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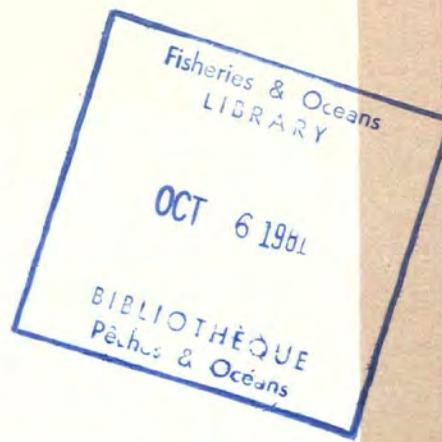


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Canadian Pacific Coast Ichthyoplankton Survey. 1980. Ichthyoplankton. Cruise One (January 15-22)

J.C. Mason, O.D. Kennedy, and A.C. Phillips

Department of Fisheries and Oceans
Resource Services Branch
Pacific Biological Station
Nanaimo, British Columbia V9R 5K6



August 1981

Canadian Data Report of Fisheries and Aquatic Sciences No. 275

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Canadian Data Report of Fisheries and Aquatic Sciences

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Rapport statistique canadien des sciences halieutiques et aquatiques

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Canadian Data Report of Fisheries

and Aquatic Sciences No. 275

August 1981

CANADIAN PACIFIC COAST ICHTHYOPLANKTON SURVEY, 1980.

ICHTHYOPLANKTON. CRUISE ONE (JANUARY 15-22).

by

J. C. Mason, O. D. Kennedy, and A. C. Phillips

Department of Fisheries and Oceans

Resource Services Branch

Pacific Biological Station

Nanaimo, British Columbia V9R 5K6

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ABSTRACT

Mason, J. C., O. D. Kennedy, and A. C. Phillips. 1981. Canadian Pacific Coast Ichthyoplankton Survey, 1980. Ichthyoplankton. Cruise One (January 15-22). Can. Data Rep. Fish. Aquat. Sci. 275: 57 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 first 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.

Oblique tows were made using 0.25⁴m Bongos equipped with 351 µm 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.

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RESUME

Mason, J. C., O. D. Kennedy, and A. C. Phillips. 1981. Canadian Pacific Coast Ichthyoplankton Survey, 1980. Ichthyoplankton. Cruise One (January 15-22). Can. Data Rep. Fish. Aquat. Sci. 275: 57 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 $0,25 \text{ m}^2$ 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: Ichtyoplankton, 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 first cruise made in January, 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 m² 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 1-70. 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

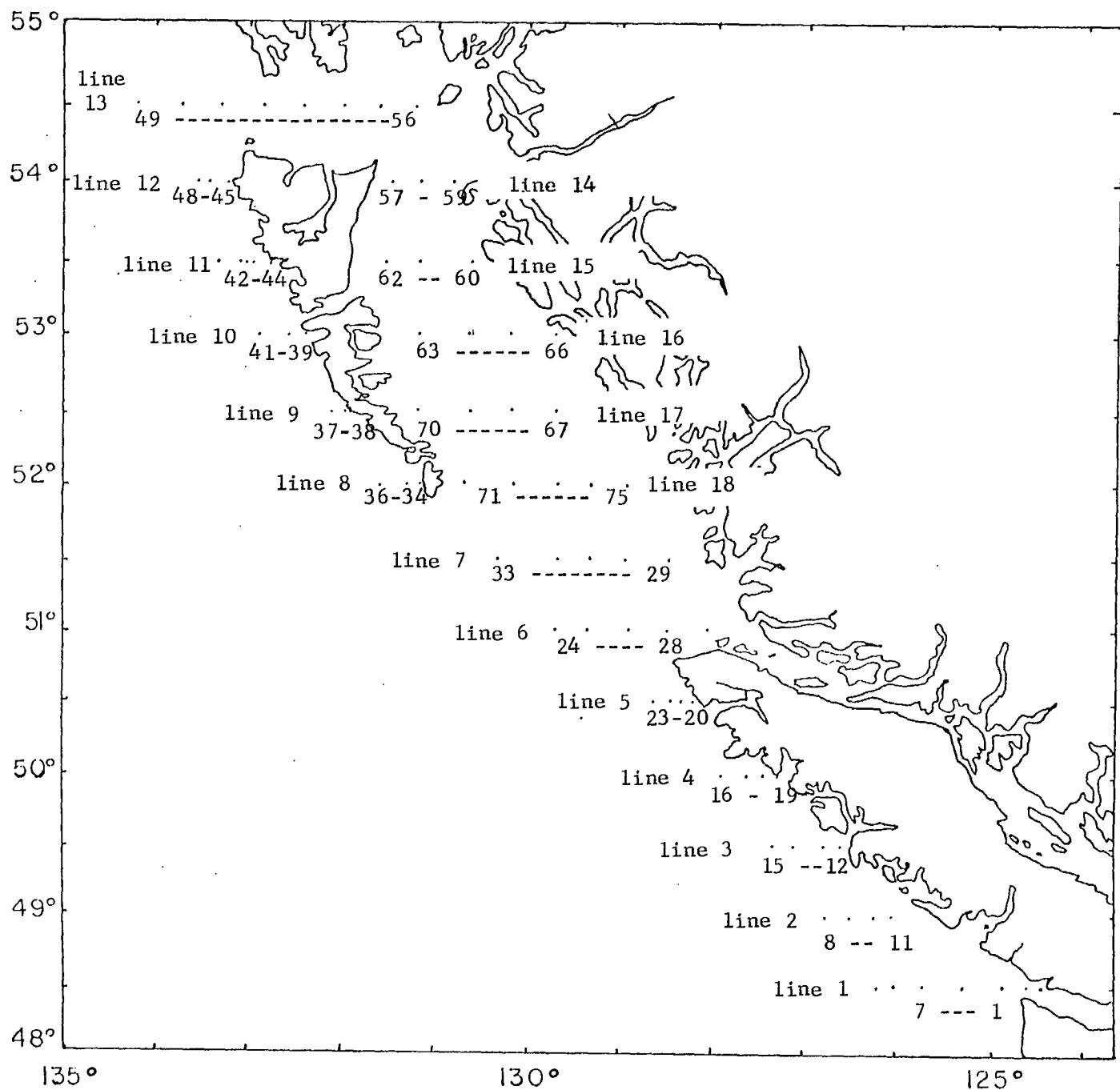


FIGURE 1. Tracklines and associated stations in numbered sampling sequence for the West Coast Ichthyoplankton Survey, January through April, 1980.

TABLE: 1
 CRUISE: WC 80- 1
 SAMPLE NO.: 1
 DATE: 9/ 1/80
 VESSEL: G.B. REED
 POSITION: 48 30.0 N 124 23.0 W
 GRID POSITION:
 BOTTOM DEPTH: 80 M

WIND DIRECTION: 180 DEG
 WIND VELOCITY: 4 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 1 M
 SURFACE TEMP: 0.0 C
 STD NUMBER:
 BT/XBT NUMBER:
 TIME OF TOW: 2040 HR
 DEPTH OF TOW: 79 M

TOW SPEED: 1 MPS
 TYPE OF TOW:
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 94 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 8.39

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
OSMERIDAE(FAMILY)	1.	20.0	10.6	8.4
COTTIDAE(FAMILY)	1.	20.0	10.6	8.4
CYCLOPTERIDAE(FAMILY)	2.	40.0	21.3	16.8
PLEURONECTIDAE(FAMILY)	1.	20.0	10.6	8.4
TOTAL	5.	100.0	53.2	41.9

TABLE: 2
 CRUISE: WC 80- 1
 SAMPLE NO.: 2
 DATE: 9/ 1/80
 VESSEL: G.B. REED
 POSITION: 48 30.0 N 124 33.0 W
 GRID POSITION:
 BOTTOM DEPTH: 210 M

WIND DIRECTION: 330 DEG
 WIND VELOCITY: 7 MPS
 WAVE HEIGHT: 0 M
 SWELL HEIGHT: 2 M
 SURFACE TEMP: 0.0 C
 STD NUMBER:
 BT/XBT NUMBER:
 TIME OF TOW: 2220 HR
 DEPTH OF TOW: 182 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 313 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 5.81

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	1.	100.0	3.2	5.8
TOTAL	1.	100.0	3.2	5.8

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
SCORPAENIDAE(FAMILY)	2.	100.0	6.4	11.6
TOTAL	2.	100.0	6.4	11.6

TABLE: 3
 CRUISE: WC 80-1
 SAMPLE NO.: 3
 DATE: 10/1/80
 VESSEL: G.R. REED
 POSITION: 48 30.0 N 124 52.0 W
 GRID POSITION:
 BOTTOM DEPTH: 205 M

WIND DIRECTION: 295 DEG
 WIND VELOCITY: 5 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 3 M
 SURFACE TEMP: 0.0 C
 STD NUMBER:
 BT/XBT NUMBER:
 TIME OF TOW: 0030 HR
 DEPTH OF TOW: 156 M

TOW SPEED: 1 MPS
 TYPE OF TOW:
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 237 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 15.21

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	1.	100.0	4.2	15.2

TOTAL	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
	1.	100.0	4.2	15.2

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
SCORPAENIDAE (FAMILY)	1.	50.0	4.2	15.2
PLEURONECTIDAE (FAMILY)	1.	50.0	4.2	15.2

TOTAL	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
	2.	100.0	8.4	30.4

TABLE: 4
 CRUISE: WC MO-1
 SAMPLE NO.: 5
 DATE: 10/ 1/80
 VESSEL: G.R. REED
 POSITION: 48 30.0 N 125 43.0 W
 GRID POSITION:
 BOTTOM DEPTH: 92 M

WIND DIRECTION: 320 DEG
 WIND VELOCITY: 14 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 2 M
 SURFACE TEMP: 0.0 C
 STD NUMBER:
 HT/XRT NUMBER:
 TIME OF TOW: 0740 HR
 DEPTH OF TOW:

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.:

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M ³)	CATCH (/10 M ²)
PISCES	9.	81.8		
MERLUCCIUS PRODUCTUS	2.	18.2		
TOTAL	11.	100.0		

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M ³)	CATCH (/10 M ²)
PISCES	1.	100.0		1
TOTAL	1.	100.0		1

TABLE: 5
 CRUISE: WC 80-1
 SAMPLE NO.: 4
 DATE: 15/ 1/80
 VESSEL: G.B. REED
 POSITION: 48 30.0 N 125 43.0 W
 GRID POSITION:
 BOTTOM DEPTH: 182 M

WIND DIRECTION: 210 DEG
 WIND VELOCITY: 15 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 4 M
 SURFACE TEMP: 0.0 C
 STD NUMBER:
 RT/XBT NUMBER:
 TIME OF TOW: 0030 HR
 DEPTH OF TOW: 161 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: RONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 220 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 7.31

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
MERLUCCIUS PRODUCTUS	1.	100.0	4.5	7.3

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)
SCORPAENIDAE (FAMILY)	2.	66.7	9.1	14.6
HEXAGRAMMIDAE (FAMILY)	1.	33.3	4.5	7.3

TOTAL	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
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TABLE: 6
 CRUISE: NC 80-1
 SAMPLE NO.: 6
 DATE: 15/ 1/80
 VESSEL: G.R. REED
 POSITION: 48 30.0 N 126 5.0 W
 GRID POSITION:
 BDTOM DEPTH: 146 M

WIND DIRECTION: 215 DEG
 WIND VELOCITY: 11 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 3 M
 SURFACE TEMP: 0.0 C
 STD NUMBER:
 BT/XBT NUMBER:
 TIME OF TOW: 0635 HR
 DEPTH OF TOW: 139 M

TOW SPFED: 1 MPS
 TYPE OF TOW: ORLIQUE
 GEAR\TYPE: BONGO .25 M²
 MESH SIZE: .351 MM
 VOL. FILTERED: 266 M³
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 5.23

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M ³)	CATCH (/10 M ²)
PISCES	5.	100.0	18.8	26.1
TOTAL	5.	100.0	18.8	26.1

TABLE: 7
 CRUISE: WC 80-1
 SAMPLE NO.: 7
 DATE: 15/ 1/80
 VESSEL: G.B. REED
 POSITION: 48 30.0 N 126 24.0 W
 GRID POSITION:
 BOTTOM DEPTH: 914 M

WIND DIRECTION: 173 DEG
 WIND VELOCITY: 10 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 3 M
 SURFACE TEMP: 0.0 C
 STD NUMBER: 1
 RT/XBT NUMBER:
 TIME OF TOW: 0820 HR
 DEPTH OF TOW: 518 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M²
 MESH SIZE: .351 MM
 VOL. FILTERED: 826 M³
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 6.27

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M ³)	CATCH (/10 M ²)
PISCES	6.	100.0	7.3	37.6

TOTAL	6.	100.0	7.3	37.6
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LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M ³)	CATCH (/10 M ²)
PISCES	1.	100.0	1.2	6.3

TOTAL	1.	100.0	1.2	6.3
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JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M ³)	CATCH (/10 M ²)
CHAULIODONTIDAE(FAMILY)	1.	16.7	1.2	6.3
MYCTOPHIDAE(FAMILY)	5.	83.3	6.1	31.3

TOTAL	6.	100.0	7.3	37.6
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TABLE: 8
 CRUISE: KC 80-1
 SAMPLE NO.: 8
 DATE: 15/1/80
 VESSEL: G.B. REED
 POSITION: 49° 0.0' N 126° 56.0' W
 GRID POSITION:
 BOTTOM DEPTH: 1174 M

WIND DIRECTION: 270 DEG
 WIND VELOCITY: 5 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 4 M
 SURFACE TEMP: 8.8 C
 STD NUMBER: 2
 RT/XRT NUMBER:
 TIME OF TOW: 1247 HR
 DEPTH OF TOW: 476 M

TOW SPEED: 1 MPS
 TYPE OF TDW: OBLIQUE
 GEAR TYPE: RONGD .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 665 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 7.16

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	55.	94.8	82.7	393.8
<i>THERAGRA CHALCOGRAMMA</i>	3.	5.2	4.5	21.5
TOTAL	58.	100.0	87.2	415.3

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PLEURONECTIDAE(FAMILY)	1.	100.0	1.5	7.2
TOTAL	1.	100.0	1.5	7.2

JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
MYCTOPHIDAE(FAMILY)	3.	100.0	4.5	21.5
TOTAL	3.	100.0	4.5	21.5

TABLE: 9
 CRUISE: WC 80-1
 SAMPLE NO.: 9
 DATE: 15/1/80
 VESSEL: G.B. REED
 POSITION: 49° 0.0' N 126° 33.0' W
 GRID POSITION:
 BOTTOM DEPTH: 160 M

WIND DIRECTION: 275 DEG
 WIND VELOCITY: 6 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 4 M
 SURFACE TEMP: 0.0 C
 STO NUMBER: 3
 BT/XRT NUMBER:
 TIME OF TOW: 1612 HR
 DEPTH OF TOW: 130 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 259 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 5.02

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	3.	100.0	11.6	15.1

TOTAL	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
	3.	100.0	11.6	15.1

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
SCORPAENIDAE (FAMILY)	2.	66.7	7.7	10.0
PLEURONECTIDAE (FAMILY)	1.	33.3	3.9	5.0

TOTAL	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
	3.	100.0	11.6	15.1

TABLE: 10
 CRUISE: WC 80- 1
 SAMPLE NO.: 10
 DATE: 15/ 1/80
 VESSEL: G.R. REED
 POSITION: 49 0.0 N 126 14.0 W
 GRID POSITION:
 BOTTOM DEPTH: 95 M

WIND DIRECTION: 275 DEG
 WIND VELOCITY: 4 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 3 M
 SURFACE TEMP: 0.0 C
 STD NUMBER:
 BT/XBT NUMBER:
 TIME OF TOW: 1830 HR
 DEPTH OF TOW: 59 M

TOW SPEED: 1 MPS
 TYPE OF TOW: HORIZONTAL
 GEAR TYPE: BONGO .25 M²
 MESH SIZE: .351 MM
 VOL. FILTERED: 170 M³
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 3.47

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M ³)	CATCH (/10 M ²)
MERLUCCIUS PRODUCTUS	15.	71.4	88.2	52.0
MICROGADUS PROXIMUS	6.	28.6	35.3	20.8
TOTAL	21.	100.0	123.5	72.9

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M ³)	CATCH (/10 M ²)
HEXAGRAMMIDAE(FAMILY)	3.	23.1	17.6	10.4
COTTIDAE(FAMILY)	10.	76.9	58.8	34.7
TOTAL	13.	100.0	76.5	45.1

TABLE: 11
 CRUISE: WC 80- 1
 SAMPLE NO.: 11
 DATE: 15/ 1/80
 VESSEL: G.R. REED
 POSITION: 49 0.0 N 126 4.0 W
 GRID POSITION:
 BOTTOM DEPTH: 59 M

WIND DIRECTION: 270 DEG
 WIND VELOCITY: 5 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 3 M
 SURFACE TEMP: 0.0 C
 STD NUMBER:
 BT/XBT NUMBER:
 TIME OF TOW: 1945 HR
 DEPTH OF TOW: 45 M

TOW SPEED: 1 MPS
 TYPE OF TOW: HORIZONTAL
 GEAR TYPE: BONGO .25 M²
 MESH SIZE: .351 MM
 VOL. FILTERED: 113 M³
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 4.00

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M ³)	CATCH (/10 M ²)
COTTIDAE(FAMILY)	1.	100.0	8.8	4.0
TOTAL	1.	100.0	8.8	4.0

TABLE: 12
 CRUISE: WC 80- 1
 SAMPLE NO.: 12
 DATE: 16/ 1/80
 VESSEL: G.B. REED
 POSITION: 49 30.0 N 126 44.0 W
 GRID POSITION:
 BOTTOM DEPTH: 48 M

WIND DIRECTION: 40 DEG
 WIND VELOCITY: 4 MPS
 WAVE HEIGHT:
 SWELL HEIGHT:
 SURFACE TEMP: 0.0 C
 STD NUMBER:
 BT/XBT NUMBER:
 TIME OF TOW: 0000 HR
 DEPTH OF TOW: 27 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBlique
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 67 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 4.02

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	1.	100.0	14.9	4.0
TOTAL	1.	100.0	14.9	4.0

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
SCORPAENIDAE(FAMILY)	1.	33.3	14.9	4.0
COTTIDAE(FAMILY)	2.	66.7	29.9	8.0
TOTAL	3.	100.0	44.8	12.1

TABLE: 13
 CRUISE: WC 80-1
 SAMPLE NO.: 13
 DATE: 16/ 1/80
 VESSEL: G.R. REED
 POSITION: 49 30.0 N 126 54.0 W
 GRID POSITION:
 BOTTOM DEPTH: 100 M
 WIND DIRECTION: 60 DEG
 WIND VELOCITY: 4 MPS
 WAVE HEIGHT:
 SWELL HEIGHT:
 SURFACE TEMP: 9.4 C
 STD NUMBER:
 BT/XBT NUMBER:
 TIME OF TOW: 0107 HR
 DEPTH OF TOW: 64 M
 TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 160 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 4.01

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	1.	8.3	6.3	4.0
SCURPAENIDAE(FAMILY)	10.	83.3	62.5	40.1
HEXAGRAMMIDAE(FAMILY)	1.	8.3	6.3	4.0
TOTAL	12.	100.0	75.0	48.1

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
HEXAGRAMMIDAE(FAMILY)	2.	100.0	12.5	8.0
TOTAL	2.	100.0	12.5	8.0

JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
SCUMBERESOCIDAE(FAMILY)	1.	100.0	6.3	4.0
TOTAL	1.	100.0	6.3	4.0

TABLE: 14
 CRUISE: WC 80- 1
 SAMPLE NO.: 14
 DATE: 16/ 1/80
 VESSEL: G.B. REED
 POSITION: 49 30.0 N 127 14.0 W
 GRID POSITION:
 BOTTOM DEPTH: 182 M

WIND DIRECTION: 290 DEG
 WIND VELOCITY: 4 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 1 M
 SURFACE TEMP: 9.5 C
 STD NUMBER: 4
 BT/XBT NUMBER:
 TIME OF TOW: 0250 HR
 DEPTH OF TOW: 152 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 310 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 4.91

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	1.	100.0	3.2	4.9
TOTAL	1.	100.0	3.2	4.9

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	3.	5.2	9.7	14.7
BATHYLAGIDAE (FAMILY)	1.	1.7	3.2	4.9
SCURPAENIDAE (FAMILY)	48.	82.8	154.8	235.7
COTTIDAE (FAMILY)	6.	10.3	19.4	29.5
TOTAL	58.	100.0	187.1	284.8

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PLEURONECTIDAE (FAMILY)	1.	100.0	3.2	4.9
TOTAL	1.	100.0	3.2	4.9

TABLE: 15
 CRUISE: WC 80- 1
 SAMPLE NO.: 15
 DATE: 16/ 1/80
 VESSEL: G.B. REED
 POSITION: 49 30.0 N 127 34.0 W
 GRID POSITION:
 BOTTOM DEPTH: 1298 M

WIND DIRECTION: 290 DEG
 WIND VELOCITY: 6 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 1 M
 SURFACE TEMP: 9.6 C
 STD NUMBER: 5
 BT/XBT NUMBER:
 TIME OF TOW: 0500 HR
 DEPTH OF TDW: 418 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M²
 MESH SIZE: .351 MM
 VOL. FILTERED: 954 M³
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 4.38

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M ³)	CATCH (/10 M ²)
PISCES	17.	100.0	17.8	74.5

TOTAL	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M ³)	CATCH (/10 M ²)
	17.	100.0	17.8	74.5

JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M ³)	CATCH (/10 M ²)
CYCLOTHONE MICRODON	1.	16.7	1.0	4.4
CHAULIODONTIDAE(FAMILY)	1.	16.7	1.0	4.4
MYCTOPHIDAE(FAMILY)	4.	66.7	4.2	17.5

TOTAL	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M ³)	CATCH (/10 M ²)
	6.	100.0	6.3	26.3

TABLE: 16
 CRUISE: WC 80-1
 SAMPLE NO.: 19
 DATE: 16/ 1/80
 VESSEL: G.B. REED
 POSITION: 50 0.0 N 127 35.0 W
 GRID POSITION:
 BOTTOM DEPTH: 59 M

WIND DIRECTION: 290 DEG
 WIND VELOCITY: 3 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 2 M
 SURFACE TEMP: 0.0 C
 STD NUMBER: 6
 BT/XBT NUMBER:
 TIME OF TOW: 0910 HR
 DEPTH OF TOW: 47 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.: 4.00

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
MERLUCCIUS PRODUCTUS	3.	100.0	25.6	12.0

TOTAL	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
	3.	100.0	25.6	12.0

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	2.	4.8	17.1	8.0
MERLUCCIUS PRODUCTUS	1.	2.4	8.5	4.0
SCORPAENIDAE(FAMILY)	1.	2.4	8.5	4.0
HEXAGRAMMIDAE(FAMILY)	32.	76.2	273.5	128.0
COTTIDAE(FAMILY)	6.	14.3	51.3	24.0

TOTAL	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
	42.	100.0	359.0	168.0

TABLE: 17
 CRUISE: WC 80- 1
 SAMPLE NO.: 18
 DATE: 16/ 1/80
 VESSEL: G.B. REED
 POSITION: 50 0.0 N 127 40.0 W
 GRID POSITION:
 BOTTOM DEPTH: 84 M

WIND DIRECTION: 290 DEG
 WIND VELOCITY: 6 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 2 M
 SURFACE TEMP: 0.0 C
 STD NUMBER: 7
 BT/XBT NUMBER:
 TIME OF TOW: 1010 HR
 DEPTH OF TOW: 72 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 139 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 5.19

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	1.	10.0	7.2	5.2
MERLUCCIUS PRODUCTUS	1.	10.0	7.2	5.2
MICRUGADUS PROXIMUS	1.	10.0	7.2	5.2
SCORPAENIDAE(FAMILY)	1.	10.0	7.2	5.2
HEXAGRAMMIDAE(FAMILY)	5.	50.0	36.0	25.9
COTTIDAE(FAMILY)	1.	10.0	7.2	5.2
TOTAL	10.	100.0	71.9	51.9

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TABLE: 18
 CRUISE: WC 80- 1
 SAMPLE NO.: 17
 DATE: 16/ 1/80
 VESSEL: G.B. REED
 POSITION: 50 0.0 N 127 45.6 W
 GRID POSITION:
 BOTTOM DEPTH: 102 M

WIND DIRECTION: 280 DEG
 WIND VELOCITY: 5 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 1 M
 SURFACE TEMP: 0.0 C
 STD NUMBER: 8
 BT/XBT NUMBER:
 TIME OF TOW: 1045 HR
 DEPTH OF TOW: 70 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 143 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 4.90

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	3.	13.0	21.0	14.7
BATHYLAGIDAE(FAMILY)	1.	4.3	7.0	4.9
MERLUCCIUS PRODUCTUS	3.	13.0	21.0	14.7
SCORPAENIDAE(FAMILY)	10.	43.5	69.9	49.0
COTTIDAE(FAMILY)	6.	26.1	42.0	29.4
TOTAL	23.	100.0	160.8	112.7

TABLE: 19
 CRUISE: WC 80- 1
 SAMPLE NO.: 16
 DATE: 16/ 1/80
 VESSEL: G.B. REED
 POSITION: 50 0.0 N 127 52.0 W
 GRID POSITION:
 BOTTOM DEPTH: 987 M

WIND DIRECTION: 280 DEG
 WIND VELOCITY: 5 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 3 M
 SURFACE TEMP: 0.0 C
 STD NUMBER: 9
 BT/XBT NUMBER:
 TIME OF TOW: 1127 HR
 DEPTH OF TOW: 335 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 1456 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 2.30

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	103.	100.0	70.7	236.9
TOTAL	103.	100.0	70.7	236.9

JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	41.	100.0	28.2	94.3
TOTAL	41.	100.0	28.2	94.3

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TABLE: 20
 CRUISE: WC 80- 1
 SAMPLE NO.: 20
 DATE: 16/ 1/80
 VESSEL: G.B. REED
 POSITION: 50 30.0 N 128 14.0 W
 GRID POSITION:
 BOTTOM DEPTH: 48 M

WIND DIRECTION: 320 DEG
 WIND VELOCITY: 12 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 2 M
 SURFACE TEMP: 0.0 C
 STD NUMBER: 10
 BT/XBT NUMBER:
 TIME OF TOW: 1700 HR
 DEPTH OF TOW: 34 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 63 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 5.33

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
SCORPAENIDAE(FAMILY)	1.	25.0	15.9	5.3
HEXAGRAMMIDAE(FAMILY)	2.	50.0	31.7	10.7
COTTIDAE(FAMILY)	1.	25.0	15.9	5.3
TOTAL	4.	100.0	63.5	21.3

TABLE: 21
 CRUISE: WC 80- 1
 SAMPLE NO.: 21
 DATE: 16/ 1/80
 VESSEL: G.B. REED
 POSITION: 50 30.0 N 128 19.0 W
 GRID POSITION:
 BOTTOM DEPTH: 115 M

WIND DIRECTION: 320 DEG
 WIND VELOCITY: 12 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 2 M
 SURFACE TEMP: 0.0 C
 STD NUMBER: 11
 BT/XBT NUMBER:
 TIME OF TOW: 1735 HR
 DEPTH OF TOW: 98 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M²
 MESH SIZE: 351 MM
 VOL. FILTERED: 243 M³
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 4.04

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M ³)	CATCH (/10 M ²)
MERLUCCIUS PRODUCTUS	1.	100.0	4.1	4.0

TOTAL	1.	100.0	4.1	4.0
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LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M ³)	CATCH (/10 M ²)
PISCES	2.	16.7	8.2	8.1
SCORPAENIDAE(FAMILY)	4.	33.3	16.5	16.2
COTTIDAE(FAMILY)	4.	33.3	16.5	16.2
PLEURONECTIDAE(FAMILY)	2.	16.7	8.2	8.1

TOTAL	12.	100.0	49.4	48.5
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1
23
1

TABLE: 22
 CRUISE: NC 80-1
 SAMPLE NO.: 22
 DATE: 16/1/80
 VESSEL: G.B. REED
 POSITION: 50 30.0 N 128 26.3 W
 GRID POSITION:
 BOTTOM DEPTH: 182 M

WIND DIRECTION: 300 DEG
 WIND VELOCITY: 9 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 3 M
 SURFACE TEMP: 0.0 C
 STD NUMBER: 12
 BT/XBT NUMBER:
 TIME OF TOW: 2020 HR
 DEPTH OF TOW: 152 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.: 5.05

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M ³)	CATCH (/10 M ²)
BATHYLAGIDAE(FAMILY)	1.	9.1	3.3	5.0
SCORPAENIDAE(FAMILY)	6.	54.5	19.9	30.3
HEXAGRAMMIIDAE(FAMILY)	2.	18.2	6.6	10.1
COTTIDAE(FAMILY)	2.	18.2	6.6	10.1
TOTAL	11.	100.0	36.5	55.5

TABLE: 23
 CRUISE: WC 80- 1
 SAMPLE NO.: 23
 DATE: 16/ 1/80
 VESSEL: G.B. REED
 POSITION: 50 30.0 N 128 36.0 W
 GRID POSITION:
 BOTTOM DEPTH: 841 M

WIND DIRECTION: 330 DEG
 WIND VELOCITY: 11 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 3 M
 SURFACE TEMP: 0.0 C
 STD NUMBER: 13
 RT/XBT NUMBER:
 TIME OF TOW: 2135 HR
 DEPTH OF TOW: 316 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 1120 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 2.82

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	8.	100.0	7.1	22.6
TOTAL	8.	100.0	7.1	22.6

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	1.	4.5	0.9	2.8
MERLUCCIUS PRODUCTUS	2.	9.1	1.8	5.6
SCORPAENIDAE(FAMILY)	11.	50.0	9.8	31.0
HEXAGRAMMIIDAE(FAMILY)	2.	9.1	1.8	5.6
COTTIDAE(FAMILY)	6.	27.3	5.4	16.9
TOTAL	22.	100.0	19.6	62.0

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
HEXAGRAMMIIDAE(FAMILY)	1.	100.0	0.9	2.8
TOTAL	1.	100.0	0.9	2.8

JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
MYCTOPHIDAE(FAMILY)	6.	100.0	5.4	16.9
TOTAL	6.	100.0	5.4	16.9

TABLE: 24
 CRUISE: WC 80- 1
 SAMPLE NO.: 28
 DATE: 17/ 1/80
 VESSEL: G.B. REED
 POSITION: 51 0.0 N 128 6.0 W
 GRID POSITION:
 BOTTOM DEPTH: 100 M

WIND DIRECTION: 320 DEG
 WIND VELOCITY: 10 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 1 M
 SURFACE TEMP: 0.0 C
 STD NUMBER: 14
 BT/XBT NUMBER:
 TIME OF TOW: 0305 HR
 DEPTH OF TOW: 63 M

TOW SPEED: 1 MPS
 TYPE OF TOW:
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 131 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 4.80

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
COTTIDAE(FAMILY)	3.	100.0	22.9	14.4
TOTAL	3.	100.0	22.9	14.4

JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	1.	100.0	7.6	4.8
TOTAL	1.	100.0	7.6	4.8

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TABLE: 25
 CRUISE: WC 80- 1
 SAMPLE NO.: 27
 DATE: 17/ 1/80
 VESSEL: G.B. REED
 POSITION: 51 0.0 N 128 31.0 W
 GRID POSITION:
 BOTTOM DEPTH: 88 M

WIND DIRECTION: 340 DEG
 WIND VELOCITY: 11 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 1 M
 SURFACE TEMP: 0.0 C
 STD NUMBER: 15
 BT/XBT NUMBER:
 TIME OF TOW: 0507 HR
 DEPTH OF TOW: 58 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 170 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 3.42

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
SCORPAENIDAE(FAMILY)	1.	100.0	5.9	3.4
TOTAL	1.	100.0	5.9	3.4

TABLE: 26
 CRUISE: WC 80- 1
 SAMPLE NO.: 26
 DATE: 17/ 1/80
 VESSEL: G.B. REED
 POSITION: 51 0.0 N 128 56.0 W
 GRID POSITION:
 BOTTOM DEPTH: 66 M

WIND DIRECTION: 360 DEG
 WIND VELOCITY: 12 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 3 M
 SURFACE TEMP: 0.0 C
 STD NUMBER: 16
 BT/XBT NUMBER:
 TIME OF TOW: 0730 HR
 DEPTH OF TDW: 53 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 157 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 3.39

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
SCORPAENIDAE(FAMILY)	2.	33.3	12.7	6.8
HEXAGRAMMIDAE(FAMILY)	3.	50.0	19.1	10.2
COTTIDAE(FAMILY)	1.	16.7	6.4	3.4
TOTAL	6.	100.0	38.2	20.3

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
HEXAGRAMMIDAE(FAMILY)	1.	100.0	6.4	3.4
TOTAL	1.	100.0	6.4	3.4

TABLE: 27
 CRUISE: WC 80- 1
 SAMPLE NO.: 25
 DATE: 17/ 1/80
 VESSEL: G.B. REED
 POSITION: 51 0.0 N 129 21.0 W
 GRID POSITION:
 BOTTOM DEPTH: 183 M

WIND DIRECTION: 350 DEG
 WIND VELOCITY: 10 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 3 M
 SURFACE TEMP: 0.0 C
 STD NUMBER: 17
 BT/XBT NUMBER:
 TIME OF TDW: 0931 HR
 DEPTH OF TOW: 150 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.: 5.31

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
SCORPAENIDAE(FAMILY)	3.	42.9	10.6	15.9
COTTIDAE(FAMILY)	3.	42.9	10.6	15.9
CITHARICHTHYS SURDIDUS	1.	14.3	3.5	5.3
TOTAL	7.	100.0	24.8	37.2

TABLE: 28
 CRUISE: WC 80- 1
 SAMPLE NO.: 24
 DATE: 17/ 1/80
 VESSEL: G.B. REED
 POSITION: 51° 0.0 N 129 48.0 W
 GRID POSITION:
 BOTTOM DEPTH: 805 M

WIND DIRECTION: 360 DEG
 WIND VELOCITY: 10 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 3 M
 SURFACE TEMP: 0.0 C
 STD NUMBER: 18
 BT/XBT NUMBER:
 TIME OF TOW: 1205 HR
 DEPTH OF TOW: 375 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBlique
 GEAR TYPE: BONGO .25 X2
 MESH SIZE: .351 MM
 VOL. FILTERED: 1384 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 2.71

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	2.	100.0	1.4	5.4
TOTAL	2.	100.0	1.4	5.4

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
SCORPAENIDAE(FAMILY)	16.	94.1	11.6	43.4
COTTIDAE(FAMILY)	1.	5.9	0.7	2.7
TOTAL	17.	100.0	12.3	46.1

JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
MYCTOPHIDAE(FAMILY)	9.	100.0	6.5	24.4
TOTAL	9.	100.0	6.5	24.4

TABLE: 29
CRUISE: WC 80- 1
SAMPLE NO.: 35
DATE: 17/ 1/80
VESSEL: G.B. REED
POSITION: 51 30.0 N 130 7.5 W
GRID POSITION:
BOTTOM DEPTH: 914 M

WIND DIRECTION: 10 DEG
WIND VELOCITY: 7 MPS
WAVE HEIGHT:
SWELL HEIGHT: 4 M
SURFACE TEMP: 0.0 C
STD NUMBER: 19
BT/XRT NUMBER:
TIME OF TOW: 1705 HR
DEPTH OF TOW: 477 M

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

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

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

TABLE: 30
 CRUISE: WC 80- 1
 SAMPLE NO.: 34
 DATE: 17/ 1/80
 VESSEL: G.B. REED
 POSITION: 52 0.0 N 131 9.0 W
 GRID POSITION:
 BOTTOM DEPTH: 146 M

WIND DIRECTION: 50 DEG
 WIND VELOCITY: 4 MPS
 WAVE HEIGHT: 0 M
 SWELL HEIGHT: 2 M
 SURFACE TEMP: 0.0 C
 STD NUMBER: 20
 BT/XBT NUMBER:
 TIME OF TOW: 1025 HR
 DEPTH OF TOW: 119 M

TOW SPEED: 1 MPS
 TYPE OF TOW:
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 244 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 4.87

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
HEXAGRAMMIDAE(FAMILY)	3.	100.0	12.3	14.6
TOTAL	3.	100.0	12.3	14.6

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
HEXAGRAMMIDAE(FAMILY)	5.	100.0	20.5	24.4
TOTAL	5.	100.0	20.5	24.4

TABLE: 31
 CRUISE: WC 80- 1
 SAMPLE NO.: 35
 DATE: 17/ 1/80
 VESSEL: G.B. REED
 POSITION: 52 0.0 N 131 10.5 W
 GRID POSITION:
 BOTTOM DEPTH: 219 M

WIND DIRECTION: 50 DEG
 WIND VELOCITY: 4 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 2 M
 SURFACE TEMP: 0.0 C
 STD NUMBER: 21
 BT/XBT NUMBER:
 TIME OF TOW: 1110 HR
 DEPTH OF TOW: 168 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 365 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 4.61

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
COTTIDAE(FAMILY)	6.	100.0	16.4	27.7
TOTAL	6.	100.0	16.4	27.7

TABLE: 32
 CRUISE: WC 80-1
 SAMPLE NO.: 36
 DATE: 18/ 1/80
 VESSEL: G.B. REED
 POSITION: 52° 0.0' N 131° 20.0' W
 GRID POSITION:
 BOTTOM DEPTH: 951 M

WIND DIRECTION: 105 DEG
 WIND VELOCITY: 7 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 1 M
 SURFACE TEMP: 0.0 C
 STD NUMBER: 22
 BT/XBT NUMBER:
 TIME OF TOW: 0035 HR
 DEPTH OF TOW: 460 M

TOW SPEED: 1 MPS
 TYPE OF TOW: HORIZONTAL
 GEAR TYPE: HONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 440 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 10.46

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	293.	100.0	665.9	3064.8
TOTAL	293.	100.0	665.9	3064.8

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
COTTIDAE(FAMILY)	1.	100.0	2.3	10.5
TOTAL	1.	100.0	2.3	10.5

JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
MYCTOPHIDAE(FAMILY)	1.	100.0	2.3	10.5
TOTAL	1.	100.0	2.3	10.5

TABLE: 33
 CRUISE: WC 80- 1
 SAMPLE NO.: 38
 DATE: 18/ 1/80
 VESSEL: G.B. REED
 POSITION: 52 30.0 N 131 47.0 W
 GRID POSITION:
 BOTTOM DEPTH: 183 M

WIND DIRECTION: 120 DEG
 WIND VELOCITY: 7 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 1 M
 SURFACE TEMP: 6.8 C
 STD NUMBER:
 BT/XRT NUMBER:
 TIME OF TOW: 0445 HR
 DEPTH OF TOW: 154 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M²
 MESH SIZE: .351 MM
 VOL. FILTERED: 224 M³
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 6.88

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M ³)	CATCH (/10 M ²)
PISCES	1.	100.0	4.5	6.9
TOTAL	1.	100.0	4.5	6.9

JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M ³)	CATCH (/10 M ²)
MYCTOPHIDAE(FAMILY)	1.	100.0	4.5	6.9
TOTAL	1.	100.0	4.5	6.9

TABLE: 34
 CRUISE: WC 80-1
 SAMPLE NO.: 37
 DATE: 18/ 1/80
 VESSEL: G.B. REED
 POSITION: 52 30.0 N 131 53.2 W
 GRID POSITION:
 BOTTOM DEPTH: 969 M

WIND DIRECTION: 110 DEG
 WIND VELOCITY: 6 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 1 M
 SURFACE TEMP: 8.4 C
 STU NUMBER:
 BT/XBT NUMBER: 1
 TIME OF TOW: 0552 HR
 DEPTH OF TOW: 443 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 883 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 5.02

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	11.	100.0	12.5	55.2
TOTAL	11.	100.0	12.5	55.2

JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
CHAULIODONTIDAE (FAMILY)	1.	12.5	1.1	5.0
MYCTOPHIDAE (FAMILY)	7.	87.5	7.9	35.1
TOTAL	8.	100.0	9.1	40.2

TABLE: 35
 CRUISE: WC 80- 1
 SAMPLE NO.: 39
 DATE: 18/ 1/80
 VESSEL: G.B. REED
 POSITION: 53 0.0 N 132 26.0 W
 GRID POSITION:
 BOTTOM DEPTH: 146 M

WIND DIRECTION: 100 DEG
 WIND VELOCITY: 12 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 1 M
 SURFACE TEMP: 0.0 C
 STD NUMBER: 23
 BT/XBT NUMBER:
 TIME OF TOW: 1105 HR
 DEPTH OF TOW: 117 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBlique
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 296 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 3.95

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
SCORPAENIDAE(FAMILY)	1.	50.0	3.4	3.9
HEXAGRAMMIDAE(FAMILY)	1.	50.0	3.4	3.9
TOTAL	2.	100.0	6.8	7.9

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
CITHARICHTHYS SORDIDUS	1.	100.0	3.4	3.9
TOTAL	1.	100.0	3.4	3.9

TABLE: 36
 CRUISE: WC 80-1
 SAMPLE ND.: 40
 DATE: 18/ 1/80
 VESSEL: G.B. REED
 POSITION: 53 0.0 N 132 40.0 W
 GRID POSITION:
 BOTTOM DEPTH: 366 M

WIND DIRECTION: 135 DEG
 WIND VELOCITY: 5 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 2 M
 SURFACE TEMP: 0.0 C
 STD NUMBER:
 BT/XBT NUMBER:
 TIME OF TOW: 1225 HR
 DEPTH OF TOW: 173 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBlique
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 455 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 3.80

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	1.	25.0	2.2	3.8
HIPPOGLOSSUS STENOLEPIS	3.	75.0	6.6	11.4
TOTAL	4.	100.0	8.8	15.2

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
SCORPAENIDAE(FAMILY)	1.	50.0	2.2	3.8
COTTIDAE(FAMILY)	1.	50.0	2.2	3.8
TOTAL	2.	100.0	4.4	7.6

TABLE: 37
 CRUISE: WC 80-1
 SAMPLE NO.: 41
 DATE: 18/1/80
 VESSEL: G.B. REED
 POSITION: 53° 0.0' N 132° 36.0' W
 GRID POSITION:
 BOTTOM DEPTH: 768 M

WIND DIRECTION: 155 DEG
 WIND VELOCITY: 15 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 4 M
 SURFACE TEMP: 0.0 C
 STD NUMBER: 24
 BT/XBT NUMBER:
 TIME OF TOW: 1310 HR
 DEPTH OF TOW: 425 M

TOW SPEED: 1 MPS
 TYPE OF TOW: HORIZONTAL
 GEAR TYPE: BONGO .25 M²
 MESH SIZE: .351 MM
 VOL. FILTERED: 555 M³
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 7.66

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M ³)	CATCH (/10 M ²)
ANOPLOPODUMA FIMBRIA	59.	98.3	106.3	451.9
HIPPOGLOSSUS STENOLEPIS	1.	1.7	1.8	7.7
TOTAL	60.	100.0	108.1	459.6

JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M ³)	CATCH (/10 M ²)
MYCTOPHIDAE(FAMILY)	9.	100.0	16.2	68.9
TOTAL	9.	100.0	16.2	68.9

TABLE: 38
 CRUISE: WC 80- 1
 SAMPLE NO.: 44
 DATE: 18/ 1/80
 VESSEL: G.B. REED
 POSITION: 53 20.0 N 132 48.5 W
 GRID POSITION:
 BOTTOM DEPTH: 146 M

WIND DIRECTION: 140 DEG
 WIND VELOCITY: 12 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 3 M
 SURFACE TEMP: 0.0 C
 STD NUMBER: 25
 BT/XBT NUMBER:
 TIME OF TOW: 1600 HR
 DEPTH OF TOW: 123 M

TOW SPEED: 1 MPS
 TYPE OF TOW: HORIZONTAL
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 258 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 4.77

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
COTTIOAE (FAMILY)	1.	100.0	3.9	4.8
TOTAL	1.	100.0	3.9	4.8

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TABLE: 39
 CRUISE: WC 80- 1
 SAMPLE NO.: 43
 DATE: 18/ 1/80
 VESSEL: G.R. REED
 POSITION: 53 20.0 N 133 1.0 W
 GRID POSITION:
 BOTTOM DEPTH: 219 M

WIND DIRECTION: 140 DEG
 WIND VELOCITY: 13 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 3 M
 SURFACE TEMP: 7.6 C
 STD NUMBER: 26
 BT/XBT NUMBER:
 TIME OF TOW: 1655 HR
 DEPTH OF TOW: 168 M

TOW SPEED: 1 MPS
 TYPE OF TOW:
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 332 M3
 OISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 5.06

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	1.	100.0	3.0	5.1
TOTAL	1.	100.0	3.0	5.1

TABLE: 40
 CRUISE: WC 80- 1
 SAMPLE NO.: 43A
 DATE: 18/ 1/80
 VESSEL: G.R. REED
 POSITION: 53 20.0 N 132 5.4 W
 GRID POSITION:
 BOTTOM DEPTH: 198 M

WIND DIRECTION: 150 DEG
 WIND VELOCITY: 18 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 4 M
 SURFACE TEMP: 7.9 C
 STD NUMBER:
 BT/XBT NUMBER: 2
 TIME OF TOW: 1800 HR
 DEPTH OF TOW: 113 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGU .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 260 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 4.35

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PLEURONECTIDAE(FAMILY)	1.	100.0	3.8	4.3
TOTAL	1.	100.0	3.8	4.3

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TABLE: 41
 CRUISE: WC 80- 1
 SAMPLE NO.: 45
 DATE: 18/ 1/80
 VESSEL: G.R. REED
 POSITION: 54 0.0 N 133 17.5 W
 GRID POSITION:
 BOTTOM DEPTH: 64 M

WIND DIRECTION: 115 DEG
 WIND VELOCITY: 10 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 3 M
 SURFACE TEMP: 7.6 C
 STD NUMBER: 27
 BT/XBT NUMBER:
 TIME OF TOW: 2325 HR
 DEPTH OF TOW: 52 M

TOW SPEED: 1 MPS
 TYPE OF TOW:
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 96 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 5.41

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	0.	0.0	0.0	0.0
TOTAL	0.	0.0	0.0	0.0

TABLE: 42
 CRUISE: NC 80-1
 SAMPLE NO.: 46
 DATE: 19/ 1/80
 VESSEL: G.B. REED
 POSITION: 54 0.0 N 133 27.0 W
 GRID POSITION:
 BOTTOM DEPTH: 100 M

WIND DIRECTION: 140 DEG
 WIND VELOCITY: 20 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 6 M
 SURFACE TEMP: 0.0 C
 STD NUMBER:
 BT/XBT NUMBER: 3
 TIME OF TOW: 0010 HR
 DEPTH OF TOW: 75 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M²
 MESH SIZE: .351 MM
 VOL. FILTERED: 174 M³
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 4.31

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M ³)	CATCH (/10 M ²)
PISCES	1.	100.0	5.7	4.3
TOTAL	1.	100.0	5.7	4.3

TABLE: 43
 CRUISE: WC 80- 1
 SAMPLE NO.: 5
 DATE: 19/ 1/80
 VESSEL: G.B. REED
 POSITION: 54 30.0 N 132 55.0 W
 GRID POSITION:
 BOTTOM DEPTH: 366 M

WIND DIRECTION: 115 DEG
 WIND VELOCITY: 15 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 4 M
 SURFACE TEMP: 6.7 C
 STD NUMBER: 28
 BT/XBT NUMBER:
 TIME OF TOW: 0932 HR
 DEPTH OF TOW: 307 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 485 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 6.33

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	1.	100.0	2.1	6.3
TOTAL	1.	100.0	2.1	6.3

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	1.	100.0	2.1	6.3
TOTAL	1.	100.0	2.1	6.3

JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
MYCTOPHIDAE(FAMILY)	1.	50.0	2.1	6.3
CYCLOPTERIDAE(FAMILY)	1.	50.0	2.1	6.3
TOTAL	2.	100.0	4.1	12.7

TABLE: 44
 CRUISE: WC 80-1
 SAMPLE NO.: 53
 DATE: 19/ 1/80
 VESSEL: G.B. REED
 POSITION: 54 30.0 N 132 27.0 W
 GRID POSITION:
 BOTTOM DEPTH: 366 M

WIND DIRECTION: 140 DEG
 WIND VELOCITY: 12 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 4 M
 SURFACE TEMP: 7.0 C
 STD NUMBER: 29
 BT/XBT NUMBER:
 TIME OF TOW: 1213 HR
 DEPTH OF TOW: 350 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 360 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.M.F.: 9.72

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	1.	100.0	2.8	9.7
TOTAL	1.	100.0	2.8	9.7

JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
MYCTOPHIDAE(FAMILY)	1.	100.0	2.8	9.7
TOTAL	1.	100.0	2.8	9.7

TABLE: 45
 CRUISE: WC 80- 1
 SAMPLE NO.: 54
 DATE: 19/ 1/80
 VESSEL: G.B. REED
 POSITION: 54 30.0 N 132 0.0 W
 GRID POSITION:
 BOTTOM DEPTH: 274 M

WIND DIRECTION: 150 OEG
 WIND VELOCITY: 20 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 4 M
 SURFACE TEMP: 7.0 C
 STD NUMBER: 30
 BT/XBT NUMBER:
 TIME OF TOW: 1523 HR
 DEPTH OF TOW: 183 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 642 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 2.85

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
ANOPLOPOMA FIMBRIA	1.	100.0	1.6	2.8
TOTAL	1.	100.0	1.6	2.8

TABLE: 46
 CRUISE: WC 80- 1
 SAMPLE NO.: 55
 DATE: 20/ 1/80
 VESSEL: G.B. REED
 POSITION: 54 30.0 N 131 34.0 W
 GRID POSITION:
 BOTTOM DEPTH: 274 M

WIND DIRECTION: 110 DEG
 WIND VELOCITY: 10 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 1 M
 SURFACE TEMP: 7.0 C
 STD NUMBER: 31
 BT/XBT. NUMBER:
 TIME OF TOW: 0800 HR
 DEPTH OF TOW: 234 M

TOW SPEED: 1 MPS
 TYPE OF TOW: BONGO .25 M2
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 422 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 5.55

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
COTTIDAE(FAMILY)	2.	100.0	4.7	11.1
TOTAL	2.	100.0	4.7	11.1

JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
MYCTOPHIDAE(FAMILY)	1.	100.0	2.4	5.5
TOTAL	1.	100.0	2.4	5.5

TABLE: 47
 CRUISE: NC 80- 1
 SAMPLE NO.: 56
 DATE: 20/ 1/80
 VESSEL: G.B. REED
 POSITION: 54 30.0 N 131 7.0 W
 GRID POSITION:
 BOTTOM DEPTH: 132 M

WIND DIRECTION: 65 DEG
 WIND VELOCITY: 8 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 1 M
 SURFACE TEMP: 7.2 C
 STD NUMBER: 32
 BT/XBT NUMBER:
 TIME OF TOW: 1015 HR
 DEPTH OF TOW: 96 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 256 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 3.74

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	1.	100.0	3.9	3.7
TOTAL	1.	100.0	3.9	3.7

TABLE: 48
 CRUISE: NC 80- 1
 SAMPLE NO.: 57
 DATE: 20/ 1/80
 VESSEL: G.B. REED
 POSITION: 54 0.0 N 131 25.0 W
 GRID POSITION:
 BOTTOM DEPTH: 22 M

WIND DIRECTION: 140 DEG
 WIND VELOCITY: 10 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 1 M
 SURFACE TEMP: 4.6 C
 STD NUMBER: 33
 BT/XBT NUMBER:
 TIME OF TOW: 1320 HR
 DEPTH OF TOW: 21 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 237 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 0.89

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
OSMERIDAE(FAMILY)	389.	96.0	1641.4	346.2
HEXAGRAMMIDAE(FAMILY)	2.	0.5	8.4	1.8
COTTIDAE(FAMILY)	14.	3.5	59.1	12.5
TOTAL	405.	100.0	1708.9	360.4

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
COTTIDAE(FAMILY)	1.	100.0	4.2	0.9
TOTAL	1.	100.0	4.2	0.9

TABLE: 49
 CRUISE: WC 80- 1
 SAMPLE NO.: 58
 DATE: 20/ 1/80
 VESSEL: G.B. REED
 POSITION: 54 0.0 N 131 8.0 W
 GRID POSITION:
 BOTTOM DEPTH: 37 M

WIND DIRECTION: 150 DEG
 WIND VELOCITY: 11 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 1 M
 SURFACE TEMP: 6.5 C
 STD NUMBER: 34
 BT/XBT NUMBER:
 TIME OF TOW: 1430 HR
 DEPTH OF TOW: 29 M

TOW SPEED: 1 MPS
 TYPE OF TOW: HORIZONTAL
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 192 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 1.51

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	5.	100.0	26.0	7.5
TOTAL	5.	100.0	26.0	7.5

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
HEXAGRAMMIDAE(FAMILY)	1.	100.0	5.2	1.5
TOTAL	1.	100.0	5.2	1.5

TABLE: 50
 CRUISE: WC 80- 1
 SAMPLE NO.: 59
 DATE: 20/ 1/80
 VESSEL: G.B. REED
 POSITION: 54 0.0 N 130 55.0 W
 GRID POSITION:
 BOTTOM DEPTH: 82 M

WIND DIRECTION: 150 DEG
 WIND VELOCITY: 11 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 1 M
 SURFACE TEMP: 0.0 C
 STD NUMBER: 35
 BT/XBT NUMBER:
 TIME OF TOW: 1542 HR
 DEPTH OF TOW: 69 M

TOW SPEED: 1 MPS
 TYPE OF TOW: HORIZONTAL
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 115 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 5.99

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
SCORPAENIDAE(FAMILY)	1.	50.0	8.7	6.0
CYCLOPTERIDAE(FAMILY)	1.	50.0	8.7	6.0
TOTAL	2.	100.0	17.4	12.0

TABLE: 51
 CRUISE: WC 80- 1
 SAMPLE NO.: 60
 DATE: 20/ 1/80
 VESSEL: G.B. REED
 POSITION: 53 30.0 N 130 42.0 W
 GRID POSITION:
 BOTTOM DEPTH: 137 M

WIND DIRECTION: 130 DEG
 WIND VELOCITY: 11 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 1 M
 SURFACE TEMP: 7.5 C
 STD NUMBER: 36
 BT/XBT NUMBER:
 TIME OF TOW: 1905 HR
 DEPTH OF TOW: 129 M

TOW SPEED: 1 MPS
 TYPE OF TOW: HORIZONTAL
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 202 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 6.38

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	0.	0.0	0.0	0.0
TOTAL	0.	0.0	0.0	0.0

TABLE: 52
 CRUISE: WC 80- 1
 SAMPLE NU.: 61
 DATE: 20/ 1/80
 VESSEL: G.B. REED
 POSITION: 53 30.0 N 131 5.0 W
 GRID POSITIONS:
 BOTTOM DEPTH: 37 M

WIND DIRECTION: 130 DEG
 WIND VELOCITY: 12 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 2 M
 SURFACE TEMP: 0.0 C
 STD NUMBER: 37
 BT/XBT NUMBER:
 TIME OF TOW: 2045 HR
 DEPTH OF TOW: 34 M

TOW SPEED: 1 MPS
 TYPE OF TOW: DBLIQUE
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 198 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 1.72

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
HEXAGRAMMIDAE (FAMILY)	3.	13.0	15.2	5.2
COTTIDAE (FAMILY)	20.	87.0	101.0	34.4
TOTAL	23.	100.0	116.2	39.6

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
COTTIDAE (FAMILY)	1.	100.0	5.1	1.7
TOTAL	1.	100.0	5.1	1.7

JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
ICELINUS BUREALIS	1.	100.0	5.1	1.7
TOTAL	1.	100.0	5.1	1.7

TABLE: 53
 CRUISE: WC 80- 1
 SAMPLE NO.: 62
 DATE: 20/ 1/80
 VESSEL: G.B. REED
 POSITION: 53 30.0 N 131 32.0 W
 GRID POSITION:
 BOTTOM DEPTH: 22 M

WIND DIRECTION: 135 DEG
 WIND VELOCITY: 10 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 2 M
 SURFACE TEMP: 0.0 C
 STD NUMBER: 38
 BT/XBT NUMBER:
 TIME OF TOW: 2235 HR
 DEPTH OF TOW: 18 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 219 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 0.82

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	1.	0.8	4.6	0.8
AMMODYTES HEXAPTERUS	120.	99.2	547.9	98.4
TOTAL	121.	100.0	552.5	99.2

TABLE: 54
 CRUISE: WC 80- 1
 SAMPLE NO.: 45
 DATE: 21/ 1/80
 VESSEL: G.B. REED
 POSITION: 53 0.0 N 131 6.0 W
 GRID POSITION:
 BOTTOM DEPTH: 29 M

WIND DIRECTION: 140 DEG
 WIND VELOCITY: 15 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 3 M
 SURFACE TEMP: 8.4 C
 STD NUMBER: 39
 BT/XBT NUMBER:
 TIME OF TOW: 0400 HR
 DEPTH OF TOW: 34 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 180 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 1.06

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
HEXAGRAMMIDAE(FAMILY)	1.	100.0	5.6	1.9
TOTAL	1.	100.0	5.6	1.9

TABLE: 55
 CRUISE: WC 80- 1
 SAMPLE NO.: 64
 DATE: 21/ 1/80
 VESSEL: G.B. REED
 POSITION: 53 0.0 N 130 40.0 W
 GRID POSITION:
 BOTTOM DEPTH: 137 M

WIND DIRECTION: 135 DEG
 WIND VELOCITY: 17 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 3 M
 SURFACE TEMP: 8.0 C
 STD NUMBER: 40
 BT/XBT NUMBER:
 TIME OF TOW: 0625 HR
 DEPTH OF TOW: 116 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 200 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 5.80

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	0.	0.0	0.0	0.0
TOTAL	0.	0.0	0.0	0.0

TABLE: 56
 CRUISE: WC 80- 1
 SAMPLE NO.: 65
 DATE: 21/ 1/80
 VESSEL: G.B. REED
 POSITION: 53 0.0 N 130 13.0 W
 GRID POSITION:
 BOTTOM DEPTH: 219 M

WIND DIRECTION: 140 DEG
 WIND VELOCITY: 16 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 3 M
 SURFACE TEMP: 8.0 C
 STD NUMBER: 41
 BT/XBT NUMBER:
 TIME OF TOW: 0910 HR
 DEPTH OF TOW: 169 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 371 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 4.55

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	1.	100.0	2.7	4.5
TOTAL	1.	100.0	2.7	4.5

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
COTTIDAE(FAMILY)	1.	100.0	2.7	4.5
TOTAL	1.	100.0	2.7	4.5

TABLE: 57
 CRUISE: WC 80- 1
 SAMPLE NO.: 68
 DATE: 21/ 1/80
 VESSEL: G.B. REED
 POSITION: 53 0.0 N 129 47.0 W
 GRID POSITION:
 BOTTOM DEPTH: 238 M

WIND DIRECTION: 134 DEG
 WIND VELOCITY: 13 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 2 M
 SURFACE TEMP: 7.6 C
 STD NUMBER: 42
 BT/XBT NUMBER:
 TIME OF TOW: 1045 HR
 DEPTH OF TOW: 190 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 466 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 4.08

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	1.	100.0	2.1	4.1
TOTAL	1.	100.0	2.1	4.1

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TABLE: 58
 CRUISE: WC 80- 1
 SAMPLE NO.: 67
 DATE: 21/ 1/80
 VESSEL: G.B. REED
 POSITION: 52 30.0 N 129 48.0 W
 GRID POSITION:
 BOTTOM DEPTH: 198 M

WIND DIRECTION: 150 DEG
 WIND VELOCITY: 12 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 3 M
 SURFACE TEMP: 8.5 C
 STD NUMBER: 43
 BT/XBT NUMBER:
 TIME OF TOW: 1520 HR
 DEPTH OF TOW: 151 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 418 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 3.61

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	0.	0.0	0.0	0.0
TOTAL	0.	0.0	0.0	0.0

TABLE: 59
 CRUISE: WC 80- 1
 SAMPLE NO.: 68
 DATE: 21/ 1/80
 VESSEL: G.B. REED
 POSITION: 52 30.0 N 130 13.0 W
 GRID POSITION:
 BOTTOM DEPTH: 311 M

WIND DIRECTION: 150 DEG
 WIND VELOCITY: 12 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 3 M
 SURFACE TEMP: 8.8 C
 STD NUMBER: 44
 BT/XBT NUMBER:
 TIME OF TOW: 1712 HR
 DEPTH OF TOW: 214 M

TOW SPEED: 1 MPS
 TYPE OF TOW: ORLIQUE
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 622 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 3.44

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	1.	100.0	1.6	3.4
TOTAL	1.	100.0	1.6	3.4

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
COTTIDAE(FAMILY)	1.	100.0	1.6	3.4
TOTAL	1.	100.0	1.6	3.4

TABLE: 60
 CRUISE: WC 80- 1
 SAMPLE NO.: 69
 DATE: 21/ 1/80
 VESSEL: G.B. REED
 POSITION: 52 30.0 N 130 40.0 W
 GRID POSITION:
 BOTTOM DEPTH: 102 M

WIND DIRECTION: 155 DEG
 WIND VELOCITY: 11 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 2 M
 SURFACE TEMP: 8.8 C
 STD NUMBER: 45
 BT/XBT NUMBER:
 TIME OF TOW: 2005 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: 141 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 5.54

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	1.	100.0	7.1	5.5
TOTAL	1.	100.0	7.1	5.5

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
COTTIDAE(FAMILY)	1.	100.0	7.1	5.5
TOTAL	1.	100.0	7.1	5.5

TABLE: 61
 CRUISE: WC 80- 1
 SAMPLE NO.: 70
 DATE: 21/ 1/80
 VESSEL: G.B. REED
 POSITION: 52 30.0 N 131 7.0 W
 GRID POSITION:
 BOTTOM DEPTH: 143 M

WIND DIRECTION: 170 DEG
 WIND VELOCITY: 10 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 2 M
 SURFACE TEMP: 8.8 C
 STD NUMBER: 46
 BT/XBT NUMBER:
 TIME OF TOW: 2135 HR
 DEPTH OF TOW: 119 M

TOW SPEED: 1 MPS
 TYPE OF TOW: BONGO .25 M2
 GEAR TYPE: .351 MM
 MESH SIZE: 232 M3
 VOL. FILTERED: 232 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 5.13

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	0.	0.0	0.0	0.0
TOTAL	0.	0.0	0.0	0.0

TABLE: 62
 CRUISE: WC 80- 1
 SAMPLE NO.: 71
 DATE: 22/ 1/80
 VESSEL: G.R. REED
 POSITION: 52 0.0 N 130 41.0 W
 GRID POSITION:
 BOTTOM DEPTH: 229 M

WIND DIRECTION: 180 DEG
 WIND VELOCITY: 14 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 2 M
 SURFACE TEMP: 8.9 C
 STD NUMBER: 47
 BT/XBT NUMBER:
 TIME OF TOW: 0200 HR
 DEPTH OF TOW: 194 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 375 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 5.18

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	5.	100.0	13.3	25.9
TOTAL	5.	100.0	13.3	25.9

TABLE: 63
 CRUISE: WC 80- 1
 SAMPLE NO.: 72
 DATE: 22/ 1/80
 VESSEL: G.B. REED
 POSITION: 52 0.0 N 130 14.0 W
 GRID POSITION:
 BOTTOM DEPTH: 256 M

WIND DIRECTION: 180 DEG
 WIND VELOCITY: 12 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 1 M
 SURFACE TEMP: 9.0 C
 STD NUMBER: 48
 BT/XBT NUMBER:
 TIME OF TOW: 0428 HR
 DEPTH OF TOW: 202 M

TOW SPEED: 1 MPS
 TYPE OF TOW: HORIZONTAL
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 413 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 4.89

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	12.	100.0	29.1	58.7
TOTAL	12.	100.0	29.1	58.7

JUVENILES	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
MYCTOPHIDAE(FAMILY)	1.	100.0	2.4	4.9
TOTAL	1.	100.0	2.4	4.9

TABLE: 64
 CRUISE: WC 80- 1
 SAMPLE NO.: 73
 DATE: 22/ 1/80
 VESSEL: G.B. REED
 POSITION: 52 0.0 N 129 48.0 W
 GRID POSITION:
 BOTTOM DEPTH: 113 M

WIND DIRECTION: 156 DEG
 WIND VELOCITY: 11 MPS
 WAVE HEIGHT: 0 M
 SWELL HEIGHT: 2 M
 SURFACE TEMP: 8.5 C
 STD NUMBER: 49
 BT/XBT NUMBER:
 TIME OF TOW: 0702 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: 170 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 4.59

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
COTTIOAE(FAMILY)	1.	100.0	5.9	4.6
TOTAL	1.	100.0	5.9	4.6

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TABLE: 65
 CRUISE: WC 80- 1
 SAMPLE NO.: 74
 DATE: 22/ 1/80
 VESSEL: G.B. REED
 POSITION: 52 0.0 N 129 21.0 W
 GRID POSITION:
 BOTTOM DEPTH: 186 M

WIND DIRECTION: 165 DEG
 WIND VELOCITY: 10 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 1 M
 SURFACE TEMP: 0.0 C
 STD NUMBER: 50
 BT/XBT NUMBER:
 TIME OF TOW: 0900 HR
 DEPTH OF TOW: 155 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 304 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 5.10

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
PISCES	1.	16.7	3.3	5.1
SCORPAENIDAE(FAMILY)	1.	16.7	3.3	5.1
COTTIOAE(FAMILY)	4.	66.7	13.2	20.4
TOTAL	6.	100.0	19.7	30.6

TABLE: 66
 CRUISE: WC 80- 1
 SAMPLE NO.: 75
 DATE: 22/ 1/80
 VESSEL: G.B. REED
 POSITION: 52 0.0 N 128 56.0 W
 GRID POSITION:
 BOTTOM DEPTH: 117 M

WIND DIRECTION: 157 DEG
 WIND VELOCITY: 12 MPS
 WAVE HEIGHT: 0 M
 SWELL HEIGHT: 1 M
 SURFACE TEMP: 0.0 C
 STD NUMBER: 51
 BT/XBT NUMBER:
 TIME OF TOW: 1045 HR
 DEPTH OF TOW: 84 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBlique
 GEAR TYPE: BONGO .25 M²
 MESH SIZE: .351 MM
 VOL. FILTERED: 188 M³
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 4.46

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M ³)	CATCH (/10 M ²)
HEXAGRAMMIDAE(FAMILY)	6.	60.0	31.9	26.8
COTTIDAE(FAMILY)	3.	30.0	16.0	13.4
PLEURONECTIDAE(FAMILY)	1.	10.0	5.3	4.5
TOTAL	10.	100.0	53.2	44.6

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M ³)	CATCH (/10 M ²)
HEXAGRAMMIDAE(FAMILY)	8.	100.0	42.6	35.7
TOTAL	8.	100.0	42.6	35.7

TABLE: 67
 CRUISE: WC 80-1
 SAMPLE NO.: 32
 DATE: 22/ 1/80
 VESSEL: G.B. REED
 POSITION: 51 30.0 N 129 51.0 W
 GRID POSITION:
 BOTTOM DEPTH: 183 M

WIND DIRECTION: 190 DEG
 WIND VELOCITY: 13 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 1 M
 SURFACE TEMP: 9.3 C
 STD NUMBER: 52
 BT/XBT NUMBER:
 TIME OF TOW: 1620 HR
 DEPTH OF TOW: 144 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M²
 MESH SIZE: .351 MM
 VOL. FILTERED: 359 M³
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 4.01

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M ³)	CATCH (/10 M ²)
PISCES	1.	100.0	2.8	4.0
TOTAL	1.	100.0	2.8	4.0

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M ³)	CATCH (/10 M ²)
SCORPAENIDAE(FAMILY)	1.	20.0	2.8	4.0
COTTIDAE(FAMILY)	4.	80.0	11.1	16.0
TOTAL	5.	100.0	13.9	20.0

TABLE: 6R
 CRUISE: WC 80-1
 SAMPLE NO.: 31
 DATE: 22/ 1/80
 VESSEL: G.B. REED
 POSITION: 51 30.0 N 129 21.0 W
 GRID POSITION:
 BOTTOM DEPTH: 59 M

WIND DIRECTION: 140 DEG
 WIND VELOCITY: 15 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 2 M
 SURFACE TEMP: 0.0 C
 STD NUMBER: 53
 BT/XBT NUMBER:
 TIME OF TOW: 1840 HR
 DEPTH OF TOW: 54 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 275 M3
 DISP. VOLUME:
 PLANKTON CONC.:
 ALIQUOT:
 S.H.F.: 1.96

EGGS	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	2.	100.0	7.3	3.9
TOTAL	2.	100.0	7.3	3.9

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PISCES	2.	100.0	7.3	3.9
TOTAL	2.	100.0	7.3	3.9

POST LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN. (/1000 M3)	CATCH (/10 M2)
PLEURONECTIDAE(FAMILY)	1.	100.0	3.6	2.0
TOTAL	1.	100.0	3.6	2.0

TABLE: 69
 CRUISE: WC 80- 1
 SAMPLE NO.: 30
 DATE: 22/ 1/80
 VESSEL: G.B. REED
 POSITION: 51 30.0 N 128 56.0 W
 GRID POSITION:
 BOTTOM DEPTH: 44 M

WIND DIRECTION: 200 DEG
 WIND VELOCITY: 11 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 2 M
 SURFACE TEMP: 0.0 C
 STD NUMBER: 54
 BT/XBT NUMBER:
 TIME OF TOW: 2035 HR
 DEPTH OF TOW: 38 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VOL. FILTERED: 233 M3
 DISP. VOLUME:
 PLANKTON CDNC.:
 ALIQUOT:
 S.H.F.: 1.63

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
COTTIDAE(FAMILY)	2.	100.0	8.6	3.3
TOTAL	2.	100.0	8.6	3.3

TABLE: 70
 CRUISE: WC 80- 1
 SAMPLE NO.: 29
 DATE: 22/ 1/80
 VESSEL: G.B. REED
 POSITION: 51 30.0 N 128 31.0 W
 GRID POSITION:
 BOTTOM DEPTH: 185 M

WIND DIRECTION: 180 DEG
 WIND VELOCITY: 13 MPS
 WAVE HEIGHT:
 SWELL HEIGHT: 1 M
 SURFACE TEMP: 0.0 C
 STD NUMBER: 55
 BT/XBT NUMBER:
 TIME OF TOW: 2225 HR
 DEPTH OF TOW: 170 M

TOW SPEED: 1 MPS
 TYPE OF TOW: OBLIQUE
 GEAR TYPE: BONGO .25 M2
 MESH SIZE: .351 MM
 VDL. FILTERED: 291 M3
 DISP. VOLUME:
 PLANKTON CDNC.:
 ALIQUOT:
 S.H.F.: 5.83

LARVAE	TOTAL NUMBER	TAXA PCT.	REL. ABUN.(/1000 M3)	CATCH (/10 M2)
COTTIDAE(FAMILY)	4.	100.0	13.7	23.3
TOTAL	4.	100.0	13.7	23.3

100

100

100