000	.000 .752
IMMATURE GONOSTOMATIDAE	.000	.000	.000	.000	.000	.000	.004	.000 .350
IMMATURE MYCTOPHID	.000	.000	.000	.000	.000	.006	.007	.000 .987

TOW 12	21/09/85	1330H	45	45.21	N	59	50.68							
SAMPLE			1	2	3	4	5	6	7	8	9	10		
DEPTH1 (M)	.0	10.0	20.0	30.0	35.0	40.0	45.0	50.0	55.0	65.0				
DEPTH2 (M)	10.0	20.0	30.0	35.0	40.0	45.0	50.0	55.0	65.0	90.0				
VOLUME OF WATER SAMPLED (M3)	37.	28.	28.	16.	15.	14.	14.	24.	32.	105.				
TOTAL BIOMASS (G/M3)	.040	.166	.154	.068	.085	.041	.059	.010	.030	.076	7.114			
EUPHAUSIACEA BIOMASS (G/M3)	.006	.014	.003	.001	.036	.000	.000	.000	.000	.018				

SPECIES														#/M2
FORAMINIFERA	.00	.00	.00	.00	.00	.00	.35	.00	.00	.00	.00	.00	.00	1.76
LIMACINA HELICOIDES	.00	.00	.00	1.23	3.90	1.84	2.11	.28	.42	.61	.61	.61	.61	66.16
LIMACINA LESUEURII	.00	.00	.00	14.72	1.30	.00	1.06	.42	.10	.00	.00	.00	.00	88.52
LIMACINA TROCHIFORMIS	.00	.00	.00	1.23	.65	.00	.00	.00	.00	.00	.00	.00	.00	9.38
LIMACINA SP.	15.05	57.14	45.71	.00	.00	.00	.00	.00	.00	.30	.30	.30	.30	1186.73
GYMNOSONATA	.00	.00	.00	2.45	.00	.00	.00	.00	.00	.00	.00	.00	.00	12.27
BIVALVE LARVAE	2.15	3.81	.00	1.84	.65	.00	.00	.00	.14	.00	.00	.00	.00	72.74
POLYCHAETA LARVAE	.00	.00	2.86	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	28.57
EVADNE SP.	.00	.00	.00	.00	.00	.37	.00	.00	.00	.00	.00	.00	.00	1.84
EVADNE NORDMANNI	10.22	72.38	2.86	.00	1.30	.00	2.11	.14	.10	.00	.00	.00	.00	873.32
EVADNE SPINIFERA	.00	.00	.00	.00	.00	.74	.00	.00	.00	.00	.00	.00	.00	3.68
PODON SP.	.00	.00	.00	.00	.00	.00	.00	.00	.21	.00	.00	.00	.00	2.08
PODON LEUCKARTI	66.13	121.90	20.00	.00	1.30	.37	1.76	.56	.00	.00	.00	.00	.00	2100.25
DAMAGED CLADOCERA	2.69	.00	.00	.00	.00	.00	.00	.00	.00	.30	.30	.30	.30	34.50
ACARTIA LONGIREMIS	.00	.00	.00	.00	.00	.00	.00	.00	.10	.00	.00	.00	.00	1.04
CALANUS FINMARCHICUS-TOTAL	74.19	514.29	571.43	90.18	37.66	31.25	33.45	7.08	18.65	56.38	56.38	56.38	56.38	14193.21
CALANUS FINMARCHICUS (D)	.00	.00	.00	1.23	.00	.00	.70	.00	.00	.00	.00	.00	.00	9.66
CALANUS FINMARCHICUS (G)	.54	.00	11.43	3.07	1.30	.37	1.41	.21	.52	.30	.30	.30	.30	164.24
CALANUS FINMARCHICUS (S)	.54	.00	.00	1.23	.00	.00	.00	.00	.63	.30	.30	.30	.30	25.38
CALANUS FINMARCHICUS VIM	.00	.00	.00	.00	.00	.00	.00	.07	.31	.00	.00	.00	.00	3.47
CALANUS FINMARCHICUS VIF	1.08	.00	11.43	5.52	1.30	.37	.00	.21	1.15	.61	.61	.61	.61	188.72
CALANUS FINMARCHICUS V	1.61	26.67	40.00	14.72	12.99	9.56	13.38	2.71	12.40	53.94	53.94	53.94	53.94	2422.12
CALANUS FINMARCHICUS IV	1.61	156.19	105.71	42.94	16.23	8.46	7.04	1.25	2.50	.91	.91	.91	.91	3062.67
CALANUS FINMARCHICUS III	10.22	133.33	137.14	8.59	5.19	2.94	4.58	1.18	.94	.30	.30	.30	.30	2936.32
CALANUS FINMARCHICUS II	25.81	182.86	262.86	4.29	1.95	6.99	5.28	1.11	.94	.30	.30	.30	.30	4830.30
CALANUS FINMARCHICUS I	33.87	15.24	14.29	14.11	.00	2.94	3.17	.56	.42	.30	.30	.30	.30	749.61
CALANUS GLACIALIS V	.00	.00	.00	.00	.65	.00	.00	.07	.31	.274	.274	.274	.274	75.29
CALANUS GLACIALIS IV	.00	.00	.00	.00	.00	.00	.00	.00	.21	.61	.61	.61	.61	17.32
CALANUS GLACIALIS III	.00	.00	.00	.00	.00	.00	.00	.00	.30	.30	.30	.30	.30	7.62
CALANUS HYPERBOREUS-TOTAL	.00	.00	.00	.00	.65	.37	.35	.00	.10	3.35	3.35	3.35	3.35	91.70
CALANUS HYPERBOREUS IV	.00	.00	.00	.00	.65	.37	.35	.00	.10	3.05	3.05	3.05	3.05	84.08
CENTROPAGES BRADYI	.00	3.81	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	38.10
CENTROPAGES TYPICUS	.00	106.67	8.57	.00	3.90	2.57	1.41	.14	.52	.61	.61	.61	.61	1212.91
CENTROPAGES SP.	15.59	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	155.91
CLAUSOCALANUS FURCATUS	.00	7.62	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	76.19
EUCHEATA NORVEGICA	.00	.00	.00	.00	.00	.37	.00	.00	.00	.00	.00	.00	.00	1.84
EUCHEATA TONSA	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30	.30	.30	.30	7.62
EUCHEATA SP.	.00	.00	.00	.00	.00	.00	.00	.00	.42	.30	.30	.30	.30	11.79
METRIDIA LONGA	.00	3.81	.00	.61	.00	.00	.00	.00	.10	.00	.00	.00	.00	42.20
METRIDIA LUCENS	3.23	.00	51.43	63.19	37.01	12.50	11.27	1.04	2.50	1.52	1.52	1.52	1.52	1234.70
MICROSTELLA SP.	.00	.00	.00	.00	.00	.00	.00	.07	.00	.00	.00	.00	.00	.35
OITHONA ATLANTICA	.00	.00	.00	.00	.65	.37	.00	.00	.21	.61	.61	.61	.61	22.41
OITHONA SIMILIS	.00	.00	.00	.00	.00	1.10	.35	.00	.63	7.92	7.92	7.92	7.92	211.62
OITHONA SP.	1.08	.00	.00	.61	.00	.00	1.41	.14	.00	.00	.00	.00	.00	21.56
PARACALANUS PARVUS	.00	.00	2.86	.61	.00	.00	.35	.00	.00	.00	.00	.00	.00	33.40
PLEUROMAMMA BOREALIS	.00	.00	.00	.00	.00	.37	.00	.00	.00	.00	.00	.00	.00	1.84
PLEUROMAMMA SP.	.00	.00	.00	.00	.00	.37	.00	.00	.00	.00	.00	.00	.00	1.84
PSEUDOCALANUS MINUTUS	8.06	102.86	28.57	23.93	11.69	14.34	13.03	.00	.63	.91	.91	.91	.91	1738.94
RHINCALANUS CORNUTUS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	22.86
SCOLECITHRICELLA MINOR	.00	.00	.00	.00	.00	.00	.00	.00	.10	.61	.61	.61	.61	16.28
SPINOCALANUS ABYSALLIS	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.52	38.10	38.10	38.10	
TEMORA LONGICORNIS	6.45	118.10	111.43	46.63	13.64	6.99	5.63	1.46	2.19	.30	.30	.30	.30	2760.95
UNID/DAM/EXO COPEPOD	52.15	76.19	57.14	30.67	63.64	45.59	17.25	4.51	15.31	4.57	4.57	4.57	4.57	2930.58
COPEPOD NAUPLII	.00	.00	.00	.00	.65	.00	.00	.00	.00	.00	.00	.00	.00	3.25
PARATHEMISTO ABYSSORUM	.00	.00	.00	.00	.00	.00	.00	.07	.21	.00	.00	.00	.00	2.43
PARATHEMISTO SP.	.00	.00	.00	.61	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.07
UNIDENTIFIED AMPHIPOD	.00	.00	.00	1.84	1.95	.00	.00	.00	.00	.00	.00	.00	.00	18.94
M. NORVEGICA FURCILIA	.00	.00	.00	.00	.00	.00	.00	.00	.10	.00	.00	.00	.00	1.04
UNIDENTIFIED CALYPTOSIS	.00	3.81	5.71	.00	.65	.00	.35	.00	.00	.00	.00	.00	.00	100.25
EUPHAUSIID NAUPLII	12.90	83.81	8.57	.61	1.30	.74	1.06	.21	.10	.00	.00	.00	.00	1073.44
DAMAGED EUPHAUSID	.00	3.81	.00	.00	.65	.00	.00	.07	.00	.00	.00	.00	.00	41.69
UNIDENTIFIED EUPHAUSID	.00	.00	.00	.00	.00	.00	.35	.00	.00	.00	.00	.00	.00	1.76
DAMAGED FURCILIAE	.00	.00	5.71	7.98	.65	.00	.00	.14	.00	.00	.00	.00	.00	100.96

TOW 12 21/09/85 1330H  
SAMPLE

(CONTINUED)

1 2 3 4 5 6 7 8 9 10

SPECIES	NUMBER PER CUBIC METER										#/M2
ECHINODERMATA-LARVAE	.00	.00	14.29	.00	.65	2.94	3.52	1.39	1.25	.30	205.
OIKOPLEURA SP.	.00	.00	.00	.00	.00	5.88	.00	.00	4.69	.00	76.
UNIDENTIFIED APPENDICULARIA	.00	.00	.00	3.07	7.79	.00	.00	1.94	.00	.00	64.
DAMAGED APPENDICULARIA	.00	.00	.00	.00	.00	.00	.00	.00	4.48	.00	44.
FRITILLARIA SP.	.00	.00	.00	.00	.00	.00	.00	.21	.10	.00	2.
FISH EGGS	.00	.00	.00	.00	.00	.00	.00	.00	.10	.00	1.

## L A R G E M E S O Z O O P L A N K T O N &amp; I C H T H Y O P L A N K T O N

AMPHIPODA	.027	.000	.000	.000	.000	.000	.000	.000	.000	.000	.2
UNIDENTIFIED AMPHIPOD	.027	.000	.000	.000	.000	.000	.000	.000	.000	.000	.2
EUPHAUSIACEA	.188	.214	.429	.184	.584	.000	.423	.083	.000	.248	20.8
MEGANYCTIPHANES NORVEGICA	.134	.143	.214	.061	.519	.000	.141	.000	.000	.000	8.5
THYSANOESSA INERMIS	.027	.036	.036	.061	.065	.000	.000	.000	.000	.171	5.9
THYSANOESSA LONGICAUDATA	.000	.000	.000	.000	.000	.000	.000	.000	.000	.076	1.9
DAMAGED/UNIDENTIFIED EUPHAUS	.027	.036	.179	.061	.000	.000	.282	.042	.000	.000	4.3
THYSANOESSA SP.	.000	.000	.000	.000	.000	.000	.000	.042	.000	.000	.2
CHAETOGNATHA	.000	.000	.000	.000	.000	.000	.000	.042	.156	.648	17.9
EUKHRONIA HAMATA	.000	.000	.000	.000	.000	.000	.000	.000	.000	.010	.2
SAGITTA ELEGANS	.000	.000	.000	.000	.000	.000	.000	.042	.156	.638	17.7

TOW 13	21/09/85	1745H	45	27.05	N	59	39.28					
SAMPLE			2	3	4	5	6	7	8	9		
DEPTH1 (M)	110.0	90.0	75.0	65.0	55.0	45.0	35.0	25.0				
DEPTH2 (M)	90.0	75.0	65.0	55.0	45.0	35.0	25.0	15.0				
VOLUME OF WATER SAMPLED (M3)	91.	90.	56.	54.	92.	33.	38.	40.				
TOTAL BIOMASS (G/M3)	.232	.144	.085	.067	.107	.117	.111	.261	14.262			
EUPHAUSIACEA BIOMASS (G/M3)	.001	.010	.001	.000	.000	.000	.000	.000				

UNIDENTIFIED/DAMAGED MEDUSA	.00	.00	.36	.25	.43	.00	.00	.00	10.41		
LIMACINA BULIMOIDES	.00	.00	.00	.00	.00	.00	3.50	.00	35.00		
LIMACINA HELICOIDES	.00	.00	.00	.00	.00	.00	2.80	.00	28.00		
LIMACINA INFILATA	.00	.00	.00	.25	.00	.00	.70	.00	9.47		
LIMACINA LESUEURII	.00	.00	1.44	.49	.43	3.26	1.40	153.52	1605.45		
LIMACINA TROCHIFORMIS	.00	.00	.00	.00	.00	.00	1.40	15.88	172.81		
GYMNOSOMATA	.00	.00	.00	.00	.00	.00	.70	.00	7.00		
BIVALVE LARVAE	.00	.00	.00	.00	.00	.00	.70	.00	7.00		
EVADNE NORDMANNI	.88	.00	.00	.00	.00	.00	.00	.00	17.58		
PODON LEUCKARTI	.00	.00	.36	.25	.00	.00	.00	.00	6.07		
CALANUS FINMARCHICUS-TOTAL	96.70	22.64	63.67	32.35	65.65	100.31	144.88	672.29	13065.15		
CALANUS FINMARCHICUS (D)	.00	.00	.00	.49	5.22	3.26	.00	.00	89.73		
CALANUS FINMARCHICUS (G)	.00	.00	.00	.00	.00	.00	1.40	.00	14.00		
CALANUS FINMARCHICUS (S)	1.76	.00	.72	.25	.00	.00	7.00	.00	114.82		
CALANUS FINMARCHICUS VIM	.00	.00	.00	.00	.43	.82	2.10	.00	33.50		
CALANUS FINMARCHICUS VIF	1.76	.00	.72	.74	5.22	3.26	8.40	.00	218.55		
CALANUS FINMARCHICUS V	69.45	19.24	46.04	20.25	50.43	73.39	112.69	95.29	5658.49		
CALANUS FINMARCHICUS IV	25.49	2.52	10.79	7.16	5.65	15.49	15.40	275.27	3845.28		
CALANUS FINMARCHICUS III	.00	.44	3.60	2.96	2.61	7.34	4.90	232.92	2549.93		
CALANUS FINMARCHICUS II	.00	.30	1.44	1.23	.87	.00	.00	58.23	622.17		
CALANUS FINMARCHICUS I	.00	.15	1.08	.00	.43	.00	1.40	10.59	137.23		
CALANUS GLACIALIS (D)	.88	.00	.00	.00	.00	.00	.00	.00	17.58		
CALANUS GLACIALIS VIF	.88	.00	.00	.00	.00	.00	.00	.00	17.58		
CALANUS GLACIALIS V	.00	.44	.36	.00	1.30	1.63	1.40	.00	53.61		
CALANUS GLACIALIS IV	18.46	.89	2.52	.25	.87	.00	.70	.00	425.89		
CALANUS GLACIALIS III	.00	.15	.00	.00	.00	.00	.00	.00	2.22		
CALANUS HYPERBOREUS-TOTAL	29.89	5.62	11.51	1.73	.87	.00	1.40	.00	837.24		
CALANUS HYPERBOREUS V	1.76	.15	.36	.00	.00	.00	.00	.00	40.98		
CALANUS HYPERBOREUS IV	26.37	4.14	8.99	1.23	.87	.00	1.40	.00	714.59		
CENTROPAGES TYPICUS	.00	.15	3.24	1.23	.43	3.26	5.60	84.70	986.88		
CLAUSOCALANUS FURCATUS	.00	.00	.00	.25	.00	.00	.00	10.59	108.34		
EUCHEATA NORVEGICA	.00	.15	.00	.00	.00	.00	.00	.00	2.22		
EUCHEATA SP.	.00	.00	.00	.25	.00	.00	.00	.00	2.47		
METRIDIA LONGA	.00	.00	.36	.00	.43	.00	.70	.00	14.94		
METRIDIA LUCENS	7.03	2.66	8.63	11.85	21.30	4.89	9.80	21.17	957.17		
MICROCALANUS PYGMAEUS	.00	.00	.36	.00	.00	.00	.00	.00	3.60		
OITHONA ATLANTICA	.88	.89	27.70	.00	1.74	.00	.00	5.29	378.21		
OITHONA SIMILIS	.00	.00	.00	.00	.43	.82	.70	5.29	72.44		
OITHONA SP.	.00	.44	1.80	.25	.43	.00	.00	.00	31.46		
PARACALANUS PARVUS	.00	.00	.00	.00	.00	.00	.70	5.29	59.94		
PSEUDOCALANUS MINUTUS	6.15	3.85	14.03	6.67	10.43	36.70	61.59	444.67	5921.64		
TEMORA LONGICORNIS	.00	.74	3.24	1.73	4.35	1.63	.70	79.40	921.59		
UNID/DAM/EXO COPEPOD	17.58	.00	23.74	12.35	10.43	25.28	23.10	243.51	3735.71		
PARATHEMISTO ABYSSORUM	.00	.00	.36	.00	.00	.00	.00	.00	3.60		
PARATHEMISTO SP.	.00	.00	.00	.00	.00	.00	.00	5.29	52.94		
UNIDENTIFIED AMPHIPOD	.00	.00	.00	.00	.43	.00	.00	.00	4.35		
M. NORVEGICA ADULT	.00	.00	.00	.25	.00	.00	.00	.00	2.47		
M. NORVEGICA CALYPTOSIS	.00	.00	.00	.00	.00	.00	.00	31.76	317.62		
M. NORVEGICA FURCILIA	.00	.00	.00	.00	.43	.00	.00	.00	4.35		
THYSANOESSA RASCHII FURCILIA	.00	.00	.00	.00	.00	1.63	4.90	.00	65.30		
THYSANOESSA SP. FURCILIAE	.00	.00	.00	.00	.00	.00	2.10	.00	21.00		
EUPHAUSIID EGGS	.00	.00	.00	.00	.00	.82	.00	.00	8.15		
EUPHAUSIID NAUPLII	.00	.00	.00	.00	.43	.00	.00	.00	4.35		
DAMAGED FURCILIAE	.00	.15	.36	.00	.00	.82	.70	5.29	73.91		
ECHINODERMATA-LARVAE	1.76	.00	.36	.00	.43	1.63	.00	10.59	165.29		
SAGITTA SP.	.00	.00	.36	.00	.00	.00	.00	.00	3.60		
OIKOPLEURA SP.	.00	.00	.00	.00	.00	1.63	.00	.00	16.31		
UNIDENTIFIED APPENDICULARIA	.00	.00	.00	.00	2.17	.00	.00	.00	21.74		
DAMAGED APPENDICULARIA	.00	.00	.00	.00	.00	8.97	.00	.00	89.70		

TOW 13 21/09/85 1745H  
SAMPLE

(CONTINUED)

	2	3	4	5	6	7	8	9
--	---	---	---	---	---	---	---	---

---

L A R G E M E S O Z O O P L A N K T O N & I C H T H Y O P L A N K T O N

---

UNIDENTIFIED SIPHONOPHORE	.022	.000	.000	.019	.000	.000	.000	.000	.625
CTENOPHORA	.022	.011	.000	.000	.000	.000	.000	.000	.606
AMPHIPODA	.022	.022	.000	.000	.000	.000	.000	.000	.773
PARATHEMISTO GAUDICHAUDII	.022	.022	.000	.000	.000	.000	.000	.000	.773
EUPHAUSIACEA	.121	1.132	.108	.037	.043	.000	.000	.000	21.283
MEGANYCTIPHANES NORVEGICA	.044	.000	.000	.000	.011	.000	.000	.000	.988
THYSANOESSA INERMIS	.000	1.132	.108	.000	.033	.000	.000	.000	18.386
THYSANOESSA LONGICAUDATA	.077	.000	.000	.037	.000	.000	.000	.000	1.909
CHAETOGNATHA	.615	2.675	1.529	2.000	1.207	.367	.236	.149	107.304
EUKHRONIA HAMATA	.000	.000	.000	.000	.000	.000	.000	.025	.248
SAGITTA ELEGANS	.582	2.675	1.529	2.000	1.207	.306	.236	.124	105.784
UNIDENTIFIED CHAETOGNATH	.033	.000	.000	.000	.000	.061	.000	.000	1.271
UNIDENTIFIED	.000	.000	.000	.000	.011	.031	.000	.000	.415

TOW 14	21/09/85	2130H	45 09.66 N	59 25.78							
SAMPLE			2	3	4	5	6	7	8	9	10
DEPTH1 (M)			65.0	50.0	45.0	40.0	35.0	30.0	25.0	20.0	10.0
DEPTH2 (M)			50.0	45.0	40.0	35.0	30.0	25.0	20.0	15.0	.0
VOLUME OF WATER SAMPLED (M3)			111.	46.	46.	41.	50.	26.	31.	33.	73.
TOTAL BIOMASS (G/M3)			.173	.183	.078	.052	.090	.333	.367	.518	.506
EUPHAUSIACEA BIOMASS (G/M3)			.000	.001	.000	.001	.002	.019	.003	.000	.000

## LARGE MESOZOOPLANKTON & ICHTHYOPLANKTON

TOW 15	22/09/85	0830H	44	50.47	N	59	12.14				
SAMPLE			3	4	5	6	7	8	9	10	
DEPTH1 (M)	75.0		70.0	60.0	50.0	40.0	30.0	20.0	10.0		
DEPTH2 (M)	70.0		60.0	50.0	40.0	30.0	20.0	10.0	.0		
VOLUME OF WATER SAMPLED (M3)	370.		418.	504.	563.	608.	648.	42.	32.		
TOTAL BIOMASS (G/M3)	.012		.007	.007	.006	.023	.014	.171	.286	5.187	
EUPHAUSIACEA BIOMASS (G/M3)	.000		.000	.000	.000	.000	.000	.000	.000		

LIMACINA BULIMOIDES	.00	.00	.00	.00	.00	.00	3.81	.00	38.10
LIMACINA HELICOIDES	.36	.14	.19	.09	.18	.00	.00	30.09	308.78
LIMACINA LESUEURII	.00	.05	.06	.05	.18	.25	259.05	.00	2596.29
LIMACINA TROCHIFORMIS	.22	.00	.06	.00	.35	.25	22.86	.00	236.27
BIVALVE LARVAE	.00	.00	.00	.00	.18	.25	.00	.00	4.22
EVADNE NORDMANNI	.07	.05	.13	.05	.35	.00	11.43	100.31	1123.51
EVADNE SPINIFERA	.07	.00	.00	.14	.18	.00	.00	10.03	103.85
PODON LEUCKARTI	.00	.00	.25	.09	.18	.25	3.81	190.60	1951.76
DAMAGED CLADOCERA	.00	.00	.00	.00	.00	.00	3.81	.00	38.10
CALANUS FINMARCHICUS-TOTAL	9.44	6.22	8.70	7.67	28.42	33.09	640.00	1715.36	24441.80
CALANUS FINMARCHICUS (D)	.00	.10	.32	.38	1.40	.49	.00	10.03	127.21
CALANUS FINMARCHICUS (G)	.00	.05	.06	.00	1.23	.25	.00	.00	15.86
CALANUS FINMARCHICUS (S)	.14	.05	.19	.05	.00	.99	3.81	.00	51.55
CALANUS FINMARCHICUS VIM	.00	.00	.19	.00	.18	.99	.00	.00	13.54
CALANUS FINMARCHICUS VIF	.14	.19	.57	.43	2.63	1.73	3.81	10.03	194.62
CALANUS FINMARCHICUS V	5.55	2.73	3.81	3.79	17.54	8.40	38.10	60.19	1373.23
CALANUS FINMARCHICUS IV	2.09	1.00	1.52	1.37	4.74	11.60	118.10	571.79	7111.71
CALANUS FINMARCHICUS III	.79	.96	1.59	1.18	2.46	6.91	285.71	812.54	11117.48
CALANUS FINMARCHICUS II	.58	.96	.95	.81	.88	2.72	179.05	230.72	4163.65
CALANUS FINMARCHICUS I	.29	.38	.06	.09	.00	.74	15.24	30.09	467.58
CALANUS GLACIALIS V	.29	.05	.00	.09	.00	.00	.00	.00	2.87
CALANUS GLACIALIS IV	.43	.10	.06	.00	.00	.00	.00	.00	3.75
CALANUS HYPERBOREUS-TOTAL	1.01	.14	.19	.19	.00	.00	.00	.00	10.28
CALANUS HYPERBOREUS IV	.79	.10	.13	.14	.00	.00	.00	.00	7.61
CENTROPAGES TYPICUS	.00	.00	.00	.05	.00	.00	3.81	20.06	239.20
METRIDIA LONGA	.14	.10	.00	.19	.00	.00	.00	.00	3.57
METRIDIA LUCENS	.22	.72	.89	.76	1.40	.25	34.29	.00	384.09
OITHONA ATLANTICA	.00	.05	.06	.00	.18	.00	11.43	40.13	518.41
OITHONA SIMILIS	.22	.43	.06	.00	.18	.00	.00	70.22	709.97
PSEUDOCALANUS MINUTUS	3.60	2.44	4.76	2.98	7.72	53.83	247.62	993.10	13142.57
TEMORA LONGICORNIS	.29	.24	.32	.05	.53	3.21	49.52	40.13	941.34
UNID/DAM/EXO COPEPOD	9.80	8.71	6.29	4.55	6.49	16.30	255.24	461.44	7639.09
PARATHEMISTO ABYSSORUM	.00	.00	.00	.00	.18	.00	.00	.00	1.75
THYSANODESSA RASCHII FURCILIA	.14	.00	.00	.05	.00	.25	.00	.00	3.66
UNIDENTIFIED CALYPTOSIS	.00	.00	.00	.00	.00	.00	19.05	10.03	290.79
THYSANODESSA SP. FURCILIAE	.00	.00	.06	.00	.00	.00	.00	.00	.63
EUPHAUSIID EGGS	.00	.00	.06	.00	.00	.00	.00	.00	.63
DAMAGED FURCILIAE	.22	.00	.00	.00	.00	.00	.00	.00	1.08
ECHINODERMATA-LARVAE	.00	.00	.00	.00	.18	.00	38.10	20.06	583.33
EUKRONIA HAMATUS	.00	.00	.00	.05	.18	.00	.00	.00	2.23
DAMAGED CHAETOGNATH	.00	.05	.00	.00	.00	.00	.00	.00	.48
DAMAGED APPENDICULARIA	.00	.05	.06	.00	.35	.49	.00	.00	9.56

#### L A R G E M E S O Z O O P L A N K T O N & I C H T H Y O P L A N K T O N

CTENOPHORA	.003	.000	.000	.000	.000	.000	.000	.000	.014
EUPHAUSIACEA	.000	.002	.000	.000	.000	.000	.000	.000	.024
THYSANODESSA INERMIS	.000	.002	.000	.000	.000	.000	.000	.000	.024
CHAETOGNATHA	.024	.005	.006	.005	.007	.002	.000	.000	.363
SAGITTA ELEGANS	.019	.005	.002	.002	.007	.002	.000	.000	.261
UNIDENTIFIED CHAETOGNATH	.005	.000	.004	.004	.000	.000	.000	.000	.102
PICES	.000	.000	.002	.000	.000	.002	.024	.000	.273
MERLUCCIUS BILINEARIS	.000	.000	.000	.000	.000	.002	.000	.000	.015
PARALICHTHYS SP.	.000	.000	.002	.000	.000	.000	.000	.000	.020
UROPHYCIS CHUSS	.000	.000	.000	.000	.000	.000	.024	.000	.238

TOW 19 23/09/85 2245H 44 13.68 N 58 46.20

SAMPLE	2	3	4	5	6	7	8	9	10
DEPTH1 (M)	50.0	45.0	40.0	35.0	30.0	25.0	20.0	15.0	10.0
DEPTH2 (M)	45.0	40.0	35.0	30.0	25.0	20.0	15.0	10.0	0
VOLUME OF WATER SAMPLED (M3)	.43.	.20.	.27.	.18.	.19.	.19.	.18.	.15.	.28.
TOTAL BIOMASS (G/M3)	.016	.027	.020	.035	.064	.065	.070	.082	.049
EUPHAUSIACEA BIOMASS (G/M3)	.002	.010	.000	.014	.035	.028	.029	.039	.009

SPECIES										#/M2
LIMACINA BULIMOIDES	.12	.00	.00	.00	.00	.00	.00	.00	.00	.58
LIMACINA INFILATA	.00	.17	.00	.00	.00	.00	.00	.00	.00	.85
LIMACINA LESUEURII	.00	.00	.00	.00	.00	.00	.00	.44	.00	2.21
GYMNOSONATA	.00	.17	.00	.00	.00	.00	.00	.00	.00	.85
EVADNE SPINIFERA	.00	.00	.00	.00	.00	.00	.00	1.32	.00	6.62
CONCHOECIA CURTA	.00	.00	.00	.19	.00	.00	.00	.00	.00	.95
CONCHOECIA SP.	.00	.00	.00	.00	.00	.00	.00	.44	.00	2.21
ACARTIA CLAUSI	.00	.00	.00	.19	.00	.00	.00	.44	.00	3.15
ACARTIA SP.	.00	.00	.00	.00	.00	.00	.00	.00	.96	9.63
CALANUS FINMARCHICUS-TOTAL	1.05	1.37	2.23	2.27	4.81	4.43	23.48	34.44	135.74	1727.82
CALANUS FINMARCHICUS (D)	.00	.17	.00	.00	.30	.00	1.14	.88	.00	12.46
CALANUS FINMARCHICUS (G)	.00	.00	.00	.00	.30	.00	6.44	4.86	7.70	135.00
CALANUS FINMARCHICUS (S)	.00	.00	.25	.19	.00	.00	.00	.44	.00	4.39
CALANUS FINMARCHICUS VIM	.00	.00	.00	.00	.00	.00	.76	1.32	.96	20.04
CALANUS FINMARCHICUS VIF	.00	.17	.25	.19	.60	.00	7.58	6.18	7.70	151.85
CALANUS FINMARCHICUS V	.58	.34	.50	1.33	2.26	3.19	7.58	6.62	10.59	217.85
CALANUS FINMARCHICUS IV	.35	.17	.00	.00	.60	.89	2.65	3.97	10.59	149.06
CALANUS FINMARCHICUS III	.00	.17	.25	.00	.00	.00	3.41	4.86	11.55	158.95
CALANUS FINMARCHICUS II	.12	.17	.00	.19	.45	.18	.76	3.97	37.55	404.63
CALANUS FINMARCHICUS I	.00	.34	.00	.57	.90	.18	.76	7.51	56.80	619.25
CALANUS GLACIALIS V	.00	.00	.25	.00	.00	.18	.00	.00	.00	2.13
CALANUS GLACIALIS IV	.00	.00	.00	.00	.15	.00	.00	.00	.00	.75
CALANUS GLACIALIS III	.12	.00	.00	.00	.00	.00	.38	.00	.00	2.48
CALANUS HYPERBOREUS-TOTAL	.00	.00	.25	.00	.00	.00	.00	.00	.00	1.24
CALANUS HYPERBOREUS V	.00	.00	.25	.00	.00	.00	.00	.00	.00	1.24
CALANUS MINOR	.00	.00	.25	.00	.00	.00	.00	.44	.00	3.45
CALOCALANUS PAVO	.00	.00	.00	.00	.00	.00	.00	.44	1.93	21.46
CENTROPAGES TYPICUS	.00	.17	.00	.00	.15	.00	.00	.44	2.89	32.69
CLAUSOCALANUS ARCUICORNIS	.35	1.20	.50	.57	1.50	5.50	6.44	8.39	22.14	343.61
CLAUSOCALANUS FURCATUS	1.74	1.88	1.98	.57	.30	1.95	9.47	20.75	93.38	1127.05
CONAEA RAPAX	.00	.00	.25	.00	.00	.00	.00	.00	1.93	20.49
EUCHEATA NORVEGICA	.00	.00	.25	.00	.00	.00	.00	.00	.00	1.24
EUCHEATA SP.	.12	.34	.00	.00	.00	.00	.00	.00	.00	2.29
GAIDIUS TENUISPINUS	.00	.00	.25	.00	.00	.00	.00	.00	.00	1.24
MECYNOCERA CLAUSI	.00	.00	.00	.19	.00	.00	.00	.00	.00	.95
METRIDIA LUCENS	.70	.34	1.73	.57	.15	.18	.38	1.77	1.93	48.33
OITHONA ATLANTICA	.35	.68	.74	.57	.00	1.42	.00	1.32	.00	25.44
OITHONA SIMILIS	.23	4.62	29.74	3.03	.90	.18	9.09	19.87	123.23	1570.53
ONCAEA SP.	.12	.17	.00	.00	.00	.00	.00	.00	.00	1.44
PARACALANUS PARVUS	.00	.51	.00	.38	.45	.35	.00	.00	1.93	27.74
PLEUROMAMMA ABDOMINALIS	.00	.00	.00	.00	.00	.00	.38	.00	.00	1.89
PLEUROMAMMA BOREALIS	.23	1.37	.00	.00	.00	.00	.00	.44	.00	10.21
PLEUROMAMMA ROBUSTA	.23	.17	.00	.00	.15	.18	.00	.44	.00	5.86
PLEUROMAMMA SP.	.00	.34	.00	.00	.00	.00	.00	.00	.00	1.71
PLEUROMAMMA XIPHIAS	.00	.00	.00	.00	.00	.00	.38	.44	.00	4.10
PSEUDOCALANUS MINUTUS	17.44	20.68	39.41	17.99	16.99	17.73	21.97	18.54	44.28	1296.63
SCOLECTHRICELLA MINOR	.12	.51	.00	.00	.00	.18	.38	.00	.00	5.93
TEMORA LONGICORNIS	.00	.00	.00	.00	.00	.18	.38	.44	1.93	24.24
UNID/DAM/EXO COPEPOD	6.16	17.78	8.18	8.71	6.02	12.06	10.98	24.28	52.95	1000.33
UNIDENTIFIED HARPACTICOID	.23	.00	.00	.19	.00	.18	.00	.00	.00	3.00
COPEPOD NAUPLII	.00	.17	.00	.00	.00	.00	.00	.00	.96	10.48
PARATHEMISTO SP.	.35	.17	.00	.19	.15	.53	.00	.44	.00	9.16
CIRREPEDIA NAUPLIUS	.00	.00	.00	.00	.00	.00	.00	.00	.96	9.63
CUMACEAN	.12	.00	.00	.00	.00	.00	.00	.00	.00	.58
M. NORVEGICA CALYPTOSIS	.12	.00	.00	.00	.00	.00	.00	.00	.00	.58
M. NORVEGICA FURCILIA	.00	.00	.00	.00	.00	.18	.00	.00	.00	.89
UNIDENTIFIED CALYPTOSIS	.00	.00	.00	.00	.00	.00	.00	.44	.96	11.83
T. LONGICAUDATA FURCILIAE	.00	.00	.00	.00	.00	.18	.00	.00	.00	.89
THYSANOESSA SP. FURCILIAE	.00	.00	.00	.00	.00	.00	.00	.00	.96	9.63
THYSANOESSA SP. CALYPTOSIS	.12	1.20	.50	.00	.15	.00	.00	.00	.00	9.79
EUPHAUSIID EGGS	3.26	4.44	3.97	9.09	2.56	1.42	5.30	4.86	4.81	222.59
EUPHAUSIID NAUPLII	.00	1.54	6.44	1.52	1.50	.35	2.27	3.09	11.55	199.12
DAMAGED FURCILIAE	.00	.00	.00	.19	.15	.00	.00	.00	.00	1.70
DAMAGED CHAETOGNATH	.00	.00	.00	.19	.00	.00	.00	.00	.00	.95
OIKOPLEURA SP.	.00	.00	.74	.00	.00	.00	.00	.00	.00	3.72
DAMAGED APPENDICULARIA	.00	.00	.00	.00	.15	.00	.00	.00	.00	.75

TOW 19 23/09/85 2245H  
SAMPLE

(CONTINUED)

2 3 4 5 6 7 8 9 10

SPECIES		NUMBER PER CUBIC METER	#/M2
<b>L A R G E M E S O Z O O P L A N K T O N &amp; I C H T H Y O P L A N K T O N</b>			
AMPHIPODA	.093	.000	2.357
PARATHEMISTO GAUDICHAUDII	.093	.000	2.357
MYSIDACEA	.000	.051	3.947
BOREOMYSIS SP.	.000	.051	3.947
EUPHAUSIACEA	.047	.410	9.329
EUPHAUSIA KROHNII	.000	.154	1.319
MEGANYCTIPHANES NORVEGICA	.000	.000	2.934
NEMATOSCELIS MEGALOPS	.047	.256	2.065
THYSANODESSA INERMIS	.000	.000	1.544
THYSANODESSA LONGICAUDATA	.000	.000	.899
DAMAGED/UNIDENTIFIED EUPHAUS	.000	.000	.568
CHAETOGNATHA	.209	.513	8.347
EUKHRONIA HAMATA	.023	.000	.302
SAGITTA ELEGANS	.116	.359	6.271
UNIDENTIFIED CHAETOGNATH	.070	.154	1.774

TOW 18	23/09/85	1945H	43	56.86	N	58	36.69				
SAMPLE			2	3	4	5	6	7	8	9	10
DEPTH1 (M)	450.0	400.0	350.0	300.0	250.0	200.0	150.0	100.0	50.0		
DEPTH2 (M)	400.0	350.0	300.0	250.0	200.0	150.0	100.0	50.0	.0		
VOLUME OF WATER SAMPLED (M3)	168.	177.	185.	190.	196.	217.	209.	170.	139.		
TOTAL BIOMASS (G/M3)	.060	.050	.027	.013	.032	.023	.029	.035	.062	16.597	
EUPHAUSIACEA BIOMASS (G/M3)	.001	.016	.002	.003	.005	.010	.012	.020	.026		

SPECIES						NUMBER	PER	CUBIC	METER		#/M2
SIPHONOPHORA						.00	.00	.00	.00	.00	.48
LIMACINA INFLATA						.00	.00	.00	.00	.38	20.24
LIMACINA LESUEURII						.00	.00	.00	.02	.00	.96
LIMACINA RETROVERSA						.00	.00	.00	.00	.04	.00
LIMACINA TROCHIFORMIS						.00	.05	.00	.00	.00	1.97
GYMNOSOMATA						.00	.00	.00	.00	.00	21.59
CONCHOECIA AMETRA						.00	.03	.00	.00	.00	1.26
CONCHOECIA BISPINOSA						.05	.00	.00	.00	.00	2.38
CONCHOECIA CURTA						.00	.00	.14	.02	.10	.59
CONCHOECIA ELEGANS						.00	.00	.00	.02	.00	.00
CONCHOECIA SP.						.00	.00	.05	.00	.00	.00
ACARTIA CLAUSI						.00	.00	.00	.00	.00	1.53
ACARTIA DANAE						.00	.00	.00	.00	.00	76.74
ACARTIA LONGIREMIS						.00	.00	.00	.00	.00	1.92
ACARTIA SP.						.00	.00	.00	.00	.00	97.36
AETIDEUS ARMATUS						.00	.20	.00	.00	.00	19.18
CALANUS FINMARCHICUS-TOTAL						4.24	.40	3.32	.11	.07	.07
CALANUS FINMARCHICUS (D)						.00	.00	.10	.04	.00	.00
CALANUS FINMARCHICUS (G)						.00	.00	.00	.00	.03	.38
CALANUS FINMARCHICUS (S)						.05	.03	.14	.00	.00	.00
CALANUS FINMARCHICUS VIM						.00	.03	.00	.00	.00	.00
CALANUS FINMARCHICUS VIF						.05	.03	.24	.04	.03	.04
CALANUS FINMARCHICUS V						3.52	.18	3.08	.04	.03	.00
CALANUS FINMARCHICUS IV						.67	.18	.00	.02	.00	.00
CALANUS GLACIALIS V						.00	.00	.43	.00	.00	.00
CALANUS GLACIALIS IV						.19	.00	.00	.00	.00	.00
CALANUS HYPERBOREUS-TOTAL						.10	.00	.24	.00	.00	.00
CALANUS HYPERBOREUS (S)						.05	.00	.00	.00	.00	.00
CALANUS HYPERBOREUS VIF						.05	.00	.00	.00	.00	.00
CALANUS HYPERBOREUS V						.00	.00	.19	.00	.00	.00
CALANUS HYPERBOREUS IV						.05	.00	.05	.00	.00	.00
CALANUS SP.						.62	1.31	3.03	.13	.00	.00
CALANUS MINOR						.00	.03	.00	.02	.00	.00
CALOCALANUS PAVO						.00	.00	.00	.00	.00	.00
CALOCALANUS PLUMULOSUS						.00	.00	.00	.00	.01	.48
CHIRIDIUS GRACILIS						.00	.03	.00	.00	.00	.00
CLAUSOCALANUS ARCUICORNIS						.10	.10	.14	.04	.20	.08
CLAUSOCALANUS FURCATUS						.29	.88	1.92	.78	1.67	2.36
EUCHEATA NORVEGICA						.14	.20	.24	.21	.37	.18
EUCHEATA SP.						.38	.35	.05	.48	.65	.15
EUCHIRELLA SP.						.00	.00	.00	.00	.04	.00
GAIIDIUS SP.						.00	.00	.10	.00	.00	.00
GAIIDIUS TENUISPINUS						.10	.00	.00	.00	.03	.07
MECYNOCERA CLAUSI						.00	.00	.05	.00	.07	.04
METRIDIA LONGA						.38	.13	.10	.11	.14	.00
METRIDIA LUCENS						2.90	1.36	.67	.40	.51	.59
OITHONA ATLANTICA						.33	.05	.19	.15	.17	.41
OITHONA SIMILIS						.05	.03	.19	.04	.00	.00
OITHONA SP.						.00	.03	.00	.02	.00	.00
ONCAEA SP.						.00	.00	.05	.00	.07	.00
PARACALANUS PARVUS						.00	.00	.43	.06	.27	.48
PLEUROMAMMA ABDOMINALIS						.00	.00	.05	.00	.03	.07
PLEUROMAMMA BOREALIS						.00	.15	.48	1.73	1.26	1.33
PLEUROMAMMA GRACILIS						.00	.00	.00	.00	.01	.04
PLEUROMAMMA ROBUSTA						.19	.18	.14	.29	.71	.44
PLEUROMAMMA SP.						.05	.03	.10	.11	.24	.37
PLEUROMAMMA XIPHIAS						.00	.00	.00	.02	.00	.00
RHINCALANUS CORNUTUS						.05	.00	.05	.00	.00	.00
RHINCALANUS NASUTUS						.00	.00	.00	.00	.03	.00
SCOLECITHRICELLA MINOR						.48	.35	.19	.55	1.09	2.40
SCOLECITHRICELLA ABYSALLIS						.00	.00	.00	.00	.00	.01
SCOTTOCALANUS PERSECANS						.00	.00	.00	.00	.03	.00
SPINOCALANUS ABYSALLIS						.57	.43	.00	.00	.00	.00
SPINOCALANUS SP.						.00	.00	.00	.02	.00	.00
UNDEUCHEATA MAJOR						.00	.00	.00	.08	.10	.04
UNDEUCHEATA PLUMOSA						.00	.00	.00	.00	.04	.00
UNDEUCHAETA SP.						.00	.00	.00	.00	.07	.16

TOW 18 23/09/85 1945H  
SAMPLE

## (CONTINUED)

2 3 4 5 6 7 8 9 10

SPECIES											#/M2
UNID/DAM/EXO COPEPOD	3.10	2.61	5.24	1.83	2.11	3.94	1.51	2.04	10.74	1656.12	
UNIDENTIFIED HARPACTICOID	.00	.00	.00	.04	.00	.00	.00	.00	.00	.00	2.11
PARATHEMISTO SP.	1.19	.25	.00	.02	.61	.15	.01	.04	1.15	171.12	
MYSID	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00	1.05
THYSANODESSA INERMIS FURCILIAE	.00	.00	.00	.00	.00	.00	.02	.00	.00	.00	.96
UNIDENTIFIED CALYPTOSIS	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.48
T. LONGICAUDATA FURCILIAE	.00	.00	.00	.00	.03	.00	.00	.00	.00	.77	40.07
THYSANODESSA SP. FURCILIAE	.00	.00	.00	.00	.00	.00	.01	.00	.38	19.66	
THYSANODESSA SP. CALYPTOSIS	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00	1.97
EUPHAUSIID EGGS	.00	.00	.00	.00	.03	.04	.00	.00	.00	.00	3.54
DAMAGED FURCILIAE	.00	.00	.00	.00	.00	.00	.01	.00	.77	38.85	
SAGITTA ELEGANS	.00	.00	.00	.00	.00	.00	.00	.00	.77	38.37	
EUKRONIA HAMATUS	.00	.03	.00	.00	.00	.00	.00	.00	.00	.00	1.26
DAMAGED CHAETOGNATH	.00	.00	.05	.00	.03	.00	.01	.00	.38	23.77	

## L A R G E M E S O Z O O P L A N K T O N &amp; I C H T H Y O P L A N K T O N

AMPHIPODA	.411	.085	.049	.047	.031	.018	.038	.012	.007	34.894	
PARATHEMISTO GAUDICHAUDII	.411	.085	.049	.047	.031	.018	.038	.012	.000	34.534	
UNIDENTIFIED AMPHIPOD	.000	.000	.000	.000	.000	.000	.000	.000	.007	.360	
EUPHAUSIACEA	.048	.463	.086	.068	.122	.355	.384	.613	1.050	159.518	
EUPHAUSIA KROHNII	.018	.119	.032	.016	.010	.005	.000	.147	.647	49.721	
MEGANCTIPHANES NORVEGICA	.000	.006	.000	.005	.005	.000	.014	.035	.029	4.728	
NEMATOSCELIS MEGALOPS	.006	.328	.038	.037	.097	.276	.249	.224	.281	76.789	
THYSANODESSA LONGICAUDATA	.000	.011	.011	.000	.010	.060	.120	.183	.079	23.702	
DAMAGED/UNIDENTIFIED EUPHAUS	.024	.000	.005	.011	.000	.014	.000	.018	.014	4.282	
THYSANODESSA SP.	.000	.000	.000	.000	.000	.000	.000	.006	.000	.295	
DECAPODA	.030	.028	.005	.000	.015	.005	.014	.035	.029	8.094	
ACANTHYPHYRA SP.	.006	.006	.000	.000	.005	.000	.000	.000	.000	.835	
SERGESTES SP.	.018	.023	.005	.000	.010	.005	.014	.035	.022	6.601	
UNIDENTIFIED DECAPOD	.006	.000	.000	.000	.000	.000	.000	.000	.007	.657	
CHAETOGNATHA	.018	.045	.049	.021	.010	.005	.000	.000	1.367	75.724	
EUKHRONIA HAMATA	.000	.028	.043	.021	.005	.000	.000	.000	.000	.4.882	
SAGITTA ELEGANS	.000	.000	.000	.000	.000	.000	.000	.000	1.367	68.345	
SAGITTA MAXIMA	.000	.017	.005	.000	.005	.005	.000	.000	.000	1.603	
SAGITTA ZETOSIS	.018	.000	.000	.000	.000	.000	.000	.000	.000	.893	
SALPA MAXIMA	.000	.000	.000	.000	.000	.000	.000	.000	.094	4.676	
PICES	.006	.006	.032	.005	.000	.023	.010	.006	.029	5.830	
BENTHOSEMA GLACIALE	.000	.006	.000	.000	.000	.009	.005	.006	.029	2.717	
CYCLOTHONE SP.	.000	.000	.022	.000	.000	.000	.000	.000	.000	1.081	
LAMPANYCTUS SP.	.000	.000	.005	.000	.000	.000	.005	.000	.000	.510	
IMMATURE MYCTOPHID	.000	.000	.005	.005	.000	.000	.000	.000	.000	.533	
STEMONOSUDIS SP.	.000	.000	.000	.000	.000	.005	.000	.000	.000	.230	
VINCINGUERRIA SP.	.000	.000	.000	.000	.000	.005	.000	.000	.000	.230	
UNIDENTIFIED FISH LARVE	.006	.000	.000	.000	.000	.000	.000	.000	.000	.298	
UNIDENTIFIED MYCTOPHID	.000	.000	.000	.000	.000	.005	.000	.000	.000	.230	

TOW 17 23/09/85 1430H 43 41.32 N 58 22.94

	2	3	4	5	6	7	8	9	10	
SAMPLE	.00	.00	.00	.00	.00	.00	.00	.00	.00	
DEPTH1 (M)	800.0	700.0	600.0	500.0	450.0	400.0	350.0	300.0	250.0	
DEPTH2 (M)	700.0	600.0	500.0	450.0	400.0	350.0	300.0	250.0	200.0	
VOLUME OF WATER SAMPLED (M3)	326.	414.	459.	268.	285.	543.	311.	196.	156.	
TOTAL BIOMASS (G/M3)	.183	.182	.045	.027	.024	.041	.025	.069	.010	50.810
EUPHAUSIACEA BIOMASS (G/M3)	.000	.000	.011	.004	.010	.021	.015	.054	.002	

SPECIES	NUMBER	PER CUBIC METER	#/M2
SIPHONOPHORA	.03	.00	4.01
LIMACINA HELICOIDES	.03	.00	6.24
LIMACINA INFILATA	.00	.04	7.27
LIMACINA LESUEURII	.00	.00	11.49
LIMACINA SP.	.00	.04	3.86
CONCHOECIA AMETRA	.03	.00	7.08
CONCHOECIA BISPINOSA	.00	.04	3.86
CONCHOECIA CURTA	.05	.00	30.64
CONCHOECIA OBTUSATA	.27	.58	85.24
CONCHOECIA SPINIFERA	.00	.00	7.90
CONCHOECIA SPINIROSTRIS	.19	.70	107.25
CONCHOECIA SP.	.11	.27	72.99
ACARTIA DANAE	.00	.00	5.56
ACARTIA SP.	.00	.00	4.91
AETIDEUS ARMATUS	.00	.00	79.28
AMALLOTHRIX ERMARGINATA	.00	.04	3.86
CALANUS FINMARCHICUS-TOTAL	1.42	2.55	1963.20
CALANUS FINMARCHICUS (D)	.11	.12	35.95
CALANUS FINMARCHICUS (G)	.00	.00	4.91
CALANUS FINMARCHICUS (S)	.05	.19	91.03
CALANUS FINMARCHICUS VIM	.00	.00	9.27
CALANUS FINMARCHICUS VIF	.16	.31	131.89
CALANUS FINMARCHICUS V	1.25	2.13	1756.04
CALANUS FINMARCHICUS IV	.00	.12	58.24
CALANUS FINMARCHICUS II	.00	.00	7.76
CALANUS GLACIALIS V	.76	1.58	309.14
CALANUS GLACIALIS IV	.00	.00	10.94
CALANUS GRACILIS	.00	.00	4.27
CALANUS HYPERBOREUS-TOTAL	.52	1.00	181.86
CALANUS HYPERBOREUS (D)	.03	.19	22.05
CALANUS HYPERBOREUS (S)	.08	.12	24.05
CALANUS HYPERBOREUS VIF	.11	.31	46.10
CALANUS HYPERBOREUS V	.22	.46	82.06
CALANUS HYPERBOREUS IV	.19	.19	53.24
CALANUS SP.	.05	.19	367.52
CALOCALANUS PAVO	.00	.00	3.04
CALOCALANUS PLUMULOSUS	.00	.00	4.74
CENTROPAGES BRADYI	.00	.00	10.00
CHIRIDIUS GRACILIS	.00	.00	21.12
CHIRUNDINA STREETSII	.00	.00	1.29
CLAUSOCALANUS ARCUICORNIS	.16	.00	146.49
CLAUSOCALANUS FURCATUS	.00	.12	521.99
EUAUGAPTILUS SP.	.00	.00	4.36
EUCALANUS ATTENUATUS	.00	.00	2.99
EUCHETA ACUTA	.00	.00	1.29
EUCHETA NORVEGICA	.93	1.12	268.25
EUCHETA TONSA	.00	.00	8.42
EUCHETA SP.	.03	.00	148.88
EUCHIRELLA MESSINENSIS	.00	.04	3.86
EUCHIRELLA SP.	.00	.00	4.91
GAETANUS KRUPPII	.00	.00	2.99
GAETANUS MINOR	.00	.00	20.35
GAETANUS SP.	.00	.04	3.86
GAIIDIUS SP.	.00	.00	22.22
GAIIDIUS TENUISPINUS	.19	.04	54.27
HALITHALESTRIS OVONI	.00	.00	1.75
LUBBOCKIA SQUILLIMANA	.00	.00	2.99
MECYNOCERA CLAUSI	.05	.00	19.16
METRIDIA BREVICAUDA	.08	.04	12.04
METRIDIA LONGA	.03	.04	45.99
METRIDIA LUCENS	.76	.58	612.43
MICROCALANUS PYGMAEUS	.00	.00	5.97
OITHONA ATLANTICA	.00	.04	54.25
OITHONA SIMILIS	.00	.00	23.64
OITHONA SP.	.00	.58	63.13
ONCAEA BOREALIS	.00	.00	9.18
ONCAEA CONIFERA	.03	.12	25.06

TOW 17 23/09/85 1430H  
SAMPLE

(CONTINUED)

## L A R G E M E S O Z O O P L A N K T O N & I C H T H Y O P L A N K T O N

TOW 17 23/09/85 1430H  
SAMPLE

## (CONTINUED)

2 3 4 5 6 7 8 9 10

SPECIES										#/M2
THYSANOESSA LONGICAUDATA	.000	.005	.000	.007	.004	.006	.000	.000	.000	1.308
THYSANOPODA SP.	.000	.002	.009	.000	.000	.000	.000	.000	.000	1.113
DAMAGED/UNIDENTIFIED EUPHAUS	.000	.000	.000	.000	.007	.000	.006	.000	.000	.673
DECAPODA	.006	.019	.022	.000	.000	.000	.000	.000	.000	4.725
GENNADAS SP.	.006	.017	.000	.000	.000	.000	.000	.000	.000	2.304
SERGESTES SP.	.000	.002	.022	.000	.000	.000	.000	.000	.000	2.420
CHAETOGNATHA	.061	.041	.035	.045	.018	.029	.032	.051	.026	23.759
EUKHRONIA FOWLERI	.003	.000	.000	.000	.000	.000	.000	.000	.000	.307
EUKHRONIA HAMATA	.031	.034	.022	.034	.011	.028	.029	.026	.019	15.900
SAGITTA MACROCEPHALA	.003	.002	.000	.000	.000	.000	.000	.000	.000	.548
SAGITTA MAXIMA	.003	.005	.007	.004	.007	.000	.000	.026	.000	3.256
SAGITTA ZETOSIS	.006	.000	.000	.007	.000	.002	.003	.000	.000	1.240
UNIDENTIFIED CHAETOGNATH	.015	.000	.007	.000	.000	.000	.000	.000	.006	2.508
PICES	.015	.031	.015	.011	.018	.050	.003	.005	.006	10.859
BENTHOSEMA GLACIALE	.000	.010	.015	.000	.011	.048	.003	.000	.000	5.573
CHAULIODIUS SP.	.000	.002	.000	.000	.000	.000	.000	.000	.000	.242
CYCLOTHONE SP.	.012	.019	.000	.011	.007	.000	.000	.005	.006	4.646
MALACOSTEUS SP.	.003	.000	.000	.000	.000	.000	.000	.000	.000	.307
IMMATURE MYCTOPHID	.000	.000	.000	.000	.000	.002	.000	.000	.000	.092

TOW 16	23/09/85	1330H	43	40.05	N	58	24.66						
SAMPLE			2	3		4		5	6	7	8	9	10
DEPTH1 (M)			200.0	150.0		100.0		75.0	50.0	40.0	30.0	20.0	10.0
DEPTH2 (M)			150.0	100.0		75.0		50.0	40.0	30.0	20.0	10.0	.0
VOLUME OF WATER SAMPLED (M3)			228.	233.		114.		100.	28.	33.	27.	43.	28.
TOTAL BIOMASS (G/M3)			.003	.003		.006		.008	.005	.009	.018	.020	.056
EUPHAUSIACEA BIOMASS (G/M3)			.000	.000		.000		.000	.000	.000	.000	.000	1.695

SPECIES													#/M2
LIMACINA HELICOIDES		.04	.02	.12	.02	.11	.06	.37	.31	.00	.00	.00	15.14
LIMACINA INFILATA		.10	.06	.06	.05	.04	.52	.00	1.24	4.76	76.78		
LIMACINA LESUEURII		.00	.04	.06	.18	.14	.18	.00	.31	.00	.00	.00	14.49
LIMACINA TROCHIFORMIS		.04	.04	.00	.16	.00	.06	.00	.31	.00	.00	.00	12.14
UNIDENTIFIED THECOSOMATA		.00	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00	.45
GYMNOSOMATA		.00	.00	.00	.09	.00	.00	.00	.93	.00	.00	.00	11.59
BIVALVE LARVAE		.00	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00	.45
PODON LEUCKARTI		.00	.00	.12	.00	.00	.03	.00	.00	.00	.00	.00	3.23
CONCHOECIA BISPINOSA		.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.73
CONCHOECIA CURTA		.73	1.70	1.29	.05	.04	.06	.25	.00	.00	.00	.00	158.34
CONCHOECIA SP.		.12	.00	.00	.00	.00	.06	.00	.00	.00	.95	.00	16.00
ACARTIA CLAUSI		.00	.00	.00	.00	.04	.12	.00	4.66	9.52	143.44		
ACARTIA DANAE		.00	.00	.00	.00	.00	.00	8.55	.93	.00	94.83		
ACARTIA LONGIREMIS		.03	.04	.23	.02	.00	.09	.00	.31	.95	23.46		
ACARTIA SP.		.00	.00	.06	.00	.00	.00	.00	.00	.00	.00	.00	1.46
CALANUS FINMARCHICUS-TOTAL		.06	.06	.06	.02	.00	.31	.00	7.15	.00	.00	.00	82.61
CALANUS FINMARCHICUS (G)		.00	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00	.45
CALANUS FINMARCHICUS (S)		.01	.00	.00	.00	.00	.03	.00	.00	.00	.00	.00	1.04
CALANUS FINMARCHICUS VIF		.01	.00	.00	.02	.00	.03	.00	.00	.00	.00	.00	1.49
CALANUS FINMARCHICUS V		.01	.06	.00	.00	.00	.09	.00	.00	.00	.00	.00	4.87
CALANUS FINMARCHICUS IV		.01	.00	.00	.00	.00	.03	.00	.00	.00	.00	.00	1.04
CALANUS FINMARCHICUS III		.00	.00	.00	.00	.00	.03	.00	.00	2.18	.95	31.59	
CALANUS FINMARCHICUS II		.00	.00	.06	.00	.00	.03	.00	.00	2.49	.00	26.63	
CALANUS FINMARCHICUS I		.01	.00	.00	.00	.00	.09	.00	.00	2.49	.00	26.52	
CALANUS GLACIALIS V		.00	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.07
CALANUS SP.		.10	.36	.00	.43	.07	5.31	.00	.93	.00	.00	.00	97.33
CALANUS MINOR		.00	.00	.12	.00	.04	.09	.37	.93	.00	.00	.00	17.24
CALOCALANUS PAVO		.00	.02	.00	.00	.18	.15	.12	1.24	.95	27.56		
CALOCALANUS PLUMULOSUS		.01	.00	.00	.02	.00	.09	.00	.62	.00	.00	.00	8.32
CALOCALANUS STYLIREMIS		.00	.00	.06	.00	.00	.03	.00	.00	.00	.00	.00	1.77
CANDACIA SP.		.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.73
CENTROPAGES BRADYI		.00	.00	.12	.00	.11	.06	.25	8.39	6.67	157.65		
CLAUSOCALANUS ARCUICORNIS		.04	.11	.70	.36	1.02	1.20	2.23	16.47	143.81	1681.46		
CLAUSOCALANUS FURCATUS		.89	.62	.94	.20	.28	1.69	5.33	13.99	46.67	783.66		
CLYTEMNESTRA SCUTELLATA		.00	.00	.00	.00	.00	.03	.12	.00	.00	.00	.00	1.55
EUAETIIDEUS GIESBRECHTI		.01	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.88
EUCHEATA SP.		.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.73
HETERORHABDUS PAPILLIGER		.00	.13	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.44
MACROSTELLA GRACILIS		.00	.00	.06	.00	.11	.00	.12	.62	1.90	29.02		
MECYNOCERA CLAUSI		.00	.00	.12	.02	.14	.09	3.84	21.13	.00	.00	.00	255.46
METRIDIA LUCENS		.03	.00	.06	.00	.00	.00	.00	.00	.00	.00	.00	2.93
OITHONA ATLANTICA		.22	1.33	17.54	2.52	.28	.21	.12	.00	.95	594.76		
OITHONA SIMILIS		.00	.00	.00	.00	.04	.03	.12	.31	.00	.00	.00	5.81
ONCAEA SP.		.01	.02	.06	.00	.00	.00	.00	.31	.00	.00	.00	6.38
PARACALANUS PARVUS		.00	.02	.12	.04	.04	.21	.00	.00	.00	.00	.00	7.40
PLEUROMAMMA SP.		.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.73
PSEUDOCALANUS MINUTUS		.03	.02	.00	.00	.04	.03	.00	.00	.95	12.72		
RHINCALANUS NASUTUS		.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.73
SCOLECITHRICELLA MINOR		.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.73
SCOLECITHRIX BRADYI		.00	.04	.06	.00	.00	.00	.00	.00	.00	.00	.00	3.61
TEMORA LONGICORNIS		.03	.00	.00	.00	.04	.03	.00	.00	.00	.00	.00	2.12
UNID/DAM/EXO COPEPOD		.97	1.12	2.11	1.59	2.08	9.97	6.82	13.05	10.48	620.52		
PARATHEMISTO ABYSSORUM		.00	.00	.00	.00	.04	.25	.50	.31	.00	.00	.00	10.87
PARATHEMISTO LIBELLULA		.00	.00	.00	.00	.00	.09	.00	.00	.00	.00	.00	.92
PARATHEMISTO SP.		.06	.00	.00	.02	.14	.25	1.12	.62	.00	.00	.00	24.61
M. NORVEGICA CALYPTOSIS		.00	.00	.00	.00	.00	.03	.00	.00	.00	.00	.00	.31
UNIDENTIFIED CALYPTOSIS		.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.20
T. LONGICAUDATA FURCILIAE		.00	.00	.00	.00	.00	.00	.12	.00	.00	.00	.00	1.24
THYSANOESSA SP. FURCILIAE		.00	.00	.00	.02	.00	.00	.12	.00	.00	.00	.00	1.69
THYSANOESSA SP. CALYPTOSIS		.00	.00	.00	.00	.00	.06	.00	2.49	4.76	73.10		
EUPHAUSIID EGGS		.00	.00	.00	.00	.00	.03	.00	.00	.00	.00	.00	.31
DAMAGED FURCILIAE		.03	.00	.00	.00	.00	.03	.12	.00	.00	.00	.00	3.01
SAGITTA ELEGANS		.00	.00	.00	.02	.00	.03	.00	.31	.95	13.39		
SAGITTA SP.		.00	.00	.00	.00	.00	.00	.12	.62	.00	.00	.00	7.46
EUKRONIA HAMATUS		.00	.00	.00	.00	.00	.00	.00	.31	.00	.00	.00	3.11
DAMAGED CHAETOGNATH		.00	.00	.00	.00	.04	.00	.12	.62	.95	17.33		
SAGITTA SETOSA		.00	.00	.00	.00	.00	.00	.00	.31	.95	12.63		

TOW 16 23/09/85 1330H  
SAMPLE

(CONTINUED)

2            3            4            5            6            7            8            9            10

SPECIES	NUMBER PER CUBIC METER										#/M <sup>2</sup>
SALP	.00	.00	.00	.00	.00	.00	.00	.00	.62	.00	6.22

## LARGE MESOZOOPLANKTON & ICHTHYOPLANKTON

TOW 20	25/09/85	1330H	45	49.54	N	58	29.79						
SAMPLE			2	3		4		5	6	7	8	9	10
DEPTH1 (M)			285.0	260.0		235.0		220.0	200.0	170.0	75.0	40.0	20.0
DEPTH2 (M)			260.0	235.0		220.0		200.0	170.0	75.0	40.0	20.0	.0
VOLUME OF WATER SAMPLED (M3)			153.	217.		147.		166.	221.	615.	229.	179.	117.
TOTAL BIOMASS (G/M3)			4.034	2.736		1.429		.650	.217	.026	.039	.125	.176
EUPHAUSIACEA BIOMASS (G/M3)			.002	.005		.009		.001	.025	.001	.000	.000	.000

SPECIES													#/M2
UNIDENTIFIED/DAMAGED MEDUSA			.00	.00		.00		.00	.00	.14	.00	.00	4.89
BEROE SP			.00	.00		1.74		.00	.00	.00	.00	.00	26.09
GASTROPODA-JUVENILE			.00	.00		.00		.00	.00	.07	.00	.00	2.45
LIMACINA HELICOIDES			.00	.00		.00		.00	.21	.00	.36	.00	26.93
GYMNOSONOMATA			.00	.00		.00		.00	.00	.00	.72	.00	14.32
ACARTIA LONGIREMIS			.00	.00		.00		.00	.00	.00	.36	.00	7.16
CALANUS FINMARCHICUS-TOTAL	2776.95	1639.15	476.52	593.26	150.72	11.14	14.81	138.52	382.79	145940.19			
CALANUS FINMARCHICUS (D)	.00	18.84	1.74		.00	.00	.21	.14	3.94	.00	600.52		
CALANUS FINMARCHICUS (G)	.00	.00	.00		.00	.00	.00	.21	11.10	3.29	295.07		
CALANUS FINMARCHICUS (S)	53.40	18.84	3.48		.00	.58	.21	.14	1.07	1.10	1943.74		
CALANUS FINMARCHICUS VIM	.00	.00	1.74		.00	.00	.00	.00	.00	1.79	1.10	83.82	
CALANUS FINMARCHICUS VIF	53.40	37.68	5.22		.00	.58	.42	.49	16.11	4.39	2839.33		
CALANUS FINMARCHICUS V	1695.54	989.14	252.17	296.63	56.23	5.62	7.13	55.12	62.52	81655.57			
CALANUS FINMARCHICUS IV	627.48	838.42	184.35	234.83	73.04	4.58	3.77	23.62	86.65	49073.33			
CALANUS FINMARCHICUS III	.00	.00	.00		3.09	.00	.00	.21	5.01	40.58	981.01		
CALANUS FINMARCHICUS II	.00	.00	.00		.00	.00	.00	.00	6.44	47.16	1072.13		
CALANUS FINMARCHICUS I	.00	.00	.00		.00	.00	.00	.00	1.79	46.07	957.13		
CALANUS GLACIALIS (D)	.00	18.84	5.22		.00	.58	.10	.00	.00	1.10	598.50		
CALANUS GLACIALIS (S)	53.40	37.68	5.22	6.18	2.90	.21	.07	.72	2.19	2646.34			
CALANUS GLACIALIS VIM	13.35	9.42	3.48		.00	1.16	.00	.14	.00	.00	661.13		
CALANUS GLACIALIS VIF	53.40	56.52	10.43	6.18	3.48	.31	.07	.72	3.29	3244.84			
CALANUS GLACIALIS V	854.45	612.33	92.17	108.15	24.93	1.98	2.86	11.45	8.77	41655.42			
CALANUS GLACIALIS IV	1375.12	1365.96	262.61	395.51	69.57	5.52	5.59	12.17	31.81	84062.66			
CALANUS GLACIALIS III	.00	.00	.00		.00	.00	.00	.00	.00	4.39	87.75		
CALANUS GLACIALIS II	.00	.00	.00		.00	.00	.00	.00	.00	1.10	21.94		
CALANUS GLACIALIS I	.00	.00	.00		.00	.00	.00	.00	.00	2.19	43.87		
CALANUS HYPERBOREUS-TOTAL	1682.19	1252.92	276.52	376.97	84.64	6.45	8.24	22.91	51.55	89994.82			
CALANUS HYPERBOREUS (D)	13.35	37.68	6.96	3.09	.58	.10	.28	.00	.00	1479.02			
CALANUS HYPERBOREUS (S)	13.35	.00	.00	.00	.00	.00	.00	.00	.00	1.10	355.70		
CALANUS HYPERBOREUS VIF	26.70	37.68	6.96	3.09	.58	.10	.28	.00	.00	1.10	1834.72		
CALANUS HYPERBOREUS V	347.12	131.89	33.04	27.81	5.22	.42	1.47	3.22	4.39	13426.55			
CALANUS HYPERBOREUS IV	1041.36	810.16	206.96	281.18	60.87	2.71	5.24	8.23	25.23	57951.58			
CALANUS SP.	787.69	584.07	64.35	117.42	32.46	1.56	6.01	46.53	136.01	42590.84			
CALANUS MINOR	.00	9.42	1.74	3.09	.00	.10	.00	.00	.00	.00	333.28		
CENTROPAGES TYPICUS	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.10	21.94		
CLAUSOCALANUS FURCATUS	.00	.00	.00	.00	.00	.00	.00	.00	.36	.00	7.16		
CONAEA RAPAX	.00	.00	.00	.00	.00	.00	.00	.00	1.07	4.39	109.22		
EUCHEATA NORVEGICA	.00	.00	.00	.00	3.09	.00	.00	.00	.36	.00	68.96		
EUCHEATA SP.	40.05	9.42	10.43	9.27	4.06	1.25	.35	.72	.00	1845.67			
METRIDIA LONGA	173.56	103.62	19.13	15.45	3.48	.83	1.05	2.15	6.58	7920.25			
METRIDIA LUCENS	.00	9.42	.00	.00	.58	.21	.21	3.94	3.29	424.57			
METRIDIA SP.	.00	.00	1.74	3.09	1.74	.10	.21	.36	.00	164.44			
MICROCALANUS PYGMÆUS	.00	.00	.00	.00	.58	.83	.00	.00	.00	96.49			
OITHONA ATLANTICA	.00	9.42	22.61	52.53	34.20	32.27	9.22	20.04	193.04	10301.04			
OITHONA SIMILIS	13.35	37.68	17.39	6.18	1.16	.00	.42	7.52	63.62	3132.39			
OITHONA SP.	.00	.00	1.74	.00	.00	.00	.00	.36	.00	33.25			
ONCAEA SP.	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.10	21.94		
PARACALANUS PARVUS	13.35	.00	.00	.00	.00	.00	.00	.00	.00	333.77			
PSEUDOCALANUS MINUTUS	240.31	65.94	8.70	6.18	5.80	1.67	.21	8.59	20.84	8838.49			
SCOLECITHRICELLA MINOR	13.35	.00	1.74	3.09	1.74	1.46	.21	.00	.00	619.59			
TEMORA LONGICORNIS	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.29	65.81		
UNID/DAM/EXO COPEPOD	106.81	28.26	12.17	6.18	3.48	2.19	4.12	19.33	70.20	5929.67			
AMPHIPOD-DAMAGED	26.70	.00	.00	.00	.00	.00	.00	.72	1.10	703.79			
PARATHEMISTO ABYSSORUM	.00	.00	.00	.00	.00	.00	.07	.00	.00	2.45			
PARATHEMISTO GAUDICHAUDI	.00	.00	.00	.00	.00	.21	.00	.00	.00	19.78			
PARATHEMISTO SP.	.00	.00	.00	.00	.00	.00	.00	1.07	.00	21.48			
ISOPOD	.00	.00	1.74	.00	.00	.00	.00	.00	.00	26.09			
M. NORVEGICA ADULT	.00	.00	.00	.00	.58	.31	.00	.00	.00	47.05			
M. NORVEGICA FURCILIA	.00	.00	.00	.00	.00	.00	.63	.00	.00	22.01			
THYSANOESSA LONGICAUDATA ADULT	.00	.00	.00	.00	.00	.10	.00	.00	.00	9.89			
T. LONGICAUDATA FURCILIAE	.00	.00	.00	.00	.00	.00	.00	.00	1.43	.00	28.64		
THYSANOESSA SP. FURCILIAE	.00	.00	.00	.00	.00	.00	.00	.36	.00	7.16			
EUPHAUSIID EGGS	.00	.00	.00	.00	1.74	.10	.14	.72	.00	81.27			
EUPHAUSIID NAUPLII	.00	.00	.00	.00	.00	.00	.00	.00	.00	65.81			
DAMAGED FURCILIAE	.00	.00	.00	.00	.00	.00	.07	.00	.00	2.45			
ECHINODERMATA-LARVAE	.00	.00	.00	.00	.00	.00	.14	5.37	4.39	200.02			
SAGITTA ELEGANS	.00	.00	.00	.00	.00	.42	.28	.00	.00	49.33			

TOW 20 25/09/85 1330H  
SAMPLE

## (CONTINUED)

2 3 4 5 6 7 8 9 10

SPECIES										#/M2
	NUMBER PER CUBIC METER									
SAGITTA SP.	.00	.00	.00	.00	.00	.00	.07	.00	.00	2.45
OIKOPLAURA SP.	.00	.00	.00	.00	.00	.21	.00	.00	.00	19.78
DAMAGED APPENDICULARIA	.00	.00	.00	.00	.58	.00	.14	.00	.00	22.28

## L A R G E M E S O Z O O P L A N K T O N &amp; I C H T H Y O P L A N K T O N

UNIDENTIFIED SIPHONOPHORE	.013	.000	.000	.000	.000	.000	.000	.000	.000	.326
CTENOPHORA	.104	.000	.041	.006	.014	.010	.000	.000	.000	4.674
AMPHIPODA	.000	.023	.027	.000	.000	.018	.004	.006	.000	2.947
PARATHEMISTO GAUDICHAUDII	.000	.023	.027	.000	.000	.018	.004	.006	.000	2.947
EUPHAUSIACEA	.007	.028	.034	.018	.190	.031	.009	.000	.000	10.672
MEGANYCTIPHANES NORVEGICA	.007	.018	.034	.006	.190	.026	.000	.000	.000	9.432
THYSANOESSA INERMIS	.000	.000	.000	.006	.000	.003	.009	.000	.000	.735
THYSANOESSA LONGICAUDATA	.000	.009	.000	.006	.000	.002	.000	.000	.000	.505
DECAPODA	.026	.014	.000	.000	.005	.000	.000	.000	.000	1.133
PASIPHAEA SP.	.026	.014	.000	.000	.000	.000	.000	.000	.000	.997
UNIDENTIFIED DECAPOD	.000	.000	.000	.000	.005	.000	.000	.000	.000	.136
CHAETOGNATHA	.156	.147	.149	.115	.032	.164	.170	.022	.009	35.261
EUKHRONIA HAMATA	.065	.120	.095	.030	.005	.007	.000	.000	.000	7.404
SAGITTA ELEGANS	.091	.028	.054	.084	.027	.158	.170	.022	.009	27.858

TOW 21 25/09/85 1530H 45 59.71 N 58 28.36  
 SAMPLE 2 3 4 5 6 7 8 9 10  
 DEPTH1 (M) 270.0 250.0 240.0 205.0 180.0 165.0 100.0 75.0 30.0  
 DEPTH2 (M) 250.0 240.0 205.0 180.0 165.0 100.0 75.0 30.0 .0  
 VOLUME OF WATER SAMPLED (M3) 101. 68. 258. 184. 116. 376. 138. 197. 124.  
 TOTAL BIOMASS (G/M3) 1.228 .654 .112 .143 .223 .048 .020 .025 .104 49.828  
 EUPHAUSIACEA BIOMASS (G/M3) .009 .002 .000 .000 .000 .000 .002 .003 .000

SPECIES												#/M2
SIPHONOPHORA	.00	.00	.41	1.16	1.11	.00	.00	.00	.00	.00	.00	60.11
LIMACINA BULIMOIDES	.00	.00	.00	.00	.00	.00	.00	.14	.00	.00	.00	6.08
LIMACINA HELICOIDES	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.87	116.13	
LIMACINA INFILATA	.00	.00	.00	.00	.55	.00	.00	.00	.00	.00	.00	8.30
LIMACINA LESUEURII	.00	.00	.00	.00	.00	.00	.00	.00	.00	.65	19.35	
LIMACINA TROCHIFORMIS	.00	.00	.00	.00	.00	.28	.00	.14	.65	43.88		
EVADNE SP.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.65	19.35	
EVADNE NORDMANNI	.00	.00	.00	.58	.00	.00	.00	.00	.00	.65	33.87	
EVADNE SPINIFERA	.00	.00	.00	.00	.00	.00	.14	.00	.00	.00	3.62	
CONCHOECIA SPINIFERA	2.11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	42.24
CALANUS FINMARCHICUS-TOTAL	126.73	115.12	39.69	49.94	62.56	13.05	5.80	5.54	152.90	13091.49		
CALANUS FINMARCHICUS (D)	.00	2.35	1.65	.58	1.11	.85	.00	.14	1.29	212.61		
CALANUS FINMARCHICUS (G)	.00	.00	.00	.58	.00	1.13	.87	.41	7.74	360.52		
CALANUS FINMARCHICUS (S)	.00	.00	.00	.00	.00	.00	.00	.27	.65	31.52		
CALANUS FINMARCHICUS VIM	.00	.00	.00	.00	.00	.28	.00	.14	.65	43.88		
CALANUS FINMARCHICUS VIF	.00	2.35	1.65	1.16	1.11	1.99	.87	.81	9.68	604.65		
CALANUS FINMARCHICUS V	95.05	77.53	28.53	32.52	45.40	6.52	2.75	2.97	29.68	6685.74		
CALANUS FINMARCHICUS IV	31.68	35.24	9.10	14.52	12.73	3.12	1.59	1.08	18.71	2710.99		
CALANUS FINMARCHICUS III	.00	.00	.00	.58	.55	.00	.43	.00	24.52	769.17		
CALANUS FINMARCHICUS II	.00	.00	.00	1.16	1.11	.00	.14	.41	16.77	570.74		
CALANUS FINMARCHICUS I	.00	.00	.41	.00	1.66	1.13	.00	.14	52.90	1706.32		
CALANUS GLACIALIS (D)	2.11	1.17	.41	.00	1.66	.00	.00	.00	.65	112.73		
CALANUS GLACIALIS (S)	.00	.00	.41	.58	.00	.00	.00	.00	.00	28.99		
CALANUS GLACIALIS VIM	.00	.00	.00	.00	1.11	.00	.14	.00	.00	20.23		
CALANUS GLACIALIS VIF	2.11	1.17	.83	.58	1.66	.00	.00	.00	.65	141.72		
CALANUS GLACIALIS V	31.68	17.62	5.79	6.39	12.73	1.99	.29	.41	5.81	1691.91		
CALANUS GLACIALIS IV	48.13	22.32	4.96	15.68	16.06	8.51	.29	.68	1.94	2481.17		
CALANUS HYPERBOREUS-TOTAL	251.35	70.48	12.40	11.61	27.13	3.12	1.16	3.24	10.97	7570.09		
CALANUS HYPERBOREUS (D)	2.11	2.35	.41	.00	.55	.00	.00	.00	.00	88.51		
CALANUS HYPERBOREUS (S)	.00	.00	.00	.00	.00	.00	.00	.00	.65	19.35		
CALANUS HYPERBOREUS VIF	2.11	2.35	.41	.00	.55	.00	.00	.00	.65	107.87		
CALANUS HYPERBOREUS V	31.68	16.45	.83	1.16	1.11	.00	.14	.14	1.29	921.12		
CALANUS HYPERBOREUS IV	215.45	46.99	9.51	9.29	25.47	2.84	1.01	3.11	9.03	6346.51		
CENTROPAGES HAMATUS	.00	.00	.00	.00	.00	.00	.00	.00	1.29	38.71		
CENTROPAGES TYPICUS	.00	.00	.00	.00	.00	.00	.00	.00	.65	19.35		
CLAUSOCALANUS FURCATUS	.00	.00	.00	.00	.00	.28	.00	.00	.00	18.44		
EUCHEATA NORVEGICA	.00	.00	.00	.58	.55	.00	.00	.14	.00	28.90		
EUCHAETA TONSA	.00	.00	.00	.00	.00	.28	.00	.00	.00	18.44		
EUCHEATA SP.	.00	.00	.00	.00	.55	.28	.00	.00	.00	26.74		
GAIDIUS TENUISPINUS	.00	1.17	2.89	4.06	.55	.00	.00	.00	.00	222.96		
METRIDIA LONGA	12.67	10.57	3.31	5.81	8.30	.57	.14	.41	.65	822.79		
METRIDIA LUCENS	2.11	1.17	8.68	6.97	8.30	1.70	.72	.14	8.39	1043.08		
MICROCALANUS PYGMAEUS	.00	.00	.00	.00	.00	1.99	.72	.00	.00	147.19		
OITHONA ATLANTICA	.00	.00	.41	2.32	3.88	2.55	4.06	.95	1.29	479.36		
OITHONA SIMILIS	10.56	4.70	7.03	8.13	7.20	18.16	29.71	10.81	201.94	9282.92		
PARACALANUS PARVUS	.00	.00	.00	.00	.00	.00	.00	.00	.65	19.35		
PSEUDOCALANUS MINUTUS	8.45	10.57	.83	5.23	4.43	.85	7.10	2.97	38.06	2009.33		
SCOЛЕCITHRICELLA MINOR	.00	.00	.00	4.06	4.98	2.84	.14	.14	.00	370.46		
SPINOCALANUS ABYSSALLIS	.00	.00	.00	.00	1.66	1.42	1.88	.14	.00	170.30		
SPINOCALANUS SP.	.00	1.17	.83	.00	.00	.00	.00	.00	.00	40.69		
TEMORA LONGICORNIS	.00	.00	.41	.00	.00	.00	.00	.14	13.55	427.00		
UNDEUCHAETA SP.	.00	1.17	.00	.00	.00	.00	.00	.00	.00	11.75		
UNID/DAM/EXO COPEPOD	6.34	39.94	7.03	10.45	13.84	2.84	3.04	4.05	27.10	2496.90		
COPEPOD NAUPLII	.00	.00	.00	.00	.00	.28	.00	.00	5.16	173.28		
AMPHIPODA EGGS	.00	.00	.00	.00	.00	1.13	.00	.00	.00	73.76		
PARATHEMISTO SP.	.00	.00	.00	.00	.00	.00	.00	.41	.00	18.25		
UNIDENTIFIED CALYPTOSIS	.00	.00	.00	.00	.00	.00	.00	.00	1.29	38.71		
EUPHAUSIID EGGS	2.11	.00	.00	.00	.00	.00	.29	.27	1.94	119.72		
EUPHAUSIID NAUPLII	.00	.00	.00	.00	.55	.00	.00	.41	.00	26.55		
ECHINODERMATA-LARVAE	.00	.00	.00	.00	.00	.00	1.16	.00	.00	28.99		

TOW 21 25/09/85 1530H  
SAMPLE

(CONTINUED)

	2	3	4	5	6	7	8	9	10
--	---	---	---	---	---	---	---	---	----

SPECIES	NUMBER PER CUBIC METER									#/M2
<b>L A R G E M E S O Z O O P L A N K T O N &amp; I C H T H Y O P L A N K T O N</b>										
UNIDENTIFIED SIPHONOPHORE	.050	.059	.004	.005	.000	.000	.000	.000	.000	1.849
UNIDENTIFIED MEDUSA	.000	.000	.004	.000	.000	.005	.000	.000	.000	.481
CTENOPHORA	.000	.000	.000	.000	.000	.005	.007	.000	.048	1.979
TOMOPTERIS SP.	.010	.015	.004	.000	.000	.000	.000	.000	.000	.481
AMPHIPODA	.010	.015	.000	.000	.009	.032	.014	.000	.008	3.153
PARATHEMISTO GAUDICHAUDII	.010	.015	.000	.000	.009	.032	.014	.000	.008	3.153
EUPHAUSIACEA	.040	.044	.004	.005	.026	.008	.210	.289	.032	21.634
MEGANYCTIPHANES NORVEGICA	.040	.044	.000	.000	.000	.000	.000	.000	.008	1.475
NEMATOSCELIS MEGALOPS	.000	.000	.004	.000	.000	.000	.000	.000	.000	.136
THYSANOESSA INERMIS	.000	.000	.000	.000	.017	.005	.036	.091	.000	5.616
THYSANOESSA LONGICAUDATA	.000	.000	.000	.005	.009	.003	.174	.198	.024	14.407
DECAPODA	.040	.059	.004	.005	.026	.000	.000	.000	.008	2.282
PASIPHAEA SP.	.040	.059	.004	.005	.026	.000	.000	.000	.008	2.282
CHAETOGNATHA	.139	.132	.031	.049	.147	.154	.043	.010	.016	20.663
EUKHRONIA HAMATA	.139	.088	.027	.044	.112	.027	.007	.005	.008	9.758
SAGITTA ELEGANS	.000	.044	.004	.005	.026	.128	.036	.005	.008	10.775
UNIDENTIFIED CHAETOGNATH	.000	.000	.000	.000	.009	.000	.000	.000	.000	.130

TOW 22	26/09/85	0830H	46	31.51	N	58	16.68						
SAMPLE			2	3		4		5	6	7	8	9	10
DEPTH1 (M)			430.0	365.0		300.0		250.0	200.0	150.0	71.0	30.0	20.0
DEPTH2 (M)			365.0	300.0		250.0		200.0	150.0	71.0	30.0	20.0	.0
VOLUME OF WATER SAMPLED (M3)			145.	226.		222.		221.	210.	298.	149.	31.	99.
TOTAL BIOMASS (G/M3)			.223	.127		.121		.075	.082	.018	.018	.059	.089
EUPHAUSIACEA BIOMASS (G/M3)			.000	.003		.007		.001	.001	.003	.003	.006	.000

SPECIES													#/M2
SIPHONOPHORA			.00	.71		.96		.00	.00	.00	.00	.00	94.07
LIMACINA BULIMOIDES			.00	.00		.32		.00	1.52	.54	.00	1.29	.00
LIMACINA HELICOIDES			.00	.24		.32		.00	.51	.54	.10	.18	2.16
LIMACINA LESUEURII			.00	.00		.08		.36	.25	.98	.23	.00	3.24
LIMACINA TROCHIFORMIS			.00	.00		.32		.00	.00	.54	.13	.37	.00
LIMACINA SP.			.00	.00		.00		.00	.76	.36	.07	.18	.00
LIMACINA HELICINA			.00	.00		.00		.00	.00	.00	.00	.18	.00
GYMNOSONOMATA			.00	.00		.00		.00	.00	.00	.03	.00	1.85
BIVALVE LARVAE			.00	.00		.00		.00	.00	.00	.03	.00	22.97
CONCHOECIA BOREALIS	1.47		.00	.32		.00		.00	.00	.00	.00	.00	111.65
CONCHOECIA CURTA			.00	.00		.00		.00	.00	.09	.00	.00	.00
CONCHOECIA INERMIS			.00	.24		.00		.00	.00	.00	.00	.00	15.34
CONCHOECIA SPINIFERA	.25		.24	.00		.00		.00	.00	.00	.00	.00	31.28
CONCHOECIA SPINIROSTRIS	1.23		.47	.00		.00		.00	.00	.00	.00	.00	110.37
CONCHOECIA SP.	1.47		.24	.00		.00		.00	.00	.00	.00	.00	110.97
CALANUS FINMARCHICUS-TOTAL	10.54		16.05	26.91		21.72		15.49	2.77	2.28	18.86	158.70	8609.78
CALANUS FINMARCHICUS (D)	.49		.24	.00		.00		.51	.09	.07	.18	.00	84.28
CALANUS FINMARCHICUS (G)	.00		.00	.00		.36		.00	.09	.03	.92	2.16	78.98
CALANUS FINMARCHICUS (S)	.00		.00	1.28		.00		.76	.09	.07	.37	.00	115.68
CALANUS FINMARCHICUS VIM	.00		.00	.00		.72		.00	.00	.00	.18	.00	38.05
CALANUS FINMARCHICUS VIF	.49		.24	1.28		.36		1.27	.27	.17	1.48	2.16	278.94
CALANUS FINMARCHICUS V	7.11		13.69	22.74		13.03		4.83	1.43	1.14	9.25	24.83	4130.87
CALANUS FINMARCHICUS IV	2.70		1.89	2.88		7.24		8.89	.98	.74	4.07	59.38	2584.92
CALANUS FINMARCHICUS III	.25		.00	.00		.36		.25	.09	.23	2.22	45.34	992.51
CALANUS FINMARCHICUS II	.00		.24	.00		.00		.25	.00	.00	1.48	15.11	345.13
CALANUS FINMARCHICUS I	.00		.00	.00		.00		.00	.00	.00	.37	11.88	241.22
CALANUS GLACIALIS (D)	.00		.00	.32		.36		.00	.00	.00	.00	.00	34.12
CALANUS GLACIALIS (S)	.00		.00	.00		.36		.00	.00	.00	.00	.00	18.10
CALANUS GLACIALIS VIM	.00		.00	.00		.00		.76	.09	.00	.00	.00	45.16
CALANUS GLACIALIS VIF	.00		.00	.32		.72		.00	.00	.00	.00	.00	52.22
CALANUS GLACIALIS V	.74		4.48	7.05		11.95		4.83	1.61	.17	1.11	.00	1675.39
CALANUS GLACIALIS IV	1.23		3.07	7.37		14.12		8.13	.98	.20	1.48	1.08	1882.11
CALANUS HYPERBOREUS-TOTAL	37.76		16.28	9.93		2.17		1.52	.36	.70	4.81	3.24	4364.28
CALANUS HYPERBOREUS (D)	.74		.47	.00		.00		.25	.00	.03	.00	.00	92.57
CALANUS HYPERBOREUS (S)	.25		.00	.00		.00		.00	.18	.03	.37	.00	35.15
CALANUS HYPERBOREUS VIF	.98		.47	.00		.00		.25	.18	.07	.37	.00	127.72
CALANUS HYPERBOREUS V	11.03		3.30	1.92		.72		.00	.00	.20	2.03	2.16	1136.07
CALANUS HYPERBOREUS IV	25.01		12.04	8.01		1.45		1.27	.18	.44	2.40	1.08	3022.00
CALANUS SP.	3.19		3.07	24.02		2.90		2.29	2.06	1.07	8.51	.00	2158.59
EUCHEATA NORVEGICA	2.21		.47	.32		1.09		.00	.18	.00	.00	.00	258.58
EUCHEATA SP.	.00		.00	.00		.72		.25	.09	.00	.00	.00	55.97
GAIDIUS TENUISPINUS	2.45		3.54	.96		.36		.25	.00	.03	.00	.00	469.70
METRIDIA LONGA	1.47		2.60	4.80		7.96		10.92	.27	.17	1.11	2.16	1531.19
METRIDIA LUCENS	.25		.00	.64		5.79		5.08	.27	.03	.37	.00	617.81
OITHONA ATLANTICA	.00		.24	.64		1.45		.51	.09	.00	.18	.00	154.08
OITHONA SIMILIS	.49		.71	.32		2.17		4.32	4.12	.30	1.29	17.27	1114.38
ONCAEA CONIFERA	.00		.00	.00		.00		.25	.00	.00	.00	.00	12.70
ONCAEA SP.	.49		.00	.00		.00		.00	.00	.00	.00	.00	31.88
PSEUDOCALANUS MINUTUS	.25		.47	.00		.36		.76	.36	.07	.74	11.88	378.76
SCOLECITHRICELLA MINOR	.00		.94	.32		2.53		.00	.89	.00	.00	.00	274.76
SPINOCALANUS ABYSSALIS	5.15		2.83	1.92		.72		.00	1.25	.00	.00	.00	750.05
TEMORA LONGICORNIS	.00		.00	.00		.00		.00	.00	.00	.00	.00	21.59
UNID/DAM/EXO COPEPOD	8.09		3.54	6.73		5.07		4.57	1.43	1.24	3.51	8.64	1946.26
UNIDENTIFIED HARPACTICOID	.25		.00	.00		.00		.00	.00	.00	.00	.00	15.94
CALANUS SPP. NAUPLII	.00		.47	.00		.00		.00	.00	.00	.00	.00	30.68
COPEPOD NAUPLII	.00		.00	.00		.00		.25	.00	.00	.18	.00	14.55
AMPHIPODA EGGS	.00		.00	.00		.00		.00	.00	.20	.00	.00	8.26
PARATHEMISTO LIBELLULA	.00		.00	.00		.00		.00	.00	.10	.00	.00	4.13
PARATHEMISTO SP.	.00		.24	.00		.00		.00	.63	.13	1.85	3.24	153.60
M. NORVEGICA FURCILIA	.00		.24	.00		.00		.00	.00	.54	.00	.00	37.35
UNIDENTIFIED CALYPTOSIS	.00		.00	.00		.00		.00	.00	.47	.00	.00	19.26
T. LONGICAUDATA FURCILIAE	.00		.00	.00		.00		.00	.00	.00	.18	.00	1.85
THYSANDESSA SP. CALYPTOSIS	.00		.00	.00		.00		.00	.00	.00	.00	1.08	21.59
EUPHAUSIID EGGS	.00		.00	.32		.72		.51	.27	.07	1.85	10.80	335.99
EUPHAUSIID NAUPLII	.00		.00	.00		.00		.00	.09	.03	.37	1.08	33.74
DAMAGED FURCILIAE	.00		.00	.00		.00		.00	.00	.30	.37	.00	16.08
DECAPOD LARVAE	.00		.00	.00		.00		.00	.00	.00	.18	.00	1.85

TOW 22 26/09/85 0830H  
SAMPLE

(CONTINUED)

2            3            4            5            6            7            8            9            1

SPECIES	NUMBER PER CUBIC METER							#/M2	
ECHINODERMATA-LARVAE	.00	.00	.00	.00	.00	.00	.92	.00	9.25
DAMAGED APPENDICULARIA	.00	.00	.00	.00	.00	.54	.07	.00	45.17
FRITILLARIA SP.	.00	.00	.00	.00	.00	.09	.00	.00	7.07

## LARGE MESOZOOPLANKTON & ICHTHYOPLANKTON

TOW 23	26/09/85	1730H	45	46.56	N	57	26.72			
SAMPLE			2	3		4				
DEPTH1 (M)	400.0	350.0	300.0	250.0	200.0	150.0	75.0	50.0	20.0	
DEPTH2 (M)	350.0	300.0	250.0	200.0	150.0	75.0	50.0	20.0	.0	
VOLUME OF WATER SAMPLED (M <sup>3</sup> )	151.	237.	277.	238.	160.	152.	36.	35.	38.	
TOTAL BIOMASS (G/M <sup>3</sup> )	.123	.080	.055	.048	.193	.092	.048	.067	.128	37.558
EUPHAUSIACEA BIOMASS (G/M <sup>3</sup> )	.000	.006	.003	.001	.000	.000	.003	.014	.001	

SPECIES					NUMBER	PER	CUBIC	METER	#/M <sup>2</sup>	
SIPHONOPHORA	.00	.81	.00	.00	.00	.00	.00	.19	.00	46.22
LIMACINA BULIMOIDES	.00	.00	.00	.00	.00	.70	.00	.00	.00	52.63
LIMACINA HELICOIDES	.00	.27	.00	.00	.00	.00	.00	.00	2.11	55.61
LIMACINA INFILATA	.00	.00	.17	.00	.00	.00	.00	.00	.00	8.25
LIMACINA TROCHIFORMIS	.18	.00	.17	.00	.00	.00	.00	.00	2.11	59.19
LIMACINA SP.	.18	.00	.00	.00	1.33	.00	.00	.00	.00	75.50
GYMNOSOMATA	.00	.00	.00	.00	.00	.70	.00	.00	.00	52.63
CONCHOECIA BOREALIS	.71	.00	.00	.00	.00	.00	.22	.19	.00	46.59
CONCHOECIA SPINIROSTRIS	.53	.81	.00	.54	.67	.00	.22	.19	.00	138.49
CONCHOECIA SP.	.00	.00	.00	.27	.67	.00	.00	.00	.00	46.78
AETIDEUS ARMATUS	.00	.00	.00	.00	.67	.70	.00	.19	.00	91.68
CALANUS FINMARCHICUS-TOTAL	10.42	17.01	12.38	30.12	52.00	49.82	20.00	16.95	326.32	17368.09
CALANUS FINMARCHICUS (D)	.35	.27	.00	.27	.67	.00	1.11	.19	.00	111.43
CALANUS FINMARCHICUS (G)	.00	.00	.17	.00	.00	2.11	2.44	.95	10.53	466.36
CALANUS FINMARCHICUS (S)	.88	.54	.00	.54	1.33	2.11	.67	.57	2.11	398.52
CALANUS FINMARCHICUS VIM	.00	.00	.00	.00	.00	1.40	.44	.19	.00	122.09
CALANUS FINMARCHICUS VIF	1.24	.81	.17	.81	2.00	4.21	4.22	1.71	12.63	976.31
CALANUS FINMARCHICUS V	7.24	10.53	9.74	24.20	42.00	35.79	7.78	8.38	37.89	8573.52
CALANUS FINMARCHICUS IV	1.41	5.13	2.15	4.57	6.67	7.02	3.56	2.29	48.42	2648.55
CALANUS FINMARCHICUS III	.18	.27	.00	.00	.67	.70	.22	.95	35.79	858.21
CALANUS FINMARCHICUS II	.18	.27	.17	.27	.00	.00	.22	.57	42.11	908.83
CALANUS FINMARCHICUS I	.18	.00	.17	.27	.67	.70	3.56	2.86	149.47	3280.57
CALANUS GLACIALIS (S)	.00	.00	.00	.27	.00	.00	.00	.00	.00	13.45
CALANUS GLACIALIS VIM	.00	.00	.00	.00	.00	.70	.00	.00	.00	52.63
CALANUS GLACIALIS VIF	.00	.00	.00	.27	.00	.00	.00	.00	.00	13.45
CALANUS GLACIALIS V	1.77	3.24	2.31	6.18	8.67	10.53	1.78	1.52	6.32	2114.37
CALANUS GLACIALIS IV	1.77	2.97	2.48	3.23	24.00	11.93	.89	2.86	2.11	2766.72
CALANUS GLACIALIS III	.18	.00	.00	.00	.00	.00	.00	.00	.00	8.83
CALANUS HYPERBOREUS-TOTAL	13.25	9.18	2.81	2.42	6.67	.70	4.00	3.05	14.74	2254.74
CALANUS HYPERBOREUS (D)	.18	.00	.00	.00	.00	.00	.67	.38	2.11	79.03
CALANUS HYPERBOREUS (S)	.18	.00	.17	.00	.00	.70	.00	.00	.00	69.71
CALANUS HYPERBOREUS VIF	.35	.00	.17	.00	.00	.70	.67	.38	2.11	148.74
CALANUS HYPERBOREUS V	2.65	1.08	.17	.27	.00	.00	1.33	1.52	4.21	371.41
CALANUS HYPERBOREUS IV	9.18	7.83	2.31	1.61	5.33	.00	2.00	1.14	8.42	1566.29
CALANUS SP.	2.65	4.32	5.61	.54	1.33	.00	.44	3.81	14.74	1142.73
CENTROPAGES TYPICUS	.00	.00	.00	.00	.00	.00	.44	.38	8.42	190.96
CHIRIDIUS GRACILIS	1.59	.00	.00	.00	.00	.00	.00	.00	.00	79.47
CLAUSOCALANUS FURCATUS	.18	.54	.00	.00	.67	3.51	.00	.19	4.21	422.25
CLYTEMNESTRA SCUTELLATA	.00	.00	.00	.00	.00	.00	.00	.19	.00	5.71
EUCHEATA NORVEGICA	1.77	.27	.00	.00	.67	.70	.44	.38	.00	210.31
EUCHEATA SP.	.00	.27	.50	.81	2.67	2.81	.22	.00	.00	428.01
GAIDIUS TENUISPINUS	1.94	5.40	1.65	5.92	8.00	1.40	.22	.19	2.11	1304.13
LUCICUTIA FLAVICORNIS	.00	.00	.33	.00	.00	.00	.00	.00	.00	16.50
METRIDIA LONGA	4.06	5.67	1.82	.81	1.33	16.84	.89	1.71	.00	2021.21
METRIDIA LUCENS	.18	4.86	3.63	2.15	10.00	28.77	3.78	3.05	8.42	3553.16
MICROCALANUS PYGMAEUS	.88	1.08	.00	.54	.00	1.40	.00	.00	.00	230.31
OITHONA ATLANTICA	.00	.00	.33	.81	1.33	11.23	2.44	.38	.00	1038.15
OITHONA SIMILIS	.71	1.08	3.30	2.96	7.33	24.56	10.22	6.29	387.37	10802.53
ONCAEA BOREALIS	.00	.00	.17	.00	.00	.00	.00	.00	.00	8.25
ONCAEA CONIFERA	.00	.00	.00	.00	.00	.00	.00	.19	.00	5.71
ONCAEA SP.	.35	.27	.00	.27	.67	.70	.00	.00	.00	130.57
PARACALANUS PARVUS	.00	.00	.17	.00	.00	.00	.22	.00	12.63	266.44
PSEUDOCALANUS MINUTUS	1.06	.54	.66	.27	.00	11.93	5.78	1.90	31.58	1854.34
SCOLECTHICRICELLA MINOR	.53	2.97	.00	1.08	2.67	18.95	1.78	1.33	2.11	1909.73
SPINOCALANUS ABYSALLIS	6.53	4.32	.00	3.50	5.33	4.91	2.44	1.90	.00	1470.88
SPINOCALANUS SP.	.00	.00	.00	.00	.00	.70	.00	.00	.00	52.63
TEMORA LONGICORNIS	.00	.00	.00	.00	.00	.00	.00	.19	.00	5.71
UNID/DAM/EXO COPEPOD	7.59	8.64	8.75	2.15	9.33	7.72	8.89	12.38	44.21	3880.14
UNIDENTIFIED HARPACTICOID	.00	.27	.00	.00	.00	.00	.00	.00	.00	13.50
COPEPOD NAUPLII	.00	.00	.17	.00	1.33	1.40	.67	.57	16.84	550.83
AMPHIPODA EGGS	.00	.00	.17	.00	.00	7.72	.00	.00	.00	587.20
PARATHEMISTO SP.	.53	.00	.00	.00	.00	.70	.00	.19	.00	84.84
mysid	.00	.00	.17	.00	.00	.00	.00	.00	.00	8.25
M. NORVEGICA CALYPTOSIS	.00	.00	.00	.00	.00	.00	.00	.00	2.11	42.11
T. LONGICAUDATA FURCILIAE	.00	.00	.00	.27	.00	.00	.00	.00	.00	13.45
THYSANOESSA SP. CALYPTOSIS	.00	.00	.17	.00	.00	.70	.44	.57	10.53	299.66
EUPHAUSIID EGGS	.00	.00	.00	.54	.00	.00	.22	.38	2.11	85.98

TOW 23 26/09/85 1730H  
SAMPLE

(CONTINUED)

2            3            4            5            6            7            8            9            10

SPECIES	NUMBER PER CUBIC METER							#/M2	
EUPHAUSIID NAUPLII	.00	.00	.00	.00	.00	.00	.00	6.32	126.32
DAMAGED FURCILIAE	.00	.27	.00	.00	.00	.00	.00	.00	13.50
ECHINODERMATA-LARVAE	.00	.00	.00	.00	.00	.00	2.10	2.11	104.96
SAGITTA SETOSA	.00	.00	.00	.00	.00	.70	.00	.00	52.63
FRITILLARIA SP.	.00	.00	.33	.00	.00	.00	.00	6.32	142.82

## L A R G E M E S O Z O O P L A N K T O N & I C H T H Y O P L A N K T O N

TOW 24	26/09/85	2300H	45 18.03 N	57 02.18	2	3	4	5	6	7	8	9
SAMPLE												
DEPTH1 (M)	400.0	300.0	250.0	200.0	100.0	50.0	30.0	10.0				
DEPTH2 (M)	300.0	250.0	200.0	100.0	50.0	30.0	10.0	.0				
VOLUME OF WATER SAMPLED (M3)	353.	233.	215.	349.	107.	23.	16.	26.				
TOTAL BIOMASS (G/M3)	.051	.025	.057	.020	.067	.208	.270	2.490	48.932			
EUPHAUSIACEA BIOMASS (G/M3)	.000	.001	.002	.002	.054	.134	.255	2.131				

SIPHONOPHORA	.18	.06	.00	.00	.00	.00	.00	.00	.00	.00	.00	20.99
LIMACINA BULIMOIDES	.00	.00	.00	.00	.07	.00	.00	.00	.00	.00	.00	3.74
LIMACINA HELICOIDES	.00	.00	.00	.18	.00	.00	.06	.66	.00	.00	.00	26.21
LIMACINA SP.	.18	.06	.37	.83	.37	.29	.00	.00	.00	.00	.00	146.71
GYMNOSOMATA	.00	.00	.00	.37	.00	.29	.00	.00	.00	.00	.00	42.58
BIVALVE LARVAE	.00	.00	.00	.00	.07	.00	.00	.00	.00	.00	.00	3.74
TOMOPTERIS SP.	.00	.00	.12	.00	.00	.00	.00	.00	.00	.00	.00	6.20
CONCHOECIA BOREALIS	.00	.00	.00	.37	.00	.00	.00	.00	.00	.00	.00	36.68
CONCHOECIA CURTA	.18	.17	.12	.73	.00	.59	.00	.44	.00	.00	.00	122.48
CONCHOECIA OBTUSATA	.00	.00	.00	.46	.00	.00	.00	.00	.00	.00	.00	45.85
CONCHOECIA SPINIFERA	.00	.00	.00	.37	.15	.00	.00	.22	.00	.00	.00	46.36
CONCHOECIA SPINIROSTRIS	.54	1.72	.74	.00	.00	.59	.00	.00	.00	.00	.00	189.24
CONCHOECIA SP.	.00	.34	.00	.18	.00	.88	.00	.00	.00	.00	.00	53.20
AETIDEUS ARMATUS	.00	.06	.74	.37	.07	.00	.06	.00	.00	.00	.00	81.74
CALANUS FINMARCHICUS-TOTAL	13.24	2.69	9.18	4.77	4.34	15.34	4.56	37.95	3388.03			
CALANUS FINMARCHICUS (D)	.00	.06	.00	.09	.07	.88	.13	1.54	.51.41			
CALANUS FINMARCHICUS (G)	.00	.00	.00	.00	.30	.88	.25	.750	.112.67			
CALANUS FINMARCHICUS (S)	.18	.00	.37	.18	.00	.59	.19	2.43	.94.89			
CALANUS FINMARCHICUS VIM	.00	.11	.00	.46	.00	.29	.06	1.54	.74.16			
CALANUS FINMARCHICUS VIF	.18	.06	.37	.28	.37	2.36	.56	11.47	.258.97			
CALANUS FINMARCHICUS V	9.43	1.49	6.57	3.12	1.42	3.24	1.06	7.50	1889.79			
CALANUS FINMARCHICUS IV	3.63	.86	1.98	.83	1.57	5.01	.94	11.03	895.14			
CALANUS FINMARCHICUS III	.00	.06	.25	.09	.75	3.24	.50	4.85	185.25			
CALANUS FINMARCHICUS II	.00	.06	.00	.00	.00	.88	.75	1.32	48.80			
CALANUS FINMARCHICUS I	.00	.06	.00	.00	.22	.29	.69	.22	35.93			
CALANUS GLACIALIS (S)	.18	.06	.00	.00	.00	.00	.00	.00	.00	.00	.00	20.99
CALANUS GLACIALIS VIF	.18	.06	.00	.00	.00	.00	.00	.00	.00	.00	.00	20.99
CALANUS GLACIALIS V	5.62	.63	2.11	.55	.37	.88	.00	1.54	805.79			
CALANUS GLACIALIS IV	1.81	.11	.87	.09	.00	.00	.00	.00	.00	.00	.00	241.81
CALANUS GLACIALIS III	.00	.11	.00	.09	.00	.00	.00	.00	.00	.00	.00	14.89
CALANUS HYPERBOREUS-TOTAL	3.44	.29	1.98	.00	.15	.00	.06	.00	.00	.00	.00	466.73
CALANUS HYPERBOREUS V	.73	.06	.37	.00	.00	.00	.06	.00	.00	.00	.00	95.24
CALANUS HYPERBOREUS IV	2.72	.23	1.49	.00	.15	.00	.00	.00	.00	.00	.00	365.29
CALANUS SP.	3.44	2.63	8.81	.55	1.20	5.90	.69	14.12	1304.18			
CALANUS MINOR	.00	.00	.00	.00	.00	.29	.06	.00	.00	.00	.00	7.15
CENTROPAGES TYPICUS	.00	.00	.00	.00	.07	.29	.00	.00	.00	.00	.00	9.64
CLAUSOCALANUS ARCUICORNIS	.00	.11	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.72
CLAUSOCALANUS FURCATUS	.00	.11	.00	.28	.22	.29	.06	.00	.00	.00	.00	51.59
CYMBASOMA SP.	.00	.00	.00	.00	.00	.00	.06	.00	.00	.00	.00	1.25
EUCHEATA NORVEGICA	.54	.11	.25	.00	.07	.00	.13	.22	.00	.00	.00	80.96
EUCHEATA SP.	.18	.06	.00	.28	.00	.00	.00	.00	.00	.00	.00	48.50
GAIDIUS TENUISPINUS	1.09	.52	1.12	.73	.07	1.18	.00	.22	.00	.00	.00	293.24
METRIDIA LONGA	2.72	.46	.99	.55	1.27	7.37	.69	1.10	.635.30			
METRIDIA LUCENS	3.63	1.72	2.85	4.40	2.99	10.91	1.81	5.07	1486.01			
METRIDIA SP.	.00	.00	.00	.00	.00	.00	1.81	.00	.00	.00	.00	36.25
MICROCALANUS PYGMAEUS	.00	.00	.12	.00	.00	.00	.00	.00	.00	.00	.00	6.20
OITHONA ATLANTICA	.18	.29	.50	1.83	.07	1.18	.06	.00	.00	.00	.00	269.21
OITHONA SIMILIS	.73	.46	.99	.83	.37	1.18	1.38	1.10	308.37			
PARACALANUS PARVUS	.00	.06	.00	.09	.00	.00	.00	.00	.00	.00	.00	12.03
PLEUROMAMMA ROBUSTA	.18	.17	.00	.00	.00	.00	.06	.00	.00	.00	.00	27.96
PLEUROMAMMA SP.	.00	.00	.00	.09	.00	.00	.00	.00	.00	.00	.00	9.17
PSEUDOCALANUS MINUTUS	.36	.40	.00	.09	.60	2.95	.19	.22	.00	.00	.00	160.32
SCOLECITHRICELLA MINOR	.91	.74	.99	3.76	1.87	5.31	.31	.22	.00	.00	.00	761.50
SPINOCALANUS ABYSALLIS	4.53	1.77	1.12	5.32	3.44	25.96	.25	.00	.00	.00	.00	1825.71
TEMORA LONGICORNIS	.00	.00	.00	.00	.00	.00	.06	.00	.00	.00	.00	1.25
UNID/DAM/EXO COPEPOD	3.44	3.43	5.95	3.39	5.76	27.73	3.75	16.11	2231.56			
PARATHEMISTO SP.	.00	.00	.00	.00	.00	.29	.00	.22	.00	.00	.00	8.11
M. NORVEGICA CALYPTOSIS	.00	.00	.00	.09	.00	.29	.00	.00	.00	.00	.00	15.07
M. NORVEGICA FURCILIA	.00	.00	.00	.00	.07	.00	.00	.00	.00	.00	.00	3.74
T. LONGICAUDATA FURCILIAE	.00	.00	.00	.00	1.12	2.36	.06	.00	.00	.00	.00	104.52
THYSANDOESSA SP. CALYPTOSIS	.00	.00	.00	.46	.37	1.18	.13	.00	.00	.00	.00	90.64
EUPHAUSIID EGGS	.00	.06	.00	.00	.07	.29	1.06	1.10	.00	.00	.00	44.78
DAMAGED FURCILIAE	.00	.00	.12	.00	.15	2.06	.06	.00	.00	.00	.00	56.23
DECAPOD LARVAE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.25
ECHINODERMATA-LARVAE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.25
SAGITTA SP.	.00	.00	.00	.00	.15	.00	.00	.00	.00	.00	.00	7.48

TOW 24 26/09/85 2300H  
SAMPLE

(CONTINUED)

	2	3	4	5	6	7	8	9
--	---	---	---	---	---	---	---	---

## L A R G E M E S O Z O O P L A N K T O N &amp; I C H T H Y O P L A N K T O N

DIPHIIDAE	.000	.000	.000	.006	.000	.000	.000	.000	.573
UNIDENTIFIED SIPHONOPHORE	.006	.000	.000	.000	.019	.000	.000	.000	1.501
CTENOPHORA	.003	.000	.000	.000	.000	.000	.000	.000	.283
AMPHIPODA	.000	.004	.000	.006	.019	.000	.063	.039	3.358
PARATHEMISTO GAUDICHAUDII	.000	.004	.000	.006	.019	.000	.063	.039	3.358
EUPHAUSIACEA	.045	.056	.107	.195	4.897	11.195	2.063	10.541	647.564
MEGANYCTIPHANES NORVEGICA	.000	.000	.009	.000	.056	.221	1.500	10.425	141.941
NEMATOSCELIS MEGALOPS	.003	.013	.019	.003	.000	.000	.000	.000	2.144
THYSANOESSA INERMIS	.000	.000	.000	.006	.047	.133	.000	.000	5.564
THYSANOESSA LONGICAUDATA	.042	.043	.079	.186	4.794	10.841	.563	.116	497.915
DECAPODA	.031	.013	.033	.000	.000	.000	.000	.000	5.388
PASIPHAEA SP.	.006	.009	.019	.000	.000	.000	.000	.000	1.926
SERGESTES SP.	.003	.000	.000	.000	.000	.000	.000	.000	.283
IMMATURE DECAPOD	.020	.004	.014	.000	.000	.000	.000	.000	2.895
UNIDENTIFIED DECAPOD	.003	.000	.000	.000	.000	.000	.000	.000	.283
CHAETOGNATHA	.091	.056	.163	.438	.150	.177	.063	.000	76.100
EUKHRONIA HAMATA	.076	.039	.135	.221	.019	.088	.000	.000	41.092
SAGITTA ELEGANS	.000	.004	.019	.215	.131	.088	.063	.000	32.197
SAGITTA MAXIMA	.014	.004	.009	.003	.000	.000	.000	.000	2.383
PICES	.003	.004	.005	.000	.000	.000	.000	.000	.730
BENTHOSEMA GLACIALE	.003	.004	.005	.000	.000	.000	.000	.000	.730

TOW 25 27/09/85 0930H 44 41.29 N 56 30.33  
 SAMPLE 2 3 4 5 6 7 8 9 10  
 DEPTH1 (M) 365.0 300.0 250.0 200.0 150.0 100.0 50.0 30.0 10.0  
 DEPTH2 (M) 300.0 250.0 200.0 150.0 100.0 50.0 30.0 10.0 .0  
 VOLUME OF WATER SAMPLED (M3) 198. 211. 231. 194. 138. 81. 25. 30. 17.  
 TOTAL BIOMASS (G/M3) .052 .032 .040 .028 .015 .027 .038 .013 .053 11.984  
 EUPHAUSIACEA BIOMASS (G/M3) .002 .006 .002 .005 .000 .013 .207 .000 .018

SPECIES												#/M2
RADIOLARIAN	.16	.15	.00	.00	.00	.00	.07	.00	.00	.00	.00	19.44
FORAMINIFERA	.00	.00	.00	.00	.00	.00	.27	.17	.00	.00	.00	8.71
LIMACINA BULIMOIDES	.00	.00	.87	.00	.00	.00	.00	.08	.00	.00	.00	44.95
LIMACINA HELICOIDES	.00	.00	.00	.21	.00	.00	.00	.17	.20	.00	.00	15.60
LIMACINA INFILATA	.00	.76	.00	.00	.00	.10	.00	.00	.00	.00	.00	42.88
LIMACINA LESUEURII	.00	.61	.00	.41	.00	.00	.00	.00	.00	.00	.00	50.95
LIMACINA TROCHIFORMIS	.00	.00	.35	.82	.00	.00	.00	.00	.00	.00	.00	58.55
GYMNOSOMATA	.00	.15	.69	2.06	.87	.10	.13	.17	.40	.00	.00	203.89
TOMOPTERIS SP.	.00	.00	.00	.00	.15	.00	.00	.00	.00	.00	.00	7.27
CONCHOECIA BOREALIS	.00	.00	.00	.21	.00	.00	.00	.00	.00	.00	.00	10.31
CONCHOECIA CURTA	.48	.00	.00	1.44	2.18	.20	.00	.08	.40	.00	.00	228.33
CONCHOECIA ELEGANS	.16	.15	.17	.00	.00	.00	.00	.00	.00	.00	.00	26.75
CONCHOECIA OBTUSATA	.00	.00	.00	.00	1.75	.10	.07	.00	.00	.00	.00	93.59
CONCHOECIA SPINIFERA	1.78	.91	.87	.00	.00	.00	.07	.33	.40	.00	.00	216.28
CONCHOECIA ROTUNDATA	.32	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	21.01
CONCHOECIA SPINIROSTRIS	.00	.15	.00	.82	.15	.10	.13	.17	.00	.00	.00	67.07
CONCHOECIA SP.	.32	.15	.52	1.03	.00	.00	.00	.00	.00	.00	.00	106.11
CONCHOECIA-DAMAGED	.00	.15	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.58
ACARTIA SP.	.00	.00	.00	.00	.00	.00	.00	.00	.20	.00	.00	1.98
AETIDEUS ARMATUS	.00	.00	.35	1.24	.00	.00	.13	.08	.20	.00	.00	85.51
CALANUS FINMARCHICUS-TOTAL	15.52	6.82	4.50	1.86	3.64	4.77	6.61	4.64	8.33	2396.24		
CALANUS FINMARCHICUS (D)	.00	.00	.00	.00	.00	.50	.27	.17	.20	.00	.00	35.54
CALANUS FINMARCHICUS (G)	.00	.00	.00	.00	.15	.40	.20	.25	.20	.00	.00	38.15
CALANUS FINMARCHICUS (S)	.16	.30	.35	.00	.00	.00	.27	.17	.40	.00	.00	55.66
CALANUS FINMARCHICUS VIM	.00	.00	.00	.00	.29	.30	.13	.17	.00	.00	.00	35.46
CALANUS FINMARCHICUS VIF	.16	.30	.35	.00	.15	.89	.74	.58	.79	.00	.00	129.35
CALANUS FINMARCHICUS V	11.47	3.94	2.25	.62	2.33	1.69	1.75	1.82	4.37	1402.49		
CALANUS FINMARCHICUS IV	3.56	2.27	1.56	.82	.73	1.09	1.62	.99	1.59	623.17		
CALANUS FINMARCHICUS III	.32	.30	.35	.41	.15	.40	.81	.41	.60	131.68		
CALANUS FINMARCHICUS II	.00	.00	.00	.00	.00	.30	1.35	.25	.79	54.80		
CALANUS FINMARCHICUS I	.00	.00	.00	.00	.00	.10	.20	.41	.20	19.28		
CALANUS GLACIALIS (D)	.00	.15	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.58
CALANUS GLACIALIS VIF	.00	.15	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.58
CALANUS GLACIALIS V	2.26	.76	.52	.00	.00	.20	.20	.41	.20	.00	.00	235.21
CALANUS GLACIALIS IV	1.13	1.06	.69	.00	.15	.10	.07	.00	.00	.00	.00	174.84
CALANUS GLACIALIS III	.16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	10.51
CALANUS HYPERBOREUS-TOTAL	3.23	.76	.35	.00	.00	.00	.00	.13	.25	.00	.00	274.98
CALANUS HYPERBOREUS V	1.78	.45	.17	.00	.00	.00	.00	.07	.17	.00	.00	151.62
CALANUS HYPERBOREUS IV	1.45	.30	.17	.00	.00	.00	.00	.07	.08	.20	.00	123.36
CLAUSOCALANUS ARCUICORNIS	.00	.00	.00	.00	10.76	.60	.00	.00	.00	3.37	601.73	
CLAUSOCALANUS FURCATUS	.00	.30	2.25	10.72	.00	.10	.34	.25	1.98	700.33		
CLYTEMENSTRA SP.	.00	.00	.00	.00	.00	.00	.13	.00	.00	.00	.00	2.70
CONAEA SP.	.00	.00	.17	.21	.00	.00	.00	.00	.00	.00	.00	18.97
EUAETIDEUS GIESBRECHTI	.00	.00	.17	.00	.00	.00	.00	.00	.00	.00	.00	8.66
EUCHEATA NORVEGICA	.48	.15	.17	.00	.00	.00	.00	.00	.00	.00	.00	49.74
EUCHAETA TONSA	.16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	10.51
EUCHEATA SP.	.00	.15	.00	.41	.87	1.19	.00	.00	.00	.00	.00	131.47
EUCHIRELLA SP.	.00	.15	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.58
GAIDIUS TENUISPINUS	.32	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	21.01
HETERORHABDUS PAPILLIGER	.00	.00	.00	.21	.00	.00	.00	.00	.00	.00	.00	10.31
MECYNOCERA CLAUSI	.00	.00	.00	.00	.00	.00	.07	2.73	.20	.00	.00	57.97
METRIDIA LONGA	3.23	.91	.87	2.89	.29	.20	.27	.33	.79	.00	.00	487.66
METRIDIA LUCENS	1.78	7.28	4.16	1.44	1.16	.40	.67	.50	.79	.00	.00	868.92
METRIDIA SP.	.00	1.36	7.62	11.55	12.07	4.67	.74	1.24	3.77	1941.07		
MICROCALANUS PYGMAEUS	.32	.15	1.21	.00	.29	.00	.00	.08	.00	.00	.00	105.40
MICROSTELLA SP.	.16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	10.51
NANNOCALANUS MINOR	.00	.00	.00	.00	.00	.00	.00	.08	.40	.00	.00	5.62
OITHONA ATLANTICA	.48	1.21	9.00	3.71	13.96	3.18	.61	1.32	.99	.00	.00	1633.71
OITHONA SIMILIS	.00	.00	.00	.00	.00	.00	.00	.83	12.90	.00	.00	145.52
PARACALANUS PARVUS	.00	.00	.00	.00	.00	.00	.00	3.31	4.97	17.26	.00	338.08
PLEUROMAMMA ROBUSTA	.16	1.52	.69	.00	.00	.00	.13	.08	.40	.00	.00	129.29
PLEUROMAMMA SP.	.00	.00	.35	.00	.15	.00	.00	.00	.00	.00	.00	24.59
PSEUDOCALANUS MINUTUS	2.91	3.94	2.94	2.27	2.47	10.14	.20	.25	3.37	1320.05		
SCOLECITHRICELLA MINOR	2.10	4.40	2.42	7.42	6.69	.10	.27	.91	.99	1221.86		
SCOLECITHRICELLA SP.	.16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	10.51
SPINOCALANUS SP.	1.29	1.82	.69	.00	.00	.00	.00	.00	.00	.00	.00	209.67
UNID/DAM/EXO COPEPOD	1.62	2.43	13.33	1.44	5.53	4.37	4.72	7.45	11.51	1818.76		

TOW 25 27/09/85 0930H  
SAMPLE

## (CONTINUED)

2 3 4 5 6 7 8 9 10

SPECIES											#/M2
	NUMBER	PER	CUBIC	METER							
COPEPOD NAUPLII	.16	.00	.00	.00	.00	.00	.00	.00	.00	.00	10.51
PARATHEMISTO GAUDICHAUDI	.00	.00	.00	.00	.00	.00	.07	.00	.00	.00	1.35
PARATHEMISTO-IMMATURE	.16	.00	.00	.00	.00	.00	.00	.00	.00	.00	10.51
ISOPOD	.00	.00	.00	.00	.00	.10	.00	.00	.00	.00	4.97
EUPHAUSIID EGGS	.00	.15	.00	.00	.00	.00	.00	.00	.00	.00	7.58
EUPHAUSIID NAUPLII	.16	.30	.00	.00	1.16	1.99	.07	.08	.00	.00	186.24
DAMAGED FURCILIAE	.00	.00	.00	.00	.00	.00	.00	.08	.00	.00	1.66
ECHINODERMATA-LARVAE	.00	.00	.00	.00	.00	.00	.00	.08	.00	.00	1.66
SAGITTA SP.	.00	.00	.00	.00	.00	.00	.00	.00	.20	.00	1.98
EUKRONIA SP.	.00	.00	.00	.21	.00	.00	.07	.00	.20	.00	13.64
OIKOPLEURA SP.	.00	.00	.00	.00	.29	.20	.00	.00	.00	.00	24.48
FRITILLARIA SP.	.00	.00	.00	.00	1.16	.10	.13	.00	.00	.00	65.85
FISH EGGS	.00	.00	.00	.00	.00	.00	.07	.00	.00	.00	1.35

## L A R G E M E S O Z O O P L A N K T O N &amp; I C H T H Y O P L A N K T O N

UNIDENTIFIED SIPHONOPHORE	.005	.000	.000	.000	.007	.000	.000	.000	.000	.000	.692
TOMOPTERIS SP.	.000	.005	.000	.005	.007	.000	.000	.000	.000	.000	.858
EUPHAUSIACEA	.141	.351	.165	.113	.022	.137	2.348	.033	.298	99.148	
EUPHAUSIA KROHNII	.000	.270	.152	.021	.000	.000	.000	.000	.000	.000	22.114
MEGANYCTIPHANES NORVEGICA	.005	.014	.000	.036	.000	.075	.000	.000	.119	.000	7.760
NEMATOSCELIS MEGALOPS	.015	.000	.000	.005	.000	.000	.000	.000	.000	.000	1.243
THYSANOESSA INERMIS	.000	.005	.000	.000	.000	.000	.000	.000	.000	.000	.237
THYSANOESSA LONGICAUDATA	.121	.028	.009	.000	.022	.000	2.348	.033	.179	.000	60.236
DAMAGED/UNIDENTIFIED EUPHAUS	.000	.033	.004	.052	.000	.062	.000	.000	.000	.000	.7.558
DECAPODA	.051	.000	.009	.005	.000	.000	.000	.000	.000	.000	3.973
PASIPHAEA SP.	.015	.000	.009	.005	.000	.000	.000	.000	.000	.000	1.675
SERGESTES SP.	.025	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.641
IMMATURE DECAPOD	.010	.000	.000	.000	.000	.000	.000	.000	.000	.000	.657
CHAETOGNATHA	.086	.123	.078	.526	1.120	.497	.081	.364	.000	.000	131.676
EUKHRONIA HAMATA	.076	.000	.074	.505	1.055	.199	.040	.000	.000	.000	97.337
SAGITTA ELEGANS	.000	.081	.004	.005	.036	.273	.000	.364	.000	.000	27.270
SAGITTA MAXIMA	.010	.043	.000	.015	.029	.025	.040	.000	.000	.000	7.069

TOW 27	27/09/85	1530H	44	22.68	N	56	14.02					
SAMPLE			2	3	4	5	6	7	8	9	10	
DEPTH1 (M)			1427.0	1350.0	1250.0	1200.0	1100.0	1050.0	950.0	850.0	750.0	
DEPTH2 (M)			1350.0	1250.0	1200.0	1100.0	1050.0	950.0	850.0	750.0	650.0	
VOLUME OF WATER SAMPLED (M3)			167.	267.	159.	344.	181.	234.	122.	69.	86.	
TOTAL BIOMASS (G/M3)			.020	.021	.043	.037	.045	.036	.041	.071	.105	36.960
EUPHAUSIACEA BIOMASS (G/M3)			.000	.000	.003	.000	.001	.002	.001	.002	.000	

SPECIES												\$/M2
MEDUSA			.00	.00	.00	.00	.00	.00	.00	.00	.04	3.88
SIPHONOPHORA			.00	.00	.18	.05	.00	.10	.15	.00	.00	38.66
LIMACINA HELICOIDES			.00	.00	.00	.00	.00	.10	.00	.00	.00	9.77
LIMACINA LESUEURII			.00	.01	.00	.00	.02	.00	.00	.00	.00	2.42
LIMACINA TROCHIFORMIS			.00	.00	.00	.00	.02	.00	.00	.00	.00	.92
GYMNOSOMATA			.00	.01	.00	.00	.00	.00	.00	.03	.04	8.27
POLYCHAETA LARVAE			.00	.00	.00	.00	.02	.00	.00	.00	.19	20.30
TOMOPTERIS SP.			.03	.00	.00	.00	.00	.00	.00	.00	.00	2.31
CONCHOECIA AMETRA			.00	.00	.00	.00	.00	.00	.00	.00	.04	3.88
CONCHOECIA BOREALIS			.00	.00	.09	.03	.04	.39	.00	.14	.12	74.19
CONCHOECIA OBTUSATA			.00	.03	.00	.00	.00	.00	.00	.00	.00	3.00
CONCHOECIA SPINIFERA			.00	.00	.00	.00	.00	.10	.00	.00	.00	9.77
CONCHOECIA SPINIROSTRIS			.00	.00	.00	.03	.00	.10	.00	.00	.00	12.35
CONCHOECIA SP.			.03	.00	.00	.13	.04	.59	.04	.14	.31	124.82
CONCHOECIA-DAMAGED			.00	.00	.00	.00	.00	.00	.04	.00	.00	3.64
HALOCYPRIS GLOBOSA			.00	.01	.09	.00	.00	.00	.00	.00	.00	6.07
AETIDEUS ARMATUS			.00	.03	.00	.05	.02	.10	.00	.03	.00	21.75
AMALLOTHRIX SP.			.00	.00	.00	.00	.00	.00	.00	.00	.04	3.88
BATHYCALANUS RICHARDI			.00	.01	.00	.00	.00	.00	.00	.03	.00	4.40
CALANUS FINMARCHICUS-TOTAL	1.68	.76	5.21	.98	1.42	3.13	1.68	2.43	1.28	1486.86		
CALANUS FINMARCHICUS (D)	.12	.06	.09	.00	.11	.00	.04	.00	.00	.00	.00	28.96
CALANUS FINMARCHICUS (S)	.12	.04	.18	.00	.06	.49	.07	.09	.12	102.08		
CALANUS FINMARCHICUS VIF	.24	.10	.27	.00	.17	.49	.11	.09	.12	131.03		
CALANUS FINMARCHICUS V	1.35	.64	4.76	.96	1.20	2.54	1.46	2.23	1.12	1296.75		
CALANUS FINMARCHICUS IV	.09	.01	.18	.03	.06	.10	.11	.09	.04	.56.18		
CALANUS FINMARCHICUS I	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.90
CALANUS GLACIALIS (D)	.00	.00	.00	.00	.00	.20	.00	.00	.00	.00	.00	19.54
CALANUS GLACIALIS (S)	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.31
CALANUS GLACIALIS VIF	.03	.00	.00	.00	.00	.20	.00	.00	.00	.00	.00	21.84
CALANUS GLACIALIS V	.12	.03	.18	.03	.06	.39	.11	.14	.04	.95.08		
CALANUS GLACIALIS IV	.06	.01	.00	.00	.00	.00	.00	.00	.03	.00	.00	9.01
CALANUS GLACIALIS III	.00	.00	.00	.03	.00	.10	.04	.03	.04	.00	.00	22.77
CALANUS HYPERBOREUS-TOTAL	1.08	.85	1.56	.93	.77	1.86	1.42	1.83	1.36	1023.78		
CALANUS HYPERBOREUS (D)	.03	.09	.00	.00	.06	.00	.04	.09	.04	.30.27		
CALANUS HYPERBOREUS (S)	.03	.12	.09	.16	.07	.10	.22	.41	.04	114.13		
CALANUS HYPERBOREUS VIF	.06	.21	.09	.16	.13	.10	.26	.49	.08	144.40		
CALANUS HYPERBOREUS V	.30	.34	.46	.34	.33	.29	.69	.72	.58	359.67		
CALANUS HYPERBOREUS IV	.63	.28	.91	.39	.29	1.27	.44	.58	.66	470.67		
CALANUS SP.	1.17	1.02	9.88	.47	.24	.20	.51	1.77	.70	1061.38		
CHIRIDIUS ARMATUS	.00	.00	.00	.10	.00	.00	.07	.14	.00	.00	.00	32.11
CHIRIDIUS GRACILIS	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.50
CLAUSOCALANUS FURCATUS	.06	.01	.55	.16	.17	.59	.07	.09	.04	135.81		
CLYTEMNESTRA SCUTELLATA	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00	2.90
EUAUGAPTILIS MAGNUS	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00	2.90
EUCALEANUS ATTENUATUS	.03	.03	.09	.08	.02	.29	.04	.03	.00	.00	.00	54.39
EUCALEANUS ELONGATUS	.00	.04	.00	.10	.02	.10	.11	.12	.08	.00	.00	55.79
EUCHEATA NORVEGICA	.03	.04	.27	.05	.18	.98	.55	.84	.54	325.54		
EUCHEATA TONSA	.00	.03	.18	.05	.13	.59	.29	.49	.39	199.54		
EUCHEATA SP.	.00	.00	.00	.05	.04	.29	.07	.06	.04	.53.27		
GAETANUS KRUPPI	.00	.00	.00	.00	.02	.00	.00	.03	.00	.00	.00	3.82
GAETANUS PILEATUS	.00	.00	.09	.00	.00	.00	.00	.00	.00	.00	.00	4.57
GAIDIUS TENUISPINUS	.12	.03	.46	.00	.00	.68	.00	.14	.16	133.46		
GAIDIUS BREVISPINUS	.00	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00	.92
HALOPTILUS SP.	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.31
LOPHOTHRIX FRONTALIS	.00	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00	.92
LUBBOCKIA SQUILLIMANA	.00	.01	.18	.05	.00	.10	.00	.03	.00	.00	.00	28.48
LUCICUTIA FLAVICORNIS	.00	.00	.00	.00	.00	.00	.07	.00	.00	.00	.00	7.29
LUCICUTIA OVALIS	.06	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.61
LUCICUTIA TENUICAUDATA	.06	.00	.00	.05	.04	.00	.07	.00	.00	.00	.00	18.91
MEGACALANUS PRINCEPS	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.31
METRIDIA LONGA	.27	.09	1.92	.26	.24	1.07	.55	.67	.27	419.49		
METRIDIA LUCENS	.57	.15	1.83	.62	.57	2.15	.80	1.42	1.20	798.05		
METRIDIA VENUSTA	.42	.12	.18	.16	.02	.20	.04	.14	.09	196.65		
MICROCALANUS PYGMAEUS	.00	.00	.00	.03	.00	.00	.00	.00	.00	.00	.00	2.58
OITHONA ATLANTICA	.00	.00	.55	.08	.04	.00	.00	.00	.00	.00	.00	37.04
OITHONA SIMILIS	.00	.01	.18	.05	.02	.00	.11	.03	.04	.00	.00	34.44
OITHONA SP.	.84	.22	.00	.00	.00	.00	.00	.00	.00	.39	125.78	

TOW 27 27/09/85 1530H  
SAMPLE

## (CONTINUED)

2 3 4 5 6 7 8 9 10

SPECIES					NUMBER	PER	CUBIC	METER	#/M2	
ONCAEA BOREALIS	.33	.19	1.01	.47	.15	2.54	.04	.03	.19	428.92
ONCAEA SP.	.00	.00	1.83	.75	.07	1.27	.04	.03	.00	303.63
ONCHOCALANUS TRIGONICEPS	.00	.00	.00	.00	.00	.00	.00	.03	.00	2.90
PARACALANUS PARVUS	.00	.00	.27	.00	.00	.00	.18	.09	.00	40.63
PLEUROMAMMA ROBUSTA	.00	.00	.00	.03	.00	.00	.04	.03	.00	9.13
PSEUDOCALANUS MINUTUS	.03	.00	.00	.00	.00	.00	.00	.00	.00	2.31
PSEUDOCHIRELLA OBTUSATA	.03	.00	.00	.00	.00	.00	.00	.00	.00	2.31
RHINCALANUS CORNUTUS	.03	.00	.09	.00	.02	.10	.00	.03	.12	32.09
RHINCALANUS NASUTUS	.00	.03	.00	.00	.00	.00	.00	.00	.04	6.87
SCAPHOCALANUS MAGNUS	.00	.00	.00	.00	.00	.00	.07	.00	.00	7.29
SCAPHOCALANUS MEDIUS	.27	.15	.46	.18	.00	.98	.07	.00	.08	189.41
SCAPHOCALANUS SP.	.03	.00	.00	.00	.00	.00	.00	.00	.00	2.31
SCOLECTHRICELLA MINOR	.00	.00	.18	.05	.09	.00	.00	.03	.00	21.82
SCOLECTHRICELLA SP.	.00	.00	.18	.00	.00	.00	.00	.00	.04	13.02
SPINOCALANUS ABYSALLIS	.39	.06	.18	.26	.07	1.95	.04	.17	.31	322.04
SPINOCALANUS SP.	.18	.00	.00	.03	.00	.20	.00	.00	.00	35.95
TEMORITES BREVIS	.00	.00	.00	.03	.00	.00	.00	.00	.00	2.58
UNID/DAM/EXO COPEPOD	3.02	1.84	9.79	2.76	1.58	7.81	2.08	4.55	4.26	3132.73
AMPHIPODA EGGS	.00	.00	.00	.00	.00	.00	.87	.00	.27	114.56
UNIDENTIFIED GAMMARID	.00	.00	.00	.00	.02	.00	.04	.09	.00	13.26
T. LONGICAUDATA FURCILIAE	.00	.00	.00	.00	.02	.00	.00	.06	.00	6.72
THYSANODESSA SP. CALYPTOSIS	.00	.00	.00	.00	.00	.10	.00	.00	.00	9.77
EUPHAUSIID NAUPLII	.00	.00	.00	.00	.00	.00	.00	.00	.19	19.38
DAMAGED FURCILIAE	.06	.01	.09	.05	.09	.20	.04	.09	.04	56.21
EUKRONIA HAMATUS	.00	.00	.00	.00	.00	.00	.00	.03	.00	2.90

## L A R G E M E S O Z O O P L A N K T O N &amp; I C H T H Y O P L A N K T O N

UNIDENTIFIED SIPHONOPHORE	.000	.007	.000	.003	.006	.004	.000	.000	.000	1.743
PERIPHYLLA	.000	.000	.000	.003	.006	.000	.008	.000	.000	1.387
UNIDENTIFIED MEDUSA	.000	.004	.000	.003	.000	.000	.000	.000	.000	.665
UNIDENTIFIED POLYCHAET	.006	.000	.000	.000	.000	.004	.000	.000	.000	.888
TOMOPTERIS SP.	.000	.000	.000	.003	.000	.000	.000	.000	.000	.291
AMPHIPODA	.000	.007	.000	.003	.000	.009	.008	.000	.012	3.877
PARATHEMISTO GAUDICHAUDII	.000	.007	.000	.003	.000	.009	.008	.000	.000	2.714
UNIDENTIFIED GAMMARID	.000	.000	.000	.000	.000	.000	.000	.000	.012	1.163
MYSIDACEA	.006	.004	.013	.006	.017	.021	.033	.043	.035	16.126
BOREOMYSIS SP.	.000	.000	.013	.003	.011	.021	.033	.014	.023	10.662
EUCOPIA SP.	.006	.004	.000	.003	.006	.000	.000	.029	.012	5.464
EUPHAUSIACEA	.048	.064	.157	.052	.083	.291	.148	.304	.081	109.682
EUPHAUSIA KROHNII	.006	.000	.013	.000	.006	.004	.000	.000	.000	1.794
MEGANYCTIPHANES NORVEGICA	.000	.000	.006	.000	.000	.000	.000	.000	.000	.314
NEMATOSCELIS MEGALOPS	.000	.000	.000	.000	.000	.004	.000	.000	.000	.427
THYSANODESSA LONGICAUDATA	.042	.064	.138	.052	.077	.282	.148	.304	.081	107.146
DECAPODA	.000	.000	.000	.009	.000	.004	.000	.014	.047	7.400
GENNADAS SP.	.000	.000	.000	.006	.000	.004	.000	.000	.012	2.172
PASIPHAEA SP.	.000	.000	.000	.000	.000	.000	.000	.014	.000	1.449
SERGESTES SP.	.000	.000	.000	.003	.000	.000	.000	.000	.023	2.616
UNIDENTIFIED DECAPOD	.000	.000	.000	.000	.000	.000	.000	.000	.012	1.163
CHAETOGNATHA	.084	.026	.126	.064	.072	.145	.115	.275	.105	89.359
EUKHRONIA FOWLERI	.000	.000	.006	.006	.006	.004	.008	.000	.000	2.419

TOW 27 27/09/85 1530H  
SAMPLE

(CONTINUED)

SPECIES											#/M2
EUKHRONIA HAMATA	.072	.011	.088	.035	.039	.060	.066	.087	.093	47.019	
SAGITTA MACROCEPHALA	.012	.015	.031	.020	.028	.081	.033	.116	.000	30.401	
SAGITTA MAXIMA	.000	.000	.000	.003	.000	.000	.000	.000	.012	1.453	
SAGITTA ZETOSIS	.000	.000	.000	.000	.000	.000	.008	.014	.000	2.269	
UNIDENTIFIED CHAETOGNATH	.000	.000	.000	.000	.000	.000	.000	.058	.000	5.797	
PICES	.000	.004	.019	.006	.011	.021	.000	.029	.047	12.138	
BENTHOSEMA GLACIALE	.000	.000	.000	.000	.006	.000	.000	.000	.000	.000	.276
CYCLOTHONE SP.	.000	.004	.019	.006	.006	.017	.000	.029	.023	9.109	
LAMPANYCTUS SP.	.000	.000	.000	.000	.000	.004	.000	.000	.000	.427	
SCOPELOGADUS SP.	.000	.000	.000	.000	.000	.000	.000	.000	.012	1.163	
UNIDENTIFIED FISH LARVE	.000	.000	.000	.000	.000	.000	.000	.000	.012	1.163	

TOW 26 27/09/85 1230H 44 25.54 N 56 16.76  
 SAMPLE 2 3 4 5 6 7 8 9 10  
 DEPTH1 (M) 700.0 600.0 500.0 400.0 300.0 200.0 89.0 50.0 30.0  
 DEPTH2 (M) 600.0 500.0 400.0 300.0 200.0 89.0 50.0 20.0 .0  
 VOLUME OF WATER SAMPLED (M3) 247. 512. 1057. 369. 81. 70. 22. 24. 24.  
 TOTAL BIOMASS (G/M3) .032 .053 .063 .047 .036 .022 .039 .076 .075 31.592  
 EUPHAUSIACEA BIOMASS (G/M3) .000 .006 .003 .002 .005 .001 .002 .020 .016

SPECIES		NUMBER	PER CUBIC METER	#/M2						
UNIDENTIFIED/DAMAGED MEDUSA	.03	.05	.00	8.45						
SIPHONOPHORA	.00	.00	.00	3.58						
LIMACINA BULIMOIDES	.02	.00	.00	1.62						
LIMACINA HELICOIDES	.00	.00	.00	23.10						
LIMACINA LESUEURII	.00	.00	.00	54.35						
LIMACINA TROCHIFORMIS	.00	.00	.00	3.04						
GYMNOSOMATA	.02	.05	.00	26.68						
TOMOPTERIS SP.	.02	.00	.00	1.62						
CONCHOECIA AMETRA	.02	.00	.00	4.13						
CONCHOECIA BOREALIS	.03	.05	.00	8.45						
CONCHOECIA CURTA	.00	.00	.00	126.14						
CONCHOECIA SPINIFERA	.00	.05	.30	78.77						
CONCHOECIA SPINIROSTRIS	.13	.05	.00	20.67						
CONCHOECIA SP.	.11	.36	.00	98.07						
CONCHOECIA-DAMAGED	.15	.00	.00	14.57						
ACARTIA CLAUSI	.00	.00	.00	20.78						
ACARTIA DANAE	.00	.00	.00	35.15						
AETIDEUS ARMATUS	.00	.00	.00	168.18						
CALANUS FINMARCHICUS-TOTAL	.87	5.57	21.95	18.73	5.10	8.33	3.12	5.83	8.70	6705.83
CALANUS FINMARCHICUS (D)	.02	.05	.61	.35	.08	.38	.00	.17	.17	162.36
CALANUS FINMARCHICUS (G)	.00	.00	.00	.00	.00	.38	.05	.04	.08	47.59
CALANUS FINMARCHICUS (S)	.02	.26	.61	.52	.00	.00	.09	.21	.33	160.11
CALANUS FINMARCHICUS VIF	.03	.31	1.21	.87	.08	.76	.14	.42	.59	370.07
CALANUS FINMARCHICUS V	.76	5.00	19.98	16.48	4.61	5.30	2.66	4.21	6.69	5702.31
CALANUS FINMARCHICUS IV	.08	.26	.61	1.39	.41	1.89	.32	1.13	1.17	566.24
CALANUS FINMARCHICUS III	.00	.00	.15	.00	.00	.38	.00	.08	.17	64.70
CALANUS FINMARCHICUS II	.00	.00	.00	.00	.00	.00	.00	.00	.08	2.51
CALANUS GLACIALIS (G)	.00	.00	.00	.00	.00	.00	.00	.00	.08	2.51
CALANUS GLACIALIS VIF	.00	.00	.00	.00	.00	.00	.00	.00	.08	2.51
CALANUS GLACIALIS V	.15	1.04	3.63	1.91	.25	1.14	.46	.50	.50	871.60
CALANUS GLACIALIS IV	.03	.05	.00	.00	.00	.00	.00	.04	.00	9.70
CALANUS HYPERBOREUS-TOTAL	.29	.31	.00	.17	.25	.00	.05	.13	.08	110.48
CALANUS HYPERBOREUS (D)	.05	.05	.00	.00	.00	.00	.00	.00	.00	10.07
CALANUS HYPERBOREUS (S)	.00	.00	.00	.00	.00	.00	.00	.04	.00	1.25
CALANUS HYPERBOREUS VIF	.05	.05	.00	.00	.00	.00	.00	.04	.00	11.32
CALANUS HYPERBOREUS V	.16	.21	.00	.17	.08	.00	.05	.04	.00	65.64
CALANUS HYPERBOREUS IV	.08	.05	.00	.00	.16	.00	.00	.04	.08	33.53
CALANUS SP.	.21	.42	.00	.69	1.15	1.14	2.43	4.50	1.92	661.02
CALANUS MINOR	.00	.00	.00	.00	.08	.00	.05	.08	3.35	112.94
CLAUSOCALANUS FURCATUS	.00	.16	.00	1.39	1.65	32.20	.37	.13	.59	3928.49
CLYTEMNESTRA SCUTELLATA	.00	.00	.00	.00	.00	.00	.05	.08	.00	4.29
EUCALEANUS ATTENUATUS	.05	.10	.00	.00	.00	.00	.00	.00	.00	15.27
EUCALEANUS ELONGATUS	.00	.05	.00	.00	.00	.00	.00	.00	.00	5.21
EUCHEATA NORVEGICA	.52	.10	.45	.00	.33	.38	.18	.33	.08	202.28
EUCHAETA TONSA	.00	.31	.00	.00	.25	.00	.09	.04	.17	65.79
EUCHAETA SP.	.10	.47	.15	.52	.58	1.14	.00	.00	.17	312.53
GAIDIUS TENUISPINUS	.11	.36	.45	.52	.08	.00	.05	.13	.25	166.54
MECYNOCERA CLAUSI	.00	.05	.15	.00	.16	.00	.00	.04	6.11	221.32
METRIDIA LONGA	.16	.05	2.72	2.95	1.56	.38	.78	.79	.59	858.88
METRIDIA LUCENS	.26	.47	.61	4.51	7.41	26.89	.28	.71	.67	4362.32
MICROCALANUS PYGMAEUS	.00	.00	.00	.00	.00	.00	.09	.00	.00	3.58
MORMONILLA PHASMA	.02	.00	.00	.00	.00	.00	.00	.00	.00	1.62
OITHONA ATLANTICA	.02	.05	.15	.87	.25	10.23	1.06	.08	.08	1314.76
OITHONA SIMILIS	.00	.00	.15	.17	.08	.00	.28	.21	.08	60.21
ONCAEA MEDIA	.00	.10	.00	.00	.00	.00	.00	.00	.00	10.42
ONCAEA SP.	.18	.00	.15	.00	.00	.00	.00	.00	.08	35.46
PARACALANUS PARVUS	.02	.00	.00	.00	.08	.00	.00	.00	1.34	50.02
PHAENNA SPINIFERA	.00	.00	.15	.00	.00	.00	.00	.00	.00	15.14
PLEUROMAMMA ROBUSTA	.00	.00	.15	.35	.00	.00	.00	.00	.00	49.83
PSEUDOCALANUS MINUTUS	.00	.00	.61	.00	.00	.00	.00	.00	.17	65.57
RHINCALANUS CORNUTUS	.00	.00	.00	.00	.08	.00	.00	.00	.00	8.23
SCAPHOCALANUS MEDIUS	.00	.00	.00	.69	.00	.00	.00	.00	.00	69.38
SCOЛЕCITHRICELLA MINOR	.11	.31	.15	3.47	1.07	7.58	.09	.33	.25	1373.62
SCOЛЕCITHRICELLA SP.	.00	.00	.30	.00	.00	.00	.00	.00	.00	30.27
SCOTCALANUS SECURIFRONS	.02	.00	.00	.00	.00	.00	.00	.00	.00	1.62
SPINOCALANUS ABYSALLIS	.92	1.35	.00	2.60	.08	.00	.00	.00	.00	496.12
SPINOCALANUS SP.	.00	.00	.45	.00	.00	.00	.00	.00	.00	45.41

TOW 26 27/09/85 1230H  
SAMPLE

## (CONTINUED)

2 3 4 5 6 7 8 9 10

SPECIES					NUMBER	PER	CUBIC	METER	#/M2
UNDEUCHEATA MAJOR	.00	.10	.00	.17	.00	.00	.00	.00	.00
UNID/DAM/EXO COPEPOD	1.43	2.19	3.03	3.30	7.98	21.97	2.52	3.25	8.62
AMPHIPODA EGGS	1.15	.00	.00	.00	.00	2.65	.00	.04	.00
PARATHEMISTO SP.	.00	.00	.00	.00	.00	.00	.00	.08	1.76
UNIDENTIFIED AMPHIPOD	.05	.00	.00	.00	.00	.00	.05	.00	.00
M. NORVEGICA CALYPTOSIS	.00	.00	.00	.00	.00	.00	.00	.04	.00
M. NORVEGICA FURCILIA	.00	.00	.00	.00	.00	.00	.00	.00	1.25
THYSANOESSA RASCHII FURCILIA	.00	.00	.00	.00	.00	.00	.05	.21	.00
T. LONGICAUDATA FURCILIAE	.00	.00	.00	.00	.00	.00	.00	.79	1.42
THYSANOESSA SP. FURCILIAE	.00	.00	.00	.00	.00	.38	.05	.08	.00
THYSANOESSA SP. CALYPTOSIS	.00	.00	.00	.00	.00	2.65	.28	.04	.00
EUPHAUSIID EGGS	.02	.00	.00	.00	.00	.00	.00	.04	.00
DAMAGED FURCILIAE	.00	.00	.00	.00	.00	.76	.00	.71	1.26
EUKRONIA HAMATUS	.02	.00	.00	.00	.08	.00	.00	.00	.00
DAMAGED CHAETOGNATH	.02	.00	.00	.00	.25	.00	.05	.00	.08
FISH EGGS	.02	.00	.00	.00	.00	.00	.00	.00	1.62

## L A R G E M E S O Z O O P L A N K T O N &amp; I C H T H Y O P L A N K T O N

UNIDENTIFIED SIPHONOPHORE	.004	.002	.001	.000	.000	.000	.000	.000	.000	.695
PERIPHYLLA	.008	.000	.000	.000	.000	.000	.000	.000	.000	.810
UNIDENTIFIED MEDUSA	.000	.004	.000	.000	.000	.000	.000	.000	.000	.391
LIMACINA SP.	.004	.000	.000	.000	.000	.000	.000	.000	.000	.405
TOMOPTERIS SP.	.000	.000	.000	.005	.000	.000	.000	.000	.000	.542
AMPHIPODA	.000	.023	.005	.000	.000	.014	.092	.083	.000	10.471
PARATHEMISTO GAUDICHAUDII	.000	.021	.004	.000	.000	.014	.092	.083	.000	10.182
UNIDENTIFIED GAMMARID	.000	.002	.001	.000	.000	.000	.000	.000	.000	.290
mysidacea	.012	.004	.000	.000	.012	.000	.000	.000	.000	2.840
BOREOMYSIS SP.	.012	.004	.000	.000	.012	.000	.000	.000	.000	2.840
EUPHAUSIACEA	.020	.078	.041	.065	.123	.057	.138	1.875	.711	122.017
EUPHAUSIA KROHNII	.000	.000	.005	.054	.099	.000	.046	.042	.000	18.809
MEGANYCTIPHANES NORVEGICA	.000	.018	.014	.003	.012	.000	.000	.000	.042	5.938
NEMATOSCELIS MEGALOPS	.000	.000	.000	.003	.000	.014	.000	.000	.000	1.848
THYSANOESSA INERMIS	.000	.000	.000	.000	.000	.000	.000	.042	.000	1.250
THYSANOESSA LONGICAUDATA	.020	.047	.018	.005	.012	.043	.092	1.792	.669	92.428
THYSANOPODA SP.	.000	.014	.003	.000	.000	.000	.000	.000	.000	1.651
DAMAGED/UNIDENTIFIED EUPHAUS	.000	.000	.001	.000	.000	.000	.000	.000	.000	.095
DECAPODA	.004	.061	.006	.005	.012	.000	.000	.000	.042	10.059
ACANTHYPHYRA SP.	.000	.000	.000	.003	.000	.000	.000	.000	.000	.271
GENNADAS SP.	.004	.002	.000	.000	.000	.000	.000	.000	.000	.600
PASIPHAEA SP.	.000	.000	.000	.003	.000	.000	.000	.000	.000	.271
PENAEIDAE	.000	.000	.001	.000	.000	.000	.000	.000	.000	.095
SERGESTES SP.	.000	.059	.005	.000	.012	.000	.000	.000	.042	8.822
CHAETOGNATHA	.040	.055	.149	.230	.160	.099	.275	.083	2.469	161.785
EUKHRONIA HAMATA	.028	.035	.143	.225	.123	.043	.275	.000	.167	75.959
SAGITTA ELEGANS	.000	.000	.001	.003	.000	.014	.000	.083	2.301	73.480
SAGITTA LYRA	.000	.000	.001	.000	.000	.000	.000	.000	.000	.095
SAGITTA MAXIMA	.012	.020	.004	.003	.037	.043	.000	.000	.000	12.251
PICES	.012	.031	.022	.003	.025	.000	.046	.000	.000	11.045
BENTHOSEMA GLACIALE	.000	.004	.005	.000	.000	.000	.000	.000	.000	.864
CYCLOTHONE SP.	.012	.027	.017	.003	.025	.000	.046	.000	.000	10.181