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ICHTHYOPLANKTON AND STATION DATA FOR CALIFORNIA COOPERATIVE OCEANIC FISHERIES INVESTIGATIONS SURVEY CRUISES IN 2000

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U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
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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 2000. It is the 40th report in a series that presents these data for all biological-oceanographic CalCOFI surveys from 1951 to the present. A total of 262 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 128 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 40th 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 2000. 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 (SWFSC) 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 (SCB) region (see Hewitt 1988 and Moser et al. 1993, 1994 for summaries of CalCOFI historical sampling effort).

Hydrographic and biological data from the first two CalCOFI surveys in 2000 have been published by the Scripps Institution of Oceanography (Univ. of Calif., SIO 2000, 2001). All available records for all four 2000 CalCOFI surveys were verified and edited to produce this ichthyoplankton data report. These reports make the CalCOFI ichthyoplankton and station data available to all investigators and serve as guides to the computer data base. They are the basic documents against which changes in the data base can be compared as it is modified to correct errors and update earlier identifications. Citations for previous reports in this series are:

Survey	Report	Survey	Report
1951	Ambrose et al. 1987a	1975	Ambrose et al. 1988c
1952	Sandknop et al. 1987a	1978	Sandknop et al. 1988d
1953	Stevens et al. 1987a	1981	Ambrose et al. 1988d
1954	Sumida et al. 1987a	1984	Stevens et al. 1990
1955	Ambrose et al. 1987b	1985	Ambrose et al. 1999a
1956	Stevens et al. 1987b	1986	Charter et al. 1999a
1957	Sumida et al. 1987b	1987	Sandknop et al. 1999a
1958	Sandknop et al. 1987b	1988	Watson et al. 1999a
1959	Stevens et al. 1987c	1989	Ambrose et al. 1999b
1960	Ambrose et al. 1987c	1990	Charter et al. 1999b
1961	Sandknop et al. 1988a	1991	Sandknop et al. 1999b
1962	Sumida et al. 1988a	1992	Watson et al. 1999b
1963	Ambrose et al. 1988a	1993	Ambrose et al. 1999c
1964	Sandknop et al. 1988b	1994	Charter et al. 1999c
1965	Stevens et al. 1988a	1995	Sandknop et al. 1999c
1966	Sumida et al. 1988b	1996	Watson et al. 1999c
1967	Ambrose et al. 1988b	1997	Ambrose et al. 1999d
1968	Sandknop et al. 1988c	1998	Charter et al. 1999d
1969	Stevens et al. 1988b	1999	Ambrose et al. 2001
1972	Sumida et al. 1988c		

SAMPLING AREA AND PATTERN

A total of 262 standard CalCOFI survey stations was occupied on four cruises in 2000, employing two research vessels:

0001, RV *New Horizon*, 66 stations, January 7–23;

0004, RV *David Starr Jordan*, 66 stations, April 7–22;

0007, RV *New Horizon*, 66 stations, June 29–July 13;

0010, RV *New Horizon*, 64 stations, October 12–29.

The core survey area extended from Avila Beach to San Diego, California and seaward on six survey lines

to approximately 120–330 n. mi (Cruise 0001 occupied nine lines extending northward to Monterey Bay and cruise 0004 occupied eleven lines extending northward to Cape Mendocino; however, oblique plankton tows were made only in the core area) (Figures 1and 2).[1] The most seaward oblique plankton tow station, 90.0 120.0, was approximately 400 n. mi. west of Punta Baja, Baja California, Mexico. On all cruises, lines 76.7 and 80.0 extended seaward to station 100.0, lines 83.3 and 86.7 extended to station 110.0, and lines 90.0 and 93.3 extended to station 120.0 (Figures 1 and 2).

SAMPLING GEAR AND METHODS

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

The standard tow in 2000 was a double oblique haul to 210 m depth (to 15 m from the bottom in shallow areas) designed to filter a constant amount of water per depth interval (~ 2 m^3/m of depth) over the vertical range of most ichthyoplankters. Hauls were made at a ship speed of 1.5–2.0 knots and initiated by clamping the net to the towing cable above a 34 kg weight suspended below the surface. The net was lowered to ~ 210 m depth by paying out 300 m of wire at 50 m/minute (35 m of depth/minute). After fishing at depth for 30 seconds, the net was retrieved at 20 m/minute (14 m of depth/minute). The angle of stray was recorded every 30 seconds and maintained at 45° (± 3°) by adjusting ship speed and course. After reaching the surface, the nets were washed down and the samples preserved in 5% formalin buffered with sodium borate. At the beginning and end of each tow, readings were made from a flow meter suspended in the mouth of the starboard net. Detailed descriptions of gear and methods are given by Kramer et al. (1972) and Smith and Richardson (1977); Ohman and Smith (1995) provided summaries of historical CalCOFI zooplankton methods and calibration factors for the various gear types.

LABORATORY PROCEDURES

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

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[1]Beginning in 1981 we changed our designation of ordinal survey lines (those ending in "3" and "7") to an exact decimal notation. Thus, lines 77, 83, 87, 93, etc. were changed to 76.7, 83.3, 86.7, 93.3, etc. to indicate the spacing between cardinal lines (those ending in "0"). Scripps Institution of Oceanography continues to use the original designation for ordinal lines (Figures 1and 2 and see Univ. of Calif., SIO 2000, 2001).

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 2000. 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 2000 surveys could be identified to species. A total of 128 larval fish categories (including the unidentified and disintegrated categories) was identified for 2000: 105 to species, 17 to genus, and 4 to family or subfamily. Identifications were done in the Ichthyoplankton Ecology Laboratory of the Fisheries Resources Division by the senior author.

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:

Citharichthys spp. – small or damaged larvae, probably *C. sordidus* and/or *C. stigmaeus* lacking diagnostic characters.

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

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

Diaphus spp. – *Diaphus theta* is the dominant *Diaphus* species in the survey area and most, if not all, of the larvae from the SCB 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.

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

Lampanyctus spp. – most of the larvae in this category are small (< 5 mm), often poorly preserved, specimens belonging to the subgroup of *Lampanyctus,* characterized by small or absent pectoral fins in adults, placed by Zahuranec (2000) in the genus *Nannobrachium*; two *Nannobrachium* species, *N. ritteri* (formerly *Lampanyctus ritteri*) and *N. regale* (formerly *Lampanyctus regalis*), occur commonly in the present CalCOFI survey pattern; larvae of these species > ~ 5 mm have been identified since 1954; beginning in 1985, larvae of two other species, *N. bristori* and *N. hawaiiensis*, have been identified and included in the CalCOFI data base; in previous data reports these were referred to as *Lampanyctus* "niger" and *Lampanyctus* "no pectorals", respectively (see Moser 1996).

Lyopsetta exilis – see comment for Pleuronectidae.

Melamphaes spp.– small or damaged larvae, mostly *M. lugubris* and/or *M. parvus* lacking diagnostic characters.

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

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).

Ruscarius – *Artedius meanyi* was assigned to the genus *Ruscarius* by Begle (1989).

Scopelosaurus spp.– according to Balanov and Savinykh (1999) there are two valid species of this genus in the north Pacific, *S. adleri* and *S. harryi*, but only the former spawns in the California Current region; the generic designation is used here since we have not yet reexamined the historical CalCOFI samples to confirm the findings of Balanov and Savinykh (1999).

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

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

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

SPECIES SUMMARY

Of the five most abundant larval fish taxa in 2000, the Pacific sardine (*Sardinops sagax*) ranked first in abundance, with 21.3% of the total larvae, and 18th in occurrence, with 13.0% positive tows (Tables 2 and 3). Northern anchovy (*Engraulis mordax*) ranked second in abundance with 18.6% of the total larvae and tenth in occurrence (22.5% of the samples). Northern lampfish (*Stenobrachius leucopsarus*) ranked third with 9.9% of the larvae and first in occurrence (35.5 % of the stations). Rockfishes (*Sebastes* spp.) ranked fourth in abundance with 7.2% of the total larvae and third in frequency of occurrence with 30.5% positive tows. Pacific hake (*Merluccius productus*) ranked fifth in abundance (5.8% of total larvae) and seventh in occurrence (24.0% positive tows). The next five most abundant taxa were the California smoothtongue *Leuroglossus stilbius* (4.7% of total larvae), Panama lightfish *Vinciguerria lucetia* (4.2%), popeye blacksmelt *Bathylagus ochotensis* (3.5%), speckled sanddab *Citharichthys stigmaeus* (2.4%), and blue lanternfish *Tarletonbeania crenularis* (2.4%). These species ranked 2nd, tied for 13th, ranked 5th, and were tied for 8th in frequency of occurrence, respectively. The ten most abundant taxa comprised 80.1% of all the larvae collected on CalCOFI cruises in 2000. The remaining 19.9% was distributed among 118 other taxa (including the disintegrated and unidentified categories). Of the ten most abundant taxa, five are midwater species, two are coastal pelagic species, and three are coastal demersal taxa.

EXPLANATION OF TABLES

Table 1. This table lists for each tow the pertinent station and tow data, the volume of water filtered, the standard haul factor, the plankton volume, the percentage of sample sorted, and the total number of fish eggs and larvae. CalCOFI cruises are designated by four digits; the first two indicate the year and the second two the month. Within each cruise the data are listed in order of increasing line and station number (southerly and seaward directions); the order of station occupancy is shown on the station charts (Figures 1and 2). Stations are designated by two groups of numbers; the first set indicates the line and decimal fraction and the second set indicates the station and decimal fraction. 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. Time is listed as Pacific Standard Time at the start of each tow in 24-hour designation. 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 oblique 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 2000 listed in rank order.

Table 3. Pooled counts of all larval fish taxa taken on CalCOFI survey cruises in 2000 listed in rank order. Numbers are adjusted for percent sorted and standard haul factors.

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

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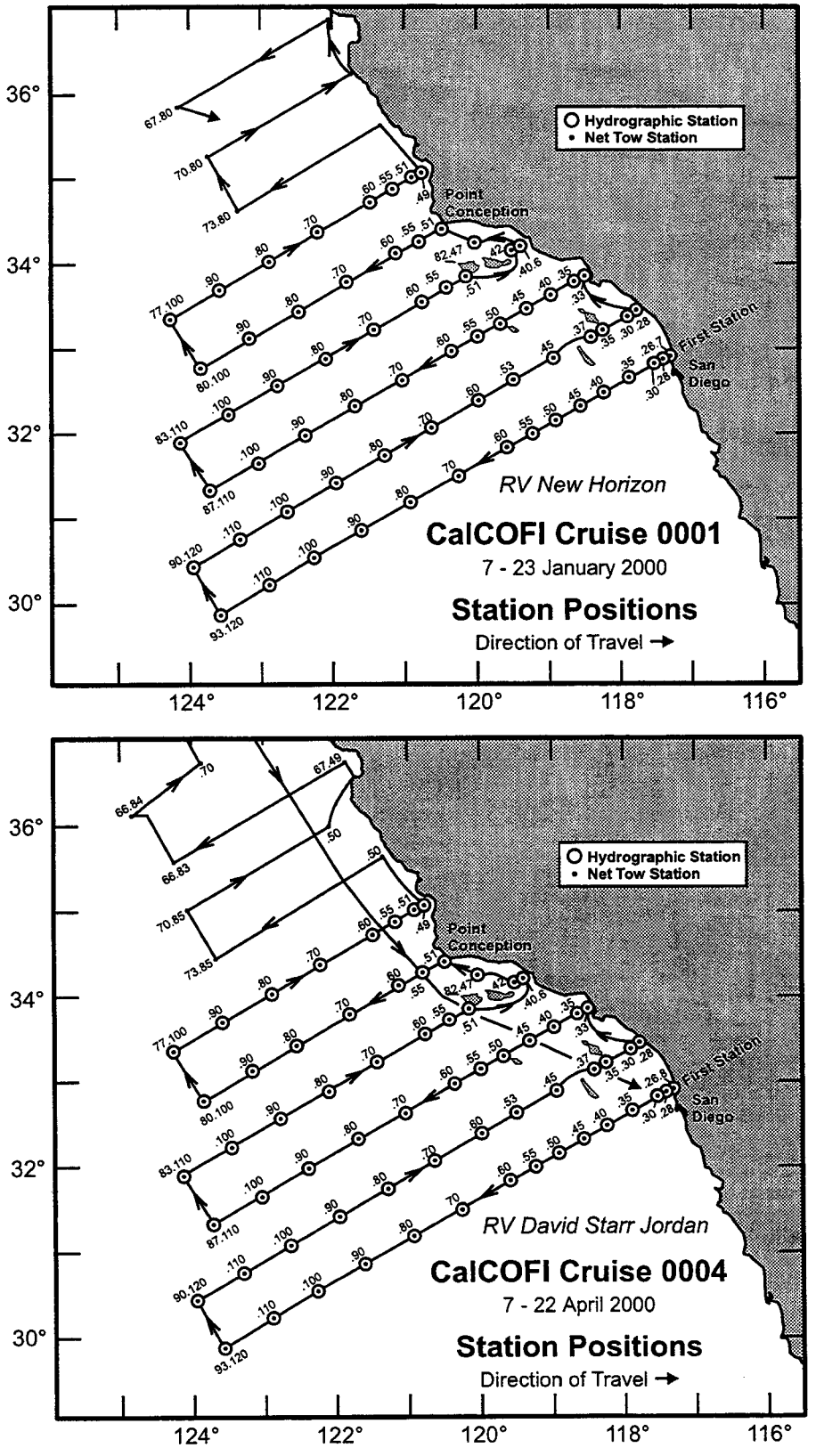

Figure 1. Stations and cruise tracks for CalCOFI cruises 0001 (above) and 0004 (below). Circles indicate hydrographic stations; dots indicate net tow stations.

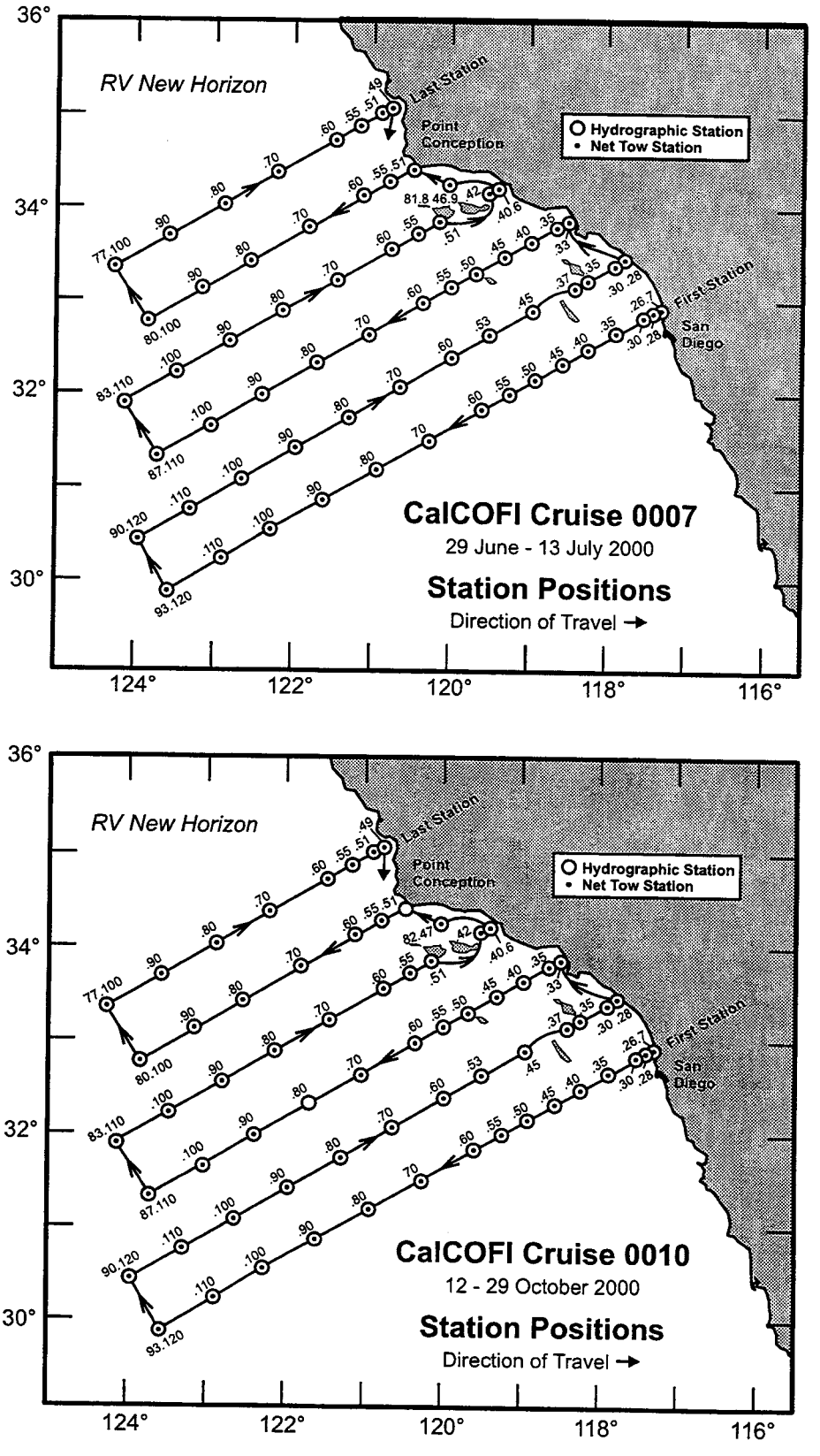

Figure 2. Stations and cruise tracks for CalCOFI cruises 0007 (above) and 0010 (below). Circles indicate hydrographic stations; dots indicate net tow stations.

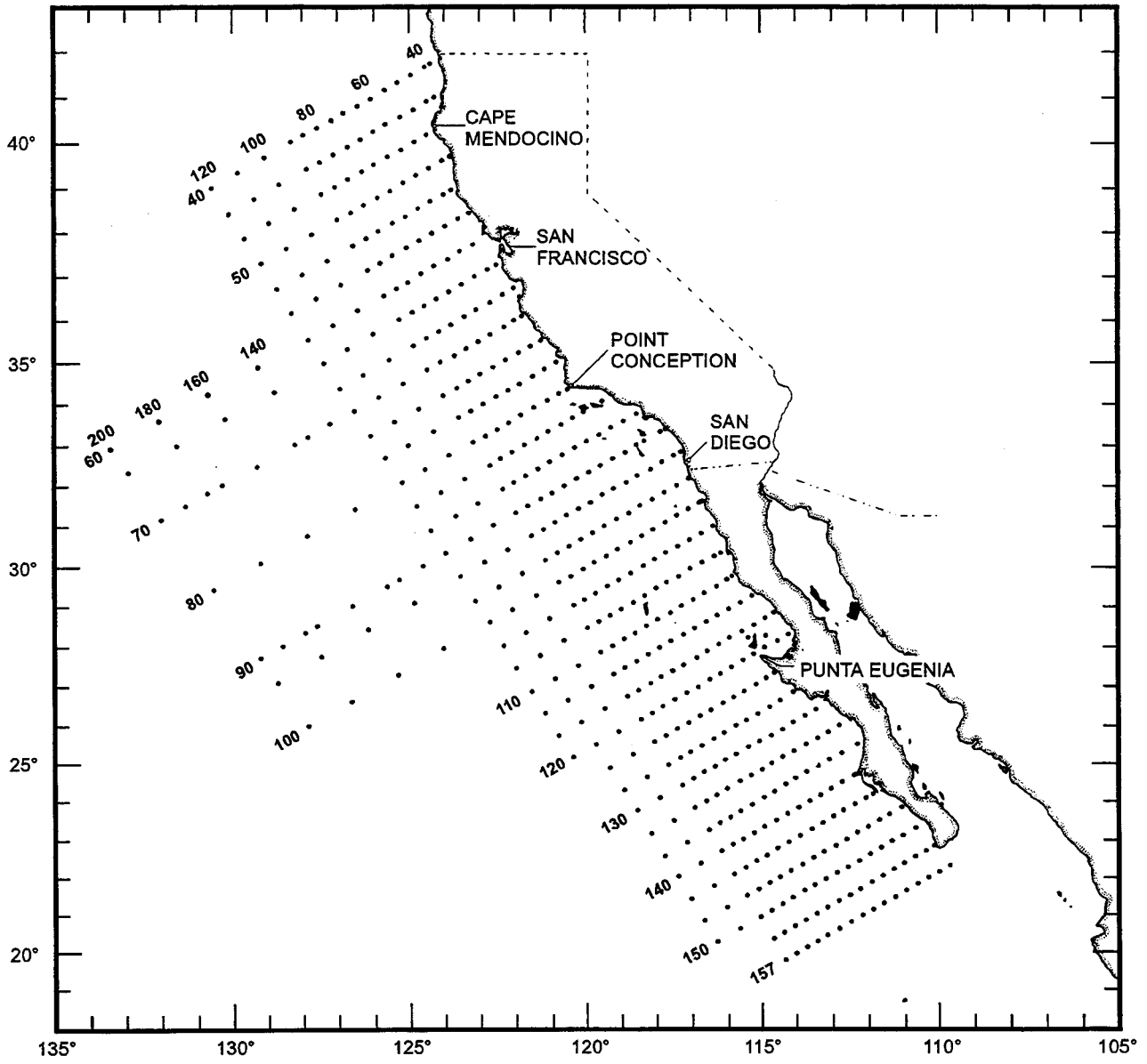

Figure 3. Basic station plan for CalCOFI Cruises

TABLE 1. Station and plankton tow data for CalCOFI cruises in 2000. 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 0001

Line	Station	Latitude (N) deg.	min.	Longitude (W) deg.	min.	Ship Code	Tow Date yr.	mo.	day	Time (PST)	Tow Depth (m)	Volume Water Strained	Standard Haul Factor	Plankton Volume	Percent Sorted	Total Larvae	Total Eggs
76.7	49.0	35	05.3	120	46.7	NH	00	01	23	0821	42	101	4.16	129	100.0	15	24
76.7	51.0	35	01.4	120	55.4	NH	00	01	23	0620	178	400	4.43	295	49.1	3	15
76.7	55.0	34	53.1	121	12.2	NH	00	01	23	0257	207	438	4.72	103	46.6	29	21
76.7	60.0	34	43.3	121	33.0	NH	00	01	22	2252	198	432	4.59	217	52.1	37	118
76.7	70.0	34	23.2	122	15.1	NH	00	01	22	1637	204	439	4.65	164	48.6	29	86
76.7	80.0	34	03.5	122	56.5	NH	00	01	22	0818	205	440	4.66	102	53.3	38	8
76.7	90.0	33	43.3	123	38.3	NH	00	01	22	0346	207	450	4.61	96	48.8	11	1
76.7	100.0	33	23.1	124	19.4	NH	00	01	21	2207	199	466	4.26	36	100.0	7	4
80.0	51.0	34	27.6	120	31.4	NH	00	01	20	0601	55	108	5.05	102	100.0	18	17
80.0	55.0	34	18.9	120	48.0	NH	00	01	20	0905	200	425	4.71	47	100.0	24	161
80.0	60.0	34	09.0	121	08.6	NH	00	01	20	1505	207	447	4.64	83	51.3	17	42
80.0	70.0	33	49.0	121	50.7	NH	00	01	20	2056	196	469	4.19	177	51.8	123	18
80.0	80.0	33	29.1	122	31.6	NH	00	01	21	0243	203	450	4.50	173	52.5	102	16
80.0	90.0	33	09.2	123	13.5	NH	00	01	21	0819	209	450	4.63	69	51.6	7	0
80.0	100.0	32	49.1	123	54.1	NH	00	01	21	1623	208	444	4.68	47	100.0	4	0
81.8	46.9	34	16.4	120	01.4	NH	00	01	19	2204	198	430	4.61	288	48.3	41	7
83.3	40.6	34	13.4	119	24.8	NH	00	01	19	1332	28	74	3.75	40	100.0	0	140
83.3	42.0	34	10.6	119	30.4	NH	00	01	19	1146	86	213	4.03	66	100.0	7	54
83.3	51.0	33	52.6	120	08.2	NH	00	01	19	0444	90	189	4.77	63	100.0	85	148
83.3	55.0	33	44.7	120	25.1	NH	00	01	19	0140	194	474	4.09	321	51.3	33	13
83.3	60.0	33	34.7	120	44.4	NH	00	01	18	2141	203	448	4.53	167	52.0	49	49
83.3	70.0	33	14.7	121	27.0	NH	00	01	18	1554	202	464	4.36	101	48.9	20	44
83.3	80.0	32	54.7	122	07.4	NH	00	01	18	0818	193	474	4.07	70	48.4	21	12
83.3	90.0	32	34.8	122	49.0	NH	00	01	18	0345	205	465	4.42	95	100.0	6	9
83.3	100.0	32	14.7	123	29.6	NH	00	01	17	2209	203	473	4.29	30	100.0	3	6
83.3	110.0	31	55.0	124	09.9	NH	00	01	17	1641	204	463	4.40	58	100.0	7	16
86.7	33.0	33	53.3	118	29.4	NH	00	01	15	0114	48	113	4.23	142	100.0	58	268
86.7	35.0	33	49.4	118	37.7	NH	00	01	15	0340	197	451	4.37	55	100.0	15	21
86.7	40.0	33	39.5	118	58.6	NH	00	01	15	0731	207	436	4.75	57	100.0	21	41
86.7	45.0	33	29.4	119	19.1	NH	00	01	15	1230	215	438	4.91	43	100.0	35	74
86.7	50.0	33	19.4	119	39.5	NH	00	01	15	1616	68	157	4.33	255	47.5	40	20

Table 1. (cont.)

CalCOFI Cruise 0001

Line	Station	Latitude (N) deg.	min.	Longitude (W) deg.	min.	Ship Code	Tow Date yr.	mo.	day	Time (PST)	Tow Depth (m)	Volume Water Strained	Standard Haul Factor	Plankton Volume	Percent Sorted	Total Larvae	Total Eggs
86.7	55.0	33	09.3	120	00.4	NH	00	01	15	2025	203	461	4.40	204	48.9	7	41
86.7	60.0	32	59.4	120	20.8	NH	00	01	16	0027	210	435	4.82	106	47.8	31	631
86.7	70.0	32	39.6	121	01.6	NH	00	01	16	0634	206	456	4.51	50	100.0	6	2
86.7	80.0	32	19.9	121	41.7	NH	00	01	16	1320	210	438	4.80	50	100.0	2	9
86.7	90.0	31	59.3	122	23.5	NH	00	01	16	1919	210	429	4.90	49	100.0	7	1
86.7	100.0	31	39.4	123	03.9	NH	00	01	17	0128	208	459	4.54	26	100.0	41	12
86.7	110.0	31	19.7	123	44.5	NH	00	01	17	0822	206	467	4.41	24	100.0	29	15
90.0	28.0	33	29.0	117	46.1	NH	00	01	14	1848	98	216	4.55	172	48.6	0	0
90.0	30.0	33	24.9	117	54.4	NH	00	01	14	1613	209	434	4.80	46	100.0	41	44
90.0	35.0	33	15.0	118	15.1	NH	00	01	14	1139	211	411	5.14	114	48.9	18	242
90.0	37.0	33	11.2	118	23.3	NH	00	01	14	0747	197	449	4.39	60	48.1	3	180
90.0	45.0	32	54.9	118	55.9	NH	00	01	14	0217	209	448	4.66	103	52.1	8	29
90.0	53.0	32	39.0	119	28.9	NH	00	01	12	2153	204	474	4.31	146	49.2	5	160
90.0	60.0	32	24.7	119	57.5	NH	00	01	12	1647	207	460	4.49	46	100.0	2	10
90.0	70.0	32	05.3	120	38.9	NH	00	01	12	0841	205	458	4.47	44	100.0	3	8
90.0	80.0	31	44.7	121	19.0	NH	00	01	12	0212	200	481	4.16	87	100.0	9	16
90.0	90.0	31	24.9	121	59.3	NH	00	01	11	1927	207	452	4.58	60	100.0	7	14
90.0	100.0	31	05.0	122	39.7	NH	00	01	11	1258	207	488	4.24	20	100.0	8	11
90.0	110.0	30	44.9	123	20.0	NH	00	01	11	0539	220	435	5.06	51	100.0	27	10
90.0	120.0	30	25.0	123	59.7	NH	00	01	10	2323	205	461	4.46	26	100.0	34	9
93.3	26.7	32	57.3	117	18.3	NH	00	01	07	1426	72	163	4.40	37	100.0	4	0
93.3	28.0	32	54.8	117	23.6	NH	00	01	07	1702	208	456	4.55	46	100.0	4	0
93.3	30.0	32	50.9	117	31.7	NH	00	01	07	2008	212	443	4.78	77	47.0	1	0
93.3	35.0	32	40.8	117	52.4	NH	00	01	08	0022	196	456	4.30	107	51.0	7	10
93.3	40.0	32	30.8	118	12.6	NH	00	01	08	0434	208	450	4.63	91	48.7	4	70
93.3	45.0	32	20.5	118	33.3	NH	00	01	08	0829	204	449	4.55	91	53.6	10	43
93.3	50.0	32	10.8	118	53.4	NH	00	01	08	1456	210	430	4.88	49	100.0	31	210
93.3	55.0	32	00.4	119	14.1	NH	00	01	08	1919	216	440	4.90	98	48.8	2	12
93.3	60.0	31	50.8	119	34.2	NH	00	01	08	2329	205	456	4.49	61	53.5	3	12
93.3	70.0	31	31.0	120	14.9	NH	00	01	09	0618	187	434	4.31	51	100.0	3	0
93.3	80.0	31	11.2	120	54.1	NH	00	01	09	1321	200	482	4.15	44	100.0	1	18
93.3	90.0	30	50.8	121	35.2	NH	00	01	09	2013	210	463	4.54	43	100.0	5	17
93.3	100.0	30	30.8	122	15.3	NH	00	01	10	0327	213	454	4.68	37	100.0	21	22
93.3	110.0	30	10.7	122	55.5	NH	00	01	10	0839	204	487	4.20	21	100.0	13	22
93.3	120.0	29	50.8	123	34.9	NH	00	01	10	1657	204	489	4.17	20	100.0	8	6

Table 1. (cont.)

CalCOFI Cruise 0004

Line	Station	Latitude (N) deg.	min.	Longitude (W) deg.	min.	Ship Code	Tow Date yr.	mo.	day	Time (PST)	Tow Depth (m)	Volume Water Strained	Standard Haul Factor	Plankton Volume	Percent Sorted	Total Larvae	Total Eggs
76.7	49.0	35	05.3	120	46.7	JD	00	04	22	1322	63	132	4.74	295	100.0	5	5
76.7	51.0	35	01.4	120	55.2	JD	00	04	22	0821	196	438	4.49	628	50.9	16	4
76.7	55.0	34	53.2	121	11.9	JD	00	04	22	0524	209	437	4.77	215	50.0	8	4
76.7	60.0	34	43.3	121	32.9	JD	00	04	22	0115	216	417	5.19	117	53.0	57	40
76.7	70.0	34	23.3	122	14.8	JD	00	04	21	1854	215	415	5.17	209	47.1	73	380
76.7	80.0	34	03.2	122	56.5	JD	00	04	21	1144	209	457	4.58	55	100.0	38	216
76.7	90.0	33	43.2	123	38.2	JD	00	04	21	0451	215	427	5.03	80	50.0	10	7
76.7	100.0	33	23.3	124	19.6	JD	00	04	20	2223	206	449	4.59	87	100.0	130	7
80.0	51.0	34	26.9	120	31.4	JD	00	04	19	0529	77	155	4.99	297	50.0	4	21
80.0	55.0	34	18.6	120	48.6	JD	00	04	19	0824	189	473	4.00	85	55.0	5	3
80.0	60.0	34	09.1	120	08.9	JD	00	04	19	1423	199	448	4.45	103	45.6	42	19
80.0	70.0	33	49.0	121	50.6	JD	00	04	19	2015	218	398	5.48	156	50.0	19	12
80.0	80.0	33	29.3	122	31.9	JD	00	04	20	0200	215	408	5.27	137	46.4	176	65
80.0	90.0	33	09.0	123	13.3	JD	00	04	20	0826	212	420	5.04	38	100.0	41	118
80.0	100.0	32	49.1	123	54.3	JD	00	04	20	1624	213	416	5.13	91	100.0	33	44
81.8	46.9	34	16.5	120	01.5	JD	00	04	19	0114	213	417	5.10	132	47.2	9	11
83.3	40.6	34	13.5	119	24.7	JD	00	04	18	1830	21	47	4.58	426	100.0	26	322
83.3	42.0	34	10.7	119	30.5	JD	00	04	18	2026	193	378	5.10	198	48.0	46	54
83.3	51.0	33	52.6	120	08.1	JD	00	04	18	1209	215	421	5.11	124	51.9	29	153
83.3	55.0	33	44.7	120	24.6	JD	00	04	18	0814	216	420	5.14	150	49.2	21	114
83.3	60.0	33	34.5	120	45.4	JD	00	04	18	0358	163	544	2.99	127	52.1	23	128
83.3	70.0	33	14.6	121	26.5	JD	00	04	17	2218	178	537	3.31	73	46.1	145	255
83.3	80.0	32	54.6	122	07.8	JD	00	04	17	1619	220	438	5.02	43	100.0	8	17
83.3	90.0	32	34.7	122	48.7	JD	00	04	17	0827	217	429	5.05	42	100.0	85	120
83.3	100.0	32	14.6	123	29.6	JD	00	04	17	0117	213	436	4.87	48	100.0	41	69
83.3	110.0	31	54.7	124	10.2	JD	00	04	16	1937	213	420	5.08	50	100.0	30	18
86.7	33.0	33	53.4	118	29.4	JD	00	04	14	0331	48	97	4.99	445	51.1	12	177
86.7	35.0	33	49.5	118	38.0	JD	00	04	14	0555	209	404	5.16	163	51.5	49	70
86.7	40.0	33	39.4	118	58.6	JD	00	04	14	0907	215	402	5.35	92	51.3	21	29
86.7	45.0	33	29.6	119	19.3	JD	00	04	14	1527	214	408	5.25	147	46.6	32	9
86.7	50.0	33	19.4	119	39.8	JD	00	04	14	1903	54	119	4.57	160	100.0	44	111
86.7	55.0	33	09.5	120	00.4	JD	00	04	14	2246	209	399	5.25	341	49.2	53	27
86.7	60.0	32	59.5	120	20.9	JD	00	04	15	0244	212	409	5.18	132	46.2	71	329
86.7	70.0	32	39.4	121	02.0	JD	00	04	15	0816	210	403	5.22	112	53.3	290	754
86.7	80.0	32	19.4	121	42.8	JD	00	04	15	1622	217	405	5.37	37	100.0	30	136

Table 1. (cont.)

CalCOFI Cruise 0004

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	90.0	31	59.4	122	23.6	JD	00	04	15	2351	215	430	5.01	58	100.0	27	30
86.7	100.0	31	39.4	123	04.1	JD	00	04	16	0600	211	410	5.14	44	100.0	49	67
86.7	110.0	31	19.4	123	44.5	JD	00	04	16	1307	207	449	4.62	22	100.0	19	33
90.0	28.0	33	29.1	117	46.1	JD	00	04	13	2023	211	385	5.47	156	50.0	21	207
90.0	30.0	33	25.0	117	54.5	JD	00	04	13	1530	204	426	4.77	84	52.7	65	50
90.0	35.0	33	14.9	118	15.1	JD	00	04	13	1140	214	408	5.25	64	100.0	266	114
90.0	37.0	33	11.1	118	23.2	JD	00	04	13	0807	212	404	5.24	67	100.0	238	694
90.0	45.0	32	55.1	118	56.3	JD	00	04	13	0240	210	411	5.10	151	46.7	42	584
90.0	53.0	32	39.1	119	28.9	JD	00	04	12	2116	211	414	5.10	157	52.3	131	58
90.0	60.0	32	25.1	119	57.9	JD	00	04	12	1616	213	409	5.21	66	100.0	127	38
90.0	70.0	32	05.1	120	38.2	JD	00	04	12	0834	214	420	5.08	81	100.0	55	28
90.0	80.0	31	45.1	121	18.9	JD	00	04	12	0000	211	435	4.86	120	100.0	374	272
90.0	90.0	31	25.1	121	59.5	JD	00	04	11	1744	214	388	5.53	83	100.0	316	103
90.0	100.0	31	05.1	122	39.9	JD	00	04	11	0928	210	421	4.99	52	100.0	62	92
90.0	110.0	30	45.1	123	20.0	JD	00	04	11	0409	213	424	5.02	57	100.0	38	60
90.0	120.0	30	25.0	123	59.7	JD	00	04	10	2207	214	408	5.24	17	100.0	61	17
93.3	26.7	32	57.4	117	18.3	JD	00	04	07	1535	33	90	3.72	156	100.0	22	335
93.3	28.0	32	54.8	117	23.7	JD	00	04	07	1806	202	429	4.70	96	48.7	30	59
93.3	30.0	32	50.8	117	31.9	JD	00	04	07	2107	208	398	5.23	121	47.9	96	8
93.3	35.0	32	40.9	117	52.4	JD	00	04	08	0113	213	400	5.33	112	48.8	355	92
93.3	40.0	32	30.9	118	12.6	JD	00	04	08	0528	212	392	5.41	102	52.5	57	146
93.3	45.0	32	20.9	118	33.1	JD	00	04	08	0855	216	402	5.36	50	100.0	37	511
93.3	50.0	32	10.9	118	53.3	JD	00	04	08	1504	197	484	4.07	31	100.0	67	91
93.3	55.0	32	00.8	119	14.0	JD	00	04	08	1915	208	452	4.60	84	50.0	39	195
93.3	60.0	31	50.8	119	34.0	JD	00	04	08	2323	197	460	4.29	83	52.6	39	39
93.3	70.0	31	30.9	120	14.8	JD	00	04	09	0539	212	425	4.99	85	52.7	13	37
93.3	80.0	31	11.1	120	55.2	JD	00	04	09	1256	213	428	4.97	35	100.0	6	41
93.3	90.0	30	50.8	121	35.4	JD	00	04	09	1913	216	427	5.06	30	100.0	11	79
93.3	100.0	30	30.9	122	15.4	JD	00	04	10	0124	213	423	5.04	33	100.0	22	638
93.3	110.0	30	10.6	122	54.9	JD	00	04	10	0826	212	441	4.82	16	100.0	11	217
93.3	120.0	29	50.9	123	35.1	JD	00	04	10	1604	209	426	4.91	28	100.0	18	443

Table 1. (cont.)

CalCOFI Cruise 0007

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	00	07	13	0940	53	120	4.41	556	46.2	7	36
76.7	51.0	35	01.3	120	55.2	NH	00	07	13	0710	194	432	4.49	301	49.2	2	3
76.7	55.0	34	53.4	121	11.9	NH	00	07	13	0344	211	428	4.93	344	53.0	7	1
76.7	60.0	34	43.3	121	32.9	NH	00	07	12	2319	205	453	4.52	292	53.0	19	14
76.7	70.0	34	23.3	122	14.9	NH	00	07	12	1713	211	416	5.08	156	52.3	5	16
76.7	80.0	34	03.3	122	56.5	NH	00	07	12	1024	200	457	4.38	70	53.1	5	5
76.7	90.0	33	43.4	123	38.1	NH	00	07	12	0423	214	425	5.04	317	48.8	4	6
76.7	100.0	33	23.2	124	19.4	NH	00	07	11	2225	209	462	4.53	30	100.0	53	15
80.0	51.0	34	26.9	120	31.4	NH	00	07	10	0757	78	170	4.59	912	47.7	2	44
80.0	55.0	34	18.9	120	48.0	NH	00	07	10	1134	214	435	4.92	83	52.7	3	5
80.0	60.0	34	09.0	121	09.0	NH	00	07	10	1559	187	461	4.05	119	49.0	0	2
80.0	70.0	33	49.0	121	50.5	NH	00	07	10	2236	213	441	4.84	150	48.4	7	1
80.0	80.0	33	29.0	122	32.2	NH	00	07	11	0430	213	447	4.77	27	100.0	7	3
80.0	90.0	33	08.9	123	13.3	NH	00	07	11	1035	207	465	4.45	34	100.0	2	12
80.0	100.0	32	49.0	123	54.4	NH	00	07	11	1616	209	437	4.78	30	100.0	5	7
81.8	46.9	34	16.5	120	01.5	NH	00	07	10	0358	214	407	5.24	535	49.5	1	7
83.3	40.6	34	13.5	119	24.7	NH	00	07	09	2256	27	70	3.85	285	100.0	3	727
83.3	42.0	34	10.6	119	30.5	NH	00	07	09	2047	196	443	4.42	375	46.3	2	47
83.3	51.0	33	52.7	120	08.0	NH	00	07	09	1339	206	455	4.53	114	51.9	1	8
83.3	55.0	33	44.7	120	24.6	NH	00	07	09	0920	205	471	4.36	87	46.3	4	2
83.3	60.0	33	34.7	120	45.4	NH	00	07	09	0557	206	433	4.77	129	51.7	4	16
83.3	70.0	33	14.6	121	26.6	NH	00	07	08	2344	217	428	5.07	56	100.0	3	0
83.3	80.0	32	54.7	122	07.7	NH	00	07	08	1722	205	444	4.62	122	51.8	1	0
83.3	90.0	32	34.6	122	48.7	NH	00	07	08	1123	202	464	4.35	26	100.0	46	20
83.3	100.0	32	14.8	123	29.4	NH	00	07	08	0534	208	437	4.75	34	100.0	6	101
83.3	110.0	31	54.7	124	10.1	NH	00	07	07	2343	206	448	4.60	51	100.0	75	115
86.7	33.0	33	53.4	118	29.4	NH	00	07	05	1549	44	120	3.67	702	47.6	2	11
86.7	35.0	33	49.4	118	37.7	NH	00	07	05	1810	199	448	4.45	237	50.9	6	0
86.7	40.0	33	39.4	118	58.4	NH	00	07	05	2207	208	442	4.72	272	48.3	0	0
86.7	45.0	33	29.3	119	19.6	NH	00	07	06	0210	186	488	3.80	322	49.0	1	0
86.7	50.0	33	19.2	119	39.9	NH	00	07	06	0545	59	164	3.60	2600	51.7	0	0
86.7	55.0	33	08.6	120	01.1	NH	00	07	06	0835	198	458	4.33	109	48.0	0	0
86.7	60.0	32	59.4	120	21.0	NH	00	07	06	1403	199	483	4.12	190	51.0	3	0
86.7	70.0	32	39.4	121	01.9	NH	00	07	06	1918	206	465	4.43	47	100.0	16	4
86.7	80.0	32	19.4	121	42.8	NH	00	07	07	0052	213	464	4.58	211	47.9	5	0

Table 1. (cont.)

CalCOFI Cruise 0007

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	90.0	31	59.4	122	23.6	NH	00	07	07	0628	207	437	4.75	165	100.0	14	6
86.7	100.0	31	39.3	123	04.1	NH	00	07	07	1210	213	452	4.72	162	100.0	4	6
86.7	110.0	31	19.4	123	44.5	NH	00	07	07	1742	207	426	4.87	26	100.0	43	31
90.0	28.0	33	29.0	117	46.1	NH	00	07	05	0850	132	296	4.47	149	52.2	0	16
90.0	30.0	33	25.2	117	54.4	NH	00	07	05	0603	207	447	4.64	139	46.7	1	0
90.0	35.0	33	15.2	118	15.2	NH	00	07	05	0147	210	424	4.96	177	48.0	1	0
90.0	37.0	33	11.0	118	23.2	NH	00	07	04	2247	203	461	4.39	306	49.6	4	0
90.0	45.0	32	55.1	118	56.1	NH	00	07	04	1725	214	439	4.87	210	52.1	0	0
90.0	53.0	32	39.0	119	28.9	NH	00	07	04	1157	209	409	5.11	259	50.9	3	0
90.0	60.0	32	24.9	119	57.7	NH	00	07	04	0641	208	457	4.54	160	49.3	7	5
90.0	70.0	32	05.0	120	38.3	NH	00	07	03	2239	211	470	4.48	206	49.4	22	2
90.0	80.0	31	45.1	121	18.9	NH	00	07	03	1548	212	417	5.09	96	100.0	6	33
90.0	90.0	31	24.7	121	59.6	NH	00	07	03	0820	206	479	4.30	88	100.0	2	14
90.0	100.0	31	05.1	122	39.7	NH	00	07	03	0133	211	455	4.63	108	100.0	7	158
90.0	110.0	30	45.1	123	20.0	NH	00	07	02	1848	210	405	5.18	62	100.0	2	23
90.0	120.0	30	25.0	123	59.9	NH	00	07	02	1215	214	447	4.78	31	100.0	12	245
93.3	26.7	32	57.3	117	18.3	NH	00	06	29	1132	81	195	4.15	154	46.6	6	159
93.3	28.0	32	54.8	117	23.7	NH	00	06	29	1409	211	445	4.74	294	51.1	0	9
93.3	30.0	32	50.8	117	31.8	NH	00	06	29	1643	204	435	4.69	310	51.1	3	1
93.3	35.0	32	40.8	117	52.4	NH	00	06	29	2035	192	467	4.11	392	50.2	4	0
93.3	40.0	32	30.8	118	12.7	NH	00	06	30	0028	207	451	4.59	162	49.3	3	4
93.3	45.0	32	20.8	118	33.2	NH	00	06	30	0429	211	422	5.00	220	48.3	2	5
93.3	50.0	32	11.1	118	53.0	NH	00	06	30	0826	199	477	4.18	147	48.5	4	1
93.3	55.0	32	00.8	119	14.0	NH	00	06	30	1406	214	457	4.68	243	48.6	1	1
93.3	60.0	31	50.7	119	34.2	NH	00	06	30	1807	208	426	4.89	317	48.1	9	23
93.3	70.0	31	30.8	120	14.8	NH	00	07	01	0008	212	441	4.81	77	52.9	52	113
93.3	80.0	31	10.8	120	55.1	NH	00	07	01	0602	200	472	4.23	32	100.0	173	131
93.3	90.0	30	50.8	121	35.3	NH	00	07	01	1216	211	443	4.77	36	100.0	49	116
93.3	100.0	30	30.8	122	15.5	NH	00	07	01	1819	204	433	4.71	25	100.0	191	65
93.3	110.0	30	10.8	122	55.4	NH	00	07	02	0015	208	449	4.64	80	100.0	58	65
93.3	120.0	29	50.9	123	35.2	NH	00	07	02	0617	205	452	4.54	35	100.0	33	286

Table 1. (cont.)

CalCOFI Cruise 0010

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	05.4	120	46.6	NH	00	10	29	2051	49	124	3.92	169	100.0	53	62
76.7	51.0	35	01.4	120	55.2	NH	00	10	29	1839	214	450	4.77	447	49.2	8	1
76.7	55.0	34	53.3	121	11.9	NH	00	10	29	1512	194	499	3.88	106	50.9	21	6
76.7	60.0	34	43.4	121	32.9	NH	00	10	29	1048	207	467	4.43	62	51.7	12	9
76.7	70.0	34	23.2	122	14.7	NH	00	10	29	0422	202	503	4.02	189	50.5	7	1
76.7	80.0	34	03.2	122	56.3	NH	00	10	28	2205	213	459	4.64	50	100.0	2	3
76.7	90.0	33	43.4	123	38.0	NH	00	10	28	1626	212	469	4.53	96	51.1	0	4
76.7	100.0	33	23.3	124	19.4	NH	00	10	28	1102	199	468	4.26	17	100.0	3	14
80.0	55.0	34	19.1	120	48.0	NH	00	10	26	1444	209	438	4.77	89	53.8	17	46
80.0	60.0	34	08.8	121	09.1	NH	00	10	26	1848	206	484	4.25	52	48.0	2	2
80.0	70.0	33	48.7	121	49.9	NH	00	10	27	0836	212	500	4.24	62	51.6	2	2
80.0	80.0	33	29.0	122	32.0	NH	00	10	27	1630	202	493	4.10	118	48.2	0	1
80.0	90.0	33	09.0	123	13.3	NH	00	10	27	2228	207	456	4.55	59	48.1	8	12
80.0	100.0	32	49.0	123	54.3	NH	00	10	28	0449	204	467	4.37	47	100.0	18	9
81.8	46.9	34	16.5	120	01.6	NH	00	10	26	0349	197	464	4.26	82	52.6	31	165
83.3	40.6	34	13.5	119	24.8	NH	00	10	25	2238	21	62	3.40	16	100.0	8	263
83.3	42.0	34	10.7	119	30.7	NH	00	10	25	2044	100	228	4.38	70	100.0	54	242
83.3	51.0	33	52.7	120	08.1	NH	00	10	25	0906	85	185	4.58	76	100.0	19	229
83.3	55.0	33	44.7	120	24.9	NH	00	10	25	0543	197	454	4.34	86	51.2	8	3
83.3	60.0	33	34.7	120	45.3	NH	00	10	24	2129	199	471	4.22	117	47.2	17	2
83.3	70.0	33	14.7	121	26.5	NH	00	10	24	1551	199	460	4.31	91	47.6	2	3
83.3	80.0	32	54.1	122	07.1	NH	00	10	24	0845	208	441	4.70	45	100.0	11	5
83.3	90.0	32	34.7	122	48.6	NH	00	10	24	0359	199	458	4.35	39	100.0	25	3
83.3	100.0	32	14.6	123	29.4	NH	00	10	23	2210	204	462	4.41	39	100.0	12	4
83.3	110.0	31	54.6	124	10.2	NH	00	10	23	1624	205	482	4.26	35	100.0	9	9
86.7	33.0	33	53.3	118	29.6	NH	00	10	19	1634	38	97	3.90	145	100.0	27	56
86.7	35.0	33	49.5	118	37.9	NH	00	10	19	1859	210	426	4.93	99	47.6	8	6
86.7	40.0	33	39.3	118	58.6	NH	00	10	20	0226	209	434	4.81	157	48.5	2	0
86.7	45.0	33	29.6	119	19.0	NH	00	10	20	0628	198	443	4.46	61	48.1	33	4
86.7	50.0	33	18.9	119	39.7	NH	00	10	20	0948	50	112	4.42	71	100.0	16	12
86.7	55.0	33	09.5	120	00.4	NH	00	10	20	1437	211	439	4.81	16	100.0	3	0
86.7	60.0	32	59.4	120	21.0	NH	00	10	20	1837	224	441	5.09	43	100.0	4	1
86.7	70.0	32	39.3	121	02.1	NH	00	10	21	0024	211	477	4.42	59	46.4	2	0
86.7	90.0	31	59.6	122	23.6	NH	00	10	22	1936	211	455	4.64	81	100.0	7	4
86.7	100.0	31	39.4	123	04.3	NH	00	10	23	0153	210	459	4.58	52	100.0	23	2

Table 1. (cont.)

CalCOFI Cruise 0010

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	110.0	31	19.4	123	44.7	NH	00	10	23	0833	205	483	4.25	23	100.0	17	10
90.0	28.0	33	29.0	117	46.1	NH	00	10	19	0952	47	125	3.79	80	100.0	5	105
90.0	30.0	33	25.1	117	54.3	NH	00	10	19	0207	212	442	4.79	57	100.0	6	56
90.0	35.0	33	15.1	118	15.0	NH	00	10	18	2146	203	445	4.55	106	48.9	10	0
90.0	37.0	33	10.9	118	23.3	NH	00	10	18	1901	207	432	4.78	83	47.2	6	0
90.0	45.0	32	54.6	118	55.0	NH	00	10	18	0838	207	459	4.51	57	46.1	3	2
90.0	53.0	32	39.2	119	29.0	NH	00	10	18	0259	211	461	4.57	43	100.0	10	3
90.0	60.0	32	25.1	119	57.6	NH	00	10	17	2138	217	440	4.93	100	47.7	8	0
90.0	70.0	32	05.1	120	38.3	NH	00	10	17	0908	215	428	5.03	30	100.0	9	14
90.0	80.0	31	45.1	121	18.8	NH	00	10	17	0416	207	446	4.65	40	100.0	11	6
90.0	90.0	31	25.0	121	59.3	NH	00	10	16	2220	206	453	4.54	82	100.0	11	22
90.0	100.0	31	05.0	122	39.7	NH	00	10	16	1642	209	467	4.48	45	100.0	30	10
90.0	110.0	30	45.1	123	19.9	NH	00	10	16	1056	211	457	4.62	28	100.0	7	20
90.0	120.0	30	25.1	123	59.9	NH	00	10	16	0451	200	487	4.11	23	100.0	27	29
93.3	26.7	32	57.4	117	18.3	NH	00	10	12	1348	93	267	3.49	60	100.0	26	18
93.3	28.0	32	54.8	117	23.7	NH	00	10	12	1631	230	403	5.72	25	100.0	1	2
93.3	30.0	32	50.8	117	31.9	NH	00	10	12	1936	213	440	4.83	57	100.0	4	0
93.3	35.0	32	41.2	117	52.5	NH	00	10	13	0733	208	457	4.55	13	100.0	8	0
93.3	40.0	32	30.8	118	12.9	NH	00	10	13	1438	212	446	4.77	9	100.0	0	0
93.3	45.0	32	20.7	118	33.3	NH	00	10	13	1826	210	444	4.73	36	100.0	6	0
93.3	50.0	32	10.8	118	53.6	NH	00	10	13	2214	212	420	5.06	45	100.0	11	0
93.3	55.0	32	00.6	119	14.0	NH	00	10	14	0236	214	471	4.54	38	100.0	15	5
93.3	60.0	31	51.0	119	34.4	NH	00	10	14	0927	206	456	4.52	22	100.0	2	10
93.3	70.0	31	30.8	120	14.7	NH	00	10	14	1703	215	453	4.74	24	100.0	1	4
93.3	80.0	31	10.9	120	55.2	NH	00	10	14	2255	216	450	4.78	38	100.0	3	2
93.3	90.0	30	50.8	121	35.5	NH	00	10	15	0500	199	484	4.10	27	100.0	10	46
93.3	100.0	30	30.9	122	15.6	NH	00	10	15	1058	206	463	4.45	19	100.0	9	15
93.3	110.0	30	10.7	122	55.5	NH	00	10	15	1652	210	458	4.59	20	100.0	14	9
93.3	120.0	29	50.9	123	35.2	NH	00	10	15	2227	209	462	4.52	22	100.0	18	2990

TABLE 2. Pooled occurrences of fish larvae taken on CalCOFI cruises in 2000.

Rank	Taxon	Occurrences
1	*Stenobrachius leucopsarus*	93
2	*Leuroglossus stilbius*	81
3	*Sebastes* spp.	80
4	*Protomyctophum crockeri*	71
5	*Bathylagus ochotensis*	70
6	*Symbolophorus californiensis*	65
7	*Merluccius productus*	63
8	*Citharichthys stigmaeus*	62
8	*Tarletonbeania crenularis*	62
10	*Engraulis mordax*	59
11	*Bathylagus wesethi*	51
12	*Citharichthys sordidus*	47
13	*Diogenichthys atlanticus*	43
13	*Vinciguerria lucetia*	43
15	*Ceratoscopelus townsendi*	39
16	*Cyclothone signata*	38
16	*Nannobrachium ritteri*	38
18	*Sardinops sagax*	34
19	*Lampanyctus* spp.	33
20	*Triphoturus mexicanus*	27
20	*Idiacanthus antrostomus*	27
22	*Sebastes jordani*	22
23	*Melamphaes lugubris*	19
24	*Diaphus* spp.	18
24	*Danaphos oculatus*	18
26	*Trachurus symmetricus*	17
26	*Chauliodus macouni*	17
26	*Tetragonurus cuvieri*	17
26	*Argyropelecus sladeni*	17
30	*Lestidiops ringens*	15
31	*Notoscopelus resplendens*	13
31	*Sebastes diploproa*	13
33	*Vinciguerria poweriae*	12
34	*Lyopsetta exilis*	10
35	*Arctozenus risso*	9
36	*Hygophum reinhardtii*	8
36	*Sebastes paucispinis*	8
36	*Cololabis saira*	8
36	*Microstoma* spp.	8
36	*Nannobrachium hawaiiensis*	8
41	*Stomias atriventer*	7
41	*Argentina sialis*	7
41	Disintegrated fish larvae	7
44	*Melamphaes parvus*	6
44	*Trachipterus altivelis*	6
44	*Electrona risso*	6
44	*Poromitra crassiceps*	6
44	*Oxyjulis californica*	6
44	*Aristostomias scintillans*	6
44	*Coryphopterus nicholsii*	6

TABLE 2. (cont.)

Rank	Taxon	Occurrences
44	*Argyropelecus affinis*	6
44	*Nansenia candida*	6
53	*Notolychnus valdiviae*	5
53	*Nannobrachium regale*	5
53	*Sternoptyx* spp.	5
53	*Melamphaes* spp.	5
53	*Cyclothone acclinidens*	5
53	*Bathylagus pacificus*	5
53	*Scopelosaurus* spp.	5
53	*Sebastolobus* spp.	5
53	*Icichthys lockingtoni*	5
62	*Ophidion scrippsae*	4
62	*Icelinus quadriseriatus*	4
62	*Scorpaenichthys marmoratus*	4
62	*Sebastes levis*	4
62	*Cyclothone* spp.	4
62	Myctophidae	4
62	*Genyonemus lineatus*	4
69	*Cataetyx rubrirostris*	3
69	*Sebastes aurora*	3
69	*Argyropelecus hemigymnus*	3
69	*Paralichthys californicus*	3
69	*Scopelarchus analis*	3
69	*Chiasmodon niger*	3
69	*Typhlogobius californiensis*	3
76	*Seriphus politus*	2
76	Paralepididae	2
76	*Rosenblattichthys volucris*	2
76	*Benthalbella dentata*	2
76	*Rathbunella* spp.	2
76	*Hypsoblennius* spp.	2
76	*Lampadena urophaos*	2
76	*Ichthyococcus irregularis*	2
76	*Bathylagus milleri*	2
76	*Eopsetta jordani*	2
76	*Parophrys vetulus*	2
76	*Parvilux ingens*	2
76	*Semicossyphus pulcher*	2
76	*Melamphaes simus*	2
76	*Howella* spp.	2
76	*Paralabrax* spp.	2
76	*Scopelogadus bispinosus*	2
76	*Liparis mucosus*	2
76	*Zaniolepis latipinnis*	2
76	*Ruscarius meanyi*	2
76	*Oxylebius pictus*	2
98	*Lythrypnus zebra*	1
98	*Argyropelecus* spp.	1
98	*Sebastes goodei*	1
98	*Sphyraena argentea*	1
98	*Brosmophycis marginata*	1

TABLE 2. (cont.)

Rank	Taxon	Occurrences
98	*Scomber japonicus*	1
98	*Psenes pellucidus*	1
98	*Zaniolepis frenata*	1
98	*Citharichthys* spp.	1
98	Unidentified fish larvae	1
98	*Macroramphosus gracilis*	1
98	*Microstomus pacificus*	1
98	*Symphurus atricaudus*	1
98	*Cyema atrum*	1
98	*Tactostoma macropus*	1
98	*Caristius maderensis*	1
98	*Lampanyctus steinbecki*	1
98	*Chromis punctipinnis*	1
98	*Scopeloberyx robustus*	1
98	*Oneirodes* spp.	1
98	*Xeneretmus latifrons*	1
98	*Lepidogobius lepidus*	1
98	*Rathbunella alleni*	1
98	*Argyropelecus lychnus*	1
98	Melanostomiinae	1
98	Stichaeidae	1
98	*Neoclinus* spp.	1
98	*Artedius lateralis*	1
98	*Brama japonica*	1
98	*Hypsoblennius jenkinsi*	1
98	*Lythrypnus dalli*	1
98	*Odontopyxis trispinosa*	1
	Total	1626

TABLE 3. Pooled counts of fish larvae taken on CalCOFI cruises in 2000. Counts are adjusted for percent of sample sorted and standard haul factor (see text).

Rank	Taxon	Count
1	*Sardinops sagax*	11082
2	*Engraulis mordax*	9630
3	*Stenobrachius leucopsarus*	5129
4	*Sebastes* spp.	3763
5	*Merluccius productus*	3011
6	*Leuroglossus stilbius*	2437
7	*Vinciguerria lucetia*	2201
8	*Bathylagus ochotensis*	1809
9	*Citharichthys stigmaeus*	1263
10	*Tarletonbeania crenularis*	1243
11	*Symbolophorus californiensis*	917
12	*Citharichthys sordidus*	815
13	*Bathylagus wesethi*	811
14	*Ceratoscopelus townsendi*	763
15	*Protomyctophum crockeri*	588
16	*Diogenichthys atlanticus*	405
17	*Cyclothone signata*	401
18	*Trachurus symmetricus*	378
19	*Nannobrachium ritteri*	372
20	*Lampanyctus* spp.	343
21	*Sebastes jordani*	320
22	*Triphoturus mexicanus*	316
23	*Idiacanthus antrostomus*	264
24	*Vinciguerria poweriae*	172
25	*Diaphus* spp.	169
26	*Lyopsetta exilis*	150
27	*Tetragonurus cuvieri*	134
28	*Chauliodus macouni*	124
29	*Melamphaes lugubris*	121
30	*Sebastes diploproa*	120
31	*Lestidiops ringens*	119
31	*Danaphos oculatus*	119
33	*Argyropelecus sladeni*	112
34	*Argentina sialis*	94
35	*Sebastes paucispinis*	74
36	*Notoscopelus resplendens*	73
36	*Nannobrachium hawaiiensis*	73
38	*Parophrys vetulus*	71
39	*Hygophum reinhardtii*	70
40	*Genyonemus lineatus*	62
41	*Icelinus quadriseriatus*	60
42	*Bathylagus pacificus*	58
43	*Oxyjulis californica*	57
44	*Poromitra crassiceps*	50
44	*Coryphopterus nicholsii*	50
46	*Arctozenus risso*	49
47	*Microstoma* spp.	46
48	*Nansenia candida*	45
48	Disintegrated fish larvae	45

TABLE 3. (cont.)

Rank	Taxon	Count
50	*Cololabis saira*	44
50	*Aristostomias scintillans*	44
52	*Sebastolobus* spp.	43
52	*Trachipterus altivelis*	43
54	*Stomias atriventer*	42
55	*Electrona risso*	41
56	*Melamphaes parvus*	37
57	*Icichthys lockingtoni*	35
58	*Argyropelecus affinis*	34
59	*Sebastes levis*	31
59	*Nannobrachium regale*	31
61	*Melamphaes* spp.	30
62	Stichaeidae	29
62	*Scorpaenichthys marmoratus*	29
62	*Zaniolepis latipinnis*	29
62	*Notolychnus valdiviae*	29
66	*Sternoptyx* spp.	28
66	*Sebastes aurora*	28
68	*Cataetyx rubrirostris*	27
69	*Typhlogobius californiensis*	26
69	*Seriphus politus*	26
71	*Scopelosaurus* spp.	24
71	*Cyclothone acclinidens*	24
73	*Ophidion scrippsae*	22
73	*Cyclothone* spp.	22
75	*Rathbunella alleni*	21
76	Myctophidae	20
77	*Zaniolepis frenata*	19
77	*Paralabrax* spp.	19
77	*Lampadena urophaos*	19
77	*Scopelarchus analis*	19
81	*Paralichthys californicus*	18
81	*Eopsetta jordani*	18
81	*Semicossyphus pulcher*	18
84	*Liparis mucosus*	15
85	Paralepididae	14
85	*Argyropelecus hemigymnus*	14
85	*Ruscarius meanyi*	14
85	*Rathbunella* spp.	14
85	*Chiasmodon niger*	14
90	*Oxylebius pictus*	12
91	*Chromis punctipinnis*	11
92	*Bathylagus milleri*	10
92	*Macroramphosus gracilis*	10
92	Unidentified fish larvae	10
92	*Scopelogadus bispinosus*	10
92	*Parvilux ingens*	10
92	*Microstomus pacificus*	10
92	*Benthalbella dentata*	10
92	*Artedius lateralis*	10
92	*Xeneretmus latifrons*	10

TABLE 3. (cont.)

Rank	Taxon	Count
101	*Lythrypnus dalli*	9
101	*Rosenblattichthys volucris*	9
101	*Sphyraena argentea*	9
101	*Melamphaes simus*	9
101	*Symphurus atricaudus*	9
101	*Ichthyococcus irregularis*	9
101	*Howella* spp.	9
109	*Hypsoblennius jenkinsi*	8
110	*Hypsoblennius* spp.	7
111	*Brosmophycis marginata*	5
111	*Scopeloberyx robustus*	5
111	*Caristius maderensis*	5
111	*Brama japonica*	5
111	*Lampanyctus steinbecki*	5
111	*Odontopyxis trispinosa*	5
111	*Neoclinus* spp.	5
111	*Tactostoma macropus*	5
111	*Scomber japonicus*	5
111	Melanostomiinae	5
111	*Cyema atrum*	5
111	*Argyropelecus lychnus*	5
123	*Lepidogobius lepidus*	4
123	*Lythrypnus zebra*	4
123	*Psenes pellucidus*	4
123	*Citharichthys* spp.	4
123	*Sebastes goodei*	4
123	*Argyropelecus* spp.	4
123	*Oneirodes* spp.	4
	Total	51911

TABLE 4. Number of fish larvae taken at stations occupied on CalCOFI cruises in 2000. Counts are adjusted for percent of sample sorted and standard haul factor (see text). Unoccupied stations are indicated by a dash.

Cyema atrum

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0	70.0	0.0	-	-	5.1	-	-	0.0	-	-	0.0	-	-

Sardinops sagax

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	60.0	0.0	-	-	323.2	-	-	0.0	-	-	0.0	-	-
76.7	70.0	0.0	-	-	570.8	-	-	0.0	-	-	0.0	-	-
76.7	80.0	0.0	-	-	100.8	-	-	0.0	-	-	0.0	-	-
76.7	100.0	0.0	-	-	211.1	-	-	0.0	-	-	0.0	-	-
80.0	60.0	0.0	-	-	175.7	-	-	0.0	-	-	0.0	-	-
80.0	70.0	0.0	-	-	21.9	-	-	0.0	-	-	0.0	-	-
80.0	80.0	0.0	-	-	1680.9	-	-	0.0	-	-	0.0	-	-
80.0	100.0	0.0	-	-	5.1	-	-	0.0	-	-	0.0	-	-
83.3	51.0	0.0	-	-	68.9	-	-	0.0	-	-	0.0	-	-
83.3	60.0	0.0	-	-	17.2	-	-	0.0	-	-	0.0	-	-
83.3	70.0	0.0	-	-	897.5	-	-	0.0	-	-	0.0	-	-
83.3	90.0	0.0	-	-	30.3	-	-	0.0	-	-	0.0	-	-
83.3	110.0	0.0	-	-	35.6	-	-	0.0	-	-	0.0	-	-
86.7	55.0	0.0	-	-	10.7	-	-	0.0	-	-	0.0	-	-
86.7	60.0	0.0	-	-	190.6	-	-	0.0	-	-	0.0	-	-
86.7	70.0	0.0	-	-	2624.7	-	-	0.0	-	-	0.0	-	-
86.7	80.0	0.0	-	-	32.2	-	-	19.1	-	-	-	-	-
86.7	90.0	0.0	-	-	5.0	-	-	0.0	-	-	0.0	-	-
90.0	45.0	0.0	-	-	65.5	-	-	0.0	-	-	0.0	-	-
90.0	53.0	0.0	-	-	750.9	-	-	0.0	-	-	0.0	-	-
90.0	60.0	0.0	-	-	46.9	-	-	0.0	-	-	0.0	-	-
90.0	70.0	0.0	-	-	35.6	-	-	0.0	-	-	0.0	-	-
90.0	80.0	0.0	-	-	1244.2	-	-	5.1	-	-	0.0	-	-
90.0	90.0	0.0	-	-	1515.2	-	-	0.0	-	-	0.0	-	-
90.0	100.0	0.0	-	-	89.8	-	-	0.0	-	-	0.0	-	-
93.3	40.0	0.0	-	-	0.0	-	9.3	-	-	-	0.0	-	-
93.3	45.0	0.0	-	-	5.4	-	0.0	-	-	-	0.0	-	-
93.3	50.0	0.0	-	-	40.7	-	0.0	-	-	-	0.0	-	-
93.3	55.0	0.0	-	-	211.6	-	0.0	-	-	-	0.0	-	-

TABLE 4. (cont.)

Sardinops sagax (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3	60.0	0.0	-	-	24.5	-	0.0	-	-	-	0.0	-	-
93.3	70.0	0.0	-	-	9.5	-	-	0.0	-	-	0.0	-	-
93.3	100.0	0.0	-	-	5.0	-	-	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	-	-	0.0	-	-	19.1	-	-	15.7	-	-
76.7	51.0	0.0	-	-	17.6	-	-	0.0	-	-	0.0	-	-
76.7	55.0	0.0	-	-	9.5	-	-	18.6	-	-	7.6	-	-
76.7	60.0	0.0	-	-	9.8	-	-	102.3	-	-	0.0	-	-
76.7	70.0	0.0	-	-	11.0	-	-	0.0	-	-	0.0	-	-
80.0	55.0	0.0	-	-	21.8	-	-	0.0	-	-	8.9	-	-
80.0	60.0	9.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
80.0	70.0	0.0	-	-	11.0	-	-	0.0	-	-	0.0	-	-
81.8	46.9	0.0	-	-	43.2	-	-	0.0	-	-	56.7	-	-
83.3	40.6	0.0	-	-	100.8	-	-	0.0	-	-	20.4	-	-
83.3	42.0	0.0	-	-	255.0	-	-	9.5	-	-	61.3	-	-
83.3	51.0	0.0	-	-	68.9	-	-	8.7	-	-	27.5	-	-
86.7	33.0	4.2	-	-	39.1	-	-	7.7	-	-	85.8	-	-
86.7	35.0	0.0	-	-	30.1	-	-	8.7	-	-	51.8	-	-
86.7	40.0	0.0	-	-	114.7	-	-	0.0	-	-	0.0	-	-
86.7	45.0	0.0	-	-	0.0	-	-	0.0	-	-	176.2	-	-
86.7	50.0	0.0	-	-	68.6	-	-	0.0	-	-	0.0	-	-
86.7	55.0	0.0	-	-	10.7	-	-	0.0	-	-	0.0	-	-
86.7	90.0	0.0	-	-	0.0	-	-	9.5	-	-	0.0	-	-
90.0	28.0	0.0	-	-	164.1	-	-	0.0	-	-	15.2	-	-
90.0	30.0	124.8	-	-	515.9	-	-	0.0	-	-	0.0	-	-
90.0	35.0	0.0	-	-	1281.0	-	-	0.0	-	-	0.0	-	-
90.0	37.0	0.0	-	-	890.8	-	-	0.0	-	-	10.1	-	-
90.0	45.0	0.0	-	-	163.8	-	-	0.0	-	-	0.0	-	-
90.0	60.0	0.0	-	-	0.0	-	-	18.4	-	-	0.0	-	-
90.0	70.0	0.0	-	-	0.0	-	-	163.2	-	-	0.0	-	-
90.0	80.0	0.0	-	-	4.9	-	-	0.0	-	-	0.0	-	-
93.3	26.7	0.0	-	-	67.0	-	17.8	-	-	-	80.3	-	-
93.3	28.0	0.0	-	-	202.7	-	0.0	-	-	-	0.0	-	-
93.3	30.0	0.0	-	-	371.2	-	0.0	-	-	-	0.0	-	-
93.3	35.0	0.0	-	-	3254.8	-	0.0	-	-	-	0.0	-	-

TABLE 4. (cont.)

Engraulis mordax (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3	40.0	0.0	-	-	474.0	-	0.0	-	-	-	0.0	-	-
93.3	45.0	0.0	-	-	16.1	-	0.0	-	-	-	0.0	-	-
93.3	50.0	0.0	-	-	130.2	-	0.0	-	-	-	0.0	-	-
93.3	55.0	0.0	-	-	101.2	-	9.6	-	-	-	0.0	-	-
93.3	60.0	0.0	-	-	0.0	-	10.2	-	-	-	0.0	-	-
93.3	70.0	0.0	-	-	0.0	-	-	18.2	-	-	0.0	-	-

Argentina sialis

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	51.0	0.0	-	-	0.0	-	-	0.0	-	-	9.7	-	-
80.0	55.0	0.0	-	-	0.0	-	-	0.0	-	-	17.7	-	-
80.0	60.0	0.0	-	-	9.8	-	-	0.0	-	-	0.0	-	-
80.0	70.0	0.0	-	-	11.0	-	-	0.0	-	-	0.0	-	-
81.8	46.9	0.0	-	-	0.0	-	-	0.0	-	-	24.3	-	-
83.3	51.0	0.0	-	-	9.8	-	-	0.0	-	-	0.0	-	-
86.7	55.0	0.0	-	-	10.7	-	-	0.0	-	-	0.0	-	-

***Microstoma* spp.**

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7	90.0	0.0	-	-	5.0	-	-	0.0	-	-	0.0	-	-
90.0	70.0	0.0	-	-	5.1	-	-	0.0	-	-	0.0	-	-
90.0	90.0	9.2	-	-	0.0	-	-	4.3	-	-	0.0	-	-
90.0	100.0	0.0	-	-	5.0	-	-	0.0	-	-	4.5	-	-
90.0	120.0	0.0	-	-	0.0	-	-	0.0	-	-	4.1	-	-
93.3	45.0	0.0	-	-	0.0	-	10.4	-	-	-	0.0	-	-

Nansenia candida

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0	80.0	0.0	-	-	11.4	-	-	0.0	-	-	0.0	-	-
80.0	90.0	0.0	-	-	5.0	-	-	0.0	-	-	0.0	-	-
83.3	60.0	0.0	-	-	0.0	-	-	9.2	-	-	0.0	-	-
86.7	90.0	0.0	-	-	5.0	-	-	0.0	-	-	0.0	-	-
86.7	100.0	0.0	-	-	5.1	-	-	0.0	-	-	0.0	-	-
90.0	110.0	0.0	-	-	10.0	-	-	0.0	-	-	0.0	-	-

Bathylagus milleri

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0	70.0	0.0	-	-	5.1	-	-	0.0	-	-	0.0	-	-
90.0	110.0	0.0	-	-	5.0	-	-	0.0	-	-	0.0	-	-

TABLE 4. (cont.)

Bathylagus ochotensis

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	51.0	0.0	-	-	8.8	-	-	0.0	-	-	0.0	-	-
76.7	55.0	10.1	-	-	9.5	-	-	0.0	-	-	0.0	-	-
76.7	60.0	52.9	-	-	29.4	-	-	0.0	-	-	0.0	-	-
76.7	70.0	38.3	-	-	22.0	-	-	0.0	-	-	0.0	-	-
76.7	80.0	148.6	-	-	22.9	-	-	16.5	-	-	0.0	-	-
76.7	90.0	0.0	-	-	10.1	-	-	0.0	-	-	0.0	-	-
76.7	100.0	0.0	-	-	27.5	-	-	0.0	-	-	0.0	-	-
80.0	55.0	0.0	-	-	0.0	-	-	9.3	-	-	0.0	-	-
80.0	60.0	0.0	-	-	19.5	-	-	0.0	-	-	0.0	-	-
80.0	70.0	97.1	-	-	0.0	-	-	0.0	-	-	0.0	-	-
80.0	80.0	94.3	-	-	22.7	-	-	4.8	-	-	0.0	-	-
80.0	90.0	17.9	-	-	0.0	-	-	0.0	-	-	0.0	-	-
80.0	100.0	4.7	-	-	5.1	-	-	0.0	-	-	0.0	-	-
83.3	55.0	23.9	-	-	31.3	-	-	0.0	-	-	0.0	-	-
83.3	60.0	78.4	-	-	0.0	-	-	18.5	-	-	0.0	-	-
83.3	70.0	62.4	-	-	21.5	-	-	5.1	-	-	0.0	-	-
83.3	80.0	75.7	-	-	5.0	-	-	0.0	-	-	0.0	-	-
83.3	90.0	8.8	-	-	116.2	-	-	4.4	-	-	0.0	-	-
86.7	45.0	4.9	-	-	0.0	-	-	0.0	-	-	0.0	-	-
86.7	50.0	9.1	-	-	0.0	-	-	0.0	-	-	0.0	-	-
86.7	55.0	9.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
86.7	60.0	20.2	-	-	22.4	-	-	0.0	-	-	0.0	-	-
86.7	70.0	0.0	-	-	39.2	-	-	0.0	-	-	0.0	-	-
86.7	80.0	0.0	-	-	5.4	-	-	0.0	-	-	-	-	-
86.7	90.0	0.0	-	-	30.1	-	-	9.5	-	-	0.0	-	-
86.7	100.0	0.0	-	-	92.5	-	-	4.7	-	-	0.0	-	-
90.0	28.0	0.0	-	-	21.9	-	-	0.0	-	-	0.0	-	-
90.0	35.0	0.0	-	-	5.3	-	-	10.3	-	-	0.0	-	-
90.0	37.0	0.0	-	-	15.7	-	-	17.7	-	-	0.0	-	-
90.0	60.0	0.0	-	-	36.5	-	-	18.4	-	-	0.0	-	-
90.0	70.0	0.0	-	-	25.4	-	-	0.0	-	-	0.0	-	-
90.0	80.0	0.0	-	-	102.1	-	-	5.1	-	-	0.0	-	-
90.0	90.0	4.6	-	-	38.7	-	-	4.3	-	-	0.0	-	-
90.0	100.0	0.0	-	-	20.0	-	-	0.0	-	-	0.0	-	-
90.0	110.0	0.0	-	-	10.0	-	-	0.0	-	-	0.0	-	-
90.0	120.0	0.0	-	-	0.0	-	-	4.8	-	-	0.0	-	-

TABLE 4. (cont.)

Bathylagus ochotensis (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3	28.0	4.6	-	-	0.0	-	0.0	-	-	-	0.0	-	-
93.3	30.0	0.0	-	-	10.9	-	0.0	-	-	-	0.0	-	-
93.3	35.0	0.0	-	-	21.8	-	0.0	-	-	-	0.0	-	-
93.3	45.0	0.0	-	-	16.1	-	0.0	-	-	-	0.0	-	-
93.3	50.0	4.9	-	-	12.2	-	0.0	-	-	-	0.0	-	-
93.3	55.0	0.0	-	-	9.2	-	0.0	-	-	-	0.0	-	-
93.3	60.0	0.0	-	-	0.0	-	10.2	-	-	-	4.5	-	-
93.3	110.0	4.2	-	-	0.0	-	-	0.0	-	-	0.0	-	-

Bathylagus pacificus

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0	70.0	24.3	-	-	0.0	-	-	0.0	-	-	0.0	-	-
80.0	90.0	9.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
80.0	100.0	0.0	-	-	10.3	-	-	0.0	-	-	0.0	-	-
90.0	80.0	0.0	-	-	4.9	-	-	0.0	-	-	0.0	-	-
93.3	40.0	9.5	-	-	0.0	-	0.0	-	-	-	0.0	-	-

Bathylagus wesethi

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	100.0	0.0	-	-	4.6	-	-	9.1	-	-	0.0	-	-
80.0	70.0	0.0	-	-	0.0	-	-	10.0	-	-	0.0	-	-
80.0	90.0	0.0	-	-	0.0	-	-	0.0	-	-	9.5	-	-
80.0	100.0	0.0	-	-	5.1	-	-	0.0	-	-	4.4	-	-
83.3	70.0	0.0	-	-	28.7	-	-	0.0	-	-	0.0	-	-
83.3	80.0	0.0	-	-	10.0	-	-	0.0	-	-	4.7	-	-
83.3	90.0	0.0	-	-	0.0	-	-	43.5	-	-	13.1	-	-
83.3	100.0	0.0	-	-	19.5	-	-	0.0	-	-	8.8	-	-
83.3	110.0	0.0	-	-	0.0	-	-	9.2	-	-	0.0	-	-
86.7	70.0	0.0	-	-	0.0	-	-	4.4	-	-	0.0	-	-
86.7	80.0	0.0	-	-	21.5	-	-	0.0	-	-	-	-	-
86.7	90.0	0.0	-	-	15.0	-	-	0.0	-	-	0.0	-	-
86.7	100.0	0.0	-	-	36.0	-	-	4.7	-	-	18.3	-	-
86.7	110.0	0.0	-	-	4.6	-	-	24.4	-	-	34.0	-	-
90.0	53.0	0.0	-	-	0.0	-	-	0.0	-	-	4.6	-	-
90.0	60.0	0.0	-	-	5.2	-	-	0.0	-	-	0.0	-	-
90.0	70.0	0.0	-	-	5.1	-	-	0.0	-	-	15.1	-	-
90.0	80.0	0.0	-	-	4.9	-	-	0.0	-	-	9.3	-	-
90.0	90.0	0.0	-	-	0.0	-	-	0.0	-	-	4.5	-	-

TABLE 4. (cont.)

Bathylagus wesethi (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0	100.0	0.0	-	-	34.9	-	-	0.0	-	-	31.4	-	-
90.0	110.0	0.0	-	-	40.2	-	-	0.0	-	-	4.6	-	-
90.0	120.0	4.5	-	-	15.7	-	-	0.0	-	-	0.0	-	-
93.3	55.0	0.0	-	-	0.0	-	0.0	-	-	-	9.1	-	-
93.3	60.0	0.0	-	-	8.2	-	0.0	-	-	-	0.0	-	-
93.3	70.0	0.0	-	-	0.0	-	-	109.1	-	-	0.0	-	-
93.3	80.0	0.0	-	-	0.0	-	-	12.7	-	-	0.0	-	-
93.3	90.0	0.0	-	-	5.1	-	-	19.1	-	-	8.2	-	-
93.3	100.0	0.0	-	-	30.2	-	-	18.8	-	-	4.5	-	-
93.3	110.0	0.0	-	-	19.3	-	-	27.8	-	-	4.6	-	-
93.3	120.0	4.2	-	-	0.0	-	-	9.1	-	-	0.0	-	-

Leuroglossus stilbius

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	49.0	25.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
76.7	51.0	18.0	-	-	8.8	-	-	0.0	-	-	0.0	-	-
76.7	55.0	40.5	-	-	9.5	-	-	9.3	-	-	0.0	-	-
76.7	60.0	96.9	-	-	0.0	-	-	0.0	-	-	0.0	-	-
76.7	70.0	124.4	-	-	11.0	-	-	0.0	-	-	0.0	-	-
76.7	80.0	17.5	-	-	0.0	-	-	0.0	-	-	0.0	-	-
76.7	100.0	0.0	-	-	13.8	-	-	0.0	-	-	0.0	-	-
80.0	55.0	9.4	-	-	0.0	-	-	0.0	-	-	0.0	-	-
80.0	60.0	27.1	-	-	39.0	-	-	0.0	-	-	8.9	-	-
80.0	70.0	72.8	-	-	11.0	-	-	0.0	-	-	8.2	-	-
80.0	80.0	25.7	-	-	22.7	-	-	0.0	-	-	0.0	-	-
80.0	100.0	0.0	-	-	10.3	-	-	0.0	-	-	0.0	-	-
81.8	46.9	19.1	-	-	10.8	-	-	0.0	-	-	16.2	-	-
83.3	42.0	8.1	-	-	10.6	-	-	0.0	-	-	0.0	-	-
83.3	51.0	28.6	-	-	29.5	-	-	0.0	-	-	0.0	-	-
83.3	55.0	15.9	-	-	83.6	-	-	0.0	-	-	0.0	-	-
83.3	60.0	26.1	-	-	11.5	-	-	0.0	-	-	0.0	-	-
83.3	70.0	8.9	-	-	7.2	-	-	0.0	-	-	0.0	-	-
83.3	80.0	8.4	-	-	0.0	-	-	0.0	-	-	0.0	-	-
83.3	90.0	0.0	-	-	25.3	-	-	0.0	-	-	0.0	-	-
86.7	35.0	0.0	-	-	40.1	-	-	8.7	-	-	20.7	-	-
86.7	40.0	52.3	-	-	10.4	-	-	0.0	-	-	0.0	-	-
86.7	45.0	49.1	-	-	45.1	-	-	7.8	-	-	0.0	-	-

TABLE 4. (cont.)

Leuroglossus stilbius (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7	55.0	0.0	-	-	64.0	-	-	0.0	-	-	0.0	-	-
86.7	60.0	50.4	-	-	89.7	-	-	0.0	-	-	0.0	-	-
86.7	70.0	0.0	-	-	19.6	-	-	0.0	-	-	0.0	-	-
86.7	90.0	4.9	-	-	0.0	-	-	0.0	-	-	0.0	-	-
90.0	28.0	0.0	-	-	21.9	-	-	0.0	-	-	0.0	-	-
90.0	30.0	9.6	-	-	9.1	-	-	0.0	-	-	0.0	-	-
90.0	35.0	42.0	-	-	78.8	-	-	0.0	-	-	0.0	-	-
90.0	37.0	9.1	-	-	172.9	-	-	0.0	-	-	0.0	-	-
90.0	45.0	8.9	-	-	54.6	-	-	0.0	-	-	0.0	-	-
90.0	53.0	0.0	-	-	19.5	-	-	0.0	-	-	0.0	-	-
90.0	60.0	0.0	-	-	20.8	-	-	0.0	-	-	0.0	-	-
90.0	70.0	0.0	-	-	25.4	-	-	18.1	-	-	0.0	-	-
90.0	80.0	0.0	-	-	29.2	-	-	5.1	-	-	0.0	-	-
90.0	90.0	0.0	-	-	22.1	-	-	0.0	-	-	0.0	-	-
90.0	120.0	0.0	-	-	0.0	-	-	4.8	-	-	0.0	-	-
93.3	28.0	4.6	-	-	19.3	-	0.0	-	-	-	0.0	-	-
93.3	30.0	0.0	-	-	65.5	-	0.0	-	-	-	0.0	-	-
93.3	35.0	0.0	-	-	163.8	-	8.2	-	-	-	0.0	-	-
93.3	40.0	0.0	-	-	10.3	-	9.3	-	-	-	0.0	-	-
93.3	45.0	50.9	-	-	64.3	-	10.4	-	-	-	0.0	-	-
93.3	50.0	9.8	-	-	40.7	-	0.0	-	-	-	0.0	-	-
93.3	55.0	10.0	-	-	18.4	-	0.0	-	-	-	0.0	-	-
93.3	60.0	0.0	-	-	16.3	-	0.0	-	-	-	0.0	-	-

Cyclothone spp.

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7	110.0	4.4	-	-	0.0	-	-	0.0	-	-	0.0	-	-
93.3	110.0	0.0	-	-	4.8	-	-	0.0	-	-	0.0	-	-
93.3	120.0	4.2	-	-	0.0	-	-	0.0	-	-	9.0	-	-

Cyclothone acclinidens

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3	110.0	0.0	-	-	0.0	-	-	0.0	-	-	4.3	-	-
86.7	100.0	0.0	-	-	5.1	-	-	0.0	-	-	4.6	-	-
90.0	120.0	0.0	-	-	5.2	-	-	0.0	-	-	0.0	-	-
93.3	120.0	0.0	-	-	0.0	-	-	0.0	-	-	4.5	-	-

TABLE 4. (cont.)

Cyclothone signata

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 100.0	0.0	-	-	4.6	-	-	4.5	-	-	0.0	-	-
80.0 90.0	0.0	-	-	5.0	-	-	0.0	-	-	0.0	-	-
80.0 100.0	0.0	-	-	5.1	-	-	0.0	-	-	4.4	-	-
83.3 90.0	0.0	-	-	0.0	-	-	4.4	-	-	8.7	-	-
83.3 100.0	0.0	-	-	4.9	-	-	0.0	-	-	8.8	-	-
83.3 110.0	8.8	-	-	5.1	-	-	32.2	-	-	4.3	-	-
86.7 90.0	4.9	-	-	0.0	-	-	0.0	-	-	0.0	-	-
86.7 100.0	31.8	-	-	10.3	-	-	0.0	-	-	0.0	-	-
86.7 110.0	22.1	-	-	4.6	-	-	9.7	-	-	0.0	-	-
90.0 80.0	0.0	-	-	0.0	-	-	0.0	-	-	4.7	-	-
90.0 100.0	0.0	-	-	0.0	-	-	0.0	-	-	9.0	-	-
90.0 110.0	5.1	-	-	5.0	-	-	0.0	-	-	0.0	-	-
90.0 120.0	4.5	-	-	36.7	-	-	4.8	-	-	20.6	-	-
93.3 60.0	0.0	-	-	8.2	-	0.0	-	-	-	0.0	-	-
93.3 70.0	4.3	-	-	0.0	-	-	0.0	-	-	0.0	-	-
93.3 80.0	0.0	-	-	0.0	-	-	4.2	-	-	0.0	-	-
93.3 90.0	0.0	-	-	5.1	-	-	0.0	-	-	0.0	-	-
93.3 100.0	0.0	-	-	20.2	-	-	37.7	-	-	0.0	-	-
93.3 110.0	8.4	-	-	9.6	-	-	9.3	-	-	13.8	-	-
93.3 120.0	0.0	-	-	4.9	-	-	0.0	-	-	0.0	-	-

***Argyropelecus* spp.**

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 110.0	0.0	-	-	0.0	-	-	0.0	-	-	4.3	-	-

Argyropelecus affinis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 70.0	0.0	-	-	0.0	-	-	0.0	-	-	9.1	-	-
86.7 110.0	0.0	-	-	0.0	-	-	4.9	-	-	0.0	-	-
90.0 110.0	0.0	-	-	5.0	-	-	0.0	-	-	0.0	-	-
93.3 45.0	0.0	-	-	0.0	-	0.0	-	-	-	4.7	-	-
93.3 90.0	4.5	-	-	5.1	-	-	0.0	-	-	0.0	-	-

Argyropelecus hemigymnus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 80.0	0.0	-	-	0.0	-	-	0.0	-	-	4.7	-	-
83.3 90.0	0.0	-	-	0.0	-	-	0.0	-	-	4.4	-	-
83.3 100.0	0.0	-	-	4.9	-	-	0.0	-	-	0.0	-	-

TABLE 4. (cont.)

Argyropelecus lychnus

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

Argyropelecus sladeni

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0	90.0	0.0	-	-	5.0	-	-	0.0	-	-	0.0	-	-
83.3	100.0	0.0	-	-	9.7	-	-	0.0	-	-	0.0	-	-
86.7	60.0	10.1	-	-	0.0	-	-	0.0	-	-	0.0	-	-
86.7	70.0	4.5	-	-	0.0	-	-	0.0	-	-	0.0	-	-
86.7	100.0	0.0	-	-	5.1	-	-	0.0	-	-	4.6	-	-
90.0	37.0	0.0	-	-	5.2	-	-	0.0	-	-	0.0	-	-
90.0	110.0	0.0	-	-	10.0	-	-	0.0	-	-	0.0	-	-
90.0	120.0	0.0	-	-	10.5	-	-	0.0	-	-	0.0	-	-
93.3	50.0	0.0	-	-	0.0	-	0.0	-	-	-	5.1	-	-
93.3	55.0	0.0	-	-	0.0	-	0.0	-	-	-	9.1	-	-
93.3	60.0	0.0	-	-	0.0	-	0.0	-	-	-	4.5	-	-
93.3	70.0	0.0	-	-	0.0	-	-	9.1	-	-	0.0	-	-
93.3	80.0	0.0	-	-	5.0	-	-	0.0	-	-	0.0	-	-
93.3	90.0	0.0	-	-	0.0	-	-	4.8	-	-	0.0	-	-
93.3	100.0	4.7	-	-	0.0	-	-	0.0	-	-	0.0	-	-
93.3	120.0	4.2	-	-	0.0	-	-	0.0	-	-	0.0	-	-

Danaphos oculatus

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0	80.0	0.0	-	-	0.0	-	-	4.8	-	-	0.0	-	-
80.0	90.0	0.0	-	-	10.1	-	-	0.0	-	-	0.0	-	-
83.3	110.0	0.0	-	-	5.1	-	-	0.0	-	-	0.0	-	-
86.7	45.0	9.8	-	-	0.0	-	-	0.0	-	-	9.3	-	-
86.7	60.0	10.1	-	-	0.0	-	-	0.0	-	-	0.0	-	-
86.7	100.0	4.5	-	-	0.0	-	-	0.0	-	-	0.0	-	-
86.7	110.0	4.4	-	-	0.0	-	-	0.0	-	-	0.0	-	-
90.0	80.0	4.2	-	-	0.0	-	-	0.0	-	-	0.0	-	-
90.0	100.0	0.0	-	-	0.0	-	-	0.0	-	-	9.0	-	-
90.0	110.0	5.1	-	-	0.0	-	-	0.0	-	-	0.0	-	-
90.0	120.0	8.9	-	-	0.0	-	-	0.0	-	-	4.1	-	-
93.3	45.0	0.0	-	-	5.4	-	0.0	-	-	-	0.0	-	-
93.3	90.0	0.0	-	-	5.1	-	-	9.5	-	-	0.0	-	-
93.3	110.0	0.0	-	-	4.8	-	-	0.0	-	-	0.0	-	-
93.3	120.0	0.0	-	-	0.0	-	-	0.0	-	-	4.5	-	-

TABLE 4. (cont.)

***Sternoptyx* spp.**

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 110.0	0.0	-	-	0.0	-	-	4.6	-	-	0.0	-	-
90.0 120.0	0.0	-	-	5.2	-	-	0.0	-	-	0.0	-	-
93.3 70.0	4.3	-	-	0.0	-	-	0.0	-	-	0.0	-	-
93.3 100.0	0.0	-	-	0.0	-	-	4.7	-	-	0.0	-	-
93.3 110.0	0.0	-	-	0.0	-	-	9.3	-	-	0.0	-	-

Ichthyococcus irregularis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 90.0	0.0	-	-	0.0	-	-	0.0	-	-	4.4	-	-
90.0 120.0	0.0	-	-	5.2	-	-	0.0	-	-	0.0	-	-

Vinciguerria lucetia

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0 90.0	0.0	-	-	0.0	-	-	0.0	-	-	18.9	-	-
80.0 100.0	0.0	-	-	0.0	-	-	0.0	-	-	21.9	-	-
83.3 90.0	0.0	-	-	0.0	-	-	8.7	-	-	13.1	-	-
83.3 100.0	0.0	-	-	0.0	-	-	0.0	-	-	4.4	-	-
83.3 110.0	0.0	-	-	0.0	-	-	151.8	-	-	0.0	-	-
86.7 60.0	0.0	-	-	0.0	-	-	0.0	-	-	5.1	-	-
86.7 90.0	0.0	-	-	0.0	-	-	0.0	-	-	4.6	-	-
86.7 100.0	4.5	-	-	0.0	-	-	0.0	-	-	4.6	-	-
86.7 110.0	0.0	-	-	4.6	-	-	43.8	-	-	4.3	-	-
90.0 28.0	0.0	-	-	0.0	-	-	0.0	-	-	3.8	-	-
90.0 53.0	0.0	-	-	0.0	-	-	0.0	-	-	4.6	-	-
90.0 70.0	0.0	-	-	0.0	-	-	0.0	-	-	5.0	-	-
90.0 80.0	4.2	-	-	0.0	-	-	0.0	-	-	4.7	-	-
90.0 100.0	0.0	-	-	0.0	-	-	9.3	-	-	4.5	-	-
90.0 110.0	0.0	-	-	0.0	-	-	0.0	-	-	13.9	-	-
90.0 120.0	0.0	-	-	36.7	-	-	14.3	-	-	28.8	-	-
93.3 45.0	0.0	-	-	0.0	-	0.0	-	-	-	4.7	-	-
93.3 50.0	0.0	-	-	0.0	-	0.0	-	-	-	5.1	-	-
93.3 55.0	0.0	-	-	0.0	-	0.0	-	-	-	18.2	-	-
93.3 70.0	0.0	-	-	0.0	-	-	54.6	-	-	4.7	-	-
93.3 80.0	0.0	-	-	0.0	-	-	613.4	-	-	4.8	-	-
93.3 90.0	4.5	-	-	0.0	-	-	119.3	-	-	20.5	-	-
93.3 100.0	0.0	-	-	10.1	-	-	664.1	-	-	8.9	-	-
93.3 110.0	0.0	-	-	0.0	-	-	125.3	-	-	13.8	-	-
93.3 120.0	4.2	-	-	14.7	-	-	81.7	-	-	4.5	-	-

TABLE 4. (cont.)

Vinciguerria poweriae

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7	100.0	18.2	-	-	0.0	-	-	0.0	-	-	0.0	-	-
86.7	110.0	4.4	-	-	13.9	-	-	0.0	-	-	0.0	-	-
90.0	100.0	4.2	-	-	0.0	-	-	0.0	-	-	0.0	-	-
90.0	110.0	35.4	-	-	0.0	-	-	0.0	-	-	0.0	-	-
90.0	120.0	17.8	-	-	15.7	-	-	0.0	-	-	16.4	-	-
93.3	100.0	32.8	-	-	0.0	-	-	0.0	-	-	0.0	-	-
93.3	110.0	4.2	-	-	0.0	-	-	0.0	-	-	4.6	-	-
93.3	120.0	0.0	-	-	0.0	-	-	0.0	-	-	4.5	-	-

Chauliodus macouni

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	55.0	0.0	-	-	9.5	-	-	0.0	-	-	0.0	-	-
76.7	60.0	0.0	-	-	0.0	-	-	0.0	-	-	8.6	-	-
76.7	70.0	0.0	-	-	0.0	-	-	0.0	-	-	8.0	-	-
83.3	55.0	0.0	-	-	0.0	-	-	9.4	-	-	8.5	-	-
83.3	70.0	0.0	-	-	7.2	-	-	0.0	-	-	0.0	-	-
83.3	90.0	0.0	-	-	0.0	-	-	0.0	-	-	4.4	-	-
86.7	60.0	0.0	-	-	0.0	-	-	16.2	-	-	0.0	-	-
90.0	45.0	0.0	-	-	0.0	-	-	0.0	-	-	9.8	-	-
90.0	70.0	0.0	-	-	5.1	-	-	9.1	-	-	0.0	-	-
90.0	80.0	0.0	-	-	4.9	-	-	0.0	-	-	0.0	-	-
90.0	90.0	0.0	-	-	0.0	-	-	0.0	-	-	4.5	-	-
90.0	100.0	0.0	-	-	0.0	-	-	0.0	-	-	4.5	-	-
90.0	110.0	0.0	-	-	0.0	-	-	5.2	-	-	0.0	-	-
93.3	90.0	0.0	-	-	0.0	-	-	4.8	-	-	0.0	-	-
93.3	100.0	4.7	-	-	0.0	-	-	0.0	-	-	0.0	-	-

Stomias atriventer

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0	100.0	0.0	-	-	5.1	-	-	0.0	-	-	0.0	-	-
83.3	90.0	0.0	-	-	0.0	-	-	4.4	-	-	0.0	-	-
86.7	100.0	0.0	-	-	10.3	-	-	0.0	-	-	0.0	-	-
90.0	37.0	0.0	-	-	5.2	-	-	0.0	-	-	0.0	-	-
90.0	100.0	0.0	-	-	0.0	-	-	0.0	-	-	4.5	-	-
90.0	110.0	0.0	-	-	5.0	-	-	0.0	-	-	0.0	-	-
93.3	70.0	0.0	-	-	0.0	-	-	9.1	-	-	0.0	-	-

Melanostomiinae

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

TABLE 4. (cont.)

Tactostoma macropus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 110.0	0.0	-	-	0.0	-	-	4.9	-	-	0.0	-	-

Aristostomias scintillans

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 100.0	0.0	-	-	0.0	-	-	4.5	-	-	0.0	-	-
86.7 100.0	4.5	-	-	0.0	-	-	0.0	-	-	0.0	-	-
90.0 110.0	0.0	-	-	5.0	-	-	0.0	-	-	0.0	-	-
90.0 120.0	0.0	-	-	10.5	-	-	0.0	-	-	0.0	-	-
93.3 70.0	0.0	-	-	0.0	-	-	9.1	-	-	0.0	-	-
93.3 120.0	0.0	-	-	9.8	-	-	0.0	-	-	0.0	-	-

Idiacanthus antrostomus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 100.0	0.0	-	-	0.0	-	-	4.5	-	-	4.3	-	-
80.0 90.0	0.0	-	-	0.0	-	-	0.0	-	-	28.4	-	-
80.0 100.0	9.4	-	-	0.0	-	-	0.0	-	-	8.7	-	-
83.3 90.0	0.0	-	-	0.0	-	-	4.4	-	-	17.4	-	-
83.3 100.0	8.6	-	-	0.0	-	-	0.0	-	-	0.0	-	-
83.3 110.0	4.4	-	-	0.0	-	-	4.6	-	-	0.0	-	-
86.7 70.0	4.5	-	-	0.0	-	-	0.0	-	-	0.0	-	-
86.7 90.0	0.0	-	-	0.0	-	-	0.0	-	-	4.6	-	-
86.7 110.0	0.0	-	-	0.0	-	-	0.0	-	-	12.8	-	-
90.0 53.0	0.0	-	-	0.0	-	-	0.0	-	-	9.1	-	-
90.0 70.0	0.0	-	-	0.0	-	-	0.0	-	-	5.0	-	-
90.0 80.0	0.0	-	-	0.0	-	-	0.0	-	-	9.3	-	-
90.0 90.0	4.6	-	-	0.0	-	-	0.0	-	-	4.5	-	-
90.0 100.0	0.0	-	-	0.0	-	-	0.0	-	-	4.5	-	-
90.0 110.0	10.1	-	-	0.0	-	-	0.0	-	-	0.0	-	-
90.0 120.0	0.0	-	-	0.0	-	-	0.0	-	-	4.1	-	-
93.3 40.0	9.5	-	-	0.0	-	0.0	-	-	-	0.0	-	-
93.3 70.0	0.0	-	-	0.0	-	-	36.4	-	-	0.0	-	-
93.3 80.0	0.0	-	-	0.0	-	-	12.7	-	-	0.0	-	-
93.3 100.0	0.0	-	-	0.0	-	-	14.1	-	-	0.0	-	-
93.3 110.0	0.0	-	-	0.0	-	-	9.3	-	-	0.0	-	-
93.3 120.0	0.0	-	-	0.0	-	-	13.6	-	-	0.0	-	-

Benthalbella dentata

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0 80.0	0.0	-	-	4.9	-	-	0.0	-	-	0.0	-	-
90.0 120.0	0.0	-	-	5.2	-	-	0.0	-	-	0.0	-	-

TABLE 4. (cont.)

Rosenblattichthys volucris

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 80.0	0.0	-	-	0.0	-	-	4.2	-	-	0.0	-	-
93.3 120.0	0.0	-	-	0.0	-	-	4.5	-	-	0.0	-	-

Scopelarchus analis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 70.0	0.0	-	-	0.0	-	-	9.1	-	-	0.0	-	-
93.3 100.0	0.0	-	-	0.0	-	-	4.7	-	-	0.0	-	-
93.3 110.0	0.0	-	-	0.0	-	-	4.6	-	-	0.0	-	-

***Scopelosaurus* spp.**

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 100.0	0.0	-	-	4.9	-	-	0.0	-	-	0.0	-	-
86.7 70.0	0.0	-	-	0.0	-	-	4.4	-	-	0.0	-	-
86.7 90.0	0.0	-	-	0.0	-	-	0.0	-	-	4.6	-	-
86.7 110.0	0.0	-	-	4.6	-	-	0.0	-	-	0.0	-	-
90.0 110.0	0.0	-	-	5.0	-	-	0.0	-	-	0.0	-	-

Paralepididae

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 70.0	0.0	-	-	0.0	-	-	9.1	-	-	0.0	-	-
93.3 90.0	0.0	-	-	0.0	-	-	4.8	-	-	0.0	-	-

Arctozenus risso

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 100.0	0.0	-	-	0.0	-	-	4.5	-	-	0.0	-	-
86.7 100.0	4.5	-	-	10.3	-	-	0.0	-	-	0.0	-	-
86.7 110.0	0.0	-	-	4.6	-	-	0.0	-	-	0.0	-	-
90.0 90.0	4.6	-	-	0.0	-	-	0.0	-	-	0.0	-	-
90.0 120.0	4.5	-	-	5.2	-	-	0.0	-	-	0.0	-	-
93.3 100.0	4.7	-	-	0.0	-	-	4.7	-	-	0.0	-	-

Lestidiops ringens

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 70.0	0.0	-	-	0.0	-	-	0.0	-	-	8.0	-	-
76.7 100.0	0.0	-	-	4.6	-	-	0.0	-	-	0.0	-	-
80.0 70.0	8.1	-	-	0.0	-	-	0.0	-	-	0.0	-	-
80.0 80.0	0.0	-	-	11.4	-	-	0.0	-	-	0.0	-	-
83.3 70.0	8.9	-	-	0.0	-	-	0.0	-	-	0.0	-	-
83.3 110.0	0.0	-	-	0.0	-	-	4.6	-	-	0.0	-	-
86.7 90.0	0.0	-	-	0.0	-	-	0.0	-	-	4.6	-	-
86.7 100.0	0.0	-	-	0.0	-	-	0.0	-	-	13.7	-	-

TABLE 4. (cont.)

Lestidiops ringens (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0	53.0	8.8	-	-	0.0	-	-	0.0	-	-	4.6	-	-
90.0	80.0	0.0	-	-	0.0	-	-	0.0	-	-	9.3	-	-
90.0	90.0	0.0	-	-	0.0	-	-	0.0	-	-	4.5	-	-
90.0	100.0	0.0	-	-	0.0	-	-	0.0	-	-	13.4	-	-
93.3	55.0	0.0	-	-	0.0	-	0.0	-	-	-	4.5	-	-
93.3	80.0	0.0	-	-	0.0	-	-	8.5	-	-	0.0	-	-

Myctophidae

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3	110.0	0.0	-	-	0.0	-	-	4.6	-	-	0.0	-	-
90.0	110.0	0.0	-	-	5.0	-	-	0.0	-	-	0.0	-	-
93.3	90.0	0.0	-	-	5.1	-	-	4.8	-	-	0.0	-	-

Ceratoscopelus townsendi

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	90.0	0.0	-	-	10.1	-	-	0.0	-	-	0.0	-	-
76.7	100.0	0.0	-	-	0.0	-	-	90.6	-	-	0.0	-	-
80.0	90.0	0.0	-	-	0.0	-	-	0.0	-	-	9.5	-	-
83.3	90.0	0.0	-	-	0.0	-	-	21.8	-	-	4.4	-	-
83.3	100.0	0.0	-	-	34.1	-	-	4.8	-	-	4.4	-	-
83.3	110.0	0.0	-	-	0.0	-	-	23.0	-	-	0.0	-	-
86.7	70.0	0.0	-	-	0.0	-	-	4.4	-	-	0.0	-	-
86.7	90.0	0.0	-	-	10.0	-	-	0.0	-	-	0.0	-	-
86.7	100.0	9.1	-	-	0.0	-	-	0.0	-	-	0.0	-	-
86.7	110.0	8.8	-	-	9.2	-	-	43.8	-	-	8.5	-	-
90.0	90.0	0.0	-	-	0.0	-	-	0.0	-	-	13.6	-	-
90.0	100.0	0.0	-	-	0.0	-	-	0.0	-	-	9.0	-	-
90.0	110.0	10.1	-	-	5.0	-	-	0.0	-	-	0.0	-	-
90.0	120.0	17.8	-	-	26.2	-	-	4.8	-	-	12.3	-	-
93.3	50.0	0.0	-	-	0.0	-	0.0	-	-	-	5.1	-	-
93.3	70.0	0.0	-	-	0.0	-	-	109.1	-	-	0.0	-	-
93.3	80.0	0.0	-	-	0.0	-	-	33.8	-	-	0.0	-	-
93.3	90.0	0.0	-	-	15.2	-	-	19.1	-	-	0.0	-	-
93.3	100.0	9.4	-	-	15.1	-	-	65.9	-	-	4.5	-	-
93.3	110.0	12.6	-	-	0.0	-	-	4.6	-	-	18.4	-	-
93.3	120.0	0.0	-	-	19.6	-	-	18.2	-	-	18.1	-	-

TABLE 4. (cont.)

***Diaphus* spp.**

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	80.0	0.0	-	-	0.0	-	-	8.2	-	-	0.0	-	-
80.0	70.0	0.0	-	-	0.0	-	-	30.0	-	-	0.0	-	-
80.0	100.0	0.0	-	-	0.0	-	-	4.8	-	-	0.0	-	-
83.3	90.0	0.0	-	-	0.0	-	-	8.7	-	-	0.0	-	-
83.3	100.0	0.0	-	-	0.0	-	-	4.8	-	-	0.0	-	-
83.3	110.0	0.0	-	-	0.0	-	-	4.6	-	-	0.0	-	-
86.7	60.0	0.0	-	-	0.0	-	-	0.0	-	-	5.1	-	-
86.7	70.0	0.0	-	-	0.0	-	-	22.2	-	-	0.0	-	-
86.7	80.0	0.0	-	-	0.0	-	-	9.6	-	-	-	-	-
86.7	90.0	0.0	-	-	0.0	-	-	14.3	-	-	0.0	-	-
86.7	100.0	0.0	-	-	0.0	-	-	4.7	-	-	0.0	-	-
90.0	70.0	0.0	-	-	0.0	-	-	0.0	-	-	5.0	-	-
90.0	100.0	0.0	-	-	0.0	-	-	4.6	-	-	0.0	-	-
90.0	120.0	0.0	-	-	0.0	-	-	4.8	-	-	0.0	-	-
93.3	70.0	0.0	-	-	0.0	-	-	9.1	-	-	0.0	-	-
93.3	80.0	0.0	-	-	0.0	-	-	4.2	-	-	0.0	-	-
93.3	100.0	0.0	-	-	0.0	-	-	14.1	-	-	0.0	-	-
93.3	110.0	0.0	-	-	0.0	-	-	9.3	-	-	0.0	-	-

Lampadena urophaos

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3	90.0	0.0	-	-	0.0	-	-	4.8	-	-	0.0	-	-
93.3	100.0	0.0	-	-	0.0	-	-	14.1	-	-	0.0	-	-

***Lampanyctus* spp.**

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	60.0	0.0	-	-	29.4	-	-	0.0	-	-	0.0	-	-
76.7	80.0	0.0	-	-	4.6	-	-	0.0	-	-	0.0	-	-
76.7	100.0	0.0	-	-	0.0	-	-	9.1	-	-	0.0	-	-
80.0	80.0	0.0	-	-	22.7	-	-	0.0	-	-	0.0	-	-
80.0	90.0	0.0	-	-	25.2	-	-	0.0	-	-	0.0	-	-
80.0	100.0	0.0	-	-	5.1	-	-	0.0	-	-	0.0	-	-
83.3	90.0	0.0	-	-	0.0	-	-	4.4	-	-	0.0	-	-
83.3	100.0	4.3	-	-	14.6	-	-	0.0	-	-	0.0	-	-
83.3	110.0	8.8	-	-	20.3	-	-	4.6	-	-	0.0	-	-
86.7	70.0	0.0	-	-	9.8	-	-	4.4	-	-	0.0	-	-
86.7	80.0	0.0	-	-	32.2	-	-	0.0	-	-	-	-	-
86.7	90.0	0.0	-	-	5.0	-	-	0.0	-	-	0.0	-	-

TABLE 4. (cont.)

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

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 110.0	8.8	-	-	0.0	-	-	4.9	-	-	0.0	-	-
90.0 60.0	0.0	-	-	0.0	-	-	0.0	-	-	10.3	-	-
90.0 70.0	0.0	-	-	10.2	-	-	0.0	-	-	5.0	-	-
90.0 100.0	4.2	-	-	5.0	-	-	0.0	-	-	4.5	-	-
90.0 110.0	5.1	-	-	5.0	-	-	0.0	-	-	0.0	-	-
90.0 120.0	0.0	-	-	21.0	-	-	9.6	-	-	0.0	-	-
93.3 60.0	0.0	-	-	8.2	-	0.0	-	-	-	0.0	-	-
93.3 70.0	0.0	-	-	0.0	-	-	9.1	-	-	0.0	-	-
93.3 100.0	9.4	-	-	5.0	-	-	0.0	-	-	0.0	-	-
93.3 120.0	0.0	-	-	14.7	-	-	0.0	-	-	0.0	-	-

Lampanyctus steinbecki

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 110.0	0.0	-	-	0.0	-	-	4.6	-	-	0.0	-	-

Nannobrachium hawaiiensis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 80.0	0.0	-	-	0.0	-	-	8.2	-	-	0.0	-	-
76.7 100.0	0.0	-	-	23.0	-	-	0.0	-	-	0.0	-	-
80.0 90.0	0.0	-	-	5.0	-	-	0.0	-	-	0.0	-	-
86.7 110.0	4.4	-	-	0.0	-	-	0.0	-	-	0.0	-	-
90.0 100.0	0.0	-	-	5.0	-	-	0.0	-	-	0.0	-	-
90.0 110.0	0.0	-	-	5.0	-	-	0.0	-	-	0.0	-	-
93.3 80.0	0.0	-	-	0.0	-	-	4.2	-	-	0.0	-	-
93.3 100.0	0.0	-	-	0.0	-	-	18.8	-	-	0.0	-	-

Nannobrachium regale

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0 80.0	0.0	-	-	11.4	-	-	0.0	-	-	0.0	-	-
80.0 90.0	0.0	-	-	5.0	-	-	0.0	-	-	0.0	-	-
83.3 100.0	0.0	-	-	4.9	-	-	0.0	-	-	0.0	-	-
83.3 110.0	0.0	-	-	0.0	-	-	4.6	-	-	0.0	-	-
90.0 120.0	0.0	-	-	5.2	-	-	0.0	-	-	0.0	-	-

Nannobrachium ritteri

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 60.0	8.8	-	-	0.0	-	-	0.0	-	-	0.0	-	-
76.7 70.0	0.0	-	-	0.0	-	-	9.7	-	-	0.0	-	-
76.7 90.0	0.0	-	-	20.1	-	-	0.0	-	-	0.0	-	-
80.0 70.0	8.1	-	-	0.0	-	-	0.0	-	-	0.0	-	-

TABLE 4. (cont.)

Nannobrachium ritteri (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0	80.0	0.0	-	-	0.0	-	-	4.8	-	-	0.0	-	-
80.0	90.0	0.0	-	-	10.1	-	-	0.0	-	-	0.0	-	-
80.0	100.0	0.0	-	-	5.1	-	-	0.0	-	-	4.4	-	-
83.3	90.0	0.0	-	-	10.1	-	-	0.0	-	-	8.7	-	-
83.3	100.0	0.0	-	-	14.6	-	-	4.8	-	-	13.2	-	-
83.3	110.0	0.0	-	-	10.2	-	-	9.2	-	-	4.3	-	-
86.7	70.0	0.0	-	-	0.0	-	-	8.9	-	-	0.0	-	-
86.7	90.0	0.0	-	-	20.0	-	-	0.0	-	-	0.0	-	-
86.7	100.0	0.0	-	-	15.4	-	-	0.0	-	-	22.9	-	-
86.7	110.0	13.2	-	-	0.0	-	-	0.0	-	-	0.0	-	-
90.0	30.0	0.0	-	-	0.0	-	-	0.0	-	-	9.6	-	-
90.0	53.0	0.0	-	-	9.8	-	-	0.0	-	-	0.0	-	-
90.0	60.0	4.5	-	-	0.0	-	-	0.0	-	-	0.0	-	-
90.0	70.0	0.0	-	-	5.1	-	-	0.0	-	-	0.0	-	-
90.0	80.0	0.0	-	-	19.4	-	-	0.0	-	-	4.7	-	-
90.0	90.0	0.0	-	-	5.5	-	-	0.0	-	-	4.5	-	-
90.0	100.0	0.0	-	-	5.0	-	-	0.0	-	-	0.0	-	-
90.0	110.0	0.0	-	-	20.1	-	-	0.0	-	-	0.0	-	-
90.0	120.0	4.5	-	-	5.2	-	-	0.0	-	-	0.0	-	-
93.3	50.0	0.0	-	-	0.0	-	0.0	-	-	-	5.1	-	-
93.3	60.0	0.0	-	-	16.3	-	0.0	-	-	-	0.0	-	-
93.3	70.0	0.0	-	-	0.0	-	-	18.2	-	-	0.0	-	-
93.3	100.0	0.0	-	-	0.0	-	-	4.7	-	-	0.0	-	-
93.3	110.0	4.2	-	-	0.0	-	-	0.0	-	-	0.0	-	-

Notolychnus valdiviae

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7	90.0	4.9	-	-	0.0	-	-	0.0	-	-	0.0	-	-
86.7	100.0	4.5	-	-	0.0	-	-	0.0	-	-	0.0	-	-
86.7	110.0	0.0	-	-	0.0	-	-	4.9	-	-	0.0	-	-
93.3	70.0	0.0	-	-	0.0	-	-	9.1	-	-	0.0	-	-
93.3	100.0	4.7	-	-	0.0	-	-	0.0	-	-	0.0	-	-

Notoscopelus resplendens

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0	100.0	0.0	-	-	10.3	-	-	0.0	-	-	0.0	-	-
83.3	80.0	0.0	-	-	5.0	-	-	0.0	-	-	0.0	-	-
83.3	100.0	0.0	-	-	4.9	-	-	0.0	-	-	0.0	-	-

TABLE 4. (cont.)

Notoscopelus resplendens (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3	110.0	0.0	-	-	5.1	-	-	0.0	-	-	0.0	-	-
86.7	110.0	4.4	-	-	4.6	-	-	4.9	-	-	0.0	-	-
90.0	110.0	5.1	-	-	5.0	-	-	0.0	-	-	0.0	-	-
90.0	120.0	0.0	-	-	10.5	-	-	0.0	-	-	0.0	-	-
93.3	80.0	0.0	-	-	0.0	-	-	4.2	-	-	0.0	-	-
93.3	100.0	0.0	-	-	5.0	-	-	4.7	-	-	0.0	-	-

Parvilux ingens

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0	90.0	0.0	-	-	5.0	-	-	0.0	-	-	0.0	-	-
90.0	110.0	0.0	-	-	0.0	-	-	5.2	-	-	0.0	-	-

Stenobrachius leucopsarus

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	49.0	16.6	-	-	0.0	-	-	0.0	-	-	0.0	-	-
76.7	51.0	0.0	-	-	17.6	-	-	0.0	-	-	0.0	-	-
76.7	55.0	10.1	-	-	19.1	-	-	9.3	-	-	0.0	-	-
76.7	60.0	70.5	-	-	49.0	-	-	0.0	-	-	0.0	-	-
76.7	70.0	28.7	-	-	76.8	-	-	0.0	-	-	0.0	-	-
76.7	80.0	78.7	-	-	18.3	-	-	0.0	-	-	0.0	-	-
76.7	90.0	56.7	-	-	30.2	-	-	20.7	-	-	0.0	-	-
76.7	100.0	4.3	-	-	247.9	-	-	0.0	-	-	0.0	-	-
80.0	51.0	50.5	-	-	20.0	-	-	0.0	-	-	-	-	-
80.0	55.0	14.1	-	-	0.0	-	-	0.0	-	-	0.0	-	-
80.0	60.0	27.1	-	-	68.3	-	-	0.0	-	-	0.0	-	-
80.0	70.0	590.5	-	-	87.7	-	-	0.0	-	-	0.0	-	-
80.0	80.0	608.6	-	-	68.1	-	-	0.0	-	-	0.0	-	-
80.0	90.0	26.9	-	-	50.4	-	-	0.0	-	-	0.0	-	-
80.0	100.0	0.0	-	-	35.9	-	-	0.0	-	-	0.0	-	-
81.8	46.9	19.1	-	-	0.0	-	-	0.0	-	-	0.0	-	-
83.3	42.0	4.0	-	-	10.6	-	-	0.0	-	-	0.0	-	-
83.3	51.0	47.7	-	-	19.7	-	-	0.0	-	-	0.0	-	-
83.3	55.0	23.9	-	-	62.7	-	-	0.0	-	-	0.0	-	-
83.3	60.0	34.8	-	-	28.7	-	-	0.0	-	-	0.0	-	-
83.3	70.0	26.7	-	-	28.7	-	-	0.0	-	-	0.0	-	-
83.3	80.0	16.8	-	-	10.0	-	-	0.0	-	-	0.0	-	-
83.3	90.0	4.4	-	-	10.1	-	-	0.0	-	-	0.0	-	-
83.3	110.0	0.0	-	-	30.5	-	-	0.0	-	-	0.0	-	-

TABLE 4. (cont.)

Stenobrachius leucopsarus (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7	33.0	4.2	-	-	29.3	-	-	0.0	-	-	0.0	-	-
86.7	35.0	21.9	-	-	70.1	-	-	0.0	-	-	0.0	-	-
86.7	40.0	28.5	-	-	10.4	-	-	0.0	-	-	0.0	-	-
86.7	45.0	44.2	-	-	101.4	-	-	0.0	-	-	0.0	-	-
86.7	50.0	18.2	-	-	4.6	-	-	0.0	-	-	0.0	-	-
86.7	55.0	9.0	-	-	192.1	-	-	0.0	-	-	0.0	-	-
86.7	60.0	110.9	-	-	100.9	-	-	0.0	-	-	0.0	-	-
86.7	70.0	0.0	-	-	78.3	-	-	0.0	-	-	0.0	-	-
86.7	80.0	0.0	-	-	43.0	-	-	0.0	-	-	-	-	-
86.7	90.0	0.0	-	-	5.0	-	-	0.0	-	-	0.0	-	-
86.7	100.0	36.3	-	-	5.1	-	-	0.0	-	-	0.0	-	-
86.7	110.0	0.0	-	-	4.6	-	-	0.0	-	-	0.0	-	-
90.0	30.0	9.6	-	-	36.2	-	-	0.0	-	-	0.0	-	-
90.0	35.0	115.6	-	-	10.5	-	-	0.0	-	-	0.0	-	-
90.0	37.0	0.0	-	-	52.4	-	-	0.0	-	-	0.0	-	-
90.0	45.0	35.8	-	-	54.6	-	-	0.0	-	-	0.0	-	-
90.0	53.0	0.0	-	-	68.3	-	-	10.0	-	-	0.0	-	-
90.0	60.0	0.0	-	-	31.3	-	-	0.0	-	-	0.0	-	-
90.0	70.0	8.9	-	-	10.2	-	-	0.0	-	-	0.0	-	-
90.0	80.0	4.2	-	-	140.9	-	-	0.0	-	-	0.0	-	-
90.0	90.0	9.2	-	-	38.7	-	-	0.0	-	-	0.0	-	-
90.0	120.0	0.0	-	-	21.0	-	-	0.0	-	-	0.0	-	-
93.3	26.7	0.0	-	-	7.4	-	0.0	-	-	-	0.0	-	-
93.3	28.0	9.1	-	-	48.3	-	0.0	-	-	-	0.0	-	-
93.3	30.0	0.0	-	-	556.8	-	9.2	-	-	-	0.0	-	-
93.3	35.0	0.0	-	-	54.6	-	0.0	-	-	-	0.0	-	-
93.3	40.0	9.5	-	-	0.0	-	0.0	-	-	-	0.0	-	-
93.3	45.0	25.5	-	-	0.0	-	0.0	-	-	-	0.0	-	-
93.3	50.0	14.6	-	-	8.1	-	8.6	-	-	-	0.0	-	-
93.3	70.0	0.0	-	-	18.9	-	-	0.0	-	-	0.0	-	-

Triphoturus mexicanus

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	100.0	0.0	-	-	0.0	-	-	0.0	-	-	4.3	-	-
83.3	42.0	0.0	-	-	0.0	-	-	0.0	-	-	8.8	-	-
83.3	55.0	0.0	-	-	0.0	-	-	9.4	-	-	0.0	-	-
83.3	90.0	0.0	-	-	10.1	-	-	0.0	-	-	0.0	-	-

TABLE 4. (cont.)

Triphoturus mexicanus (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 100.0	0.0	-	-	0.0	-	-	4.8	-	-	0.0	-	-
83.3 110.0	0.0	-	-	0.0	-	-	32.2	-	-	0.0	-	-
86.7 33.0	0.0	-	-	0.0	-	-	0.0	-	-	3.9	-	-
86.7 45.0	0.0	-	-	0.0	-	-	0.0	-	-	9.3	-	-
86.7 55.0	0.0	-	-	0.0	-	-	0.0	-	-	4.8	-	-
86.7 110.0	0.0	-	-	0.0	-	-	24.4	-	-	0.0	-	-
90.0 30.0	0.0	-	-	0.0	-	-	0.0	-	-	9.6	-	-
90.0 35.0	0.0	-	-	0.0	-	-	0.0	-	-	27.9	-	-
90.0 60.0	0.0	-	-	0.0	-	-	0.0	-	-	10.3	-	-
90.0 100.0	0.0	-	-	0.0	-	-	4.6	-	-	9.0	-	-
90.0 120.0	0.0	-	-	15.7	-	-	0.0	-	-	0.0	-	-
93.3 28.0	0.0	-	-	0.0	-	0.0	-	-	-	5.7	-	-
93.3 35.0	0.0	-	-	0.0	-	0.0	-	-	-	4.6	-	-
93.3 45.0	0.0	-	-	0.0	-	0.0	-	-	-	4.7	-	-
93.3 50.0	0.0	-	-	0.0	-	0.0	-	-	-	10.1	-	-
93.3 55.0	0.0	-	-	0.0	-	0.0	-	-	-	4.5	-	-
93.3 70.0	0.0	-	-	0.0	-	-	18.2	-	-	0.0	-	-
93.3 80.0	0.0	-	-	0.0	-	-	4.2	-	-	0.0	-	-
93.3 90.0	0.0	-	-	0.0	-	-	23.9	-	-	0.0	-	-
93.3 100.0	0.0	-	-	0.0	-	-	9.4	-	-	0.0	-	-
93.3 110.0	0.0	-	-	0.0	-	-	32.5	-	-	0.0	-	-
93.3 120.0	0.0	-	-	0.0	-	-	9.1	-	-	0.0	-	-

Diogenichthys atlanticus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 100.0	0.0	-	-	4.6	-	-	4.5	-	-	0.0	-	-
80.0 80.0	0.0	-	-	0.0	-	-	4.8	-	-	0.0	-	-
80.0 90.0	0.0	-	-	5.0	-	-	0.0	-	-	0.0	-	-
80.0 100.0	0.0	-	-	0.0	-	-	0.0	-	-	21.9	-	-
83.3 60.0	0.0	-	-	0.0	-	-	0.0	-	-	8.9	-	-
83.3 80.0	8.4	-	-	0.0	-	-	0.0	-	-	4.7	-	-
83.3 90.0	0.0	-	-	0.0	-	-	0.0	-	-	8.7	-	-
83.3 100.0	0.0	-	-	4.9	-	-	0.0	-	-	4.4	-	-
83.3 110.0	4.4	-	-	0.0	-	-	4.6	-	-	4.3	-	-
86.7 50.0	0.0	-	-	0.0	-	-	0.0	-	-	4.4	-	-
86.7 60.0	0.0	-	-	0.0	-	-	0.0	-	-	5.1	-	-
86.7 80.0	0.0	-	-	5.4	-	-	0.0	-	-	-	-	-

TABLE 4. (cont.)

Diogenichthys atlanticus (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 90.0	4.9	-	-	5.0	-	-	0.0	-	-	4.6	-	-
86.7 100.0	31.8	-	-	0.0	-	-	0.0	-	-	0.0	-	-
86.7 110.0	13.2	-	-	13.9	-	-	0.0	-	-	0.0	-	-
90.0 53.0	0.0	-	-	0.0	-	-	0.0	-	-	9.1	-	-
90.0 100.0	4.2	-	-	0.0	-	-	0.0	-	-	0.0	-	-
90.0 110.0	30.4	-	-	5.0	-	-	0.0	-	-	0.0	-	-
90.0 120.0	26.8	-	-	21.0	-	-	0.0	-	-	4.1	-	-
93.3 45.0	0.0	-	-	0.0	-	0.0	-	-	-	4.7	-	-
93.3 80.0	0.0	-	-	0.0	-	-	4.2	-	-	4.8	-	-
93.3 90.0	13.6	-	-	0.0	-	-	0.0	-	-	4.1	-	-
93.3 100.0	28.1	-	-	0.0	-	-	4.7	-	-	0.0	-	-
93.3 110.0	0.0	-	-	0.0	-	-	18.6	-	-	4.6	-	-
93.3 120.0	4.2	-	-	9.8	-	-	4.5	-	-	13.6	-	-

Electrona risso

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 90.0	0.0	-	-	0.0	-	-	4.4	-	-	0.0	-	-
90.0 100.0	8.5	-	-	0.0	-	-	0.0	-	-	0.0	-	-
90.0 110.0	5.1	-	-	0.0	-	-	0.0	-	-	0.0	-	-
90.0 120.0	4.5	-	-	0.0	-	-	0.0	-	-	0.0	-	-
93.3 60.0	0.0	-	-	16.3	-	0.0	-	-	-	0.0	-	-
93.3 80.0	0.0	-	-	0.0	-	-	4.2	-	-	0.0	-	-

Hygophum reinhardtii

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 100.0	4.5	-	-	0.0	-	-	0.0	-	-	0.0	-	-
86.7 110.0	22.1	-	-	0.0	-	-	0.0	-	-	0.0	-	-
90.0 120.0	0.0	-	-	10.5	-	-	0.0	-	-	0.0	-	-
93.3 45.0	0.0	-	-	5.4	-	0.0	-	-	-	0.0	-	-
93.3 90.0	0.0	-	-	5.1	-	-	0.0	-	-	0.0	-	-
93.3 100.0	0.0	-	-	0.0	-	-	4.7	-	-	0.0	-	-
93.3 110.0	4.2	-	-	0.0	-	-	0.0	-	-	0.0	-	-
93.3 120.0	0.0	-	-	0.0	-	-	0.0	-	-	13.6	-	-

Protomyctophum crockeri

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 60.0	8.8	-	-	0.0	-	-	0.0	-	-	0.0	-	-
76.7 70.0	0.0	-	-	11.0	-	-	0.0	-	-	0.0	-	-
76.7 80.0	8.7	-	-	4.6	-	-	0.0	-	-	9.3	-	-

TABLE 4. (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
						Protomyctophum crockeri (cont.)							
76.7	90.0	0.0	-	-	10.1	-	-	10.3	-	-	0.0	-	-
76.7	100.0	21.3	-	-	9.2	-	-	4.5	-	-	0.0	-	-
80.0	70.0	16.2	-	-	11.0	-	-	0.0	-	-	0.0	-	-
80.0	80.0	8.6	-	-	11.4	-	-	0.0	-	-	0.0	-	-
80.0	90.0	9.0	-	-	10.1	-	-	0.0	-	-	0.0	-	-
80.0	100.0	4.7	-	-	10.3	-	-	0.0	-	-	4.4	-	-
83.3	55.0	0.0	-	-	10.4	-	-	0.0	-	-	0.0	-	-
83.3	60.0	8.7	-	-	0.0	-	-	0.0	-	-	0.0	-	-
83.3	70.0	0.0	-	-	0.0	-	-	5.1	-	-	0.0	-	-
83.3	80.0	0.0	-	-	5.0	-	-	8.9	-	-	4.7	-	-
83.3	90.0	4.4	-	-	15.2	-	-	8.7	-	-	4.4	-	-
83.3	100.0	0.0	-	-	9.7	-	-	4.8	-	-	4.4	-	-
83.3	110.0	0.0	-	-	0.0	-	-	0.0	-	-	8.5	-	-
86.7	40.0	4.8	-	-	0.0	-	-	0.0	-	-	0.0	-	-
86.7	60.0	0.0	-	-	0.0	-	-	0.0	-	-	5.1	-	-
86.7	70.0	18.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
86.7	80.0	0.0	-	-	0.0	-	-	9.6	-	-	-	-	-
86.7	90.0	0.0	-	-	0.0	-	-	4.8	-	-	0.0	-	-
86.7	100.0	18.2	-	-	10.3	-	-	0.0	-	-	0.0	-	-
86.7	110.0	13.2	-	-	4.6	-	-	4.9	-	-	0.0	-	-
90.0	30.0	0.0	-	-	0.0	-	-	9.9	-	-	0.0	-	-
90.0	37.0	0.0	-	-	5.2	-	-	0.0	-	-	0.0	-	-
90.0	53.0	0.0	-	-	0.0	-	-	0.0	-	-	4.6	-	-
90.0	60.0	4.5	-	-	5.2	-	-	9.2	-	-	0.0	-	-
90.0	70.0	4.5	-	-	5.1	-	-	0.0	-	-	0.0	-	-
90.0	80.0	4.2	-	-	14.6	-	-	5.1	-	-	4.7	-	-
90.0	90.0	0.0	-	-	11.1	-	-	0.0	-	-	4.5	-	-
90.0	100.0	4.2	-	-	20.0	-	-	4.6	-	-	9.0	-	-
90.0	120.0	17.8	-	-	0.0	-	-	0.0	-	-	0.0	-	-
93.3	30.0	0.0	-	-	0.0	-	0.0	-	-	-	4.8	-	-
93.3	35.0	0.0	-	-	0.0	-	8.2	-	-	-	0.0	-	-
93.3	55.0	0.0	-	-	0.0	-	0.0	-	-	-	9.1	-	-
93.3	60.0	8.4	-	-	0.0	-	0.0	-	-	-	0.0	-	-
93.3	70.0	4.3	-	-	0.0	-	-	9.1	-	-	0.0	-	-
93.3	90.0	0.0	-	-	0.0	-	-	0.0	-	-	8.2	-	-
93.3	120.0	4.2	-	-	0.0	-	-	4.5	-	-	0.0	-	-

TABLE 4. (cont.)

Symbolophorus californiensis

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	60.0	0.0	-	-	9.8	-	-	0.0	-	-	0.0	-	-
76.7	90.0	0.0	-	-	10.1	-	-	0.0	-	-	0.0	-	-
76.7	100.0	0.0	-	-	4.6	-	-	99.7	-	-	0.0	-	-
80.0	70.0	0.0	-	-	0.0	-	-	10.0	-	-	0.0	-	-
80.0	80.0	0.0	-	-	11.4	-	-	14.3	-	-	0.0	-	-
80.0	90.0	0.0	-	-	35.3	-	-	4.5	-	-	9.5	-	-
80.0	100.0	0.0	-	-	20.5	-	-	14.3	-	-	0.0	-	-
83.3	70.0	0.0	-	-	14.4	-	-	5.1	-	-	0.0	-	-
83.3	80.0	0.0	-	-	5.0	-	-	0.0	-	-	4.7	-	-
83.3	90.0	0.0	-	-	0.0	-	-	78.3	-	-	4.4	-	-
83.3	100.0	0.0	-	-	48.7	-	-	4.8	-	-	0.0	-	-
83.3	110.0	0.0	-	-	25.4	-	-	36.8	-	-	0.0	-	-
86.7	70.0	0.0	-	-	9.8	-	-	13.3	-	-	0.0	-	-
86.7	80.0	0.0	-	-	16.1	-	-	9.6	-	-	-	-	-
86.7	90.0	4.9	-	-	0.0	-	-	4.8	-	-	0.0	-	-
86.7	100.0	9.1	-	-	10.3	-	-	0.0	-	-	0.0	-	-
86.7	110.0	0.0	-	-	4.6	-	-	34.1	-	-	0.0	-	-
90.0	70.0	0.0	-	-	0.0	-	-	9.1	-	-	5.0	-	-
90.0	80.0	0.0	-	-	0.0	-	-	0.0	-	-	4.7	-	-
90.0	90.0	0.0	-	-	11.1	-	-	0.0	-	-	0.0	-	-
90.0	100.0	8.5	-	-	5.0	-	-	4.6	-	-	9.0	-	-
90.0	110.0	25.3	-	-	25.1	-	-	0.0	-	-	4.6	-	-
90.0	120.0	40.1	-	-	10.5	-	-	0.0	-	-	4.1	-	-
93.3	30.0	0.0	-	-	0.0	-	0.0	-	-	-	4.8	-	-
93.3	35.0	0.0	-	-	0.0	-	0.0	-	-	-	4.6	-	-
93.3	50.0	0.0	-	-	0.0	-	0.0	-	-	-	5.1	-	-
93.3	55.0	0.0	-	-	0.0	-	0.0	-	-	-	4.5	-	-
93.3	60.0	0.0	-	-	8.2	-	0.0	-	-	-	0.0	-	-
93.3	70.0	0.0	-	-	0.0	-	-	27.3	-	-	0.0	-	-
93.3	80.0	0.0	-	-	5.0	-	-	12.7	-	-	0.0	-	-
93.3	90.0	0.0	-	-	10.1	-	-	9.5	-	-	0.0	-	-
93.3	100.0	0.0	-	-	20.2	-	-	4.7	-	-	0.0	-	-
93.3	110.0	12.6	-	-	4.8	-	-	9.3	-	-	4.6	-	-
93.3	120.0	4.2	-	-	4.9	-	-	4.5	-	-	0.0	-	-

TABLE 4. (cont.)

Tarletonbeania crenularis

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	49.0	0.0	-	-	0.0	-	-	9.5	-	-	0.0	-	-
76.7	51.0	0.0	-	-	8.8	-	-	0.0	-	-	9.7	-	-
76.7	55.0	10.1	-	-	9.5	-	-	0.0	-	-	30.5	-	-
76.7	60.0	35.2	-	-	29.4	-	-	8.5	-	-	0.0	-	-
76.7	70.0	9.6	-	-	22.0	-	-	19.4	-	-	0.0	-	-
76.7	80.0	78.7	-	-	9.2	-	-	0.0	-	-	0.0	-	-
76.7	90.0	18.9	-	-	0.0	-	-	0.0	-	-	0.0	-	-
76.7	100.0	0.0	-	-	23.0	-	-	0.0	-	-	0.0	-	-
80.0	60.0	0.0	-	-	9.8	-	-	0.0	-	-	0.0	-	-
80.0	70.0	153.7	-	-	11.0	-	-	10.0	-	-	0.0	-	-
80.0	80.0	85.7	-	-	0.0	-	-	0.0	-	-	0.0	-	-
81.8	46.9	0.0	-	-	10.8	-	-	0.0	-	-	0.0	-	-
83.3	42.0	0.0	-	-	0.0	-	-	9.5	-	-	0.0	-	-
83.3	51.0	19.1	-	-	0.0	-	-	0.0	-	-	0.0	-	-
83.3	55.0	15.9	-	-	10.4	-	-	0.0	-	-	0.0	-	-
83.3	60.0	26.1	-	-	17.2	-	-	9.2	-	-	0.0	-	-
83.3	70.0	53.5	-	-	14.4	-	-	0.0	-	-	0.0	-	-
83.3	80.0	33.6	-	-	0.0	-	-	0.0	-	-	0.0	-	-
83.3	90.0	0.0	-	-	10.1	-	-	4.4	-	-	0.0	-	-
86.7	40.0	4.8	-	-	0.0	-	-	0.0	-	-	0.0	-	-
86.7	45.0	24.6	-	-	0.0	-	-	0.0	-	-	0.0	-	-
86.7	50.0	0.0	-	-	4.6	-	-	0.0	-	-	0.0	-	-
86.7	55.0	9.0	-	-	21.3	-	-	0.0	-	-	0.0	-	-
86.7	60.0	60.5	-	-	33.6	-	-	0.0	-	-	0.0	-	-
86.7	70.0	0.0	-	-	9.8	-	-	0.0	-	-	0.0	-	-
86.7	90.0	4.9	-	-	0.0	-	-	9.5	-	-	0.0	-	-
86.7	100.0	0.0	-	-	0.0	-	-	4.7	-	-	4.6	-	-
90.0	35.0	10.5	-	-	0.0	-	-	0.0	-	-	0.0	-	-
90.0	45.0	8.9	-	-	10.9	-	-	0.0	-	-	0.0	-	-
90.0	53.0	0.0	-	-	9.8	-	-	0.0	-	-	0.0	-	-
90.0	60.0	0.0	-	-	20.8	-	-	0.0	-	-	0.0	-	-
90.0	70.0	0.0	-	-	5.1	-	-	0.0	-	-	0.0	-	-
90.0	80.0	0.0	-	-	19.4	-	-	0.0	-	-	0.0	-	-
90.0	90.0	0.0	-	-	11.1	-	-	0.0	-	-	0.0	-	-
90.0	110.0	0.0	-	-	5.0	-	-	0.0	-	-	0.0	-	-
93.3	30.0	0.0	-	-	21.8	-	18.4	-	-	-	0.0	-	-

TABLE 4. (cont.)

Tarletonbeania crenularis (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 35.0	0.0	-	-	21.8	-	0.0	-	-	-	0.0	-	-
93.3 45.0	0.0	-	-	5.4	-	0.0	-	-	-	0.0	-	-
93.3 50.0	29.3	-	-	0.0	-	8.6	-	-	-	0.0	-	-
93.3 100.0	0.0	-	-	0.0	-	-	0.0	-	-	4.5	-	-

Trachipterus altivelis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 51.0	0.0	-	-	0.0	-	-	0.0	-	-	9.7	-	-
76.7 90.0	9.4	-	-	0.0	-	-	0.0	-	-	0.0	-	-
80.0 80.0	8.6	-	-	0.0	-	-	0.0	-	-	0.0	-	-
86.7 80.0	4.8	-	-	0.0	-	-	0.0	-	-	-	-	-
90.0 110.0	0.0	-	-	5.0	-	-	0.0	-	-	0.0	-	-
93.3 90.0	0.0	-	-	0.0	-	-	4.8	-	-	0.0	-	-

Merluccius productus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 49.0	0.0	-	-	0.0	-	-	0.0	-	-	23.5	-	-
76.7 55.0	70.9	-	-	9.5	-	-	0.0	-	-	7.6	-	-
76.7 60.0	8.8	-	-	39.2	-	-	0.0	-	-	0.0	-	-
76.7 70.0	19.1	-	-	22.0	-	-	0.0	-	-	0.0	-	-
76.7 80.0	0.0	-	-	9.2	-	-	0.0	-	-	0.0	-	-
76.7 90.0	9.4	-	-	10.1	-	-	0.0	-	-	0.0	-	-
76.7 100.0	0.0	-	-	9.2	-	-	0.0	-	-	0.0	-	-
80.0 55.0	9.4	-	-	0.0	-	-	0.0	-	-	0.0	-	-
80.0 70.0	0.0	-	-	21.9	-	-	0.0	-	-	0.0	-	-
80.0 80.0	8.6	-	-	102.2	-	-	0.0	-	-	0.0	-	-
80.0 100.0	0.0	-	-	15.4	-	-	0.0	-	-	0.0	-	-
83.3 42.0	0.0	-	-	31.9	-	-	0.0	-	-	4.4	-	-
83.3 51.0	9.5	-	-	9.8	-	-	0.0	-	-	4.6	-	-
83.3 55.0	0.0	-	-	20.9	-	-	0.0	-	-	0.0	-	-
83.3 60.0	8.7	-	-	11.5	-	-	0.0	-	-	0.0	-	-
83.3 70.0	0.0	-	-	21.5	-	-	0.0	-	-	0.0	-	-
83.3 80.0	33.6	-	-	0.0	-	-	0.0	-	-	0.0	-	-
83.3 90.0	0.0	-	-	176.8	-	-	0.0	-	-	0.0	-	-
83.3 100.0	0.0	-	-	9.7	-	-	0.0	-	-	0.0	-	-
86.7 45.0	19.6	-	-	11.3	-	-	0.0	-	-	0.0	-	-
86.7 50.0	18.2	-	-	4.6	-	-	0.0	-	-	0.0	-	-
86.7 55.0	9.0	-	-	106.7	-	-	0.0	-	-	0.0	-	-

TABLE 4. (cont.)

Merluccius productus (cont.)

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 60.0	20.2	-	-	157.0	-	-	0.0	-	-	0.0	-	-
86.7 70.0	0.0	-	-	29.4	-	-	0.0	-	-	0.0	-	-
86.7 80.0	4.8	-	-	5.4	-	-	0.0	-	-	-	-	-
86.7 90.0	0.0	-	-	10.0	-	-	0.0	-	-	0.0	-	-
90.0 35.0	0.0	-	-	10.5	-	-	0.0	-	-	0.0	-	-
90.0 37.0	0.0	-	-	73.4	-	-	8.9	-	-	0.0	-	-
90.0 45.0	0.0	-	-	43.7	-	-	0.0	-	-	0.0	-	-
90.0 53.0	17.5	-	-	331.5	-	-	0.0	-	-	0.0	-	-
90.0 60.0	0.0	-	-	474.1	-	-	0.0	-	-	0.0	-	-
90.0 70.0	0.0	-	-	132.1	-	-	0.0	-	-	0.0	-	-
90.0 80.0	8.3	-	-	53.5	-	-	0.0	-	-	0.0	-	-
90.0 90.0	0.0	-	-	38.7	-	-	0.0	-	-	0.0	-	-
90.0 100.0	0.0	-	-	94.8	-	-	0.0	-	-	0.0	-	-
93.3 28.0	0.0	-	-	9.7	-	0.0	-	-	-	0.0	-	-
93.3 35.0	0.0	-	-	152.9	-	0.0	-	-	-	0.0	-	-
93.3 40.0	0.0	-	-	30.9	-	0.0	-	-	-	0.0	-	-
93.3 45.0	0.0	-	-	42.9	-	0.0	-	-	-	0.0	-	-
93.3 50.0	29.3	-	-	16.3	-	0.0	-	-	-	0.0	-	-
93.3 55.0	0.0	-	-	9.2	-	0.0	-	-	-	0.0	-	-
93.3 60.0	0.0	-	-	203.9	-	0.0	-	-	-	0.0	-	-
93.3 70.0	0.0	-	-	75.7	-	-	0.0	-	-	0.0	-	-
93.3 80.0	0.0	-	-	14.9	-	-	0.0	-	-	0.0	-	-

Ophidion scrippsae

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 51.0	0.0	-	-	0.0	-	-	0.0	-	-	9.7	-	-
83.3 40.6	0.0	-	-	4.6	-	-	3.9	-	-	0.0	-	-
93.3 26.7	0.0	-	-	0.0	-	0.0	-	-	-	3.5	-	-

Brosmophycis marginata

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0 37.0	0.0	-	-	5.2	-	-	0.0	-	-	0.0	-	-

Cataetyx rubrirostris

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0 55.0	0.0	-	-	7.3	-	-	0.0	-	-	0.0	-	-
80.0 60.0	0.0	-	-	9.8	-	-	0.0	-	-	0.0	-	-
83.3 51.0	0.0	-	-	9.8	-	-	0.0	-	-	0.0	-	-

TABLE 4. (cont.)

***Oneirodes* spp.**

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0	120.0	0.0	-	-	0.0	-	-	0.0	-	-	4.1	-	-

Cololabis saira

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	55.0	10.1	-	-	0.0	-	-	0.0	-	-	0.0	-	-
83.3	80.0	0.0	-	-	0.0	-	-	0.0	-	-	4.7	-	-
83.3	90.0	0.0	-	-	0.0	-	-	0.0	-	-	4.4	-	-
83.3	100.0	0.0	-	-	4.9	-	-	0.0	-	-	0.0	-	-
86.7	100.0	0.0	-	-	0.0	-	-	0.0	-	-	4.6	-	-
90.0	37.0	0.0	-	-	5.2	-	-	0.0	-	-	0.0	-	-
90.0	90.0	0.0	-	-	0.0	-	-	0.0	-	-	4.5	-	-
93.3	55.0	0.0	-	-	0.0	-	0.0	-	-	-	4.5	-	-

***Melamphaes* spp.**

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0	80.0	0.0	-	-	11.4	-	-	0.0	-	-	0.0	-	-
83.3	110.0	4.4	-	-	0.0	-	-	0.0	-	-	0.0	-	-
86.7	100.0	4.5	-	-	0.0	-	-	0.0	-	-	0.0	-	-
90.0	80.0	0.0	-	-	4.9	-	-	0.0	-	-	0.0	-	-
93.3	110.0	0.0	-	-	0.0	-	-	4.6	-	-	0.0	-	-

Melamphaes lugubris

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	80.0	0.0	-	-	4.6	-	-	8.2	-	-	0.0	-	-
80.0	70.0	0.0	-	-	0.0	-	-	10.0	-	-	0.0	-	-
80.0	80.0	0.0	-	-	11.4	-	-	0.0	-	-	0.0	-	-
83.3	90.0	0.0	-	-	5.1	-	-	0.0	-	-	0.0	-	-
83.3	110.0	0.0	-	-	5.1	-	-	4.6	-	-	0.0	-	-
86.7	70.0	0.0	-	-	0.0	-	-	4.4	-	-	0.0	-	-
86.7	100.0	0.0	-	-	0.0	-	-	0.0	-	-	4.6	-	-
86.7	110.0	0.0	-	-	0.0	-	-	0.0	-	-	4.3	-	-
90.0	80.0	4.2	-	-	0.0	-	-	0.0	-	-	0.0	-	-
90.0	90.0	0.0	-	-	11.1	-	-	0.0	-	-	0.0	-	-
90.0	100.0	0.0	-	-	5.0	-	-	0.0	-	-	0.0	-	-
90.0	120.0	0.0	-	-	15.7	-	-	4.8	-	-	0.0	-	-
93.3	80.0	0.0	-	-	0.0	-	-	4.2	-	-	0.0	-	-
93.3	110.0	0.0	-	-	4.8	-	-	0.0	-	-	0.0	-	-
93.3	120.0	4.2	-	-	4.9	-	-	0.0	-	-	0.0	-	-

TABLE 4. (cont.)

Melamphaes parvus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 100.0	4.3	-	-	0.0	-	-	0.0	-	-	0.0	-	-
80.0 100.0	0.0	-	-	0.0	-	-	4.8	-	-	0.0	-	-
83.3 90.0	0.0	-	-	0.0	-	-	0.0	-	-	4.4	-	-
86.7 90.0	0.0	-	-	5.0	-	-	0.0	-	-	0.0	-	-
90.0 35.0	0.0	-	-	0.0	-	-	0.0	-	-	9.3	-	-
90.0 80.0	0.0	-	-	9.7	-	-	0.0	-	-	0.0	-	-

Melamphaes simus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 110.0	4.4	-	-	0.0	-	-	0.0	-	-	0.0	-	-
90.0 120.0	0.0	-	-	5.2	-	-	0.0	-	-	0.0	-	-

Poromitra crassiceps

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 110.0	0.0	-	-	10.2	-	-	0.0	-	-	0.0	-	-
86.7 100.0	0.0	-	-	15.4	-	-	0.0	-	-	0.0	-	-
86.7 110.0	0.0	-	-	4.6	-	-	0.0	-	-	0.0	-	-
90.0 60.0	0.0	-	-	0.0	-	-	0.0	-	-	10.3	-	-
93.3 80.0	0.0	-	-	0.0	-	-	0.0	-	-	4.8	-	-
93.3 110.0	0.0	-	-	0.0	-	-	4.6	-	-	0.0	-	-

Scopeloberyx robustus

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

Scopelogadus bispinosus

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

Macroramphosus gracilis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
93.3 28.0	0.0	-	-	9.7	-	0.0	-	-	-	0.0	-	-

***Sebastes* spp.**

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 49.0	8.3	-	-	0.0	-	-	9.5	-	-	3.9	-	-
76.7 51.0	0.0	-	-	44.1	-	-	9.1	-	-	0.0	-	-
76.7 55.0	101.3	-	-	0.0	-	-	0.0	-	-	0.0	-	-
76.7 60.0	8.8	-	-	0.0	-	-	0.0	-	-	0.0	-	-
76.7 70.0	28.7	-	-	43.9	-	-	0.0	-	-	0.0	-	-
80.0 51.0	30.3	-	-	0.0	-	-	0.0	-	-	-	-	-

TABLE 4. (cont.)

Station		*Sebastes* spp. (cont.)											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0	55.0	42.4	-	-	0.0	-	-	0.0	-	-	0.0	-	-
80.0	60.0	72.4	-	-	9.8	-	-	0.0	-	-	0.0	-	-
80.0	70.0	8.1	-	-	11.0	-	-	0.0	-	-	0.0	-	-
81.8	46.9	343.6	-	-	32.4	-	-	0.0	-	-	8.1	-	-
83.3	40.6	0.0	-	-	9.2	-	-	0.0	-	-	0.0	-	-
83.3	42.0	12.1	-	-	106.3	-	-	0.0	-	-	17.5	-	-
83.3	51.0	133.6	-	-	59.1	-	-	0.0	-	-	4.6	-	-
83.3	55.0	151.5	-	-	0.0	-	-	18.8	-	-	0.0	-	-
83.3	60.0	156.8	-	-	34.4	-	-	0.0	-	-	17.9	-	-
83.3	70.0	17.8	-	-	0.0	-	-	0.0	-	-	0.0	-	-
83.3	90.0	4.4	-	-	5.1	-	-	0.0	-	-	0.0	-	-
86.7	33.0	194.6	-	-	19.5	-	-	0.0	-	-	7.8	-	-
86.7	35.0	43.7	-	-	240.5	-	-	0.0	-	-	0.0	-	-
86.7	40.0	4.8	-	-	52.1	-	-	0.0	-	-	0.0	-	-
86.7	45.0	0.0	-	-	157.7	-	-	0.0	-	-	55.6	-	-
86.7	50.0	300.8	-	-	105.1	-	-	0.0	-	-	26.5	-	-
86.7	55.0	9.0	-	-	96.0	-	-	0.0	-	-	0.0	-	-
86.7	60.0	20.2	-	-	157.0	-	-	0.0	-	-	0.0	-	-
86.7	70.0	0.0	-	-	9.8	-	-	0.0	-	-	0.0	-	-
86.7	90.0	0.0	-	-	0.0	-	-	14.3	-	-	0.0	-	-
90.0	30.0	19.2	-	-	18.1	-	-	0.0	-	-	9.6	-	-
90.0	35.0	21.0	-	-	5.3	-	-	0.0	-	-	0.0	-	-
90.0	37.0	9.1	-	-	0.0	-	-	8.9	-	-	0.0	-	-
90.0	45.0	0.0	-	-	21.8	-	-	0.0	-	-	0.0	-	-
90.0	53.0	8.8	-	-	58.5	-	-	10.0	-	-	0.0	-	-
90.0	60.0	0.0	-	-	0.0	-	-	9.2	-	-	0.0	-	-
90.0	80.0	0.0	-	-	4.9	-	-	10.2	-	-	0.0	-	-
93.3	26.7	13.2	-	-	0.0	-	0.0	-	-	-	0.0	-	-
93.3	35.0	33.7	-	-	152.9	-	16.4	-	-	-	0.0	-	-
93.3	40.0	0.0	-	-	61.8	-	0.0	-	-	-	0.0	-	-
93.3	45.0	8.5	-	-	37.5	-	0.0	-	-	-	4.7	-	-
93.3	50.0	29.3	-	-	24.4	-	17.2	-	-	-	0.0	-	-
93.3	55.0	10.0	-	-	9.2	-	0.0	-	-	-	0.0	-	-
93.3	60.0	8.4	-	-	0.0	-	40.7	-	-	-	0.0	-	-

TABLE 4. (cont.)

Sebastes aurora

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0	55.0	9.4	-	-	0.0	-	-	0.0	-	-	0.0	-	-
93.3	35.0	0.0	-	-	10.9	-	0.0	-	-	-	0.0	-	-
93.3	60.0	8.4	-	-	0.0	-	0.0	-	-	-	0.0	-	-

Sebastes diploproa

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	51.0	0.0	-	-	0.0	-	-	9.1	-	-	9.7	-	-
76.7	55.0	0.0	-	-	0.0	-	-	0.0	-	-	7.6	-	-
76.7	60.0	0.0	-	-	0.0	-	-	0.0	-	-	8.6	-	-
76.7	70.0	0.0	-	-	0.0	-	-	0.0	-	-	8.0	-	-
80.0	55.0	0.0	-	-	0.0	-	-	0.0	-	-	8.9	-	-
83.3	42.0	0.0	-	-	0.0	-	-	0.0	-	-	21.9	-	-
83.3	55.0	0.0	-	-	0.0	-	-	0.0	-	-	8.5	-	-
83.3	70.0	0.0	-	-	0.0	-	-	0.0	-	-	9.1	-	-
86.7	33.0	0.0	-	-	0.0	-	-	0.0	-	-	3.9	-	-
86.7	35.0	0.0	-	-	0.0	-	-	0.0	-	-	10.4	-	-
86.7	45.0	0.0	-	-	11.3	-	-	0.0	-	-	0.0	-	-
93.3	26.7	0.0	-	-	0.0	-	0.0	-	-	-	3.5	-	-

Sebastes goodei

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3	42.0	4.0	-	-	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	4.2	-	-	9.5	-	-	0.0	-	-	0.0	-	-
76.7	51.0	0.0	-	-	8.8	-	-	0.0	-	-	0.0	-	-
76.7	55.0	10.1	-	-	0.0	-	-	0.0	-	-	0.0	-	-
80.0	51.0	10.1	-	-	0.0	-	-	0.0	-	-	-	-	-
80.0	55.0	9.4	-	-	7.3	-	-	0.0	-	-	0.0	-	-
80.0	60.0	9.0	-	-	9.8	-	-	0.0	-	-	0.0	-	-
81.8	46.9	9.5	-	-	0.0	-	-	0.0	-	-	0.0	-	-
83.3	40.6	0.0	-	-	4.6	-	-	0.0	-	-	0.0	-	-
83.3	42.0	0.0	-	-	42.5	-	-	0.0	-	-	0.0	-	-
83.3	51.0	19.1	-	-	0.0	-	-	0.0	-	-	0.0	-	-
83.3	55.0	8.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
86.7	35.0	0.0	-	-	20.0	-	-	0.0	-	-	0.0	-	-
86.7	50.0	0.0	-	-	4.6	-	-	0.0	-	-	0.0	-	-
86.7	55.0	0.0	-	-	53.4	-	-	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 60.0	0.0	-	-	11.2	-	-	0.0	-	-	0.0	-	-
90.0 45.0	0.0	-	-	32.8	-	-	0.0	-	-	0.0	-	-
93.3 26.7	4.4	-	-	0.0	-	0.0	-	-	-	0.0	-	-
93.3 30.0	0.0	-	-	10.9	-	0.0	-	-	-	0.0	-	-
93.3 35.0	0.0	-	-	21.8	-	0.0	-	-	-	0.0	-	-

Sebastes levis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0 55.0	4.7	-	-	0.0	-	-	0.0	-	-	0.0	-	-
81.8 46.9	0.0	-	-	0.0	-	-	0.0	-	-	8.1	-	-
83.3 60.0	8.7	-	-	0.0	-	-	0.0	-	-	0.0	-	-
86.7 50.0	0.0	-	-	9.1	-	-	0.0	-	-	0.0	-	-

Sebastes paucispinis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 49.0	4.2	-	-	0.0	-	-	0.0	-	-	0.0	-	-
76.7 55.0	10.1	-	-	0.0	-	-	0.0	-	-	0.0	-	-
76.7 60.0	17.6	-	-	0.0	-	-	0.0	-	-	0.0	-	-
80.0 55.0	9.4	-	-	0.0	-	-	0.0	-	-	0.0	-	-
83.3 42.0	0.0	-	-	10.6	-	-	0.0	-	-	0.0	-	-
83.3 55.0	8.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
86.7 50.0	9.1	-	-	0.0	-	-	0.0	-	-	0.0	-	-
90.0 30.0	4.8	-	-	0.0	-	-	0.0	-	-	0.0	-	-

***Sebastolobus* spp.**

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 70.0	0.0	-	-	11.0	-	-	0.0	-	-	0.0	-	-
76.7 100.0	0.0	-	-	9.2	-	-	0.0	-	-	0.0	-	-
83.3 60.0	8.7	-	-	0.0	-	-	0.0	-	-	0.0	-	-
93.3 70.0	0.0	-	-	9.5	-	-	0.0	-	-	0.0	-	-
93.3 80.0	0.0	-	-	5.0	-	-	0.0	-	-	0.0	-	-

Oxylebius pictus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0 70.0	8.1	-	-	0.0	-	-	0.0	-	-	0.0	-	-
83.3 42.0	0.0	-	-	0.0	-	-	0.0	-	-	4.4	-	-

Zaniolepis frenata

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 51.0	19.1	-	-	0.0	-	-	0.0	-	-	0.0	-	-

TABLE 4. (cont.)

Zaniolepis latipinnis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 51.0	23.9	-	-	0.0	-	-	0.0	-	-	0.0	-	-
90.0 30.0	4.8	-	-	0.0	-	-	0.0	-	-	0.0	-	-

Artedius lateralis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 51.0	9.5	-	-	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	42.9	-	-	0.0	-	-	0.0	-	-	0.0	-	-
86.7 33.0	4.2	-	-	0.0	-	-	0.0	-	-	0.0	-	-
86.7 50.0	9.1	-	-	0.0	-	-	0.0	-	-	0.0	-	-
93.3 26.7	0.0	-	-	3.7	-	0.0	-	-	-	0.0	-	-

Ruscarius meanyi

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 49.0	4.2	-	-	0.0	-	-	0.0	-	-	0.0	-	-
83.3 51.0	0.0	-	-	9.8	-	-	0.0	-	-	0.0	-	-

Scorpaenichthys marmoratus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 51.0	0.0	-	-	8.8	-	-	0.0	-	-	0.0	-	-
76.7 55.0	10.1	-	-	0.0	-	-	0.0	-	-	0.0	-	-
83.3 51.0	4.8	-	-	0.0	-	-	0.0	-	-	4.6	-	-

Odontopyxis trispinosa

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 51.0	4.8	-	-	0.0	-	-	0.0	-	-	0.0	-	-

Xeneretmus latifrons

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 51.0	9.5	-	-	0.0	-	-	0.0	-	-	0.0	-	-

Liparis mucosus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 49.0	0.0	-	-	0.0	-	-	9.5	-	-	0.0	-	-
83.3 51.0	4.8	-	-	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	-	-	0.0	-	-	9.5	-	-	0.0	-	-
93.3 26.7	0.0	-	-	0.0	-	8.9	-	-	-	0.0	-	-

TABLE 4. (cont.)

***Howella* spp.**

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
90.0 110.0	0.0	-	-	0.0	-	-	0.0	-	-	4.6	-	-
90.0 120.0	0.0	-	-	0.0	-	-	0.0	-	-	4.1	-	-

Trachurus symmetricus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 60.0	0.0	-	-	39.2	-	-	0.0	-	-	0.0	-	-
76.7 100.0	0.0	-	-	0.0	-	-	4.5	-	-	0.0	-	-
80.0 90.0	0.0	-	-	20.2	-	-	0.0	-	-	0.0	-	-
80.0 100.0	0.0	-	-	20.5	-	-	0.0	-	-	0.0	-	-
83.3 90.0	0.0	-	-	15.2	-	-	0.0	-	-	0.0	-	-
83.3 100.0	0.0	-	-	4.9	-	-	0.0	-	-	0.0	-	-
86.7 90.0	0.0	-	-	15.0	-	-	0.0	-	-	0.0	-	-
86.7 100.0	0.0	-	-	10.3	-	-	0.0	-	-	0.0	-	-
90.0 60.0	0.0	-	-	15.6	-	-	0.0	-	-	0.0	-	-
90.0 80.0	0.0	-	-	140.9	-	-	0.0	-	-	0.0	-	-
90.0 90.0	0.0	-	-	33.2	-	-	0.0	-	-	0.0	-	-
90.0 100.0	0.0	-	-	20.0	-	-	0.0	-	-	0.0	-	-
90.0 110.0	0.0	-	-	5.0	-	-	0.0	-	-	0.0	-	-
93.3 35.0	0.0	-	-	10.9	-	0.0	-	-	-	0.0	-	-
93.3 60.0	0.0	-	-	8.2	-	0.0	-	-	-	0.0	-	-
93.3 70.0	0.0	-	-	9.5	-	-	0.0	-	-	0.0	-	-
93.3 110.0	0.0	-	-	4.8	-	-	0.0	-	-	0.0	-	-

Brama japonica

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

Caristius maderensis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 100.0	0.0	-	-	0.0	-	-	0.0	-	-	4.6	-	-

Genyonemus lineatus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 51.0	0.0	-	-	0.0	-	-	0.0	-	-	4.6	-	-
86.7 33.0	4.2	-	-	29.3	-	-	0.0	-	-	0.0	-	-
90.0 30.0	24.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-

Seriphus politus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 35.0	0.0	-	-	0.0	-	-	17.5	-	-	0.0	-	-
93.3 26.7	0.0	-	-	0.0	-	8.9	-	-	-	0.0	-	-

TABLE 4. (cont.)

Chromis punctipinnis

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 60.0	0.0	-	-	11.2	-	-	0.0	-	-	0.0	-	-

Oxyjulis californica

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 50.0	0.0	-	-	0.0	-	-	0.0	-	-	17.7	-	-
86.7 60.0	0.0	-	-	11.2	-	-	0.0	-	-	0.0	-	-
90.0 35.0	0.0	-	-	0.0	-	-	0.0	-	-	9.3	-	-
90.0 60.0	0.0	-	-	0.0	-	-	9.2	-	-	0.0	-	-
93.3 45.0	0.0	-	-	0.0	-	0.0	-	-	-	4.7	-	-
93.3 50.0	0.0	-	-	0.0	-	0.0	-	-	-	5.1	-	-

Semicossyphus pulcher

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 50.0	0.0	-	-	0.0	-	-	0.0	-	-	8.8	-	-
90.0 35.0	0.0	-	-	0.0	-	-	0.0	-	-	9.3	-	-

***Rathbunella* spp.**

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 49.0	0.0	-	-	0.0	-	-	9.5	-	-	3.9	-	-

Rathbunella alleni

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 33.0	21.2	-	-	0.0	-	-	0.0	-	-	0.0	-	-

Stichaeidae

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 51.0	28.6	-	-	0.0	-	-	0.0	-	-	0.0	-	-

Chiasmodon niger

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

***Neoclinus* spp.**

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 51.0	0.0	-	-	0.0	-	-	0.0	-	-	4.6	-	-

***Hypsoblennius* spp.**

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3 40.6	0.0	-	-	0.0	-	-	3.9	-	-	3.4	-	-

Hypsoblennius jenkinsi

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7 60.0	0.0	-	-	0.0	-	-	8.1	-	-	0.0	-	-

TABLE 4. (cont.)

Station	Jan.	Feb.	Mar.	Apr.
76.7 60.0	0.0	-	-	0.0
76.7 70.0	9.6	-	-	0.0
83.3 60.0	0.0	-	-	0.0
86.7 50.0	0.0	-	-	0.0
93.3 26.7	0.0	-	-	0.0

Station	Jan.	Feb.	Mar.	Apr.
86.7 33.0	4.2	-	-	0.0

Station	Jan.	Feb.	Mar.	Apr.
83.3 42.0	0.0	-	-	0.0

Station	Jan.	Feb.	Mar.	Apr.
86.7 50.0	0.0	-	-	0.0

Station	Jan.	Feb.	Mar.	Apr.
86.7 33.0	0.0	-	-	0.0
90.0 30.0	0.0	-	-	9.1
93.3 40.0	0.0	-	-	0.0

Station	Jan.	Feb.	Mar.	Apr.
93.3 26.7	0.0	-	-	0.0

Station	Jan.	Feb.	Mar.	Apr.
83.3 51.0	0.0	-	-	0.0

Station	Jan.	Feb.	Mar.	Apr.
80.0 60.0	0.0	-	-	9.8
83.3 90.0	4.4	-	-	0.0
90.0 80.0	0.0	-	-	4.9
90.0 90.0	0.0	-	-	11.1
93.3 50.0	4.9	-	-	0.0

Station	Jan.	Feb.	Mar.	Apr.
90.0 100.0	0.0	-	-	0.0

Coryphopterus nicholsii

May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
-	-	0.0	-	-	8.6	-	-
-	-	9.7	-	-	0.0	-	-
-	-	0.0	-	-	8.9	-	-
-	-	0.0	-	-	8.8	-	-
-	0.0	-	-	-	3.5	-	-

Lepidogobius lepidus

May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
-	-	0.0	-	-	0.0	-	-

Lythrypnus dalli

May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
-	-	0.0	-	-	8.8	-	-

Lythrypnus zebra

May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
-	-	0.0	-	-	4.4	-	-

Typhlogobius californiensis

May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
-	-	7.7	-	-	0.0	-	-
-	-	0.0	-	-	0.0	-	-
-	9.3	-	-	-	0.0	-	-

Sphyraena argentea

May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
-	8.9	-	-	-	0.0	-	-

Scomber japonicus

May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
-	-	0.0	-	-	4.6	-	-

Icichthys lockingtoni

May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
-	-	0.0	-	-	0.0	-	-
-	-	0.0	-	-	0.0	-	-
-	-	0.0	-	-	0.0	-	-
-	-	0.0	-	-	0.0	-	-
-	0.0	-	-	-	0.0	-	-

Psenes pellucidus

May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
-	-	0.0	-	-	4.5	-	-

TABLE 4. (cont.)

Tetragonurus cuvieri

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 100.0	0.0	-	-	0.0	-	-	0.0	-	-	4.3	-	-
80.0 100.0	0.0	-	-	0.0	-	-	0.0	-	-	8.7	-	-
83.3 80.0	0.0	-	-	0.0	-	-	0.0	-	-	18.8	-	-
83.3 90.0	0.0	-	-	0.0	-	-	0.0	-	-	4.4	-	-
83.3 110.0	0.0	-	-	0.0	-	-	4.6	-	-	12.8	-	-
86.7 90.0	0.0	-	-	0.0	-	-	0.0	-	-	4.6	-	-
86.7 100.0	0.0	-	-	0.0	-	-	0.0	-	-	13.7	-	-
86.7 110.0	0.0	-	-	0.0	-	-	0.0	-	-	4.3	-	-
90.0 60.0	0.0	-	-	0.0	-	-	0.0	-	-	10.3	-	-
90.0 70.0	0.0	-	-	0.0	-	-	0.0	-	-	5.0	-	-
90.0 90.0	0.0	-	-	0.0	-	-	0.0	-	-	4.5	-	-
90.0 100.0	0.0	-	-	0.0	-	-	0.0	-	-	4.5	-	-
93.3 50.0	0.0	-	-	0.0	-	0.0	-	-	-	5.1	-	-
93.3 55.0	0.0	-	-	0.0	-	0.0	-	-	-	4.5	-	-
93.3 100.0	0.0	-	-	0.0	-	-	0.0	-	-	17.8	-	-
93.3 120.0	0.0	-	-	0.0	-	-	0.0	-	-	4.5	-	-

***Citharichthys* spp.**

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

Citharichthys sordidus

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7 49.0	0.0	-	-	0.0	-	-	0.0	-	-	129.4	-	-
76.7 51.0	0.0	-	-	0.0	-	-	0.0	-	-	9.7	-	-
76.7 55.0	0.0	-	-	0.0	-	-	0.0	-	-	45.7	-	-
76.7 60.0	8.8	-	-	0.0	-	-	17.1	-	-	34.3	-	-
76.7 70.0	0.0	-	-	0.0	-	-	0.0	-	-	8.0	-	-
80.0 55.0	4.7	-	-	0.0	-	-	0.0	-	-	44.3	-	-
80.0 80.0	8.6	-	-	0.0	-	-	0.0	-	-	0.0	-	-
80.0 90.0	0.0	-	-	0.0	-	-	4.5	-	-	0.0	-	-
81.8 46.9	0.0	-	-	0.0	-	-	10.6	-	-	40.5	-	-
83.3 40.6	0.0	-	-	0.0	-	-	0.0	-	-	3.4	-	-
83.3 42.0	0.0	-	-	0.0	-	-	0.0	-	-	48.2	-	-
83.3 51.0	0.0	-	-	0.0	-	-	0.0	-	-	9.2	-	-
83.3 55.0	8.0	-	-	0.0	-	-	0.0	-	-	8.5	-	-
83.3 60.0	26.1	-	-	5.7	-	-	0.0	-	-	8.9	-	-
86.7 33.0	0.0	-	-	0.0	-	-	0.0	-	-	3.9	-	-

TABLE 4. (cont.)

Citharichthys sordidus (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7	35.0	0.0	-	-	0.0	-	-	17.5	-	-	0.0	-	-
86.7	40.0	0.0	-	-	10.4	-	-	0.0	-	-	9.9	-	-
86.7	45.0	14.7	-	-	0.0	-	-	0.0	-	-	27.8	-	-
86.7	55.0	9.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
86.7	90.0	4.9	-	-	0.0	-	-	0.0	-	-	0.0	-	-
90.0	35.0	0.0	-	-	5.3	-	-	0.0	-	-	0.0	-	-
90.0	37.0	9.1	-	-	10.5	-	-	0.0	-	-	20.3	-	-
90.0	45.0	17.9	-	-	0.0	-	-	0.0	-	-	19.6	-	-
90.0	53.0	8.8	-	-	29.3	-	-	0.0	-	-	4.6	-	-
90.0	60.0	0.0	-	-	5.2	-	-	0.0	-	-	10.3	-	-
90.0	80.0	4.2	-	-	4.9	-	-	0.0	-	-	0.0	-	-
93.3	35.0	25.3	-	-	10.9	-	0.0	-	-	-	0.0	-	-
93.3	40.0	9.5	-	-	10.3	-	0.0	-	-	-	0.0	-	-
93.3	50.0	29.3	-	-	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	0.0	-	-	4.7	-	-	0.0	-	-	31.4	-	-
76.7	51.0	9.0	-	-	0.0	-	-	0.0	-	-	19.4	-	-
76.7	55.0	0.0	-	-	0.0	-	-	27.9	-	-	61.0	-	-
76.7	60.0	0.0	-	-	0.0	-	-	34.1	-	-	42.8	-	-
76.7	70.0	19.1	-	-	0.0	-	-	9.7	-	-	23.9	-	-
76.7	90.0	9.4	-	-	0.0	-	-	10.3	-	-	0.0	-	-
80.0	51.0	0.0	-	-	10.0	-	-	19.2	-	-	-	-	-
80.0	55.0	0.0	-	-	0.0	-	-	18.7	-	-	70.9	-	-
80.0	60.0	0.0	-	-	9.8	-	-	0.0	-	-	8.9	-	-
80.0	70.0	8.1	-	-	0.0	-	-	0.0	-	-	8.2	-	-
80.0	80.0	25.7	-	-	0.0	-	-	0.0	-	-	0.0	-	-
81.8	46.9	0.0	-	-	0.0	-	-	0.0	-	-	97.2	-	-
83.3	40.6	0.0	-	-	0.0	-	-	3.9	-	-	0.0	-	-
83.3	42.0	0.0	-	-	10.6	-	-	0.0	-	-	56.9	-	-
83.3	51.0	0.0	-	-	0.0	-	-	0.0	-	-	22.9	-	-
83.3	55.0	8.0	-	-	0.0	-	-	0.0	-	-	42.4	-	-
83.3	60.0	43.6	-	-	0.0	-	-	0.0	-	-	98.3	-	-
83.3	100.0	0.0	-	-	0.0	-	-	0.0	-	-	4.4	-	-
86.7	33.0	4.2	-	-	0.0	-	-	0.0	-	-	0.0	-	-
86.7	40.0	4.8	-	-	20.9	-	-	0.0	-	-	9.9	-	-

TABLE 4. (cont.)

Citharichthys stigmaeus (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7	45.0	4.9	-	-	11.3	-	-	0.0	-	-	27.8	-	-
86.7	55.0	9.0	-	-	0.0	-	-	0.0	-	-	9.6	-	-
86.7	60.0	0.0	-	-	11.2	-	-	0.0	-	-	0.0	-	-
86.7	70.0	0.0	-	-	0.0	-	-	4.4	-	-	19.1	-	-
86.7	90.0	0.0	-	-	0.0	-	-	0.0	-	-	4.6	-	-
86.7	100.0	0.0	-	-	5.1	-	-	0.0	-	-	4.6	-	-
90.0	28.0	0.0	-	-	10.9	-	-	0.0	-	-	0.0	-	-
90.0	35.0	0.0	-	-	0.0	-	-	0.0	-	-	37.2	-	-
90.0	37.0	0.0	-	-	5.2	-	-	0.0	-	-	30.4	-	-
90.0	45.0	0.0	-	-	10.9	-	-	0.0	-	-	0.0	-	-
90.0	53.0	0.0	-	-	0.0	-	-	10.0	-	-	0.0	-	-
90.0	60.0	0.0	-	-	0.0	-	-	0.0	-	-	31.0	-	-
90.0	80.0	4.2	-	-	0.0	-	-	0.0	-	-	0.0	-	-
93.3	30.0	10.2	-	-	10.9	-	0.0	-	-	-	9.7	-	-
93.3	35.0	0.0	-	-	0.0	-	0.0	-	-	-	27.3	-	-
93.3	50.0	0.0	-	-	0.0	-	0.0	-	-	-	10.1	-	-
93.3	60.0	0.0	-	-	0.0	-	30.5	-	-	-	0.0	-	-
93.3	80.0	4.2	-	-	0.0	-	-	0.0	-	-	0.0	-	-

Paralichthys californicus

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7	33.0	4.2	-	-	0.0	-	-	0.0	-	-	0.0	-	-
86.7	35.0	0.0	-	-	10.0	-	-	0.0	-	-	0.0	-	-
93.3	26.7	0.0	-	-	3.7	-	0.0	-	-	-	0.0	-	-

Eopsetta jordani

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	60.0	8.8	-	-	0.0	-	-	0.0	-	-	0.0	-	-
80.0	60.0	9.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-

Lyopsetta exilis

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
76.7	49.0	0.0	-	-	9.5	-	-	0.0	-	-	0.0	-	-
76.7	51.0	0.0	-	-	17.6	-	-	0.0	-	-	0.0	-	-
76.7	55.0	10.1	-	-	0.0	-	-	0.0	-	-	0.0	-	-
80.0	51.0	0.0	-	-	10.0	-	-	0.0	-	-	-	-	-
80.0	60.0	0.0	-	-	29.3	-	-	0.0	-	-	0.0	-	-
80.0	70.0	0.0	-	-	11.0	-	-	0.0	-	-	0.0	-	-
83.3	42.0	0.0	-	-	10.6	-	-	0.0	-	-	0.0	-	-

TABLE 4. (cont.)

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
						Lyopsetta exilis (cont.)							
86.7	35.0	0.0	-	-	20.0	-	-	0.0	-	-	0.0	-	-
86.7	45.0	0.0	-	-	22.5	-	-	0.0	-	-	0.0	-	-
93.3	26.7	0.0	-	-	0.0	-	8.9	-	-	-	0.0	-	-
						Microstomus pacificus							
Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0	60.0	0.0	-	-	9.8	-	-	0.0	-	-	0.0	-	-
						Parophrys vetulus							
Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7	35.0	0.0	-	-	60.1	-	-	0.0	-	-	0.0	-	-
90.0	28.0	0.0	-	-	10.9	-	-	0.0	-	-	0.0	-	-
						Symphurus atricaudus							
Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
83.3	60.0	0.0	-	-	0.0	-	-	0.0	-	-	8.9	-	-
						Disintegrated fish larvae							
Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
80.0	90.0	0.0	-	-	10.1	-	-	0.0	-	-	0.0	-	-
83.3	60.0	0.0	-	-	5.7	-	-	0.0	-	-	0.0	-	-
86.7	60.0	10.1	-	-	0.0	-	-	0.0	-	-	0.0	-	-
86.7	100.0	0.0	-	-	5.1	-	-	0.0	-	-	0.0	-	-
90.0	53.0	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
90.0	120.0	0.0	-	-	0.0	-	-	0.0	-	-	4.6	-	-
93.3	120.0	0.0	-	-	0.0	-	-	0.0	-	-	4.1	-	-
						-	-	0.0	-	-	4.5	-	-
						Unidentified fish larvae							
Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
86.7	70.0	0.0	-	-	9.8	-	-	0.0	-	-	0.0	-	-

PHYLOGENETIC INDEX TO TABLE 4

ALPHABETICAL INDEX TO TABLE 4