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

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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)[1]. 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^2 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. $3m^3/m$ of depth) over the vertical range of most ichthyoplankters. Hauls were made at a ship speed of 1.5-2.0 knots and initiated by clamping the net 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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[1]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° (±3°) 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 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 m^2 of sea surface. The SHF is calculated for each haul by the formula:

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

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

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

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

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

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

p = length of 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 *Stenobrachius 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.

LITERATURE CITED

Ahlstrom, E. H. 1948. A record of pilchard eggs and larvae collected during surveys made in 1939 to 1941. U.S. Fish Wildl. Serv. SSRF 54, 82 p.

Ahlstrom, E. H. 1953. Pilchard eggs and larvae and other fish larvae, Pacific Coast - 1951. U.S. Fish Wildl. Serv. SSRF 102, 55 p.

Ahlstrom, E. H., H. G. Moser, and E. M. Sandknop. 1978. Distributional atlas of fish larvae in the California Current region: rockfishes, *Sebastes* spp., 1950 through 1975. CalCOFI Atlas No. 26:xxi + 178 p.

Ambrose, D. A., R. L. Charter, H. G. Moser, and C. R. Santos Methot. 1987a. Ichthyoplankton and station data for California Cooperative Oceanic Fisheries Investigations survey cruises in 1951. U.S. Dep. Commer., NOAA Tech. Memo., NMFS, SWFC, No. 79, 196 p.

Ambrose, D. A., R. L. Charter, H. G. Moser, and C. R. Santos Methot. 1987b. Ichthyoplankton and station data for California Cooperative Oceanic Fisheries Investigations survey cruises in 1955. U.S. Dep. Commer., NOAA Tech. Memo., NMFS, SWFC, No. 83, 185 p.

Ambrose, D. A., R. L. Charter, H. G. Moser, and C. R. Santos Methot. 1987c. Ichthyoplankton and station data for California Cooperative Oceanic Fisheries Investigations survey cruises in 1960. U.S. Dep. Commer., NOAA Tech. Memo., NMFS, SWFC, No. 88, 253 p.

Ambrose, D. A., R. L. Charter, H. G. Moser, and B. S. Earhart. 1988a. Ichthyoplankton and station data for California Cooperative Oceanic Fisheries Investigations survey cruises in 1963. U.S. Dep. Commer., NOAA Tech. Memo., NMFS, SWFC, No. 94, 209 p.

Ambrose, D. A., R. L. Charter, H. G. Moser, and B. S. Earhart. 1988b. Ichthyoplankton and station data for California Cooperative Oceanic Fisheries Investigations survey cruises in 1967. U.S. Dep. Commer., NOAA Tech. Memo., NMFS, SWFC, No. 98, 103 p.

Haight, C. A., H. G. Moser, and P. E. Smith. 1979. Data entry programs: CalCOFI. II. Fish eggs and larvae identification sheet. National Marine Fisheries Service, Southwest Fisheries Center, La Jolla, Admin. Rept. No. LJ-79-25.

Hewitt, R. 1980. Distributional atlas of fish larvae in the California Current region: northern anchovy, *Engraulis mordax* Girard, 1966 through 1979. CalCOFI Atlas No. 28: ix + 101 p.

Kramer, D., M. Kalin, E. G. Stevens, J. R. Thrailkill, and J. R. Zweifel. 1972. Collecting and processing data on fish eggs and larvae in the California Current Region. NOAA Tech. Rep. NMFS Circ. 370, 38 p.

Nelson, J. S. 1984. Fishes of the world. John Wiley and Sons, N.Y., 523 p.

Powles, H. and D. F. Markle. 1984. Identification of larvae, p. 31-33. *In*: Ontogeny and systematics of fishes. H. G. Moser, W. J. Richards, D. M. Cohen, M. P. Fahay, A. W. Kendall, Jr., and S. L. Richardson (eds.). Spec. Publ. No. 1. Amer. Soc. Ichthyol. Herpetol., 760 p.

Sandknop, E. M., R. L. Charter, H. G. Moser, and J. D. Ryan. 1987a. Ichthyoplankton and station data for California Cooperative Oceanic Fisheries Investigations survey cruises in 1952. U.S. Dep. Commer., NOAA Tech. Memo., NMFS, SWFC, No. 80, 207 p.

Sandknop, E. M., R. L. Charter, H. G. Moser, and J. D. Ryan. 1987b. Ichthyoplankton and station data for California Cooperative Oceanic Fisheries Investigations survey cruises in 1958. U.S. Dep. Commer. NOAA Tech. Memo., NMFS, SWFC, No. 86, 248 p.

Sandknop, E. M., R. L. Charter, H. G. Moser, C. A. Meyer, and A. E. Hays. 1988a. Ichthyoplankton and station data for California Cooperative Oceanic Fisheries Investigations survey cruises in 1961. U.S. Dep. Commer., NOAA Tech. Memo., NMFS, SWFC, No. 92, 167 p.

Sandknop, E. M., R. L. Charter, H. G. Moser, C. A. Meyer, and A. E. Hays. 1988b. Ichthyoplankton and station data for California Cooperative Oceanic Fisheries Investigations survey cruises in 1964. U.S. Dep. Commer., NOAA Tech. Memo., NMFS, SWFC, No. 95, 222 p.

Smith, P. E. and S. L. Richardson. 1977. Standard techniques for pelagic fish egg and larva surveys. FAO Fish. Tech. Pap. No. 175, 100 p.

Staff, South Pacific Fishery Investigations. 1953. Zooplankton volumes off the Pacific Coast, 1952. U.S. Fish Wildl. Serv. SSRF 100, 41 p.

Stevens, E. G., R. L. Charter, H. G. Moser, and M. S. Busby. 1987a. Ichthyoplankton and station data for California

Cooperative Oceanic Fisheries Investigations survey cruises in 1953. U.S. Dep. Commer., NOAA Tech. Memo., NMFS, SWFC, No. 81, 186 p.

Stevens, E. G., R. L. Charter, H. G. Moser, and M. S. Busby. 1987b. Ichthyoplankton and station data for California Cooperative Oceanic Fisheries Investigations survey cruises in 1956. U.S. Dep. Commer., NOAA Tech. Memo., NMFS, SWFC, No. 84, 189 p.

Stevens, E. G., R. L. Charter, H. G. Moser, and M. S. Busby. 1987c. Ichthyoplankton and station data for California Cooperative Oceanic Fisheries Investigations survey cruises in 1959. U.S. Dep. Commer., NOAA Tech. Memo., NMFS, SWFC, No. 87, 273 p.

Stevens, E. G., R. L. Charter, H. G. Moser, and L. R. Zins. 1988. Ichthyoplankton and station data for California Cooperative Oceanic Fisheries Investigations survey cruises in 1965. U.S. Dep. Commer., NOAA Tech. Memo., NMFS, SWFC, No. 96, 220 p.

Sumida, B. Y., R. L. Charter, H. G. Moser, and D. L. Snow. 1987a. Ichthyoplankton and station data for California Cooperative Oceanic Fisheries Investigations survey cruises in 1954. U.S. Dep. Commer., NOAA Tech. Memo., NMFS, SWFC, No. 82, 207 p.

Sumida, B. Y., R. L. Charter, H. G. Moser, and D. L. Snow. 1987b. Ichthyoplankton and station data for California Cooperative Oceanic Fisheries Investigations survey cruises in 1957. U.S. Dep. Commer., NOAA Tech. Memo., NMFS, SWFC, No. 85, 225 p.

Sumida, B. Y., R. L. Charter, H. G. Moser, and D. L. Snow. 1988a. Ichthyoplankton and station data for California Cooperative Oceanic Fisheries Investigations survey cruises in 1962. U.S. Dep. Commer., NOAA Tech. Memo., NMFS, SWFC, No. 93, 179 p.

Sumida, B. Y., R. L. Charter, H. G. Moser, and D. L. Snow. 1988b. Ichthyoplankton and station data for California Cooperative Oceanic Fisheries Investigations survey cruises in 1966. U.S. Dep. Commer., NOAA Tech. Memo., NMFS, SWFC, No. 97, 287 p.

University of California, Scripps Institution of Oceanography. 1971. Data report: physical and chemical data, CalCOFI Cruises 6801, 6804, 6806. SIO Ref. 71-3.

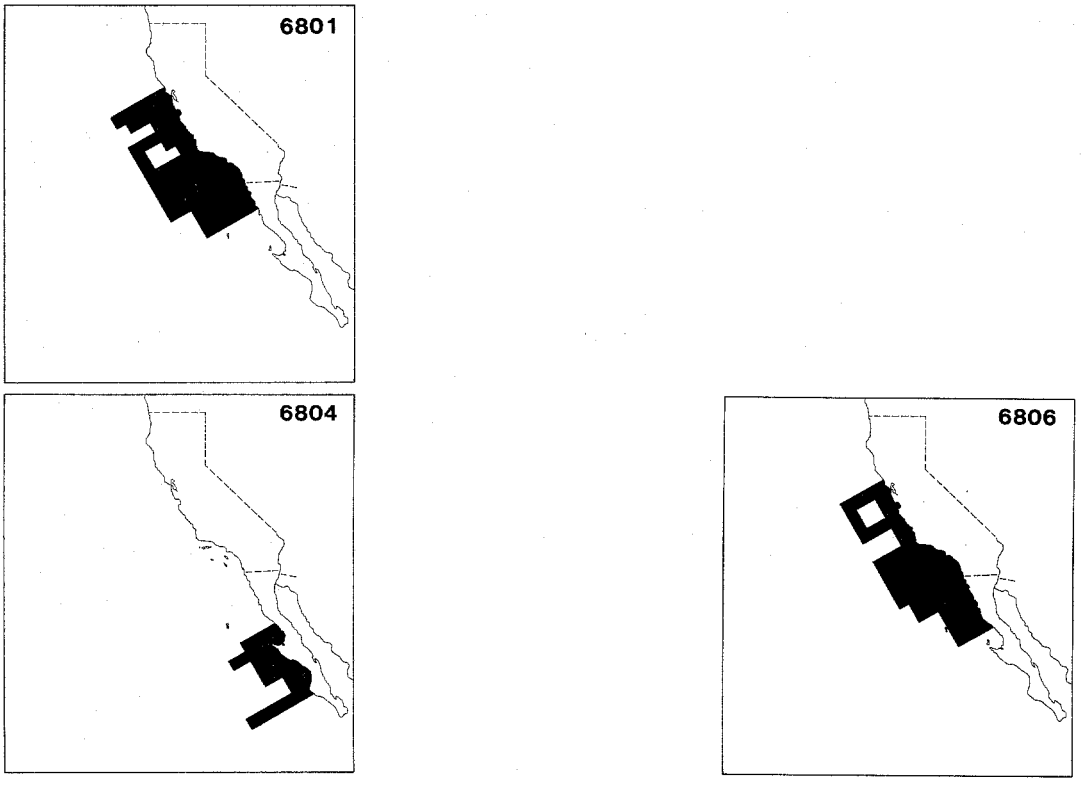

Figure 1. Composite arrangement of diagrammatic charts showing areas sampled on each CalCOFI cruise during 1968.

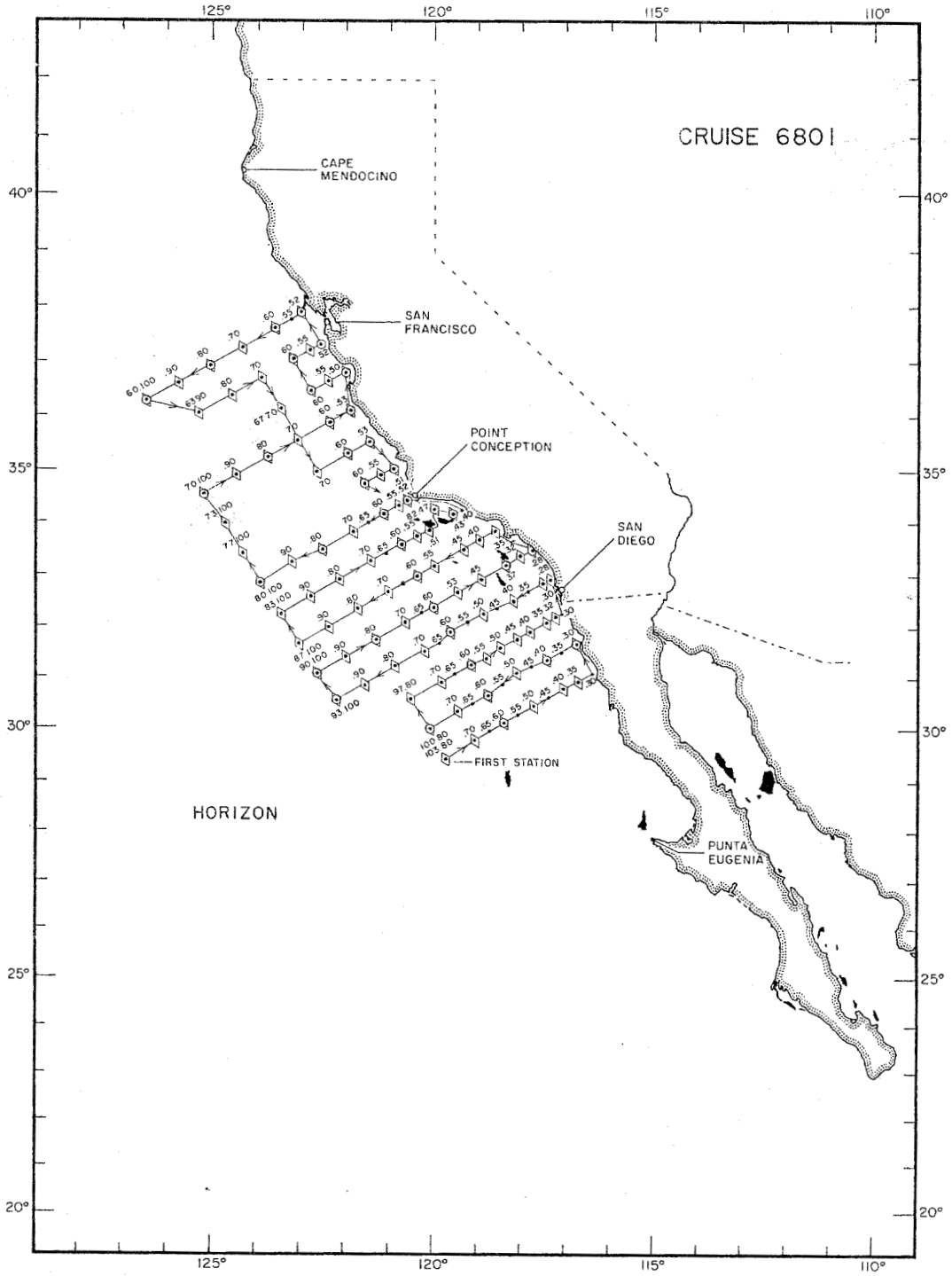

Figure 2. Station pattern for CalCOFI Cruise 6801 showing tracks for each vessel. Stations with plankton tows are indicated by a dot; circles designate hydrographic stations and diamonds signify STD recordings. Figures 2-4 modified from charts in Univ. of Calif., SIO (1971) to include only those stations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

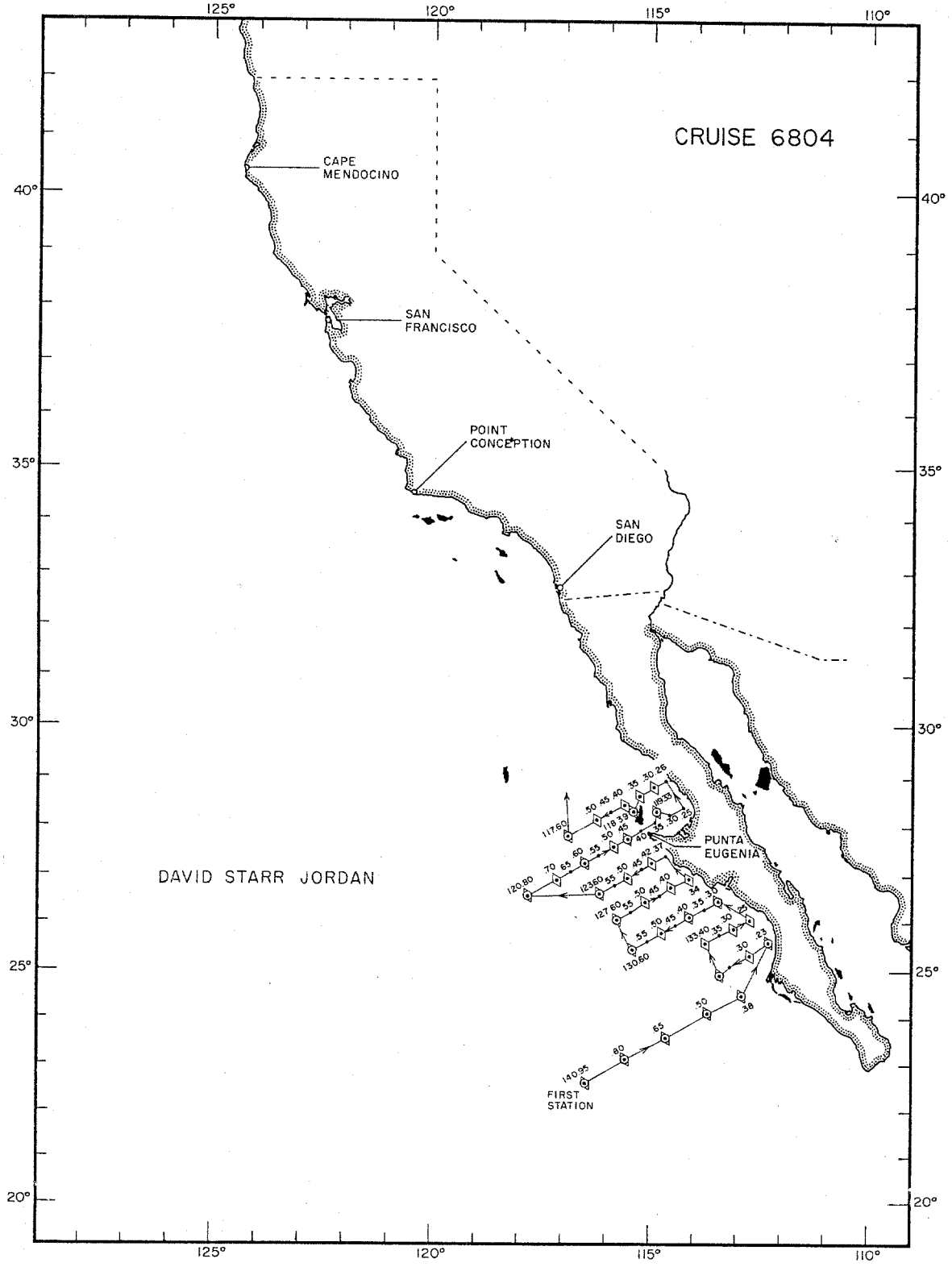

Figure 3. Station pattern for CalCOFI Cruise 6804. Symbols as in Figure 2.

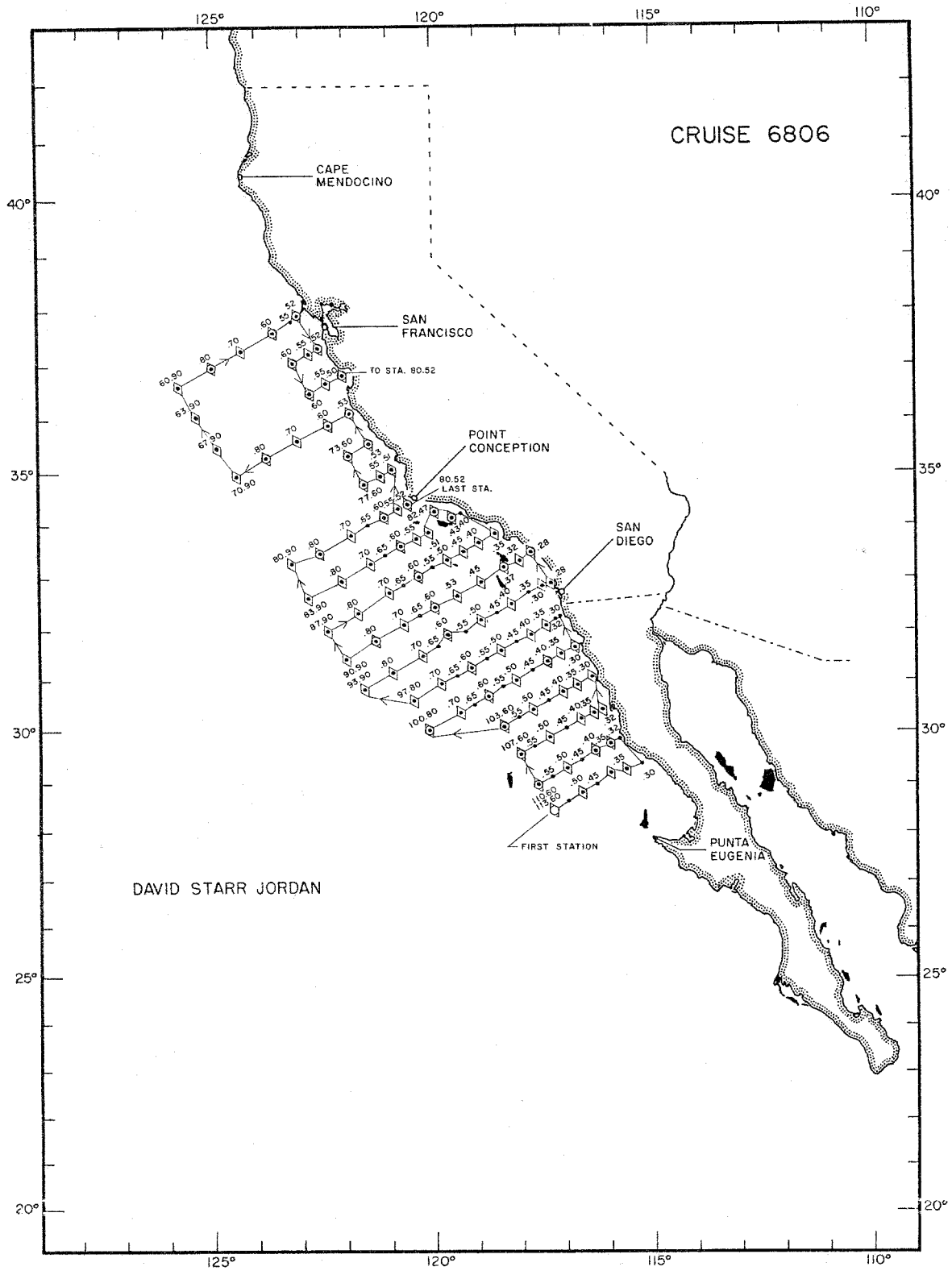

Figure 4. Station pattern for CalCOFI Cruise 6806. Symbols as in Figure 2.

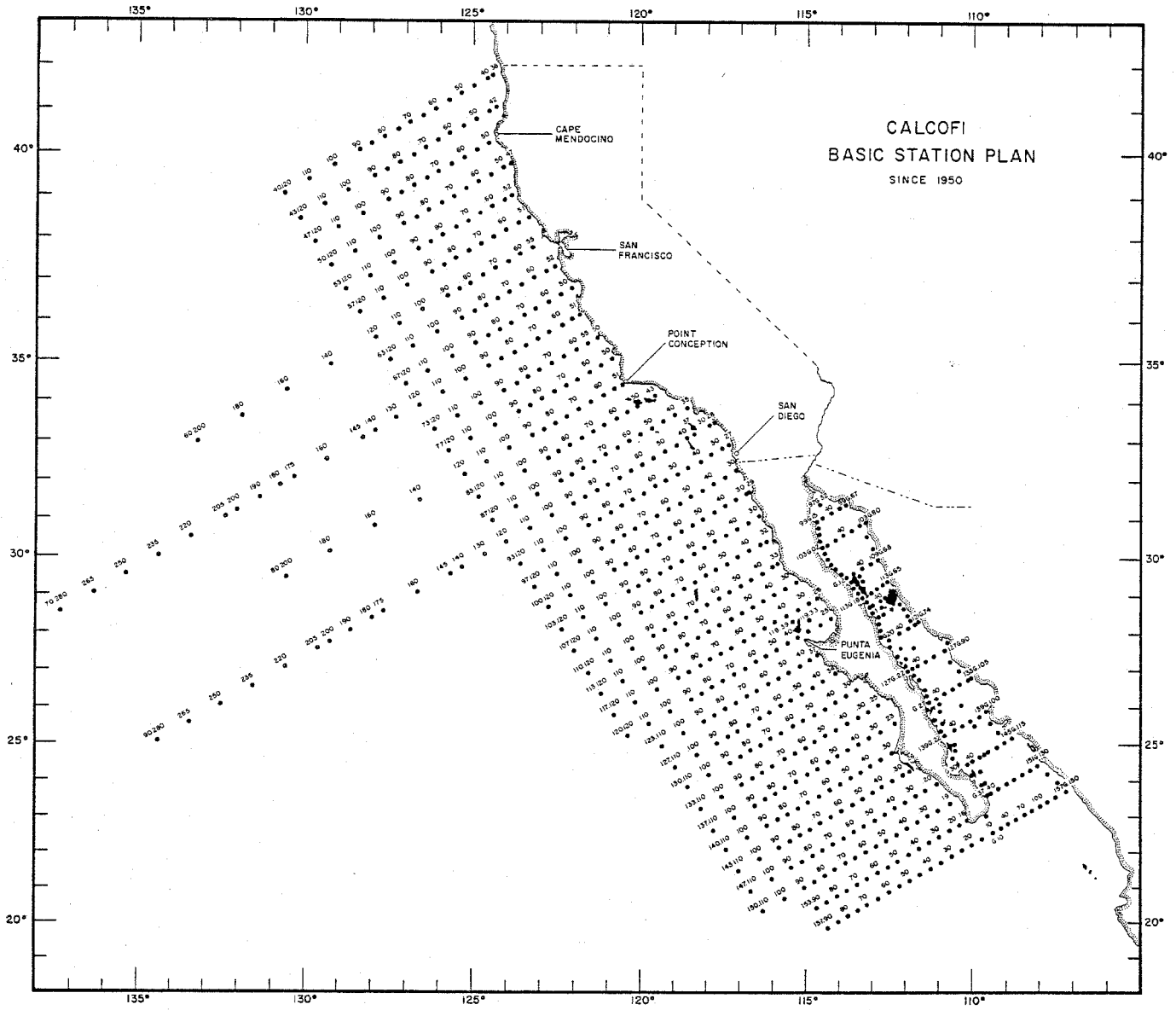

Figure 5. The basic station plan for CalCOFI cruises from 1950 to the present.

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	80.0	33 28.7	122 32.0	HO	68 01 19	1410	145	479	3.01	100.0	18	5
80.0	90.0	33 14.0	123 13.0	HO	68 01 19	1756	143	478	3.00	100.0	31	2
80.0	100.0	32 50.0	123 55.8	HO	68 01 19	2251	138	510	2.70	100.0	29	9
82.0	47.0	34 15.0	119 59.0	HO	68 01 18	0231	138	483	2.85	100.0	666	1042
83.0	40.0	34 14.0	119 22.0	HO	68 01 18	0759	19	147	1.26	100.0	236	4456
83.0	43.0	34 09.6	119 34.3	HO	68 01 18	0541	139	472	2.94	100.0	303	1396
83.0	51.0	33 52.2	120 07.3	HO	68 01 17	2212	91	429	2.13	100.0	893	134
83.0	55.0	33 44.0	120 24.5	HO	68 01 17	2001	133	487	2.73	100.0	842	440
83.0	60.0	33 34.2	120 45.5	HO	68 01 17	1744	144	467	3.08	100.0	171	310
83.0	65.0	33 24.0	121 06.0	HO	68 01 17	1421	141	481	2.93	100.0	9	33
83.0	70.0	33 14.8	121 27.0	HO	68 01 17	1146	147	460	3.20	100.0	16	27
83.0	80.0	32 54.0	122 08.0	HO	68 01 17	0706	130	519	2.49	100.0	8	17
83.0	90.0	32 35.0	132 48.2	HO	68 01 17	0241	134	458	2.93	100.0	9	5
83.0	100.0	32 14.0	123 23.0	HO	68 01 16	2221	137	475	2.89	100.0	52	7
87.0	33.0	33 54.2	118 29.4	HO	68 01 15	0429	47	195	2.42	100.0	194	250
87.0	35.0	33 50.0	118 37.5	HO	68 01 15	0541	144	438	3.29	100.0	153	209
87.0	40.0	33 40.0	118 58.0	HO	68 01 15	0821	141	456	3.09	100.0	224	408
87.0	45.0	33 29.1	119 19.7	HO	68 01 15	1106	137	458	2.99	100.0	133	240
87.0	55.0	33 10.0	120 00.0	HO	68 01 15	2131	123	522	2.36	100.0	276	546
87.0	60.0	32 59.0	120 23.2	HO	68 01 16	0027	146	482	2.83	100.0	586	351
87.0	65.0	32 49.2	120 43.5	HO	68 01 16	0237	137	483	3.21	100.0	26	24
87.0	70.0	32 39.5	121 02.0	HO	68 01 16	0506	130	506	2.57	100.0	284	153
87.0	80.0	32 21.4	121 45.0	HO	68 01 16	0946	135	516	2.62	100.0	20	8
87.0	90.0	31 59.0	122 24.0	HO	68 01 16	1355	136	478	2.85	100.0	30	14
87.0	100.0	31 40.0	123 04.0	HO	68 01 16	1801	143	466	3.06	100.0	46	5
90.0	28.0	33 28.4	117 46.6	HO	68 01 14	2351	146	436	3.35	100.0	192	45
90.0	32.0	33 22.0	118 02.5	HO	68 01 14	2118	133	452	2.94	100.0	185	79
90.0	37.0	33 11.0	118 22.5	HO	68 01 14	1856	143	475	3.00	100.0	280	397
90.0	45.0	32 54.2	118 55.5	HO	68 01 14	1441	147	438	3.35	100.0	756	478
90.0	53.0	32 39.2	119 27.8	HO	68 01 14	1107	137	470	2.93	100.0	113	183
90.0	60.0	32 22.0	120 00.0	HO	68 01 14	0736	140	467	3.00	100.0	24	8
90.0	65.0	32 16.8	120 17.3	HO	68 01 14	0431	138	466	2.96	100.0	112	18
90.0	70.0	32 04.8	120 39.0	HO	68 01 14	0211	145	438	3.31	100.0	34	10
90.0	80.0	31 45.0	121 19.0	HO	68 01 13	2150	139	473	2.93	100.0	45	10
90.0	90.0	31 24.0	122 02.0	HO	68 01 13	1646	135	500	2.69	100.0	24	17
90.0	100.0	31 05.0	122 38.0	HO	68 01 13	1206	146	444	3.27	100.0	28	12
93.0	27.0	32 56.0	117 19.0	HO	68 01 11	1854	27	163	1.65	100.0	29	151
93.0	28.0	32 54.7	117 21.8	HO	68 01 11	1941	126	503	2.50	100.0	141	313
93.0	30.0	32 50.3	117 31.4	HO	68 01 11	2126	129	487	2.65	100.0	236	487
93.0	35.0	32 40.4	117 51.5	HO	68 01 11	2340	147	416	3.52	100.0	251	507
93.0	40.0	32 29.9	118 11.5	HO	68 01 12	0216	1	446	3.21	100.0	93	33
93.0	45.0	32 21.7	118 33.0	HO	68 01 12	0433	134	475	2.82	100.0	139	133
93.0	50.0	32 14.7	118 53.0	HO	68 01 12	0706	144	466	3.09	100.0	237	120
93.0	55.0	32 05.2	119 15.0	HO	68 01 12	0916	146	459	3.18	100.0	424	306
93.0	60.0	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	65.0	31	40.0	119	53.5	HO	68	01	12	1446	132	491	2.68	100.0	23	10
93.0	70.0	31	31.0	120	13.8	HO	68	01	12	1722	109	535	2.02	100.0	30	21
93.0	80.0	31	12.9	120	54.1	HO	68	01	12	2131	127	503	2.52	100.0	110	89
93.0	90.0	30	50.0	121	34.5	HO	68	01	13	0201	138	468	2.95	100.0	62	16
93.0	100.0	30	32.8	122	13.2	HO	68	01	13	0701	139	478	2.90	100.0	23	13
97.0	29.0	32	17.5	117	04.7	HO	68	01	11	0645	27	138	1.98	100.0	894	1028
97.0	30.0	32	16.0	117	07.0	HO	68	01	11	0616	30	148	2.04	100.0	199	103
97.0	32.0	32	12.0	117	15.2	HO	68	01	11	0504	141	450	3.13	100.0	568	346
97.0	35.0	32	05.3	117	27.5	HO	68	01	11	0321	137	459	2.99	100.0	370	1000
97.0	40.0	31	54.5	117	50.0	HO	68	01	11	0036	139	466	2.97	100.0	528	298
97.0	45.0	31	46.0	118	08.5	HO	68	01	10	2203	129	507	2.54	100.0	291	152
97.0	50.0	31	36.0	118	30.5	HO	68	01	10	1916	122	457	2.67	100.0	234	342
97.0	55.0	31	23.2	118	50.0	HO	68	01	10	1641	142	460	3.10	100.0	130	282
97.0	60.0	31	15.5	119	10.0	HO	68	01	10	1406	135	491	2.76	100.0	19	328
97.0	65.0	31	03.9	119	31.0	HO	68	01	10	1031	143	447	3.20	100.0	50	4
97.0	70.0	30	54.2	119	50.0	HO	68	01	10	0816	134	492	2.71	100.0	14	13
97.0	80.0	30	35.0	120	31.0	HO	68	01	10	0346	148	447	3.31	100.0	47	23
100.0	29.0	31	42.2	116	43.4	HO	68	01	08	1808	81	274	2.96	100.0	328	14
100.0	30.0	31	40.5	116	46.5	HO	68	01	08	1936	147	442	3.32	100.0	309	18
100.0	35.0	31	30.8	117	07.4	HO	68	01	08	2223	131	507	2.59	100.0	85	27
100.0	40.0	31	20.7	117	26.8	HO	68	01	09	0151	146	452	3.23	100.0	221	13
100.0	45.0	31	14.2	117	48.1	HO	68	01	09	0401	146	449	3.25	100.0	189	503
100.0	50.0	31	05.0	118	07.7	HO	68	01	09	0641	145	441	3.29	100.0	296	521
100.0	55.0	30	52.0	118	26.8	HO	68	01	09	0901	121	534	2.27	100.0	220	860
100.0	60.0	30	39.1	118	47.0	HO	68	01	09	1231	138	467	2.96	100.0	21	11
100.0	65.0	30	30.0	119	07.5	HO	68	01	09	1507	148	427	3.46	100.0	8	21
100.0	70.0	30	20.5	119	27.5	HO	68	01	09	1736	136	476	2.85	100.0	12	14
100.0	80.0	30	00.0	120	04.5	HO	68	01	09	2251	117	535	2.19	100.0	117	28
103.0	29.0	31	07.0	116	21.0	HO	68	01	08	1354	22	185	1.16	100.0	114	135
103.0	30.0	31	06.0	116	24.5	HO	68	01	08	1309	31	229	1.35	100.0	177	92
103.0	35.0	30	56.0	116	45.0	HO	68	01	08	1036	125	540	2.31	100.0	9	107
103.0	40.0	30	47.2	117	05.2	HO	68	01	08	0744	125	551	2.27	100.0	20	30
103.0	45.0	30	37.5	117	24.8	HO	68	01	08	0456	125	565	2.22	100.0	130	26
103.0	50.0	30	27.0	117	44.8	HO	68	01	08	0231	149	447	3.32	100.0	31	17
103.0	55.0	30	16.6	118	05.0	HO	68	01	07	2336	140	502	2.80	100.0	96	9
103.0	60.0	30	07.1	118	24.2	HO	68	01	07	2131	137	515	2.65	100.0	105	16
103.0	65.0	29	58.0	118	44.8	HO	68	01	07	1716	146	451	3.24	100.0	38	16
103.0	70.0	29	46.5	119	04.0	HO	68	01	07	1501	142	467	3.04	100.0	22	34
103.0	80.0	29	24.0	119	43.2	HO	68	01	07	1011	133	519	2.56	100.0	25	17

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)	Standard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
117.0	25.0	28	58.0	114	36.6	JD	68	05	05	0650	47	204	2.31	100.0	6	0
117.0	26.0	28	56.0	114	41.3	JD	68	05	05	0745	64	248	2.59	100.0	0	2
117.0	30.0	28	48.0	114	56.5	JD	68	05	05	1000	92	358	2.58	100.0	40	702
117.0	35.0	28	38.0	115	16.0	JD	68	05	05	1235	139	479	2.91	100.0	14	63
117.0	40.0	28	28.0	115	35.5	JD	68	05	05	1805	137	484	2.82	100.0	4	36
117.0	45.0	28	18.0	115	56.0	JD	68	05	05	2050	143	464	3.08	100.0	18	24
117.0	50.0	28	08.0	116	15.0	JD	68	05	05	2340	141	445	3.17	100.0	49	25
117.0	60.0	27	48.0	116	53.0	JD	68	05	06	0650	139	469	2.97	100.0	14	46
118.0	39.0	28	18.5	115	23.7	JD	68	05	05	1540	140	464	3.02	100.0	1	46
119.0	33.0	28	19.0	114	53.0	JD	68	05	04	2030	102	373	2.73	100.0	83	457
120.0	24.0	28	24.0	114	10.7	JD	68	05	05	0200	27	130	2.06	100.0	37	0
120.0	25.0	28	22.5	114	15.0	JD	68	05	05	0110	46	195	2.36	100.0	70	3
120.0	30.0	28	13.0	114	33.5	JD	68	05	04	2245	75	309	2.41	100.0	18	754
120.0	35.0	28	03.0	114	54.0	JD	68	05	04	1755	68	254	2.67	100.0	5	45
120.0	40.0	27	56.5	115	14.0	JD	68	05	04	1510	29	179	1.63	100.0	5	280
120.0	45.0	27	44.4	115	31.5	JD	68	05	04	1245	142	458	3.10	100.0	5	47
120.0	50.0	27	35.0	115	51.0	JD	68	05	04	0905	137	478	2.86	100.0	11	84
120.0	55.0	27	24.6	116	11.0	JD	68	05	04	0605	139	463	3.00	100.0	3	134
120.0	60.0	27	14.1	116	30.5	JD	68	05	04	0320	142	476	2.98	100.0	21	390
120.0	65.0	27	03.9	116	50.0	JD	68	05	03	2320	143	461	3.09	100.0	42	805
120.0	70.0	26	53.0	117	09.9	JD	68	05	03	2045	142	495	2.87	100.0	51	60
120.0	80.0	26	32.5	117	49.0	JD	68	05	03	1550	141	502	2.80	100.0	37	35
123.0	36.0	27	26.2	114	36.0	JD	68	05	02	1415	30	155	1.95	100.0	2	82
123.0	37.0	27	24.0	114	40.0	JD	68	05	02	1505	63	260	2.41	100.0	9	169
123.0	42.0	27	14.0	114	59.0	JD	68	05	02	1800	137	529	2.59	100.0	2	6
123.0	45.0	27	07.3	115	11.5	JD	68	05	02	2000	134	507	2.64	100.0	19	105
123.0	50.0	26	57.3	115	30.5	JD	68	05	02	2255	136	485	2.80	100.0	96	67
123.0	55.0	26	46.5	115	49.9	JD	68	05	03	0140	142	468	3.03	100.0	116	194
123.0	60.0	26	38.0	116	09.9	JD	68	05	03	0510	148	442	3.34	100.0	34	54
127.0	33.0	26	57.5	114	02.2	JD	68	05	01	0950	60	186	3.25	100.0	7	90
127.0	34.0	26	55.0	114	06.5	JD	68	05	01	0855	68	217	3.12	100.0	3	161
127.0	40.0	26	44.3	114	30.3	JD	68	05	01	0350	137	508	2.69	100.0	93	150
127.0	45.0	26	33.6	114	48.7	JD	68	05	01	0035	142	500	2.84	100.0	67	115
127.0	50.0	26	23.8	115	08.0	JD	68	04	30	2145	138	509	2.72	100.0	53	74
127.0	55.0	26	13.5	115	27.0	JD	68	04	30	1845	136	521	2.60	100.0	439	1361
127.0	60.0	26	03.5	115	47.6	JD	68	04	30	1555	139	522	2.65	100.0	104	229
130.0	28.0	26	33.2	113	20.9	JD	68	04	29	1307	48	201	2.36	100.0	3	147
130.0	30.0	26	28.8	113	28.5	JD	68	04	29	1450	61	262	2.31	100.0	2	210
130.0	35.0	26	18.7	113	48.2	JD	68	04	29	1720	139	513	2.71	100.0	21	31
130.0	40.0	26	09.0	114	07.0	JD	68	04	29	2050	136	520	2.61	100.0	20	10
130.0	45.0	25	58.5	114	26.5	JD	68	04	29	2326	135	509	2.66	100.0	103	124
130.0	50.0	25	49.0	114	45.0	JD	68	04	30	0241	141	486	2.89	100.0	124	34
130.0	55.0	25	39.0	115	04.0	JD	68	04	30	0526	142	476	2.97	100.0	12	420
130.0	60.0	25	29.0	115	24.0	JD	68	04	30	0920	139	428	3.24	100.0	41	585
133.0	23.0	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	25.0	26	02.7	112	43.9	JD	68	04	29	0703	73	309	2.35	100.0	2	5
133.0	30.0	25	53.5	113	07.0	JD	68	04	29	0325	137	529	2.58	100.0	49	40
133.0	35.0	25	44.5	113	26.5	JD	68	04	29	0025	130	547	2.37	100.0	46	16
133.0	40.0	25	34.6	113	45.4	JD	68	04	28	2125	141	485	2.90	100.0	20	202
137.0	22.0	25	36.0	112	14.8	JD	68	04	27	1800	57	210	2.71	100.0	6	114
137.0	23.0	25	34.0	112	18.8	JD	68	04	27	1925	84	306	2.72	100.0	32	195
137.0	30.0	25	19.0	112	44.3	JD	68	04	27	2306	140	516	2.71	100.0	67	137
137.0	35.0	25	06.0	113	10.5	JD	68	04	28	0201	142	472	3.00	100.0	43	533
137.0	40.0	24	53.4	113	24.5	JD	68	04	28	0625	142	507	2.79	100.0	16	129
140.0	38.0	24	29.7	112	52.8	JD	68	04	27	0715	140	501	2.79	100.0	25	51
140.0	50.0	24	07.2	113	40.1	JD	68	04	26	2226	134	535	2.50	100.0	108	45
140.0	65.0	23	34.0	114	39.0	JD	68	04	26	1125	139	492	2.83	100.0	45	189
140.0	80.0	23	07.0	115	34.0	JD	68	04	25	0031	141	529	2.66	100.0	70	30
140.0	95.0	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)	Standard Haul Factor	Percent Sorted	Total Larvae	Total Eggs
60.0	52.0	37	52.5	123	04.0	JD	68	06	19	1558	65	222	2.91	100.0	1	4
60.0	55.0	37	47.5	123	14.5	JD	68	06	19	1417	127	382	3.31	100.0	11	2
60.0	60.0	37	36.5	123	38.5	JD	68	06	19	1152	142	415	3.41	100.0	12	15
60.0	70.0	37	17.0	124	21.0	JD	68	06	19	0706	140	422	3.31	100.0	78	40
60.0	80.0	36	57.4	125	00.0	JD	68	06	19	0301	140	409	3.42	100.0	71	109
60.0	90.0	36	36.9	125	47.0	JD	68	06	18	2106	144	416	3.46	100.0	158	302
63.0	52.0	37	19.0	122	36.0	JD	68	06	20	1203	69	211	3.24	100.0	5	6
63.0	55.0	37	12.4	122	49.6	JD	68	06	20	1359	140	397	3.53	100.0	323	19
63.0	60.0	37	02.7	123	11.5	JD	68	06	20	1711	131	458	2.87	100.0	28	2
63.0	90.0	36	02.0	125	22.0	JD	68	06	18	1631	140	421	3.33	100.0	38	96
67.0	50.0	36	49.1	122	04.7	JD	68	06	21	0402	86	301	2.86	100.0	22	64
67.0	55.0	36	39.0	122	25.9	JD	68	06	21	0059	141	408	3.46	100.0	62	26
67.0	60.0	36	28.2	122	47.2	JD	68	06	20	2216	141	410	3.43	100.0	105	151
67.0	90.0	35	28.0	124	55.0	JD	68	06	18	1126	141	425	3.30	100.0	17	35
70.0	51.0	36	11.3	121	43.9	JD	68	06	17	0906	140	411	3.41	100.0	45	1
70.0	53.0	36	06.5	121	54.0	JD	68	06	17	1146	138	456	3.02	100.0	8	4
70.0	60.0	35	52.2	122	24.0	JD	68	06	17	1532	139	349	3.98	100.0	27	108
70.0	70.0	35	33.0	123	05.0	JD	68	06	17	2051	137	416	3.30	100.0	56	10
70.0	80.0	35	14.1	123	45.7	JD	68	06	18	0046	137	405	3.39	100.0	28	95
70.0	90.0	34	53.2	124	27.8	JD	68	06	18	0622	132	430	3.07	100.0	36	95
73.0	50.0	35	37.0	121	17.0	JD	68	06	17	0503	85	122	6.95	100.0	13	4
73.0	53.0	35	31.5	121	28.5	JD	68	06	17	0326	140	194	7.17	100.0	12	10
73.0	60.0	35	17.8	121	57.3	JD	68	06	16	2317	142	312	4.54	100.0	67	107
77.0	48.0	35	08.3	120	43.7	JD	68	06	16	1028	22	59	3.64	100.0	3	58
77.0	51.0	35	01.8	120	56.8	JD	68	06	16	1230	138	315	4.38	100.0	14	1
77.0	55.0	34	53.8	121	12.2	JD	68	06	16	1446	139	421	3.30	100.0	43	194
77.0	60.0	34	44.5	121	34.0	JD	68	06	16	1756	131	396	3.30	100.0	29	28
80.0	51.0	34	26.0	120	32.6	JD	68	06	21	1918	83	274	3.03	100.0	3	7
80.0	52.0	34	24.5	120	36.5	JD	68	06	21	2046	138	460	2.99	100.0	19	15
80.0	55.0	34	19.0	120	48.0	JD	68	06	16	0511	133	409	3.25	100.0	25	12
80.0	60.0	34	09.0	121	09.5	JD	68	06	16	0232	140	418	3.35	100.0	55	35
80.0	65.0	33	58.8	121	29.9	JD	68	06	15	2321	140	465	3.00	100.0	29	47
80.0	70.0	33	48.2	121	51.8	JD	68	06	15	2056	141	456	3.08	100.0	77	692
80.0	80.0	33	29.1	122	33.1	JD	68	06	15	1501	141	449	3.13	100.0	6	10
80.0	90.0	33	14.0	123	13.2	JD	68	06	15	0914	144	425	3.39	100.0	9	15
82.0	47.0	34	15.0	119	59.0	JD	68	06	13	0051	136	453	2.98	100.0	21	3
83.0	40.0	34	14.0	119	22.0	JD	68	06	13	1935	15	96	1.51	100.0	97	775
83.0	43.0	34	08.0	119	34.0	JD	68	06	13	2136	142	330	4.28	100.0	55	34
83.0	51.0	33	52.0	120	08.5	JD	68	06	14	0457	66	187	3.52	100.0	18	20
83.0	55.0	33	44.9	120	22.5	JD	68	06	14	0726	138	315	4.38	100.0	19	59
83.0	60.0	33	34.0	121	45.0	JD	68	06	14	1106	142	449	3.17	100.0	32	22
83.0	65.0	33	23.8	121	05.8	JD	68	06	14	1326	142	469	3.03	100.0	35	82
83.0	70.0	33	14.5	121	26.0	JD	68	06	14	1630	139	411	3.37	100.0	33	257
83.0	80.0	33	55.0	122	07.2	JD	68	06	14	2201	142	439	3.23	100.0	103	229
83.0	90.0	32	35.0	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	33.0	33 54.2	118 29.4	JD	68 06 13	1449	31	129	2.42	100.0	37	130
87.0	35.0	33 50.0	118 37.5	JD	68 06 13	1344	127	482	2.63	100.0	158	31
87.0	40.0	33 40.0	118 58.0	JD	68 06 13	1106	136	433	3.14	100.0	87	18
87.0	45.0	33 30.0	119 19.0	JD	68 06 13	0825	136	429	3.17	100.0	141	146
87.0	50.0	33 20.0	119 39.5	JD	68 06 13	0520	42	136	3.11	100.0	171	151
87.0	55.0	33 09.7	119 59.8	JD	68 06 13	0236	132	465	2.82	100.0	367	138
87.0	60.0	33 00.0	120 20.0	JD	68 06 12	0001	122	493	2.48	100.0	77	365
87.0	65.0	32 51.0	120 41.0	JD	68 06 12	2006	144	434	3.30	100.0	33	87
87.0	70.0	32 41.8	121 01.2	JD	68 06 12	1621	141	433	3.26	100.0	17	80
87.0	80.0	32 19.1	121 43.8	JD	68 06 12	1100	143	436	3.28	100.0	57	68
87.0	90.0	31 58.8	122 27.1	JD	68 06 12	0440	137	444	3.08	100.0	19	40
90.0	28.0	33 28.5	117 46.7	JD	68 06 10	1506	141	435	3.25	100.0	168	84
90.0	32.0	33 20.0	118 02.0	JD	68 06 10	1722	142	420	3.37	100.0	136	109
90.0	37.0	33 10.8	118 22.6	JD	68 06 10	2045	144	454	3.16	100.0	1118	475
90.0	45.0	32 54.5	118 55.0	JD	68 06 11	0036	140	420	3.34	100.0	290	434
90.0	53.0	32 38.2	119 28.2	JD	68 06 11	0415	140	430	3.26	100.0	50	115
90.0	60.0	32 25.3	119 58.0	JD	68 06 11	0951	141	413	3.41	100.0	75	565
90.0	65.0	32 14.5	120 18.0	JD	68 06 11	1156	129	434	2.96	100.0	61	167
90.0	70.0	32 05.0	120 39.9	JD	68 06 11	1441	138	398	3.47	100.0	219	244
90.0	80.0	31 46.3	121 19.2	JD	68 06 11	1931	140	417	3.35	100.0	49	244
90.0	90.0	31 25.0	122 00.0	JD	68 06 11	0001	140	427	3.27	100.0	55	851
93.0	27.0	32 56.0	117 19.0	JD	68 06 10	0538	63	226	2.80	100.0	206	37
93.0	28.0	32 54.7	117 21.8	JD	68 06 10	0506	139	406	3.42	100.0	625	227
93.0	30.0	32 50.4	117 31.0	JD	68 06 10	0332	139	416	3.33	100.0	752	323
93.0	35.0	32 42.2	117 50.4	JD	68 06 10	0056	137	425	3.21	100.0	977	433
93.0	40.0	32 30.1	118 12.0	JD	68 06 09	2230	141	412	3.41	100.0	217	338
93.0	45.0	32 20.1	118 32.9	JD	68 06 09	1945	142	422	3.36	100.0	805	29
93.0	50.0	32 11.1	118 52.8	JD	68 06 09	1726	140	374	3.73	100.0	346	272
93.0	55.0	31 59.0	119 16.2	JD	68 06 09	1401	141	441	3.20	100.0	25	96
93.0	60.0	31 55.2	119 40.0	JD	68 06 09	1104	145	431	3.36	100.0	23	95
93.0	65.0	31 40.0	119 53.0	JD	68 06 09	0720	140	418	3.34	100.0	38	83
93.0	70.0	31 29.0	120 15.0	JD	68 06 09	0415	138	456	3.01	100.0	224	204
93.0	80.0	31 09.2	120 56.0	JD	68 06 08	2346	142	425	3.32	100.0	39	221
93.0	90.0	30 49.4	121 35.5	JD	68 06 08	1919	142	426	3.32	100.0	22	118
97.0	29.0	32 17.5	117 04.7	JD	68 06 07	0459	41	146	2.82	100.0	64	56
97.0	30.0	32 16.0	117 07.0	JD	68 06 07	0533	50	199	2.50	100.0	61	40
97.0	32.0	32 12.0	117 15.2	JD	68 06 07	0641	139	450	3.08	100.0	301	37
97.0	35.0	32 05.5	117 27.5	JD	68 06 07	0852	142	451	3.14	100.0	106	56
97.0	40.0	31 55.0	117 47.5	JD	68 06 07	1216	140	426	3.29	100.0	59	157
97.0	45.0	31 45.8	118 08.0	JD	68 06 07	1511	139	373	3.73	100.0	77	197
97.0	50.0	31 35.5	118 29.6	JD	68 06 07	1825	140	434	3.23	100.0	95	176
97.0	55.0	31 25.3	118 49.0	JD	68 06 07	2105	143	417	3.41	100.0	29	152
97.0	60.0	31 15.1	119 09.0	JD	68 06 07	0020	139	407	3.41	100.0	21	130
97.0	65.0	31 05.2	119 28.5	JD	68 06 08	0243	140	420	3.34	100.0	30	225
97.0	70.0	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	30	35.5	120	29.0	JD	68	06	08	1125	144	419	3.43	100.0	69	761
100.0	29.0	31	42.2	116	43.4	JD	68	06	06	0033	84	278	3.01	100.0	75	191
100.0	30.0	31	40.5	116	46.5	JD	68	06	06	2341	140	457	3.06	100.0	150	151
100.0	35.0	31	30.5	117	07.0	JD	68	06	06	2010	135	499	2.69	100.0	962	300
100.0	40.0	31	22.3	117	26.7	JD	68	06	06	1701	142	447	3.16	100.0	19	22
100.0	45.0	31	12.6	117	46.7	JD	68	06	06	1306	139	441	3.15	100.0	12	9
100.0	50.0	31	00.5	118	08.1	JD	68	06	06	1010	143	465	3.07	100.0	48	467
100.0	55.0	30	51.0	118	26.7	JD	68	06	06	0657	138	440	3.14	100.0	15	58
100.0	60.0	30	41.0	118	46.9	JD	68	06	06	0352	140	462	3.02	100.0	56	67
100.0	65.0	30	31.5	119	05.5	JD	68	06	06	0036	139	450	3.08	100.0	76	249
100.0	70.0	30	21.8	119	24.3	JD	68	06	05	2216	144	441	3.26	100.0	121	416
100.0	80.0	30	00.5	120	07.6	JD	68	06	05	1716	139	440	3.16	100.0	34	75
103.0	29.0	31	07.6	116	21.6	JD	68	06	04	1029	28	104	2.68	100.0	14	19
103.0	30.0	31	06.0	116	24.5	JD	68	06	04	1123	65	165	3.92	100.0	31	34
103.0	35.0	30	55.8	116	44.5	JD	68	06	04	1353	139	431	3.23	100.0	5	4
103.0	40.0	30	45.5	117	05.7	JD	68	06	04	1711	141	433	3.25	100.0	5	42
103.0	45.0	30	36.0	117	24.0	JD	68	06	04	2001	133	443	2.99	100.0	18	75
103.0	50.0	30	26.3	117	44.5	JD	68	06	04	2301	138	445	3.11	100.0	364	289
103.0	55.0	30	16.5	118	04.9	JD	68	06	05	0116	141	421	3.35	100.0	528	189
103.0	60.0	30	06.8	118	25.0	JD	68	06	05	0426	139	441	3.15	100.0	52	155
107.0	31.0	30	27.8	116	07.0	JD	68	06	04	0619	40	142	2.78	100.0	27	84
107.0	32.0	30	25.8	116	11.0	JD	68	06	04	0526	122	413	2.96	100.0	83	39
107.0	35.0	30	21.3	116	22.5	JD	68	06	04	0334	140	441	3.17	100.0	28	16
107.0	40.0	30	13.7	116	39.5	JD	68	06	04	0111	139	452	3.06	100.0	123	12
107.0	45.0	30	03.0	117	00.1	JD	68	06	03	2231	140	419	3.34	100.0	176	99
107.0	50.0	29	52.2	117	21.0	JD	68	06	03	2006	143	438	3.25	100.0	85	91
107.0	55.0	29	41.5	117	41.5	JD	68	06	03	1700	142	386	3.66	100.0	137	153
107.0	60.0	29	31.2	118	01.0	JD	68	06	03	1359	140	465	3.02	100.0	94	126
110.0	32.0	29	51.0	115	48.7	JD	68	06	02	1434	33	131	2.53	100.0	87	160
110.0	35.0	29	46.1	115	59.6	JD	68	06	02	1646	140	435	3.22	100.0	11	31
110.0	40.0	29	36.6	116	19.7	JD	68	06	02	1940	141	434	3.25	100.0	56	62
110.0	45.0	29	26.8	116	39.7	JD	68	06	02	2216	141	436	3.22	100.0	345	137
110.0	50.0	29	17.0	116	59.3	JD	68	06	03	0051	140	451	3.09	100.0	104	108
110.0	55.0	29	07.0	117	19.6	JD	68	06	03	0311	133	430	3.08	100.0	92	166
110.0	60.0	28	56.7	117	38.3	JD	68	06	03	0741	138	440	3.14	100.0	68	33
113.0	29.0	29	24.2	115	13.2	JD	68	06	02	0954	34	144	2.36	100.0	2	75
113.0	30.0	29	22.2	115	18.3	JD	68	06	02	0858	57	186	3.04	100.0	5	8
113.0	35.0	29	11.5	115	38.3	JD	68	06	02	0626	139	437	3.17	100.0	28	26
113.0	40.0	29	09.7	115	59.0	JD	68	06	02	0326	138	451	3.06	100.0	31	4
113.0	45.0	28	57.6	116	18.7	JD	68	06	02	0036	139	472	2.95	100.0	124	25
113.0	50.0	28	45.8	116	37.7	JD	68	06	01	2201	124	510	2.43	100.0	146	159
113.0	55.0	28	34.0	116	56.7	JD	68	06	01	1813	140	465	3.01	100.0	118	88
113.0	60.0	28	22.0	117	15.8	JD	68	06	01	1646	140	466	3.01	100.0	23	42

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

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

TABLE 2. (cont.)

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

TABLE 2. (cont.)

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

TABLE 3. (cont.)

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

TABLE 3. (cont.)

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

Etrumeus acuminatus

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
100.0	35.0	0.0	–	–	–	–	2.7	–	–	–	–	–	–

Sardinops sagax

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
67.0	90.0	–	–	–	–	–	3.3	–	–	–	–	–	–
97.0	29.0	15.8	–	–	–	–	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	–	–	–	–	–	–	–

Engraulis mordax

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	55.0	2.6	–	–	–	–	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	-	-	-	-	669.7	-	-	-	-	-	-
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	373.3	–	–	–	–	70.0	–	–	–	–	–	–
97.0	32.0	1414.8	–	–	–	–	822.4	–	–	–	–	–	–
97.0	35.0	1034.5	–	–	–	–	295.2	–	–	–	–	–	–
97.0	40.0	1390.0	–	–	–	–	26.3	–	–	–	–	–	–
97.0	45.0	693.4	–	–	–	–	44.8	–	–	–	–	–	–
97.0	50.0	611.4	–	–	–	–	216.4	–	–	–	–	–	–
97.0	55.0	288.3	–	–	–	–	3.4	–	–	–	–	–	–
97.0	60.0	11.0	–	–	–	–	0.0	–	–	–	–	–	–
97.0	65.0	44.8	–	–	–	–	0.0	–	–	–	–	–	–
100.0	29.0	858.4	–	–	–	–	168.6	–	–	–	–	–	–
100.0	30.0	591.0	–	–	–	–	241.7	–	–	–	–	–	–
100.0	35.0	191.7	–	–	–	–	2501.7	–	–	–	–	–	–
100.0	40.0	629.8	–	–	–	–	6.3	–	–	–	–	–	–
100.0	45.0	588.3	–	–	–	–	18.9	–	–	–	–	–	–
100.0	50.0	954.1	–	–	–	–	104.4	–	–	–	–	–	–
100.0	55.0	410.9	–	–	–	–	0.0	–	–	–	–	–	–
100.0	60.0	11.8	–	–	–	–	0.0	–	–	–	–	–	–
103.0	29.0	69.6	–	–	–	–	16.1	–	–	–	–	–	–
103.0	30.0	67.5	–	–	–	–	78.4	–	–	–	–	–	–
103.0	35.0	4.6	–	–	–	–	6.5	–	–	–	–	–	–
103.0	40.0	43.1	–	–	–	–	6.5	–	–	–	–	–	–
103.0	45.0	204.2	–	–	–	–	47.8	–	–	–	–	–	–
103.0	50.0	39.8	–	–	–	–	488.3	–	–	–	–	–	–
103.0	55.0	44.8	–	–	–	–	1195.9	–	–	–	–	–	–
103.0	60.0	119.3	–	–	–	–	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	3.0	-	-	-	-	0.0	-	-	-	-	-	-
67.0	55.0	3.2	-	-	-	-	0.0	-	-	-	-	-	-
80.0	51.0	6.8	-	-	-	-	0.0	-	-	-	-	-	-
80.0	60.0	0.0	-	-	-	-	3.3	-	-	-	-	-	-
80.0	65.0	0.0	-	-	-	-	9.0	-	-	-	-	-	-
82.0	47.0	8.6	-	-	-	-	0.0	-	-	-	-	-	-
83.0	43.0	11.8	-	-	-	-	0.0	-	-	-	-	-	-
87.0	35.0	16.5	-	-	-	-	0.0	-	-	-	-	-	-
90.0	28.0	13.4	-	-	-	-	0.0	-	-	-	-	-	-
93.0	28.0	17.5	-	-	-	-	0.0	-	-	-	-	-	-
93.0	30.0	2.7	-	-	-	-	0.0	-	-	-	-	-	-
93.0	35.0	14.1	-	-	-	-	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	12.5	–	–	–	–	0.0	–	–	–	–	–	–
97.0	35.0	0.0	–	–	–	–	3.1	–	–	–	–	–	–
100.0	30.0	23.2	–	–	–	–	0.0	–	–	–	–	–	–
100.0	35.0	5.2	–	–	–	–	0.0	–	–	–	–	–	–
110.0	35.0	–	–	–	–	–	3.2	–	–	–	–	–	–
117.0	30.0	–	–	–	–	5.2	–	–	–	–	–	–	–

Microstoma microstoma

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
73.0	60.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
80.0	60.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
80.0	65.0	3.1	–	–	–	–	0.0	–	–	–	–	–	–
80.0	70.0	2.9	–	–	–	–	0.0	–	–	–	–	–	–
80.0	80.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
80.0	90.0	0.0	–	–	–	–	3.4	–	–	–	–	–	–
83.0	60.0	0.0	–	–	–	–	3.2	–	–	–	–	–	–
83.0	65.0	0.0	–	–	–	–	6.1	–	–	–	–	–	–
83.0	90.0	2.9	–	–	–	–	0.0	–	–	–	–	–	–
87.0	70.0	2.6	–	–	–	–	0.0	–	–	–	–	–	–
90.0	65.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
93.0	28.0	0.0	–	–	–	–	3.4	–	–	–	–	–	–
93.0	60.0	0.0	–	–	–	–	6.7	–	–	–	–	–	–
97.0	50.0	0.0	–	–	–	–	3.2	–	–	–	–	–	–
97.0	65.0	3.2	–	–	–	–	0.0	–	–	–	–	–	–
97.0	80.0	3.3	–	–	–	–	0.0	–	–	–	–	–	–
103.0	50.0	3.3	–	–	–	–	0.0	–	–	–	–	–	–
103.0	55.0	0.0	–	–	–	–	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	13.6	–	–	–	–	0.0	–	–	–	–	–	–
60.0	90.0	2.9	–	–	–	–	0.0	–	–	–	–	–	–
63.0	70.0	7.9	–	–	–	–	–	–	–	–	–	–	–
63.0	80.0	2.6	–	–	–	–	–	–	–	–	–	–	–
67.0	60.0	0.0	–	–	–	–	3.4	–	–	–	–	–	–
70.0	60.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
70.0	90.0	0.0	–	–	–	–	3.1	–	–	–	–	–	–
70.0	100.0	3.0	–	–	–	–	–	–	–	–	–	–	–
73.0	60.0	0.0	–	–	–	–	9.1	–	–	–	–	–	–
73.0	100.0	2.8	–	–	–	–	–	–	–	–	–	–	–
87.0	80.0	0.0	–	–	–	–	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	3.0	–	–	–	–	0.0	–	–	–	–	–	–
63.0 70.0	5.3	–	–	–	–	–	–	–	–	–	–	–
63.0 80.0	2.6	–	–	–	–	–	–	–	–	–	–	–
67.0 70.0	22.5	–	–	–	–	–	–	–	–	–	–	–
70.0 80.0	2.8	–	–	–	–	0.0	–	–	–	–	–	–
70.0 90.0	0.0	–	–	–	–	3.1	–	–	–	–	–	–
77.0 55.0	34.6	–	–	–	–	0.0	–	–	–	–	–	–
80.0 51.0	2.3	–	–	–	–	0.0	–	–	–	–	–	–
80.0 60.0	9.8	–	–	–	–	0.0	–	–	–	–	–	–
80.0 65.0	12.4	–	–	–	–	0.0	–	–	–	–	–	–
80.0 70.0	11.7	–	–	–	–	3.1	–	–	–	–	–	–
82.0 47.0	8.6	–	–	–	–	0.0	–	–	–	–	–	–
83.0 55.0	10.9	–	–	–	–	0.0	–	–	–	–	–	–
83.0 60.0	6.2	–	–	–	–	0.0	–	–	–	–	–	–
87.0 33.0	2.4	–	–	–	–	0.0	–	–	–	–	–	–
87.0 35.0	9.9	–	–	–	–	0.0	–	–	–	–	–	–
87.0 55.0	9.4	–	–	–	–	2.8	–	–	–	–	–	–
87.0 70.0	5.1	–	–	–	–	0.0	–	–	–	–	–	–
90.0 28.0	3.3	–	–	–	–	0.0	–	–	–	–	–	–
90.0 32.0	2.9	–	–	–	–	0.0	–	–	–	–	–	–
90.0 80.0	2.9	–	–	–	–	3.3	–	–	–	–	–	–
90.0 90.0	0.0	–	–	–	–	16.4	–	–	–	–	–	–
93.0 28.0	0.0	–	–	–	–	3.4	–	–	–	–	–	–
93.0 50.0	0.0	–	–	–	–	3.7	–	–	–	–	–	–
93.0 70.0	0.0	–	–	–	–	6.0	–	–	–	–	–	–
97.0 29.0	2.0	–	–	–	–	0.0	–	–	–	–	–	–
100.0 60.0	0.0	–	–	–	–	3.0	–	–	–	–	–	–
103.0 45.0	4.4	–	–	–	–	0.0	–	–	–	–	–	–
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	2.6	–	–	–	–	–	–	–	–	–	–	–

Bathylagus ochotensis

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	60.0	18.6	–	–	–	–	0.0	–	–	–	–	–	–
60.0	70.0	144.2	–	–	–	–	6.6	–	–	–	–	–	–
60.0	80.0	206.8	–	–	–	–	13.7	–	–	–	–	–	–
60.0	90.0	49.5	–	–	–	–	152.2	–	–	–	–	–	–
60.0	100.0	3.2	–	–	–	–	–	–	–	–	–	–	–
63.0	52.0	12.3	–	–	–	–	0.0	–	–	–	–	–	–
63.0	55.0	38.4	–	–	–	–	0.0	–	–	–	–	–	–
63.0	60.0	56.2	–	–	–	–	0.0	–	–	–	–	–	–
63.0	70.0	68.6	–	–	–	–	–	–	–	–	–	–	–
63.0	80.0	49.8	–	–	–	–	–	–	–	–	–	–	–
63.0	90.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
67.0	50.0	9.7	–	–	–	–	8.6	–	–	–	–	–	–
67.0	55.0	22.1	–	–	–	–	17.3	–	–	–	–	–	–
67.0	60.0	82.9	–	–	–	–	17.1	–	–	–	–	–	–
67.0	70.0	154.6	–	–	–	–	–	–	–	–	–	–	–
70.0	51.0	2.5	–	–	–	–	0.0	–	–	–	–	–	–
70.0	53.0	58.3	–	–	–	–	3.0	–	–	–	–	–	–
70.0	60.0	15.2	–	–	–	–	4.0	–	–	–	–	–	–
70.0	70.0	5.5	–	–	–	–	16.5	–	–	–	–	–	–
70.0	80.0	5.5	–	–	–	–	13.6	–	–	–	–	–	–
70.0	100.0	15.1	–	–	–	–	–	–	–	–	–	–	–
73.0	50.0	27.2	–	–	–	–	6.9	–	–	–	–	–	–
73.0	53.0	11.2	–	–	–	–	14.3	–	–	–	–	–	–
73.0	60.0	33.1	–	–	–	–	18.2	–	–	–	–	–	–
73.0	70.0	11.7	–	–	–	–	–	–	–	–	–	–	–
77.0	48.0	5.4	–	–	–	–	0.0	–	–	–	–	–	–
77.0	51.0	6.0	–	–	–	–	4.4	–	–	–	–	–	–
77.0	55.0	111.2	–	–	–	–	16.5	–	–	–	–	–	–
77.0	60.0	38.4	–	–	–	–	6.6	–	–	–	–	–	–
77.0	100.0	6.1	–	–	–	–	–	–	–	–	–	–	–
80.0	51.0	2.3	–	–	–	–	0.0	–	–	–	–	–	–
80.0	52.0	0.0	–	–	–	–	3.0	–	–	–	–	–	–
80.0	55.0	3.1	–	–	–	–	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	9.2	–	–	–	–	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	–	–	–	–	–	–

Bathylagus pacificus

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	60.0	2.7	–	–	–	–	0.0	–	–	–	–	–	–
60.0	80.0	4.2	–	–	–	–	0.0	–	–	–	–	–	–
63.0	55.0	14.8	–	–	–	–	0.0	–	–	–	–	–	–
63.0	70.0	2.6	–	–	–	–	–	–	–	–	–	–	–
63.0	80.0	2.6	–	–	–	–	–	–	–	–	–	–	–
67.0	55.0	3.2	–	–	–	–	0.0	–	–	–	–	–	–
67.0	70.0	9.7	–	–	–	–	–	–	–	–	–	–	–
70.0	53.0	3.1	–	–	–	–	0.0	–	–	–	–	–	–
70.0	60.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
73.0	60.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
77.0	51.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
77.0	60.0	5.9	–	–	–	–	0.0	–	–	–	–	–	–
80.0	55.0	3.1	–	–	–	–	0.0	–	–	–	–	–	–
90.0	45.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
97.0	40.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–

Bathylagus wesethi

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
67.0	55.0	0.0	–	–	–	–	3.5	–	–	–	–	–	–
67.0	60.0	0.0	–	–	–	–	3.4	–	–	–	–	–	–
67.0	90.0	–	–	–	–	–	6.6	–	–	–	–	–	–
70.0	60.0	0.0	–	–	–	–	4.0	–	–	–	–	–	–
70.0	90.0	0.0	–	–	–	–	43.0	–	–	–	–	–	–
80.0	70.0	2.9	–	–	–	–	0.0	–	–	–	–	–	–
80.0	80.0	0.0	–	–	–	–	6.3	–	–	–	–	–	–
80.0	90.0	0.0	–	–	–	–	10.2	–	–	–	–	–	–
83.0	80.0	0.0	–	–	–	–	3.2	–	–	–	–	–	–
83.0	90.0	0.0	–	–	–	–	14.9	–	–	–	–	–	–
83.0	100.0	2.9	–	–	–	–	–	–	–	–	–	–	–
87.0	60.0	0.0	–	–	–	–	22.3	–	–	–	–	–	–
87.0	65.0	3.2	–	–	–	–	13.2	–	–	–	–	–	–
87.0	70.0	0.0	–	–	–	–	6.5	–	–	–	–	–	–
87.0	80.0	0.0	–	–	–	–	32.8	–	–	–	–	–	–
87.0	90.0	2.8	–	–	–	–	3.1	–	–	–	–	–	–
87.0	100.0	3.1	–	–	–	–	–	–	–	–	–	–	–
90.0	53.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
90.0	60.0	6.0	–	–	–	–	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	5.3	–	–	–	–	0.0	–	–	–	–	–	–
60.0	60.0	18.6	–	–	–	–	0.0	–	–	–	–	–	–
60.0	80.0	0.0	–	–	–	–	3.4	–	–	–	–	–	–
63.0	52.0	27.7	–	–	–	–	0.0	–	–	–	–	–	–
63.0	55.0	209.4	–	–	–	–	0.0	–	–	–	–	–	–
63.0	60.0	106.1	–	–	–	–	0.0	–	–	–	–	–	–
63.0	70.0	2.6	–	–	–	–	–	–	–	–	–	–	–
67.0	50.0	55.1	–	–	–	–	0.0	–	–	–	–	–	–
67.0	55.0	119.7	–	–	–	–	3.5	–	–	–	–	–	–
67.0	60.0	15.3	–	–	–	–	3.4	–	–	–	–	–	–
67.0	70.0	16.1	–	–	–	–	–	–	–	–	–	–	–
70.0	53.0	76.8	–	–	–	–	0.0	–	–	–	–	–	–
70.0	60.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
70.0	80.0	0.0	–	–	–	–	3.4	–	–	–	–	–	–
73.0	50.0	15.1	–	–	–	–	0.0	–	–	–	–	–	–
73.0	53.0	67.4	–	–	–	–	14.3	–	–	–	–	–	–
73.0	60.0	6.0	–	–	–	–	4.5	–	–	–	–	–	–
77.0	51.0	123.8	–	–	–	–	0.0	–	–	–	–	–	–
77.0	55.0	123.5	–	–	–	–	3.3	–	–	–	–	–	–
80.0	51.0	9.0	–	–	–	–	0.0	–	–	–	–	–	–
80.0	52.0	50.0	–	–	–	–	0.0	–	–	–	–	–	–
80.0	55.0	145.7	–	–	–	–	0.0	–	–	–	–	–	–
80.0	60.0	223.0	–	–	–	–	3.3	–	–	–	–	–	–
80.0	65.0	46.5	–	–	–	–	6.0	–	–	–	–	–	–
80.0	70.0	5.9	–	–	–	–	0.0	–	–	–	–	–	–
82.0	47.0	57.0	–	–	–	–	0.0	–	–	–	–	–	–
83.0	43.0	97.0	–	–	–	–	0.0	–	–	–	–	–	–
83.0	51.0	4.3	–	–	–	–	0.0	–	–	–	–	–	–
83.0	55.0	92.8	–	–	–	–	0.0	–	–	–	–	–	–
83.0	60.0	24.6	–	–	–	–	6.3	–	–	–	–	–	–
83.0	80.0	0.0	–	–	–	–	3.2	–	–	–	–	–	–
87.0	35.0	9.9	–	–	–	–	0.0	–	–	–	–	–	–
87.0	40.0	27.8	–	–	–	–	3.1	–	–	–	–	–	–
87.0	45.0	14.9	–	–	–	–	9.5	–	–	–	–	–	–
87.0	55.0	42.5	–	–	–	–	2.8	–	–	–	–	–	–
87.0	60.0	53.8	–	–	–	–	0.0	–	–	–	–	–	–
87.0	65.0	6.4	–	–	–	–	0.0	–	–	–	–	–	–

TABLE 4. (cont.)

Leuroglossus stilbius (cont.)

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
87.0	80.0	2.6	–	–	–	–	0.0	–	–	–	–	–	–
90.0	28.0	3.3	–	–	–	–	0.0	–	–	–	–	–	–
90.0	32.0	5.9	–	–	–	–	3.4	–	–	–	–	–	–
90.0	37.0	24.0	–	–	–	–	12.6	–	–	–	–	–	–
90.0	45.0	50.3	–	–	–	–	3.3	–	–	–	–	–	–
90.0	53.0	17.6	–	–	–	–	0.0	–	–	–	–	–	–
90.0	65.0	17.8	–	–	–	–	0.0	–	–	–	–	–	–
90.0	80.0	2.9	–	–	–	–	0.0	–	–	–	–	–	–
93.0	28.0	2.5	–	–	–	–	0.0	–	–	–	–	–	–
93.0	30.0	5.3	–	–	–	–	0.0	–	–	–	–	–	–
93.0	35.0	91.5	–	–	–	–	6.4	–	–	–	–	–	–
93.0	40.0	3.2	–	–	–	–	6.8	–	–	–	–	–	–
93.0	45.0	0.0	–	–	–	–	3.4	–	–	–	–	–	–
93.0	50.0	3.1	–	–	–	–	0.0	–	–	–	–	–	–
93.0	55.0	12.7	–	–	–	–	0.0	–	–	–	–	–	–
93.0	60.0	18.0	–	–	–	–	0.0	–	–	–	–	–	–
97.0	32.0	47.0	–	–	–	–	0.0	–	–	–	–	–	–
97.0	35.0	35.9	–	–	–	–	0.0	–	–	–	–	–	–
97.0	40.0	14.9	–	–	–	–	0.0	–	–	–	–	–	–
97.0	45.0	10.2	–	–	–	–	0.0	–	–	–	–	–	–
97.0	55.0	12.4	–	–	–	–	0.0	–	–	–	–	–	–
97.0	60.0	2.8	–	–	–	–	0.0	–	–	–	–	–	–
100.0	30.0	0.0	–	–	–	–	6.1	–	–	–	–	–	–
100.0	35.0	2.6	–	–	–	–	2.7	–	–	–	–	–	–
100.0	40.0	32.3	–	–	–	–	3.2	–	–	–	–	–	–
100.0	50.0	6.6	–	–	–	–	6.1	–	–	–	–	–	–
100.0	55.0	27.2	–	–	–	–	3.1	–	–	–	–	–	–
103.0	45.0	4.4	–	–	–	–	0.0	–	–	–	–	–	–
103.0	50.0	10.0	–	–	–	–	0.0	–	–	–	–	–	–
107.0	32.0	–	–	–	–	–	3.0	–	–	–	–	–	–
107.0	45.0	–	–	–	–	–	6.7	–	–	–	–	–	–
110.0	45.0	–	–	–	–	–	3.2	–	–	–	–	–	–
117.0	30.0	–	–	–	–	2.6	–	–	–	–	–	–	–
117.0	50.0	–	–	–	–	3.2	–	–	–	–	–	–	–
117.0	60.0	–	–	–	–	3.0	–	–	–	–	–	–	–
119.0	33.0	–	–	–	–	5.5	–	–	–	–	–	–	–
120.0	30.0	–	–	–	–	2.4	–	–	–	–	–	–	–
120.0	50.0	–	–	–	–	5.7	–	–	–	–	–	–	–
120.0	65.0	–	–	–	–	6.2	–	–	–	–	–	–	–
123.0	45.0	–	–	–	–	2.6	–	–	–	–	–	–	–
123.0	50.0	–	–	–	–	2.8	–	–	–	–	–	–	–
123.0	55.0	–	–	–	–	15.1	–	–	–	–	–	–	–
123.0	60.0	–	–	–	–	3.3	–	–	–	–	–	–	–
127.0	40.0	–	–	–	–	43.0	–	–	–	–	–	–	–
127.0	45.0	–	–	–	–	22.7	–	–	–	–	–	–	–
127.0	50.0	–	–	–	10.9	–	–	–	–	–	–	–	–

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	2.7	–	–	–	–	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.)

Cyclothone spp. (cont.)

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0	70.0	3.3	–	–	–	–	0.0	–	–	–	–	–	–
90.0	80.0	11.7	–	–	–	–	0.0	–	–	–	–	–	–
90.0	90.0	5.4	–	–	–	–	0.0	–	–	–	–	–	–
90.0	100.0	9.8	–	–	–	–	–	–	–	–	–	–	–
93.0	60.0	18.0	–	–	–	–	3.4	–	–	–	–	–	–
93.0	65.0	10.7	–	–	–	–	0.0	–	–	–	–	–	–
93.0	70.0	6.1	–	–	–	–	6.0	–	–	–	–	–	–
93.0	80.0	103.3	–	–	–	–	0.0	–	–	–	–	–	–
93.0	90.0	8.9	–	–	–	–	0.0	–	–	–	–	–	–
93.0	100.0	5.8	–	–	–	–	–	–	–	–	–	–	–
97.0	65.0	9.6	–	–	–	–	0.0	–	–	–	–	–	–
97.0	70.0	0.0	–	–	–	–	6.7	–	–	–	–	–	–
97.0	80.0	3.3	–	–	–	–	3.4	–	–	–	–	–	–
100.0	60.0	0.0	–	–	–	–	6.0	–	–	–	–	–	–
100.0	65.0	0.0	–	–	–	–	15.4	–	–	–	–	–	–
100.0	70.0	0.0	–	–	–	–	16.3	–	–	–	–	–	–
100.0	80.0	35.0	–	–	–	–	3.2	–	–	–	–	–	–
103.0	29.0	1.2	–	–	–	–	0.0	–	–	–	–	–	–
103.0	45.0	2.2	–	–	–	–	0.0	–	–	–	–	–	–
103.0	55.0	16.8	–	–	–	–	6.7	–	–	–	–	–	–
103.0	60.0	8.0	–	–	–	–	0.0	–	–	–	–	–	–
103.0	65.0	13.0	–	–	–	–	–	–	–	–	–	–	–
103.0	70.0	3.0	–	–	–	–	–	–	–	–	–	–	–
103.0	80.0	2.6	–	–	–	–	–	–	–	–	–	–	–
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.)

Diplophos taenia

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
120.0 80.0	–	–	–	–	2.8	–	–	–	–	–	–	–

Ichthyococcus spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
97.0 60.0	2.8	–	–	–	–	0.0	–	–	–	–	–	–
107.0 60.0	–	–	–	–	–	3.0	–	–	–	–	–	–

Vinciguerria lucetia

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0 52.0	2.2	–	–	–	–	0.0	–	–	–	–	–	–
73.0 100.0	2.8	–	–	–	–	–	–	–	–	–	–	–
83.0 90.0	2.9	–	–	–	–	0.0	–	–	–	–	–	–
87.0 90.0	31.3	–	–	–	–	0.0	–	–	–	–	–	–
87.0 100.0	58.1	–	–	–	–	–	–	–	–	–	–	–
90.0 53.0	2.9	–	–	–	–	0.0	–	–	–	–	–	–
90.0 60.0	18.0	–	–	–	–	0.0	–	–	–	–	–	–
90.0 65.0	74.0	–	–	–	–	3.0	–	–	–	–	–	–
90.0 70.0	13.2	–	–	–	–	0.0	–	–	–	–	–	–
90.0 80.0	46.9	–	–	–	–	0.0	–	–	–	–	–	–
90.0 90.0	40.4	–	–	–	–	0.0	–	–	–	–	–	–
90.0 100.0	45.8	–	–	–	–	–	–	–	–	–	–	–
93.0 50.0	3.1	–	–	–	–	0.0	–	–	–	–	–	–
93.0 60.0	90.0	–	–	–	–	0.0	–	–	–	–	–	–
93.0 65.0	24.1	–	–	–	–	3.3	–	–	–	–	–	–
93.0 70.0	6.1	–	–	–	–	3.0	–	–	–	–	–	–
93.0 80.0	78.1	–	–	–	–	6.6	–	–	–	–	–	–
93.0 90.0	82.6	–	–	–	–	0.0	–	–	–	–	–	–
93.0 100.0	14.5	–	–	–	–	–	–	–	–	–	–	–
97.0 55.0	0.0	–	–	–	–	3.4	–	–	–	–	–	–
97.0 60.0	2.8	–	–	–	–	0.0	–	–	–	–	–	–
97.0 65.0	12.8	–	–	–	–	0.0	–	–	–	–	–	–
97.0 70.0	16.3	–	–	–	–	6.7	–	–	–	–	–	–
97.0 80.0	19.9	–	–	–	–	13.7	–	–	–	–	–	–
100.0 60.0	3.0	–	–	–	–	48.3	–	–	–	–	–	–
100.0 65.0	3.5	–	–	–	–	3.1	–	–	–	–	–	–
100.0 70.0	8.6	–	–	–	–	32.6	–	–	–	–	–	–
100.0 80.0	124.8	–	–	–	–	56.9	–	–	–	–	–	–
103.0 45.0	15.5	–	–	–	–	0.0	–	–	–	–	–	–
103.0 50.0	26.6	–	–	–	–	0.0	–	–	–	–	–	–
103.0 55.0	126.0	–	–	–	–	10.1	–	–	–	–	–	–
103.0 60.0	45.1	–	–	–	–	22.1	–	–	–	–	–	–
103.0 65.0	48.6	–	–	–	–	–	–	–	–	–	–	–

TABLE 4. (cont.)

Vinciguerria lucetia (cont.)

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
103.0	70.0	39.5	–	–	–	–	–	–	–	–	–	–	–
103.0	80.0	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	–	–	–	16.3	–	–	–	–	–	–	–	–
127.0	55.0	–	–	–	660.4	–	–	–	–	–	–	–	–
127.0	60.0	–	–	–	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	3.2	–	–	–	–	0.0	–	–	–	–	–	–
70.0	53.0	6.1	–	–	–	–	0.0	–	–	–	–	–	–
70.0	70.0	2.8	–	–	–	–	0.0	–	–	–	–	–	–
70.0	80.0	2.8	–	–	–	–	0.0	–	–	–	–	–	–

TABLE 4. (cont.)

Sternoptychidae (cont.)

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
73.0	50.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
80.0	80.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
83.0	70.0	3.2	–	–	–	–	0.0	–	–	–	–	–	–
83.0	100.0	2.9	–	–	–	–	–	–	–	–	–	–	–
87.0	35.0	3.3	–	–	–	–	0.0	–	–	–	–	–	–
87.0	40.0	3.1	–	–	–	–	0.0	–	–	–	–	–	–
87.0	60.0	2.8	–	–	–	–	0.0	–	–	–	–	–	–
87.0	65.0	3.2	–	–	–	–	3.3	–	–	–	–	–	–
87.0	90.0	2.8	–	–	–	–	0.0	–	–	–	–	–	–
90.0	32.0	0.0	–	–	–	–	6.7	–	–	–	–	–	–
90.0	37.0	6.0	–	–	–	–	0.0	–	–	–	–	–	–
90.0	45.0	3.3	–	–	–	–	0.0	–	–	–	–	–	–
90.0	53.0	2.9	–	–	–	–	0.0	–	–	–	–	–	–
90.0	90.0	5.4	–	–	–	–	0.0	–	–	–	–	–	–
93.0	28.0	5.0	–	–	–	–	3.4	–	–	–	–	–	–
93.0	30.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
93.0	35.0	7.0	–	–	–	–	0.0	–	–	–	–	–	–
93.0	60.0	27.0	–	–	–	–	0.0	–	–	–	–	–	–
93.0	70.0	2.0	–	–	–	–	0.0	–	–	–	–	–	–
93.0	90.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
93.0	100.0	2.9	–	–	–	–	–	–	–	–	–	–	–
97.0	35.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
97.0	70.0	0.0	–	–	–	–	10.1	–	–	–	–	–	–
97.0	80.0	3.3	–	–	–	–	0.0	–	–	–	–	–	–
100.0	29.0	0.0	–	–	–	–	3.0	–	–	–	–	–	–
100.0	30.0	0.0	–	–	–	–	3.1	–	–	–	–	–	–
100.0	50.0	0.0	–	–	–	–	3.1	–	–	–	–	–	–
100.0	70.0	2.8	–	–	–	–	0.0	–	–	–	–	–	–
100.0	80.0	0.0	–	–	–	–	3.2	–	–	–	–	–	–
103.0	40.0	2.3	–	–	–	–	0.0	–	–	–	–	–	–
103.0	45.0	2.2	–	–	–	–	0.0	–	–	–	–	–	–
103.0	50.0	3.3	–	–	–	–	0.0	–	–	–	–	–	–
103.0	55.0	2.8	–	–	–	–	0.0	–	–	–	–	–	–
107.0	32.0	–	–	–	–	–	3.0	–	–	–	–	–	–
107.0	35.0	–	–	–	–	–	3.2	–	–	–	–	–	–
107.0	50.0	–	–	–	–	–	3.3	–	–	–	–	–	–
110.0	40.0	–	–	–	–	–	3.3	–	–	–	–	–	–
113.0	45.0	–	–	–	–	–	5.9	–	–	–	–	–	–
120.0	65.0	–	–	–	–	6.2	–	–	–	–	–	–	–
127.0	50.0	–	–	–	2.7	–	–	–	–	–	–	–	–
130.0	45.0	–	–	–	5.3	–	–	–	–	–	–	–	–
137.0	30.0	–	–	–	2.7	–	–	–	–	–	–	–	–

TABLE 4. (cont.)

Chauliodus macouni

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0 70.0	13.6	–	–	–	–	6.6	–	–	–	–	–	–
60.0 80.0	8.4	–	–	–	–	3.4	–	–	–	–	–	–
60.0 90.0	2.9	–	–	–	–	10.4	–	–	–	–	–	–
63.0 55.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
63.0 60.0	3.1	–	–	–	–	0.0	–	–	–	–	–	–
63.0 80.0	2.6	–	–	–	–	–	–	–	–	–	–	–
63.0 90.0	0.0	–	–	–	–	6.7	–	–	–	–	–	–
67.0 70.0	3.2	–	–	–	–	–	–	–	–	–	–	–
70.0 70.0	2.8	–	–	–	–	3.3	–	–	–	–	–	–
70.0 80.0	0.0	–	–	–	–	3.4	–	–	–	–	–	–
70.0 90.0	0.0	–	–	–	–	3.1	–	–	–	–	–	–
70.0 100.0	3.0	–	–	–	–	–	–	–	–	–	–	–
73.0 60.0	0.0	–	–	–	–	22.7	–	–	–	–	–	–
73.0 70.0	8.8	–	–	–	–	–	–	–	–	–	–	–
77.0 55.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
77.0 60.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
80.0 60.0	6.6	–	–	–	–	0.0	–	–	–	–	–	–
80.0 65.0	6.2	–	–	–	–	0.0	–	–	–	–	–	–
80.0 70.0	2.9	–	–	–	–	3.1	–	–	–	–	–	–
80.0 90.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
83.0 60.0	3.1	–	–	–	–	0.0	–	–	–	–	–	–
83.0 80.0	0.0	–	–	–	–	3.2	–	–	–	–	–	–
83.0 100.0	2.9	–	–	–	–	–	–	–	–	–	–	–
87.0 65.0	3.2	–	–	–	–	3.3	–	–	–	–	–	–
87.0 70.0	2.6	–	–	–	–	0.0	–	–	–	–	–	–
87.0 80.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
90.0 65.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
90.0 70.0	3.3	–	–	–	–	0.0	–	–	–	–	–	–
93.0 60.0	9.0	–	–	–	–	3.4	–	–	–	–	–	–
93.0 70.0	0.0	–	–	–	–	3.0	–	–	–	–	–	–
97.0 32.0	3.1	–	–	–	–	0.0	–	–	–	–	–	–
97.0 55.0	0.0	–	–	–	–	3.4	–	–	–	–	–	–
100.0 40.0	0.0	–	–	–	–	3.2	–	–	–	–	–	–
100.0 55.0	0.0	–	–	–	–	3.1	–	–	–	–	–	–
100.0 70.0	2.8	–	–	–	–	3.3	–	–	–	–	–	–
103.0 50.0	0.0	–	–	–	–	3.1	–	–	–	–	–	–
107.0 32.0	–	–	–	–	–	3.0	–	–	–	–	–	–
107.0 45.0	–	–	–	–	–	3.3	–	–	–	–	–	–

Idiacanthus antrostomus

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0 100.0	3.2	–	–	–	–	–	–	–	–	–	–	–
70.0 80.0	2.8	–	–	–	–	0.0	–	–	–	–	–	–
77.0 100.0	3.0	–	–	–	–	–	–	–	–	–	–	–

TABLE 4. (cont.)

Idiacanthus antrostomus (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
83.0 100.0	5.8	–	–	–	–	–	–	–	–	–	–	–
87.0 60.0	2.8	–	–	–	–	0.0	–	–	–	–	–	–
87.0 65.0	3.2	–	–	–	–	0.0	–	–	–	–	–	–
87.0 100.0	3.1	–	–	–	–	–	–	–	–	–	–	–
90.0 80.0	5.9	–	–	–	–	0.0	–	–	–	–	–	–
93.0 65.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
93.0 70.0	4.0	–	–	–	–	0.0	–	–	–	–	–	–
93.0 80.0	2.5	–	–	–	–	0.0	–	–	–	–	–	–
93.0 90.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
93.0 100.0	2.9	–	–	–	–	–	–	–	–	–	–	–
97.0 70.0	2.7	–	–	–	–	0.0	–	–	–	–	–	–
97.0 80.0	3.3	–	–	–	–	0.0	–	–	–	–	–	–
100.0 40.0	3.2	–	–	–	–	0.0	–	–	–	–	–	–
100.0 65.0	3.5	–	–	–	–	0.0	–	–	–	–	–	–
100.0 70.0	0.0	–	–	–	–	6.5	–	–	–	–	–	–
100.0 80.0	2.2	–	–	–	–	0.0	–	–	–	–	–	–
103.0 55.0	5.6	–	–	–	–	0.0	–	–	–	–	–	–
103.0 60.0	8.0	–	–	–	–	0.0	–	–	–	–	–	–
103.0 70.0	3.0	–	–	–	–	–	–	–	–	–	–	–

Bathophilus spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
93.0 35.0	0.0	–	–	–	–	6.4	–	–	–	–	–	–

Eustomias spp.

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
103.0 80.0	2.6	–	–	–	–	–	–	–	–	–	–	–

Stomias atriventer

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
70.0 90.0	0.0	–	–	–	–	3.1	–	–	–	–	–	–
83.0 65.0	0.0	–	–	–	–	3.0	–	–	–	–	–	–
83.0 80.0	2.5	–	–	–	–	0.0	–	–	–	–	–	–
83.0 90.0	0.0	–	–	–	–	3.0	–	–	–	–	–	–
87.0 60.0	0.0	–	–	–	–	2.5	–	–	–	–	–	–
87.0 100.0	3.1	–	–	–	–	–	–	–	–	–	–	–
90.0 53.0	2.9	–	–	–	–	0.0	–	–	–	–	–	–
90.0 60.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
90.0 100.0	3.3	–	–	–	–	–	–	–	–	–	–	–
93.0 27.0	0.0	–	–	–	–	2.8	–	–	–	–	–	–

TABLE 4. (co)

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.	–	–	–	–	–	9.2	–	–	–	–	–	–
107.0 45.	–	–	–	–	–	10.0	–	–	–	–	–	–
110.0 40.	–	–	–	–	–	6.5	–	–	–	–	–	–
110.0 50.	–	–	–	–	–	3.1	–	–	–	–	–	–
110.0 55.	–	–	–	–	–	6.2	–	–	–	–	–	–
110.0 60.	–	–	–	–	–	3.1	–	–	–	–	–	–
123.0 55.	–	–	–	–	12.1	–	–	–	–	–	–	–
123.0 60.	–	–	–	–	6.7	–	–	–	–	–	–	–
127.0 55.	–	–	–	2.6	–	–	–	–	–	–	–	–
127.0 60.	–	–	–	5.3	–	–	–	–	–	–	–	–
140.0 80.	–	–	–	2.7	–	–	–	–	–	–	–	–

Paralepididae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
93.0 90.	3.0	–	–	–	–	0.0	–	–	–	–	–	–
100.0 55.	2.3	–	–	–	–	0.0	–	–	–	–	–	–
100.0 60.	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	5.4	–	–	–	–	6.6	–	–	–	–	–	–
60.0	90.0	8.7	–	–	–	–	6.9	–	–	–	–	–	–
63.0	52.0	3.1	–	–	–	–	0.0	–	–	–	–	–	–
63.0	60.0	3.1	–	–	–	–	0.0	–	–	–	–	–	–
63.0	70.0	5.3	–	–	–	–	–	–	–	–	–	–	–
63.0	80.0	2.6	–	–	–	–	–	–	–	–	–	–	–
63.0	90.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
67.0	55.0	3.2	–	–	–	–	0.0	–	–	–	–	–	–
67.0	60.0	3.1	–	–	–	–	0.0	–	–	–	–	–	–
70.0	80.0	2.8	–	–	–	–	3.4	–	–	–	–	–	–
70.0	90.0	3.1	–	–	–	–	0.0	–	–	–	–	–	–
70.0	100.0	3.0	–	–	–	–	–	–	–	–	–	–	–
73.0	100.0	2.8	–	–	–	–	–	–	–	–	–	–	–
77.0	51.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
77.0	55.0	2.5	–	–	–	–	0.0	–	–	–	–	–	–
77.0	60.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
77.0	100.0	3.0	–	–	–	–	–	–	–	–	–	–	–
80.0	65.0	9.3	–	–	–	–	0.0	–	–	–	–	–	–
80.0	70.0	8.8	–	–	–	–	3.1	–	–	–	–	–	–
80.0	90.0	6.0	–	–	–	–	0.0	–	–	–	–	–	–
80.0	100.0	5.4	–	–	–	–	–	–	–	–	–	–	–
82.0	47.0	2.8	–	–	–	–	0.0	–	–	–	–	–	–
83.0	55.0	2.7	–	–	–	–	0.0	–	–	–	–	–	–
83.0	60.0	3.1	–	–	–	–	3.2	–	–	–	–	–	–
83.0	65.0	2.9	–	–	–	–	0.0	–	–	–	–	–	–
83.0	70.0	9.6	–	–	–	–	0.0	–	–	–	–	–	–
83.0	80.0	0.0	–	–	–	–	3.2	–	–	–	–	–	–
83.0	100.0	2.9	–	–	–	–	–	–	–	–	–	–	–
87.0	65.0	3.2	–	–	–	–	0.0	–	–	–	–	–	–
87.0	80.0	2.6	–	–	–	–	0.0	–	–	–	–	–	–
90.0	60.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
90.0	65.0	5.9	–	–	–	–	0.0	–	–	–	–	–	–
90.0	70.0	3.3	–	–	–	–	0.0	–	–	–	–	–	–
93.0	35.0	3.5	–	–	–	–	0.0	–	–	–	–	–	–
93.0	65.0	2.7	–	–	–	–	0.0	–	–	–	–	–	–
93.0	80.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
97.0	65.0	3.2	–	–	–	–	0.0	–	–	–	–	–	–
100.0	40.0	6.5	–	–	–	–	0.0	–	–	–	–	–	–
100.0	65.0	0.0	–	–	–	–	3.1	–	–	–	–	–	–
100.0	80.0	4.4	–	–	–	–	0.0	–	–	–	–	–	–
103.0	30.0	1.4	–	–	–	–	0.0	–	–	–	–	–	–
103.0	50.0	3.3	–	–	–	–	0.0	–	–	–	–	–	–
103.0	55.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
103.0	60.0	2.7	–	–	–	–	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	2.8	–	–	–	–	0.0	–	–	–	–	–	–
93.0 70.0	2.0	–	–	–	–	0.0	–	–	–	–	–	–
93.0 80.0	2.5	–	–	–	–	0.0	–	–	–	–	–	–
97.0 70.0	0.0	–	–	–	–	3.4	–	–	–	–	–	–
97.0 80.0	3.3	–	–	–	–	0.0	–	–	–	–	–	–
100.0 40.0	3.2	–	–	–	–	0.0	–	–	–	–	–	–
100.0 70.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
103.0 55.0	2.8	–	–	–	–	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	0.0	–	–	–	–	3.3	–	–	–	–	–	–
70.0 90.0	0.0	–	–	–	–	3.1	–	–	–	–	–	–
83.0 90.0	0.0	–	–	–	–	3.0	–	–	–	–	–	–

Scopelarchidae

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
67.0 55.0	3.2	–	–	–	–	0.0	–	–	–	–	–	–
67.0 70.0	3.2	–	–	–	–	–	–	–	–	–	–	–
70.0 90.0	0.0	–	–	–	–	3.1	–	–	–	–	–	–
77.0 100.0	3.0	–	–	–	–	–	–	–	–	–	–	–
93.0 60.0	9.0	–	–	–	–	0.0	–	–	–	–	–	–
93.0 100.0	2.9	–	–	–	–	–	–	–	–	–	–	–
97.0 35.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
97.0 50.0	0.0	–	–	–	–	3.2	–	–	–	–	–	–
100.0 65.0	0.0	–	–	–	–	3.1	–	–	–	–	–	–
100.0 70.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
103.0 60.0	5.3	–	–	–	–	0.0	–	–	–	–	–	–
103.0 65.0	6.5	–	–	–	–	–	–	–	–	–	–	–
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	5.3	–	–	–	–	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	–	–	–	33.8	–	–	–	–	–	–	–	–
127.0	60.0	–	–	–	10.6	–	–	–	–	–	–	–	–
130.0	40.0	–	–	–	2.6	–	–	–	–	–	–	–	–
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	0.0	–	–	–	–	3.1	–	–	–	–	–	–
77.0	100.0	9.1	–	–	–	–	–	–	–	–	–	–	–
83.0	80.0	0.0	–	–	–	–	3.2	–	–	–	–	–	–
87.0	100.0	3.1	–	–	–	–	–	–	–	–	–	–	–
90.0	100.0	3.3	–	–	–	–	–	–	–	–	–	–	–
93.0	80.0	2.5	–	–	–	–	3.3	–	–	–	–	–	–
93.0	90.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
93.0	100.0	2.9	–	–	–	–	–	–	–	–	–	–	–
97.0	80.0	6.6	–	–	–	–	0.0	–	–	–	–	–	–
100.0	60.0	0.0	–	–	–	–	6.0	–	–	–	–	–	–
100.0	70.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
100.0	80.0	6.6	–	–	–	–	3.2	–	–	–	–	–	–
103.0	65.0	9.7	–	–	–	–	–	–	–	–	–	–	–
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	–	–	–	–	–	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	–	–	–	–	–	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	25.4	–	–	–	–	0.0	–	–	–	–	–	–
93.0	65.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
97.0	60.0	2.8	–	–	–	–	0.0	–	–	–	–	–	–
97.0	65.0	0.0	–	–	–	–	10.0	–	–	–	–	–	–
97.0	80.0	9.9	–	–	–	–	0.0	–	–	–	–	–	–
100.0	55.0	2.3	–	–	–	–	3.1	–	–	–	–	–	–
100.0	65.0	3.5	–	–	–	–	24.6	–	–	–	–	–	–
100.0	70.0	0.0	–	–	–	–	13.0	–	–	–	–	–	–
100.0	80.0	11.0	–	–	–	–	0.0	–	–	–	–	–	–
103.0	45.0	2.2	–	–	–	–	0.0	–	–	–	–	–	–
107.0	50.0	–	–	–	–	–	3.3	–	–	–	–	–	–
110.0	50.0	–	–	–	–	–	3.1	–	–	–	–	–	–
110.0	60.0	–	–	–	–	–	15.7	–	–	–	–	–	–
117.0	35.0	–	–	–	–	2.9	–	–	–	–	–	–	–
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	0.0	–	–	–	–	3.4	–	–	–	–	–	–
67.0	60.0	0.0	–	–	–	–	3.4	–	–	–	–	–	–
77.0	55.0	0.0	–	–	–	–	6.6	–	–	–	–	–	–
80.0	80.0	0.0	–	–	–	–	3.1	–	–	–	–	–	–
83.0	60.0	0.0	–	–	–	–	3.2	–	–	–	–	–	–
83.0	90.0	0.0	–	–	–	–	9.0	–	–	–	–	–	–
90.0	65.0	0.0	–	–	–	–	3.0	–	–	–	–	–	–
93.0	70.0	0.0	–	–	–	–	3.0	–	–	–	–	–	–
100.0	65.0	0.0	–	–	–	–	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	2.7	–	–	–	–	0.0	–	–	–	–	–	–
63.0	55.0	5.9	–	–	–	–	0.0	–	–	–	–	–	–
63.0	60.0	3.1	–	–	–	–	0.0	–	–	–	–	–	–
67.0	60.0	6.1	–	–	–	–	30.9	–	–	–	–	–	–
70.0	60.0	0.0	–	–	–	–	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	6.5	–	–	–	–	–	–	–	–	–	–	–
103.0	80.0	5.1	–	–	–	–	–	–	–	–	–	–	–
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	6.0	–	–	–	–	0.0	–	–	–	–	–	–

Notoscopelus resplendens

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
100.0	80.0	4.4	–	–	–	–	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	4.5	–	–	–	–	0.0	–	–	–	–	–	–
60.0	55.0	63.4	–	–	–	–	0.0	–	–	–	–	–	–
60.0	60.0	21.3	–	–	–	–	0.0	–	–	–	–	–	–
60.0	70.0	62.6	–	–	–	–	9.9	–	–	–	–	–	–
60.0	80.0	76.0	–	–	–	–	51.3	–	–	–	–	–	–
60.0	90.0	5.8	–	–	–	–	17.3	–	–	–	–	–	–
63.0	50.0	13.8	–	–	–	–	–	–	–	–	–	–	–
63.0	52.0	471.2	–	–	–	–	0.0	–	–	–	–	–	–
63.0	55.0	1129.8	–	–	–	–	0.0	–	–	–	–	–	–
63.0	60.0	87.4	–	–	–	–	0.0	–	–	–	–	–	–
63.0	70.0	73.9	–	–	–	–	–	–	–	–	–	–	–
63.0	80.0	21.0	–	–	–	–	–	–	–	–	–	–	–
63.0	90.0	5.9	–	–	–	–	3.3	–	–	–	–	–	–

TABLE 4. (cont.)

Stenobrachius 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	36.0	–	–	–	–	44.2	–	–	–	–	–	–
90.0	45.0	53.6	–	–	–	–	36.7	–	–	–	–	–	–
90.0	53.0	2.9	–	–	–	–	6.5	–	–	–	–	–	–
90.0	60.0	3.0	–	–	–	–	6.8	–	–	–	–	–	–
90.0	65.0	5.9	–	–	–	–	0.0	–	–	–	–	–	–
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	40.0	0.0	–	–	–	–	37.5	–	–	–	–	–	–
93.0	45.0	2.8	–	–	–	–	23.5	–	–	–	–	–	–
93.0	50.0	0.0	–	–	–	–	7.5	–	–	–	–	–	–
93.0	55.0	31.8	–	–	–	–	0.0	–	–	–	–	–	–
93.0	80.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
97.0	32.0	0.0	–	–	–	–	3.1	–	–	–	–	–	–
97.0	35.0	0.0	–	–	–	–	3.1	–	–	–	–	–	–
97.0	40.0	29.7	–	–	–	–	0.0	–	–	–	–	–	–
97.0	45.0	2.5	–	–	–	–	3.7	–	–	–	–	–	–
97.0	50.0	8.0	–	–	–	–	0.0	–	–	–	–	–	–
97.0	55.0	6.2	–	–	–	–	0.0	–	–	–	–	–	–
97.0	60.0	0.0	–	–	–	–	3.4	–	–	–	–	–	–
97.0	65.0	3.2	–	–	–	–	0.0	–	–	–	–	–	–
100.0	30.0	0.0	–	–	–	–	27.5	–	–	–	–	–	–
100.0	35.0	0.0	–	–	–	–	48.4	–	–	–	–	–	–
100.0	40.0	3.2	–	–	–	–	34.8	–	–	–	–	–	–
100.0	50.0	3.3	–	–	–	–	0.0	–	–	–	–	–	–
100.0	55.0	4.5	–	–	–	–	0.0	–	–	–	–	–	–
100.0	60.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
103.0	50.0	0.0	–	–	–	–	3.1	–	–	–	–	–	–
103.0	55.0	2.8	–	–	–	–	10.1	–	–	–	–	–	–
103.0	60.0	15.9	–	–	–	–	0.0	–	–	–	–	–	–
107.0	40.0	–	–	–	–	–	3.1	–	–	–	–	–	–
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	2.9	–	–	–	–	9.2	–	–	–	–	–	–
83.0	70.0	0.0	–	–	–	–	6.7	–	–	–	–	–	–
83.0	90.0	0.0	–	–	–	–	9.0	–	–	–	–	–	–
87.0	60.0	0.0	–	–	–	–	9.9	–	–	–	–	–	–
87.0	65.0	0.0	–	–	–	–	6.6	–	–	–	–	–	–
87.0	80.0	0.0	–	–	–	–	6.6	–	–	–	–	–	–
87.0	90.0	0.0	–	–	–	–	12.3	–	–	–	–	–	–
90.0	28.0	0.0	–	–	–	–	6.5	–	–	–	–	–	–
90.0	53.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–

TABLE 4. (cont.)

Triphoturus mexicanus (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.)

Triphoturus 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	3.0	–	–	–	–	0.0	–	–	–	–	–	–
90.0	90.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
97.0	32.0	3.1	–	–	–	–	3.1	–	–	–	–	–	–
97.0	35.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
97.0	45.0	2.5	–	–	–	–	0.0	–	–	–	–	–	–
97.0	80.0	3.3	–	–	–	–	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	4.4	–	–	–	–	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	–	–	–	–	–	–	–

Diogenichthys atlanticus

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0 100.0	3.2	–	–	–	–	–	–	–	–	–	–	–
67.0 70.0	6.4	–	–	–	–	–	–	–	–	–	–	–
73.0 100.0	5.5	–	–	–	–	–	–	–	–	–	–	–
77.0 100.0	12.2	–	–	–	–	–	–	–	–	–	–	–
80.0 90.0	0.0	–	–	–	–	3.4	–	–	–	–	–	–
83.0 60.0	3.1	–	–	–	–	0.0	–	–	–	–	–	–
83.0 90.0	0.0	–	–	–	–	12.0	–	–	–	–	–	–
83.0 100.0	5.8	–	–	–	–	–	–	–	–	–	–	–
87.0 55.0	2.4	–	–	–	–	0.0	–	–	–	–	–	–
87.0 65.0	0.0	–	–	–	–	13.2	–	–	–	–	–	–
87.0 90.0	5.7	–	–	–	–	3.1	–	–	–	–	–	–
87.0 100.0	3.1	–	–	–	–	–	–	–	–	–	–	–
90.0 60.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
90.0 65.0	11.8	–	–	–	–	0.0	–	–	–	–	–	–
90.0 70.0	3.3	–	–	–	–	0.0	–	–	–	–	–	–
90.0 80.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
90.0 100.0	9.8	–	–	–	–	–	–	–	–	–	–	–
93.0 40.0	3.2	–	–	–	–	0.0	–	–	–	–	–	–
93.0 55.0	3.2	–	–	–	–	0.0	–	–	–	–	–	–
93.0 65.0	2.7	–	–	–	–	0.0	–	–	–	–	–	–
93.0 70.0	10.1	–	–	–	–	0.0	–	–	–	–	–	–
93.0 80.0	17.6	–	–	–	–	10.0	–	–	–	–	–	–
93.0 90.0	11.8	–	–	–	–	0.0	–	–	–	–	–	–
93.0 100.0	5.8	–	–	–	–	–	–	–	–	–	–	–
97.0 45.0	2.5	–	–	–	–	0.0	–	–	–	–	–	–
97.0 55.0	0.0	–	–	–	–	10.2	–	–	–	–	–	–
97.0 65.0	3.2	–	–	–	–	0.0	–	–	–	–	–	–
97.0 70.0	2.7	–	–	–	–	0.0	–	–	–	–	–	–
97.0 80.0	0.0	–	–	–	–	3.4	–	–	–	–	–	–
100.0 60.0	3.0	–	–	–	–	3.0	–	–	–	–	–	–
100.0 65.0	0.0	–	–	–	–	12.3	–	–	–	–	–	–
100.0 70.0	0.0	–	–	–	–	9.8	–	–	–	–	–	–
100.0 80.0	2.2	–	–	–	–	0.0	–	–	–	–	–	–
103.0 50.0	3.3	–	–	–	–	0.0	–	–	–	–	–	–
103.0 55.0	8.4	–	–	–	–	3.3	–	–	–	–	–	–

TABLE 4. (cont.)

Diogenichthys atlanticus (cont.)

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
103.0	60.0	13.3	–	–	–	–	0.0	–	–	–	–	–	–
103.0	65.0	3.2	–	–	–	–	–	–	–	–	–	–	–
103.0	80.0	5.1	–	–	–	–	–	–	–	–	–	–	–
110.0	45.0	–	–	–	–	–	3.2	–	–	–	–	–	–
110.0	50.0	–	–	–	–	–	3.1	–	–	–	–	–	–
110.0	60.0	–	–	–	–	–	3.1	–	–	–	–	–	–
120.0	65.0	–	–	–	–	6.2	–	–	–	–	–	–	–

Diogenichthys laternatus

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
87.0	55.0	4.7	–	–	–	–	0.0	–	–	–	–	–	–
93.0	35.0	3.5	–	–	–	–	0.0	–	–	–	–	–	–
93.0	40.0	3.2	–	–	–	–	0.0	–	–	–	–	–	–
97.0	35.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
97.0	45.0	2.5	–	–	–	–	0.0	–	–	–	–	–	–
100.0	65.0	3.5	–	–	–	–	0.0	–	–	–	–	–	–
107.0	55.0	–	–	–	–	–	14.6	–	–	–	–	–	–
107.0	60.0	–	–	–	–	–	9.1	–	–	–	–	–	–
110.0	45.0	–	–	–	–	–	12.9	–	–	–	–	–	–
113.0	45.0	–	–	–	–	–	5.9	–	–	–	–	–	–
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	–	–	–	26.1	–	–	–	–	–	–	–	–
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	2.8	–	–	–	–	0.0	–	–	–	–	–	–
93.0	80.0	2.5	–	–	–	–	0.0	–	–	–	–	–	–
100.0	80.0	4.4	–	–	–	–	0.0	–	–	–	–	–	–
103.0	45.0	2.2	–	–	–	–	0.0	–	–	–	–	–	–
103.0	60.0	0.0	–	–	–	–	6.3	–	–	–	–	–	–
103.0	65.0	3.2	–	–	–	–	–	–	–	–	–	–	–
103.0	70.0	3.0	–	–	–	–	–	–	–	–	–	–	–
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	13.6	–	–	–	–	0.0	–	–	–	–	–	–
60.0	80.0	16.9	–	–	–	–	3.4	–	–	–	–	–	–
60.0	90.0	2.9	–	–	–	–	13.8	–	–	–	–	–	–
63.0	55.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
63.0	60.0	0.0	–	–	–	–	2.9	–	–	–	–	–	–

TABLE 4. (cont.)

Protomyctophum crockeri (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	–	–	–	–	–	–	–	–	–	–	–
70.0 60.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
70.0 70.0	5.5	–	–	–	–	6.6	–	–	–	–	–	–
70.0 80.0	24.9	–	–	–	–	0.0	–	–	–	–	–	–
70.0 100.0	3.0	–	–	–	–	–	–	–	–	–	–	–
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	–	–	–	–	–	–	–	–	–	–	–
77.0 51.0	9.1	–	–	–	–	0.0	–	–	–	–	–	–
77.0 55.0	2.5	–	–	–	–	3.3	–	–	–	–	–	–
77.0 60.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
77.0 100.0	9.1	–	–	–	–	–	–	–	–	–	–	–
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	–	–	–	–	–	–	–	–	–	–	–
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	–	–	–	–	–	–	–	–	–	–	–
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.)

Protomyctophum crockeri (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.)

Protomyctophum crockeri (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	–	–	–	2.7	–	–	–	–	–	–	–	–
127.0	60.0	–	–	–	2.7	–	–	–	–	–	–	–	–
130.0	60.0	–	–	–	3.2	–	–	–	–	–	–	–	–
140.0	80.0	–	–	–	2.7	–	–	–	–	–	–	–	–

Symbolophorus californiensis

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
67.0	90.0	–	–	–	–	–	6.6	–	–	–	–	–	–
70.0	90.0	0.0	–	–	–	–	3.1	–	–	–	–	–	–
73.0	60.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
73.0	100.0	2.8	–	–	–	–	–	–	–	–	–	–	–
80.0	100.0	2.7	–	–	–	–	–	–	–	–	–	–	–
83.0	60.0	3.1	–	–	–	–	0.0	–	–	–	–	–	–
83.0	80.0	0.0	–	–	–	–	3.2	–	–	–	–	–	–
83.0	90.0	0.0	–	–	–	–	6.0	–	–	–	–	–	–
87.0	55.0	2.4	–	–	–	–	0.0	–	–	–	–	–	–
87.0	60.0	0.0	–	–	–	–	5.0	–	–	–	–	–	–
87.0	65.0	0.0	–	–	–	–	6.6	–	–	–	–	–	–
87.0	70.0	2.6	–	–	–	–	3.3	–	–	–	–	–	–
87.0	80.0	2.6	–	–	–	–	3.3	–	–	–	–	–	–
87.0	90.0	5.7	–	–	–	–	0.0	–	–	–	–	–	–
87.0	100.0	12.2	–	–	–	–	–	–	–	–	–	–	–
90.0	53.0	2.9	–	–	–	–	0.0	–	–	–	–	–	–
90.0	60.0	3.0	–	–	–	–	3.4	–	–	–	–	–	–
90.0	65.0	23.7	–	–	–	–	3.0	–	–	–	–	–	–
90.0	70.0	0.0	–	–	–	–	6.9	–	–	–	–	–	–
90.0	80.0	5.9	–	–	–	–	0.0	–	–	–	–	–	–
90.0	90.0	2.7	–	–	–	–	0.0	–	–	–	–	–	–
90.0	100.0	9.8	–	–	–	–	–	–	–	–	–	–	–
93.0	30.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
93.0	55.0	3.2	–	–	–	–	0.0	–	–	–	–	–	–
93.0	65.0	2.7	–	–	–	–	0.0	–	–	–	–	–	–
93.0	70.0	10.1	–	–	–	–	0.0	–	–	–	–	–	–
93.0	80.0	20.2	–	–	–	–	0.0	–	–	–	–	–	–
93.0	90.0	20.6	–	–	–	–	3.3	–	–	–	–	–	–
93.0	100.0	17.4	–	–	–	–	–	–	–	–	–	–	–

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	–	–	–	–	9.1	–	–	–	–	–	–	–
127.0	40.0	–	–	–	–	2.7	–	–	–	–	–	–	–

Tarletonbeania crenularis

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	52.0	4.5	–	–	–	–	0.0	–	–	–	–	–	–
60.0	55.0	0.0	–	–	–	–	6.6	–	–	–	–	–	–
60.0	60.0	10.6	–	–	–	–	3.4	–	–	–	–	–	–
60.0	70.0	38.1	–	–	–	–	29.8	–	–	–	–	–	–
60.0	80.0	54.9	–	–	–	–	13.7	–	–	–	–	–	–
60.0	90.0	11.6	–	–	–	–	17.3	–	–	–	–	–	–
63.0	52.0	6.2	–	–	–	–	0.0	–	–	–	–	–	–
63.0	55.0	8.9	–	–	–	–	3.5	–	–	–	–	–	–
63.0	60.0	3.1	–	–	–	–	17.2	–	–	–	–	–	–
63.0	70.0	5.3	–	–	–	–	–	–	–	–	–	–	–
63.0	80.0	5.2	–	–	–	–	–	–	–	–	–	–	–
63.0	90.0	3.0	–	–	–	–	6.7	–	–	–	–	–	–
67.0	50.0	13.0	–	–	–	–	2.9	–	–	–	–	–	–
67.0	55.0	3.2	–	–	–	–	51.9	–	–	–	–	–	–
67.0	60.0	3.1	–	–	–	–	37.7	–	–	–	–	–	–
67.0	70.0	22.5	–	–	–	–	–	–	–	–	–	–	–
70.0	53.0	9.2	–	–	–	–	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	–	–	–	–	–	–
90.0	45.0	0.0	–	–	–	–	6.7	–	–	–	–	–	–
90.0	53.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
90.0	60.0	0.0	–	–	–	–	6.8	–	–	–	–	–	–
90.0	65.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
90.0	70.0	3.3	–	–	–	–	3.5	–	–	–	–	–	–
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	95.0	–	–	–	–	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.)

Merluccius productus (cont.)

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0	65.0	62.2	–	–	–	–	0.0	–	–	–	–	–	–
93.0	28.0	5.0	–	–	–	–	0.0	–	–	–	–	–	–
93.0	35.0	28.2	–	–	–	–	0.0	–	–	–	–	–	–
93.0	55.0	63.6	–	–	–	–	0.0	–	–	–	–	–	–
97.0	29.0	2.0	–	–	–	–	0.0	–	–	–	–	–	–
97.0	32.0	47.0	–	–	–	–	0.0	–	–	–	–	–	–
97.0	35.0	6.0	–	–	–	–	0.0	–	–	–	–	–	–
97.0	40.0	89.1	–	–	–	–	0.0	–	–	–	–	–	–
97.0	45.0	2.5	–	–	–	–	0.0	–	–	–	–	–	–
97.0	50.0	2.7	–	–	–	–	3.2	–	–	–	–	–	–
97.0	55.0	55.8	–	–	–	–	0.0	–	–	–	–	–	–
97.0	60.0	2.8	–	–	–	–	0.0	–	–	–	–	–	–
97.0	80.0	3.3	–	–	–	–	0.0	–	–	–	–	–	–
100.0	30.0	39.8	–	–	–	–	0.0	–	–	–	–	–	–
100.0	35.0	2.6	–	–	–	–	0.0	–	–	–	–	–	–
100.0	40.0	3.2	–	–	–	–	0.0	–	–	–	–	–	–
100.0	45.0	6.5	–	–	–	–	0.0	–	–	–	–	–	–
100.0	50.0	3.3	–	–	–	–	0.0	–	–	–	–	–	–
100.0	55.0	11.4	–	–	–	–	0.0	–	–	–	–	–	–
103.0	45.0	4.4	–	–	–	–	3.0	–	–	–	–	–	–
113.0	55.0	–	–	–	–	2.6	–	–	–	–	–	–	–
117.0	30.0	–	–	–	–	11.6	–	–	–	–	–	–	–
117.0	35.0	–	–	–	–	2.8	–	–	–	–	–	–	–
117.0	40.0	–	–	–	–	6.2	–	–	–	–	–	–	–
117.0	45.0	–	–	–	–	3.2	–	–	–	–	–	–	–
117.0	50.0	–	–	–	–	4.7	–	–	–	–	–	–	–
120.0	25.0	–	–	–	–	6.1	–	–	–	–	–	–	–
123.0	55.0	–	–	–	–	8.5	–	–	–	–	–	–	–
127.0	45.0	–	–	–	2.4	–	–	–	–	–	–	–	–
130.0	28.0	–	–	–	2.7	–	–	–	–	–	–	–	–
130.0	45.0	–	–	–	2.9	–	–	–	–	–	–	–	–
130.0	50.0	–	–	–	2.3	–	–	–	–	–	–	–	–
133.0	23.0	–	–	–	7.7	–	–	–	–	–	–	–	–
133.0	30.0	–	–	–	10.8	–	–	–	–	–	–	–	–
137.0	22.0	–	–	–	32.6	–	–	–	–	–	–	–	–
137.0	23.0	–	–	–	16.3	–	–	–	–	–	–	–	–
137.0	30.0	–	–	–	27.0	–	–	–	–	–	–	–	–
137.0	35.0	–	–	–	2.8	–	–	–	–	–	–	–	–
137.0	40.0	–	–	–	19.5	–	–	–	–	–	–	–	–
140.0	38.0	–	–	–									

Macrouridae

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	90.0	2.9	–	–	–	–	0.0	–	–	–	–	–	–

TABLE 4. (cont.)

Macrouridae (cont.)

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
67.0	60.0	3.1	–	–	–	–	0.0	–	–	–	–	–	–
100.0	70.0	2.8	–	–	–	–	0.0	–	–	–	–	–	–

Ophidiiformes

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
67.0	55.0	0.0	–	–	–	–	3.5	–	–	–	–	–	–
70.0	51.0	0.0	–	–	–	–	3.4	–	–	–	–	–	–
73.0	53.0	0.0	–	–	–	–	7.2	–	–	–	–	–	–
73.0	60.0	0.0	–	–	–	–	22.7	–	–	–	–	–	–
77.0	55.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
80.0	55.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
83.0	60.0	0.0	–	–	–	–	12.7	–	–	–	–	–	–
87.0	50.0	–	–	–	–	–	3.1	–	–	–	–	–	–
87.0	90.0	0.0	–	–	–	–	3.1	–	–	–	–	–	–
90.0	53.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
90.0	65.0	0.0	–	–	–	–	5.9	–	–	–	–	–	–
90.0	80.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
93.0	35.0	0.0	–	–	–	–	3.2	–	–	–	–	–	–
93.0	70.0	0.0	–	–	–	–	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	0.0	–	–	–	–	6.9	–	–	–	–	–	–
73.0	60.0	0.0	–	–	–	–	4.5	–	–	–	–	–	–
83.0	43.0	0.0	–	–	–	–	8.6	–	–	–	–	–	–
83.0	60.0	0.0	–	–	–	–	3.2	–	–	–	–	–	–
87.0	40.0	0.0	–	–	–	–	3.1	–	–	–	–	–	–
87.0	65.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
90.0	60.0	0.0	–	–	–	–	3.4	–	–	–	–	–	–
103.0	30.0	0.0	–	–	–	–	3.9	–	–	–	–	–	–

Exocoetidae

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
77.0	48.0	32.6	–	–	–	–	0.0	–	–	–	–	–	–
77.0	51.0	9.1	–	–	–	–	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	2.6	–	–	–	–	0.0	–	–	–	–	–	–
60.0	60.0	8.0	–	–	–	–	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	–	–	–	–	–	–	–	–	–	–	–
77.0	55.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
77.0	60.0	11.8	–	–	–	–	0.0	–	–	–	–	–	–
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	–	–	–	–	0.0	–	–	–	–	–	–
93.0	50.0	0.0	–	–	–	–	3.7	–	–	–	–	–	–
93.0	60.0	0.0	–	–	–	–	3.4	–	–	–	–	–	–
93.0	65.0	0.0	–	–	–	–	10.0	–	–	–	–	–	–
93.0	70.0	8.1	–	–	–	–	3.0	–	–	–	–	–	–
93.0	80.0	0.0	–	–	–	–	13.3	–	–	–	–	–	–
93.0	90.0	5.9	–	–	–	–	0.0	–	–	–	–	–	–
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	–	–	–	–	–	–	–	–	–	–	–
107.0	50.0	–	–	–	–	–	3.3	–	–	–	–	–	–
107.0	55.0	–	–	–	–	–	3.7	–	–	–	–	–	–
107.0	60.0	–	–	–	–	–	6.0	–	–	–	–	–	–
110.0	40.0	–	–	–	–	–	3.3	–	–	–	–	–	–
110.0	45.0	–	–	–	–	–	6.4	–	–	–	–	–	–
110.0	50.0	–	–	–	–	–	3.1	–	–	–	–	–	–
110.0	60.0	–	–	–	–	–	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	–	–	–	–	–	–	–	–

Poromitra 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	–	–	–	–	–	–	–	–	–	–	–
107.0	55.0	–	–	–	–	–	3.7	–	–	–	–	–	–
107.0	60.0	–	–	–	–	–	3.0	–	–	–	–	–	–
110.0	35.0	–	–	–	–	–	9.7	–	–	–	–	–	–
110.0	45.0	–	–	–	–	–	3.2	–	–	–	–	–	–

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	2.1	–	–	–	–	–	–	–	–	–	–	–
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	5.7	–	–	–	–	0.0	–	–	–	–	–	–
83.0	43.0	2.9	–	–	–	–	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	2.2	–	–	–	–	0.0	–	–	–	–	–	–
63.0	52.0	0.0	–	–	–	–	3.2	–	–	–	–	–	–
67.0	50.0	0.0	–	–	–	–	2.9	–	–	–	–	–	–
77.0	48.0	0.0	–	–	–	–	3.6	–	–	–	–	–	–
83.0	51.0	0.0	–	–	–	–	3.5	–	–	–	–	–	–
97.0	29.0	0.0	–	–	–	–	11.3	–	–	–	–	–	–
97.0	30.0	0.0	–	–	–	–	5.0	–	–	–	–	–	–
103.0	29.0	0.0	–	–	–	–	8.0	–	–	–	–	–	–
103.0	30.0	0.0	–	–	–	–	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	7.9	–	–	–	–	0.0	–	–	–	–	–	–
63.0	50.0	6.1	–	–	–	–	–	–	–	–	–	–	–
63.0	55.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
80.0	51.0	6.8	–	–	–	–	0.0	–	–	–	–	–	–
80.0	52.0	2.8	–	–	–	–	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	–	–	–	–	–	–	–	–	–	–	–

Ophiodon elongatus

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
63.0	50.0	1.5	–	–	–	–	–	–	–	–	–	–	–

Oxylebius pictus

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	–	–	–	–	–	–

Zaniolepis 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	–	–	–	–	–	–

Scorpaena 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	–	–	–	–	26.6	–	–	–	–	–	–
67.0	50.0	923.4	–	–	–	–	28.6	–	–	–	–	–	–
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	50.0	1802.9	–	–	–	–	27.8	–	–	–	–	–	–
73.0	53.0	587.3	–	–	–	–	0.0	–	–	–	–	–	–
73.0	60.0	0.0	–	–	–	–	31.8	–	–	–	–	–	–
73.0	70.0	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	1075.6	–	–	–	–	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	90.0	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	–	–	–	–	3.4	–	–	–	–	–	–
97.0	65.0	28.8	–	–	–	–	0.0	–	–	–	–	–	–
97.0	70.0	0.0	–	–	–	–	3.4	–	–	–	–	–	–
100.0	29.0	56.2	–	–	–	–	21.1	–	–	–	–	–	–
100.0	30.0	351.9	–	–	–	–	91.8	–	–	–	–	–	–
100.0	35.0	12.9	–	–	–	–	24.2	–	–	–	–	–	–
100.0	40.0	0.0	–	–	–	–	3.2	–	–	–	–	–	–
100.0	45.0	3.3	–	–	–	–	15.8	–	–	–	–	–	–

TABLE 4. (cont.)

Sebastes spp. (cont.)

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
100.0	50.0	3.3	–	–	–	–	6.1	–	–	–	–	–	–
100.0	55.0	27.2	–	–	–	–	6.3	–	–	–	–	–	–
100.0	60.0	11.8	–	–	–	–	0.0	–	–	–	–	–	–
103.0	29.0	58.0	–	–	–	–	2.7	–	–	–	–	–	–
103.0	30.0	152.6	–	–	–	–	19.6	–	–	–	–	–	–
103.0	35.0	16.2	–	–	–	–	3.2	–	–	–	–	–	–
103.0	40.0	0.0	–	–	–	–	6.5	–	–	–	–	–	–
103.0	45.0	2.2	–	–	–	–	3.0	–	–	–	–	–	–
103.0	50.0	0.0	–	–	–	–	9.3	–	–	–	–	–	–
103.0	55.0	0.0	–	–	–	–	23.4	–	–	–	–	–	–
103.0	60.0	2.7	–	–	–	–	0.0	–	–	–	–	–	–
107.0	31.0	–	–	–	–	–	5.6	–	–	–	–	–	–
107.0	32.0	–	–	–	–	–	47.4	–	–	–	–	–	–
107.0	35.0	–	–	–	–	–	9.5	–	–	–	–	–	–
107.0	40.0	–	–	–	–	–	6.1	–	–	–	–	–	–
107.0	45.0	–	–	–	–	–	3.3	–	–	–	–	–	–
107.0	50.0	–	–	–	–	–	3.3	–	–	–	–	–	–
107.0	60.0	–	–	–	–	–	6.0	–	–	–	–	–	–
110.0	32.0	–	–	–	–	–	20.2	–	–	–	–	–	–
110.0	35.0	–	–	–	–	–	6.4	–	–	–	–	–	–
110.0	40.0	–	–	–	–	–	6.5	–	–	–	–	–	–
113.0	29.0	–	–	–	–	–	2.4	–	–	–	–	–	–
113.0	30.0	–	–	–	–	–	9.1	–	–	–	–	–	–
113.0	45.0	–	–	–	–	–	17.7	–	–	–	–	–	–
113.0	60.0	–	–	–	–	–	3.0	–	–	–	–	–	–
117.0	25.0	–	–	–	–	2.3	–	–	–	–	–	–	–
117.0	30.0	–	–	–	–	23.2	–	–	–	–	–	–	–
117.0	35.0	–	–	–	–	5.8	–	–	–	–	–	–	–
117.0	40.0	–	–	–	–	2.8	–	–	–	–	–	–	–
117.0	45.0	–	–	–	–	9.2	–	–	–	–	–	–	–
117.0	50.0	–	–	–	–	3.2	–	–	–	–	–	–	–
119.0	33.0	–	–	–	–	2.7	–	–	–	–	–	–	–
120.0	30.0	–	–	–	–	2.4	–	–	–	–	–	–	–
120.0	35.0	–	–	–	–	2.7	–	–	–	–	–	–	–
120.0	40.0	–	–	–	–	4.9	–	–	–	–	–	–	–
120.0	45.0	–	–	–	–	9.3	–	–	–	–	–	–	–
120.0	60.0	–	–	–	–	3.0	–	–	–	–	–	–	–
120.0	65.0	–	–	–	–	3.1	–	–	–	–	–	–	–
123.0	36.0	–	–	–	–	2.0	–	–	–	–	–	–	–
123.0	37.0	–	–	–	–	16.9	–	–	–	–	–	–	–
123.0	45.0	–	–	–	–	2.6	–	–	–	–	–	–	–
123.0	50.0	–	–	–	–	2.8	–	–	–	–	–	–	–
127.0	33.0	–	–	–	–	13.0	–	–	–	–	–	–	–
127.0	34.0	–	–	–	–	3.1	–	–	–	–	–	–	–
127.0	40.0	–	–	–	–	5.4	–	–	–	–	–	–	–
127.0	50.0	–	–	–	5.4	–	–	–	–	–	–	–	–

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	–	–	–	–	3.3	–	–	–	–	–	–
80.0	70.0	0.0	–	–	–	–	3.1	–	–	–	–	–	–
83.0	70.0	0.0	–	–	–	–	3.4	–	–	–	–	–	–
87.0	55.0	0.0	–	–	–	–	2.8	–	–	–	–	–	–
87.0	70.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
87.0	80.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
90.0	60.0	0.0	–	–	–	–	3.4	–	–	–	–	–	–

Hypsoblennius 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	18.4	–	–	–	–	–	–	–	–	–	–	–
83.0	43.0	5.9	–	–	–	–	0.0	–	–	–	–	–	–
83.0	51.0	6.4	–	–	–	–	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	13.9	–	–	–	–	0.0	–	–	–	–	–	–
80.0	60.0	3.3	–	–	–	–	3.3	–	–	–	–	–	–
80.0	65.0	3.1	–	–	–	–	0.0	–	–	–	–	–	–
80.0	70.0	2.9	–	–	–	–	3.1	–	–	–	–	–	–
83.0	43.0	0.0	–	–	–	–	21.4	–	–	–	–	–	–
83.0	51.0	2.1	–	–	–	–	3.5	–	–	–	–	–	–
83.0	55.0	10.9	–	–	–	–	0.0	–	–	–	–	–	–
90.0	45.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
90.0	60.0	0.0	–	–	–	–	3.4	–	–	–	–	–	–
93.0	35.0	0.0	–	–	–	–	3.2	–	–	–	–	–	–
93.0	40.0	0.0	–	–	–	–	3.4	–	–	–	–	–	–
93.0	55.0	3.2	–	–	–	–	0.0	–	–	–	–	–	–
97.0	32.0	3.1	–	–	–	–	0.0	–	–	–	–	–	–
97.0	45.0	0.0	–	–	–	–	3.7	–	–	–	–	–	–
97.0	60.0	2.8	–	–	–	–	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	0.0	–	–	–	–	2.6	–	–	–	–	–	–
90.0	28.0	0.0	–	–	–	–	9.8	–	–	–	–	–	–
90.0	45.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
90.0	70.0	0.0	–	–	–	–	3.5	–	–	–	–	–	–
93.0	27.0	0.0	–	–	–	–	2.8	–	–	–	–	–	–
93.0	28.0	0.0	–	–	–	–	10.3	–	–	–	–	–	–
93.0	30.0	0.0	–	–	–	–	10.0	–	–	–	–	–	–
93.0	50.0	0.0	–	–	–	–	11.2	–	–	–	–	–	–
93.0	90.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
97.0	30.0	0.0	–	–	–	–	2.5	–	–	–	–	–	–
97.0	50.0	0.0	–	–	–	–	3.2	–	–	–	–	–	–
100.0	35.0	0.0	–	–	–	–	13.5	–	–	–	–	–	–
103.0	55.0	0.0	–	–	–	–	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	–	–	–	–	–	–
113.0	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	37.9	–	–	–	–	0.0	–	–	–	–	–	–
63.0	50.0	1468.8	–	–	–	–	–	–	–	–	–	–	–
63.0	52.0	301.8	–	–	–	–	0.0	–	–	–	–	–	–
67.0	48.0	211.9	–	–	–	–	–	–	–	–	–	–	–
67.0	50.0	19.4	–	–	–	–	0.0	–	–	–	–	–	–
73.0	50.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
73.0	53.0	8.4	–	–	–	–	0.0	–	–	–	–	–	–
77.0	48.0	595.7	–	–	–	–	0.0	–	–	–	–	–	–
80.0	51.0	65.3	–	–	–	–	0.0	–	–	–	–	–	–
80.0	52.0	27.8	–	–	–	–	0.0	–	–	–	–	–	–
82.0	47.0	11.4	–	–	–	–	0.0	–	–	–	–	–	–
83.0	40.0	2.5	–	–	–	–	0.0	–	–	–	–	–	–
83.0	43.0	88.2	–	–	–	–	4.3	–	–	–	–	–	–
83.0	51.0	8.5	–	–	–	–	0.0	–	–	–	–	–	–
87.0	33.0	84.7	–	–	–	–	4.8	–	–	–	–	–	–
87.0	35.0	13.2	–	–	–	–	2.6	–	–	–	–	–	–
90.0	28.0	53.6	–	–	–	–	81.3	–	–	–	–	–	–
90.0	32.0	11.8	–	–	–	–	3.4	–	–	–	–	–	–
90.0	90.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
93.0	27.0	0.0	–	–	–	–	28.0	–	–	–	–	–	–
93.0	28.0	2.5	–	–	–	–	27.4	–	–	–	–	–	–
97.0	29.0	23.8	–	–	–	–	50.8	–	–	–	–	–	–
97.0	30.0	0.0	–	–	–	–	42.5	–	–	–	–	–	–
97.0	32.0	3.1	–	–	–	–	0.0	–	–	–	–	–	–
97.0	35.0	0.0	–	–	–	–	3.1	–	–	–	–	–	–
100.0	29.0	44.4	–	–	–	–	12.0	–	–	–	–	–	–
100.0	30.0	0.0	–	–	–	–	12.2	–	–	–	–	–	–
103.0	30.0	9.4	–	–	–	–	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	0.0	–	–	–	–	4.5	–	–	–	–	–	–
93.0	27.0	0.0	–	–	–	–	8.4	–	–	–	–	–	–

TABLE 4. (cont.)

Scombridae

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
110.0	40.0	–	–	–	–	–	3.3	–	–	–	–	–	–
123.0	45.0	–	–	–	–	2.6	–	–	–	–	–	–	–

Sphyraena argentea

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
87.0	35.0	0.0	–	–	–	–	10.5	–	–	–	–	–	–
87.0	50.0	–	–	–	–	–	3.1	–	–	–	–	–	–
93.0	27.0	0.0	–	–	–	–	2.8	–	–	–	–	–	–
93.0	28.0	0.0	–	–	–	–	3.4	–	–	–	–	–	–

Icichthys lockingtoni

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	70.0	2.7	–	–	–	–	0.0	–	–	–	–	–	–
60.0	80.0	4.2	–	–	–	–	6.8	–	–	–	–	–	–
63.0	55.0	0.0	–	–	–	–	3.5	–	–	–	–	–	–
63.0	60.0	0.0	–	–	–	–	8.6	–	–	–	–	–	–
63.0	70.0	5.3	–	–	–	–	–	–	–	–	–	–	–
63.0	90.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
67.0	50.0	0.0	–	–	–	–	2.9	–	–	–	–	–	–
67.0	55.0	0.0	–	–	–	–	34.6	–	–	–	–	–	–
67.0	60.0	0.0	–	–	–	–	10.3	–	–	–	–	–	–
67.0	70.0	3.2	–	–	–	–	–	–	–	–	–	–	–
70.0	60.0	3.0	–	–	–	–	8.0	–	–	–	–	–	–
70.0	70.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
70.0	90.0	0.0	–	–	–	–	6.1	–	–	–	–	–	–
70.0	100.0	3.0	–	–	–	–	–	–	–	–	–	–	–
77.0	55.0	2.5	–	–	–	–	6.6	–	–	–	–	–	–
77.0	60.0	0.0	–	–	–	–	49.5	–	–	–	–	–	–
80.0	52.0	0.0	–	–	–	–	20.9	–	–	–	–	–	–
80.0	55.0	6.2	–	–	–	–	0.0	–	–	–	–	–	–
80.0	60.0	3.3	–	–	–	–	3.3	–	–	–	–	–	–
80.0	65.0	0.0	–	–	–	–	3.0	–	–	–	–	–	–
80.0	70.0	0.0	–	–	–	–	15.4	–	–	–	–	–	–
80.0	100.0	2.7	–	–	–	–	–	–	–	–	–	–	–
83.0	60.0	3.1	–	–	–	–	6.3	–	–	–	–	–	–
83.0	65.0	2.9	–	–	–	–	15.1	–	–	–	–	–	–
83.0	70.0	3.2	–	–	–	–	6.7	–	–	–	–	–	–
83.0	80.0	0.0	–	–	–	–	25.8	–	–	–	–	–	–
83.0	90.0	0.0	–	–	–	–	3.0	–	–	–	–	–	–
87.0	55.0	0.0	–	–	–	–	2.8	–	–	–	–	–	–
87.0	60.0	0.0	–	–	–	–	7.4	–	–	–	–	–	–
87.0	70.0	23.1	–	–	–	–	6.5	–	–	–	–	–	–

TABLE 4. (cont.)

Icichthys lockingtoni (cont.)

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
87.0	80.0	5.2	–	–	–	–	19.7	–	–	–	–	–	–
90.0	53.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
90.0	65.0	0.0	–	–	–	–	8.9	–	–	–	–	–	–
90.0	70.0	0.0	–	–	–	–	3.5	–	–	–	–	–	–
90.0	80.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
93.0	50.0	0.0	–	–	–	–	7.5	–	–	–	–	–	–
93.0	65.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
93.0	90.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
97.0	32.0	0.0	–	–	–	–	3.1	–	–	–	–	–	–

Peprilus simillimus

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
73.0	53.0	2.8	–	–	–	–	0.0	–	–	–	–	–	–
80.0	52.0	2.8	–	–	–	–	0.0	–	–	–	–	–	–
83.0	43.0	0.0	–	–	–	–	4.3	–	–	–	–	–	–
87.0	33.0	0.0	–	–	–	–	2.4	–	–	–	–	–	–
87.0	35.0	0.0	–	–	–	–	5.3	–	–	–	–	–	–
90.0	28.0	0.0	–	–	–	–	22.8	–	–	–	–	–	–
93.0	28.0	0.0	–	–	–	–	3.4	–	–	–	–	–	–
97.0	30.0	0.0	–	–	–	–	5.0	–	–	–	–	–	–
100.0	30.0	0.0	–	–	–	–	6.1	–	–	–	–	–	–
100.0	35.0	0.0	–	–	–	–	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	0.0	–	–	–	–	13.6	–	–	–	–	–	–
93.0	80.0	2.5	–	–	–	–	0.0	–	–	–	–	–	–
93.0	100.0	2.9	–	–	–	–	–	–	–	–	–	–	–
100.0	80.0	2.2	–	–	–	–	0.0	–	–	–	–	–	–
103.0	60.0	2.7	–	–	–	–	0.0	–	–	–	–	–	–

Chiasmodontidae

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
87.0	100.0	3.1	–	–	–	–	–	–	–	–	–	–	–
93.0	60.0	9.0	–	–	–	–	0.0	–	–	–	–	–	–
100.0	60.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
100.0	80.0	2.2	–	–	–	–	0.0	–	–	–	–	–	–
103.0	65.0	6.5	–	–	–	–	–	–	–	–	–	–	–
103.0	80.0	7.7	–	–	–	–	–	–	–	–	–	–	–

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	0.0	–	–	–	–	3.0	–	–	–	–	–	–

Citharichthys spp.

STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0	55.0	2.6	–	–	–	–	0.0	–	–	–	–	–	–
60.0	60.0	2.7	–	–	–	–	0.0	–	–	–	–	–	–
60.0	70.0	2.7	–	–	–	–	0.0	–	–	–	–	–	–
60.0	80.0	8.4	–	–	–	–	3.4	–	–	–	–	–	–
63.0	50.0	6.1	–	–	–	–	–	–	–	–	–	–	–
63.0	52.0	27.7	–	–	–	–	0.0	–	–	–	–	–	–
63.0	55.0	14.8	–	–	–	–	0.0	–	–	–	–	–	–
63.0	60.0	12.5	–	–	–	–	0.0	–	–	–	–	–	–
63.0	70.0	18.5	–	–	–	–	–	–	–	–	–	–	–
63.0	80.0	2.6	–	–	–	–	–	–	–	–	–	–	–
63.0	90.0	3.0	–	–	–	–	3.3	–	–	–	–	–	–
67.0	48.0	6.4	–	–	–	–	–	–	–	–	–	–	–
67.0	50.0	84.2	–	–	–	–	0.0	–	–	–	–	–	–
67.0	55.0	63.0	–	–	–	–	3.5	–	–	–	–	–	–
67.0	60.0	9.2	–	–	–	–	3.4	–	–	–	–	–	–
67.0	70.0	6.4	–	–	–	–	–	–	–	–	–	–	–
70.0	51.0	2.5	–	–	–	–	0.0	–	–	–	–	–	–
70.0	53.0	21.5	–	–	–	–	0.0	–	–	–	–	–	–
70.0	60.0	9.1	–	–	–	–	0.0	–	–	–	–	–	–
70.0	70.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
70.0	80.0	5.5	–	–	–	–	0.0	–	–	–	–	–	–
73.0	50.0	30.2	–	–	–	–	0.0	–	–	–	–	–	–
73.0	53.0	30.9	–	–	–	–	7.2	–	–	–	–	–	–
73.0	60.0	6.0	–	–	–	–	4.5	–	–	–	–	–	–
77.0	51.0	36.2	–	–	–	–	0.0	–	–	–	–	–	–
77.0	55.0	9.9	–	–	–	–	0.0	–	–	–	–	–	–
80.0	51.0	18.0	–	–	–	–	0.0	–	–	–	–	–	–
80.0	52.0	52.8	–	–	–	–	0.0	–	–	–	–	–	–
80.0	55.0	15.5	–	–	–	–	3.3	–	–	–	–	–	–
80.0	60.0	19.7	–	–	–	–	0.0	–	–	–	–	–	–
80.0	65.0	27.9	–	–	–	–	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	–	–	–	–	0.0	–	–	–	–	–	–
83.0	55.0	16.4	–	–	–	–	4.4	–	–	–	–	–	–
83.0	90.0	2.9	–	–	–	–	0.0	–	–	–	–	–	–
83.0	100.0	2.9	–	–	–	–	–	–	–	–	–	–	–
87.0	33.0	7.3	–	–	–	–	0.0	–	–	–	–	–	–
87.0	55.0	7.1	–	–	–	–	5.6	–	–	–	–	–	–
87.0	60.0	8.5	–	–	–	–	0.0	–	–	–	–	–	–
87.0	80.0	2.6	–	–	–	–	0.0	–	–	–	–	–	–
90.0	32.0	2.9	–	–	–	–	6.7	–	–	–	–	–	–
90.0	37.0	15.0	–	–	–	–	0.0	–	–	–	–	–	–
90.0	45.0	10.1	–	–	–	–	0.0	–	–	–	–	–	–
90.0	65.0	5.9	–	–	–	–	0.0	–	–	–	–	–	–
90.0	70.0	0.0	–	–	–	–	3.5	–	–	–	–	–	–
93.0	27.0	0.0	–	–	–	–	5.6	–	–	–	–	–	–
93.0	28.0	0.0	–	–	–	–	13.7	–	–	–	–	–	–
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	–	–	–	–	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 stigmaeus

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0 70.0	5.4	–	–	–	–	0.0	–	–	–	–	–	–
60.0 80.0	8.4	–	–	–	–	0.0	–	–	–	–	–	–
63.0 55.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
63.0 80.0	2.6	–	–	–	–	–	–	–	–	–	–	–
67.0 60.0	3.1	–	–	–	–	0.0	–	–	–	–	–	–
67.0 70.0	3.2	–	–	–	–	–	–	–	–	–	–	–
70.0 51.0	2.5	–	–	–	–	0.0	–	–	–	–	–	–
70.0 60.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
70.0 70.0	2.8	–	–	–	–	0.0	–	–	–	–	–	–
70.0 80.0	11.1	–	–	–	–	0.0	–	–	–	–	–	–
70.0 90.0	3.1	–	–	–	–	0.0	–	–	–	–	–	–
73.0 60.0	27.1	–	–	–	–	0.0	–	–	–	–	–	–
77.0 55.0	2.5	–	–	–	–	0.0	–	–	–	–	–	–
77.0 60.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
80.0 52.0	2.8	–	–	–	–	0.0	–	–	–	–	–	–
80.0 55.0	3.1	–	–	–	–	0.0	–	–	–	–	–	–
80.0 70.0	2.9	–	–	–	–	0.0	–	–	–	–	–	–
80.0 80.0	3.0	–	–	–	–	0.0	–	–	–	–	–	–
80.0 100.0	2.7	–	–	–	–	–	–	–	–	–	–	–
82.0 47.0	2.8	–	–	–	–	0.0	–	–	–	–	–	–
83.0 55.0	2.7	–	–	–	–	0.0	–	–	–	–	–	–
83.0 60.0	3.1	–	–	–	–	0.0	–	–	–	–	–	–
83.0 65.0	2.9	–	–	–	–	0.0	–	–	–	–	–	–
83.0 90.0	2.9	–	–	–	–	0.0	–	–	–	–	–	–
83.0 100.0	5.8	–	–	–	–	–	–	–	–	–	–	–
87.0 35.0	3.3	–	–	–	–	0.0	–	–	–	–	–	–
87.0 40.0	3.1	–	–	–	–	0.0	–	–	–	–	–	–
87.0 55.0	2.4	–	–	–	–	2.8	–	–	–	–	–	–
87.0 60.0	5.7	–	–	–	–	0.0	–	–	–	–	–	–
87.0 80.0	7.9	–	–	–	–	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	0.0	–	–	–	–	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	9.0	–	–	–	–	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	3.8	–	–	–	–	–	–	–	–	–	–	–
60.0	52.0	336.7	–	–	–	–	0.0	–	–	–	–	–	–
60.0	55.0	10.6	–	–	–	–	0.0	–	–	–	–	–	–
63.0	50.0	45.9	–	–	–	–	–	–	–	–	–	–	–
63.0	52.0	120.1	–	–	–	–	0.0	–	–	–	–	–	–
67.0	50.0	3.2	–	–	–	–	0.0	–	–	–	–	–	–
67.0	55.0	6.3	–	–	–	–	0.0	–	–	–	–	–	–
70.0	51.0	2.5	–	–	–	–	0.0	–	–	–	–	–	–
73.0	53.0	2.8	–	–	–	–	0.0	–	–	–	–	–	–
77.0	55.0	2.5	–	–	–	–	0.0	–	–	–	–	–	–
80.0	51.0	15.8	–	–	–	–	0.0	–	–	–	–	–	–
83.0	55.0	0.0	–	–	–	–	4.4	–	–	–	–	–	–
87.0	33.0	0.0	–	–	–	–	7.3	–	–	–	–	–	–
87.0	40.0	0.0	–	–	–	–	3.1	–	–	–	–	–	–
87.0	55.0	0.0	–	–	–	–	2.8	–	–	–	–	–	–
90.0	28.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
97.0	29.0	0.0	–	–	–	–	19.7	–	–	–	–	–	–
97.0	30.0	0.0	–	–	–	–	5.0	–	–	–	–	–	–
100.0	29.0	0.0	–	–	–	–	3.0	–	–	–	–	–	–
100.0	30.0	0.0	–	–	–	–	6.1	–	–	–	–	–	–
103.0	29.0	0.0	–	–	–	–	2.7	–	–	–	–	–	–

Pleuronichthys spp.

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

TABLE 4. (cont.)

Pleuronichthys spp. (cont.)

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
90.0 32.0	2.9	–	–	–	–	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	0.0	–	–	–	–	1.5	–	–	–	–	–	–
90.0 53.0	0.0	–	–	–	–	3.3	–	–	–	–	–	–
100.0 35.0	0.0	–	–	–	–	2.7	–	–	–	–	–	–

Pleuronichthys decurrens

STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
60.0 60.0	2.7	–	–	–	–	0.0	–	–	–	–	–	–
77.0 60.0	0.0	–	–	–	–	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	3.1	–	–	–	–	0.0	–	–	–	–	–	–
83.0 51.0	2.1	–	–	–	–	0.0	–	–	–	–	–	–
87.0 33.0	4.8	–	–	–	–	0.0	–	–	–	–	–	–
87.0 45.0	0.0	–	–	–	–	3.2	–	–	–	–	–	–
90.0 28.0	0.0	–	–	–	–	13.0	–	–	–	–	–	–
90.0 32.0	2.9	–	–	–	–	10.1	–	–	–	–	–	–
93.0 28.0	0.0	–	–	–	–	6.8	–	–	–	–	–	–
97.0 29.0	9.9	–	–	–	–	8.5	–	–	–	–	–	–
97.0 30.0	0.0	–	–	–	–	5.0	–	–	–	–	–	–
100.0 29.0	0.0	–	–	–	–	3.0	–	–	–	–	–	–
100.0 30.0	0.0	–	–	–	–	12.2	–	–	–	–	–	–
103.0 30.0	0.0	–	–	–	–	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.)

Psettichthys melanostictus

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	–	–	–	–	–	–	–	–	–	–	–
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	–	–	–	–	–	–	–	–	–	–	–
67.0	50.0	6.5	–	–	–	–	0.0	–	–	–	–	–	–
67.0	60.0	0.0	–	–	–	–	3.4	–	–	–	–	–	–
67.0	90.0	–	–	–	–	–	6.6	–	–	–	–	–	–

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	–	–	–	–	3.4	–	–	–	–	–	–
90.0	37.0	6.0	–	–	–	–	0.0	–	–	–	–	–	–
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	–	–	–	–	3.2	–	–	–	–	–	–
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
Etrumeus acuminatus	4	7	36	37	35	26	7	1	9
Opisthonema spp.	-	-	-	-	2	3	-	-	-
Sardinops sagax	53	58	99	88	104	143	31	10	79
Engraulis mordax	408	454	567	707	618	987	150	188	880
Argentina sialis	18	49	33	37	49	93	21	18	98
Microstoma microstoma	12	19	11	31	17	48	9	19	73
Nansenia candida	9	13	5	7	9	39	6	12	32
Nansenia crassa	29	15	30	33	22	48	8	5	40
Bathylagus spp.	18	1	54	1	7	18	6	35	215
Bathylagus milleri	-	-	2	3	1	1	-	1	33
Bathylagus ochotensis	57	66	98	196	127	260	28	106	359
Bathylagus pacificus	5	7	8	38	3	26	-	15	80
Bathylagus wesethi	149	168	160	235	220	461	99	90	328
Leuroglossus stilbius	202	225	236	360	300	449	43	116	498
Dolichopteryx spp.	-	-	-	-	-	-	-	-	1
Macropinna microstoma	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
Diplophos taenia	5	5	7	-	3	11	1	1	7
Ichthyococcus spp.	4	11	11	13	7	35	5	2	34
Vinciguerria lucetia	342	371	383	369	436	828	121	82	479
Vinciguerria poweriae	3	7	3	4	3	6	-	-	1
Woodsia nonsuchae	-	-	1	-	-	-	-	-	-
Sternoptychidae	54	71	45	79	59	250	28	48	469
Astronesthidae	-	2	-	-	-	-	-	-	1
Chauliodus macouni	28	28	31	68	57	171	9	46	189
Idiacanthus antrostomus	48	43	26	32	33	72	15	22	114
Aristostomias scintillans	9	10	9	6	9	12	2	-	11
Bathophilus spp.	5	10	4	3	4	5	2	1	2
Eustomias spp.	1	1	-	1	1	-	-	1	-
Photonectes spp.	7	3	2	2	6	4	-	-	-
Tactostoma macropus	7	4	-	4	2	16	3	-	4
Stomias atriventer	58	76	98	81	100	326	24	46	214
Evermannellidae	1	3	1	1	1	-	-	-	-
Paralepididae	-	3	5	10	3	-	-	3	6
Lestidiops ringens	50	80	58	63	67	232	36	52	231
Notolepis risso	9	12	9	7	9	12	2	8	18
Paralepis atlantica	-	-	-	-	1	-	-	-	-
Stemonosudis macrura	4	6	-	2	6	5	-	1	1
Sudis atrox	2	4	-	2	4	-	-	-	-
Aulopus spp.	-	-	-	-	-	1	-	-	-
Scopelosaurus 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	165	151	179	220	222	346	33	79	329
Ceratoscopelus townsendi	149	157	128	146	156	302	37	23	153
Diaphus spp.	77	56	46	101	80	187	46	34	110
Lampadena urophaos	53	45	50	25	32	62	10	1	23
Lampanyctus spp.	148	139	199	155	183	401	67	65	550
Lampanyctus regalis	13	12	2	20	9	46	12	11	19
Lampanyctus ritteri	154	204	120	189	234	523	43	72	155
Notolychnus valdiviae	29	13	22	16	21	22	7	1	10
Notoscopelus resplendens	59	41	50	39	44	54	11	3	29
Parvilux ingens	-	-	-	-	-	-	-	-	1
Stenobrachius leucopsarus	177	179	186	342	263	420	31	127	390
Triphoturus mexicanus	407	422	451	448	494	990	142	92	556
Triphoturus nigrescens	4	-	-	-	1	-	-	-	-
Benthosema pterota	-	-	-	-	-	3	-	-	-
Centrobranchus spp.	2	10	-	2	2	-	1	-	2
Diogenichthys spp.	54	62	88	61	11	165	16	13	79
Diogenichthys atlanticus	102	155	92	111	116	171	38	46	210
Diogenichthys laternatus	94	127	161	163	249	361	63	32	210
Electrona rissoi	3	5	-	3	2	3	-	-	7
Gonichthys tenuiculus	20	24	29	46	81	146	16	12	48
Hygophum spp.	4	3	29	6	11	4	-	-	13
Hygophum atratum	27	38	41	44	103	178	21	6	81
Hygophum reinhardtii	39	58	27	20	27	9	7	-	10
Loweina rara	8	4	5	4	8	6	1	-	11
Myctophum nitidulum	46	42	31	32	19	58	11	8	59
Protomyctophum crockeri	247	252	225	292	261	671	109	139	717
Protomyctophum thompsoni	-	-	-	-	-	-	-	-	9
Symbolophorus californiensis	82	140	78	116	111	291	38	61	157
Tarletonbeania crenularis	160	115	111	140	132	208	10	73	277
Synodus spp.	19	23	41	35	42	121	23	-	54
Bregmaceros spp.	-	-	-	-	-	2	-	-	-
Microgadus proximus	-	-	-	3	-	2	-	-	-
Merluccius productus	152	228	229	290	290	398	25	95	361
Physiculus spp.	-	1	1	1	3	2	1	-	2
Macrouridae	4	6	6	5	3	5	2	3	14
Ophidiiformes	16	16	35	49	37	69	10	16	45
Brosmophycis marginata	-	2	3	3	7	17	5	8	16
Carapidae	-	1	-	1	-	-	-	-	-
Chilara taylori	12	31	15	11	29	55	15	-	28
Ophidion scrippsae	2	10	61	19	40	67	-	-	34
Porichthys 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	-	-	-	-
Cololabis saira	11	6	13	22	9	31	3	10	32
Atherinidae	-	-	9	23	8	11	2	2	5
Trachipteridae	27	27	20	22	19	75	6	9	80
Eutaeniophoridae	-	-	-	-	-	-	-	-	5

TABLE 5. (cont.)

NAME	1961	1962	1963	1964	1965	1966	1967	1968	1969
Melamphaes spp.	117	106	134	114	151	340	68	84	333
Poromitra spp.	13	18	28	28	32	51	6	14	27
Scopeloberyx robustus	4	2	2	-	7	-	-	-	2
Scopelogadus bispinosus	18	34	10	31	13	60	4	5	17
Macroramphosus gracilis	3	6	6	3	7	6	7	-	11
Syngnathus spp.	6	5	8	12	12	15	6	3	10
Agonidae	3	6	16	24	22	20	5	4	9
Anoplopoma fimbria	-	-	-	1	-	-	-	-	-
Cottidae	11	21	33	45	37	43	5	12	40
Scorpaenichthys marmoratus	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
Ophiodon elongatus	-	-	-	-	-	1	-	1	1
Oxylebius pictus	6	3	7	27	13	7	-	5	20
Zaniolepis spp.	2	9	12	11	7	26	7	3	19
Scorpaenidae	-	1	2	-	-	1	1	-	-
Scorpaena spp.	11	11	17	16	25	62	8	3	12
Sebastes spp.	311	273	289	492	387	698	81	207	705
Sebastolobus spp.	8	2	17	20	20	87	4	14	47
Prionotus spp.	10	9	40	15	30	25	-	-	19
Acanthuridae	-	-	1	-	-	-	-	-	-
Blennioidei	1	-	14	6	4	-	3	-	4
Hypsoblennius spp.	11	14	68	69	73	77	19	6	61
Clinidae	12	21	31	44	64	51	9	10	51
Gobiidae	31	41	87	80	104	198	36	19	138
Icosteus aenigmaticus	1	1	1	1	-	3	-	-	1
Labridae	-	2	9	-	7	-	2	3	-
Halichoeres spp.	12	12	40	18	36	50	4	1	28
Oxyjulis californica	23	22	34	15	31	97	23	15	58
Semicossyphus pulcher	6	10	21	7	27	28	4	-	8
Pomacentridae	-	-	10	4	8	5	-	-	-
Chromis punctipinnis	3	21	42	13	39	105	5	1	54
Hypsypops rubicundus	-	-	1	-	8	1	-	-	-
Mugil spp.	-	-	-	1	1	5	1	-	-
Apogonidae	-	-	-	-	-	1	-	-	-
Howella brodiei	16	7	-	5	4	3	1	1	4
Brama spp.	21	17	17	7	9	21	1	-	12
Carangidae	-	1	20	14	25	13	2	-	3
Seriola lalandi	5	12	15	7	14	30	5	4	9
Trachurus symmetricus	144	208	199	206	214	503	76	85	248
Caristius macropus	-	-	-	-	1	1	-	-	-
Coryphaena hippurus	-	7	2	1	10	5	1	-	1
Chaetodipterus zonatus	-	-	1	-	-	-	-	-	-
Gerreidae	-	2	15	10	14	12	2	-	4
Haemulidae	-	1	13	16	11	17	-	-	4
Girella nigricans	5	1	11	3	3	4	3	7	7
Medialuna californiensis	4	11	13	4	5	22	6	3	12
Caulolatilus princeps	4	3	2	3	7	5	1	-	2
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	-	-	-	-	-	-
Polynemidae	-	-	-	-	-	1	-	-	-
Gempylidae	7	15	6	5	8	7	-	-	1
Scombridae	3	-	3	2	4	-	8	2	2
Auxis spp.	-	-	2	-	8	4	-	-	2
Sarda chiliensis	7	3	10	8	9	29	1	-	30
Scomber japonicus	26	32	57	39	34	68	14	-	24
Scomberomorus spp.	1	-	1	1	5	3	-	-	-
Trichiuridae	10	23	27	17	27	74	10	-	23
Sphyraena argentea	6	6	22	10	25	31	7	4	15
Icichthys lockingtoni	38	39	52	78	53	131	18	48	202
Nomeidae	-	-	1	1	1	2	-	-	1
Peprilus simillimus	2	19	19	18	45	52	22	11	45
Tetragonurus cuvieri	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
Bothus spp.	-	-	2	-	-	-	-	-	-
Citharichthys spp.	186	221	281	243	342	590	108	101	611
Citharichthys stigmaeus	50	97	65	73	65	171	19	42	269
Hippoglossina stomata	24	15	44	42	44	83	12	5	52
Paralichthys californicus	21	37	57	96	107	81	13	13	60
Syacium ovale	-	-	3	-	1	3	-	-	-
Xystreurys liolepis	1	9	15	18	8	30	4	-	22
Glyptocephalus zachirus	2	-	9	18	4	36	-	14	15
Hypsopsetta guttulata	1	-	4	5	10	3	-	-	6
Lepidopsetta bilineata	1	1	-	1	2	3	2	2	1
Lyopsetta exilis	32	31	33	46	33	72	4	20	65
Microstomus pacificus	2	-	11	13	16	52	13	17	56
Parophrys vetulus	14	32	41	41	81	80	6	21	80
Platichthys stellatus	-	-	-	-	-	3	-	-	-
Pleuronichthys spp.	4	3	10	12	1	-	10	3	1
Pleuronichthys coenosus	2	2	6	9	5	11	1	3	15
Pleuronichthys decurrens	1	4	-	1	4	11	-	2	11
Pleuronichthys ritteri	5	3	12	12	9	8	2	1	7
Pleuronichthys verticalis	10	47	56	74	88	81	24	18	66
Psettichthys melanostictus	1	1	5	12	9	10	-	4	14
Symphurus 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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