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ICHTHYOPLANKTON AND STATION DATA FOR CALIFORNIA COOPERATIVE OCEANIC FISHERIES INVESTIGATIONS SURVEY CRUISES IN 1988

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U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Southwest Fisheries Science Center

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CONTENTS

LIST OF FIGURES

Page

LIST OF TABLES

Page

ABSTRACT

This report provides ichthyoplankton data and associated station and tow data from California Cooperative Oceanic Fisheries Investigations (CalCOFI) cruises conducted in the Southern California Bight region in 1988. It is the 28th report in a series that presents these data for all biological-oceanographic CalCOFI surveys from 1951 to the present. A total of 248 stations was occupied during quarterly cruises over the survey area which extended from Avila Beach to San Diego, California. Transects extended seaward in a southwesterly direction to a maximum of approximately 330 n. mi. The most seaward station, 90.0 120.0, was approximately 400 n. mi. west of Punta Baja, Baja California, Mexico. The data are listed in a series of four tables; the background, methodology, and information necessary for interpretation of the data are presented in an accompanying text. All pertinent station and tow data, including volumes of water strained and standard haul factors, are listed in the first table. Another table lists, by station and month, standardized counts of each of the 139 larval fish categories identified from survey samples. This series of reports makes the CalCOFI ichthyoplankton and station data available to all investigators and serves as a guide to the computer data base.

INTRODUCTION

This report, the 28th in the series, provides ichthyoplankton and associated station and tow data from California Cooperative Oceanic Fisheries Investigations (CalCOFI) joint biological-oceanographic survey cruises conducted in 1988. This program was initiated in 1949, under the sponsorship of the Marine Research Committee of the State of California, to study the population fluctuations of the Pacific sardine (*Sardinops sagax*) and the environmental factors that may play a role in these fluctuations. CalCOFI is a partnership among the Southwest Fisheries Science Center of the National Marine Fisheries Service (NMFS), the Scripps Institution of Oceanography (SIO), and the California Department of Fish and Game (CDFG). NMFS and SIO supply ships and personnel to conduct the sea surveys, NMFS processes the plankton samples and analyzes the ichthyoplankton from them. SIO processes and analyzes hydrographic and biological samples and analyzes invertebrate groups from the plankton samples.

The boundaries, station placement, and sampling frequency for the CalCOFI surveys were based on the results of joint biological-oceanographic cruises conducted by NMFS and SIO during 1939–1941. Originally, CalCOFI cruises were designed to collect sardine eggs and larvae and associated hydrographic data over the entire areal and seasonal spawning range of the species. From 1951 to 1960 the surveys were annual with cruises conducted monthly. The survey area was occupied quarterly during 1961– 1965 and in 1966 the surveys became triennial with monthly cruises. Beginning in 1985 annual surveys were resumed, with quarterly cruises occupying only the Southern California Bight region (see Hewitt 1988 and Moser et al. 1993, 1994 for summaries of CalCOFI historical sampling effort).

Hydrographic and biological data from the 1988 CalCOFI survey have been published by the Scripps Institution of Oceanography (Univ. of Calif., SIO 1989a, b). All available records for the 1988 CalCOFI surveys were verified and edited to produce this ichthyoplankton data report. These reports make the CalCOFI ichthyoplankton and station data available to all investigators and serve as guides to the computer data base. They are the basic documents against which changes in the data base can be compared as it is modified to correct errors and update earlier identifications. Citations for previous reports in this series are:

Survey	Report	Survey	Report
1951	Ambrose et al. 1987a	1965	Stevens et al. 1988a
1952	Sandknop et al. 1987a	1966	Sumida et al. 1988b
1953	Stevens et al. 1987a	1967	Ambrose et al. 1988b
1954	Sumida et al. 1987a	1968	Sandknop et al. 1988c
1955	Ambrose et al. 1987b	1969	Stevens et al. 1988b
1956	Stevens et al. 1987b	1972	Sumida et al. 1988c
1957	Sumida et al. 1987b	1975	Ambrose et al. 1988c
1958	Sandknop et al. 1987b	1978	Sandknop et al. 1988d
1959	Stevens et al. 1987c	1981	Ambrose et al. 1988d
1960	Ambrose et al. 1987c	1984	Stevens et al. 1990
1961	Sandknop et al. 1988a	1985	Ambrose et al. 1999
1962	Sumida et al. 1988a	1986	Charter et al. 1999
1963	Ambrose et al. 1988a	1987	Sandknop et al. 1999
1964	Sandknop et al. 1988b		

SAMPLING AREA AND PATTERN

A total of 248 standard CalCOFI survey stations was occupied on four cruises in 1988, employing two research vessels:

8801, RV *David Starr Jordan*, 64 stations, January 19–February 1;

8805, RV *David Starr Jordan*, 52 stations, April 28–May 11;

8808, RV *New Horizon*, 66 stations, August 9–23;

8810, RV *New Horizon*, 66 stations, October 11–25.

The survey area extended from Avila Beach to San Diego, California and seaward on six survey lines to approximately 120–330 n. mi. (Figures 1 and 2).[1] The most seaward station, 90.0 120.0, was approximately 400 n. mi. west of Punta Baja, Baja California, Mexico. Stations on CalCOFI lines 76.7 and 80.0 extended seaward to station 90.0 on cruise 8801, to station 70.0 on 8805, and to station 100.0 on 8808 and 8810. Stations on lines 83.3 and 86.7 extended seaward to station 90.0 on 8805 and to station 110.0 on all other cruises. On lines 90.0 and 93.3 stations extended seaward to station 100.0 on cruise 8805 and to station 120.0

[1] Beginning in 1981 we changed our designation of ordinal survey lines (those ending in "3" and "7") to an exact decimal notation. Thus, lines 77, 83, 87, 93, etc. were changed to 76.7, 83.3, 86.7, 93.3, etc. to indicate the spacing between cardinal lines (those ending in "0"). Scripps Institution of Oceanography continues to use the original designation for ordinal lines (Figures 1and 2 and see Univ. of Calif., SIO 1989a, b).

on all other cruises (Figures 1 and 2).

SAMPLING GEAR AND METHODS

In 1978, the standard 1-m ring net with towing bridle was replaced by a bridle-free "bongo" net. The bongo frame (McGowan and Brown 1966; Smith and Richardson 1977) consists of a pair of circular frames connected to a central axle. The axle is free to rotate so that the mouth openings are vertical during the tow. The standard CalCOFI net has 71 cm diameter frames and net material constructed of nylon mesh. Each net consists of a cylindrical section ~146 cm long, a truncated conical section ~161 cm long, and a detachable cod end. The starboard net, from which the standard sample is taken, is constructed of 0.505 mm mesh. The sample from the port side is used for other purposes; the mesh size is either 0.505 mm or 0.333 mm depending on requirements. The cod end of each net is constructed of 0.333 mm mesh.

The standard tow in 1988 was a double oblique haul to 210 m depth (to 15 m from the bottom in shallow areas) designed to filter a constant amount of water per depth interval (~ 2 m^3/m of depth) over the vertical range of most ichthyoplankters. Hauls were made at a ship speed of 1.5–2.0 knots and initiated by clamping the net to the towing cable above a 34 kg weight suspended below the surface. The net was lowered to ~ 210 m depth by paying out 300 m of wire at 50 m/minute (35 m of depth/minute). After fishing at depth for 30 seconds, the net was retrieved at 20 m/minute (14 m of depth/minute). The angle of stray was recorded every 30 seconds and maintained at 45° (± 3°) by adjusting ship speed and course. After reaching the surface, the nets were washed down and the samples preserved in 5% formalin buffered with sodium borate. At the beginning and end of each tow, readings were made from a flow meter suspended in the mouth of the starboard net. Detailed descriptions of gear and methods are given by Kramer et al. (1972) and Smith and Richardson (1977); Ohman and Smith (1995) provided summaries of historical CalCOFI zooplankton methods and calibration factors for the various gear types.

LABORATORY PROCEDURES

We determined a zooplankton displacement volume for each sample (methods described in Staff, SPFI 1953 and Kramer et al. 1972). Samples containing > 25 ml of plankton were fractioned to ~ 50% of their original volume. Aliquot percentages for fractioned samples are listed in Table 1 under the "Percent Sorted" column. Sorting involved the removal of ichthyoplankton from the samples and identification and separation of: eggs and larvae of Pacific sardine, northern anchovy, and Pacific saury and larvae of Pacific hake. Body lengths of sardine, anchovy, and hake larvae were measured to the nearest 0.5 mm.

A standard haul factor (SHF) was calculated for each tow to make them comparable and to allow estimation of areal abundance. The SHF is calculated by the formula:

$$SHF = \frac{10\,D}{V}$$

where D = depth of haul = cosine of the average angle of stray of the towing cable multiplied by cable length (m)

V = total volume of water (m^3) strained during the haul

$$V = R \cdot a \cdot p$$

where R = total number of revolutions of the current meter during the haul

a = area (m^2) of the mouth of the net

p = length of the column of water needed produce one revolution of the current meter

Tow depth, volume of water strained, and standard haul factor are listed in Table 1 for each tow taken during 1988. Detailed descriptions of factors involved in calculating these values are presented in Ahlstrom (1948), Kramer et al. (1972), and Smith and Richardson (1977).

IDENTIFICATION

Identification of ichthyoplankton species beyond those separated during the sorting process was done by a separate group of specialists. Early ontogenetic stages of fishes are inherently difficult to identify and this is further complicated by the large number and diversity of species which contribute to the ichthyoplankton of the California Current region. Most identifications were accomplished by establishing ontogenetic series on the basis of morphology, meristics, and pigmentation, and then linking these series through overlapping features to known metamorphic, juvenile, or adult stages (Powles and Markle 1984). Our ability to identify larvae in the California Current region improved greatly during 1988–1995 as a result of an intensive research project aimed at producing a taxonomic monograph on the ontogenetic stages of fishes of this region (Moser 1996). Except for damaged specimens, most larvae in the 1988 surveys could be identified to species. A total of 139 larval fish categories (including unidentified and disintegrated) was identified for 1988: 115 to species, 17 to genus, and 5 to family. Identifications were done in the Ichthyoplankton Ecology Laboratory of the Coastal Fisheries Resources Division by William Isham and Ernesto Calix of MEC Analytical Systems, working closely with larval fish identification experts in the laboratory who checked each sample.

With few exceptions, taxonomic categories above species represent small specimens which were damaged and partly disintegrated during capture. The following taxonomic categories in Tables 2–4 require special explanation:

Cyclothone spp. – small or damaged larvae, mostly *C. acclinidens* and/or *C. pseudopallida* lacking diagnostic characters.

Cyclothone acclinidens, C. pseudopallida – larger larvae (primarily postflexion stage) having diagnostic pigmentation characters.

Diaphus spp. – *Diaphus theta* is the dominant *Diaphus* species in the survey area and most, if not all, of the larvae from the Southern California Bight region are this species; the generic category is used because a small proportion of the *Diaphus* larvae captured at the outer margin of the survey pattern may represent other species whose larvae are identical to those of *D. theta.*

Disintegrated fish larvae – larvae that could not be identified because of their poor condition; separated from the "unidentified" category to monitor the general condition of the ichthyoplankton samples through the time series.

Glyptocephalus zachirus – see comment for Pleuronectidae

Howella spp. – larvae represent a single species, either *H. brodiei* or *H. sherborni*; taxonomy of the

adult is unresolved.

Lampanyctus spp. - primarily small (< 5.0 mm) larvae of *L. ritteri* and *L. regalis*; Zahuranec (In Press) has placed 17 species of *Lampanyctus* with small or absent pectoral fins in the genus *Nannobrachium*; four of these species occur in the current CalCOFI survey area (*L. regalis*, *L. ritteri*, and two undescribed species designated here by the descriptive names *Lampanyctus* "no pectorals" and *Lampanyctus* "niger").

Lyopsetta exilis - see comment for Pleuronectidae.

Microstoma spp. - larvae of a distinct but undescribed microstomatid species.

Neoclinus - *Neoclinus blanchardi*, *N. stephensae* and *N. uninotatus* occur in the area, but only the first two species have been identified in samples; larvae < 6 mm have not been identified to species.

Paralepididae - small or damaged larvae, probably *Lestidiops ringens* lacking diagnostic characters.

Parophrys vetulus - see comment for Pleuronectidae.

Pleuronectidae - Sakamoto (1984) changed pleuronectid generic designations for species in the CalCOFI area as follows: 1) *Glyptocephalus zachirus* was changed to *Errex zachirus*; 2) *Isopsetta isolepis*, *Lepidopsetta bilineata*, and *Parophrys vetulus* were transferred into *Pleuronectes* and 3) *Lyopsetta exilis* was changed to *Eopsetta exilis*; although these changes were incorporated in the lists of Robins et al. (1991) and Eschmeyer (1998) we follow Nelson (1994) in retaining the older nomenclature because Sakamoto's (1984) changes were based on a phenetic study; also, the older names are used in the major identification guides to fishes of our region (Miller and Lea 1972, Eschmeyer et al. 1983, Matarese et al. 1989, and Moser 1996).

Sebastolobus spp. - larvae of this genus < 10 mm in length are not identifiable to species; larvae >10 mm are identified as *S. alascanus* or *S. altivelis*.

Unidentified fish larvae - larvae that were generally in good condition but could not be identified because of their small size or early stage of development.

Vinciguerria lucetia - *V. lucetia*, an eastern tropical Pacific species, is common in the present CalCOFI region whereas the central water mass species *V. poweriae* is encountered rarely, usually only at the most seaward CalCOFI stations; a small percentage of *V. poweriae* larvae may have been included in the *V. lucetia* category because of the difficulty in separating early larvae which often are virtually identical.

SPECIES SUMMARY

Of the five most abundant larvae in 1988, the Pacific hake (*Merluccius productus*) ranked first in abundance with 39.7% of the total larvae but ranked only tenth in occurrence with 28% positive stations (Tables 2 and 3). The northern anchovy (*Engraulis mordax*) ranked second in abundance with 23.4% of the total larvae but was first in occurrence (48% of the samples). The Panama lightfish (*Vinciguerria lucetia)* ranked third with 7.4% of the larvae and ranked forteenth in occurrence (17% of the stations). The California smoothtongue (*Leuroglossus stilbius*) was the fourth most abundant taxon with 4.8% of the total larvae and ranked fifth in frequency of occurrence (33% of the samples). The rockfish genus *Sebastes* ranked fifth in

abundance (4.2% of total larvae) and third in occurrence (36% of the samples). The next five most abundant taxa were the northern lampfish *Stenobrachius leucopsarus* (2.4% of the total larvae), the popeye blacksmelt *Bathylagus ochotensis* (2.2%), the highseas lightfish *Vinciguerria poweriae* (2.1%), the shortbelly rockfish *Sebastes jordani* (1.8%), and the Pacific sanddab *Citharichthys sordidus* (1.0%). These species ranked 4th, 6th, 26th, 22nd, and 8th in frequency of occurrence, respectively. The 10 most abundant taxa comprised 89% of all the larvae collected on CalCOFI cruises in 1988. The remaining 11% was distributed among 129 other taxa (including the "disintegrated" and "unidentified" categories). Of the ten most abundant taxa, four are coastal demersal taxa, five are midwater species, and one is a coastal pelagic species.

EXPLANATION OF TABLES

Table 1. This table lists for each tow the pertinent station and tow data, the volume of water filtered, the standard haul factor, the plankton volume, the percentage of sample sorted, and the total number of fish eggs and larvae. CalCOFI cruises are designated by four digits; the first two indicate the year and the second two the month. Within each cruise the data are listed in order of increasing line and station number (southerly and seaward directions); the order of station occupancy is shown on the station charts (Figures 1and 2). Stations are designated by two groups of numbers; the first set indicates the line and decimal fraction and the second set indicates the station and decimal fraction. Time is listed as Pacific Standard Time at the start of each tow in 24-hour designation. Plankton displacement volumes were determined after removal of large organisms (those with individual displacement volumes > 5 ml) and expressed as ml per 1000 m^3 of water filtered. The values for total fish eggs and larvae are raw counts (unadjusted for percent of sample sorted or standard haul factor). Ship codes are as follows: JD, *David Starr Jordan*; NH, *New Horizon*. The listings for station latitude and longitude in this table may differ from values given for the same station in the SIO data reports, reflecting the slight difference in position of the net tow and hydrocast. Dates given here and in Figures 1 and 2 for the beginning and end of each cruise are based on Pacific Standard time at the first and last net tow station of the cruise and do not include transit time from port to the first station and to port after the last station. Thus, our cruise dates may differ slightly from those in SIO reports which are based on GMT prior to 1990 and include transit time to the first station and from the last station.

Table 2. Pooled occurrences of all larval fish taxa taken on CalCOFI survey cruises in 1988 listed in rank order.

Table 3. Pooled counts of all larval fish taxa taken on CalCOFI survey cruises in 1988 listed in rank order. Numbers are adjusted for percent sorted and standard haul factors.

Table 4. Numbers of fish larvae for each taxon, listed by station and calendar month of the tow. Counts are adjusted for percentage of sample sorted and standard haul factor. The orders are listed in phylogenetic sequence (Eschmeyer 1998).

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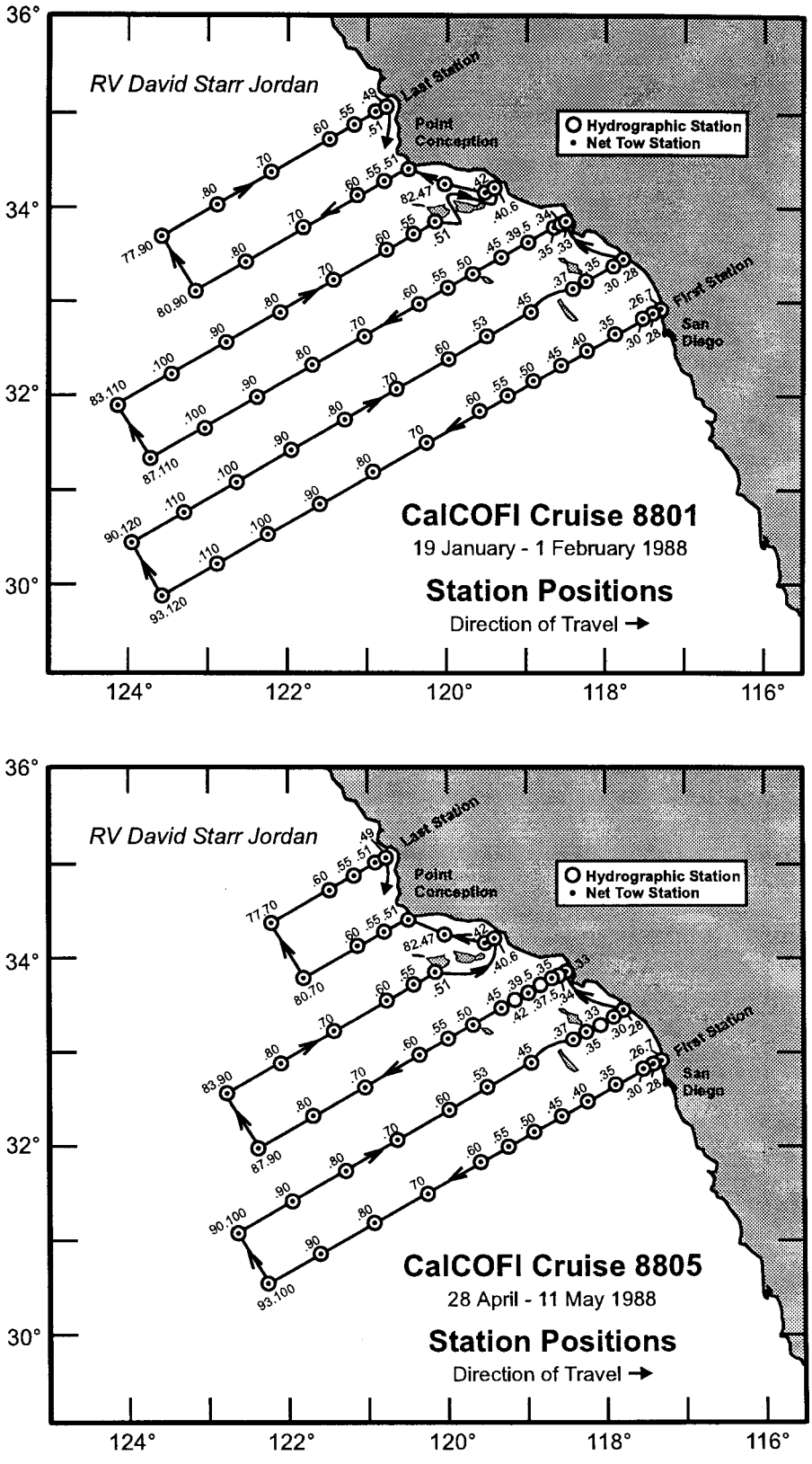

Figure 1. Stations and cruise tracks for CalCOFI cruises 8801 (above) and 8805 (below). Circles indicate hydrographic stations; dots indicate net tow stations.

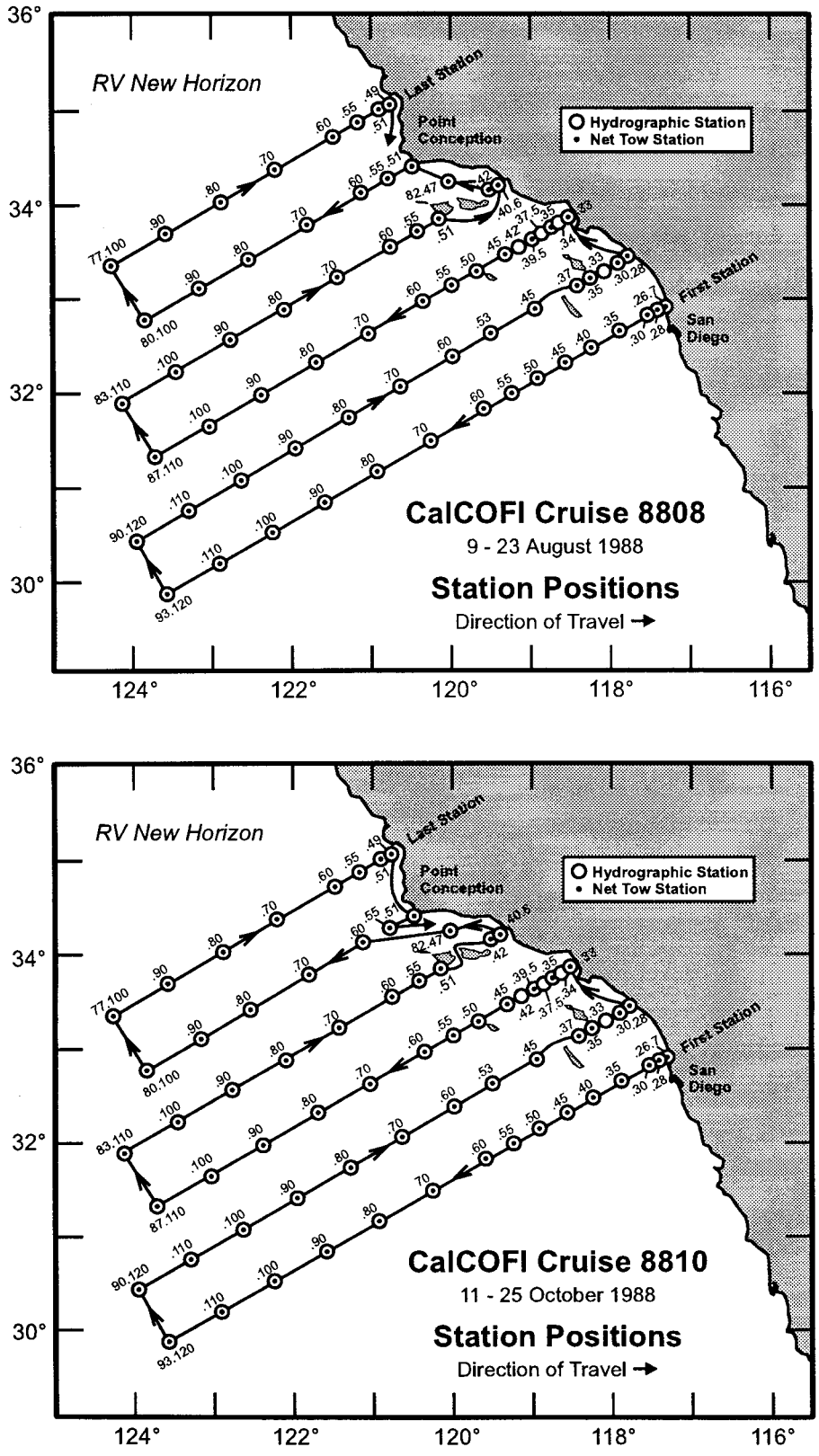

Figure 2. Stations and cruise tracks for CalCOFI cruises 8808 (above) and 8810 (below). Symbols as in Figure 1.

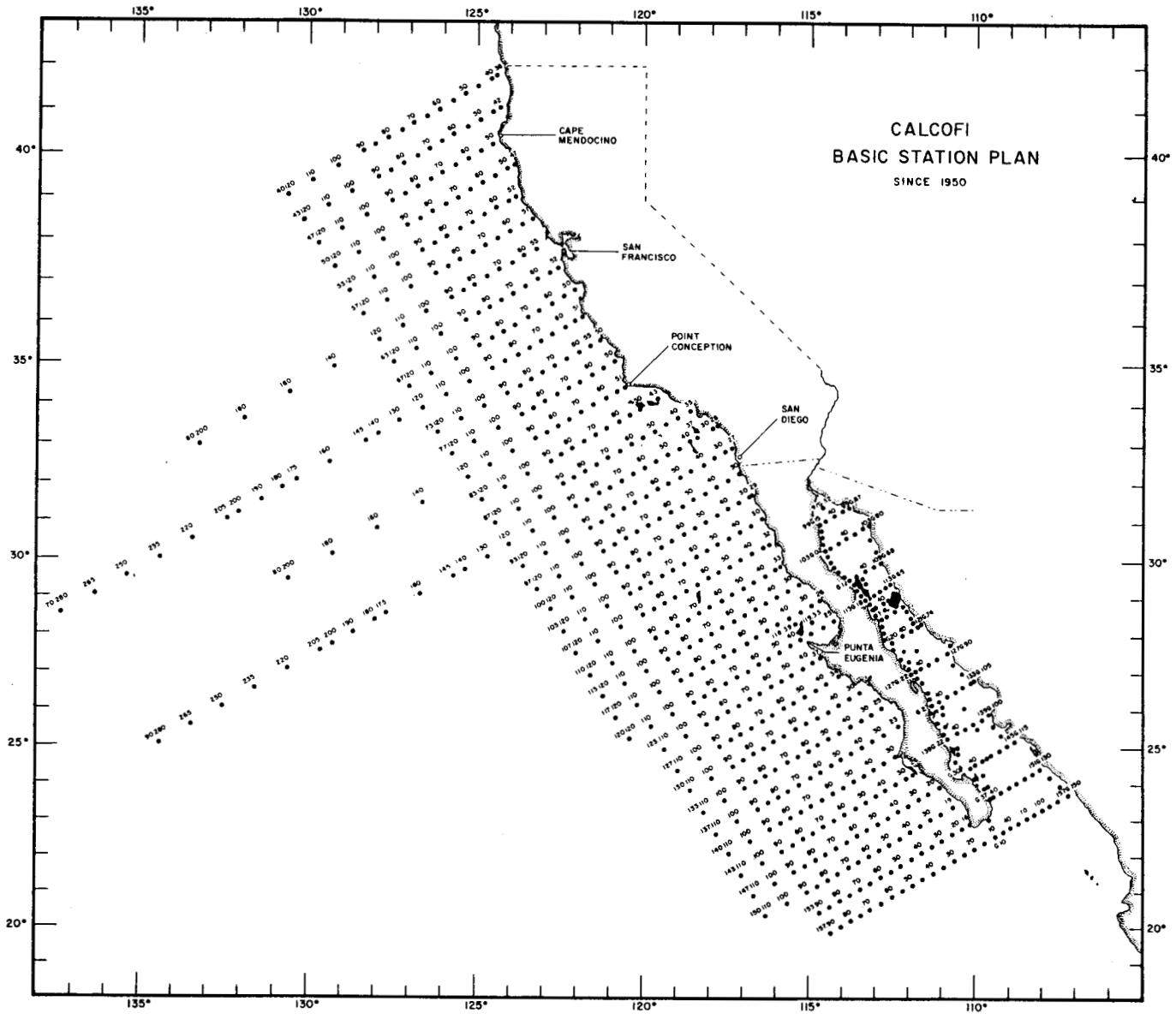

Figure 3. Basic station plan for CalCOFI Cruises.

TABLE 1. Station and plankton tow data for CalCOFI cruises in 1988. Counts for fish eggs and larvae are not adjusted for standard haul factor or percent of sample sorted. Plankton volume given as milliliters per 1000 cubic meters of water strained.

CalCOFI Cruise 8801

Line	Station	Latitude (N) deg.	min.	Longitude (W) deg.	min.	Ship Code	Tow Date yr.	mo.	day	Time (PST)	Tow Depth (m)	Volume Water Strained	Standard Haul Factor	Plankton Volume	Percent Sorted	Total Larvae	Total Eggs
76.7	49.0	35	05.3	120	46.6	JD	88	02	01	1435	57	124	4.65	57	100.0	41	27
76.7	51.0	35	01.3	120	55.1	JD	88	02	01	1230	211	425	4.97	40	100.0	203	37
76.7	55.0	34	53.3	121	12.0	JD	88	02	01	0906	215	418	5.13	60	100.0	617	51
76.7	60.0	34	43.3	121	33.0	JD	88	02	01	0509	215	402	5.36	124	50.0	961	99
76.7	70.0	34	23.3	122	14.7	JD	88	01	31	2349	209	437	4.78	41	100.0	70	39
76.7	80.0	34	03.3	122	56.6	JD	88	01	31	1825	214	420	5.11	50	100.0	45	13
76.7	90.0	33	43.3	123	38.0	JD	88	01	31	1313	214	441	4.84	14	100.0	20	30
80.0	51.0	34	27.0	120	31.4	JD	88	01	30	0717	70	144	4.89	285	51.2	100	53
80.0	55.0	34	19.1	120	48.1	JD	88	01	30	1018	212	426	4.99	61	50.0	2596	40
80.0	60.0	34	09.0	121	09.0	JD	88	01	30	1441	213	423	5.05	59	100.0	1089	81
80.0	70.0	33	49.2	121	50.6	JD	88	01	30	2035	214	436	4.91	76	51.5	143	54
80.0	80.0	33	29.0	122	32.0	JD	88	01	31	0231	212	472	4.49	25	100.0	65	6
80.0	90.0	33	09.1	123	13.3	JD	88	01	31	0729	214	441	4.85	18	100.0	12	12
81.8	46.9	34	16.9	120	02.3	JD	88	01	30	0359	214	396	5.42	63	100.0	463	130
83.3	40.6	34	13.5	119	24.7	JD	88	01	29	2314	28	63	4.41	16	100.0	50	3932
83.3	42.0	34	10.7	119	30.5	JD	88	01	29	2135	92	183	5.03	65	100.0	443	59
83.3	51.0	33	52.6	120	08.1	JD	88	01	29	1605	87	172	5.08	58	100.0	304	62
83.3	55.0	33	44.7	120	24.6	JD	88	01	29	1240	212	437	4.85	53	100.0	344	197
83.3	60.0	33	34.7	120	45.4	JD	88	01	29	0832	210	424	4.96	59	100.0	133	67
83.3	70.0	33	14.6	121	26.6	JD	88	01	29	0253	211	434	4.86	157	50.0	262	1492
83.3	80.0	32	54.6	122	07.7	JD	88	01	28	2135	210	430	4.88	58	100.0	2118	62
83.3	90.0	32	34.7	122	48.8	JD	88	01	28	1611	214	426	5.01	21	100.0	199	4
83.3	100.0	32	14.7	123	29.5	JD	88	01	28	0952	214	407	5.25	25	100.0	1201	12
83.3	110.0	31	54.8	124	10.4	JD	88	01	28	0436	212	401	5.27	27	100.0	62	14
86.7	33.0	33	53.4	118	29.4	JD	88	01	25	1820	50	101	4.91	39	100.0	216	1905
86.7	35.0	33	49.4	118	37.7	JD	88	01	25	2059	217	401	5.41	37	100.0	667	186
86.7	39.5	33	40.4	118	56.5	JD	88	01	26	0030	209	402	5.19	132	49.1	173	212
86.7	45.0	33	29.5	119	19.4	JD	88	01	26	0448	212	407	5.20	61	100.0	377	1070
86.7	50.0	33	19.4	119	39.8	JD	88	01	26	0800	70	136	5.15	59	100.0	258	19

Table 1. (cont.)

CalCOFI Cruise 8801

Line	Station	Latitude (N) deg.	min.	Longitude (W) deg.	min.	Ship Code	Tow Date yr.	mo.	day	Time (PST)	Tow Depth (m)	Volume Water Strained	Standard Haul Factor	Plankton Volume	Percent Sorted	Total Larvae	Total Eggs
86.7	55.0	33	09.4	120	00.2	JD	88	01	26	1508	210	416	5.06	60	100.0	243	324
86.7	60.0	32	59.4	120	20.9	JD	88	01	26	1849	213	402	5.30	62	100.0	230	342
86.7	70.0	32	39.4	121	02.0	JD	88	01	27	0018	210	425	4.95	42	100.0	53	14
86.7	80.0	32	19.4	121	42.9	JD	88	01	27	0548	211	425	4.95	64	100.0	232	80
86.7	90.0	31	59.4	122	23.6	JD	88	01	27	1123	209	446	4.68	58	100.0	288	16
86.7	100.0	31	39.4	123	04.2	JD	88	01	27	1727	210	426	4.93	16	100.0	52	31
86.7	110.0	31	19.4	123	44.5	JD	88	01	27	2304	208	449	4.64	54	100.0	206	45
90.0	28.0	33	29.0	117	46.1	JD	88	01	25	0853	156	303	5.14	23	100.0	458	594
90.0	30.0	33	25.1	117	54.5	JD	88	01	25	0635	209	402	5.20	47	100.0	123	2306
90.0	35.0	33	15.1	118	15.2	JD	88	01	25	0308	209	402	5.20	62	100.0	442	1565
90.0	37.0	33	11.1	118	23.2	JD	88	01	25	0041	208	419	4.98	67	100.0	436	913
90.0	45.0	32	55.1	118	55.9	JD	88	01	24	2008	209	420	4.97	59	100.0	309	457
90.0	53.0	32	39.3	119	28.6	JD	88	01	24	1540	212	417	5.08	57	100.0	359	1197
90.0	60.0	32	25.1	119	57.6	JD	88	01	24	1123	211	422	4.99	40	100.0	11	43
90.0	70.0	32	05.1	120	38.5	JD	88	01	24	0527	216	415	5.20	53	100.0	34	10
90.0	80.0	31	45.1	121	19.0	JD	88	01	23	2257	216	423	5.12	28	100.0	24	16
90.0	90.0	31	24.9	121	59.1	JD	88	01	23	1730	211	464	4.53	6	100.0	12	20
90.0	100.0	31	05.1	122	39.7	JD	88	01	23	1144	212	434	4.87	9	100.0	28	8
90.0	110.0	30	45.1	123	19.9	JD	88	01	23	0603	214	448	4.78	20	100.0	53	8
90.0	120.0	30	25.0	123	59.8	JD	88	01	23	0018	212	431	4.92	9	100.0	29	10
93.3	26.7	32	57.2	117	18.3	JD	88	01	19	1613	78	161	4.81	25	100.0	404	67
93.3	28.0	32	54.8	117	23.7	JD	88	01	19	1815	213	416	5.11	34	100.0	509	248
93.3	30.0	32	50.7	117	31.9	JD	88	01	19	2138	212	413	5.14	41	100.0	244	649
93.3	35.0	32	40.4	117	51.3	JD	88	01	20	0126	212	429	4.94	37	100.0	597	823
93.3	40.0	32	30.5	118	12.9	JD	88	01	20	0725	213	414	5.13	7	100.0	211	634
93.3	45.0	32	20.8	118	33.4	JD	88	01	20	1207	211	432	4.88	21	100.0	57	1213
93.3	50.0	32	10.7	118	53.8	JD	88	01	20	1610	209	408	5.11	17	100.0	173	559
93.3	55.0	32	00.7	119	14.0	JD	88	01	20	2015	210	402	5.22	35	100.0	28	11
93.3	60.0	31	50.9	119	34.4	JD	88	01	21	0026	209	422	4.96	55	100.0	18	12
93.3	70.0	31	30.9	120	14.9	JD	88	01	21	0634	216	410	5.27	37	100.0	30	11
93.3	80.0	31	10.8	120	55.1	JD	88	01	21	1335	208	437	4.77	7	100.0	7	50
93.3	90.0	30	50.9	121	35.4	JD	88	01	21	2359	203	458	4.43	9	100.0	32	19

Table 1. (cont.)

CalCOFI Cruise 8801

Line	Station	Latitude (N) deg.	min.	Longitude (W) deg.	min.	Ship Code	Tow Date yr.	mo.	day	Time (PST)	Tow Depth (m)	Volume Water Strained	Standard Haul Factor	Plankton Volume	Percent Sorted	Total Larvae	Total Eggs
93.3	100.0	30	30.9	122	15.5	JD	88	01	22	0533	208	439	4.74	14	100.0	40	13
93.3	110.0	30	10.8	122	55.4	JD	88	01	22	1245	214	446	4.79	2	100.0	25	11
93.3	120.0	29	50.9	123	35.2	JD	88	01	22	1828	210	432	4.85	5	100.0	38	6

Table 1. (cont.)

CalCOFI Cruise 8805

Line	Station	Latitude (N) deg.	min.	Longitude (W) deg.	min.	Ship Code	Tow Date yr.	mo.	day	Time (PST)	Tow Depth (m)	Volume Water Strained	Standard Haul Factor	Plankton Volume	Percent Sorted	Total Larvae	Total Eggs
76.7	49.0	35	05.0	120	46.9	JD	88	05	11	1445	77	157	4.92	146	100.0	23	35
76.7	51.0	35	01.2	120	55.2	JD	88	05	11	1246	211	380	5.55	124	51.1	16	10
76.7	55.0	34	53.1	121	11.9	JD	88	05	11	0938	219	371	5.89	127	48.9	20	400
76.7	60.0	34	43.3	121	32.9	JD	88	05	11	0603	214	378	5.65	143	50.0	14	321
76.7	70.0	34	23.2	122	14.8	JD	88	05	11	0029	212	390	5.42	182	49.3	13	12
80.0	51.0	34	27.0	120	31.4	JD	88	05	10	0657	70	134	5.24	358	100.0	2	0
80.0	55.0	34	19.1	120	48.0	JD	88	05	10	0945	218	401	5.43	334	50.7	1	1
80.0	60.0	34	08.6	121	09.2	JD	88	05	10	1326	214	395	5.42	207	51.2	14	23
80.0	70.0	33	49.1	121	50.5	JD	88	05	10	1847	209	405	5.17	114	50.0	10	74
81.8	46.9	34	16.5	120	01.2	JD	88	05	10	0308	206	399	5.17	321	50.0	12	27
83.3	40.6	34	13.5	119	24.7	JD	88	05	09	2229	29	66	4.38	1939	48.8	7	9
83.3	42.0	34	10.7	119	30.6	JD	88	05	09	2037	97	186	5.22	442	48.8	24	11
83.3	51.0	33	52.8	120	08.2	JD	88	05	09	1411	105	203	5.17	79	100.0	14	190
83.3	55.0	33	44.6	120	24.7	JD	88	05	09	1117	212	394	5.38	137	48.1	11	20
83.3	60.0	33	34.7	120	45.4	JD	88	05	09	0715	213	394	5.41	147	48.3	11	47
83.3	70.0	33	14.6	121	26.4	JD	88	05	09	0138	207	406	5.11	207	48.8	19	160
83.3	80.0	32	54.7	122	07.7	JD	88	05	08	2010	212	416	5.09	221	51.1	37	17
83.3	90.0	32	34.5	122	48.8	JD	88	05	08	1431	208	411	5.07	268	100.0	28	21
86.7	33.0	33	53.4	118	29.4	JD	88	05	06	0936	50	108	4.66	222	100.0	9	179
86.7	35.0	33	49.4	118	37.7	JD	88	05	06	1242	210	388	5.41	131	49.0	9	140
86.7	39.5	33	40.4	118	56.3	JD	88	05	06	1817	216	406	5.32	143	48.3	11	5
86.7	45.0	33	29.4	119	19.1	JD	88	05	06	2326	213	402	5.29	114	47.8	88	6
86.7	50.0	33	19.3	119	39.4	JD	88	05	07	0255	70	143	4.94	203	100.0	159	11
86.7	55.0	33	09.4	120	00.4	JD	88	05	07	0628	213	394	5.41	61	100.0	26	53
86.7	60.0	32	59.2	120	20.9	JD	88	05	07	1513	210	399	5.26	45	100.0	29	929
86.7	70.0	32	39.4	121	02.0	JD	88	05	07	2113	211	410	5.15	88	50.0	44	63
86.7	80.0	32	19.8	121	43.0	JD	88	05	08	0237	209	408	5.11	120	49.0	18	20
86.7	90.0	31	59.4	122	23.7	JD	88	05	08	0817	210	426	4.94	129	100.0	14	198
90.0	28.0	33	29.1	117	46.1	JD	88	05	05	1133	68	156	4.38	275	48.8	9	20
90.0	30.0	33	25.1	117	54.3	JD	88	05	05	0900	206	461	4.47	96	50.0	49	75
90.0	35.0	33	15.1	118	16.0	JD	88	05	05	0323	207	420	4.93	224	50.0	66	44
90.0	37.0	33	11.1	118	23.2	JD	88	05	05	0048	213	387	5.49	188	49.3	133	20

Table 1. (cont.)

CalCOFI Cruise 8805

Line	Station	Latitude (N) deg.	min.	Longitude (W) deg.	min.	Ship Code	Tow Date yr.	mo.	day	Time (PST)	Tow Depth (m)	Volume Water Strained	Standard Haul Factor	Plankton Volume	Percent Sorted	Total Larvae	Total Eggs
90.0	45.0	32	55.0	118	56.2	JD	88	05	04	1936	203	453	4.47	119	50.0	58	12
90.0	53.0	32	39.1	119	29.1	JD	88	05	04	1345	212	410	5.17	29	100.0	14	8
90.0	60.0	32	25.1	119	57.6	JD	88	05	04	0708	218	413	5.27	29	100.0	11	59
90.0	70.0	32	05.0	120	38.4	JD	88	05	03	2228	215	429	5.03	40	100.0	21	76
90.0	80.0	31	45.0	121	18.7	JD	88	05	03	1605	215	429	5.02	23	100.0	6	24
90.0	90.0	31	24.9	121	59.5	JD	88	05	03	0934	207	426	4.86	5	100.0	9	66
90.0	100.0	31	05.2	122	39.0	JD	88	05	03	0314	211	418	5.06	43	100.0	10	40
93.3	26.7	32	57.3	117	18.4	JD	88	04	28	1455	110	244	4.51	304	50.0	163	1
93.3	28.0	32	54.6	117	23.8	JD	88	04	28	1700	213	417	5.11	84	51.4	71	9
93.3	30.0	32	50.8	117	31.9	JD	88	04	28	1935	211	415	5.08	41	100.0	377	546
93.3	35.0	32	40.7	117	52.1	JD	88	04	28	2346	207	407	5.08	42	100.0	121	36
93.3	40.0	32	31.0	118	12.6	JD	88	04	29	0304	209	393	5.30	51	100.0	210	499
93.3	45.0	32	20.8	118	33.2	JD	88	04	29	0638	215	390	5.53	64	100.0	51	53
93.3	50.0	32	10.9	118	53.6	JD	88	04	29	1016	211	390	5.41	82	100.0	124	1736
93.3	55.0	32	00.5	119	14.2	JD	88	04	29	1427	196	508	3.87	14	100.0	14	45
93.3	60.0	31	50.9	119	34.3	JD	88	04	29	1816	217	412	5.26	49	100.0	34	203
93.3	70.0	31	30.9	120	14.7	JD	88	04	30	0129	218	412	5.28	36	100.0	49	34
93.3	80.0	31	10.7	120	55.1	JD	88	05	02	0750	216	457	4.72	20	100.0	19	28
93.3	90.0	30	51.5	121	35.3	JD	88	05	02	1410	212	440	4.82	14	100.0	5	22
93.3	100.0	30	30.8	122	15.5	JD	88	05	02	2016	214	440	4.87	14	100.0	39	75

Table 1. (cont.)

CalCOFI Cruise 8808

Line	Station	Latitude (N) deg.	min.	Longitude (W) deg.	min.	Ship Code	Tow Date yr.	mo.	day	Time (PST)	Tow Depth (m)	Volume Water Strained	Standard Haul Factor	Plankton Volume	Percent Sorted	Total Larvae	Total Eggs
76.7	49.0	35	05.3	120	46.7	NH	88	08	23	1425	72	154	4.68	136	100.0	1	117
76.7	51.0	35	01.4	120	55.1	NH	88	08	23	1216	211	405	5.22	207	47.6	4	1
76.7	55.0	34	53.3	121	11.8	NH	88	08	23	0839	215	398	5.39	183	50.7	2	0
76.7	60.0	34	43.3	121	33.0	NH	88	08	23	0440	213	401	5.31	381	49.0	13	13
76.7	70.0	34	23.3	122	14.7	NH	88	08	22	2305	214	429	5.00	121	50.0	3	37
76.7	80.0	34	03.3	122	56.5	NH	88	08	22	1745	214	422	5.07	213	51.1	1	8
76.7	90.0	33	43.4	123	37.9	NH	88	08	22	1230	210	437	4.80	57	100.0	3	10
76.7	100.0	33	23.3	124	19.4	NH	88	08	22	0621	211	431	4.90	250	50.0	4	29
80.0	51.0	34	27.0	120	31.4	NH	88	08	20	1842	68	144	4.69	173	100.0	50	199
80.0	55.0	34	19.0	120	48.2	NH	88	08	20	2140	213	404	5.26	208	50.0	6	3
80.0	60.0	34	09.0	121	09.0	NH	88	08	21	0130	210	417	5.05	235	51.0	7	24
80.0	70.0	33	49.0	121	50.6	NH	88	08	21	0712	209	409	5.10	10787	25.1	0	6
80.0	80.0	33	29.0	122	32.0	NH	88	08	21	1313	209	432	4.85	808	24.1	0	3
80.0	90.0	33	09.0	123	13.3	NH	88	08	21	1910	210	421	4.97	62	100.0	11	21
80.0	100.0	32	49.0	123	54.2	NH	88	08	22	0041	211	423	4.99	40	100.0	90	65
81.8	46.9	34	17.0	120	01.9	NH	88	08	20	1514	216	411	5.26	136	48.2	63	21
83.3	40.6	34	13.4	119	25.0	NH	88	08	20	0952	27	64	4.18	219	100.0	66	3029
83.3	42.0	34	10.7	119	30.5	NH	88	08	20	0804	112	221	5.07	118	100.0	186	932
83.3	51.0	33	52.7	120	08.1	NH	88	08	20	0240	87	172	5.08	128	100.0	121	235
83.3	55.0	33	44.7	120	24.7	NH	88	08	19	2323	207	438	4.73	290	51.2	61	16
83.3	60.0	33	34.7	120	45.3	NH	88	08	19	1855	222	425	5.22	97	48.8	27	16
83.3	70.0	33	14.7	121	26.6	NH	88	08	19	1243	212	441	4.82	234	51.5	2	9
83.3	80.0	32	54.6	122	07.7	NH	88	08	19	0606	216	440	4.91	45	100.0	2	10
83.3	90.0	32	34.8	122	48.8	NH	88	08	18	2250	216	493	4.39	57	100.0	7	2
83.3	100.0	32	13.6	123	31.0	NH	88	08	18	1330	215	455	4.72	4	100.0	2	16
83.3	110.0	31	54.7	124	10.2	NH	88	08	18	0658	226	424	5.33	5	100.0	0	243
86.7	33.0	33	53.5	118	29.4	NH	88	08	15	1245	50	99	5.04	203	100.0	96	315
86.7	35.0	33	49.4	118	37.7	NH	88	08	15	1552	213	393	5.41	199	50.0	19	42
86.7	39.5	33	40.4	118	56.5	NH	88	08	15	2140	202	413	4.89	152	49.2	67	8
86.7	45.0	33	29.4	119	19.1	NH	88	08	16	0224	226	286	7.88	203	51.7	11	4
86.7	50.0	33	19.4	119	39.7	NH	88	08	16	0624	69	144	4.79	97	100.0	29	17
86.7	55.0	33	09.4	120	00.5	NH	88	08	16	1104	211	433	4.88	60	100.0	34	3
86.7	60.0	32	59.4	120	21.0	NH	88	08	16	1625	212	426	4.99	49	100.0	17	4

Table 1. (cont.)

CalCOFI Cruise 8808

Line	Station	Latitude (N) deg.	min.	Longitude (W) deg.	min.	Ship Code	Tow Date yr.	mo.	day	Time (PST)	Tow Depth (m)	Volume Water Strained	Standard Haul Factor	Plankton Volume	Percent Sorted	Total Larvae	Total Eggs
86.7	70.0	32	39.4	121	02.1	NH	88	08	16	2330	215	450	4.77	44	100.0	3	24
86.7	80.0	32	19.5	121	42.9	NH	88	08	17	0557	215	430	5.01	23	100.0	2	30
86.7	90.0	31	59.5	122	23.5	NH	88	08	17	1210	220	455	4.84	7	100.0	9	113
86.7	100.0	31	39.3	123	04.1	NH	88	08	17	1823	214	452	4.74	24	100.0	4	101
86.7	110.0	31	19.3	123	44.3	NH	88	08	18	0023	218	442	4.94	16	100.0	1	81
90.0	28.0	33	29.1	117	46.1	NH	88	08	15	0501	35	73	4.82	205	100.0	33	63
90.0	30.0	33	25.1	117	54.3	NH	88	08	15	0246	208	370	5.64	146	51.9	78	43
90.0	35.0	33	15.1	118	15.0	NH	88	08	14	2030	209	398	5.26	126	48.0	9	23
90.0	37.0	33	31.0	118	23.2	NH	88	08	14	1740	216	411	5.26	22	100.0	4	1
90.0	45.0	32	55.1	118	56.1	NH	88	08	14	1200	213	424	5.03	33	100.0	10	4
90.0	53.0	32	39.1	119	28.9	NH	88	08	14	0518	215	445	4.83	63	50.0	12	6
90.0	60.0	32	25.0	119	57.7	NH	88	08	13	2352	212	431	4.91	65	46.4	11	9
90.0	70.0	32	05.0	120	38.3	NH	88	08	13	1739	217	414	5.24	39	100.0	7	3
90.0	80.0	31	44.9	121	19.0	NH	88	08	13	1054	218	396	5.51	20	100.0	10	113
90.0	90.0	31	25.2	121	59.3	NH	88	08	13	0520	209	440	4.76	5	100.0	83	100
90.0	100.0	31	05.3	122	40.2	NH	88	08	12	2325	207	438	4.73	14	100.0	107	159
90.0	110.0	30	45.0	123	19.9	NH	88	08	12	1757	210	430	4.88	12	100.0	83	215
90.0	120.0	30	25.1	123	59.9	NH	88	08	12	1215	223	439	5.09	7	100.0	146	75
93.3	26.7	32	57.4	117	18.3	NH	88	08	09	1227	50	113	4.43	35	100.0	8	126
93.3	28.0	32	54.8	117	23.6	NH	88	08	09	1505	212	418	5.08	57	100.0	5	8
93.3	30.0	32	50.8	117	31.9	NH	88	08	09	1818	211	393	5.36	33	100.0	63	10
93.3	35.0	32	40.8	117	52.5	NH	88	08	09	2208	206	405	5.09	76	48.4	4	2
93.3	40.0	32	30.8	118	12.7	NH	88	08	10	0216	214	405	5.28	136	50.9	3	32
93.3	45.0	32	20.9	118	33.2	NH	88	08	10	0608	208	395	5.26	61	100.0	4	8
93.3	50.0	32	10.9	118	53.7	NH	88	08	10	1140	217	405	5.37	47	100.0	17	15
93.3	55.0	32	00.8	119	13.9	NH	88	08	10	1530	209	406	5.14	274	51.4	1	1
93.3	60.0	31	50.8	119	34.2	NH	88	08	10	2000	206	428	4.82	54	100.0	8	39
93.3	70.0	31	30.8	120	14.8	NH	88	08	11	0207	211	422	5.01	88	51.4	4	52
93.3	80.0	31	10.7	120	55.1	NH	88	08	11	0756	212	425	4.99	35	100.0	5	130
93.3	90.0	30	51.5	121	33.6	NH	88	08	11	1310	215	420	5.12	2	100.0	181	467
93.3	100.0	30	30.8	122	15.5	NH	88	08	11	1900	210	439	4.79	23	100.0	129	1800
93.3	110.0	30	10.9	122	55.4	NH	88	08	12	0043	212	443	4.78	23	100.0	416	175
93.3	120.0	29	50.8	123	35.2	NH	88	08	12	0629	210	433	4.86	30	100.0	232	120

Table 1. (cont.)

CalCOFI Cruise 8810

Line	Station	Latitude (N) deg.	min.	Longitude (W) deg.	min.	Ship Code	Tow Date yr.	mo.	day	Time (PST)	Tow Depth (m)	Volume Water Strained	Standard Haul Factor	Plankton Volume	Percent Sorted	Total Larvae	Total Eggs
76.7	49.0	35	05.3	120	46.6	NH	88	10	25	1245	54	124	4.35	32	100.0	42	52
76.7	51.0	35	01.3	120	55.2	NH	88	10	25	0954	208	439	4.74	157	50.7	23	13
76.7	55.0	34	53.3	121	12.0	NH	88	10	25	0645	214	417	5.14	101	47.6	13	19
76.7	60.0	34	43.1	121	33.3	NH	88	10	25	0045	205	440	4.65	80	48.6	5	5
76.7	70.0	34	23.3	122	14.8	NH	88	10	24	2025	211	425	4.96	33	100.0	11	2
76.7	80.0	34	03.3	122	56.6	NH	88	10	24	1452	214	453	4.72	29	100.0	4	5
76.7	90.0	33	43.2	123	38.0	NH	88	10	24	0830	210	431	4.87	28	100.0	7	11
76.7	100.0	33	23.5	124	19.3	NH	88	10	24	0251	218	439	4.97	18	100.0	40	6
80.0	51.0	34	27.0	120	31.6	NH	88	10	25	1755	64	145	4.39	55	100.0	28	56
80.0	55.0	34	19.0	120	48.1	NH	88	10	25	2100	209	433	4.82	162	51.4	46	24
80.0	60.0	34	09.1	121	09.0	NH	88	10	22	1855	212	427	4.97	405	49.1	1	2
80.0	70.0	33	49.1	121	50.6	NH	88	10	23	0044	216	451	4.79	38	100.0	5	2
80.0	80.0	33	29.0	122	32.0	NH	88	10	23	0558	216	431	5.01	37	100.0	5	5
80.0	90.0	33	08.9	123	13.3	NH	88	10	23	1150	225	447	5.03	31	100.0	8	10
80.0	100.0	32	49.0	123	54.5	NH	88	10	23	2120	212	445	4.77	25	100.0	32	1
81.8	46.9	34	17.1	120	01.8	NH	88	10	22	1206	212	411	5.14	66	100.0	111	96
83.3	40.6	34	13.5	119	24.8	NH	88	10	22	0720	35	77	4.60	26	100.0	41	161
83.3	42.0	34	10.7	119	30.5	NH	88	10	22	0530	149	255	5.84	35	100.0	70	274
83.3	51.0	33	52.5	120	08.4	NH	88	10	21	2300	82	182	4.49	5	100.0	10	90
83.3	55.0	33	44.9	120	24.6	NH	88	10	21	2000	210	410	5.13	110	51.1	29	5
83.3	60.0	33	34.5	120	45.3	NH	88	10	21	1555	212	413	5.12	143	49.2	10	12
83.3	70.0	33	14.7	121	26.6	NH	88	10	21	0910	210	426	4.93	42	100.0	36	4
83.3	80.0	32	54.6	122	07.7	NH	88	10	21	0333	212	424	5.00	61	100.0	6	1
83.3	90.0	32	34.5	122	48.8	NH	88	10	20	2120	211	444	4.74	36	100.0	23	7
83.3	100.0	32	14.9	123	29.3	NH	88	10	20	1522	226	449	5.03	11	100.0	17	7
83.3	110.0	31	54.6	124	10.2	NH	88	10	20	0827	213	429	4.96	5	100.0	15	6
86.7	33.0	33	53.4	118	29.4	NH	88	10	17	1640	48	105	4.61	38	100.0	17	190
86.7	35.0	33	49.8	118	37.6	NH	88	10	17	2008	213	416	5.11	48	100.0	80	22
86.7	39.5	33	40.5	118	56.4	NH	88	10	18	0218	214	413	5.19	303	48.8	4	6
86.7	45.0	33	29.5	119	19.1	NH	88	10	18	0706	211	402	5.25	27	100.0	15	5
86.7	50.0	33	19.5	119	39.8	NH	88	10	18	1028	55	129	4.30	109	100.0	53	21
86.7	55.0	33	09.6	120	00.3	NH	88	10	18	1630	209	427	4.89	260	50.5	86	4
86.7	60.0	32	59.4	120	21.0	NH	88	10	18	2020	209	435	4.80	80	51.4	17	1

Table 1. (cont.)

CalCOFI Cruise 8810

Line	Station	Latitude (N) deg.	min.	Longitude (W) deg.	min.	Ship Code	Tow Date yr.	mo.	day	Time (PST)	Tow Depth (m)	Volume Water Strained	Standard Haul Factor	Plankton Volume	Percent Sorted	Total Larvae	Total Eggs
86.7	70.0	32	39.5	121	01.9	NH	88	10	19	0203	209	442	4.74	41	100.0	14	4
86.7	80.0	32	19.4	121	42.9	NH	88	10	19	0728	212	426	4.99	33	100.0	0	0
86.7	90.0	31	59.4	122	23.5	NH	88	10	19	1400	211	437	4.84	16	100.0	22	9
86.7	100.0	31	39.4	123	04.2	NH	88	10	19	1940	214	484	4.42	19	100.0	18	3
86.7	110.0	31	19.6	123	44.7	NH	88	10	20	0154	212	459	4.61	15	100.0	72	21
90.0	28.0	33	29.1	117	46.1	NH	88	10	17	0756	50	118	4.24	34	100.0	15	169
90.0	30.0	33	25.1	117	54.3	NH	88	10	17	0547	217	405	5.35	42	100.0	19	2
90.0	35.0	33	15.1	118	15.1	NH	88	10	17	0040	207	413	5.02	34	100.0	111	15
90.0	37.0	33	11.0	118	23.3	NH	88	10	16	2140	214	426	5.02	26	100.0	52	14
90.0	45.0	32	55.1	118	56.1	NH	88	10	16	1635	213	408	5.23	64	100.0	21	12
90.0	53.0	32	39.2	119	28.9	NH	88	10	16	0832	206	441	4.67	5	100.0	19	0
90.0	60.0	32	25.3	119	57.6	NH	88	10	16	0424	214	433	4.94	35	100.0	12	3
90.0	70.0	32	05.0	120	38.3	NH	88	10	15	2215	212	457	4.64	72	51.5	9	0
90.0	80.0	31	44.9	121	18.9	NH	88	10	15	1620	216	439	4.92	9	100.0	12	21
90.0	90.0	31	25.0	121	59.4	NH	88	10	15	1008	211	440	4.79	2	100.0	74	17
90.0	100.0	31	05.1	122	39.7	NH	88	10	15	0340	217	439	4.94	7	100.0	166	7
90.0	110.0	30	45.1	123	20.0	NH	88	10	14	2225	218	461	4.74	11	100.0	374	20
90.0	120.0	30	25.0	123	59.9	NH	88	10	14	1630	214	458	4.67	2	100.0	111	30
93.3	26.7	32	57.4	117	18.4	NH	88	10	11	1147	55	145	3.81	110	100.0	56	25
93.3	28.0	32	54.8	117	23.7	NH	88	10	11	1423	209	435	4.81	28	100.0	16	6
93.3	30.0	32	50.8	117	31.9	NH	88	10	11	1740	216	414	5.22	63	100.0	33	4
93.3	35.0	32	40.8	117	52.4	NH	88	10	11	2140	224	442	5.06	95	47.6	2	0
93.3	40.0	32	30.7	118	12.8	NH	88	10	12	0148	204	444	4.58	101	51.1	7	0
93.3	45.0	32	20.8	118	33.2	NH	88	10	12	0516	215	403	5.35	52	100.0	3	49
93.3	50.0	32	10.8	118	53.5	NH	88	10	12	0946	211	423	4.98	12	100.0	7	77
93.3	55.0	32	00.8	119	14.0	NH	88	10	12	1428	217	415	5.23	7	100.0	1	2
93.3	60.0	31	50.8	119	34.3	NH	88	10	12	1825	216	415	5.22	31	100.0	42	5
93.3	70.0	31	30.8	120	14.8	NH	88	10	13	0024	210	442	4.76	183	48.1	7	2
93.3	80.0	31	10.8	120	55.2	NH	88	10	13	0519	210	408	5.14	32	100.0	1	3
93.3	90.0	30	50.7	121	35.4	NH	88	10	13	1215	218	410	5.31	34	100.0	50	16
93.3	100.0	30	30.8	122	15.4	NH	88	10	13	1740	214	437	4.89	9	100.0	228	14
93.3	110.0	30	10.7	122	55.4	NH	88	10	13	2325	211	433	4.86	12	100.0	932	16
93.3	120.0	29	50.9	123	35.1	NH	88	10	14	0441	213	433	4.91	7	100.0	281	153

TABLE 2. Pooled occurrences of fish larvae taken on CalCOFI cruises in 1988.

Rank	Taxon	Occurrences
1	*Engraulis mordax*	120
2	*Protomyctophum crockeri*	96
3	*Sebastes* spp.	90
4	*Stenobrachius leucopsarus*	89
5	*Leuroglossus stilbius*	82
6	*Bathylagus ochotensis*	78
6	*Diogenichthys atlanticus*	78
8	*Citharichthys sordidus*	74
8	*Citharichthys stigmaeus*	74
10	*Merluccius productus*	71
11	*Lampanyctus ritteri*	58
12	*Cyclothone signata*	54
13	*Bathylagus wesethi*	44
14	*Vinciguerria lucetia*	43
14	*Symbolophorus californiensis*	43
16	*Lampanyctus* spp.	35
17	*Argyropelecus sladeni*	34
17	*Sardinops sagax*	34
17	*Ceratoscopelus townsendi*	34
20	*Danaphos oculatus*	31
20	*Lestidiops ringens*	31
22	*Sebastes jordani*	30
23	*Triphoturus mexicanus*	28
24	*Argentina sialis*	27
24	Disintegrated fish larvae	27
26	*Vinciguerria poweriae*	26
26	*Chauliodus macouni*	26
28	*Melamphaes lugubris*	25
28	*Scomber japonicus*	25
30	Myctophidae	21
30	*Sebastes paucispinis*	21
32	*Idiacanthus antrostomus*	19
33	*Sternoptyx* spp.	17
33	*Citharichthys* spp.	17
35	Unidentified fish larvae	16
36	*Tetragonurus cuvieri*	15
36	*Oxyjulis californica*	15
36	*Coryphopterus nicholsii*	15
36	*Diaphus* spp.	15
36	*Sebastes diploproa*	15
41	*Genyonemus lineatus*	14
41	*Trachurus symmetricus*	14
41	*Paralabrax* spp.	14
44	*Argyropelecus affinis*	12
44	*Microstoma* spp.	12
44	*Tarletonbeania crenularis*	12
47	*Melamphaes parvus*	11
48	*Notoscopelus resplendens*	9
49	*Bathylagus pacificus*	8
49	*Sebastes aurora*	8

TABLE 2. (cont.)

Rank	Taxon	Occurrences
49	*Cyclothone* spp.	8
52	*Benthalbella dentata*	7
53	*Argyropelecus hemigymnus*	6
53	*Icichthys lockingtoni*	6
53	*Hypsoblennius jenkinsi*	6
53	*Electrona risso*	6
53	*Pleuronichthys verticalis*	6
53	*Stomias atriventer*	6
59	*Notolychnus valdiviae*	5
59	*Lepidogobius lepidus*	5
59	*Nansenia candida*	5
59	*Chiasmodon niger*	5
63	*Trachipterus altivelis*	4
63	*Microstomus pacificus*	4
63	*Parvilux ingens*	4
63	*Paralichthys californicus*	4
63	*Hygophum reinhardtii*	4
63	*Myctophum nitidulum*	4
63	*Cyclothone pseudopallida*	4
63	*Argyropelecus lychnus*	4
63	*Howella* spp.	4
63	*Cololabis saira*	4
63	*Parophrys vetulus*	4
63	*Bathophilus flemingi*	4
63	*Melamphaes* spp.	4
63	*Cyclothone acclinidens*	4
63	*Aristostomias scintillans*	4
78	*Lampanyctus regalis*	3
78	*Rathbunella* spp.	3
78	*Lyopsetta exilis*	3
78	*Xystreurys liolepis*	3
78	*Lampadena urophaos*	3
78	Paralepididae	3
78	*Hippoglossina stomata*	3
78	*Lythrypnus dalli*	3
78	*Sebastolobus altivelis*	3
78	*Zaniolepis latipinnis*	3
78	*Peprilus simillimus*	3
78	*Scorpaenichthys marmoratus*	3
90	*Pleuronichthys coenosus*	2
90	*Symphurus atricaudus*	2
90	*Scopelarchus guentheri*	2
90	*Scopelarchus analis*	2
90	*Lampanyctus* "niger"	2
90	*Diogenichthys laternatus*	2
90	*Valenciennellus tripunctulatus*	2
90	*Semicossyphus pulcher*	2
90	*Poromitra crassiceps*	2
90	*Scopelogadus bispinosus*	2
90	*Cataetyx rubrirostris*	2
90	*Argyropelecus* spp.	2

TABLE 2. (cont.)

Rank	Taxon	Occurrences
90	*Anisotremus davidsoni*	2
90	*Chromis punctipinnis*	2
90	*Sphyraena argentea*	2
105	*Tactostoma macropus*	1
105	*Gonostoma atlanticum*	1
105	*Bathylagus milleri*	1
105	*Medialuna californiensis*	1
105	*Oneirodes* spp.	1
105	*Artedius creaseri*	1
105	*Caulolatilus princeps*	1
105	*Brama japonica*	1
105	Sciaenidae	1
105	*Sebastolobus alascanus*	1
105	*Seriphus politus*	1
105	*Sebastolobus* spp.	1
105	*Neoclinus* spp.	1
105	*Neoclinus stephensae*	1
105	*Typhlogobius californiensis*	1
105	*Diplospinus multistriatus*	1
105	*Citharichthys xanthostigma*	1
105	*Glyptocephalus zachirus*	1
105	*Menticirrhus undulatus*	1
105	*Brosmophycis marginata*	1
105	*Rosenblattichthys volucris*	1
105	*Scopelosaurus harryi*	1
105	*Synodus lucioceps*	1
105	*Arctozenus risso*	1
105	*Nezumia* spp.	1
105	Cottidae	1
105	*Ophidion scrippsae*	1
105	Scopelarchidae	1
105	*Atherinopsis californiensis*	1
105	*Leuresthes tenuis*	1
105	*Melamphaes simus*	1
105	*Poromitra* spp.	1
105	*Scopeloberyx robustus*	1
105	*Macroramphosus gracilis*	1
105	*Chilara taylori*	1
	Total	2039

TABLE 3. Pooled counts of fish larvae taken on CalCOFI cruises in 1988. Counts are adjusted for percent of sample sorted and standard haul factor (see text).

Rank	Taxon	Count
1	*Merluccius productus*	67544
2	*Engraulis mordax*	39890
3	*Vinciguerria lucetia*	12710
4	*Leuroglossus stilbius*	8146
5	*Sebastes* spp.	7107
6	*Stenobrachius leucopsarus*	3994
7	*Bathylagus ochotensis*	3766
8	*Vinciguerria poweriae*	3570
9	*Sebastes jordani*	3123
10	*Citharichthys sordidus*	2129
11	*Citharichthys stigmaeus*	2096
12	*Sardinops sagax*	1705
13	*Diogenichthys atlanticus*	1262
14	*Scomber japonicus*	1145
15	*Cyclothone signata*	1056
16	*Protomyctophum crockeri*	1014
17	*Ceratoscopelus townsendi*	899
18	*Bathylagus wesethi*	747
19	*Lampanyctus ritteri*	731
20	*Triphoturus mexicanus*	414
21	*Symbolophorus californiensis*	409
22	*Genyonemus lineatus*	379
23	*Trachurus symmetricus*	353
24	*Argentina sialis*	327
25	*Lestidiops ringens*	277
26	*Argyropelecus sladeni*	262
27	*Lampanyctus* spp.	257
28	Disintegrated fish larvae	223
29	*Paralabrax* spp.	221
30	*Chauliodus macouni*	207
31	*Citharichthys* spp.	201
32	*Sebastes paucispinis*	193
33	*Danaphos oculatus*	192
34	Myctophidae	183
35	*Melamphaes lugubris*	182
36	*Sebastes diploproa*	174
37	*Coryphopterus nicholsii*	161
38	*Idiacanthus antrostomus*	157
39	*Oxyjulis californica*	148
40	*Diaphus* spp.	131
41	Unidentified fish larvae	123
42	*Sternoptyx* spp.	106
43	*Tetragonurus cuvieri*	104
44	*Tarletonbeania crenularis*	99
45	*Argyropelecus affinis*	96
46	*Pleuronichthys verticalis*	88
47	*Melamphaes parvus*	81
48	*Microstoma* spp.	79
49	*Sebastes aurora*	76

TABLE 3. (cont.)

Rank	Taxon	Count
50	*Benthalbella dentata*	68
50	*Cyclothone* spp.	68
52	*Icichthys lockingtoni*	64
53	*Bathylagus pacificus*	62
54	*Notoscopelus resplendens*	55
55	*Microstomus pacificus*	53
56	*Nansenia candida*	40
56	*Cyclothone pseudopallida*	40
56	*Cololabis saira*	40
56	*Zaniolepis latipinnis*	40
60	*Hypsoblennius jenkinsi*	35
60	*Argyropelecus hemigymnus*	35
60	*Cyclothone acclinidens*	35
63	*Hygophum reinhardtii*	34
63	*Notolychnus valdiviae*	34
65	*Electrona risso*	30
65	*Stomias atriventer*	30
67	*Chiasmodon niger*	29
68	*Rathbunella* spp.	28
69	*Lampanyctus regalis*	27
69	*Lyopsetta exilis*	27
71	Paralepididae	25
71	*Trachipterus altivelis*	25
71	*Aristostomias scintillans*	25
71	*Parophrys vetulus*	25
71	*Myctophum nitidulum*	25
71	*Lepidogobius lepidus*	25
71	*Lampadena urophaos*	25
71	*Scorpaenichthys marmoratus*	25
79	*Sebastolobus altivelis*	24
79	*Peprilus simillimus*	24
81	*Xystreurys liolepis*	23
82	*Hippoglossina stomata*	20
82	*Howella* spp.	20
82	*Melamphaes* spp.	20
82	*Bathophilus flemingi*	20
82	*Argyropelecus lychnus*	20
82	*Parvilux ingens*	20
82	*Symphurus atricaudus*	20
89	*Lythrypnus dalli*	19
90	*Paralichthys californicus*	18
91	*Cataetyx rubrirostris*	16
92	*Sphyraena argentea*	15
92	*Pleuronichthys coenosus*	15
94	*Valenciennellus tripunctulatus*	14
94	*Semicossyphus pulcher*	14
96	*Medialuna californiensis*	11
96	*Glyptocephalus zachirus*	11
98	*Diogenichthys laternatus*	10
98	*Brosmophycis marginata*	10
98	*Scopelarchus guentheri*	10

TABLE 3. (cont.)

Rank	Taxon	Count
98	*Scopelarchus analis*	10
98	*Lampanyctus* "niger"	10
98	*Scopelogadus bispinosus*	10
98	*Poromitra crassiceps*	10
98	*Argyropelecus* spp.	10
106	*Chilara taylori*	9
106	*Neoclinus* spp.	9
106	*Chromis punctipinnis*	9
106	*Synodus lucioceps*	9
106	*Leuresthes tenuis*	9
111	*Anisotremus davidsoni*	8
112	*Bathylagus milleri*	5
112	Sciaenidae	5
112	*Poromitra* spp.	5
112	Scopelarchidae	5
112	*Oneirodes* spp.	5
112	*Rosenblattichthys volucris*	5
112	*Artedius creaseri*	5
112	*Diplospinus multistriatus*	5
112	*Macroramphosus gracilis*	5
112	*Melamphaes simus*	5
112	Cottidae	5
112	*Neoclinus stephensae*	5
112	*Scopelosaurus harryi*	5
112	*Tactostoma macropus*	5
112	*Sebastolobus alascanus*	5
112	*Brama japonica*	5
112	*Sebastolobus* spp.	5
112	*Gonostoma atlanticum*	5
112	*Scopeloberyx robustus*	5
112	*Caulolatilus princeps*	5
112	*Nezumia* spp.	5
112	*Citharichthys xanthostigma*	5
112	*Typhlogobius californiensis*	5
135	*Arctozenus risso*	4
135	*Seriphus politus*	4
135	*Menticirrhus undulatus*	4
135	*Atherinopsis californiensis*	4
135	*Ophidion scrippsae*	4
	Total	170223

TABLE 4. Number of fish larvae taken at stations occupied on CalCOFI cruises in 1988. Counts are adjusted for percent of sample sorted and standard haul factor (see text). Unoccupied stations are indicated by a dash.

Sardinops sagax

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0	51.0	0.0	-	-	-	0.0	-	-	14.1	-	0.0	-	-
80.0	70.0	0.0	-	-	-	10.3	-	-	0.0	-	0.0	-	-
83.3	40.6	0.0	-	-	-	0.0	-	-	175.6	-	0.0	-	-
83.3	42.0	0.0	-	-	-	0.0	-	-	223.1	-	5.8	-	-
83.3	51.0	0.0	-	-	-	0.0	-	-	309.9	-	4.5	-	-
83.3	55.0	0.0	-	-	-	0.0	-	-	18.5	-	50.2	-	-
83.3	60.0	0.0	-	-	-	0.0	-	-	42.8	-	0.0	-	-
83.3	80.0	0.0	-	-	-	59.8	-	-	0.0	-	0.0	-	-
83.3	90.0	0.0	-	-	-	15.2	-	-	0.0	-	0.0	-	-
83.3	100.0	5.3	-	-	-	-	-	-	0.0	-	0.0	-	-
86.7	33.0	0.0	-	-	-	0.0	-	-	166.3	-	0.0	-	-
86.7	35.0	0.0	-	-	-	33.1	-	-	21.6	-	0.0	-	-
86.7	50.0	0.0	-	-	-	0.0	-	-	0.0	-	17.2	-	-
86.7	55.0	0.0	-	-	-	16.2	-	-	39.0	-	0.0	-	-
86.7	60.0	0.0	-	-	-	5.3	-	-	10.0	-	0.0	-	-
86.7	70.0	0.0	-	-	-	20.6	-	-	0.0	-	4.7	-	-
86.7	90.0	0.0	-	-	-	4.9	-	-	0.0	-	0.0	-	-
86.7	110.0	4.6	-	-	-	-	-	-	0.0	-	0.0	-	-
90.0	28.0	0.0	-	-	-	0.0	-	-	72.3	-	0.0	-	-
90.0	30.0	0.0	-	-	-	143.0	-	-	97.8	-	0.0	-	-
90.0	53.0	0.0	-	-	-	0.0	-	-	38.6	-	0.0	-	-
90.0	70.0	20.8	-	-	-	5.0	-	-	0.0	-	0.0	-	-
93.3	26.7	0.0	-	-	0.0	-	-	-	0.0	-	22.9	-	-
93.3	50.0	5.1	-	-	0.0	-	-	-	21.5	-	0.0	-	-

Engraulis mordax

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	49.0	-	14.0	-	-	0.0	-	-	0.0	-	65.3	-	-

TABLE 4. (cont.)

Station		*Engraulis mordax* (cont.)											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	49.0	-	14.0	-	-	0.0	-	-	0.0	-	65.3	-	-
76.7	51.0	-	59.6	-	-	0.0	-	-	0.0	-	46.7	-	-
76.7	55.0	-	71.8	-	-	12.0	-	-	0.0	-	10.8	-	-
76.7	60.0	-	182.2	-	-	0.0	-	-	21.7	-	0.0	-	-
80.0	51.0	458.4	-	-	-	0.0	-	-	192.3	-	61.5	-	-
80.0	55.0	20.0	-	-	-	0.0	-	-	0.0	-	28.1	-	-
80.0	60.0	10.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-
80.0	70.0	19.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-
81.8	46.9	384.8	-	-	-	72.4	-	-	174.6	-	107.9	-	-
83.3	40.6	189.6	-	-	-	35.9	-	-	79.4	-	151.8	-	-
83.3	42.0	1036.2	-	-	-	74.9	-	-	486.7	-	362.1	-	-
83.3	51.0	167.6	-	-	-	20.7	-	-	86.4	-	13.5	-	-
83.3	55.0	402.5	-	-	-	22.4	-	-	388.0	-	40.2	-	-
83.3	60.0	64.5	-	-	-	56.0	-	-	160.5	-	0.0	-	-
83.3	70.0	1205.3	-	-	-	31.4	-	-	0.0	-	4.9	-	-
83.3	80.0	224.5	-	-	-	29.9	-	-	0.0	-	0.0	-	-
86.7	33.0	937.8	-	-	-	18.6	-	-	206.6	-	50.7	-	-
86.7	35.0	2234.3	-	-	-	44.2	-	-	0.0	-	296.4	-	-
86.7	39.5	782.2	-	-	-	88.1	-	-	566.5	-	21.3	-	-
86.7	45.0	379.6	-	-	-	730.4	-	-	106.7	-	0.0	-	-
86.7	50.0	319.3	-	-	-	79.0	-	-	110.2	-	17.2	-	-
86.7	55.0	217.6	-	-	-	5.4	-	-	63.4	-	29.0	-	-
86.7	60.0	153.7	-	-	-	0.0	-	-	29.9	-	121.4	-	-
86.7	70.0	0.0	-	-	-	30.9	-	-	0.0	-	0.0	-	-
86.7	80.0	89.1	-	-	-	10.4	-	-	0.0	-	0.0	-	-
86.7	90.0	18.7	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	28.0	1876.1	-	-	-	62.8	-	-	62.7	-	46.6	-	-
90.0	30.0	343.2	-	-	-	232.4	-	-	478.2	-	85.6	-	-
90.0	35.0	1144.0	-	-	-	532.4	-	-	43.8	-	537.1	-	-
90.0	37.0	1035.8	-	-	-	1358.6	-	-	0.0	-	246.0	-	-

TABLE 4. (cont.)

Engraulis mordax (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0	45.0	790.2	-	-	-	375.5	-	-	25.2	-	52.3	-	-
90.0	53.0	111.8	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	60.0	0.0	-	-	-	0.0	-	-	42.3	-	0.0	-	-
90.0	70.0	5.2	-	-	-	0.0	-	-	0.0	-	0.0	-	-
93.3	26.7	1678.7	-	-	1443.2	-	-	-	22.1	-	156.2	-	-
93.3	28.0	2279.1	-	-	626.3	-	-	-	10.2	-	19.2	-	-
93.3	30.0	843.0	-	-	1762.8	-	-	-	289.4	-	120.1	-	-
93.3	35.0	2741.7	-	-	431.8	-	-	-	21.0	-	0.0	-	-
93.3	40.0	938.8	-	-	991.1	-	-	-	31.1	-	9.0	-	-
93.3	45.0	131.8	-	-	22.1	-	-	-	0.0	-	0.0	-	-
93.3	50.0	705.2	-	-	0.0	-	-	-	5.4	-	0.0	-	-
93.3	60.0	0.0	-	-	15.8	-	-	-	4.8	-	0.0	-	-

Argentina sialis

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	51.0	-	9.9	-	-	0.0	-	-	0.0	-	0.0	-	-
76.7	55.0	-	5.1	-	-	0.0	-	-	0.0	-	0.0	-	-
80.0	51.0	0.0	-	-	-	0.0	-	-	4.7	-	0.0	-	-
80.0	60.0	10.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-
81.8	46.9	21.7	-	-	-	20.7	-	-	21.8	-	36.0	-	-
83.3	42.0	20.1	-	-	-	21.4	-	-	0.0	-	23.4	-	-
83.3	51.0	5.1	-	-	-	0.0	-	-	5.1	-	0.0	-	-
83.3	55.0	4.8	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	35.0	10.8	-	-	-	11.0	-	-	10.8	-	5.1	-	-
90.0	28.0	15.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	30.0	0.0	-	-	-	8.9	-	-	0.0	-	0.0	-	-
90.0	35.0	15.6	-	-	-	0.0	-	-	0.0	-	0.0	-	-
93.3	26.7	0.0	-	-	0.0	-	-	-	0.0	-	3.8	-	-
93.3	28.0	10.2	-	-	0.0	-	-	-	0.0	-	9.6	-	-
93.3	30.0	5.1	-	-	0.0	-	-	-	5.4	-	5.2	-	-
76.7	90.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-

TABLE 4. (cont.)

***Microstoma* spp.**

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	90.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-
76.7	100.0	-	-	-	-	-	-	-	9.8	-	9.9	-	-
80.0	60.0	10.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	90.0	5.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	90.0	9.4	-	-	-	0.0	-	-	4.8	-	0.0	-	-
86.7	100.0	4.9	-	-	-	-	-	-	4.7	-	0.0	-	-
90.0	60.0	0.0	-	-	-	0.0	-	-	0.0	-	4.9	-	-
93.3	60.0	0.0	-	-	0.0	-	-	-	0.0	-	5.2	-	-
93.3	120.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-

Nansenia candida

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7	80.0	0.0	-	-	-	10.4	-	-	0.0	-	0.0	-	-
90.0	80.0	0.0	-	-	-	5.0	-	-	0.0	-	0.0	-	-
90.0	100.0	0.0	-	-	-	5.1	-	-	0.0	-	0.0	-	-
93.3	70.0	0.0	-	-	10.6	-	-	-	0.0	-	0.0	-	-
93.3	80.0	0.0	-	-	-	9.4	-	-	0.0	-	0.0	-	-

Bathylagus milleri

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7	60.0	5.3	-	-	-	0.0	-	-	0.0	-	0.0	-	-

Bathylagus ochotensis

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	49.0	-	4.7	-	-	29.5	-	-	0.0	-	0.0	-	-
76.7	51.0	-	14.9	-	-	21.7	-	-	0.0	-	0.0	-	-
76.7	55.0	-	194.9	-	-	48.2	-	-	0.0	-	0.0	-	-
76.7	60.0	-	364.5	-	-	11.3	-	-	0.0	-	0.0	-	-
76.7	70.0	28.7	-	-	-	11.0	-	-	0.0	-	0.0	-	-
76.7	90.0	19.4	-	-	-	-	-	-	0.0	-	0.0	-	-
80.0	51.0	9.6	-	-	-	5.2	-	-	0.0	-	0.0	-	-
80.0	55.0	359.3	-	-	-	0.0	-	-	0.0	-	0.0	-	-
80.0	60.0	186.8	-	-	-	10.6	-	-	0.0	-	0.0	-	-
80.0	70.0	133.5	-	-	-	10.3	-	-	0.0	-	0.0	-	-

TABLE 4. (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
						Bathylagus ochotensis (cont.)							
80.0	80.0	53.9	-	-	-	-	-	-	0.0	-	0.0	-	-
80.0	90.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-
81.8	46.9	16.3	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	42.0	5.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	51.0	0.0	-	-	-	0.0	-	-	0.0	-	4.5	-	-
83.3	55.0	53.3	-	-	-	22.4	-	-	0.0	-	0.0	-	-
83.3	60.0	64.5	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	70.0	48.6	-	-	-	20.9	-	-	0.0	-	0.0	-	-
83.3	80.0	600.2	-	-	-	69.7	-	-	0.0	-	0.0	-	-
83.3	90.0	5.0	-	-	-	10.1	-	-	0.0	-	0.0	-	-
83.3	100.0	84.0	-	-	-	-	-	-	0.0	-	0.0	-	-
83.3	110.0	58.0	-	-	-	-	-	-	0.0	-	0.0	-	-
86.7	35.0	10.8	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	39.5	74.0	-	-	-	11.0	-	-	0.0	-	0.0	-	-
86.7	45.0	52.0	-	-	-	33.2	-	-	0.0	-	0.0	-	-
86.7	50.0	5.2	-	-	-	4.9	-	-	0.0	-	0.0	-	-
86.7	55.0	70.8	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	60.0	180.2	-	-	-	5.3	-	-	0.0	-	0.0	-	-
86.7	70.0	54.5	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	80.0	74.3	-	-	-	20.9	-	-	0.0	-	0.0	-	-
86.7	90.0	51.5	-	-	-	19.8	-	-	0.0	-	0.0	-	-
86.7	110.0	23.2	-	-	-	-	-	-	0.0	-	0.0	-	-
90.0	28.0	20.6	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	30.0	10.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	35.0	10.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	37.0	34.9	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	45.0	49.7	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	53.0	25.4	-	-	-	5.2	-	-	0.0	-	0.0	-	-
90.0	60.0	10.0	-	-	-	15.8	-	-	0.0	-	0.0	-	-
90.0	70.0	5.2	-	-	-	5.0	-	-	0.0	-	0.0	-	-

TABLE 4. (cont.)

Bathylagus ochotensis (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0	100.0	0.0	-	-	-	10.1	-	-	0.0	-	0.0	-	-
93.3	26.7	4.8	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3	28.0	15.3	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3	30.0	30.8	-	-	5.1	-	-	-	0.0	-	0.0	-	-
93.3	35.0	19.8	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3	40.0	15.4	-	-	21.2	-	-	-	0.0	-	0.0	-	-
93.3	45.0	39.0	-	-	16.6	-	-	-	0.0	-	0.0	-	-
93.3	50.0	66.4	-	-	16.2	-	-	-	0.0	-	0.0	-	-
93.3	55.0	5.2	-	-	7.7	-	-	-	0.0	-	0.0	-	-
93.3	60.0	5.0	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3	70.0	10.5	-	-	10.6	-	-	-	0.0	-	0.0	-	-

Bathylagus pacificus

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	55.0	-	0.0	-	-	12.0	-	-	0.0	-	0.0	-	-
76.7	90.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-
83.3	60.0	9.9	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	70.0	9.7	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	80.0	9.9	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	37.0	5.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	53.0	5.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	80.0	5.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-

Bathylagus wesethi

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	70.0	0.0	-	-	-	0.0	-	-	0.0	-	5.0	-	-
76.7	100.0	-	-	-	-	-	-	-	19.6	-	29.8	-	-
80.0	60.0	0.0	-	-	-	0.0	-	-	9.9	-	0.0	-	-
80.0	90.0	0.0	-	-	-	-	-	-	0.0	-	5.0	-	-
80.0	100.0	-	-	-	-	-	-	-	29.9	-	38.2	-	-
83.3	70.0	0.0	-	-	-	0.0	-	-	0.0	-	4.9	-	-
83.3	90.0	0.0	-	-	-	0.0	-	-	0.0	-	9.5	-	-
83.3	100.0	5.3	-	-	-	-	-	-	0.0	-	40.2	-	-

TABLE 4. (cont.)

Bathylagus wesethi (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7	55.0	0.0	-	-	-	5.4	-	-	0.0	-	0.0	-	-
86.7	60.0	0.0	-	-	-	10.5	-	-	0.0	-	0.0	-	-
86.7	80.0	0.0	-	-	-	20.9	-	-	0.0	-	0.0	-	-
86.7	90.0	0.0	-	-	-	14.8	-	-	4.8	-	0.0	-	-
86.7	100.0	9.9	-	-	-	-	-	-	0.0	-	8.8	-	-
86.7	110.0	0.0	-	-	-	-	-	-	0.0	-	18.4	-	-
90.0	53.0	0.0	-	-	-	10.3	-	-	0.0	-	0.0	-	-
90.0	70.0	0.0	-	-	-	0.0	-	-	5.2	-	0.0	-	-
90.0	80.0	0.0	-	-	-	5.0	-	-	11.0	-	4.9	-	-
90.0	90.0	0.0	-	-	-	14.6	-	-	0.0	-	28.7	-	-
90.0	100.0	4.9	-	-	-	0.0	-	-	33.1	-	4.9	-	-
90.0	110.0	0.0	-	-	-	-	-	-	78.1	-	9.5	-	-
90.0	120.0	0.0	-	-	-	-	-	-	25.4	-	9.3	-	-
93.3	55.0	0.0	-	-	0.0	-	-	-	0.0	-	5.2	-	-
93.3	60.0	0.0	-	-	0.0	-	-	-	0.0	-	5.2	-	-
93.3	70.0	0.0	-	-	73.9	-	-	-	0.0	-	0.0	-	-
93.3	80.0	0.0	-	-	-	14.2	-	-	0.0	-	0.0	-	-
93.3	90.0	0.0	-	-	-	4.8	-	-	5.1	-	21.2	-	-
93.3	100.0	0.0	-	-	-	4.9	-	-	0.0	-	24.4	-	-
93.3	110.0	0.0	-	-	-	-	-	-	0.0	-	48.6	-	-
93.3	120.0	0.0	-	-	-	-	-	-	0.0	-	4.9	-	-

Leuroglossus stilbius

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	49.0	-	14.0	-	-	0.0	-	-	0.0	-	4.3	-	-
76.7	51.0	-	44.7	-	-	0.0	-	-	0.0	-	9.3	-	-
76.7	55.0	-	148.8	-	-	12.0	-	-	10.6	-	0.0	-	-
76.7	60.0	-	310.9	-	-	0.0	-	-	0.0	-	0.0	-	-
76.7	70.0	0.0	-	-	-	22.0	-	-	20.0	-	0.0	-	-
80.0	55.0	79.8	-	-	-	0.0	-	-	0.0	-	28.1	-	-
80.0	60.0	141.4	-	-	-	21.2	-	-	0.0	-	0.0	-	-
80.0	70.0	76.3	-	-	-	10.3	-	-	0.0	-	0.0	-	-

TABLE 4. (cont.)

Station		*Leuroglossus stilbius* (cont.)											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0	80.0	0.0	-	-	-	-	-	-	0.0	-	5.0	-	-
81.8	46.9	260.2	-	-	-	20.7	-	-	0.0	-	25.7	-	-
83.3	42.0	120.7	-	-	-	32.1	-	-	0.0	-	11.7	-	-
83.3	51.0	71.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	55.0	586.8	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	60.0	168.6	-	-	-	33.6	-	-	0.0	-	0.0	-	-
83.3	70.0	301.3	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	80.0	43.9	-	-	-	0.0	-	-	0.0	-	5.0	-	-
83.3	90.0	5.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	100.0	5.3	-	-	-	-	-	-	4.7	-	0.0	-	-
86.7	35.0	432.8	-	-	-	0.0	-	-	10.8	-	15.3	-	-
86.7	39.5	517.9	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	45.0	676.0	-	-	-	11.1	-	-	15.2	-	0.0	-	-
86.7	50.0	123.6	-	-	-	4.9	-	-	0.0	-	0.0	-	-
86.7	55.0	187.2	-	-	-	10.8	-	-	0.0	-	0.0	-	-
86.7	60.0	657.2	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	70.0	49.5	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	80.0	39.6	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	90.0	4.7	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	100.0	4.9	-	-	-	-	-	-	0.0	-	0.0	-	-
86.7	110.0	4.6	-	-	-	-	-	-	0.0	-	0.0	-	-
90.0	28.0	92.5	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	30.0	114.4	-	-	-	8.9	-	-	0.0	-	0.0	-	-
90.0	35.0	738.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	37.0	468.1	-	-	-	11.1	-	-	0.0	-	0.0	-	-
90.0	45.0	198.8	-	-	-	0.0	-	-	0.0	-	15.7	-	-
90.0	53.0	289.6	-	-	-	5.2	-	-	0.0	-	0.0	-	-
90.0	60.0	0.0	-	-	-	10.5	-	-	0.0	-	0.0	-	-
90.0	70.0	0.0	-	-	-	10.1	-	-	0.0	-	0.0	-	-
90.0	80.0	0.0	-	-	-	0.0	-	-	0.0	-	4.9	-	-
90.0	100.0	0.0	-	-	-	5.1	-	-	0.0	-	0.0	-	-

TABLE 4. (cont.)

Leuroglossus stilbius (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 26.7	9.6	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3 28.0	184.0	-	-	0.0	-	-	-	0.0	-	4.8	-	-
93.3 30.0	195.3	-	-	10.2	-	-	-	0.0	-	0.0	-	-
93.3 35.0	103.7	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3 40.0	51.3	-	-	15.9	-	-	-	0.0	-	0.0	-	-
93.3 45.0	24.4	-	-	0.0	-	-	-	0.0	-	5.3	-	-
93.3 50.0	30.7	-	-	16.2	-	-	-	0.0	-	0.0	-	-
93.3 55.0	31.3	-	-	19.4	-	-	-	0.0	-	0.0	-	-
93.3 60.0	0.0	-	-	31.6	-	-	-	4.8	-	0.0	-	-
93.3 80.0	0.0	-	-	-	4.7	-	-	0.0	-	0.0	-	-
93.3 120.0	0.0	-	-	-	-	-	-	0.0	-	4.9	-	-

***Cyclothone* spp.**

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 100.0	-	-	-	-	-	-	-	0.0	-	5.0	-	-
80.0 100.0	-	-	-	-	-	-	-	5.0	-	0.0	-	-
90.0 90.0	0.0	-	-	-	0.0	-	-	0.0	-	4.8	-	-
93.3 55.0	5.2	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3 90.0	4.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-
93.3 100.0	0.0	-	-	-	34.1	-	-	0.0	-	0.0	-	-
93.3 110.0	0.0	-	-	-	-	-	-	0.0	-	4.9	-	-
93.3 120.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-

Cyclothone acclinidens

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 110.0	0.0	-	-	-	-	-	-	0.0	-	5.0	-	-
90.0 110.0	0.0	-	-	-	-	-	-	0.0	-	4.7	-	-
93.3 100.0	0.0	-	-	-	0.0	-	-	0.0	-	14.7	-	-
93.3 110.0	0.0	-	-	-	-	-	-	0.0	-	9.7	-	-

Cyclothone pseudopallida

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0 100.0	0.0	-	-	-	0.0	-	-	0.0	-	24.7	-	-
93.3 100.0	4.7	-	-	-	0.0	-	-	0.0	-	0.0	-	-

TABLE 4. (cont.)

Cyclothone pseudopallida (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 110.0	0.0	-	-	-	-	-	-	0.0	-	4.9	-	-
93.3 120.0	0.0	-	-	-	-	-	-	0.0	-	4.9	-	-

Cyclothone signata

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 80.0	10.2	-	-	-	-	-	-	0.0	-	0.0	-	-
76.7 90.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-
76.7 100.0	-	-	-	-	-	-	-	0.0	-	14.9	-	-
80.0 55.0	10.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
80.0 80.0	9.0	-	-	-	-	-	-	0.0	-	0.0	-	-
80.0 90.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-
80.0 100.0	-	-	-	-	-	-	-	59.9	-	23.8	-	-
83.3 70.0	0.0	-	-	-	0.0	-	-	0.0	-	4.9	-	-
83.3 80.0	4.9	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3 90.0	15.0	-	-	-	0.0	-	-	0.0	-	4.7	-	-
83.3 100.0	15.8	-	-	-	-	-	-	0.0	-	15.1	-	-
83.3 110.0	21.1	-	-	-	-	-	-	0.0	-	0.0	-	-
86.7 60.0	5.3	-	-	-	5.3	-	-	0.0	-	0.0	-	-
86.7 70.0	5.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7 90.0	0.0	-	-	-	4.9	-	-	0.0	-	4.8	-	-
86.7 100.0	14.8	-	-	-	-	-	-	0.0	-	0.0	-	-
86.7 110.0	13.9	-	-	-	-	-	-	0.0	-	18.4	-	-
90.0 60.0	0.0	-	-	-	0.0	-	-	0.0	-	4.9	-	-
90.0 80.0	5.1	-	-	-	0.0	-	-	0.0	-	4.9	-	-
90.0 90.0	0.0	-	-	-	0.0	-	-	4.8	-	57.5	-	-
90.0 100.0	4.9	-	-	-	0.0	-	-	28.4	-	59.3	-	-
90.0 110.0	57.4	-	-	-	-	-	-	4.9	-	19.0	-	-
90.0 120.0	39.4	-	-	-	-	-	-	5.1	-	37.4	-	-
93.3 55.0	10.4	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3 60.0	0.0	-	-	0.0	-	-	-	0.0	-	26.1	-	-
93.3 70.0	10.5	-	-	15.8	-	-	-	0.0	-	0.0	-	-

TABLE 4. (cont.)

Cyclothone signata (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 90.0	8.9	-	-	-	0.0	-	-	20.5	-	10.6	-	-
93.3 100.0	42.7	-	-	-	14.6	-	-	14.4	-	39.1	-	-
93.3 110.0	19.2	-	-	-	-	-	-	19.1	-	97.2	-	-
93.3 120.0	9.7	-	-	-	-	-	-	14.6	-	58.9	-	-

Gonostoma atlanticum

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0 120.0	4.9	-	-	-	-	-	-	0.0	-	0.0	-	-

***Argyropelecus* spp.**

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0 110.0	0.0	-	-	-	-	-	-	0.0	-	4.7	-	-
90.0 120.0	0.0	-	-	-	-	-	-	0.0	-	4.7	-	-

Argyropelecus affinis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 55.0	-	5.1	-	-	0.0	-	-	0.0	-	0.0	-	-
76.7 90.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-
80.0 60.0	0.0	-	-	-	10.6	-	-	0.0	-	0.0	-	-
80.0 70.0	9.5	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3 70.0	0.0	-	-	-	10.5	-	-	0.0	-	0.0	-	-
83.3 110.0	5.3	-	-	-	-	-	-	0.0	-	0.0	-	-
86.7 70.0	0.0	-	-	-	10.3	-	-	0.0	-	0.0	-	-
86.7 80.0	0.0	-	-	-	10.4	-	-	0.0	-	0.0	-	-
86.7 110.0	4.6	-	-	-	-	-	-	0.0	-	0.0	-	-
90.0 45.0	14.9	-	-	-	0.0	-	-	0.0	-	0.0	-	-
93.3 60.0	0.0	-	-	5.3	-	-	-	0.0	-	0.0	-	-
93.3 120.0	0.0	-	-	-	-	-	-	0.0	-	4.9	-	-

Argyropelecus hemigymnus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0 100.0	-	-	-	-	-	-	-	10.0	-	0.0	-	-
83.3 110.0	0.0	-	-	-	-	-	-	0.0	-	5.0	-	-
90.0 90.0	0.0	-	-	-	0.0	-	-	0.0	-	4.8	-	-
90.0 100.0	0.0	-	-	-	0.0	-	-	4.7	-	0.0	-	-

TABLE 4. (cont.)

Argyropelecus hemigymnus (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0	110.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-
93.3	60.0	5.0	-	-	0.0	-	-	-	0.0	-	0.0	-	-

Argyropelecus lychnus

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7	110.0	4.6	-	-	-	-	-	-	0.0	-	0.0	-	-
90.0	90.0	4.5	-	-	-	0.0	-	-	0.0	-	0.0	-	-
93.3	45.0	4.9	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3	120.0	0.0	-	-	-	-	-	-	0.0	-	4.9	-	-

Argyropelecus sladeni

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	70.0	4.8	-	-	-	0.0	-	-	0.0	-	0.0	-	-
76.7	90.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-
80.0	55.0	10.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
80.0	70.0	9.5	-	-	-	0.0	-	-	0.0	-	0.0	-	-
80.0	90.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-
80.0	100.0	-	-	-	-	-	-	-	15.0	-	9.5	-	-
81.8	46.9	5.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	70.0	0.0	-	-	-	0.0	-	-	0.0	-	4.9	-	-
83.3	80.0	0.0	-	-	-	0.0	-	-	0.0	-	5.0	-	-
83.3	90.0	10.0	-	-	-	0.0	-	-	0.0	-	4.7	-	-
83.3	100.0	5.3	-	-	-	-	-	-	0.0	-	0.0	-	-
83.3	110.0	10.5	-	-	-	-	-	-	0.0	-	0.0	-	-
86.7	35.0	5.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	45.0	10.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	55.0	10.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	70.0	9.9	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	80.0	5.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	90.0	4.7	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	110.0	4.6	-	-	-	-	-	-	0.0	-	4.6	-	-
90.0	37.0	5.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	45.0	9.9	-	-	-	0.0	-	-	0.0	-	0.0	-	-

TABLE 4. (cont.)

Argyropelecus sladeni (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0	70.0	5.2	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	80.0	10.2	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	90.0	0.0	-	-	-	0.0	-	-	0.0	-	9.6	-	-
90.0	120.0	0.0	-	-	-	-	-	-	5.1	-	0.0	-	-
93.3	28.0	5.1	-	-	9.9	-	-	-	0.0	-	0.0	-	-
93.3	30.0	0.0	-	-	0.0	-	-	-	21.4	-	5.2	-	-
93.3	45.0	4.9	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3	110.0	0.0	-	-	-	-	-	-	0.0	-	9.7	-	-

Danaphos oculatus

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	70.0	4.8	-	-	-	11.0	-	-	0.0	-	0.0	-	-
76.7	80.0	10.2	-	-	-	-	-	-	0.0	-	0.0	-	-
80.0	80.0	4.5	-	-	-	-	-	-	0.0	-	5.0	-	-
83.3	60.0	5.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	80.0	0.0	-	-	-	10.0	-	-	0.0	-	0.0	-	-
83.3	90.0	5.0	-	-	-	0.0	-	-	0.0	-	4.7	-	-
83.3	100.0	5.3	-	-	-	-	-	-	0.0	-	0.0	-	-
86.7	60.0	5.3	-	-	-	5.3	-	-	0.0	-	0.0	-	-
86.7	70.0	0.0	-	-	-	0.0	-	-	4.8	-	0.0	-	-
86.7	80.0	5.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	90.0	4.7	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	110.0	4.6	-	-	-	-	-	-	0.0	-	4.6	-	-
90.0	35.0	5.2	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	37.0	0.0	-	-	-	11.1	-	-	0.0	-	0.0	-	-
90.0	45.0	5.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	53.0	5.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	60.0	5.0	-	-	-	0.0	-	-	0.0	-	4.9	-	-
90.0	70.0	10.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	90.0	0.0	-	-	-	0.0	-	-	4.8	-	0.0	-	-
93.3	45.0	0.0	-	-	5.5	-	-	-	0.0	-	0.0	-	-
93.3	60.0	0.0	-	-	5.3	-	-	-	4.8	-	10.4	-	-

TABLE 4. (cont.)

Danaphos oculatus (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 70.0	0.0	-	-	0.0	-	-	-	9.7	-	0.0	-	-
93.3 110.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-

Sternoptyx spp.

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0 51.0	9.6	-	-	-	0.0	-	-	0.0	-	0.0	-	-
80.0 100.0	-	-	-	-	-	-	-	5.0	-	0.0	-	-
86.7 45.0	5.2	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7 55.0	5.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7 110.0	4.6	-	-	-	-	-	-	0.0	-	0.0	-	-
90.0 37.0	5.0	-	-	-	0.0	-	-	0.0	-	5.0	-	-
90.0 53.0	5.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0 100.0	0.0	-	-	-	0.0	-	-	4.7	-	0.0	-	-
90.0 110.0	0.0	-	-	-	-	-	-	4.9	-	0.0	-	-
90.0 120.0	4.9	-	-	-	-	-	-	10.2	-	0.0	-	-
93.3 40.0	0.0	-	-	10.6	-	-	-	0.0	-	0.0	-	-
93.3 70.0	5.3	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3 80.0	0.0	-	-	-	4.7	-	-	0.0	-	0.0	-	-
93.3 110.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-
93.3 120.0	9.7	-	-	-	-	-	-	0.0	-	0.0	-	-

Valenciennellus tripunctulatus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0 70.0	0.0	-	-	-	0.0	-	-	0.0	-	9.0	-	-
93.3 120.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-

Vinciguerria lucetia

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 70.0	4.8	-	-	-	0.0	-	-	0.0	-	5.0	-	-
76.7 100.0	-	-	-	-	-	-	-	0.0	-	44.7	-	-
80.0 100.0	-	-	-	-	-	-	-	229.5	-	19.1	-	-
83.3 90.0	0.0	-	-	-	0.0	-	-	0.0	-	19.0	-	-
83.3 100.0	0.0	-	-	-	-	-	-	0.0	-	10.1	-	-
83.3 110.0	0.0	-	-	-	-	-	-	0.0	-	9.9	-	-

TABLE 4. (cont.)

Vinciguerria lucetia (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 90.0	0.0	-	-	-	0.0	-	-	19.4	-	62.9	-	-
86.7 100.0	0.0	-	-	-	-	-	-	0.0	-	48.6	-	-
86.7 110.0	0.0	-	-	-	-	-	-	0.0	-	212.1	-	-
90.0 45.0	0.0	-	-	-	0.0	-	-	0.0	-	5.2	-	-
90.0 53.0	0.0	-	-	-	0.0	-	-	0.0	-	84.1	-	-
90.0 60.0	0.0	-	-	-	0.0	-	-	0.0	-	14.8	-	-
90.0 70.0	0.0	-	-	-	0.0	-	-	0.0	-	36.0	-	-
90.0 80.0	0.0	-	-	-	0.0	-	-	22.0	-	19.7	-	-
90.0 90.0	0.0	-	-	-	0.0	-	-	271.3	-	177.2	-	-
90.0 100.0	0.0	-	-	-	0.0	-	-	350.0	-	489.1	-	-
90.0 110.0	0.0	-	-	-	-	-	-	190.3	-	1450.4	-	-
90.0 120.0	4.9	-	-	-	-	-	-	442.8	-	354.9	-	-
93.3 55.0	5.2	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3 60.0	0.0	-	-	0.0	-	-	-	0.0	-	109.6	-	-
93.3 70.0	0.0	-	-	0.0	-	-	-	0.0	-	49.5	-	-
93.3 90.0	8.9	-	-	-	0.0	-	-	624.6	-	185.8	-	-
93.3 100.0	4.7	-	-	-	19.5	-	-	325.7	-	860.6	-	-
93.3 110.0	14.4	-	-	-	-	-	-	583.2	-	3907.4	-	-
93.3 120.0	9.7	-	-	-	-	-	-	544.3	-	859.3	-	-

Vinciguerria poweriae

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 110.0	0.0	-	-	-	-	-	-	0.0	-	24.8	-	-
86.7 90.0	0.0	-	-	-	0.0	-	-	4.8	-	0.0	-	-
86.7 100.0	0.0	-	-	-	-	-	-	0.0	-	4.4	-	-
86.7 110.0	0.0	-	-	-	-	-	-	0.0	-	4.6	-	-
90.0 80.0	0.0	-	-	-	0.0	-	-	11.0	-	0.0	-	-
90.0 90.0	4.5	-	-	-	0.0	-	-	0.0	-	33.5	-	-
90.0 100.0	4.9	-	-	-	0.0	-	-	0.0	-	118.6	-	-
90.0 110.0	19.1	-	-	-	-	-	-	63.4	-	222.8	-	-
90.0 120.0	0.0	-	-	-	-	-	-	178.2	-	28.0	-	-
93.3 60.0	0.0	-	-	0.0	-	-	-	0.0	-	15.7	-	-

TABLE 4. (cont.)

Vinciguerria poweriae (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 70.0	5.3	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3 90.0	4.4	-	-	-	0.0	-	-	199.7	-	0.0	-	-
93.3 100.0	0.0	-	-	-	0.0	-	-	162.9	-	14.7	-	-
93.3 110.0	14.4	-	-	-	-	-	-	1343.2	-	340.2	-	-
93.3 120.0	14.5	-	-	-	-	-	-	515.2	-	216.0	-	-

Chauliodus macouni

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 55.0	-	5.1	-	-	12.0	-	-	0.0	-	0.0	-	-
76.7 60.0	-	0.0	-	-	11.3	-	-	0.0	-	0.0	-	-
76.7 70.0	0.0	-	-	-	11.0	-	-	0.0	-	0.0	-	-
76.7 80.0	0.0	-	-	-	-	-	-	9.9	-	4.7	-	-
80.0 90.0	4.8	-	-	-	-	-	-	5.0	-	0.0	-	-
83.3 70.0	19.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3 80.0	4.9	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3 90.0	0.0	-	-	-	10.1	-	-	0.0	-	0.0	-	-
83.3 110.0	10.5	-	-	-	-	-	-	0.0	-	0.0	-	-
86.7 35.0	0.0	-	-	-	0.0	-	-	10.8	-	0.0	-	-
86.7 45.0	0.0	-	-	-	11.1	-	-	0.0	-	0.0	-	-
86.7 55.0	10.1	-	-	-	5.4	-	-	0.0	-	0.0	-	-
86.7 60.0	5.3	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7 70.0	0.0	-	-	-	0.0	-	-	0.0	-	4.7	-	-
86.7 100.0	0.0	-	-	-	-	-	-	4.7	-	0.0	-	-
90.0 45.0	0.0	-	-	-	0.0	-	-	10.1	-	0.0	-	-
93.3 28.0	0.0	-	-	0.0	-	-	-	5.1	-	0.0	-	-
93.3 30.0	0.0	-	-	0.0	-	-	-	5.4	-	0.0	-	-
93.3 35.0	4.9	-	-	0.0	-	-	-	10.5	-	0.0	-	-
93.3 90.0	0.0	-	-	-	4.8	-	-	0.0	-	0.0	-	-
93.3 100.0	0.0	-	-	-	0.0	-	-	0.0	-	4.9	-	-

Stomias atriventer

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 35.0	5.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-

TABLE 4. (cont.)

Stomias atriventer (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 35.0	5.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0 35.0	5.2	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0 70.0	5.2	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0 100.0	4.9	-	-	-	0.0	-	-	0.0	-	0.0	-	-
93.3 55.0	5.2	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3 70.0	0.0	-	-	5.3	-	-	-	0.0	-	0.0	-	-

Bathophilus flemingi

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 100.0	4.9	-	-	-	-	-	-	0.0	-	0.0	-	-
90.0 100.0	0.0	-	-	-	0.0	-	-	4.7	-	0.0	-	-
90.0 110.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-
93.3 70.0	5.3	-	-	0.0	-	-	-	0.0	-	0.0	-	-

Tactostoma macropus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0 110.0	0.0	-	-	-	-	-	-	4.9	-	0.0	-	-

Aristostomias scintillans

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 100.0	-	-	-	-	-	-	-	0.0	-	5.0	-	-
90.0 110.0	9.6	-	-	-	-	-	-	0.0	-	0.0	-	-
90.0 120.0	4.9	-	-	-	-	-	-	0.0	-	0.0	-	-
93.3 110.0	0.0	-	-	-	-	-	-	0.0	-	4.9	-	-

Idiacanthus antrostomus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 100.0	-	-	-	-	-	-	-	0.0	-	9.9	-	-
80.0 70.0	0.0	-	-	-	0.0	-	-	0.0	-	4.8	-	-
80.0 90.0	0.0	-	-	-	-	-	-	0.0	-	5.0	-	-
80.0 100.0	-	-	-	-	-	-	-	15.0	-	9.5	-	-
86.7 80.0	0.0	-	-	-	0.0	-	-	5.0	-	0.0	-	-
86.7 100.0	0.0	-	-	-	-	-	-	0.0	-	4.4	-	-
86.7 110.0	4.6	-	-	-	-	-	-	0.0	-	4.6	-	-
90.0 80.0	5.1	-	-	-	0.0	-	-	0.0	-	4.9	-	-

TABLE 4. (cont.)

Idiacanthus antrostomus (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0 100.0	0.0	-	-	-	0.0	-	-	14.2	-	0.0	-	-
90.0 110.0	0.0	-	-	-	-	-	-	4.9	-	4.7	-	-
90.0 120.0	0.0	-	-	-	-	-	-	20.4	-	18.7	-	-
93.3 90.0	0.0	-	-	-	0.0	-	-	5.1	-	0.0	-	-
93.3 100.0	0.0	-	-	-	0.0	-	-	4.8	-	0.0	-	-
93.3 120.0	0.0	-	-	-	-	-	-	0.0	-	9.8	-	-

Scopelarchidae

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 100.0	4.9	-	-	-	-	-	-	0.0	-	0.0	-	-

Benthalbella dentata

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 55.0	5.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7 70.0	0.0	-	-	-	20.6	-	-	0.0	-	0.0	-	-
86.7 100.0	4.9	-	-	-	-	-	-	0.0	-	0.0	-	-
90.0 37.0	5.0	-	-	-	11.1	-	-	0.0	-	0.0	-	-
93.3 28.0	0.0	-	-	0.0	-	-	-	0.0	-	4.8	-	-
93.3 55.0	15.7	-	-	0.0	-	-	-	0.0	-	0.0	-	-

Rosenblattichthys volucris

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 100.0	5.3	-	-	-	-	-	-	0.0	-	0.0	-	-

Scopelarchus analis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0 110.0	0.0	-	-	-	-	-	-	4.9	-	0.0	-	-
93.3 80.0	4.8	-	-	-	0.0	-	-	0.0	-	0.0	-	-

Scopelarchus guentheri

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 45.0	0.0	-	-	0.0	-	-	-	0.0	-	5.3	-	-
93.3 120.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-

Scopelosaurus harryi

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 100.0	0.0	-	-	-	4.9	-	-	0.0	-	0.0	-	-

TABLE 4. (cont.)

Synodus lucioceps

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 60.0	0.0	-	-	-	0.0	-	-	0.0	-	9.3	-	-

Paralepididae

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 60.0	5.3	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0 110.0	0.0	-	-	-	-	-	-	14.6	-	0.0	-	-
93.3 28.0	5.1	-	-	0.0	-	-	-	0.0	-	0.0	-	-

Arctozenus risso

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 100.0	0.0	-	-	-	-	-	-	0.0	-	4.4	-	-

Lestidiops ringens

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 60.0	-	10.7	-	-	0.0	-	-	0.0	-	0.0	-	-
76.7 70.0	0.0	-	-	-	0.0	-	-	0.0	-	5.0	-	-
76.7 80.0	5.1	-	-	-	-	-	-	0.0	-	0.0	-	-
76.7 90.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-
76.7 100.0	-	-	-	-	-	-	-	9.8	-	0.0	-	-
80.0 80.0	4.5	-	-	-	-	-	-	0.0	-	0.0	-	-
80.0 90.0	0.0	-	-	-	-	-	-	14.9	-	15.1	-	-
80.0 100.0	-	-	-	-	-	-	-	5.0	-	14.3	-	-
83.3 80.0	4.9	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3 90.0	10.0	-	-	-	0.0	-	-	0.0	-	4.7	-	-
83.3 100.0	0.0	-	-	-	-	-	-	4.7	-	0.0	-	-
86.7 70.0	0.0	-	-	-	0.0	-	-	0.0	-	14.2	-	-
86.7 80.0	5.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7 90.0	0.0	-	-	-	0.0	-	-	0.0	-	24.2	-	-
86.7 100.0	9.9	-	-	-	-	-	-	0.0	-	4.4	-	-
86.7 110.0	0.0	-	-	-	-	-	-	0.0	-	13.8	-	-
90.0 45.0	0.0	-	-	-	0.0	-	-	5.0	-	0.0	-	-
90.0 80.0	0.0	-	-	-	0.0	-	-	0.0	-	4.9	-	-
90.0 90.0	0.0	-	-	-	0.0	-	-	0.0	-	9.6	-	-
90.0 100.0	0.0	-	-	-	0.0	-	-	9.5	-	4.9	-	-

TABLE 4. (cont.)

Lestidiops ringens (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0	110.0	0.0	-	-	-	-	-	-	0.0	-	9.5	-	-
93.3	60.0	0.0	-	-	5.3	-	-	-	0.0	-	0.0	-	-
93.3	70.0	0.0	-	-	0.0	-	-	-	0.0	-	9.9	-	-
93.3	90.0	0.0	-	-	-	0.0	-	-	5.1	-	0.0	-	-
93.3	100.0	0.0	-	-	-	0.0	-	-	14.4	-	14.7	-	-

Myctophidae

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0	55.0	10.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
80.0	60.0	10.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-
80.0	70.0	9.5	-	-	-	0.0	-	-	0.0	-	0.0	-	-
80.0	80.0	4.5	-	-	-	-	-	-	0.0	-	0.0	-	-
83.3	90.0	0.0	-	-	-	5.1	-	-	0.0	-	0.0	-	-
83.3	110.0	0.0	-	-	-	-	-	-	0.0	-	5.0	-	-
86.7	35.0	0.0	-	-	-	0.0	-	-	10.8	-	0.0	-	-
86.7	50.0	0.0	-	-	-	0.0	-	-	4.8	-	0.0	-	-
86.7	70.0	0.0	-	-	-	0.0	-	-	4.8	-	0.0	-	-
86.7	110.0	9.3	-	-	-	-	-	-	0.0	-	0.0	-	-
90.0	45.0	0.0	-	-	-	8.9	-	-	0.0	-	0.0	-	-
90.0	53.0	0.0	-	-	-	0.0	-	-	19.3	-	0.0	-	-
90.0	90.0	0.0	-	-	-	4.9	-	-	0.0	-	0.0	-	-
90.0	100.0	9.7	-	-	-	0.0	-	-	9.5	-	9.9	-	-
93.3	35.0	0.0	-	-	5.1	-	-	-	0.0	-	0.0	-	-
93.3	55.0	0.0	-	-	3.9	-	-	-	0.0	-	0.0	-	-
93.3	80.0	0.0	-	-	-	9.4	-	-	0.0	-	0.0	-	-
93.3	90.0	0.0	-	-	-	0.0	-	-	10.2	-	0.0	-	-
93.3	100.0	0.0	-	-	-	19.5	-	-	0.0	-	0.0	-	-

Ceratoscopelus townsendi

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	80.0	15.3	-	-	-	-	-	-	0.0	-	0.0	-	-
76.7	100.0	-	-	-	-	-	-	-	0.0	-	24.8	-	-
80.0	100.0	-	-	-	-	-	-	-	0.0	-	14.3	-	-

TABLE 4. (cont.)

Ceratoscopelus townsendi (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 60.0	0.0	-	-	-	0.0	-	-	0.0	-	10.4	-	-
83.3 90.0	0.0	-	-	-	0.0	-	-	0.0	-	14.2	-	-
83.3 100.0	0.0	-	-	-	-	-	-	0.0	-	5.0	-	-
83.3 110.0	0.0	-	-	-	-	-	-	0.0	-	5.0	-	-
86.7 110.0	9.3	-	-	-	-	-	-	0.0	-	23.1	-	-
90.0 80.0	0.0	-	-	-	0.0	-	-	11.0	-	0.0	-	-
90.0 90.0	27.2	-	-	-	0.0	-	-	19.0	-	0.0	-	-
90.0 100.0	48.7	-	-	-	0.0	-	-	4.7	-	59.3	-	-
90.0 110.0	43.0	-	-	-	-	-	-	4.9	-	19.0	-	-
90.0 120.0	0.0	-	-	-	-	-	-	5.1	-	46.7	-	-
93.3 70.0	0.0	-	-	10.6	-	-	-	0.0	-	0.0	-	-
93.3 90.0	4.4	-	-	-	0.0	-	-	25.6	-	10.6	-	-
93.3 100.0	4.7	-	-	-	14.6	-	-	23.9	-	39.1	-	-
93.3 110.0	14.4	-	-	-	-	-	-	33.5	-	53.5	-	-
93.3 120.0	38.8	-	-	-	-	-	-	38.9	-	176.8	-	-

***Diaphus* spp.**

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 60.0	-	0.0	-	-	0.0	-	-	10.8	-	0.0	-	-
76.7 90.0	0.0	-	-	-	-	-	-	4.8	-	0.0	-	-
80.0 60.0	0.0	-	-	-	0.0	-	-	9.9	-	0.0	-	-
80.0 90.0	0.0	-	-	-	-	-	-	5.0	-	0.0	-	-
83.3 80.0	0.0	-	-	-	0.0	-	-	4.9	-	0.0	-	-
83.3 90.0	0.0	-	-	-	0.0	-	-	21.9	-	0.0	-	-
83.3 100.0	0.0	-	-	-	-	-	-	0.0	-	5.0	-	-
86.7 50.0	10.3	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7 90.0	9.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-
93.3 60.0	0.0	-	-	0.0	-	-	-	14.5	-	0.0	-	-
93.3 70.0	0.0	-	-	0.0	-	-	-	9.7	-	0.0	-	-
93.3 80.0	4.8	-	-	-	0.0	-	-	5.0	-	0.0	-	-
93.3 110.0	0.0	-	-	-	-	-	-	0.0	-	4.9	-	-
93.3 120.0	0.0	-	-	-	-	-	-	0.0	-	9.8	-	-

TABLE 4. (cont.)

Lampadena urophaos

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0	110.0	0.0	-	-	-	-	-	-	0.0	-	4.7	-	-
93.3	90.0	0.0	-	-	-	0.0	-	-	10.2	-	0.0	-	-
93.3	110.0	0.0	-	-	-	-	-	-	0.0	-	9.7	-	-

Lampanyctus spp.

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	49.0	-	0.0	-	-	4.9	-	-	0.0	-	0.0	-	-
76.7	60.0	-	0.0	-	-	11.3	-	-	0.0	-	0.0	-	-
76.7	80.0	10.2	-	-	-	-	-	-	0.0	-	0.0	-	-
76.7	90.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-
80.0	80.0	13.5	-	-	-	-	-	-	0.0	-	0.0	-	-
80.0	90.0	9.7	-	-	-	-	-	-	0.0	-	0.0	-	-
80.0	100.0	-	-	-	-	-	-	-	5.0	-	0.0	-	-
81.8	46.9	5.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	51.0	0.0	-	-	-	0.0	-	-	5.1	-	4.5	-	-
83.3	55.0	4.8	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	90.0	0.0	-	-	-	0.0	-	-	0.0	-	9.5	-	-
83.3	110.0	5.3	-	-	-	-	-	-	0.0	-	0.0	-	-
86.7	33.0	4.9	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	45.0	5.2	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	55.0	5.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	60.0	0.0	-	-	-	21.0	-	-	0.0	-	0.0	-	-
86.7	90.0	4.7	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	100.0	9.9	-	-	-	-	-	-	0.0	-	0.0	-	-
86.7	110.0	13.9	-	-	-	-	-	-	0.0	-	9.2	-	-
90.0	37.0	5.0	-	-	-	0.0	-	-	0.0	-	5.0	-	-
90.0	60.0	15.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	70.0	5.2	-	-	-	5.0	-	-	0.0	-	0.0	-	-
90.0	100.0	0.0	-	-	-	0.0	-	-	4.7	-	4.9	-	-
90.0	110.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-
93.3	26.7	4.8	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3	40.0	0.0	-	-	5.3	-	-	-	0.0	-	0.0	-	-

TABLE 4. (cont.)

***Lampanyctus* spp.** (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3	55.0	10.4	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3	60.0	5.0	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3	70.0	0.0	-	-	10.6	-	-	-	0.0	-	0.0	-	-
93.3	100.0	0.0	-	-	-	0.0	-	-	4.8	-	0.0	-	-

***Lampanyctus* "niger"**

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0	60.0	0.0	-	-	-	5.3	-	-	0.0	-	0.0	-	-
90.0	90.0	4.5	-	-	-	0.0	-	-	0.0	-	0.0	-	-

Lampanyctus regalis

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	55.0	-	0.0	-	-	12.0	-	-	0.0	-	0.0	-	-
80.0	60.0	0.0	-	-	-	0.0	-	-	0.0	-	10.1	-	-
86.7	55.0	0.0	-	-	-	5.4	-	-	0.0	-	0.0	-	-

Lampanyctus ritteri

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	55.0	-	5.1	-	-	12.0	-	-	0.0	-	0.0	-	-
76.7	60.0	-	10.7	-	-	11.3	-	-	0.0	-	0.0	-	-
76.7	70.0	0.0	-	-	-	11.0	-	-	0.0	-	9.9	-	-
76.7	80.0	40.9	-	-	-	-	-	-	0.0	-	0.0	-	-
80.0	60.0	0.0	-	-	-	0.0	-	-	9.9	-	0.0	-	-
80.0	70.0	28.6	-	-	-	0.0	-	-	0.0	-	0.0	-	-
80.0	80.0	4.5	-	-	-	-	-	-	0.0	-	0.0	-	-
80.0	90.0	0.0	-	-	-	-	-	-	9.9	-	0.0	-	-
80.0	100.0	-	-	-	-	-	-	-	10.0	-	0.0	-	-
83.3	55.0	4.8	-	-	-	0.0	-	-	0.0	-	10.0	-	-
83.3	60.0	0.0	-	-	-	0.0	-	-	0.0	-	10.4	-	-
83.3	70.0	0.0	-	-	-	20.9	-	-	9.4	-	0.0	-	-
83.3	80.0	0.0	-	-	-	19.9	-	-	0.0	-	0.0	-	-
83.3	90.0	75.1	-	-	-	5.1	-	-	0.0	-	0.0	-	-
83.3	100.0	10.5	-	-	-	-	-	-	0.0	-	5.0	-	-
83.3	110.0	5.3	-	-	-	-	-	-	0.0	-	0.0	-	-

TABLE 4. (cont.)

Lampanyctus ritteri (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7	55.0	10.1	-	-	-	10.8	-	-	0.0	-	0.0	-	-
86.7	70.0	34.6	-	-	-	41.2	-	-	0.0	-	4.7	-	-
86.7	80.0	5.0	-	-	-	41.7	-	-	0.0	-	0.0	-	-
86.7	90.0	4.7	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	100.0	14.8	-	-	-	-	-	-	0.0	-	4.4	-	-
86.7	110.0	13.9	-	-	-	-	-	-	0.0	-	9.2	-	-
90.0	37.0	5.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	45.0	5.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	53.0	10.2	-	-	-	5.2	-	-	0.0	-	0.0	-	-
90.0	60.0	0.0	-	-	-	0.0	-	-	0.0	-	4.9	-	-
90.0	70.0	0.0	-	-	-	5.0	-	-	0.0	-	0.0	-	-
90.0	110.0	0.0	-	-	-	-	-	-	0.0	-	4.7	-	-
90.0	120.0	0.0	-	-	-	-	-	-	0.0	-	4.7	-	-
93.3	26.7	9.6	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3	28.0	10.2	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3	40.0	5.1	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3	50.0	0.0	-	-	5.4	-	-	-	0.0	-	5.0	-	-
93.3	55.0	15.7	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3	60.0	34.7	-	-	0.0	-	-	-	4.8	-	0.0	-	-
93.3	70.0	10.5	-	-	5.3	-	-	-	0.0	-	9.9	-	-
93.3	90.0	8.9	-	-	-	0.0	-	-	0.0	-	0.0	-	-
93.3	100.0	14.2	-	-	-	0.0	-	-	4.8	-	0.0	-	-
93.3	120.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-

Notolychnus valdiviae

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0	80.0	4.5	-	-	-	-	-	-	0.0	-	0.0	-	-
86.7	55.0	5.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	100.0	4.9	-	-	-	0.0	-	-	0.0	-	0.0	-	-
93.3	110.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-
93.3	120.0	14.5	-	-	-	-	-	-	0.0	-	0.0	-	-

TABLE 4. (cont.)

Notoscopelus resplendens

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 80.0	5.1	-	-	-	-	-	-	0.0	-	0.0	-	-
90.0 110.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-
90.0 120.0	9.8	-	-	-	-	-	-	0.0	-	0.0	-	-
93.3 70.0	0.0	-	-	5.3	-	-	-	0.0	-	0.0	-	-
93.3 90.0	0.0	-	-	-	4.8	-	-	0.0	-	0.0	-	-
93.3 100.0	0.0	-	-	-	9.7	-	-	4.8	-	0.0	-	-
93.3 110.0	0.0	-	-	-	-	-	-	4.8	-	0.0	-	-
93.3 120.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-

Parvilux ingens

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0 90.0	0.0	-	-	-	0.0	-	-	0.0	-	4.8	-	-
93.3 70.0	0.0	-	-	5.3	-	-	-	0.0	-	0.0	-	-
93.3 100.0	0.0	-	-	-	4.9	-	-	0.0	-	4.9	-	-

Stenobrachius leucopsarus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 49.0	-	23.3	-	-	64.0	-	-	4.7	-	0.0	-	-
76.7 51.0	-	39.8	-	-	76.0	-	-	0.0	-	0.0	-	-
76.7 55.0	-	123.1	-	-	36.1	-	-	0.0	-	0.0	-	-
76.7 60.0	-	428.8	-	-	56.5	-	-	0.0	-	0.0	-	-
76.7 70.0	90.8	-	-	-	44.0	-	-	0.0	-	0.0	-	-
76.7 80.0	10.2	-	-	-	-	-	-	0.0	-	0.0	-	-
76.7 90.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-
80.0 51.0	66.9	-	-	-	0.0	-	-	0.0	-	0.0	-	-
80.0 55.0	79.8	-	-	-	10.7	-	-	0.0	-	0.0	-	-
80.0 60.0	106.1	-	-	-	63.5	-	-	0.0	-	0.0	-	-
80.0 70.0	28.6	-	-	-	20.7	-	-	0.0	-	0.0	-	-
80.0 80.0	26.9	-	-	-	-	-	-	0.0	-	0.0	-	-
80.0 90.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-
81.8 46.9	70.5	-	-	-	10.3	-	-	0.0	-	0.0	-	-
83.3 40.6	0.0	-	-	-	9.0	-	-	0.0	-	0.0	-	-
83.3 42.0	45.3	-	-	-	10.7	-	-	0.0	-	0.0	-	-

TABLE 4. (cont.)

Station		*Stenobrachius leucopsarus* (cont.)											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3	51.0	137.2	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	55.0	198.8	-	-	-	44.7	-	-	0.0	-	0.0	-	-
83.3	60.0	9.9	-	-	-	22.4	-	-	0.0	-	0.0	-	-
83.3	70.0	29.2	-	-	-	52.4	-	-	0.0	-	0.0	-	-
83.3	80.0	87.8	-	-	-	129.5	-	-	0.0	-	0.0	-	-
83.3	90.0	115.2	-	-	-	50.7	-	-	0.0	-	0.0	-	-
83.3	110.0	58.0	-	-	-	-	-	-	0.0	-	0.0	-	-
86.7	33.0	24.6	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	35.0	48.7	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	39.5	31.7	-	-	-	11.0	-	-	0.0	-	0.0	-	-
86.7	45.0	88.4	-	-	-	33.2	-	-	0.0	-	0.0	-	-
86.7	50.0	108.2	-	-	-	19.8	-	-	0.0	-	0.0	-	-
86.7	55.0	91.1	-	-	-	10.8	-	-	0.0	-	0.0	-	-
86.7	60.0	10.6	-	-	-	5.3	-	-	0.0	-	0.0	-	-
86.7	70.0	19.8	-	-	-	0.0	-	-	4.8	-	0.0	-	-
86.7	80.0	19.8	-	-	-	52.1	-	-	0.0	-	0.0	-	-
86.7	90.0	32.8	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	100.0	9.9	-	-	-	-	-	-	0.0	-	0.0	-	-
86.7	110.0	23.2	-	-	-	-	-	-	0.0	-	0.0	-	-
90.0	28.0	87.4	-	-	-	9.0	-	-	0.0	-	0.0	-	-
90.0	30.0	10.4	-	-	-	8.9	-	-	0.0	-	0.0	-	-
90.0	35.0	26.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	37.0	104.6	-	-	-	33.4	-	-	0.0	-	0.0	-	-
90.0	45.0	9.9	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	53.0	5.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	70.0	10.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	80.0	5.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	100.0	0.0	-	-	-	10.1	-	-	0.0	-	0.0	-	-
90.0	120.0	0.0	-	-	-	-	-	-	15.3	-	0.0	-	-
93.3	26.7	67.3	-	-	9.0	-	-	-	0.0	-	0.0	-	-
93.3	28.0	35.8	-	-	29.8	-	-	-	0.0	-	0.0	-	-

TABLE 4. (cont.)

Stenobrachius leucopsarus (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3	30.0	51.4	-	-	121.9	-	-	-	0.0	-	0.0	-	-
93.3	35.0	29.6	-	-	35.6	-	-	-	0.0	-	0.0	-	-
93.3	40.0	30.8	-	-	21.2	-	-	-	0.0	-	0.0	-	-
93.3	45.0	9.8	-	-	5.5	-	-	-	0.0	-	0.0	-	-
93.3	50.0	0.0	-	-	10.8	-	-	-	0.0	-	0.0	-	-
93.3	55.0	5.2	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3	60.0	14.9	-	-	15.8	-	-	-	0.0	-	0.0	-	-
93.3	70.0	5.3	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3	100.0	0.0	-	-	-	19.5	-	-	0.0	-	0.0	-	-

Triphoturus mexicanus

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7	39.5	0.0	-	-	-	0.0	-	-	19.9	-	0.0	-	-
86.7	45.0	0.0	-	-	-	0.0	-	-	0.0	-	5.3	-	-
86.7	50.0	0.0	-	-	-	0.0	-	-	9.6	-	0.0	-	-
90.0	28.0	0.0	-	-	-	0.0	-	-	4.8	-	0.0	-	-
90.0	30.0	0.0	-	-	-	0.0	-	-	54.3	-	0.0	-	-
90.0	37.0	0.0	-	-	-	0.0	-	-	15.8	-	0.0	-	-
90.0	45.0	0.0	-	-	-	0.0	-	-	5.0	-	0.0	-	-
90.0	60.0	0.0	-	-	-	0.0	-	-	10.6	-	0.0	-	-
90.0	70.0	0.0	-	-	-	0.0	-	-	0.0	-	9.0	-	-
90.0	90.0	0.0	-	-	-	0.0	-	-	4.8	-	0.0	-	-
90.0	100.0	0.0	-	-	-	0.0	-	-	9.5	-	14.8	-	-
93.3	30.0	0.0	-	-	0.0	-	-	-	10.7	-	0.0	-	-
93.3	35.0	0.0	-	-	0.0	-	-	-	10.5	-	0.0	-	-
93.3	45.0	0.0	-	-	11.1	-	-	-	10.5	-	0.0	-	-
93.3	50.0	0.0	-	-	21.6	-	-	-	32.2	-	5.0	-	-
93.3	80.0	0.0	-	-	-	0.0	-	-	5.0	-	5.1	-	-
93.3	90.0	0.0	-	-	-	0.0	-	-	10.2	-	0.0	-	-
93.3	100.0	0.0	-	-	-	4.9	-	-	28.7	-	53.8	-	-
93.3	110.0	0.0	-	-	-	-	-	-	4.8	-	19.4	-	-
93.3	120.0	0.0	-	-	-	-	-	-	14.6	-	0.0	-	-

TABLE 4. (cont.)

Station		*Diogenichthys atlanticus*											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	60.0	-	21.4	-	-	0.0	-	-	0.0	-	0.0	-	-
76.7	70.0	4.8	-	-	-	11.0	-	-	0.0	-	0.0	-	-
76.7	80.0	66.4	-	-	-	-	-	-	0.0	-	0.0	-	-
76.7	90.0	9.7	-	-	-	-	-	-	0.0	-	4.9	-	-
76.7	100.0	-	-	-	-	-	-	-	0.0	-	19.9	-	-
80.0	70.0	9.5	-	-	-	0.0	-	-	0.0	-	0.0	-	-
80.0	80.0	22.5	-	-	-	-	-	-	0.0	-	0.0	-	-
80.0	90.0	4.8	-	-	-	-	-	-	5.0	-	10.1	-	-
80.0	100.0	-	-	-	-	-	-	-	10.0	-	9.5	-	-
83.3	60.0	0.0	-	-	-	11.2	-	-	0.0	-	0.0	-	-
83.3	70.0	9.7	-	-	-	10.5	-	-	0.0	-	0.0	-	-
83.3	80.0	29.3	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	90.0	5.0	-	-	-	0.0	-	-	0.0	-	9.5	-	-
83.3	100.0	15.8	-	-	-	-	-	-	0.0	-	5.0	-	-
83.3	110.0	42.2	-	-	-	-	-	-	0.0	-	5.0	-	-
86.7	50.0	10.3	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	60.0	5.3	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	70.0	0.0	-	-	-	30.9	-	-	0.0	-	4.7	-	-
86.7	80.0	9.9	-	-	-	20.9	-	-	0.0	-	0.0	-	-
86.7	90.0	4.7	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	100.0	14.8	-	-	-	-	-	-	0.0	-	0.0	-	-
86.7	110.0	13.9	-	-	-	-	-	-	0.0	-	4.6	-	-
90.0	37.0	10.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	53.0	0.0	-	-	-	5.2	-	-	0.0	-	0.0	-	-
90.0	60.0	5.0	-	-	-	10.5	-	-	0.0	-	9.9	-	-
90.0	70.0	10.4	-	-	-	30.2	-	-	0.0	-	18.0	-	-
90.0	80.0	30.7	-	-	-	5.0	-	-	0.0	-	4.9	-	-
90.0	90.0	4.5	-	-	-	9.7	-	-	0.0	-	14.4	-	-
90.0	100.0	29.2	-	-	-	5.1	-	-	9.5	-	14.8	-	-
90.0	110.0	47.8	-	-	-	-	-	-	4.9	-	9.5	-	-

TABLE 4. (cont.)

Diogenichthys atlanticus (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0 120.0	34.4	-	-	-	-	-	-	15.3	-	0.0	-	-
93.3 30.0	15.4	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3 35.0	4.9	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3 45.0	9.8	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3 50.0	0.0	-	-	0.0	-	-	-	0.0	-	10.0	-	-
93.3 55.0	15.7	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3 60.0	9.9	-	-	10.5	-	-	-	0.0	-	5.2	-	-
93.3 70.0	58.0	-	-	15.8	-	-	-	0.0	-	0.0	-	-
93.3 80.0	19.1	-	-	-	4.7	-	-	0.0	-	0.0	-	-
93.3 90.0	44.3	-	-	-	0.0	-	-	0.0	-	15.9	-	-
93.3 100.0	90.1	-	-	-	19.5	-	-	9.6	-	14.7	-	-
93.3 110.0	14.4	-	-	-	-	-	-	0.0	-	0.0	-	-
93.3 120.0	53.3	-	-	-	-	-	-	0.0	-	9.8	-	-

Diogenichthys laternatus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 30.0	5.1	-	-	0.0	-	-	-	0.0	-	5.2	-	-

Electrona risso

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 110.0	0.0	-	-	-	-	-	-	0.0	-	5.0	-	-
90.0 100.0	0.0	-	-	-	5.1	-	-	0.0	-	0.0	-	-
90.0 110.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-
93.3 70.0	0.0	-	-	5.3	-	-	-	0.0	-	0.0	-	-
93.3 80.0	0.0	-	-	-	4.7	-	-	0.0	-	0.0	-	-
93.3 100.0	0.0	-	-	-	4.9	-	-	0.0	-	0.0	-	-

Hygophum reinhardtii

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0 110.0	14.3	-	-	-	-	-	-	0.0	-	0.0	-	-
90.0 120.0	4.9	-	-	-	-	-	-	0.0	-	0.0	-	-
93.3 80.0	0.0	-	-	-	4.7	-	-	0.0	-	0.0	-	-
93.3 110.0	9.6	-	-	-	-	-	-	0.0	-	0.0	-	-

TABLE 4. (cont.)

Myctophum nitidulum

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0	100.0	4.9	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	110.0	9.6	-	-	-	-	-	-	0.0	-	0.0	-	-
93.3	100.0	4.7	-	-	-	0.0	-	-	0.0	-	0.0	-	-
93.3	110.0	0.0	-	-	-	-	-	-	0.0	-	4.9	-	-

Protomyctophum crockeri

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	60.0	-	10.7	-	-	0.0	-	-	0.0	-	9.6	-	-
76.7	70.0	14.3	-	-	-	11.0	-	-	0.0	-	0.0	-	-
76.7	80.0	25.6	-	-	-	-	-	-	0.0	-	0.0	-	-
76.7	90.0	9.7	-	-	-	-	-	-	0.0	-	4.9	-	-
76.7	100.0	-	-	-	-	-	-	-	0.0	-	14.9	-	-
80.0	55.0	10.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
80.0	60.0	0.0	-	-	-	0.0	-	-	9.9	-	0.0	-	-
80.0	70.0	9.5	-	-	-	0.0	-	-	0.0	-	9.6	-	-
80.0	80.0	0.0	-	-	-	-	-	-	0.0	-	10.0	-	-
80.0	90.0	4.8	-	-	-	-	-	-	9.9	-	0.0	-	-
80.0	100.0	-	-	-	-	-	-	-	15.0	-	4.8	-	-
81.8	46.9	5.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	42.0	5.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	55.0	4.8	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	60.0	5.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	70.0	29.2	-	-	-	0.0	-	-	9.4	-	0.0	-	-
83.3	80.0	9.8	-	-	-	10.0	-	-	4.9	-	0.0	-	-
83.3	90.0	5.0	-	-	-	0.0	-	-	8.8	-	0.0	-	-
83.3	110.0	36.9	-	-	-	-	-	-	0.0	-	0.0	-	-
86.7	35.0	5.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	39.5	10.6	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	50.0	0.0	-	-	-	0.0	-	-	0.0	-	4.3	-	-
86.7	55.0	15.2	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	70.0	14.9	-	-	-	20.6	-	-	0.0	-	19.0	-	-
86.7	80.0	9.9	-	-	-	0.0	-	-	5.0	-	0.0	-	-

TABLE 4. (cont.)

Protomyctophum crockeri (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 90.0	4.7	-	-	-	4.9	-	-	0.0	-	14.5	-	-
86.7 100.0	19.7	-	-	-	-	-	-	9.5	-	0.0	-	-
86.7 110.0	32.5	-	-	-	-	-	-	0.0	-	0.0	-	-
90.0 30.0	5.2	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0 35.0	0.0	-	-	-	0.0	-	-	11.0	-	0.0	-	-
90.0 37.0	24.9	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0 45.0	9.9	-	-	-	8.9	-	-	0.0	-	0.0	-	-
90.0 53.0	5.1	-	-	-	5.2	-	-	0.0	-	4.7	-	-
90.0 60.0	10.0	-	-	-	5.3	-	-	0.0	-	0.0	-	-
90.0 70.0	5.2	-	-	-	15.1	-	-	15.7	-	0.0	-	-
90.0 80.0	25.6	-	-	-	5.0	-	-	0.0	-	0.0	-	-
90.0 90.0	4.5	-	-	-	4.9	-	-	0.0	-	4.8	-	-
90.0 100.0	4.9	-	-	-	0.0	-	-	0.0	-	4.9	-	-
90.0 110.0	14.3	-	-	-	-	-	-	0.0	-	4.7	-	-
90.0 120.0	4.9	-	-	-	-	-	-	5.1	-	9.3	-	-
93.3 28.0	5.1	-	-	0.0	-	-	-	5.1	-	0.0	-	-
93.3 30.0	5.1	-	-	0.0	-	-	-	0.0	-	10.4	-	-
93.3 35.0	4.9	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3 40.0	10.3	-	-	10.6	-	-	-	0.0	-	0.0	-	-
93.3 45.0	0.0	-	-	11.1	-	-	-	0.0	-	0.0	-	-
93.3 50.0	10.2	-	-	10.8	-	-	-	0.0	-	5.0	-	-
93.3 55.0	15.7	-	-	11.6	-	-	-	0.0	-	0.0	-	-
93.3 60.0	5.0	-	-	21.0	-	-	-	4.8	-	26.1	-	-
93.3 70.0	21.1	-	-	26.4	-	-	-	0.0	-	0.0	-	-
93.3 80.0	4.8	-	-	-	9.4	-	-	0.0	-	0.0	-	-
93.3 90.0	17.7	-	-	-	0.0	-	-	5.1	-	0.0	-	-
93.3 100.0	0.0	-	-	-	4.9	-	-	0.0	-	4.9	-	-
93.3 110.0	9.6	-	-	-	-	-	-	0.0	-	4.9	-	-

Symbolophorus californiensis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 80.0	15.3	-	-	-	-	-	-	0.0	-	0.0	-	-

TABLE 4. (cont.)

Station		*Merluccius productus* (cont.)											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0	70.0	982.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
80.0	80.0	130.2	-	-	-	-	-	-	0.0	-	0.0	-	-
80.0	90.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-
81.8	46.9	585.4	-	-	-	0.0	-	-	10.9	-	25.7	-	-
83.3	40.6	4.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	42.0	25.2	-	-	-	10.7	-	-	5.1	-	0.0	-	-
83.3	51.0	121.9	-	-	-	0.0	-	-	15.2	-	0.0	-	-
83.3	55.0	227.9	-	-	-	0.0	-	-	9.2	-	0.0	-	-
83.3	60.0	297.6	-	-	-	0.0	-	-	0.0	-	10.4	-	-
83.3	70.0	670.7	-	-	-	0.0	-	-	0.0	-	4.9	-	-
83.3	80.0	9140.2	-	-	-	10.0	-	-	0.0	-	0.0	-	-
83.3	90.0	736.5	-	-	-	5.1	-	-	0.0	-	0.0	-	-
83.3	100.0	6132.0	-	-	-	-	-	-	0.0	-	0.0	-	-
83.3	110.0	58.0	-	-	-	-	-	-	0.0	-	0.0	-	-
86.7	33.0	0.0	-	-	-	0.0	-	-	0.0	-	4.6	-	-
86.7	35.0	27.1	-	-	-	0.0	-	-	0.0	-	15.3	-	-
86.7	39.5	274.8	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	45.0	582.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	50.0	144.2	-	-	-	0.0	-	-	0.0	-	12.9	-	-
86.7	55.0	521.2	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	60.0	137.8	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	70.0	69.3	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	80.0	841.5	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	90.0	1160.6	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	100.0	108.5	-	-	-	-	-	-	0.0	-	0.0	-	-
86.7	110.0	733.1	-	-	-	-	-	-	0.0	-	0.0	-	-
90.0	28.0	46.3	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	30.0	36.4	-	-	-	0.0	-	-	0.0	-	5.3	-	-
90.0	35.0	119.6	-	-	-	9.9	-	-	0.0	-	0.0	-	-
90.0	37.0	224.1	-	-	-	11.1	-	-	0.0	-	0.0	-	-

TABLE 4. (cont.)

Merluccius productus (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0 45.0	258.4	-	-	-	0.0	-	-	0.0	-	10.5	-	-
90.0 53.0	330.2	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0 70.0	93.6	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0 80.0	15.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0 100.0	4.9	-	-	-	0.0	-	-	0.0	-	0.0	-	-
93.3 26.7	19.2	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3 28.0	25.6	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3 30.0	92.5	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3 35.0	9.9	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3 45.0	9.8	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3 50.0	5.1	-	-	0.0	-	-	-	0.0	-	0.0	-	-

Chilara taylori

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0 55.0	0.0	-	-	-	0.0	-	-	0.0	-	9.4	-	-

Ophidion scrippsae

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 26.7	0.0	-	-	0.0	-	-	-	0.0	-	3.8	-	-

Brosmophycis marginata

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0 35.0	0.0	-	-	-	9.9	-	-	0.0	-	0.0	-	-

Cataetyx rubrirostris

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 42.0	0.0	-	-	-	10.7	-	-	0.0	-	0.0	-	-
93.3 60.0	0.0	-	-	5.3	-	-	-	0.0	-	0.0	-	-

***Oneirodes* spp.**

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0 90.0	0.0	-	-	-	0.0	-	-	4.8	-	0.0	-	-

Atherinopsis californiensis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 40.6	4.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-

TABLE 4. (cont.)

Leuresthes tenuis

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3	26.7	0.0	-	-	9.0	-	-	-	0.0	-	0.0	-	-

Cololabis saira

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	60.0	-	0.0	-	-	11.3	-	-	0.0	-	0.0	-	-
83.3	90.0	0.0	-	-	-	15.2	-	-	0.0	-	0.0	-	-
86.7	60.0	0.0	-	-	-	5.3	-	-	0.0	-	0.0	-	-
90.0	45.0	0.0	-	-	-	8.9	-	-	0.0	-	0.0	-	-

***Melamphaes* spp.**

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0	90.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-
93.3	60.0	5.0	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3	100.0	4.7	-	-	-	0.0	-	-	4.8	-	0.0	-	-

Melamphaes lugubris

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	80.0	10.2	-	-	-	-	-	-	0.0	-	0.0	-	-
80.0	60.0	0.0	-	-	-	21.2	-	-	0.0	-	0.0	-	-
80.0	100.0	-	-	-	-	-	-	-	10.0	-	4.8	-	-
83.3	70.0	0.0	-	-	-	10.5	-	-	0.0	-	0.0	-	-
83.3	80.0	4.9	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	90.0	0.0	-	-	-	0.0	-	-	0.0	-	4.7	-	-
83.3	110.0	0.0	-	-	-	-	-	-	0.0	-	5.0	-	-
86.7	60.0	5.3	-	-	-	10.5	-	-	0.0	-	0.0	-	-
86.7	110.0	4.6	-	-	-	-	-	-	0.0	-	4.6	-	-
90.0	35.0	0.0	-	-	-	0.0	-	-	11.0	-	0.0	-	-
90.0	37.0	0.0	-	-	-	0.0	-	-	5.3	-	0.0	-	-
90.0	53.0	0.0	-	-	-	5.2	-	-	0.0	-	0.0	-	-
90.0	100.0	4.9	-	-	-	0.0	-	-	0.0	-	4.9	-	-
90.0	110.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-
93.3	55.0	0.0	-	-	3.9	-	-	-	0.0	-	0.0	-	-
93.3	60.0	0.0	-	-	15.8	-	-	-	0.0	-	0.0	-	-
93.3	80.0	0.0	-	-	-	4.7	-	-	10.0	-	0.0	-	-

TABLE 4. (cont.)

Melamphaes lugubris (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 90.0	4.4	-	-	-	4.8	-	-	0.0	-	0.0	-	-
93.3 100.0	0.0	-	-	-	4.9	-	-	0.0	-	0.0	-	-

Melamphaes parvus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 70.0	4.8	-	-	-	0.0	-	-	0.0	-	0.0	-	-
80.0 55.0	10.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
80.0 60.0	10.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3 60.0	5.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3 110.0	15.8	-	-	-	-	-	-	0.0	-	0.0	-	-
86.7 55.0	5.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7 90.0	4.7	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7 100.0	4.9	-	-	-	-	-	-	0.0	-	0.0	-	-
90.0 80.0	5.1	-	-	-	10.0	-	-	0.0	-	0.0	-	-
93.3 80.0	0.0	-	-	-	4.7	-	-	0.0	-	0.0	-	-

Melamphaes simus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 110.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-

***Poromitra* spp.**

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 110.0	4.6	-	-	-	-	-	-	0.0	-	0.0	-	-

Poromitra crassiceps

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 70.0	5.3	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3 110.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-

Scopeloberyx robustus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 100.0	0.0	-	-	-	0.0	-	-	0.0	-	4.9	-	-

Scopelogadus bispinosus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 90.0	0.0	-	-	-	0.0	-	-	0.0	-	4.7	-	-
90.0 120.0	0.0	-	-	-	-	-	-	5.1	-	0.0	-	-

TABLE 4. (cont.)

Macroramphosus gracilis

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0	90.0	4.5	-	-	-	0.0	-	-	0.0	-	0.0	-	-

Sebastes spp.

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	49.0	-	9.3	-	-	14.8	-	-	0.0	-	0.0	-	-
76.7	51.0	-	29.8	-	-	54.3	-	-	11.0	-	0.0	-	-
76.7	55.0	-	200.1	-	-	48.2	-	-	0.0	-	0.0	-	-
76.7	60.0	-	139.4	-	-	22.6	-	-	0.0	-	0.0	-	-
80.0	51.0	171.9	-	-	-	5.2	-	-	0.0	-	4.4	-	-
80.0	55.0	20.0	-	-	-	0.0	-	-	10.5	-	112.5	-	-
80.0	60.0	101.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
80.0	70.0	0.0	-	-	-	20.7	-	-	0.0	-	0.0	-	-
81.8	46.9	1116.5	-	-	-	0.0	-	-	0.0	-	113.1	-	-
83.3	40.6	13.2	-	-	-	9.0	-	-	0.0	-	0.0	-	-
83.3	42.0	115.7	-	-	-	42.8	-	-	0.0	-	0.0	-	-
83.3	51.0	320.0	-	-	-	31.0	-	-	5.1	-	4.5	-	-
83.3	55.0	87.3	-	-	-	11.2	-	-	9.2	-	20.1	-	-
83.3	60.0	19.8	-	-	-	0.0	-	-	0.0	-	41.6	-	-
83.3	70.0	106.9	-	-	-	31.4	-	-	0.0	-	0.0	-	-
83.3	80.0	117.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	33.0	29.5	-	-	-	9.3	-	-	0.0	-	0.0	-	-
86.7	35.0	351.7	-	-	-	0.0	-	-	0.0	-	10.2	-	-
86.7	39.5	74.0	-	-	-	11.0	-	-	0.0	-	0.0	-	-
86.7	45.0	83.2	-	-	-	143.9	-	-	0.0	-	0.0	-	-
86.7	50.0	422.3	-	-	-	662.0	-	-	0.0	-	60.2	-	-
86.7	55.0	5.1	-	-	-	54.1	-	-	4.9	-	9.7	-	-
86.7	60.0	5.3	-	-	-	0.0	-	-	0.0	-	9.3	-	-
86.7	80.0	5.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	90.0	9.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	28.0	56.5	-	-	-	9.0	-	-	0.0	-	0.0	-	-
90.0	30.0	46.8	-	-	-	26.8	-	-	0.0	-	0.0	-	-

TABLE 4. (cont.)

Sebastes spp. (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0	35.0	130.0	-	-	-	39.4	-	-	0.0	-	0.0	-	-
90.0	37.0	129.5	-	-	-	44.5	-	-	0.0	-	0.0	-	-
90.0	45.0	154.1	-	-	-	116.2	-	-	0.0	-	5.2	-	-
90.0	53.0	655.3	-	-	-	20.7	-	-	0.0	-	0.0	-	-
90.0	60.0	0.0	-	-	-	5.3	-	-	10.6	-	0.0	-	-
93.3	26.7	33.7	-	-	9.0	-	-	-	0.0	-	3.8	-	-
93.3	28.0	5.1	-	-	39.8	-	-	-	0.0	-	14.4	-	-
93.3	30.0	0.0	-	-	10.2	-	-	-	0.0	-	0.0	-	-
93.3	35.0	19.8	-	-	121.9	-	-	-	0.0	-	0.0	-	-
93.3	40.0	10.3	-	-	15.9	-	-	-	0.0	-	0.0	-	-
93.3	45.0	34.2	-	-	55.3	-	-	-	0.0	-	5.3	-	-
93.3	50.0	51.1	-	-	27.1	-	-	-	5.4	-	5.0	-	-
93.3	60.0	0.0	-	-	36.8	-	-	-	0.0	-	0.0	-	-
93.3	70.0	0.0	-	-	5.3	-	-	-	0.0	-	0.0	-	-

Sebastes aurora

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	51.0	-	0.0	-	-	10.9	-	-	11.0	-	0.0	-	-
76.7	55.0	-	5.1	-	-	24.1	-	-	0.0	-	0.0	-	-
80.0	70.0	9.5	-	-	-	0.0	-	-	0.0	-	0.0	-	-
81.8	46.9	5.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	80.0	4.9	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	50.0	0.0	-	-	-	4.9	-	-	0.0	-	0.0	-	-

Sebastes diploproa

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	49.0	-	0.0	-	-	0.0	-	-	0.0	-	13.0	-	-
76.7	55.0	-	0.0	-	-	0.0	-	-	0.0	-	10.8	-	-
80.0	51.0	0.0	-	-	-	0.0	-	-	0.0	-	4.4	-	-
80.0	55.0	0.0	-	-	-	0.0	-	-	0.0	-	18.8	-	-
80.0	70.0	9.5	-	-	-	0.0	-	-	0.0	-	0.0	-	-
81.8	46.9	0.0	-	-	-	0.0	-	-	21.8	-	36.0	-	-
83.3	42.0	0.0	-	-	-	0.0	-	-	10.1	-	0.0	-	-

TABLE 4. (cont.)

Sebastes diploproa (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3	55.0	0.0	-	-	-	0.0	-	-	0.0	-	10.0	-	-
86.7	33.0	0.0	-	-	-	0.0	-	-	0.0	-	4.6	-	-
86.7	35.0	0.0	-	-	-	0.0	-	-	0.0	-	5.1	-	-
86.7	45.0	0.0	-	-	-	0.0	-	-	0.0	-	5.3	-	-
86.7	50.0	0.0	-	-	-	0.0	-	-	0.0	-	8.6	-	-
90.0	53.0	0.0	-	-	-	0.0	-	-	9.7	-	0.0	-	-
93.3	28.0	0.0	-	-	0.0	-	-	-	0.0	-	4.8	-	-

Sebastes jordani

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	49.0	-	14.0	-	-	0.0	-	-	0.0	-	0.0	-	-
76.7	51.0	-	69.6	-	-	0.0	-	-	0.0	-	0.0	-	-
76.7	55.0	-	5.1	-	-	0.0	-	-	0.0	-	0.0	-	-
76.7	60.0	-	53.6	-	-	0.0	-	-	0.0	-	0.0	-	-
80.0	51.0	28.7	-	-	-	0.0	-	-	0.0	-	0.0	-	-
80.0	60.0	10.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-
80.0	70.0	9.5	-	-	-	0.0	-	-	0.0	-	0.0	-	-
81.8	46.9	27.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	40.6	4.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	42.0	623.7	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	51.0	660.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	55.0	43.6	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	70.0	29.2	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	33.0	4.9	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	35.0	432.8	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	39.5	63.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	45.0	20.8	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	50.0	164.8	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	55.0	5.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	80.0	5.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	90.0	4.7	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	28.0	138.8	-	-	-	0.0	-	-	0.0	-	0.0	-	-

TABLE 4. (cont.)

Sebastes jordani (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0	30.0	62.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	35.0	67.6	-	-	-	9.9	-	-	0.0	-	0.0	-	-
90.0	37.0	69.7	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	45.0	29.8	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	53.0	355.6	-	-	-	0.0	-	-	0.0	-	0.0	-	-
93.3	26.7	101.0	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3	45.0	4.9	-	-	0.0	-	-	-	0.0	-	0.0	-	-

Sebastes paucispinis

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	55.0	-	10.3	-	-	0.0	-	-	0.0	-	0.0	-	-
76.7	60.0	-	21.4	-	-	0.0	-	-	0.0	-	0.0	-	-
76.7	70.0	4.8	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	51.0	15.2	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	55.0	19.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	70.0	9.7	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	80.0	9.8	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	35.0	5.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	45.0	26.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	50.0	5.2	-	-	-	4.9	-	-	0.0	-	0.0	-	-
86.7	60.0	10.6	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	80.0	5.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	90.0	4.7	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	35.0	5.2	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	37.0	5.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	53.0	10.2	-	-	-	0.0	-	-	0.0	-	0.0	-	-
93.3	26.7	4.8	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3	30.0	0.0	-	-	0.0	-	-	-	0.0	-	5.2	-	-
93.3	45.0	0.0	-	-	5.5	-	-	-	0.0	-	0.0	-	-
93.3	60.0	0.0	-	-	5.3	-	-	-	0.0	-	0.0	-	-

TABLE 4. (cont.)

***Sebastolobus* spp.**

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 55.0	5.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-

Sebastolobus alascanus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0 80.0	0.0	-	-	-	-	-	-	0.0	-	5.0	-	-

Sebastolobus altivelis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 90.0	0.0	-	-	-	-	-	-	0.0	-	4.9	-	-
83.3 80.0	0.0	-	-	-	10.0	-	-	0.0	-	0.0	-	-
86.7 60.0	0.0	-	-	-	0.0	-	-	0.0	-	9.3	-	-

Zaniolepis latipinnis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 51.0	30.5	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7 45.0	5.2	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0 30.0	5.2	-	-	-	0.0	-	-	0.0	-	0.0	-	-

Cottidae

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 50.0	0.0	-	-	-	4.9	-	-	0.0	-	0.0	-	-

Artedius creaseri

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 51.0	0.0	-	-	-	0.0	-	-	5.1	-	0.0	-	-

Scorpaenichthys marmoratus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 60.0	5.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7 33.0	0.0	-	-	-	0.0	-	-	0.0	-	4.6	-	-
86.7 45.0	0.0	-	-	-	0.0	-	-	15.2	-	0.0	-	-

***Paralabrax* spp.**

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 42.0	0.0	-	-	-	0.0	-	-	25.4	-	0.0	-	-
83.3 51.0	0.0	-	-	-	0.0	-	-	50.8	-	0.0	-	-
83.3 55.0	0.0	-	-	-	0.0	-	-	18.5	-	0.0	-	-
86.7 33.0	0.0	-	-	-	0.0	-	-	20.2	-	4.6	-	-

TABLE 4. (cont.)

***Paralabrax* spp.** (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 35.0	0.0	-	-	-	0.0	-	-	32.5	-	0.0	-	-
86.7 39.5	0.0	-	-	-	0.0	-	-	19.9	-	0.0	-	-
86.7 50.0	0.0	-	-	-	0.0	-	-	4.8	-	0.0	-	-
86.7 55.0	0.0	-	-	-	0.0	-	-	9.8	-	0.0	-	-
90.0 28.0	0.0	-	-	-	0.0	-	-	4.8	-	0.0	-	-
90.0 30.0	0.0	-	-	-	0.0	-	-	10.9	-	0.0	-	-
90.0 53.0	0.0	-	-	-	0.0	-	-	9.7	-	0.0	-	-
93.3 26.7	0.0	-	-	0.0	-	-	-	0.0	-	3.8	-	-
93.3 30.0	0.0	-	-	0.0	-	-	-	5.4	-	0.0	-	-

***Howella* spp.**

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 100.0	-	-	-	-	-	-	-	0.0	-	5.0	-	-
93.3 100.0	0.0	-	-	-	0.0	-	-	0.0	-	4.9	-	-
93.3 110.0	0.0	-	-	-	-	-	-	0.0	-	4.9	-	-
93.3 120.0	0.0	-	-	-	-	-	-	0.0	-	4.9	-	-

Caulolatilus princeps

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 51.0	0.0	-	-	-	0.0	-	-	5.1	-	0.0	-	-

Trachurus symmetricus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 60.0	-	0.0	-	-	0.0	-	-	10.8	-	0.0	-	-
76.7 90.0	0.0	-	-	-	-	-	-	4.8	-	0.0	-	-
86.7 33.0	0.0	-	-	-	0.0	-	-	15.1	-	0.0	-	-
86.7 60.0	0.0	-	-	-	26.3	-	-	0.0	-	0.0	-	-
86.7 70.0	0.0	-	-	-	154.5	-	-	0.0	-	0.0	-	-
86.7 90.0	0.0	-	-	-	4.9	-	-	0.0	-	0.0	-	-
90.0 53.0	0.0	-	-	-	10.3	-	-	0.0	-	0.0	-	-
90.0 70.0	0.0	-	-	-	15.1	-	-	0.0	-	0.0	-	-
90.0 80.0	0.0	-	-	-	0.0	-	-	0.0	-	4.9	-	-
90.0 100.0	0.0	-	-	-	10.1	-	-	0.0	-	0.0	-	-
93.3 45.0	0.0	-	-	0.0	-	-	-	5.3	-	0.0	-	-

TABLE 4. (cont.)

Trachurus symmetricus (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 50.0	0.0	-	-	59.5	-	-	-	5.4	-	0.0	-	-
93.3 70.0	0.0	-	-	26.4	-	-	-	0.0	-	0.0	-	-

Brama japonica

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0 90.0	0.0	-	-	-	-	-	-	5.0	-	0.0	-	-

Anisotremus davidsoni

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 26.7	0.0	-	-	0.0	-	-	-	4.4	-	3.8	-	-

Sciaenidae

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 33.0	0.0	-	-	-	0.0	-	-	5.0	-	0.0	-	-

Genyonemus lineatus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 49.0	-	0.0	-	-	0.0	-	-	0.0	-	8.7	-	-
76.7 51.0	-	0.0	-	-	0.0	-	-	0.0	-	9.3	-	-
76.7 55.0	-	5.1	-	-	0.0	-	-	0.0	-	0.0	-	-
76.7 60.0	-	0.0	-	-	0.0	-	-	10.8	-	0.0	-	-
80.0 51.0	28.7	-	-	-	0.0	-	-	0.0	-	8.8	-	-
80.0 55.0	0.0	-	-	-	0.0	-	-	0.0	-	9.4	-	-
81.8 46.9	0.0	-	-	-	0.0	-	-	0.0	-	5.1	-	-
83.3 40.6	0.0	-	-	-	0.0	-	-	0.0	-	23.0	-	-
83.3 42.0	216.3	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3 51.0	10.2	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3 55.0	4.8	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7 33.0	34.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7 45.0	5.2	-	-	-	0.0	-	-	0.0	-	0.0	-	-

Menticirrhus undulatus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 26.7	0.0	-	-	0.0	-	-	-	4.4	-	0.0	-	-

Seriphus politus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 40.6	0.0	-	-	-	0.0	-	-	4.2	-	0.0	-	-

TABLE 4. (cont.)

Medialuna californiensis

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	60.0	-	0.0	-	-	11.3	-	-	0.0	-	0.0	-	-

Chromis punctipinnis

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3	40.6	0.0	-	-	-	0.0	-	-	4.2	-	0.0	-	-
93.3	50.0	0.0	-	-	0.0	-	-	-	5.4	-	0.0	-	

Oxyjulis californica

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3	42.0	0.0	-	-	-	0.0	-	-	5.1	-	0.0	-	-
83.3	70.0	0.0	-	-	-	0.0	-	-	0.0	-	4.9	-	-
86.7	33.0	0.0	-	-	-	0.0	-	-	5.0	-	0.0	-	-
86.7	39.5	0.0	-	-	-	0.0	-	-	9.9	-	0.0	-	-
86.7	55.0	0.0	-	-	-	0.0	-	-	14.6	-	19.4	-	-
86.7	60.0	0.0	-	-	-	0.0	-	-	0.0	-	9.3	-	-
90.0	30.0	0.0	-	-	-	0.0	-	-	10.9	-	0.0	-	-
90.0	45.0	0.0	-	-	-	0.0	-	-	5.0	-	0.0	-	-
90.0	53.0	0.0	-	-	-	0.0	-	-	19.3	-	0.0	-	-
90.0	60.0	0.0	-	-	-	0.0	-	-	21.2	-	0.0	-	-
93.3	35.0	0.0	-	-	5.1	-	-	-	0.0	-	0.0	-	-
93.3	50.0	0.0	-	-	0.0	-	-	-	5.4	-	0.0	-	-
93.3	55.0	0.0	-	-	3.9	-	-	-	10.0	-	0.0	-	-

Semicossyphus pulcher

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3	55.0	0.0	-	-	-	0.0	-	-	9.2	-	0.0	-	-
90.0	45.0	0.0	-	-	-	0.0	-	-	0.0	-	5.2	-	-

***Rathbunella* spp.**

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	49.0	-	0.0	-	-	0.0	-	-	0.0	-	4.3	-	-
80.0	51.0	19.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	50.0	5.2	-	-	-	0.0	-	-	0.0	-	0.0	-	-

Chiasmodon niger

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0	90.0	0.0	-	-	-	0.0	-	-	4.8	-	0.0	-	-

TABLE 4. (cont.)

Chiasmodon niger (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3	55.0	5.2	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3	90.0	8.9	-	-	-	4.8	-	-	0.0	-	5.3	-	-

***Neoclinus* spp.**

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	51.0	-	0.0	-	-	0.0	-	-	0.0	-	9.3	-	-

Neoclinus stephensae

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
81.8	46.9	0.0	-	-	-	0.0	-	-	0.0	-	5.1	-	-

Hypsoblennius jenkinsi

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0	51.0	0.0	-	-	-	0.0	-	-	4.7	-	0.0	-	-
83.3	42.0	0.0	-	-	-	0.0	-	-	5.1	-	0.0	-	-
86.7	33.0	0.0	-	-	-	4.7	-	-	0.0	-	0.0	-	-
90.0	30.0	0.0	-	-	-	0.0	-	-	10.9	-	0.0	-	-
90.0	35.0	0.0	-	-	-	0.0	-	-	0.0	-	5.0	-	-
93.3	26.7	0.0	-	-	0.0	-	-	-	0.0	-	3.8	-	-

Coryphopterus nicholsii

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	70.0	4.8	-	-	-	0.0	-	-	0.0	-	0.0	-	-
80.0	70.0	9.5	-	-	-	0.0	-	-	0.0	-	0.0	-	-
81.8	46.9	0.0	-	-	-	0.0	-	-	10.9	-	0.0	-	-
83.3	40.6	0.0	-	-	-	9.0	-	-	0.0	-	0.0	-	-
83.3	42.0	0.0	-	-	-	21.4	-	-	0.0	-	0.0	-	-
83.3	51.0	0.0	-	-	-	10.3	-	-	5.1	-	0.0	-	-
83.3	60.0	0.0	-	-	-	0.0	-	-	0.0	-	10.4	-	-
83.3	70.0	29.2	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	33.0	0.0	-	-	-	0.0	-	-	5.0	-	0.0	-	-
86.7	35.0	0.0	-	-	-	11.0	-	-	0.0	-	0.0	-	-
86.7	45.0	0.0	-	-	-	11.1	-	-	0.0	-	0.0	-	-
90.0	30.0	0.0	-	-	-	8.9	-	-	0.0	-	0.0	-	-
90.0	37.0	10.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-

TABLE 4. (cont.)

Coryphopterus nicholsii (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 50.0	0.0	-	-	5.4	-	-	-	0.0	-	0.0	-	-

Lepidogobius lepidus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 42.0	5.0	-	-	-	0.0	-	-	5.1	-	0.0	-	-
86.7 33.0	4.9	-	-	-	4.7	-	-	0.0	-	0.0	-	-
86.7 35.0	5.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-

Lythrypnus dalli

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 50.0	0.0	-	-	-	0.0	-	-	0.0	-	4.3	-	-
86.7 55.0	0.0	-	-	-	0.0	-	-	4.9	-	9.7	-	-

Typhlogobius californiensis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 33.0	0.0	-	-	-	4.7	-	-	0.0	-	0.0	-	-

Sphyraena argentea

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 42.0	0.0	-	-	-	0.0	-	-	10.1	-	0.0	-	-
83.3 51.0	0.0	-	-	-	0.0	-	-	5.1	-	0.0	-	-

Diplospinus multistriatus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 110.0	0.0	-	-	-	-	-	-	0.0	-	5.0	-	-

Scomber japonicus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0 70.0	0.0	-	-	-	10.3	-	-	0.0	-	0.0	-	-
83.3 51.0	0.0	-	-	-	0.0	-	-	5.1	-	0.0	-	-
83.3 55.0	0.0	-	-	-	0.0	-	-	18.5	-	0.0	-	-
83.3 80.0	0.0	-	-	-	10.0	-	-	0.0	-	0.0	-	-
83.3 90.0	0.0	-	-	-	5.1	-	-	0.0	-	0.0	-	-
86.7 33.0	0.0	-	-	-	0.0	-	-	40.3	-	0.0	-	-
86.7 35.0	0.0	-	-	-	0.0	-	-	10.8	-	5.1	-	-
86.7 39.5	0.0	-	-	-	0.0	-	-	9.9	-	0.0	-	-
86.7 45.0	0.0	-	-	-	0.0	-	-	30.5	-	0.0	-	-
86.7 55.0	0.0	-	-	-	16.2	-	-	9.8	-	0.0	-	-

TABLE 4. (cont.)

Scomber japonicus (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7	60.0	0.0	-	-	-	42.1	-	-	5.0	-	0.0	-	-
86.7	70.0	0.0	-	-	-	103.0	-	-	0.0	-	0.0	-	-
90.0	30.0	0.0	-	-	-	0.0	-	-	119.5	-	0.0	-	-
90.0	35.0	0.0	-	-	-	29.6	-	-	0.0	-	0.0	-	-
90.0	70.0	0.0	-	-	-	10.1	-	-	0.0	-	0.0	-	-
93.3	28.0	0.0	-	-	0.0	-	-	-	0.0	-	4.8	-	-
93.3	35.0	0.0	-	-	5.1	-	-	-	0.0	-	0.0	-	-
93.3	40.0	0.0	-	-	5.3	-	-	-	0.0	-	0.0	-	-
93.3	45.0	0.0	-	-	149.3	-	-	-	0.0	-	0.0	-	-
93.3	50.0	0.0	-	-	492.3	-	-	-	0.0	-	0.0	-	-
93.3	55.0	0.0	-	-	3.9	-	-	-	0.0	-	0.0	-	-
93.3	90.0	0.0	-	-	-	0.0	-	-	0.0	-	5.3	-	-

Icichthys lockingtoni

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	70.0	28.7	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	80.0	4.9	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	90.0	0.0	-	-	-	15.2	-	-	0.0	-	0.0	-	-
86.7	60.0	5.3	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	110.0	4.6	-	-	-	-	-	-	0.0	-	0.0	-	-
93.3	70.0	0.0	-	-	5.3	-	-	-	0.0	-	0.0	-	-

Tetragonurus cuvieri

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	100.0	-	-	-	-	-	-	-	0.0	-	9.9	-	-
80.0	100.0	-	-	-	-	-	-	-	0.0	-	4.8	-	-
83.3	90.0	0.0	-	-	-	0.0	-	-	0.0	-	19.0	-	-
83.3	100.0	5.3	-	-	-	-	-	-	0.0	-	0.0	-	-
86.7	110.0	0.0	-	-	-	-	-	-	4.9	-	0.0	-	-
90.0	80.0	0.0	-	-	-	0.0	-	-	0.0	-	4.9	-	-
90.0	90.0	0.0	-	-	-	0.0	-	-	4.8	-	0.0	-	-
90.0	100.0	0.0	-	-	-	0.0	-	-	4.7	-	0.0	-	-
90.0	110.0	0.0	-	-	-	-	-	-	4.9	-	4.7	-	-

TABLE 4. (cont.)

Tetragonurus cuvieri (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0	120.0	0.0	-	-	-	-	-	-	0.0	-	4.7	-	-
93.3	90.0	4.4	-	-	-	0.0	-	-	0.0	-	10.6	-	-
93.3	100.0	4.7	-	-	-	0.0	-	-	0.0	-	9.8	-	-

Peprilus simillimus

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	51.0	-	0.0	-	-	0.0	-	-	0.0	-	9.3	-	-
83.3	51.0	0.0	-	-	-	10.3	-	-	0.0	-	0.0	-	-
90.0	35.0	0.0	-	-	-	0.0	-	-	0.0	-	5.0	-	-

Citharichthys spp.

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0	51.0	19.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-
80.0	60.0	5.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
81.8	46.9	5.4	-	-	-	0.0	-	-	0.0	-	15.4	-	-
83.3	40.6	0.0	-	-	-	0.0	-	-	0.0	-	4.6	-	-
83.3	55.0	9.7	-	-	-	0.0	-	-	46.2	-	0.0	-	-
83.3	60.0	0.0	-	-	-	0.0	-	-	21.4	-	0.0	-	-
83.3	70.0	0.0	-	-	-	0.0	-	-	0.0	-	4.9	-	-
86.7	50.0	0.0	-	-	-	0.0	-	-	0.0	-	4.3	-	-
86.7	55.0	0.0	-	-	-	0.0	-	-	9.8	-	9.7	-	-
86.7	60.0	0.0	-	-	-	0.0	-	-	20.0	-	0.0	-	-
90.0	30.0	0.0	-	-	-	0.0	-	-	10.9	-	0.0	-	-
90.0	35.0	5.2	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	37.0	5.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	90.0	0.0	-	-	-	0.0	-	-	4.8	-	0.0	-	-

Citharichthys sordidus

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	49.0	-	0.0	-	-	0.0	-	-	0.0	-	47.8	-	-
76.7	51.0	-	0.0	-	-	0.0	-	-	11.0	-	9.3	-	-
76.7	55.0	-	10.3	-	-	12.0	-	-	10.6	-	54.0	-	-
76.7	60.0	-	85.8	-	-	0.0	-	-	32.5	-	28.7	-	-
76.7	70.0	9.6	-	-	-	0.0	-	-	0.0	-	14.9	-	-

TABLE 4. (cont.)

Station		*Citharichthys sordidus* (cont.)											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	80.0	0.0	-	-	-	-	-	-	0.0	-	4.7	-	-
76.7	90.0	0.0	-	-	-	-	-	-	0.0	-	9.7	-	-
80.0	51.0	0.0	-	-	-	0.0	-	-	14.1	-	8.8	-	-
80.0	55.0	10.0	-	-	-	0.0	-	-	31.6	-	37.5	-	-
80.0	60.0	15.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-
81.8	46.9	0.0	-	-	-	0.0	-	-	251.0	-	138.8	-	-
83.3	40.6	0.0	-	-	-	0.0	-	-	8.4	-	0.0	-	-
83.3	42.0	10.1	-	-	-	21.4	-	-	45.6	-	0.0	-	-
83.3	51.0	0.0	-	-	-	0.0	-	-	71.1	-	9.0	-	-
83.3	55.0	9.7	-	-	-	11.2	-	-	27.7	-	80.3	-	-
83.3	60.0	0.0	-	-	-	0.0	-	-	10.7	-	10.4	-	-
83.3	70.0	38.9	-	-	-	0.0	-	-	0.0	-	98.6	-	-
83.3	80.0	39.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3	90.0	0.0	-	-	-	5.1	-	-	0.0	-	0.0	-	-
86.7	35.0	0.0	-	-	-	0.0	-	-	54.1	-	10.2	-	-
86.7	39.5	0.0	-	-	-	0.0	-	-	19.9	-	0.0	-	-
86.7	45.0	15.6	-	-	-	0.0	-	-	0.0	-	47.3	-	-
86.7	50.0	5.2	-	-	-	0.0	-	-	4.8	-	94.6	-	-
86.7	55.0	40.5	-	-	-	0.0	-	-	0.0	-	271.1	-	-
86.7	60.0	21.2	-	-	-	0.0	-	-	10.0	-	0.0	-	-
86.7	70.0	5.0	-	-	-	0.0	-	-	0.0	-	4.7	-	-
86.7	80.0	9.9	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	90.0	4.7	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	28.0	15.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	30.0	0.0	-	-	-	0.0	-	-	10.9	-	0.0	-	-
90.0	35.0	0.0	-	-	-	0.0	-	-	0.0	-	5.0	-	-
90.0	37.0	10.0	-	-	-	0.0	-	-	0.0	-	5.0	-	-
90.0	45.0	0.0	-	-	-	0.0	-	-	0.0	-	5.2	-	-
90.0	53.0	0.0	-	-	-	0.0	-	-	9.7	-	0.0	-	-
90.0	60.0	0.0	-	-	-	0.0	-	-	10.6	-	0.0	-	-

TABLE 4. (cont.)

Citharichthys sordidus (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 26.7	4.8	-	-	0.0	-	-	-	0.0	-	3.8	-	-
93.3 28.0	5.1	-	-	0.0	-	-	-	0.0	-	4.8	-	-
93.3 35.0	0.0	-	-	0.0	-	-	-	0.0	-	10.6	-	-
93.3 40.0	15.4	-	-	0.0	-	-	-	0.0	-	9.0	-	-
93.3 50.0	5.1	-	-	0.0	-	-	-	10.7	-	0.0	-	-
93.3 60.0	5.0	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3 70.0	0.0	-	-	0.0	-	-	-	9.7	-	0.0	-	-
93.3 80.0	0.0	-	-	-	0.0	-	-	5.0	-	0.0	-	-

Citharichthys stigmaeus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 49.0	-	0.0	-	-	0.0	-	-	0.0	-	13.0	-	-
76.7 51.0	-	0.0	-	-	0.0	-	-	0.0	-	65.4	-	-
76.7 55.0	-	0.0	-	-	0.0	-	-	0.0	-	64.8	-	-
76.7 60.0	-	32.2	-	-	0.0	-	-	54.2	-	9.6	-	-
76.7 70.0	0.0	-	-	-	0.0	-	-	10.0	-	14.9	-	-
76.7 80.0	0.0	-	-	-	-	-	-	0.0	-	9.4	-	-
76.7 90.0	0.0	-	-	-	-	-	-	0.0	-	9.7	-	-
80.0 51.0	0.0	-	-	-	0.0	-	-	0.0	-	8.8	-	-
80.0 55.0	10.0	-	-	-	0.0	-	-	21.0	-	159.4	-	-
80.0 60.0	10.1	-	-	-	0.0	-	-	9.9	-	0.0	-	-
80.0 70.0	9.5	-	-	-	0.0	-	-	0.0	-	4.8	-	-
81.8 46.9	0.0	-	-	-	0.0	-	-	185.5	-	61.7	-	-
83.3 42.0	0.0	-	-	-	10.7	-	-	60.8	-	5.8	-	-
83.3 51.0	0.0	-	-	-	0.0	-	-	35.6	-	0.0	-	-
83.3 55.0	4.8	-	-	-	0.0	-	-	9.2	-	70.3	-	-
83.3 60.0	0.0	-	-	-	0.0	-	-	53.5	-	10.4	-	-
83.3 70.0	9.7	-	-	-	10.5	-	-	0.0	-	39.4	-	-
83.3 80.0	0.0	-	-	-	0.0	-	-	0.0	-	20.0	-	-
86.7 33.0	0.0	-	-	-	0.0	-	-	0.0	-	4.6	-	-
86.7 35.0	5.4	-	-	-	0.0	-	-	43.3	-	46.0	-	-

TABLE 4. (cont.)

Citharichthys stigmaeus (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7	39.5	0.0	-	-	-	0.0	-	-	9.9	-	21.3	-	-
86.7	45.0	5.2	-	-	-	0.0	-	-	0.0	-	21.0	-	-
86.7	50.0	0.0	-	-	-	0.0	-	-	0.0	-	4.3	-	-
86.7	55.0	10.1	-	-	-	0.0	-	-	0.0	-	484.2	-	-
86.7	60.0	0.0	-	-	-	5.3	-	-	0.0	-	0.0	-	-
86.7	70.0	0.0	-	-	-	10.3	-	-	0.0	-	0.0	-	-
90.0	30.0	5.2	-	-	-	0.0	-	-	43.5	-	10.7	-	-
90.0	35.0	5.2	-	-	-	9.9	-	-	11.0	-	5.0	-	-
90.0	37.0	10.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	45.0	0.0	-	-	-	0.0	-	-	0.0	-	10.5	-	-
90.0	53.0	10.2	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	60.0	5.0	-	-	-	0.0	-	-	10.6	-	4.9	-	-
93.3	26.7	0.0	-	-	0.0	-	-	-	0.0	-	7.6	-	-
93.3	28.0	10.2	-	-	0.0	-	-	-	5.1	-	9.6	-	-
93.3	30.0	10.3	-	-	0.0	-	-	-	0.0	-	20.9	-	-
93.3	35.0	4.9	-	-	10.2	-	-	-	0.0	-	10.6	-	-
93.3	40.0	0.0	-	-	15.9	-	-	-	0.0	-	44.8	-	-
93.3	50.0	0.0	-	-	5.4	-	-	-	0.0	-	5.0	-	-
93.3	60.0	0.0	-	-	0.0	-	-	-	0.0	-	10.4	-	-
93.3	70.0	0.0	-	-	0.0	-	-	-	9.7	-	0.0	-	-

Citharichthys xanthostigma

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3	40.6	0.0	-	-	-	0.0	-	-	0.0	-	4.6	-	-

Hippoglossina stomata

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	49.0	-	0.0	-	-	0.0	-	-	0.0	-	4.3	-	-
86.7	33.0	0.0	-	-	-	0.0	-	-	5.0	-	0.0	-	-
90.0	35.0	0.0	-	-	-	0.0	-	-	11.0	-	0.0	-	-

Paralichthys californicus

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3	40.6	0.0	-	-	-	0.0	-	-	4.2	-	0.0	-	-

TABLE 4. (cont.)

Paralichthys californicus (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 42.0	0.0	-	-	-	0.0	-	-	5.1	-	0.0	-	-
83.3 51.0	0.0	-	-	-	0.0	-	-	5.1	-	0.0	-	-
93.3 26.7	0.0	-	-	0.0	-	-	-	4.4	-	0.0	-	-

Xystreurys liolepis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 40.6	0.0	-	-	-	0.0	-	-	0.0	-	4.6	-	-
83.3 42.0	0.0	-	-	-	0.0	-	-	10.1	-	0.0	-	-
90.0 28.0	0.0	-	-	-	0.0	-	-	0.0	-	8.5	-	-

Glyptocephalus zachirus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0 60.0	0.0	-	-	-	10.6	-	-	0.0	-	0.0	-	-

Lyopsetta exilis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0 60.0	0.0	-	-	-	10.6	-	-	0.0	-	0.0	-	-
83.3 55.0	0.0	-	-	-	11.2	-	-	0.0	-	0.0	-	-
83.3 60.0	5.0	-	-	-	0.0	-	-	0.0	-	0.0	-	-

Microstomus pacificus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 60.0	-	0.0	-	-	11.3	-	-	0.0	-	0.0	-	-
76.7 70.0	0.0	-	-	-	11.0	-	-	0.0	-	0.0	-	-
80.0 70.0	0.0	-	-	-	20.7	-	-	0.0	-	0.0	-	-
83.3 80.0	0.0	-	-	-	10.0	-	-	0.0	-	0.0	-	-

Parophrys vetulus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 49.0	-	4.7	-	-	0.0	-	-	0.0	-	0.0	-	-
76.7 55.0	-	5.1	-	-	0.0	-	-	0.0	-	0.0	-	-
80.0 51.0	9.6	-	-	-	0.0	-	-	0.0	-	0.0	-	-
83.3 51.0	5.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-

Pleuronichthys coenosus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0 51.0	0.0	-	-	-	0.0	-	-	4.7	-	0.0	-	-
83.3 55.0	0.0	-	-	-	0.0	-	-	0.0	-	10.0	-	-

TABLE 4. (cont.)

Pleuronichthys verticalis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 42.0	0.0	-	-	-	0.0	-	-	40.6	-	0.0	-	-
86.7 33.0	4.9	-	-	-	0.0	-	-	15.1	-	4.6	-	-
90.0 28.0	0.0	-	-	-	0.0	-	-	14.5	-	8.5	-	-

Symphurus atricaudus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 39.5	0.0	-	-	-	0.0	-	-	9.9	-	0.0	-	-
90.0 53.0	0.0	-	-	-	0.0	-	-	9.7	-	0.0	-	-

Disintegrated fish larvae

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0 60.0	10.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-
80.0 100.0	-	-	-	-	-	-	-	10.0	-	0.0	-	-
81.8 46.9	0.0	-	-	-	0.0	-	-	10.9	-	0.0	-	-
83.3 51.0	0.0	-	-	-	0.0	-	-	0.0	-	4.5	-	-
86.7 35.0	27.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7 50.0	0.0	-	-	-	0.0	-	-	4.8	-	0.0	-	-
86.7 55.0	5.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7 60.0	0.0	-	-	-	5.3	-	-	10.0	-	0.0	-	-
86.7 70.0	0.0	-	-	-	10.3	-	-	0.0	-	0.0	-	-
86.7 90.0	0.0	-	-	-	4.9	-	-	0.0	-	0.0	-	-
86.7 100.0	9.9	-	-	-	-	-	-	0.0	-	0.0	-	-
90.0 28.0	5.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0 35.0	20.8	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0 60.0	0.0	-	-	-	0.0	-	-	0.0	-	4.9	-	-
90.0 110.0	4.8	-	-	-	-	-	-	0.0	-	0.0	-	-
90.0 120.0	4.9	-	-	-	-	-	-	0.0	-	0.0	-	-
93.3 30.0	0.0	-	-	5.1	-	-	-	0.0	-	0.0	-	-
93.3 35.0	4.9	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3 40.0	5.1	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3 45.0	4.9	-	-	0.0	-	-	-	0.0	-	0.0	-	-
93.3 70.0	21.1	-	-	5.3	-	-	-	0.0	-	0.0	-	-

TABLE 4. (cont.)

Disintegrated fish larvae (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3	90.0	4.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-
93.3	100.0	4.7	-	-	-	0.0	-	-	4.8	-	0.0	-	-
93.3	120.0	0.0	-	-	-	-	-	-	0.0	-	9.8	-	-

Unidentified fish larvae

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0	80.0	4.5	-	-	-	-	-	-	0.0	-	0.0	-	-
83.3	40.6	4.4	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	33.0	14.7	-	-	-	0.0	-	-	0.0	-	0.0	-	-
86.7	55.0	0.0	-	-	-	0.0	-	-	9.8	-	0.0	-	-
86.7	90.0	4.7	-	-	-	0.0	-	-	4.8	-	0.0	-	-
86.7	110.0	4.6	-	-	-	-	-	-	0.0	-	0.0	-	-
90.0	35.0	0.0	-	-	-	9.9	-	-	0.0	-	0.0	-	-
90.0	60.0	5.0	-	-	-	0.0	-	-	10.6	-	0.0	-	-
90.0	80.0	5.1	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	90.0	0.0	-	-	-	0.0	-	-	19.0	-	0.0	-	-
90.0	100.0	4.9	-	-	-	0.0	-	-	0.0	-	0.0	-	-
90.0	120.0	0.0	-	-	-	-	-	-	10.2	-	0.0	-	-
93.3	60.0	0.0	-	-	5.3	-	-	-	0.0	-	0.0	-	-
93.3	90.0	0.0	-	-	-	0.0	-	-	5.1	-	0.0	-	-

PHYLOGENETIC INDEX TO TABLE 4

ALPHABETICAL INDEX TO TABLE 4

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