

**Canadian Pacific Coast  
Ichthyoplankton Survey. 1980.  
Ichthyoplankton. Cruise Four  
(April 15-23)**

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## **Canadian Data Report of Fisheries and Aquatic Sciences**

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Les numéros 1 à 25 de cette série ont été publiés à titre de Records statistiques, Service des pêches et de la mer. Les numéros 26-160 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 de la série a été modifié à partir du numéro 161.

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CANADIAN PACIFIC COAST ICHTHYOPLANKTON SURVEY, 1980.

ICHTHYOPLANKTON. CRUISE FOUR (APRIL 15-23).

by

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ABSTRACT

Mason, J. C., O. D. Kennedy, and A. C. Phillips. 1981. Canadian Pacific Coast Ichthyoplankton Survey, 1980. Ichthyoplankton. Cruise Four (April 15-23). Can. Data Rep. Fish. Aquat. Sci. 278: 80 p.

This report contains a compilation of corrected catches of juvenile fishes, fish eggs, and fish larvae by station, in reduced computer printout format, for the fourth of four standardized cruises. These cruises were eight to nine days in duration and were conducted on the G. B. REED.

The survey encompassed the entire length of the Canadian outer coast and also included Dixon Entrance, Hecate Strait, and Queen Charlotte Sound.

<sup>2</sup>  
Oblique tows were made using 0.25 m Bongos equipped with 351  $\mu$ m Nitex nets of modified SCOR design. All sampling gear was black to minimize potential avoidance and resulting catch bias. The tow procedure generally followed that established by CALCOFI, excepting that tows were made to within 20 m of the sea floor on the shelf and to a maximum depth of 565 m on the slope.

Key words: Ichthyoplankton, Canadian Pacific shelf, Dixon Entrance, Hecate Strait, Queen Charlotte Sound.

/ /  
RÉSUMÉ

Mason, J. C., O. D. Kennedy, and A. C. Phillips. 1981. Canadian Pacific Coast Ichthyoplankton Survey, 1980. Ichthyoplankton. Cruise Four (April 15-23). Can. Data Rep. Fish. Aquat. Sci. 278: 80 p.

Le présent rapport contient une compilation des prises corrigées de poissons juvéniles, d'oeufs et de larves de poisson par station, sous la forme d'un imprimé d'ordinateur réduit, pour la deuxième de quatre expéditions normalisées. Ces expéditions duraient de huit à neuf jours et étaient menées à partir du G. B. REED.

Les levés portaient sur toute la longueur de la côte canadienne la plus à l'ouest ainsi que sur l'entrée Dixon, le détroit d'Hécate et le bassin Reine-Charlotte.

Des chalutages obliques ont été effectués à l'aide d'engins d'échantillonnage de type bongo de 0,25 m<sup>2</sup> munis de filets Nitex de 351 µm de conception CRSO modifiée. Tout l'équipement d'échantillonnage était en noir pour minimiser l'évitage potentiel qui se traduit par un facteur d'inexactitude pour les prises. La méthode de chalutage était généralement semblable à celle établie pour le programme CALCOFI, sauf que le chalutage était effectué à moins de 20 m du fond sur le plateau et à une profondeur maximale de 565 m sur le talus.

Mots clés: Ichtyoplancton, plateau continental du Pacifique canadien, entrée Dixon, détroit d'Hécate, bassin Reine-Charlotte.

## ORIENTATION AND METHODOLOGY

The Pacific Coast Ichthyoplankton Survey was conducted by staff of the Groundfish Program at the Pacific Biological Station, Nanaimo (Resource Services Branch). The survey involved four monthly cruises of some nine days duration each made on the G. B. REED (January 15-22, February 13-20, March 12-20, and April 15-23). The present report concerns the fourth cruise made in April, 1980.

The survey encompassed the entire length of the Canadian outer coast and also included Dixon Entrance, Hecate Strait, and Queen Charlotte Sound. A total of 77 stations on 18 transect lines were occupied routinely (Fig. 1). The stations are listed by number, location (latitude and longitude), and depth in Table 1.

On station, following oblique tows for ichthyoplankton, an STD cast (Bisset Berman) was made, supplemented irregularly by XBT casts, and by Nansen casts, with salinometry done ashore. The physical-chemical data base is presented in processed form in three parts (Data Reports Nos. 279, 280, and 281).

The oblique tows were made using 0.25 m<sup>2</sup> Bongos equipped with 351 µm Nitex nets of modified SCOR design, and General Oceanics center-mounted flow meters. A 100-kg minesweeper depressor was used on the January cruise but was replaced with a 95-kg cylindrical weight for the subsequent cruises in order to minimize stress on the gear and cable induced by the depressor while in the surface surge zone. All sampling gear was black to minimize potential avoidance and resulting catch bias.

The tow procedure generally followed that established by CALCOFI: vessel speed of 2 kts, gear descent at a cable pay-out rate of 50 m/min, and gear ascent at a cable recovery rate of 20 m/min. Tows were made to within 20 m of the sea floor on shelf stations, and to a maximum depth of 565 m on slope stations where bottom depths exceeded 900 m at the most seaward stations.

The recovered nets were thoroughly washed down with a high-pressure deck hose and the resulting catches were preserved in 5 percent buffered seawater formaldehyde for processing ashore. In the laboratory, fish, fish eggs and larvae, euphausiid decapods and other selected invertebrate groups were extracted from one-net catches. The entire catches from the other net were retained in a raw reference collection for future use.

The following data base consists of reduced computer print-out of corrected catches of juvenile fishes, fish eggs, and fish larvae, identified to the lowest possible systematic categories considering our present state of knowledge of Canadian Pacific coast ichthyoplankton, although some major taxa of fish larvae have since been ordered to the species level.

The tables are numbered consecutively through all four reports. This report contains Tables 225-301. The "sample" numbers are the station numbers referred to in Table 1 and Fig. 1.

#### ACKNOWLEDGEMENTS

The assistance of Wolfgang Carolsfeld, Trudy Mullin, and other technical persons within the Groundfish Program in data collection and processing is gratefully acknowledged, as is the cooperation and support of the Marine Resources Branch (Provincial Ministry of Environment) in providing their salaries. The Master and crew of the G. B. REED are duly thanked for their enthusiastic and efficient support at sea. Lastly, we thank Skip McKinnell of the Computer Center (Pacific Biological Station, Nanaimo) for his efforts in data management.

TABLE 1. Tracklines and their associated stations, station locations, and station depths for the West Coast Ichthyoplankton Survey, January through April, 1980.

Trackline no.	Station no.	Latitude	Longitude to nearest min.	Station depth (m)
1	1	48° 30'	124° 23'	91
	2		124° 33'	182
	3		124° 52'	182
	4		125° 18'	182
	5		125° 43'	100
	6		126° 05'	182
	7		126° 24'	910
2	8	49° 00'	126° 56'	910
	9		126° 33'	182
	10		126° 14'	100
	11		126° 04'	55
3	12	49° 30'	126° 44'	55
	13		126° 54'	100
	14		127° 14'	182
	15		127° 34'	910
4	16	50° 00'	127° 59'	910
	17		127° 52'	100
	18		127° 43'	182
	19		127° 35'	55
5	20	50° 30'	128° 14'	55
	21		128° 19'	100
	22		128° 26'	182
	23		128° 40'	910
6	24	51° 00'	129° 48'	910
	25		129° 21'	182
	26		128° 56'	76
	27		128° 31'	100
	28		128° 06'	100
7	29	51° 30'	128° 31'	164
	30		128° 56'	100
	31		129° 21'	100
	32		129° 51'	182
	33		130° 24'	910

TABLE 1 (contd).

Trackline no.	Station no.	Latitude	Longitude to nearest min.	Station depth (m)
8	34	52° 00'	131° 09'	100
	35		131° 12'	182
	36		131° 23'	910
9	37	52° 30'	131° 56'	910
	38		131° 47'	182
10	39	53° 00'	132° 26'	182
	40		132° 40'	910
	41		132° 53'	910
11	42	53° 20'	133° 19'	910
	43b		133° 09'	637
	43a		133° 05'	218
	43		133° 01'	182
	44		132° 57'	100
12	45	54° 00'	133° 13'	55
	46		133° 27'	64
	47		133° 31'	182
	48		133° 48'	910
13	49	54° 30'	134° 06'	910
	50		133° 49'	182
	51		133° 22'	364
	52		132° 55'	365
	53		132° 27'	364
	54		132° 00'	246
	55		131° 34'	282
	56		131° 07'	146
14	57	54° 00'	131° 25'	18
	58		131° 08'	55
	59		130° 50'	100
15	60	53° 30'	130° 42'	100
	61		131° 05'	55
	62		131° 02'	22
16	63	53° 00'	131° 06'	55
	64		130° 40'	100
	65		130° 13'	228
	66		129° 47'	55
17	67	52° 30'	129° 48'	182
	68		130° 13'	273
	69		130° 40'	100
	70		131° 07'	55

TABLE 1 (contd).

Trackline no.	Station no.	Latitude	Longitude to nearest min.	Station depth (m)
18	71	52° 00'	130° 41'	228
	72		130° 14'	100
	73		129° 48'	100
	74		129° 21'	182
	75		128° 56'	100

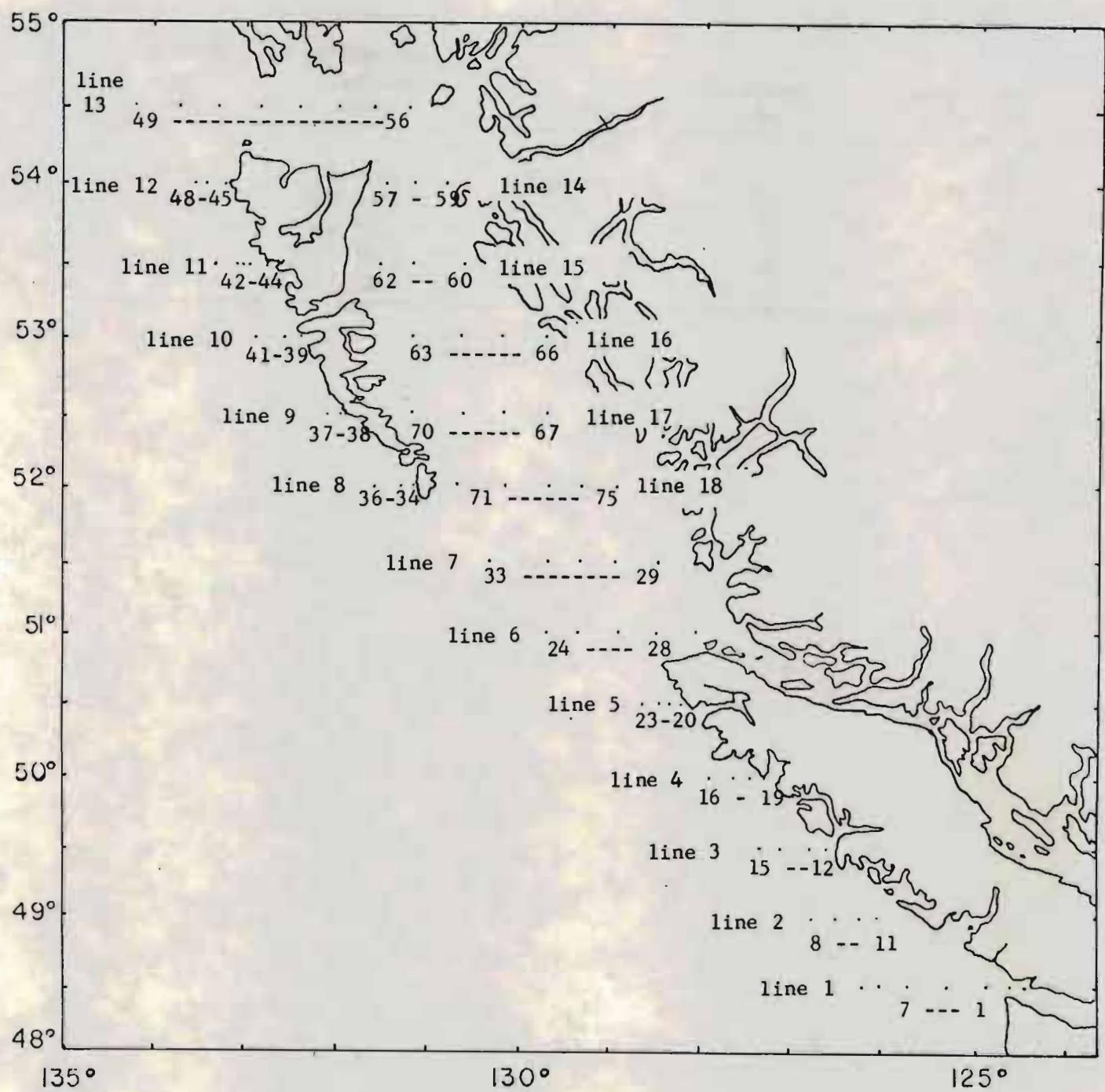


FIGURE 1. Tracklines and associated stations in numbered sampling sequence for the West Coast Ichthyoplankton Survey, January through April, 1980.

TABLE: 225  
 CRUISE: HC 80- 4  
 SAMPLE NO.: 1  
 DATE: 15/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 48 30.0 N 124 23.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 91 M  
 WIND DIRECTION: 90 DEG  
 WIND VELOCITY: 2 MPS  
 WAVE HEIGHT: 0 M  
 SWELL HEIGHT:  
 SURFACE TEMP: 9.3 C  
 STD NUMBER: 1  
 BT/XBT NUMBER:  
 TIME OF TOW: 2230 HR  
 DEPTH OF TOW: 68 M  
 TOW SPEED: 1 MPH  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 80 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 8.53

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	1.	100.0	12.5	8.5
<b>TOTAL</b>	<b>1.</b>	<b>100.0</b>	<b>12.5</b>	<b>8.5</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
OSMERIDAE(FAMILY)	20.	62.5	250.0	170.6
AMMODYTES HEXAPTERUS	5.	15.6	62.5	42.6
SCORPAENIDAE(FAMILY)	2.	6.3	25.0	17.1
AGONIDAE(FAMILY)	1.	3.1	12.5	8.5
PLEURONECTIDAE(FAMILY)	4.	12.5	50.0	34.1
<b>TOTAL</b>	<b>32.</b>	<b>100.0</b>	<b>400.0</b>	<b>273.0</b>

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
OSMERIDAE(FAMILY)	1.	10.0	12.5	8.5
THERAGRA CHALCOGRAMMA	3.	30.0	37.5	25.6
APODICHTHYS FLAVIDUS	1.	10.0	12.5	8.5
AMMODYTES HEXAPTERUS	1.	10.0	12.5	8.5
PLEURONECTIDAE(FAMILY)	4.	40.0	50.0	34.1
<b>TOTAL</b>	<b>10.</b>	<b>100.0</b>	<b>125.0</b>	<b>85.3</b>

TABLE: 226  
 CRUISE: NC 80- 4  
 SAMPLE NO.: 2  
 DATE: 15/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 48 30.0 N 124 33.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 200 M

WIND DIRECTION: 80 DEG  
 WIND VELOCITY: 2 MPS  
 WAVE HEIGHT: 0 M  
 SWELL HEIGHT:  
 SURFACE TEMP: 10.2 C  
 STD NUMBER: 2  
 BT/XBT NUMBER:  
 TIME OF TOW: 2330 HR  
 DEPTH OF TOW: 161 M

TOW SPEED: 1 MPS  
 TYPE OF TOW:  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 227 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 7.09

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	1.	14.3	4.4	7.1
THERAGRA CHALCogramma	5.	71.4	22.0	35.4
PLEURONECTIDAE(FAMILY)	1.	14.3	4.4	7.1
TOTAL	7.	100.0	30.8	49.6

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	1.	8.3	4.4	7.1
THALEICHTHYS PACIFICUS	2.	16.7	8.8	14.2
THERAGRA CHALCogramma	1.	8.3	4.4	7.1
AMMODYTES HEXAPTERUS	3.	25.0	13.2	21.3
SCORPAENIDAE(FAMILY)	1.	8.3	4.4	7.1
COTTIDAE(FAMILY)	1.	8.3	4.4	7.1
AGONIDAE(FAMILY)	2.	16.7	8.8	14.2
PLEURONECTIDAE(FAMILY)	1.	8.3	4.4	7.1
TOTAL	12.	100.0	52.9	85.1

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
THALEICHTHYS PACIFICUS	4.	40.0	17.6	28.0
THERAGRA CHALCogramma	1.	10.0	4.4	7.1
PHOLIDAE(FAMILY)	1.	10.0	4.4	7.1
AMMODYTES HEXAPTERUS	2.	20.0	8.8	14.2
COTTIDAE(FAMILY)	1.	10.0	4.4	7.1
PLEURONECTIDAE(FAMILY)	1.	10.0	4.4	7.1
TOTAL	10.	100.0	44.1	70.9

TABLE: 227  
 CRUISE: NC 80-4  
 SAMPLE NO.: 3  
 DATE: 16/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 48 30.0 N 124 52.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 182 M

WIND DIRECTION: 80 DEG  
 WIND VELOCITY: 8 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT:  
 SURFACE TEMP: 10.2 C  
 STD NUMBER: 3  
 BT/XBT NUMBER:  
 TIME OF TOW: 0140 HR  
 DEPTH OF TOW: 168 M

TOW SPEED: 1 MPS  
 TYPE OF TOW:  
 GEAR TYPE: BONGO .25 M<sup>2</sup>  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 215 M<sup>3</sup>  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 7.80

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
PISCES	16.	100.0	74.4	124.8
TOTAL	16.	100.0	74.4	124.8

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
PISCES	1.	5.9	4.7	7.8
OSMERIDAE(FAMILY)	9.	52.9	41.9	70.2
THERAGRA CHALCOGRAMMA	1.	5.9	4.7	7.8
SCORPAENIDAE(FAMILY)	4.	23.5	18.6	31.2
PLEURONECTIDAE(FAMILY)	2.	11.8	9.3	15.6
TOTAL	17.	100.0	79.1	132.6

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
OSMERIDAE(FAMILY)	6.	66.7	27.9	46.8
THERAGRA CHALCOGRAMMA	2.	22.2	9.3	15.6
SCORPAENIDAE(FAMILY)	1.	11.1	4.7	7.8
TOTAL	9.	100.0	41.9	70.2

JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
MYCTOPHIDAE(FAMILY)	1.	100.0	4.7	7.8
TOTAL	1.	100.0	4.7	7.8

TABLE: 228  
 CRUISE: WC 80-4  
 SAMPLE NO.: 4  
 DATE: 16/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 48 30.0 N 125 18.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 141 M

WIND DIRECTION: 100 DEG  
 WIND VELOCITY: 9 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 1 M  
 SURFACE TEMP: 9.8 C  
 STD NUMBER:  
 BT/XBT NUMBER:  
 TIME OF TOW: 0330 HR  
 DEPTH OF TOW: 115 M

TOW SPEED: 1 MPS  
 TYPE OF TOW:  
 GEAR TYPE: BUNGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 129 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 8.93

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	16.	72.7	124.0	142.9
PLEURONECTIDAE(FAMILY)	6.	27.3	46.5	53.6
<b>TOTAL</b>	<b>22.</b>	<b>100.0</b>	<b>170.5</b>	<b>196.5</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	4.	28.6	31.0	35.7
OSMERIDAE(FAMILY)	2.	14.3	15.5	17.9
SCORPAENIDAE(FAMILY)	5.	35.7	38.8	44.6
PLEURONECTIDAE(FAMILY)	1.	7.1	7.8	8.9
ATHERINIDAE(SIOMIAS)	2.	14.3	15.5	17.9
<b>TOTAL</b>	<b>16.</b>	<b>100.0</b>	<b>108.5</b>	<b>125.0</b>

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
AMMODYTES HEXAPTERUS	2.	28.6	15.5	17.9
PLEURONECTIDAE(FAMILY)	5.	71.4	38.8	44.6
<b>TOTAL</b>	<b>7.</b>	<b>100.0</b>	<b>54.3</b>	<b>62.5</b>

TABLE: 229  
 CRUISE: NC 80- 4  
 SAMPLE NO.: 5  
 DATE: 16/ 4/80  
 VESSEL: G.H. REED  
 POSITION: 48 30.0 N 125 43.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 91 M

WIND DIRECTION: 110 DEG  
 WIND VELOCITY: 12 MPS  
 WAVE HEIGHT: 0 M  
 SWELL HEIGHT: 1 M  
 SURFACE TEMP: 9.5 C  
 STD NUMBER:  
 BT/XBT NUMBER:  
 TIME OF TOW: 0530 HR  
 DEPTH OF TOW: 74 M

TOW SPEED: 1 MPS  
 TYPE OF TOW:  
 GFAR TYPE: BUNGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 129 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 5.77

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	1.	9.1	7.8	5.8
ATHERESTHES STOMIAS	6.	54.5	46.5	34.6
HIPPOGLOSSOIDES ELASSODON	4.	36.4	31.0	23.1
<b>TOTAL</b>	<b>11.</b>	<b>100.0</b>	<b>85.3</b>	<b>63.5</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
SCORPAENIDAE (FAMILY)	1.	20.0	7.8	5.8
CYCLOPTERIDAE (FAMILY)	1.	20.0	7.8	5.8
ATHERESTHES STOMIAS	1.	20.0	7.8	5.8
HIPPOGLOSSOIDES ELASSODON	2.	40.0	15.5	11.5
<b>TOTAL</b>	<b>5.</b>	<b>100.0</b>	<b>38.8</b>	<b>28.8</b>

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
OSMERIDAE (FAMILY)	1.	16.7	7.8	5.8
AMMODYTES HEXAPTERUS	3.	50.0	23.3	17.3
COTTIDAE (FAMILY)	1.	16.7	7.8	5.8
HIPPOGLOSSOIDES ELASSODON	1.	16.7	7.8	5.8
<b>TOTAL</b>	<b>6.</b>	<b>100.0</b>	<b>46.5</b>	<b>34.6</b>

TABLE: 230  
 CRUISE: WC 80-4  
 SAMPLE NO.: 6  
 DATE: 16/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 48 30.0 N 126 5.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 183 M

WIND DIRECTION: 110 DEG  
 WIND VELOCITY: 10 MPS  
 WAVE HEIGHT: 0 M  
 SWELL HEIGHT: 1 M  
 SURFACE TEMP: 9.5 C  
 STD NUMBER: 4  
 BT/XBT NUMBER:  
 TIME OF TOW: 0705 HR  
 DEPTH OF TOW: 155 M

TOW SPEED: 1 MPS  
 TYPE OF TOW:  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 330 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 4.71

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	50.	72.5	151.5	235.5
ATHERESTHES STOMIAS	11.	15.9	33.3	51.8
HIPPOGLOSSOIDES ELASSODON	8.	11.6	24.2	37.7
<b>TOTAL</b>	<b>69.</b>	<b>100.0</b>	<b>209.1</b>	<b>325.0</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	1.	20.0	3.0	4.7
SCORPAENIDAE (FAMILY)	4.	80.0	12.1	18.8
<b>TOTAL</b>	<b>5.</b>	<b>100.0</b>	<b>15.2</b>	<b>23.5</b>

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
OPHIODON ELONGATUS	3.	75.0	9.1	14.1
COTTIDAE (FAMILY)	1.	25.0	3.0	4.7
<b>TOTAL</b>	<b>4.</b>	<b>100.0</b>	<b>12.1</b>	<b>18.8</b>

TABLE: 231  
 CRUISE: WC 80-4  
 SAMPLE NO.: 7  
 DATE: 16/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 48 30.0 N 126 24.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 1170 M

WIND DIRECTION: 150 DEG  
 WIND VELOCITY: 6 MPS  
 WAVE HEIGHT: 0 M  
 SWELL HEIGHT: 0 M  
 SURFACE TEMP: 9.6 C  
 STD NUMBER: 5  
 BT/XRT NUMBER:  
 TIME OF TOW: 0905 HR  
 DEPTH OF TOW: 483 M

TOW SPEED: 1 MPS  
 TYPE OF TOW:  
 GEAR TYPE: BUNGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 615 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 7.85

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	9.	100.0	14.6	70.6
<b>TOTAL</b>	<b>9.</b>	<b>100.0</b>	<b>14.6</b>	<b>70.6</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
SCORPAENIDAE (FAMILY) ANOPLOPOMA FILARIA	3. 1.	75.0 25.0	4.9 1.6	23.6 7.8
<b>TOTAL</b>	<b>4.</b>	<b>100.0</b>	<b>6.5</b>	<b>31.4</b>

JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
CHAULIODONTIDAE (FAMILY) MYCTOPHIDAE (FAMILY)	1. 1.	50.0 50.0	1.6 1.6	7.8 7.8
<b>TOTAL</b>	<b>2.</b>	<b>100.0</b>	<b>3.3</b>	<b>15.7</b>

TABLE: 232  
 CRUISE: WC BN- 4  
 SAMPLE NO.: 8  
 DATE: 16/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 49 0.0 N 126 56.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 768 M

	WIND DIRECTION:	150 DEG	TOW SPEED:	1 MPS
	WIND VELOCITY:	10 MPS	TYPE OF TOW:	OBlique
	WAVE HEIGHT:	0 M	GEAR TYPE:	BONGO .25 M <sup>2</sup>
	SWELL HEIGHT:	2 M	MESH SIZE:	.351 MM
	SURFACE TEMP:	9.6 C	VOL. FILTERED:	745 M <sup>3</sup>
	STD NUMBER:	6	DISP. VOLUME:	
	RT/XBT NUMBER:		PLANKTON CONC.:	
	TIME OF TOW:	1320 HR	ALIQUOT:	
	DEPTH OF TOW:	508 M	S.H.F.:	6.81

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
PISCES	11.	100.0	14.8	74.9
<b>TOTAL</b>	<b>11.</b>	<b>100.0</b>	<b>14.8</b>	<b>74.9</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
PISCES	1.	25.0	1.3	6.8
BATHYLAGIDAE(FAMILY)	1.	25.0	1.3	6.8
SCORPAENIDAE(FAMILY)	1.	25.0	1.3	6.8
ANOPLOPOMA FINBRIA	1.	25.0	1.3	6.8
<b>TOTAL</b>	<b>4.</b>	<b>100.0</b>	<b>5.4</b>	<b>27.2</b>

TABLE: 233  
 CRUISE: NC 80-4  
 SAMPLE NO.: 9  
 DATE: 16/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 49 0.0 N 126 33.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 161 M

WIND DIRECTION: 150 DEG  
 WIND VELOCITY: 11 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 2 M  
 SURFACE TEMP: 9.6 C  
 STD NUMBER: 7  
 BT/XBT NUMBER:  
 TIME OF TOW: 1600 HR  
 DEPTH OF TOW: 143 M

TOW SPEEDS: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BUNGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 235 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 6.06

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EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	20.	100.0	85.1	121.2
<b>TOTAL</b>	<b>20.</b>	<b>100.0</b>	<b>85.1</b>	<b>121.2</b>

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LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	3.	100.0	12.8	18.2
<b>TOTAL</b>	<b>3.</b>	<b>100.0</b>	<b>12.8</b>	<b>18.2</b>

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POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
STICHAEIDAE(FAMILY)	1.	20.0	4.3	6.1
SCORPAENIDAE(FAMILY)	2.	40.0	8.5	12.1
ANOPLOPODUMA FIRBRIA	1.	20.0	4.3	6.1
AGONIDAE(FAMILY)	1.	20.0	4.3	6.1
<b>TOTAL</b>	<b>5.</b>	<b>100.0</b>	<b>21.3</b>	<b>30.3</b>

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TABLE: 234  
 CRUISE: MC 80-4  
 SAMPLE NO.: 10  
 DATE: 16/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 49 0.0 N 126 14.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 95 M

WIND DIRECTION: 150 DEG  
 WIND VELOCITY: 10 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT:  
 SURFACE TEMP: 9.7 C  
 STD NUMBER: 8  
 BT/XBT NUMBER:  
 TIME OF TOW: 1700 HR  
 DEPTH OF TOW: 67 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: ORLIQUE  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 157 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 4.25

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCEB PLEURONECTIDAE(FAMILY)	4. 6.	40.0 60.0	25.5 38.2	17.0 25.5

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TOTAL	10.	100.0	63.7	42.5
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LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
SCORPAENIDAE(FAMILY) AGONIDAE(FAMILY) CYCLOPTERIDAE(FAMILY) PLEURONECTIDAE(FAMILY) GLYPTOCEPHALUS ZACHIRUS	3. 1. 1. 2. 2.	33.3 11.1 11.1 22.2 22.2	19.1 6.4 6.4 12.7 12.7	12.8 4.3 4.3 8.5 8.5

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TOTAL	9.	100.0	57.3	38.3
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POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
STICHAEIDAE(FAMILY) COTTIDAE(FAMILY)	1. 1.	50.0 50.0	6.4 6.4	4.3 4.3

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TOTAL	2.	100.0	12.7	8.5
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TABLE: 235  
 CRUISE: WC 80-4  
 SAMPLE NO.: 11  
 DATE: 16/4/80  
 VESSEL: G.H. REED  
 POSITION: 49° 0.0' N 126° 4.0' W  
 GRID POSITION:  
 BOTTOM DEPTH: 55 M

WIND DIRECTION: 150 DEG  
 WIND VELOCITY: 11 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 0 M  
 SURFACE TEMP: 10.0 C  
 STD NUMBER: 9  
 RT/XBT NUMBER:  
 TIME OF TOW: 1825 HR  
 DEPTH OF TOW: 43 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BONGO .25 M<sup>2</sup>  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 174 M<sup>3</sup>  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 2.48

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
PISCES	26.	86.7	149.4	64.5
PLEURONECTIDAE (FAMILY)	4.	13.3	23.0	9.9
<b>TOTAL</b>	<b>30.</b>	<b>100.0</b>	<b>172.4</b>	<b>74.4</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
PISCES	6.	15.0	34.5	14.9
AMMODYTES HEXAPTERUS	1.	2.5	5.7	2.5
SCORPAENIDAE (FAMILY)	27.	67.5	155.2	67.0
CYCLOPTERIDAE (FAMILY)	3.	7.5	17.2	7.4
PLEURONECTIDAE (FAMILY)	1.	2.5	5.7	2.5
GLYPTOCEPHALUS ZACHIRUS	2.	5.0	11.5	5.0
<b>TOTAL</b>	<b>40.</b>	<b>100.0</b>	<b>229.9</b>	<b>99.2</b>

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
PISCES	1.	14.3	5.7	2.5
AMMODYTES HEXAPTERUS	5.	71.4	28.7	12.4
COTTIDAE (FAMILY)	1.	14.3	5.7	2.5
<b>TOTAL</b>	<b>7.</b>	<b>100.0</b>	<b>40.2</b>	<b>17.4</b>

TABLE: 236  
 CRUISE: NC 80-4  
 SAMPLE NO.: 12  
 DATE: 17/4/80  
 VESSEL: G.B. REED  
 POSITION: 49 30.0 N 126 44.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 49 M

WIND DIRECTION: 170 DEG  
 WIND VELOCITY: 9 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 0 M  
 SURFACE TEMP: 9.6 C  
 STD NUMBER: 10  
 BT/XBT NUMBER:  
 TIME OF TOW: 0030 HR  
 DEPTH OF TOW: 37 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBlique  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 153 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 2.38

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	9.	100.0	58.8	21.4
<b>TOTAL</b>	<b>9.</b>	<b>100.0</b>	<b>58.8</b>	<b>21.4</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	25.	14.1	163.4	59.5
CLUPEA HARENGUS PALLASI	84.	47.5	549.0	199.9
MICROGADUS PROXIMUS	5.	2.8	32.7	11.9
THERAGRA CHALCOGRAMMA	4.	2.3	26.1	9.5
AMMODYTES HEXAPTERUS	5.	2.8	32.7	11.9
SCORPAENIDAE (FAMILY)	31.	17.5	202.6	73.8
COTTIDAE (FAMILY)	6.	3.4	39.2	14.3
PLEURONECTIDAE (FAMILY)	17.	9.6	111.1	40.5
<b>TOTAL</b>	<b>177.</b>	<b>100.0</b>	<b>1156.9</b>	<b>421.3</b>

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
CLUPEA HARENGUS PALLASI	262.	98.1	1712.4	623.6
THERAGRA CHALCOGRAMMA	2.	0.7	13.1	4.8
AMMODYTES HEXAPTERUS	3.	1.1	19.6	7.1
<b>TOTAL</b>	<b>267.</b>	<b>100.0</b>	<b>1745.1</b>	<b>635.5</b>

TABLE: 237  
 CRUISE: MC 80-4  
 SAMPLE NO.: 13  
 DATE: 17/4/80  
 VESSEL: G.B. REED  
 POSITION: 49 30.0 N 126 54.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 101 M

WIND DIRECTION: 300 DEG  
 WIND VELOCITY: 8 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 0 M  
 SURFACE TEMP: 9.6 C  
 STD NUMBER: 11  
 BT/XRT NUMBER:  
 TIME OF TOW: 0115 HR  
 DEPTH OF TOW: 82 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BONGO .25 M<sup>2</sup>  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 150 M<sup>3</sup>  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 5.45

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
PISCES	8.	50.0	53.3	43.6
PLEURONECTIDAE (FAMILY)	8.	50.0	53.3	43.6

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TOTAL	16.	100.0	106.7	87.2
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LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
AMMODYTES HEXAPTERUS	1.	1.9	6.7	5.4
SCORPAENIDAE (FAMILY)	49.	94.2	326.7	267.1
AGONIIDAE (FAMILY)	1.	1.9	6.7	5.4
CYCLOPTERIDAE (FAMILY)	1.	1.9	6.7	5.4

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TOTAL	52.	100.0	346.7	283.4
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POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
LYCONECTES ALEUTENSIS	2.	40.0	13.3	10.9
AMMODYTES HEXAPTERUS	2.	40.0	13.3	10.9
PLEURONECTIDAE (FAMILY)	1.	20.0	6.7	5.4

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TOTAL	5.	100.0	33.3	27.2
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TABLE: 238  
 CRUISE: NC 80-4  
 SAMPLE NO.: 14  
 DATE: 17/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 49 30.0 N 127 14.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 192 M

WIND DIRECTION: 270 DEG  
 WIND VELOCITY: 6 MPS  
 WAVE HEIGHTS:  
 SWELL HEIGHT: 1 M  
 SURFACE TEMP: 9.3 C  
 STD NUMBER: 12  
 BT/XBT NUMBER:  
 TIME OF TOW: 0315 HR  
 DEPTH OF TOW: 141 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 271 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 5.20

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	9.	100.0	33.2	46.8
<b>TOTAL</b>	<b>9.</b>	<b>100.0</b>	<b>33.2</b>	<b>46.8</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	6.	19.4	22.1	31.2
SCORPAENIDAE(FAMILY)	25.	80.6	92.3	130.0
<b>TOTAL</b>	<b>31.</b>	<b>100.0</b>	<b>114.4</b>	<b>161.2</b>

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
HEXAGRAMMIDAE(FAMILY)	1.	50.0	3.7	5.2
HEMILEPIDOTUS HEMILEPIDOTUS	1.	50.0	3.7	5.2
<b>TOTAL</b>	<b>2.</b>	<b>100.0</b>	<b>7.4</b>	<b>10.4</b>

TABLE: 239  
 CRUISE: MC 80-4  
 SAMPLE NO.: 15  
 DATE: 17/4/80  
 VESSEL: G.B. REED  
 POSITION: 49° 30.0' N 127° 34.0' W  
 GRID POSITION:  
 BOTTOM DEPTH: 1002 M

WIND DIRECTION:	90 DEG	TOW SPEED:	1 MPS
WIND VELOCITY:	2 MPS	TYPE OF TOW:	OBLIQUE
WAVE HEIGHT:	0 M	GEAR TYPE:	BONGO .25 M <sup>2</sup>
SWELL HEIGHT:	1 M	MESH SIZE:	.351 MM
SURFACE TEMP:	9.1 C	VOL. FILTERED:	744 M <sup>3</sup>
STD NUMBER:	13	DISP. VOLUME:	
BT/XBT NUMBER:		PLANKTON CONC.:	
TIME OF TOW:	0450 HR	ALIQUOT:	
DEPTH OF TOW:	460 M	S.H.F.:	6.19

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
PISCES	2.	100.0	2.7	12.4
TOTAL	2.	100.0	2.7	12.4

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
GLYPTOCEPHALUS ZACHIRUS	1.	100.0	1.3	6.2
TOTAL	1.	100.0	1.3	6.2

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
THERAGRA CHALCUGRAMMA	1.	50.0	1.3	6.2
COTTIDAE (FAMILY)	1.	50.0	1.3	6.2
TOTAL	2.	100.0	2.7	12.4

JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
CHAULiodontidae (FAMILY)	1.	25.0	1.3	6.2
Myctophidae (FAMILY)	3.	75.0	4.0	18.6
TOTAL	4.	100.0	5.4	24.8

TABLE: 240  
 CRUISE: MC 80- 4  
 SAMPLE NO.: 19  
 DATE: 17/ 4/80  
 VESSEL: G.R. REED  
 POSITION: 50 0.0 N 127 35.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 64 M

WIND DIRECTION: 90 DEG  
 WIND VELOCITY: 2 MPS  
 WAVE HEIGHT: 0 M  
 SWELL HEIGHT: 0 M  
 SURFACE TEMP: 9.5 C  
 STD NUMBER: 14  
 BT/XBT NUMBER:  
 TIME OF TOW: 0844 HR  
 DEPTH OF TOW: 62 M

TOW SPEED: 1 MPS  
 TYPE OF TOW:  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 272 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOTS:  
 S.H.F.: 2.29

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	11.	100.0	40.4	25.2
<b>TOTAL</b>	<b>11.</b>	<b>100.0</b>	<b>40.4</b>	<b>25.2</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	13.	25.0	47.8	29.8
CLUPEA HARENGUS PALLASI	4.	7.7	14.7	9.2
MICROGADUS PROXIMUS	1.	1.9	3.7	2.3
SCORPAENIDAE(FAMILY)	15.	28.8	55.1	34.4
COTTIDAE(FAMILY)	6.	11.5	22.1	13.7
PLEURONECTIDAE(FAMILY)	12.	23.1	44.1	27.5
GLYPTOCEPHALUS ZACHIRUS	1.	1.9	3.7	2.3
<b>TOTAL</b>	<b>52.</b>	<b>100.0</b>	<b>191.2</b>	<b>119.1</b>

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
CLUPEA HARENGUS PALLASI	67.	76.1	246.3	153.4
THERAGRA CHALCogramma	14.	15.9	51.5	32.1
AMMODYTES HEXAPTERUS	6.	6.8	22.1	13.7
PLEURONECTIDAE(FAMILY)	1.	1.1	3.7	2.3
<b>TOTAL</b>	<b>89.</b>	<b>100.0</b>	<b>323.5</b>	<b>201.5</b>

JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
CYCLOPTERIDAE(FAMILY)	1.	100.0	3.7	2.3
<b>TOTAL</b>	<b>1.</b>	<b>100.0</b>	<b>3.7</b>	<b>2.3</b>

TABLE: 241  
 CRUISE: WC 80-4  
 SAMPLE NO.: 18  
 DATE: 17/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 50 0.0 N 127 40.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 67 M

WIND DIRECTION:  
 WIND VELOCITY:  
 WAVE HEIGHT: 0 M  
 SWELL HEIGHT: 0 M  
 SURFACE TEMP: 9.4 C  
 STD NUMBER: 15  
 BT/XBT NUMBER:  
 TIME OF TOW: 0940 HR  
 DEPTH OF TOW: 71 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 126 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 5.60

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	5.	100.0	39.7	28.0
TOTAL	5.	100.0	39.7	28.0

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	5.	19.2	39.7	28.0
CLUPEA HARENGUS PALLASI	5.	19.2	39.7	28.0
MICROGADUS PROXIMUS	2.	7.7	15.9	11.2
THERAGRA CHALCOGRAMMA	1.	3.8	7.9	5.6
SCORPAENIDAE(FAMILY)	8.	30.8	63.5	44.8
COTTIDAE(FAMILY)	3.	11.5	23.8	16.8
GLYPTOCEPHALUS ZACHIRUS	2.	7.7	15.9	11.2
TOTAL	26.	100.0	206.3	145.6

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
CLUPEA HARENGUS PALLASI	23.	76.7	182.5	128.8
THERAGRA CHALCOGRAMMA	3.	10.0	23.8	16.8
AMMODYTES HEXAPTERUS	3.	10.0	23.8	16.8
OPHIODON ELONGATUS	1.	3.3	7.9	5.6
TOTAL	30.	100.0	238.1	168.0

JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PTILICHTHYS GOODEI	1.	100.0	7.9	5.6
TOTAL	1.	100.0	7.9	5.6

TABLE: 242  
 CRUISE: NC 80- 4  
 SAMPLE NO.: 17  
 DATE: 17/ 4/80  
 VESSEL: G.R. REED  
 POSITION: 50 0.0 N 127 45.6 W  
 GRID POSITION:  
 BOTTOM DEPTH: 182 M

WIND DIRECTION: 120 DEG  
 WIND VELOCITY: 4 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 0 M  
 SURFACE TEMP: 9.3 C  
 STD NUMBER: 16  
 BT/XBT NUMBER:  
 TIME OF TOW: 1020 HR  
 DEPTH OF TOW: 166 M

TOW SPEED: 1 MPS  
 TYPE OF TOW:  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 325 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.I 5.10

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	11.	100.0	33.8	56.1

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TOTAL	11.	100.0	33.8	56.1
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LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
CLUPEA HARENGUS PALLASI	2.	8.3	6.2	10.2
AMMODYTES HEXAPTERUS	1.	4.2	3.1	5.1
SCORPAENIDAE(FAMILY)	8.	33.3	24.6	40.8
COTTIDAE(FAMILY)	8.	33.3	24.6	40.8
PLEURONECTIDAE(FAMILY)	5.	20.8	15.4	25.5
TOTAL	24.	100.0	73.8	122.4

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
CLUPEA HARENGUS PALLASI	1.	4.3	3.1	5.1
THERAGRA CHALCOGRAMMA	2.	8.7	6.2	10.2
AMMODYTES HEXAPTERUS	3.	13.0	9.2	15.3
OPHIODON ELONGATUS	3.	13.0	9.2	15.3
COTTIDAE(FAMILY)	12.	52.2	36.9	61.2
PLEURONECTIDAE(FAMILY)	2.	8.7	6.2	10.2
TOTAL	23.	100.0	70.8	117.3

TABLE: 243  
 CRUISE: WC 80-4  
 SAMPLE NO.: 16  
 DATE: 17/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 50 0.0 N 127 52.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 914 M

WIND DIRECTION:  
 WIND VELOCITY:  
 WAVE HEIGHT: 0 M  
 SWELL HEIGHT: 0 M  
 SURFACE TEMP: 10.0 C  
 STD NUMBER: 17  
 BT/XBT NUMBER:  
 TIME OF TOW: 1123 HR  
 DEPTH OF TOW: 439 M

TOW SPEED: 1 MPS  
 TYPE OF TOW:  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 762 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 5.76

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	13.	92.9	17.1	74.9
MERLUCCIUS PRODUCTUS	1.	7.1	1.3	5.8
<b>TOTAL</b>	<b>14.</b>	<b>100.0</b>	<b>18.4</b>	<b>80.6</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	2.	6.7	2.6	11.5
CLUPEA HARENGUS PALLASI	2.	6.7	2.6	11.5
SCORPAENIDAE(FAMILY)	23.	76.7	30.2	132.5
COTTIDAE(FAMILY)	3.	10.0	3.9	17.3
<b>TOTAL</b>	<b>30.</b>	<b>100.0</b>	<b>39.4</b>	<b>172.8</b>

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
COTTIDAE(FAMILY)	4.	100.0	5.2	23.0
<b>TOTAL</b>	<b>4.</b>	<b>100.0</b>	<b>5.2</b>	<b>23.0</b>

JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
MYCTOPHIDAE(FAMILY)	1.	100.0	1.3	5.8
<b>TOTAL</b>	<b>1.</b>	<b>100.0</b>	<b>1.3</b>	<b>5.8</b>

TABLE: 244  
 CRUISE: NC 80- 4  
 SAMPLE NO.: 20  
 DATE: 17/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 50 30.0 N 128 14.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 42 M

WIND DIRECTION: 190 DEG  
 WIND VELOCITY: 10 MPS  
 WAVE HEIGHTS: 0 M  
 SWELL HEIGHTS: 2 M  
 SURFACE TEMP: 9.4 C  
 STD NUMBER: 18  
 BT/XBT NUMBER:  
 TIME OF TOW: 1530 HR  
 DEPTH OF TOW: 29 M

TOW SPEED: 1 MPS  
 TYPE OF TOW:  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 178 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 1.60

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	8.	100.0	44.9	12.8
<b>TOTAL</b>	<b>8.</b>	<b>100.0</b>	<b>44.9</b>	<b>12.8</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	14.	22.6	78.7	22.4
CLUPEA HARENGUS PALLASI	19.	30.6	106.7	30.4
MICROGADUS PROXIMUS	1.	1.6	5.6	1.6
AMMODYTES HEXAPTERUS	3.	4.8	16.9	4.8
SCORPAENIDAE(FAMILY)	8.	12.9	44.9	12.8
OPIHIODON ELONGATUS	5.	8.1	28.1	8.0
COTTIIDAE(FAMILY)	4.	6.5	22.5	6.4
PLEURONECTIDAE(FAMILY)	7.	11.3	39.3	11.2
GLYPTOCEPHALUS ZACHIRUS	1.	1.6	5.6	1.6
<b>TOTAL</b>	<b>62.</b>	<b>100.0</b>	<b>348.3</b>	<b>99.2</b>

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
CLUPEA HARENGUS PALLASI	45.	64.3	252.8	72.0
THERAGRA CHALCogramma	2.	2.9	11.2	3.2
AMMODYTES HEXAPTERUS	22.	31.4	123.6	35.2
COTTIIDAE(FAMILY)	1.	1.4	5.6	1.6
<b>TOTAL</b>	<b>70.</b>	<b>100.0</b>	<b>393.3</b>	<b>112.0</b>

TABLE: 245  
 CRUISE: WC 80-4  
 SAMPLE NO.: 21  
 DATE: 17/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 50 30.0 N 128 19.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 117 M

WIND DIRECTION: 170 DEG  
 WIND VELOCITY: 10 MPS  
 WAVE HEIGHT: 0 M  
 SWELL HEIGHT: 2 M  
 SURFACE TEMP: 9.4 C  
 STD NUMBER: 19  
 RT/XBT NUMBER:  
 TIME OF TOW: 1545 HR  
 DEPTH OF TOW: 94 M

TOW SPEED: 1 MPS  
 TYPE OF TOW:  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 129 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 7.29

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES MERLUCCIUS PRODUCTUS	19. 1.	95.0 5.0	147.3 7.8	138.5 7.3
<b>TOTAL</b>	<b>20.</b>	<b>100.0</b>	<b>155.0</b>	<b>145.8</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES CLUPEA HARENGUS PALLASI AMMODYTES HEXAPTERUS COTTIDAE(FAMILY)	2. 1. 1. 2.	33.3 16.7 16.7 33.3	15.5 7.8 7.8 15.5	14.6 7.3 7.3 14.6
<b>TOTAL</b>	<b>6.</b>	<b>100.0</b>	<b>46.5</b>	<b>43.7</b>

TABLE: 246  
 CRUISE: WC 80-4  
 SAMPLE NO.: 22  
 DATE: 17/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 50 30.0 N 128 26.3 W  
 GRID POSITION:  
 BOTTOM DEPTH: 183 M

WIND DIRECTION: 170 DEG  
 WIND VELOCITY: 10 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 3 M  
 SURFACE TEMP: 9.3 C  
 STD NUMBER: 20  
 BT/XBT NUMBER:  
 TIME OF TOW: 1624 HR  
 DEPTH OF TOW: 174 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BUNGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 251 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 6.92

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	14.	93.3	55.8	96.9
MERLUCCIUS PRODUCTUS	1.	6.7	4.0	6.9
<b>TOTAL</b>	<b>15.</b>	<b>100.0</b>	<b>59.8</b>	<b>103.8</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
SCORPAENIDAE(FAMILY)	8.	80.0	31.9	55.4
PLEURONECTIDAE(FAMILY)	1.	10.0	4.0	6.9
PAROPHRYS VETULUS	1.	10.0	4.0	6.9
<b>TOTAL</b>	<b>10.</b>	<b>100.0</b>	<b>39.8</b>	<b>69.2</b>

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
CLUPEA HARENGUS PALLASI	1.	25.0	4.0	6.9
STICHAEIDAE(FAMILY)	1.	25.0	4.0	6.9
COTTIDAE(FAMILY)	2.	50.0	8.0	13.8
<b>TOTAL</b>	<b>4.</b>	<b>100.0</b>	<b>15.9</b>	<b>27.7</b>

TABLE: 247  
 CRUISE: NC 80-4  
 SAMPLE NO.: 23  
 DATE: 17/4/80  
 VESSEL: G.B. REED  
 POSITION: 50 30.0 N 128 36.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 1006 M

WIND DIRECTION: 165 DEG  
 WIND VELOCITY: 12 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 2 M  
 SURFACE TEMP: 9.3 C  
 STD NUMBER: 21  
 BT/XBT NUMBER:  
 TIME OF TOW: 1730 HR  
 DEPTH OF TOW: 467 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 557 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 8.39

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	19.	95.0	34.1	159.4
MERLUCCIUS PRODUCTUS	1.	5.0	1.8	8.4

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TOTAL				
TOTAL	20.	100.0	35.9	167.8

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LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	1.	0.6	1.8	8.4
CLUPEA HARENGUS PALLASI	3.	1.7	5.4	25.2
MYCTOPHIDAE (FAMILY)	1.	0.6	1.8	8.4
SCORPAENIDAE (FAMILY)	168.	97.1	301.6	1409.5

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TOTAL				
TOTAL	173.	100.0	310.6	1451.5

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JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
MACROPINNA MICROSTOMA	1.	50.0	1.8	8.4
MYCTOPHIDAE (FAMILY)	1.	50.0	1.8	8.4

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TOTAL				
TOTAL	2.	100.0	3.6	16.8

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TABLE: 248  
 CRUISE: WC 80-4  
 SAMPLE NO.: 27  
 DATE: 17/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 51° 0.0' N 128° 31.0' W  
 GRID POSITION:  
 BOTTOM DEPTH: 91 M

WIND DIRECTION: 170 DEG  
 WIND VELOCITY: 11 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 0 M  
 SURFACE TEMP: 9.1 C  
 STD NUMBER: 22  
 RT/XBT NUMBER:  
 TIME OF TOW: 2122 HR  
 DEPTH OF TOW: 84 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OHLIQUIE  
 GEAR TYPE: RUNGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 147 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 5.71

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	4.	100.0	27.2	22.8
<b>TOTAL</b>	<b>4.</b>	<b>100.0</b>	<b>27.2</b>	<b>22.8</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	5.	15.6	34.0	28.6
CLUPEA HARENGUS PALLASI	1.	3.1	6.8	5.7
AMMODYTES HEXAPTERUS	15.	46.9	102.0	85.6
SCORPAENIDAE(FAMILY)	9.	28.1	61.2	51.4
COTTIDAE(FAMILY)	2.	6.3	13.6	11.4
<b>TOTAL</b>	<b>32.</b>	<b>100.0</b>	<b>217.7</b>	<b>182.7</b>

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
AMMODYTES HEXAPTERUS	1.	50.0	6.8	5.7
COTTIDAE(FAMILY)	1.	50.0	6.8	5.7
<b>TOTAL</b>	<b>2.</b>	<b>100.0</b>	<b>13.6</b>	<b>11.4</b>

TABLE: 249  
 CRUISE: NC 80- 4  
 SAMPLE NO.: 26  
 DATE: 17/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 51 0.0 N 128 56.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 91 M

WIND DIRECTION: 160 DEG  
 WIND VELOCITY: 17 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT:  
 SURFACE TEMP: 8.9 C  
 STD NUMBER: 23  
 BT/XRT NUMBER:  
 TIME OF TOW: 2316 HR  
 DEPTH OF TOW: 78 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED:  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.:

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EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	11.	100.0		

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TOTAL	11.	100.0
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LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
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CLUPEA HARENGUS PALLASI	2.	40.0		
SCORPAENIDAE(FAMILY)	2.	40.0		
COTTIDAE(FAMILY)	1.	20.0		

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TOTAL	5.	100.0
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TABLE: 250  
 CRUISE: NC 80- 4  
 SAMPLE NO.: 25  
 DATE: 18/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 51 0.0 N 129 21.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 187 M

WIND DIRECTION: 160 DEG  
 WIND VELOCITY: 22 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 5 M  
 SURFACE TEMP: 9.1 C  
 STD NUMBER: 24  
 BT/XRT NUMBER:  
 TIME OF TOW: 0130 HR  
 DEPTH OF TOW: 159 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 254 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.:

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EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	10.	100.0	39.4	62.4

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TOTAL	10.	100.0	39.4	62.4
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TABLE: 251  
 CRUISE: NC 80-4  
 SAMPLE NO.: 24  
 DATE: 18/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 51 0.0 N 129 48.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 1079 M

WIND DIRECTION: 160 DEG  
 WIND VELOCITY: 22 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 5 M  
 SURFACE TEMP: 8.5 C  
 STD NUMBER: 25  
 BT/XBT NUMBER:  
 TIME OF TOW: 0401 HR  
 DEPTH OF TOW: 535 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBlique  
 GEAR TYPE: BONGO .25 M<sup>2</sup>  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 653 M<sup>3</sup>  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 8.19

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
PISCES	5.	100.0	7.7	40.9
<b>TOTAL</b>	<b>5.</b>	<b>100.0</b>	<b>7.7</b>	<b>40.9</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
PISCES	1.	14.3	1.5	8.2
SCORPENIDAE(FAMILY)	6.	85.7	9.2	49.1
<b>TOTAL</b>	<b>7.</b>	<b>100.0</b>	<b>10.7</b>	<b>57.3</b>

JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
CHAULiodontidae(FAMILY)	1.	33.3	1.5	8.2
MYCTOPHIDAE(FAMILY)	2.	66.7	3.1	16.4
<b>TOTAL</b>	<b>3.</b>	<b>100.0</b>	<b>4.6</b>	<b>24.6</b>

TABLE: 252  
 CRUISE: NC 80-4  
 SAMPLE NO.: 34  
 DATE: 18/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 52 0.0 N 131 9.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 101 M

WIND DIRECTION: 190 DEG  
 WIND VELOCITY: 12 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT:  
 SURFACE TEMP: 7.9 C  
 STD NUMBER: 26  
 BT/XBT NUMBER:  
 TIME OF TOW: 1930 HR  
 DEPTH OF TOW: 89 M

TOW SPEED: 1 MPS  
 TYPE OF TOW:  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 202 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 4.38

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	4.	100.0	19.8	17.5

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TOTAL	4.	100.0	19.8	17.5
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LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
CLUPEA HARENGUS PALLAS	1.	50.0	5.0	4.4
AMMODYTES HEXAPTERUS	1.	50.0	5.0	4.4

 1  
33  
1

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TOTAL	2.	100.0	9.9	8.8
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POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
SCORPAENICHTHYS MARMURATUS	1.	100.0	5.0	4.4

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TOTAL	1.	100.0	5.0	4.4
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TABLE: 253  
 CRUISE: MC 80-4  
 SAMPLE NO.: 35  
 DATE: 18/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 52 0.0 N 131 10.5 W  
 GRID POSITION:  
 BOTTOM DEPTH: 183 M

WIND DIRECTION: 200 DEG  
 WIND VELOCITY: 12 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT:  
 SURFACE TEMP: 7.9 C  
 STD NUMBER: 27  
 BT/XBT NUMBER:  
 TIME OF TOW: 2007 HR  
 DEPTH OF TOW: 164 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: UHLIQUE  
 GEAR TYPE: BONGU .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 332 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 4.95

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCEES	7.	100.0	21.1	34.6
<b>TOTAL</b>	<b>7.</b>	<b>100.0</b>	<b>21.1</b>	<b>34.6</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
CLUPEA HARENGUS PALLASI	2.	3.9	6.0	9.9
BATHYLAGIDAE(FAMILY)	2.	3.9	6.0	9.9
AMMODYTES HEXAPTERUS	2.	3.9	6.0	9.9
SCORPAENIDAE(FAMILY)	45.	88.2	135.5	222.7
<b>TOTAL</b>	<b>51.</b>	<b>100.0</b>	<b>153.6</b>	<b>252.4</b>

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
AMMODYTES HEXAPTERUS	5.	100.0	15.1	24.8
<b>TOTAL</b>	<b>5.</b>	<b>100.0</b>	<b>15.1</b>	<b>24.8</b>

TABLE: 254  
 CRUISE: WC 80- 4  
 SAMPLE NO.: 36  
 DATE: 18/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 52 0.0 N 131 20.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 914 M

WIND DIRECTION: 210 DEG  
 WIND VELOCITY: 12 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT:  
 SURFACE TEMP: 7.8 C  
 STD NUMBER: 28  
 BT/XBT NUMBER:  
 TIME OF TOW: 2139 HR  
 DEPTH OF TOW: 517 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 819 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 6.32

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	1.	100.0	1.2	6.3

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TOTAL	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
	1.	100.0	1.2	6.3

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LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
SCORPAENIDAE(FAMILY)	1.	100.0	1.2	6.3

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TOTAL	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
	1.	100.0	1.2	6.3

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JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
MYCTOPHIDAE(FAMILY)	8.	100.0	9.8	50.6

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TOTAL	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
	8.	100.0	9.8	50.6

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TABLE: 255  
 CRUISE: WC 80-4  
 SAMPLE NO.: 38  
 DATE: 19/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 52 30.0 N 131 47.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 201 M

WIND DIRECTION: 190 DEG  
 WIND VELOCITY: 11 MPS  
 WAVE HEIGHTS:  
 SWELL HEIGHTS: 3 M  
 SURFACE TEMP: 8.1 C  
 STD NUMBER: 29  
 RT/XBT NUMBER:  
 TIME OF TOW: 0135 HR  
 DEPTH OF TOW: 187 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBlique  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 282 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 6.64

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	3.	100.0	10.6	19.9

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TOTAL	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
	3.	100.0	10.6	19.9

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LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
SCURPAENIDAE(FAMILY)	1.	100.0	3.5	6.6

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TOTAL	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
	1.	100.0	3.5	6.6

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POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
MICROGADUS PROXIMUS	1.	50.0	3.5	6.6
AMMODYTES HEXAPTERUS	1.	50.0	3.5	6.6

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TOTAL	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
	2.	100.0	7.1	13.3

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TABLE: 256  
 CRUISE: NC 80- 4  
 SAMPLE NO.: 37  
 DATE: 19/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 52 30.0 N 131 53.2 W  
 GRID POSITION:  
 BOTTOM DEPTH: 914 M

WIND DIRECTION: 190 DEG  
 WIND VELOCITY: 11 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 3 M  
 SURFACE TEMP: 8.1 C  
 STD NUMBER: 30  
 BT/XBT NUMBER:  
 TIME OF TOW: 0235 HR  
 DEPTH OF TOW: 544 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBlique  
 GEAR TYPE: BONGO .25 M<sup>2</sup>  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 713 M<sup>3</sup>  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 7.62

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
PISCES	5.	100.0	7.0	38.1

TOTAL	5.	100.0	7.0	38.1
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LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
PISCES	1.	1.1	1.4	7.6
CLUPEA HARENGUS PALLASI	2.	2.2	2.8	15.2
SCORPAENIDAE(FAMILY)	85.	93.4	119.2	647.7
ANOPLOPOMA FIMBRIA	3.	3.3	4.2	22.9

TOTAL	91.	100.0	127.6	693.4
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POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
CLUPEA HARENGUS PALLASI	4.	100.0	5.6	30.5

TOTAL	4.	100.0	5.6	30.5
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JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
CYCLOTHONE MICRODON	1.	100.0	1.4	7.6

TOTAL	1.	100.0	1.4	7.6
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TABLE: 257  
 CRUISE: NC 80-4  
 SAMPLE NO.: 39  
 DATE: 19/4/80  
 VESSEL: G.R. REED  
 POSITION: 53 0.0 N 132 26.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 91 M

	WIND DIRECTION:	180 DEG	TOW SPEED:	1 MPS
	WIND VELOCITY:	10 MPS	TYPE OF TOW:	OBLIQUE
	WAVE HEIGHT:	0 M	GEAR TYPE:	BONGO .25 M2
	SWELL HEIGHT:	1 M	MESH SIZE:	.351 MM
	SURFACE TEMP:	7.8 C	VOL. FILTERED:	179 M3
	STD NUMBER:	31	DISP. VOLUME:	
	BT/XBT NUMBER:		PLANKTON CONC.:	
	TIME OF TOW:	0707 HR	ALIQUOT:	
	DEPTH OF TOW:	82 M	S.H.F.:	4.59

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	3.	100.0	16.8	13.8
TOTAL	3.	100.0	16.8	13.8

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	1.	6.3	5.6	4.6
CLUPEA HARENGUS PALLASI	5.	31.3	27.9	22.9
AMMODYTES HEXAPTERUS	8.	50.0	44.7	36.7
SCORPAENIDAE (FAMILY)	2.	12.5	11.2	9.2
TOTAL	16.	100.0	89.4	73.4

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
AMMODYTES HEXAPTERUS	2.	100.0	11.2	9.2
TOTAL	2.	100.0	11.2	9.2

TABLE: 258  
 CRUISE: WC 80- 4  
 SAMPLE NO.: 40  
 DATE: 19/ 4/80  
 VESSEL: G.P. REED  
 POSITION: 53 0.0 N 132 40.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 183 M

WIND DIRECTION:  
 WIND VELOCITY:  
 WAVE HEIGHT:  
 SWELL HEIGHT: 1 M  
 SURFACE TEMP: 7.8 C  
 STD NUMBER: 32  
 BT/XBT NUMBER:  
 TIME OF TOW: 0841 HR  
 DEPTH OF TOW: 166 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 379 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 4.38

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	3.	100.0	7.9	13.1
<b>TOTAL</b>	<b>3.</b>	<b>100.0</b>	<b>7.9</b>	<b>13.1</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
LEUROGLOSSUS STILBIUS	1.	7.7	2.6	4.4
AMMODYTES HEXAPTERUS	3.	23.1	7.9	13.1
SCORPAENIDAE(FAMILY)	9.	69.2	23.7	39.4
<b>TOTAL</b>	<b>13.</b>	<b>100.0</b>	<b>34.3</b>	<b>56.9</b>

TABLE: 259  
 CRUISE: WC 80- 4  
 SAMPLE NO.: 41  
 DATE: 19/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 53 0.0 N 132 36.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 914 M

WIND DIRECTION: 180 DEG  
 WIND VELOCITY: 2 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT:  
 SURFACE TEMP: 7.5 C  
 STD NUMBER: 33  
 BT/XBT NUMBER:  
 TIME OF TOW: 0956 HR  
 DEPTH OF TOW: 553 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBlique  
 GEAR TYPE: BONGO .25 M<sup>2</sup>  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 795 M<sup>3</sup>  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 6.96

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
PISCES	1.	100.0	1.3	7.0

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TOTAL	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
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LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
MYCTOPHIDAE(FAMILY)	1.	1.4	1.3	7.0
SCORPAENIDAE(FAMILY)	67.	97.1	84.3	466.3
ANOPLOPOMA FINNRIA	1.	1.4	1.3	7.0

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TOTAL	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
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JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
CHAULIODONTIDAE(FAMILY)	2.	100.0	2.5	13.9

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TOTAL	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
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TABLE: 260  
 CRUISE: WC 80- 4  
 SAMPLE NO.: 44  
 DATE: 19/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 53 20.0 N 132 48.5 W  
 GRID POSITION:  
 BOTTOM DEPTH: 135 M

WIND DIRECTION:	190 DEG	TOW SPEED:	1 MPS
WIND VELOCITY:	10 MPS	TYPE OF TOW:	
WAVE HEIGHT:		GEAR TYPE:	BONGO .25 M <sup>2</sup>
SWELL HEIGHT:	3 M	MESH SIZE:	.351 MM
SURFACE TEMP:	7.8 C	VOL. FILTERED:	194 M <sup>3</sup>
STD NUMBER:	34	DISP. VOLUME:	
BT/XBT NUMBER:		PLANKTON CONC.:	
TIME OF TOW:	1300 HR	ALIQUOT:	
DEPTH OF TOW:	122 M	S.H.F.:	6.31

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
PISCES	1.	12.5	5.2	6.3
AMMODYTES HEXAPTERUS	2.	25.0	10.3	12.6
SCORPAENIDAE(FAMILY)	4.	50.0	20.6	25.2
HEXAGRAMMIIDAE(FAMILY)	1.	12.5	5.2	6.3
<b>TOTAL</b>	<b>8.</b>	<b>100.0</b>	<b>41.2</b>	<b>50.5</b>

TABLE: 261  
 CRUISE: WC 80- 4  
 SAMPLE NO.: 43  
 DATE: 19/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 53 20.0 N 133 1.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 256 M

WIND DIRECTION:	200 DEG	TOW SPEED:	1 MPS
WIND VELOCITY:	11 MPS	TYPE OF TOW:	OBLIQUE
WAVE HEIGHT:		GEAR TYPE:	BONGO .25 M <sup>2</sup>
SWELL HEIGHT:	3 M	MESH SIZE:	.351 MM
SURFACE TEMP:	7.9 C	VOL. FILTERED:	351 M <sup>3</sup>
STD NUMBER:	35	DISP. VOLUME:	
BT/XBT NUMBER:		PLANKTON CONC.:	
TIME OF TOW:	1350 HR	ALIQUOT:	
DEPTH OF TOW:	247 M	S.H.F.:	7.05

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
CLUPEA HARENGUS PALLASI	3.	7.5	8.5	21.1
AMMODYTES HEXAPTERUS	1.	2.5	2.8	7.0
SCORPAENIDAE(FAMILY)	36.	90.0	102.6	253.8
<b>TOTAL</b>	<b>40.</b>	<b>100.0</b>	<b>114.0</b>	<b>282.0</b>

TABLE: 262  
 CRUISE: WC 80-4  
 SAMPLE NO.: 43A  
 DATE: 19/ 4/80  
 VESSEL: G.H. REED  
 POSITION: 53 20.0 N 133 5.4 W  
 GRID POSITION:  
 BOTTOM DEPTH: 201 M

WIND DIRECTION: 190 DEG  
 WIND VELOCITY: 9 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 3 M  
 SURFACE TEMP: 7.9 C  
 STD NUMBER: 36  
 BT/XRT NUMBER:  
 TIME OF TOW: 1445 HR  
 DEPTH OF TOW: 150 M

TOW SPEED: 1 MPS  
 TYPE OF TOW:  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 330 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 4.55

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	2.	100.0	6.1	9.1

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TOTAL	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
	2.	100.0	6.1	9.1

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LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	3.	18.8	9.1	13.6
SCORPAENIDAE(FAMILY)	13.	81.3	39.4	59.1

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TOTAL	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
	16.	100.0	48.5	72.8

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POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
AMMODYTES HEXAPTERUS	1.	100.0	3.0	4.5

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TOTAL	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
	1.	100.0	3.0	4.5

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TABLE: 263  
 CRUISE: NC 80- 4  
 SAMPLE NO.: 438  
 DATE: 19/ 8/80  
 VESSEL: G.B. REED  
 POSITION: 53 20.0 N 133 9.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 677 M

WIND DIRECTION: 190 DEG  
 WIND VELOCITY: 12 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 3 M  
 SURFACE TEMP: 7.9 C  
 STD NUMBER: 37  
 RT/XBT NUMBER:  
 TIME OF TOW: 1545 HR  
 DEPTH OF TOW: 466 M

TOW SPEED: 1 MPS  
 TYPE OF TOW:  
 GEAR TYPE: BUNGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 694 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.M.F.: 6.72

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	4.	100.0	5.8	26.9

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TOTAL	4.	100.0	5.8	26.9
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LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
LEURUGLOSSUS STILBIUS	2.	15.4	2.9	13.4
SCORPAENIDAE(FAMILY)	7.	53.8	10.1	47.0
ANOPLOPOMA FIMBRIA	4.	30.8	5.8	26.9

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TOTAL	13.	100.0	15.7	87.4
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JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
MYCTOPHIDAE(FAMILY)	1.	100.0	1.4	6.7

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TOTAL	1.	100.0	1.4	6.7
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TABLE: 264  
 CRUISE: NC 80-4  
 SAMPLE NO.: 42  
 DATE: 19/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 53 20.0 N 133 19.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 1207 M

WIND DIRECTION: 190 DEG  
 WIND VELOCITY: 10 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 3 M  
 SURFACE TEMP: 7.4 C  
 STD NUMBER: 38  
 BT/XBT NUMBER:  
 TIME OF TOW: 1743 HR  
 DEPTH OF TOW: 565 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 629 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 8.99

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	5.	100.0	7.9	44.9

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TOTAL	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
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LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
BATHYLAGIDAE (FAMILY)	1.	16.7	1.6	9.0
SCORPAENIDAE (FAMILY)	1.	16.7	1.6	9.0
ANOPLOPOMA FIMBRIA	4.	66.7	6.4	36.0

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TOTAL	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
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JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
MYCTOPHIDAE (FAMILY)	3.	100.0	4.8	27.0

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TOTAL	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
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TABLE: 265  
 CRUISE: NC 80- 4  
 SAMPLE NO.: 45  
 DATE: 19/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 54 0.0 N 133 17.5 W  
 GRID POSITION:  
 BOTTOM DEPTH: 55 M

WIND DIRECTION: 180 DEG  
 WIND VELOCITY: 11 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT:  
 SURFACE TEMP: 7.6 C  
 STD NUMBER: 39  
 BT/XRT NUMBER:  
 TIME OF TOW: 2143 HR  
 DEPTH OF TOW: 55 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 151 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 3.65

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	1.	100.0	6.6	3.6

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TOTAL	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
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LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
AMMODYTES HEXAPTERUS	2.	28.6	13.2	7.3
SCORPAENIDAE(FAMILY)	4.	57.1	26.5	14.6
PAROPHRYS VETULUS	1.	14.3	6.6	3.6

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TOTAL	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
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POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
AMMODYTES HEXAPTERUS	8.	100.0	53.0	29.2

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TOTAL	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
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TABLE: 266  
 CRUISE: NC 80-4  
 SAMPLE NO.: 46  
 DATE: 19/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 54° 0.0' N 133° 27.0' W  
 GRID POSITION:  
 BOTTOM DEPTH: 91 M

WIND DIRECTION: 180 DEG  
 WIND VELOCITY: 12 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 1 M  
 SURFACE TEMP: 7.6 C  
 STD NUMBER: 40  
 BT/XBT NUMBER:  
 TIME OF TOW: 2235 HR  
 DEPTH OF TOW: 85 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBlique  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 176 M3  
 DTSP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 4.82

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	3.	100.0	17.0	14.5
<b>TOTAL</b>	<b>3.</b>	<b>100.0</b>	<b>17.0</b>	<b>14.5</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	1.	16.7	5.7	4.8
SCORPENAIDAE (FAMILY)	5.	83.3	28.4	24.1
<b>TOTAL</b>	<b>6.</b>	<b>100.0</b>	<b>34.1</b>	<b>28.9</b>

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
OPHIODONN ELONGATUS	1.	100.0	5.7	4.8
<b>TOTAL</b>	<b>1.</b>	<b>100.0</b>	<b>5.7</b>	<b>4.8</b>

TABLE: 267  
 CRUISE: NC 80- 4  
 SAMPLE NO.: 47  
 DATE: 19/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 54 0.0 N 133 31.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 183 M

WIND DIRECTION:  
 WIND VELOCITY:  
 WAVE HEIGHT:  
 SWELL HEIGHT: 1 M  
 SURFACE TEMP: 7.3 C  
 STD NUMBER: 41  
 BT/XBT NUMBER:  
 TIME OF TOW: 2317 HR  
 DEPTH OF TOW: 166 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: ORLIQUE  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 351 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 4.72

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	6.	100.0	17.1	28.3
<b>TOTAL</b>	<b>6.</b>	<b>100.0</b>	<b>17.1</b>	<b>28.3</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	1.	50.0	2.8	4.7
ANOPLOPOMA FIMBRIA	1.	50.0	2.8	4.7
<b>TOTAL</b>	<b>2.</b>	<b>100.0</b>	<b>5.7</b>	<b>9.4</b>

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
SCORPAENICHTHYS MARMORATUS	1.	100.0	2.8	4.7
<b>TOTAL</b>	<b>1.</b>	<b>100.0</b>	<b>2.8</b>	<b>4.7</b>

TABLE: 268  
 CRUISE: NC 80-4  
 SAMPLE NO.: 48  
 DATE: 20/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 54 0.0 N 133 48.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 896 M

WIND DIRECTION: 200 DEG  
 WIND VELOCITY: 13' MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 2 M  
 SURFACE TEMP: 7.4 C  
 STD NUMBER: 42  
 BT/XBT NUMBER:  
 TIME OF TOW: 0040 HR  
 DEPTH OF TOW: 509 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 654 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.T 7.79

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	2.	100.0	3.1	15.6
<b>TOTAL</b>	<b>2.</b>	<b>100.0</b>	<b>3.1</b>	<b>15.6</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
SCORPAENIDAE(FAMILY)	2.	100.0	3.1	15.6
<b>TOTAL</b>	<b>2.</b>	<b>100.0</b>	<b>3.1</b>	<b>15.6</b>

JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
MYCTOPHIDAE(FAMILY)	7.	100.0	10.7	54.5
<b>TOTAL</b>	<b>7.</b>	<b>100.0</b>	<b>10.7</b>	<b>54.5</b>

TABLE I 269  
 CRUISE: MC 80-4  
 SAMPLE NO.: 49  
 DATE: 20/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 54 30.0 N 134 6.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 1463 M

WIND DIRECTION: 180 DEG  
 WIND VELOCITY: 10 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 2 M  
 SURFACE TEMP: 6.4 C  
 STD NUMBER: 43  
 HT/XBT NUMBER:  
 TIME OF TOW: 0445 HR  
 DEPTH OF TOW: 520 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 742 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 7.00

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	5.	18.5	6.7	35.0
LEUROGLOSSUS STILBIUS	1.	3.7	1.3	7.0
SCORPAENIDAE(FAMILY)	20.	74.1	27.0	140.0
ANOPLOPOMA FIMBRIA	1.	3.7	1.3	7.0
<b>TOTAL</b>	<b>27.</b>	<b>100.0</b>	<b>36.4</b>	<b>189.0</b>

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
HEXAGRAMMIDAE(FAMILY)	1.	100.0	1.3	7.0
<b>TOTAL</b>	<b>1.</b>	<b>100.0</b>	<b>1.3</b>	<b>7.0</b>

JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
MYCTOPHIDAE(FAMILY)	11.	100.0	14.8	77.0
<b>TOTAL</b>	<b>11.</b>	<b>100.0</b>	<b>14.8</b>	<b>77.0</b>

TABLE: 270  
 CRUISE: NC 80- 4  
 SAMPLE NO.: 50  
 DATE: 20/ 4/80  
 VESSEL: G.R. REED  
 POSITION: 54 30.0 N 133 49.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 220 M

WIND DIRECTION: 180 DEG  
 WIND VELOCITY: 10 MPS  
 WAVE HEIGHTS: 0 M  
 SWELL HEIGHTS: 1 M  
 SURFACE TEMP: 7.3 C  
 STD NUMBER: 44  
 BT/XAT NUMBER:  
 TIME OF TOW: 0706 HR  
 DEPTH OF TOW: 217 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBlique  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 451 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 4.80

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EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	38.	100.0	84.3	182.4
<b>TOTAL</b>	<b>38.</b>	<b>100.0</b>	<b>84.3</b>	<b>182.4</b>

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LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	1.	3.7	2.2	4.8
SCORPAENIDAE(FAMILY)	26.	96.3	57.6	124.8
<b>TOTAL</b>	<b>27.</b>	<b>100.0</b>	<b>59.9</b>	<b>129.6</b>

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TABLE: 271  
 CRUISE: NC 80- 4  
 SAMPLE NO.: 51  
 DATE: 20/ 4/80  
 VESSEL: G.R. REED  
 POSITION: 54 30.0 N 133 22.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 274 M

WIND DIRECTION: 190 DEG  
 WIND VELOCITY: 10 MPS  
 WAVE HEIGHT: 0 M  
 SWELL HEIGHT: 2 M  
 SURFACE TEMP: 7.3 C  
 STD NUMBER: 45  
 BT/XBT NUMBER:  
 TIME OF TOW: 0929 HR  
 DEPTH OF TOW: 256 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 423 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 6.05

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES				
THERAGRA CHALCOGRAMMA	15.	71.4	35.5	90.7
	6.	28.6	14.2	36.3
TOTAL	21.	100.0	49.6	127.0

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
THERAGRA CHALCOGRAMMA	6.	25.0	14.2	36.3
AMMODYTES HEXAPTERUS	1.	4.2	2.4	6.0
SCORPAENIDAE(FAMILY)	16.	66.7	37.8	96.8
CYCLOPTERIDAE(FAMILY)	1.	4.2	2.4	6.0
TOTAL	24.	100.0	56.7	145.2

JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
MYCTOPHIDAE(FAMILY)	1.	100.0	2.4	6.0
TOTAL	1.	100.0	2.4	6.0

TABLE: 272  
 CRUISE: WC 80-4  
 SAMPLE NO.: 52  
 DATE: 20/ 4/80  
 VESSEL: G.H. REED  
 POSITION: 54 30.0 N 132 55.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 380 M

WIND DIRECTION: 200 DEG  
 WIND VELOCITY: 12 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 1 M  
 SURFACE TEMP: 7.2 C  
 STD NUMBER: 46  
 BT/XRT NUMBER:  
 TIME OF TOW: 1145 HR  
 DEPTH OF TOW: 345 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: ORLIQUE  
 GEAR TYPE: BUNGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 610 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 5.65

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
LEUROGLOSSUS STILBIUS	5.	10.4	8.2	28.3
THERAGRA CHALCOGRAMMA	43.	89.6	70.5	242.9
<b>TOTAL</b>	<b>48.</b>	<b>100.0</b>	<b>78.7</b>	<b>271.2</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
LEUROGLOSSUS STILBIUS	7.	12.1	11.5	39.6
MICROGADUS PROXIMUS	3.	5.2	4.9	16.9
THERAGRA CHALCOGRAMMA	7.	12.1	11.5	39.6
AMMODYTES HEXAPTERUS	38.	65.5	62.3	214.7
SCORPAENIDAE(FAMILY)	2.	3.4	3.3	11.3
PLEURONECTIDAE(FAMILY)	1.	1.7	1.6	5.6
<b>TOTAL</b>	<b>58.</b>	<b>100.0</b>	<b>95.1</b>	<b>327.7</b>

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
AMMODYTES HEXAPTERUS	482.	99.6	790.2	2723.3
COTTIDAE(FAMILY)	1.	0.2	1.6	5.6
AGUNIDAE(FAMILY)	1.	0.2	1.6	5.6
<b>TOTAL</b>	<b>484.</b>	<b>100.0</b>	<b>793.4</b>	<b>2734.6</b>

JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
CYCLOPTERIDAE(FAMILY)	1.	100.0	1.6	5.6
<b>TOTAL</b>	<b>1.</b>	<b>100.0</b>	<b>1.6</b>	<b>5.6</b>

TABLE: 273  
 CRUISE: WC 80-4  
 SAMPLE NO.: 53  
 DATE: 20/ 4/80  
 VESSEL: G.R. REED  
 POSITION: 54 30.0 N 132 27.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 373 M

WIND DIRECTION: 230 DEG  
 WIND VELOCITY: 6 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 2 M  
 SURFACE TEMP: 7.2 C  
 STD NUMBER: 47  
 BT/XBT NUMBER:  
 TIME OF TOW: 1410 HR  
 DEPTH OF TOW: 281 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: RONGU .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 562 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.M.F.: 5.00

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISES	7.	2.1	12.5	35.0
LEUROGLOSSUS STILBIUS	4.	1.2	7.1	20.0
THERAGRA CHALCOGRAMMA	329.	96.8	585.4	1645.0
<b>TOTAL</b>	<b>340.</b>	<b>100.0</b>	<b>605.0</b>	<b>1700.0</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
LEUROGLOSSUS STILBIUS	12.	22.6	21.4	60.0
THERAGRA CHALCOGRAMMA	19.	35.8	33.8	95.0
AMMODYTES HEXAPTERUS	3.	5.7	5.3	15.0
SCORPAENIDAE(FAMILY)	17.	32.1	30.2	85.0
CYCLOPTERIDAE(FAMILY)	1.	1.9	1.8	5.0
PLEURONECTIDAE(FAMILY)	1.	1.9	1.8	5.0
<b>TOTAL</b>	<b>53.</b>	<b>100.0</b>	<b>94.3</b>	<b>265.0</b>

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
AMMODYTES HEXAPTERUS	15.	100.0	26.7	75.0
<b>TOTAL</b>	<b>15.</b>	<b>100.0</b>	<b>26.7</b>	<b>75.0</b>

JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
MYCTOPHIDAE(FAMILY)	1.	100.0	1.8	5.0
<b>TOTAL</b>	<b>1.</b>	<b>100.0</b>	<b>1.8</b>	<b>5.0</b>

TABLE: 274  
 CRUISE: NC 80-4  
 SAMPLE NO.: 54  
 DATE: 20/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 54° 30.0' N 132° 0.0' W  
 GRID POSITION:  
 BOTTOM DEPTH: 285 M

WIND DIRECTION: 240 DEG  
 WIND VELOCITY: 6 MPS  
 WAVE HEIGHT: 0 M  
 SWELL HEIGHT: 1 M  
 SURFACE TEMP: 7.3 C  
 STD NUMBER: 48  
 BT/XBT NUMBER:  
 TIME OF TOW: 1620 HR  
 DEPTH OF TOW: 233 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 496 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT: S.H.F.: 4.70

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	15.	7.3	50.2	70.5
LEUROGLOSSUS STILBIUS	3.	1.5	6.0	14.1
THERAGRA CHALCOGRAMMA	187.	91.2	377.0	878.9
<b>TOTAL</b>	<b>205.</b>	<b>100.0</b>	<b>413.3</b>	<b>963.5</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
CLUPEA HARENGUS PALLASI	2.	10.5	4.0	9.4
LEUROGLOSSUS STILBIUS	2.	10.5	4.0	9.4
THERAGRA CHALCOGRAMMA	9.	47.4	18.1	42.3
SCORPAENIDAE (FAMILY)	4.	21.1	8.1	18.8
COTTIDAE (FAMILY)	1.	5.3	2.0	4.7
AGUNIDAE (FAMILY)	1.	5.3	2.0	4.7
<b>TOTAL</b>	<b>19.</b>	<b>100.0</b>	<b>38.3</b>	<b>89.3</b>

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
LYCONECTES ALEUTENSIS	1.	16.7	2.0	4.7
AMMODYTES HEXAPTERUS	4.	66.7	8.1	18.8
HEMILEPIDOTUS HEMILEPIDOTUS	1.	16.7	2.0	4.7
<b>TOTAL</b>	<b>6.</b>	<b>100.0</b>	<b>12.1</b>	<b>28.2</b>

JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
MYCTOPHIDAE (FAMILY)	1.	100.0	2.0	4.7
<b>TOTAL</b>	<b>1.</b>	<b>100.0</b>	<b>2.0</b>	<b>4.7</b>

TABLE: 275  
 CRUISE: WC 80-4  
 SAMPLE NO.: 55  
 DATE: 20/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 54 30.0 N 131 34.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 284 M

WIND DIRECTIONS: 240 DEG  
 WIND VELOCITY: 4 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 0 M  
 SURFACE TEMP: 7.3 C  
 STD NUMBER: 49  
 BT/XBT NUMBER:  
 TIME OF TOW: 1822 HR  
 DEPTH OF TOW: 249 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: ORLIQUE  
 GEAR TYPE: BONGO .25 M<sup>2</sup>  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 410 M<sup>3</sup>  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 6.07

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LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
PISCES	1.	11.1	2.4	6.1
LEUROGLOSSUS STILBIUS	2.	22.2	4.9	12.1
THERAGRA CHALCOGRAMMA	1.	11.1	2.4	6.1
AMMODYTES HEXAPTERUS	2.	22.2	4.9	12.1
SCORPAENIDAE(FAMILY)	2.	22.2	4.9	12.1
COTTIDAE(FAMILY)	1.	11.1	2.4	6.1
<b>TOTAL</b>	<b>9.</b>	<b>100.0</b>	<b>22.0</b>	<b>54.6</b>

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POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
AMMODYTES HEXAPTERUS	36.	100.0	87.8	218.5
<b>TOTAL</b>	<b>36.</b>	<b>100.0</b>	<b>87.8</b>	<b>218.5</b>

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TABLE: 276  
 CRUISE: NC 80- 4  
 SAMPLE NO.: 56  
 DATE: 20/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 54 30.0 N 131 7.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 137 M

WIND DIRECTION: 180 DEG  
 WIND VELOCITY: 2 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 0 M  
 SURFACE TEMP: 7.5 C  
 STD NUMBER: 50  
 BT/XBT NUMBER:  
 TIME OF TOW: 2035 HR  
 DEPTH OF TOW: 124 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BONGU .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 175 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 7.07

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	2.	22.2	11.4	14.1
MICROGADUS PROXIMUS	2.	22.2	11.4	14.1
THERAGRA CHALCUGRAMMA	5:	55.6	28.6	35.4
<b>TOTAL</b>	<b>9.</b>	<b>100.0</b>	<b>51.4</b>	<b>63.6</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
MICROGADUS PROXIMUS	17.	3.7	97.1	120.2
THERAGRA CHALCUGRAMMA	36.	7.9	205.7	254.5
STICHAEIDAE(FAMILY)	2.	0.4	11.4	14.1
AMMODYTES HEXAPTERUS	354.	77.8	2022.9	2502.8
SCORPAENIDAE(FAMILY)	8.	1.8	45.7	56.6
COTTIDAE(FAMILY)	6.	1.3	34.3	42.4
PLEURONECTIDAE(FAMILY)	32.	7.0	182.9	226.2
<b>TOTAL</b>	<b>455.</b>	<b>100.0</b>	<b>2600.0</b>	<b>3216.8</b>

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
THERAGRA CHALCUGRAMMA	1.	0.9	5.7	7.1
STICHAEIDAE(FAMILY)	9.	8.0	51.4	63.6
AMMODYTES HEXAPTERUS	93.	83.0	531.4	657.5
COTTIDAE(FAMILY)	4.	3.6	22.9	28.3
CYCLOPHTERIDAE(FAMILY)	2.	1.8	11.4	14.1
PLEURONECTIDAE(FAMILY)	3.	2.7	17.1	21.2
<b>TOTAL</b>	<b>112.</b>	<b>100.0</b>	<b>640.0</b>	<b>791.8</b>

TABLE: 277  
 CRUISE: NC 80-4  
 SAMPLE NO.: 57  
 DATE: 20/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 54 0.0 N 131 25.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 18 M

WIND DIRECTION: 210 DEG  
 WIND VELOCITY: 7 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT:  
 SURFACE TEMP: 8.2 C  
 STD NUMBER:  
 BT/XBT NUMBER:  
 TIME OF TOW: 2350 HR  
 DEPTH OF TOW: 12 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 117 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 1.05

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	8.	44.4	68.4	8.4
MICROGADUS PROXIMUS	10.	55.6	85.5	10.5
TOTAL	18.	100.0	153.8	18.9

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	2.	4.0	17.1	2.1
MICROGADUS PROXIMUS	3.	6.0	25.6	3.1
THERAGRA CHALCOGRAMMA	17.	34.0	145.3	17.8
PHOLIDAE(FAMILY)	4.	8.0	34.2	4.2
AMMODYTES HEXAPTERUS	16.	32.0	136.8	16.8
COTTIDAE(FAMILY)	2.	4.0	17.1	2.1
PLEURONECTIDAE(FAMILY)	6.	12.0	51.3	6.3
TOTAL	50.	100.0	427.4	52.5

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
CLUPEA HARENGUS PALLASI	1.	2.6	8.5	1.0
PHOLIDAE(FAMILY)	6.	15.4	51.3	6.3
AMMODYTES HEXAPTERUS	29.	74.4	247.9	30.4
HEXAGRAMMIIDAE(FAMILY)	1.	2.6	8.5	1.0
COTTIDAE(FAMILY)	2.	5.1	17.1	2.1
TOTAL	39.	100.0	333.3	40.9

TABLE: 278  
 CRUISE: WC 80- 4  
 SAMPLE NO.: 58  
 DATE: 21/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 54 0.0 N 131 8.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 37 M

WIND DIRECTION: 200 DEG  
 WIND VELOCITY: 7 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT:  
 SURFACE TEMP: 8.1 C  
 STD NUMBER:  
 BT/XBT NUMBER:  
 TIME OF TOW: 0100 HR  
 DEPTH OF TOW: 28 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BUNGU .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 155 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 1.79

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	18.	18.4	116.1	32.2
MICROGADUS PROXIMUS	80.	81.6	516.1	143.2
<b>TOTAL</b>	<b>98.</b>	<b>100.0</b>	<b>632.3</b>	<b>175.4</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
MICROGADUS PROXIMUS	1.	1.2	6.5	1.8
THERAGRA CHALCOGRAMMA	3.	3.7	19.4	5.4
PHOLIDAE(FAMILY)	4.	4.9	25.8	7.2
AMMODYTES HEXAPTERUS	57.	70.4	367.7	102.0
SCORPAENIDAE(FAMILY)	12.	14.8	77.4	21.5
AGONIDAE(FAMILY)	1.	1.2	6.5	1.8
PLEURONECTIDAE(FAMILY)	3.	3.7	19.4	5.4
<b>TOTAL</b>	<b>81.</b>	<b>100.0</b>	<b>522.6</b>	<b>145.0</b>

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
CLUPEA HARENGUS PALLASI	6.	20.0	38.7	10.7
PHOLIDAE(FAMILY)	3.	10.0	19.4	5.4
AMMODYTES HEXAPTERUS	17.	56.7	109.7	30.4
SCORPAENIDAE(FAMILY)	1.	3.3	6.5	1.8
COTTIDAE(FAMILY)	1.	3.3	6.5	1.8
CYCLOPTERIDAE(FAMILY)	1.	3.3	6.5	1.8
PLEURONECTIDAE(FAMILY)	1.	3.3	6.5	1.8
<b>TOTAL</b>	<b>30.</b>	<b>100.0</b>	<b>193.5</b>	<b>53.7</b>

TABLE: 279  
 CRUISE: NC 80- 4  
 SAMPLE NO.: 59  
 DATE: 21/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 54 0.0 N 130 55.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 70 M

WIND DIRECTION: 190 DEG  
 WIND VELOCITY: 7 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT:  
 SURFACE TEMP: 7.7 C  
 STD NUMBER: 51  
 RT/XBT NUMBER:  
 TIME OF TOW: 0200 HR  
 DEPTH OF TOW: 53 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 112 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 4.76

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	5.	50.0	44.6	23.8
THERAGRA CHALCOGRAMMA	5.	50.0	44.6	23.8
<b>TOTAL</b>	<b>10.</b>	<b>100.0</b>	<b>89.3</b>	<b>47.6</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
AMMODYTES HEXAPTERUS	3.	50.0	26.8	14.3
SCORPAENIDAE(FAMILY)	1.	16.7	8.9	4.8
PLEURONECTIDAE(FAMILY)	2.	33.3	17.9	9.5
<b>TOTAL</b>	<b>6.</b>	<b>100.0</b>	<b>53.6</b>	<b>28.6</b>

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
AMMODYTES HEXAPTERUS	2.	66.7	17.9	9.5
HEXAGRAMMIIDAE(FAMILY)	1.	33.3	8.9	4.8
<b>TOTAL</b>	<b>3.</b>	<b>100.0</b>	<b>26.8</b>	<b>14.3</b>

TABLE: 280  
 CRUISE: WC 80-4  
 SAMPLE NO.: 60  
 DATE: 21/4/80  
 VESSEL: G.B. REED  
 POSITION: 53 30.0 N 130 42.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 139 M

WIND DIRECTION: 170 DEG  
 WIND VELOCITY: 10 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 0 M  
 SURFACE TEMP: 7.7 C  
 STD NUMBER: 52  
 BT/XBT NUMBER:  
 TIME OF TOW: 0510 HR  
 DEPTH OF TOW: 120 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBlique  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 213 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 5.63

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
THERAGRA CHALCOGRAMMA	1.	100.0	4.7	5.6

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TOTAL	1.	100.0	4.7	5.6
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LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
STICHAEIDAE(FAMILY)	1.	7.7	4.7	5.6
AMMODYTES HEXAPTERUS	4.	30.8	18.8	22.5
SCORPENAIDAE(FAMILY)	6.	46.2	28.2	33.8
CYCLOPTERIDAE(FAMILY)	1.	7.7	4.7	5.6
PLEURONECTIDAE(FAMILY)	1.	7.7	4.7	5.6

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TOTAL	13.	100.0	61.0	73.2
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POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
AMMODYTES HEXAPTERUS	10.	100.0	46.9	56.3

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TOTAL	10.	100.0	46.9	56.3
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TABLE: 281  
 CRUISE: WC 80-4  
 SAMPLE NO.: 61  
 DATE: 21/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 53 30.0 N 131 5.0 E  
 GRID POSITION:  
 BOTTOM DEPTH: 37 M

WIND DIRECTION: 160 DEG  
 WIND VELOCITY: 13 MPS  
 WAVE HEIGHT: 0 M  
 SWELL HEIGHT: 1 M  
 SURFACE TEMP: 7.6 C  
 STD NUMBER:  
 BT/XBT NUMBER:  
 TIME OF TOW: 0647 HR  
 DEPTH OF TOW: 41 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BONGU .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 196 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 2.08

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	6.	28.6	30.6	12.5
MICROGADUS PROXIMUS	15.	71.4	76.5	31.2
<b>TOTAL</b>	<b>21.</b>	<b>100.0</b>	<b>107.1</b>	<b>43.7</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	2.	1.6	10.2	4.2
MICROGADUS PROXIMUS	2.	1.6	10.2	4.2
THERAGRA CHALCOGRAMMA	2.	1.6	10.2	4.2
STICHAEIDAE(FAMILY)	1.	0.8	5.1	2.1
AMMODYTES HEXAPTERUS	88.	69.3	449.0	183.0
SCORPAENIDAE(FAMILY)	8.	6.3	40.8	16.6
COTTIDAE(FAMILY)	1.	0.8	5.1	2.1
AGONIDAE(FAMILY)	1.	0.8	5.1	2.1
PLEURONECTIDAE(FAMILY)	22.	17.3	112.2	45.8
<b>TOTAL</b>	<b>127.</b>	<b>100.0</b>	<b>648.0</b>	<b>264.2</b>

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
THERAGRA CHALCOGRAMMA	2.	28.6	10.2	4.2
STICHAEIDAE(FAMILY)	1.	14.3	5.1	2.1
AMMODYTES HEXAPTERUS	1.	14.3	5.1	2.1
AGONIDAE(FAMILY)	1.	14.3	5.1	2.1
PLEURONECTIDAE(FAMILY)	2.	28.6	10.2	4.2
<b>TOTAL</b>	<b>7.</b>	<b>100.0</b>	<b>35.7</b>	<b>14.6</b>

TABLE: 282  
 CRUISE: WC 80- 4  
 SAMPLE NO.: 62  
 DATE: 21/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 53 30.0 N 131 32.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 22 M

WIND DIRECTION: 160 DEG  
 WIND VELOCITY: 16 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 2 M  
 SURFACE TEMP: 7.6 C  
 STD NUMBER:  
 BT/XAT NUMBER:  
 TIME OF TOW: 0835 HR  
 DEPTH OF TOW: 22 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBlique  
 GEAR TYPE: BUNGO .25 M<sup>2</sup>  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 153 M<sup>3</sup>  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 1.46

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
PI8CES	13.	25.0	85.0	19.0
MICROGADUS PROXIMUS	38.	73.1	248.4	55.5
THERAGRA CHALCOGRAMMA	.1.	1.9	6.5	1.5
<b>TOTAL</b>	<b>52.</b>	<b>100.0</b>	<b>339.9</b>	<b>75.9</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
CLUPEA HARENGUS PALLASI	2.	0.7	13.1	2.9
MICROGADUS PROXIMUS	7.	2.4	45.8	10.2
THERAGRA CHALCOGRAMMA	7.	2.4	45.8	10.2
AMMODYTES HEXAPTERUS	266.	90.8	1738.6	388.4
SCURPAENIDAE (FAMILY)	3.	1.0	19.6	4.4
COTTIDAE (FAMILY)	1.	0.3	6.5	1.5
AGONIDAE (FAMILY)	1.	0.3	6.5	1.5
CYCLOPTERIDAE (FAMILY)	3.	1.0	19.6	4.4
PLEURONECTIDAE (FAMILY)	3.	1.0	19.6	4.4
<b>TOTAL</b>	<b>293.</b>	<b>100.0</b>	<b>1915.0</b>	<b>427.8</b>

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
THERAGRA CHALCOGRAMMA	1.	7.7	6.5	1.5
AMMODYTES HEXAPTERUS	12.	92.3	78.4	17.5
<b>TOTAL</b>	<b>13.</b>	<b>100.0</b>	<b>85.0</b>	<b>19.0</b>

TABLE: 283  
 CRUISE: WC 80- 4  
 SAMPLE NO.: 63  
 DATE: 21/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 53 0.0 N 131 6.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 24 M

WIND DIRECTION: 170 DEG  
 WIND VELOCITY: 15 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 2 M  
 SURFACE TEMP: 8.1 C  
 STD NUMBER:  
 BT/XBT NUMBER:  
 TIME OF TOW: 1210 HR  
 DEPTH OF TOW: 23 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BONGU .25 M<sup>2</sup>  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 127 M<sup>3</sup>  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.I 1.82

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
PISCES	8.	88.9	63.0	14.6
THERAGRA CHALCOGRAMMA	1.	11.1	7.9	1.8
<b>TOTAL</b>	<b>9.</b>	<b>100.0</b>	<b>70.9</b>	<b>16.4</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
PISCES	6.	12.2	47.2	10.9
CLUPEA HARENGUS PALLAS)	31.	63.3	244.1	56.4
THERAGRA CHALCOGRAMMA	6.	12.2	47.2	10.9
SCORPAENIDAE(FAMILY)	3.	6.1	23.6	5.5
COTTIDAE(FAMILY)	2.	4.1	15.7	3.6
PLEURONECTIDAE(FAMILY)	1.	2.0	7.9	1.8
<b>TOTAL</b>	<b>49.</b>	<b>100.0</b>	<b>385.8</b>	<b>89.2</b>

TABLE: 284  
 CRUISE: NC 80- 4  
 SAMPLE NO.: 64  
 DATE: 21/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 53 0.0 N 130 40.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 55 M

WIND DIRECTION: 170 DEG  
 WIND VELOCITY: 15 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 2 M  
 SURFACE TEMP: 8.1 C  
 STD NUMBER: 53  
 BT/XBT NUMBER:  
 TIME OF TOW: 1415 HR  
 DEPTH OF TOW: 54 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BONGO .25 M<sup>2</sup>  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 107 M<sup>3</sup>  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 5.09

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
THERAGRA CHALCOPHRAGMA	1.	33.3	9.3	5.1
AMMODYTES HEXAPTERUS	1.	33.3	9.3	5.1
PLEURONECTIDAE(FAMILY)	1.	33.3	9.3	5.1
<b>TOTAL</b>	<b>3.</b>	<b>100.0</b>	<b>28.0</b>	<b>15.3</b>

TABLE: 285  
 CRUISE: NC 80- 4  
 SAMPLE NO.: 65  
 DATE: 21/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 53 0.0 N 130 13.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 187 M

WIND DIRECTION: 160 DEG  
 WIND VELOCITY: 12 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 2 M  
 SURFACE TEMP: 8.0 C  
 STD NUMBER: 54  
 BT/XBT NUMBER:  
 TIME OF TOW: 1610 HR  
 DEPTH OF TOW: 188 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BONGO .25 M<sup>2</sup>  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 270 M<sup>3</sup>  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 6.96

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
PISCES	1.	50.0	3.7	7.0
THERAGRA CHALCOPHRAGMA	1.	50.0	3.7	7.0
<b>TOTAL</b>	<b>2.</b>	<b>100.0</b>	<b>7.4</b>	<b>13.9</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
AMMODYTES HEXAPTERUS	69.	100.0	255.6	480.2
<b>TOTAL</b>	<b>69.</b>	<b>100.0</b>	<b>255.6</b>	<b>480.2</b>

TABLE: 286  
 CRUISE: NC 80- 4  
 SAMPLE NO.: 66  
 DATE: 21/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 53 0.0 N 129 47.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 220 M

WIND DIRECTION: 150 DEG  
 WIND VELOCITY: 11 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 2 M  
 SURFACE TEMP: 7.8 C  
 STD NUMBER: 55  
 BT/XRT NUMBER:  
 TIME OF TOW: 1745 HR  
 DEPTH OF TOW: 202 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: HONGU .25 M2  
 ME9H SIZE: .351 MM  
 VOL. FILTERED: 562 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT: S.H.F.: 3.60

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES THERAGRA CHALCOURGRAMMA	3. 27.	10.0 90.0	5.3 48.0	10.8 97.2
<b>TOTAL</b>	<b>30.</b>	<b>100.0</b>	<b>53.4</b>	<b>108.0</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
AMMODYTES HEXAPTERUS	1.	20.0	1.8	3.6
SCORPAENIDAE(FAMILY)	3.	60.0	5.3	10.8
AGONIDAE(FAMILY)	1.	20.0	1.8	3.6
<b>TOTAL</b>	<b>5.</b>	<b>100.0</b>	<b>8.9</b>	<b>18.0</b>

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
AMMODYTES HEXAPTERUS	9.	100.0	16.0	32.4
<b>TOTAL</b>	<b>9.</b>	<b>100.0</b>	<b>16.0</b>	<b>32.4</b>

TABLE: 287  
 CRUISE: WC 80-4  
 SAMPLE NO.: 67  
 DATE: 21/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 52 30.0 N 129 48.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 183 M

WIND DIRECTION: 150 DEG  
 WIND VELOCITY: 12 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 1 M  
 SURFACE TEMP: 8.1 C  
 STD NUMBER: 56  
 BT/XBT NUMBER:  
 TIME OF TOW: 2147 HR  
 DEPTH OF TOW: 161 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 301 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 5.34

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	2.	100.0	6.6	10.7
<b>TOTAL</b>	<b>2.</b>	<b>100.0</b>	<b>6.6</b>	<b>10.7</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
CYCLOPTERIDAE(FAMILY)	1.	100.0	3.3	5.3
<b>TOTAL</b>	<b>1.</b>	<b>100.0</b>	<b>3.3</b>	<b>5.3</b>

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
AMMODYTES HEXAPTERUS	4.	80.0	13.3	21.4
AGONIDAE(FAMILY)	1.	20.0	3.3	5.3
<b>TOTAL</b>	<b>5.</b>	<b>100.0</b>	<b>16.6</b>	<b>26.7</b>

TABLE: 288  
 CRUISE: NC 80-4  
 SAMPLE NO.: 68  
 DATE: 21/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 52 30.0 N 130 13.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 311 M

WIND DIRECTION: 160 DEG  
 WIND VELOCITY: 12 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 2 M  
 SURFACE TEMP: 8.1 C  
 STD NUMBER: 57  
 BT/XBT NUMBER:  
 TIME OF TOW: 2340 HR  
 DEPTH OF TOW: 265 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BUNGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 449 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 5.90

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES THERAGRA CHALCOGRAMMA	1. 60.	1.6 98.4	2.2 133.6	5.9 354.0
<b>TOTAL</b>	<b>61.</b>	<b>100.0</b>	<b>135.9</b>	<b>359.9</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
SCORPAENIDAE(FAMILY)	3.	100.0	6.7	17.7
<b>TOTAL</b>	<b>3.</b>	<b>100.0</b>	<b>6.7</b>	<b>17.7</b>

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
AMMODYTES HEXAPTERUS	2.	100.0	4.5	11.8
<b>TOTAL</b>	<b>2.</b>	<b>100.0</b>	<b>4.5</b>	<b>11.8</b>

JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
MYCTOPHIDAE(FAMILY)	1.	100.0	2.2	5.9
<b>TOTAL</b>	<b>1.</b>	<b>100.0</b>	<b>2.2</b>	<b>5.9</b>

TABLE: 289  
 CRUISE: NC 80-4  
 SAMPLE NO.: 69  
 DATE: 22/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 52 30.0 N 130 40.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 103 M

WIND DIRECTION: 160 DEG  
 WIND VELOCITY: 12 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 2 M  
 SURFACE TEMP: 8.0 C  
 STD NUMBER: 58  
 BT/XBT NUMBER:  
 TIME OF TOW: 0155 HR  
 DEPTH OF TOW: 83 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 138 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 5.97

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
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PISCES	1.	50.0	7.2	6.0
PLEURONECTIDAE(FAMILY)	1.	50.0	7.2	6.0

TOTAL	2.	100.0	14.5	11.9
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LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
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AMMODYTES HEXAPTERUS	8.	53.3	58.0	47.8
SCORPAENIDAE(FAMILY)	4.	26.7	29.0	23.9
PLEURONECTIDAE(FAMILY)	3.	20.0	21.7	17.9

TOTAL	15.	100.0	108.7	89.6
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POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
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MICROGADUS PROXIMUS	1.	33.3	7.2	6.0
PLEURONECTIDAE(FAMILY)	2.	66.7	14.5	11.9

TOTAL	3.	100.0	21.7	17.9
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TABLE: 290  
 CRUISE: NC 80-4  
 SAMPLE NO.: 70  
 DATE: 22/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 52 30.0 N 131 7.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 146 M

WIND DIRECTION: 170 DEG  
 WIND VELOCITY: 12 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 2 M  
 SURFACE TEMP: 8.0 C  
 STD NUMBER: 59  
 BT/XBT NUMBER:  
 TIME OF TOW: 0315 HR  
 DEPTH OF TOW: 135 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 172 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 7.81

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	1.	20.0	5.8	7.8
MICROGADUS PROXIMUS	1.	20.0	5.8	7.8
THERAGRA CHALCOGRAMMA	3.	60.0	17.4	23.4
<b>TOTAL</b>	<b>5.</b>	<b>100.0</b>	<b>29.1</b>	<b>39.0</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
CLUPEA HARENGUS PALLASI	189.	86.3	1098.8	1476.1
MICROGADUS PROXIMUS	2.	0.9	11.6	15.6
THERAGRA CHALCOGRAMMA	7.	3.2	40.7	54.7
AMMODYTES HEXAPTERUS	6.	2.7	34.9	46.9
SCURPAENIDAE(FAMILY)	15.	6.8	87.2	117.1
<b>TOTAL</b>	<b>219.</b>	<b>100.0</b>	<b>1273.3</b>	<b>1710.4</b>

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
THERAGRA CHALCOGRAMMA	1.	25.0	5.8	7.8
AMMODYTES HEXAPTERUS	2.	50.0	11.6	15.6
COTTIDAE(FAMILY)	1.	25.0	5.8	7.8
<b>TOTAL</b>	<b>4.</b>	<b>100.0</b>	<b>23.3</b>	<b>31.2</b>

JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PTILICHTHYS GOODEI	1.	100.0	5.8	7.8
<b>TOTAL</b>	<b>1.</b>	<b>100.0</b>	<b>5.8</b>	<b>7.8</b>

TABLE: 291  
 CRUISE: WC 80-4  
 SAMPLE NO.: 71  
 DATE: 22/4/80  
 VESSEL: G.B. REED  
 POSITION: 52° 0.0' N 130° 41.0' W  
 GRID POSITION:  
 BOTTOM DEPTH: 229 M

WIND DIRECTION:	160 DEG	TOW SPEED:	1 MPS
WIND VELOCITY:	14 MPS	TYPE OF TOW:	OBLIQUE
WAVE HEIGHT:		GEAR TYPE:	BONGO .25 M <sup>2</sup>
SWELL HEIGHT:	2 M	MESH SIZE:	.351 MM
SURFACE TEMP:	8.3 C	VOL. FILTERED:	297 M <sup>3</sup>
STD NUMBER:	60	DISP. VOLUME:	
BT/XBT NUMBER:		PLANKTON CONC.:	
TIME OF TOW:	0721 HR	ALIQUOT:	
DEPTH OF TOW:	199 M	S.H.F.:	6.71

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
PISCES	3.	33.3	10.1	20.1
THERAGRA CHALCUGRAMMA	6.	66.7	20.2	40.3
<b>TOTAL</b>	<b>9.</b>	<b>100.0</b>	<b>30.3</b>	<b>60.4</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
PISCES	1.	25.0	3.4	6.7
BATHYLAGIDAE (FAMILY)	1.	25.0	3.4	6.7
SCORPAENIDAE (FAMILY)	2.	50.0	6.7	13.4
<b>TOTAL</b>	<b>4.</b>	<b>100.0</b>	<b>13.5</b>	<b>26.8</b>

JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
PTILICHTHYS GOODEI	1.	100.0	3.4	6.7
<b>TOTAL</b>	<b>1.</b>	<b>100.0</b>	<b>3.4</b>	<b>6.7</b>

TABLE: 292  
 CRUISE: NC 80-4  
 SAMPLE NO.: 72  
 DATE: 22/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 52 0.0 N 130 14.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 283 M

WIND DIRECTION: 170 DEG  
 WIND VELOCITY: 15 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 2 M  
 SURFACE TEMP: 8.3 C  
 STD NUMBER: 61  
 BT/XBT NUMBER:  
 TIME OF TOW: 0934 HR  
 DEPTH OF TOW: 278 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BONGO .25 M<sup>2</sup>  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 311 M<sup>3</sup>  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT: S.H.F.: 8.94

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LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
PISCES	1.	10.0	3.2	8.9
SCORPAENIDAE (FAMILY)	9.	90.0	28.9	80.5
<b>TOTAL</b>	<b>10.</b>	<b>100.0</b>	<b>32.2</b>	<b>89.4</b>

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TABLE: 293  
 CRUISE: NC 80-4  
 SAMPLE NO.: 73  
 DATE: 22/4/80  
 VESSEL: G.B. REED  
 POSITION: 52° 0.0' N 129° 48.0' W  
 GRID POSITION:  
 BOTTOM DEPTH: 110 M

WIND DIRECTION: 250 DEG  
 WIND VELOCITY: 10 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 3 M  
 SURFACE TEMP: 8.4 C  
 STD NUMBER: 62  
 BT/XBT NUMBER:  
 TIME OF TOW: 1205 HR  
 DEPTH OF TOW: 90 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBlique  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 196 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 4.58

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	11.	100.0	56.1	50.4
<b>TOTAL</b>	<b>11.</b>	<b>100.0</b>	<b>56.1</b>	<b>50.4</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	1.	16.7	5.1	4.6
CLUPEA HARENGUS PALLASI	1.	16.7	5.1	4.6
AMMODYTES HEXAPTERUS	3.	50.0	15.3	13.7
SCORPENIDAE (FAMILY)	1.	16.7	5.1	4.6
<b>TOTAL</b>	<b>6.</b>	<b>100.0</b>	<b>30.6</b>	<b>27.5</b>

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
AMMODYTES HEXAPTERUS	3.	100.0	15.3	13.7
<b>TOTAL</b>	<b>3.</b>	<b>100.0</b>	<b>15.3</b>	<b>13.7</b>

TABLE: 294  
 CRUISE: NC 80-4  
 SAMPLE NO.: 74  
 DATE: 22/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 52° 0.0' N 129° 21.0' W  
 GRID POSITION:  
 BOTTOM DEPTH: 192 M

WIND DIRECTION: 240 DEG  
 WIND VELOCITY: 7 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 3 M  
 SURFACE TEMP: 8.4 C  
 STD NUMBER: 63  
 BT/XBT NUMBER:  
 TIME OF TOW: 1340 HR  
 DEPTH OF TOW: 135 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBlique  
 GEAR TYPE: BONGO .25 M<sup>2</sup>  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 390 M<sup>3</sup>  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 3.47

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
PISCES	1.	100.0	2.6	3.5

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TOTAL	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
	1.	100.0	2.6	3.5

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LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
AMMODYTES HEXAPTERUS	4.	100.0	10.3	13.9

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TOTAL	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
	4.	100.0	10.3	13.9

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73

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
AMMODYTES HEXAPTERUS	26.	96.3	66.7	90.2

OPHIODON ELONGATUS	1.	3.7	2.6	3.5
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TOTAL	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
	27.	100.0	69.2	93.7

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TABLE: 295  
 CRUISE: NC 80- 4  
 SAMPLE NO.: 75  
 DATE: 22/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 52 0.0 N 128 56.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 113 M

WIND DIRECTION: 250 DEG  
 WIND VELOCITY: 7 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 2 M  
 SURFACE TEMPS: 8.4 C  
 STD NUMBER: 64  
 BT/XBT NUMBER:  
 TIME OF TOW: 1540 HR  
 DEPTH OF TOW: 93 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: ORLIQUE  
 GEAR TYPE: BUNGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 175 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 5.35

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	3.	100.0	17.1	16.1
<b>TOTAL</b>	<b>3.</b>	<b>100.0</b>	<b>17.1</b>	<b>16.1</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
AMMODYTES HEXAPTERUS	9.	75.0	51.4	48.1
SCORPAENIDAE(FAMILY)	2.	16.7	11.4	10.7
PLEURONECTIDAE(FAMILY)	1.	8.3	5.7	5.3
<b>TOTAL</b>	<b>12.</b>	<b>100.0</b>	<b>68.6</b>	<b>64.2</b>

TABLE: 296  
 CRUISE: NC 80-4  
 SAMPLE NO.: 33  
 DATE: 22/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 51 30.0 N 130 7.5 W  
 GRID POSITION:  
 BOTTOM DEPTH: 914 M

WIND DIRECTION: 200 DEG  
 WIND VELOCITY: 4 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 1 M  
 SURFACE TEMP: 8.3 C  
 STD NUMBER: 65  
 RT/XBT NUMBER:  
 TIME OF TOW: 2207 HR  
 DEPTH OF TOW: 453 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BONGU .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 733 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 6.18

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	2.	100.0	2.7	12.4

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TOTAL	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
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LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
BATHYLAGIDAE(FAMILY)	1.	12.5	1.4	6.2
SCORPAENIDAE(FAMILY)	7.	87.5	9.5	43.3
TOTAL	8.	100.0	10.9	49.4

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POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
SCORPAENICHTHYS MARMORATUS	2.	100.0	2.7	12.4
TOTAL	2.	100.0	2.7	12.4

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JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
MYCTOPHIDAE(FAMILY)	11.	100.0	15.0	68.0
TOTAL	11.	100.0	15.0	68.0

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TABLE: 297  
 CRUISE: NC 80- 4  
 SAMPLE NO.: 32  
 DATE: 23/ 4/80  
 VESSEL: G.R. REED  
 POSITION: 51 30.0 N 129 51.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 183 M

WIND DIRECTION: 200 DEG  
 WIND VELOCITY: 6 MPS  
 WAVE HEIGHT: 0 M  
 SWELL HEIGHT: 1 M  
 SURFACE TEMP: 8.9 C  
 STD NUMBER: 66  
 BT/XBT NUMBER:  
 TIME OF TOW: 0030 HR  
 DEPTH OF TOW: 184 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: URLIQUE  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 293 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 6.28

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	21.	100.0	71.7	131.9
TOTAL	21.	100.0	71.7	131.9

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	1.	3.6	3.4	6.3
AMMODYTES HEXAPTERUS	2.	7.1	6.8	12.6
SCORPAENIDAE(FAMILY)	25.	89.3	85.3	157.0
TOTAL	28.	100.0	95.6	175.8

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
AMMODYTES HEXAPTERUS	2.	50.0	6.8	12.6
COTTIDAE(FAMILY)	2.	50.0	6.8	12.6
TOTAL	4.	100.0	13.7	25.1

TABLE: 298  
 CRUISE: WC 80- 4  
 SAMPLE NO.: 31  
 DATE: 23/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 51 30.0 N 129 21.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 55 M

WIND DIRECTIONS: 180 DEG  
 WIND VELOCITY: 6 MPS  
 WAVE HEIGHT: 0 M  
 SWELL HEIGHT: 1 M  
 SURFACE TEMP: 8.4 C  
 STD NUMBER: 67  
 BT/XHT NUMBER:  
 TIME OF TOW: 0250 HR  
 DEPTH OF TOW: 41 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BONGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 204 M3  
 OISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 2.01

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	10.	100.0	49.0	20.1

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TOTAL	10.	100.0	49.0	20.1
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LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	1.	1.4	4.9	2.0
AMMODYTES HEXAPTERUS	55.	79.7	269.6	110.5
SCORPAENIACE(FAMILY)	10.	14.5	49.0	20.1
HEXAGRAMMIDAE(FAMILY)	1.	1.4	4.9	2.0
COTTIDAE(FAMILY)	1.	1.4	4.9	2.0
PAROPHRYS VETULUS	1.	1.4	4.9	2.0

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TOTAL	69.	100.0	338.2	138.7
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POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
LYCONECTES ALEUTENSIS	1.	2.1	4.9	2.0
AMMODYTES HEXAPTERUS	45.	95.7	220.6	90.4
HEXAGRAMMIDAE(FAMILY)	1.	2.1	4.9	2.0

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TOTAL	47.	100.0	230.4	94.5
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TABLE: 299  
 CRUISE: MC 80-4  
 SAMPLE NO.: 30  
 DATE: 23/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 51 30.0 N 128 56.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 42 M

WIND DIRECTION: 150 DEG  
 WIND VELOCITY: 4 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 1 M  
 SURFACE TEMP: 8.4 C  
 STD NUMBER:  
 BT/XBT NUMBER:  
 TIME OF TOW: 0440 HR  
 DEPTH OF TOW: 29 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBlique  
 GEAR TYPE: BUNGO .25 M2  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 132 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 2.18

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	3.	100.0	22.7	6.5
<b>TOTAL</b>	<b>3.</b>	<b>100.0</b>	<b>22.7</b>	<b>6.5</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	2.	2.3	15.2	4.4
AMMUDYTES HEXAPTERUS	68.	77.3	515.2	148.2
SCORPAENIDAE(FAMILY)	4.	10.2	68.2	19.6
COTTIDAE(FAMILY)	6.	6.8	45.5	13.1
PLEURONECTIDAE(FAMILY)	3.	3.4	22.7	6.5
<b>TOTAL</b>	<b>88.</b>	<b>100.0</b>	<b>666.7</b>	<b>191.8</b>

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
AMMUDYTES HEXAPTERUS	16.	94.1	121.2	34.9
AGONIDAE(FAMILY)	1.	5.9	7.6	2.2
<b>TOTAL</b>	<b>17.</b>	<b>100.0</b>	<b>128.8</b>	<b>37.1</b>

TABLE: 300  
 CRUISE: NC 80-4  
 SAMPLE NO.: 29  
 DATE: 23/4/80  
 VESSEL: G.R. REED  
 POSITION: 51 30.0 N 128 31.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 183 M

WIND DIRECTION: 160 DEG  
 WIND VELOCITY: 6 MPS  
 WAVE HEIGHT:  
 SWELL HEIGHT: 1 M  
 SURFACE TEMP: 8.4 C  
 STD NUMBER: 68  
 BT/XBT NUMBER:  
 TIME OF TOW: 0628 HR  
 DEPTH OF TOW: 163 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BONGO .25 M<sup>2</sup>  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 311 M<sup>3</sup>  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 5.25

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
PISCES	16.	88.9	51.4	84.0
PLEURONECTIDAE(FAMILY)	2.	11.1	6.4	10.5
<b>TOTAL</b>	<b>18.</b>	<b>100.0</b>	<b>57.9</b>	<b>94.5</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
CLUPEA HARENGUS PALLASI	1.	20.0	3.2	5.3
AMMODYTES HEXAPTERUS	1.	20.0	3.2	5.3
SCORPAENIDAE(FAMILY)	3.	60.0	9.6	15.8
<b>TOTAL</b>	<b>5.</b>	<b>100.0</b>	<b>16.1</b>	<b>26.3</b>

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M <sup>3</sup> )	CATCH (/10 M <sup>2</sup> )
CLUPEA HARENGUS PALLASI	3.	33.3	9.6	15.8
STICHAEIIDAE(FAMILY)	4.	44.4	12.9	21.0
AMMODYTES HEXAPTERUS	2.	22.2	6.4	10.5
<b>TOTAL</b>	<b>9.</b>	<b>100.0</b>	<b>28.9</b>	<b>47.3</b>

TABLE: 301  
 CRUISE: WC 80-4  
 SAMPLE NO.: 28  
 DATE: 23/ 4/80  
 VESSEL: G.B. REED  
 POSITION: 51 0.0 N 128 6.0 W  
 GRID POSITION:  
 BOTTOM DEPTH: 101 M

WIND DIRECTION: 120 DEG  
 WIND VELOCITY: 7 MPS  
 WAVE HEIGHT: 0 M  
 SWELL HEIGHT: 0 M  
 SURFACE TEMP: 9.0 C  
 STD NUMBER: 69  
 BT/XBT NUMBER:  
 TIME OF TOW: 0953 HR  
 DEPTH OF TOW: 82 M

TOW SPEED: 1 MPS  
 TYPE OF TOW: OBLIQUE  
 GEAR TYPE: BONGO .25 m  
 MESH SIZE: .351 MM  
 VOL. FILTERED: 258 M3  
 DISP. VOLUME:  
 PLANKTON CONC.:  
 ALIQUOT:  
 S.H.F.: 3.19

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	4.	100.0	15.5	12.8
<b>TOTAL</b>	<b>4.</b>	<b>100.0</b>	<b>15.5</b>	<b>12.8</b>

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	2.	9.5	7.8	6.4
CLUPEA HARENGUS PALLASI	2.	9.5	7.8	6.4
STICHAEIDAE (FAMILY)	1.	4.8	3.9	3.2
AMMODYTES HEXAPTERUS	3.	14.3	11.6	9.6
SCORPAENIDAE (FAMILY)	8.	38.1	31.0	25.5
COTTIDAE (FAMILY)	3.	14.3	11.6	9.6
AGONIDAE (FAMILY)	1.	4.8	3.9	3.2
GLYPTUCEPHALUS ZACHIRUS	1.	4.8	3.9	3.2
<b>TOTAL</b>	<b>21.</b>	<b>100.0</b>	<b>81.4</b>	<b>67.0</b>

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
AMMUDYTES HEXAPTERUS	1.	20.0	3.9	3.2
COTTIDAE (FAMILY)	4.	80.0	15.5	12.8
<b>TOTAL</b>	<b>5.</b>	<b>100.0</b>	<b>19.4</b>	<b>15.9</b>