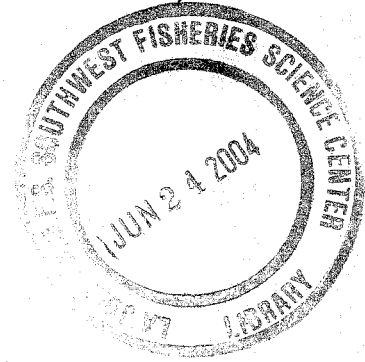


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## NOAA Technical Memorandum NMFS



**JANUARY 1988**

### **ICHTHYOPLANKTON AND STATION DATA FOR CALIFORNIA COOPERATIVE OCEANIC FISHERIES INVESTIGATIONS SURVEY CRUISES IN 1968**

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**NOAA-TM-NMFS-SWFC-99**

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

## NOAA Technical Memorandum NMFS

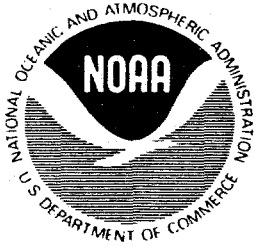
The National Oceanic and Atmospheric Administration (NOAA), organized in 1970, has evolved into an agency which establishes national policies and manages and conserves our oceanic, coastal, and atmospheric resources. An organizational element within NOAA, the Office of Fisheries is responsible for fisheries policy and the direction of the National Marine Fisheries Service (NMFS).

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**NOAA Technical Memorandum NMFS**

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## ABSTRACT

This report provides ichthyoplankton and associated station and tow data from California Cooperative Oceanic Fisheries Investigations (CalCOFI) cruises conducted off California and Baja California in 1968. It is the eighteenth report in a series that presents these data for all biological-oceanographic CalCOFI surveys from 1951 to the present. A total of 319 stations was occupied during 3 cruises over a survey area which extended from Pt. Reyes, California to Cape San Lazaro, Mexico and seaward to several hundred miles. The data are listed in a series of 5 tables; the background, methodology, and information necessary for interpretation and quantitative analysis 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 key table lists, by station and month, standardized counts of each of the 113 larval fish categories identified from survey samples. This and previous and subsequent reports make the CalCOFI ichthyoplankton and station data available to all investigators and serve as guides to the newly developed computer data base.

## INTRODUCTION

This report, the eighteenth of a series, provides ichthyoplankton and associated station and tow data from California Cooperative Oceanic Fisheries Investigations (CalCOFI) joint biological-oceanographic survey cruises conducted in 1968. 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 such fluctuations. CalCOFI, known as the California Cooperative Sardine Research Program from 1949 to 1953, was made up of representatives of the South Pacific Fisheries Investigations (SPFI) of the U.S. Fish and Wildlife Service [now the La Jolla Laboratory, National Marine Fisheries Service (NMFS)], the Scripps Institution of Oceanography (SIO), the California Department of Fish and Game (CDFG), the California Academy of Sciences (CAS) and the Hopkins Marine Station of Stanford University. The first three of these agencies supplied ships and personnel to conduct the sea surveys. NMFS processed the plankton samples and analyzed the ichthyoplankton from them. SIO processed and analyzed the hydrographic samples and measurements and also analyzed invertebrate groups from the plankton samples.

The boundaries, station placement, and sampling frequency for the CalCOFI survey area were based on the results of joint biological and oceanographic cruises conducted by NMFS and SIO during 1939-41. Those cruises were designed to collect sardine eggs and larvae and associated hydrographic data over the entire areal and seasonal spawning range of the species. On these survey cruises, plankton tows were made to 70 m, a depth which encompassed the vertical distribution of sardine eggs and larvae.

Wide-ranging joint biological and oceanographic survey cruises were resumed in 1949 with sardine as the focus; however, an increasing interest in other biological components resulted in the deepening of standard tows to 140 m in 1951. This marked the beginning of truly quantitative ichthyoplankton sampling on CalCOFI surveys.

Data resulting from CalCOFI surveys in 1968 have been published in a number of forms. Hydrographic data (Univ. of Calif., SIO, 1971) were presented in a standard format. Distributional maps of larvae of 2 taxa taken on CalCOFI surveys during 1968 are presented in the CalCOFI Atlas series: rockfish (*Sebastes* spp.), Ahlstrom et al., 1978; northern anchovy (*Engraulis mordax*) Hewitt, 1980.

A computer data base for eggs and larvae of sardine and anchovy, for larvae of Pacific hake (*Merluccius productus*), jack mackerel (*Trachurus symmetricus*) and Pacific mackerel (*Scomber japonicus*), and for eggs of Pacific saury (*Cololabis saira*) was established in 1969. The development of a data base for other fish larvae is a complex undertaking because competency of identification has evolved steadily over the past 38 years. We began the task of producing a CalCOFI ichthyoplankton data base and associated data report series in 1983. All available original records for 1968 were subjected to an extensive verification and editing process to produce this report. This and previous (Ambrose et al., 1987a,b,c; 1988a,b; Sandknop et al., 1987a,b; 1988a,b; Stevens et al., 1987a,b,c; 1988; Sumida et al., 1987a,b; 1988a,b) and subsequent reports make the CalCOFI ichthyoplankton and station data available to all investigators and serve as guides to the computer data base. The data base will be modified when additional errors are discovered and when composite taxa from the earlier years are reidentified. These reports are the fundamental reference documents against which subsequent changes in the data base can be compared.

#### SAMPLING AREA AND PATTERN

In 1968, CalCOFI survey cruises were conducted in January, April-May, and June. A total of 319 stations included in the data base was occupied on 3 cruises, with an average of 106 stations per cruise (range 59-133). Coverage of the survey station pattern varied among cruises and the entire area was not covered on any single cruise (Figures 1-4, Table 1). Although the area surveyed during 1968 was more extensive than in 1967 (258 stations were surveyed in 1967), coverage for these 2 years was considerably less extensive than in other years of the decade. The area off northern California (lines 40-57) was not surveyed in 1968. Stations off central California (lines 60-77) were occupied in January and June (Cruises 6801, 6806). The area between Pt. Conception, California and Cape Colnett, Baja California (lines 80-103) was surveyed in January and June with coverage extending to line 113 in June. The area off central and southern Baja California (lines 117-140) was surveyed only in



April (Cruise 6804). Coverage extended seaward to station 100 (approximately 200-300 miles offshore) on lines 60-93 (Cruise 6801) but typically did not extend beyond station 90 (approximately 160-260 miles offshore)<sup>1</sup>. Some inshore stations were occupied during 1968 which were not covered on early CalCOFI surveys. These stations were included in the data base (Table 1) but were omitted from the station plots (Figures 2-4).

Two vessels were employed on these cruises: the *David Starr Jordan* of NMFS and the *Horizon* of SIO. The *David Starr Jordan* was used on two cruises and the *Horizon* on one (Univ. of Calif., SIO, 1971).

### SAMPLING GEAR AND METHODS

The standard CalCOFI net used from 1949 to 1969 had a 1-m diameter mouth opening (0.785 m<sup>2</sup> area) and an overall length of about 5 m. The net was constructed of 30xxx gauze, a heavy duty grade of silk bolting cloth, with a mesh size of 0.55 mm after shrinkage. The last 40 cm of the cone and the cod end were constructed of 56xxx grit gauze which had a mesh size of 0.25 mm after shrinkage. The net ring was fastened to a short 3-lead bridle connected to several meters of line which attached to the towing cable by a clamp. A current meter was suspended in the center of the net mouth to measure volume of water filtered (see Kramer et al., 1972, for further details).

The standard tow from 1951 through 1968 was an oblique haul to 140 m depth (to 15 m of the bottom in shallow areas) designed to filter a constant amount of water per depth interval (ca. 3m<sup>3</sup>/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 line to the towing cable with the 45 kg terminal weight about 10-15 m below the surface. The net was lowered to 140 m depth by paying out 200 m of wire over a 4 minute period (35 m of depth/min.). After fishing at depth for 30 seconds, the net was retrieved at 20 m/min. (14 m depth/min.). The angle of

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<sup>1</sup>CalCOFI lines (Figure 5) are arranged perpendicular to the coastline and extend from the Canadian border (line 10) to below Cape San Lucas, Baja California (line 157). Stations were established on the basis of a perpendicular to line 80 (off Pt. Conception) at a point designated as station 60. Stations were plotted seaward and shoreward from station 60 on each line. Cardinal CalCOFI lines (those ending in "0") are 120 miles apart and usually bracket two ordinal lines (ending in "3" or "7"), so that lines are 40 miles apart over most of the pattern. Cardinal stations are 40 miles apart and typically these are separated by a station number ending in "5" so that stations are 20 miles apart out to station 90 on most lines. Stations are placed at closer intervals near the coast and islands to accommodate these features (see Kramer et al., 1972 for further details).

stray of the towing cable was recorded every 30 seconds and maintained at  $45^\circ (+3^\circ)$  by adjusting the ship speed and course. After reaching the surface, the net was washed down and the samples preserved in 5% formalin buffered with sodium borate. Flowmeter readings were made at the beginning and end of each tow. Detailed descriptions of gear and methods are given by Ahlstrom (1953), Kramer et al. (1972), and Smith and Richardson (1977).

#### LABORATORY PROCEDURES

Laboratory processing began with the determination of a displacement volume for each sample (methods described in Staff, SPFI, 1953 and Kramer et al., 1972). Sorting involved the removal of ichthyoplankton from the sample and identification and separation of: eggs and larvae of Pacific sardine and northern anchovy; larvae of Pacific hake; and eggs of Pacific saury. In 1968 each sample was sorted completely.

A "standard haul factor" (SHF) was calculated for each tow to make them comparable and allow estimations of areal abundance. This factor adjusts the number of eggs or larvae in a haul to the number in  $10 \text{ m}^3$  of water strained per meter of depth fished. If the vertical distribution of the species has been encompassed, then the adjusted value is equivalent to the number under  $10 \text{ m}^2$  of sea surface. The SHF is calculated for each haul by the formula:

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

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 ( $\text{m}^3$ ) strained during the haul

$$\text{V} = \text{R} \cdot \text{a} \cdot \text{p}$$

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

a = area ( $\text{m}^2$ ) of the mouth of the net

p = length of column of water (m) needed to 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 1968. 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 carried out by a separate group of specialists. 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 identifying these series by relating them to known metamorphic, juvenile, or adult stages with overlapping features (Powles and Markle, 1984). A total of 111 taxa was identified for 1968, with 67 taken to species, 20 to genus, 20 to family, and 4 to order or suborder. Beginning with 1961, larvae in the families Paralepididae and Labridae were identified to genus or species.

The task of producing a reliable and equitable ichthyoplankton data base required extensive procedures to verify, correct, and edit the original identifications. The primary data source was the original identification sheets (see Kramer et al., 1972, for examples); however, a critical resource used in all phases of this process was the CalCOFI ichthyoplankton collection in which the samples are archived. Throughout the course of CalCOFI ichthyoplankton studies, samples have been identified to the lowest taxon possible. In reviewing these identifications for the data base, our approach has been conservative and we have preserved those identifications and counts which we could confirm, while correcting as many of the errors as possible. After computer entry, taxonomic errors and inconsistencies in the data base were corrected and the most obvious identification errors were corrected. Our current knowledge of ichthyoplankton techniques coupled with a precise understanding of the development of identification competency in the program over the years allowed us to critically judge the historical records. Identifications were changed to different taxa, lumped to a higher taxonomic category, or given a more precise taxonomic name. In some cases, identifications of a taxon were inconsistent among cruises in a year. These records were made equitable by lumping to the higher taxonomic category to avoid biases that could result in quantitative misinterpretations.

Next, statistical, seasonal, and geographic outliers were identified, employing a series of graphic summaries and listings. Examination of geographic outliers proved to be especially effective because of our accumulated knowledge of species distributions. In the course of examining samples for these outliers, other identification errors were discovered and eventually all taxa were scrutinized to some extent. Lastly,

certain taxa were reexamined in all samples for the entire CalCOFI time series. These taxa were selected because of their commercial, ecological, phylogenetic, or zoogeographic importance or because taxonomic confusion was at the ordinal level. The following is a list of the taxa for 1968 which received special attention, with explanations and caveats intended to aid in quantitative interpretations:

Anguilliformes - tentative and sporadic identifications to family or lower taxon lumped to order.

*Engraulis mordax* - some nearshore samples of small *E. mordax* may contain other anchovy genera, which could not be differentiated.

*Nansenia* spp. - all specimens checked and identified as *N. candida* or *N. crassa*; all specimens of these species near their range boundaries checked.

*Bathylagus* spp. - includes small and/or disintegrated specimens of *Bathylagus* or *Leuroglossus stilbius*.

Stomiiformes - all specimens checked and identified to genus or species; residuals are poorly preserved or unavailable specimens.

Sternoptychidae - tentative and sporadic identifications of hatchetfishes to genus were lumped to family.

*Bathophilus* spp. - specimen checked.

*Eustomias* spp. - specimen checked.

Paralepididae - all specimens examined and identified to species; residuals are small, poorly preserved or unavailable specimens.

Scopelarchidae - tentative and sporadic identifications to genus lumped to family.

*Lampanyctus* spp. - tentative and sporadic identifications to species lumped to genus.

*Lampanyctus regalis* - underrepresented because of inability to differentiate small larvae (<5 mm) from those of other species of the genus; counts may include other species of the genus because of difficulty in identifying larvae of this large and complex genus.

*Lampanyctus ritteri* - comment for *L. regalis* applies to this species.

*Diogenichthys atlanticus* - all specimens at margins of range checked.

*Diogenichthys laternatus* - all specimens at margins of range checked.

*Electrona rissoi* - recognition of this species was inconsistent and others may be included in *Protomyctophum crockeri* or Myctophidae.

*Hygophum* spp. - all specimens reidentified to species.

*Protomyctophum crockeri* - some samples on northern lines may contain *P. thompsoni* which was not identified originally.

Ophidiiformes - this category did not exist originally and ophidiiform larvae were included in *Brosmophycis marginata*, "Otophidium", "Zoarcidae", and "blenny"; identifications of *B. marginata* proved to be mostly correct and "Zoarcidae" to be a yet unidentified ophidiiform species; all "Otophidium" and "blenny" were reexamined and they included several ophidiiform taxa (moved to order).

Trachipteridae - tentative and sporadic identifications to genus were lumped to family.

*Melamphaes* spp. - all identifications ascribed to Melamphaidae were reexamined and assigned to genus (*Melamphaes*, *Poromitra*) or species (*Scopelogadus bispinosus*). Larvae originally identified as *Melamphaes* spp. were not reexamined and this category may contain other melamphaid genera.

Cottidae - all specimens checked.

*Ophiodon elongatus* - specimen checked.

*Oxylebius pictus* - all specimens checked.

*Zaniolepis* spp. - all specimens checked.

*Sebastes* spp. - category may contain other scorpaenid genera particularly in samples south of line 120.

Labridae - all specimens originally identified to family were reexamined and assigned to genus (*Halichoeres* spp.) or species (*Oxyjulis californica*); residuals are small, poorly preserved or unavailable specimens.

*Howella brodiei* - specimen checked; originally included in Apogonidae; in this report we list *H. brodiei* in the family Apogonidae for convenience, recognizing that its systematic affinities are not resolved.

*Seriola lalandi* - all specimens checked.

*Girella nigricans* - all specimens checked.

*Medialuna californiensis* - all specimens checked.

Sciaenidae - tentative and sporadic identifications to genus lumped to family.

Scombridae - includes small, poorly preserved or unavailable specimens which were originally identified to family; the absence of Pacific mackerel (*Scomber japonicus*) larvae from samples in 1968 was carefully checked, since they were present in all other CalCOFI surveys.

Pleuronectiformes - all specimens of this category (originally called "flatfish") were examined and reidentified; residuals are small, poorly preserved or unavailable specimens.

*Citharichthys* spp. - all larvae identified to species were lumped to the genus except *C. stigmaeus*; category includes larvae of *Etropus* spp.

*Citharichthys stigmaeus* - includes larvae larger than ca. 4.5 mm; smaller larvae are in *Citharichthys* spp.

*Paralichthys* spp. - all specimens of this genus were examined and most were assigned to *P. californicus*.

*Glyptocephalus zachirus* - all specimens examined.

*Lepidopsetta bilineata* - all specimens examined; originally misidentified as *Psettichthys melanostictus*.

*Microstomus pacificus* - all specimens examined.

*Pleuronichthys* spp. - all larvae of this genus and constituent species were examined and assigned to species; residuals are small, poorly preserved or unavailable specimens.

*Psettichthys melanostictus* - all specimens examined.

#### COMPUTER ENTRY AND EDITING

Each taxon on the original identification sheets was given a 3-digit code based on the list of codes in Haight et al. (1979). Taxon codes and counts from these sheets were keypunched by cruise and station, along with pertinent station and tow data and entered into the VAX 11/780 computer at the University of California, San Diego, Computing Center. After entries were completed for an entire year, print-out listings of taxa and counts on each station were compared with the original data sheets to eliminate keypunch errors. Next, data in the file were cross-checked with data on an existing file which contained: station and tow data; numbers of eggs of sardine, anchovy, and saury; numbers of larvae of sardine, anchovy, hake, jack mackerel, and Pacific mackerel; total number of fish eggs; and total number of fish larvae.

Discrepancies in ichthyoplankton data in these two files were corrected by inspecting original records from the sorting laboratory, the original ichthyoplankton identification sheets, and the samples themselves. Station and tow data discrepancies between the two files were corrected by reviewing ships' logs and deck tow sheets, original records from the sorting laboratory, cruise announcements, publications, header information on the ichthyoplankton identification sheets, and station plots generated for each cruise. Eventually all station and tow data were checked by comparing these sources.

The corrected ichthyoplankton data base was then examined statistically and outliers were found and checked as above. Distributional plots were then prepared for each taxon and these were checked by reviewing the data sources mentioned above and by examining archived specimens. A listing of each taxon by station (Table 4) was produced, which became the primary document for subsequent checks. Misidentifications found in geographic outlier checks and other misidentifications and data problems discovered in the course of examining archived samples resulted in several iterations of Table 4. Finally, totals in Table 4 were checked against annual summaries of incidence and abundance (Tables 2 and 3). Ecological analyses of the data were conducted concurrently with editing procedures and provided cross-checks that allowed correction of errors.

#### SPECIES SUMMARY

Larvae of northern anchovy (*Engraulis mordax*) represented 39.5% of all fish larvae taken on CalCOFI cruises during 1968 and numbered almost twice as many as Pacific hake (*Merluccius productus*), the next most abundant species with 21.2% of the total larvae (Tables 2,3). Northern anchovy ranked 2nd in incidence; *M. productus* ranked 8th. Larvae of *Sebastes* spp., a composite of about 70 species, ranked 3rd in number (13.9%) and first in occurrence. The lanternfish *Stenobranchius leucopsarus* ranked 4th in abundance (4.2%) and occurrence. A midwater gonostomatid, *Vinciguerria lucetia*, and the family Sciaenidae ranked 5th and 6th in abundance but only 13th and 29th in occurrence. The myctophid *Triphoturus mexicanus* also ranked in the top 10 in numbers (7th) and occurrence (9th). Jack mackerel larvae (*Trachurus symmetricus*) ranked 8th in numbers and 11th in occurrence. Two deepsea smelts (*Leuroglossus stilbius* and *Bathylagus ochotensis*) completed the top 10 taxa, ranking 9th and 10th in numbers and 5th and 6th in occurrence. The 10 taxa contributed 90.4% of all larvae taken during 1968; the remaining 9.6% was represented by 101 taxa plus the unidentified and disintegrated categories. Of the 10 taxa, 5 were midwater species, 2 were coastal pelagic species, and 3 were coastal demersal species or generic groupings.

## EXPLANATION OF TABLES

- Table 1 - This table lists by cruise the pertinent station and tow data for 1968, the volume of water filtered and standard haul factor for each tow, the percent of sample sorted, and the total numbers 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 2-4). Stations are designated by two groups of digits; the first set indicates the line and decimal fraction and the second set indicates the station on the line. Time is listed as Pacific Standard Time at the start of each tow in 24-hour designation. Methods for determining tow depth, volume of water strained, standard haul factor, and percent sorted were described in the methods section. The values for total fish eggs and larvae represent raw counts (unadjusted for percent sorted or standard haul factor). Ship codes are as follows: JD, *David Starr Jordan*; HO, *Horizon*
- Table 2 - This table lists pooled occurrences of all larval fish taxa taken during 1968 in ranked order.
- Table 3 - This table lists pooled counts of all larval fish taxa taken during 1968 in ranked order. Numbers are adjusted for percent sorted and standard haul factors.
- Table 4 - This table gives numbers of fish larvae for each taxon, listed by station and calendar month in which the tow was taken. Counts are adjusted for percent of sample sorted and standard haul factor. The orders are listed in "phylogenetic" sequence modified from Nelson (1984). Subtaxa within each order are listed alphabetically. Page numbers for each taxon are given in the index at the end of the report.
- Table 5 - This table is a summary of pooled occurrences of all larval fish taxa taken on CalCOFI surveys from 1961 to 1969. Taxa are listed in the same order as in Table 4.

## ACKNOWLEDGMENTS

The senior author originally identified larvae from CalCOFI cruises of 1968. Ronald Whyte coded each larval fish taxon or type and Rita Ford entered them into the computer. Debby Snow efficiently assisted in all aspects of data editing and retrieval. Larry Zins and James Ryan provided programming assistance. Dorothy Roll designed the CalCOFI data acquisition system and provided data processing support. Ken Raymond, Roy Allen, and Henry Orr helped with graphics and production of the



report. Lorraine Prescott and Diane Forsythe prepared the manuscript for printing. Paul Smith determined statistical outliers, provided assistance during geographical outlier checks and offered helpful suggestions throughout the project. Izadore Barrett, Director of the Southwest Fisheries Center and Reuben Lasker, Chief, Coastal Fisheries Resources Division, SWFC, provided the support critical to the completion of the project. James Thrailkill planned CalCOFI surveys and supervised cruises, data handling, and plankton sorting from 1949 to 1986 and is largely responsible for the high quality of these operations. Without the vision and direction of Elbert Ahlstrom and Elton Sette and the dedicated efforts of the many people who collected, processed, and analyzed the samples, this data base would not exist.

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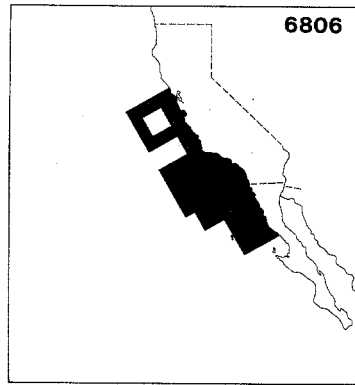
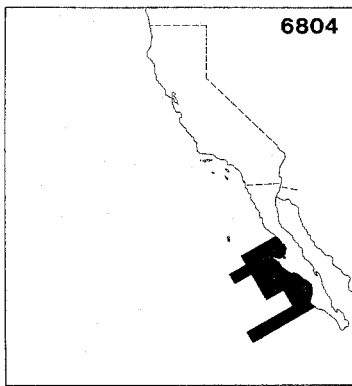
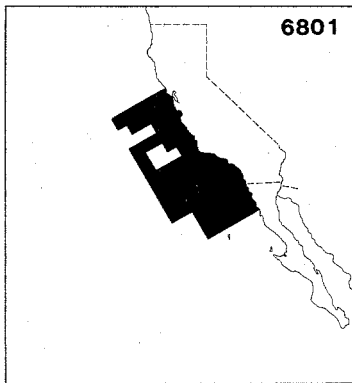


Figure 1. Composite arrangement of diagrammatic charts showing areas sampled on each CalCOFI cruise during 1968.

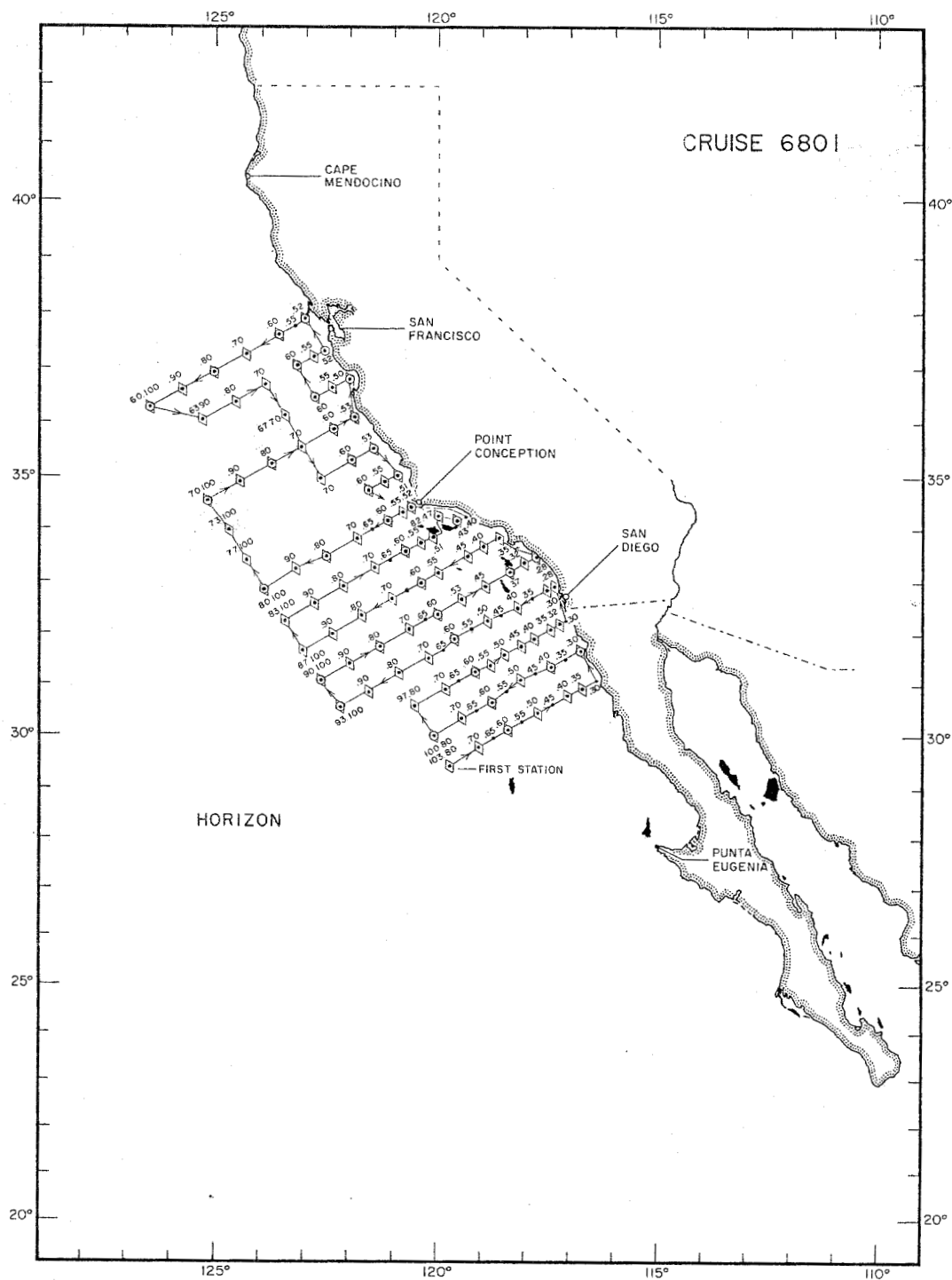


Figure 2. Station pattern for CalCOFI Cruise 6801 showing tracks for each vessel. Stations with plankton tows are indicated by a dot; circles designate hydrographic stations and diamonds signify STD recordings. Figures 2-4 modified from charts in Univ. of Calif., SIO (1971) to include only those stations listed in Table 1 of this report; see Table 1 for inshore stations not shown on charts.

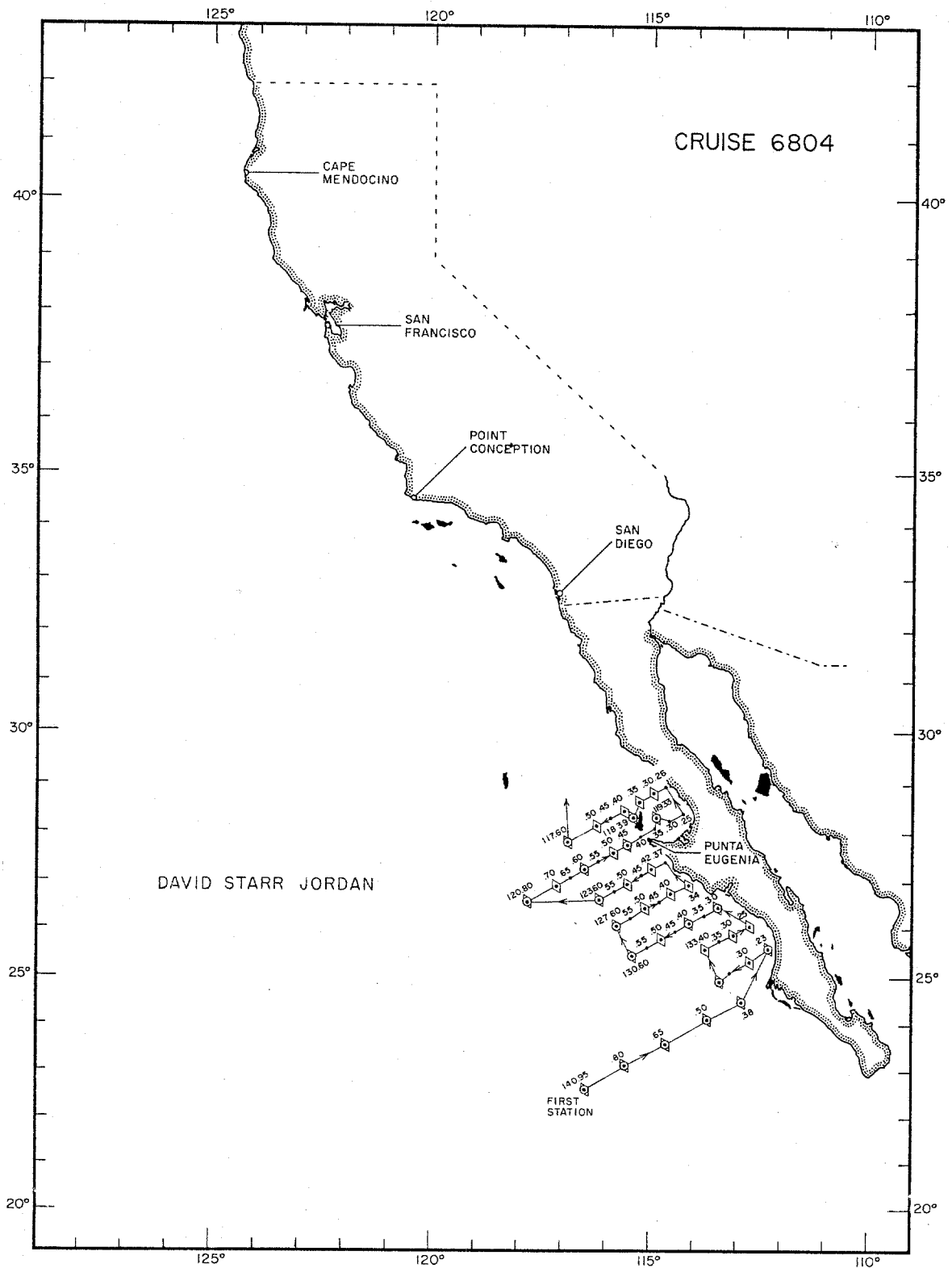


Figure 3. Station pattern for CalCOFI Cruise 6804. Symbols as in Figure 2.

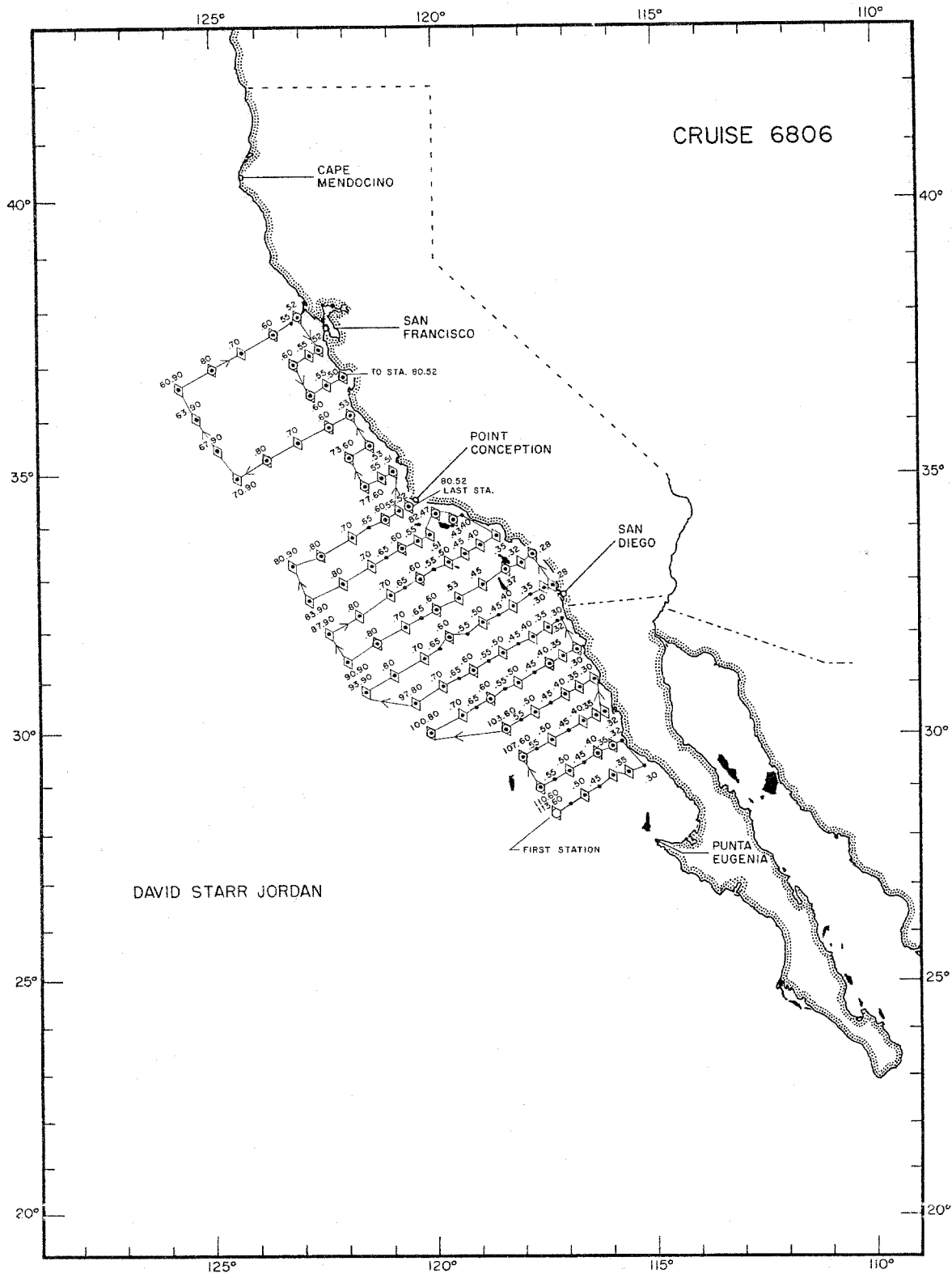


Figure 4. Station pattern for CalCOFI Cruise 6806. Symbols as in Figure 2.



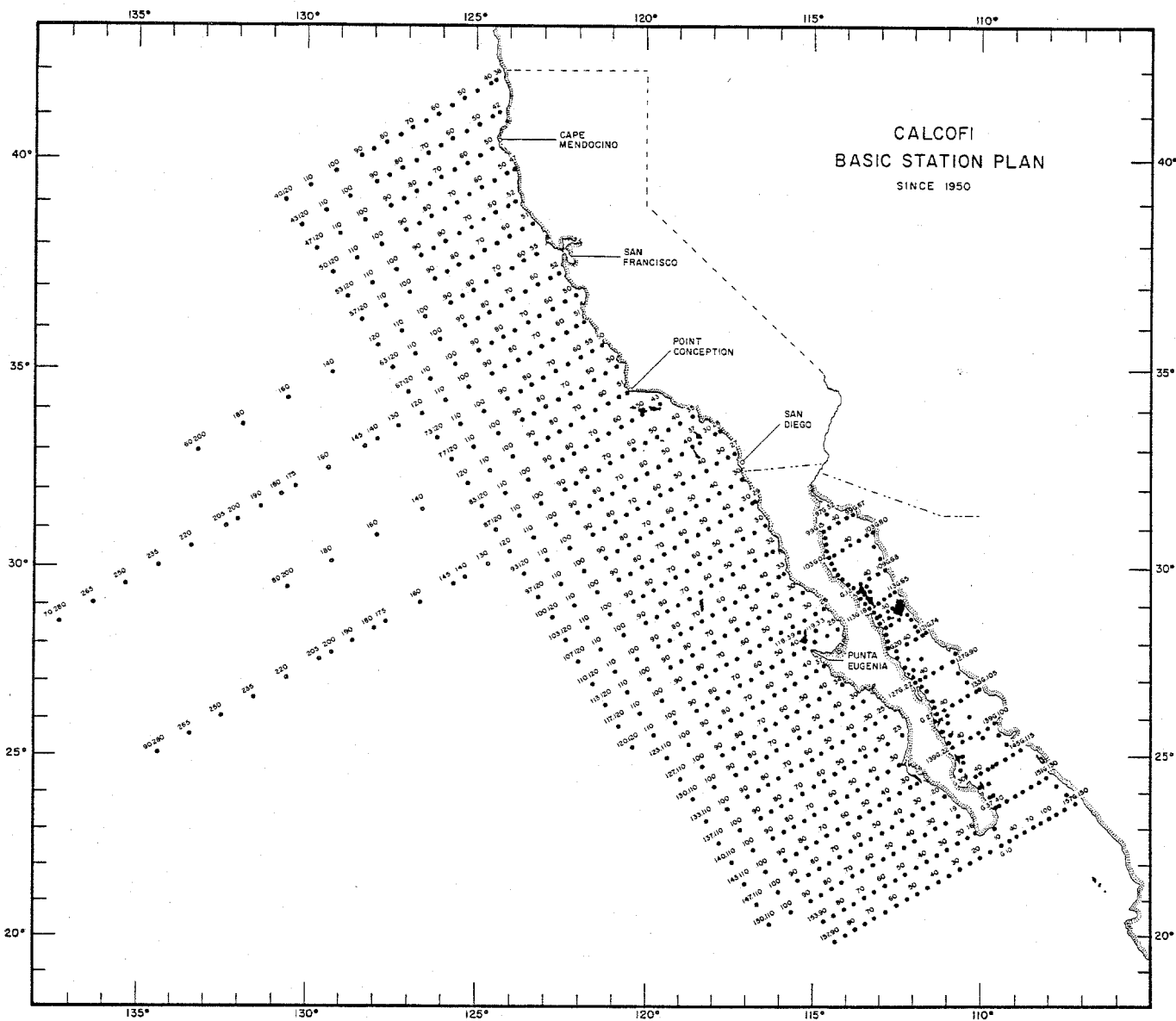


Figure 5. The basic station plan for CalCOFI cruises from 1950 to the present.

TABLE 1. Station and plankton tow data for CalCOFI cruises in 1968. Counts for fish eggs and larvae are not adjusted for standard haul factor or percent of sample sorted.

CalCOFI Cruise 6801

Line	Station	Lat. (N) deg. min.	Long. (W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
60.0	50.0	37 57.5	122 53.3	HO	68 01 23	1119	30	236	1.28	100.0	4	219
60.0	52.0	37 54.0	123 01.7	HO	68 01 23	1146	65	290	2.23	100.0	204	1949
60.0	55.0	37 47.0	123 15.0	HO	68 01 23	1408	86	326	2.64	100.0	1391	28
60.0	60.0	37 37.8	123 37.5	HO	68 01 23	1716	138	518	2.66	100.0	53	263
60.0	70.0	37 16.9	124 20.8	HO	68 01 23	2126	139	511	2.72	100.0	129	131
60.0	80.0	36 57.0	125 03.3	HO	68 01 24	0150	135	320	4.22	100.0	98	126
60.0	90.0	36 37.0	125 47.0	HO	68 01 24	0656	142	486	2.91	100.0	37	18
60.0	100.0	36 17.0	126 30.0	HO	68 01 24	1141	148	462	3.21	100.0	4	12
63.0	50.0	37 23.3	122 27.8	HO	68 01 23	0734	21	138	1.53	100.0	1078	516
63.0	52.0	37 19.0	122 36.0	HO	68 01 23	0628	82	264	3.08	100.0	639	344
63.0	55.0	37 12.2	122 50.3	HO	68 01 23	0421	145	492	2.95	100.0	1348	65
63.0	60.0	37 03.0	123 12.0	HO	68 01 23	0158	145	465	3.12	100.0	106	51
63.0	70.0	36 42.5	123 55.0	HO	68 01 25	0236	131	498	2.64	100.0	84	77
63.0	80.0	36 23.0	124 35.2	HO	68 01 24	2201	134	513	2.62	100.0	46	132
63.0	90.0	36 03.0	125 20.0	HO	68 01 24	1744	143	482	2.96	100.0	6	7
67.0	48.0	36 52.9	121 56.0	HO	68 01 22	1440	31	144	2.14	100.0	133	1373
67.0	50.0	36 48.0	122 05.0	HO	68 01 22	1600	104	321	3.24	100.0	439	42
67.0	55.0	36 39.7	122 26.4	HO	68 01 22	1816	146	464	3.15	100.0	556	42
67.0	60.0	36 28.9	122 49.2	HO	68 01 22	2126	147	480	3.07	100.0	110	108
67.0	70.0	36 08.0	123 29.5	HO	68 01 25	0646	147	454	3.22	100.0	187	112
70.0	51.0	36 11.3	121 43.9	HO	68 01 21	1437	92	360	2.54	100.0	180	25
70.0	53.0	36 06.8	121 54.2	HO	68 01 21	1256	144	469	3.07	100.0	221	73
70.0	60.0	35 53.0	122 22.5	HO	68 01 21	0816	144	473	3.04	100.0	34	61
70.0	70.0	35 32.8	123 06.2	HO	68 01 21	0240	138	499	2.76	100.0	305	92
70.0	80.0	35 14.1	123 46.1	HO	68 01 20	2211	135	485	2.77	100.0	56	7
70.0	90.0	34 54.8	124 28.9	HO	68 01 20	1701	145	473	3.06	100.0	8	9
70.0	100.0	34 33.0	125 12.0	HO	68 01 20	1300	143	476	3.01	100.0	23	14
73.0	50.0	35 37.0	121 17.0	HO	68 01 26	0026	85	280	3.02	100.0	939	89
73.0	53.0	35 32.3	121 28.3	HO	68 01 25	2251	138	492	2.81	100.0	532	136
73.0	60.0	35 18.1	121 57.6	HO	68 01 25	1846	142	473	3.01	100.0	76	34
73.0	70.0	34 58.0	122 40.0	HO	68 01 25	1401	140	477	2.93	100.0	24	48
73.0	100.0	33 58.5	124 44.2	HO	68 01 20	0806	138	500	2.77	100.0	15	9
77.0	48.0	35 08.3	120 43.7	HO	68 01 26	0439	22	80	2.72	100.0	333	866
77.0	51.0	35 01.9	120 56.1	HO	68 01 26	0646	141	467	3.02	100.0	1106	38
77.0	55.0	34 54.5	121 13.0	HO	68 01 26	0901	129	520	2.47	100.0	3331	341
77.0	60.0	34 44.5	121 35.0	HO	68 01 26	1211	140	474	2.95	100.0	71	282
77.0	100.0	33 24.2	124 20.0	HO	68 01 20	0303	143	470	3.04	100.0	33	3
80.0	51.0	34 26.5	120 32.7	HO	68 01 18	2211	83	368	2.25	100.0	1040	111
80.0	52.0	34 24.6	120 37.0	HO	68 01 18	2341	136	488	2.78	100.0	1178	0
80.0	55.0	34 19.0	120 48.0	HO	68 01 19	0120	143	462	3.10	100.0	347	302
80.0	60.0	34 09.0	121 09.0	HO	68 01 19	0441	146	445	3.28	100.0	4006	779
80.0	65.0	33 59.5	121 30.5	HO	68 01 19	0651	145	467	3.10	100.0	2476	19
80.0	70.0	33 48.8	121 50.8	HO	68 01 19	0931	141	480	2.93	100.0	123	30

TABLE 1. (cont.)

## CALCOFI Cruise 6801

Line Station	Lat. (N) deg. min.	Long. (W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
80.0	33 28.7	122 32.0	HO	68 01 19	1410	145	479	3.01	100.0	18	5
80.0	33 14.0	123 13.0	HO	68 01 19	1756	143	478	3.00	100.0	31	2
80.0	32 50.0	123 55.8	HO	68 01 19	2251	138	510	2.70	100.0	29	9
82.0	34 15.0	119 59.0	HO	68 01 18	0231	138	483	2.85	100.0	666	1042
83.0	34 14.0	119 22.0	HO	68 01 18	0759	19	147	1.26	100.0	236	4456
83.0	34 09.6	119 34.3	HO	68 01 18	0541	139	472	2.94	100.0	303	1396
83.0	33 52.2	120 07.3	HO	68 01 17	2212	91	429	2.13	100.0	893	134
83.0	33 44.0	120 24.5	HO	68 01 17	2001	133	487	2.73	100.0	842	440
83.0	33 34.2	120 45.5	HO	68 01 17	1744	144	467	3.08	100.0	171	310
83.0	33 24.0	121 06.0	HO	68 01 17	1421	141	481	2.93	100.0	9	33
83.0	33 14.8	121 27.0	HO	68 01 17	1146	147	460	3.20	100.0	16	27
83.0	32 54.0	122 08.0	HO	68 01 17	0706	130	519	2.49	100.0	8	17
83.0	32 35.0	132 48.2	HO	68 01 16	0241	134	458	2.93	100.0	9	5
83.0	32 14.0	123 23.0	HO	68 01 16	2221	137	475	2.89	100.0	52	7
87.0	33 54.2	118 29.4	HO	68 01 15	0429	47	195	2.42	100.0	194	250
87.0	33 50.0	118 37.5	HO	68 01 15	0541	144	438	3.29	100.0	153	209
87.0	33 40.0	118 58.0	HO	68 01 15	0821	141	456	3.09	100.0	224	408
87.0	33 29.1	119 19.7	HO	68 01 15	1106	137	458	2.99	100.0	133	240
87.0	33 10.0	120 00.0	HO	68 01 15	2131	123	522	2.36	100.0	276	546
87.0	32 59.0	120 23.2	HO	68 01 16	0027	146	482	2.83	100.0	586	351
87.0	32 49.2	120 43.5	HO	68 01 16	0237	137	483	3.21	100.0	26	24
87.0	32 39.5	121 02.0	HO	68 01 16	0506	130	506	2.57	100.0	284	153
87.0	32 21.4	121 45.0	HO	68 01 16	0946	135	516	2.62	100.0	20	8
87.0	31 59.0	122 24.0	HO	68 01 16	1355	136	478	2.85	100.0	30	14
87.0	31 40.0	123 04.0	HO	68 01 16	1801	143	466	3.06	100.0	46	5
90.0	33 28.4	117 46.6	HO	68 01 14	2351	146	436	3.35	100.0	192	45
90.0	32 22.0	118 02.5	HO	68 01 14	2118	133	452	2.94	100.0	185	79
90.0	33 11.0	118 22.5	HO	68 01 14	1856	143	475	3.00	100.0	280	397
90.0	32 54.2	118 55.5	HO	68 01 14	1441	147	438	3.35	100.0	756	478
90.0	32 39.2	119 27.8	HO	68 01 14	1107	137	470	2.93	100.0	113	183
90.0	32 22.0	120 00.0	HO	68 01 14	0736	140	467	3.00	100.0	24	8
90.0	32 16.8	120 17.3	HO	68 01 14	0431	138	466	2.96	100.0	112	18
90.0	32 04.8	120 39.0	HO	68 01 14	0211	145	438	3.31	100.0	34	10
90.0	31 45.0	121 19.0	HO	68 01 13	2150	139	473	2.93	100.0	45	10
90.0	31 24.0	122 02.0	HO	68 01 13	1646	135	500	2.69	100.0	24	17
90.0	31 05.0	122 38.0	HO	68 01 13	1206	146	444	3.27	100.0	28	12
93.0	32 56.0	117 19.0	HO	68 01 11	1854	27	163	1.65	100.0	29	151
93.0	32 54.7	117 21.8	HO	68 01 11	1941	126	503	2.50	100.0	141	313
93.0	32 50.3	117 31.4	HO	68 01 11	2126	129	487	2.65	100.0	236	487
93.0	32 40.4	117 51.5	HO	68 01 11	2340	147	416	3.52	100.0	251	507
93.0	32 29.9	118 11.5	HO	68 01 12	0216	1	446	3.21	100.0	93	33
93.0	32 21.7	118 33.0	HO	68 01 12	0433	134	475	2.82	100.0	139	133
93.0	32 14.7	118 53.0	HO	68 01 12	0706	144	466	3.09	100.0	237	120
93.0	32 05.2	119 15.0	HO	68 01 12	0916	146	459	3.18	100.0	424	306
93.0	31 53.9	119 38.3	HO	68 01 12	1245	158	175	9.00	100.0	29	5

TABLE 1. (cont.)

## CalCOFI Cruise 6801

Line Station	Lat.(N) deg. min.	Long.(W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
93.0	31 40.0	119 53.5	HO	68 01 12	1446	132	491	2.68	100.0	23	10
93.0	31 31.0	120 13.8	HO	68 01 12	1722	109	535	2.02	100.0	30	21
93.0	31 12.9	120 54.1	HO	68 01 12	2131	127	503	2.52	100.0	110	89
93.0	30 50.0	121 34.5	HO	68 01 13	0201	138	468	2.95	100.0	62	16
93.0	30 32.8	122 13.2	HO	68 01 13	0701	139	478	2.90	100.0	23	13
97.0	32 17.5	117 04.7	HO	68 01 11	0645	27	138	1.98	100.0	894	1028
97.0	32 16.0	117 07.0	HO	68 01 11	0616	30	148	1.48	100.0	199	103
97.0	32 12.0	117 15.2	HO	68 01 11	0504	141	450	3.13	100.0	568	346
97.0	32 05.3	117 27.5	HO	68 01 11	0321	137	459	2.99	100.0	370	1000
97.0	31 54.5	117 50.0	HO	68 01 11	0036	139	466	2.97	100.0	528	298
97.0	31 46.0	118 08.5	HO	68 01 10	2203	129	507	2.54	100.0	291	152
97.0	31 36.0	118 30.5	HO	68 01 10	1916	122	457	2.67	100.0	234	342
97.0	31 23.2	118 50.0	HO	68 01 10	1641	142	460	3.10	100.0	130	282
97.0	31 15.5	119 10.0	HO	68 01 10	1406	135	491	2.76	100.0	19	328
97.0	31 03.9	119 31.0	HO	68 01 10	1031	143	447	3.20	100.0	50	4
97.0	30 54.2	119 50.0	HO	68 01 10	0816	134	492	2.71	100.0	14	13
97.0	30 35.0	120 31.0	HO	68 01 10	0346	148	447	3.31	100.0	47	23
100.0	31 42.2	116 43.4	HO	68 01 08	1808	81	274	2.96	100.0	328	14
100.0	31 40.5	116 46.5	HO	68 01 08	1936	147	442	3.32	100.0	309	18
100.0	31 30.8	117 07.4	HO	68 01 08	2223	131	507	2.59	100.0	85	27
100.0	31 20.7	117 26.8	HO	68 01 09	0151	146	452	3.23	100.0	221	13
100.0	31 14.2	117 48.1	HO	68 01 09	0401	146	449	3.25	100.0	189	503
100.0	31 05.0	118 07.7	HO	68 01 09	0641	145	441	3.29	100.0	296	521
100.0	30 52.0	118 26.8	HO	68 01 09	0901	121	534	2.27	100.0	220	860
100.0	30 39.1	118 47.0	HO	68 01 09	1231	138	467	2.96	100.0	21	11
100.0	30 30.0	119 07.5	HO	68 01 09	1507	148	427	3.46	100.0	8	21
100.0	30 20.5	119 27.5	HO	68 01 09	1736	136	476	2.85	100.0	12	14
100.0	30 00.0	120 04.5	HO	68 01 09	2251	117	535	2.19	100.0	117	28
103.0	31 07.0	116 21.0	HO	68 01 08	1354	22	185	1.16	100.0	114	135
103.0	31 06.0	116 24.5	HO	68 01 08	1309	31	229	1.35	100.0	177	92
103.0	30 56.0	116 45.0	HO	68 01 08	1036	125	540	2.31	100.0	9	107
103.0	30 47.2	117 05.2	HO	68 01 08	0744	125	551	2.27	100.0	20	30
103.0	30 37.5	117 24.8	HO	68 01 08	0456	125	565	2.22	100.0	130	26
103.0	30 27.0	117 44.8	HO	68 01 08	0231	149	447	3.32	100.0	31	17
103.0	30 16.6	118 05.0	HO	68 01 07	2336	140	502	2.80	100.0	96	9
103.0	30 07.1	118 24.2	HO	68 01 07	2131	137	515	2.65	100.0	105	16
103.0	29 58.0	118 44.8	HO	68 01 07	1716	146	451	3.24	100.0	38	16
103.0	29 46.5	119 04.0	HO	68 01 07	1501	142	467	3.04	100.0	22	34
103.0	29 24.0	119 43.2	HO	68 01 07	1011	133	519	2.56	100.0	25	17

TABLE I. (cont.)

## CalCOFI Cruise 6804

Line Station	Lat. (N) deg. min.	Long. (W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
117.0	28 58.0	114 36.6	JD	68 05 05	0650	47	204	2.31	100.0	6	0
117.0	28 56.0	114 41.3	JD	68 05 05	0745	64	248	2.59	100.0	0	2
117.0	28 48.0	114 56.5	JD	68 05 05	1000	92	358	2.58	100.0	40	702
117.0	28 38.0	115 16.0	JD	68 05 05	1235	139	479	2.91	100.0	14	63
117.0	28 28.0	115 35.5	JD	68 05 05	1805	137	484	2.82	100.0	4	36
117.0	28 18.0	115 56.0	JD	68 05 05	2050	143	464	3.08	100.0	18	24
117.0	28 08.0	116 15.0	JD	68 05 05	2340	141	445	3.17	100.0	49	25
117.0	27 48.0	116 53.0	JD	68 05 06	0650	139	469	2.97	100.0	14	46
118.0	28 18.5	115 23.7	JD	68 05 05	1540	140	464	3.02	100.0	1	46
119.0	28 19.0	114 53.0	JD	68 05 04	2030	102	373	2.73	100.0	83	457
120.0	28 24.0	114 10.7	JD	68 05 05	0200	27	130	2.06	100.0	37	0
120.0	28 22.5	114 15.0	JD	68 05 05	0110	46	195	2.36	100.0	70	3
120.0	28 13.0	114 33.5	JD	68 05 04	2245	75	309	2.41	100.0	18	754
120.0	28 03.0	114 54.0	JD	68 05 04	1755	68	254	2.67	100.0	5	45
120.0	27 56.5	115 14.0	JD	68 05 04	1510	29	179	1.63	100.0	5	280
120.0	27 44.4	115 31.5	JD	68 05 04	1245	142	458	3.10	100.0	5	47
120.0	27 35.0	115 51.0	JD	68 05 04	0905	137	478	2.86	100.0	11	84
120.0	27 24.6	116 11.0	JD	68 05 04	0605	139	463	3.00	100.0	3	134
120.0	27 14.1	116 30.5	JD	68 05 04	0320	142	476	2.98	100.0	21	390
120.0	27 03.9	116 50.0	JD	68 05 03	2320	143	461	3.09	100.0	42	805
120.0	26 53.0	117 09.9	JD	68 05 03	2045	142	495	2.87	100.0	51	60
120.0	26 32.5	117 49.0	JD	68 05 03	1550	141	461	2.80	100.0	37	35
123.0	27 26.2	114 36.0	JD	68 05 02	1415	30	502	1.95	100.0	2	82
123.0	27 24.0	114 40.0	JD	68 05 02	1505	63	155	2.41	100.0	9	169
123.0	27 14.0	114 59.0	JD	68 05 02	1800	137	529	2.59	100.0	2	6
123.0	27 07.3	115 11.5	JD	68 05 02	2000	134	507	2.64	100.0	19	105
123.0	26 57.3	115 30.5	JD	68 05 02	2255	136	485	2.80	100.0	96	67
123.0	26 46.5	115 49.9	JD	68 05 03	0140	142	468	3.03	100.0	116	194
123.0	26 38.0	116 09.9	JD	68 05 03	0510	148	442	3.34	100.0	34	54
127.0	26 57.5	114 02.2	JD	68 05 01	0950	60	186	3.25	100.0	7	90
127.0	26 55.0	114 06.5	JD	68 05 01	0855	68	217	3.12	100.0	3	161
127.0	26 44.3	114 30.3	JD	68 05 01	0350	137	508	2.69	100.0	93	150
127.0	26 33.6	114 48.7	JD	68 05 01	0035	142	500	2.84	100.0	67	115
127.0	26 23.8	115 08.0	JD	68 04 30	2145	138	509	2.72	100.0	53	74
127.0	26 13.5	115 27.0	JD	68 04 30	1845	136	521	2.60	100.0	439	1361
127.0	26 03.5	115 47.6	JD	68 04 30	1555	139	522	2.65	100.0	104	229
130.0	26 33.2	113 20.9	JD	68 04 29	1307	48	201	2.36	100.0	3	147
130.0	26 18.7	113 28.5	JD	68 04 29	1450	61	262	2.31	100.0	2	210
130.0	26 18.0	113 48.2	JD	68 04 29	1720	139	513	2.71	100.0	21	31
130.0	26 09.0	114 07.0	JD	68 04 29	2050	136	520	2.61	100.0	20	10
130.0	25 58.5	114 26.5	JD	68 04 29	2326	135	509	2.66	100.0	103	124
130.0	25 49.0	114 45.0	JD	68 04 30	0241	141	486	2.89	100.0	124	34
130.0	25 39.0	115 04.0	JD	68 04 30	0526	142	476	2.97	100.0	12	420
130.0	25 29.0	115 24.0	JD	68 04 30	0920	139	428	3.24	100.0	41	585
133.0	26 08.5	112 40.3	JD	68 04 29	0818	65	280	2.34	100.0	1	2

TABLE 1. (cont.)

## CALCOFI Cruise 6804

Line Station	Lat. (N) deg. min.	Long. (W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
133.0	26 02.7	112 43.9	JD	68 04 29	0703	73	309	2.35	100.0	2	5
133.0	25 53.5	113 07.0	JD	68 04 29	0325	137	529	2.58	100.0	49	40
133.0	25 44.5	113 26.5	JD	68 04 29	0025	130	547	2.37	100.0	46	16
133.0	25 34.6	113 45.4	JD	68 04 28	2125	141	485	2.90	100.0	20	202
137.0	25 36.0	112 14.8	JD	68 04 27	1800	57	210	2.71	100.0	6	114
137.0	25 34.0	112 18.8	JD	68 04 27	1925	84	306	2.72	100.0	32	195
137.0	25 19.0	112 44.3	JD	68 04 27	2306	140	516	2.71	100.0	67	137
137.0	25 06.0	113 10.5	JD	68 04 28	0201	142	472	3.00	100.0	43	533
137.0	24 53.4	113 24.5	JD	68 04 28	0625	142	507	2.79	100.0	16	129
140.0	24 29.7	112 52.8	JD	68 04 27	0715	140	501	2.79	100.0	25	51
140.0	24 07.2	113 40.1	JD	68 04 26	2226	134	535	2.50	100.0	108	45
140.0	23 34.0	114 39.0	JD	68 04 26	1125	139	492	2.83	100.0	45	189
140.0	23 07.0	115 34.0	JD	68 04 25	0031	141	529	2.66	100.0	70	30
140.0	22 37.2	116 29.0	JD	68 04 25	1050	143	505	2.83	100.0	61	74

TABLE 1. (cont.)

		CalCOFI Cruise 6806									
Line Station	Lat. (N) deg. min.	Long. (W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
60.0	52.0	123 04.0	JD	68 06 19	1558	65	222	2.91	100.0	1	4
60.0	55.0	123 14.5	JD	68 06 19	1417	127	382	3.31	100.0	11	2
60.0	60.0	123 38.5	JD	68 06 19	1152	142	415	3.41	100.0	12	15
60.0	70.0	124 21.0	JD	68 06 19	0706	140	422	3.31	100.0	78	40
60.0	80.0	125 00.0	JD	68 06 19	0301	140	409	3.42	100.0	71	109
60.0	90.0	125 36.9	JD	68 06 18	2106	144	416	3.46	100.0	158	302
63.0	52.0	122 37.0	JD	68 06 20	1203	69	211	3.24	100.0	5	6
63.0	55.0	122 49.6	JD	68 06 20	1359	140	397	3.53	100.0	323	19
63.0	60.0	123 11.5	JD	68 06 20	1711	131	458	2.87	100.0	2	19
63.0	60.0	123 22.0	JD	68 06 18	1631	140	421	3.33	100.0	38	96
63.0	90.0	122 04.7	JD	68 06 21	0402	86	301	2.86	100.0	22	64
67.0	55.0	122 25.9	JD	68 06 21	0059	141	408	3.46	100.0	62	26
67.0	60.0	122 47.2	JD	68 06 20	2216	141	410	3.43	100.0	105	151
67.0	90.0	124 55.0	JD	68 06 18	1126	141	425	3.30	100.0	17	35
70.0	51.0	121 43.9	JD	68 06 17	0906	140	411	3.41	100.0	45	1
70.0	53.0	121 54.0	JD	68 06 17	1146	138	456	3.02	100.0	8	4
70.0	60.0	122 24.0	JD	68 06 17	1532	139	349	3.98	100.0	27	108
70.0	70.0	123 05.0	JD	68 06 17	2051	137	416	3.30	100.0	56	10
70.0	80.0	123 45.7	JD	68 06 18	0046	137	405	3.39	100.0	28	95
70.0	90.0	124 27.8	JD	68 06 18	0622	132	430	3.07	100.0	36	95
73.0	50.0	121 17.0	JD	68 06 17	0503	85	122	6.95	100.0	13	4
73.0	53.0	121 28.5	JD	68 06 17	0326	140	194	7.17	100.0	12	10
73.0	60.0	121 57.3	JD	68 06 16	2317	142	312	4.54	100.0	67	107
77.0	48.0	120 43.7	JD	68 06 16	1028	22	59	3.64	100.0	3	58
77.0	55.0	121 12.2	JD	68 06 16	1446	139	315	3.30	100.0	14	1
77.0	60.0	121 34.0	JD	68 06 16	1756	131	421	3.30	100.0	43	194
80.0	51.0	120 56.8	JD	68 06 16	1918	83	274	3.03	100.0	29	28
80.0	52.0	120 36.5	JD	68 06 21	2046	138	460	2.99	100.0	3	7
80.0	55.0	120 48.0	JD	68 06 16	0511	133	409	3.25	100.0	19	15
80.0	60.0	121 09.5	JD	68 06 16	0232	140	418	3.35	100.0	25	12
80.0	65.0	121 29.9	JD	68 06 15	2321	140	465	3.00	100.0	55	35
80.0	70.0	121 51.8	JD	68 06 15	2056	141	456	3.08	100.0	29	47
80.0	80.0	122 33.1	JD	68 06 15	1501	141	449	3.13	100.0	77	692
80.0	90.0	123 13.2	JD	68 06 15	0914	144	425	3.39	100.0	6	10
82.0	47.0	119 59.0	JD	68 06 13	0051	136	453	2.98	100.0	9	15
83.0	40.0	119 22.0	JD	68 06 13	1935	15	96	1.51	100.0	21	3
83.0	43.0	119 34.0	JD	68 06 13	2136	142	330	4.28	100.0	97	775
83.0	51.0	120 08.5	JD	68 06 14	0457	66	187	3.52	100.0	55	34
83.0	55.0	120 22.5	JD	68 06 14	0726	138	315	3.52	100.0	18	20
83.0	60.0	121 45.0	JD	68 06 14	1106	142	449	3.17	100.0	19	59
83.0	65.0	121 05.8	JD	68 06 14	1326	142	469	3.17	100.0	32	22
83.0	70.0	121 26.0	JD	68 06 14	1630	139	411	3.03	100.0	35	82
83.0	80.0	122 07.2	JD	68 06 14	2201	142	439	3.37	100.0	33	257
83.0	90.0	122 50.5	JD	68 06 15	0241	140	467	2.99	100.0	103	229
83.0	90.0	122 50.5	JD	68 06 15	0241	140	467	2.99	100.0	56	53

TABLE 1. (cont.)

## CALCOFI Cruise 6806

Line Station	Lat. (N) deg. min.	Long. (W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
87.0	33 54.2	118 29.4	JD	68 06 13	1449	31	129	2.42	100.0	37	130
87.0	33 50.0	118 37.5	JD	68 06 13	1344	127	482	2.63	100.0	158	31
87.0	33 40.0	118 58.0	JD	68 06 13	1106	136	433	3.14	100.0	87	18
87.0	33 30.0	119 19.0	JD	68 06 13	0825	136	429	3.17	100.0	141	146
87.0	33 20.0	119 39.5	JD	68 06 13	0520	42	136	3.11	100.0	171	151
87.0	33 09.7	119 59.8	JD	68 06 13	0236	132	465	2.82	100.0	367	138
87.0	33 00.0	120 20.0	JD	68 06 12	0001	122	493	2.48	100.0	77	365
87.0	32 51.0	120 41.0	JD	68 06 12	2006	144	434	3.30	100.0	33	87
87.0	32 41.8	121 01.2	JD	68 06 12	1621	141	433	3.26	100.0	17	80
87.0	32 19.1	121 43.8	JD	68 06 12	1100	143	444	3.28	100.0	57	68
87.0	31 58.8	122 27.1	JD	68 06 12	0440	137	444	3.08	100.0	19	40
90.0	33 28.5	117 46.7	JD	68 06 10	1506	141	435	3.25	100.0	168	84
90.0	33 20.0	118 02.0	JD	68 06 10	1722	142	420	3.37	100.0	136	109
90.0	33 10.8	118 22.6	JD	68 06 10	2045	144	454	3.16	100.0	1118	475
90.0	32 54.5	118 55.0	JD	68 06 11	0036	140	420	3.34	100.0	290	434
90.0	32 38.2	119 28.2	JD	68 06 11	0415	140	430	3.26	100.0	50	115
90.0	32 25.3	119 58.0	JD	68 06 11	0951	141	413	3.41	100.0	75	565
90.0	32 14.5	120 18.0	JD	68 06 11	1156	129	434	2.96	100.0	61	167
90.0	32 05.0	120 39.9	JD	68 06 11	1441	138	398	3.47	100.0	219	244
90.0	31 46.3	121 19.2	JD	68 06 11	1931	140	417	3.35	100.0	49	244
90.0	31 25.0	122 00.0	JD	68 06 11	0001	140	427	3.27	100.0	55	851
93.0	32 56.0	117 19.0	JD	68 06 10	0538	63	226	2.80	100.0	206	37
93.0	32 54.7	117 21.8	JD	68 06 10	0506	139	406	3.42	100.0	625	227
93.0	32 50.4	117 31.0	JD	68 06 10	0332	139	416	3.33	100.0	752	323
93.0	32 42.2	117 50.4	JD	68 06 10	0056	137	425	3.21	100.0	977	433
93.0	32 30.1	118 12.0	JD	68 06 09	2230	141	412	3.41	100.0	217	338
93.0	32 20.1	118 32.9	JD	68 06 09	1945	142	422	3.36	100.0	805	29
93.0	32 11.1	118 52.8	JD	68 06 09	1726	140	374	3.73	100.0	346	272
93.0	31 59.0	119 16.2	JD	68 06 09	1401	141	441	3.20	100.0	25	96
93.0	31 55.2	119 40.0	JD	68 06 09	1104	145	431	3.36	100.0	23	95
93.0	31 40.0	119 53.0	JD	68 06 09	0720	140	418	3.34	100.0	38	83
93.0	31 29.0	120 15.0	JD	68 06 09	0415	138	456	3.01	100.0	224	204
93.0	31 09.2	120 56.0	JD	68 06 08	2346	142	425	3.32	100.0	39	221
93.0	30 49.4	121 35.5	JD	68 06 08	1919	142	426	3.32	100.0	22	118
97.0	32 17.5	117 04.7	JD	68 06 07	0459	41	146	2.82	100.0	64	56
97.0	32 16.0	117 07.0	JD	68 06 07	0533	50	199	2.50	100.0	61	40
97.0	32 12.0	117 15.2	JD	68 06 07	0641	139	450	3.08	100.0	301	37
97.0	32 05.5	117 27.5	JD	68 06 07	0852	142	451	3.14	100.0	106	56
97.0	31 55.0	117 47.5	JD	68 06 07	1216	140	426	3.29	100.0	59	157
97.0	31 45.8	118 08.0	JD	68 06 07	1511	139	473	3.73	100.0	77	197
97.0	31 35.5	118 29.6	JD	68 06 07	1825	140	334	3.23	100.0	95	176
97.0	31 25.3	118 49.0	JD	68 06 07	2105	143	417	3.41	100.0	29	152
97.0	31 15.1	119 09.0	JD	68 06 07	0020	139	407	3.41	100.0	21	130
97.0	31 05.2	119 28.5	JD	68 06 08	0243	140	420	3.34	100.0	30	225
97.0	30 55.8	119 48.6	JD	68 06 08	0516	141	419	3.37	100.0	60	195



TABLE 1. (cont.)

## CALCOFI Cruise 6806

Line Station	Lat. (N) deg. min.	Long. (W) deg. min.	Ship Code	Tow Date yr. mo. day	Time (PST)	Tow Depth (m)	Vol. Water Strained (cu. m)	Stand- ard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
97.0	80.0	120 29.0	JD	68 06 08	1125	144	419	3.43	100.0	69	761
100.0	29.0	116 43.4	JD	68 06 06	0033	84	278	3.01	100.0	75	191
100.0	30.0	116 46.5	JD	68 06 06	2341	140	457	3.06	100.0	150	151
100.0	35.0	117 07.0	JD	68 06 06	2010	135	499	2.69	100.0	962	300
100.0	40.0	117 26.7	JD	68 06 06	1701	142	447	3.16	100.0	19	22
100.0	45.0	117 46.7	JD	68 06 06	1306	139	441	3.15	100.0	12	9
100.0	50.0	118 08.1	JD	68 06 06	1010	143	465	3.07	100.0	48	467
100.0	55.0	118 26.7	JD	68 06 06	0657	138	440	3.14	100.0	15	58
100.0	60.0	118 46.9	JD	68 06 06	0352	140	462	3.02	100.0	56	67
100.0	65.0	119 05.3	JD	68 06 06	0036	139	450	3.08	100.0	76	249
100.0	70.0	119 24.5	JD	68 06 05	2216	144	441	3.26	100.0	121	416
100.0	80.0	120 07.6	JD	68 06 05	1716	139	440	3.16	100.0	34	75
103.0	29.0	116 21.6	JD	68 06 04	1029	28	104	2.68	100.0	14	19
103.0	30.0	116 24.5	JD	68 06 04	1123	65	165	3.92	100.0	31	34
103.0	35.0	116 44.5	JD	68 06 04	1353	139	431	3.23	100.0	5	4
103.0	40.0	117 05.7	JD	68 06 04	1711	141	433	3.25	100.0	5	42
103.0	45.0	117 24.0	JD	68 06 04	2001	133	443	2.99	100.0	18	75
103.0	50.0	117 44.5	JD	68 06 04	2301	138	445	3.11	100.0	364	289
103.0	55.0	118 04.9	JD	68 06 05	0116	141	421	3.35	100.0	528	189
103.0	60.0	118 25.0	JD	68 06 05	0426	139	441	3.15	100.0	52	155
107.0	31.0	116 07.0	JD	68 06 04	0619	40	142	2.78	100.0	27	84
107.0	32.0	116 11.0	JD	68 06 04	0526	122	413	2.96	100.0	83	39
107.0	35.0	116 22.5	JD	68 06 04	0334	140	441	3.17	100.0	28	16
107.0	40.0	116 39.5	JD	68 06 04	0111	139	452	3.06	100.0	123	12
107.0	45.0	117 00.1	JD	68 06 03	2231	140	419	3.34	100.0	176	99
107.0	50.0	117 21.0	JD	68 06 03	2006	143	438	3.25	100.0	85	91
107.0	55.0	117 41.5	JD	68 06 03	1700	142	386	3.66	100.0	137	153
110.0	60.0	118 01.0	JD	68 06 02	1434	33	465	3.02	100.0	94	126
110.0	35.0	115 59.6	JD	68 06 02	1646	140	435	2.53	100.0	87	160
110.0	40.0	116 19.7	JD	68 06 02	1940	141	434	3.22	100.0	11	31
110.0	45.0	116 39.7	JD	68 06 02	2216	141	436	3.25	100.0	56	62
110.0	50.0	116 59.3	JD	68 06 03	0051	140	451	3.09	100.0	345	137
110.0	55.0	117 19.6	JD	68 06 03	0311	133	430	3.08	100.0	104	108
113.0	60.0	117 38.3	JD	68 06 03	0741	138	440	3.14	100.0	92	166
113.0	29.0	115 13.2	JD	68 06 02	0954	34	144	2.36	100.0	68	33
113.0	30.0	115 18.3	JD	68 06 02	0858	57	186	3.04	100.0	2	75
113.0	35.0	115 38.3	JD	68 06 02	0626	139	437	3.17	100.0	5	8
113.0	40.0	115 59.0	JD	68 06 02	0326	138	451	3.06	100.0	28	26
113.0	45.0	116 18.7	JD	68 06 02	0036	139	472	2.95	100.0	31	4
113.0	50.0	116 37.7	JD	68 06 01	2201	124	510	2.43	100.0	124	25
113.0	55.0	116 56.7	JD	68 06 01	1813	140	465	3.01	100.0	146	159
113.0	60.0	117 15.8	JD	68 06 01	1646	140	466	3.01	100.0	118	88
										23	42

TABLE 2. Pooled occurrences of fish larvae taken during CalCOFI cruises in 1968.

Rank	Taxon	Occurrences
1	<i>Sebastes</i> spp.	207
2	<i>Engraulis mordax</i>	188
3	<i>Protomyctophum crockeri</i>	139
4	<i>Stenobranchius leucopsarus</i>	127
5	<i>Leuroglossus stilbius</i>	116
6	<i>Bathylagus ochotensis</i>	106
7	<i>Citharichthys</i> spp.	101
8	<i>Merluccius productus</i>	95
9	<i>Triphoturus mexicanus</i>	92
10	<i>Bathylagus wesethi</i>	90
11	<i>Trachurus symmetricus</i>	85
12	<i>Melamphaes</i> spp.	84
13	<i>Vinciguerria lucetia</i>	82
14	Myctophidae	79
15	Disintegrated fish larva	74
16	<i>Tarletonbeania crenularis</i>	73
17	Unidentified fish larva	72
17	<i>Lampanyctus ritteri</i>	72
19	<i>Lampanyctus</i> spp.	65
19	<i>Cyclothone</i> spp.	65
21	<i>Symbolophorus californiensis</i>	61
22	<i>Lestidiops ringens</i>	52
23	Sternoptychidae	48
23	<i>Icichthys lockingtoni</i>	48
25	<i>Chauliodus macouni</i>	46
25	<i>Diogenichthys atlanticus</i>	46
25	<i>Stomias atriventer</i>	46
28	<i>Citharichthys stigmaeus</i>	42
29	Sciaenidae	38
30	<i>Bathylagus</i> spp.	35
31	<i>Diaphus</i> spp.	34
32	<i>Diogenichthys laternatus</i>	32
33	<i>Ceratospopelus townsendi</i>	23
34	<i>Idiacanthus antrostomus</i>	22
35	<i>Parophrys vetulus</i>	21
36	<i>Lyopsetta exilis</i>	20
37	<i>Microstoma microstoma</i>	19
37	Gobiidae	19
39	<i>Pleuronichthys verticalis</i>	18
39	<i>Argentina sialis</i>	18
41	<i>Microstomus pacificus</i>	17
42	Ophidiiformes	16
43	<i>Bathylagus pacificus</i>	15
43	<i>Oxyjulis californica</i>	15
45	<i>Poromitra</i> spp.	14
45	<i>Glyptocephalus zachirus</i>	14
45	<i>Sebastolobus</i> spp.	14
48	<i>Diogenichthys</i> spp.	13

TABLE 2. (cont.)

Rank	Taxon	Occurrences
48	<i>Paralichthys californicus</i>	13
48	Scopelarchidae	13
51	<i>Gonichthys tenuiculus</i>	12
51	Cottidae	12
51	<i>Nansenia candida</i>	12
54	<i>Lampanyctus regalis</i>	11
54	<i>Peprilus simillimus</i>	11
56	Chiasmodontidae	10
56	Clinidae	10
56	<i>Sardinops sagax</i>	10
56	<i>Cololabis saira</i>	10
60	Trachipteridae	9
61	<i>Notolepis risso</i>	8
61	<i>Myctophum nitidulum</i>	8
61	<i>Brosmophycis marginata</i>	8
64	<i>Girella nigricans</i>	7
65	<i>Hypsoblennius</i> spp.	6
65	<i>Hygophum atratum</i>	6
67	<i>Tetragonurus cuvieri</i>	5
67	<i>Scopelogadus bispinosus</i>	5
67	<i>Nansenia crassa</i>	5
67	<i>Hippoglossina stomata</i>	5
67	<i>Scorpaenichthys marmoratus</i>	5
67	<i>Oxylebius pictus</i>	5
73	Cyclopteridae	4
73	<i>Sphyaena argentea</i>	4
73	<i>Seriola lalandi</i>	4
73	<i>Psettichthys melanostictus</i>	4
73	Agonidae	4
73	Gonostomatidae	4
79	<i>Scorpaena</i> spp.	3
79	<i>Notoscopelus resplendens</i>	3
79	<i>Zaniolepis</i> spp.	3
79	<i>Medialuna californiensis</i>	3
79	<i>Scopelosaurus</i> spp.	3
79	<i>Syngnathus</i> spp.	3
79	Macrouridae	3
79	<i>Pleuronichthys coenosus</i>	3
79	Anguilliformes	3
79	Paralepididae	3
79	Labridae	3
79	<i>Pleuronichthys</i> spp.	3
91	<i>Lepidopsetta bilineata</i>	2
91	<i>Pleuronichthys decurrens</i>	2
91	Exocoetidae	2
91	Scombridae	2
91	Atherinidae	2
91	Serranidae	2
91	<i>Ichthyococcus</i> spp.	2

TABLE 2. (cont.)

Rank	Taxon	Occurrences
98	<i>Howella brodiei</i>	1
98	<i>Halichoeres</i> spp.	1
98	<i>Pleuronichthys ritteri</i>	1
98	<i>Chromis punctipinnis</i>	1
98	<i>Lampadena urophaos</i>	1
98	Hexagrammidae	1
98	<i>Diplophos taenia</i>	1
98	<i>Eustomias</i> spp.	1
98	Pleuronectiformes	1
98	<i>Etrumeus acuminatus</i>	1
98	<i>Bathylagus milleri</i>	1
98	<i>Notolychnus valdiviae</i>	1
98	<i>Ophiodon elongatus</i>	1
98	<i>Bathophilus</i> spp.	1
98	Stomiiformes	1
98	<i>Stemonosudis macrura</i>	1

TABLE 3. Pooled numbers of fish larvae taken during CalCOFI cruises in 1968. Counts are adjusted for percent of sample sorted and standard haul factor (see text).

Rank	Taxon	Count
1	<i>Engraulis mordax</i>	64249
2	<i>Merluccius productus</i>	34505
3	<i>Sebastes</i> spp.	22609
4	<i>Stenobranchius leucopsarus</i>	6885
5	<i>Vinciguerria lucetia</i>	4234
6	Sciaenidae	3380
7	<i>Triphoturus mexicanus</i>	3238
8	<i>Trachurus symmetricus</i>	2950
9	<i>Leuroglossus stilbius</i>	2864
10	<i>Bathylagus ochotensis</i>	2155
11	<i>Bathylagus wesethi</i>	1972
12	<i>Protomyctophum crockeri</i>	1123
13	<i>Citharichthys</i> spp.	1001
14	<i>Tarletonbeania crenularis</i>	737
15	<i>Lampanyctus ritteri</i>	719
16	Myctophidae	673
17	<i>Diaphus</i> spp.	665
18	<i>Cyclothone</i> spp.	623
19	<i>Parophrys vetulus</i>	608
20	<i>Diogenichthys laternatus</i>	540
21	<i>Lampanyctus</i> spp.	481
22	Unidentified fish larva	458
23	<i>Melamphaes</i> spp.	432
24	Disintegrated fish larva	420
25	<i>Icichthys lockingtoni</i>	390
26	<i>Symbolophorus californiensis</i>	381
27	<i>Diogenichthys atlanticus</i>	279
28	<i>Lestidiops ringens</i>	256
29	<i>Bathylagus</i> spp.	251
30	<i>Stomias atriventer</i>	216
31	<i>Chauliodus macouni</i>	211
32	Sternoptychidae	201
33	<i>Citharichthys stigmaeus</i>	180
34	<i>Argentina sialis</i>	162
35	<i>Pleuronichthys verticalis</i>	128
36	<i>Lyopsetta exilis</i>	118
37	<i>Microstomus pacificus</i>	115
38	<i>Ceratoscopelus townsendi</i>	108
39	Gobiidae	97
40	<i>Oxyjulis californica</i>	96
41	<i>Glyptocephalus zachirus</i>	95
42	Ophidiiformes	89
43	Cottidae	86
44	<i>Idiacanthus antrostomus</i>	84
45	<i>Gonichthys tenuiculus</i>	76
46	<i>Sebastolobus</i> spp.	74
47	Clinidae	67

TABLE 3. (cont.)

Rank	Taxon	Count
47	<i>Bathylagus pacificus</i>	67
49	<i>Microstoma microstoma</i>	66
50	<i>Peprilus simillimus</i>	60
51	<i>Cololabis saira</i>	59
52	<i>Nansenia candida</i>	58
53	Scopelarchidae	51
53	<i>Poromitra</i> spp.	51
53	<i>Paralichthys californicus</i>	51
56	<i>Sardinops sagax</i>	50
57	Hexagrammidae	46
58	<i>Lampanyctus regalis</i>	44
58	<i>Diogenichthys</i> spp.	44
58	Chiasmodontidae	44
61	Exocoetidae	42
62	Cyclopteridae	39
62	<i>Hypsoblennius</i> spp.	39
64	<i>Brosmophycis marginata</i>	37
65	<i>Hippoglossina stomata</i>	35
66	Trachipteridae	32
67	<i>Girella nigricans</i>	29
68	<i>Scorpaenichthys marmoratus</i>	27
68	<i>Myctophum nitidulum</i>	27
70	<i>Scopelogadus bispinosus</i>	25
71	<i>Tetragonurus cuvieri</i>	24
72	<i>Notolepis risso</i>	23
73	<i>Sphyraena argentea</i>	20
74	<i>Nansenia crassa</i>	19
74	<i>Hygophum atratum</i>	19
74	<i>Oxylebius pictus</i>	19
77	Gonostomatidae	18
78	Agonidae	17
79	<i>Zaniolepis</i> spp.	16
79	<i>Seriola lalandi</i>	16
81	Labridae	15
81	<i>Medialuna californiensis</i>	15
83	<i>Scorpaena</i> spp.	14
84	Serranidae	13
85	<i>Psettichthys melanostictus</i>	12
86	<i>Notoscopelus resplendens</i>	10
86	<i>Lepidopsetta bilineata</i>	10
88	<i>Syngnathus</i> spp.	9
88	<i>Scopelosaurus</i> spp.	9
88	Macrouridae	9
91	Paralepididae	8
91	Anguilliformes	8
93	Atherinidae	7
93	<i>Pleuronichthys coenosus</i>	7
93	<i>Pleuronichthys</i> spp.	7
96	<i>Notolychnus valdiviae</i>	6

TABLE 3. (cont.)

Rank	Taxon	Count
96	<i>Pleuronichthys decurrens</i>	6
96	<i>Ichthyococcus</i> spp.	6
96	<i>Bathophilus</i> spp.	6
96	<i>Pleuronichthys ritteri</i>	6
96	Scombridae	6
102	<i>Lampadena urophaos</i>	5
103	<i>Howella brodiei</i>	3
103	<i>Halichoeres</i> spp.	3
103	<i>Bathylagus milleri</i>	3
103	<i>Stemonosudis macrura</i>	3
103	<i>Chromis punctipinnis</i>	3
103	<i>Etrumeus acuminatus</i>	3
103	<i>Eustomias</i> spp.	3
103	Pleuronectiformes	3
103	Stomiiformes	3
103	<i>Diplophos taenia</i>	3
113	<i>Ophiodon elongatus</i>	2
	Total	162721

TABLE 4. Numbers of fish larvae taken on stations occupied during CalCOFI cruises in 1968. Counts are adjusted for percent of sample sorted and standard haul factor (see text). Average number is given for stations occupied twice during a single month. Unoccupied stations are indicated by a dash.

Anguilliformes												
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
82.0	47.0	2.8	-	-	-	0.0	-	-	-	-	-	-
87.0	55.0	2.4	-	-	-	0.0	-	-	-	-	-	-
120.0	70.0	-	-	2.9	-	-	-	-	-	-	-	-
<i>Etrumeus acuminatus</i>												
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
100.0	35.0	0.0	-	-	-	2.7	-	-	-	-	-	-
<i>Sardinops sagax</i>												
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
67.0	90.0	-	-	-	-	3.3	-	-	-	-	-	-
97.0	29.0	-	-	-	-	0.0	-	-	-	-	-	-
97.0	45.0	0.0	-	-	-	7.5	-	-	-	-	-	-
100.0	30.0	0.0	-	-	-	3.1	-	-	-	-	-	-
100.0	35.0	0.0	-	-	-	2.7	-	-	-	-	-	-
103.0	29.0	0.0	-	-	-	2.7	-	-	-	-	-	-
103.0	30.0	0.0	-	-	-	3.9	-	-	-	-	-	-
113.0	50.0	-	-	-	-	2.4	-	-	-	-	-	-
117.0	30.0	-	-	-	2.6	-	-	-	-	-	-	-
117.0	35.0	-	-	-	5.8	-	-	-	-	-	-	-
<i>Engraulis mordax</i>												
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
63.0	52.0	3.1	-	-	-	0.0	-	-	-	-	-	-
63.0	55.0	14.8	-	-	-	0.0	-	-	-	-	-	-
67.0	48.0	40.7	-	-	-	-	-	-	-	-	-	-
67.0	50.0	0.0	-	-	-	2.9	-	-	-	-	-	-
67.0	55.0	75.6	-	-	-	6.9	-	-	-	-	-	-
70.0	51.0	17.8	-	-	-	0.0	-	-	-	-	-	-
70.0	53.0	6.1	-	-	-	0.0	-	-	-	-	-	-
73.0	50.0	558.7	-	-	-	0.0	-	-	-	-	-	-
73.0	53.0	441.2	-	-	-	0.0	-	-	-	-	-	-
77.0	48.0	54.4	-	-	-	0.0	-	-	-	-	-	-
77.0	51.0	69.5	-	-	-	0.0	-	-	-	-	-	-
77.0	55.0	9.9	-	-	-	0.0	-	-	-	-	-	-
77.0	60.0	3.0	-	-	-	0.0	-	-	-	-	-	-



TABLE 4. (cont.)

*Engraulis mordax* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
80.0	51.0	1203.8	-	-	-	0.0	-	-	-	-	-	-
80.0	52.0	1998.8	-	-	-	20.9	-	-	-	-	-	-
80.0	55.0	105.4	-	-	-	35.8	-	-	-	-	-	-
80.0	60.0	72.2	-	-	-	13.4	-	-	-	-	-	-
80.0	65.0	31.0	-	-	-	0.0	-	-	-	-	-	-
80.0	70.0	2.9	-	-	-	0.0	-	-	-	-	-	-
82.0	47.0	1308.1	-	-	-	44.7	-	-	-	-	-	-
83.0	40.0	221.8	-	-	-	119.3	-	-	-	-	-	-
83.0	43.0	255.8	-	-	-	111.3	-	-	-	-	-	-
83.0	51.0	1065.0	-	-	-	42.2	-	-	-	-	-	-
83.0	55.0	900.9	-	-	-	35.0	-	-	-	-	-	-
83.0	60.0	277.2	-	-	-	0.0	-	-	-	-	-	-
87.0	33.0	346.1	-	-	-	62.9	-	-	-	-	-	-
87.0	35.0	322.4	-	-	-	344.5	-	-	-	-	-	-
87.0	40.0	281.2	-	-	-	219.8	-	-	-	-	-	-
87.0	45.0	143.5	-	-	-	412.1	-	-	-	-	-	-
87.0	50.0	-	-	-	-	478.9	-	-	-	-	-	-
87.0	55.0	205.3	-	-	-	910.9	-	-	-	-	-	-
87.0	60.0	1361.2	-	-	-	0.0	-	-	-	-	-	-
87.0	65.0	25.7	-	-	-	19.8	-	-	-	-	-	-
87.0	70.0	652.8	-	-	-	0.0	-	-	-	-	-	-
87.0	90.0	0.0	-	-	-	27.7	-	-	-	-	-	-
90.0	28.0	522.6	-	-	-	393.3	-	-	-	-	-	-
90.0	32.0	455.7	-	-	-	394.3	-	-	-	-	-	-
90.0	37.0	492.0	-	-	-	3434.9	-	-	-	-	-	-
90.0	45.0	2113.8	-	-	-	888.4	-	-	-	-	-	-
90.0	53.0	11.7	-	-	-	101.1	-	-	-	-	-	-
90.0	60.0	0.0	-	-	-	133.0	-	-	-	-	-	-
90.0	65.0	3.0	-	-	-	106.6	-	-	-	-	-	-
90.0	70.0	39.7	-	-	-	659.7	-	-	-	-	-	-
90.0	80.0	0.0	-	-	-	20.1	-	-	-	-	-	-
90.0	90.0	0.0	-	-	-	9.8	-	-	-	-	-	-
93.0	27.0	42.9	-	-	-	1380.4	-	-	-	-	-	-
93.0	28.0	282.5	-	-	-	1997.3	-	-	-	-	-	-
93.0	30.0	604.2	-	-	-	2430.9	-	-	-	-	-	-
93.0	35.0	658.2	-	-	-	3075.2	-	-	-	-	-	-
93.0	40.0	282.5	-	-	-	607.0	-	-	-	-	-	-
93.0	45.0	313.0	-	-	-	2614.1	-	-	-	-	-	-
93.0	50.0	707.6	-	-	-	1059.3	-	-	-	-	-	-
93.0	55.0	1113.0	-	-	-	32.0	-	-	-	-	-	-
93.0	60.0	9.0	-	-	-	30.2	-	-	-	-	-	-
93.0	65.0	0.0	-	-	-	13.4	-	-	-	-	-	-
93.0	70.0	0.0	-	-	-	439.5	-	-	-	-	-	-
93.0	80.0	2.5	-	-	-	0.0	-	-	-	-	-	-
93.0	90.0	0.0	-	-	-	33.2	-	-	-	-	-	-
97.0	29.0	1687.0	-	-	-	67.7	-	-	-	-	-	-

TABLE 4. (cont.)

*Engraulis mordax* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
97.0	30.0					70.0						
97.0	373.3					822.4						
97.0	1414.8					295.2						
97.0	1034.5					26.3						
97.0	1390.0					44.8						
97.0	693.4					216.4						
97.0	611.4					3.4						
97.0	50.0					0.0						
97.0	55.0					0.0						
97.0	60.0					0.0						
97.0	65.0					0.0						
97.0	44.8					168.6						
100.0	29.0					241.7						
100.0	30.0					2501.7						
100.0	35.0					6.3						
100.0	40.0					18.9						
100.0	45.0					104.4						
100.0	50.0					0.0						
100.0	55.0					0.0						
100.0	60.0					0.0						
103.0	29.0					16.1						
103.0	30.0					78.4						
103.0	35.0					6.5						
103.0	40.0					16.5						
103.0	45.0					47.8						
103.0	50.0					488.3						
103.0	55.0					1195.9						
103.0	60.0					18.9						
107.0	31.0					11.1						
107.0	32.0					91.8						
107.0	35.0					12.7						
107.0	40.0					82.6						
107.0	45.0					170.3						
107.0	50.0					52.0						
107.0	60.0					3.0						
110.0	32.0					98.7						
110.0	35.0					3.2						
110.0	40.0					3.3						
113.0	30.0					3.0						
113.0	35.0					44.4						
113.0	40.0					67.3						
117.0	25.0					9.2						
117.0	30.0					54.2						
117.0	35.0					8.7						
117.0	40.0					2.8						
117.0	45.0					27.7						
117.0	50.0					139.5						
117.0	60.0					38.6						
118.0	39.0					3.0						

TABLE 4. (cont.)

*Engraulis mordax* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
119.0	33.0	-	-	-	185.6	-	-	-	-	-	-	-
120.0	24.0	-	-	-	76.2	-	-	-	-	-	-	-
120.0	25.0	-	-	-	151.0	-	-	-	-	-	-	-
120.0	30.0	-	-	-	26.5	-	-	-	-	-	-	-
120.0	40.0	-	-	-	3.3	-	-	-	-	-	-	-
120.0	45.0	-	-	-	6.2	-	-	-	-	-	-	-
120.0	60.0	-	-	-	50.7	-	-	-	-	-	-	-
120.0	65.0	-	-	-	92.7	-	-	-	-	-	-	-
123.0	50.0	-	-	-	252.0	-	-	-	-	-	-	-
123.0	55.0	-	-	-	121.2	-	-	-	-	-	-	-
127.0	34.0	-	-	-	3.1	-	-	-	-	-	-	-
127.0	40.0	-	-	-	169.5	-	-	-	-	-	-	-
127.0	45.0	-	-	-	144.8	-	-	-	-	-	-	-
127.0	50.0	-	-	-	87.0	-	-	-	-	-	-	-
130.0	28.0	-	-	-	2.4	-	-	-	-	-	-	-
130.0	40.0	-	-	-	10.4	-	-	-	-	-	-	-
130.0	45.0	-	-	-	188.9	-	-	-	-	-	-	-
130.0	50.0	-	-	-	141.6	-	-	-	-	-	-	-
130.0	55.0	-	-	-	5.9	-	-	-	-	-	-	-
133.0	30.0	-	-	-	95.5	-	-	-	-	-	-	-
133.0	35.0	-	-	-	21.3	-	-	-	-	-	-	-
133.0	40.0	-	-	-	26.1	-	-	-	-	-	-	-
137.0	22.0	-	-	-	2.7	-	-	-	-	-	-	-
137.0	23.0	-	-	-	32.6	-	-	-	-	-	-	-
137.0	30.0	-	-	-	73.2	-	-	-	-	-	-	-
137.0	40.0	-	-	-	2.8	-	-	-	-	-	-	-
140.0	38.0	-	-	-	11.2	-	-	-	-	-	-	-
140.0	65.0	-	-	-	5.7	-	-	-	-	-	-	-
140.0	95.0	-	-	-	2.8	-	-	-	-	-	-	-

*Argentina sialis*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
63.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
67.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	51.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	60.0	-	-	-	-	3.3	-	-	-	-	-	-
80.0	65.0	-	-	-	-	9.0	-	-	-	-	-	-
82.0	47.0	-	-	-	-	0.0	-	-	-	-	-	-
83.0	43.0	-	-	-	-	0.0	-	-	-	-	-	-
87.0	35.0	-	-	-	-	0.0	-	-	-	-	-	-
90.0	28.0	-	-	-	-	0.0	-	-	-	-	-	-
93.0	28.0	-	-	-	-	0.0	-	-	-	-	-	-
93.0	30.0	-	-	-	-	0.0	-	-	-	-	-	-
93.0	35.0	-	-	-	-	0.0	-	-	-	-	-	-

TABLE 4. (cont.)

*Argentina sialis* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
97.0	32.0	-	-	-	-	0.0	-	-	-	-	-	-
97.0	35.0	-	-	-	-	3.1	-	-	-	-	-	-
100.0	30.0	-	-	-	-	0.0	-	-	-	-	-	-
100.0	35.0	-	-	-	-	0.0	-	-	-	-	-	-
110.0	35.0	-	-	-	5.2	3.2	-	-	-	-	-	-
117.0	30.0	-	-	-	-	-	-	-	-	-	-	-

*Microstoma microstoma*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
73.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	60.0	-	-	-	-	3.3	-	-	-	-	-	-
80.0	65.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	70.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	80.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	90.0	-	-	-	-	3.4	-	-	-	-	-	-
83.0	60.0	-	-	-	-	3.2	-	-	-	-	-	-
83.0	65.0	-	-	-	-	6.1	-	-	-	-	-	-
83.0	90.0	-	-	-	-	0.0	-	-	-	-	-	-
87.0	70.0	-	-	-	-	0.0	-	-	-	-	-	-
90.0	65.0	-	-	-	-	0.0	-	-	-	-	-	-
93.0	28.0	-	-	-	-	3.4	-	-	-	-	-	-
93.0	60.0	-	-	-	-	6.7	-	-	-	-	-	-
97.0	50.0	-	-	-	-	3.2	-	-	-	-	-	-
97.0	65.0	-	-	-	-	0.0	-	-	-	-	-	-
97.0	80.0	-	-	-	-	0.0	-	-	-	-	-	-
103.0	50.0	-	-	-	-	0.0	-	-	-	-	-	-
103.0	55.0	-	-	-	-	3.3	-	-	-	-	-	-
113.0	45.0	-	-	-	-	3.0	-	-	-	-	-	-

*Nansenia candida*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	70.0	-	-	-	-	0.0	-	-	-	-	-	-
60.0	90.0	-	-	-	-	0.0	-	-	-	-	-	-
63.0	70.0	-	-	-	-	-	-	-	-	-	-	-
63.0	80.0	-	-	-	-	3.4	-	-	-	-	-	-
67.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
70.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
70.0	90.0	-	-	-	-	3.1	-	-	-	-	-	-
70.0	100.0	-	-	-	-	0.0	-	-	-	-	-	-
73.0	60.0	-	-	-	-	9.1	-	-	-	-	-	-
73.0	100.0	-	-	-	-	0.0	-	-	-	-	-	-
87.0	80.0	-	-	-	-	3.3	-	-	-	-	-	-

TABLE 4. (cont.)

*Nansenia candida* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0	70.0	0.0	-	-	-	3.5	-	-	-	-	-	-

*Nansenia crassa*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
107.0	55.0	-	-	-	-	7.3	-	-	-	-	-	-
107.0	60.0	-	-	-	-	3.0	-	-	-	-	-	-
110.0	50.0	-	-	-	-	3.1	-	-	-	-	-	-
127.0	40.0	-	-	-	2.7	-	-	-	-	-	-	-
137.0	30.0	-	-	2.7	-	-	-	-	-	-	-	-

*Bathylagus* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
63.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
63.0	70.0	-	-	-	-	-	-	-	-	-	-	-
63.0	80.0	-	-	-	-	-	-	-	-	-	-	-
67.0	70.0	-	-	-	-	-	-	-	-	-	-	-
70.0	80.0	-	-	-	-	0.0	-	-	-	-	-	-
70.0	90.0	-	-	-	-	3.1	-	-	-	-	-	-
77.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	51.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	65.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	70.0	-	-	-	-	3.1	-	-	-	-	-	-
82.0	47.0	-	-	-	-	0.0	-	-	-	-	-	-
83.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
83.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
87.0	33.0	-	-	-	-	0.0	-	-	-	-	-	-
87.0	35.0	-	-	-	-	0.0	-	-	-	-	-	-
87.0	55.0	-	-	-	-	2.8	-	-	-	-	-	-
87.0	70.0	-	-	-	-	0.0	-	-	-	-	-	-
90.0	28.0	-	-	-	-	0.0	-	-	-	-	-	-
90.0	32.0	-	-	-	-	0.0	-	-	-	-	-	-
90.0	80.0	-	-	-	-	3.3	-	-	-	-	-	-
90.0	90.0	-	-	-	-	16.4	-	-	-	-	-	-
93.0	28.0	-	-	-	-	3.4	-	-	-	-	-	-
93.0	50.0	-	-	-	-	3.7	-	-	-	-	-	-
93.0	70.0	-	-	-	-	6.0	-	-	-	-	-	-
97.0	29.0	-	-	-	-	0.0	-	-	-	-	-	-
100.0	60.0	-	-	-	-	3.0	-	-	-	-	-	-
103.0	45.0	-	-	-	-	4.4	-	-	-	-	-	-
107.0	40.0	-	-	-	-	15.3	-	-	-	-	-	-
113.0	35.0	-	-	-	-	6.3	-	-	-	-	-	-

TABLE 4. (cont.)

*Bathylagus* spp. (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
117.0	50.0	-	-	-	3.2	-	-	-	-	-	-	-
123.0	55.0	-	-	-	6.1	-	-	-	-	-	-	-

*Bathylagus milleri*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
63.0	70.0	-	-	-	-	-	-	-	-	-	-	-

*Bathylagus ochotensis*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
60.0	70.0	-	-	-	-	6.6	-	-	-	-	-	-
60.0	80.0	-	-	-	-	13.7	-	-	-	-	-	-
60.0	90.0	-	-	-	-	152.2	-	-	-	-	-	-
60.0	100.0	-	-	-	-	-	-	-	-	-	-	-
63.0	52.0	-	-	-	-	0.0	-	-	-	-	-	-
63.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
63.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
63.0	70.0	-	-	-	-	-	-	-	-	-	-	-
63.0	80.0	-	-	-	-	-	-	-	-	-	-	-
63.0	90.0	-	-	-	-	3.3	-	-	-	-	-	-
67.0	50.0	-	-	-	-	8.6	-	-	-	-	-	-
67.0	55.0	-	-	-	-	17.3	-	-	-	-	-	-
67.0	60.0	-	-	-	-	17.1	-	-	-	-	-	-
67.0	70.0	-	-	-	-	-	-	-	-	-	-	-
70.0	51.0	-	-	-	-	0.0	-	-	-	-	-	-
70.0	53.0	-	-	-	-	3.0	-	-	-	-	-	-
70.0	60.0	-	-	-	-	4.0	-	-	-	-	-	-
70.0	70.0	-	-	-	-	16.5	-	-	-	-	-	-
70.0	80.0	-	-	-	-	13.6	-	-	-	-	-	-
70.0	100.0	-	-	-	-	-	-	-	-	-	-	-
73.0	50.0	-	-	-	-	6.9	-	-	-	-	-	-
73.0	53.0	-	-	-	-	14.3	-	-	-	-	-	-
73.0	60.0	-	-	-	-	18.2	-	-	-	-	-	-
73.0	70.0	-	-	-	-	-	-	-	-	-	-	-
77.0	48.0	-	-	-	-	0.0	-	-	-	-	-	-
77.0	51.0	-	-	-	-	4.4	-	-	-	-	-	-
77.0	55.0	-	-	-	-	16.5	-	-	-	-	-	-
77.0	60.0	-	-	-	-	6.6	-	-	-	-	-	-
77.0	100.0	-	-	-	-	-	-	-	-	-	-	-
80.0	51.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	52.0	-	-	-	-	3.0	-	-	-	-	-	-
80.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-

TABLE 4. (cont.)

*Bathylagus ochotensis* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
80.0	60.0	59.0	-	-	-	16.8	-	-	-	-	-	-
80.0	65.0	52.7	-	-	-	12.0	-	-	-	-	-	-
80.0	70.0	14.7	-	-	-	37.0	-	-	-	-	-	-
80.0	80.0	6.0	-	-	-	0.0	-	-	-	-	-	-
80.0	90.0	12.0	-	-	-	0.0	-	-	-	-	-	-
80.0	100.0	10.8	-	-	-	-	-	-	-	-	-	-
82.0	47.0	11.4	-	-	-	3.0	-	-	-	-	-	-
83.0	43.0	8.8	-	-	-	0.0	-	-	-	-	-	-
83.0	55.0	13.7	-	-	-	0.0	-	-	-	-	-	-
83.0	60.0	19.2	-	-	-	12.7	-	-	-	-	-	-
83.0	65.0	2.9	-	-	-	6.1	-	-	-	-	-	-
83.0	70.0	16.0	-	-	-	0.0	-	-	-	-	-	-
83.0	80.0	5.0	-	-	-	22.6	-	-	-	-	-	-
83.0	90.0	2.9	-	-	-	0.0	-	-	-	-	-	-
83.0	100.0	14.5	-	-	-	-	-	-	-	-	-	-
87.0	40.0	3.1	-	-	-	0.0	-	-	-	-	-	-
87.0	45.0	9.0	-	-	-	0.0	-	-	-	-	-	-
87.0	55.0	11.8	-	-	-	0.0	-	-	-	-	-	-
87.0	60.0	8.5	-	-	-	0.0	-	-	-	-	-	-
87.0	65.0	3.2	-	-	-	0.0	-	-	-	-	-	-
87.0	70.0	5.1	-	-	-	0.0	-	-	-	-	-	-
90.0	32.0	11.8	-	-	-	0.0	-	-	-	-	-	-
90.0	37.0	6.0	-	-	-	0.0	-	-	-	-	-	-
90.0	45.0	6.7	-	-	-	0.0	-	-	-	-	-	-
90.0	53.0	0.0	-	-	-	3.3	-	-	-	-	-	-
90.0	60.0	6.0	-	-	-	3.4	-	-	-	-	-	-
90.0	65.0	29.6	-	-	-	0.0	-	-	-	-	-	-
90.0	70.0	3.3	-	-	-	0.0	-	-	-	-	-	-
90.0	90.0	0.0	-	-	-	3.3	-	-	-	-	-	-
93.0	28.0	7.5	-	-	-	0.0	-	-	-	-	-	-
93.0	30.0	2.7	-	-	-	0.0	-	-	-	-	-	-
93.0	35.0	3.5	-	-	-	0.0	-	-	-	-	-	-
93.0	50.0	0.0	-	-	-	3.7	-	-	-	-	-	-
93.0	90.0	0.0	-	-	-	3.3	-	-	-	-	-	-
97.0	32.0	3.1	-	-	-	0.0	-	-	-	-	-	-
97.0	40.0	5.9	-	-	-	0.0	-	-	-	-	-	-
97.0	45.0	7.6	-	-	-	7.5	-	-	-	-	-	-
97.0	55.0	3.1	-	-	-	0.0	-	-	-	-	-	-
97.0	65.0	3.2	-	-	-	0.0	-	-	-	-	-	-
100.0	30.0	6.6	-	-	-	0.0	-	-	-	-	-	-
100.0	40.0	6.5	-	-	-	0.0	-	-	-	-	-	-
100.0	50.0	3.3	-	-	-	0.0	-	-	-	-	-	-
100.0	55.0	4.5	-	-	-	0.0	-	-	-	-	-	-
103.0	45.0	2.2	-	-	-	0.0	-	-	-	-	-	-
107.0	45.0	-	-	-	-	3.3	-	-	-	-	-	-
107.0	50.0	-	-	-	-	3.3	-	-	-	-	-	-

TABLE 4. (cont.)

*Bathylagus ochotensis* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
110.0	40.0	-	-	-	-	3.3	-	-	-	-	-	-
113.0	35.0	-	-	-	-	6.3	-	-	-	-	-	-

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
60.0	80.0	-	-	-	-	0.0	-	-	-	-	-	-
63.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
63.0	70.0	-	-	-	-	-	-	-	-	-	-	-
63.0	80.0	-	-	-	-	-	-	-	-	-	-	-
67.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
67.0	70.0	-	-	-	-	-	-	-	-	-	-	-
70.0	53.0	-	-	-	-	0.0	-	-	-	-	-	-
70.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
73.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
77.0	51.0	-	-	-	-	0.0	-	-	-	-	-	-
77.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
90.0	45.0	-	-	-	-	3.3	-	-	-	-	-	-
97.0	40.0	-	-	-	-	3.3	-	-	-	-	-	-

*Bathylagus pacificus**Bathylagus wesethi*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
67.0	55.0	-	-	-	-	3.5	-	-	-	-	-	-
67.0	60.0	-	-	-	-	3.4	-	-	-	-	-	-
67.0	90.0	-	-	-	-	6.6	-	-	-	-	-	-
70.0	60.0	-	-	-	-	4.0	-	-	-	-	-	-
70.0	90.0	-	-	-	-	43.0	-	-	-	-	-	-
80.0	70.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	80.0	-	-	-	-	6.3	-	-	-	-	-	-
80.0	90.0	-	-	-	-	10.2	-	-	-	-	-	-
83.0	80.0	-	-	-	-	3.2	-	-	-	-	-	-
83.0	90.0	-	-	-	-	14.9	-	-	-	-	-	-
83.0	100.0	-	-	-	-	-	-	-	-	-	-	-
87.0	60.0	-	-	-	-	22.3	-	-	-	-	-	-
87.0	65.0	-	-	-	-	13.2	-	-	-	-	-	-
87.0	70.0	-	-	-	-	6.5	-	-	-	-	-	-
87.0	80.0	-	-	-	-	32.8	-	-	-	-	-	-
87.0	90.0	-	-	-	-	3.1	-	-	-	-	-	-
87.0	100.0	-	-	-	-	-	-	-	-	-	-	-
90.0	53.0	-	-	-	-	3.3	-	-	-	-	-	-
90.0	60.0	-	-	-	-	20.5	-	-	-	-	-	-



TABLE 4. (cont.)

*Bathylagus wesethi* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0	65.0	3.0	-	-	-	11.8	-	-	-	-	-	-
90.0	70.0	3.3	-	-	-	10.4	-	-	-	-	-	-
90.0	80.0	2.9	-	-	-	20.1	-	-	-	-	-	-
90.0	90.0	2.7	-	-	-	13.1	-	-	-	-	-	-
90.0	100.0	3.3	-	-	-	-	-	-	-	-	-	-
93.0	28.0	0.0	-	-	-	3.4	-	-	-	-	-	-
93.0	35.0	3.5	-	-	-	0.0	-	-	-	-	-	-
93.0	55.0	3.2	-	-	-	0.0	-	-	-	-	-	-
93.0	60.0	18.0	-	-	-	0.0	-	-	-	-	-	-
93.0	65.0	2.7	-	-	-	6.7	-	-	-	-	-	-
93.0	70.0	2.0	-	-	-	3.0	-	-	-	-	-	-
93.0	80.0	7.6	-	-	-	19.9	-	-	-	-	-	-
93.0	90.0	11.8	-	-	-	3.3	-	-	-	-	-	-
93.0	100.0	2.9	-	-	-	-	-	-	-	-	-	-
97.0	30.0	2.0	-	-	-	0.0	-	-	-	-	-	-
97.0	40.0	5.9	-	-	-	6.6	-	-	-	-	-	-
97.0	55.0	3.1	-	-	-	37.5	-	-	-	-	-	-
97.0	60.0	2.8	-	-	-	6.8	-	-	-	-	-	-
97.0	65.0	3.2	-	-	-	23.4	-	-	-	-	-	-
97.0	70.0	0.0	-	-	-	20.2	-	-	-	-	-	-
97.0	80.0	9.9	-	-	-	24.0	-	-	-	-	-	-
100.0	40.0	6.5	-	-	-	0.0	-	-	-	-	-	-
100.0	55.0	0.0	-	-	-	15.7	-	-	-	-	-	-
100.0	60.0	3.0	-	-	-	30.2	-	-	-	-	-	-
100.0	65.0	6.9	-	-	-	52.4	-	-	-	-	-	-
100.0	70.0	0.0	-	-	-	68.5	-	-	-	-	-	-
100.0	80.0	13.1	-	-	-	9.5	-	-	-	-	-	-
103.0	55.0	2.8	-	-	-	26.8	-	-	-	-	-	-
103.0	60.0	5.3	-	-	-	47.3	-	-	-	-	-	-
107.0	35.0	-	-	-	-	3.2	-	-	-	-	-	-
107.0	40.0	-	-	-	-	3.1	-	-	-	-	-	-
107.0	45.0	-	-	-	-	93.5	-	-	-	-	-	-
107.0	50.0	-	-	-	-	29.3	-	-	-	-	-	-
107.0	55.0	-	-	-	-	281.8	-	-	-	-	-	-
107.0	60.0	-	-	-	-	90.6	-	-	-	-	-	-
110.0	40.0	-	-	-	-	22.8	-	-	-	-	-	-
110.0	45.0	-	-	-	-	164.2	-	-	-	-	-	-
110.0	50.0	-	-	-	-	74.2	-	-	-	-	-	-
110.0	55.0	-	-	-	-	64.7	-	-	-	-	-	-
110.0	60.0	-	-	-	-	15.7	-	-	-	-	-	-
113.0	35.0	-	-	-	-	6.3	-	-	-	-	-	-
113.0	40.0	-	-	-	-	6.1	-	-	-	-	-	-
113.0	45.0	-	-	-	-	59.0	-	-	-	-	-	-
113.0	50.0	-	-	-	-	92.3	-	-	-	-	-	-
113.0	55.0	-	-	-	-	111.4	-	-	-	-	-	-
120.0	55.0	-	-	-	-	-	-	-	-	-	-	-
												3.0

TABLE 4. (cont.)

*Bathylagus wesethi* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
123.0	45.0	-	-	-	2.6	-	-	-	-	-	-	-
123.0	55.0	-	-	-	33.3	-	-	-	-	-	-	-
127.0	50.0	-	-	2.7	-	-	-	-	-	-	-	-
130.0	35.0	-	-	2.7	-	-	-	-	-	-	-	-

*Leuroglossus stilbius*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
60.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
60.0	80.0	-	-	-	-	3.4	-	-	-	-	-	-
63.0	52.0	-	-	-	-	0.0	-	-	-	-	-	-
63.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
63.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
63.0	70.0	-	-	-	-	-	-	-	-	-	-	-
67.0	50.0	-	-	-	-	0.0	-	-	-	-	-	-
67.0	55.0	-	-	-	-	3.5	-	-	-	-	-	-
67.0	60.0	-	-	-	-	3.4	-	-	-	-	-	-
67.0	70.0	-	-	-	-	-	-	-	-	-	-	-
70.0	53.0	-	-	-	-	0.0	-	-	-	-	-	-
70.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
70.0	80.0	-	-	-	-	3.4	-	-	-	-	-	-
73.0	50.0	-	-	-	-	0.0	-	-	-	-	-	-
73.0	53.0	-	-	-	-	0.0	-	-	-	-	-	-
73.0	60.0	-	-	-	-	14.3	-	-	-	-	-	-
77.0	51.0	-	-	-	-	4.5	-	-	-	-	-	-
77.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	51.0	-	-	-	-	3.3	-	-	-	-	-	-
80.0	52.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	60.0	-	-	-	-	3.3	-	-	-	-	-	-
80.0	65.0	-	-	-	-	6.0	-	-	-	-	-	-
80.0	70.0	-	-	-	-	0.0	-	-	-	-	-	-
82.0	47.0	-	-	-	-	0.0	-	-	-	-	-	-
83.0	43.0	-	-	-	-	0.0	-	-	-	-	-	-
83.0	51.0	-	-	-	-	0.0	-	-	-	-	-	-
83.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
83.0	60.0	-	-	-	-	6.3	-	-	-	-	-	-
83.0	80.0	-	-	-	-	3.2	-	-	-	-	-	-
87.0	35.0	-	-	-	-	0.0	-	-	-	-	-	-
87.0	40.0	-	-	-	-	3.1	-	-	-	-	-	-
87.0	45.0	-	-	-	-	9.5	-	-	-	-	-	-
87.0	55.0	-	-	-	-	2.8	-	-	-	-	-	-
87.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
87.0	65.0	-	-	-	-	6.4	-	-	-	-	-	-



TABLE 4. (cont.)

*Leuroglossus stilbius* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
130.0	28.0	-	-	2.4	-	-	-	-	-	-	-	-
130.0	30.0	-	-	2.3	-	-	-	-	-	-	-	-
130.0	35.0	-	-	2.7	-	-	-	-	-	-	-	-
130.0	40.0	-	-	18.3	-	-	-	-	-	-	-	-
130.0	45.0	-	-	58.5	-	-	-	-	-	-	-	-
130.0	50.0	-	-	14.5	-	-	-	-	-	-	-	-
133.0	30.0	-	-	15.5	-	-	-	-	-	-	-	-
133.0	35.0	-	-	19.0	-	-	-	-	-	-	-	-
133.0	40.0	-	-	11.6	-	-	-	-	-	-	-	-
137.0	23.0	-	-	2.7	-	-	-	-	-	-	-	-
137.0	30.0	-	-	65.0	-	-	-	-	-	-	-	-
137.0	35.0	-	-	3.0	-	-	-	-	-	-	-	-

## Stomiiformes

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
97.0	40.0	0.0	-	-	-	3.3	-	-	-	-	-	-

## Gonostomatidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0	80.0	0.0	-	-	-	3.3	-	-	-	-	-	-
93.0	60.0	9.0	-	-	-	0.0	-	-	-	-	-	-
103.0	70.0	3.0	-	-	-	-	-	-	-	-	-	-
140.0	95.0	-	-	2.8	-	-	-	-	-	-	-	-

*Cyclothone* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	70.0	-	-	-	-	0.0	-	-	-	-	-	-
70.0	90.0	0.0	-	-	-	3.1	-	-	-	-	-	-
77.0	100.0	12.2	-	-	-	-	-	-	-	-	-	-
80.0	65.0	3.1	-	-	-	0.0	-	-	-	-	-	-
80.0	90.0	0.0	-	-	-	3.4	-	-	-	-	-	-
80.0	100.0	5.4	-	-	-	-	-	-	-	-	-	-
82.0	47.0	2.8	-	-	-	0.0	-	-	-	-	-	-
83.0	43.0	2.9	-	-	-	0.0	-	-	-	-	-	-
83.0	90.0	0.0	-	-	-	6.0	-	-	-	-	-	-
87.0	65.0	0.0	-	-	-	3.3	-	-	-	-	-	-
87.0	80.0	0.0	-	-	-	3.3	-	-	-	-	-	-
87.0	90.0	19.9	-	-	-	0.0	-	-	-	-	-	-
87.0	100.0	21.4	-	-	-	-	-	-	-	-	-	-
90.0	65.0	17.8	-	-	-	0.0	-	-	-	-	-	-

TABLE 4. (cont..)

		<i>Cyclothone</i> spp. (cont.)											
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.	
90.0	70.0					0.0							
90.0	80.0					0.0							
90.0	90.0					0.0							
90.0	100.0					3.4							
93.0	60.0					0.0							
93.0	65.0					6.0							
93.0	70.0					0.0							
93.0	80.0					0.0							
93.0	90.0					0.0							
93.0	100.0					0.0							
97.0	65.0					6.7							
97.0	70.0					3.4							
97.0	80.0					6.0							
100.0	60.0					15.4							
100.0	65.0					16.3							
100.0	70.0					3.2							
100.0	80.0					0.0							
103.0	29.0					0.0							
103.0	45.0					6.7							
103.0	55.0					0.0							
103.0	60.0					0.0							
103.0	70.0					0.0							
103.0	80.0					0.0							
107.0	45.0					16.7							
107.0	50.0					9.8							
107.0	55.0					7.3							
107.0	60.0					3.0							
110.0	40.0					3.3							
110.0	45.0					19.3							
110.0	50.0					15.4							
110.0	55.0					3.1							
110.0	60.0					3.1							
113.0	45.0					20.6							
113.0	50.0					9.7							
113.0	55.0					3.0							
120.0	70.0					14.3							
120.0	80.0					2.8							
123.0	45.0					2.6							
123.0	50.0					2.8							
123.0	55.0					3.0							
123.0	60.0					6.7							
127.0	50.0					2.7							
127.0	55.0					10.4							
127.0	60.0					8.0							
130.0	35.0					2.7							

TABLE 4. (cont.)

<i>Diplophos taenia</i>												
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
120.0	80.0	-	-	-	2.8	-	-	-	-	-	-	-
<i>Ichthyococcus</i> spp.												
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
97.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
107.0	60.0	-	-	-	-	3.0	-	-	-	-	-	-
<i>Vinciguerria lucetia</i>												
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	52.0	-	-	-	-	0.0	-	-	-	-	-	-
73.0	100.0	-	-	-	-	0.0	-	-	-	-	-	-
83.0	90.0	-	-	-	-	0.0	-	-	-	-	-	-
87.0	90.0	-	-	-	-	-	-	-	-	-	-	-
87.0	100.0	-	-	-	-	0.0	-	-	-	-	-	-
90.0	53.0	-	-	-	-	0.0	-	-	-	-	-	-
90.0	60.0	-	-	-	-	3.0	-	-	-	-	-	-
90.0	65.0	-	-	-	-	0.0	-	-	-	-	-	-
90.0	70.0	-	-	-	-	0.0	-	-	-	-	-	-
90.0	46.9	-	-	-	-	0.0	-	-	-	-	-	-
90.0	80.0	-	-	-	-	0.0	-	-	-	-	-	-
90.0	100.0	-	-	-	-	-	-	-	-	-	-	-
93.0	50.0	-	-	-	-	0.0	-	-	-	-	-	-
93.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
93.0	65.0	-	-	-	-	3.3	-	-	-	-	-	-
93.0	70.0	-	-	-	-	6.1	-	-	-	-	-	-
93.0	80.0	-	-	-	-	78.1	-	-	-	-	-	-
93.0	90.0	-	-	-	-	82.6	-	-	-	-	-	-
93.0	100.0	-	-	-	-	14.5	-	-	-	-	-	-
97.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
97.0	60.0	-	-	-	-	3.4	-	-	-	-	-	-
97.0	65.0	-	-	-	-	0.0	-	-	-	-	-	-
97.0	70.0	-	-	-	-	0.0	-	-	-	-	-	-
97.0	80.0	-	-	-	-	13.7	-	-	-	-	-	-
100.0	60.0	-	-	-	-	48.3	-	-	-	-	-	-
100.0	65.0	-	-	-	-	3.1	-	-	-	-	-	-
100.0	70.0	-	-	-	-	32.6	-	-	-	-	-	-
100.0	80.0	-	-	-	-	56.9	-	-	-	-	-	-
103.0	45.0	-	-	-	-	0.0	-	-	-	-	-	-
103.0	50.0	-	-	-	-	0.0	-	-	-	-	-	-
103.0	55.0	-	-	-	-	10.1	-	-	-	-	-	-
103.0	60.0	-	-	-	-	22.1	-	-	-	-	-	-
103.0	65.0	-	-	-	-	-	-	-	-	-	-	-

TABLE 4. (cont.)

*Vinciguerria lucetia* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
103.0	70.0	-	-	-	-	-	-	-	-	-	-	-
103.0	39.5	-	-	-	-	-	-	-	-	-	-	-
103.0	80.0	-	-	-	-	-	-	-	-	-	-	-
107.0	30.7	-	-	-	-	-	-	-	-	-	-	-
107.0	45.0	-	-	-	-	40.1	-	-	-	-	-	-
107.0	50.0	-	-	-	-	16.3	-	-	-	-	-	-
107.0	55.0	-	-	-	-	43.9	-	-	-	-	-	-
107.0	60.0	-	-	-	-	33.2	-	-	-	-	-	-
110.0	40.0	-	-	-	-	39.0	-	-	-	-	-	-
110.0	45.0	-	-	-	-	550.6	-	-	-	-	-	-
110.0	50.0	-	-	-	-	46.3	-	-	-	-	-	-
110.0	55.0	-	-	-	-	21.6	-	-	-	-	-	-
110.0	60.0	-	-	-	-	22.0	-	-	-	-	-	-
113.0	40.0	-	-	-	-	3.1	-	-	-	-	-	-
113.0	45.0	-	-	-	-	38.4	-	-	-	-	-	-
113.0	50.0	-	-	-	-	17.0	-	-	-	-	-	-
113.0	55.0	-	-	-	-	48.2	-	-	-	-	-	-
120.0	65.0	-	-	-	6.2	-	-	-	-	-	-	-
120.0	70.0	-	-	-	103.3	-	-	-	-	-	-	-
120.0	80.0	-	-	-	89.6	-	-	-	-	-	-	-
123.0	45.0	-	-	-	13.2	-	-	-	-	-	-	-
123.0	55.0	-	-	-	36.4	-	-	-	-	-	-	-
123.0	60.0	-	-	-	46.8	-	-	-	-	-	-	-
127.0	45.0	-	-	-	5.7	-	-	-	-	-	-	-
127.0	50.0	-	-	-	-	-	-	-	-	-	-	-
127.0	55.0	-	-	-	16.3	-	-	-	-	-	-	-
127.0	60.0	-	-	-	660.4	-	-	-	-	-	-	-
127.0	65.0	-	-	-	188.2	-	-	-	-	-	-	-
130.0	45.0	-	-	-	2.7	-	-	-	-	-	-	-
130.0	50.0	-	-	-	132.9	-	-	-	-	-	-	-
130.0	55.0	-	-	-	3.0	-	-	-	-	-	-	-
130.0	60.0	-	-	-	58.3	-	-	-	-	-	-	-
133.0	35.0	-	-	-	7.1	-	-	-	-	-	-	-
137.0	35.0	-	-	-	30.0	-	-	-	-	-	-	-
137.0	40.0	-	-	-	11.2	-	-	-	-	-	-	-
140.0	38.0	-	-	-	5.6	-	-	-	-	-	-	-
140.0	50.0	-	-	-	200.0	-	-	-	-	-	-	-
140.0	65.0	-	-	-	93.4	-	-	-	-	-	-	-
140.0	80.0	-	-	-	103.7	-	-	-	-	-	-	-
140.0	95.0	-	-	-	127.3	-	-	-	-	-	-	-

## Sternoptychidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
67.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
70.0	53.0	-	-	-	-	0.0	-	-	-	-	-	-
70.0	70.0	-	-	-	-	0.0	-	-	-	-	-	-
70.0	80.0	-	-	-	-	0.0	-	-	-	-	-	-





TABLE 4. (cont.)

*Chauliodus macouni*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	70.0	-	-	-	-	6.6	-	-	-	-	-	-
60.0	80.0	-	-	-	-	3.4	-	-	-	-	-	-
60.0	90.0	-	-	-	-	10.4	-	-	-	-	-	-
63.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
63.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
63.0	80.0	-	-	-	-	-	-	-	-	-	-	-
63.0	90.0	-	-	-	-	6.7	-	-	-	-	-	-
67.0	70.0	-	-	-	-	-	-	-	-	-	-	-
70.0	70.0	-	-	-	-	3.3	-	-	-	-	-	-
70.0	80.0	-	-	-	-	3.4	-	-	-	-	-	-
70.0	90.0	-	-	-	-	3.1	-	-	-	-	-	-
70.0	100.0	-	-	-	-	-	-	-	-	-	-	-
73.0	60.0	-	-	-	-	22.7	-	-	-	-	-	-
73.0	70.0	-	-	-	-	-	-	-	-	-	-	-
77.0	55.0	-	-	-	-	3.3	-	-	-	-	-	-
77.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	65.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	70.0	-	-	-	-	3.1	-	-	-	-	-	-
80.0	90.0	-	-	-	-	0.0	-	-	-	-	-	-
83.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
83.0	80.0	-	-	-	-	3.2	-	-	-	-	-	-
83.0	100.0	-	-	-	-	-	-	-	-	-	-	-
87.0	65.0	-	-	-	-	3.3	-	-	-	-	-	-
87.0	70.0	-	-	-	-	0.0	-	-	-	-	-	-
87.0	80.0	-	-	-	-	3.3	-	-	-	-	-	-
90.0	65.0	-	-	-	-	0.0	-	-	-	-	-	-
90.0	70.0	-	-	-	-	3.4	-	-	-	-	-	-
93.0	60.0	-	-	-	-	3.0	-	-	-	-	-	-
93.0	70.0	-	-	-	-	0.0	-	-	-	-	-	-
97.0	32.0	-	-	-	-	3.4	-	-	-	-	-	-
97.0	55.0	-	-	-	-	3.2	-	-	-	-	-	-
100.0	40.0	-	-	-	-	3.1	-	-	-	-	-	-
100.0	55.0	-	-	-	-	3.3	-	-	-	-	-	-
100.0	70.0	-	-	-	-	3.3	-	-	-	-	-	-
103.0	50.0	-	-	-	-	3.0	-	-	-	-	-	-
107.0	32.0	-	-	-	-	3.3	-	-	-	-	-	-
107.0	45.0	-	-	-	-	-	-	-	-	-	-	-

*Idiacanthus antrostomus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	100.0	-	-	-	-	-	-	-	-	-	-	-
70.0	80.0	-	-	-	-	0.0	-	-	-	-	-	-
77.0	100.0	-	-	-	-	-	-	-	-	-	-	-

TABLE 4. (cont.)

<i>Idiacanthus antrostomus</i> (cont.)												
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
83.0	100.0											
87.0	60.0				0.0							
87.0	65.0				0.0							
87.0	100.0				0.0							
90.0	80.0				3.3							
93.0	65.0				0.0							
93.0	70.0				0.0							
93.0	80.0				0.0							
93.0	90.0				0.0							
93.0	100.0				0.0							
97.0	70.0				0.0							
97.0	80.0				0.0							
100.0	40.0				0.0							
100.0	65.0				0.0							
100.0	70.0				6.5							
100.0	80.0				0.0							
103.0	55.0				0.0							
103.0	60.0				0.0							
103.0	70.0											
<i>Bathophilus</i> spp.												
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
93.0	35.0					6.4						
<i>Eustomias</i> spp.												
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
103.0	80.0											
<i>Stomias atriventer</i>												
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
70.0	90.0					3.1						
83.0	65.0				3.0							
83.0	80.0				0.0							
83.0	90.0				3.0							
87.0	60.0				2.5							
87.0	100.0											
90.0	53.0				0.0							
90.0	60.0				0.0							
90.0	100.0				3.3							
93.0	27.0				2.8							

TABLE 4. (cont.)

*Stomias atriventer* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
93.0 55.	0.0	-	-	-	-	3.2	-	-	-	-	-	-
93.0 60.	9.0	-	-	-	-	0.0	-	-	-	-	-	-
93.0 65.	2.7	-	-	-	-	0.0	-	-	-	-	-	-
93.0 70.	2.0	-	-	-	-	3.0	-	-	-	-	-	-
93.0 80.	2.5	-	-	-	-	0.0	-	-	-	-	-	-
97.0 32.	0.0	-	-	-	-	3.1	-	-	-	-	-	-
97.0 40.	8.9	-	-	-	-	0.0	-	-	-	-	-	-
97.0 45.	0.0	-	-	-	-	7.5	-	-	-	-	-	-
97.0 55.	6.2	-	-	-	-	0.0	-	-	-	-	-	-
97.0 60.	2.8	-	-	-	-	0.0	-	-	-	-	-	-
97.0 80.	6.6	-	-	-	-	0.0	-	-	-	-	-	-
100.0 50.	0.0	-	-	-	-	6.1	-	-	-	-	-	-
100.0 60.	0.0	-	-	-	-	3.0	-	-	-	-	-	-
100.0 65.	6.9	-	-	-	-	0.0	-	-	-	-	-	-
100.0 70.	0.0	-	-	-	-	3.3	-	-	-	-	-	-
100.0 80.	6.6	-	-	-	-	0.0	-	-	-	-	-	-
103.0 30.	1.4	-	-	-	-	0.0	-	-	-	-	-	-
103.0 45.	8.9	-	-	-	-	0.0	-	-	-	-	-	-
103.0 50.	0.0	-	-	-	-	9.3	-	-	-	-	-	-
103.0 55.	2.8	-	-	-	-	0.0	-	-	-	-	-	-
103.0 60.	5.3	-	-	-	-	0.0	-	-	-	-	-	-
103.0 65.	3.2	-	-	-	-	-	-	-	-	-	-	-
103.0 70.	3.0	-	-	-	-	-	-	-	-	-	-	-
103.0 80.	2.6	-	-	-	-	-	-	-	-	-	-	-
107.0 40.	-	-	-	-	-	-	-	-	-	-	-	-
107.0 45.	-	-	-	-	-	9.2	-	-	-	-	-	-
110.0 40.	-	-	-	-	-	10.0	-	-	-	-	-	-
110.0 50.	-	-	-	-	-	6.5	-	-	-	-	-	-
110.0 55.	-	-	-	-	-	3.1	-	-	-	-	-	-
110.0 60.	-	-	-	-	-	6.2	-	-	-	-	-	-
123.0 55.	-	-	-	-	12.1	3.1	-	-	-	-	-	-
123.0 60.	-	-	-	2.6	6.7	-	-	-	-	-	-	-
127.0 55.	-	-	-	5.3	-	-	-	-	-	-	-	-
127.0 60.	-	-	-	2.7	-	-	-	-	-	-	-	-
140.0 80.	-	-	-	-	-	-	-	-	-	-	-	-

Paralepididae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
93.0 90.1	3.0	-	-	-	-	0.0	-	-	-	-	-	-
100.0 55.1	2.3	-	-	-	-	0.0	-	-	-	-	-	-
100.0 60.1	3.0	-	-	-	-	0.0	-	-	-	-	-	-

TABLE 4. (cont.)

*Lestidiops ringens*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	70.0					6.6						
60.0	90.0					6.9						
63.0	52.0					0.0						
63.0	60.0					0.0						
63.0	70.0											
63.0	80.0					0.0						
63.0	90.0					0.0						
67.0	55.0					0.0						
67.0	60.0					3.4						
70.0	80.0					0.0						
70.0	90.0											
70.0	100.0											
73.0	100.0											
77.0	51.0					0.0						
77.0	55.0					0.0						
77.0	60.0					0.0						
77.0	100.0											
80.0	65.0					0.0						
80.0	70.0					3.1						
80.0	90.0					0.0						
80.0	100.0											
82.0	47.0					0.0						
83.0	55.0					0.0						
83.0	60.0					3.2						
83.0	65.0					0.0						
83.0	70.0					0.0						
83.0	80.0					3.2						
83.0	100.0											
87.0	65.0					0.0						
87.0	80.0					0.0						
90.0	60.0					0.0						
90.0	65.0					0.0						
90.0	70.0					0.0						
93.0	35.0					0.0						
93.0	65.0					0.0						
93.0	80.0					3.3						
97.0	65.0					0.0						
100.0	40.0					0.0						
100.0	65.0					3.1						
100.0	80.0					0.0						
103.0	30.0					0.0						
103.0	50.0					3.3						
103.0	55.0					0.0						
103.0	60.0					0.0						
107.0	50.0					3.3						
110.0	45.0					51.5						

TABLE 4. (cont.)

*Lestidiops ringens* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
113.0	50.0	-	-	-	-	4.9	-	-	-	-	-	-

*Notolepis risso*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
70.0	80.0	-	-	-	-	0.0	-	-	-	-	-	-
93.0	70.0	-	-	-	-	0.0	-	-	-	-	-	-
93.0	80.0	-	-	-	-	0.0	-	-	-	-	-	-
97.0	70.0	-	-	-	-	3.4	-	-	-	-	-	-
97.0	80.0	-	-	-	-	0.0	-	-	-	-	-	-
100.0	40.0	-	-	-	-	0.0	-	-	-	-	-	-
100.0	70.0	-	-	-	-	3.3	-	-	-	-	-	-
103.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-

*Stemonosudis macrura*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
140.0	80.0	-	-	2.7	-	-	-	-	-	-	-	-

*Scopelosaurus* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	70.0	-	-	-	-	3.3	-	-	-	-	-	-
70.0	90.0	-	-	-	-	3.1	-	-	-	-	-	-
83.0	90.0	-	-	-	-	3.0	-	-	-	-	-	-

## Scopelarchidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
67.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
67.0	70.0	-	-	-	-	-	-	-	-	-	-	-
70.0	90.0	-	-	-	-	3.1	-	-	-	-	-	-
77.0	100.0	-	-	-	-	-	-	-	-	-	-	-
93.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
93.0	100.0	-	-	-	-	-	-	-	-	-	-	-
97.0	35.0	-	-	-	-	0.0	-	-	-	-	-	-
97.0	50.0	-	-	-	-	3.2	-	-	-	-	-	-
100.0	65.0	-	-	-	-	3.1	-	-	-	-	-	-
100.0	70.0	-	-	-	-	3.3	-	-	-	-	-	-
103.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
103.0	65.0	-	-	-	-	-	-	-	-	-	-	-
140.0	80.0	-	-	2.7	-	-	-	-	-	-	-	-

TABLE 4. (cont.)

Myctophidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	70.0	0.0	-	-	-	3.3	-	-	-	-	-	-
63.0	55.0	3.0	-	-	-	0.0	-	-	-	-	-	-
63.0	60.0	3.1	-	-	-	0.0	-	-	-	-	-	-
67.0	50.0	0.0	-	-	-	2.9	-	-	-	-	-	-
67.0	55.0	0.0	-	-	-	3.5	-	-	-	-	-	-
70.0	51.0	0.0	-	-	-	3.4	-	-	-	-	-	-
70.0	90.0	0.0	-	-	-	3.1	-	-	-	-	-	-
73.0	60.0	0.0	-	-	-	4.5	-	-	-	-	-	-
73.0	100.0	2.8	-	-	-	-	-	-	-	-	-	-
77.0	100.0	24.3	-	-	-	-	-	-	-	-	-	-
80.0	51.0	2.3	-	-	-	0.0	-	-	-	-	-	-
80.0	55.0	3.1	-	-	-	3.3	-	-	-	-	-	-
80.0	60.0	3.3	-	-	-	0.0	-	-	-	-	-	-
80.0	65.0	6.2	-	-	-	0.0	-	-	-	-	-	-
80.0	70.0	0.0	-	-	-	3.1	-	-	-	-	-	-
83.0	80.0	0.0	-	-	-	9.7	-	-	-	-	-	-
87.0	35.0	0.0	-	-	-	5.3	-	-	-	-	-	-
87.0	60.0	0.0	-	-	-	2.5	-	-	-	-	-	-
87.0	70.0	5.1	-	-	-	0.0	-	-	-	-	-	-
90.0	32.0	0.0	-	-	-	6.7	-	-	-	-	-	-
90.0	37.0	0.0	-	-	-	12.6	-	-	-	-	-	-
90.0	45.0	0.0	-	-	-	6.7	-	-	-	-	-	-
90.0	65.0	5.9	-	-	-	0.0	-	-	-	-	-	-
90.0	80.0	2.9	-	-	-	3.3	-	-	-	-	-	-
90.0	90.0	0.0	-	-	-	3.3	-	-	-	-	-	-
93.0	30.0	2.7	-	-	-	0.0	-	-	-	-	-	-
93.0	35.0	3.5	-	-	-	32.1	-	-	-	-	-	-
93.0	40.0	0.0	-	-	-	6.8	-	-	-	-	-	-
93.0	50.0	3.1	-	-	-	3.7	-	-	-	-	-	-
93.0	55.0	3.2	-	-	-	0.0	-	-	-	-	-	-
93.0	65.0	0.0	-	-	-	6.7	-	-	-	-	-	-
93.0	80.0	2.5	-	-	-	0.0	-	-	-	-	-	-
93.0	90.0	3.0	-	-	-	0.0	-	-	-	-	-	-
97.0	32.0	0.0	-	-	-	24.6	-	-	-	-	-	-
97.0	35.0	6.0	-	-	-	0.0	-	-	-	-	-	-
97.0	40.0	0.0	-	-	-	19.7	-	-	-	-	-	-
97.0	45.0	0.0	-	-	-	78.3	-	-	-	-	-	-
97.0	50.0	0.0	-	-	-	3.2	-	-	-	-	-	-
97.0	60.0	0.0	-	-	-	3.4	-	-	-	-	-	-
100.0	45.0	6.5	-	-	-	0.0	-	-	-	-	-	-
100.0	55.0	4.5	-	-	-	0.0	-	-	-	-	-	-
100.0	60.0	3.0	-	-	-	6.0	-	-	-	-	-	-
100.0	70.0	0.0	-	-	-	3.3	-	-	-	-	-	-
100.0	80.0	4.4	-	-	-	9.5	-	-	-	-	-	-
103.0	35.0	0.0	-	-	-	3.2	-	-	-	-	-	-
103.0	55.0	0.0	-	-	-	26.8	-	-	-	-	-	-

TABLE 4. (cont.)

## Myctophidae (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
103.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
107.0	40.0	-	-	-	-	15.3	-	-	-	-	-	-
107.0	45.0	-	-	-	-	10.0	-	-	-	-	-	-
107.0	55.0	-	-	-	-	14.6	-	-	-	-	-	-
107.0	60.0	-	-	-	-	21.1	-	-	-	-	-	-
110.0	50.0	-	-	-	-	3.1	-	-	-	-	-	-
110.0	55.0	-	-	-	-	3.1	-	-	-	-	-	-
110.0	60.0	-	-	-	-	9.4	-	-	-	-	-	-
113.0	35.0	-	-	-	-	3.2	-	-	-	-	-	-
113.0	40.0	-	-	-	-	6.1	-	-	-	-	-	-
113.0	45.0	-	-	-	-	8.9	-	-	-	-	-	-
113.0	55.0	-	-	-	-	51.2	-	-	-	-	-	-
117.0	35.0	-	-	-	2.9	-	-	-	-	-	-	-
120.0	60.0	-	-	-	3.0	-	-	-	-	-	-	-
120.0	80.0	-	-	-	2.8	-	-	-	-	-	-	-
123.0	55.0	-	-	-	9.1	-	-	-	-	-	-	-
123.0	60.0	-	-	-	16.7	-	-	-	-	-	-	-
127.0	55.0	-	-	-	-	-	-	-	-	-	-	-
127.0	60.0	-	-	-	-	-	-	-	-	-	-	-
130.0	40.0	-	-	-	33.8	-	-	-	-	-	-	-
130.0	40.0	-	-	-	10.6	-	-	-	-	-	-	-
130.0	50.0	-	-	-	2.9	-	-	-	-	-	-	-
133.0	35.0	-	-	-	9.5	-	-	-	-	-	-	-
137.0	22.0	-	-	-	2.7	-	-	-	-	-	-	-
140.0	65.0	-	-	-	2.8	-	-	-	-	-	-	-
140.0	80.0	-	-	-	2.7	-	-	-	-	-	-	-
140.0	95.0	-	-	-	8.5	-	-	-	-	-	-	-

## Ceratoscopelus townsendi

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
70.0	90.0	-	-	-	-	3.1	-	-	-	-	-	-
77.0	100.0	-	-	-	-	3.2	-	-	-	-	-	-
83.0	80.0	-	-	-	-	-	-	-	-	-	-	-
87.0	100.0	-	-	-	-	-	-	-	-	-	-	-
90.0	100.0	-	-	-	-	-	-	-	-	-	-	-
93.0	80.0	-	-	-	-	3.3	-	-	-	-	-	-
93.0	90.0	-	-	-	-	0.0	-	-	-	-	-	-
93.0	100.0	-	-	-	-	-	-	-	-	-	-	-
97.0	80.0	-	-	-	-	0.0	-	-	-	-	-	-
100.0	60.0	-	-	-	-	6.0	-	-	-	-	-	-
100.0	70.0	-	-	-	-	3.3	-	-	-	-	-	-
100.0	80.0	-	-	-	-	3.2	-	-	-	-	-	-
103.0	65.0	-	-	-	-	-	-	-	-	-	-	-
110.0	40.0	-	-	-	-	3.3	-	-	-	-	-	-
110.0	45.0	-	-	-	-	12.9	-	-	-	-	-	-

TABLE 4. (cont.)

*Ceratoscopelus townsendi* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
110.0	50.0	-	-	-	-	6.2	-	-	-	-	-	-
113.0	55.0	-	-	-	-	3.0	-	-	-	-	-	-
127.0	55.0	-	-	5.2	-	-	-	-	-	-	-	-
127.0	60.0	-	-	2.7	-	-	-	-	-	-	-	-
137.0	35.0	-	-	3.0	-	-	-	-	-	-	-	-
140.0	95.0	-	-	2.8	-	-	-	-	-	-	-	-

*Diaphus* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	55.0	0.0	-	-	-	3.3	-	-	-	-	-	-
60.0	70.0	0.0	-	-	-	23.2	-	-	-	-	-	-
60.0	80.0	0.0	-	-	-	41.0	-	-	-	-	-	-
60.0	90.0	0.0	-	-	-	249.1	-	-	-	-	-	-
63.0	55.0	0.0	-	-	-	3.5	-	-	-	-	-	-
63.0	60.0	0.0	-	-	-	2.9	-	-	-	-	-	-
63.0	90.0	0.0	-	-	-	16.6	-	-	-	-	-	-
67.0	60.0	0.0	-	-	-	99.5	-	-	-	-	-	-
67.0	90.0	0.0	-	-	-	9.9	-	-	-	-	-	-
70.0	60.0	0.0	-	-	-	4.0	-	-	-	-	-	-
70.0	70.0	0.0	-	-	-	3.3	-	-	-	-	-	-
70.0	80.0	0.0	-	-	-	3.4	-	-	-	-	-	-
70.0	90.0	0.0	-	-	-	9.2	-	-	-	-	-	-
73.0	60.0	0.0	-	-	-	4.5	-	-	-	-	-	-
77.0	60.0	0.0	-	-	-	3.3	-	-	-	-	-	-
80.0	65.0	0.0	-	-	-	12.0	-	-	-	-	-	-
80.0	70.0	0.0	-	-	-	40.0	-	-	-	-	-	-
80.0	80.0	0.0	-	-	-	3.1	-	-	-	-	-	-
83.0	60.0	0.0	-	-	-	3.2	-	-	-	-	-	-
83.0	80.0	0.0	-	-	-	22.6	-	-	-	-	-	-
83.0	90.0	0.0	-	-	-	14.9	-	-	-	-	-	-
87.0	60.0	0.0	-	-	-	19.8	-	-	-	-	-	-
87.0	70.0	0.0	-	-	-	3.3	-	-	-	-	-	-
87.0	80.0	0.0	-	-	-	3.3	-	-	-	-	-	-
90.0	60.0	0.0	-	-	-	3.4	-	-	-	-	-	-
90.0	65.0	0.0	-	-	-	3.0	-	-	-	-	-	-
90.0	70.0	0.0	-	-	-	3.5	-	-	-	-	-	-
90.0	80.0	0.0	-	-	-	30.1	-	-	-	-	-	-
90.0	90.0	0.0	-	-	-	3.3	-	-	-	-	-	-
93.0	40.0	0.0	-	-	-	10.2	-	-	-	-	-	-
93.0	80.0	0.0	-	-	-	3.3	-	-	-	-	-	-
97.0	35.0	0.0	-	-	-	3.1	-	-	-	-	-	-
100.0	65.0	0.0	-	-	-	3.1	-	-	-	-	-	-
110.0	45.0	0.0	-	-	-	3.2	-	-	-	-	-	-



TABLE 4. (cont.)

*Lampadena urophaos*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
140.0	80.0	-	-	5.3	-	-	-	-	-	-	-	-

*Lampanyctus* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	70.0	0.0	-	-	-	6.6	-	-	-	-	-	-
60.0	80.0	0.0	-	-	-	3.4	-	-	-	-	-	-
60.0	90.0	0.0	-	-	-	20.8	-	-	-	-	-	-
60.0	100.0	3.2	-	-	-	-	-	-	-	-	-	-
63.0	90.0	0.0	-	-	-	3.3	-	-	-	-	-	-
67.0	55.0	0.0	-	-	-	3.5	-	-	-	-	-	-
67.0	70.0	3.2	-	-	-	-	-	-	-	-	-	-
67.0	90.0	-	-	-	-	6.6	-	-	-	-	-	-
70.0	51.0	0.0	-	-	-	3.4	-	-	-	-	-	-
70.0	60.0	0.0	-	-	-	4.0	-	-	-	-	-	-
70.0	90.0	0.0	-	-	-	9.2	-	-	-	-	-	-
73.0	60.0	0.0	-	-	-	36.3	-	-	-	-	-	-
77.0	48.0	2.7	-	-	-	0.0	-	-	-	-	-	-
77.0	55.0	0.0	-	-	-	3.3	-	-	-	-	-	-
77.0	60.0	0.0	-	-	-	6.6	-	-	-	-	-	-
80.0	60.0	0.0	-	-	-	3.3	-	-	-	-	-	-
80.0	65.0	6.2	-	-	-	3.0	-	-	-	-	-	-
80.0	70.0	0.0	-	-	-	24.6	-	-	-	-	-	-
80.0	80.0	6.0	-	-	-	0.0	-	-	-	-	-	-
80.0	90.0	0.0	-	-	-	3.4	-	-	-	-	-	-
80.0	100.0	5.4	-	-	-	-	-	-	-	-	-	-
83.0	51.0	2.1	-	-	-	0.0	-	-	-	-	-	-
83.0	55.0	2.7	-	-	-	0.0	-	-	-	-	-	-
83.0	60.0	0.0	-	-	-	3.2	-	-	-	-	-	-
83.0	70.0	0.0	-	-	-	6.7	-	-	-	-	-	-
83.0	80.0	0.0	-	-	-	3.2	-	-	-	-	-	-
87.0	40.0	6.2	-	-	-	0.0	-	-	-	-	-	-
87.0	60.0	0.0	-	-	-	12.4	-	-	-	-	-	-
87.0	65.0	0.0	-	-	-	3.3	-	-	-	-	-	-
87.0	70.0	2.6	-	-	-	0.0	-	-	-	-	-	-
87.0	80.0	18.3	-	-	-	6.6	-	-	-	-	-	-
87.0	90.0	2.8	-	-	-	3.1	-	-	-	-	-	-
90.0	37.0	0.0	-	-	-	6.3	-	-	-	-	-	-
90.0	65.0	0.0	-	-	-	5.9	-	-	-	-	-	-
90.0	80.0	0.0	-	-	-	6.7	-	-	-	-	-	-
93.0	28.0	0.0	-	-	-	6.8	-	-	-	-	-	-
93.0	30.0	0.0	-	-	-	3.3	-	-	-	-	-	-
93.0	35.0	0.0	-	-	-	3.2	-	-	-	-	-	-
93.0	40.0	0.0	-	-	-	3.4	-	-	-	-	-	-
93.0	50.0	0.0	-	-	-	3.7	-	-	-	-	-	-

TABLE 4. (cont.)

*Lampanyctus* spp. (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
93.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
93.0	65.0	-	-	-	-	3.3	-	-	-	-	-	-
97.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
97.0	65.0	-	-	-	-	10.0	-	-	-	-	-	-
97.0	80.0	-	-	-	-	0.0	-	-	-	-	-	-
100.0	55.0	-	-	-	-	3.1	-	-	-	-	-	-
100.0	65.0	-	-	-	-	24.6	-	-	-	-	-	-
100.0	70.0	-	-	-	-	13.0	-	-	-	-	-	-
100.0	80.0	-	-	-	-	0.0	-	-	-	-	-	-
103.0	45.0	-	-	-	-	0.0	-	-	-	-	-	-
107.0	50.0	-	-	-	-	3.3	-	-	-	-	-	-
110.0	60.0	-	-	-	-	3.1	-	-	-	-	-	-
110.0	60.0	-	-	-	2.9	15.7	-	-	-	-	-	-
117.0	35.0	-	-	-	-	-	-	-	-	-	-	-
127.0	55.0	-	-	33.8	-	-	-	-	-	-	-	-
130.0	55.0	-	-	3.0	-	-	-	-	-	-	-	-
130.0	60.0	-	-	3.2	-	-	-	-	-	-	-	-
140.0	50.0	-	-	5.0	-	-	-	-	-	-	-	-
140.0	65.0	-	-	8.5	-	-	-	-	-	-	-	-
140.0	80.0	-	-	10.6	-	-	-	-	-	-	-	-

*Lampanyctus regalis*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	80.0	-	-	-	-	3.4	-	-	-	-	-	-
67.0	60.0	-	-	-	-	3.4	-	-	-	-	-	-
77.0	55.0	-	-	-	-	6.6	-	-	-	-	-	-
80.0	80.0	-	-	-	-	3.1	-	-	-	-	-	-
83.0	60.0	-	-	-	-	3.2	-	-	-	-	-	-
83.0	90.0	-	-	-	-	9.0	-	-	-	-	-	-
90.0	65.0	-	-	-	-	3.0	-	-	-	-	-	-
93.0	70.0	-	-	-	-	3.0	-	-	-	-	-	-
100.0	65.0	-	-	-	-	3.1	-	-	-	-	-	-
107.0	50.0	-	-	-	-	3.3	-	-	-	-	-	-
113.0	35.0	-	-	-	-	3.2	-	-	-	-	-	-

*Lampanyctus ritteri*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	70.0	-	-	-	-	0.0	-	-	-	-	-	-
63.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
63.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
67.0	60.0	-	-	-	-	30.9	-	-	-	-	-	-
70.0	60.0	-	-	-	-	4.0	-	-	-	-	-	-

TABLE 4. (cont.)

*Lampanyctus ritteri* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
70.0	70.0	0.0	-	-	-	3.3	-	-	-	-	-	-
70.0	80.0	0.0	-	-	-	3.4	-	-	-	-	-	-
70.0	90.0	3.1	-	-	-	0.0	-	-	-	-	-	-
70.0	100.0	6.0	-	-	-	-	-	-	-	-	-	-
73.0	50.0	3.0	-	-	-	0.0	-	-	-	-	-	-
73.0	60.0	3.0	-	-	-	0.0	-	-	-	-	-	-
77.0	51.0	3.0	-	-	-	0.0	-	-	-	-	-	-
77.0	100.0	12.2	-	-	-	-	-	-	-	-	-	-
80.0	55.0	6.2	-	-	-	0.0	-	-	-	-	-	-
80.0	70.0	17.6	-	-	-	18.5	-	-	-	-	-	-
80.0	80.0	0.0	-	-	-	3.1	-	-	-	-	-	-
80.0	90.0	3.0	-	-	-	0.0	-	-	-	-	-	-
80.0	100.0	2.7	-	-	-	-	-	-	-	-	-	-
83.0	60.0	24.6	-	-	-	0.0	-	-	-	-	-	-
83.0	70.0	3.2	-	-	-	0.0	-	-	-	-	-	-
83.0	80.0	2.5	-	-	-	0.0	-	-	-	-	-	-
83.0	90.0	0.0	-	-	-	44.8	-	-	-	-	-	-
83.0	100.0	14.5	-	-	-	-	-	-	-	-	-	-
87.0	55.0	2.4	-	-	-	2.8	-	-	-	-	-	-
87.0	60.0	0.0	-	-	-	24.8	-	-	-	-	-	-
87.0	65.0	0.0	-	-	-	13.2	-	-	-	-	-	-
87.0	100.0	12.2	-	-	-	-	-	-	-	-	-	-
90.0	37.0	0.0	-	-	-	3.2	-	-	-	-	-	-
90.0	53.0	5.9	-	-	-	0.0	-	-	-	-	-	-
90.0	60.0	9.0	-	-	-	0.0	-	-	-	-	-	-
90.0	65.0	26.6	-	-	-	0.0	-	-	-	-	-	-
90.0	70.0	9.9	-	-	-	0.0	-	-	-	-	-	-
90.0	80.0	17.6	-	-	-	0.0	-	-	-	-	-	-
90.0	90.0	2.7	-	-	-	0.0	-	-	-	-	-	-
93.0	28.0	2.5	-	-	-	0.0	-	-	-	-	-	-
93.0	35.0	10.6	-	-	-	0.0	-	-	-	-	-	-
93.0	60.0	27.0	-	-	-	0.0	-	-	-	-	-	-
93.0	65.0	10.7	-	-	-	0.0	-	-	-	-	-	-
93.0	70.0	4.0	-	-	-	0.0	-	-	-	-	-	-
93.0	80.0	10.1	-	-	-	3.3	-	-	-	-	-	-
93.0	90.0	17.7	-	-	-	0.0	-	-	-	-	-	-
97.0	35.0	6.0	-	-	-	0.0	-	-	-	-	-	-
97.0	40.0	0.0	-	-	-	3.3	-	-	-	-	-	-
97.0	45.0	2.5	-	-	-	0.0	-	-	-	-	-	-
97.0	60.0	0.0	-	-	-	3.4	-	-	-	-	-	-
97.0	65.0	19.2	-	-	-	0.0	-	-	-	-	-	-
97.0	70.0	10.8	-	-	-	3.4	-	-	-	-	-	-
100.0	40.0	12.9	-	-	-	0.0	-	-	-	-	-	-
100.0	70.0	8.6	-	-	-	9.8	-	-	-	-	-	-
103.0	50.0	0.0	-	-	-	9.3	-	-	-	-	-	-
103.0	55.0	30.8	-	-	-	16.8	-	-	-	-	-	-

TABLE 4. (cont.)

*Lampanyctus Ritteri* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
103.0	65.0	-	-	-	-	-	-	-	-	-	-	-
103.0	80.0	-	-	-	-	-	-	-	-	-	-	-
107.0	35.0	-	-	-	-	3.2	-	-	-	-	-	-
107.0	45.0	-	-	-	-	13.4	-	-	-	-	-	-
107.0	55.0	-	-	-	-	18.3	-	-	-	-	-	-
110.0	45.0	-	-	-	-	29.0	-	-	-	-	-	-
110.0	55.0	-	-	-	-	6.2	-	-	-	-	-	-
113.0	45.0	-	-	-	-	8.9	-	-	-	-	-	-
113.0	50.0	-	-	-	-	4.9	-	-	-	-	-	-
113.0	55.0	-	-	-	-	21.1	-	-	-	-	-	-
123.0	45.0	-	-	-	2.6	-	-	-	-	-	-	-
123.0	50.0	-	-	-	2.8	-	-	-	-	-	-	-
123.0	55.0	-	-	-	6.1	-	-	-	-	-	-	-
127.0	50.0	-	-	8.2	-	-	-	-	-	-	-	-

*Notolychnus valdiviae*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
80.0	90.0	-	-	-	-	0.0	-	-	-	-	-	-

*Notoscopeus resplendens*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
100.0	80.0	-	-	-	-	0.0	-	-	-	-	-	-
123.0	60.0	-	-	-	3.3	-	-	-	-	-	-	-
127.0	60.0	-	-	2.7	-	-	-	-	-	-	-	-

*Stenobrachius leucopsarus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	52.0	-	-	-	-	0.0	-	-	-	-	-	-
60.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
60.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
60.0	70.0	-	-	-	-	9.9	-	-	-	-	-	-
60.0	80.0	-	-	-	-	51.3	-	-	-	-	-	-
60.0	90.0	-	-	-	-	17.3	-	-	-	-	-	-
63.0	50.0	-	-	-	-	0.0	-	-	-	-	-	-
63.0	52.0	-	-	-	-	0.0	-	-	-	-	-	-
63.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
63.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
63.0	70.0	-	-	-	-	-	-	-	-	-	-	-
63.0	80.0	-	-	-	-	-	-	-	-	-	-	-
63.0	90.0	-	-	-	-	3.3	-	-	-	-	-	-

TABLE 4. (cont.)

*Stenobranchius leucopsarus* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
67.0	48.0	12.8	-	-	-	-	-	-	-	-	-	-
67.0	50.0	100.4	-	-	-	0.0	-	-	-	-	-	-
67.0	55.0	352.8	-	-	-	6.9	-	-	-	-	-	-
67.0	60.0	147.4	-	-	-	61.7	-	-	-	-	-	-
67.0	70.0	325.2	-	-	-	-	-	-	-	-	-	-
70.0	51.0	7.6	-	-	-	0.0	-	-	-	-	-	-
70.0	53.0	245.6	-	-	-	0.0	-	-	-	-	-	-
70.0	60.0	18.2	-	-	-	8.0	-	-	-	-	-	-
70.0	70.0	27.6	-	-	-	13.2	-	-	-	-	-	-
70.0	80.0	55.4	-	-	-	0.0	-	-	-	-	-	-
70.0	90.0	6.1	-	-	-	0.0	-	-	-	-	-	-
70.0	100.0	12.0	-	-	-	-	-	-	-	-	-	-
73.0	50.0	214.4	-	-	-	6.9	-	-	-	-	-	-
73.0	53.0	81.5	-	-	-	0.0	-	-	-	-	-	-
73.0	60.0	75.3	-	-	-	49.9	-	-	-	-	-	-
73.0	70.0	32.2	-	-	-	-	-	-	-	-	-	-
73.0	100.0	5.5	-	-	-	-	-	-	-	-	-	-
77.0	48.0	21.8	-	-	-	3.6	-	-	-	-	-	-
77.0	51.0	178.2	-	-	-	4.4	-	-	-	-	-	-
77.0	55.0	64.2	-	-	-	16.5	-	-	-	-	-	-
77.0	60.0	62.0	-	-	-	0.0	-	-	-	-	-	-
80.0	51.0	373.5	-	-	-	3.0	-	-	-	-	-	-
80.0	52.0	125.1	-	-	-	0.0	-	-	-	-	-	-
80.0	55.0	58.9	-	-	-	3.3	-	-	-	-	-	-
80.0	60.0	121.4	-	-	-	10.1	-	-	-	-	-	-
80.0	65.0	285.2	-	-	-	21.0	-	-	-	-	-	-
80.0	80.0	6.0	-	-	-	0.0	-	-	-	-	-	-
80.0	90.0	42.0	-	-	-	0.0	-	-	-	-	-	-
80.0	100.0	32.4	-	-	-	-	-	-	-	-	-	-
82.0	47.0	51.3	-	-	-	3.0	-	-	-	-	-	-
83.0	40.0	6.3	-	-	-	0.0	-	-	-	-	-	-
83.0	43.0	167.6	-	-	-	12.8	-	-	-	-	-	-
83.0	51.0	27.7	-	-	-	0.0	-	-	-	-	-	-
83.0	55.0	49.1	-	-	-	0.0	-	-	-	-	-	-
83.0	60.0	37.0	-	-	-	0.0	-	-	-	-	-	-
83.0	65.0	2.9	-	-	-	3.0	-	-	-	-	-	-
83.0	80.0	5.0	-	-	-	12.9	-	-	-	-	-	-
83.0	100.0	60.7	-	-	-	-	-	-	-	-	-	-
87.0	35.0	19.7	-	-	-	15.8	-	-	-	-	-	-
87.0	40.0	58.7	-	-	-	18.8	-	-	-	-	-	-
87.0	45.0	74.8	-	-	-	15.9	-	-	-	-	-	-
87.0	50.0	-	-	-	-	3.1	-	-	-	-	-	-
87.0	55.0	146.3	-	-	-	11.3	-	-	-	-	-	-
87.0	60.0	42.5	-	-	-	7.4	-	-	-	-	-	-
87.0	65.0	3.2	-	-	-	0.0	-	-	-	-	-	-
90.0	32.0	11.8	-	-	-	3.4	-	-	-	-	-	-

TABLE 4. (cont.)

*Stenobrachius leucopsarus* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0	37.0	-	-	-	-	44.2	-	-	-	-	-	-
90.0	45.0	-	-	-	-	36.7	-	-	-	-	-	-
90.0	53.0	-	-	-	-	6.5	-	-	-	-	-	-
90.0	60.0	-	-	-	-	6.8	-	-	-	-	-	-
90.0	65.0	-	-	-	-	0.0	-	-	-	-	-	-
93.0	28.0	-	-	-	-	0.0	-	-	-	-	-	-
93.0	30.0	-	-	-	-	0.0	-	-	-	-	-	-
93.0	35.0	-	-	-	-	0.0	-	-	-	-	-	-
93.0	40.0	-	-	-	-	37.5	-	-	-	-	-	-
93.0	45.0	-	-	-	-	23.5	-	-	-	-	-	-
93.0	50.0	-	-	-	-	7.5	-	-	-	-	-	-
93.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
93.0	80.0	-	-	-	-	3.3	-	-	-	-	-	-
97.0	32.0	-	-	-	-	3.1	-	-	-	-	-	-
97.0	35.0	-	-	-	-	3.1	-	-	-	-	-	-
97.0	40.0	-	-	-	-	0.0	-	-	-	-	-	-
97.0	45.0	-	-	-	-	3.7	-	-	-	-	-	-
97.0	50.0	-	-	-	-	0.0	-	-	-	-	-	-
97.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
97.0	60.0	-	-	-	-	3.4	-	-	-	-	-	-
97.0	65.0	-	-	-	-	0.0	-	-	-	-	-	-
100.0	30.0	-	-	-	-	27.5	-	-	-	-	-	-
100.0	35.0	-	-	-	-	48.4	-	-	-	-	-	-
100.0	40.0	-	-	-	-	34.8	-	-	-	-	-	-
100.0	50.0	-	-	-	-	0.0	-	-	-	-	-	-
100.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
100.0	60.0	-	-	-	-	3.1	-	-	-	-	-	-
103.0	50.0	-	-	-	-	10.1	-	-	-	-	-	-
103.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
103.0	60.0	-	-	-	-	3.1	-	-	-	-	-	-
107.0	40.0	-	-	-	-	-	-	-	-	-	-	-
120.0	60.0	-	-	-	-	3.0	-	-	-	-	-	-

*Triphoturus mexicanus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
80.0	70.0	-	-	-	-	9.2	-	-	-	-	-	-
83.0	70.0	-	-	-	-	6.7	-	-	-	-	-	-
83.0	90.0	-	-	-	-	9.0	-	-	-	-	-	-
87.0	60.0	-	-	-	-	9.9	-	-	-	-	-	-
87.0	65.0	-	-	-	-	6.6	-	-	-	-	-	-
87.0	80.0	-	-	-	-	6.6	-	-	-	-	-	-
87.0	90.0	-	-	-	-	12.3	-	-	-	-	-	-
90.0	28.0	-	-	-	-	6.5	-	-	-	-	-	-
90.0	53.0	-	-	-	-	3.3	-	-	-	-	-	-

TABLE 4. (cont.)

		<i>Tripnoturus mexicanus</i> (cont.)											
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.	
90.0	70.0	0.0	-	-	-	3.5	-	-	-	-	-	-	
90.0	80.0	0.0	-	-	-	3.3	-	-	-	-	-	-	
90.0	90.0	0.0	-	-	-	45.8	-	-	-	-	-	-	
93.0	27.0	0.0	-	-	-	19.6	-	-	-	-	-	-	
93.0	28.0	0.0	-	-	-	41.0	-	-	-	-	-	-	
93.0	30.0	0.0	-	-	-	30.0	-	-	-	-	-	-	
93.0	40.0	0.0	-	-	-	3.4	-	-	-	-	-	-	
93.0	50.0	0.0	-	-	-	3.7	-	-	-	-	-	-	
93.0	55.0	0.0	-	-	-	6.4	-	-	-	-	-	-	
93.0	60.0	0.0	-	-	-	13.4	-	-	-	-	-	-	
93.0	65.0	0.0	-	-	-	40.1	-	-	-	-	-	-	
93.0	70.0	0.0	-	-	-	78.3	-	-	-	-	-	-	
93.0	80.0	0.0	-	-	-	10.0	-	-	-	-	-	-	
93.0	90.0	0.0	-	-	-	10.0	-	-	-	-	-	-	
97.0	32.0	0.0	-	-	-	6.2	-	-	-	-	-	-	
97.0	35.0	0.0	-	-	-	3.1	-	-	-	-	-	-	
97.0	40.0	0.0	-	-	-	13.2	-	-	-	-	-	-	
97.0	45.0	0.0	-	-	-	26.1	-	-	-	-	-	-	
97.0	50.0	0.0	-	-	-	3.2	-	-	-	-	-	-	
97.0	55.0	0.0	-	-	-	13.6	-	-	-	-	-	-	
97.0	60.0	0.0	-	-	-	10.2	-	-	-	-	-	-	
97.0	65.0	0.0	-	-	-	46.8	-	-	-	-	-	-	
97.0	70.0	0.0	-	-	-	10.1	-	-	-	-	-	-	
97.0	80.0	0.0	-	-	-	10.3	-	-	-	-	-	-	
100.0	29.0	0.0	-	-	-	3.0	-	-	-	-	-	-	
100.0	30.0	0.0	-	-	-	9.2	-	-	-	-	-	-	
100.0	35.0	0.0	-	-	-	5.4	-	-	-	-	-	-	
100.0	50.0	0.0	-	-	-	3.1	-	-	-	-	-	-	
100.0	55.0	0.0	-	-	-	9.4	-	-	-	-	-	-	
100.0	60.0	0.0	-	-	-	9.1	-	-	-	-	-	-	
100.0	65.0	0.0	-	-	-	55.4	-	-	-	-	-	-	
100.0	70.0	0.0	-	-	-	16.3	-	-	-	-	-	-	
100.0	80.0	4.4	-	-	-	6.3	-	-	-	-	-	-	
103.0	50.0	0.0	-	-	-	199.0	-	-	-	-	-	-	
103.0	55.0	0.0	-	-	-	154.1	-	-	-	-	-	-	
103.0	60.0	0.0	-	-	-	12.6	-	-	-	-	-	-	
107.0	32.0	-	-	-	-	47.4	-	-	-	-	-	-	
107.0	35.0	-	-	-	-	41.2	-	-	-	-	-	-	
107.0	40.0	-	-	-	-	113.2	-	-	-	-	-	-	
107.0	45.0	-	-	-	-	126.9	-	-	-	-	-	-	
107.0	50.0	-	-	-	-	117.0	-	-	-	-	-	-	
107.0	55.0	-	-	-	-	65.9	-	-	-	-	-	-	
107.0	60.0	-	-	-	-	57.4	-	-	-	-	-	-	
110.0	35.0	-	-	-	-	6.4	-	-	-	-	-	-	
110.0	40.0	-	-	-	-	42.3	-	-	-	-	-	-	
110.0	45.0	-	-	-	-	186.8	-	-	-	-	-	-	

TABLE 4. (cont.)

*Tripoturus mexicanus* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
110.0	50.0	-	-	-	-	154.5	-	-	-	-	-	-
110.0	55.0	-	-	-	-	169.4	-	-	-	-	-	-
110.0	60.0	-	-	-	-	84.8	-	-	-	-	-	-
113.0	35.0	-	-	-	-	9.5	-	-	-	-	-	-
113.0	40.0	-	-	-	-	3.1	-	-	-	-	-	-
113.0	45.0	-	-	-	-	147.5	-	-	-	-	-	-
113.0	50.0	-	-	-	-	175.0	-	-	-	-	-	-
113.0	55.0	-	-	-	-	84.3	-	-	-	-	-	-
113.0	60.0	-	-	-	-	45.2	-	-	-	-	-	-
117.0	45.0	-	-	-	3.1	-	-	-	-	-	-	-
120.0	65.0	-	-	-	3.1	-	-	-	-	-	-	-
120.0	70.0	-	-	-	11.5	-	-	-	-	-	-	-
120.0	80.0	-	-	-	5.6	-	-	-	-	-	-	-
123.0	45.0	-	-	-	18.5	-	-	-	-	-	-	-
123.0	50.0	-	-	-	2.8	-	-	-	-	-	-	-
123.0	55.0	-	-	-	60.6	-	-	-	-	-	-	-
123.0	60.0	-	-	-	13.4	-	-	-	-	-	-	-
127.0	40.0	-	-	-	5.4	-	-	-	-	-	-	-
127.0	50.0	-	-	-	2.7	-	-	-	-	-	-	-
127.0	55.0	-	-	-	223.6	-	-	-	-	-	-	-
127.0	60.0	-	-	-	34.5	-	-	-	-	-	-	-
130.0	35.0	-	-	-	46.1	-	-	-	-	-	-	-
130.0	45.0	-	-	-	2.7	-	-	-	-	-	-	-
130.0	50.0	-	-	-	17.3	-	-	-	-	-	-	-
130.0	55.0	-	-	-	8.9	-	-	-	-	-	-	-
130.0	60.0	-	-	-	16.2	-	-	-	-	-	-	-
133.0	35.0	-	-	-	16.6	-	-	-	-	-	-	-
133.0	40.0	-	-	-	2.9	-	-	-	-	-	-	-
137.0	30.0	-	-	-	2.7	-	-	-	-	-	-	-
137.0	35.0	-	-	-	9.0	-	-	-	-	-	-	-
137.0	40.0	-	-	-	2.8	-	-	-	-	-	-	-
140.0	50.0	-	-	-	22.5	-	-	-	-	-	-	-
140.0	65.0	-	-	-	2.8	-	-	-	-	-	-	-
140.0	80.0	-	-	-	10.6	-	-	-	-	-	-	-
140.0	95.0	-	-	-	2.8	-	-	-	-	-	-	-

*Diogenichthys* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
73.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
90.0	90.0	-	-	-	-	3.3	-	-	-	-	-	-
97.0	32.0	-	-	-	-	3.1	-	-	-	-	-	-
97.0	35.0	-	-	-	-	0.0	-	-	-	-	-	-
97.0	45.0	-	-	-	-	0.0	-	-	-	-	-	-
97.0	80.0	-	-	-	-	0.0	-	-	-	-	-	-



TABLE 4. (cont.)

*Diogenichthys* spp. (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
103.0	45.0	-	-	-	-	0.0	-	-	-	-	-	-
110.0	55.0	-	-	-	-	3.1	-	-	-	-	-	-
113.0	45.0	-	-	-	-	3.0	-	-	-	-	-	-
113.0	50.0	-	-	-	-	2.4	-	-	-	-	-	-
123.0	45.0	-	-	-	2.6	-	-	-	-	-	-	-
123.0	60.0	-	-	-	6.7	-	-	-	-	-	-	-
<i>Diogenichthys atlanticus</i>												
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	100.0	-	-	-	-	-	-	-	-	-	-	-
67.0	70.0	-	-	-	-	-	-	-	-	-	-	-
73.0	100.0	-	-	-	-	-	-	-	-	-	-	-
77.0	100.0	-	-	-	-	-	-	-	-	-	-	-
80.0	90.0	-	-	-	-	3.4	-	-	-	-	-	-
83.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
83.0	90.0	-	-	-	-	12.0	-	-	-	-	-	-
83.0	100.0	-	-	-	-	-	-	-	-	-	-	-
87.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
87.0	65.0	-	-	-	-	13.2	-	-	-	-	-	-
87.0	90.0	-	-	-	-	3.1	-	-	-	-	-	-
87.0	100.0	-	-	-	-	-	-	-	-	-	-	-
90.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
90.0	65.0	-	-	-	-	0.0	-	-	-	-	-	-
90.0	70.0	-	-	-	-	0.0	-	-	-	-	-	-
90.0	80.0	-	-	-	-	0.0	-	-	-	-	-	-
90.0	80.0	-	-	-	-	3.3	-	-	-	-	-	-
90.0	100.0	-	-	-	-	-	-	-	-	-	-	-
93.0	40.0	-	-	-	-	0.0	-	-	-	-	-	-
93.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
93.0	65.0	-	-	-	-	0.0	-	-	-	-	-	-
93.0	70.0	-	-	-	-	0.0	-	-	-	-	-	-
93.0	80.0	-	-	-	-	10.1	-	-	-	-	-	-
93.0	80.0	-	-	-	-	17.6	-	-	-	-	-	-
93.0	90.0	-	-	-	-	11.8	-	-	-	-	-	-
93.0	100.0	-	-	-	-	5.8	-	-	-	-	-	-
97.0	45.0	-	-	-	-	0.0	-	-	-	-	-	-
97.0	55.0	-	-	-	-	10.2	-	-	-	-	-	-
97.0	65.0	-	-	-	-	0.0	-	-	-	-	-	-
97.0	70.0	-	-	-	-	0.0	-	-	-	-	-	-
97.0	80.0	-	-	-	-	3.4	-	-	-	-	-	-
97.0	80.0	-	-	-	-	3.0	-	-	-	-	-	-
100.0	60.0	-	-	-	-	12.3	-	-	-	-	-	-
100.0	65.0	-	-	-	-	9.8	-	-	-	-	-	-
100.0	70.0	-	-	-	-	0.0	-	-	-	-	-	-
100.0	80.0	-	-	-	-	2.2	-	-	-	-	-	-
103.0	50.0	-	-	-	-	3.3	-	-	-	-	-	-
103.0	55.0	-	-	-	-	8.4	-	-	-	-	-	-

TABLE 4. (cont.)

*Diogenichthys atlanticus* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
103.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
103.0	65.0	-	-	-	-	-	-	-	-	-	-	-
103.0	80.0	-	-	-	-	-	-	-	-	-	-	-
110.0	45.0	-	-	-	-	3.2	-	-	-	-	-	-
110.0	50.0	-	-	-	-	3.1	-	-	-	-	-	-
110.0	60.0	-	-	-	6.2	-	-	-	-	-	-	-
120.0	65.0	-	-	-	-	-	-	-	-	-	-	-

*Diogenichthys laternatus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
87.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
93.0	35.0	-	-	-	-	0.0	-	-	-	-	-	-
93.0	40.0	-	-	-	-	0.0	-	-	-	-	-	-
97.0	35.0	-	-	-	-	0.0	-	-	-	-	-	-
97.0	45.0	-	-	-	-	0.0	-	-	-	-	-	-
100.0	65.0	-	-	-	-	14.6	-	-	-	-	-	-
107.0	55.0	-	-	-	-	9.1	-	-	-	-	-	-
107.0	60.0	-	-	-	-	12.9	-	-	-	-	-	-
110.0	45.0	-	-	-	-	5.9	-	-	-	-	-	-
113.0	45.0	-	-	-	-	-	-	-	-	-	-	-
120.0	70.0	-	-	-	2.9	-	-	-	-	-	-	-
123.0	42.0	-	-	-	2.6	-	-	-	-	-	-	-
127.0	34.0	-	-	-	3.1	-	-	-	-	-	-	-
127.0	40.0	-	-	-	10.8	-	-	-	-	-	-	-
127.0	55.0	-	-	-	148.2	-	-	-	-	-	-	-
127.0	60.0	-	-	-	8.0	-	-	-	-	-	-	-
130.0	35.0	-	-	-	2.7	-	-	-	-	-	-	-
130.0	40.0	-	-	-	20.9	-	-	-	-	-	-	-
130.0	45.0	-	-	-	2.7	-	-	-	-	-	-	-
130.0	50.0	-	-	-	20.2	-	-	-	-	-	-	-
130.0	55.0	-	-	-	3.0	-	-	-	-	-	-	-
130.0	60.0	-	-	-	38.9	-	-	-	-	-	-	-
133.0	35.0	-	-	-	25.1	-	-	-	-	-	-	-
133.0	40.0	-	-	-	17.4	-	-	-	-	-	-	-
137.0	30.0	-	-	-	2.7	-	-	-	-	-	-	-
137.0	35.0	-	-	-	36.0	-	-	-	-	-	-	-
137.0	40.0	-	-	-	25.1	-	-	-	-	-	-	-
140.0	38.0	-	-	-	2.8	-	-	-	-	-	-	-
140.0	50.0	-	-	-	37.5	-	-	-	-	-	-	-
140.0	65.0	-	-	-	5.7	-	-	-	-	-	-	-
140.0	80.0	-	-	-	34.6	-	-	-	-	-	-	-
140.0	95.0	-	-	-	25.5	-	-	-	-	-	-	-

TABLE 4. (cont.)

*Gonichthys tenuiculus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
110.0	45.0	-	-	-	-	3.2	-	-	-	-	-	-
117.0	50.0	-	-	-	3.2	-	-	-	-	-	-	-
127.0	50.0	-	-	2.7	-	-	-	-	-	-	-	-
127.0	55.0	-	-	15.6	-	-	-	-	-	-	-	-
127.0	60.0	-	-	8.0	-	-	-	-	-	-	-	-
130.0	50.0	-	-	8.7	-	-	-	-	-	-	-	-
130.0	55.0	-	-	11.9	-	-	-	-	-	-	-	-
130.0	60.0	-	-	3.2	-	-	-	-	-	-	-	-
133.0	35.0	-	-	2.4	-	-	-	-	-	-	-	-
137.0	35.0	-	-	12.0	-	-	-	-	-	-	-	-
140.0	65.0	-	-	2.8	-	-	-	-	-	-	-	-
140.0	80.0	-	-	2.7	-	-	-	-	-	-	-	-

*Hygophum atratum*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
127.0	55.0	-	-	2.6	-	-	-	-	-	-	-	-
127.0	60.0	-	-	2.7	-	-	-	-	-	-	-	-
130.0	50.0	-	-	2.9	-	-	-	-	-	-	-	-
130.0	60.0	-	-	3.2	-	-	-	-	-	-	-	-
140.0	50.0	-	-	5.0	-	-	-	-	-	-	-	-
140.0	65.0	-	-	2.8	-	-	-	-	-	-	-	-

*Myctophum nitidulum*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
87.0	90.0	-	-	-	-	0.0	-	-	-	-	-	-
93.0	80.0	-	-	-	-	0.0	-	-	-	-	-	-
100.0	80.0	-	-	-	-	0.0	-	-	-	-	-	-
103.0	45.0	-	-	-	-	0.0	-	-	-	-	-	-
103.0	60.0	-	-	-	-	6.3	-	-	-	-	-	-
103.0	65.0	-	-	-	-	-	-	-	-	-	-	-
103.0	70.0	-	-	-	-	-	-	-	-	-	-	-
127.0	55.0	-	-	2.6	-	-	-	-	-	-	-	-

*Protomyctophum crockeri*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	70.0	-	-	-	-	0.0	-	-	-	-	-	-
60.0	80.0	-	-	-	-	3.4	-	-	-	-	-	-
60.0	90.0	-	-	-	-	13.8	-	-	-	-	-	-
63.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
63.0	60.0	-	-	-	-	2.9	-	-	-	-	-	-
63.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
63.0	60.0	-	-	-	-	2.9	-	-	-	-	-	-

TABLE 4. (cont.)

		<i>Protomyctophum crockeri</i> (cont.)											
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.	
63.0	70.0	5.3	-	-	-	-	-	-	-	-	-	-	
63.0	80.0	13.1	-	-	-	-	-	-	-	-	-	-	
67.0	60.0	9.2	-	-	3.4	-	-	-	-	-	-	-	
67.0	70.0	9.7	-	-	0.0	-	-	-	-	-	-	-	
70.0	60.0	3.0	-	-	6.6	-	-	-	-	-	-	-	
70.0	70.0	5.5	-	-	0.0	-	-	-	-	-	-	-	
70.0	80.0	24.9	-	-	0.0	-	-	-	-	-	-	-	
70.0	100.0	3.0	-	-	0.0	-	-	-	-	-	-	-	
73.0	50.0	9.1	-	-	0.0	-	-	-	-	-	-	-	
73.0	53.0	2.8	-	-	0.0	-	-	-	-	-	-	-	
73.0	60.0	18.1	-	-	0.0	-	-	-	-	-	-	-	
73.0	70.0	2.9	-	-	0.0	-	-	-	-	-	-	-	
77.0	51.0	9.1	-	-	3.3	-	-	-	-	-	-	-	
77.0	55.0	2.5	-	-	0.0	-	-	-	-	-	-	-	
77.0	60.0	3.0	-	-	0.0	-	-	-	-	-	-	-	
77.0	100.0	9.1	-	-	0.0	-	-	-	-	-	-	-	
80.0	52.0	8.3	-	-	0.0	-	-	-	-	-	-	-	
80.0	60.0	9.8	-	-	3.3	-	-	-	-	-	-	-	
80.0	65.0	15.5	-	-	0.0	-	-	-	-	-	-	-	
80.0	70.0	5.9	-	-	0.0	-	-	-	-	-	-	-	
80.0	80.0	12.0	-	-	0.0	-	-	-	-	-	-	-	
82.0	47.0	2.8	-	-	0.0	-	-	-	-	-	-	-	
83.0	43.0	5.9	-	-	0.0	-	-	-	-	-	-	-	
83.0	60.0	12.3	-	-	0.0	-	-	-	-	-	-	-	
83.0	65.0	2.9	-	-	0.0	-	-	-	-	-	-	-	
83.0	70.0	3.2	-	-	0.0	-	-	-	-	-	-	-	
83.0	80.0	5.0	-	-	3.2	-	-	-	-	-	-	-	
83.0	90.0	2.9	-	-	6.0	-	-	-	-	-	-	-	
83.0	100.0	8.7	-	-	0.0	-	-	-	-	-	-	-	
87.0	35.0	3.3	-	-	0.0	-	-	-	-	-	-	-	
87.0	40.0	3.1	-	-	0.0	-	-	-	-	-	-	-	
87.0	45.0	3.0	-	-	0.0	-	-	-	-	-	-	-	
87.0	60.0	11.3	-	-	0.0	-	-	-	-	-	-	-	
87.0	65.0	3.2	-	-	6.6	-	-	-	-	-	-	-	
87.0	70.0	18.0	-	-	0.0	-	-	-	-	-	-	-	
87.0	80.0	2.6	-	-	0.0	-	-	-	-	-	-	-	
87.0	90.0	2.8	-	-	3.1	-	-	-	-	-	-	-	
87.0	100.0	15.3	-	-	0.0	-	-	-	-	-	-	-	
90.0	28.0	3.3	-	-	0.0	-	-	-	-	-	-	-	
90.0	32.0	2.9	-	-	0.0	-	-	-	-	-	-	-	
90.0	37.0	3.0	-	-	0.0	-	-	-	-	-	-	-	
90.0	45.0	0.0	-	-	3.3	-	-	-	-	-	-	-	
90.0	53.0	2.9	-	-	9.8	-	-	-	-	-	-	-	
90.0	60.0	9.0	-	-	0.0	-	-	-	-	-	-	-	
90.0	65.0	11.8	-	-	0.0	-	-	-	-	-	-	-	
90.0	70.0	19.9	-	-	0.0	-	-	-	-	-	-	-	

TABLE 4. (cont.)

		<i>Protomyctophum crockeri</i> (cont.)											
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.	
90.0	80.0	23.4	-	-	-	10.1	-	-	-	-	-	-	
90.0	90.0	5.4	-	-	-	9.8	-	-	-	-	-	-	
90.0	100.0	6.5	-	-	-	-	-	-	-	-	-	-	
93.0	28.0	2.5	-	-	-	0.0	-	-	-	-	-	-	
93.0	30.0	0.0	-	-	-	10.0	-	-	-	-	-	-	
93.0	35.0	7.0	-	-	-	0.0	-	-	-	-	-	-	
93.0	40.0	3.2	-	-	-	3.4	-	-	-	-	-	-	
93.0	45.0	8.5	-	-	-	0.0	-	-	-	-	-	-	
93.0	50.0	3.1	-	-	-	0.0	-	-	-	-	-	-	
93.0	65.0	2.7	-	-	-	10.0	-	-	-	-	-	-	
93.0	70.0	4.0	-	-	-	6.0	-	-	-	-	-	-	
93.0	80.0	15.1	-	-	-	16.6	-	-	-	-	-	-	
93.0	90.0	5.9	-	-	-	0.0	-	-	-	-	-	-	
97.0	32.0	12.5	-	-	-	3.1	-	-	-	-	-	-	
97.0	35.0	3.0	-	-	-	0.0	-	-	-	-	-	-	
97.0	40.0	5.9	-	-	-	0.0	-	-	-	-	-	-	
97.0	45.0	5.1	-	-	-	3.7	-	-	-	-	-	-	
97.0	50.0	2.7	-	-	-	6.5	-	-	-	-	-	-	
97.0	55.0	6.2	-	-	-	6.8	-	-	-	-	-	-	
97.0	60.0	2.8	-	-	-	30.7	-	-	-	-	-	-	
97.0	65.0	6.4	-	-	-	13.4	-	-	-	-	-	-	
97.0	80.0	62.9	-	-	-	3.4	-	-	-	-	-	-	
100.0	35.0	2.6	-	-	-	2.7	-	-	-	-	-	-	
100.0	40.0	3.2	-	-	-	0.0	-	-	-	-	-	-	
100.0	55.0	2.3	-	-	-	3.1	-	-	-	-	-	-	
100.0	60.0	5.9	-	-	-	27.2	-	-	-	-	-	-	
100.0	65.0	0.0	-	-	-	9.2	-	-	-	-	-	-	
100.0	70.0	2.8	-	-	-	3.3	-	-	-	-	-	-	
103.0	45.0	11.1	-	-	-	0.0	-	-	-	-	-	-	
103.0	50.0	10.0	-	-	-	0.0	-	-	-	-	-	-	
103.0	55.0	11.2	-	-	-	26.8	-	-	-	-	-	-	
103.0	60.0	37.1	-	-	-	28.4	-	-	-	-	-	-	
103.0	65.0	13.0	-	-	-	-	-	-	-	-	-	-	
103.0	70.0	3.0	-	-	-	-	-	-	-	-	-	-	
103.0	80.0	5.1	-	-	-	-	-	-	-	-	-	-	
107.0	35.0	-	-	-	-	6.3	-	-	-	-	-	-	
107.0	40.0	-	-	-	-	15.3	-	-	-	-	-	-	
107.0	45.0	-	-	-	-	6.7	-	-	-	-	-	-	
107.0	55.0	-	-	-	-	11.0	-	-	-	-	-	-	
107.0	60.0	-	-	-	-	3.0	-	-	-	-	-	-	
110.0	40.0	-	-	-	-	3.3	-	-	-	-	-	-	
110.0	45.0	-	-	-	-	6.4	-	-	-	-	-	-	
110.0	50.0	-	-	-	-	6.2	-	-	-	-	-	-	
113.0	45.0	-	-	-	-	5.9	-	-	-	-	-	-	
113.0	50.0	-	-	-	-	24.3	-	-	-	-	-	-	
113.0	55.0	-	-	-	-	12.0	-	-	-	-	-	-	

TABLE 4. (cont.)

<i>Protomyctophum crockeri</i> (cont.)												
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
113.0	60.0	-	-	-	-	3.0	-	-	-	-	-	-
117.0	40.0	-	-	-	2.8	-	-	-	-	-	-	-
120.0	60.0	-	-	-	3.0	-	-	-	-	-	-	-
120.0	70.0	-	-	-	2.9	-	-	-	-	-	-	-
123.0	42.0	-	-	-	2.6	-	-	-	-	-	-	-
123.0	55.0	-	-	-	6.1	-	-	-	-	-	-	-
127.0	40.0	-	-	-	5.4	-	-	-	-	-	-	-
127.0	45.0	-	-	-	2.8	-	-	-	-	-	-	-
127.0	50.0	-	-	-	-	-	-	-	-	-	-	-
127.0	60.0	-	-	-	2.7	-	-	-	-	-	-	-
130.0	60.0	-	-	-	3.2	-	-	-	-	-	-	-
140.0	80.0	-	-	-	2.7	-	-	-	-	-	-	-
<i>Symbolophorus californiensis</i>												
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
67.0	90.0	-	-	-	-	6.6	-	-	-	-	-	-
70.0	90.0	-	-	-	-	3.1	-	-	-	-	-	-
73.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
73.0	100.0	-	-	-	-	-	-	-	-	-	-	-
80.0	100.0	-	-	-	-	-	-	-	-	-	-	-
83.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
83.0	80.0	-	-	-	-	3.2	-	-	-	-	-	-
83.0	90.0	-	-	-	-	6.0	-	-	-	-	-	-
87.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
87.0	60.0	-	-	-	-	5.0	-	-	-	-	-	-
87.0	65.0	-	-	-	-	6.6	-	-	-	-	-	-
87.0	70.0	-	-	-	-	3.3	-	-	-	-	-	-
87.0	80.0	-	-	-	-	3.3	-	-	-	-	-	-
87.0	90.0	-	-	-	-	0.0	-	-	-	-	-	-
87.0	100.0	-	-	-	-	-	-	-	-	-	-	-
90.0	53.0	-	-	-	-	0.0	-	-	-	-	-	-
90.0	60.0	-	-	-	-	3.4	-	-	-	-	-	-
90.0	65.0	-	-	-	-	3.0	-	-	-	-	-	-
90.0	70.0	-	-	-	-	6.9	-	-	-	-	-	-
90.0	80.0	-	-	-	-	0.0	-	-	-	-	-	-
90.0	90.0	-	-	-	-	0.0	-	-	-	-	-	-
90.0	100.0	-	-	-	-	-	-	-	-	-	-	-
93.0	30.0	-	-	-	-	3.3	-	-	-	-	-	-
93.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
93.0	65.0	-	-	-	-	0.0	-	-	-	-	-	-
93.0	70.0	-	-	-	-	0.0	-	-	-	-	-	-
93.0	80.0	-	-	-	-	0.0	-	-	-	-	-	-
93.0	90.0	-	-	-	-	3.3	-	-	-	-	-	-
93.0	100.0	-	-	-	-	-	-	-	-	-	-	-

TABLE 4. (cont.)

*Symbolophorus californiensis* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
97.0	32.0	0.0	-	-	-	3.1	-	-	-	-	-	-
97.0	45.0	0.0	-	-	-	3.7	-	-	-	-	-	-
97.0	65.0	9.6	-	-	-	0.0	-	-	-	-	-	-
97.0	70.0	2.7	-	-	-	3.4	-	-	-	-	-	-
97.0	80.0	13.2	-	-	-	3.4	-	-	-	-	-	-
100.0	40.0	3.2	-	-	-	0.0	-	-	-	-	-	-
100.0	55.0	2.3	-	-	-	0.0	-	-	-	-	-	-
100.0	60.0	8.9	-	-	-	0.0	-	-	-	-	-	-
100.0	65.0	0.0	-	-	-	9.2	-	-	-	-	-	-
100.0	70.0	0.0	-	-	-	19.6	-	-	-	-	-	-
100.0	80.0	17.5	-	-	-	0.0	-	-	-	-	-	-
103.0	50.0	3.3	-	-	-	0.0	-	-	-	-	-	-
103.0	55.0	5.6	-	-	-	0.0	-	-	-	-	-	-
103.0	60.0	2.7	-	-	-	3.2	-	-	-	-	-	-
103.0	65.0	3.2	-	-	-	-	-	-	-	-	-	-
107.0	45.0	-	-	-	-	10.0	-	-	-	-	-	-
107.0	50.0	-	-	-	-	6.5	-	-	-	-	-	-
107.0	55.0	-	-	-	-	7.3	-	-	-	-	-	-
110.0	40.0	-	-	-	-	3.3	-	-	-	-	-	-
110.0	45.0	-	-	-	-	3.2	-	-	-	-	-	-
113.0	45.0	-	-	-	-	3.0	-	-	-	-	-	-
113.0	50.0	-	-	-	-	2.4	-	-	-	-	-	-
123.0	55.0	-	-	-	-	-	-	-	-	-	-	-
127.0	40.0	-	-	-	-	9.1	-	-	-	-	-	-
						2.7	-	-	-	-	-	-

*Tarletonbeania crenularis*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	52.0	-	-	-	-	0.0	-	-	-	-	-	-
60.0	55.0	-	-	-	-	6.6	-	-	-	-	-	-
60.0	60.0	-	-	-	-	3.4	-	-	-	-	-	-
60.0	70.0	-	-	-	-	29.8	-	-	-	-	-	-
60.0	80.0	-	-	-	-	13.7	-	-	-	-	-	-
60.0	90.0	-	-	-	-	17.3	-	-	-	-	-	-
63.0	52.0	-	-	-	-	0.0	-	-	-	-	-	-
63.0	55.0	-	-	-	-	3.5	-	-	-	-	-	-
63.0	60.0	-	-	-	-	17.2	-	-	-	-	-	-
63.0	70.0	-	-	-	-	-	-	-	-	-	-	-
63.0	80.0	-	-	-	-	-	-	-	-	-	-	-
63.0	90.0	-	-	-	-	6.7	-	-	-	-	-	-
67.0	50.0	-	-	-	-	2.9	-	-	-	-	-	-
67.0	55.0	-	-	-	-	51.9	-	-	-	-	-	-
67.0	60.0	-	-	-	-	37.7	-	-	-	-	-	-
67.0	70.0	-	-	-	-	-	-	-	-	-	-	-
70.0	53.0	-	-	-	-	0.0	-	-	-	-	-	-

TABLE 4. (cont.)

*Tarletonbeania crenularis* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
70.0	60.0	6.1	-	-	-	8.0	-	-	-	-	-	-
70.0	70.0	8.3	-	-	-	9.9	-	-	-	-	-	-
70.0	80.0	19.4	-	-	-	20.3	-	-	-	-	-	-
70.0	90.0	3.1	-	-	-	0.0	-	-	-	-	-	-
70.0	100.0	9.0	-	-	-	-	-	-	-	-	-	-
73.0	50.0	0.0	-	-	-	6.9	-	-	-	-	-	-
73.0	53.0	0.0	-	-	-	7.2	-	-	-	-	-	-
73.0	60.0	18.1	-	-	-	18.2	-	-	-	-	-	-
73.0	70.0	8.8	-	-	-	-	-	-	-	-	-	-
77.0	51.0	6.0	-	-	-	0.0	-	-	-	-	-	-
77.0	55.0	7.4	-	-	-	9.9	-	-	-	-	-	-
77.0	60.0	26.6	-	-	-	0.0	-	-	-	-	-	-
80.0	52.0	2.8	-	-	-	0.0	-	-	-	-	-	-
80.0	55.0	6.2	-	-	-	0.0	-	-	-	-	-	-
80.0	60.0	6.6	-	-	-	0.0	-	-	-	-	-	-
80.0	65.0	12.4	-	-	-	6.0	-	-	-	-	-	-
80.0	70.0	11.7	-	-	-	0.0	-	-	-	-	-	-
80.0	80.0	3.0	-	-	-	0.0	-	-	-	-	-	-
80.0	90.0	12.0	-	-	-	0.0	-	-	-	-	-	-
80.0	100.0	2.7	-	-	-	-	-	-	-	-	-	-
83.0	55.0	2.7	-	-	-	0.0	-	-	-	-	-	-
83.0	70.0	0.0	-	-	-	3.4	-	-	-	-	-	-
83.0	90.0	5.9	-	-	-	0.0	-	-	-	-	-	-
83.0	100.0	2.9	-	-	-	-	-	-	-	-	-	-
87.0	55.0	7.1	-	-	-	2.8	-	-	-	-	-	-
87.0	60.0	0.0	-	-	-	14.9	-	-	-	-	-	-
87.0	65.0	3.2	-	-	-	0.0	-	-	-	-	-	-
87.0	80.0	2.6	-	-	-	0.0	-	-	-	-	-	-
87.0	80.0	2.6	-	-	-	6.7	-	-	-	-	-	-
90.0	45.0	0.0	-	-	-	3.3	-	-	-	-	-	-
90.0	53.0	0.0	-	-	-	6.8	-	-	-	-	-	-
90.0	60.0	0.0	-	-	-	0.0	-	-	-	-	-	-
90.0	65.0	3.0	-	-	-	3.5	-	-	-	-	-	-
90.0	70.0	3.3	-	-	-	3.3	-	-	-	-	-	-
90.0	80.0	2.9	-	-	-	3.3	-	-	-	-	-	-
90.0	90.0	0.0	-	-	-	3.3	-	-	-	-	-	-
93.0	80.0	0.0	-	-	-	3.3	-	-	-	-	-	-
97.0	50.0	0.0	-	-	-	3.2	-	-	-	-	-	-

*Merluccius productus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
60.0	60.0	16.0	-	-	-	0.0	-	-	-	-	-	-
60.0	70.0	2.7	-	-	-	0.0	-	-	-	-	-	-
63.0	52.0	67.8	-	-	-	0.0	-	-	-	-	-	-



TABLE 4. (cont.)

*Merluccius productus* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
63.0	55.0	179.9	-	-	-	0.0	-	-	-	-	-	-
63.0	60.0	34.3	-	-	-	0.0	-	-	-	-	-	-
63.0	70.0	2.6	-	-	-	-	-	-	-	-	-	-
67.0	48.0	2.1	-	-	-	-	-	-	-	-	-	-
67.0	50.0	194.4	-	-	-	0.0	-	-	-	-	-	-
67.0	55.0	173.3	-	-	-	0.0	-	-	-	-	-	-
67.0	60.0	24.6	-	-	-	0.0	-	-	-	-	-	-
70.0	51.0	104.1	-	-	-	0.0	-	-	-	-	-	-
70.0	53.0	153.5	-	-	-	0.0	-	-	-	-	-	-
70.0	60.0	27.4	-	-	-	0.0	-	-	-	-	-	-
70.0	70.0	770.0	-	-	-	6.6	-	-	-	-	-	-
70.0	100.0	6.0	-	-	-	-	-	-	-	-	-	-
73.0	50.0	166.1	-	-	-	0.0	-	-	-	-	-	-
73.0	53.0	146.1	-	-	-	0.0	-	-	-	-	-	-
73.0	60.0	30.1	-	-	-	0.0	-	-	-	-	-	-
73.0	100.0	16.6	-	-	-	-	-	-	-	-	-	-
77.0	48.0	2.7	-	-	-	0.0	-	-	-	-	-	-
77.0	51.0	2322.4	-	-	-	0.0	-	-	-	-	-	-
77.0	55.0	7768.1	-	-	-	0.0	-	-	-	-	-	-
77.0	60.0	50.2	-	-	-	0.0	-	-	-	-	-	-
80.0	51.0	274.5	-	-	-	0.0	-	-	-	-	-	-
80.0	52.0	80.6	-	-	-	0.0	-	-	-	-	-	-
80.0	55.0	461.9	-	-	-	0.0	-	-	-	-	-	-
80.0	60.0	12552.6	-	-	-	6.7	-	-	-	-	-	-
80.0	65.0	7086.6	-	-	-	0.0	-	-	-	-	-	-
80.0	70.0	243.2	-	-	-	0.0	-	-	-	-	-	-
80.0	80.0	6.0	-	-	-	0.0	-	-	-	-	-	-
82.0	47.0	105.4	-	-	-	0.0	-	-	-	-	-	-
83.0	40.0	25.2	-	-	-	0.0	-	-	-	-	-	-
83.0	43.0	70.6	-	-	-	0.0	-	-	-	-	-	-
83.0	51.0	63.9	-	-	-	0.0	-	-	-	-	-	-
83.0	55.0	117.4	-	-	-	0.0	-	-	-	-	-	-
83.0	60.0	98.6	-	-	-	0.0	-	-	-	-	-	-
83.0	65.0	2.9	-	-	-	3.0	-	-	-	-	-	-
83.0	70.0	9.6	-	-	-	0.0	-	-	-	-	-	-
87.0	33.0	2.4	-	-	-	0.0	-	-	-	-	-	-
87.0	35.0	23.0	-	-	-	0.0	-	-	-	-	-	-
87.0	45.0	6.0	-	-	-	0.0	-	-	-	-	-	-
87.0	55.0	33.0	-	-	-	2.8	-	-	-	-	-	-
87.0	60.0	62.3	-	-	-	0.0	-	-	-	-	-	-
87.0	65.0	16.1	-	-	-	0.0	-	-	-	-	-	-
90.0	28.0	6.7	-	-	-	0.0	-	-	-	-	-	-
90.0	32.0	5.9	-	-	-	0.0	-	-	-	-	-	-
90.0	37.0	24.0	-	-	-	0.0	-	-	-	-	-	-
90.0	45.0	127.3	-	-	-	0.0	-	-	-	-	-	-
90.0	60.0	0.0	-	-	-	3.4	-	-	-	-	-	-

TABLE 4. (cont.)

<i>Merluccius productus</i> (cont.)												
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0	65.0					0.0						
93.0	28.0					0.0						
93.0	28.2					0.0						
93.0	63.6					0.0						
97.0	29.0					0.0						
97.0	47.0					0.0						
97.0	35.0					0.0						
97.0	40.0					0.0						
97.0	45.0					0.0						
97.0	50.0					3.2						
97.0	55.0					0.0						
97.0	60.0					0.0						
97.0	80.0					0.0						
100.0	30.0					0.0						
100.0	35.0					0.0						
100.0	40.0					0.0						
100.0	45.0					0.0						
100.0	50.0					0.0						
100.0	55.0					0.0						
103.0	45.0					0.0						
113.0	55.0					3.0						
117.0	30.0						2.6					
117.0	35.0						11.6					
117.0	40.0						2.8					
117.0	45.0						6.2					
117.0	50.0						3.2					
120.0	25.0						4.7					
127.0	45.0						6.1					
130.0	28.0						8.5					
130.0	45.0							2.4				
130.0	50.0							2.7				
133.0	23.0							2.9				
133.0	30.0							2.3				
137.0	22.0							7.7				
137.0	23.0							10.8				
137.0	30.0							32.6				
137.0	35.0							16.3				
137.0	40.0							27.0				
140.0	38.0							2.8				
								19.5				
<i>Macrouridae</i>												
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	90.0					0.0						
	2.9											

TABLE 4. (cont.)

## Macrouridae (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
67.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
100.0	70.0	-	-	-	-	0.0	-	-	-	-	-	-

## Ophidiiformes

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
67.0	55.0	-	-	-	-	3.5	-	-	-	-	-	-
70.0	51.0	-	-	-	-	3.4	-	-	-	-	-	-
73.0	53.0	-	-	-	-	7.2	-	-	-	-	-	-
73.0	60.0	-	-	-	-	22.7	-	-	-	-	-	-
77.0	55.0	-	-	-	-	3.3	-	-	-	-	-	-
80.0	55.0	-	-	-	-	3.3	-	-	-	-	-	-
83.0	60.0	-	-	-	-	12.7	-	-	-	-	-	-
87.0	50.0	-	-	-	-	3.1	-	-	-	-	-	-
87.0	90.0	-	-	-	-	3.1	-	-	-	-	-	-
90.0	53.0	-	-	-	-	3.3	-	-	-	-	-	-
90.0	65.0	-	-	-	-	5.9	-	-	-	-	-	-
90.0	80.0	-	-	-	-	3.3	-	-	-	-	-	-
93.0	35.0	-	-	-	-	3.2	-	-	-	-	-	-
93.0	70.0	-	-	-	-	3.0	-	-	-	-	-	-
107.0	32.0	-	-	-	-	5.9	-	-	-	-	-	-
110.0	32.0	-	-	-	-	2.5	-	-	-	-	-	-

*Brosmophycis marginata*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
73.0	50.0	-	-	-	-	6.9	-	-	-	-	-	-
73.0	60.0	-	-	-	-	4.5	-	-	-	-	-	-
83.0	43.0	-	-	-	-	8.6	-	-	-	-	-	-
83.0	60.0	-	-	-	-	3.2	-	-	-	-	-	-
87.0	40.0	-	-	-	-	3.1	-	-	-	-	-	-
87.0	65.0	-	-	-	-	3.3	-	-	-	-	-	-
90.0	60.0	-	-	-	-	3.4	-	-	-	-	-	-
103.0	30.0	-	-	-	-	3.9	-	-	-	-	-	-

## Exocoetidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
77.0	48.0	-	-	-	-	0.0	-	-	-	-	-	-
77.0	51.0	-	-	-	-	0.0	-	-	-	-	-	-

TABLE 4. (cont.)

*Cololabis saira*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
73.0	60.0	0.0	-	-	-	9.1	-	-	-	-	-	-
80.0	70.0	0.0	-	-	-	18.5	-	-	-	-	-	-
87.0	60.0	0.0	-	-	-	5.0	-	-	-	-	-	-
93.0	50.0	0.0	-	-	-	3.7	-	-	-	-	-	-
97.0	45.0	0.0	-	-	-	7.5	-	-	-	-	-	-
103.0	55.0	0.0	-	-	-	3.3	-	-	-	-	-	-
110.0	40.0	-	-	-	-	3.3	-	-	-	-	-	-
113.0	40.0	-	-	-	-	3.1	-	-	-	-	-	-
113.0	45.0	-	-	-	-	3.0	-	-	-	-	-	-
113.0	50.0	-	-	-	-	2.4	-	-	-	-	-	-

## Atherinidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
83.0	43.0	0.0	-	-	-	4.3	-	-	-	-	-	-
100.0	30.0	0.0	-	-	-	3.1	-	-	-	-	-	-

## Trachipteridae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	80.0	0.0	-	-	-	6.8	-	-	-	-	-	-
60.0	90.0	0.0	-	-	-	3.5	-	-	-	-	-	-
70.0	80.0	2.8	-	-	-	0.0	-	-	-	-	-	-
77.0	51.0	0.0	-	-	-	4.4	-	-	-	-	-	-
80.0	80.0	0.0	-	-	-	3.1	-	-	-	-	-	-
83.0	65.0	0.0	-	-	-	3.0	-	-	-	-	-	-
87.0	55.0	0.0	-	-	-	2.8	-	-	-	-	-	-
87.0	60.0	0.0	-	-	-	2.5	-	-	-	-	-	-
97.0	80.0	0.0	-	-	-	3.4	-	-	-	-	-	-

## Melamphaes spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
60.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
60.0	70.0	10.9	-	-	-	0.0	-	-	-	-	-	-
60.0	80.0	4.2	-	-	-	0.0	-	-	-	-	-	-
60.0	90.0	11.6	-	-	-	3.5	-	-	-	-	-	-
63.0	52.0	3.1	-	-	-	0.0	-	-	-	-	-	-
63.0	70.0	5.3	-	-	-	-	-	-	-	-	-	-
63.0	80.0	5.2	-	-	-	-	-	-	-	-	-	-
63.0	90.0	3.0	-	-	-	0.0	-	-	-	-	-	-
67.0	50.0	0.0	-	-	-	2.9	-	-	-	-	-	-

TABLE 4. (cont.)

*Melamphaes* spp. (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
67.0	60.0	0.0	-	-	-	3.4	-	-	-	-	-	-
67.0	70.0	6.4	-	-	-	-	-	-	-	-	-	-
70.0	60.0	3.0	-	-	-	0.0	-	-	-	-	-	-
70.0	70.0	11.0	-	-	-	3.3	-	-	-	-	-	-
70.0	80.0	16.6	-	-	-	0.0	-	-	-	-	-	-
70.0	90.0	3.1	-	-	-	0.0	-	-	-	-	-	-
73.0	70.0	2.9	-	-	-	3.3	-	-	-	-	-	-
77.0	55.0	0.0	-	-	-	0.0	-	-	-	-	-	-
77.0	60.0	11.8	-	-	-	-	-	-	-	-	-	-
77.0	100.0	3.0	-	-	-	-	-	-	-	-	-	-
80.0	60.0	3.3	-	-	-	3.3	-	-	-	-	-	-
80.0	65.0	15.5	-	-	-	3.0	-	-	-	-	-	-
80.0	70.0	11.7	-	-	-	0.0	-	-	-	-	-	-
80.0	90.0	6.0	-	-	-	3.4	-	-	-	-	-	-
80.0	100.0	2.7	-	-	-	-	-	-	-	-	-	-
83.0	65.0	2.9	-	-	-	0.0	-	-	-	-	-	-
83.0	70.0	3.2	-	-	-	3.4	-	-	-	-	-	-
83.0	80.0	0.0	-	-	-	3.2	-	-	-	-	-	-
83.0	90.0	2.9	-	-	-	0.0	-	-	-	-	-	-
83.0	100.0	17.3	-	-	-	-	-	-	-	-	-	-
87.0	60.0	0.0	-	-	-	5.0	-	-	-	-	-	-
87.0	65.0	0.0	-	-	-	3.3	-	-	-	-	-	-
87.0	70.0	0.0	-	-	-	3.3	-	-	-	-	-	-
87.0	80.0	0.0	-	-	-	9.8	-	-	-	-	-	-
87.0	90.0	5.7	-	-	-	0.0	-	-	-	-	-	-
87.0	100.0	3.1	-	-	-	-	-	-	-	-	-	-
90.0	45.0	3.3	-	-	-	0.0	-	-	-	-	-	-
90.0	60.0	3.0	-	-	-	0.0	-	-	-	-	-	-
90.0	65.0	5.9	-	-	-	0.0	-	-	-	-	-	-
90.0	70.0	6.6	-	-	-	0.0	-	-	-	-	-	-
90.0	80.0	2.9	-	-	-	3.7	-	-	-	-	-	-
93.0	50.0	0.0	-	-	-	3.4	-	-	-	-	-	-
93.0	60.0	0.0	-	-	-	10.0	-	-	-	-	-	-
93.0	65.0	0.0	-	-	-	3.0	-	-	-	-	-	-
93.0	70.0	8.1	-	-	-	13.3	-	-	-	-	-	-
93.0	80.0	0.0	-	-	-	0.0	-	-	-	-	-	-
93.0	90.0	5.9	-	-	-	-	-	-	-	-	-	-
93.0	100.0	2.9	-	-	-	-	-	-	-	-	-	-
97.0	45.0	2.5	-	-	-	0.0	-	-	-	-	-	-
97.0	55.0	0.0	-	-	-	3.4	-	-	-	-	-	-
97.0	60.0	0.0	-	-	-	6.8	-	-	-	-	-	-
97.0	65.0	6.4	-	-	-	0.0	-	-	-	-	-	-
97.0	70.0	2.7	-	-	-	6.7	-	-	-	-	-	-
97.0	80.0	0.0	-	-	-	6.9	-	-	-	-	-	-
100.0	60.0	3.0	-	-	-	3.0	-	-	-	-	-	-
100.0	65.0	0.0	-	-	-	3.1	-	-	-	-	-	-

TABLE 4. (cont.)

*Melamphaes* spp. (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
100.0	70.0	0.0	-	-	-	6.5	-	-	-	-	-	-
100.0	80.0	4.4	-	-	-	0.0	-	-	-	-	-	-
103.0	55.0	0.0	-	-	-	3.3	-	-	-	-	-	-
103.0	65.0	3.2	-	-	-	-	-	-	-	-	-	-
103.0	70.0	6.1	-	-	-	-	-	-	-	-	-	-
103.0	80.0	2.6	-	-	-	3.3	-	-	-	-	-	-
107.0	50.0	-	-	-	-	3.7	-	-	-	-	-	-
107.0	55.0	-	-	-	-	6.0	-	-	-	-	-	-
107.0	60.0	-	-	-	-	3.3	-	-	-	-	-	-
110.0	40.0	-	-	-	-	6.4	-	-	-	-	-	-
110.0	45.0	-	-	-	-	3.1	-	-	-	-	-	-
110.0	50.0	-	-	-	-	3.1	-	-	-	-	-	-
113.0	40.0	-	-	-	-	3.1	-	-	-	-	-	-
113.0	45.0	-	-	-	-	3.0	-	-	-	-	-	-
113.0	55.0	-	-	-	-	6.0	-	-	-	-	-	-
127.0	40.0	-	-	-	2.7	-	-	-	-	-	-	-
127.0	55.0	-	-	2.6	-	-	-	-	-	-	-	-
140.0	80.0	-	-	2.7	-	-	-	-	-	-	-	-

*Poimonia* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
67.0	60.0	3.1	-	-	-	0.0	-	-	-	-	-	-
80.0	70.0	2.9	-	-	-	0.0	-	-	-	-	-	-
93.0	55.0	3.2	-	-	-	0.0	-	-	-	-	-	-
93.0	80.0	2.5	-	-	-	0.0	-	-	-	-	-	-
97.0	35.0	0.0	-	-	-	3.1	-	-	-	-	-	-
97.0	50.0	0.0	-	-	-	3.2	-	-	-	-	-	-
97.0	65.0	3.2	-	-	-	0.0	-	-	-	-	-	-
97.0	70.0	0.0	-	-	-	3.4	-	-	-	-	-	-
103.0	55.0	0.0	-	-	-	3.3	-	-	-	-	-	-
103.0	65.0	3.2	-	-	-	3.7	-	-	-	-	-	-
107.0	55.0	-	-	-	-	3.0	-	-	-	-	-	-
107.0	60.0	-	-	-	-	9.7	-	-	-	-	-	-
110.0	35.0	-	-	-	-	3.2	-	-	-	-	-	-
110.0	45.0	-	-	-	-	-	-	-	-	-	-	-

*Scopelogadus bispinosus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
87.0	60.0	0.0	-	-	-	2.5	-	-	-	-	-	-
107.0	32.0	-	-	-	-	3.0	-	-	-	-	-	-
110.0	40.0	-	-	-	-	3.3	-	-	-	-	-	-

TABLE 4. (cont.)

*Scopelogadus bispinosus* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
110.0	45.0	-	-	-	-	12.9	-	-	-	-	-	-
113.0	30.0	-	-	-	-	3.0	-	-	-	-	-	-

*Syngnathus* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
67.0	48.0	-	-	-	-	-	-	-	-	-	-	-
110.0	32.0	-	-	-	-	2.5	-	-	-	-	-	-
120.0	25.0	-	-	-	4.7	-	-	-	-	-	-	-

## Agonidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
82.0	47.0	-	-	-	-	0.0	-	-	-	-	-	-
83.0	43.0	-	-	-	-	0.0	-	-	-	-	-	-
107.0	32.0	-	-	-	-	3.0	-	-	-	-	-	-
110.0	32.0	-	-	-	-	5.1	-	-	-	-	-	-

## Cottidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	52.0	-	-	-	-	0.0	-	-	-	-	-	-
63.0	52.0	-	-	-	-	3.2	-	-	-	-	-	-
67.0	50.0	-	-	-	-	2.9	-	-	-	-	-	-
77.0	48.0	-	-	-	-	3.6	-	-	-	-	-	-
83.0	51.0	-	-	-	-	3.5	-	-	-	-	-	-
97.0	29.0	-	-	-	-	11.3	-	-	-	-	-	-
97.0	30.0	-	-	-	-	5.0	-	-	-	-	-	-
103.0	29.0	-	-	-	-	8.0	-	-	-	-	-	-
103.0	30.0	-	-	-	-	3.9	-	-	-	-	-	-
107.0	31.0	-	-	-	-	11.1	-	-	-	-	-	-
107.0	55.0	-	-	-	-	3.7	-	-	-	-	-	-
110.0	32.0	-	-	-	-	27.8	-	-	-	-	-	-

*Scorpaenichthys marmoratus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
63.0	50.0	-	-	-	-	-	-	-	-	-	-	-
63.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	51.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	52.0	-	-	-	-	0.0	-	-	-	-	-	-

TABLE 4. (cont.)

Cyclopteridae												
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	52.0	0.0	-	-	-	2.9	-	-	-	-	-	-
63.0	55.0	0.0	-	-	-	3.5	-	-	-	-	-	-
107.0	31.0	-	-	-	-	27.8	-	-	-	-	-	-
110.0	32.0	-	-	-	-	5.1	-	-	-	-	-	-
Hexagrammidae												
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
63.0	50.0	45.9	-	-	-	-	-	-	-	-	-	-
<i>Ophiodon elongatus</i>												
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
63.0	50.0	1.5	-	-	-	-	-	-	-	-	-	-
<i>Oxylebius pictus</i>												
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
77.0	51.0	3.0	-	-	-	0.0	-	-	-	-	-	-
80.0	60.0	0.0	-	-	-	3.3	-	-	-	-	-	-
100.0	29.0	8.9	-	-	-	0.0	-	-	-	-	-	-
100.0	30.0	0.0	-	-	-	3.1	-	-	-	-	-	-
103.0	29.0	1.2	-	-	-	0.0	-	-	-	-	-	-
<i>Zaniolepis</i> spp.												
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
83.0	51.0	10.7	-	-	-	0.0	-	-	-	-	-	-
87.0	40.0	3.1	-	-	-	0.0	-	-	-	-	-	-
113.0	29.0	-	-	-	-	2.4	-	-	-	-	-	-
<i>Scorpaena</i> spp.												
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	70.0	0.0	-	-	-	6.6	-	-	-	-	-	-
70.0	60.0	0.0	-	-	-	4.0	-	-	-	-	-	-
107.0	60.0	-	-	-	-	3.0	-	-	-	-	-	-



TABLE 4. (cont.)

## Sebastes spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	52.0	42.4	-	-	-	0.0	-	-	-	-	-	-
60.0	55.0	3474.2	-	-	-	13.2	-	-	-	-	-	-
60.0	60.0	21.3	-	-	-	27.3	-	-	-	-	-	-
60.0	70.0	16.3	-	-	-	145.6	-	-	-	-	-	-
60.0	80.0	12.7	-	-	-	75.2	-	-	-	-	-	-
60.0	90.0	5.8	-	-	-	13.8	-	-	-	-	-	-
63.0	50.0	29.1	-	-	-	-	-	-	-	-	-	-
63.0	52.0	871.6	-	-	-	6.5	-	-	-	-	-	-
63.0	55.0	2309.9	-	-	-	1119.0	-	-	-	-	-	-
63.0	60.0	3.1	-	-	-	31.6	-	-	-	-	-	-
63.0	70.0	10.6	-	-	-	-	-	-	-	-	-	-
63.0	80.0	5.2	-	-	-	-	-	-	-	-	-	-
63.0	90.0	0.0	-	-	-	-	-	-	-	-	-	-
67.0	50.0	923.4	-	-	-	26.6	-	-	-	-	-	-
67.0	55.0	910.4	-	-	-	34.6	-	-	-	-	-	-
67.0	60.0	27.6	-	-	-	48.0	-	-	-	-	-	-
67.0	70.0	6.4	-	-	-	-	-	-	-	-	-	-
70.0	51.0	317.5	-	-	-	126.2	-	-	-	-	-	-
70.0	53.0	98.2	-	-	-	15.1	-	-	-	-	-	-
70.0	60.0	6.1	-	-	-	43.8	-	-	-	-	-	-
70.0	70.0	2.8	-	-	-	92.4	-	-	-	-	-	-
70.0	80.0	0.0	-	-	-	10.2	-	-	-	-	-	-
70.0	100.0	3.0	-	-	-	-	-	-	-	-	-	-
73.0	53.0	1802.9	-	-	-	27.8	-	-	-	-	-	-
73.0	60.0	587.3	-	-	-	0.0	-	-	-	-	-	-
73.0	70.0	0.0	-	-	-	31.8	-	-	-	-	-	-
73.0	80.0	2.9	-	-	-	-	-	-	-	-	-	-
77.0	48.0	176.8	-	-	-	3.6	-	-	-	-	-	-
77.0	51.0	567.8	-	-	-	43.8	-	-	-	-	-	-
77.0	55.0	84.0	-	-	-	26.4	-	-	-	-	-	-
77.0	60.0	0.0	-	-	-	19.8	-	-	-	-	-	-
80.0	51.0	344.3	-	-	-	6.1	-	-	-	-	-	-
80.0	52.0	906.3	-	-	-	9.0	-	-	-	-	-	-
80.0	55.0	241.8	-	-	-	32.5	-	-	-	-	-	-
80.0	60.0	45.9	-	-	-	107.2	-	-	-	-	-	-
80.0	65.0	46.5	-	-	-	3.0	-	-	-	-	-	-
80.0	70.0	0.0	-	-	-	9.2	-	-	-	-	-	-
82.0	47.0	310.6	-	-	-	6.0	-	-	-	-	-	-
83.0	40.0	40.3	-	-	-	0.0	-	-	-	-	-	-
83.0	43.0	167.6	-	-	-	68.5	-	-	-	-	-	-
83.0	51.0	671.0	-	-	-	10.6	-	-	-	-	-	-
83.0	55.0	2075.6	-	-	-	39.4	-	-	-	-	-	-
83.0	60.0	18.5	-	-	-	31.7	-	-	-	-	-	-
83.0	65.0	2.9	-	-	-	12.1	-	-	-	-	-	-
83.0	80.0	0.0	-	-	-	32.3	-	-	-	-	-	-
87.0	33.0	12.1	-	-	-	0.0	-	-	-	-	-	-

TABLE 4. (cont.)

## Sebastes spp. (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
87.0	35.0	75.7	-	-	-	15.8	-	-	-	-	-	-
87.0	40.0	302.8	-	-	-	22.0	-	-	-	-	-	-
87.0	45.0	146.5	-	-	-	6.3	-	-	-	-	-	-
87.0	50.0	-	-	-	-	40.4	-	-	-	-	-	-
87.0	55.0	167.6	-	-	-	79.0	-	-	-	-	-	-
87.0	60.0	87.7	-	-	-	27.3	-	-	-	-	-	-
87.0	65.0	6.4	-	-	-	3.3	-	-	-	-	-	-
87.0	70.0	2.6	-	-	-	6.5	-	-	-	-	-	-
87.0	80.0	5.2	-	-	-	23.0	-	-	-	-	-	-
87.0	80.0	0.0	-	-	-	3.1	-	-	-	-	-	-
90.0	28.0	10.1	-	-	-	0.0	-	-	-	-	-	-
90.0	32.0	26.5	-	-	-	20.2	-	-	-	-	-	-
90.0	37.0	228.0	-	-	-	0.0	-	-	-	-	-	-
90.0	45.0	157.4	-	-	-	10.0	-	-	-	-	-	-
90.0	53.0	272.5	-	-	-	16.3	-	-	-	-	-	-
90.0	60.0	0.0	-	-	-	17.1	-	-	-	-	-	-
90.0	65.0	5.9	-	-	-	20.7	-	-	-	-	-	-
90.0	70.0	0.0	-	-	-	17.4	-	-	-	-	-	-
90.0	80.0	0.0	-	-	-	23.4	-	-	-	-	-	-
93.0	27.0	4.9	-	-	-	0.0	-	-	-	-	-	-
93.0	28.0	15.0	-	-	-	6.8	-	-	-	-	-	-
93.0	30.0	5.3	-	-	-	10.0	-	-	-	-	-	-
93.0	35.0	38.7	-	-	-	3.2	-	-	-	-	-	-
93.0	40.0	0.0	-	-	-	40.9	-	-	-	-	-	-
93.0	45.0	67.7	-	-	-	26.9	-	-	-	-	-	-
93.0	50.0	12.4	-	-	-	171.6	-	-	-	-	-	-
93.0	55.0	76.3	-	-	-	3.2	-	-	-	-	-	-
93.0	60.0	0.0	-	-	-	3.4	-	-	-	-	-	-
93.0	65.0	0.0	-	-	-	3.3	-	-	-	-	-	-
93.0	70.0	0.0	-	-	-	12.0	-	-	-	-	-	-
97.0	29.0	15.8	-	-	-	0.0	-	-	-	-	-	-
97.0	30.0	28.6	-	-	-	2.5	-	-	-	-	-	-
97.0	32.0	194.1	-	-	-	6.2	-	-	-	-	-	-
97.0	35.0	0.0	-	-	-	12.6	-	-	-	-	-	-
97.0	40.0	0.0	-	-	-	19.7	-	-	-	-	-	-
97.0	45.0	5.1	-	-	-	26.1	-	-	-	-	-	-
97.0	50.0	0.0	-	-	-	38.8	-	-	-	-	-	-
97.0	55.0	21.7	-	-	-	3.4	-	-	-	-	-	-
97.0	60.0	16.6	-	-	-	0.0	-	-	-	-	-	-
97.0	65.0	28.8	-	-	-	3.4	-	-	-	-	-	-
97.0	70.0	0.0	-	-	-	0.0	-	-	-	-	-	-
100.0	29.0	56.2	-	-	-	3.4	-	-	-	-	-	-
100.0	30.0	351.9	-	-	-	21.1	-	-	-	-	-	-
100.0	35.0	12.9	-	-	-	91.8	-	-	-	-	-	-
100.0	40.0	0.0	-	-	-	24.2	-	-	-	-	-	-
100.0	45.0	3.3	-	-	-	3.2	-	-	-	-	-	-
			-	-	-	15.8	-	-	-	-	-	-



TABLE 4. (cont.)

*Sebastes* spp. (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
130.0	30.0	-	-	2.3	-	-	-	-	-	-	-	-
130.0	45.0	-	-	5.3	-	-	-	-	-	-	-	-
130.0	50.0	-	-	2.9	-	-	-	-	-	-	-	-
133.0	30.0	-	-	5.2	-	-	-	-	-	-	-	-
137.0	30.0	-	-	8.1	-	-	-	-	-	-	-	-
140.0	38.0	-	-	22.3	-	-	-	-	-	-	-	-

*Sebastolobus* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	80.0	0.0	-	-	-	3.4	-	-	-	-	-	-
60.0	90.0	0.0	-	-	-	17.3	-	-	-	-	-	-
63.0	90.0	0.0	-	-	-	3.3	-	-	-	-	-	-
67.0	50.0	3.2	-	-	-	0.0	-	-	-	-	-	-
67.0	55.0	0.0	-	-	-	10.4	-	-	-	-	-	-
67.0	60.0	0.0	-	-	-	10.3	-	-	-	-	-	-
67.0	90.0	-	-	-	-	3.3	-	-	-	-	-	-
77.0	55.0	0.0	-	-	-	3.1	-	-	-	-	-	-
80.0	70.0	0.0	-	-	-	3.4	-	-	-	-	-	-
83.0	70.0	0.0	-	-	-	2.8	-	-	-	-	-	-
87.0	55.0	0.0	-	-	-	3.3	-	-	-	-	-	-
87.0	70.0	0.0	-	-	-	3.3	-	-	-	-	-	-
87.0	80.0	0.0	-	-	-	3.3	-	-	-	-	-	-
90.0	60.0	0.0	-	-	-	3.4	-	-	-	-	-	-

*Hypsoblenius* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
83.0	40.0	0.0	-	-	-	1.5	-	-	-	-	-	-
87.0	33.0	0.0	-	-	-	12.1	-	-	-	-	-	-
90.0	28.0	0.0	-	-	-	6.5	-	-	-	-	-	-
97.0	29.0	0.0	-	-	-	2.8	-	-	-	-	-	-
97.0	30.0	0.0	-	-	-	10.0	-	-	-	-	-	-
100.0	30.0	0.0	-	-	-	6.1	-	-	-	-	-	-

## Clinidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
63.0	50.0	-	-	-	-	-	-	-	-	-	-	-
83.0	43.0	18.4	-	-	-	0.0	-	-	-	-	-	-
83.0	51.0	5.9	-	-	-	0.0	-	-	-	-	-	-
97.0	29.0	0.0	-	-	-	2.8	-	-	-	-	-	-
97.0	30.0	0.0	-	-	-	2.5	-	-	-	-	-	-

TABLE 4. (cont.)

## Clinidae (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
103.0	29.0	0.0	-	-	-	2.7	-	-	-	-	-	-
103.0	30.0	1.4	-	-	-	0.0	-	-	-	-	-	-
110.0	32.0	-	-	-	-	20.2	-	-	-	-	-	-
110.0	35.0	-	-	-	-	3.2	-	-	-	-	-	-
110.0	60.0	-	-	-	-	3.1	-	-	-	-	-	-

## Gobiidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
80.0	52.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	60.0	-	-	-	-	3.3	-	-	-	-	-	-
80.0	65.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	70.0	-	-	-	-	3.1	-	-	-	-	-	-
83.0	43.0	-	-	-	-	21.4	-	-	-	-	-	-
83.0	51.0	-	-	-	-	3.5	-	-	-	-	-	-
83.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
90.0	45.0	-	-	-	-	3.3	-	-	-	-	-	-
90.0	60.0	-	-	-	-	3.4	-	-	-	-	-	-
93.0	35.0	-	-	-	-	3.2	-	-	-	-	-	-
93.0	40.0	-	-	-	-	3.4	-	-	-	-	-	-
93.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
97.0	32.0	-	-	-	-	0.0	-	-	-	-	-	-
97.0	45.0	-	-	-	-	3.7	-	-	-	-	-	-
97.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
107.0	60.0	-	-	-	-	3.0	-	-	-	-	-	-

## Labridae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0	37.0	0.0	-	-	-	3.2	-	-	-	-	-	-
93.0	70.0	0.0	-	-	-	3.0	-	-	-	-	-	-
97.0	32.0	0.0	-	-	-	9.2	-	-	-	-	-	-

## Halichoeres spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
103.0	60.0	0.0	-	-	-	3.2	-	-	-	-	-	-

## Oxyjulis californica

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
83.0	40.0	0.0	-	-	-	10.6	-	-	-	-	-	-

TABLE 4. (cont.)

*Oxyjulis californica* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
87.0	35.0	-	-	-	-	2.6	-	-	-	-	-	-
90.0	28.0	-	-	-	-	9.8	-	-	-	-	-	-
90.0	45.0	-	-	-	-	3.3	-	-	-	-	-	-
90.0	70.0	-	-	-	-	3.5	-	-	-	-	-	-
93.0	27.0	-	-	-	-	2.8	-	-	-	-	-	-
93.0	28.0	-	-	-	-	10.3	-	-	-	-	-	-
93.0	30.0	-	-	-	-	10.0	-	-	-	-	-	-
93.0	50.0	-	-	-	-	11.2	-	-	-	-	-	-
93.0	90.0	-	-	-	-	3.3	-	-	-	-	-	-
97.0	30.0	-	-	-	-	2.5	-	-	-	-	-	-
97.0	50.0	-	-	-	-	3.2	-	-	-	-	-	-
100.0	35.0	-	-	-	-	13.5	-	-	-	-	-	-
103.0	55.0	-	-	-	-	6.7	-	-	-	-	-	-
107.0	40.0	-	-	-	-	3.1	-	-	-	-	-	-

*Chromis punctipinnis*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0	45.0	0.0	-	-	-	3.3	-	-	-	-	-	-

*Howella brodiei*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
63.0	52.0	3.1	-	-	-	0.0	-	-	-	-	-	-

*Seriola lalandi*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
103.0	30.0	0.0	-	-	-	3.9	-	-	-	-	-	-
107.0	31.0	-	-	-	-	2.8	-	-	-	-	-	-
110.0	32.0	-	-	-	-	2.5	-	-	-	-	-	-
110.0	60.0	-	-	-	-	6.3	-	-	-	-	-	-

*Trachurus symmetricus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	90.0	0.0	-	-	-	3.5	-	-	-	-	-	-
63.0	90.0	0.0	-	-	-	40.0	-	-	-	-	-	-
67.0	50.0	0.0	-	-	-	2.9	-	-	-	-	-	-
67.0	55.0	0.0	-	-	-	31.1	-	-	-	-	-	-
67.0	90.0	-	-	-	-	13.2	-	-	-	-	-	-
70.0	60.0	0.0	-	-	-	11.9	-	-	-	-	-	-

TABLE 4. (cont.)

*Trachurus symmetricus* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
70.0	70.0	0.0	-	-	-	6.6	-	-	-	-	-	-
70.0	80.0	0.0	-	-	-	27.1	-	-	-	-	-	-
70.0	90.0	0.0	-	-	-	6.1	-	-	-	-	-	-
73.0	50.0	0.0	-	-	-	13.9	-	-	-	-	-	-
73.0	60.0	0.0	-	-	-	22.7	-	-	-	-	-	-
77.0	55.0	0.0	-	-	-	23.1	-	-	-	-	-	-
77.0	60.0	0.0	-	-	-	6.6	-	-	-	-	-	-
80.0	65.0	0.0	-	-	-	6.0	-	-	-	-	-	-
80.0	70.0	0.0	-	-	-	37.0	-	-	-	-	-	-
80.0	90.0	0.0	-	-	-	3.4	-	-	-	-	-	-
83.0	40.0	0.0	-	-	-	1.5	-	-	-	-	-	-
83.0	60.0	0.0	-	-	-	9.5	-	-	-	-	-	-
83.0	65.0	0.0	-	-	-	51.5	-	-	-	-	-	-
83.0	70.0	0.0	-	-	-	80.9	-	-	-	-	-	-
83.0	80.0	0.0	-	-	-	155.0	-	-	-	-	-	-
83.0	90.0	0.0	-	-	-	29.9	-	-	-	-	-	-
87.0	60.0	0.0	-	-	-	5.0	-	-	-	-	-	-
87.0	65.0	0.0	-	-	-	6.6	-	-	-	-	-	-
87.0	70.0	0.0	-	-	-	16.3	-	-	-	-	-	-
87.0	80.0	0.0	-	-	-	65.6	-	-	-	-	-	-
90.0	53.0	2.9	-	-	-	6.5	-	-	-	-	-	-
90.0	60.0	0.0	-	-	-	34.1	-	-	-	-	-	-
90.0	65.0	0.0	-	-	-	8.9	-	-	-	-	-	-
90.0	70.0	0.0	-	-	-	31.2	-	-	-	-	-	-
90.0	80.0	0.0	-	-	-	23.4	-	-	-	-	-	-
90.0	90.0	0.0	-	-	-	58.9	-	-	-	-	-	-
93.0	30.0	0.0	-	-	-	3.3	-	-	-	-	-	-
93.0	40.0	0.0	-	-	-	10.2	-	-	-	-	-	-
93.0	45.0	0.0	-	-	-	33.6	-	-	-	-	-	-
93.0	55.0	0.0	-	-	-	32.0	-	-	-	-	-	-
93.0	60.0	0.0	-	-	-	13.4	-	-	-	-	-	-
93.0	65.0	0.0	-	-	-	23.4	-	-	-	-	-	-
93.0	70.0	0.0	-	-	-	96.3	-	-	-	-	-	-
93.0	80.0	0.0	-	-	-	33.2	-	-	-	-	-	-
93.0	90.0	0.0	-	-	-	13.3	-	-	-	-	-	-
97.0	29.0	0.0	-	-	-	11.3	-	-	-	-	-	-
97.0	32.0	0.0	-	-	-	30.8	-	-	-	-	-	-
97.0	35.0	0.0	-	-	-	6.3	-	-	-	-	-	-
97.0	40.0	0.0	-	-	-	92.1	-	-	-	-	-	-
97.0	45.0	0.0	-	-	-	59.7	-	-	-	-	-	-
97.0	50.0	0.0	-	-	-	19.4	-	-	-	-	-	-
97.0	55.0	0.0	-	-	-	10.2	-	-	-	-	-	-
97.0	60.0	0.0	-	-	-	3.4	-	-	-	-	-	-
97.0	65.0	0.0	-	-	-	6.7	-	-	-	-	-	-
97.0	70.0	0.0	-	-	-	124.7	-	-	-	-	-	-
97.0	80.0	0.0	-	-	-	161.2	-	-	-	-	-	-

TABLE 4. (cont.)

*Trachurus symmetricus* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
100.0	29.0	0.0	-	-	-	6.0	-	-	-	-	-	-
100.0	30.0	0.0	-	-	-	3.1	-	-	-	-	-	-
100.0	35.0	0.0	-	-	-	45.7	-	-	-	-	-	-
100.0	40.0	0.0	-	-	-	6.3	-	-	-	-	-	-
100.0	45.0	0.0	-	-	-	3.2	-	-	-	-	-	-
100.0	50.0	0.0	-	-	-	3.1	-	-	-	-	-	-
100.0	60.0	0.0	-	-	-	24.2	-	-	-	-	-	-
100.0	65.0	0.0	-	-	-	37.0	-	-	-	-	-	-
100.0	70.0	0.0	-	-	-	159.7	-	-	-	-	-	-
100.0	80.0	0.0	-	-	-	15.8	-	-	-	-	-	-
103.0	50.0	0.0	-	-	-	395.0	-	-	-	-	-	-
103.0	55.0	0.0	-	-	-	234.5	-	-	-	-	-	-
103.0	60.0	0.0	-	-	-	22.1	-	-	-	-	-	-
107.0	31.0	-	-	-	-	2.8	-	-	-	-	-	-
107.0	32.0	-	-	-	-	11.8	-	-	-	-	-	-
107.0	35.0	-	-	-	-	9.5	-	-	-	-	-	-
107.0	40.0	-	-	-	-	79.6	-	-	-	-	-	-
107.0	45.0	-	-	-	-	63.5	-	-	-	-	-	-
107.0	50.0	-	-	-	-	19.5	-	-	-	-	-	-
107.0	55.0	-	-	-	-	11.0	-	-	-	-	-	-
107.0	60.0	-	-	-	-	18.1	-	-	-	-	-	-
110.0	40.0	-	-	-	-	26.0	-	-	-	-	-	-
110.0	45.0	-	-	-	-	38.6	-	-	-	-	-	-
110.0	55.0	-	-	-	-	3.1	-	-	-	-	-	-
110.0	60.0	-	-	-	-	6.3	-	-	-	-	-	-
113.0	45.0	-	-	-	-	32.5	-	-	-	-	-	-
113.0	50.0	-	-	-	-	14.6	-	-	-	-	-	-
113.0	55.0	-	-	-	-	12.0	-	-	-	-	-	-
120.0	60.0	-	-	-	-	3.0	-	-	-	-	-	-
120.0	65.0	-	-	-	-	3.1	-	-	-	-	-	-
120.0	70.0	-	-	-	-	8.6	-	-	-	-	-	-
123.0	60.0	-	-	-	-	3.3	-	-	-	-	-	-

*Girella nigricans*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
87.0	35.0	0.0	-	-	-	2.6	-	-	-	-	-	-
90.0	28.0	0.0	-	-	-	6.5	-	-	-	-	-	-
93.0	27.0	0.0	-	-	-	2.8	-	-	-	-	-	-
97.0	29.0	0.0	-	-	-	5.6	-	-	-	-	-	-
97.0	32.0	0.0	-	-	-	3.1	-	-	-	-	-	-
100.0	30.0	0.0	-	-	-	6.1	-	-	-	-	-	-
100.0	35.0	0.0	-	-	-	2.7	-	-	-	-	-	-



TABLE 4. (cont.)

*Medialuna californiensis*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
97.0	32.0	0.0	-	-	-	3.1	-	-	-	-	-	-
107.0	32.0	-	-	-	-	8.9	-	-	-	-	-	-
110.0	55.0	-	-	-	-	3.1	-	-	-	-	-	-

## Sciaenidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	52.0	-	-	-	-	0.0	-	-	-	-	-	-
63.0	50.0	-	-	-	-	-	-	-	-	-	-	-
63.0	52.0	-	-	-	-	0.0	-	-	-	-	-	-
67.0	48.0	-	-	-	-	-	-	-	-	-	-	-
67.0	50.0	-	-	-	-	0.0	-	-	-	-	-	-
73.0	50.0	-	-	-	-	0.0	-	-	-	-	-	-
73.0	53.0	-	-	-	-	0.0	-	-	-	-	-	-
77.0	48.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	51.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	52.0	-	-	-	-	0.0	-	-	-	-	-	-
82.0	47.0	-	-	-	-	0.0	-	-	-	-	-	-
83.0	40.0	-	-	-	-	0.0	-	-	-	-	-	-
83.0	43.0	-	-	-	-	4.3	-	-	-	-	-	-
83.0	51.0	-	-	-	-	0.0	-	-	-	-	-	-
87.0	33.0	-	-	-	-	4.8	-	-	-	-	-	-
87.0	35.0	-	-	-	-	2.6	-	-	-	-	-	-
90.0	28.0	-	-	-	-	81.3	-	-	-	-	-	-
90.0	32.0	-	-	-	-	3.4	-	-	-	-	-	-
90.0	90.0	-	-	-	-	3.3	-	-	-	-	-	-
93.0	27.0	-	-	-	-	28.0	-	-	-	-	-	-
93.0	28.0	-	-	-	-	27.4	-	-	-	-	-	-
97.0	29.0	-	-	-	-	50.8	-	-	-	-	-	-
97.0	30.0	-	-	-	-	42.5	-	-	-	-	-	-
97.0	32.0	-	-	-	-	0.0	-	-	-	-	-	-
97.0	35.0	-	-	-	-	3.1	-	-	-	-	-	-
100.0	29.0	-	-	-	-	12.0	-	-	-	-	-	-
100.0	30.0	-	-	-	-	12.2	-	-	-	-	-	-
103.0	30.0	-	-	-	-	0.0	-	-	-	-	-	-
117.0	30.0	-	-	-	-	5.2	-	-	-	-	-	-
123.0	36.0	-	-	-	-	2.0	-	-	-	-	-	-

## Serranidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
83.0	40.0	-	-	-	-	4.5	-	-	-	-	-	-
93.0	27.0	-	-	-	-	8.4	-	-	-	-	-	-



TABLE 4. (cont.)

*Icichthys lockingtoni* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
87.0	80.0	-	-	-	-	19.7	-	-	-	-	-	-
90.0	53.0	-	-	-	-	3.3	-	-	-	-	-	-
90.0	65.0	-	-	-	-	8.9	-	-	-	-	-	-
90.0	70.0	-	-	-	-	3.5	-	-	-	-	-	-
90.0	80.0	-	-	-	-	3.3	-	-	-	-	-	-
93.0	50.0	-	-	-	-	7.5	-	-	-	-	-	-
93.0	65.0	-	-	-	-	3.3	-	-	-	-	-	-
93.0	90.0	-	-	-	-	3.3	-	-	-	-	-	-
97.0	32.0	-	-	-	-	3.1	-	-	-	-	-	-

*Peprilus similimus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
73.0	53.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	52.0	-	-	-	-	0.0	-	-	-	-	-	-
83.0	43.0	-	-	-	-	4.3	-	-	-	-	-	-
87.0	33.0	-	-	-	-	2.4	-	-	-	-	-	-
87.0	35.0	-	-	-	-	5.3	-	-	-	-	-	-
90.0	28.0	-	-	-	-	22.8	-	-	-	-	-	-
93.0	28.0	-	-	-	-	3.4	-	-	-	-	-	-
97.0	30.0	-	-	-	-	5.0	-	-	-	-	-	-
100.0	30.0	-	-	-	-	6.1	-	-	-	-	-	-
100.0	35.0	-	-	-	-	2.7	-	-	-	-	-	-
120.0	25.0	-	-	-	2.4	-	-	-	-	-	-	-

*Tetragonurus cuvieri*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
73.0	60.0	-	-	-	-	13.6	-	-	-	-	-	-
93.0	80.0	-	-	-	-	0.0	-	-	-	-	-	-
93.0	100.0	-	-	-	-	-	-	-	-	-	-	-
100.0	80.0	-	-	-	-	0.0	-	-	-	-	-	-
103.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-

## Chiasmodontidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
87.0	100.0	-	-	-	-	-	-	-	-	-	-	-
93.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
100.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
100.0	80.0	-	-	-	-	0.0	-	-	-	-	-	-
103.0	65.0	-	-	-	-	-	-	-	-	-	-	-
103.0	80.0	-	-	-	-	-	-	-	-	-	-	-

TABLE 4. (cont.)

## Chiasmodontidae (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
107.0	55.0	-	-	-	-	3.7	-	-	-	-	-	-
123.0	50.0	-	-	-	2.8	-	-	-	-	-	-	-
123.0	60.0	-	-	-	3.3	-	-	-	-	-	-	-
127.0	55.0	-	-	2.6	-	-	-	-	-	-	-	-

## Pleuronectiformes

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
83.0	40.0	-	-	-	-	3.0	-	-	-	-	-	-

## Citharichthys spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
60.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
60.0	70.0	-	-	-	-	0.0	-	-	-	-	-	-
60.0	80.0	-	-	-	-	3.4	-	-	-	-	-	-
63.0	50.0	-	-	-	-	-	-	-	-	-	-	-
63.0	52.0	-	-	-	-	0.0	-	-	-	-	-	-
63.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
63.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
63.0	70.0	-	-	-	-	-	-	-	-	-	-	-
63.0	80.0	-	-	-	-	-	-	-	-	-	-	-
63.0	90.0	-	-	-	-	3.3	-	-	-	-	-	-
67.0	48.0	-	-	-	-	-	-	-	-	-	-	-
67.0	50.0	-	-	-	-	0.0	-	-	-	-	-	-
67.0	55.0	-	-	-	-	3.5	-	-	-	-	-	-
67.0	60.0	-	-	-	-	3.4	-	-	-	-	-	-
67.0	70.0	-	-	-	-	-	-	-	-	-	-	-
67.0	80.0	-	-	-	-	-	-	-	-	-	-	-
70.0	51.0	-	-	-	-	0.0	-	-	-	-	-	-
70.0	53.0	-	-	-	-	0.0	-	-	-	-	-	-
70.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
70.0	70.0	-	-	-	-	3.3	-	-	-	-	-	-
70.0	80.0	-	-	-	-	0.0	-	-	-	-	-	-
70.0	80.0	-	-	-	-	0.0	-	-	-	-	-	-
73.0	50.0	-	-	-	-	7.2	-	-	-	-	-	-
73.0	53.0	-	-	-	-	4.5	-	-	-	-	-	-
73.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
77.0	51.0	-	-	-	-	0.0	-	-	-	-	-	-
77.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	51.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	52.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	55.0	-	-	-	-	3.3	-	-	-	-	-	-
80.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	65.0	-	-	-	-	0.0	-	-	-	-	-	-

TABLE 4. (cont.)

*Citharichthys* spp. (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
80.0	70.0	5.9	-	-	-	3.1	-	-	-	-	-	-
80.0	80.0	6.0	-	-	-	0.0	-	-	-	-	-	-
82.0	47.0	2.8	-	-	-	0.0	-	-	-	-	-	-
83.0	43.0	5.9	-	-	-	0.0	-	-	-	-	-	-
83.0	51.0	29.8	-	-	-	4.4	-	-	-	-	-	-
83.0	55.0	16.4	-	-	-	0.0	-	-	-	-	-	-
83.0	90.0	2.9	-	-	-	-	-	-	-	-	-	-
83.0	100.0	2.9	-	-	-	0.0	-	-	-	-	-	-
87.0	33.0	7.3	-	-	-	5.6	-	-	-	-	-	-
87.0	55.0	7.1	-	-	-	0.0	-	-	-	-	-	-
87.0	60.0	8.5	-	-	-	0.0	-	-	-	-	-	-
87.0	80.0	2.6	-	-	-	6.7	-	-	-	-	-	-
90.0	32.0	2.9	-	-	-	0.0	-	-	-	-	-	-
90.0	37.0	15.0	-	-	-	0.0	-	-	-	-	-	-
90.0	45.0	10.1	-	-	-	0.0	-	-	-	-	-	-
90.0	65.0	5.9	-	-	-	3.5	-	-	-	-	-	-
90.0	70.0	0.0	-	-	-	5.6	-	-	-	-	-	-
93.0	27.0	0.0	-	-	-	13.7	-	-	-	-	-	-
93.0	28.0	0.0	-	-	-	0.0	-	-	-	-	-	-
93.0	35.0	3.5	-	-	-	0.0	-	-	-	-	-	-
93.0	40.0	3.2	-	-	-	0.0	-	-	-	-	-	-
97.0	29.0	4.0	-	-	-	0.0	-	-	-	-	-	-
97.0	32.0	15.7	-	-	-	0.0	-	-	-	-	-	-
97.0	35.0	3.0	-	-	-	0.0	-	-	-	-	-	-
97.0	40.0	14.9	-	-	-	0.0	-	-	-	-	-	-
100.0	29.0	3.0	-	-	-	3.0	-	-	-	-	-	-
100.0	30.0	10.0	-	-	-	12.2	-	-	-	-	-	-
100.0	50.0	0.0	-	-	-	9.2	-	-	-	-	-	-
103.0	30.0	5.4	-	-	-	0.0	-	-	-	-	-	-
103.0	40.0	0.0	-	-	-	3.3	-	-	-	-	-	-
103.0	45.0	0.0	-	-	-	3.0	-	-	-	-	-	-
103.0	50.0	0.0	-	-	-	6.2	-	-	-	-	-	-
103.0	55.0	2.8	-	-	-	0.0	-	-	-	-	-	-
107.0	31.0	-	-	-	-	2.8	-	-	-	-	-	-
107.0	32.0	-	-	-	-	8.9	-	-	-	-	-	-
107.0	40.0	-	-	-	-	3.1	-	-	-	-	-	-
113.0	40.0	-	-	-	-	6.1	-	-	-	-	-	-
113.0	50.0	-	-	-	-	2.4	-	-	-	-	-	-
113.0	60.0	-	-	-	-	12.0	-	-	-	-	-	-
117.0	25.0	-	-	-	-	-	-	-	-	-	-	-
117.0	45.0	-	-	-	-	2.3	-	-	-	-	-	-
117.0	45.0	-	-	-	-	3.1	-	-	-	-	-	-
119.0	33.0	-	-	-	-	21.8	-	-	-	-	-	-
120.0	25.0	-	-	-	-	2.4	-	-	-	-	-	-
120.0	30.0	-	-	-	-	4.8	-	-	-	-	-	-
120.0	35.0	-	-	-	-	10.7	-	-	-	-	-	-
120.0	55.0	-	-	-	-	3.0	-	-	-	-	-	-

TABLE 4. (cont.)

*Citharichthys* spp. (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
123.0	37.0	-	-	-	2.4	-	-	-	-	-	-	-
123.0	55.0	-	-	-	3.0	-	-	-	-	-	-	-
127.0	33.0	-	-	-	6.5	-	-	-	-	-	-	-
127.0	40.0	-	-	-	2.7	-	-	-	-	-	-	-
127.0	45.0	-	-	-	5.7	-	-	-	-	-	-	-
130.0	45.0	-	-	5.3	-	-	-	-	-	-	-	-
133.0	30.0	-	-	2.6	-	-	-	-	-	-	-	-
133.0	35.0	-	-	7.1	-	-	-	-	-	-	-	-
137.0	23.0	-	-	2.7	-	-	-	-	-	-	-	-
137.0	30.0	-	-	5.4	-	-	-	-	-	-	-	-
137.0	35.0	-	-	9.0	-	-	-	-	-	-	-	-

*Citharichthys stigmatæus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	70.0	-	-	-	-	0.0	-	-	-	-	-	-
60.0	80.0	-	-	-	-	0.0	-	-	-	-	-	-
63.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
67.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
67.0	70.0	-	-	-	-	0.0	-	-	-	-	-	-
70.0	51.0	-	-	-	-	0.0	-	-	-	-	-	-
70.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
70.0	70.0	-	-	-	-	0.0	-	-	-	-	-	-
70.0	80.0	-	-	-	-	0.0	-	-	-	-	-	-
70.0	90.0	-	-	-	-	0.0	-	-	-	-	-	-
73.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
77.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
77.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	52.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	70.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	80.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	100.0	-	-	-	-	0.0	-	-	-	-	-	-
82.0	47.0	-	-	-	-	0.0	-	-	-	-	-	-
83.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
83.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
83.0	65.0	-	-	-	-	0.0	-	-	-	-	-	-
83.0	90.0	-	-	-	-	0.0	-	-	-	-	-	-
83.0	100.0	-	-	-	-	0.0	-	-	-	-	-	-
87.0	35.0	-	-	-	-	0.0	-	-	-	-	-	-
87.0	40.0	-	-	-	-	0.0	-	-	-	-	-	-
87.0	55.0	-	-	-	-	2.8	-	-	-	-	-	-
87.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
87.0	80.0	-	-	-	-	0.0	-	-	-	-	-	-

TABLE 4. (cont.)

*Citharichthys stigmaeus* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0	53.0	2.9	-	-	-	0.0	-	-	-	-	-	-
90.0	60.0	0.0	-	-	-	3.4	-	-	-	-	-	-
90.0	65.0	3.0	-	-	-	0.0	-	-	-	-	-	-
93.0	35.0	3.5	-	-	-	0.0	-	-	-	-	-	-
97.0	32.0	3.1	-	-	-	0.0	-	-	-	-	-	-
97.0	40.0	0.0	-	-	-	3.3	-	-	-	-	-	-
97.0	45.0	0.0	-	-	-	3.7	-	-	-	-	-	-
100.0	45.0	3.3	-	-	-	0.0	-	-	-	-	-	-
103.0	45.0	4.4	-	-	-	0.0	-	-	-	-	-	-
103.0	55.0	2.8	-	-	-	0.0	-	-	-	-	-	-
107.0	40.0	-	-	-	-	6.1	-	-	-	-	-	-

*Hippoglossina stomata*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
119.0	33.0	-	-	-	8.2	-	-	-	-	-	-	-
133.0	25.0	-	-	2.3	-	-	-	-	-	-	-	-
137.0	23.0	-	-	13.6	-	-	-	-	-	-	-	-
137.0	30.0	-	-	2.7	-	-	-	-	-	-	-	-
140.0	38.0	-	-	8.4	-	-	-	-	-	-	-	-

*Paralichthys californicus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	52.0	2.2	-	-	-	0.0	-	-	-	-	-	-
67.0	48.0	4.3	-	-	-	-	-	-	-	-	-	-
77.0	48.0	5.4	-	-	-	0.0	-	-	-	-	-	-
83.0	40.0	0.0	-	-	-	1.5	-	-	-	-	-	-
87.0	33.0	9.7	-	-	-	0.0	-	-	-	-	-	-
90.0	28.0	3.3	-	-	-	3.3	-	-	-	-	-	-
93.0	27.0	0.0	-	-	-	11.2	-	-	-	-	-	-
93.0	28.0	2.5	-	-	-	0.0	-	-	-	-	-	-
97.0	29.0	2.0	-	-	-	0.0	-	-	-	-	-	-
97.0	30.0	2.0	-	-	-	0.0	-	-	-	-	-	-
103.0	29.0	1.2	-	-	-	2.7	-	-	-	-	-	-

*Glyptocephalus zachirus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	55.0	-	-	-	-	3.3	-	-	-	-	-	-
60.0	60.0	0.0	-	-	-	3.4	-	-	-	-	-	-
60.0	70.0	0.0	-	-	-	3.3	-	-	-	-	-	-
60.0	80.0	0.0	-	-	-	3.4	-	-	-	-	-	-

TABLE 4. (cont.)

*Glyptocephalus zachirus* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
63.0	60.0	0.0	-	-	-	2.9	-	-	-	-	-	-
63.0	90.0	0.0	-	-	-	3.3	-	-	-	-	-	-
67.0	60.0	0.0	-	-	-	10.3	-	-	-	-	-	-
70.0	60.0	0.0	-	-	-	4.0	-	-	-	-	-	-
70.0	70.0	0.0	-	-	-	3.3	-	-	-	-	-	-
73.0	50.0	0.0	-	-	-	20.9	-	-	-	-	-	-
73.0	53.0	0.0	-	-	-	21.5	-	-	-	-	-	-
73.0	60.0	0.0	-	-	-	9.1	-	-	-	-	-	-
80.0	52.0	0.0	-	-	-	3.0	-	-	-	-	-	-
83.0	80.0	0.0	-	-	-	3.2	-	-	-	-	-	-

*Lepidopsetta bilineata*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
63.0	52.0	0.0	-	-	-	6.5	-	-	-	-	-	-
93.0	50.0	0.0	-	-	-	3.7	-	-	-	-	-	-

*Lyopsetta exilis*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	55.0	5.3	-	-	-	9.9	-	-	-	-	-	-
60.0	60.0	0.0	-	-	-	3.4	-	-	-	-	-	-
63.0	55.0	8.9	-	-	-	7.1	-	-	-	-	-	-
63.0	60.0	0.0	-	-	-	14.3	-	-	-	-	-	-
67.0	50.0	3.2	-	-	-	2.9	-	-	-	-	-	-
67.0	55.0	3.2	-	-	-	0.0	-	-	-	-	-	-
67.0	60.0	0.0	-	-	-	3.4	-	-	-	-	-	-
70.0	51.0	0.0	-	-	-	13.6	-	-	-	-	-	-
70.0	53.0	0.0	-	-	-	6.0	-	-	-	-	-	-
73.0	50.0	3.0	-	-	-	0.0	-	-	-	-	-	-
73.0	60.0	0.0	-	-	-	9.1	-	-	-	-	-	-
77.0	55.0	0.0	-	-	-	3.3	-	-	-	-	-	-
80.0	51.0	0.0	-	-	-	0.0	-	-	-	-	-	-
82.0	47.0	2.8	-	-	-	3.0	-	-	-	-	-	-
83.0	80.0	0.0	-	-	-	3.2	-	-	-	-	-	-
113.0	60.0	-	-	-	-	3.0	-	-	-	-	-	-

*Microstomus pacificus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	60.0	0.0	-	-	-	3.4	-	-	-	-	-	-
60.0	70.0	0.0	-	-	-	3.3	-	-	-	-	-	-
60.0	90.0	0.0	-	-	-	13.8	-	-	-	-	-	-



TABLE 4. (cont.)

*Microstomus pacificus* (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
67.0	60.0	0.0	-	-	-	3.4	-	-	-	-	-	-
70.0	70.0	0.0	-	-	-	9.9	-	-	-	-	-	-
73.0	53.0	0.0	-	-	-	14.3	-	-	-	-	-	-
77.0	51.0	0.0	-	-	-	4.4	-	-	-	-	-	-
77.0	55.0	0.0	-	-	-	9.9	-	-	-	-	-	-
80.0	65.0	0.0	-	-	-	3.0	-	-	-	-	-	-
80.0	70.0	0.0	-	-	-	6.2	-	-	-	-	-	-
82.0	47.0	0.0	-	-	-	3.0	-	-	-	-	-	-
83.0	60.0	0.0	-	-	-	3.2	-	-	-	-	-	-
83.0	65.0	0.0	-	-	-	3.0	-	-	-	-	-	-
83.0	80.0	0.0	-	-	-	12.9	-	-	-	-	-	-
87.0	60.0	0.0	-	-	-	14.9	-	-	-	-	-	-
87.0	80.0	0.0	-	-	-	3.3	-	-	-	-	-	-
103.0	55.0	0.0	-	-	-	3.3	-	-	-	-	-	-

*Parophrys vetulus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	50.0	-	-	-	-	-	-	-	-	-	-	-
60.0	52.0	-	-	-	-	0.0	-	-	-	-	-	-
60.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
63.0	50.0	-	-	-	-	-	-	-	-	-	-	-
63.0	52.0	-	-	-	-	0.0	-	-	-	-	-	-
67.0	50.0	-	-	-	-	0.0	-	-	-	-	-	-
67.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
70.0	51.0	-	-	-	-	0.0	-	-	-	-	-	-
73.0	53.0	-	-	-	-	0.0	-	-	-	-	-	-
77.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
80.0	51.0	-	-	-	-	0.0	-	-	-	-	-	-
83.0	55.0	-	-	-	-	0.0	-	-	-	-	-	-
87.0	33.0	-	-	-	-	4.4	-	-	-	-	-	-
87.0	40.0	-	-	-	-	7.3	-	-	-	-	-	-
87.0	55.0	-	-	-	-	3.1	-	-	-	-	-	-
90.0	28.0	-	-	-	-	2.8	-	-	-	-	-	-
97.0	29.0	-	-	-	-	3.3	-	-	-	-	-	-
97.0	30.0	-	-	-	-	19.7	-	-	-	-	-	-
100.0	29.0	-	-	-	-	5.0	-	-	-	-	-	-
100.0	30.0	-	-	-	-	3.0	-	-	-	-	-	-
103.0	29.0	-	-	-	-	6.1	-	-	-	-	-	-
103.0	29.0	-	-	-	-	2.7	-	-	-	-	-	-

*Pleuronichthys* spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
83.0	40.0	-	-	-	-	1.5	-	-	-	-	-	-
83.0	40.0	0.0	-	-	-	-	-	-	-	-	-	-

TABLE 4. (cont.)

*Pleuronichthys* spp. (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0	32.0	-	-	-	-	0.0	-	-	-	-	-	-
137.0	23.0	-	-	2.7	-	-	-	-	-	-	-	-

*Pleuronichthys coenosus*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
83.0	40.0	-	-	-	-	1.5	-	-	-	-	-	-
90.0	53.0	-	-	-	-	3.3	-	-	-	-	-	-
100.0	35.0	-	-	-	-	2.7	-	-	-	-	-	-

*Pleuronichthys decurrens*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	60.0	-	-	-	-	0.0	-	-	-	-	-	-
77.0	60.0	-	-	-	-	3.3	-	-	-	-	-	-

*Pleuronichthys ritteri*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
107.0	31.0	-	-	-	-	5.6	-	-	-	-	-	-

*Pleuronichthys verticalis*

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
80.0	65.0	-	-	-	-	0.0	-	-	-	-	-	-
83.0	51.0	-	-	-	-	0.0	-	-	-	-	-	-
87.0	33.0	-	-	-	-	0.0	-	-	-	-	-	-
87.0	45.0	-	-	-	-	3.2	-	-	-	-	-	-
90.0	28.0	-	-	-	-	13.0	-	-	-	-	-	-
90.0	32.0	-	-	-	-	10.1	-	-	-	-	-	-
93.0	28.0	-	-	-	-	6.8	-	-	-	-	-	-
97.0	29.0	-	-	-	-	8.5	-	-	-	-	-	-
97.0	30.0	-	-	-	-	5.0	-	-	-	-	-	-
100.0	29.0	-	-	-	-	3.0	-	-	-	-	-	-
100.0	30.0	-	-	-	-	12.2	-	-	-	-	-	-
103.0	30.0	-	-	-	-	3.9	-	-	-	-	-	-
107.0	31.0	-	-	-	-	2.8	-	-	-	-	-	-
110.0	32.0	-	-	-	-	30.4	-	-	-	-	-	-
113.0	35.0	-	-	-	-	3.2	-	-	-	-	-	-
119.0	33.0	-	-	-	2.7	-	-	-	-	-	-	-

TABLE 4. (cont.)

<i>Psettichthys melanostictus</i>												
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	50.0	1.3	-	-	-	-	-	-	-	-	-	-
60.0	52.0	4.5	-	-	-	0.0	-	-	-	-	-	-
63.0	50.0	4.6	-	-	-	-	-	-	-	-	-	-
67.0	48.0	2.1	-	-	-	-	-	-	-	-	-	-
Disintegrated fish larva												
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	70.0	13.6	-	-	-	0.0	-	-	-	-	-	-
60.0	80.0	8.4	-	-	-	6.8	-	-	-	-	-	-
60.0	90.0	2.9	-	-	-	3.5	-	-	-	-	-	-
63.0	50.0	4.6	-	-	-	-	-	-	-	-	-	-
63.0	55.0	17.7	-	-	-	0.0	-	-	-	-	-	-
63.0	60.0	15.6	-	-	-	0.0	-	-	-	-	-	-
63.0	80.0	2.6	-	-	-	-	-	-	-	-	-	-
67.0	50.0	6.5	-	-	-	2.9	-	-	-	-	-	-
67.0	55.0	6.3	-	-	-	0.0	-	-	-	-	-	-
70.0	70.0	2.8	-	-	-	0.0	-	-	-	-	-	-
70.0	80.0	0.0	-	-	-	6.8	-	-	-	-	-	-
70.0	90.0	0.0	-	-	-	6.1	-	-	-	-	-	-
73.0	60.0	0.0	-	-	-	4.5	-	-	-	-	-	-
77.0	48.0	8.2	-	-	-	0.0	-	-	-	-	-	-
77.0	55.0	2.5	-	-	-	0.0	-	-	-	-	-	-
77.0	100.0	3.0	-	-	-	-	-	-	-	-	-	-
80.0	55.0	12.4	-	-	-	0.0	-	-	-	-	-	-
80.0	90.0	3.0	-	-	-	0.0	-	-	-	-	-	-
80.0	100.0	2.7	-	-	-	-	-	-	-	-	-	-
83.0	40.0	1.3	-	-	-	1.5	-	-	-	-	-	-
83.0	51.0	4.3	-	-	-	0.0	-	-	-	-	-	-
83.0	80.0	0.0	-	-	-	3.2	-	-	-	-	-	-
83.0	90.0	0.0	-	-	-	3.0	-	-	-	-	-	-
87.0	50.0	-	-	-	-	3.1	-	-	-	-	-	-
87.0	55.0	4.7	-	-	-	0.0	-	-	-	-	-	-
87.0	60.0	5.7	-	-	-	0.0	-	-	-	-	-	-
87.0	70.0	7.7	-	-	-	6.5	-	-	-	-	-	-
90.0	60.0	0.0	-	-	-	10.2	-	-	-	-	-	-
90.0	65.0	3.0	-	-	-	0.0	-	-	-	-	-	-
90.0	80.0	2.9	-	-	-	3.3	-	-	-	-	-	-
93.0	28.0	0.0	-	-	-	3.4	-	-	-	-	-	-
93.0	40.0	0.0	-	-	-	6.8	-	-	-	-	-	-
93.0	45.0	0.0	-	-	-	3.4	-	-	-	-	-	-
93.0	55.0	3.2	-	-	-	0.0	-	-	-	-	-	-
93.0	70.0	0.0	-	-	-	6.0	-	-	-	-	-	-
93.0	80.0	2.5	-	-	-	0.0	-	-	-	-	-	-
93.0	100.0	2.9	-	-	-	-	-	-	-	-	-	-

TABLE 4. (cont.)

Disintegrated fish larva (cont.)												
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
97.0	40.0	0.0	-	-	-	3.3	-	-	-	-	-	-
97.0	45.0	0.0	-	-	-	3.7	-	-	-	-	-	-
97.0	80.0	3.3	-	-	-	3.4	-	-	-	-	-	-
100.0	29.0	0.0	-	-	-	3.0	-	-	-	-	-	-
100.0	30.0	3.3	-	-	-	0.0	-	-	-	-	-	-
100.0	35.0	2.6	-	-	-	0.0	-	-	-	-	-	-
100.0	40.0	0.0	-	-	-	3.2	-	-	-	-	-	-
100.0	45.0	6.5	-	-	-	0.0	-	-	-	-	-	-
100.0	50.0	0.0	-	-	-	6.1	-	-	-	-	-	-
100.0	55.0	0.0	-	-	-	3.1	-	-	-	-	-	-
100.0	70.0	2.8	-	-	-	13.0	-	-	-	-	-	-
100.0	80.0	4.4	-	-	-	0.0	-	-	-	-	-	-
103.0	50.0	0.0	-	-	-	6.2	-	-	-	-	-	-
103.0	55.0	0.0	-	-	-	6.7	-	-	-	-	-	-
107.0	31.0	-	-	-	-	2.8	-	-	-	-	-	-
107.0	32.0	-	-	-	-	3.0	-	-	-	-	-	-
107.0	40.0	-	-	-	-	12.2	-	-	-	-	-	-
107.0	45.0	-	-	-	-	10.0	-	-	-	-	-	-
107.0	60.0	-	-	-	-	9.1	-	-	-	-	-	-
110.0	35.0	-	-	-	-	3.2	-	-	-	-	-	-
110.0	40.0	-	-	-	-	3.3	-	-	-	-	-	-
110.0	60.0	-	-	-	-	37.7	-	-	-	-	-	-
113.0	35.0	-	-	-	-	6.3	-	-	-	-	-	-
117.0	35.0	-	-	-	-	2.9	-	-	-	-	-	-
120.0	50.0	-	-	-	-	2.9	-	-	-	-	-	-
127.0	60.0	-	-	-	-	2.7	-	-	-	-	-	-
130.0	50.0	-	-	-	-	11.6	-	-	-	-	-	-
130.0	60.0	-	-	-	-	3.2	-	-	-	-	-	-
140.0	65.0	-	-	-	-	2.8	-	-	-	-	-	-

Unidentified fish larva												
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	52.0	17.8	-	-	-	0.0	-	-	-	-	-	-
60.0	55.0	2.6	-	-	-	0.0	-	-	-	-	-	-
60.0	60.0	18.6	-	-	-	0.0	-	-	-	-	-	-
60.0	70.0	0.0	-	-	-	3.3	-	-	-	-	-	-
63.0	50.0	4.6	-	-	-	0.0	-	-	-	-	-	-
63.0	52.0	49.3	-	-	-	0.0	-	-	-	-	-	-
63.0	55.0	3.0	-	-	-	0.0	-	-	-	-	-	-
63.0	90.0	0.0	-	-	-	6.7	-	-	-	-	-	-
67.0	48.0	2.1	-	-	-	0.0	-	-	-	-	-	-
67.0	50.0	6.5	-	-	-	3.4	-	-	-	-	-	-
67.0	60.0	0.0	-	-	-	6.6	-	-	-	-	-	-
67.0	90.0	-	-	-	-	-	-	-	-	-	-	-

TABLE 4. (cont.)

Unidentified fish larva (cont.)												
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
70.0	51.0	0.0	-	-	-	3.4	-	-	-	-	-	-
70.0	90.0	3.1	-	-	-	0.0	-	-	-	-	-	-
70.0	100.0	3.0	-	-	-	-	-	-	-	-	-	-
73.0	60.0	0.0	-	-	-	4.5	-	-	-	-	-	-
80.0	51.0	6.8	-	-	-	0.0	-	-	-	-	-	-
80.0	55.0	3.1	-	-	-	0.0	-	-	-	-	-	-
80.0	65.0	3.1	-	-	-	0.0	-	-	-	-	-	-
83.0	51.0	4.3	-	-	-	3.5	-	-	-	-	-	-
83.0	90.0	0.0	-	-	-	3.0	-	-	-	-	-	-
87.0	35.0	3.3	-	-	-	15.8	-	-	-	-	-	-
87.0	40.0	0.0	-	-	-	3.1	-	-	-	-	-	-
87.0	90.0	2.8	-	-	-	0.0	-	-	-	-	-	-
90.0	28.0	23.4	-	-	-	0.0	-	-	-	-	-	-
90.0	32.0	0.0	-	-	-	0.0	-	-	-	-	-	-
90.0	37.0	6.0	-	-	-	3.4	-	-	-	-	-	-
90.0	45.0	6.7	-	-	-	0.0	-	-	-	-	-	-
90.0	60.0	6.0	-	-	-	0.0	-	-	-	-	-	-
90.0	90.0	0.0	-	-	-	6.5	-	-	-	-	-	-
93.0	28.0	0.0	-	-	-	3.4	-	-	-	-	-	-
93.0	35.0	0.0	-	-	-	3.2	-	-	-	-	-	-
93.0	50.0	0.0	-	-	-	3.7	-	-	-	-	-	-
93.0	55.0	3.2	-	-	-	0.0	-	-	-	-	-	-
93.0	60.0	9.0	-	-	-	0.0	-	-	-	-	-	-
93.0	90.0	3.0	-	-	-	0.0	-	-	-	-	-	-
97.0	29.0	7.9	-	-	-	0.0	-	-	-	-	-	-
97.0	30.0	0.0	-	-	-	2.5	-	-	-	-	-	-
97.0	32.0	6.3	-	-	-	3.1	-	-	-	-	-	-
97.0	40.0	3.0	-	-	-	0.0	-	-	-	-	-	-
97.0	55.0	0.0	-	-	-	3.4	-	-	-	-	-	-
100.0	30.0	0.0	-	-	-	6.1	-	-	-	-	-	-
100.0	70.0	2.8	-	-	-	0.0	-	-	-	-	-	-
100.0	80.0	2.2	-	-	-	0.0	-	-	-	-	-	-
103.0	29.0	1.2	-	-	-	0.0	-	-	-	-	-	-
103.0	30.0	0.0	-	-	-	3.9	-	-	-	-	-	-
103.0	35.0	0.0	-	-	-	3.2	-	-	-	-	-	-
103.0	45.0	13.3	-	-	-	0.0	-	-	-	-	-	-
103.0	50.0	0.0	-	-	-	3.1	-	-	-	-	-	-
103.0	70.0	3.0	-	-	-	-	-	-	-	-	-	-
107.0	32.0	-	-	-	-	5.9	-	-	-	-	-	-
107.0	40.0	-	-	-	-	9.2	-	-	-	-	-	-
107.0	50.0	-	-	-	-	3.3	-	-	-	-	-	-
107.0	55.0	-	-	-	-	3.7	-	-	-	-	-	-
107.0	60.0	-	-	-	-	9.1	-	-	-	-	-	-
110.0	32.0	-	-	-	-	5.1	-	-	-	-	-	-
117.0	30.0	-	-	-	-	7.7	-	-	-	-	-	-
117.0	45.0	-	-	-	-	6.2	-	-	-	-	-	-

TABLE 4. (cont.)

Unidentified fish larva (cont.)												
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
120.0	30.0	-	-	-	7.2	-	-	-	-	-	-	-
120.0	50.0	-	-	-	22.9	-	-	-	-	-	-	-
120.0	55.0	-	-	-	3.0	-	-	-	-	-	-	-
120.0	65.0	-	-	-	3.1	-	-	-	-	-	-	-
123.0	37.0	-	-	-	2.4	-	-	-	-	-	-	-
123.0	55.0	-	-	-	24.2	-	-	-	-	-	-	-
123.0	60.0	-	-	-	3.3	-	-	-	-	-	-	-
127.0	33.0	-	-	-	3.3	-	-	-	-	-	-	-
130.0	60.0	-	-	-	3.2	-	-	-	-	-	-	-
133.0	25.0	-	-	-	2.3	-	-	-	-	-	-	-

TABLE 5. Summary of pooled occurrences of all larval fish taxa taken on CalCOFI surveys from 1961 to 1969. Taxa are listed in the same order as Table 4.

NAME	1961	1962	1963	1964	1965	1966	1967	1968	1969
Anguilliformes	7	8	20	8	24	17	5	3	13
<i>Etrumeus acuminatus</i>	4	7	36	37	35	26	7	1	9
<i>Opisthonema</i> spp.	-	-	-	-	2	3	-	-	-
<i>Sardinops sagax</i>	53	58	99	88	104	143	31	10	79
<i>Engraulis mordax</i>	408	454	567	707	618	987	150	188	880
<i>Argentina sialis</i>	18	49	33	37	49	93	21	18	98
<i>Microstoma microstoma</i>	12	19	11	31	17	48	9	19	73
<i>Nansenia candida</i>	9	13	5	7	9	39	6	12	32
<i>Nansenia crassa</i>	29	15	30	33	22	48	8	5	40
<i>Bathylagus</i> spp.	18	1	54	1	7	18	6	35	215
<i>Bathylagus milleri</i>	-	-	2	3	1	1	-	1	33
<i>Bathylagus ochotensis</i>	57	66	98	196	127	260	28	106	359
<i>Bathylagus pacificus</i>	5	7	8	38	3	26	-	15	80
<i>Bathylagus wesethi</i>	149	168	160	235	220	461	99	90	328
<i>Leuroglossus stilbius</i>	202	225	236	360	300	449	43	116	498
<i>Dolichopteryx</i> spp.	-	-	-	-	-	-	-	-	1
<i>Macropinna microstoma</i>	1	-	-	-	-	-	-	-	-
Osmeridae	-	-	2	-	-	-	-	-	1
Stomiiformes	12	4	3	6	1	6	9	1	4
Gonostomatidae	2	5	12	8	18	8	-	4	126
Cyclothone spp.	214	277	241	247	265	593	80	65	346
<i>Diplophos taenia</i>	5	5	7	-	3	11	1	1	7
<i>Ichthyococcus</i> spp.	4	11	11	13	7	35	5	2	34
<i>Vinciguerrria lucetia</i>	342	371	383	369	436	828	121	82	479
<i>Vinciguerrria poweriae</i>	3	7	3	4	3	6	-	-	1
<i>Woodsia nonsuchae</i>	-	-	1	-	-	-	-	-	-
Sternoptychidae	54	71	45	79	59	250	28	48	469
Astronesthidae	-	2	-	-	-	-	-	-	1
<i>Chauliodus macouni</i>	28	28	31	68	57	171	9	46	189
<i>Idiacanthus antrostomus</i>	48	43	26	32	33	72	15	22	114
<i>Aristostomias scintillans</i>	9	10	9	6	9	12	2	-	11
<i>Bathophilus</i> spp.	5	10	4	3	4	5	2	1	2
<i>Eustomias</i> spp.	1	1	-	1	1	-	-	1	-
<i>Photonectes</i> spp.	7	3	2	2	6	4	-	-	-
<i>Tactostoma macropus</i>	7	4	-	4	2	16	3	-	4
<i>Stomias atriventer</i>	58	76	98	81	100	326	24	46	214
Evermannellidae	1	3	1	1	1	-	-	-	-
Paralepididae	1	3	5	10	3	-	-	3	6
<i>Lestidiops ringens</i>	50	80	58	63	67	232	36	52	231
<i>Notolepis risso</i>	9	12	9	7	9	12	2	8	18
<i>Paralepis atlantica</i>	-	-	-	-	1	-	-	-	-
<i>Stemonosudis macrura</i>	4	6	-	2	6	5	-	1	1
<i>Sudis atrox</i>	2	4	-	2	4	-	-	-	-
<i>Aulopus</i> spp.	-	-	-	-	-	1	-	-	-
<i>Scopelosaurus</i> spp.	16	10	8	16	19	21	6	3	36
Scopelarchidae	67	60	50	21	33	114	29	13	93

TABLE 5. (cont.)

NAME	1961	1962	1963	1964	1965	1966	1967	1968	1969
Myctophidae									
<i>Ceratoscopelus townsendi</i>	165	151	179	220	222	346	33	79	329
<i>Diaphus</i> spp.	149	157	128	146	156	302	37	23	153
<i>Lampadena urophaos</i>	77	56	46	101	80	187	46	34	110
<i>Lampanyctus</i> spp.	53	45	50	25	32	62	10	1	23
<i>Lampanyctus regalis</i>	148	139	199	155	183	401	67	65	550
<i>Lampanyctus ritteri</i>	13	12	2	20	9	46	12	11	19
<i>Notolychnus valdiviae</i>	154	204	120	189	234	523	43	72	155
<i>Notoscopelus resp. lendens</i>	29	13	22	16	21	22	7	1	10
<i>Parvilux ingens</i>	59	41	50	39	44	54	11	3	29
<i>Stenobrachius leucopsarus</i>	-	-	-	-	-	-	-	-	1
<i>Triphoturus mexicanus</i>	177	179	186	342	263	420	31	127	390
<i>Triphoturus nigrescens</i>	407	422	451	448	494	990	142	92	556
<i>Benthosema pterota</i>	4	-	-	-	1	3	-	-	-
<i>Centrobranchus</i> spp.	-	10	-	2	2	-	1	2	-
<i>Diogenichthys</i> spp.	54	62	88	61	11	165	16	13	79
<i>Diogenichthys atlanticus</i>	102	155	92	111	116	171	38	46	210
<i>Diogenichthys laternatus</i>	94	127	161	163	249	361	63	32	210
<i>Electrona rissoi</i>	3	5	-	3	2	3	-	-	7
<i>Gonichthys tenuiculus</i>	20	24	29	46	81	146	16	12	48
<i>Hygophum</i> spp.	4	3	29	6	11	4	-	-	13
<i>Hygophum atratum</i>	27	38	41	44	103	178	21	6	81
<i>Hygophum reinhardtii</i>	39	58	27	20	27	9	7	-	10
<i>Loweina rara</i>	8	4	5	4	8	6	1	-	11
<i>Nyctophum nitidulum</i>	46	42	31	32	19	58	11	8	59
<i>Protomyctophum crockeri</i>	247	252	225	292	261	671	109	139	717
<i>Protomyctophum thompsoni</i>	-	-	-	-	-	-	-	-	9
<i>Symbolophorus californiensis</i>	82	140	78	116	111	291	38	61	157
<i>Tarletonbeania crenularis</i>	160	115	111	140	132	208	10	73	277
<i>Synodus</i> spp.	19	23	41	35	42	121	23	-	54
<i>Bregmaceros</i> spp.	-	-	-	3	-	2	-	-	-
<i>Microgadus proximus</i>	152	228	229	290	290	398	25	95	361
<i>Merluccius productus</i>	-	1	1	1	3	2	1	-	2
<i>Physiculus</i> spp.	4	6	6	5	3	5	2	3	14
Macrouridae	16	16	35	49	37	69	10	16	45
Ophidiiformes	-	2	3	3	7	17	5	8	16
<i>Brosmophycis marginata</i>	-	-	-	-	-	-	-	-	-
Carapidae	-	1	-	1	-	-	-	-	-
<i>Chilara taylori</i>	12	31	15	11	29	55	15	-	28
<i>Ophidion scrippsae</i>	2	10	61	19	40	67	-	-	34
<i>Porichthys</i> spp.	1	-	1	1	-	1	1	-	2
Ceratioidei	15	26	17	7	18	43	-	-	30
Gobiesocidae	3	-	5	8	9	12	-	-	1
Exocoetidae	2	-	1	3	2	10	-	2	5
Hemiramphidae	-	-	-	2	1	-	-	-	-
<i>Cololabis saira</i>	11	6	13	22	9	31	3	10	32
Atherinidae	-	-	9	23	8	11	2	2	5
Trachipteridae	-	27	20	22	19	75	6	9	80
Eutaeniophoridae	-	-	-	-	-	-	-	-	5



TABLE 5. (cont.)

NAME	1961	1962	1963	1964	1965	1966	1967	1968	1969
<i>Melamphaes</i> spp.	117	106	134	114	151	340	68	84	333
<i>Poromitra</i> spp.	13	18	28	28	32	51	6	14	27
<i>Scopeloberyx robustus</i>	4	2	2	-	7	-	-	-	2
<i>Scopelogadus bispinosus</i>	18	34	10	31	13	60	4	5	17
<i>Macroramphosus gracilis</i>	3	6	6	3	7	6	7	-	11
<i>Syngnathus</i> spp.	6	5	8	12	12	15	6	3	10
Agonidae	3	6	16	24	22	20	5	4	9
<i>Anoplopoma fimbria</i>	-	-	-	1	-	-	-	-	-
Cottidae	11	21	33	45	37	43	5	12	40
<i>Scorpaenichthys marmoratus</i>	3	3	7	13	20	15	-	5	24
Cyclopteridae	8	2	12	14	16	14	4	4	17
Hexagrammidae	-	1	-	2	1	1	-	1	6
<i>Ophiodon elongatus</i>	6	3	-	-	13	7	-	5	1
<i>Oxylebius pictus</i>	2	9	12	11	7	26	7	3	20
<i>Zaniolepis</i> spp.	-	1	2	-	-	1	1	-	19
Scorpaenidae	-	11	17	16	25	62	8	3	12
<i>Scorpaena</i> spp.	311	273	289	492	387	698	81	207	705
<i>Sebastes</i> spp.	8	2	17	20	20	87	4	14	47
<i>Sebastolobus</i> spp.	10	9	40	15	30	25	-	19	19
<i>Prionotus</i> spp.	-	-	1	-	-	-	-	-	-
Acanthuridae	1	-	14	6	4	-	3	-	4
Blennoidei	11	14	68	69	73	77	19	6	61
<i>Hypsoblennius</i> spp.	12	21	31	44	64	51	9	10	51
Clinidae	31	41	87	80	104	198	36	19	138
Gobiidae	1	1	1	1	-	3	-	-	1
<i>Icosteus aenigmaticus</i>	-	2	9	-	7	-	2	3	-
Labridae	12	12	40	18	36	50	4	1	28
<i>Halichoeres</i> spp.	23	22	34	15	31	97	23	15	58
<i>Oxyjulis californica</i>	6	10	21	7	27	28	4	-	8
<i>Semicossyphus pulcher</i>	-	-	10	4	8	5	-	-	-
Pomacentridae	3	21	42	13	39	105	5	1	54
<i>Chromis punctipinnis</i>	-	-	1	-	8	1	-	-	-
<i>Hypsypops rubicundus</i>	-	-	-	1	1	5	1	-	-
<i>Mugil</i> spp.	-	-	-	-	1	1	-	-	-
Apogonidae	16	7	-	5	4	3	1	1	4
<i>Howella brodiei</i>	21	17	17	7	9	21	1	-	12
<i>Brama</i> spp.	-	1	20	14	25	13	2	-	3
Carangidae	5	12	15	7	14	30	5	4	9
<i>Seriola lalandi</i>	144	208	199	206	214	503	76	85	248
<i>Trachurus symmetricus</i>	-	-	2	1	1	1	-	-	-
<i>Caristius macropus</i>	-	7	2	1	10	5	1	-	1
<i>Coryphaena hippurus</i>	-	-	1	-	-	-	-	-	-
<i>Chaetodipterus zonatus</i>	-	2	15	10	14	12	2	-	4
Gerreidae	-	1	13	16	11	17	-	-	4
Haemulidae	5	1	11	3	3	4	3	7	7
<i>Girella nigricans</i>	4	11	13	4	5	22	6	3	12
<i>Medialuna californiensis</i>	4	3	2	3	7	5	1	-	2
<i>Caulolatilus princeps</i>	4	-	2	3	2	5	1	-	-
Mullidae	-	-	2	-	-	-	-	-	-

TABLE 5. (cont.)

NAME	1961	1962	1963	1964	1965	1966	1967	1968	1969
Sciaenidae	28	42	85	135	147	157	32	38	195
Serranidae	10	6	68	38	59	91	23	2	72
Sparidae	-	-	1	-	-	1	-	-	-
Polynemidae	7	15	6	5	8	7	-	-	1
Gempylidae	3	-	3	2	4	-	8	2	2
Scombridae	-	-	2	-	8	4	-	-	2
Auxis spp.	7	3	10	8	9	29	1	-	30
<i>Sarda chiliensis</i>	26	32	57	39	34	68	14	-	24
<i>Scomber japonicus</i>	1	-	1	1	5	3	-	-	-
<i>Scomberomorus</i> spp.	10	23	27	17	27	74	10	-	23
Trichiuridae	6	6	22	10	25	31	7	4	15
<i>Sphyræna argentea</i>	38	39	52	78	53	131	18	48	202
<i>Icichthys lockingtoni</i>	-	-	1	1	1	2	-	-	1
Nomeidae	-	-	19	18	45	52	22	11	45
<i>Peprilus simillimus</i>	2	19	19	18	45	52	22	11	45
<i>Tetragonurus cuvieri</i>	45	76	98	46	31	74	36	5	48
Chiasmodontidae	25	22	39	13	40	60	6	10	41
Pleuronectiformes	2	-	13	7	4	-	1	1	7
<i>Bothus</i> spp.	-	-	2	-	-	-	-	-	-
<i>Citharichthys</i> spp.	186	221	281	243	342	590	108	101	611
<i>Citharichthys stigmaeus</i>	50	97	65	73	65	171	19	42	269
<i>Hippoglossina stomata</i>	24	15	44	42	44	83	12	5	52
<i>Paralichthys californicus</i>	21	37	57	96	107	81	13	13	60
<i>Syacium ovale</i>	-	-	3	-	1	3	-	-	-
<i>Xystreurus liolepis</i>	1	9	15	18	8	30	4	-	22
<i>Glyptocephalus zachirus</i>	2	-	9	18	4	36	-	14	15
<i>Hypopsetta guttulata</i>	1	-	4	5	10	3	-	-	6
<i>Lepidopsetta bilineata</i>	1	1	-	1	2	3	2	2	1
<i>Lyopsetta exilis</i>	32	31	33	46	33	72	4	20	65
<i>Microstomus pacificus</i>	2	-	11	13	16	52	13	17	56
<i>Parophrys vetulus</i>	14	32	41	41	81	80	6	21	80
<i>Platichthys stellatus</i>	-	-	-	-	-	3	-	-	-
<i>Pleuronichthys</i> spp.	4	3	10	12	1	-	10	3	1
<i>Pleuronichthys coenosus</i>	2	2	6	9	5	11	1	3	15
<i>Pleuronichthys decurrens</i>	1	4	-	1	4	11	1	2	11
<i>Pleuronichthys ritteri</i>	5	3	12	12	9	8	2	1	7
<i>Pleuronichthys verticalis</i>	10	47	56	74	88	81	24	18	66
<i>Psettichthys melanostictus</i>	1	1	5	12	9	10	-	4	14
<i>Symphurus</i> spp.	18	41	73	48	75	138	10	-	71
Soleidae	-	-	-	-	1	-	-	-	-
Tetraodontidae	-	-	-	-	3	-	-	-	-
Disintegrated fish larva	184	223	274	311	319	542	84	74	458
Unidentified fish larva	147	147	256	217	263	485	60	72	422

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