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ICHTHYOPLANKTON AND STATION DATA FOR CALIFORNIA COOPERATIVE OCEANIC FISHERIES INVESTIGATIONS SURVEY CRUISES IN 1990

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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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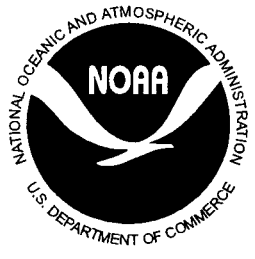

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ABSTRACT

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 1990. It is the 30th report in a series that presents these data for all biological-oceanographic CalCOFI surveys from 1951 to the present. A total of 238 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 149 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 30th 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 1990. 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 - 41. 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 historical CalCOFI sampling effort).

Hydrographic and biological data from the 1990 CalCOFI survey have been published by the Scripps Institution of Oceanography (Univ. of Calif., SIO 1991, a, b). All available records for the 1990 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 ichthyoplankton 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	1966	Sumida et al. 1988b
1952	Sandknop et al. 1987a	1967	Ambrose et al. 1988b
1953	Stevens et al. 1987a	1968	Sandknop et al. 1988c
1954	Sumida et al. 1987a	1969	Stevens et al. 1988b
1955	Ambrose et al. 1987b	1972	Sumida et al. 1988c
1956	Stevens et al. 1987b	1975	Ambrose et al. 1988c
1957	Sumida et al. 1987b	1978	Sandknop et al. 1988d
1958	Sandknop et al. 1987b	1981	Ambrose et al. 1988d
1959	Stevens et al. 1987c	1984	Stevens et al. 1990
1960	Ambrose et al. 1987c	1985	Ambrose et al. 1999a
1961	Sandknop et al. 1988a	1986	Charter et al. 1999
1962	Sumida et al. 1988a	1987	Sandknop et al. 1999
1963	Ambrose et al. 1988a	1988	Watson et al. 1999
1964	Sandknop et al. 1988a	1989	Ambrose et al. 1999b
1965	Stevens et al. 1988a		

SAMPLING AREA AND PATTERN

A total of 238 standard CalCOFI survey stations was occupied on four cruises in 1990, employing two research vessels:

9003, RV *David Starr Jordan*, 58 stations, March 4–19;

9004, RV *David Starr Jordan*, 49 stations, April 17–29;

9008, RV *New Horizon*, 65 stations, July 25–August 8
(SIO designates this cruise as 9007);

9011, RV *New Horizon*, 66 stations, November 5–19.

The survey area extended from Avila Beach to San Diego, California and seaward on six survey lines (Cruise 9004 occupied 5 lines) to approximately 120 – 330 n. mi. (Figures 1and 2)[1]. The most seaward station, 90.0 120.0 was approximately 400 n. mi. west of Punta Baja, Baja California, Mexico. CalCOFI lines 76.7 and 80.0 extended seaward to station 90.0 on cruise 9003 and to station 100.0 on cruise 9011. Stations on line

[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 equidistant spacing between cardinal lines (those ending in "0"). Scripps Institution of Oceanography continues to use the original designation for ordinal lines (Figures 1 and 2 and see Univ. of Calif., SIO 1991a, b).

76.7 were not sampled on Cruise 9004 but extended to station 90.0 on cruise 9008. Line 80.0 extended to station 60.0 on cruise 9004 and to station 100.0 on cruise 9008. Lines 83.3 and 86.7 extended to station 90.0 on cruise 9004, to station 100.0 on cruise 9003, and to station 110.0 on cruises 9008 and 9011. Lines 90.0 and 93.3 extended to station 100.0 on cruise 9003 and to station 120.0 on all other cruises (Figures 1and 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 1990 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 34kg 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 1990. 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 1990 surveys could be identified to species. A total of 149 categories (including "unidentified" and "disintegrated") was identified for 1990: 117 to species, 22 to genus, 7 to family or subfamily, and 1 to order. Identifications were done in the Ichthyoplankton Ecology Laboratory of the Coastal Fisheries Resources Division by William Isham and Ernesto Calix (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, almost entirely *C. acclinidens* and/or *C. pseudopallida* lacking diagnostic characters.

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

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 - *lucetia*, an eastern tropical Pacific species, is common in the present CalCOFI region whereas the central water mass species *V. poweriae* is rarely encountered; a small percentage of *V. poweriae* larvae may have been included in the *V. lucetia* category because of the difficulty in separating early larvae of the two species.

SPECIES SUMMARY

Of the five most abundant larvae in 1990, the northern anchovy (*Engraulis mordax*) ranked first in abundance (55.6% of the total larvae) and occurrence with 45.8% positive tows (Tables 2 and 3). The California smoothtongue (*Leuroglossus stilbius*) ranked second in abundance with 8.2% of the total larvae and third in occurrence (37.8% positive tows). The Pacific hake (*Merluccius productus*) ranked third in abundance (5.5% of total larvae) and seventh in occurrence (29.4% positive tows). The rockfish genus *Sebastes* ranked fourth in abundance (5.0% of the total larvae) and second in occurrence (40.8% positive tows). The Pacific sardine (*Sardinop sagax*) ranked fifth in abundance and nineteenth in occurrence with 4.4% of the total larvae and 13.9% positive tows. The next five most abundant taxa were the northern lampfish *Stenobrachius leucopsarus* (3.2% of the total larvae), the popeye blacksmelt *Bathylagus ochotensis* (1.8%), the Panama lightfish *Vinciguerria lucetia* (1.6%), the shortbelly rockfish *Sebastes jordani* (1.2%), and the snubnose blacksmelt *Bathylagus wesethi* (1.0%). These species ranked 6th, 5th, 15th, 22nd, and 13th in frequency of occurrence, respectively. The 10 most abundant taxa comprised 87.6% of all the larvae collected on CalCOFI cruises in 1990. The remaining 12.4% was distributed among 139 other taxa (including

the "disintegrated" and "unidentified" categories). Of the ten most abundant taxa, half were midwater species, three were coastal demersal taxa, and two were 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 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 1 and 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 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 1990 listed in rank order.

Table 3. Pooled counts of all larval fish taxa taken on CalCOFI survey cruises in 1990 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. Orders and families are listed in phylogenetic sequence (Eschmeyer 1998); genera and species are listed alphabetically.

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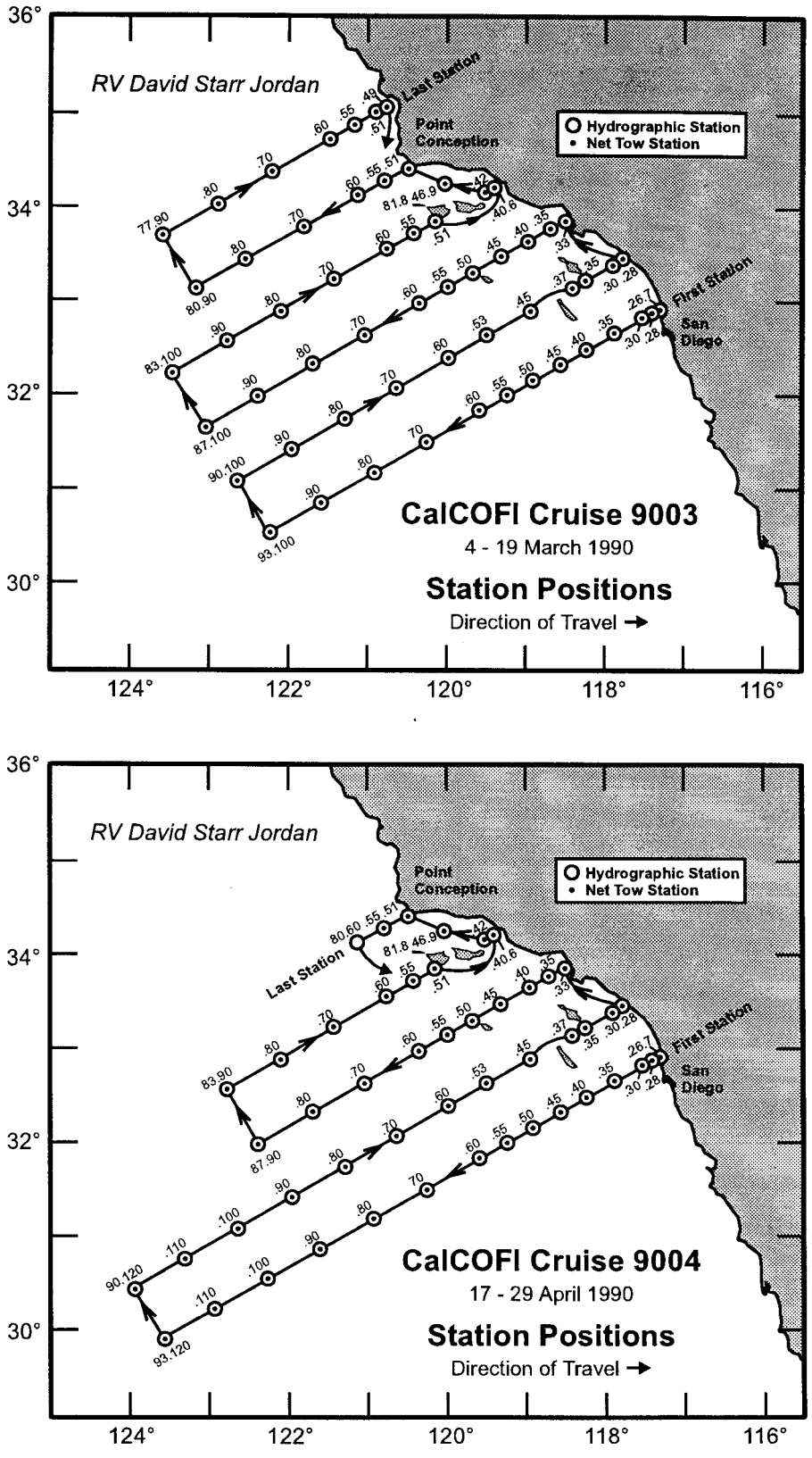

Figure 1. Stations and cruise tracks for CalCOFI cruises 9003 (above) and 9004 (below). Circles indicate hydrographic stations; dots indicate net tow stations.

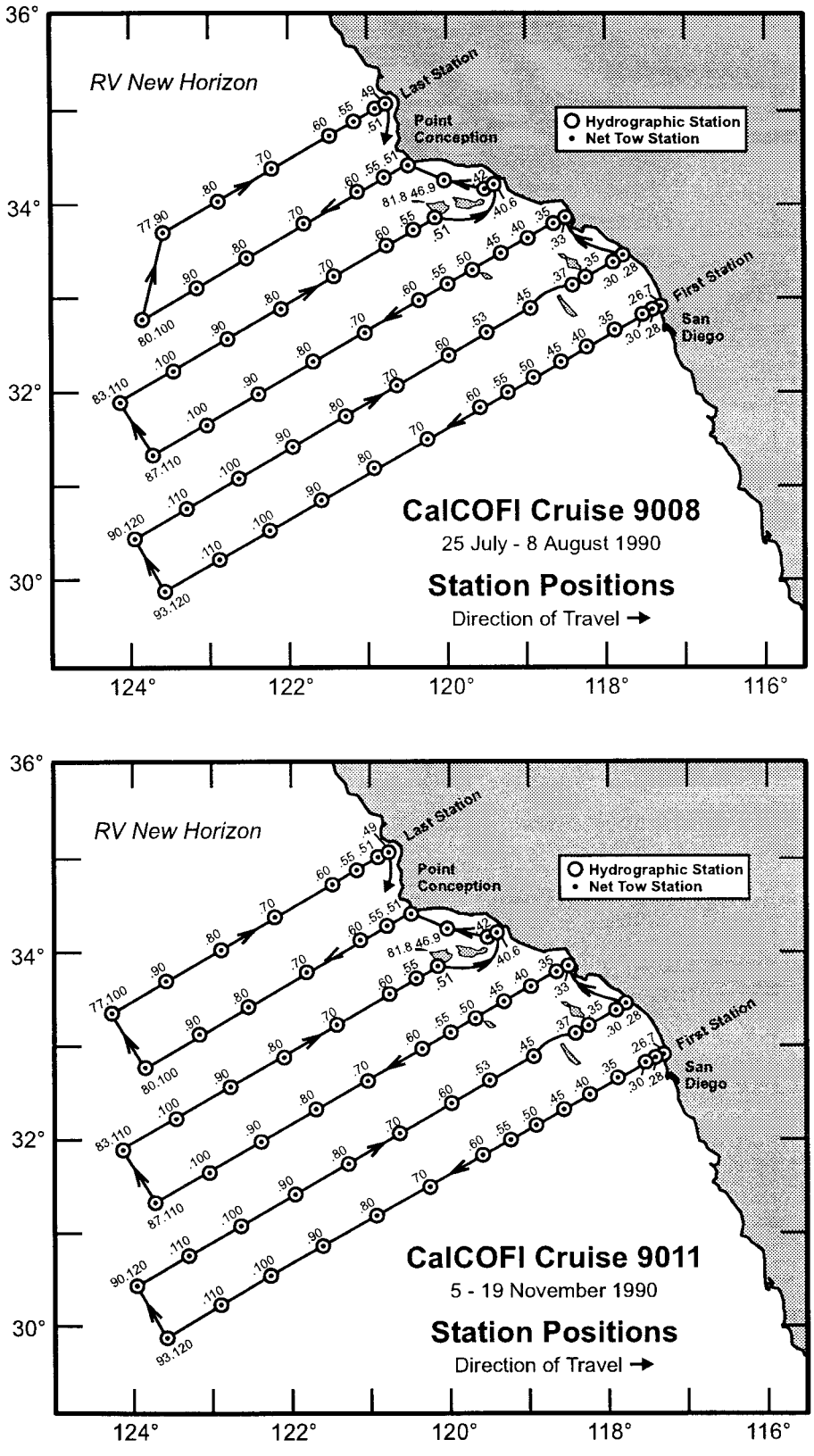

Figure 2. Stations and cruise tracks for CalCOFI cruises 9008 (above) and 9011 (below). Symbols as in Figure 1.

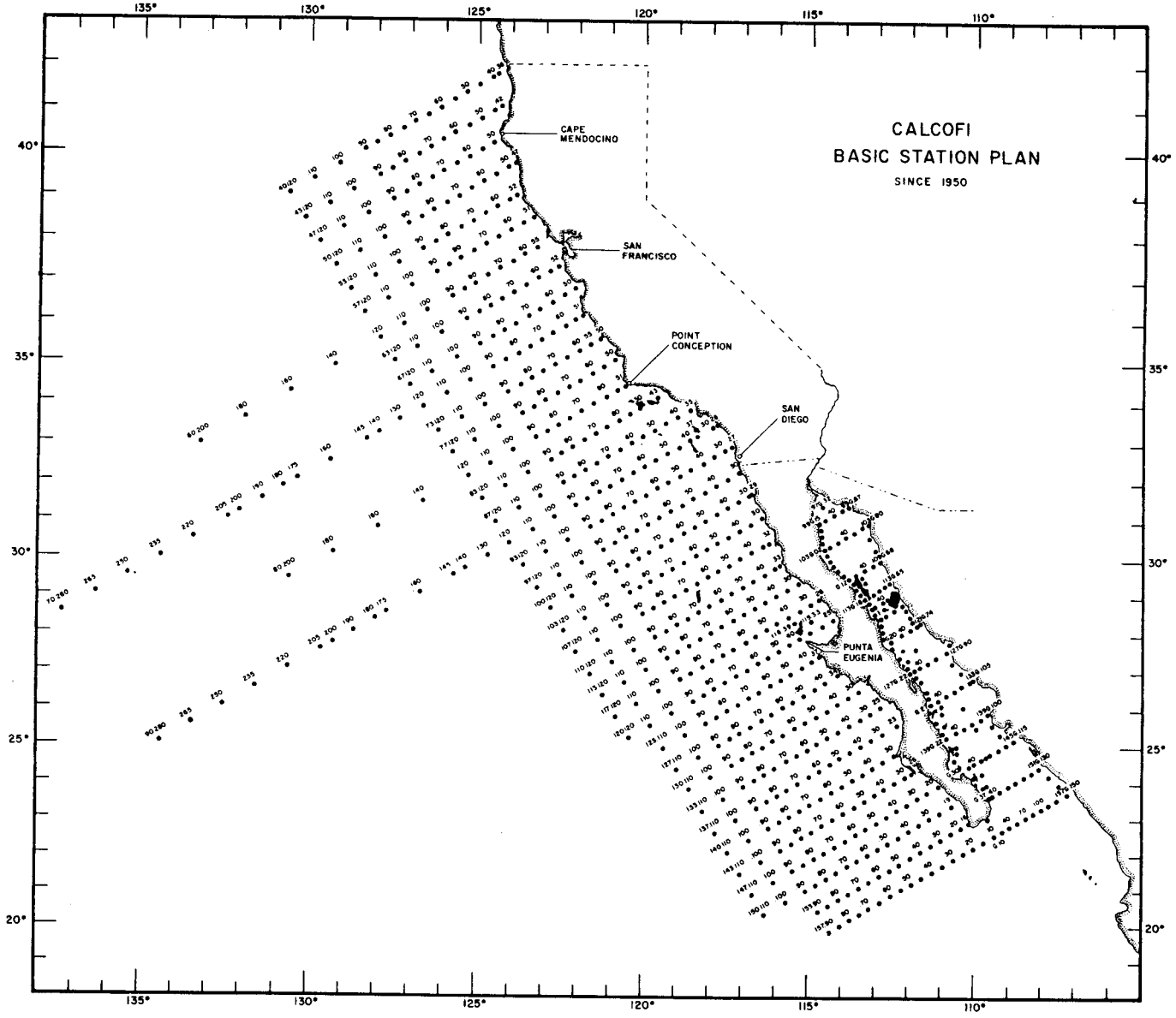

Figure 3. Basic station plan for CalCOFI Cruises.

TABLE 1. Station and plankton tow data for CalCOFI cruises in 1990. 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 9003

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	90	03	19	0913	50	107	4.70	308	51.5	26	24
76.7	51.0	35	01.3	120	55.1	JD	90	03	19	0638	214	427	5.01	134	49.1	120	15
76.7	55.0	34	53.1	121	11.9	JD	90	03	19	0245	208	439	4.75	221	50.5	74	27
76.7	60.0	34	43.3	121	33.0	JD	90	03	18	2212	209	416	5.03	192	50.0	203	42
76.7	70.0	34	23.3	122	14.8	JD	90	03	18	1614	212	447	4.74	67	100.0	103	48
76.7	80.0	34	03.6	122	55.9	JD	90	03	18	0845	208	448	4.63	67	100.0	69	12
76.7	90.0	33	43.2	123	38.0	JD	90	03	18	0230	211	437	4.84	110	100.0	86	27
80.0	51.0	34	27.0	120	31.4	JD	90	03	16	1931	63	136	4.62	959	50.0	1	5
80.0	55.0	34	19.0	120	48.1	JD	90	03	16	2240	211	429	4.91	224	50.0	101	168
80.0	60.0	34	09.0	121	08.9	JD	90	03	17	0215	215	385	5.58	228	50.0	51	25
80.0	70.0	33	49.0	121	50.6	JD	90	03	17	0806	213	420	5.08	114	50.0	39	138
80.0	80.0	33	29.1	122	32.0	JD	90	03	17	1435	214	424	5.05	75	100.0	25	67
80.0	90.0	33	09.0	123	13.2	JD	90	03	17	2031	212	426	4.98	89	100.0	22	74
81.8	46.9	34	16.5	120	01.5	JD	90	03	16	1500	223	416	5.36	115	50.0	23	18
83.3	40.6	34	13.5	119	24.7	JD	90	03	16	0910	27	69	3.93	231	100.0	5	264
83.3	42.0	34	10.7	119	30.5	JD	90	03	16	0708	97	173	5.64	852	49.0	58	90
83.3	51.0	33	52.7	120	08.0	JD	90	03	16	0003	85	175	4.88	377	50.0	137	8
83.3	55.0	33	44.7	120	24.6	JD	90	03	15	2113	215	435	4.93	154	52.2	229	69
83.3	60.0	33	34.7	120	45.3	JD	90	03	15	1709	213	430	4.94	60	100.0	69	145
83.3	70.0	33	14.4	121	26.6	JD	90	03	15	1010	213	443	4.82	18	100.0	19	5
83.3	80.0	32	54.7	122	07.8	JD	90	03	15	0345	207	473	4.38	42	100.0	55	30
83.3	90.0	32	34.6	122	48.7	JD	90	03	14	2118	208	456	4.55	37	100.0	60	22
83.3	100.0	32	14.6	123	29.5	JD	90	03	14	1507	214	453	4.73	38	100.0	13	17
86.7	33.0	33	53.4	118	29.5	JD	90	03	12	0510	42	87	4.84	185	100.0	203	177
86.7	35.0	33	49.4	118	37.6	JD	90	03	12	0800	210	433	4.86	79	52.9	246	147
86.7	40.0	33	39.4	119	00.0	JD	90	03	12	1252	232	480	4.84	85	51.2	312	157
86.7	45.0	33	29.4	119	19.1	JD	90	03	12	1715	204	492	4.16	120	50.8	96	26
86.7	50.0	33	19.4	119	39.8	JD	90	03	12	2110	45	137	3.26	117	100.0	1054	2
86.7	55.0	33	09.5	120	00.3	JD	90	03	13	0148	204	482	4.23	83	50.0	103	16

Table 1. (cont.)

CalCOFI Cruise 9003

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	60.0	32	59.4	120	21.0	JD	90	03	13	0618	209	491	4.26	61	50.0	46	2
86.7	70.0	32	39.4	121	01.9	JD	90	03	13	1336	219	457	4.79	55	100.0	57	11
86.7	80.0	32	19.4	121	42.9	JD	90	03	13	1945	204	507	4.04	109	50.9	132	13
86.7	90.0	31	59.5	122	23.6	JD	90	03	14	0120	219	465	4.71	45	100.0	25	15
86.7	100.0	31	39.5	123	04.2	JD	90	03	14	0730	213	454	4.69	26	100.0	42	15
90.0	28.0	33	29.1	117	46.0	JD	90	03	11	1012	73	153	4.74	65	100.0	114	31
90.0	30.0	33	25.1	117	54.4	JD	90	03	11	0708	218	407	5.34	61	100.0	814	554
90.0	35.0	33	15.1	118	14.9	JD	90	03	11	0147	218	442	4.94	77	100.0	237	466
90.0	37.0	33	11.1	118	23.3	JD	90	03	10	2120	210	445	4.71	135	100.0	1135	1122
90.0	45.0	32	55.1	118	56.1	JD	90	03	10	1456	212	450	4.71	89	100.0	1431	597
90.0	53.0	32	39.1	119	28.9	JD	90	03	10	0707	218	454	4.79	191	100.0	489	122
90.0	60.0	32	25.1	119	57.6	JD	90	03	10	0107	211	448	4.71	78	100.0	86	21
90.0	70.0	32	05.1	120	38.4	JD	90	03	09	1705	225	457	4.92	72	100.0	143	5
90.0	80.0	31	45.1	121	18.9	JD	90	03	09	0635	223	491	4.55	98	100.0	26	9
90.0	90.0	31	25.1	121	59.4	JD	90	03	08	2044	225	458	4.90	87	100.0	58	16
90.0	100.0	31	05.1	122	39.7	JD	90	03	08	0903	210	506	4.16	28	100.0	20	59
93.3	26.7	32	57.4	117	18.4	JD	90	03	04	1357	61	146	4.21	234	100.0	554	24
93.3	28.0	32	54.9	117	23.6	JD	90	03	04	1819	203	457	4.45	112	100.0	3906	83
93.3	30.0	32	50.8	117	31.8	JD	90	03	04	2215	206	455	4.53	77	100.0	1445	389
93.3	35.0	32	40.8	117	52.4	JD	90	03	05	0545	213	490	4.35	41	100.0	503	1768
93.3	40.0	32	30.9	118	12.7	JD	90	03	05	1258	195	533	3.66	54	100.0	409	340
93.3	45.0	32	20.8	118	33.3	JD	90	03	05	1923	210	494	4.26	59	100.0	418	1086
93.3	50.0	32	10.9	118	53.5	JD	90	03	06	0020	207	458	4.52	98	100.0	134	109
93.3	55.0	32	00.9	119	14.1	JD	90	03	06	0515	225	489	4.61	104	100.0	155	197
93.3	60.0	31	50.8	119	34.4	JD	90	03	06	0920	216	456	4.73	74	100.0	72	84
93.3	70.0	31	30.8	120	14.7	JD	90	03	06	1810	215	465	4.64	90	100.0	257	34
93.3	80.0	31	10.8	120	55.3	JD	90	03	07	0035	214	435	4.93	216	100.0	11	3
93.3	90.0	30	50.9	121	35.4	JD	90	03	07	0740	222	479	4.65	75	100.0	39	33
93.3	100.0	30	30.8	122	15.6	JD	90	03	08	0035	213	474	4.49	38	100.0	47	24

Table 1. (cont.)

CalCOFI Cruise 9004

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
80.0	51.0	34	27.0	120	31.4	JD	90	04	29	0247	71	161	4.41	695	50.0	11	2
80.0	55.0	34	19.0	120	48.1	JD	90	04	29	0550	210	470	4.46	102	47.9	7	0
81.8	46.9	34	16.5	120	01.5	JD	90	04	28	2027	214	427	5.01	227	49.5	21	3
83.3	40.6	34	13.5	119	24.7	JD	90	04	28	1510	27	62	4.40	113	100.0	15	1139
83.3	42.0	34	10.7	119	30.5	JD	90	04	28	1310	91	188	4.86	96	100.0	54	176
83.3	51.0	33	52.7	120	08.0	JD	90	04	28	0708	94	185	5.07	60	100.0	54	13
83.3	55.0	33	44.7	120	24.6	JD	90	04	28	0359	215	410	5.24	212	51.7	60	18
83.3	60.0	33	34.7	120	45.3	JD	90	04	27	2349	201	441	4.56	175	48.1	22	18
83.3	70.0	33	14.7	121	26.6	JD	90	04	27	1743	216	413	5.22	34	100.0	10	5
83.3	80.0	32	54.6	122	07.8	JD	90	04	27	1018	210	454	4.64	44	100.0	17	84
83.3	90.0	32	34.7	122	48.6	JD	90	04	27	0346	200	534	3.74	28	100.0	40	67
86.7	33.0	33	53.4	118	29.4	JD	90	04	23	2013	62	135	4.61	193	100.0	225	261
86.7	35.0	33	49.4	118	37.7	JD	90	04	23	2255	211	443	4.76	50	100.0	12	99
86.7	40.0	33	39.4	118	58.9	JD	90	04	24	0325	205	463	4.43	56	100.0	116	196
86.7	45.0	33	29.4	119	19.1	JD	90	04	24	0748	213	444	4.80	95	47.6	5	3
86.7	50.0	33	19.4	119	39.8	JD	90	04	24	1157	47	133	3.56	196	100.0	7	37
86.7	55.0	33	09.4	120	00.4	JD	90	04	24	1605	197	528	3.73	47	100.0	33	51
86.7	60.0	32	59.3	120	20.9	JD	90	04	25	0738	214	453	4.72	33	100.0	20	49
86.7	70.0	32	39.4	121	02.0	JD	90	04	25	2056	217	441	4.93	32	100.0	22	21
86.7	80.0	32	19.4	121	42.9	JD	90	04	26	0247	180	550	3.27	33	100.0	15	40
86.7	90.0	31	59.4	122	23.6	JD	90	04	26	1445	203	560	3.63	14	100.0	9	22
90.0	28.0	33	29.1	117	46.1	JD	90	04	23	0948	70	167	4.17	114	100.0	26	475
90.0	30.0	33	25.1	117	54.3	JD	90	04	23	0743	208	420	4.96	145	57.4	17	224
90.0	35.0	33	15.1	118	15.0	JD	90	04	23	0348	210	431	4.87	93	50.0	28	57
90.0	37.0	33	11.1	118	22.9	JD	90	04	23	0111	211	423	4.98	78	48.5	98	50
90.0	45.0	32	55.1	118	55.9	JD	90	04	22	2000	210	427	4.92	164	48.6	26	1
90.0	53.0	32	39.2	119	28.9	JD	90	04	22	1413	212	449	4.72	33	100.0	21	2
90.0	60.0	32	24.7	119	57.0	JD	90	04	22	0800	211	457	4.61	20	100.0	16	3
90.0	70.0	32	05.1	120	38.3	JD	90	04	22	0113	204	481	4.24	56	100.0	39	10
90.0	80.0	31	45.1	121	18.9	JD	90	04	21	1808	208	460	4.53	15	100.0	19	21
90.0	90.0	31	25.1	121	59.4	JD	90	04	21	1132	221	427	5.17	52	100.0	26	302
90.0	100.0	31	04.9	122	39.8	JD	90	04	21	0453	214	423	5.05	52	100.0	38	119

Table 1. (cont.)

CalCOFI Cruise 9004

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	110.0	30	45.1	123	19.9	JD	90	04	20	2251	214	441	4.85	36	100.0	61	39
90.0	120.0	30	25.1	124	00.0	JD	90	04	20	1700	212	435	4.88	23	100.0	52	25
93.3	26.7	32	57.4	117	18.3	JD	90	04	17	1255	45	100	4.47	290	51.7	21	0
93.3	28.0	32	54.7	117	23.7	JD	90	04	17	1552	214	447	4.79	87	46.2	16	1
93.3	30.0	32	50.8	117	31.9	JD	90	04	17	1910	211	450	4.70	80	50.0	71	10
93.3	35.0	32	40.8	117	52.4	JD	90	04	18	0006	211	439	4.81	100	50.0	40	6
93.3	40.0	32	30.8	118	12.9	JD	90	04	18	0423	213	434	4.90	58	100.0	32	34
93.3	45.0	32	20.8	118	33.3	JD	90	04	18	0902	215	445	4.83	36	100.0	9	21
93.3	50.0	32	10.8	118	53.6	JD	90	04	18	1450	209	447	4.68	20	100.0	9	11
93.3	55.0	32	00.8	119	14.0	JD	90	04	18	1910	213	434	4.90	81	51.4	17	13
93.3	60.0	31	50.7	119	34.3	JD	90	04	18	2315	221	421	5.26	102	48.8	28	18
93.3	70.0	31	30.8	120	14.8	JD	90	04	19	0532	215	422	5.09	31	100.0	19	3
93.3	80.0	31	10.8	120	55.2	JD	90	04	19	1200	213	430	4.96	23	100.0	10	17
93.3	90.0	30	50.8	121	35.5	JD	90	04	19	1717	215	424	5.08	31	100.0	18	50
93.3	100.0	30	30.1	122	16.5	JD	90	04	19	2323	212	429	4.95	35	100.0	62	405
93.3	110.0	30	10.9	122	55.4	JD	90	04	20	0446	215	430	5.00	42	100.0	44	65
93.3	120.0	29	50.8	123	35.2	JD	90	04	20	1009	216	441	4.90	23	100.0	46	70

Table 1. (cont.)

CalCOFI Cruise 9008

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	90	08	08	1818	50	113	4.41	505	50.9	22	306
76.7	51.0	35	01.4	120	55.1	NH	90	08	08	1608	218	430	5.07	233	50.0	14	108
76.7	55.0	34	53.2	121	11.8	NH	90	08	08	1300	200	450	4.45	120	50.0	39	3
76.7	60.0	34	43.3	121	33.0	NH	90	08	08	0837	210	445	4.71	108	50.0	8	3
76.7	70.0	34	23.3	122	14.7	NH	90	08	07	2200	215	450	4.78	156	48.6	7	1
76.7	80.0	34	03.3	122	56.6	NH	90	08	07	1645	214	444	4.82	36	100.0	6	3
76.7	90.0	33	43.3	123	38.0	NH	90	08	07	1034	214	452	4.73	31	100.0	35	19
80.0	51.0	34	27.1	120	31.5	NH	90	08	05	1720	56	127	4.44	95	100.0	27	256
80.0	55.0	34	19.0	120	48.2	NH	90	08	05	2110	213	454	4.68	88	47.5	18	5
80.0	60.0	34	08.8	121	09.3	NH	90	08	06	0116	214	437	4.90	295	50.4	15	0
80.0	70.0	33	49.0	121	50.3	NH	90	08	06	0653	213	418	5.10	237	46.5	6	3
80.0	80.0	33	29.0	122	32.0	NH	90	08	06	1345	217	451	4.82	49	100.0	2	4
80.0	90.0	33	09.0	123	13.3	NH	90	08	06	2005	211	462	4.58	39	100.0	45	25
80.0	100.0	32	49.3	123	54.7	NH	90	08	07	0155	214	466	4.59	34	100.0	53	43
81.8	46.9	34	16.5	120	01.6	NH	90	08	05	1240	199	462	4.31	84	51.3	47	291
83.3	40.6	34	13.5	119	24.7	NH	90	08	05	0635	20	55	3.59	219	100.0	159	1387
83.3	42.0	34	10.8	119	30.8	NH	90	08	05	0440	89	189	4.70	143	100.0	864	456
83.3	51.0	33	52.7	120	08.0	NH	90	08	04	1958	84	228	3.69	61	100.0	0	182
83.3	55.0	33	44.7	120	24.8	NH	90	08	04	1605	210	455	4.62	57	100.0	2	1
83.3	60.0	33	34.7	120	43.3	NH	90	08	04	1139	210	416	5.05	248	47.6	2	0
83.3	70.0	33	15.2	121	26.4	NH	90	08	04	0510	209	430	4.85	86	51.4	2	5
83.3	80.0	32	54.7	122	07.7	NH	90	08	03	2325	213	449	4.76	51	100.0	31	14
83.3	90.0	32	34.8	122	48.6	NH	90	08	03	1730	214	453	4.72	31	100.0	12	8
83.3	100.0	32	14.7	123	29.5	NH	90	08	03	1034	203	463	4.40	26	100.0	50	19
83.3	110.0	31	54.9	124	10.2	NH	90	08	03	0451	210	471	4.47	23	100.0	47	26
86.7	33.0	33	53.4	118	29.4	NH	90	07	31	1700	43	102	4.27	207	100.0	8	69
86.7	35.0	33	49.4	118	37.7	NH	90	07	31	1930	209	446	4.68	168	52.0	6	3
86.7	40.0	33	39.4	118	58.6	NH	90	07	31	2315	206	435	4.74	94	51.2	6	5
86.7	45.0	33	29.4	119	19.3	NH	90	08	01	0310	216	437	4.94	64	100.0	3	1
86.7	50.0	33	19.3	119	40.0	NH	90	08	01	0645	66	158	4.17	120	100.0	12	451
86.7	55.0	33	09.4	120	00.4	NH	90	08	01	1330	217	432	5.03	125	51.9	0	10
86.7	60.0	32	59.4	120	21.1	NH	90	08	01	1725	212	451	4.69	515	48.3	2	0

Table 1. (cont.)

CalCOFI Cruise 9008

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	02.0	NH	90	08	01	2320	210	473	4.45	36	100.0	9	5
86.7	80.0	32	19.4	121	43.6	NH	90	08	02	0506	214	464	4.62	30	100.0	10	10
86.7	90.0	31	59.4	122	23.6	NH	90	08	02	1037	212	465	4.55	41	100.0	5	20
86.7	100.0	31	39.4	123	04.1	NH	90	08	02	1718	211	471	4.47	42	100.0	18	49
86.7	110.0	31	19.4	123	44.7	NH	90	08	02	2250	214	474	4.51	42	100.0	11	450
90.0	28.0	33	29.1	117	46.1	NH	90	07	31	1002	57	134	4.25	180	100.0	3	7
90.0	30.0	33	25.2	117	54.3	NH	90	07	31	0740	209	445	4.70	54	100.0	5	100
90.0	35.0	33	15.0	118	15.0	NH	90	07	31	0334	209	443	4.72	90	50.0	4	1
90.0	37.0	33	11.1	118	23.2	NH	90	07	31	0019	219	430	5.09	153	53.0	18	0
90.0	45.0	32	55.1	118	56.1	NH	90	07	30	1905	212	447	4.74	112	48.0	3	6
90.0	53.0	32	39.1	119	28.8	NH	90	07	30	1103	224	438	5.13	544	48.7	4	2
90.0	60.0	32	25.1	119	57.7	NH	90	07	30	0547	216	437	4.94	140	45.9	5	2
90.0	70.0	32	05.1	120	38.3	NH	90	07	29	2357	223	454	4.92	26	100.0	14	4
90.0	80.0	31	45.2	121	19.0	NH	90	07	29	1755	216	481	4.50	21	100.0	20	11
90.0	90.0	31	25.2	121	59.4	NH	90	07	29	1200	214	448	4.78	40	100.0	23	67
90.0	100.0	31	05.3	122	39.4	NH	90	07	29	0523	217	455	4.76	48	100.0	30	70
90.0	110.0	30	45.2	123	19.9	NH	90	07	28	2332	205	465	4.41	39	100.0	16	275
90.0	120.0	30	25.1	123	59.9	NH	90	07	28	1750	210	474	4.43	17	100.0	33	54
93.3	26.7	32	57.5	117	18.4	NH	90	07	25	1300	55	138	3.99	65	100.0	2	2
93.3	28.0	32	54.8	117	23.6	NH	90	07	25	1556	218	451	4.83	31	100.0	3	1
93.3	30.0	32	50.8	117	31.9	NH	90	07	25	1908	222	440	5.05	52	100.0	3	1
93.3	35.0	32	40.5	117	52.7	NH	90	07	25	2332	223	429	5.20	224	47.9	17	1
93.3	40.0	32	30.7	118	12.9	NH	90	07	26	0352	215	439	4.91	232	52.9	1	0
93.3	45.0	32	20.8	118	33.3	NH	90	07	26	0807	215	439	4.91	399	48.6	1	1
93.3	50.0	32	10.8	118	53.5	NH	90	07	26	1258	229	427	5.37	75	50.0	5	21
93.3	55.0	32	00.8	119	13.9	NH	90	07	26	1735	229	466	4.92	84	46.2	5	3
93.3	60.0	31	50.7	119	34.4	NH	90	07	26	2137	216	429	5.05	128	52.7	15	5
93.3	70.0	31	30.7	120	14.9	NH	90	07	27	0329	218	454	4.80	31	100.0	10	24
93.3	80.0	31	10.8	120	55.4	NH	90	07	27	0905	211	457	4.61	50	100.0	13	89
93.3	90.0	30	50.9	121	35.3	NH	90	07	27	1633	211	458	4.60	35	100.0	16	43
93.3	100.0	30	30.6	122	15.7	NH	90	07	27	2238	209	484	4.33	50	100.0	33	127
93.3	110.0	30	10.7	122	55.4	NH	90	07	28	0448	212	450	4.71	31	100.0	133	94
93.3	120.0	29	50.8	123	35.2	NH	90	07	28	1055	217	476	4.56	13	100.0	88	21

Table 1. (cont.)

CalCOFI Cruise 9011

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	90	11	19	0930	54	130	4.16	46	100.0	8	183
76.7	51.0	35	01.4	120	55.2	NH	90	11	19	0715	208	458	4.55	111	51.0	24	119
76.7	55.0	34	53.3	121	11.9	NH	90	11	19	0340	216	439	4.91	424	46.2	12	4
76.7	60.0	34	43.4	121	32.9	NH	90	11	18	2319	205	465	4.41	103	52.1	33	22
76.7	70.0	34	22.4	122	16.6	NH	90	11	18	1757	216	442	4.89	525	48.3	6	6
76.7	80.0	34	03.3	122	56.5	NH	90	11	18	0732	224	447	5.02	76	100.0	9	13
76.7	90.0	33	43.3	123	38.0	NH	90	11	18	0216	214	453	4.73	40	100.0	19	7
76.7	100.0	33	23.3	124	19.4	NH	90	11	17	2055	206	479	4.31	46	100.0	19	14
80.0	51.0	34	27.0	120	31.3	NH	90	11	16	0335	61	140	4.35	50	100.0	63	354
80.0	55.0	34	19.0	120	48.2	NH	90	11	16	0640	210	459	4.57	54	100.0	55	57
80.0	60.0	34	09.1	121	09.0	NH	90	11	16	1305	198	460	4.30	52	100.0	116	162
80.0	70.0	33	49.0	121	50.6	NH	90	11	16	2206	210	444	4.74	164	47.9	7	10
80.0	80.0	33	29.0	122	32.0	NH	90	11	17	0335	214	452	4.74	111	50.0	8	5
80.0	90.0	33	09.0	123	13.3	NH	90	11	17	0905	218	435	5.01	23	100.0	11	8
80.0	100.0	32	49.1	123	54.2	NH	90	11	17	1512	213	453	4.70	44	100.0	10	4
81.8	46.9	34	16.5	120	01.4	NH	90	11	15	2329	206	428	4.82	56	100.0	145	387
83.3	40.6	34	13.5	119	24.6	NH	90	11	15	1857	30	74	4.02	54	100.0	60	321
83.3	42.0	34	10.8	119	30.6	NH	90	11	15	1702	109	275	3.97	33	100.0	26	95
83.3	51.0	33	52.7	120	08.1	NH	90	11	15	1135	78	183	4.26	33	100.0	33	87
83.3	55.0	33	44.8	120	24.6	NH	90	11	15	0745	215	446	4.82	31	100.0	46	56
83.3	60.0	33	34.7	120	45.4	NH	90	11	15	0345	214	476	4.50	195	51.6	3	4
83.3	70.0	33	14.6	121	26.6	NH	90	11	14	2139	213	478	4.46	285	48.5	0	6
83.3	80.0	32	54.7	122	07.8	NH	90	11	14	1538	212	454	4.66	1322	50.0	0	2
83.3	90.0	32	34.7	122	48.7	NH	90	11	14	0830	209	433	4.83	291	100.0	4	30
83.3	100.0	32	14.7	123	29.5	NH	90	11	14	0240	213	452	4.72	712	100.0	1	3
83.3	110.0	31	54.7	124	10.2	NH	90	11	13	2057	219	449	4.87	31	100.0	16	15
86.7	33.0	33	53.5	118	29.5	NH	90	11	11	0735	41	100	4.07	100	100.0	26	83
86.7	35.0	33	49.3	118	37.7	NH	90	11	11	1327	206	450	4.57	27	100.0	42	15
86.7	40.0	33	39.4	118	58.4	NH	90	11	11	1708	200	440	4.55	43	100.0	54	388
86.7	45.0	33	29.4	119	19.1	NH	90	11	11	2133	210	429	4.89	63	100.0	21	42
86.7	50.0	33	19.4	119	39.8	NH	90	11	12	0045	71	158	4.53	44	100.0	48	22
86.7	55.0	33	09.4	120	00.4	NH	90	11	12	0645	214	441	4.86	29	100.0	4	5
86.7	60.0	32	59.4	120	21.0	NH	90	11	12	1125	205	466	4.40	97	100.0	0	2

Table 1. (cont.)

CalCOFI Cruise 9011

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	02.0	NH	90	11	12	1706	209	455	4.60	378	50.0	4	6
86.7	80.0	32	19.3	121	43.0	NH	90	11	12	2223	213	447	4.77	470	53.3	1	5
86.7	90.0	31	59.4	122	23.5	NH	90	11	13	0345	214	436	4.91	163	100.0	13	8
86.7	100.0	31	39.4	123	04.2	NH	90	11	13	0918	206	453	4.54	60	100.0	1	15
86.7	110.0	31	19.4	123	44.5	NH	90	11	13	1531	211	446	4.73	43	100.0	24	12
90.0	28.0	33	29.1	117	46.2	NH	90	11	11	0215	68	158	4.34	83	100.0	67	49
90.0	30.0	33	25.1	117	54.2	NH	90	11	11	0008	210	433	4.84	48	100.0	55	28
90.0	35.0	33	15.2	118	15.0	NH	90	11	10	2031	206	453	4.55	49	100.0	36	28
90.0	37.0	33	10.4	118	23.5	NH	90	11	10	1758	209	455	4.59	46	100.0	24	1
90.0	45.0	32	55.2	118	56.0	NH	90	11	10	1112	215	432	4.98	30	100.0	8	5
90.0	53.0	32	39.1	119	29.0	NH	90	11	10	0408	214	451	4.74	51	100.0	8	4
90.0	60.0	32	25.1	119	57.6	NH	90	11	09	2228	206	459	4.49	78	100.0	1	5
90.0	70.0	32	05.1	120	38.4	NH	90	11	09	1702	216	460	4.71	270	53.2	3	2
90.0	80.0	31	45.1	121	18.9	NH	90	11	09	1118	218	439	4.96	34	100.0	18	11
90.0	90.0	31	25.1	121	59.4	NH	90	11	09	0518	213	467	4.57	30	100.0	65	24
90.0	100.0	31	05.0	122	39.7	NH	90	11	08	2243	215	454	4.74	40	100.0	76	59
90.0	110.0	30	45.1	123	19.9	NH	90	11	08	1715	213	468	4.55	11	100.0	14	21
90.0	120.0	30	25.1	123	59.8	NH	90	11	08	1145	205	484	4.24	8	100.0	15	7
93.3	26.7	32	57.3	117	18.3	NH	90	11	05	1232	67	168	4.01	30	100.0	5	17
93.3	28.0	32	54.8	117	23.6	NH	90	11	05	1509	208	465	4.46	13	100.0	5	2
93.3	30.0	32	50.8	117	31.8	NH	90	11	05	1734	210	448	4.70	31	100.0	5	3
93.3	35.0	32	40.8	117	52.3	NH	90	11	05	2103	208	465	4.48	54	100.0	26	23
93.3	40.0	32	30.8	118	12.7	NH	90	11	06	0035	217	496	4.37	26	100.0	12	2
93.3	45.0	32	21.0	118	33.2	NH	90	11	06	0425	223	474	4.70	42	100.0	44	1
93.3	50.0	32	10.8	118	53.5	NH	90	11	06	0820	231	493	4.68	14	100.0	10	1
93.3	55.0	32	00.8	119	13.9	NH	90	11	06	1253	214	507	4.22	16	100.0	0	3
93.3	60.0	31	50.9	119	34.2	NH	90	11	06	1654	216	484	4.48	21	100.0	9	0
93.3	70.0	31	30.8	120	14.7	NH	90	11	06	2241	215	489	4.39	74	100.0	11	4
93.3	80.0	31	10.8	120	55.2	NH	90	11	07	0420	213	468	4.54	32	100.0	37	23
93.3	90.0	30	50.8	121	35.3	NH	90	11	07	1030	215	470	4.58	13	100.0	26	25
93.3	100.0	30	31.7	122	14.9	NH	90	11	07	1707	214	467	4.58	9	100.0	41	29
93.3	110.0	30	10.8	122	55.4	NH	90	11	07	2249	216	454	4.77	22	100.0	48	15
93.3	120.0	29	50.9	123	35.2	NH	90	11	08	0502	212	464	4.57	15	100.0	61	9

TABLE 2. Pooled occurrences of fish larvae taken on CalCOFI cruises in 1990.

Rank	Taxon	Occurrences
1	*Engraulis mordax*	109
2	*Sebastes* spp.	97
3	*Leuroglossus stilbius*	90
4	*Protomyctophum crockeri*	84
5	*Bathylagus ochotensis*	83
6	*Stenobrachius leucopsarus*	75
7	*Merluccius productus*	70
8	*Diogenichthys atlanticus*	62
9	*Triphoturus mexicanus*	59
10	*Lampanyctus* spp.	55
11	*Cyclothone signata*	53
12	*Symbolophorus californiensis*	52
13	*Lampanyctus ritteri*	49
13	*Bathylagus wesethi*	49
15	*Vinciguerria lucetia*	47
16	*Citharichthys sordidus*	41
17	*Citharichthys stigmaeus*	38
18	*Chauliodus macouni*	36
19	*Sardinops sagax*	33
20	*Argyropelecus sladeni*	30
20	*Danaphos oculatus*	30
22	*Ceratoscopelus townsendi*	29
22	*Sebastes jordani*	29
24	Disintegrated fish larvae	28
25	*Melamphaes lugubris*	26
26	*Tarletonbeania crenularis*	24
27	*Argentina sialis*	20
28	*Coryphopterus nicholsii*	19
28	*Citharichthys* spp.	19
30	*Diaphus* spp.	18
30	*Sternoptyx* spp.	18
30	*Idiacanthus antrostomus*	18
33	*Lestidiops ringens*	14
33	Myctophidae	14
35	*Tetragonurus cuvieri*	13
36	*Cyclothone* spp.	12
37	*Argyropelecus affinis*	10
37	*Genyonemus lineatus*	10
37	*Lampanyctus regalis*	10
37	*Icichthys lockingtoni*	10
37	*Oxyjulis californica*	10
42	*Chromis punctipinnis*	9
43	*Trachurus symmetricus*	8
43	*Scopelosaurus harryi*	8
43	*Microstoma* spp.	8
43	*Stomias atriventer*	8
47	*Scopelogadus bispinosus*	7
47	*Notolychnus valdiviae*	7
47	*Pleuronichthys verticalis*	7
47	*Vinciguerria poweriae*	7

TABLE 2. (cont.)

Rank	Taxon	Occurrences
47	Unidentified fish larvae	7
47	*Paralichthys californicus*	7
53	*Sebastes paucispinis*	6
53	*Argyropelecus hemigymnus*	6
53	*Cyclothone acclinidens*	6
53	*Bathylagus pacificus*	6
53	*Chiasmodon niger*	6
53	*Myctophum nitidulum*	6
53	*Hygophum reinhardtii*	6
60	*Melamphaes* spp.	5
60	*Paralabrax* spp.	5
60	*Sebastolobus* spp.	5
60	*Cololabis saira*	5
60	*Rathbunella* spp.	5
60	*Sebastes diploproa*	5
60	*Sebastes aurora*	5
60	Cottidae	5
60	*Aristostomias scintillans*	5
69	*Synodus lucioceps*	4
69	*Electrona risso*	4
69	*Microstomus pacificus*	4
69	*Hypsoblennius jenkinsi*	4
69	*Argyropelecus lychnus*	4
69	*Nansenia candida*	4
69	*Parophrys vetulus*	4
69	*Zaniolepis latipinnis*	4
69	*Oneirodes* spp.	4
78	*Howella* spp.	3
78	*Lampanyctus steinbecki*	3
78	*Sphyraena argentea*	3
78	*Melamphaes parvus*	3
78	*Diogenichthys* spp.	3
78	*Cyclothone pseudopallida*	3
78	*Lepidogobius lepidus*	3
78	*Benthalbella dentata*	3
78	*Trachipterus altivelis*	3
78	*Icelinus* spp.	3
78	*Pleuronichthys ritteri*	3
78	*Tactostoma macropus*	3
78	*Hippoglossina stomata*	3
91	*Cryptotrema corallinum*	2
91	*Symphurus atricaudus*	2
91	*Bathophilus flemingi*	2
91	*Bathylagus milleri*	2
91	*Peprilus simillimus*	2
91	*Rosenblattichthys volucris*	2
91	*Scomber japonicus*	2
91	*Lampanyctus* "no pectorals"	2
91	*Scopelarchus guentheri*	2
91	Sternoptychidae	2
91	*Artedius creaseri*	2

TABLE 2. (cont.)

Rank	Taxon	Occurrences
91	*Valenciennellus tripunctulatus*	2
91	*Artedius fenestralis*	2
91	*Brosmophycis marginata*	2
91	*Ophidion scrippsae*	2
91	*Chilara taylori*	2
91	*Parvilux ingens*	2
91	*Scorpaenichthys marmoratus*	2
91	*Typhlogobius californiensis*	2
91	*Xeneretmus leiops*	2
91	*Semicossyphus pulcher*	2
91	Stichaeidae	2
91	*Centrobranchus nigroocellatus*	2
91	Stomiiformes	2
91	*Notoscopelus resplendens*	2
91	*Argyropelecus* spp.	2
117	*Gonostoma atlanticum*	1
117	*Citharichthys xanthostigma*	1
117	*Gigantactis* spp.	1
117	*Seriphus politus*	1
117	Zoarcidae	1
117	*Plectobranchus evides*	1
117	*Hypsoblennius* spp.	1
117	*Xeneretmus latifrons*	1
117	*Diplospinus multistriatus*	1
117	Agonidae	1
117	*Xystreurys liolepis*	1
117	*Glyptocephalus zachirus*	1
117	*Hypsopsetta guttulata*	1
117	*Lyopsetta exilis*	1
117	*Pleuronichthys* spp.	1
117	*Pleuronichthys coenosus*	1
117	*Lythrypnus dalli*	1
117	*Poromitra crassiceps*	1
117	*Scopelarchus analis*	1
117	Paralepididae	1
117	*Lestidiops* spp.	1
117	*Lampanyctus* "niger"	1
117	*Diogenichthys laternatus*	1
117	*Caulolatilus princeps*	1
117	*Atherinopsis californiensis*	1
117	*Scopelarchus* spp.	1
117	*Sebastes levis*	1
117	*Oxylebius pictus*	1
117	*Zaniolepis frenata*	1
117	*Ophiodon elongatus*	1
117	*Artedius lateralis*	1
117	*Icelinus quadriseriatus*	1
117	*Hygophum* spp.	1
	Total	1923

TABLE 3. Pooled counts of fish larvae taken on CalCOFI cruises in 1990. Counts are adjusted for percent of sample sorted and standard haul factor (see text).

Rank	Taxon	Count
1	*Engraulis mordax*	62876
2	*Leuroglossus stilbius*	9317
3	*Merluccius productus*	6266
4	*Sebastes* spp.	5683
5	*Sardinops sagax*	4965
6	*Stenobrachius leucopsarus*	3604
7	*Bathylagus ochotensis*	2014
8	*Vinciguerria lucetia*	1847
9	*Sebastes jordani*	1402
10	*Bathylagus wesethi*	1100
11	*Diogenichthys atlanticus*	1039
12	*Triphoturus mexicanus*	927
13	*Protomyctophum crockeri*	825
14	*Cyclothone signata*	771
15	*Citharichthys stigmaeus*	689
16	*Citharichthys sordidus*	685
17	*Symbolophorus californiensis*	578
18	*Lampanyctus* spp.	572
19	*Ceratoscopelus townsendi*	554
19	*Argentina sialis*	554
21	*Citharichthys* spp.	546
22	*Lampanyctus ritteri*	530
23	*Genyonemus lineatus*	398
24	*Tarletonbeania crenularis*	278
25	Disintegrated fish larvae	264
26	*Danaphos oculatus*	259
27	*Chauliodus macouni*	249
28	*Argyropelecus sladeni*	224
29	*Coryphopterus nicholsii*	208
30	*Sebastolobus* spp.	190
31	*Idiacanthus antrostomus*	179
32	*Melamphaes lugubris*	174
33	*Diaphus* spp.	143
34	*Oxyjulis californica*	129
35	*Sternoptyx* spp.	123
36	*Chromis punctipinnis*	122
37	Myctophidae	109
38	*Cyclothone* spp.	106
39	*Tetragonurus cuvieri*	84
40	*Lestidiops ringens*	77
41	*Bathylagus pacificus*	74
42	*Icichthys lockingtoni*	71
43	*Stomias atriventer*	70
44	*Aristostomias scintillans*	67
45	*Paralichthys californicus*	66
46	*Trachurus symmetricus*	62
47	*Lampanyctus regalis*	60
48	*Sebastes diploproa*	59

TABLE 3. (cont.)

Rank	Taxon	Count
49	*Paralabrax* spp.	55
50	*Argyropelecus affinis*	53
51	*Sebastes paucispinis*	51
52	*Scomber japonicus*	48
53	*Scopelosaurus harryi*	46
54	*Sphyraena argentea*	45
55	*Parophrys vetulus*	43
55	*Microstoma* spp.	43
57	*Icelinus* spp.	42
58	*Pleuronichthys verticalis*	40
58	*Cryptotrema corallinum*	40
60	*Hygophum reinhardtii*	39
60	*Myctophum nitidulum*	39
62	*Vinciguerria poweriae*	37
63	*Sebastes aurora*	36
64	*Scopelogadus bispinosus*	35
65	*Notolychnus valdiviae*	34
66	*Tactostoma macropus*	32
66	Unidentified fish larvae	32
66	*Argyropelecus hemigymnus*	32
66	*Melamphaes* spp.	32
66	*Pleuronichthys ritteri*	32
71	*Electrona risso*	31
72	Cottidae	30
73	*Synodus lucioceps*	29
73	*Cyclothone acclinidens*	29
73	*Chiasmodon niger*	29
73	*Cololabis saira*	29
77	*Lythrypnus dalli*	28
77	*Zaniolepis latipinnis*	28
79	*Microstomus pacificus*	27
80	*Rathbunella* spp.	26
80	*Hippoglossina stomata*	26
82	*Argyropelecus lychnus*	24
83	*Hypsoblennius jenkinsi*	22
83	*Lepidogobius lepidus*	22
85	*Typhlogobius californiensis*	20
85	*Sebastes levis*	20
85	*Brosmophycis marginata*	20
85	*Icelinus quadriseriatus*	20
89	*Diogenichthys* spp.	19
89	*Bathophilus flemingi*	19
89	*Oneirodes* spp.	19
89	*Scorpaenichthys marmoratus*	19
89	*Melamphaes parvus*	19
89	Stichaeidae	19
95	*Nansenia candida*	18
96	*Seriphus politus*	17
96	*Trachipterus altivelis*	17
98	*Semicossyphus pulcher*	16
99	*Lampanyctus steinbecki*	15

TABLE 3. (cont.)

Rank	Taxon	Count
99	*Bathylagus milleri*	15
99	*Diogenichthys laternatus*	15
102	*Howella* spp.	14
102	Stomiiformes	14
102	*Artedius fenestralis*	14
102	*Parvilux ingens*	14
102	*Benthalbella dentata*	14
102	*Peprilus simillimus*	14
108	*Ophidion scrippsae*	13
108	*Chilara taylori*	13
108	*Cyclothone pseudopallida*	13
108	*Notoscopelus resplendens*	13
112	*Artedius lateralis*	12
113	Sternoptychidae	10
113	*Argyropelecus* spp.	10
113	*Citharichthys xanthostigma*	10
113	*Glyptocephalus zachirus*	10
113	*Pleuronichthys coenosus*	10
113	*Symphurus atricaudus*	10
113	*Ophiodon elongatus*	10
113	*Rosenblattichthys volucris*	10
113	*Centrobranchus nigroocellatus*	10
113	*Caulolatilus princeps*	10
113	*Scopelarchus guentheri*	10
113	*Lampanyctus* "no pectorals"	10
125	*Xeneretmus leiops*	9
125	*Valenciennellus tripunctulatus*	9
127	*Artedius creaseri*	8
127	*Oxylebius pictus*	8
127	Agonidae	8
130	*Lyopsetta exilis*	5
130	*Lampanyctus* "niger"	5
130	*Hygophum* spp.	5
130	*Gigantactis* spp.	5
130	*Scopelarchus analis*	5
130	Zoarcidae	5
130	*Atherinopsis californiensis*	5
130	*Diplospinus multistriatus*	5
130	*Pleuronichthys* spp.	5
130	*Scopelarchus* spp.	5
130	*Gonostoma atlanticum*	5
130	*Lestidiops* spp.	5
142	Paralepididae	4
142	*Hypsoblennius* spp.	4
142	*Poromitra crassiceps*	4
142	*Xystreurys liolepis*	4
142	*Plectobranchus evides*	4
142	*Xeneretmus latifrons*	4
142	*Hypsopsetta guttulata*	4
149	*Zaniolepis frenata*	3
	Total	113163

TABLE 4. Number of fish larvae taken at stations occupied on CalCOFI cruises in 1990. 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.
76.7	60.0	-	-	30.2	-	-	-	-	0.0	-	-	8.5	-
76.7	70.0	-	-	0.0	-	-	-	-	9.8	-	-	0.0	-
80.0	51.0	-	-	0.0	0.0	-	-	-	13.3	-	-	0.0	-
80.0	55.0	-	-	0.0	0.0	-	-	-	49.3	-	-	0.0	-
80.0	60.0	-	-	0.0	-	-	-	-	77.8	-	-	4.3	-
80.0	70.0	-	-	20.3	-	-	-	-	0.0	-	-	0.0	-
81.8	46.9	-	-	0.0	0.0	-	-	-	235.2	-	-	19.3	-
83.3	40.6	-	-	0.0	44.0	-	-	-	491.8	-	-	4.0	-
83.3	42.0	-	-	0.0	0.0	-	-	-	3412.2	-	-	0.0	-
83.3	51.0	-	-	0.0	5.1	-	-	-	0.0	-	-	0.0	-
83.3	55.0	-	-	0.0	0.0	-	-	-	4.6	-	-	0.0	-
86.7	33.0	-	-	0.0	322.7	-	-	17.1	-	-	-	8.1	-
86.7	35.0	-	-	0.0	0.0	-	-	45.0	-	-	-	4.6	-
86.7	40.0	-	-	0.0	0.0	-	-	9.3	-	-	-	0.0	-
86.7	60.0	-	-	0.0	4.7	-	-	-	0.0	-	-	0.0	-
86.7	80.0	-	-	0.0	3.3	-	-	-	0.0	-	-	0.0	-
86.7	90.0	-	-	4.7	0.0	-	-	-	0.0	-	-	0.0	-
90.0	28.0	-	-	4.7	0.0	-	-	4.3	-	-	-	43.4	-
90.0	37.0	-	-	0.0	10.3	-	-	0.0	-	-	-	0.0	-
90.0	90.0	-	-	0.0	15.5	-	-	0.0	-	-	-	0.0	-
93.3	60.0	-	-	0.0	0.0	-	-	19.2	-	-	-	0.0	-
93.3	80.0	-	-	0.0	5.0	-	-	0.0	-	-	-	0.0	-
93.3	90.0	-	-	0.0	15.2	-	-	0.0	-	-	-	0.0	-

Engraulis mordax

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	49.0	-	-	0.0	-	-	-	-	8.7	-	-	12.5	-
76.7	51.0	-	-	0.0	-	-	-	-	30.4	-	-	0.0	-

TABLE 4. (cont.)

Engraulis mordax (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	55.0	-	-	47.0	-	-	-	-	26.7	-	-	0.0	-
76.7	60.0	-	-	30.2	-	-	-	-	0.0	-	-	8.5	-
76.7	70.0	-	-	23.7	-	-	-	-	0.0	-	-	0.0	-
80.0	51.0	-	-	9.2	79.4	-	-	-	13.3	-	-	8.7	-
80.0	55.0	-	-	284.8	0.0	-	-	-	0.0	-	-	9.1	-
80.0	60.0	-	-	55.8	-	-	-	-	19.4	-	-	30.1	-
80.0	70.0	-	-	0.0	-	-	-	-	21.9	-	-	0.0	-
81.8	46.9	-	-	53.6	81.0	-	-	-	16.8	-	-	245.8	-
83.3	40.6	-	-	0.0	17.6	-	-	-	28.7	-	-	229.1	-
83.3	42.0	-	-	414.4	97.2	-	-	-	394.8	-	-	43.7	-
83.3	51.0	-	-	702.7	207.9	-	-	-	0.0	-	-	0.0	-
83.3	55.0	-	-	1246.7	10.1	-	-	-	0.0	-	-	0.0	-
83.3	60.0	-	-	0.0	9.5	-	-	-	0.0	-	-	0.0	-
86.7	33.0	-	-	585.6	686.9	-	-	8.5	-	-	-	52.9	-
86.7	35.0	-	-	937.1	38.1	-	-	9.0	-	-	-	150.8	-
86.7	40.0	-	-	1682.7	429.7	-	-	9.3	-	-	-	31.8	-
86.7	45.0	-	-	286.6	0.0	-	-	-	0.0	-	-	63.6	-
86.7	50.0	-	-	2106.0	0.0	-	-	-	4.2	-	-	4.5	-
86.7	55.0	-	-	355.3	0.0	-	-	-	0.0	-	-	0.0	-
86.7	60.0	-	-	51.1	0.0	-	-	-	0.0	-	-	0.0	-
86.7	70.0	-	-	23.9	19.7	-	-	-	0.0	-	-	0.0	-
86.7	80.0	-	-	119.1	0.0	-	-	-	0.0	-	-	0.0	-
86.7	90.0	-	-	4.7	0.0	-	-	-	0.0	-	-	0.0	-
86.7	100.0	-	-	4.7	-	-	-	-	0.0	-	-	0.0	-
90.0	28.0	-	-	227.5	104.3	-	-	0.0	-	-	-	212.7	-
90.0	30.0	-	-	3593.8	60.5	-	-	4.7	-	-	-	213.0	-
90.0	35.0	-	-	548.3	126.6	-	-	0.0	-	-	-	109.2	-
90.0	37.0	-	-	4540.4	852.2	-	-	9.6	-	-	-	87.2	-
90.0	45.0	-	-	5425.9	50.6	-	-	0.0	-	-	-	24.9	-
90.0	53.0	-	-	1173.6	0.0	-	-	10.5	-	-	-	0.0	-
90.0	60.0	-	-	108.3	4.6	-	-	0.0	-	-	-	0.0	-

TABLE 4. (cont.)

Engraulis mordax (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0	70.0	-	-	152.5	0.0	-	-	0.0	-	-	-	0.0	-
90.0	80.0	-	-	31.8	0.0	-	-	0.0	-	-	-	0.0	-
90.0	90.0	-	-	117.6	0.0	-	-	0.0	-	-	-	0.0	-
93.3	26.7	-	-	2004.0	155.6	-	-	0.0	-	-	-	20.0	-
93.3	28.0	-	-	17074.7	145.2	-	-	0.0	-	-	-	4.5	-
93.3	30.0	-	-	6047.6	479.4	-	-	0.0	-	-	-	9.4	-
93.3	35.0	-	-	1887.9	221.3	-	-	0.0	-	-	-	0.0	-
93.3	40.0	-	-	1434.7	4.9	-	-	0.0	-	-	-	13.1	-
93.3	45.0	-	-	1499.5	0.0	-	-	0.0	-	-	-	145.7	-
93.3	50.0	-	-	406.8	0.0	-	-	21.5	-	-	-	14.0	-
93.3	55.0	-	-	359.6	0.0	-	-	0.0	-	-	-	0.0	-
93.3	60.0	-	-	193.9	32.3	-	-	57.5	-	-	-	0.0	-
93.3	70.0	-	-	607.8	5.1	-	-	0.0	-	-	-	0.0	-
93.3	80.0	-	-	34.5	0.0	-	-	0.0	-	-	-	0.0	-
93.3	90.0	-	-	14.0	0.0	-	-	0.0	-	-	-	0.0	-

Argentina sialis

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	51.0	-	-	20.4	-	-	-	-	0.0	-	-	8.9	-
76.7	55.0	-	-	0.0	-	-	-	-	8.9	-	-	0.0	-
80.0	55.0	-	-	0.0	0.0	-	-	-	0.0	-	-	9.1	-
80.0	60.0	-	-	11.2	-	-	-	-	0.0	-	-	133.3	-
81.8	46.9	-	-	10.7	20.2	-	-	-	0.0	-	-	144.6	-
83.3	42.0	-	-	11.5	4.9	-	-	-	0.0	-	-	0.0	-
83.3	55.0	-	-	0.0	10.1	-	-	-	0.0	-	-	4.8	-
86.7	35.0	-	-	73.5	0.0	-	-	0.0	-	-	-	9.1	-
90.0	28.0	-	-	4.7	0.0	-	-	0.0	-	-	-	0.0	-
90.0	30.0	-	-	5.3	0.0	-	-	0.0	-	-	-	0.0	-
93.3	26.7	-	-	4.2	0.0	-	-	0.0	-	-	-	0.0	-
93.3	28.0	-	-	17.8	0.0	-	-	0.0	-	-	-	0.0	-
93.3	30.0	-	-	40.8	0.0	-	-	0.0	-	-	-	0.0	-

TABLE 4. (cont.)

***Microstoma* spp.**

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0	80.0	-	-	0.0	-	-	-	-	4.8	-	-	0.0	-
80.0	90.0	-	-	0.0	-	-	-	-	0.0	-	-	5.0	-
86.7	55.0	-	-	0.0	3.7	-	-	-	0.0	-	-	0.0	-
86.7	90.0	-	-	0.0	3.6	-	-	-	0.0	-	-	0.0	-
86.7	100.0	-	-	4.7	-	-	-	-	0.0	-	-	0.0	-
90.0	70.0	-	-	0.0	0.0	-	-	4.9	-	-	-	0.0	-
90.0	90.0	-	-	0.0	5.2	-	-	0.0	-	-	-	0.0	-
90.0	100.0	-	-	0.0	0.0	-	-	9.5	-	-	-	0.0	-

Nansenia candida

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	70.0	-	-	4.7	-	-	-	-	0.0	-	-	0.0	-
83.3	80.0	-	-	4.4	0.0	-	-	-	0.0	-	-	0.0	-
83.3	90.0	-	-	0.0	3.7	-	-	-	0.0	-	-	0.0	-
86.7	60.0	-	-	0.0	4.7	-	-	-	0.0	-	-	0.0	-

Bathylagus milleri

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0	70.0	-	-	0.0	-	-	-	-	0.0	-	-	9.9	-
83.3	90.0	-	-	0.0	0.0	-	-	-	0.0	-	-	4.8	-

Bathylagus ochotensis

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	49.0	-	-	18.3	-	-	-	-	0.0	-	-	0.0	-
76.7	51.0	-	-	40.8	-	-	-	-	0.0	-	-	0.0	-
76.7	60.0	-	-	110.7	-	-	-	-	0.0	-	-	0.0	-
76.7	70.0	-	-	33.2	-	-	-	-	0.0	-	-	0.0	-
76.7	80.0	-	-	18.5	-	-	-	-	0.0	-	-	0.0	-
76.7	90.0	-	-	9.7	-	-	-	-	0.0	-	-	0.0	-
80.0	55.0	-	-	39.3	9.3	-	-	-	9.9	-	-	4.6	-
80.0	60.0	-	-	22.3	-	-	-	-	0.0	-	-	0.0	-
80.0	70.0	-	-	30.5	-	-	-	-	0.0	-	-	0.0	-
80.0	80.0	-	-	20.2	-	-	-	-	0.0	-	-	0.0	-
80.0	90.0	-	-	14.9	-	-	-	-	0.0	-	-	0.0	-

TABLE 4. (cont.)

Bathylagus ochotensis (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
81.8	46.9	-	-	10.7	0.0	-	-	-	0.0	-	-	0.0	-
83.3	42.0	-	-	11.5	0.0	-	-	-	0.0	-	-	0.0	-
83.3	55.0	-	-	141.7	0.0	-	-	-	0.0	-	-	0.0	-
83.3	60.0	-	-	34.6	9.5	-	-	-	0.0	-	-	0.0	-
83.3	70.0	-	-	0.0	20.9	-	-	-	0.0	-	-	0.0	-
83.3	80.0	-	-	0.0	9.3	-	-	-	0.0	-	-	0.0	-
83.3	90.0	-	-	0.0	18.7	-	-	-	0.0	-	-	0.0	-
83.3	100.0	-	-	4.7	-	-	-	-	0.0	-	-	0.0	-
86.7	35.0	-	-	18.4	0.0	-	-	0.0	-	-	-	0.0	-
86.7	40.0	-	-	18.9	4.4	-	-	0.0	-	-	-	0.0	-
86.7	45.0	-	-	16.4	0.0	-	-	-	0.0	-	-	0.0	-
86.7	50.0	-	-	9.8	0.0	-	-	-	0.0	-	-	0.0	-
86.7	55.0	-	-	118.4	22.4	-	-	-	0.0	-	-	0.0	-
86.7	60.0	-	-	42.6	28.3	-	-	-	0.0	-	-	0.0	-
86.7	70.0	-	-	57.5	4.9	-	-	-	0.0	-	-	0.0	-
86.7	80.0	-	-	63.5	9.8	-	-	-	0.0	-	-	0.0	-
86.7	90.0	-	-	9.4	3.6	-	-	-	0.0	-	-	0.0	-
86.7	100.0	-	-	4.7	-	-	-	-	0.0	-	-	0.0	-
90.0	28.0	-	-	9.5	0.0	-	-	0.0	-	-	-	0.0	-
90.0	30.0	-	-	10.7	0.0	-	-	0.0	-	-	-	0.0	-
90.0	35.0	-	-	9.9	39.0	-	-	0.0	-	-	-	0.0	-
90.0	37.0	-	-	18.8	10.3	-	-	0.0	-	-	-	0.0	-
90.0	45.0	-	-	23.6	0.0	-	-	0.0	-	-	-	0.0	-
90.0	53.0	-	-	19.2	14.2	-	-	0.0	-	-	-	0.0	-
90.0	60.0	-	-	65.9	9.2	-	-	0.0	-	-	-	0.0	-
90.0	70.0	-	-	137.8	25.4	-	-	0.0	-	-	-	0.0	-
90.0	80.0	-	-	13.6	4.5	-	-	0.0	-	-	-	0.0	-
90.0	90.0	-	-	19.6	20.7	-	-	0.0	-	-	-	0.0	-
90.0	100.0	-	-	8.3	40.4	-	-	0.0	-	-	-	4.7	-
93.3	26.7	-	-	4.2	0.0	-	-	0.0	-	-	-	0.0	-
93.3	28.0	-	-	8.9	0.0	-	-	0.0	-	-	-	0.0	-

TABLE 4. (cont.)

Bathylagus ochotensis (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 30.0	-	-	49.8	0.0	-	-	0.0	-	-	-	0.0	-
93.3 35.0	-	-	39.1	0.0	-	-	0.0	-	-	-	4.5	-
93.3 40.0	-	-	3.7	9.8	-	-	0.0	-	-	-	0.0	-
93.3 45.0	-	-	17.0	9.7	-	-	0.0	-	-	-	0.0	-
93.3 50.0	-	-	4.5	9.4	-	-	0.0	-	-	-	0.0	-
93.3 55.0	-	-	27.7	38.1	-	-	0.0	-	-	-	0.0	-
93.3 60.0	-	-	37.8	43.1	-	-	0.0	-	-	-	0.0	-
93.3 70.0	-	-	51.0	15.3	-	-	0.0	-	-	-	0.0	-
93.3 80.0	-	-	4.9	9.9	-	-	0.0	-	-	-	4.5	-
93.3 90.0	-	-	23.3	5.1	-	-	0.0	-	-	-	4.6	-
93.3 120.0	-	-	-	4.9	-	-	0.0	-	-	-	0.0	-

Bathylagus pacificus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 60.0	-	-	30.2	-	-	-	-	0.0	-	-	0.0	-
76.7 70.0	-	-	9.5	-	-	-	-	0.0	-	-	0.0	-
80.0 80.0	-	-	10.1	-	-	-	-	0.0	-	-	0.0	-
83.3 55.0	-	-	0.0	10.1	-	-	-	0.0	-	-	0.0	-
83.3 60.0	-	-	9.9	0.0	-	-	-	0.0	-	-	0.0	-
93.3 90.0	-	-	4.7	0.0	-	-	0.0	-	-	-	0.0	-

Bathylagus wesethi

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 80.0	-	-	0.0	-	-	-	-	0.0	-	-	5.0	-
76.7 90.0	-	-	0.0	-	-	-	-	47.3	-	-	0.0	-
76.7 100.0	-	-	-	-	-	-	-	-	-	-	4.3	-
80.0 90.0	-	-	0.0	-	-	-	-	64.1	-	-	0.0	-
80.0 100.0	-	-	-	-	-	-	-	68.8	-	-	0.0	-
83.3 80.0	-	-	0.0	0.0	-	-	-	28.6	-	-	0.0	-
83.3 90.0	-	-	22.8	52.4	-	-	-	0.0	-	-	0.0	-
83.3 100.0	-	-	14.2	-	-	-	-	8.8	-	-	0.0	-
83.3 110.0	-	-	-	-	-	-	-	17.9	-	-	0.0	-
86.7 55.0	-	-	0.0	7.5	-	-	-	0.0	-	-	0.0	-

TABLE 4. (cont.)

Bathylagus wesethi (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 70.0	-	-	0.0	9.9	-	-	-	0.0	-	-	0.0	-
86.7 90.0	-	-	0.0	7.3	-	-	-	0.0	-	-	0.0	-
86.7 100.0	-	-	61.0	-	-	-	-	0.0	-	-	0.0	-
86.7 110.0	-	-	-	-	-	-	-	18.0	-	-	4.7	-
90.0 35.0	-	-	0.0	0.0	-	-	9.4	-	-	-	0.0	-
90.0 37.0	-	-	0.0	0.0	-	-	57.6	-	-	-	0.0	-
90.0 53.0	-	-	4.8	0.0	-	-	0.0	-	-	-	0.0	-
90.0 70.0	-	-	0.0	0.0	-	-	4.9	-	-	-	0.0	-
90.0 80.0	-	-	0.0	4.5	-	-	9.0	-	-	-	24.8	-
90.0 90.0	-	-	0.0	5.2	-	-	0.0	-	-	-	22.9	-
90.0 100.0	-	-	12.5	0.0	-	-	14.3	-	-	-	23.7	-
90.0 110.0	-	-	-	38.8	-	-	8.8	-	-	-	0.0	-
90.0 120.0	-	-	-	39.0	-	-	8.9	-	-	-	0.0	-
93.3 35.0	-	-	0.0	0.0	-	-	76.0	-	-	-	0.0	-
93.3 70.0	-	-	0.0	15.3	-	-	4.8	-	-	-	0.0	-
93.3 80.0	-	-	0.0	0.0	-	-	18.4	-	-	-	9.1	-
93.3 90.0	-	-	9.3	10.2	-	-	4.6	-	-	-	4.6	-
93.3 100.0	-	-	35.9	54.5	-	-	30.3	-	-	-	9.2	-
93.3 110.0	-	-	-	20.0	-	-	37.7	-	-	-	0.0	-
93.3 120.0	-	-	-	29.4	-	-	0.0	-	-	-	0.0	-

Leuroglossus stilbius

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 51.0	-	-	0.0	-	-	-	-	0.0	-	-	26.8	-
76.7 55.0	-	-	56.4	-	-	-	-	0.0	-	-	0.0	-
76.7 60.0	-	-	140.8	-	-	-	-	0.0	-	-	8.5	-
76.7 70.0	-	-	99.5	-	-	-	-	0.0	-	-	0.0	-
76.7 80.0	-	-	9.3	-	-	-	-	0.0	-	-	0.0	-
76.7 90.0	-	-	19.4	-	-	-	-	0.0	-	-	0.0	-
80.0 51.0	-	-	0.0	8.8	-	-	-	0.0	-	-	0.0	-
80.0 55.0	-	-	127.7	27.9	-	-	-	9.9	-	-	13.7	-
80.0 60.0	-	-	78.1	-	-	-	-	0.0	-	-	51.6	-

TABLE 4. (cont.)

Leuroglossus stilbius (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0	70.0	-	-	50.8	-	-	-	-	0.0	-	-	19.8	-
80.0	80.0	-	-	5.0	-	-	-	-	0.0	-	-	9.5	-
81.8	46.9	-	-	117.9	50.6	-	-	-	0.0	-	-	4.8	-
83.3	42.0	-	-	34.5	19.4	-	-	-	0.0	-	-	0.0	-
83.3	55.0	-	-	406.1	20.3	-	-	-	0.0	-	-	4.8	-
83.3	60.0	-	-	192.7	0.0	-	-	-	0.0	-	-	0.0	-
83.3	70.0	-	-	0.0	15.7	-	-	-	0.0	-	-	0.0	-
83.3	80.0	-	-	4.4	13.9	-	-	-	0.0	-	-	0.0	-
86.7	33.0	-	-	43.6	0.0	-	-	0.0	-	-	-	0.0	-
86.7	35.0	-	-	836.0	19.0	-	-	0.0	-	-	-	0.0	-
86.7	40.0	-	-	973.7	44.3	-	-	0.0	-	-	-	0.0	-
86.7	45.0	-	-	262.0	30.3	-	-	-	4.9	-	-	0.0	-
86.7	50.0	-	-	22.8	0.0	-	-	-	0.0	-	-	0.0	-
86.7	55.0	-	-	110.0	7.5	-	-	-	0.0	-	-	0.0	-
86.7	60.0	-	-	213.0	4.7	-	-	-	0.0	-	-	0.0	-
86.7	70.0	-	-	47.9	0.0	-	-	-	0.0	-	-	0.0	-
86.7	80.0	-	-	63.5	6.5	-	-	-	0.0	-	-	0.0	-
86.7	90.0	-	-	0.0	3.6	-	-	-	0.0	-	-	0.0	-
90.0	28.0	-	-	132.7	0.0	-	-	0.0	-	-	-	0.0	-
90.0	30.0	-	-	592.7	60.5	-	-	0.0	-	-	-	0.0	-
90.0	35.0	-	-	429.8	87.7	-	-	0.0	-	-	-	0.0	-
90.0	37.0	-	-	602.9	112.9	-	-	9.6	-	-	-	0.0	-
90.0	45.0	-	-	409.8	70.9	-	-	0.0	-	-	-	0.0	-
90.0	53.0	-	-	464.6	47.2	-	-	0.0	-	-	-	0.0	-
90.0	60.0	-	-	28.3	23.1	-	-	0.0	-	-	-	0.0	-
90.0	70.0	-	-	108.2	4.2	-	-	0.0	-	-	-	0.0	-
90.0	90.0	-	-	19.6	25.9	-	-	0.0	-	-	-	0.0	-
90.0	100.0	-	-	0.0	25.3	-	-	0.0	-	-	-	0.0	-
93.3	26.7	-	-	63.1	0.0	-	-	4.0	-	-	-	0.0	-
93.3	28.0	-	-	164.7	20.7	-	-	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 30.0	-	-	308.0	122.2	-	-	0.0	-	-	-	4.7	-
93.3 35.0	-	-	182.7	57.7	-	-	0.0	-	-	-	0.0	-
93.3 40.0	-	-	25.6	83.3	-	-	0.0	-	-	-	0.0	-
93.3 45.0	-	-	55.4	14.5	-	-	0.0	-	-	-	0.0	-
93.3 50.0	-	-	36.2	0.0	-	-	0.0	-	-	-	4.7	-
93.3 55.0	-	-	179.8	76.3	-	-	0.0	-	-	-	0.0	-
93.3 60.0	-	-	80.4	21.6	-	-	0.0	-	-	-	0.0	-
93.3 70.0	-	-	190.2	5.1	-	-	0.0	-	-	-	0.0	-
93.3 90.0	-	-	4.7	5.1	-	-	0.0	-	-	-	0.0	-
93.3 120.0	-	-	-	4.9	-	-	0.0	-	-	-	0.0	-

Stomiiformes

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 100.0	-	-	0.0	-	-	-	-	8.8	-	-	0.0	-
93.3 120.0	-	-	-	4.9	-	-	0.0	-	-	-	0.0	-

***Cyclothone* spp.**

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 80.0	-	-	0.0	-	-	-	-	0.0	-	-	5.0	-
80.0 60.0	-	-	0.0	-	-	-	-	0.0	-	-	4.3	-
80.0 90.0	-	-	0.0	-	-	-	-	0.0	-	-	5.0	-
83.3 80.0	-	-	0.0	4.6	-	-	-	0.0	-	-	0.0	-
83.3 90.0	-	-	0.0	18.7	-	-	-	0.0	-	-	0.0	-
90.0 110.0	-	-	-	19.4	-	-	0.0	-	-	-	0.0	-
93.3 40.0	-	-	0.0	0.0	-	-	0.0	-	-	-	8.7	-
93.3 70.0	-	-	0.0	5.1	-	-	0.0	-	-	-	0.0	-
93.3 100.0	-	-	0.0	19.8	-	-	0.0	-	-	-	0.0	-
93.3 110.0	-	-	-	5.0	-	-	0.0	-	-	-	0.0	-
93.3 120.0	-	-	-	4.9	-	-	0.0	-	-	-	4.6	-

Cyclothone acclinidens

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 100.0	-	-	0.0	-	-	-	-	4.4	-	-	0.0	-
83.3 110.0	-	-	-	-	-	-	-	0.0	-	-	4.9	-

TABLE 4. (cont.)

Cyclothone acclinidens (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 70.0	-	-	0.0	4.9	-	-	-	0.0	-	-	0.0	-
90.0 110.0	-	-	-	4.8	-	-	0.0	-	-	-	0.0	-
93.3 100.0	-	-	0.0	5.0	-	-	0.0	-	-	-	0.0	-
93.3 110.0	-	-	-	0.0	-	-	0.0	-	-	-	4.8	-

Cyclothone pseudopallida

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0 120.0	-	-	-	0.0	-	-	4.4	-	-	-	4.2	-
93.3 120.0	-	-	-	0.0	-	-	4.6	-	-	-	0.0	-

Cyclothone signata

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 70.0	-	-	0.0	-	-	-	-	0.0	-	-	30.4	-
76.7 80.0	-	-	4.6	-	-	-	-	0.0	-	-	10.0	-
76.7 90.0	-	-	0.0	-	-	-	-	4.7	-	-	9.5	-
76.7 100.0	-	-	-	-	-	-	-	-	-	-	4.3	-
80.0 90.0	-	-	0.0	-	-	-	-	9.2	-	-	10.0	-
80.0 100.0	-	-	-	-	-	-	-	18.4	-	-	0.0	-
83.3 55.0	-	-	0.0	0.0	-	-	-	0.0	-	-	4.8	-
83.3 80.0	-	-	4.4	0.0	-	-	-	14.3	-	-	0.0	-
83.3 90.0	-	-	54.6	0.0	-	-	-	0.0	-	-	0.0	-
83.3 100.0	-	-	0.0	-	-	-	-	4.4	-	-	0.0	-
83.3 110.0	-	-	-	-	-	-	-	8.9	-	-	19.5	-
86.7 80.0	-	-	0.0	3.3	-	-	-	0.0	-	-	0.0	-
86.7 90.0	-	-	4.7	0.0	-	-	-	0.0	-	-	9.8	-
86.7 100.0	-	-	18.8	-	-	-	-	8.9	-	-	0.0	-
86.7 110.0	-	-	-	-	-	-	-	0.0	-	-	9.5	-
90.0 37.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.6	-
90.0 70.0	-	-	0.0	0.0	-	-	9.8	-	-	-	0.0	-
90.0 80.0	-	-	0.0	0.0	-	-	27.0	-	-	-	0.0	-
90.0 90.0	-	-	4.9	0.0	-	-	4.8	-	-	-	32.0	-
90.0 100.0	-	-	4.2	5.0	-	-	4.8	-	-	-	113.8	-
90.0 110.0	-	-	-	14.5	-	-	4.4	-	-	-	4.5	-

TABLE 4. (cont.)

Cyclothone signata (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0 120.0	-	-	-	29.3	-	-	13.3	-	-	-	8.5	-
93.3 50.0	-	-	4.5	0.0	-	-	0.0	-	-	-	0.0	-
93.3 60.0	-	-	0.0	10.8	-	-	0.0	-	-	-	0.0	-
93.3 70.0	-	-	0.0	0.0	-	-	4.8	-	-	-	0.0	-
93.3 80.0	-	-	0.0	0.0	-	-	0.0	-	-	-	36.3	-
93.3 90.0	-	-	0.0	5.1	-	-	0.0	-	-	-	9.2	-
93.3 100.0	-	-	18.0	0.0	-	-	8.7	-	-	-	9.2	-
93.3 110.0	-	-	-	15.0	-	-	14.1	-	-	-	28.6	-
93.3 120.0	-	-	-	9.8	-	-	18.2	-	-	-	27.4	-

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	-

Sternoptychidae

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0 100.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.7	-
93.3 90.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.6	-

Argyropelecus **spp.**

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0 100.0	-	-	-	-	-	-	-	0.0	-	-	4.7	-
93.3 80.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.5	-

Argyropelecus affinis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 80.0	-	-	0.0	-	-	-	-	0.0	-	-	5.0	-
86.7 80.0	-	-	0.0	0.0	-	-	-	4.6	-	-	0.0	-
86.7 100.0	-	-	4.7	-	-	-	-	0.0	-	-	0.0	-
90.0 37.0	-	-	4.7	0.0	-	-	0.0	-	-	-	0.0	-
90.0 80.0	-	-	4.5	0.0	-	-	0.0	-	-	-	0.0	-
90.0 100.0	-	-	0.0	0.0	-	-	4.8	-	-	-	9.5	-
93.3 90.0	-	-	4.7	0.0	-	-	0.0	-	-	-	0.0	-
93.3 100.0	-	-	4.5	0.0	-	-	0.0	-	-	-	0.0	-
93.3 120.0	-	-	-	4.9	-	-	0.0	-	-	-	0.0	-

TABLE 4. (cont.)

Argyropelecus hemigymnus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 90.0	-	-	0.0	-	-	-	-	4.7	-	-	0.0	-
80.0 55.0	-	-	0.0	9.3	-	-	-	0.0	-	-	0.0	-
83.3 100.0	-	-	0.0	-	-	-	-	4.4	-	-	0.0	-
93.3 100.0	-	-	4.5	5.0	-	-	0.0	-	-	-	0.0	-
93.3 120.0	-	-	-	0.0	-	-	0.0	-	-	-	4.6	-

Argyropelecus lychnus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0 100.0	-	-	4.2	0.0	-	-	0.0	-	-	-	0.0	-
90.0 110.0	-	-	-	4.8	-	-	0.0	-	-	-	0.0	-
93.3 100.0	-	-	0.0	9.9	-	-	0.0	-	-	-	0.0	-
93.3 120.0	-	-	-	0.0	-	-	0.0	-	-	-	4.6	-

Argyropelecus sladeni

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0 60.0	-	-	0.0	-	-	-	-	0.0	-	-	4.3	-
80.0 90.0	-	-	5.0	-	-	-	-	0.0	-	-	0.0	-
80.0 100.0	-	-	-	-	-	-	-	0.0	-	-	9.4	-
83.3 42.0	-	-	0.0	0.0	-	-	-	0.0	-	-	4.0	-
83.3 55.0	-	-	37.8	0.0	-	-	-	0.0	-	-	0.0	-
83.3 60.0	-	-	4.9	0.0	-	-	-	0.0	-	-	0.0	-
83.3 90.0	-	-	4.5	0.0	-	-	-	0.0	-	-	0.0	-
83.3 100.0	-	-	0.0	-	-	-	-	4.4	-	-	0.0	-
86.7 80.0	-	-	7.9	0.0	-	-	-	0.0	-	-	0.0	-
86.7 110.0	-	-	-	-	-	-	-	0.0	-	-	4.7	-
90.0 30.0	-	-	5.3	0.0	-	-	0.0	-	-	-	0.0	-
90.0 35.0	-	-	4.9	0.0	-	-	0.0	-	-	-	0.0	-
90.0 37.0	-	-	4.7	0.0	-	-	0.0	-	-	-	0.0	-
90.0 90.0	-	-	0.0	0.0	-	-	0.0	-	-	-	9.1	-
90.0 100.0	-	-	0.0	0.0	-	-	0.0	-	-	-	23.7	-
90.0 110.0	-	-	-	4.8	-	-	0.0	-	-	-	4.5	-
93.3 35.0	-	-	0.0	9.6	-	-	0.0	-	-	-	4.5	-
93.3 40.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.4	-

TABLE 4. (cont.)

Argyropelecus sladeni (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 45.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.7	-
93.3 50.0	-	-	0.0	0.0	-	-	0.0	-	-	-	9.4	-
93.3 60.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.5	-
93.3 80.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.5	-
93.3 90.0	-	-	9.3	0.0	-	-	0.0	-	-	-	4.6	-
93.3 100.0	-	-	9.0	0.0	-	-	0.0	-	-	-	4.6	-
93.3 110.0	-	-	-	0.0	-	-	4.7	-	-	-	0.0	-
93.3 120.0	-	-	-	0.0	-	-	0.0	-	-	-	4.6	-

Danaphos oculatus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 80.0	-	-	0.0	-	-	-	-	0.0	-	-	5.0	-
76.7 90.0	-	-	0.0	-	-	-	-	4.7	-	-	33.1	-
76.7 100.0	-	-	-	-	-	-	-	-	-	-	12.9	-
80.0 55.0	-	-	0.0	0.0	-	-	-	9.9	-	-	0.0	-
80.0 90.0	-	-	0.0	-	-	-	-	9.2	-	-	5.0	-
80.0 100.0	-	-	-	-	-	-	-	0.0	-	-	4.7	-
83.3 70.0	-	-	0.0	0.0	-	-	-	9.4	-	-	0.0	-
83.3 80.0	-	-	0.0	0.0	-	-	-	9.5	-	-	0.0	-
83.3 90.0	-	-	0.0	0.0	-	-	-	4.7	-	-	0.0	-
83.3 110.0	-	-	-	-	-	-	-	0.0	-	-	4.9	-
86.7 45.0	-	-	8.2	0.0	-	-	-	0.0	-	-	0.0	-
86.7 110.0	-	-	-	-	-	-	-	0.0	-	-	4.7	-
90.0 30.0	-	-	0.0	0.0	-	-	9.4	-	-	-	4.8	-
90.0 37.0	-	-	4.7	0.0	-	-	0.0	-	-	-	0.0	-
90.0 45.0	-	-	0.0	0.0	-	-	0.0	-	-	-	5.0	-
90.0 60.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.5	-
90.0 90.0	-	-	4.9	0.0	-	-	0.0	-	-	-	0.0	-
90.0 100.0	-	-	0.0	25.3	-	-	0.0	-	-	-	0.0	-
90.0 110.0	-	-	-	9.7	-	-	0.0	-	-	-	0.0	-
90.0 120.0	-	-	-	9.8	-	-	0.0	-	-	-	0.0	-
93.3 28.0	-	-	0.0	0.0	-	-	4.8	-	-	-	0.0	-

TABLE 4. (cont.)

Danaphos oculatus (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 35.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.5	-
93.3 60.0	-	-	0.0	0.0	-	-	9.6	-	-	-	0.0	-
93.3 90.0	-	-	0.0	5.1	-	-	0.0	-	-	-	4.6	-
93.3 100.0	-	-	0.0	19.8	-	-	0.0	-	-	-	4.6	-

***Sternoptyx* spp.**

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 55.0	-	-	0.0	0.0	-	-	-	0.0	-	-	4.8	-
83.3 80.0	-	-	0.0	0.0	-	-	-	4.8	-	-	0.0	-
83.3 90.0	-	-	4.5	0.0	-	-	-	0.0	-	-	0.0	-
86.7 50.0	-	-	0.0	3.6	-	-	-	0.0	-	-	0.0	-
86.7 100.0	-	-	4.7	-	-	-	-	0.0	-	-	0.0	-
90.0 35.0	-	-	0.0	0.0	-	-	9.4	-	-	-	0.0	-
90.0 90.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.6	-
90.0 100.0	-	-	0.0	0.0	-	-	4.8	-	-	-	9.5	-
90.0 110.0	-	-	-	9.7	-	-	0.0	-	-	-	0.0	-
90.0 120.0	-	-	-	4.9	-	-	0.0	-	-	-	0.0	-
93.3 30.0	-	-	0.0	0.0	-	-	5.0	-	-	-	0.0	-
93.3 35.0	-	-	0.0	0.0	-	-	21.7	-	-	-	0.0	-
93.3 55.0	-	-	4.6	0.0	-	-	0.0	-	-	-	0.0	-
93.3 90.0	-	-	4.7	0.0	-	-	0.0	-	-	-	9.2	-
93.3 100.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.6	-
93.3 120.0	-	-	-	0.0	-	-	4.6	-	-	-	0.0	-

Valenciennellus tripunctulatus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 70.0	-	-	0.0	0.0	-	-	-	4.5	-	-	0.0	-
93.3 110.0	-	-	-	0.0	-	-	0.0	-	-	-	4.8	-

Vinciguerria lucetia

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 90.0	-	-	0.0	-	-	-	-	0.0	-	-	4.7	-
80.0 100.0	-	-	-	-	-	-	-	0.0	-	-	4.7	-
83.3 80.0	-	-	8.8	0.0	-	-	-	9.5	-	-	0.0	-

TABLE 4. (cont.)

Vinciguerria lucetia (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3	90.0	-	-	4.5	0.0	-	-	-	4.7	-	-	0.0	-
83.3	100.0	-	-	0.0	-	-	-	-	48.4	-	-	0.0	-
83.3	110.0	-	-	-	-	-	-	-	53.6	-	-	9.7	-
86.7	50.0	-	-	0.0	14.2	-	-	-	0.0	-	-	0.0	-
86.7	90.0	-	-	4.7	0.0	-	-	-	0.0	-	-	14.7	-
86.7	110.0	-	-	-	-	-	-	-	4.5	-	-	47.3	-
90.0	53.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.7	-
90.0	70.0	-	-	0.0	0.0	-	-	4.9	-	-	-	0.0	-
90.0	80.0	-	-	0.0	0.0	-	-	9.0	-	-	-	5.0	-
90.0	90.0	-	-	0.0	0.0	-	-	23.9	-	-	-	132.5	-
90.0	100.0	-	-	4.2	0.0	-	-	61.9	-	-	-	61.6	-
90.0	110.0	-	-	-	14.5	-	-	17.6	-	-	-	31.8	-
90.0	120.0	-	-	-	9.8	-	-	8.9	-	-	-	25.4	-
93.3	35.0	-	-	0.0	0.0	-	-	10.9	-	-	-	4.5	-
93.3	40.0	-	-	0.0	0.0	-	-	0.0	-	-	-	13.1	-
93.3	70.0	-	-	0.0	0.0	-	-	4.8	-	-	-	26.3	-
93.3	80.0	-	-	0.0	0.0	-	-	18.4	-	-	-	54.5	-
93.3	90.0	-	-	4.7	0.0	-	-	32.2	-	-	-	41.2	-
93.3	100.0	-	-	0.0	0.0	-	-	52.0	-	-	-	32.1	-
93.3	110.0	-	-	-	40.0	-	-	306.1	-	-	-	85.9	-
93.3	120.0	-	-	-	9.8	-	-	314.6	-	-	-	141.7	-

Vinciguerria poweriae

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3	80.0	-	-	4.4	0.0	-	-	-	0.0	-	-	0.0	-
83.3	90.0	-	-	4.5	0.0	-	-	-	0.0	-	-	0.0	-
90.0	100.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.7	-
90.0	120.0	-	-	-	0.0	-	-	0.0	-	-	-	4.2	-
93.3	100.0	-	-	4.5	0.0	-	-	0.0	-	-	-	0.0	-
93.3	110.0	-	-	-	0.0	-	-	0.0	-	-	-	9.5	-
93.3	120.0	-	-	-	0.0	-	-	4.6	-	-	-	0.0	-

TABLE 4. (cont.)

Station		*Chauliodus macouni*											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	55.0	-	-	0.0	-	-	-	-	0.0	-	-	10.6	-
76.7	60.0	-	-	0.0	-	-	-	-	0.0	-	-	8.5	-
76.7	70.0	-	-	0.0	-	-	-	-	9.8	-	-	0.0	-
76.7	80.0	-	-	4.6	-	-	-	-	0.0	-	-	0.0	-
76.7	90.0	-	-	0.0	-	-	-	-	9.5	-	-	0.0	-
80.0	70.0	-	-	0.0	-	-	-	-	0.0	-	-	9.9	-
80.0	80.0	-	-	0.0	-	-	-	-	0.0	-	-	9.5	-
83.3	55.0	-	-	0.0	10.1	-	-	-	0.0	-	-	0.0	-
83.3	60.0	-	-	9.9	0.0	-	-	-	0.0	-	-	0.0	-
83.3	70.0	-	-	4.8	0.0	-	-	-	9.4	-	-	0.0	-
83.3	80.0	-	-	0.0	0.0	-	-	-	4.8	-	-	0.0	-
83.3	100.0	-	-	4.7	-	-	-	-	4.4	-	-	0.0	-
83.3	110.0	-	-	-	-	-	-	-	4.5	-	-	0.0	-
86.7	55.0	-	-	8.5	0.0	-	-	-	0.0	-	-	0.0	-
86.7	60.0	-	-	0.0	4.7	-	-	-	0.0	-	-	0.0	-
86.7	70.0	-	-	0.0	4.9	-	-	-	0.0	-	-	0.0	-
86.7	80.0	-	-	7.9	0.0	-	-	-	0.0	-	-	0.0	-
86.7	100.0	-	-	0.0	-	-	-	-	4.5	-	-	0.0	-
90.0	35.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.5	-
90.0	53.0	-	-	0.0	0.0	-	-	10.5	-	-	-	4.7	-
90.0	70.0	-	-	0.0	0.0	-	-	9.8	-	-	-	0.0	-
90.0	80.0	-	-	4.5	0.0	-	-	0.0	-	-	-	0.0	-
90.0	90.0	-	-	4.9	5.2	-	-	0.0	-	-	-	0.0	-
93.3	35.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.5	-
93.3	50.0	-	-	0.0	0.0	-	-	10.7	-	-	-	0.0	-
93.3	55.0	-	-	0.0	0.0	-	-	10.6	-	-	-	0.0	-
93.3	60.0	-	-	0.0	0.0	-	-	9.6	-	-	-	4.5	-
93.3	70.0	-	-	4.6	0.0	-	-	0.0	-	-	-	0.0	-
93.3	80.0	-	-	0.0	0.0	-	-	4.6	-	-	-	0.0	-
93.3	90.0	-	-	0.0	5.1	-	-	0.0	-	-	-	0.0	-
93.3	100.0	-	-	0.0	0.0	-	-	4.3	-	-	-	0.0	-

TABLE 4. (cont.)

Stomias atriventer

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 90.0	-	-	9.1	0.0	-	-	-	0.0	-	-	0.0	-
86.7 33.0	-	-	4.8	0.0	-	-	0.0	-	-	-	0.0	-
86.7 90.0	-	-	4.7	0.0	-	-	-	0.0	-	-	9.8	-
86.7 100.0	-	-	18.8	-	-	-	-	0.0	-	-	0.0	-
90.0 70.0	-	-	4.9	0.0	-	-	0.0	-	-	-	0.0	-
90.0 100.0	-	-	4.2	0.0	-	-	0.0	-	-	-	0.0	-
93.3 100.0	-	-	13.5	0.0	-	-	0.0	-	-	-	0.0	-

Bathophilus flemingi

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 100.0	-	-	14.1	-	-	-	-	0.0	-	-	0.0	-
93.3 110.0	-	-	-	0.0	-	-	4.7	-	-	-	0.0	-

Tactostoma macropus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 100.0	-	-	0.0	-	-	-	-	13.2	-	-	0.0	-
83.3 110.0	-	-	-	-	-	-	-	8.9	-	-	0.0	-
90.0 120.0	-	-	-	9.8	-	-	0.0	-	-	-	0.0	-

Aristostomias scintillans

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0 100.0	-	-	8.3	0.0	-	-	0.0	-	-	-	0.0	-
90.0 110.0	-	-	-	4.8	-	-	0.0	-	-	-	0.0	-
90.0 120.0	-	-	-	43.9	-	-	0.0	-	-	-	0.0	-
93.3 110.0	-	-	-	5.0	-	-	0.0	-	-	-	0.0	-
93.3 120.0	-	-	-	4.9	-	-	0.0	-	-	-	0.0	-

Idiacanthus antrostomus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 90.0	-	-	0.0	-	-	-	-	0.0	-	-	4.7	-
76.7 100.0	-	-	-	-	-	-	-	-	-	-	21.5	-
80.0 90.0	-	-	5.0	-	-	-	-	0.0	-	-	20.0	-
80.0 100.0	-	-	-	-	-	-	-	32.1	-	-	0.0	-
83.3 80.0	-	-	0.0	0.0	-	-	-	4.8	-	-	0.0	-
83.3 90.0	-	-	0.0	3.7	-	-	-	0.0	-	-	0.0	-

TABLE 4. (cont.)

Idiacanthus antrostomus (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 110.0	-	-	-	-	-	-	-	4.5	-	-	4.7	-
90.0 70.0	-	-	0.0	0.0	-	-	4.9	-	-	-	0.0	-
90.0 80.0	-	-	0.0	0.0	-	-	0.0	-	-	-	5.0	-
90.0 110.0	-	-	-	9.7	-	-	0.0	-	-	-	0.0	-
90.0 120.0	-	-	-	0.0	-	-	4.4	-	-	-	0.0	-
93.3 70.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.4	-
93.3 80.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.5	-
93.3 110.0	-	-	-	0.0	-	-	33.0	-	-	-	4.8	-
93.3 120.0	-	-	-	0.0	-	-	0.0	-	-	-	4.6	-

Benthalbella dentata

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 90.0	-	-	4.5	0.0	-	-	-	0.0	-	-	0.0	-
86.7 70.0	-	-	0.0	0.0	-	-	-	4.5	-	-	0.0	-
90.0 90.0	-	-	0.0	5.2	-	-	0.0	-	-	-	0.0	-

Rosenblattichthys volucris

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

***Scopelarchus* spp.**

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

Scopelarchus analis

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

Scopelarchus guentheri

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 90.0	-	-	0.0	-	-	-	-	0.0	-	-	4.7	-
83.3 110.0	-	-	-	-	-	-	-	0.0	-	-	4.9	-

Scopelosaurus harryi

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 80.0	-	-	0.0	-	-	-	-	4.8	-	-	5.0	-

TABLE 4. (cont.)

Scopelosaurus harryi (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0 100.0	-	-	-	-	-	-	-	4.6	-	-	0.0	-
86.7 55.0	-	-	8.5	0.0	-	-	-	0.0	-	-	0.0	-
86.7 90.0	-	-	4.7	0.0	-	-	-	0.0	-	-	0.0	-
86.7 100.0	-	-	4.7	-	-	-	-	0.0	-	-	0.0	-
90.0 70.0	-	-	0.0	8.5	-	-	0.0	-	-	-	0.0	-
93.3 100.0	-	-	0.0	5.0	-	-	0.0	-	-	-	0.0	-

Synodus lucioceps

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 60.0	-	-	0.0	-	-	-	-	0.0	-	-	16.9	-
80.0 51.0	-	-	0.0	0.0	-	-	-	0.0	-	-	4.3	-
83.3 42.0	-	-	0.0	0.0	-	-	-	0.0	-	-	4.0	-
86.7 33.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.1	-

Paralepididae

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 100.0	-	-	0.0	-	-	-	-	4.4	-	-	0.0	-

***Lestidiops* spp.**

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 100.0	-	-	0.0	-	-	-	-	0.0	-	-	4.5	-

Lestidiops ringens

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 90.0	-	-	4.8	-	-	-	-	0.0	-	-	4.7	-
80.0 90.0	-	-	0.0	-	-	-	-	9.2	-	-	0.0	-
80.0 100.0	-	-	-	-	-	-	-	9.2	-	-	0.0	-
83.3 80.0	-	-	0.0	0.0	-	-	-	4.8	-	-	0.0	-
83.3 90.0	-	-	4.5	0.0	-	-	-	0.0	-	-	0.0	-
90.0 53.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.7	-
90.0 80.0	-	-	0.0	0.0	-	-	0.0	-	-	-	5.0	-
90.0 90.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.6	-
93.3 70.0	-	-	4.6	0.0	-	-	0.0	-	-	-	0.0	-
93.3 90.0	-	-	4.7	0.0	-	-	0.0	-	-	-	0.0	-
93.3 100.0	-	-	0.0	5.0	-	-	4.3	-	-	-	0.0	-
93.3 110.0	-	-	-	0.0	-	-	4.7	-	-	-	0.0	-

TABLE 4. (cont.)

Myctophidae

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	90.0	-	-	0.0	-	-	-	-	9.5	-	-	0.0	-
83.3	80.0	-	-	13.1	0.0	-	-	-	0.0	-	-	0.0	-
83.3	90.0	-	-	0.0	7.5	-	-	-	0.0	-	-	0.0	-
86.7	45.0	-	-	16.4	0.0	-	-	-	0.0	-	-	0.0	-
86.7	50.0	-	-	6.5	0.0	-	-	-	0.0	-	-	0.0	-
86.7	60.0	-	-	8.5	4.7	-	-	-	0.0	-	-	0.0	-
86.7	70.0	-	-	0.0	0.0	-	-	-	4.5	-	-	0.0	-
86.7	90.0	-	-	0.0	7.3	-	-	-	0.0	-	-	0.0	-
86.7	100.0	-	-	0.0	-	-	-	-	4.5	-	-	0.0	-
90.0	80.0	-	-	0.0	13.6	-	-	0.0	-	-	-	0.0	-
90.0	90.0	-	-	0.0	5.2	-	-	0.0	-	-	-	0.0	-
93.3	60.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.5	-
93.3	100.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.6	-

Ceratoscopelus townsendi

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0	90.0	-	-	0.0	-	-	-	-	27.5	-	-	5.0	-
80.0	100.0	-	-	-	-	-	-	-	27.5	-	-	4.7	-
83.3	80.0	-	-	0.0	0.0	-	-	-	19.0	-	-	0.0	-
83.3	90.0	-	-	9.1	0.0	-	-	-	0.0	-	-	0.0	-
83.3	100.0	-	-	0.0	-	-	-	-	8.8	-	-	0.0	-
83.3	110.0	-	-	-	-	-	-	-	13.4	-	-	0.0	-
86.7	40.0	-	-	0.0	4.4	-	-	0.0	-	-	-	0.0	-
86.7	80.0	-	-	0.0	0.0	-	-	-	9.2	-	-	0.0	-
90.0	80.0	-	-	0.0	4.5	-	-	0.0	-	-	-	0.0	-
90.0	90.0	-	-	0.0	0.0	-	-	0.0	-	-	-	36.6	-
90.0	100.0	-	-	0.0	0.0	-	-	0.0	-	-	-	28.4	-
90.0	110.0	-	-	-	19.4	-	-	0.0	-	-	-	9.1	-
90.0	120.0	-	-	-	14.6	-	-	4.4	-	-	-	4.2	-
93.3	35.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.5	-
93.3	80.0	-	-	0.0	0.0	-	-	4.6	-	-	-	0.0	-
93.3	90.0	-	-	0.0	0.0	-	-	0.0	-	-	-	9.2	-

TABLE 4. (cont.)

Ceratoscopelus townsendi (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 100.0	-	-	4.5	49.5	-	-	0.0	-	-	-	50.4	-
93.3 110.0	-	-	-	15.0	-	-	33.0	-	-	-	62.0	-
93.3 120.0	-	-	-	0.0	-	-	41.0	-	-	-	32.0	-

***Diaphus* spp.**

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 60.0	-	-	0.0	-	-	-	-	18.8	-	-	0.0	-
76.7 70.0	-	-	0.0	-	-	-	-	9.8	-	-	0.0	-
76.7 90.0	-	-	0.0	-	-	-	-	4.7	-	-	0.0	-
80.0 90.0	-	-	5.0	-	-	-	-	13.7	-	-	0.0	-
83.3 80.0	-	-	0.0	0.0	-	-	-	4.8	-	-	0.0	-
86.7 70.0	-	-	0.0	0.0	-	-	-	8.9	-	-	0.0	-
90.0 35.0	-	-	0.0	0.0	-	-	9.4	-	-	-	4.5	-
90.0 80.0	-	-	0.0	0.0	-	-	4.5	-	-	-	0.0	-
90.0 100.0	-	-	0.0	10.1	-	-	4.8	-	-	-	0.0	-
93.3 35.0	-	-	0.0	0.0	-	-	10.9	-	-	-	0.0	-
93.3 60.0	-	-	0.0	10.8	-	-	0.0	-	-	-	0.0	-
93.3 70.0	-	-	0.0	5.1	-	-	0.0	-	-	-	0.0	-
93.3 90.0	-	-	0.0	0.0	-	-	4.6	-	-	-	0.0	-
93.3 110.0	-	-	-	5.0	-	-	4.7	-	-	-	0.0	-

***Lampanyctus* spp.**

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 60.0	-	-	10.1	-	-	-	-	0.0	-	-	0.0	-
76.7 70.0	-	-	19.0	-	-	-	-	0.0	-	-	0.0	-
76.7 80.0	-	-	4.6	-	-	-	-	0.0	-	-	0.0	-
76.7 90.0	-	-	4.8	-	-	-	-	4.7	-	-	0.0	-
80.0 80.0	-	-	20.2	-	-	-	-	0.0	-	-	0.0	-
80.0 90.0	-	-	5.0	-	-	-	-	4.6	-	-	0.0	-
80.0 100.0	-	-	-	-	-	-	-	4.6	-	-	0.0	-
83.3 42.0	-	-	0.0	0.0	-	-	-	0.0	-	-	4.0	-
83.3 55.0	-	-	18.9	0.0	-	-	-	0.0	-	-	4.8	-
83.3 60.0	-	-	9.9	0.0	-	-	-	0.0	-	-	0.0	-

TABLE 4. (cont.)

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

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3	80.0	-	-	8.8	13.9	-	-	-	0.0	-	-	0.0	-
83.3	90.0	-	-	9.1	7.5	-	-	-	0.0	-	-	0.0	-
83.3	100.0	-	-	4.7	-	-	-	-	8.8	-	-	0.0	-
86.7	50.0	-	-	0.0	0.0	-	-	-	0.0	-	-	9.1	-
86.7	55.0	-	-	0.0	0.0	-	-	-	0.0	-	-	4.9	-
86.7	60.0	-	-	0.0	4.7	-	-	-	0.0	-	-	0.0	-
86.7	70.0	-	-	4.8	14.8	-	-	-	0.0	-	-	0.0	-
86.7	80.0	-	-	0.0	6.5	-	-	-	0.0	-	-	0.0	-
86.7	90.0	-	-	14.1	0.0	-	-	-	0.0	-	-	0.0	-
86.7	100.0	-	-	14.1	-	-	-	-	4.5	-	-	0.0	-
86.7	110.0	-	-	-	-	-	-	-	0.0	-	-	4.7	-
90.0	30.0	-	-	0.0	0.0	-	-	0.0	-	-	-	9.7	-
90.0	45.0	-	-	4.7	0.0	-	-	0.0	-	-	-	0.0	-
90.0	60.0	-	-	4.7	0.0	-	-	0.0	-	-	-	0.0	-
90.0	70.0	-	-	0.0	21.2	-	-	0.0	-	-	-	0.0	-
90.0	80.0	-	-	0.0	22.7	-	-	9.0	-	-	-	0.0	-
90.0	90.0	-	-	4.9	0.0	-	-	4.8	-	-	-	4.6	-
90.0	100.0	-	-	0.0	20.2	-	-	0.0	-	-	-	0.0	-
90.0	120.0	-	-	-	0.0	-	-	4.4	-	-	-	0.0	-
93.3	35.0	-	-	0.0	9.6	-	-	0.0	-	-	-	4.5	-
93.3	40.0	-	-	0.0	14.7	-	-	0.0	-	-	-	0.0	-
93.3	45.0	-	-	8.5	0.0	-	-	0.0	-	-	-	0.0	-
93.3	55.0	-	-	0.0	19.1	-	-	0.0	-	-	-	0.0	-
93.3	60.0	-	-	0.0	21.6	-	-	0.0	-	-	-	0.0	-
93.3	70.0	-	-	4.6	15.3	-	-	0.0	-	-	-	0.0	-
93.3	90.0	-	-	0.0	10.2	-	-	0.0	-	-	-	0.0	-
93.3	100.0	-	-	4.5	49.5	-	-	4.3	-	-	-	0.0	-
93.3	110.0	-	-	-	20.0	-	-	4.7	-	-	-	0.0	-
93.3	120.0	-	-	-	14.7	-	-	0.0	-	-	-	0.0	-

TABLE 4. (cont.)

***Lampanyctus* "niger"**

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3	120.0	-	-	-	0.0	-	-	4.6	-	-	-	0.0	-

***Lampanyctus* "no pectorals"**

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3	80.0	-	-	0.0	0.0	-	-	-	4.8	-	-	0.0	-
90.0	120.0	-	-	-	4.9	-	-	0.0	-	-	-	0.0	-

Lampanyctus regalis

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	90.0	-	-	0.0	-	-	-	-	4.7	-	-	0.0	-
86.7	45.0	-	-	0.0	0.0	-	-	-	4.9	-	-	0.0	-
86.7	60.0	-	-	0.0	0.0	-	-	-	9.7	-	-	0.0	-
86.7	80.0	-	-	0.0	3.3	-	-	-	0.0	-	-	0.0	-
90.0	70.0	-	-	0.0	8.5	-	-	0.0	-	-	-	0.0	-
90.0	120.0	-	-	-	4.9	-	-	0.0	-	-	-	0.0	-
93.3	55.0	-	-	4.6	0.0	-	-	0.0	-	-	-	0.0	-
93.3	60.0	-	-	0.0	0.0	-	-	9.6	-	-	-	0.0	-
93.3	80.0	-	-	0.0	0.0	-	-	4.6	-	-	-	0.0	-
93.3	100.0	-	-	0.0	0.0	-	-	4.3	-	-	-	0.0	-

Lampanyctus ritteri

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	80.0	-	-	0.0	-	-	-	-	0.0	-	-	5.0	-
76.7	90.0	-	-	14.5	-	-	-	-	4.7	-	-	0.0	-
80.0	55.0	-	-	9.8	0.0	-	-	-	0.0	-	-	0.0	-
80.0	80.0	-	-	15.1	-	-	-	-	4.8	-	-	0.0	-
80.0	90.0	-	-	0.0	-	-	-	-	9.2	-	-	0.0	-
80.0	100.0	-	-	-	-	-	-	-	13.8	-	-	0.0	-
81.8	46.9	-	-	0.0	0.0	-	-	-	0.0	-	-	4.8	-
83.3	55.0	-	-	0.0	10.1	-	-	-	0.0	-	-	0.0	-
83.3	60.0	-	-	4.9	0.0	-	-	-	0.0	-	-	0.0	-
83.3	70.0	-	-	0.0	5.2	-	-	-	0.0	-	-	0.0	-
83.3	80.0	-	-	17.5	0.0	-	-	-	4.8	-	-	0.0	-
83.3	90.0	-	-	36.4	3.7	-	-	-	0.0	-	-	0.0	-

TABLE 4. (cont.)

Lampanyctus ritteri (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 100.0	-	-	14.2	-	-	-	-	8.8	-	-	0.0	-
83.3 110.0	-	-	-	-	-	-	-	8.9	-	-	0.0	-
86.7 33.0	-	-	4.8	0.0	-	-	0.0	-	-	-	0.0	-
86.7 35.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.6	-
86.7 40.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.5	-
86.7 45.0	-	-	0.0	0.0	-	-	-	0.0	-	-	4.9	-
86.7 55.0	-	-	33.8	0.0	-	-	-	0.0	-	-	0.0	-
86.7 60.0	-	-	8.5	0.0	-	-	-	0.0	-	-	0.0	-
86.7 70.0	-	-	0.0	9.9	-	-	-	0.0	-	-	0.0	-
86.7 80.0	-	-	15.9	6.5	-	-	-	0.0	-	-	0.0	-
86.7 90.0	-	-	23.6	0.0	-	-	-	0.0	-	-	9.8	-
90.0 37.0	-	-	0.0	0.0	-	-	9.6	-	-	-	0.0	-
90.0 45.0	-	-	14.1	0.0	-	-	0.0	-	-	-	0.0	-
90.0 60.0	-	-	9.4	0.0	-	-	0.0	-	-	-	0.0	-
90.0 70.0	-	-	4.9	17.0	-	-	4.9	-	-	-	0.0	-
90.0 80.0	-	-	4.5	0.0	-	-	0.0	-	-	-	0.0	-
90.0 90.0	-	-	19.6	0.0	-	-	0.0	-	-	-	0.0	-
90.0 110.0	-	-	-	0.0	-	-	4.4	-	-	-	0.0	-
90.0 120.0	-	-	-	9.8	-	-	0.0	-	-	-	0.0	-
93.3 35.0	-	-	4.3	0.0	-	-	0.0	-	-	-	0.0	-
93.3 40.0	-	-	0.0	4.9	-	-	0.0	-	-	-	0.0	-
93.3 50.0	-	-	9.0	0.0	-	-	0.0	-	-	-	0.0	-
93.3 60.0	-	-	0.0	10.8	-	-	0.0	-	-	-	0.0	-
93.3 70.0	-	-	13.9	0.0	-	-	0.0	-	-	-	0.0	-
93.3 90.0	-	-	14.0	5.1	-	-	0.0	-	-	-	0.0	-
93.3 100.0	-	-	35.9	0.0	-	-	0.0	-	-	-	0.0	-
93.3 110.0	-	-	-	5.0	-	-	0.0	-	-	-	0.0	-

Lampanyctus steinbecki

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0 100.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.7	-
93.3 120.0	-	-	-	4.9	-	-	4.6	-	-	-	0.0	-

TABLE 4. (cont.)

Notolychnus valdiviae

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	100.0	-	-	-	-	-	-	-	-	-	-	4.3	-
90.0	100.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.7	-
90.0	110.0	-	-	-	4.8	-	-	0.0	-	-	-	0.0	-
93.3	100.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.6	-
93.3	110.0	-	-	-	0.0	-	-	0.0	-	-	-	4.8	-
93.3	120.0	-	-	-	0.0	-	-	4.6	-	-	-	4.6	-

Notoscopelus resplendens

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3	100.0	-	-	0.0	0.0	-	-	4.3	-	-	-	0.0	-
93.3	110.0	-	-	-	0.0	-	-	9.4	-	-	-	0.0	-

Parvilux ingens

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3	110.0	-	-	-	-	-	-	-	4.5	-	-	0.0	-
90.0	110.0	-	-	-	9.7	-	-	0.0	-	-	-	0.0	-

Stenobrachius leucopsarus

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	49.0	-	-	27.4	-	-	-	-	0.0	-	-	0.0	-
76.7	51.0	-	-	285.7	-	-	-	-	0.0	-	-	0.0	-
76.7	55.0	-	-	56.4	-	-	-	-	0.0	-	-	0.0	-
76.7	60.0	-	-	724.3	-	-	-	-	0.0	-	-	0.0	-
76.7	70.0	-	-	85.3	-	-	-	-	0.0	-	-	0.0	-
76.7	80.0	-	-	23.1	-	-	-	-	0.0	-	-	0.0	-
76.7	90.0	-	-	106.5	-	-	-	-	0.0	-	-	0.0	-
80.0	55.0	-	-	49.1	0.0	-	-	-	0.0	-	-	0.0	-
80.0	60.0	-	-	22.3	-	-	-	-	0.0	-	-	8.6	-
80.0	70.0	-	-	81.3	-	-	-	-	0.0	-	-	0.0	-
80.0	80.0	-	-	5.0	-	-	-	-	0.0	-	-	0.0	-
80.0	90.0	-	-	10.0	-	-	-	-	0.0	-	-	0.0	-
81.8	46.9	-	-	32.2	50.6	-	-	-	0.0	-	-	0.0	-
83.3	40.6	-	-	7.9	0.0	-	-	-	0.0	-	-	0.0	-
83.3	42.0	-	-	23.0	34.0	-	-	-	0.0	-	-	0.0	-

TABLE 4. (cont.)

Stenobrachius leucopsarus (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3	51.0	-	-	39.0	5.1	-	-	-	0.0	-	-	0.0	-
83.3	55.0	-	-	66.1	385.1	-	-	-	0.0	-	-	4.8	-
83.3	60.0	-	-	19.8	123.2	-	-	-	0.0	-	-	0.0	-
83.3	70.0	-	-	4.8	0.0	-	-	-	0.0	-	-	0.0	-
83.3	80.0	-	-	4.4	13.9	-	-	-	0.0	-	-	0.0	-
86.7	33.0	-	-	72.6	0.0	-	-	0.0	-	-	-	0.0	-
86.7	35.0	-	-	45.9	0.0	-	-	0.0	-	-	-	0.0	-
86.7	40.0	-	-	94.5	17.7	-	-	0.0	-	-	-	0.0	-
86.7	45.0	-	-	16.4	0.0	-	-	-	0.0	-	-	0.0	-
86.7	55.0	-	-	16.9	14.9	-	-	-	0.0	-	-	0.0	-
86.7	60.0	-	-	0.0	18.9	-	-	-	0.0	-	-	0.0	-
86.7	70.0	-	-	23.9	4.9	-	-	-	0.0	-	-	0.0	-
86.7	80.0	-	-	190.5	0.0	-	-	-	0.0	-	-	0.0	-
86.7	90.0	-	-	4.7	0.0	-	-	-	0.0	-	-	0.0	-
90.0	28.0	-	-	14.2	0.0	-	-	0.0	-	-	-	0.0	-
90.0	30.0	-	-	16.0	8.6	-	-	0.0	-	-	-	0.0	-
90.0	35.0	-	-	79.0	9.7	-	-	0.0	-	-	-	0.0	-
90.0	37.0	-	-	84.8	0.0	-	-	0.0	-	-	-	0.0	-
90.0	45.0	-	-	42.4	101.2	-	-	0.0	-	-	-	0.0	-
90.0	53.0	-	-	9.6	9.4	-	-	0.0	-	-	-	0.0	-
90.0	60.0	-	-	4.7	0.0	-	-	0.0	-	-	-	0.0	-
90.0	70.0	-	-	4.9	42.4	-	-	0.0	-	-	-	0.0	-
90.0	80.0	-	-	9.1	9.1	-	-	0.0	-	-	-	0.0	-
90.0	90.0	-	-	4.9	0.0	-	-	0.0	-	-	-	0.0	-
90.0	100.0	-	-	0.0	30.3	-	-	0.0	-	-	-	0.0	-
90.0	110.0	-	-	-	4.8	-	-	0.0	-	-	-	0.0	-
93.3	26.7	-	-	4.2	0.0	-	-	0.0	-	-	-	0.0	-
93.3	28.0	-	-	53.4	0.0	-	-	0.0	-	-	-	0.0	-
93.3	30.0	-	-	54.4	37.6	-	-	0.0	-	-	-	0.0	-
93.3	35.0	-	-	4.3	9.6	-	-	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 40.0	-	-	0.0	9.8	-	-	0.0	-	-	-	0.0	-
93.3 45.0	-	-	21.3	4.8	-	-	0.0	-	-	-	0.0	-
93.3 50.0	-	-	9.0	14.0	-	-	0.0	-	-	-	0.0	-
93.3 55.0	-	-	4.6	9.5	-	-	0.0	-	-	-	0.0	-
93.3 60.0	-	-	0.0	32.3	-	-	0.0	-	-	-	0.0	-
93.3 70.0	-	-	0.0	10.2	-	-	0.0	-	-	-	0.0	-
93.3 80.0	-	-	0.0	14.9	-	-	0.0	-	-	-	4.5	-

Triphoturus mexicanus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 55.0	-	-	0.0	-	-	-	-	26.7	-	-	0.0	-
76.7 90.0	-	-	0.0	-	-	-	-	4.7	-	-	0.0	-
80.0 80.0	-	-	5.0	-	-	-	-	0.0	-	-	0.0	-
81.8 46.9	-	-	0.0	0.0	-	-	-	8.4	-	-	0.0	-
83.3 40.6	-	-	0.0	0.0	-	-	-	3.6	-	-	0.0	-
83.3 42.0	-	-	0.0	0.0	-	-	-	32.9	-	-	0.0	-
83.3 80.0	-	-	0.0	4.6	-	-	-	0.0	-	-	0.0	-
83.3 90.0	-	-	0.0	0.0	-	-	-	4.7	-	-	0.0	-
83.3 100.0	-	-	0.0	-	-	-	-	44.0	-	-	0.0	-
83.3 110.0	-	-	-	-	-	-	-	44.7	-	-	0.0	-
86.7 33.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.1	-
86.7 40.0	-	-	0.0	4.4	-	-	9.3	-	-	-	9.1	-
86.7 45.0	-	-	0.0	0.0	-	-	-	4.9	-	-	4.9	-
86.7 50.0	-	-	0.0	0.0	-	-	-	4.2	-	-	0.0	-
86.7 70.0	-	-	0.0	0.0	-	-	-	4.5	-	-	0.0	-
86.7 80.0	-	-	0.0	0.0	-	-	-	23.1	-	-	0.0	-
86.7 100.0	-	-	0.0	-	-	-	-	49.2	-	-	0.0	-
86.7 110.0	-	-	-	-	-	-	-	4.5	-	-	0.0	-
90.0 28.0	-	-	0.0	0.0	-	-	0.0	-	-	-	13.0	-
90.0 30.0	-	-	0.0	0.0	-	-	4.7	-	-	-	14.5	-
90.0 35.0	-	-	0.0	0.0	-	-	0.0	-	-	-	9.1	-
90.0 37.0	-	-	0.0	0.0	-	-	9.6	-	-	-	4.6	-

TABLE 4. (cont.)

Triphoturus mexicanus (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0 45.0	-	-	0.0	0.0	-	-	9.9	-	-	-	0.0	-
90.0 53.0	-	-	0.0	0.0	-	-	10.5	-	-	-	0.0	-
90.0 60.0	-	-	0.0	0.0	-	-	21.5	-	-	-	0.0	-
90.0 70.0	-	-	0.0	0.0	-	-	9.8	-	-	-	8.9	-
90.0 80.0	-	-	0.0	0.0	-	-	18.0	-	-	-	0.0	-
90.0 90.0	-	-	0.0	0.0	-	-	33.5	-	-	-	9.1	-
90.0 100.0	-	-	0.0	0.0	-	-	28.6	-	-	-	4.7	-
90.0 110.0	-	-	-	4.8	-	-	22.1	-	-	-	0.0	-
90.0 120.0	-	-	-	4.9	-	-	26.6	-	-	-	0.0	-
93.3 28.0	-	-	0.0	0.0	-	-	9.7	-	-	-	0.0	-
93.3 30.0	-	-	0.0	0.0	-	-	5.0	-	-	-	9.4	-
93.3 35.0	-	-	0.0	0.0	-	-	43.4	-	-	-	53.8	-
93.3 40.0	-	-	0.0	4.9	-	-	0.0	-	-	-	0.0	-
93.3 45.0	-	-	4.3	0.0	-	-	0.0	-	-	-	0.0	-
93.3 50.0	-	-	4.5	0.0	-	-	10.7	-	-	-	0.0	-
93.3 60.0	-	-	0.0	0.0	-	-	0.0	-	-	-	26.9	-
93.3 80.0	-	-	0.0	0.0	-	-	9.2	-	-	-	9.1	-
93.3 90.0	-	-	0.0	0.0	-	-	23.0	-	-	-	0.0	-
93.3 100.0	-	-	4.5	0.0	-	-	30.3	-	-	-	0.0	-
93.3 110.0	-	-	-	10.0	-	-	80.1	-	-	-	0.0	-
93.3 120.0	-	-	-	14.7	-	-	0.0	-	-	-	0.0	-

Centrobranchus nigroocellatus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0 100.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.7	-
93.3 90.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.6	-

***Diogenichthys* spp.**

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 70.0	-	-	4.8	0.0	-	-	-	0.0	-	-	0.0	-
86.7 80.0	-	-	0.0	0.0	-	-	-	4.6	-	-	0.0	-
93.3 40.0	-	-	0.0	0.0	-	-	0.0	-	-	-	8.7	-

TABLE 4. (cont.)

Station		*Diogenichthys atlanticus*											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	55.0	-	-	0.0	-	-	-	-	0.0	-	-	10.6	-
76.7	60.0	-	-	10.1	-	-	-	-	0.0	-	-	0.0	-
76.7	90.0	-	-	9.7	-	-	-	-	9.5	-	-	18.9	-
76.7	100.0	-	-	-	-	-	-	-	-	-	-	21.5	-
80.0	51.0	-	-	0.0	0.0	-	-	-	0.0	-	-	13.0	-
80.0	80.0	-	-	10.1	-	-	-	-	0.0	-	-	0.0	-
80.0	90.0	-	-	5.0	-	-	-	-	9.2	-	-	0.0	-
80.0	100.0	-	-	-	-	-	-	-	18.4	-	-	9.4	-
81.8	46.9	-	-	0.0	0.0	-	-	-	0.0	-	-	24.1	-
83.3	42.0	-	-	0.0	0.0	-	-	-	0.0	-	-	19.9	-
83.3	80.0	-	-	4.4	0.0	-	-	-	0.0	-	-	0.0	-
83.3	90.0	-	-	45.5	11.2	-	-	-	37.8	-	-	0.0	-
83.3	100.0	-	-	4.7	-	-	-	-	0.0	-	-	0.0	-
83.3	110.0	-	-	-	-	-	-	-	8.9	-	-	14.6	-
86.7	33.0	-	-	0.0	0.0	-	-	0.0	-	-	-	12.2	-
86.7	40.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.5	-
86.7	55.0	-	-	8.5	0.0	-	-	-	0.0	-	-	0.0	-
86.7	70.0	-	-	0.0	19.7	-	-	-	4.5	-	-	0.0	-
86.7	90.0	-	-	9.4	0.0	-	-	-	0.0	-	-	0.0	-
86.7	100.0	-	-	18.8	-	-	-	-	0.0	-	-	0.0	-
86.7	110.0	-	-	-	-	-	-	-	13.5	-	-	18.9	-
90.0	35.0	-	-	0.0	0.0	-	-	0.0	-	-	-	13.6	-
90.0	70.0	-	-	0.0	12.7	-	-	0.0	-	-	-	0.0	-
90.0	80.0	-	-	4.5	0.0	-	-	4.5	-	-	-	19.8	-
90.0	90.0	-	-	4.9	0.0	-	-	4.8	-	-	-	22.9	-
90.0	100.0	-	-	8.3	10.1	-	-	0.0	-	-	-	28.4	-
90.0	110.0	-	-	-	38.8	-	-	0.0	-	-	-	0.0	-
90.0	120.0	-	-	-	14.6	-	-	44.3	-	-	-	8.5	-
93.3	35.0	-	-	0.0	0.0	-	-	0.0	-	-	-	13.4	-
93.3	45.0	-	-	8.5	0.0	-	-	0.0	-	-	-	0.0	-
93.3	70.0	-	-	4.6	5.1	-	-	9.6	-	-	-	4.4	-

TABLE 4. (cont.)

Diogenichthys atlanticus (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 80.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.5	-
93.3 90.0	-	-	14.0	5.1	-	-	0.0	-	-	-	9.2	-
93.3 100.0	-	-	35.9	39.6	-	-	0.0	-	-	-	41.2	-
93.3 110.0	-	-	-	35.0	-	-	28.3	-	-	-	0.0	-
93.3 120.0	-	-	-	73.5	-	-	0.0	-	-	-	36.6	-

Diogenichthys laternatus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0 80.0	-	-	0.0	0.0	-	-	0.0	-	-	-	14.9	-

Electrona risso

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 40.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.4	-
93.3 55.0	-	-	0.0	0.0	-	-	10.6	-	-	-	0.0	-
93.3 60.0	-	-	0.0	10.8	-	-	0.0	-	-	-	0.0	-

***Hygophum* spp.**

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

Hygophum reinhardtii

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0 100.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.7	-
90.0 110.0	-	-	-	4.8	-	-	0.0	-	-	-	0.0	-
90.0 120.0	-	-	-	4.9	-	-	0.0	-	-	-	0.0	-
93.3 90.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.6	-
93.3 110.0	-	-	-	0.0	-	-	0.0	-	-	-	14.3	-
93.3 120.0	-	-	-	0.0	-	-	0.0	-	-	-	4.6	-

Myctophum nitidulum

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 90.0	-	-	4.5	0.0	-	-	-	0.0	-	-	0.0	-
90.0 100.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.7	-
90.0 120.0	-	-	-	0.0	-	-	0.0	-	-	-	4.2	-
93.3 110.0	-	-	-	0.0	-	-	4.7	-	-	-	9.5	-
93.3 120.0	-	-	-	9.8	-	-	0.0	-	-	-	0.0	-

TABLE 4. (cont.)

Protomyctophum crockeri

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	55.0	-	-	0.0	-	-	-	-	0.0	-	-	10.6	-
76.7	70.0	-	-	19.0	-	-	-	-	0.0	-	-	20.2	-
76.7	80.0	-	-	0.0	-	-	-	-	9.6	-	-	0.0	-
76.7	90.0	-	-	4.8	-	-	-	-	0.0	-	-	9.5	-
76.7	100.0	-	-	-	-	-	-	-	-	-	-	4.3	-
80.0	55.0	-	-	0.0	0.0	-	-	-	9.9	-	-	4.6	-
80.0	70.0	-	-	0.0	-	-	-	-	0.0	-	-	19.8	-
80.0	80.0	-	-	10.1	-	-	-	-	0.0	-	-	19.0	-
80.0	90.0	-	-	14.9	-	-	-	-	22.9	-	-	0.0	-
80.0	100.0	-	-	-	-	-	-	-	9.2	-	-	4.7	-
83.3	60.0	-	-	0.0	0.0	-	-	-	0.0	-	-	8.7	-
83.3	70.0	-	-	0.0	5.2	-	-	-	0.0	-	-	0.0	-
83.3	80.0	-	-	4.4	13.9	-	-	-	9.5	-	-	0.0	-
83.3	90.0	-	-	9.1	11.2	-	-	-	0.0	-	-	4.8	-
83.3	100.0	-	-	4.7	-	-	-	-	0.0	-	-	4.7	-
83.3	110.0	-	-	-	-	-	-	-	8.9	-	-	4.9	-
86.7	40.0	-	-	0.0	4.4	-	-	0.0	-	-	-	0.0	-
86.7	45.0	-	-	0.0	0.0	-	-	-	0.0	-	-	9.8	-
86.7	55.0	-	-	0.0	0.0	-	-	-	0.0	-	-	9.7	-
86.7	70.0	-	-	4.8	9.9	-	-	-	0.0	-	-	0.0	-
86.7	80.0	-	-	23.8	3.3	-	-	-	0.0	-	-	0.0	-
86.7	90.0	-	-	14.1	0.0	-	-	-	4.5	-	-	9.8	-
86.7	100.0	-	-	4.7	-	-	-	-	4.5	-	-	0.0	-
86.7	110.0	-	-	-	-	-	-	-	0.0	-	-	9.5	-
90.0	30.0	-	-	0.0	0.0	-	-	0.0	-	-	-	19.4	-
90.0	35.0	-	-	0.0	0.0	-	-	0.0	-	-	-	18.2	-
90.0	37.0	-	-	0.0	0.0	-	-	9.6	-	-	-	0.0	-
90.0	45.0	-	-	4.7	10.1	-	-	0.0	-	-	-	5.0	-
90.0	53.0	-	-	4.8	0.0	-	-	0.0	-	-	-	14.2	-
90.0	60.0	-	-	4.7	0.0	-	-	0.0	-	-	-	0.0	-

TABLE 4. (cont.)

Protomyctophum crockeri (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0	70.0	-	-	0.0	8.5	-	-	9.8	-	-	-	0.0	-
90.0	80.0	-	-	4.5	4.5	-	-	0.0	-	-	-	5.0	-
90.0	90.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.6	-
90.0	100.0	-	-	8.3	10.1	-	-	0.0	-	-	-	4.7	-
90.0	110.0	-	-	-	0.0	-	-	8.8	-	-	-	9.1	-
90.0	120.0	-	-	-	4.9	-	-	8.9	-	-	-	0.0	-
93.3	28.0	-	-	0.0	0.0	-	-	0.0	-	-	-	17.8	-
93.3	35.0	-	-	0.0	0.0	-	-	21.7	-	-	-	17.9	-
93.3	50.0	-	-	4.5	4.7	-	-	0.0	-	-	-	0.0	-
93.3	55.0	-	-	13.8	0.0	-	-	0.0	-	-	-	0.0	-
93.3	60.0	-	-	4.7	0.0	-	-	19.2	-	-	-	0.0	-
93.3	70.0	-	-	0.0	0.0	-	-	4.8	-	-	-	8.8	-
93.3	80.0	-	-	0.0	5.0	-	-	0.0	-	-	-	27.2	-
93.3	90.0	-	-	9.3	5.1	-	-	0.0	-	-	-	4.6	-
93.3	100.0	-	-	13.5	5.0	-	-	0.0	-	-	-	4.6	-
93.3	110.0	-	-	-	20.0	-	-	18.8	-	-	-	0.0	-
93.3	120.0	-	-	-	9.8	-	-	0.0	-	-	-	0.0	-

Symbolophorus californiensis

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	80.0	-	-	0.0	-	-	-	-	9.6	-	-	5.0	-
76.7	90.0	-	-	0.0	-	-	-	-	28.4	-	-	0.0	-
76.7	100.0	-	-	-	-	-	-	-	-	-	-	4.3	-
80.0	90.0	-	-	19.9	-	-	-	-	9.2	-	-	0.0	-
80.0	100.0	-	-	-	-	-	-	-	9.2	-	-	0.0	-
83.3	60.0	-	-	4.9	0.0	-	-	-	0.0	-	-	0.0	-
83.3	70.0	-	-	0.0	5.2	-	-	-	0.0	-	-	0.0	-
83.3	80.0	-	-	4.4	0.0	-	-	-	23.8	-	-	0.0	-
83.3	90.0	-	-	45.5	0.0	-	-	-	4.7	-	-	0.0	-
83.3	100.0	-	-	0.0	-	-	-	-	13.2	-	-	0.0	-
83.3	110.0	-	-	-	-	-	-	-	13.4	-	-	4.9	-
86.7	60.0	-	-	0.0	4.7	-	-	-	0.0	-	-	0.0	-

TABLE 4. (cont.)

Symbolophorus californiensis (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 70.0	-	-	0.0	4.9	-	-	-	4.5	-	-	0.0	-
86.7 80.0	-	-	7.9	0.0	-	-	-	0.0	-	-	0.0	-
86.7 90.0	-	-	14.1	0.0	-	-	-	9.1	-	-	0.0	-
86.7 100.0	-	-	14.1	-	-	-	-	4.5	-	-	0.0	-
86.7 110.0	-	-	-	-	-	-	-	4.5	-	-	4.7	-
90.0 60.0	-	-	0.0	0.0	-	-	10.8	-	-	-	0.0	-
90.0 70.0	-	-	0.0	12.7	-	-	4.9	-	-	-	0.0	-
90.0 80.0	-	-	0.0	13.6	-	-	9.0	-	-	-	5.0	-
90.0 90.0	-	-	0.0	0.0	-	-	4.8	-	-	-	0.0	-
90.0 100.0	-	-	4.2	5.0	-	-	0.0	-	-	-	0.0	-
90.0 110.0	-	-	-	48.5	-	-	0.0	-	-	-	0.0	-
90.0 120.0	-	-	-	14.6	-	-	13.3	-	-	-	0.0	-
93.3 50.0	-	-	0.0	4.7	-	-	0.0	-	-	-	0.0	-
93.3 60.0	-	-	4.7	21.6	-	-	0.0	-	-	-	0.0	-
93.3 70.0	-	-	0.0	15.3	-	-	4.8	-	-	-	4.4	-
93.3 80.0	-	-	0.0	5.0	-	-	0.0	-	-	-	0.0	-
93.3 90.0	-	-	0.0	5.1	-	-	9.2	-	-	-	0.0	-
93.3 100.0	-	-	18.0	29.7	-	-	0.0	-	-	-	0.0	-
93.3 110.0	-	-	-	5.0	-	-	18.8	-	-	-	0.0	-
93.3 120.0	-	-	-	4.9	-	-	0.0	-	-	-	0.0	-

Tarletonbeania crenularis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 49.0	-	-	18.3	-	-	-	-	0.0	-	-	0.0	-
76.7 51.0	-	-	30.6	-	-	-	-	0.0	-	-	8.9	-
76.7 60.0	-	-	30.2	-	-	-	-	28.3	-	-	8.5	-
76.7 70.0	-	-	0.0	-	-	-	-	9.8	-	-	10.1	-
76.7 90.0	-	-	4.8	-	-	-	-	0.0	-	-	0.0	-
80.0 55.0	-	-	0.0	0.0	-	-	-	0.0	-	-	4.6	-
83.3 55.0	-	-	9.4	10.1	-	-	-	4.6	-	-	0.0	-
83.3 60.0	-	-	9.9	0.0	-	-	-	21.2	-	-	0.0	-
86.7 50.0	-	-	0.0	0.0	-	-	-	0.0	-	-	4.5	-

TABLE 4. (cont.)

Tarletonbeania crenularis (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7	55.0	-	-	0.0	3.7	-	-	-	0.0	-	-	0.0	-
86.7	70.0	-	-	4.8	0.0	-	-	-	0.0	-	-	0.0	-
86.7	90.0	-	-	0.0	3.6	-	-	-	0.0	-	-	0.0	-
90.0	37.0	-	-	0.0	0.0	-	-	19.2	-	-	-	0.0	-
90.0	100.0	-	-	0.0	5.0	-	-	4.8	-	-	-	0.0	-
93.3	55.0	-	-	0.0	0.0	-	-	10.6	-	-	-	0.0	-
93.3	60.0	-	-	0.0	10.8	-	-	0.0	-	-	-	0.0	-

Trachipterus altivelis

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	100.0	-	-	-	-	-	-	-	-	-	-	4.3	-
86.7	55.0	-	-	8.5	0.0	-	-	-	0.0	-	-	0.0	-
90.0	100.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.7	-

Merluccius productus

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	49.0	-	-	27.4	-	-	-	-	0.0	-	-	4.2	-
76.7	51.0	-	-	40.8	-	-	-	-	0.0	-	-	8.9	-
76.7	55.0	-	-	413.9	-	-	-	-	0.0	-	-	0.0	-
76.7	60.0	-	-	794.7	-	-	-	-	0.0	-	-	8.5	-
76.7	70.0	-	-	165.9	-	-	-	-	0.0	-	-	0.0	-
76.7	80.0	-	-	254.7	-	-	-	-	0.0	-	-	0.0	-
76.7	90.0	-	-	222.6	-	-	-	-	0.0	-	-	0.0	-
80.0	51.0	-	-	0.0	0.0	-	-	-	0.0	-	-	4.3	-
80.0	55.0	-	-	284.8	0.0	-	-	-	0.0	-	-	77.7	-
80.0	60.0	-	-	100.4	-	-	-	-	0.0	-	-	51.6	-
80.0	70.0	-	-	30.5	-	-	-	-	0.0	-	-	0.0	-
80.0	80.0	-	-	10.1	-	-	-	-	0.0	-	-	0.0	-
80.0	90.0	-	-	14.9	-	-	-	-	0.0	-	-	0.0	-
81.8	46.9	-	-	10.7	0.0	-	-	-	0.0	-	-	14.5	-
83.3	42.0	-	-	57.6	0.0	-	-	-	0.0	-	-	0.0	-
83.3	51.0	-	-	0.0	0.0	-	-	-	0.0	-	-	25.6	-
83.3	55.0	-	-	75.6	40.5	-	-	-	0.0	-	-	115.7	-

TABLE 4. (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
						Merluccius productus (cont.)							
83.3	60.0	-	-	34.6	19.0	-	-	-	0.0	-	-	0.0	-
83.3	70.0	-	-	67.5	0.0	-	-	-	0.0	-	-	0.0	-
83.3	80.0	-	-	148.9	0.0	-	-	-	0.0	-	-	0.0	-
86.7	33.0	-	-	150.0	0.0	-	-	0.0	-	-	-	0.0	-
86.7	35.0	-	-	248.1	0.0	-	-	0.0	-	-	-	0.0	-
86.7	40.0	-	-	47.3	0.0	-	-	0.0	-	-	-	91.0	-
86.7	45.0	-	-	81.9	10.1	-	-	-	0.0	-	-	0.0	-
86.7	50.0	-	-	0.0	0.0	-	-	-	0.0	-	-	49.8	-
86.7	55.0	-	-	135.4	0.0	-	-	-	0.0	-	-	0.0	-
86.7	60.0	-	-	34.1	0.0	-	-	-	0.0	-	-	0.0	-
86.7	70.0	-	-	67.1	0.0	-	-	-	0.0	-	-	0.0	-
86.7	80.0	-	-	373.0	0.0	-	-	-	0.0	-	-	0.0	-
86.7	100.0	-	-	4.7	-	-	-	-	0.0	-	-	0.0	-
90.0	28.0	-	-	9.5	0.0	-	-	0.0	-	-	-	0.0	-
90.0	35.0	-	-	39.5	0.0	-	-	0.0	-	-	-	0.0	-
90.0	37.0	-	-	65.9	0.0	-	-	0.0	-	-	-	0.0	-
90.0	45.0	-	-	390.9	10.1	-	-	0.0	-	-	-	0.0	-
90.0	53.0	-	-	100.6	0.0	-	-	0.0	-	-	-	0.0	-
90.0	60.0	-	-	164.8	0.0	-	-	0.0	-	-	-	0.0	-
90.0	70.0	-	-	255.8	0.0	-	-	0.0	-	-	-	0.0	-
90.0	80.0	-	-	27.3	4.5	-	-	0.0	-	-	-	0.0	-
90.0	90.0	-	-	58.8	0.0	-	-	0.0	-	-	-	0.0	-
90.0	100.0	-	-	0.0	5.0	-	-	0.0	-	-	-	0.0	-
93.3	26.7	-	-	33.7	0.0	-	-	0.0	-	-	-	0.0	-
93.3	28.0	-	-	44.5	0.0	-	-	0.0	-	-	-	0.0	-
93.3	30.0	-	-	13.6	0.0	-	-	0.0	-	-	-	0.0	-
93.3	35.0	-	-	13.0	0.0	-	-	0.0	-	-	-	0.0	-
93.3	40.0	-	-	3.7	0.0	-	-	0.0	-	-	-	0.0	-
93.3	45.0	-	-	144.8	0.0	-	-	0.0	-	-	-	4.7	-
93.3	50.0	-	-	108.5	4.7	-	-	0.0	-	-	-	9.4	-
93.3	55.0	-	-	27.7	0.0	-	-	0.0	-	-	-	0.0	-

TABLE 4. (cont.)

Merluccius productus (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 60.0	-	-	0.0	21.6	-	-	0.0	-	-	-	0.0	-
93.3 70.0	-	-	250.6	0.0	-	-	0.0	-	-	-	0.0	-
93.3 80.0	-	-	9.9	5.0	-	-	0.0	-	-	-	0.0	-
93.3 90.0	-	-	9.3	0.0	-	-	0.0	-	-	-	0.0	-
93.3 100.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.6	-

Chilara taylori

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 40.6	-	-	0.0	0.0	-	-	-	3.6	-	-	0.0	-
86.7 70.0	-	-	0.0	0.0	-	-	-	0.0	-	-	9.2	-

Ophidion scrippsae

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 42.0	-	-	0.0	0.0	-	-	-	9.4	-	-	4.0	-

Brosmophycis marginata

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 51.0	-	-	9.8	0.0	-	-	-	0.0	-	-	0.0	-
93.3 35.0	-	-	0.0	9.6	-	-	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	-	-	0.0	-	-	-	4.6	-
90.0 120.0	-	-	-	0.0	-	-	0.0	-	-	-	4.2	-
93.3 100.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.6	-
93.3 120.0	-	-	-	0.0	-	-	0.0	-	-	-	4.6	-

***Gigantactis* spp.**

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 90.0	-	-	0.0	-	-	-	-	4.7	-	-	0.0	-

Atherinopsis californiensis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 33.0	-	-	4.8	0.0	-	-	0.0	-	-	-	0.0	-

Cololabis saira

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 90.0	-	-	0.0	-	-	-	-	4.7	-	-	0.0	-

TABLE 4. (cont.)

Cololabis saira (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0	80.0	-	-	0.0	-	-	-	-	0.0	-	-	9.5	-
80.0	90.0	-	-	0.0	-	-	-	-	0.0	-	-	5.0	-
83.3	110.0	-	-	-	-	-	-	-	0.0	-	-	4.9	-
93.3	70.0	-	-	0.0	0.0	-	-	4.8	-	-	-	0.0	-

***Melamphaes* spp.**

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0	100.0	-	-	-	-	-	-	-	13.8	-	-	0.0	-
83.3	51.0	-	-	0.0	0.0	-	-	-	0.0	-	-	4.3	-
86.7	55.0	-	-	0.0	3.7	-	-	-	0.0	-	-	0.0	-
90.0	90.0	-	-	0.0	5.2	-	-	0.0	-	-	-	0.0	-
90.0	120.0	-	-	-	4.9	-	-	0.0	-	-	-	0.0	-

Melamphaes lugubris

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	80.0	-	-	0.0	-	-	-	-	4.8	-	-	0.0	-
76.7	90.0	-	-	4.8	-	-	-	-	4.7	-	-	0.0	-
80.0	80.0	-	-	5.0	-	-	-	-	0.0	-	-	0.0	-
83.3	60.0	-	-	4.9	0.0	-	-	-	0.0	-	-	0.0	-
83.3	90.0	-	-	0.0	3.7	-	-	-	0.0	-	-	0.0	-
83.3	100.0	-	-	9.5	-	-	-	-	8.8	-	-	0.0	-
86.7	55.0	-	-	0.0	11.2	-	-	-	0.0	-	-	0.0	-
86.7	60.0	-	-	8.5	0.0	-	-	-	0.0	-	-	0.0	-
86.7	70.0	-	-	4.8	0.0	-	-	-	4.5	-	-	0.0	-
86.7	80.0	-	-	7.9	6.5	-	-	-	4.6	-	-	0.0	-
90.0	37.0	-	-	0.0	0.0	-	-	9.6	-	-	-	0.0	-
90.0	90.0	-	-	0.0	5.2	-	-	0.0	-	-	-	4.6	-
90.0	100.0	-	-	4.2	0.0	-	-	0.0	-	-	-	0.0	-
90.0	110.0	-	-	-	4.8	-	-	4.4	-	-	-	0.0	-
93.3	45.0	-	-	0.0	4.8	-	-	0.0	-	-	-	0.0	-
93.3	70.0	-	-	0.0	0.0	-	-	9.6	-	-	-	0.0	-
93.3	90.0	-	-	0.0	5.1	-	-	0.0	-	-	-	0.0	-
93.3	100.0	-	-	0.0	9.9	-	-	0.0	-	-	-	0.0	-

TABLE 4. (cont.)

Melamphaes lugubris (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 120.0	-	-	-	14.7	-	-	0.0	-	-	-	0.0	-

Melamphaes parvus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0 80.0	-	-	5.0	-	-	-	-	0.0	-	-	0.0	-
86.7 70.0	-	-	0.0	0.0	-	-	-	0.0	-	-	9.2	-
93.3 45.0	-	-	0.0	4.8	-	-	0.0	-	-	-	0.0	-

Poromitra crassiceps

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 100.0	-	-	4.5	0.0	-	-	0.0	-	-	-	0.0	-

Scopelogadus bispinosus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0 90.0	-	-	0.0	-	-	-	-	4.6	-	-	0.0	-
90.0 80.0	-	-	0.0	0.0	-	-	0.0	-	-	-	5.0	-
90.0 120.0	-	-	-	4.9	-	-	0.0	-	-	-	0.0	-
93.3 50.0	-	-	0.0	4.7	-	-	0.0	-	-	-	0.0	-
93.3 80.0	-	-	0.0	5.0	-	-	0.0	-	-	-	0.0	-
93.3 110.0	-	-	-	5.0	-	-	0.0	-	-	-	0.0	-
93.3 120.0	-	-	-	0.0	-	-	0.0	-	-	-	4.6	-

***Sebastes* spp.**

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 49.0	-	-	36.5	-	-	-	-	0.0	-	-	0.0	-
76.7 51.0	-	-	418.4	-	-	-	-	30.4	-	-	26.8	-
76.7 55.0	-	-	94.1	-	-	-	-	35.6	-	-	10.6	-
76.7 60.0	-	-	40.2	-	-	-	-	0.0	-	-	25.4	-
76.7 70.0	-	-	14.2	-	-	-	-	9.8	-	-	0.0	-
76.7 90.0	-	-	4.8	-	-	-	-	0.0	-	-	0.0	-
80.0 51.0	-	-	0.0	0.0	-	-	-	44.4	-	-	34.8	-
80.0 55.0	-	-	108.0	9.3	-	-	-	19.7	-	-	36.6	-
80.0 60.0	-	-	89.3	-	-	-	-	0.0	-	-	21.5	-
80.0 70.0	-	-	20.3	-	-	-	-	0.0	-	-	0.0	-
81.8 46.9	-	-	10.7	0.0	-	-	-	33.6	-	-	43.4	-
83.3 42.0	-	-	34.5	72.9	-	-	-	4.7	-	-	15.9	-

TABLE 4. (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
						***Sebastes* spp.** (cont.)							
83.3	51.0	-	-	312.3	20.3	-	-	-	0.0	-	-	25.6	-
83.3	55.0	-	-	103.9	81.1	-	-	-	0.0	-	-	43.4	-
83.3	60.0	-	-	0.0	37.9	-	-	-	0.0	-	-	0.0	-
86.7	33.0	-	-	87.1	4.6	-	-	0.0	-	-	-	8.1	-
86.7	35.0	-	-	45.9	0.0	-	-	0.0	-	-	-	0.0	-
86.7	40.0	-	-	75.6	0.0	-	-	18.5	-	-	-	81.9	-
86.7	45.0	-	-	16.4	10.1	-	-	-	0.0	-	-	14.7	-
86.7	50.0	-	-	1238.8	0.0	-	-	-	12.5	-	-	95.1	-
86.7	55.0	-	-	59.2	41.0	-	-	-	0.0	-	-	0.0	-
86.7	60.0	-	-	8.5	9.4	-	-	-	0.0	-	-	0.0	-
86.7	70.0	-	-	14.4	0.0	-	-	-	0.0	-	-	0.0	-
86.7	80.0	-	-	103.2	0.0	-	-	-	0.0	-	-	0.0	-
86.7	90.0	-	-	0.0	0.0	-	-	-	4.5	-	-	0.0	-
90.0	28.0	-	-	23.7	0.0	-	-	4.3	-	-	-	13.0	-
90.0	30.0	-	-	74.8	8.6	-	-	0.0	-	-	-	4.8	-
90.0	35.0	-	-	29.6	9.7	-	-	9.4	-	-	-	4.5	-
90.0	37.0	-	-	18.8	10.3	-	-	19.2	-	-	-	0.0	-
90.0	45.0	-	-	381.5	10.1	-	-	9.9	-	-	-	0.0	-
90.0	53.0	-	-	469.4	28.3	-	-	0.0	-	-	-	9.5	-
90.0	60.0	-	-	4.7	32.3	-	-	0.0	-	-	-	0.0	-
90.0	80.0	-	-	4.5	0.0	-	-	0.0	-	-	-	0.0	-
90.0	90.0	-	-	0.0	5.2	-	-	0.0	-	-	-	0.0	-
90.0	100.0	-	-	0.0	0.0	-	-	4.8	-	-	-	0.0	-
93.3	26.7	-	-	122.1	17.3	-	-	0.0	-	-	-	0.0	-
93.3	28.0	-	-	4.5	0.0	-	-	0.0	-	-	-	0.0	-
93.3	30.0	-	-	22.7	28.2	-	-	0.0	-	-	-	0.0	-
93.3	35.0	-	-	34.8	67.3	-	-	0.0	-	-	-	0.0	-
93.3	40.0	-	-	18.3	14.7	-	-	0.0	-	-	-	0.0	-
93.3	45.0	-	-	12.8	4.8	-	-	0.0	-	-	-	0.0	-
93.3	50.0	-	-	9.0	0.0	-	-	0.0	-	-	-	4.7	-

TABLE 4. (cont.)

Sebastes **spp.** (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3	55.0	-	-	83.0	0.0	-	-	0.0	-	-	-	0.0	-
93.3	60.0	-	-	14.2	53.9	-	-	9.6	-	-	-	0.0	-
93.3	70.0	-	-	46.4	0.0	-	-	0.0	-	-	-	0.0	-

Sebastes aurora

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	60.0	-	-	10.1	-	-	-	-	0.0	-	-	0.0	-
81.8	46.9	-	-	0.0	0.0	-	-	-	8.4	-	-	0.0	-
90.0	28.0	-	-	4.7	0.0	-	-	0.0	-	-	-	0.0	-
90.0	70.0	-	-	0.0	4.2	-	-	0.0	-	-	-	0.0	-
93.3	26.7	-	-	0.0	8.6	-	-	0.0	-	-	-	0.0	-

Sebastes diploproa

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	55.0	-	-	0.0	-	-	-	-	17.8	-	-	0.0	-
76.7	70.0	-	-	0.0	-	-	-	-	9.8	-	-	0.0	-
80.0	55.0	-	-	9.8	0.0	-	-	-	0.0	-	-	0.0	-
86.7	80.0	-	-	15.9	0.0	-	-	-	0.0	-	-	0.0	-
93.3	60.0	-	-	4.7	0.0	-	-	0.0	-	-	-	0.0	-

Sebastes jordani

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	49.0	-	-	100.4	-	-	-	-	0.0	-	-	0.0	-
76.7	51.0	-	-	387.7	-	-	-	-	0.0	-	-	0.0	-
76.7	55.0	-	-	9.4	-	-	-	-	0.0	-	-	0.0	-
76.7	60.0	-	-	40.2	-	-	-	-	0.0	-	-	0.0	-
76.7	70.0	-	-	4.7	-	-	-	-	0.0	-	-	0.0	-
80.0	55.0	-	-	49.1	0.0	-	-	-	0.0	-	-	0.0	-
80.0	60.0	-	-	167.4	-	-	-	-	0.0	-	-	0.0	-
83.3	42.0	-	-	57.6	29.2	-	-	-	0.0	-	-	0.0	-
83.3	51.0	-	-	175.7	0.0	-	-	-	0.0	-	-	0.0	-
83.3	55.0	-	-	47.2	0.0	-	-	-	0.0	-	-	0.0	-
86.7	33.0	-	-	19.4	4.6	-	-	0.0	-	-	-	0.0	-
86.7	35.0	-	-	45.9	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.
86.7 40.0	-	-	56.7	0.0	-	-	0.0	-	-	-	0.0	-
86.7 45.0	-	-	8.2	0.0	-	-	-	0.0	-	-	0.0	-
86.7 50.0	-	-	35.9	0.0	-	-	-	0.0	-	-	0.0	-
86.7 55.0	-	-	8.5	0.0	-	-	-	0.0	-	-	0.0	-
90.0 28.0	-	-	28.4	0.0	-	-	0.0	-	-	-	0.0	-
90.0 30.0	-	-	37.4	0.0	-	-	0.0	-	-	-	0.0	-
90.0 35.0	-	-	14.8	0.0	-	-	0.0	-	-	-	0.0	-
90.0 45.0	-	-	4.7	10.1	-	-	0.0	-	-	-	0.0	-
90.0 53.0	-	-	33.5	0.0	-	-	0.0	-	-	-	0.0	-
90.0 60.0	-	-	4.7	0.0	-	-	0.0	-	-	-	0.0	-
93.3 26.7	-	-	4.2	0.0	-	-	0.0	-	-	-	0.0	-
93.3 30.0	-	-	4.5	0.0	-	-	0.0	-	-	-	0.0	-
93.3 40.0	-	-	7.3	4.9	-	-	0.0	-	-	-	0.0	-

Sebastes levis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0 55.0	-	-	19.6	0.0	-	-	-	0.0	-	-	0.0	-

Sebastes paucispinis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 60.0	-	-	20.1	-	-	-	-	0.0	-	-	0.0	-
76.7 70.0	-	-	4.7	-	-	-	-	0.0	-	-	0.0	-
80.0 60.0	-	-	11.2	-	-	-	-	0.0	-	-	0.0	-
83.3 80.0	-	-	0.0	4.6	-	-	-	0.0	-	-	0.0	-
90.0 45.0	-	-	4.7	0.0	-	-	0.0	-	-	-	0.0	-
90.0 80.0	-	-	4.5	0.0	-	-	0.0	-	-	-	0.0	-

***Sebastolobus* spp.**

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 55.0	-	-	9.4	-	-	-	-	0.0	-	-	0.0	-
80.0 70.0	-	-	162.6	-	-	-	-	0.0	-	-	0.0	-
80.0 90.0	-	-	5.0	-	-	-	-	0.0	-	-	0.0	-
86.7 45.0	-	-	8.2	0.0	-	-	-	0.0	-	-	0.0	-
86.7 60.0	-	-	0.0	4.7	-	-	-	0.0	-	-	0.0	-

TABLE 4. (cont.)

Oxylebius pictus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 45.0	-	-	8.2	0.0	-	-	-	0.0	-	-	0.0	-

Zaniolepis frenata

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 50.0	-	-	3.3	0.0	-	-	-	0.0	-	-	0.0	-

Zaniolepis latipinnis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0 55.0	-	-	0.0	0.0	-	-	-	0.0	-	-	4.6	-
86.7 33.0	-	-	0.0	0.0	-	-	4.3	-	-	-	0.0	-
86.7 35.0	-	-	0.0	0.0	-	-	0.0	-	-	-	13.7	-
86.7 40.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.5	-

Ophiodon elongatus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 51.0	-	-	9.8	0.0	-	-	-	0.0	-	-	0.0	-

Cottidae

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 42.0	-	-	0.0	4.9	-	-	-	0.0	-	-	0.0	-
83.3 51.0	-	-	0.0	10.1	-	-	-	0.0	-	-	0.0	-
86.7 33.0	-	-	0.0	4.6	-	-	0.0	-	-	-	0.0	-
86.7 40.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.5	-
86.7 50.0	-	-	0.0	0.0	-	-	-	0.0	-	-	4.5	-

Artedius creaseri

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0 28.0	-	-	0.0	4.2	-	-	0.0	-	-	-	0.0	-
93.3 26.7	-	-	4.2	0.0	-	-	0.0	-	-	-	0.0	-

Artedius fenestralis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 51.0	-	-	9.8	0.0	-	-	-	0.0	-	-	0.0	-
86.7 50.0	-	-	0.0	0.0	-	-	-	4.2	-	-	0.0	-

Artedius lateralis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 42.0	-	-	11.5	0.0	-	-	-	0.0	-	-	0.0	-

TABLE 4. (cont.)

***Icelinus* spp.**

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0 51.0	-	-	0.0	0.0	-	-	-	4.4	-	-	0.0	-
83.3 51.0	-	-	0.0	0.0	-	-	-	0.0	-	-	34.1	-
93.3 26.7	-	-	4.2	0.0	-	-	0.0	-	-	-	0.0	-

Icelinus quadriseriatus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 51.0	-	-	0.0	20.3	-	-	-	0.0	-	-	0.0	-

Scorpaenichthys marmoratus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0 55.0	-	-	0.0	9.3	-	-	-	0.0	-	-	0.0	-
83.3 55.0	-	-	0.0	10.1	-	-	-	0.0	-	-	0.0	-

Agonidae

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 45.0	-	-	8.2	0.0	-	-	-	0.0	-	-	0.0	-

Xeneretmus latifrons

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0 51.0	-	-	0.0	0.0	-	-	-	4.4	-	-	0.0	-

Xeneretmus leiops

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0 90.0	-	-	0.0	5.2	-	-	0.0	-	-	-	0.0	-
93.3 40.0	-	-	3.7	0.0	-	-	0.0	-	-	-	0.0	-

***Paralabrax* spp.**

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 49.0	-	-	0.0	-	-	-	-	8.7	-	-	0.0	-
80.0 60.0	-	-	0.0	-	-	-	-	9.7	-	-	0.0	-
81.8 46.9	-	-	0.0	0.0	-	-	-	8.4	-	-	0.0	-
83.3 40.6	-	-	0.0	0.0	-	-	-	3.6	-	-	0.0	-
83.3 42.0	-	-	0.0	0.0	-	-	-	23.5	-	-	0.0	-

***Howella* spp.**

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0 90.0	-	-	0.0	-	-	-	-	4.6	-	-	0.0	-
80.0 100.0	-	-	-	-	-	-	-	4.6	-	-	0.0	-
83.3 100.0	-	-	0.0	-	-	-	-	4.4	-	-	0.0	-

TABLE 4. (cont.)

Caulolatilus princeps

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0 55.0	-	-	0.0	0.0	-	-	-	9.9	-	-	0.0	-

Trachurus symmetricus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 42.0	-	-	0.0	0.0	-	-	-	4.7	-	-	0.0	-
83.3 100.0	-	-	0.0	-	-	-	-	4.4	-	-	0.0	-
86.7 40.0	-	-	0.0	0.0	-	-	0.0	-	-	-	9.1	-
86.7 90.0	-	-	0.0	3.6	-	-	-	0.0	-	-	0.0	-
90.0 80.0	-	-	0.0	4.5	-	-	0.0	-	-	-	0.0	-
90.0 90.0	-	-	0.0	15.5	-	-	14.3	-	-	-	0.0	-
93.3 110.0	-	-	-	5.0	-	-	0.0	-	-	-	0.0	-

Genyonemus lineatus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 49.0	-	-	0.0	-	-	-	-	8.7	-	-	0.0	-
80.0 51.0	-	-	0.0	0.0	-	-	-	0.0	-	-	160.9	-
80.0 55.0	-	-	0.0	0.0	-	-	-	0.0	-	-	4.6	-
81.8 46.9	-	-	0.0	0.0	-	-	-	0.0	-	-	106.0	-
83.3 42.0	-	-	11.5	0.0	-	-	-	0.0	-	-	0.0	-
86.7 33.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.1	-
90.0 28.0	-	-	61.6	0.0	-	-	0.0	-	-	-	0.0	-
90.0 30.0	-	-	5.3	0.0	-	-	0.0	-	-	-	0.0	-
93.3 26.7	-	-	29.5	0.0	-	-	0.0	-	-	-	0.0	-
93.3 30.0	-	-	4.5	0.0	-	-	0.0	-	-	-	0.0	-

Seriphus politus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 49.0	-	-	0.0	-	-	-	-	17.3	-	-	0.0	-

Chromis punctipinnis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0 51.0	-	-	0.0	0.0	-	-	-	0.0	-	-	4.3	-
80.0 55.0	-	-	0.0	0.0	-	-	-	9.9	-	-	0.0	-
80.0 60.0	-	-	0.0	-	-	-	-	29.2	-	-	0.0	-
80.0 70.0	-	-	0.0	-	-	-	-	0.0	-	-	9.9	-

TABLE 4. (cont.)

Chromis punctipinnis (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
81.8 46.9	-	-	0.0	0.0	-	-	-	8.4	-	-	0.0	-
83.3 40.6	-	-	0.0	0.0	-	-	-	14.4	-	-	0.0	-
83.3 42.0	-	-	0.0	0.0	-	-	-	23.5	-	-	0.0	-
86.7 50.0	-	-	0.0	0.0	-	-	-	12.5	-	-	0.0	-
93.3 60.0	-	-	0.0	0.0	-	-	9.6	-	-	-	0.0	-

Oxyjulis californica

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 55.0	-	-	0.0	-	-	-	-	8.9	-	-	0.0	-
81.8 46.9	-	-	0.0	0.0	-	-	-	25.2	-	-	0.0	-
83.3 40.6	-	-	0.0	0.0	-	-	-	7.2	-	-	0.0	-
83.3 42.0	-	-	0.0	0.0	-	-	-	23.5	-	-	0.0	-
83.3 55.0	-	-	0.0	0.0	-	-	-	0.0	-	-	4.8	-
86.7 50.0	-	-	0.0	0.0	-	-	-	4.2	-	-	0.0	-
90.0 45.0	-	-	14.1	0.0	-	-	9.9	-	-	-	0.0	-
93.3 45.0	-	-	0.0	0.0	-	-	10.1	-	-	-	0.0	-
93.3 55.0	-	-	0.0	0.0	-	-	21.3	-	-	-	0.0	-

Semicossyphus pulcher

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 40.6	-	-	0.0	0.0	-	-	-	7.2	-	-	0.0	-
83.3 42.0	-	-	0.0	0.0	-	-	-	9.4	-	-	0.0	-

***Rathbunella* spp.**

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 51.0	-	-	9.8	0.0	-	-	-	0.0	-	-	0.0	-
86.7 50.0	-	-	3.3	0.0	-	-	-	4.2	-	-	4.5	-
93.3 26.7	-	-	4.2	0.0	-	-	0.0	-	-	-	0.0	-

Zoarcidae

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

Stichaeidae

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 51.0	-	-	9.8	0.0	-	-	-	0.0	-	-	8.5	-

TABLE 4. (cont.)

Plectobranchus evides

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 26.7	-	-	4.2	0.0	-	-	0.0	-	-	-	0.0	-

Chiasmodon niger

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 110.0	-	-	-	-	-	-	-	4.5	-	-	0.0	-
90.0 110.0	-	-	-	0.0	-	-	0.0	-	-	-	4.5	-
90.0 120.0	-	-	-	4.9	-	-	0.0	-	-	-	0.0	-
93.3 100.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.6	-
93.3 110.0	-	-	-	5.0	-	-	4.7	-	-	-	0.0	-

Cryptotrema corallinum

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 51.0	-	-	0.0	0.0	-	-	-	0.0	-	-	17.0	-
86.7 50.0	-	-	0.0	0.0	-	-	-	0.0	-	-	22.7	-

***Hypsoblennius* spp.**

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0 28.0	-	-	0.0	0.0	-	-	4.3	-	-	-	0.0	-

Hypsoblennius jenkinsi

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 35.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.6	-
86.7 40.0	-	-	0.0	0.0	-	-	9.3	-	-	-	0.0	-
90.0 28.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.3	-
93.3 26.7	-	-	0.0	0.0	-	-	4.0	-	-	-	0.0	-

Coryphopterus nicholsii

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 51.0	-	-	0.0	-	-	-	-	20.3	-	-	0.0	-
76.7 55.0	-	-	0.0	-	-	-	-	44.5	-	-	0.0	-
76.7 60.0	-	-	0.0	-	-	-	-	0.0	-	-	25.4	-
80.0 51.0	-	-	0.0	0.0	-	-	-	13.3	-	-	0.0	-
80.0 55.0	-	-	9.8	0.0	-	-	-	0.0	-	-	4.6	-
80.0 60.0	-	-	0.0	-	-	-	-	0.0	-	-	8.6	-
80.0 80.0	-	-	0.0	-	-	-	-	0.0	-	-	9.5	-
83.3 40.6	-	-	0.0	4.4	-	-	-	0.0	-	-	0.0	-

TABLE 4. (cont.)

Coryphopterus nicholsii (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 51.0	-	-	9.8	0.0	-	-	-	0.0	-	-	0.0	-
83.3 55.0	-	-	0.0	0.0	-	-	-	0.0	-	-	4.8	-
83.3 60.0	-	-	0.0	9.5	-	-	-	0.0	-	-	0.0	-
90.0 37.0	-	-	0.0	0.0	-	-	9.6	-	-	-	0.0	-
90.0 45.0	-	-	4.7	0.0	-	-	0.0	-	-	-	0.0	-
90.0 53.0	-	-	9.6	0.0	-	-	0.0	-	-	-	0.0	-
90.0 90.0	-	-	4.9	0.0	-	-	0.0	-	-	-	0.0	-
93.3 28.0	-	-	4.5	0.0	-	-	0.0	-	-	-	0.0	-
93.3 30.0	-	-	0.0	0.0	-	-	5.0	-	-	-	0.0	-
93.3 50.0	-	-	4.5	0.0	-	-	0.0	-	-	-	0.0	-

Lepidogobius lepidus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 40.6	-	-	7.9	0.0	-	-	-	0.0	-	-	0.0	-
83.3 51.0	-	-	9.8	0.0	-	-	-	0.0	-	-	0.0	-
93.3 26.7	-	-	4.2	0.0	-	-	0.0	-	-	-	0.0	-

Lythrypnus dalli

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 42.0	-	-	0.0	0.0	-	-	-	28.2	-	-	0.0	-

Typhlogobius californiensis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 51.0	-	-	9.8	0.0	-	-	-	0.0	-	-	0.0	-
90.0 37.0	-	-	0.0	10.3	-	-	0.0	-	-	-	0.0	-

Sphyraena argentea

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 40.6	-	-	0.0	0.0	-	-	-	7.2	-	-	0.0	-
83.3 42.0	-	-	0.0	0.0	-	-	-	32.9	-	-	0.0	-
90.0 30.0	-	-	0.0	0.0	-	-	4.7	-	-	-	0.0	-

Diplospinus multistriatus

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

TABLE 4. (cont.)

Scomber japonicus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0 55.0	-	-	0.0	0.0	-	-	-	19.7	-	-	0.0	-
83.3 42.0	-	-	0.0	0.0	-	-	-	28.2	-	-	0.0	-

Icichthys lockingtoni

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 60.0	-	-	0.0	-	-	-	-	0.0	-	-	8.5	-
80.0 80.0	-	-	5.0	-	-	-	-	0.0	-	-	0.0	-
81.8 46.9	-	-	0.0	0.0	-	-	-	8.4	-	-	0.0	-
83.3 60.0	-	-	0.0	0.0	-	-	-	0.0	-	-	8.7	-
86.7 50.0	-	-	0.0	3.6	-	-	-	0.0	-	-	0.0	-
86.7 80.0	-	-	7.9	0.0	-	-	-	0.0	-	-	0.0	-
86.7 90.0	-	-	0.0	0.0	-	-	-	4.5	-	-	0.0	-
93.3 70.0	-	-	4.6	0.0	-	-	0.0	-	-	-	0.0	-
93.3 80.0	-	-	4.9	0.0	-	-	0.0	-	-	-	0.0	-
93.3 90.0	-	-	14.0	0.0	-	-	0.0	-	-	-	0.0	-

Tetragonurus cuvieri

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 90.0	-	-	0.0	-	-	-	-	4.7	-	-	0.0	-
80.0 90.0	-	-	0.0	-	-	-	-	4.6	-	-	0.0	-
80.0 100.0	-	-	-	-	-	-	-	4.6	-	-	0.0	-
83.3 80.0	-	-	4.4	0.0	-	-	-	0.0	-	-	0.0	-
83.3 100.0	-	-	0.0	-	-	-	-	13.2	-	-	0.0	-
83.3 110.0	-	-	-	-	-	-	-	8.9	-	-	0.0	-
86.7 55.0	-	-	0.0	3.7	-	-	-	0.0	-	-	0.0	-
90.0 90.0	-	-	0.0	0.0	-	-	14.3	-	-	-	0.0	-
90.0 100.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.7	-
90.0 110.0	-	-	-	4.8	-	-	0.0	-	-	-	0.0	-
90.0 120.0	-	-	-	4.9	-	-	0.0	-	-	-	0.0	-
93.3 80.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.5	-
93.3 100.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.6	-

TABLE 4. (cont.)

Peprilus simillimus

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	55.0	-	-	0.0	-	-	-	-	8.9	-	-	0.0	-
81.8	46.9	-	-	0.0	0.0	-	-	-	0.0	-	-	4.8	-

***Citharichthys* spp.**

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	49.0	-	-	0.0	-	-	-	-	147.3	-	-	16.6	-
76.7	51.0	-	-	0.0	-	-	-	-	60.8	-	-	0.0	-
76.7	55.0	-	-	0.0	-	-	-	-	35.6	-	-	0.0	-
80.0	51.0	-	-	0.0	0.0	-	-	-	17.8	-	-	0.0	-
80.0	55.0	-	-	0.0	0.0	-	-	-	0.0	-	-	4.6	-
80.0	60.0	-	-	0.0	-	-	-	-	0.0	-	-	94.6	-
80.0	70.0	-	-	0.0	-	-	-	-	21.9	-	-	0.0	-
81.8	46.9	-	-	0.0	0.0	-	-	-	16.8	-	-	38.6	-
83.3	40.6	-	-	0.0	0.0	-	-	-	3.6	-	-	0.0	-
83.3	42.0	-	-	0.0	0.0	-	-	-	18.8	-	-	0.0	-
83.3	51.0	-	-	0.0	0.0	-	-	-	0.0	-	-	25.6	-
86.7	45.0	-	-	0.0	0.0	-	-	-	0.0	-	-	4.9	-
90.0	45.0	-	-	9.4	0.0	-	-	0.0	-	-	-	0.0	-
90.0	70.0	-	-	4.9	0.0	-	-	0.0	-	-	-	0.0	-
93.3	45.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.7	-
93.3	50.0	-	-	0.0	0.0	-	-	10.7	-	-	-	4.7	-

Citharichthys sordidus

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	51.0	-	-	0.0	-	-	-	-	0.0	-	-	44.6	-
76.7	55.0	-	-	0.0	-	-	-	-	35.6	-	-	21.3	-
76.7	60.0	-	-	10.1	-	-	-	-	9.4	-	-	84.6	-
76.7	90.0	-	-	4.8	-	-	-	-	0.0	-	-	0.0	-
80.0	51.0	-	-	0.0	8.8	-	-	-	0.0	-	-	26.1	-
80.0	55.0	-	-	0.0	0.0	-	-	-	29.6	-	-	64.0	-
80.0	60.0	-	-	11.2	-	-	-	-	0.0	-	-	12.9	-
80.0	70.0	-	-	0.0	-	-	-	-	21.9	-	-	0.0	-
80.0	80.0	-	-	0.0	-	-	-	-	0.0	-	-	9.5	-

TABLE 4. (cont.)

Citharichthys sordidus (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
81.8	46.9	-	-	0.0	0.0	-	-	-	8.4	-	-	0.0	-
83.3	55.0	-	-	0.0	0.0	-	-	-	0.0	-	-	19.3	-
83.3	70.0	-	-	4.8	0.0	-	-	-	0.0	-	-	0.0	-
83.3	90.0	-	-	0.0	0.0	-	-	-	0.0	-	-	9.7	-
86.7	33.0	-	-	4.8	0.0	-	-	0.0	-	-	-	0.0	-
86.7	35.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.6	-
86.7	40.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.5	-
86.7	50.0	-	-	0.0	0.0	-	-	-	0.0	-	-	13.6	-
86.7	70.0	-	-	4.8	0.0	-	-	-	0.0	-	-	0.0	-
86.7	80.0	-	-	7.9	0.0	-	-	-	0.0	-	-	0.0	-
86.7	90.0	-	-	0.0	0.0	-	-	-	0.0	-	-	4.9	-
90.0	37.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.6	-
90.0	45.0	-	-	4.7	0.0	-	-	0.0	-	-	-	5.0	-
90.0	53.0	-	-	47.9	0.0	-	-	0.0	-	-	-	0.0	-
90.0	60.0	-	-	4.7	0.0	-	-	21.5	-	-	-	0.0	-
90.0	70.0	-	-	29.5	0.0	-	-	0.0	-	-	-	8.9	-
90.0	80.0	-	-	4.5	0.0	-	-	0.0	-	-	-	0.0	-
90.0	90.0	-	-	14.7	0.0	-	-	0.0	-	-	-	0.0	-
93.3	28.0	-	-	8.9	0.0	-	-	0.0	-	-	-	0.0	-
93.3	45.0	-	-	0.0	0.0	-	-	0.0	-	-	-	23.5	-
93.3	50.0	-	-	4.5	0.0	-	-	0.0	-	-	-	0.0	-
93.3	70.0	-	-	9.3	0.0	-	-	0.0	-	-	-	0.0	-
93.3	90.0	-	-	4.7	0.0	-	-	0.0	-	-	-	0.0	-

Citharichthys stigmaeus

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	49.0	-	-	9.1	-	-	-	-	0.0	-	-	0.0	-
76.7	51.0	-	-	0.0	-	-	-	-	0.0	-	-	89.2	-
76.7	55.0	-	-	0.0	-	-	-	-	89.0	-	-	63.8	-
76.7	60.0	-	-	0.0	-	-	-	-	9.4	-	-	67.7	-
76.7	70.0	-	-	0.0	-	-	-	-	9.8	-	-	0.0	-
80.0	51.0	-	-	0.0	0.0	-	-	-	0.0	-	-	4.3	-

TABLE 4. (cont.)

Citharichthys stigmaeus (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0	55.0	-	-	0.0	0.0	-	-	-	0.0	-	-	9.1	-
80.0	60.0	-	-	0.0	-	-	-	-	9.7	-	-	51.6	-
80.0	80.0	-	-	0.0	-	-	-	-	0.0	-	-	9.5	-
81.8	46.9	-	-	0.0	10.1	-	-	-	16.8	-	-	9.6	-
83.3	42.0	-	-	0.0	0.0	-	-	-	4.7	-	-	0.0	-
83.3	55.0	-	-	0.0	0.0	-	-	-	0.0	-	-	4.8	-
83.3	60.0	-	-	0.0	0.0	-	-	-	0.0	-	-	8.7	-
83.3	80.0	-	-	4.4	0.0	-	-	-	0.0	-	-	0.0	-
86.7	33.0	-	-	0.0	0.0	-	-	0.0	-	-	-	8.1	-
86.7	35.0	-	-	9.2	0.0	-	-	0.0	-	-	-	0.0	-
86.7	40.0	-	-	0.0	4.4	-	-	0.0	-	-	-	0.0	-
86.7	50.0	-	-	0.0	0.0	-	-	-	0.0	-	-	9.1	-
86.7	60.0	-	-	8.5	0.0	-	-	-	0.0	-	-	0.0	-
86.7	70.0	-	-	0.0	0.0	-	-	-	0.0	-	-	18.4	-
86.7	80.0	-	-	7.9	0.0	-	-	-	0.0	-	-	8.9	-
86.7	90.0	-	-	0.0	0.0	-	-	-	0.0	-	-	4.9	-
90.0	28.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.3	-
90.0	30.0	-	-	0.0	8.6	-	-	0.0	-	-	-	0.0	-
90.0	37.0	-	-	0.0	0.0	-	-	9.6	-	-	-	9.2	-
90.0	53.0	-	-	0.0	0.0	-	-	10.5	-	-	-	0.0	-
90.0	70.0	-	-	0.0	0.0	-	-	0.0	-	-	-	8.9	-
93.3	40.0	-	-	0.0	0.0	-	-	9.3	-	-	-	0.0	-
93.3	45.0	-	-	0.0	0.0	-	-	0.0	-	-	-	23.5	-
93.3	55.0	-	-	0.0	9.5	-	-	0.0	-	-	-	0.0	-
93.3	90.0	-	-	32.6	0.0	-	-	0.0	-	-	-	0.0	-

Citharichthys xanthostigma

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3	55.0	-	-	0.0	9.5	-	-	0.0	-	-	-	0.0	-

Hippoglossina stomata

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	55.0	-	-	0.0	-	-	-	-	8.9	-	-	0.0	-

TABLE 4. (cont.)

Hippoglossina stomata (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0 51.0	-	-	0.0	0.0	-	-	-	4.4	-	-	0.0	-
80.0 60.0	-	-	0.0	-	-	-	-	0.0	-	-	12.9	-

Paralichthys californicus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0 51.0	-	-	0.0	0.0	-	-	-	0.0	-	-	4.3	-
80.0 60.0	-	-	0.0	-	-	-	-	0.0	-	-	4.3	-
81.8 46.9	-	-	0.0	0.0	-	-	-	0.0	-	-	9.6	-
83.3 42.0	-	-	0.0	0.0	-	-	-	0.0	-	-	4.0	-
86.7 33.0	-	-	0.0	4.6	-	-	0.0	-	-	-	0.0	-
90.0 30.0	-	-	5.3	0.0	-	-	0.0	-	-	-	0.0	-
93.3 26.7	-	-	33.7	0.0	-	-	0.0	-	-	-	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	-	-	4.0	-

Glyptocephalus zachirus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 55.0	-	-	0.0	10.1	-	-	-	0.0	-	-	0.0	-

Hypsopsetta guttulata

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 42.0	-	-	0.0	0.0	-	-	-	0.0	-	-	4.0	-

Lyopsetta exilis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 40.0	-	-	0.0	4.9	-	-	0.0	-	-	-	0.0	-

Microstomus pacificus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 60.0	-	-	10.1	-	-	-	-	0.0	-	-	0.0	-
76.7 70.0	-	-	4.7	-	-	-	-	0.0	-	-	0.0	-
86.7 55.0	-	-	0.0	3.7	-	-	-	0.0	-	-	0.0	-
86.7 80.0	-	-	7.9	0.0	-	-	-	0.0	-	-	0.0	-

Parophrys vetulus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 55.0	-	-	9.4	-	-	-	-	0.0	-	-	0.0	-

TABLE 4. (cont.)

Parophrys vetulus (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3	51.0	-	-	19.5	0.0	-	-	-	0.0	-	-	0.0	-
86.7	33.0	-	-	0.0	4.6	-	-	0.0	-	-	-	0.0	-
90.0	28.0	-	-	9.5	0.0	-	-	0.0	-	-	-	0.0	-

***Pleuronichthys* spp.**

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7	33.0	-	-	0.0	4.6	-	-	0.0	-	-	-	0.0	-

Pleuronichthys coenosus

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3	51.0	-	-	9.8	0.0	-	-	-	0.0	-	-	0.0	-

Pleuronichthys ritteri

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
81.8	46.9	-	-	0.0	0.0	-	-	-	0.0	-	-	24.1	-
86.7	33.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.1	-
93.3	26.7	-	-	4.2	0.0	-	-	0.0	-	-	-	0.0	-

Pleuronichthys verticalis

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0	51.0	-	-	0.0	0.0	-	-	-	0.0	-	-	8.7	-
81.8	46.9	-	-	0.0	0.0	-	-	-	0.0	-	-	4.8	-
83.3	40.6	-	-	0.0	0.0	-	-	-	0.0	-	-	4.0	-
86.7	33.0	-	-	4.8	0.0	-	-	4.3	-	-	-	0.0	-
90.0	28.0	-	-	9.5	0.0	-	-	0.0	-	-	-	0.0	-
93.3	26.7	-	-	4.2	0.0	-	-	0.0	-	-	-	0.0	-

Symphurus atricaudus

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3	42.0	-	-	0.0	0.0	-	-	-	4.7	-	-	0.0	-
86.7	55.0	-	-	0.0	0.0	-	-	-	0.0	-	-	4.9	-

Disintegrated fish larvae

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	60.0	-	-	0.0	-	-	-	-	9.4	-	-	0.0	-
76.7	90.0	-	-	0.0	-	-	-	-	4.7	-	-	0.0	-
80.0	51.0	-	-	0.0	0.0	-	-	-	4.4	-	-	0.0	-
80.0	90.0	-	-	5.0	-	-	-	-	0.0	-	-	0.0	-

TABLE 4. (cont.)

Disintegrated fish larvae (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 40.6	-	-	3.9	0.0	-	-	-	0.0	-	-	0.0	-
83.3 42.0	-	-	0.0	0.0	-	-	-	4.7	-	-	0.0	-
83.3 55.0	-	-	9.4	0.0	-	-	-	0.0	-	-	0.0	-
83.3 70.0	-	-	9.6	0.0	-	-	-	0.0	-	-	0.0	-
83.3 90.0	-	-	0.0	3.7	-	-	-	0.0	-	-	0.0	-
86.7 45.0	-	-	49.1	0.0	-	-	-	0.0	-	-	0.0	-
86.7 50.0	-	-	9.8	3.6	-	-	-	4.2	-	-	0.0	-
86.7 60.0	-	-	8.5	0.0	-	-	-	0.0	-	-	0.0	-
86.7 70.0	-	-	9.6	0.0	-	-	-	0.0	-	-	0.0	-
86.7 80.0	-	-	15.9	0.0	-	-	-	0.0	-	-	0.0	-
90.0 35.0	-	-	14.8	0.0	-	-	0.0	-	-	-	0.0	-
90.0 53.0	-	-	4.8	0.0	-	-	0.0	-	-	-	0.0	-
90.0 60.0	-	-	0.0	4.6	-	-	0.0	-	-	-	0.0	-
90.0 90.0	-	-	0.0	10.3	-	-	4.8	-	-	-	0.0	-
90.0 100.0	-	-	12.5	0.0	-	-	0.0	-	-	-	0.0	-
93.3 35.0	-	-	21.8	0.0	-	-	0.0	-	-	-	0.0	-
93.3 45.0	-	-	8.5	0.0	-	-	0.0	-	-	-	0.0	-
93.3 55.0	-	-	9.2	0.0	-	-	0.0	-	-	-	0.0	-
93.3 90.0	-	-	0.0	5.1	-	-	0.0	-	-	-	4.6	-
93.3 110.0	-	-	-	0.0	-	-	4.7	-	-	-	0.0	-

Unidentified fish larvae

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0 60.0	-	-	0.0	-	-	-	-	0.0	-	-	4.3	-
80.0 100.0	-	-	-	-	-	-	-	0.0	-	-	4.7	-
83.3 90.0	-	-	0.0	3.7	-	-	-	0.0	-	-	0.0	-
83.3 110.0	-	-	-	-	-	-	-	0.0	-	-	4.9	-
90.0 90.0	-	-	0.0	0.0	-	-	0.0	-	-	-	4.6	-
90.0 120.0	-	-	-	0.0	-	-	4.4	-	-	-	0.0	-
93.3 110.0	-	-	-	0.0	-	-	4.7	-	-	-	0.0	-

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ALPHABETICAL INDEX TO TABLE 4

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