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SEAMAP ENVIRONMENTAL AND BIOLOGICAL ATLAS OF THE GULF OF MEXICO, 1994

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TABLE OF CONTENTS

LIST OF TABLES

PAGE

LIST OF TABLES

PAGE

LIST OF TABLES

PAGE

LIST OF TABLES

LIST OF TABLES

LIST OF TABLES

LIST OF TABLES

PAGE

LIST OF TABLES

PAGE

LIST OF FIGURES

LIST OF FIGURES

LIST OF FIGURES

LIST OF FIGURES

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The 1994 SEAMAP Atlas was developed as a cooperative effort between the five Gulf States fishery management agencies and the National Marine Fisheries Service (NMFS), to present information collected during SEAMAP research survey activities in the Gulf of Mexico. The SEAMAP Data Coordinating Work Group would like to thank the following agencies for their participation in the project: Florida Department of Environmental Protection, Alabama Department of Conservation and Natural Resources, Gulf Coast Research Laboratory (representing the Mississippi Department of Marine Resources), Louisiana Department of Wildlife and Fisheries, Texas Parks and Wildlife Department, and NMFS-Southeast Fisheries Science Center.

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INTRODUCTION

The Southeast Area Monitoring and Assessment Program (SEAMAP) is a State/Federal/university program for the collection, management and dissemination of fishery-independent data (information collected without direct reliance on statistics reported by commercial or recreational fishermen) in United States waters of the Gulf of Mexico (Eldridge 1988). A major SEAMAP objective is to provide a large, standardized data base needed by management agencies, industry and scientists to wisely manage and develop fishery resources for the least possible cost. To accomplish this goal, survey data must be disseminated in a useful format to SEAMAP participants, cooperators and other interested organizations.

The SEAMAP Program began in March 1981 when the National Marine Fisheries Service (NMFS), Southeast Fisheries Science Center (SEFSC), presented a SEAMAP Strategic Plan (1981) to the Gulf States Marine Fisheries Commission (GSMFC). This strategic plan outlined the proposed program organization (goals, objectives, procedures, resource requirements, etc.); within the existing framework of the GSMFC, a SEAMAP Subcommittee was then formed. The Subcommittee consists of one representative from each state fishery management agency [Florida Department of Environmental Protection (FDEP); Alabama Department of Conservation and Natural Resources (ADCNR); Mississippi Department of Marine Resources (MDMR) represented by the Gulf Coast Research Laboratory (GCRL); Louisiana Department of Wildlife and Fisheries (LDWF) and Texas Parks and Wildlife Department (TPWD)], one from NMFS Southeast Fisheries Science Center and a non-voting member representing the Gulf of Mexico Fishery Management Council (GMFMC). The Subcommittee organized and successfully coordinated a number of surveys between 1982 through 1993 (Table 1). The data are published in atlases for the surveys in 1982 (Stuntz et al. 1985); 1983 (Thompson and Bane 1986a); 1984 (Thompson and Bane 1986b); 1985 (Thompson et al. 1988); 1986 (Sanders et al. 1990a); 1987 (Sanders et al. 1990b); 1988 (Sanders et al. 1991a); 1989 (Sanders et al. 1991b); 1990 (Sanders et al. 1992); 1991 (Donaldson et. al. 1993); 1992 (Donaldson et. al. 1994) and 1993 (Donaldson et. al. 1996). Environmental assessment activities occurred with each of the surveys found in Table 1.

In March 1994, the SEAMAP Subcommittee identified and began to plan the year's SEAMAP survey activities for the Gulf of Mexico. In keeping with the program goal of establishing a coordinated long-term resource data base, it was decided to continue the same types of survey activities conducted in 1982 through 1993. Overall survey objectives in 1982 to 1993 were to assess the distribution and abundance of recreational and commercial organisms collected by plankton, trap/video and trawl gears and document environmental factors that might affect their distribution and abundance. The basis for plankton work was primarily assessment of selected finfish and invertebrate eggs and larvae across the northern Gulf of Mexico (Sherman et al. 1983). The basis for the trawl surveys which started with the Texas Closure (Nichols 1982, 1984; Nichols and Poffenberger 1987), was to establish a seasonal data base to assess the abundance and distribution of the shrimp and groundfish stocks across the northern Gulf of Mexico. The basis for the Reef Fish Survey is to determine the relative abundance of reef fish populations and habitat using a fish trap/video recording system (Russell, unpublished report) and a fisheries acoustic system.

A major purpose of SEAMAP is to provide resource survey data to State and Federal management agencies and universities participating in SEAMAP activities. This thirteenth in a series of SEAMAP environmental and biological atlases presents such data, in a summarized form, collected during the 1994 SEAMAP surveys. The area covered in the Gulf of Mexico for all SEAMAP survey activities during 1994 is shown in Figure 1.

MATERIALS AND METHODS

Methodology for the 1994 SEAMAP surveys is similar to that of the 1982 through 1993 surveys. Sampling was conducted within the U.S. Exclusive Economic Zone (EEZ) and state territorial waters. Vessels that participated in collecting plankton and environmental data during the Spring Plankton Survey included the NOAA Ship OREGON II (April 16-May 14); the NOAA Ship CHAPMAN (May 20-31); and the Florida vessel HERNAN CORTEZ II (May 20-22). The Louisiana vessel PELICAN collected plankton samples off Louisiana during its seasonal trawl surveys (March 28-31).

Vessels that participated in the Reef Fish Survey and concurrently sampled plankton and environmental data included the NOAA Ship CHAPMAN (May 9-July 21); the GCRL vessel TOMMY MUNRO (August 5-7); and the Alabama Vessel A.E. VERRILL (September 26, 29; October 31 and December 6-8). In addition, the NOAA Ship CHAPMAN collected periodic plankton samples during the survey.

Vessels that participated in the Summer Shrimp/Groundfish Survey and concurrently sampled plankton and environmental data included the GCRL vessel TOMMY MUNRO (June 10-16 and 21 and July 5-7); the NOAA Ship OREGON II (June 16 - July 18); and the Louisiana vessel PELICAN (July 4-7). The TPWD vessels ARANSAS BAY, MATAGORDA BAY, LAGUNA MADRE, GALVESTON BAY and SABINE (June 1-25) and the Alabama vessel A.E. VERRILL (June 2 and 9) did not sample plankton in conjunction with the summer survey.

Vessels that participated in collecting plankton and environmental data during the Fall Plankton Survey included the GCRL vessel TOMMY MUNRO (September 21); the NOAA Ship CHAPMAN (September 11-29); the Louisiana vessel PELICAN (September 26-29); the Alabama vessel A.E. VERRILL (September 28); and the Florida vessel HERNAN CORTEZ II (September 28-October 8).

Vessels that participated in the Fall Shrimp/Groundfish Survey and concurrently sampled plankton and environmental data included the NOAA Ship OREGON II (October 14-November 20); the GCRL vessel TOMMY MUNRO (October 27-28 and November 12-13); and the Louisiana vessel PELICAN (November 28 - December 2). The Alabama vessel A.E. VERRILL (October 24); and the TPWD vessels ARANSAS BAY, MATAGORDA BAY, LAGUNA MADRE, GALVESTON BAY and SABINE (November 8-30) did not sample plankton in conjunction with the fall survey.

PLANKTON SURVEYS

Plankton samples were taken at stations arranged in a systematic grid across the Gulf of Mexico. Such a grid was chosen because of the large survey area. Stations were set at minimum intervals of 30 miles (1/2 degree). The exceptions were with LDWF vessels, which collected samples opportunistically at the end of a trawl station.

Sampling gear and procedures were similar to those recommended by Kramer et al. (1972), Smith and Richardson (1977) and Posgay and Marak (1980). Plankton sampling gear consisted of standard 61-cm bongos and a 2x1-m neuston net for the large vessels. The bongos were fitted with 0.333-mm mesh nets with either hard (PVC) or soft (0.333-mm mesh net) cod ends. A flowmeter was mounted off-center in the mouth of each net to record the volume of water filtered. A 50-lb weight was attached approximately 1 m below the bongo frame attachment. The neuston net consisted of a 2x1-m pipe frame fitted with a 0.948-mm mesh net on which the cod end was tied off.

At each designated plankton station, either an oblique bongo/surface neuston tow or a surface neuston tow was made. In deep water bongo stations (more than 95 m) a standard oblique tow was made to 200 m, or to 2 m off the bottom at depths less than 200 m, with a payout speed of 50 m/min, 30-second settling time depths under 100 m and a 1-minute settling time for depths over 100 m, and a retrieval speed of 20 m/min, at a vessel speed of 1.5 knots to maintain a 45° angle. Neuston tows were made at the surface with the net half-submerged for 10 minutes at a vessel speed of 1.5 knots. The Louisiana vessels made plankton tows with small, 20-cm bongo nets with 0.333-mm mesh and soft cod ends.

Samples were preserved initially in 10% buffered formalin. After a 48-hr period, the bongo and neuston samples were transferred to 95% ethyl alcohol for final preservation. The Pascagoula Laboratory curated and computerized the sample data. The right bongo sample and the neuston sample from each station were transshipped to the Polish Sorting and Identification Center (PSIC) in Szczecin, Poland, for sorting and identification. Plankton samples from Louisiana vessels were retained by LDWF for sorting and identification at their facilities. All ichthyoplankton components (eggs and larvae) were removed from each sample and the fish larvae identified to the lowest feasible taxon (families in most cases).

Sorted ichthyoplankton specimens from PSIC were returned to the SEAMAP Archiving Center (SAC), managed in conjunction with the FDEP, for long-term storage under museum-like conditions. Sorted ichthyoplankton samples from 1982 through 1993 are available for loan to researchers throughout the country. Plankton volumes were determined according to procedures in Smith and Richardson (1977). The alternate bongo sample from each station was retained at GCRL as a backup for those samples transshipped to the PSIC, in case of loss or damage during transit. These backup unsorted plankton samples containing zooplankton and phytoplankton are stored at the SEAMAP Invertebrate Plankton Archiving Center (SIPAC), managed in conjunction with GCRL, for use by researchers.

ENVIRONMENTAL SURVEYS

Standardized methodology was used although the actual parameters measured varied among vessels participating in each survey. The following parameters were recorded:

Vessel: Vessel code for each vessel.
Station: Station identifiers varied by state and vessel.
Cruise: Cruise numbers varied by state and vessels.
Date: Month/Day/Year.
Time: Local time and time zone, recorded at the start of sampling.
Latitude/longitude: Recorded to seconds.
Barometric pressure: Recorded in millibars.
Wave height: Estimated visually in meters.
Wind speed and direction: Recorded in knots with direction recorded in compass degrees from which the wind was blowing.
Air temperature: Recorded in Centigrade.
Cloud cover: Estimated visually in percent cloud cover.

Secchi depth: Secchi depth in meters, estimated at each daylight station. Standard oceanographic 30-cm white discs were lowered until no longer visible, then raised until visible. If different depths were recorded, an average was used.

Water Color: Forel-Ule data was recorded.

The following parameters were measured at the surface, mid-depth and bottom; for bottom depths greater than 200 m, samples were taken at surface, 100 m and 200 m:

Water temperature: Temperatures were measured by a hand-held thermometer onboard ship, in situ electronic sensors, or in situ reversing thermometers. No attempt was made to intercalibrate the various instruments used on individual vessels although several vessels did sample together to calibrate other sampling gear. Some error can be expected.

Salinity: Salinity samples were collected by Niskin bottles and stored for laboratory analysis with a salinometer. Conductivity probes or refractometers were used on some vessels.

Chlorophyll: Chlorophyll samples were collected and frozen for later laboratory analysis. The general procedure for shipboard collection of chlorophyll was to collect more than 9 liters of water from the surface. This was kept stirred by bubbling air through it while filtration was being done. Three samples, to each of which a 1 ml, 1% (W/V), suspension of $MgCO_3$ was added, of up to 3 liters of water from the 9 liter sample were filtered through GF/C filters. The three filters were placed individually in Petri dishes, wrapped in opaque material and frozen until analysis. Each of the three samples was analyzed separately in the laboratory. Values in the tables that follow, are the mean of the three samples.

Laboratory analyses for chlorophyll a and phaeophytin a (chlorophyll degradation product) were conducted by fluorometry and spectrophotometry. The general extraction procedures prior to measurement were similar. Samples analyzed by spectrophotometer included other chlorophyllous products but these have not been included as data in this report. The methodology used is described in Strickland and Parsons (1972) and Jeffrey and Humphrey (1975). Some of the values have been deleted from the data base because of analytical errors.

Dissolved oxygen: Dissolved oxygen values were measured by electronic probes (depending on the vessel) or by the Winkler titration method. No attempts were made to intercalibrate the methods. When oxygen was measured in samples collected from a Niskin sampler, the oxygen bottles were allowed to overflow a minimum of 10 seconds to eliminate oxygen contamination. The tubing which delivered the water sample was inserted to the bottom of the bottle and withdrawn while the sample was still flowing. The oxygen bottles were sealed with a ground-glass stopper and analyzed onboard the vessels.

Turbidity: Turbidity values were measured by electronic probes (depending on the vessel).

Satellite Images

Thermal data were collected by the Advanced Very High Resolution Radiometers (AVHRR) carried on the NOAA Polar Orbiter series of satellites. The data were provided by the National Hurricane Center.

TRAWL SURVEYS

Spring Louisiana Trawl Survey

The Louisiana Department of Wildlife and Fisheries conducted a seasonal day/night trawl survey and concurrently took environmental samples at each trawl station and plankton samples according to SEAMAP protocols. The trawl survey was conducted as part of an effort to provide comparative information on critical life states of major Gulf species, especially shrimp, and associated environmental parameters in Louisiana and adjacent EEZ waters. The LDWF sampled day and night stations with a 40-ft shrimp trawl to depths of 35 fm. A stratified random station selection design was maintained. All organisms captured were identified, counted, measured and weighed.

Summer Shrimp/Groundfish Survey

The sampling strategy and a description of the statistical rationale for the sampling design as described by Nichols in the 1982 SEAMAP Atlas (Stuntz et al. 1985) has been modified. Since 1987, the strategy has been that day/night sampling sites were chosen randomly in areas stratified by depth and statistical area. These areas are shrimp statistical zones 11 and 13 through 22 (Figure

2). Trawl stations for NMFS, Alabama, Mississippi and Louisiana vessels are made with a standard SEAMAP 40-ft net, and 20-ft net for Texas vessels. Depth strata consisted of 1 fm intervals from 5 to 20 fm, a 2 fm interval from 20 to 22 fm, a 3 fm interval from 22 to 25 fm, 5 fm intervals from 25 to 50 fm and a 10 fm interval from 50 to 60 fms. Additionally, the GCRL vessel TOMMY MUNRO sampled 1 fm intervals from 2 to 5 fm off Louisiana in July. Trawls were towed perpendicularly to the depth contours and covered the entire depth stratum on each station. Single tows were for a maximum of 60 minutes; for certain stations, a series of consecutive trawl tows was necessary to cover a given depth stratum, with a minimum individual tow across each stratum of 10 minutes and a maximum tow of 60 minutes. The Texas vessels towed 10 minutes parallel to the depth stratum. The Louisiana vessels did not cover a complete depth stratum on several stations because of the distance between depth stratum.

All Penaeus spp. shrimp were separated from the trawl catch at each station. Total count and weight by species were recorded for each station. A sample of up to 200 shrimp of each species from every trawl was sexed and measured to obtain length-frequency information. Estimated total numbers were derived from the total weights of those processed. Other species of fishes and invertebrates were identified, enumerated and weighed. Weights and individual measurements on selected species other than commercial shrimp were also recorded.

Fall Shrimp/Groundfish Survey

The design of the fall survey was similar to the Summer Shrimp/Groundfish Survey. During the Fall survey trawl stations were made with the standard 40-ft and 20-ft SEAMAP net and covered NMFS shrimp statistical zones 11 and 13 through 21 (Figure 2). Catch rates on all the vessels sampling were treated in the same manner as the Summer Shrimp/Groundfish Survey with the exception to shrimp catches where only 20 shrimp of each species from every trawl were measured.

REEF FISH SURVEY

The primary purpose of this survey is to assess relative abundance and compute population estimates of reef fishes found on natural reef fish habitat in the Gulf of Mexico. The primary gear used to observe fishes and to record reef habitat is a Hi-8 video camera in an underwater housing mounted outside a single funnel, baited fish trap. The resultant video recordings (typically of one hour duration) are processed back at the laboratory where fishes are identified and counted independently by two tape readers. Final counts are entered into the SEAMAP reef fish database along with additional observations on habitat, and fish activity.

The hardbottom database from which sampling sites for this survey are chosen was developed in the following manner. Areas of natural reef habitat from Brownsville, Texas to the southern tip of Florida (at 81°00' W longitude and 24°02' N latitude) and between 9 and 110 m water depth were first inscribed on navigation charts, then divided into 10 by 10 nautical mile blocks (primary sample units). Each block was subdivided into 100-m^2, secondary sample units that were numbered and initially classified as being "reef" or "nonreef", then entered into a database. Prior to the survey, blocks are selected from this database in the east and west Gulf with probability proportional to the number of "reef" sample units within a block. Within each selected block, 100 sample sites are randomly selected. During the survey each selected block is occupied for one 24-h period, where night hours are devoted to ship's echo sounder surveys of up to 100 sites and daytime hours to trap/video sampling. Each potential sample site surveyed at night is given a final determination as being either a reef site or not based on echo patterns, vertical relief and other characteristics. Up to 8 actual "reef" sites are then randomly selected for sampling during that day. Trap/video sampling begins one hour after sunrise and ends one hour before sunset. Trap soak time is one hour.

Associated environmental data collected at each site usually includes profiles of salinity, temperature, and surface chlorophyll; and may also include profiles of dissolved oxygen, light transmittance, and fluorescence. Additional environmental and meteorological observations taken on stations follow standard SEAMAP methodology. During the NMFS component of the reef fish survey fish abundance is also measured with a fisheries acoustic device and plankton collections are taken either prior to or at the end of trap/video sampling each day. Ichthyoplankton collections consisted of one Tucker trawl and one 10-minute neuston trawl. The 1-m Tucker trawl, fitted with three 0.335-mm mesh nets, sampled the water column in the following manner: net 1 was fished in an oblique path from the surface to near-bottom; net 2 was opened at the near-bottom level and fished for three minutes; net 3 was fished during trawl retrieval from the near-bottom to the surface. At five sites, a plankton light trap was set at night 1 m below the surface, and fished for 3 to 6 hours.

RESULTS

PLANKTON SURVEYS

Seventy-eight hundred (7,800) identified ichthyoplankton lots were received at the SAC in 1994. Most of these samples have been accessioned into the SAC computer systems and the remaining samples are being prepared for accession; both in dbase and SEAMAP Data Management System.

Plankton stations for the Spring Plankton Survey in conjunction with environmental stations are shown in Figure 3, the Summer Shrimp/Groundfish Survey stations are shown in Figure 4, the Fall Plankton Survey Stations in conjunction with environmental stations are shown in Figure 5, and the Fall Shrimp/Groundfish survey stations are shown in Figure 6. Forty-seven additional collections were taken by Mississippi during the fall plankton survey in waters of the east Louisiana-Mississippi-Alabama shelf.

ENVIRONMENTAL SURVEYS

Environmental data were collected in conjunction with each plankton station for the Spring (Figure 3) and Fall (Figure 5) plankton surveys. Environmental data stations for the Summer Shrimp/Groundfish Survey are shown in Figure 7 and the Fall Shrimp/Groundfish Survey in Figure 8. Environmental sampling locations are summarized in Figures 7 and 8 by 10-minute squares. A complete listing of environmental stations and dates of sampling by vessel for all SEAMAP surveys is shown in Table 2. In Table 2 under statistical zone, the 99 codes are stations located outside the shrimp statistical zones. Additional environmental information (Secchi readings, Forel-Ule, cloud cover, etc.) may be obtained from the SEAMAP Information System by contacting the SEAMAP Data Manager.

Satellite-derived sea-surface temperatures are shown for the months of March (Figure 9), April (Figure 10), May (Figure 11), June (Figure 12), July (Figure 13), August (Figure 14), September (Figure 15), October (Figure 16), and November (Figure 17).

TRAWL SURVEYS

Spring Louisiana Trawl Survey

Louisiana Department of Wildlife and Fisheries conducted their seasonal day/night trawl survey in March 1994. Trawl station data can be found in Table 2 and the plankton/environmental stations are plotted in Figure 3. A species composition listing from the trawls is presented in Table 3, ranked in order of abundance within the categories of finfish, crustaceans and other invertebrates.

Tables 4a-6a present the biological data, from 40-ft nets, of the eight most abundant fish, six most abundant invertebrates and squids <u>within</u> NMFS statistical zones 13-15 by depth stratum. Tables 4b-6b list the total catch and environmental data from the 40-ft nets <u>within</u> NMFS statistical zones 13-15 depth stratum.

For all tables, the standard error of the mean (SEM) was calculated with the equation:

$$SEM \frac{\alpha}{\sqrt{n}}$$

where α = population standard deviation
n = number of samples

On all tables, NUM = number per hour; all weights shown are in kilograms per hour.

For all "b" tables, discrepancies between catch and environmental data may appear in the number of samples (n). These discrepancies may be due to different sampling depths for trawl and environmental stations, unsuccessful trawl stations and/or stations where only plankton data were collected.

Summer Shrimp/Groundfish Survey

Shrimp and groundfish sampling was conducted during June and July from off Gulf Shores, Alabama to Brownsville, Texas and summarized by 10-minute squares in Figure 19. The Summer Shrimp/Groundfish Survey consisted primarily of biological trawl data and concomitant environmental and plankton data. A species composition listing from the 40-ft trawls is presented in Table 7, ranked in order of abundance, within the categories of finfish, crustaceans and other invertebrates. A species composition listing from 20-ft trawls is presented in Table 8.

Biological distributions of the ten most abundant finfish plus red snapper, three main penaeid shrimps, five most abundant non-<u>Penaeus</u> invertebrates and squid species, taken from Table 7 and

8 are displayed in plots of number/hour and lb/hour in Figures 22-61. Data for the biological plots were computed from the 40-ft and 20-ft trawl data, standardized to 40-ft trawls using relative headrope length. In the plots of lb/hour, a zero value indicates less than 0.5 lb/hr taken; only stations where some of the species were taken are shown. During this time frame, the state of Florida did not participate in any SEAMAP survey activities.

Tables 9a-18a present the biological data, from the 40-ft nets, of the eight most abundant fish, six most abundant invertebrates and squid within NMFS statistical zones 11 and 13 through 21, by depth stratum. Tables 9b-18b list the total catch and environmental data from the 40-ft nets within NMFS statistical zone listed above, by depth stratum.

Tables 19a-24a present the biological data from the 20-ft nets of the eight most abundant fish, six most abundant invertebrates and squid within NMFS statistical zones 17 through 22, by depth stratum. Tables 19b-24b present the total catch and environmental data from the 20-ft nets within the NMFS statistical zones listed above, by depth stratum.

Catch rates for the survey were computed with the same equations used to compute the Spring Louisiana Trawl Survey catch rates. And, as in the Spring Louisiana Trawl Survey, discrepancies in the "b" tables may have occurred.

Fall Shrimp/Groundfish Survey

Shrimp and groundfish sampling was conducted during October through December from off Mobile Bay, Alabama to Brownsville, Texas and summarized by 10-minute squares in Figure 20. The Fall Shrimp/Groundfish Survey consisted of biological trawl data and concomitant environmental and plankton data. A species composition listing from the 40-ft trawls is presented in Table 25 and 20-ft trawls in Table 26. The species lists for Tables 25 and 26 are ranked in order of abundance within the categories of finfish, crustaceans and other invertebrates.

Biological distributions of the ten most abundant finfish plus red snapper, three main penaeid shrimps, five most abundant non-Penaeus invertebrates and squid species, taken from Tables 25 and 26 are displayed in plots of number/hour and lb/hour in Figures 62 to 101. Data for the biological plots were computed from the 40-ft and 20-ft trawl data, standardized to 40-ft trawls using relative headrope length. In the plots of lb/hour, a zero value indicates less than 0.5 lb/hr taken; only stations where some of the species were taken are shown. During this time frame, the state of Florida did not participate in any SEAMAP survey activities.

Tables 27a-36a present the biological data, from the 40-ft nets, of the eight most abundant fish, six most abundant invertebrates and squid species within NMFS statistical zones 11 and 13 through 21, by depth stratum. Tables 27b-36b list the total catch and environmental data from the 40-ft nets within the NMFS statistical zone listed above, by depth stratum.

Tables 37a-41a present the biological data from the 20-ft nets of the eight most abundant finfish, six most abundant invertebrates and squid within NMFS shrimp statistical zones 17 through 21, by depth stratum. Tables 37b-41b present the total catch and environmental data from the 20-ft nets within the NMFS statistical zones listed above, by depth stratum.

The catch data were calculated using the same equation that was used to compute catch rates for the Spring Louisiana Trawl Survey. And, as in the Spring Louisiana Trawl Survey, discrepancies in the "b" tables may have occurred.

REAL-TIME DATA MANAGEMENT

The SEAMAP Subcommittee agreed it was imperative to the success of the SEAMAP Program to distribute data on a near real-time basis to the fishing industry and others interested in SEAMAP. To distribute near real-time data, NMFS utilized a cellular phone and/or satellite communications aboard the NOAA Ship OREGON II. This enabled personnel aboard the vessel to transmit daily catch rates and environmental data to the NMFS computer system located at the NMFS Mississippi Laboratories in Pascagoula.

Summarized data were distributed weekly to approximately 275 individuals during the Summer Shrimp/Groundfish Survey. The summarized data in the form of computer plots and data listings were sent to management agencies and industry members. These plots showed station locations, catches of brown, pink and white shrimp in lb/hr and count/lb and total finfish catch in lb/hr.

REEF FISH SURVEY

Primary data collection and sampling for reef fish assessment was conducted during May to July from the Texas Flower Garden Banks to the Florida Keys by NMFS personnel; during August in the area between the Mississippi River and Mobile Bay by State of Mississippi personnel; and during September, October and November by personnel of the State of Alabama in their state waters. Station data for these observations can be found in Table 2 and station locations are plotted in Figure 21. A species composition listing from the traps is presented in Table 42. The species

list for Table 42 is ranked in order of abundance. Video tapes from all three sources were analyzed using standardized protocols and NMFS is in the process of analyzing the plankton data collected during the survey.

DISCUSSION

The quasisynoptic SEAMAP sampling program and the intended long-term nature of the sampling programs have been designed to provide the baseline data set needed for fishery management and conservation. In 1985, the SEAMAP long-term baseline data was disrupted by the loss of the Spring Gulf-wide plankton and Fall Mackerel Survey. In 1986, the SEAMAP Subcommittee renewed its commitment for the collection of baseline plankton data. These ichthyoplankton samples are and will be used by researchers studying taxonomy, age and growth, bioenergetics and other life history aspects, as well as spawning biomass and recruitment. Information on species' relative distributions within the Gulf of Mexico can be analyzed with respect to environmental data to assess population abundance as a function of environmental change. In the same way, satellite data can be related to species distribution and changing conditions in the Gulf of Mexico.

Similar analyses and investigations are being undertaken with Summer and Fall Shrimp/Groundfish Survey data. These data sets will be utilized in resource management decisions, and because of the program's ability to process data quickly, the capability exists to optimize some fisheries on a real-time basis. The long-term data set on all of the species collected, not just those of commercial and recreational importance, offers an opportunity to examine ecological relationships, with the eventual goal of developing management models that take into account the multi-species nature of most Gulf fisheries. The value of the SEAMAP program lies in its use for both immediate and long-range management. In addition, there are many studies and other uses for SEAMAP data that are not mentioned here.

Much use has already been made of SEAMAP data. For example, during the past SEAMAP surveys an area of very low dissolved bottom oxygen was found off Louisiana in the summers of 1982, 1985-1994. The presence of this phenomenon and some of the related conditions and biological effects were reported by Leming and Stuntz (1984), and during such occurrences, SEAMAP has distributed special environmental bulletins and news releases to management agencies and the shrimp industry. In addition, SEAMAP data were used by some coastal states to determine the status of shrimp stocks and their movements just as the shrimping seasons were to be opened. SEAMAP data were also used to develop a guide to the grouper species of the western North Atlantic Ocean (Grace et al. 1994). The primary purpose of the guide is for species identification with projects that deploy underwater video camera systems.

Richards et al. 1984, Kelley et al. 1985, Kelley et al. 1990, and Kelley et al. 1993 used SEAMAP ichthyoplankton data to identify larval abundance and distribution of key Gulf of Mexico species. SEAMAP ichthyoplankton data were also used to estimate spawning stock sizes of bluefin tuna in the Gulf of Mexico (McGowan and Richards 1986; Scott et al. 1990; Scott and Turner 1991). The results of this work were recognized by the International Commission for the Conservation of Atlantic Tunas as a reliable index of stock size. Continuation of the ichthyoplankton surveys each spring by SEAMAP will provide information on Gulf of Mexico tuna stocks.

The SEAMAP data collected during the Summer Shrimp/Groundfish Survey continues to be used extensively for fishery management purposes. In 1981, the Gulf of Mexico Fishery Management Council's plan for shrimp was implemented (Center for Wetland Resources 1980), with one management measure calling for the temporary closure to shrimping of the EEZ off Texas. This closure complements the traditional closure of the Texas territorial sea, normally May 15 through early July of each year. The GMFMC determined that this type of closure would still allow small brown shrimp to be protected from harvest but would allow the taking of larger brown shrimp by fishermen in deeper waters.

National Marine Fisheries Service was charged with evaluating the effects of the Texas Closure and submitted a report (Nance 1995) to the GMFMC in January 1995. This report contained the results and an overview of the effect of the 1994 Texas Closure. After review of these data and other information, the GMFMC voted to continue the Texas Closure in 1995.

DATA REQUESTS

It is the policy of the SEAMAP Subcommittee that all verified non-confidential SEAMAP data, collected specimens and samples shall be available to all SEAMAP participants, other fishery researchers and management organizations approved by the Subcommittee. This atlas presents, to those individuals interested in the data or specimens, a chance to review the data in a summary form.

Data and specimen requests from SEAMAP participants, cooperators and others will normally be handled on a first-come, first-served and time-available basis. Because of personnel and funding limitations, however, certain priorities must be assigned to the data and specimen requests. These priorities are reviewed by the SEAMAP Subcommittee. For further information on SEAMAP data management, see the Southeast Area Monitoring and Assessment Program (SEAMAP) Management Plan: 1996-2000 (In Press).

Data requests and inquiries, as well as requests for plankton samples, can be made by contacting David Donaldson, the SEAMAP Coordinator, Gulf States Marine Fisheries Commission, P.O. Box 726, Ocean Springs, MS 39566-0726; 601/875-5912 or via e-mail at dmd@gsmfc.org.

Table 1. List of SEAMAP survey activities from 1982 to 1993.

SEAMAP SURVEY ACTIVITIES

YEAR	SPRING PLANKTON	SUMMER SHRIMP/GROUNDFISH	BUTTERFISH	FALL PLANKTON	FALL SHRIMP/GROUNDFISH	WINTER PLANKTON	REEF FISH
1982	APRIL-MAY	JUNE-JULY	--	--	--	--	--
1983	APRIL-MAY	JUNE-JULY	--	--	--	DECEMBER	--
1984	APRIL-MAY	JUNE-JULY	--	AUGUST	--	DECEMBER	--
1985	--	JUNE-JULY	JULY-AUGUST	SEPTEMBER	SEPTEMBER-DECEMBER	--	--
1986	APRIL-MAY	JUNE-JULY	MAY-JUNE	SEPTEMBER	OCTOBER-DECEMBER	--	--
1987	APRIL-MAY	JUNE-JULY	--	SEPTEMBER	SEPTEMBER-DECEMBER	--	--
1988	MARCH-MAY	JUNE-JULY	--	SEPTEMBER-OCTOBER	OCTOBER-DECEMBER	--	--
1989	APRIL-MAY	JUNE-JULY	--	SEPTEMBER-OCTOBER	OCTOBER-DECEMBER	--	--
1990	APRIL-MAY	JUNE-JULY	--	SEPTEMBER-OCTOBER	OCTOBER-DECEMBER	--	--
1991	APRIL-MAY	JUNE-JULY	--	AUGUST-SEPTEMBER	SEPTEMBER-DECEMBER	--	--
1992	APRIL-MAY	JUNE-JULY	--	AUGUST-OCTOBER	OCTOBER-DECEMBER	--	MAY-JUNE
1993	APRIL-MAY	JUNE-JULY	--	SEPTEMBER-OCTOBER	OCTOBER-DECEMBER	--	MAY-JULY, SEPTEMBER/NOVEMBER

Table 2. Selected environmental parameters measured during 1994 SEAMAP surveys in the Gulf of Mexico, by individual vessel and survey. (Gear codes: ST = trawl; PN = bongo and/or neuston; TV = trap/video).

LUMCON PELICAN, SPRING LOUISIANA TRAWL SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M³ SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
37084	3/28/94	1155	2900.0	9030.0	14	10	4	10	20.8	20.9	18.8	25.7	25.8	33.3	10.153	10.5	9.4	3.2	PN
37085	3/28/94	1550	2852.1	9054.7	14	8	3	8	20.6	20.6	20.3	25.0	25.0	29.8	11.572	11.1	10.4	8.9	ST
37086	3/28/94	1701	2847.6	9052.9	14	14	6	14	20.7	20.7	19.1	26.6	26.6	34.7	15.028	10.8	10.8	4.9	ST
37087	3/28/94	1945	2852.9	9054.7	14	8	3	8	20.4	20.4	20.2	25.1	25.1	29.9	13.407	10.1	9.9	8.4	ST
37088	3/28/94	2056	2847.5	9053.2	14	15	6	15	20.2	20.3	19.2	25.2	25.3	35.2	10.214	9.8	9.7	4.9	ST
37089	3/29/94	0406	2848.3	9118.6	15	13	7	13	19.7	20.6	19.1	26.7	30.6	34.7	6.290	8.4	7.7	2.2	ST
37090	3/29/94	0751	2900.0	9100.0	15	6	3	6	19.8	19.8	19.8	22.8	22.9	22.9	10.653	10.7	7.9	7.6	PN
37091	3/29/94	1126	2900.0	9130.0	15	6	3	6	19.1	18.9	19.0	21.6	23.7	26.4	8.310	9.6	8.9	8.4	PN
37092	3/29/94	1404	2848.2	9118.7	15	13	7	13	19.6	19.8	19.1	26.8	29.0	35.0	5.411	9.3	7.6	3.3	ST
37093	3/29/94	1730	2833.2	9101.7	15	26	12	26	20.0	19.7	19.4	30.8	31.7	36.0	3.433	9.9	8.5	4.2	ST
37094	3/29/94	1938	2830.7	9048.8	14	29	13	29	20.1	19.8	19.5	33.8	34.1	36.0	1.092	9.2	8.1	5.0	ST
37095	3/29/94	2113	2832.5	9043.3	14	23	10	23	20.0	19.9	19.4	32.2	34.1	35.8	4.590	9.2	6.7	6.0	ST
37096	3/29/94	2241	2834.9	9040.9	14	19	7	19	19.5	19.9	19.5	30.8	31.9	35.3	4.949	9.4	7.8	5.4	ST
37097	3/30/94	0125	2833.4	9101.7	15	26	13	26	19.8	19.4	19.5	31.5	33.1	36.1	3.023	8.9	6.1	4.4	ST
37098	3/30/94	0709	2830.0	9100.0	15	33	17	33	19.5	19.4	19.5	32.0	36.1	36.2	3.314	8.9	5.9	5.9	PN
37099	3/30/94	0916	2830.7	9049.5	14	30	14	30	19.1	19.7	19.5	30.4	34.5	36.1	5.836	9.5	7.6	5.3	ST
37100	3/30/94	1118	2833.2	9044.2	14	23	12	23	19.1	20.0	19.5	25.8	31.9	35.9	8.053	11.1	8.2	6.8	ST
37101	3/30/94	1246	2835.4	9041.1	14	20	10	20	19.3	19.7	19.5	25.6	30.1	35.3	12.160	11.2	8.9	5.3	ST
37102	3/30/94	1448	2830.1	9030.1	14	38	15	38	20.3	20.5	19.7	31.8	34.7	36.3	6.985	10.1	9.0	6.7	PN
37103	3/30/94	1649	2839.0	9021.3	14	23	9	23	19.1	20.7	19.7	21.9	32.1	36.0	18.154	11.8	8.6	6.6	ST
37104	3/30/94	1933	2840.0	9021.4	14	24	10	24	18.9	20.8	19.7	21.2	34.5	35.9	12.891	12.4	8.4	6.7	ST
37105	3/31/94	0004	2900.2	8950.6	13	34	15	34	17.8	18.3	19.6	18.7	26.3	36.0	8.176	10.6	8.8	6.4	ST
37106	3/31/94	0213	2902.7	8941.8	13	32	15	32	17.8	19.9	19.8	19.2	31.9	36.0	8.445	10.7	7.5	6.0	ST
37107	3/31/94	0357	2905.0	8932.2	13	12	7	12	19.2	19.6	19.8	21.0	23.2	34.7	15.402	11.6	10.3	3.7	ST
37108	3/31/94	0720	2859.6	8930.6	13	15	7	15	19.1	19.6	19.9	22.1	24.5	35.4	13.353	10.6	9.2	5.1	PN
37109	3/31/94	0856	2904.6	8932.3	13	7	4	7	17.9	18.5	20.0	15.9	18.7	28.6	8.658	11.1	10.7	8.4	ST
37110	3/31/94	1100	2902.3	8942.1	13	28	13	28	18.7	20.2	19.7	20.9	32.8	36.2	11.076	10.4	7.7	6.8	ST
37111	3/31/94	1235	2900.0	8950.8	13	34	13	34	18.5	20.0	19.4	21.2	32.2	36.2	5.969	10.8	8.0	5.5	ST
37112	3/31/94	1411	2859.9	9000.1	14	24	11	24	18.5	19.6	20.1	20.6	31.6	35.6	10.767	10.1	7.7	4.7	PN
37113	3/31/94	1650	2858.6	9024.3	14	10	5	10	19.2	19.3	19.1	21.0	21.0	21.9	7.299	12.7	10.8	10.1	ST
37114	3/31/94	1930	2859.8	9024.4	14	10	5	10	19.0	19.1	19.3	20.9	21.2	23.1	5.506	13.6	11.7	9.5	ST

Table 2. Selected environmental parameters (continued)

OREGON II, SPRING PLANKTON SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
00048	4/28/94	1511	2830.1	8530.0	99	194	96	191	25.0	19.5	16.6	36.2	36.2	36.2	.019	8.8	8.9	6.2	PN
00049	4/28/94	1906	2800.1	8500.0	99	251	103	204	25.1	18.8	15.4	36.1	36.1	36.2		8.5	8.5	5.8	PN
00050	4/28/94	2242	2730.3	8500.0	5	401	98	198	25.2	19.8	15.8	36.3	36.1	36.1	.045	9.1	8.1	6.1	PN
00051	4/29/94	0155	2700.0	8460.0	99	860	245	495	26.6	13.8	8.3	36.2	35.7	35.0	.027	11.6	5.9	5.3	PN
00052	4/29/94	0539	2630.1	8500.1	99	1750	98	202	26.5	18.7	15.0	36.2	36.4	36.1		8.9	6.9	6.5	PN
00053	4/29/94	0916	2600.2	8500.0	99	3500	99	200	25.9	18.6	14.3	33.9	35.9	35.9	.049	6.6	5.0	4.5	PN
00054	4/29/94	1356	2600.0	8430.0	99	220	109	212	25.8	20.0	15.3	36.4	36.6	36.0	.049	11.7	7.2	5.8	PN
00055	4/29/94	1728	2600.1	8360.0	4	140	70	138	26.7	22.1	19.2	36.2	36.8	36.4	.047	9.2	9.0	6.8	PN
00056	4/29/94	2211	2530.1	8400.3	99	137	68	133	26.9	22.6	19.5	35.8	35.5	37.2	.032	7.6	7.1	5.4	PN
00057	4/30/94	0155	2500.2	8400.0	3	125	59	124	26.5	22.0	19.9	36.2	37.0	36.5	.036	11.2	7.5	7.3	PN
00058	4/30/94	0600	2430.0	8400.0	2	2300	97	198	25.9	18.2	13.7	36.2	36.3	35.8	.036	8.5	6.3	5.8	PN
00059	4/30/94	0840	2430.1	8430.2	99	3300	100	195	25.6	18.2	12.1	36.4	34.5	35.5	.039	7.1	5.2	5.5	PN
00060	4/30/94	1258	2429.9	8500.0	99	3300	94	200	25.9	20.6	13.8	36.5	36.3	35.8	.045	10.6	8.6	6.0	PN
00061	4/30/94	1427	2430.6	8505.8	99	3300	100	200	27.1	20.7	15.4								
00068	4/30/94	1854	2418.0	8446.2	99	3600	93	200	25.9	20.0	12.3								
00077	5/ 1/94	1327	2500.1	8500.0	99	3400	105	206	26.0	18.0	14.0	36.5	37.0	36.5	.075	6.5	5.8	5.0	PN
00078	5/ 1/94	1803	2459.9	8529.8	99	3600	97	194	27.5	22.3	15.8	36.2	36.3	37.4	.055	1.9	7.8	5.7	PN
00079	5/ 1/94	2142	2500.0	8600.8	99	3276	101	198	27.4	25.6	21.0	36.2	36.2	39.7	.027	7.8	6.9	6.4	PN
00080	5/ 2/94	0300	2530.3	8600.1	99	3185	99	199	27.5	22.7	16.6	36.1	37.8	38.1	.027	7.4	8.1	5.9	PN
00081	5/ 2/94	0704	2600.0	8600.1	99	3185	100	200	26.1	19.5	14.6	36.0	35.8	35.6	.064	7.1	6.5	5.2	PN
00082	5/ 2/94	1221	2629.9	8600.1	99	3185	104	204	26.2	18.8	15.4	36.4	37.7	36.6	.049	8.0	6.4	5.7	PN
00083	5/ 2/94	1546	2700.0	8559.9	99	3202	100	201	26.3	19.4	15.1	35.3	35.5	38.8	.053	7.8	6.9	6.4	PN
00084	5/ 2/94	2014	2729.9	8559.9	99	3185	98	200	26.0	19.5	15.6	36.3	36.1	36.0	.042	8.4	8.1	8.4	PN
00085	5/ 2/94	2323	2800.0	8600.0	99	1001	100	202	25.3	19.7	15.9	36.4	36.2	36.2	.049	6.4	8.5	7.9	PN
00086	5/ 3/94	0329	2829.9	8559.9	99	320	106	205	25.0	19.0	15.4	36.3	36.3	36.1	.027	8.4	9.1	5.9	PN
00087	5/ 3/94	0804	2900.0	8630.0	99	382	103	204	25.3	18.9	15.7	36.3	36.1	36.2	.039	8.7	8.4	5.8	PN
00088	5/ 3/94	1112	2900.2	8700.2	99	695	100	200	25.6	19.3	15.3	36.2	36.1	36.1	.039	8.1	7.6	6.5	PN
00089	5/ 3/94	1549	2830.4	8700.1	99	869	103	201	25.8	20.0	14.9	36.4	36.5	36.0	.080	10.2	7.9	5.9	PN
00090	5/ 3/94	1943	2800.9	8700.0	99	2857	100	199	25.3	18.8	14.6	34.2	36.4	35.9	.062	7.6	6.3	6.1	PN
00091	5/ 3/94	2351	2730.0	8659.9	99	3065	103	198	26.0	20.1	15.8	37.6	36.5	36.1	.053	6.1	8.2	6.4	PN
00092	5/ 4/94	0315	2700.1	8659.7	99	2912	103	200	27.5	23.1	17.6	36.2	36.8	36.4	.080	7.4	7.1	7.1	PN
00093	5/ 4/94	0806	2629.8	8700.9	99	2912	96	196	27.7	25.8	20.5	36.1	36.4	36.8		6.2	7.8	7.0	PN
00094	5/ 4/94	1015	2616.1	8700.2	99	3094	100	199	27.7	25.4	21.0	36.1	36.2	36.8	.148	6.8	8.4	7.0	PN
00095	5/ 4/94	1448	2600.1	8730.0	99	3130	102	205	28.0	26.4	20.6	36.3	36.3	36.9	.089	10.8	8.9	7.0	PN
00096	5/ 4/94	1824	2600.0	8800.1	99	3090	101	205	27.9	24.9	18.4	35.9	36.5	36.6	.063	6.8	7.2	7.1	PN
00097	5/ 4/94	2156	2629.7	8759.6	99	2694	99	198	27.2	20.6	16.2	36.3	36.2	36.1	.036	7.4	6.3	4.4	PN
00098	5/ 5/94	0106	2700.0	8759.9	99	3065	103	204	26.1	18.8	13.7	36.4	36.5	35.8	.027	7.4	7.0	6.2	PN
00099	5/ 5/94	0533	2730.0	8800.0	99	2646	101	205	25.2	18.5	14.3	35.0	36.4	35.9	.056	7.5	6.4	5.6	PN
00100	5/ 5/94	0900	2759.9	8800.0	99	2603	96	189	25.9	19.1	15.4	34.9	36.3	36.0	.052	7.4	7.0	6.0	PN
00101	5/ 5/94	1311	2830.1	8759.9	99	2233	104	206	24.8	18.2	14.0	35.8	36.3	35.8	.080	7.6	7.1	5.8	PN
00102	5/ 5/94	1617	2900.1	8800.0	11	1409	248	503	24.9	12.5	7.4	35.3	35.5	34.9	.071	8.6	5.1	5.3	PN
00103	5/ 5/94	2045	2859.8	8829.9	99	637	100	195	24.2	18.4	15.6	33.4	36.1	36.1		8.2	8.4	6.2	PN

Table 2. Selected environmental parameters (continued)

OREGON II, SPRING PLANKTON SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
00104	5/ 6/94	0149	2830.0	8900.0	99	824	245	491	25.2	14.2	8.4	36.0	35.8	35.0	.037	12.2	6.3	5.1	PN
00107	5/ 6/94	0839	2800.0	8900.0	99	1365	249	497	25.6	12.9	8.2	36.4	35.6	35.0	.037	7.9	5.6	5.1	PN
00108	5/ 6/94	1308	2730.0	8859.9	99	1830	103	206	26.0	17.6	13.5	35.2	36.4	35.7	.054	10.9	6.8	5.8	PN
00109	5/ 6/94	1717	2659.9	8859.9	99	2288	250	500	26.4	11.2	6.2	36.6	36.4	35.6	.069	6.7	4.0		PN
00110	5/ 6/94	2146	2630.1	8859.6	99	2903	101	198	26.2	19.2	14.8	36.0	36.3	36.0	.027	8.2	6.6	7.3	PN
00111	5/ 7/94	0121	2600.0	8859.3	99	3111	245	484	26.2	13.7	8.9	33.8	35.8	35.1	.040		6.2	5.7	PN
00112	5/ 7/94	0528	2600.0	8930.0	99	3367	98	200	26.1	18.9	14.4	34.7	36.2	35.9	.057	8.2	6.2	6.2	PN
00113	5/ 7/94	0835	2559.9	9000.1	99	2894	101	201	25.8	19.0	14.1	36.3	36.3	35.8	.036	8.7	6.2	5.9	PN
00114	5/ 7/94	1256	2629.9	9000.0	99	2745	104	206	26.0	17.8	14.0	35.7	36.3	35.8	.045	6.7	7.3	6.7	PN
00115	5/ 7/94	1638	2700.0	9000.0	99	2452	98	199	25.8	18.2	14.4	35.5	36.2	35.8	.072	9.3	6.7	6.2	PN
00116	5/ 7/94	2148	2729.6	8959.9	99	1092	101	199	25.3	19.3	15.9	32.7	34.2	37.1	.043	8.5	6.4	5.6	PN
00117	5/ 8/94	0102	2800.2	9000.1	14	549	253	479	25.3	14.1	7.7	32.2	35.9	34.9	.062	7.6	6.6	6.1	PN
00118	5/ 8/94	0502	2800.1	9030.0	14	309	100	200	25.6	19.8	15.1	34.7	36.2	35.8	.040	8.3	7.8	6.4	PN
00119	5/ 8/94	0803	2800.1	9059.9	14	153	75	152	25.3	20.8	17.2	36.3	36.1	36.3	.071	8.6	8.6	7.1	PN
00120	5/ 8/94	1151	2730.1	9100.5	99	1074	253	493	25.9	13.4	8.2	35.9	35.8	35.0	.120	6.0	6.5	6.0	PN
00121	5/ 8/94	1604	2700.0	9100.0	99	1693	251	499	26.3	12.9	8.0	35.7	35.6	35.0	.089	8.4	6.0	5.9	PN
00123	5/ 8/94	2149	2630.0	9100.2	99	2093	99	200	26.5	17.8	13.4	30.9	34.7	36.4	.043	7.4	5.8	5.3	PN
00126	5/ 9/94	0308	2600.0	9059.9	99	2743	102	205	26.2	20.0	11.9	33.8	36.4	35.5	.048	10.6	10.4	6.2	PN
00127	5/ 9/94	0700	2600.0	9130.0	99	2150	100	200	26.0	19.4	12.5	32.5	36.1	35.5	.032	7.4	6.6	6.3	PN
00128	5/ 9/94	1034	2559.9	9160.0	99	2184	250	490	26.0	12.8	7.8	35.4	35.5	35.0	.063	8.7	5.9	6.1	PN
00129	5/ 9/94	1501	2629.9	9200.1	99	1830	251	498	26.2	12.6	7.7	35.7	35.7	34.9	.048	5.5	6.3	6.0	PN
00130	5/ 9/94	1925	2700.0	9200.0	99	1684	229	499	26.0	14.4	8.3	36.2	35.8	35.0	.053	9.0	6.2	6.1	PN
00131	5/ 9/94	2343	2730.0	9200.1	99	761	252	500	26.1	14.4	8.6	33.8	36.1	35.0	.027	6.7	6.8	5.8	PN
00132	5/10/94	0419	2800.0	9200.0	99	120	54	114	25.6	21.6	19.1	34.6	36.2	36.4	.037	7.7	9.2	7.7	PN
00133	5/10/94	0805	2800.0	9230.0	16	102	50	99	25.6	22.1	19.9	35.0	36.1	36.4	.048	8.0	9.2	8.3	PN
00134	5/10/94	1118	2800.0	9300.1	99	106	52	104	25.6	21.6	19.0	35.0	36.2	36.4	.036	7.6	9.6	7.8	PN
00135	5/10/94	1543	2730.0	9300.0	99	814	99	202	26.2	19.6	14.8	34.8	36.3	36.1	.070	9.0	6.9	6.2	PN
00136	5/10/94	1916	2700.1	9260.0	99	1438	253	502	26.5	12.8	8.1	34.2	35.5	35.0	.037	6.3	5.6	5.8	PN
00138	5/11/94	0057	2630.0	9300.2	99	1720	252	493	26.2	12.2	8.2	31.3	35.6	35.0	.084	6.7	5.8	5.7	PN
00140	5/11/94	0436	2615.1	9300.1	99	1912	249	505	26.2	12.6	8.1	34.7	35.5	35.1	.037	9.3	5.5	5.7	PN
00141	5/11/94	0927	2600.2	9330.1	99	2184	100	197	26.0	17.7	13.4	34.7	36.1	35.7	.084	8.8	6.0	5.8	PN
00142	5/11/94	1228	2600.5	9400.1	99	2730	250	490	26.0	12.3	7.8	31.9	35.6	35.0	.113	6.6	5.7	5.9	PN
00143	5/11/94	1717	2630.2	9400.3	99	1442	102	202	26.6	18.4	12.4	34.1	36.2	35.8	.057	8.0	5.6	5.7	PN
00144	5/11/94	2040	2700.1	9359.8	99	1001	249	489	26.6	12.3	8.0	33.6	35.4	35.0	.045	7.8	5.5	5.8	PN
00145	5/12/94	0056	2730.1	9400.0	99	824	102	208	26.0	19.2	14.6	28.2	36.5	36.0	.036	6.5	8.2	6.4	PN
00146	5/12/94	0800	2800.0	9400.1	99	84	41	81	25.6	21.9	19.7	34.5	36.3	36.4	.040	8.1	9.4	8.6	PN
00147	5/12/94	1124	2800.3	9430.2	18	84	36	70	25.5	20.7	19.5	33.7	36.0	36.2	.181	7.9	10.0	9.5	PN
00148	5/12/94	1424	2800.1	9500.3	19	81	40	81	26.1	21.6	19.2	25.2	35.8	36.2	.157	7.1	9.7	9.2	PN
00149	5/12/94	1805	2730.0	9500.0	99	860	101	203	26.3	19.4	15.5	32.8	36.1	36.2	.085	9.4	8.7	6.5	PN
00150	5/12/94	2153	2700.6	9500.1	99	1438	251	496	26.6	13.3	8.3	32.5	35.6	35.0	.081	9.0	5.7	5.8	PN
00151	5/13/94	0229	2630.2	9459.9	99	1629	102	205	26.4	19.7	15.5	29.2	36.7	36.1	.117	7.4	7.0	6.2	PN
00152	5/13/94	0615	2601.1	9500.0	99	2377	252	504	26.5	13.4	8.6	32.1	35.6	35.1	.183	9.2	5.5	5.6	PN

Table 2. Selected environmental parameters (continued)

OREGON II, SPRING PLANKTON SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
00153	5/13/94	1158	2601.5	9530.0	99	1437	96	202	26.6	17.7	11.6	31.7	36.3	35.5	.199	7.1	6.8	5.6	PN
00154	5/13/94	1526	2601.6	9600.2	99	1007	255	503	27.0	13.2	8.2	29.7	35.8	35.1	.305	7.6	6.0	5.7	PN
00155	5/13/94	1936	2630.0	9600.0	99	1047	97	199	26.5	18.0	13.9	31.9	36.1	36.0	1.204	7.9	6.2	5.9	PN
00156	5/13/94	2301	2700.2	9559.9	99	801	236	477	26.5	12.6	8.4	30.1	35.5	35.0	.368	9.1	5.4	5.5	PN
00157	5/14/94	0312	2730.1	9600.5	20	209	100	199	26.1	18.9	15.1	31.8	36.4	36.0	.221	7.4	7.5	6.0	PN
00158	5/14/94	0634	2800.8	9559.8	19	46	21	45	24.7	23.1	19.5	34.1	35.5	35.9	1.339	7.8	9.5	8.9	PN

Table 2. Selected environmental parameters (continued)

HERNAN CORTEZ II, SPRING PLANKTON SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
00007	5/20/94	1245	2559.9	8400.3	99	124	62	124	27.2	21.4	18.0	36.4	36.4	36.3	.189	2.8	4.1	2.8	PN
00012	5/22/94	2135	2458.4	8530.1	99	1816	100	200	27.6	26.3	22.4	36.2	36.3	36.8	.095	3.8	3.7	3.1	PN
00013	5/22/94	1511	2430.0	8500.1	99	1857	100	200	26.5	21.0	17.0	36.3	36.4	36.3	.136	3.9	3.7	3.1	PN
00014	5/22/94	1058	2429.3	8430.1	99	1877	100	200	26.7	19.3	14.7	36.4	36.4	35.9	.047	3.8	3.3	2.7	PN
00015	5/22/94	0637	2429.6	8400.6	99	1450	100	200	26.9	17.3	13.4	36.1	36.3	35.7	.142	4.6	2.8	2.6	PN

Table 2. Selected environmental parameters (continued)

CHAPMAN, SPRING PLANKTON SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
28001	5/20/94	0515	3000.0	8700.0	10	66	35	62	24.7	19.7	18.9	34.0	36.7	36.1	.102	6.3	7.1	6.5	PN
28002	5/20/94	1153	2930.3	8629.3	9	192	97	182	24.5	18.8	15.8	35.8	35.9	36.1	.036	5.6	5.7	4.4	PN
28003	5/20/94	1740	2859.9	8558.9	99	230	99	200	24.6	18.6	14.7	35.8	36.1	35.9	.036	4.9	6.3	4.1	PN
28004	5/20/94	2236	2859.9	8630.0	99	374	101	206	25.2	18.6	14.9	35.7	36.3	36.0	.073	5.6	6.7	4.4	PN
28005	5/21/94	0235	2900.4	8700.1	99	671	95	198	25.4	19.3	15.1	36.4	36.5	35.9	.027	5.2	5.3	4.4	PN
28006	5/21/94	0852	2830.0	8700.0	99	842	100	195	26.3	20.2	15.3	36.5	36.5	36.0	.067	5.3	6.0	5.0	PN
28007	5/21/94	1305	2800.2	8659.8	99	1646	100	201	26.6	20.4	15.5	36.4	36.2	35.8	.040	6.1	5.3	4.8	PN
28008	5/21/94	1806	2730.0	8659.8	99	3037	100	200	26.8	19.8	15.1	36.4	36.7	36.0	.036	5.8	5.0	4.9	PN
28009	5/22/94	0523	2830.0	8600.0	99	371	100	200	25.4	19.4	15.9	36.4	36.3	36.3	.036	4.8	6.2	4.5	PN
28010	5/22/94	0923	2831.2	8529.6	8	197	97	190	25.5	19.1	14.7	36.4	36.3	35.8	.027	5.9	5.6	3.9	PN
28011	5/22/94	1502	2800.2	8600.1	99	984	97	201	25.8	19.2	16.7	36.4	36.2	36.1	.027	5.6	7.1		PN
28012	5/22/94	2042	2830.0	8600.1	99	3246	100	205	25.8	19.1	15.7	36.4	36.2	36.1	.027	4.5	6.7	4.9	PN
28013	5/23/94	0043	2659.9	8600.1	99	3203	97	200	25.8	19.7	15.0	36.4	36.3	35.9	.037	4.9	4.7	4.7	PN
28014	5/23/94	0530	2630.0	8559.7	99	3110	100	175	27.5	22.6	18.3	36.2	36.6	36.4	.053	5.8	6.2	4.6	PN
28015	5/23/94	0904	2559.8	8600.0	99	3246	100	200	27.6	26.1	21.0	36.2	36.3	36.7	.045	6.0	5.7	4.9	PN
28016	5/23/94	1334	2530.0	8559.3	99	3203	98	198	27.3	25.7	22.8	36.4	36.2	37.0	.027	5.3	6.3	5.0	PN
28017	5/23/94	1737	2500.0	8600.0	99	3300	100	200	26.8	26.5	22.5	37.1	36.3	37.1	.086	6.0	6.0	5.0	PN
28018	5/23/94	2323	2530.3	8627.8	99	3282	101	208	27.8	26.7	22.3	36.1	36.3	36.9		4.4	6.0	5.0	PN
28019	5/24/94	0557	2616.3	8659.8	99	3090	100	200	27.6	26.4	22.4	36.2	36.3	36.8	.053	5.9	5.9	4.9	PN
28020	5/24/94	0851	2630.0	8659.8	99	2953	99	200	27.4	26.0	22.3	36.2	36.2	36.8	.030	6.0	6.0	4.9	PN
28021	5/24/94	1308	2700.0	8659.8	99	2946	100	200	27.9	26.2	19.2	36.2	36.4	36.4	.053	6.2	6.0	4.9	PN
28022	5/24/94	2155	2600.6	8730.4	99	3155	100	207	27.9	26.5	19.3	36.2	36.5	36.6	.045	6.1	6.0	5.1	PN
28023	5/25/94	0114	2600.5	8800.5	99	3020	100	200	27.6	22.3	17.2	36.3	36.8	36.4	.055	6.0	5.2	5.1	PN
28024	5/25/94	0530	2630.6	8759.8	99	2700	100	200	27.7	26.3	19.1	36.3	36.6	36.5	.064	6.1	6.0	5.2	PN
28025	5/25/94	0852	2701.5	8758.7	99	2843	99	201	27.6	24.3	18.1	36.3	36.5	36.3	.169	4.8	5.4	5.0	PN
28026	5/25/94	1247	2730.5	8758.9	99	2597	100	200	26.6	20.3	15.3	36.3	36.7	36.2		6.4	5.3	4.8	PN
28027	5/25/94	1636	2800.0	8800.1	99	2438	100	200	25.7	18.5	15.3	35.9	36.2	36.1	.072	6.4	6.2	4.5	PN
28028	5/25/94	2113	2830.4	8759.8	99	2310	101	202	26.3	19.4	15.0	34.8	36.6	36.0	.089		5.1	5.0	PN
28029	5/26/94	0057	2900.6	8758.9	11	1391	100	200	25.5	18.3	14.8	33.7	36.3	36.0	.450	6.6	5.4	4.3	PN
28030	5/26/94	0540	2931.1	8759.6	10	42	20	40	25.3	21.5	19.5	32.3	36.1	36.1	.250	3.5	5.7	5.3	PN
28031	5/26/94	1045	2900.0	8829.9	11	621	100	220	26.0	18.7	13.1	26.9	36.6	35.7	5.046	6.2	4.8	4.3	PN
28032	5/26/94	1604	2830.0	8900.0	13	795	100	195	25.9	18.8	15.4	35.6	36.7	36.0	.098	6.4	5.2	4.8	PN
28033	5/26/94	1958	2759.3	8900.2	99	1264	98	213	25.8	19.1	14.2	35.1	36.4	35.9	.081	4.4	4.8	4.4	PN
28034	5/27/94	0021	2730.3	8900.8	99	1760	100		26.8	17.4		35.5	36.5		.032		4.9		PN
28035	5/27/94	0425	2700.6	8858.3	99	2270	100	198	26.4	19.3	12.3	36.6	36.6	35.6	.053	6.4	4.7	4.5	PN
28036	5/27/94	0913	2630.5	8859.2	99	2888	99	199	26.5	19.7	14.8	36.3	36.5	35.9	.047	5.1	4.9	4.6	PN
28037	5/27/94	1335	2601.3	8858.2	99	3166	100	194	27.6	21.3	16.1	36.4	36.3	36.2		6.1	6.4	4.2	PN
28038	5/27/94	1823	2600.2	8930.1	99	3291	100	200	27.0	19.6	15.0	36.2	36.3	36.2	.027	6.3	6.2	4.2	PN
28039	5/27/94	2202	2600.0	9000.0	99	2980	99	193	26.9	19.1	14.9	35.9	36.5	36.0	.039	4.5	4.9	4.3	PN
28040	5/28/94	0236	2629.8	8959.4	99	2745	100	200	26.6	19.5	14.6	36.3	36.7	36.0	.036	6.2	5.1	4.2	PN
28041	5/28/94	0630	2700.0	8959.9	99	2700	100	200	26.3	19.5	15.8	35.8	36.3	36.2	.247	6.4	6.0	4.5	PN
28042	5/28/94	1112	2730.0	8959.1	99	1152	100	200	26.2	19.4	16.0	36.1	36.5	36.1	.206	6.5	5.9	4.4	PN

Table 2. Selected environmental parameters (continued)

CHAPMAN, SPRING PLANKTON SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
28043	5/28/94	1515	2800.0	8959.9	99	528	100	200	26.0	19.7	14.9	35.4	36.5	36.1	.139	6.4	6.2	4.6	PN
28044	5/28/94	1923	2800.0	9030.0	14	395	102	206	26.5	19.6	12.7	36.1	36.2	35.6	.063	6.4	5.3	4.3	PN
28045	5/28/94	2304	2759.9	9100.0	99	148	70	137	26.4	21.2	16.6	35.9	36.3	36.2	.084	6.4	7.2	4.4	PN
28046	5/29/94	0415	2730.1	9100.2	99	308	100	200	26.6	19.2	15.9	35.9	36.2	36.3	.049	6.2	6.1	4.7	PN
28047	5/29/94	0833	2700.7	9059.9	99	1669	100	204	26.9	20.1	14.9	36.4	36.6	36.0	.078	6.3	4.9	4.5	PN
28048	5/29/94	1333	2630.3	9100.8	99	628	100	200	27.4	18.9	14.3	35.9	36.7	35.9	.053	6.3	4.4	4.3	PN
28049	5/29/94	1822	2600.1	9100.0	99	2752	101	201	27.4	20.0	12.8	36.0	36.4	35.8	.045	4.4	6.5	4.1	PN
28050	5/29/94	2249	2600.2	9130.0	99	2194	103	205	27.4	19.5	12.2	36.3	36.6	36.6	.058	6.2	6.1	4.2	PN
28051	5/30/94	0237	2600.0	9200.0	99	2115	100	199	27.0	19.3	13.9	36.0	36.4	35.8	.045	6.8	4.6	4.4	PN
28052	5/30/94	0728	2629.9	9159.8	99	1818	100	200	27.1	19.2	19.3	36.2	36.7	36.0	.053	6.3	4.9	4.1	PN
28053	5/30/94	1118	2659.3	9159.6	99	1839	100	194	27.0	18.9	15.7	36.1	36.6	36.1	.045	6.4	5.1	4.9	PN
28054	5/30/94	1608	2729.9	9159.1	99	742	100	200	27.2	19.6	15.5	36.9	36.5	36.1	.045	6.4	6.0	4.2	PN
28055	5/30/94	2016	2800.3	9200.2	16	115	52	107	26.5	22.1	18.7	35.5	36.4	36.4	.116	4.8	7.2	4.9	PN
28056	5/31/94	0007	2802.0	9229.9	16	103	51	98	26.6	21.5	19.2	32.9	36.7	36.4	.109	6.5	7.3	5.2	PN
28057	5/31/94	0340	2800.3	9300.4	17	98	50	93	26.7	20.3	19.4	33.1	36.2	36.4	.106	6.4	7.1	5.5	PN
28058	5/31/94	0822	2730.8	9259.9	99	801	100	200	26.9	19.5	15.3	33.6	36.4	36.0	.087	5.4	4.8	4.3	PN
28059	5/31/94	1319	2659.9	9259.6	99	2271	100	198	27.2	19.1	15.0	36.1	36.3	36.0	.040	6.4	6.1	4.4	PN
28060	5/31/94	1757	2630.1	9259.0	99	1670	100	199	28.0	18.8	14.6	34.5	36.7	35.9	.089	6.3	5.0	4.7	PN

Table 2. Selected environmental parameters (continued)

CHAPMAN, REEF FISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
00002	6/ 9/94	0746	2914.6	8819.0	11	84	40	81	27.5	22.2	18.9	29.8	36.6	36.2	4.252	7.1	7.1	5.6	TV
00003	6/ 9/94	1104	2914.8	8820.0	11	85	41	85	27.2	21.8	18.9	28.9	36.0	36.3	7.871	7.7	6.9	5.6	TV
00004	6/ 9/94	1413	2914.6	8819.3	11	82	41	80	27.5	21.4	19.0	31.4	36.0	36.2	4.174	6.6	6.9	5.7	TV
00006	6/11/94	1028	2758.4	9222.5	16	68	33	67	28.0	23.0	20.3	34.1	35.6	36.3	.137	6.3	7.2	6.6	TV
00007	6/11/94	1219	2758.5	9222.4	16	60	25	57	28.3	26.5	21.0	33.9	36.2	36.3	.069	5.8	6.4	7.0	TV
00008	6/11/94	1425	2758.5	9222.7	16	64	30	60	28.1	26.5	20.9	33.8	35.1	36.2	.078	6.4	6.8	6.9	TV
00009	6/11/94	1600	2758.8	9223.3	16	77	37	75	28.2	23.2	20.1	33.9	35.5	36.3	.094	6.2	7.2	6.4	TV
00010	6/11/94	1745	2757.2	9223.6	99	94	46	93	28.2	21.3	19.6	34.0	35.7	36.4	.094	6.2	7.1	5.7	TV
00013	6/12/94	0748	2749.1	9253.0	16	97	48	93	28.2	21.9	19.8	32.8	36.2	36.3	.115	6.3	7.0	6.6	TV
00014	6/12/94	0925	2749.5	9253.2	16	111	56	110	28.3	21.3	18.6	32.5	36.4	36.4	.133	6.3	7.0	5.0	TV
00015	6/12/94	1056	2749.2	9253.2	16	83	41	82	28.2	22.4	20.0	32.7	36.1	36.3	.109	6.3	6.9	6.7	TV
00016	6/12/94	1229	2748.9	9253.9	16	80	39	77	28.2	22.5	20.3	33.0	36.1	36.2	.178	6.4	6.7	7.3	TV
00017	6/12/94	1406	2749.3	9253.1	16	93	42	85	28.2	22.3	20.0	33.2	36.1	36.2	.078	6.4	7.2	6.9	TV
00018	6/12/94	1540	2750.0	9253.5	16	104	42	86	28.5	22.3	19.9	33.0	35.9	36.3	.089	6.3	6.9	7.0	TV
00020	6/14/94	1030	2819.6	9408.8	18	32	16	31	28.2	26.4	21.1	31.1	33.7	36.0	.187	4.8	6.1	5.6	TV
00021	6/14/94	1225	2819.4	9409.5	18	40	20	37	28.2	25.4	20.6	30.9	34.8	36.1	.230	6.3	6.0	5.9	TV
00022	6/14/94	1352	2819.6	9409.4	18	44	20	39	28.3	25.4	20.7	30.9	34.9	36.1	.523	6.4	6.4	5.9	TV
00023	6/14/94	1522	2819.4	9409.1	18	44	22	43	28.3	25.1	20.5	30.9	34.4	36.1	.174	5.5	6.2	5.9	TV
00024	6/14/94	1732	2819.3	9409.2	18	33	16	31	28.3	26.9	21.0	30.8	32.7	36.2	.168	5.5	6.1	6.3	TV
00025	6/15/94	0731	2803.5	9431.7	18	49	24	49	28.0	24.4	20.2	32.3	35.6	36.1	.102	6.3	7.1	6.2	TV
00026	6/15/94	0908	2803.8	9431.5	18	50	24	50	28.0	24.3	20.2	32.3	35.6	36.1	.123	6.3	7.0	6.2	TV
00027	6/15/94	1140	2803.5	9431.2	18	51	25	50	28.0	24.3	20.2	32.3	35.4	36.1	.146	5.8	6.9	6.0	TV
00028	6/15/94	1244	2803.6	9431.8	18	47	23	46	28.1	25.0	20.3	32.3	35.0	36.1	.087	5.8	6.8	6.1	TV
00029	6/15/94	1436	2803.9	9432.2	18	47	22	45	28.1	25.2	20.2	32.3	35.0	36.1	.107	6.4	6.8	6.0	TV
00030	6/15/94	1610	2803.5	9431.5	18	52	25	49	28.0	24.1	20.2	32.4	34.9	36.1	.305	6.4	6.8	6.0	TV
00031	6/16/94	0756	2752.9	9349.1	17	65	32	64	28.3	22.4	20.4	32.2	36.1	36.4	.112	6.2	7.2	6.4	TV
00032	6/16/94	0942	2754.4	9349.6	99	50	25	49	28.4	23.8	21.2	32.2	35.7	36.3	.142	6.3	7.0	7.2	TV
00033	6/16/94	1122	2753.6	9349.9	17	41	20	40	28.5	25.1	22.0	32.2	34.9	36.5	.138	6.2	6.8	7.1	TV
00034	6/16/94	1304	2753.5	9349.9	17	93	45	90	28.9	21.9	19.4	32.1	36.0	36.4	.142	6.3	7.1	5.5	TV
00035	6/16/94	1501	2754.1	9348.0	17	75	37	72	29.0	22.4	20.4	32.1	35.9	36.4	.107	6.2	7.2	5.9	TV
00036	6/16/94	1659	2753.2	9347.8	17	87	39	81	28.8	22.3	19.9	32.1	35.9	36.4	.083	6.0	7.2	5.8	TV
00038	6/17/94	0729	2754.4	9336.2	17	36	18	35	28.6	25.9	21.6	32.2	34.3	36.5	.092	6.3	6.5	7.2	TV
00039	6/17/94	0912	2754.8	9336.8	17	42	21	41	28.7	24.5	21.1	32.2	34.8	36.0	.099	6.2	6.8	7.0	TV
00040	6/17/94	1117	2757.2	9339.8	17	93	44	91	28.9	21.0	19.3	32.1	36.0	36.3	.187	6.2	7.0	5.7	TV
00041	6/17/94	1331	2755.0	9337.1	17	45	21	44	29.2	23.5	21.2	32.0	35.2	36.1	.053	6.2	6.9	7.0	TV
00042	6/17/94	1554	2755.2	9335.7	17	43	20	41	29.4	25.2	21.4	32.0	34.0	36.1	.064	6.1	6.6	6.9	TV
00043	6/17/94	1739	2755.4	9336.1	17	27	12	25	29.4	28.3	22.5	32.0	33.3	36.0	.080	5.7	6.2	6.9	TV
00045	6/18/94	0532	2753.5	9318.0	17	45	22	44	28.6	26.1	21.3	32.5	33.7	36.8	.072	4.5	6.5	7.1	TV/PN
00047	6/18/94	0850	2753.8	9319.6	17	107	54	105	28.6	20.7	19.0	32.7	36.3	36.4	.079	6.2	6.9	5.1	TV
00048	6/18/94	1034	2752.8	9318.4	17	53	26	51	28.7	23.8	21.6	32.5	35.0	36.3	.072	5.4	6.4	7.1	TV
00049	6/18/94	1310	2753.7	9318.2	99	44	22	41	28.6	24.3	21.5	32.5	34.7	36.2	.110	5.2	6.7	7.0	TV
00050	6/18/94	1501	2752.5	9317.9	17	45	21	44	28.5	24.3	22.2	32.5	35.1	36.1	.218	6.2	6.9	6.8	TV

Table 2. Selected environmental parameters (continued)

CHAPMAN, REEF FISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
00051	6/18/94	1703	2753.5	9318.4	17	60	29	57	28.6	23.2	21.2	32.6	35.4	36.2	.125	6.3	6.9	7.0	TV
00052	6/19/94	0730	2749.1	9303.5	17	74	37	72	28.3	23.9	20.1	32.6	36.0	36.3	.118	6.2	7.2	6.3	TV
00053	6/19/94	0921	2748.8	9303.7	17	75	37	73	28.3	23.2	20.0	32.7	36.4	36.3	.150	6.2	7.3	6.3	TV
00054	6/19/94	1112	2748.0	9303.6	17	70	34	68	28.3	24.1	20.5	32.8	36.1	36.3	.196	6.2	7.2	6.6	TV
00055	6/19/94	1409	2747.8	9303.8	17	58	28	56	28.3	25.0	22.2	33.6	35.8	36.3	.116	5.3	7.0	6.8	TV
00056	6/19/94	1605	2748.1	9304.0	17	56	25	53	28.3	26.4	21.8	33.0	36.0	36.2		6.3	6.6	7.1	TV
00057	6/19/94	1750	2748.3	9303.7	17	78	37	75	28.3	24.0	21.1	32.7	35.2	36.3	.105	5.6	7.0	7.0	TV
00060	6/20/94	0723	2758.3	9236.6	16	75	36	73	28.4	22.8	20.1	32.3	35.6	36.4	.149	5.3	7.0	6.8	TV
00061	6/20/94	0909	2758.2	9236.4	16	78	38	77	28.4	22.1	20.1	32.0	36.0	36.3	.096	6.2	7.1	6.7	TV
00062	6/20/94	1054	2758.5	9237.5	16	125	58	117	28.4	20.8	18.0	32.1	36.1	36.9	.107	6.3	7.1	5.0	TV
00063	6/20/94	1310	2758.0	9236.7	16	79	38	78	28.6	22.9	19.8	32.1	35.6	36.3	.111	6.3	7.2	6.6	TV
00064	6/20/94	1508	2758.5	9236.8	16	78	37	76	28.8	23.9	19.8	32.2	35.5	36.3	.142	6.3	7.0	6.6	TV
00065	6/20/94	1717	2758.7	9237.5	16	81	40	80	28.4	23.2	19.9	32.5	35.7	36.3	.126	6.3	7.2	6.5	TV
00067	6/26/94	0510	2941.0	8808.0	11	34	16	33	26.8	23.1	20.5	33.6	35.7	36.4	.604	4.2	6.6	5.7	TV/PN
00069	6/26/94	0948	2940.9	8807.0	11	33	17	27	27.0	25.1	21.5	31.2	35.2	36.2	.424	6.3	6.6	6.8	TV
00070	6/26/94	1136	2941.6	8806.2	11	32	16	32	27.1	25.8	20.5	31.4	34.5	36.2	.540	5.9	6.7	5.5	TV
00071	6/26/94	1342	2941.7	8806.0	11	31	15	31	27.3	25.0	20.5	30.1	35.2	36.2	.438	5.8	6.6	5.3	TV
00072	6/26/94	1546	2941.0	8803.9	11	36	17	36	27.1	23.5	20.3	32.8	35.9	36.3	.389	5.1	7.0	5.1	TV
00073	6/26/94	1742	2943.4	8803.7	11	35	15	33	27.2	23.9	20.4	30.5	35.7	36.2	.486	5.8	6.3	5.2	TV
00074	6/27/94	0725	2956.6	8708.0	10	55	25	53	26.9	22.1	19.6	29.0	36.0	36.1	.716	6.5	6.8	6.4	TV
00075	6/27/94	0905	2955.9	8709.8	10	59	28	58	27.1	21.5	19.6	28.9	35.7	36.1	.854	5.6	6.7	6.4	TV
00076	7/ 1/94	0718	3007.2	8629.0	9	36	18	34	28.2	24.8	21.1	29.8	34.4	36.1	.138	6.6	6.8	6.6	TV
00077	7/ 1/94	0837	3006.5	8630.0	9	42	22	41	28.1	22.7	20.9	29.8	35.1	36.1	.210	6.6	7.1	6.4	TV
00078	7/ 1/94	0959	3005.8	8629.7	9	43	22	42	28.4	23.2	20.8	31.3	34.8	36.1	.133	4.6	7.1	6.4	TV
00079	7/ 1/94	1120	3006.1	8629.0	9	34	17	34	28.3	25.2	21.0	30.5	35.3	36.1	.133	5.9	6.7	6.4	TV
00080	7/ 1/94	1303	3006.4	8627.9	9	38	19	37	28.8	24.5	21.1	30.8	34.7	36.1	.133	4.6	6.9	6.6	TV
00081	7/ 2/94	0510	2900.7	8532.1	8	84	42	76	28.7	22.0	19.4	31.3	35.9	36.2	.089	6.4	7.2	6.5	TV/PN
00083	7/ 2/94	0841	2901.2	8532.6	8	80	40	80	28.7	22.3	19.2	31.5	36.0	36.2	.087	6.4	7.3	6.4	TV
00084	7/ 2/94	1159	2901.4	8532.6	8	93	45	90	28.6	21.6	18.7	31.5	36.1	36.3	.153	6.4	7.3	5.9	TV
00085	7/ 4/94	0724	2632.1	8230.3	4	20	10	19	29.1	29.1	29.1	35.8	35.9	35.8	.486	5.6	5.8	5.8	TV
00086	7/ 4/94	0850	2634.9	8230.7	4	19	9	18	29.2	29.2	29.2	35.9	35.9	35.9	.336	5.2	5.7	5.8	TV
00087	7/ 4/94	1013	2634.9	8230.9	4	18	9	18	29.2	29.2	29.2	35.9	35.9	35.9	.779	5.5	5.8	5.8	TV
00088	7/ 4/94	1133	2634.4	8231.2	4	13	6	12	29.3	29.3	29.1	35.9	35.8	35.9	.355	4.7	5.1	5.7	TV
00089	7/ 4/94	1309	2634.4	8231.2	4	13	6	13	29.4	29.3	29.2	35.8	35.8	35.9	.330	5.9	5.4	5.8	TV
00090	7/ 4/94	1423	2634.4	8231.3	4	14	6	14	29.4	29.3	29.2	35.8	35.8	35.9	1.283	4.9	5.0	5.7	TV
00091	7/ 4/94	1547	2634.6	8231.1	4	16	8	16	29.4	29.3	29.2	35.8	35.8	35.9	.336	4.4	5.7	5.9	TV
00093	7/ 5/94	0452	2619.2	8207.5	4	10	5	9	28.8	28.8	28.8	35.8	35.8	35.8	2.399	5.8	5.7	5.7	TV/PN
00095	7/ 5/94	0835	2618.2	8208.3	4	11	4	10	29.0	28.9	28.9	35.7	35.7	35.8	1.632	5.7	5.7	5.9	TV
00096	7/ 9/94	0509	2438.8	8303.0	2	14	6	13	28.7	28.7	28.7	36.4	36.4	36.4	.237	5.5	5.9	6.0	TV/PN
00098	7/ 9/94	0840	2439.1	8302.9	2	18	9	17	28.7	28.7	28.7	36.4	36.4	36.4	.280	5.3	5.8	6.0	TV
00099	7/ 9/94	1007	2439.1	8305.1	2	15	7	14	28.4	28.3	27.2	36.2	36.2	36.4	.049	5.7	6.1	6.6	TV
00100	7/ 9/94	1132	2439.8	8305.0	2	18	9	16	28.4	28.4	27.8	36.2	36.3	36.4	.078	6.2	6.3	6.7	TV

Table 2. Selected environmental parameters (continued)

CHAPMAN, REEF FISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
00101	7/ 9/94	1343	2439.4	8301.4	2	13	7	12	28.6	28.6	28.4	36.3	36.2	36.3	.147	6.2	6.3	6.4	TV
00102	7/ 9/94	1530	2438.2	8304.1	2	15	6	12	28.5	28.5	28.5	36.3	36.3	36.3	.181	6.3	6.5	6.5	TV
00103	7/ 9/94	1703	2437.4	8305.5	2	19	9	19	28.8	28.7	27.3	36.4	36.1	36.5	.162	6.1	6.5	6.8	TV
00104	7/ 9/94	1835	2436.8	8303.4	2	12	6	11	28.6	28.6	28.6	36.4	36.4	36.4	.166	5.5	5.9	6.1	TV
00106	7/10/94	0711	2445.5	8347.4	2	75	39	74	28.4	24.1	20.1	36.2	36.2	36.4	.052	6.3	6.7	6.2	TV
00107	7/10/94	0846	2443.6	8346.1	2	78	39	76	28.4	23.9	19.2	36.2	36.1	36.4	.066	6.3	6.8	5.7	TV
00108	7/10/94	1017	2443.3	8345.2	2	70	35	67	28.4	24.9	19.5	36.2	36.1	36.4	.068	5.8	6.8	5.8	TV
00109	7/10/94	1140	2443.1	8345.4	2	76	36	75	28.5	25.0	19.3	36.2	36.1	36.4	.072	6.8	6.9	5.7	TV
00110	7/10/94	1325	2442.5	8344.7	2	77	37	76	28.6	25.4	19.9	36.3	36.0	36.4	.054	6.4	7.1	6.1	TV
00111	7/10/94	1458	2442.4	8345.3	2	99	38	78	28.6	24.7	20.0	36.2	36.2	36.4	.048	6.4	7.0	6.2	TV
00112	7/10/94	1720	2441.1	8343.2	2	67	30	62	28.6	25.3	20.9	36.2	35.7	36.5	.039	6.4	6.8	6.4	TV
00114	7/11/94	0519	2457.2	8341.1	2	72	36	72	28.4	23.5	21.2	36.3	36.3	36.5	.040	6.4	7.4	7.1	TV/PN
00116	7/11/94	0847	2458.0	8342.4	2	76	38	75	28.4	23.7	20.6	36.3	36.1	36.4	.045	6.4	7.2	6.6	TV
00117	7/11/94	1009	2458.8	8342.1	2	76	36	76	28.4	23.9	20.6	36.2	36.0	36.4	.086	6.4	7.3	6.5	TV
00118	7/11/94	1202	2458.6	8340.4	2	71	35	70	28.5	24.6	20.9	36.2	35.9	36.4	.056	6.4	7.5	6.7	TV
00119	7/11/94	1409	2455.3	8343.2	2	74	36	73	26.7	25.4	20.3	36.2	35.8	36.4	.054	6.3	7.0	6.3	TV
00120	7/11/94	1610	2452.8	8346.6	2	77	37	73	28.6	24.1	20.3	36.1	36.2	36.4	.045	6.3	6.9	6.4	TV
00121	7/11/94	1747	2452.4	8346.6	2	74	35	72	28.6	24.5	20.3	36.2	35.8	36.4	.037	6.4	7.1	6.4	TV
00122	7/13/94	0509	2818.3	8407.9	6	36	18	35	28.4	27.8	24.0	33.8	35.0	36.0	.078	6.3	6.5	6.7	TV/PN
00124	7/13/94	0843	2816.7	8407.4	6	35	17	34	28.5	27.8	24.1	33.9	35.0	36.0	.086	5.9	6.5	6.6	TV
00125	7/13/94	1004	2816.6	8407.0	6	33	17	32	28.6	27.6	24.1	33.9	35.1	36.0	.063	5.1	6.5	6.5	TV
00126	7/13/94	1141	2815.6	8402.4	6	31	16	30	28.8	28.1	24.0	34.2	35.0	36.0	.070	6.3	6.5	7.0	TV
00127	7/13/94	1306	2815.2	8402.3	6	35	14	30	29.1	27.8	24.0	34.1	34.8	36.1	.053	6.4	6.3	7.0	TV
00128	7/13/94	1449	2812.9	8403.5	6	35	18	34	29.2	27.2	24.2	33.8	34.1	36.0	.055	6.3	6.6	7.0	TV
00129	7/13/94	1615	2811.7	8403.6	6	35	15	30	29.1	27.9	24.2	33.8	34.9	36.3	.054	6.2	6.6	7.0	TV
00132	7/14/94	0511	2828.7	8408.9	6	33	16	33	28.4	27.9	24.4	34.8	34.9	36.0	.077	6.4	6.5	6.6	TV/PN
00134	7/14/94	0836	2828.0	8409.9	6	36	17	34	28.4	27.7	24.6	34.6	34.9	35.9	.080	6.0	6.5	6.5	TV
00135	7/14/94	1026	2824.0	8405.8	6	35	16	33	28.6	27.9	23.7	34.9	35.4	35.9	.078	5.4	6.3	6.5	TV
00136	7/14/94	1217	2820.5	8409.8	6	29	15	28	29.1	27.9	24.6	34.2	35.1	35.9	.072	5.1	6.4	6.8	TV
00137	7/14/94	1340	2821.4	8409.6	6	31	15	30	28.9	27.9	24.2	34.5	35.1	35.9	.071	6.1	6.7	6.5	TV
00138	7/14/94	1520	2823.4	8408.2	6	36	16	34	29.1	27.7	24.1	34.3	35.1	35.9	.079	5.6	6.7	6.6	TV
00139	7/14/94	1646	2823.5	8408.2	6	34	16	33	29.1	27.6	24.1	34.5	35.2	35.9	.071	6.5	6.7	6.3	TV
00141	7/15/94	0519	2825.3	8419.4	6	34	16	33	28.7	28.0	25.0	33.4	34.7	36.0	.145	5.9	6.4	6.4	TV/PN
00143	7/15/94	0837	2826.7	8419.3	6	36	18	35	28.8	27.9	24.8	33.7	34.7	35.9	.064	6.5	6.6	6.4	TV
00144	7/15/94	1003	2826.4	8417.4	6	29	14	29	29.0	28.1	25.5	34.0	34.7	35.8	.078	6.3	6.6	6.4	TV
00145	7/15/94	1156	2827.8	8413.8	6	31	15	30	29.2	27.7	25.5	34.0	34.9	35.8	.064	6.4	6.7	6.7	TV
00146	7/15/94	1337	2830.0	8417.3	6	27	10	21	29.5	28.1	26.0	33.8	34.7	35.8	.056	6.3	6.6	6.6	TV
00147	7/15/94	1501	2828.9	8417.2	6	32	17	32	26.7	26.5	25.6	33.6	35.1	35.8	.064	6.3	6.4	6.5	TV
00148	7/15/94	1644	2828.3	8413.8	6	34	16	34	29.3	27.4	25.1	33.8	35.5	35.8	.056	6.4	6.5	6.6	TV
00150	7/16/94	0504	2833.4	8420.4	6	30	15	28	29.2	28.1	25.5	33.4	34.7	35.8	.064	6.3	6.5	6.4	TV/PN
00152	7/16/94	0837	2833.5	8424.3	6	34	17	33	29.1	27.0	24.9	33.6	35.0	35.9	.078	5.5	6.5	6.6	TV
00153	7/16/94	1002	2834.6	8421.2	6	31	15	31	29.6	28.0	25.2	33.2	34.8	35.8	.058	4.8	6.5	6.6	TV

Table 2. Selected environmental parameters (continued)

CHAPMAN, REEF FISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
00154	7/16/94	1138	2837.9	8422.0	6	28	15	28	29.4	27.8	24.8	34.5	34.8	35.9	.057	6.5	6.5	6.8	TV
00155	7/16/94	1305	2839.2	8423.7	6	26	14	26	29.6	28.0	24.8	33.6	34.9	36.0	.057	6.4	6.6	6.7	TV
00156	7/16/94	1452	2836.1	8420.2	6	33	16	33	29.6	27.5	25.2	34.4	35.2	35.9	.048	6.5	6.6	6.8	TV
00157	7/16/94	1632	2834.8	8422.5	6	33	16	33	29.8	29.9	24.2	33.5	34.9	36.1	.063	6.4	6.6	7.0	TV
00159	7/17/94	0505	2839.9	8423.7	6	31	15	31	29.4	28.0	24.6	33.8	33.8	36.5	.064	4.7	4.0	5.9	TV/PN
00161	7/17/94	0832	2840.5	8424.0	6	30	15	29	28.8	28.1	24.6	34.4	35.0	36.9	.064	5.7	6.6	6.6	TV
00162	7/17/94	1001	2840.7	8423.5	6	24	12	23	29.0	28.2	25.0	34.8	35.1	35.9	.054	5.5	6.2	6.3	TV
00163	7/17/94	1153	2841.0	8423.3	6	30	14	29	29.3	28.3	24.4	35.0	35.1	35.9	.054	6.4	6.6	6.4	TV
00164	7/17/94	1315	2841.1	8423.3	6	30	13	24	29.2	28.5	25.3	35.3	35.3	35.9	.050	6.4	6.6	6.9	TV
00165	7/17/94	1433	2841.0	8424.1	6	36	16	34	29.2	28.0	24.4	35.2	35.2	35.9	.081	6.5	6.8	6.5	TV
00166	7/17/94	1552	2841.6	8423.8	6	36	17	34	29.2	27.8	24.2	35.2	35.2	35.8	.053	6.4	6.7	6.5	TV
00167	7/17/94	1709	2841.9	8423.6	6	33	16	33	29.5	28.1	24.3	35.3	35.3	35.9	.063	6.4	6.7	6.5	TV
00168	7/18/94	1238	2818.1	8447.0	6	63	32	63	30.1	24.9	20.5	33.7	36.1	36.2	.116	5.3	7.5	5.3	TV
00169	7/18/94	1400	2818.3	8447.1	6	63	31	62	28.8	24.7	20.4	33.6	36.1	36.2	.048	6.5	7.6	7.6	TV
00170	7/18/94	1539	2818.6	8447.4	6	66	32	66	30.2	24.4	20.3	33.6	36.1	36.3	.061	6.5	7.7	7.6	TV
00171	7/18/94	1702	2818.9	8448.5	6	72	35	72	29.6	23.8	19.5	34.0	35.8	36.2	.062	6.6	7.8	6.8	TV
00172	7/19/94	0540	2854.8	8517.6	8	70	35	69	29.0	25.1	20.2	33.0	35.7	36.2	.100	6.5	7.1	7.0	TV/PN
00174	7/19/94	0839	2854.7	8518.3	8	66	33	65	29.1	25.0	20.3	33.1	35.8	36.2	.100	6.1	7.0	6.7	TV
00175	7/19/94	1000	2854.3	8518.8	8	76	35	69	29.0	25.3	19.9	33.2	35.7	36.2	.094	6.5	6.9	6.9	TV
00176	7/19/94	1132	2856.5	8518.3	8	66	28	56	29.0	26.0	21.3	32.8	35.7	36.2	.133	6.6	6.9	7.3	TV
00177	7/19/94	1307	2857.1	8519.2	8	59	28	57	29.1	26.2	21.1	32.5	35.6	36.2	1.601	6.6	7.1	7.2	TV
00178	7/19/94	1524	2853.2	8513.7	8	70	32	65	29.9	25.0	20.4	31.9	35.8	36.2	.370	6.7	7.4	7.5	TV
00179	7/19/94	1712	2852.2	8510.8	8	68	31	64	29.8	26.2	20.1	31.6	36.0	36.3	.525	6.7	7.4	7.1	TV
00180	7/20/94	0509	2904.9	8531.7	8	80	40	78	28.9	23.8	19.3	32.6	36.1	36.2	.089	6.5	7.4	6.3	TV/PN
00182	7/20/94	0845	2904.4	8531.5	8	76	37	75	28.9	24.3	19.5	32.7	35.9	36.2	.098	6.5	7.5	6.7	TV
00183	7/20/94	1010	2904.5	8531.8	8	91	46	89	29.0	22.8	18.5	32.8	36.2	36.3	.102	6.6	7.6	5.7	TV
00184	7/20/94	1129	2903.7	8532.6	8	99	48	96	29.0	22.8	18.2	32.8	36.2	36.3	.089	6.6	7.4	5.3	TV
00185	7/20/94	1304	2903.5	8532.5	8	89						31.0			.098				TV
00186	7/20/94	1432	2902.8	8533.0	8	100	50	98	29.6	22.8	19.4	32.7	36.2	36.3	.098	6.6	7.4	6.0	TV
00187	7/20/94	1604	2902.8	8533.0	8	105	51	104	29.7	22.7	19.3	32.6	36.1	36.3	.098	6.4	7.4	6.1	TV
00188	7/21/94	0546	2926.4	8732.8	10	61	31	61	29.5	23.7	19.9	31.2	35.9	36.2	.304	6.1	6.6	6.7	TV/PN
00190	7/21/94	1012	2932.0	8740.1	10	50	25	49	28.9	25.7	22.4	30.3	35.7	36.3	.148	5.8	6.7	6.8	TV
00191	7/21/94	1210	2936.1	8739.0	10	43	18	41	29.2	27.5	23.1	29.0	34.9	36.1	.203	6.1	6.7	6.2	TV

Table 2. Selected environmental parameters (continued)

TOMMY MUNRO, REEF FISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
17001	8/ 5/94	0856	2934.1	8728.6	10	73	36	71	28.3	26.5	20.5	30.7	35.7	36.3	.224	5.6	5.6	5.2	TV
17002	8/ 6/94	0742	2928.1	8742.8	10	67	33	65	28.7	24.1	19.9	30.0	36.0	36.2	.196	6.4	6.0	5.4	TV
17003	8/ 6/94	1032	2921.2	8744.5	10	101	50	100	29.2	21.7	19.0	30.3	36.3	36.3	.168	5.8	6.2	5.3	TV
17004	8/ 7/94	0750	2924.8	8759.2	10	73	36	71	28.7	23.2	19.7	25.7	36.4	36.3	.841	6.5	6.0	5.5	TV
17005	8/ 7/94	0914	2924.9	8758.5	10	69	35	68	28.6	24.0	20.1	26.0	36.4	36.3	.897	5.0	4.8	4.7	TV
17006	8/ 7/94	1056	2925.1	8758.0	10	69	35	67	28.9	23.8	20.5	26.2	36.4	36.3	.913	6.6	6.0	5.1	TV
17007	8/ 7/94	1250	2925.0	8757.4	10	67	33	66	29.4	24.0	20.7	26.2	36.4	36.4	.916	6.6	5.7	5.7	TV
17008	8/ 7/94	1438	2925.1	8758.4	10	68	34	66	30.4	24.9	20.7	25.9	36.5	36.3	.772	6.3	6.1	4.9	TV
17009	8/ 7/94	1613	2925.1	8757.1	10	67	33	66	30.8	24.3	19.9	26.1	36.4	36.3	.868	3.4	3.6	3.8	TV

Table 2. Selected environmental parameters (continued)

ALABAMA INSHORE VESSELS, REEF FISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
23001	9/26/94	1100	2959.0	8801.4	11	29	15	29	29.0	29.0	28.0	30.0	30.0	30.0		7.6	6.8	7.4	TV
23002	9/26/94	1245	3000.2	8801.5	11	27	14	27	28.5	29.0	28.0	31.0	31.0	30.0		6.8	6.6	6.6	TV
23003	9/29/94	1120	3003.5	8813.4	11	21	11	21	27.0	28.0	28.0	30.0	30.0	30.0		7.6	8.2	8.0	TV
23004	9/29/94	1415	3002.1	8805.5	11	22	11	22	29.0	29.0	29.0	28.0	28.0	30.0		6.8	7.6	7.2	TV
23005	10/31/94	1206	3000.3	8757.2	10	19	10	19	23.0	22.5	22.5	28.0	32.0	32.0		6.8	7.4	7.0	TV
23006	10/31/94	1435	3004.6	8749.5	10	18	9	18	23.5	23.0	23.0	30.0	32.0	32.0		7.4	7.2	7.4	TV
23007	12/ 6/94	1031	2958.5	8800.2	11	29	15	29	19.4	19.4	19.4	34.0	34.0	34.0		7.8	7.0	8.2	TV
23008	12/ 7/94	1035	2957.5	8806.4	11	29	15	29	20.0	20.0	20.3	34.0	34.0	34.0		6.8	7.2	7.0	TV
23009	12/ 7/94	1345	2957.1	8806.0	11	29	15	29	20.6	20.6	21.1	34.0	34.0	34.0		7.0	7.0	7.4	TV
23010	12/ 8/94	1038	3002.5	8733.5	10	24	12	24	20.9	20.9	20.6	32.0	32.0	32.0		6.4	6.2	6.6	TV
23011	12/ 8/94	1353	3003.5	8733.6	10	24	12	24	21.1	20.6	20.6	32.0	32.0	32.0		5.8	6.8	7.0	TV

Table 2. Selected environmental parameters (continued)

ARANSAS BAY, SUMMER SHRIMP/GROUNDFISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
31001	6/ 6/94	0950	2751.6	9700.4	20	11	5	10	28.6	27.9	27.8	29.0	29.6	29.5	1.175	7.1	6.8	6.6	ST
31002	6/ 6/94	1020	2751.6	9659.5	20	12	6	12	28.1	27.8	27.7	29.1	29.6	29.7	.972	7.0	6.8	6.6	ST
31003	6/ 6/94	1108	2756.8	9653.4	20	14	7	13	27.9	27.6	27.5	29.2	29.2	29.3	2.019	7.0	6.9	6.7	ST
31004	6/ 6/94	1139	2757.6	9651.6	20	14	7	14	28.1	27.4	27.4	28.6	29.1	29.3	2.136	7.1	6.9	6.8	ST
31005	6/ 6/94	1215	2754.7	9650.5	20	16	8	16	27.9	27.6	26.4	29.4	29.4	30.3	1.009	7.2	7.1	6.8	ST
31006	6/ 6/94	1311	2750.5	9656.5	20	17	8	16	28.1	27.4	25.7	29.5	29.5	30.6	.523	7.1	6.9	6.2	ST
31007	6/ 6/94	1421	2748.8	9658.5	20	16	8	16	29.4	27.3	26.6	29.0	29.7	30.3	.635	7.5	7.1	5.7	ST
31008	6/ 6/94	1458	2745.5	9657.7	20	20	10	20	29.4	27.5	27.2	29.5	31.7	31.9	1.121	7.4	7.2	7.1	ST
31009	6/20/94	0747	2745.5	9703.5	20	12	6	12	28.6	28.9	28.1	30.0	31.0	31.7	2.953	6.7	6.9	5.7	ST
31010	6/20/94	0820	2743.3	9706.4	20	11	6	11	29.0	29.1	28.9	30.6	31.4	31.0	2.056	6.9	6.9	5.6	ST
31011	6/20/94	0852	2740.2	9709.4	20	11	6	11	29.0	29.0	29.1	31.1	31.1	31.5	1.570	6.5	6.3	6.4	ST
31012	6/20/94	0924	2738.5	9706.2	20	15	8	15	28.5	28.7	28.6	31.1	31.8	32.4	1.271	6.7	6.4	6.1	ST
31013	6/20/94	1003	2740.5	9705.6	20	14	7	14	28.7	28.7	28.4	31.0	31.7	32.2	1.981	6.6	6.6	6.0	ST
31014	6/20/94	1029	2740.7	9704.5	20	15	7	15	28.5	28.5	28.5	31.6	31.8	32.6	.377	6.3	6.3	6.3	ST
31015	6/20/94	1132	2740.5	9700.2	20	20	10	20	28.2	28.3	24.8	31.5	31.5	33.9	.254	6.2	6.2	6.3	ST
31016	6/20/94	1228	2744.6	9656.6	20	21	11	21	28.0	27.9	27.7	32.1	33.3	34.1	.192	6.5	6.3	6.4	ST
33011	6/21/94	1103	2614.5	9706.4	21	17	9	17	27.9	27.6	24.9	35.1	34.9	35.1	.166	6.2	6.2	6.1	ST
33012	6/21/94	1140	2614.5	9709.5	21	14	7	14	28.0	27.7	27.6	34.8	34.9	35.0	.352	6.0	6.2	6.0	ST
33013	6/21/94	1228	2615.6	9707.6	21	17	8	17	27.9	27.5	25.5	34.9	34.9	35.0	.171	6.0	6.1	5.9	ST
33014	6/21/94	1309	2616.6	9709.5	21	15	8	15	28.2	27.7	27.6	34.9	34.8	34.8	.216	6.0	6.1	6.1	ST
33015	6/21/94	1413	2620.4	9706.6	21	18	9	18	27.9	27.3	25.9	34.7	34.8	34.8	.192	6.0	6.2	6.0	ST
33016	6/21/94	1510	2618.7	9702.7	21	20	10	20	28.2	28.2	28.2	34.8	35.0	35.4	.190	6.0	6.0	6.2	ST

Table 2. Selected environmental parameters (continued)

MATAGORDA BAY, SUMMER SHRIMP/GROUNDFISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
32001	6/ 2/94	1101	2825.4	9615.4	19	11	6	11	27.5	27.4	23.5	27.7	28.6	32.8	1.324	6.0	6.4	3.3	ST
32002	6/ 2/94	1144	2827.5	9611.5	19	12	6	12	27.4	27.4	23.5	28.0	28.8	33.2	1.458	6.7	6.5	2.9	ST
32003	6/ 2/94	1238	2830.5	9609.6	19	8	4	8	27.5	27.5	26.1	27.8	28.1	29.8	2.761	6.8	7.1	4.7	ST
32004	6/ 2/94	1312	2829.4	9608.6	19	11	5	11	27.3	27.3	24.2	28.1	28.4	32.7	1.858	7.1	7.0	3.8	ST
32005	6/ 2/94	1343	2828.5	9608.6	19	12	6	12	27.3	26.9	23.6	28.6	28.6	32.8	1.383	7.7	7.3	2.5	ST
32006	6/ 6/94	1041	2828.5	9606.4	19	13	7	13	27.6	27.2	27.1	27.1	27.2	27.3	3.690	5.4	5.3	4.9	ST
32007	6/ 6/94	1134	2823.5	9604.7	19	19	9	19	27.2	27.0	25.5	27.5	28.1	32.4	.614	5.6	5.5	4.0	ST
32008	6/ 6/94	1247	2819.5	9614.5	19	19	9	19	28.5	27.4	24.3	27.8	28.1	32.5	.625	5.7	6.0	2.3	ST
32009	6/20/94	1021	2819.5	9615.5	19	18	9	18	27.9	27.8	28.0	30.1	32.1	32.2		6.4	6.2	6.4	ST
32010	6/20/94	1059	2817.4	9614.5	19	21	10	21	28.1	28.0	23.6	29.8	31.6	34.5	.160	6.0	5.7	4.8	ST
32011	6/20/94	1151	2813.4	9617.5	19	23	11	23	28.5	28.1	22.6	30.5	31.5		.160	6.2	6.0	5.2	ST
32012	6/20/94	1252	2812.5	9625.5	19	18	9	18	29.1	28.5	27.7	27.6	31.0	34.2	1.068	6.6	6.4	5.5	ST
32013	6/21/94	1219	2814.4	9626.5	19	16	8	16	29.4	29.4	28.5	27.0	29.9	32.5	1.447	7.9	7.8	7.5	ST
32014	6/21/94	1142	2816.4	9624.6	19	15	7	15	29.7	29.5	28.3	27.2	30.8	32.2	1.282	7.7	7.7	6.3	ST
32015	6/21/94	1055	2818.5	9621.4	19	15	7	15	29.3	29.5	28.5	26.9	29.8	32.0	1.234	6.9	6.9	6.0	ST
32016	6/21/94	1024	2820.3	9621.5	19	11	6	11	29.4	29.4	28.5	26.8	30.3	29.3	1.597	6.9	6.9	6.5	ST

Table 2. Selected environmental parameters (continued)

LAGUNA MADRE, SUMMER SHRIMP/GROUNDFISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
33001	6/ 1/94	0827	2603.4	9706.1	21	18	9	18	24.6	24.2	21.0	35.8	35.7	35.7	1.028	6.4	6.3	6.4	ST
33002	6/ 1/94	0909	2600.7	9706.5	21	17	8	17	24.9	23.2	21.3	35.5	35.6	36.1	.764	6.3	6.5	4.4	ST
33003	6/ 1/94	0956	2557.4	9706.5	22	16	8	16	24.8	24.3	24.3	35.7	36.1	36.6	2.761	6.3	6.6	6.5	ST
33004	6/ 1/94	1044	2558.7	9702.5	22	24	12	24	26.4	26.1	23.0	35.1	36.2	36.1	.184	5.8	5.9	5.9	ST
33005	6/ 2/94	0845	2601.8	9702.3	21	23	12	23	25.9	25.9	24.5	35.2	35.4	36.6	.280	6.1	6.2	6.7	ST
33006	6/ 2/94	0941	2604.6	9701.3	21	24	12	24	26.2	25.9	26.0	35.3	35.8	35.8	.248	5.9	6.1	6.2	ST
33007	6/ 2/94	1050	2611.5	9708.6	21	16	8	16	25.3	25.3	24.7	34.7	35.1	35.2	.459	6.1	6.0	5.9	ST
33008	6/ 2/94	1121	2611.7	9709.5	21	12	6	12	25.3	25.1	24.9	34.8	34.8	34.6	.374	6.2	6.2	6.3	ST
33009	6/21/94	0950	2611.5	9706.6	21	18	9	18	27.5	27.3	25.5	35.0	34.9	35.0	.267	7.9	8.3	8.3	ST
33010	6/21/94	1024	2612.4	9705.5	21	19	10	19	27.6	27.5	24.5	34.9	34.9	35.2	.163	7.8	8.0	8.4	ST

Table 2. Selected environmental parameters (continued)

GALVESTON BAY, SUMMER SHRIMP/GROUNDFISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M³ SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
34001	6/ 7/94	0822	2917.5	9437.3	18	13	7	13	28.1	27.9	25.4	19.8	19.9	21.0	1.623	6.4	5.6	1.8	ST
34002	6/ 7/94	0904	2919.4	9433.9	18	13	7	13	28.3	27.5	26.1	19.0	20.7	23.7	5.158	7.1	5.7	1.2	ST
34003	6/ 7/94	0938	2922.8	9430.3	18	12	6	12	27.9	27.2	26.1	19.4	20.9	19.8	3.663	7.9	5.7	1.4	ST
34004	6/ 7/94	1014	2922.2	9437.4	18	11	6	11	28.3	27.7	26.8	19.0	19.9	25.1	5.981	6.9	6.8	2.8	ST
34005	6/ 7/94	1059	2925.7	9437.1	18	8	4	8	28.3	27.4	26.9	19.3	19.2	25.3	1.954	7.6	7.4	2.3	ST
34006	6/ 7/94	1128	2926.1	9437.8	18	4	2	4	29.5	29.4	29.4	18.9	18.8	19.0	5.457	6.4	6.3	5.7	ST
34007	6/ 7/94	1207	2925.0	9441.5	18	4	2	4	29.1	29.1	29.1	18.7	18.8	19.5	5.831	7.1	5.9	5.5	ST
34008	6/ 7/94	1246	2921.1	9440.4	18	9	5	9	28.4	27.5	26.7	18.6	20.1	24.8	1.517	7.3	4.5	1.0	ST
34009	6/25/94	0828	2917.8	9439.0	18	11	6	11	27.0	26.6	24.5	21.6	29.4	29.9	6.355	5.0	.4	.5	ST
34010	6/25/94	0855	2916.4	9440.5	18	11	6	11	26.3	24.7	24.5	30.0	30.1	33.7	4.037	4.2	.2	.2	ST
34011	6/25/94	0922	2914.9	9440.4	18	14	7	14	27.1	26.5	24.8	30.1	30.3	32.9	1.912	5.1	4.8	1.0	ST
34012	6/25/94	1006	2915.5	9447.2	18	9	5	9	26.2	25.2	25.3	32.2	32.1	33.7	2.243	3.1	1.0	.2	ST
34013	6/25/94	1033	2913.9	9448.4	18	11	6	11	26.2	24.6	24.1	31.7	32.2	33.7	3.108	4.0	.3	.3	ST
34014	6/25/94	1059	2912.3	9450.0	18	11	6	11	26.4	23.8	24.3	31.7	33.5	34.3	2.606	3.9	.2	.3	ST
34015	6/25/94	1126	2911.7	9447.4	18	13	7	13	26.4	24.6	23.7	31.7	32.0	33.8	7.401	5.3	2.3	.4	ST
34016	6/25/94	1153	2910.2	9446.8	18	15	8	15	25.7	24.3	24.6	32.0	33.1	34.1	2.841	4.1	2.4	2.1	ST

Table 2. Selected environmental parameters (continued)

SABINE, SUMMER SHRIMP/GROUNDFISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
40001	6/14/94	0803	2941.4	9346.6	17	7	4	7	28.1	28.1	28.2	13.2	13.1	13.4		6.0	6.0	6.1	ST
40002	6/14/94	0939	2936.7	9340.5	17	11	6	11	28.2	28.1	28.1	22.6	22.6	22.7		6.9	6.9	6.8	ST
40003	6/14/94	1027	2938.6	9340.5	17	11	6	11	28.2	28.2	28.2	20.6	20.8	22.5		5.9	6.9	6.9	ST
40004	6/14/94	1105	2939.4	9340.6	17	10	5	10	28.3	28.0	28.2	17.5	18.2	21.6		6.5	5.9	7.0	ST
40005	6/14/94	1156	2940.5	9339.8	17	9	4	9	28.5	28.4	28.3	14.9	16.8	20.8		7.1	7.0	6.5	ST
40006	6/14/94	1255	2941.6	9340.6	17	8	4	8	28.6	28.6	28.4	13.6	18.5	19.9		8.1	7.8	6.9	ST
40007	6/14/94	1347	2942.6	9338.9	17	8	4	8	28.5	28.4	28.3	14.7	15.1	17.1		6.4	6.3	6.3	ST
40008	6/14/94	1433	2942.4	9337.7	17	8	4	8	28.4	28.4	28.2	15.7	15.7	16.5		6.3	6.4	5.7	ST
40009	6/18/94	0807	2939.4	9355.2	17	5	2	5	30.0	29.9	30.0	9.1	9.1	9.4	17.083	8.4	8.6	8.8	ST
40010	6/18/94	0901	2935.4	9356.5	17	10	5	10	29.5	29.0	28.7	9.1	13.8	17.2	13.980	7.6	5.2	5.2	ST
40011	6/18/94	1002	2934.3	9357.6	17	11	6	11	29.1	29.2	28.3	8.9	21.3	23.7	11.513	6.6	5.8	6.7	ST
40012	6/18/94	1049	2932.4	9355.5	17	12	6	12	29.6	29.2	29.5	9.0	24.6	25.2	12.111	8.1	6.4	6.8	ST
40013	6/18/94	1209	2933.3	9346.7	17	12	6	12	30.1	28.7	29.6	9.2	21.9	23.3	9.009	8.6	5.5	6.5	ST
40014	6/20/94	0926	2939.4	9343.5	17	10	5	10	29.3	29.1	28.3	11.1	14.6	24.7		8.8	6.4	4.4	ST
40015	6/20/94	1007	2939.4	9342.8	17	10	5	10	29.3	29.4	28.4	11.2	14.5	24.8		9.0	8.5	4.2	ST
40016	6/20/94	1314	2938.6	9334.6	17	11	6	11	30.9	29.1	28.3	12.1	17.4	24.5		8.2	6.7	2.6	ST

Table 2. Selected environmental parameters (continued)

A.E. VERRILL, SUMMER SHRIMP/GROUNDFISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
23001	6/ 2/94	1511	3009.8	8805.4	11	11	6	11	27.1	25.5	22.6	24.2	29.4	34.0	1.589	7.4	6.8	6.6	ST
23002	6/ 2/94	1707	3014.2	8812.1	11	8	4	8	27.6	26.5	24.0	25.2	26.0	31.2	1.009	7.4	7.7	5.6	ST
23003	6/ 2/94	1955	3007.6	8828.4	11	15	8	15	27.8	25.4	21.4	25.1	30.4	34.9	1.009	7.0	6.5	4.5	ST
23004	6/ 2/94	2052	3011.6	8825.1	11	8	4	8	27.8	27.5	23.5	25.4	25.5	32.2	.692	6.9	6.9	6.0	ST
23005	6/ 2/94	2222	3008.8	8817.2	11	17	9	17	27.3	22.9	21.4	25.5	33.5	35.0	.766	7.2	6.7	3.6	ST
23006	6/ 9/94	1710	2956.5	8814.9	11	33	17	33	29.4	20.1	19.2	23.2	35.7	36.1	.972	6.9	6.4	4.9	ST
23007	6/ 9/94	1957	3002.0	8809.5	11	23	12	23	29.4	23.7	19.7	22.5	34.8	35.9	1.159	6.8	6.6	5.9	ST
23008	6/ 9/94	2136	3008.7	8809.2	11	10	5	10	28.4	26.0	22.5	24.4	28.5	34.3	1.533	6.6	6.6	6.4	ST

Table 2. Selected environmental parameters (continued)

TOMMY MUNRO, SUMMER SHRIMP/GROUNDFISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M³ SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
17001	6/10/94	2214	2913.5	8849.5	11	68	34	66	27.0	19.5	18.8	24.1	36.2	36.4	11.919	7.4	6.2	6.4	ST
17002	6/11/94	0225	2919.4	8855.5	11	24	12	23	27.1	20.7	19.8	26.1	36.2	36.1	10.055	9.6	6.7	6.7	ST
17003	6/11/94	0737	2923.6	8855.0	11	19	9	18	27.0	21.9	20.4	25.9	36.3	36.2	8.004	8.2	7.1	6.0	ST
17004	6/11/94	0948	2925.4	8846.8	11	28	14	27	28.1	22.3	20.6	25.3	36.4	36.2	3.263	7.3	6.0	6.1	ST
17005	6/11/94	1129	2922.7	8845.0	11	47	23	46	28.7	21.1	19.9	26.3	36.3	36.1	2.537	6.9	5.8	5.2	ST
17006	6/11/94	1437	2909.7	8837.9	11	83	41	82	27.8	22.9	20.0	24.7	36.4	36.3	12.779	6.2	5.6	5.2	ST
17007	6/11/94	1646	2910.2	8833.3	11	93	46	92	29.1	22.0	19.8	20.0	36.3	36.3	20.887	8.4	6.6	5.2	ST
17008	6/11/94	2138	2923.5	8843.1	11	46	23	45	28.7	21.3	19.6	26.5	36.3	36.1	2.649	8.0	6.5	5.9	ST
17009	6/12/94	0127	2925.1	8846.9	11	29	14	28	28.6	22.6	20.7	26.3	36.3	36.2	2.093	6.0	6.0	5.8	ST
17010	6/12/94	0418	2927.3	8844.7	11	23	11	22	28.6	23.2	21.5	27.0	36.3	36.3	1.719	5.2	5.8	6.0	ST
17011	6/12/94	0749	2934.4	8835.5	11	26	13	25	27.7	24.4	22.2	31.5	36.2	36.3	.606	6.2	6.4	6.3	ST
17012	6/12/94	0943	2936.3	8836.3	11	20	10	19	28.1	25.9	22.7	28.7	35.9	36.2	1.565	7.3	6.8	6.3	ST
17013	6/12/94	1103	2930.0	8830.0	11	50	25	49	28.1	23.2	20.0	31.4	36.3	36.1	1.629	6.5	6.6	6.0	PN
17014	6/12/94	1317	2939.3	8833.9	11	23	11	22	28.2	25.6	21.8	27.3	36.2	36.3	1.818	5.4	5.4	5.8	ST
17015	6/12/94	1509	2940.9	8836.4	11	23	11	22	28.6	23.3	22.6	27.8	36.2	36.1	1.311	5.2	5.4	5.6	ST
17016	6/12/94	1837	2943.0	8852.4	11	7	3	6	27.4	26.9	23.6	27.9	29.3	33.6	2.318	6.8	7.0	6.0	ST
17017	6/12/94	2121	2925.0	8851.7	11	17	8	16	27.2	22.3	21.0	28.6	36.2	36.3	1.519	6.8	7.2	7.4	ST
17018	6/13/94	0023	2929.6	8839.9	11	30	15	29	28.1	22.7	21.3	28.7	36.1	36.2	1.271	6.0	6.8	7.0	ST
17019	6/13/94	0304	2932.6	8836.1	11	31	15	30	27.3	22.9	20.2	32.5	36.3	36.2	.192	6.3	7.0	7.3	ST
17020	6/13/94	0543	2935.0	8834.5	11	28	14	27	27.4	25.6	22.7	32.3	36.2	36.3	.163	6.0	6.0	6.4	ST
17021	6/13/94	0842	2948.4	8842.3	11	15	7	14	27.5	26.3	21.2	28.2	30.8	35.0	1.121	6.7	6.8	7.4	ST
17022	6/13/94	1105	2951.8	8829.3	11	30	15	29	28.2	21.5	19.8	30.4	35.3	36.1	1.095	7.0	6.6	7.6	ST
17023	6/13/94	1318	3008.3	8829.7	11	26	12	24	28.8	23.9	20.1	26.2	34.4	36.0	1.204	5.8	6.0	6.6	PN
17024	6/13/94	1542	2957.0	8845.4	11	13	6	11	29.6	23.2	21.6	24.0	34.5	35.5	1.901	6.2	5.8	5.6	ST
17025	6/16/94	1904	2958.4	8848.7	11	5	2	4	29.7	28.8	28.6	20.1	22.1	21.9	1.343	5.4	5.8	6.6	ST
17026	6/16/94	2247	3010.9	8833.4	11	11	5	10	30.5	27.4	22.0	19.4	27.4	34.9	1.242	5.8	6.2	5.2	ST
17027	6/21/94	1610	3005.2	8837.0	11	17	8	16	28.1	27.7	23.1	27.1	28.1	34.7	1.495	6.2	5.8	4.6	ST
17028	6/21/94	2003	2952.2	8839.1	11	20	10	19	27.7	27.3	21.6	28.7	31.0	35.0	.809	6.5	6.4	6.2	ST
17029	6/21/94	2317	2937.6	8826.5	11	41	20	40	27.3	22.2	20.2	33.5	36.3	36.2	.256	6.0	7.0	6.3	ST
17030	7/ 5/94	0617	2908.0	9007.1	14	5	3	4	30.0	29.8	29.7	23.3	23.4	25.6	5.869	8.2	8.1	9.4	ST
17031	7/ 5/94	1119	2900.0	9045.0	14	8	4	7	30.3	30.2	27.0	19.7	19.8	29.5	5.289	8.6	8.5	4.1	ST
17032	7/ 5/94	1302	2901.4	9051.1	14	4	1	3	30.8	30.5	30.5	18.2	18.2	18.4	21.093	7.0	7.6	7.2	ST
17033	7/ 5/94	2002	2909.9	9128.5	15	6	3	5	31.1	31.1	30.0	12.9	16.2	18.9	15.539	8.0	6.1	3.9	ST
17034	7/ 5/94	2355	2921.4	9151.6	15	4	1	3	30.7	30.6	30.2	6.9	7.9	8.5	44.918	3.3	3.6	3.7	ST
17035	7/ 6/94	0733	2930.2	9228.2	16	7	3	6	30.2	29.9	30.4	17.9	18.7	26.2	8.016	4.3	4.1	4.2	ST
17036	7/ 6/94	1212	2942.8	9304.3	17	6	3	5	31.3	31.2	30.9	26.8	26.9	27.0	17.622	4.2	4.2	4.4	ST
17037	7/ 6/94	1453	2945.4	9311.3	17	4	1	3	31.7	31.6	31.2	26.9	26.5	26.5	8.918	4.8	4.8	4.7	ST
17038	7/ 6/94	2000	2945.6	9314.2	17	4	2	3	31.5	31.4	31.4	27.0	27.0	27.1	7.476	4.8	5.0	5.1	ST
17039	7/ 7/94	0450	2911.3	9156.5	15	7	3	6	30.2	30.2	30.1	24.5	24.5	24.5	2.542	6.2	5.0	5.1	ST

Table 2. Selected environmental parameters (continued)

OREGON II, SUMMER SHRIMP/GROUNDFISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
00001	6/16/94	2009	2959.9	8759.9	10	23	11	22	30.0	25.0	20.5	25.5	35.1	35.7	.259	6.5	6.7	7.1	PN
00002	6/16/94	2347	2944.3	8800.4	11	37	18	36	29.8	22.8	19.7	28.0	36.3	36.1	.240	6.6	6.6	4.8	ST
00003	6/17/94	0238	2937.2	8827.2	11	40	20	40	28.3	22.9	21.0	29.4	36.6	36.2	1.814	5.5	6.4	5.8	ST
00004	6/17/94	0507	2948.1	8823.2	11	36	18	36	29.3	25.2	20.0	27.0	36.4	36.2	.337	5.9	6.6	5.0	ST
00005	6/17/94	0818	2948.8	8811.3	11	34	16	34	29.4	22.6	19.6	30.1	35.6	36.1	.269	6.1	5.8	4.4	ST
00007	6/17/94	1043	2942.0	8815.7	11	41	21	41	29.0	23.4	20.5	25.3	36.5	36.2	.523	4.5	6.2	5.1	ST
00008	6/17/94	1336	2930.0	8760.0	11	44	22	44	29.2	23.6	19.9	22.9	36.3	36.0	1.763	5.7	6.0	4.7	PN
00009	6/17/94	1520	2922.9	8801.2	11	84	42	84	29.6	21.9	18.8	26.2	36.4	36.3	1.170	5.3	7.0	5.7	ST
00010	6/17/94	1840	2919.3	8814.3	11	80	41	80	28.5	21.9	18.8	31.2	36.5	36.1	1.238	5.7	7.2	5.6	ST
00011	6/17/94	2001	2919.1	8816.0	11	73	36	72	29.0	22.0	19.0	33.5	36.4	36.1	.841	5.6	7.2	5.5	ST
00012	6/17/94	2313	2914.5	8831.2	11	82	40	81	28.8	20.9	18.9	33.1	36.4	36.2	.648	5.9	7.0	5.3	ST
00013	6/18/94	0122	2907.6	8841.1	11	92	46	92	28.1	21.0	18.4	32.1	36.4	36.2	1.228	6.4	7.2	5.3	ST
00014	6/18/94	0418	2918.7	8823.4	11	66	33	66	28.1	21.3	19.1	27.5	36.4	36.2	.916	6.3	7.1	5.2	ST
00017	6/18/94	0815	2919.0	8822.2	11	65	32	64	28.6	21.3	19.1	28.8	36.4	36.2	.760	3.9	6.9	5.2	ST
00018	6/18/94	1155	2910.4	8835.4	11	93	45	93	28.3	21.6	18.9	33.4	36.3	36.3	1.585	5.6	7.3	5.1	ST
00019	6/18/94	1326	2909.5	8839.3	11	80	40	80	28.2	21.7	18.8	33.2	36.4	36.3	2.253	6.1	7.3	5.9	ST
00020	6/18/94	1543	2900.3	8900.0	13	65	32	65	28.8	21.5	18.3	33.3	36.7	36.0	16.027	3.7	6.3	6.3	PN
00021	6/18/94	1848	2905.7	8858.1	11	38	21	37	29.0	22.9	20.4	25.4	37.8	36.2	34.593	7.8	6.7	4.5	ST
00022	6/18/94	1944	2906.3	8857.5	11	41	21	40	29.1	24.2	19.6	25.4	37.2	36.3	27.184	5.7	6.5	4.3	ST
00023	6/18/94	2151	2910.3	8849.4	11	73	36	73	28.8	21.7	18.5	27.3	36.4	36.3	6.843	7.0	7.0	5.5	ST
00025	6/19/94	0050	2919.0	8854.8	11	28	14	28	29.0	23.5	21.9	28.0	36.6	36.4	.801	6.5	6.2	6.5	ST
00026	6/19/94	0217	2926.7	8852.3	11	16	8	16	27.8	23.4	22.4	32.3	35.8	36.2	.670	6.0	6.3	6.4	ST
00027	6/19/94	0357	2923.6	8848.3	11	30	15	30	25.9	24.0	22.8	36.0	36.2	36.3	.519	5.8	6.8	6.6	ST
00028	6/19/94	0510	2922.3	8840.8	11	54	28	54	26.9	20.8	19.5	31.4	36.1	36.1	1.321	6.4	6.1	4.6	ST
00029	6/19/94	0828	2923.1	8854.3	11	19	9	18	27.8	24.2	22.4	31.2	35.3	36.2	.872	5.2	6.0	6.2	ST
00030	6/19/94	1009	2924.4	8848.1	11	26	12	26	26.9	25.1	23.2	33.0	36.3	36.2	.966	4.3	6.1	6.5	ST
00031	6/19/94	1120	2922.7	8845.1	11	45	22	44	27.4	22.7	20.0	33.6	36.3	36.2	1.202	5.2	6.2	5.1	ST
00032	6/19/94	1632	2939.2	8834.7	11	28	14	28	26.7	22.7	21.4	31.1	37.2	36.2	1.464	5.3	6.3	4.9	ST
00033	6/19/94	1740	2937.1	8836.0	11	23	10	22	26.7	25.3	21.3	31.0	36.0	36.3	1.402	5.8	6.9	4.4	ST
00034	6/19/94	1924	2932.6	8837.8	11	27	13	27	26.2	24.2	22.9	32.0	36.8	36.2	1.221	5.4	5.9	6.2	ST
00035	6/19/94	2133	2926.6	8846.3	11	23	11	23	26.3	25.8	23.0	31.5	35.3	36.2	1.427	6.1	6.2	6.4	ST
00036	6/19/94	2259	2927.4	8842.3	11	29	14	28	25.6	24.0	23.6	30.8	36.7	36.2	1.857	5.3	6.2	6.4	ST
00037	6/23/94	2054	2629.8	9630.1	21	84	42	83	28.9	23.1	19.5	33.0	36.5	36.5	.067	4.9	7.2	5.5	PN
00038	6/23/94	2237	2630.9	9634.0	21	73	36	72	26.6	23.3	20.1	34.0	36.3	36.3		6.0	7.0	5.7	ST
00039	6/24/94	0050	2626.6	9636.7	21	54	27	53	28.9	25.2	20.5	34.3	35.9	36.1	.077	6.1	7.0	5.2	ST
00040	6/24/94	0405	2611.5	9622.5	21	87	43	86	28.5	22.2	19.8	35.7	36.3	36.4	.048	4.8	6.5	4.6	ST
00041	6/24/94	0605	2601.0	9629.9	21	62	31	61	29.3	23.5	20.0	35.8	36.5	36.4	.053	4.4	7.2	4.7	PN
00042	6/24/94	0800	2601.7	9625.4	21	83	41	82	28.3	21.9	19.4	35.6	35.5	36.5	.095	5.5	6.7	4.5	ST
00043	6/24/94	1109	2603.8	9641.4	21	44	22	42	28.6	25.3	21.6	35.6	36.5	36.4	.193	5.1	7.0	5.8	ST
00046	6/24/94	1607	2603.4	9656.9	21	32	16	31	28.8	23.4	22.7	35.0	35.8	36.3	.181	6.2	5.8	6.5	ST
00047	6/24/94	1700	2604.4	9659.5	21	27	13	26	27.9	23.4	22.8	35.7	35.9	36.3	.343	5.8	5.7	5.9	ST
00048	6/24/94	1809	2605.0	9700.7	21	27	14	23	27.5	23.9	22.8	35.7	36.6	36.3	.280	5.2	6.8	6.0	ST

Table 2. Selected environmental parameters (continued)

OREGON II, SUMMER SHRIMP/GROUNDFISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
00049	6/24/94	1947	2600.2	9704.7	21	19	9	18	25.4	22.8	22.6	35.5	37.3	36.1	.934	6.0	6.3	4.5	ST
00050	6/24/94	2122	2600.4	9700.1	21	26	13	25	28.0	24.0	22.4	36.0	37.5	36.1	.199	5.9	6.8	4.5	PN
00051	6/24/94	2346	2619.8	9658.3	21	32	17	31	28.7	25.0	22.8	35.4	36.6	36.4	.110	5.6	6.6	6.5	ST
00052	6/25/94	0114	2618.3	9702.9	21	20	10	20	27.7	26.8	22.9	34.6	36.2	36.3	.274	4.0	6.1	5.7	ST
00053	6/25/94	0245	2630.6	9706.3	21	25	12	24	28.7	26.8	24.2	34.4	36.1	36.3	.118	3.8	6.2	6.3	ST
00054	6/25/94	0425	2636.6	9706.3	21	27	13	25	28.5	27.9	23.3	35.1	35.5	36.3	.141	5.1	6.1	6.7	ST
00055	6/25/94	0539	2639.3	9714.6	21	17	8	16	27.3	29.9	22.6	34.8	38.3	35.7	.644	4.8	6.7	5.1	ST
00056	6/25/94	0704	2643.3	9714.3	21	19	9	18	27.4	26.6	22.3	34.9	35.3	35.7	.611	3.6	5.2	5.1	ST
00057	6/25/94	0923	2627.3	9713.3	21	13	6	13	25.3	25.1	23.9	35.1	35.2	35.6	1.194	4.5	5.5	5.7	ST
00058	6/25/94	0949	2627.3	9711.4	21	16	8	15	25.7	24.3	24.0	34.9	35.6	35.8	.380	5.6	6.2	5.6	ST
00059	6/25/94	1158	2618.6	9710.5	21	13	7	13	25.3	25.1	23.6	35.5	35.6	35.7	.573	5.7	6.2	5.6	ST
00060	6/25/94	1334	2630.1	9700.0	21	35	18	34	29.0	26.8	23.1	35.5	36.6	36.3	.085	5.4	6.5	6.7	PN
00062	6/25/94	1826	2648.6	9642.1	21	72	36	71	29.5	23.0	18.5	33.2	36.4	36.4	.063	4.9	7.1	4.3	ST
00063	6/25/94	2038	2653.9	9645.1	21	73	37	73	29.0	22.3	18.6	33.9	36.0	36.4		4.6	6.0	4.3	ST
00064	6/26/94	0047	2643.2	9718.1	21	14	7	13	24.3	23.9	22.6	27.5	34.7	35.6	.911	4.2	3.9	4.6	ST
00065	6/26/94	0253	2658.8	9721.3	21	13	6	12	24.5	22.9	21.9	35.1	36.1	35.5	1.067	3.3	5.2	5.0	ST
00066	6/26/94	0439	2709.1	9718.5	20	15	8	15	25.8	24.2	21.8	35.0	36.2	35.7	.174	4.5	5.9	5.6	ST
00067	6/26/94	0528	2712.6	9718.8	20	15	8	14	25.4	24.7	21.8	35.1	35.6	35.8	.817	3.4	4.6	5.5	ST
00068	6/26/94	0708	2708.8	9715.8	20	21	10	20	26.9	24.4	21.2	34.9	36.6	35.9	.374	5.3	6.0	5.6	ST
00069	6/26/94	0913	2700.0	9700.0	20	41	20	40	28.6	26.3	20.3	34.2	37.2	36.1	.094	4.3	6.4	5.0	PN
00070	6/26/94	1233	2715.9	9649.4	20	54	27	54	28.8	23.0	19.7	34.8	36.3	36.2	.125	4.5	6.9	5.1	ST
00072	6/26/94	1611	2728.6	9647.4	20	45	23	43	29.0	22.6	19.9	34.8	35.3	36.2	.094	6.1	6.5	5.1	ST
00074	6/26/94	2039	2709.2	9635.0	20	95	48	93	28.8	21.9	18.6	34.8	36.5	36.3	.080	4.5	7.0	4.1	ST
00075	6/27/94	0104	2706.0	9703.3	20	36	18	35	28.5	24.4	20.9	35.7	36.4	36.1	.064	5.0	6.6	5.9	ST
00076	6/27/94	0200	2706.6	9706.7	20	32	16	31	28.0	26.1	21.2	35.0	35.5	36.1	.087	3.7	6.3	5.3	ST
00077	6/27/94	0328	2709.9	9709.3	20	27	13	26	26.8	26.7	21.1	35.8	35.9	36.2	.057	5.6	6.5	5.1	ST
00078	6/27/94	0554	2724.6	9706.0	20	27	14	25	30.0	25.7	20.6	35.7	35.6	36.1	.157	5.3	6.1	5.2	ST
00079	6/27/94	0801	2733.1	9712.0	20	13	7	13	23.3	22.5	21.9	35.4	35.9	36.6	2.617	5.0	5.4	5.5	ST
00080	6/27/94	1036	2742.2	9659.6	20	21	11	20	24.9	24.7	21.1	35.3	35.3	35.9	.841	4.7	5.9	5.1	ST
00081	6/27/94	1316	2755.6	9655.4	20	12	6	12	25.5	23.5	22.8	35.1	35.4	35.5	2.679	5.2	4.4	5.1	ST
00082	6/27/94	1504	2747.8	9649.9	20	23	12	22	27.0	26.7	21.3	35.6	35.7	35.9	.256	5.6	6.3	5.4	ST
00083	6/27/94	1648	2743.9	9642.1	20	35	18	33	28.5	24.8	20.5	35.2	36.4	36.2	.142	6.3	6.7	5.9	ST
00084	6/27/94	1940	2730.1	9659.8	20	28	14	27	26.6	26.6	20.9	35.9	36.6	36.1	.151	6.2	5.2	5.6	PN
00085	6/27/94	2155	2731.8	9652.6	20	33	17	32	27.3	26.8	20.4	35.9	36.2	36.2	.100	6.0	6.4	5.3	ST
00086	6/27/94	2359	2724.3	9652.8	20	42	21	40	28.0	23.9	20.2	35.8	35.8	36.1	.075	5.2	6.7	5.1	ST
00087	6/28/94	0119	2725.4	9654.8	20	37	18	36	27.4	26.8	20.4	32.2	36.0	36.1	.149	4.5	6.2	5.0	ST
00088	6/28/94	0332	2736.8	9704.2	20	18	9	17	23.3	23.1	20.9	35.5	35.6	35.9	.849	4.4	4.5	5.0	ST
00089	6/28/94	0814	2807.1	9633.5	19	19	9	18	24.4	24.3	22.4	35.3	35.3	35.8	1.657	6.0	6.0	5.5	ST
00090	6/28/94	0940	2800.1	9629.4	19	27	14	27	27.8	27.6	20.6	35.6	35.6	36.1	.226	5.5	6.2	5.8	PN
00091	6/28/94	1207	2754.1	9631.2	20	33	17	33	27.8	27.2	20.3	35.6	35.8	36.1	.109	5.8	6.2	5.8	ST
00092	6/28/94	1339	2757.7	9627.4	20	31	15	30	28.1	27.2	20.4	35.5	35.5	36.1	.116	5.5	6.4	5.8	ST
00093	6/28/94	1448	2756.3	9623.4	20	36	18	35	28.2	24.6	20.2	32.7	35.5	36.2	.120	3.9	6.5	5.7	ST

Table 2. Selected environmental parameters (continued)

OREGON II, SUMMER SHRIMP/GROUNDFISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
00094	6/28/94	1700	2747.7	9613.4	20	65	33	63	28.5	22.2	19.5	34.3	36.2	36.3	.080	5.8	6.8	5.4	ST
00095	6/28/94	2028	2743.7	9627.8	20	56	28	54	28.1	23.0	19.8	35.7	36.0	36.3	.089	4.9	6.4	5.6	ST
00096	6/29/94	0001	2757.6	9655.4	20	11	6	11	23.6	23.2	21.6	32.8	35.5	35.8	1.794	4.7	4.7	4.3	ST
00097	6/29/94	0232	2810.4	9636.8	19	13	6	12	24.6	24.5	22.4	34.6	35.3	35.8	1.319	4.8	4.0	5.0	ST
00098	6/29/94	0514	2810.2	9618.8	19	24	12	23	26.3	25.3	20.9	35.6	35.9	36.1	.265	6.1	6.4	6.1	ST
00099	6/29/94	0711	2821.6	9619.2	19	12	6	11	25.0	28.9	22.5	34.9	35.4	35.9	1.672	5.1	4.9	5.3	ST
00100	6/29/94	0849	2815.9	9615.2	19	22	11	21	24.8	23.9	21.5	35.4	35.7	35.9	.491	5.8	6.1	6.1	ST
00101	6/29/94	1139	2810.5	9558.1	19	30	15	30	28.4	28.3	20.5	35.2	35.2	36.1	.106	6.0	6.1	5.7	ST
00102	6/29/94	1300	2807.4	9558.6	19	34	17	34	28.5	28.1	20.3	34.1	35.0	36.1	.072	4.3	6.2	5.6	ST
00103	6/29/94	1418	2804.0	9555.6	19	40	20	39	28.8	26.0	20.3	33.5	34.0	36.2	.094	5.9	6.5	5.6	ST
00104	6/29/94	1740	2746.4	9535.0	20	86	43	86	29.3	23.6	18.9	32.3	36.4	36.5	.078	5.0	7.2	5.1	ST
00105	6/29/94	2216	2801.6	9553.6	19	44	23	44	28.5	23.2	20.2	33.3	35.6	36.2	.077	5.7	6.8	5.6	ST/PN
00106	6/30/94	0109	2802.6	9612.5	19	35	17	34	27.3	26.5	20.4	35.8	35.9	36.2	.087	5.8	6.5	5.9	ST
00107	6/30/94	0407	2812.8	9545.9	19	33	16	33	28.4	28.3	20.7	31.1	35.1	36.0	.078	4.1	6.0	5.8	ST
00109	6/30/94	0855	2829.3	9559.5	19	15	7	14	28.0	26.0	20.0	35.2	35.2	35.8	.318	6.3	6.2	4.9	PN
00110	6/30/94	1021	2825.5	9555.3	19	20	10	20	26.5	25.1	23.0				.318	6.3	6.1	5.8	ST
00111	6/30/94	1214	2817.2	9547.2	19	30	15	30	28.6	27.8	21.3	33.8	34.4	35.7	.089	6.1	6.2	6.3	ST
00114	6/30/94	1653	2801.3	9526.4	19	56	27	55	29.2	24.0	20.1	33.3	34.1	36.1	.094		6.2	6.1	ST/PN
00115	6/30/94	2027	2804.9	9517.8	19	55	27	55	29.1	22.9	20.2	32.7	34.0	36.1	.089	6.2	6.2	5.2	ST
00117	7/ 1/94	0151	2831.4	9541.6	19	20	10	20	25.6	23.6	21.6	35.2	35.2	35.8	.312	6.8	6.8	4.9	ST
00118	7/ 1/94	0407	2837.9	9523.2	19	22	11	22	27.9	23.1	21.1	34.5	34.9	35.9	.195	6.6	6.7	5.0	ST
00119	7/ 1/94	0514	2841.8	9516.4	19	21	11	21	28.0	25.3	21.1	34.6	34.8	35.9	.235	6.4	6.5	4.8	ST
00120	7/ 1/94	0747	2846.0	9530.0	19	10	5	10	25.5	24.1	22.4	34.9	35.2	35.5	.439	6.3	5.9	3.4	PN
00121	7/ 1/94	0922	2840.3	9528.5	19	16	8	16	26.6	24.6	21.6	34.6	34.6	35.6	.212	6.7	6.6	6.4	ST
00122	7/ 1/94	1042	2833.8	9523.9	19	27	13	27	27.2	24.0	21.2	34.7	35.4	35.9	.258	6.0	6.5	5.5	ST
00123	7/ 1/94	1405	2826.1	9516.5	19	35	17	35	28.6	27.6	21.1	33.7	34.9	36.0	.070	6.1	6.3	5.9	ST
00124	7/ 1/94	1714	2839.0	9510.8	19	26	13	26	27.5	25.2	20.8	34.4	35.4	35.9	.206	6.5	6.6	5.3	ST
00125	7/ 1/94	2036	2857.4	9508.3	19	15	7	15	27.4	26.3	22.2	34.6	34.8	35.7	.255	6.6	6.7	3.9	ST/PN
00126	7/ 2/94	0000	2842.3	9448.6	18	30	15	30	29.1	28.0	21.4	31.7	34.2	35.1	.100	6.5	6.6	6.6	ST
00127	7/ 2/94	0218	2838.9	9431.4	18	29	14	29	29.3	28.6	22.4	30.8	32.6	35.3	.118	6.2	6.2	4.6	ST
00128	7/ 2/94	0430	2830.1	9432.1	18	37	18	37	29.2	29.0	21.5	31.9	31.9	35.6	.174	6.7	6.4	2.8	ST/PN
00131	7/ 2/94	1036	2812.4	9359.8	18	55	28	55	29.4	23.0	20.3	30.7	35.1	36.3	.234	6.3	6.7	4.6	ST
00132	7/ 2/94	1349	2803.5	9416.5	18	64	32	64	29.2	22.3	20.1	31.8	35.0	36.4	9.514	6.4	5.8	5.3	ST
00133	7/ 2/94	1539	2800.1	9430.0	18	69	34	69	29.3	24.5	21.1	30.7	35.9	36.1	.934	6.4	6.7	5.1	PN
00134	7/ 2/94	1830	2759.5	9451.5	18	82	41	82	29.8	23.8	19.7	31.7	36.1	36.3	.144	6.7	7.3	5.8	ST
00135	7/ 2/94	1932	2755.1	9451.0	18	119	59	119	29.9	21.7	17.6	32.5	36.0	36.3	.079	6.6	6.3	4.2	ST
00136	7/ 2/94	2217	2754.9	9454.4	18	120	60	120	29.8	22.1	18.0	32.5	36.0	36.4	.092	6.4	6.8	5.1	ST/PN
00137	7/ 3/94	0019	2801.9	9445.1	18	73	37	73	29.5	24.0	19.9	31.9	35.8	36.5	.098	6.3	6.8	5.1	ST
00138	7/ 4/94	1949	2911.5	9447.1	18	13	6	12	28.6	28.3	24.8	32.2	32.1	35.5	.141	2.8	6.1	7.4	ST
00139	7/ 4/94	2245	2900.1	9430.3	18	18	9	18	29.3	28.9	22.3	34.2	32.9	35.7	.162	2.9	6.2	6.1	PN
00140	7/ 5/94	0144	2835.7	9415.6	18	36	18	35	29.5	27.1	21.7	29.4	32.4	35.7	.139	6.9	7.1	3.6	ST
00141	7/ 5/94	0443	2843.5	9404.5	18	27	13	26	29.5	29.4	23.4	29.4	31.5	35.3	.149	6.1	6.7	3.1	ST

Table 2. Selected environmental parameters (continued)

OREGON II, SUMMER SHRIMP/GROUNDFISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
00142	7/ 5/94	0651	2842.6	9414.0	18	28	14	27	29.4	29.0	26.8	30.9	31.8	35.7	.120	4.8	6.6	6.7	ST
00143	7/ 5/94	0903	2832.6	9414.4	18	37	18	37	29.3	26.7	21.8	29.5	32.8	35.8	.156	6.1	6.8	3.3	ST
00144	7/ 5/94	1300	2833.3	9344.2	17	40	20	39	29.6	25.9	21.6	29.4	34.4	36.0	.271	6.8	7.2	3.8	ST
00146	7/ 5/94	1833	2801.5	9408.4	18	81	40	80	29.6	21.4	19.2	31.7	36.1	36.3	.149	5.6	6.1	5.1	ST
00147	7/ 5/94	2035	2759.4	9405.3	18	82	40	81	29.6	21.6	18.4	31.2	35.8	36.4	.126	6.0	6.3	4.7	ST/PN
00148	7/ 5/94	2310	2759.5	9415.3	18	83	41	83	29.5	22.5	19.0	31.1	35.8	36.3	.119	4.7	6.3	4.8	ST
00150	7/ 6/94	0224	2810.7	9424.1	18	55	27	54	29.4	25.4	20.5	31.1	33.7	36.0	.102	4.7	5.7	5.0	ST
00151	7/ 6/94	0800	2829.8	9329.7	17	43	21	43	29.4	26.8	21.1	28.2	33.8	36.2	.166	3.7	7.1	5.0	PN
00152	7/ 6/94	1046	2820.9	9313.3	17	55	27	55	29.5	24.4	20.7	29.6	36.0	36.3	.199	6.7	7.0	6.3	ST
00155	7/ 6/94	1547	2806.1	9251.6	16	82	41	81	29.8	22.1	19.0	29.3	35.9	36.4	.135	6.8	7.7	4.9	ST
00156	7/ 6/94	1703	2802.7	9250.6	16	102	50	100	29.5	21.6	18.7	31.7	36.8	36.4	.163	6.5	8.0	5.1	ST
00157	7/ 6/94	2030	2759.3	9254.7	16	114	57	114	29.7	21.1	17.6	30.6	36.2	36.3	.162	5.0	7.8	4.7	ST
00159	7/ 7/94	0010	2814.2	9252.0	16	64	32	64	29.6	22.6	20.5	29.6	35.9	36.3	.098	6.8	7.5	6.1	ST
00161	7/ 7/94	0425	2836.2	9302.7	17	39	19	38	29.9	25.1	22.4	27.7	34.8	36.2		6.6	7.1	5.2	ST
00162	7/ 7/94	0550	2847.4	9259.9	17	27	14	26	29.5	29.4	24.8	28.8	29.0	35.7	.206	5.6	6.3	2.0	ST
00164	7/ 7/94	0814	2853.7	9259.3	16	24	12	24	29.9	29.8	24.9	28.8	29.2	35.3	.280	5.2	6.5	1.2	ST
00165	7/ 7/94	1120	2841.9	9308.9	17	32	16	32	29.6	29.6	24.1	29.3	29.5	36.0	.244	6.8	6.8	3.5	ST
00166	7/ 7/94	1327	2837.9	9246.0	16	36	18	35	30.1	27.5	22.4	19.9	33.4	36.2	.312	3.7	4.7	4.7	ST
00167	7/ 7/94	1555	2829.9	9259.8	16	45	22	44	30.1	25.0	21.2	27.8	35.0	36.3	.293	6.3	7.2	6.0	PN
00168	7/ 7/94	2144	2821.3	9354.7	17	54	27	54	29.5	24.3	20.3	32.1	35.7	36.2	.100	5.7	7.1	4.9	ST/PN
00170	7/ 8/94	0141	2843.1	9348.1	17	25	12	24	29.3	28.6	25.1	30.2	31.3	34.5	.156	6.3	6.8	3.6	ST
00171	7/ 8/94	0403	2856.8	9355.3	17	20	10	19	28.9	28.4	25.1	33.5	33.7	35.2	.162	6.3	6.5	5.1	ST/PN
00172	7/ 8/94	0629	2901.8	9354.7	17	20	10	18	28.7	28.7	25.6	33.6	33.6	34.6	.119	4.9	6.5	6.9	ST
00175	7/ 8/94	1342	2923.2	9352.8	17	9	4	8	29.1	29.1	28.9	30.7	31.8	32.7	.642	4.9	5.2	5.7	ST
00176	7/ 8/94	1523	2914.4	9358.2	17	16	8	15	28.6	28.8	25.7	31.7	33.2	35.2	.393	4.8	6.2	5.7	ST
00177	7/ 8/94	1817	2932.9	9401.6	18	10	5	9	29.4	29.4	29.4	32.2	32.1	32.2	1.848	4.4	4.1	5.0	ST/PN
00178	7/ 8/94	2151	2912.6	9403.1	18	15	7	15	28.4	28.4	26.0	32.9	33.3	35.3	.386	4.5	5.7	6.3	ST
00180	7/ 9/94	0054	2923.0	9358.5	17	10	5	9	28.9	28.9	28.8	32.3	32.4	32.5	.735	5.3	5.7	5.9	ST
00181	7/ 9/94	0321	2924.5	9336.4	17	14	7	13	29.1	29.1	27.5	30.3	30.2	32.8	.480	6.0	4.6	5.7	ST
00182	7/ 9/94	0538	2921.1	9325.1	17	16	8	15	28.8	28.8	26.2	31.9	31.4	34.2	.368	4.4	3.9	.4	ST
00183	7/ 9/94	0726	2929.5	9329.7	17	11	6	10	28.9	28.9	29.2	30.3	30.3	30.8	.760	5.4	5.6	5.5	PN
00184	7/ 9/94	1033	2941.0	9314.3	17	10	5	10	29.4	29.4	29.4	28.3	28.3	28.3	3.017	4.9	5.7	6.0	ST
00186	7/ 9/94	1320	2930.1	9300.1	17	13	6	12	29.3	29.3	27.7	28.2	28.3	30.4	.530	6.2	6.2	6.5	PN
00187	7/ 9/94	1635	2904.7	9308.1	17	22	11	22	29.5	29.3	24.9	29.3	29.6	35.3	.368	6.0	6.5	.4	ST
00188	7/ 9/94	1835	2909.8	9320.5	17	18	9	17	28.8	28.7	25.4	31.5	31.9	35.2	.417	4.7	6.3	2.5	ST
00189	7/ 9/94	2015	2912.8	9323.0	17	16	8	16	28.6	28.7	26.6	31.7	32.0	34.3	.411	5.6	6.0	6.4	ST
00190	7/ 9/94	2325	2900.0	9259.9	16	23	11	23	29.6	29.4	24.8	29.2	30.0	35.5	.280	6.1	6.6	.7	PN
00191	7/10/94	0146	2907.6	9245.4	16	21	10	20	29.2	27.7	25.4	29.1	32.5	35.5	.442	6.2	6.3	1.0	ST
00192	7/10/94	0329	2903.5	9240.9	16	24	12	23	29.0	26.0	25.0	25.4	33.7	35.7	.436	5.1	6.4	1.1	ST
00193	7/10/94	0521	2849.7	9234.9	16	31	15	30	28.8	28.9	23.7	27.9	28.6	36.0	.411	6.0	6.2	2.6	ST
00194	7/10/94	0825	2910.4	9246.1	16	20	10	20	29.0	29.0	25.8	28.5	29.1	35.0	.586	4.1	4.5	1.0	ST
00195	7/10/94	1127	2903.0	9237.2	16	24	12	24	28.8	29.0	25.1	27.6	29.8	35.8	.474	6.6	6.4	.7	ST/PN

Table 2. Selected environmental parameters (continued)

OREGON II, SUMMER SHRIMP/GROUNDFISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
00196	7/10/94	1346	2853.3	9236.3	16	28	14	27	28.9	29.0	24.3	28.6	30.4	36.0	.573	6.6	6.5	1.5	ST
00197	7/10/94	1557	2841.5	9246.3	16	34	17	33	28.9	26.6	23.4	28.0	33.3	36.1	.704	5.9	5.6	3.6	ST
00198	7/10/94	1856	2829.8	9230.2	16	46	23	45	28.2	25.4	21.1	25.8	35.7	36.3	.791	6.3	6.5	5.5	PN
00199	7/10/94	2157	2842.8	9246.4	16	32	16	32	28.9	27.0	23.4	27.9	33.1	36.1	.436	5.9	4.2	3.5	ST
00200	7/11/94	0022	2837.9	9245.6	16	37	18	36	28.9	26.5	22.5	28.0	34.4	36.2	.505	5.9	6.7	5.2	ST
00201	7/11/94	0525	2807.5	9227.9	16	83	42	82	28.7	21.2	19.6	33.2	36.3	36.3	.642	5.0	7.3	5.3	ST
00202	7/11/94	0642	2800.5	9230.0	16	100	50	99	28.8	21.8	18.8	29.8	36.3	36.3	.280	4.3	7.5	5.1	PN
00203	7/11/94	0908	2808.3	9226.1	16	84	42	84	28.7	21.8	19.6	29.3	35.9	36.3	.374	6.0	7.2	5.3	ST
00204	7/11/94	1119	2810.7	9218.2	16	74	37	73	28.9	22.4	20.2	29.2	36.0	36.3	.405	6.8	7.4	6.4	ST
00206	7/11/94	1609	2803.1	9156.5	15	102	50	101	29.1	21.4	19.1	29.7	36.3	36.4	.296	4.6	7.7	5.4	ST
00207	7/11/94	1853	2809.4	9148.0	15	85	43	84	29.3	22.7	19.8	32.6	36.4	36.3	.274	4.3	7.6	5.7	ST
00209	7/11/94	2251	2811.1	9135.1	15	84	42	84	29.3	22.3	19.8	28.3	36.4	36.3	.698	5.9	7.6	5.1	ST
00210	7/12/94	0252	2810.5	9216.6	16	71	35	69	28.7	24.1	20.4	28.0	36.4	36.3	.417	5.1	7.1	6.5	ST
00212	7/12/94	0647	2817.0	9200.3	16	66	33	65	28.9	22.2	21.0	29.4	36.1	36.3	.355	5.5	7.7	6.4	ST
00213	7/12/94	0954	2827.2	9208.2	16	54	27	54	28.7	26.0	21.4	25.8	35.0	36.2	.567	5.9	6.9	4.5	ST/PN
00215	7/12/94	1247	2832.6	9204.0	16	46	23	44	29.1	27.6	22.3	30.0	34.6	36.1	.430	6.2	6.4	4.7	ST
00216	7/12/94	1510	2839.2	9146.1	15	38	19	36	29.2	26.1	22.8	25.4	34.4	36.2	.380	6.4	5.4	2.6	ST
00217	7/12/94	1545	2839.4	9145.5	15	32	16	31	29.2	26.5	23.4	25.9	31.3	36.1	.498	5.8	6.5	2.7	ST
00218	7/12/94	1758	2844.6	9155.1	15	31	15	30	28.9	28.6	24.5	26.2	27.6	35.9	.505	5.9	6.4	1.9	ST
00219	7/12/94	1953	2848.5	9210.0	16	31	15	31	29.0	28.2	23.8	27.7	29.8	36.1	.623	5.1	5.8	2.7	ST
00220	7/12/94	2234	2836.0	9220.0	16	40	20	40	29.0	28.7	22.4	27.5	34.2	36.2	.410	4.6	6.5	4.9	ST
00222	7/13/94	0336	2826.4	9152.4	15	55	27	54	28.8	25.3	21.0	25.6	35.8	36.2	.368	6.4	6.5	5.0	ST
00223	7/13/94	0610	2835.5	9142.0	15	38	19	37	28.8	26.6	23.0	26.0	35.3	36.2	.436	6.1	5.5	1.8	ST
00224	7/13/94	0843	2825.9	9133.9	15	55	28	55	29.0	24.1	21.3	26.3	36.2	36.3	.368	6.1	5.6	3.8	ST
00226	7/13/94	1239	2833.9	9133.0	15	41	20	39	29.0	25.4	22.5	25.8	35.8	36.2	.417	5.9	4.4	3.1	ST
00227	7/13/94	1423	2844.6	9137.3	15	27	13	26	29.1	28.6	24.3	26.8	27.7	36.0	.592	5.9	5.5	2.6	ST
00228	7/13/94	1630	2902.2	9143.6	15	9	4	8	28.9	28.9	28.6	25.0	25.0	25.3	2.733	5.5	5.3	5.9	ST
00229	7/13/94	1912	2904.1	9159.7	15	14	7	13	29.3	28.5	26.7	25.8	26.6	34.3	1.090	6.3	6.9	5.9	ST/PN
00230	7/13/94	2111	2908.7	9211.4	16	10	5	10	29.0	29.5	28.5	24.9	25.9	27.4	2.593	5.3	4.7	6.0	ST
00231	7/13/94	2340	2859.2	9201.6	16	20	10	20	29.0	28.6	25.6	26.4	27.9	35.6	.845	6.5	6.7	1.5	ST
00232	7/14/94	0214	2857.6	9141.3	15	17	8	16	28.8	28.8	26.1	26.6	26.6	35.1	.785	5.6	6.2	1.2	ST
00233	7/14/94	0416	2845.8	9147.9	15	30	15	29	28.4	25.3	24.1	26.6	34.3	36.0	.604	5.4	6.6	2.1	ST
00234	7/14/94	0541	2840.7	9151.9	15	36	18	35	28.8	26.0	23.7	27.7	34.3	36.1	.349	6.0	5.5	2.7	ST
00235	7/14/94	1143	2830.0	9055.3	14	32	16	32	28.6	28.4	23.7	27.3	33.5	36.1	.573	6.2	6.3	1.7	ST/PN
00236	7/14/94	1220	2832.6	9054.4	14	27	13	26	28.8	27.8	25.1	26.2	31.3	35.5	.651	5.8	4.3	1.5	ST
00237	7/14/94	1407	2841.3	9058.6	14	14	7	14	28.6	28.5	26.3	25.8	25.8	34.3	2.093	6.0	5.6	.7	ST
00238	7/14/94	1608	2838.4	9113.3	15	22	11	21	28.9	28.6	25.4	26.8	26.8	35.6	.517	5.9	6.6	3.2	ST
00239	7/14/94	1734	2843.1	9119.0	15	20	10	19	29.2	28.6	25.3	26.5	26.8	35.4	.480	5.5	6.6	.2	ST
00240	7/14/94	1809	2847.1	9118.5	15	14	7	13	29.8	28.9	26.6	26.6	26.7	34.0	.629	4.9	6.3	.5	ST
00241	7/14/94	2115	2858.1	9131.0	15	12	6	12	28.9	28.8	26.6	25.3	25.4	34.3	1.975	5.4	5.6	2.1	ST/PN
00242	7/14/94	2236	2849.0	9130.3	15	20	10	20	28.9	28.5	25.6	26.6	27.0	35.3	.548	5.0	6.2	.6	ST
00243	7/15/94	0034	2841.0	9128.5	15	25	12	24	28.8	28.5	24.8	26.6	30.8	35.8	.523	6.1	2.4	.8	ST

Table 2. Selected environmental parameters (continued)

OREGON II, SUMMER SHRIMP/GROUNDFISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
00244	7/15/94	0225	2830.1	9129.9	15	46	23	45	29.1	23.8	21.7	25.8	36.0	36.2	.604	4.5	6.6	3.4	PN
00245	7/15/94	0417	2833.3	9119.1	15	37	18	37	28.9	26.5	22.8	26.3	35.1	36.2	.343	5.5	5.5	3.4	ST
00246	7/15/94	0912	2833.7	9038.4	14	24	12	24	28.6	28.6	24.6	26.7	26.9	35.7	.623	5.7	6.4	1.0	ST/PN
00247	7/15/94	1100	2822.0	9044.2	14	46	23	46	28.9	25.1	21.1	26.8	36.0	36.3	.319	6.7	6.9	4.3	ST
00248	7/15/94	1351	2816.5	9029.5	14	64	32	63	29.3	23.5	20.9	28.1	36.2	36.3	.230	4.6	6.9	5.7	ST
00249	7/15/94	1503	2811.5	9026.7	14	98	49	97	29.5	21.2	19.9	30.2	36.4	36.3	.237	5.8	7.1	5.4	ST
00250	7/15/94	1705	2800.1	9030.1	14	335	100	200	29.5	19.1	14.1	32.9	36.6	35.9	.174	5.8	5.8	4.4	PN
00251	7/15/94	2029	2809.3	9026.3	14	108	54	108	29.2	20.8	19.2	25.7	36.3	36.3	.196	4.1	5.7	5.1	ST
00252	7/15/94	2250	2812.2	9036.3	14	82	41	82	29.3	21.9	20.5	30.3	36.3	36.2	.206	3.7	6.3	5.2	ST
00253	7/16/94	0007	2813.8	9037.4	14	76	38	76	29.0	22.0	20.6	30.4	36.4	36.3	.199	5.3	6.8	5.4	ST
00254	7/16/94	0255	2831.3	9101.3	15	30	15	29	29.2	27.0	23.9	27.7	34.9	36.1	.262	5.1	5.5	2.1	ST
00255	7/16/94	0435	2835.2	9056.6	14	19	9	18	28.8	28.8	25.5	27.2	27.2	35.2	.405	4.9	6.0	.9	ST
00256	7/16/94	0945	2830.0	9000.0	14	94	47	94	28.9	21.1	19.8	25.1	36.6	36.3	.561	6.4	6.8	5.0	PN
00257	7/16/94	1157	2848.9	8958.5	13	40	20	39	29.3	24.6	22.0	25.0	35.9	36.3	.299	6.5	5.7	5.7	ST
00258	7/16/94	1511	2855.9	9021.8	14	16	8	15	29.2	28.9	26.4	23.6	25.7	35.1	.660	6.7	4.6	1.1	ST
00259	7/16/94	1705	2900.1	9030.2	14	10	5	9	29.2	29.0	28.7	22.9	22.5	23.2	1.842	4.4	5.4	7.1	PN
00260	7/16/94	2006	2853.6	9040.4	14	12	6	11	29.2	28.4	28.1	25.9	23.6	30.1	.989	3.2	4.1	4.8	ST
00261	7/16/94	2219	2836.6	9033.0	14	24	12	24	30.2	25.8	24.5	25.7	29.2	35.9	.734	3.2	6.6	.4	ST
00262	7/16/94	2358	2827.0	9025.5	14	44	22	44	29.0	25.1	21.3	26.6	36.2	36.3	.224	5.0	5.9	4.9	ST
00264	7/17/94	0422	2840.3	9012.5	14	33	16	32	29.2	26.7	22.9	25.9	33.0	36.1	.330	3.3	6.5	1.1	ST
00265	7/17/94	0553	2849.4	9009.0	14	29	15	28	29.0	27.0	24.1	24.7	33.6	36.0	.405	5.8	5.8	2.7	ST
00266	7/17/94	0754	2900.0	9000.0	14	24	12	24	29.1	27.7	24.5	25.1	28.8	35.9	.567	3.9	6.3	3.7	PN
00267	7/17/94	1055	2900.0	8930.0	13	17	8	16	29.0	27.4	24.9	18.6	28.2	35.5	4.165	7.1	6.0	5.3	PN
00268	7/17/94	1332	2902.4	8936.4	13	19	9	18	29.8	29.8	29.9	19.8	29.2	35.6	.733	7.0	5.4	5.1	ST
00269	7/17/94	1646	2912.2	8952.3	13	12	6	11	31.3	29.6	26.2	27.0	23.5	31.7	12.398	2.6	3.4	.1	ST
00270	7/17/94	2003	2909.4	9002.4	14	9	4	8	30.8	29.1	28.9	29.9	17.6	24.6	6.205	2.8	2.4	2.4	ST
00271	7/17/94	2058	2907.9	8956.3	13	17	8	17	29.5	29.1	25.7	25.1	24.6	35.4	4.348	7.9	3.4	.9	ST
00272	7/17/94	2222	2903.3	8955.4	13	25	12	25	29.6	27.4	24.2	25.1	33.3	35.9	.355	7.1	5.3	4.3	ST
00273	7/18/94	0045	2901.0	8937.2	13	30	15	29	29.1	26.8	23.5	24.0	34.3	35.9	1.009	6.2	5.2	4.9	ST

Table 2. Selected environmental parameters (continued)

LUMCON PELICAN, SUMMER SHRIMP/GROUNDFISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
37164	7/ 4/94	1059	2900.0	9030.0	14	10	5	10	30.1	29.8	27.1	20.0	26.1	33.5	1.465	7.5	6.0	1.4	PN
37165	7/ 4/94	1437	2900.0	9100.0	15	6	3	6	30.5	29.9	28.6	19.0	19.7	23.9	7.891	8.0	6.8	4.0	PN
37166	7/ 4/94	1850	2900.3	9130.3	15	10	6	10	30.8	28.2	27.0	23.4	30.6	33.8	4.509	7.9	7.5	3.8	PN
37167	7/ 4/94	2134	2844.4	9122.5	15	20	10	20	30.7	27.0	25.3	23.2	34.0	35.7	.789	7.8	4.3	1.4	ST
37168	7/ 5/94	0203	2851.2	9054.0	14	12	6	12	30.2	25.9	25.6	20.5	34.4	35.0	1.127	7.8	3.0	1.4	ST
37169	7/ 5/94	0509	2837.5	9100.0	15	18	9	18	29.9	29.6	24.2	22.5	23.7	36.1	.845	7.3	7.7	1.6	ST
37170	7/ 5/94	0757	2851.0	9053.9	14	12	7	12	30.0	26.1	25.3	21.6	34.7	35.2	2.859	7.3	2.8	.9	ST
37171	7/ 5/94	1216	2844.4	9122.3	15	19	10	19	30.1	27.2	25.4	23.1	33.1	35.6	1.999	7.9	4.1	.5	ST
37172	7/ 5/94	1532	2837.4	9100.0	15	19	11	19	30.3	27.6	24.1	22.8	33.5	36.1	.333	7.6	7.7	8.4	ST
37173	7/ 5/94	1706	2834.2	9106.3	15	27	14	27	30.9	26.8	23.8	23.1	35.2	35.1	.544	7.8	8.3	9.1	ST
37174	7/ 5/94	1819	2830.0	9100.0	15	33	17	33	30.4	26.4	22.1	21.8	35.5	36.3	.609	8.0	6.7	2.3	PN
37175	7/ 5/94	2117	2833.9	9106.2	15	28	12	28	30.7	27.1	23.6	23.6	34.7	36.2	.338	7.1	5.9	1.5	ST
37176	7/ 5/94	2321	2828.8	9053.8	14	36	17	36	30.3	26.4	21.9	22.1	35.5	36.4	.113	7.4	6.2	2.8	ST
37177	7/ 6/94	0125	2830.3	9043.8	14	32	16	32	30.2	26.7	22.2	22.2	35.3	36.4	.451	7.0	6.1	3.3	ST
37178	7/ 6/94	0247	2831.3	9042.5	14	29	15	29	30.1	27.2	22.6	22.1	34.8	36.3	.451	7.3	6.4	3.6	ST
37179	7/ 6/94	0730	2828.5	9053.7	14	34	16	34	29.9	27.3	22.0	21.8	34.4	36.4	.692	7.1	6.1	2.5	ST
37180	7/ 6/94	0919	2830.5	9043.6	14	31	16	31	29.8	27.5	22.4	21.9	34.4	36.4	.867	8.2	6.7	3.4	ST
37181	7/ 6/94	1024	2830.7	9042.3	14	31	16	31	29.9	27.3	22.4	21.8	34.6	36.4	.666	7.7	6.6	3.4	ST
37182	7/ 6/94	1208	2830.0	9030.0	14	38	19	38	30.6	26.2	21.4	22.3	35.6	36.4	.338	7.4	6.4	3.6	PN
37183	7/ 6/94	1712	2900.0	9000.0	14	24	13	24	31.0	26.9	23.2	21.3	35.1	36.3	.676	7.5	6.4	1.0	PN
37184	7/ 6/94	1840	2902.1	8951.6	13	29	15	29	31.0	26.4	22.7	21.6	35.5	36.3	.805	7.1	5.4	2.5	ST
37185	7/ 6/94	2115	2902.2	8951.6	13	29	16	29	30.4	26.4	22.6	21.6	35.4	36.3	.451	7.3	6.1	2.2	ST
37186	7/ 6/94	2327	2915.3	8943.5	13	8	4	8	30.8	30.8	28.1	21.1	21.1	29.9	6.426	8.0	7.3	3.6	ST
37187	7/ 7/94	0115	2906.1	8945.6	13	25	14	25	30.7	26.7	24.3	22.0	35.2	36.2	.451	7.3	5.9	5.2	ST
37188	7/ 7/94	0234	2906.3	8939.8	13	17	9	17	30.1	27.8	25.9	21.5	33.8	35.5	1.353	7.4	5.6	4.2	ST
37189	7/ 7/94	0700	2900.0	8930.0	13	15	8	15	29.8	27.9	24.4	22.0	31.8	35.8	1.488	7.4	4.1	3.4	PN
37190	7/ 7/94	0909	2905.7	8939.7	13	17	9	17	30.3	28.2	25.3	22.1	32.7	36.1	1.068	7.5	4.9	6.1	ST
37191	7/ 7/94	1103	2904.4	8945.5	13	28	14	28	30.2	26.3	23.8	21.6	35.7	36.3	1.194	7.9	5.9	6.1	ST
37192	7/ 7/94	1313	2915.5	8943.6	13	8	5	8	30.2	30.2	27.9	21.1	22.3	30.9	5.535	8.1	7.1	2.2	ST
37193	7/ 7/94	1617	2908.4	9003.0	14	10	5	10	30.0	28.1	27.5	23.6	31.5	33.0	5.004	7.0	4.5	3.1	ST
37194	7/ 7/94	2111	2908.2	9003.0	14	10	6	10	29.7	28.5	27.4	23.1	30.5	33.1	1.916	6.8	6.0	3.2	ST

Table 2. Selected environmental parameters (continued)

TOMMY MUNRO, FALL PLANKTON SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
17001	9/21/94	0930	2928.9	8901.3	12	10	5	9	27.2	27.2	27.1	29.5	29.5	29.5	2.702	5.6	5.8	5.9	PN
17002	9/21/94	1725	2959.3	8859.0	11	6		5	27.5		27.2	28.6		28.6	4.610	6.2		6.2	PN

Table 2. Selected environmental parameters (continued)

CHAPMAN, FALL PLANKTON SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
28001	9/11/94	0539	2559.9	9630.0	22	63	31	63	28.1	23.5	21.6	36.0	36.7	36.4	.095	7.2	9.6	8.1	PN
28002	9/11/94	1033	2559.8	9660.0	22	25	14	25	28.7	28.7	28.0	36.4	36.3		.139	7.3	7.7		PN
28003	9/11/94	1502	2629.9	9700.0	21	34	17	32	28.9	28.8	28.7	36.4	36.4	36.4	.274	6.6	7.7	7.7	PN
28004	9/11/94	1858	2629.4	9630.8	21	79	38	77	28.9	24.6	21.5	36.3	36.2	36.4	.064	7.8	9.1	8.0	PN
28005	9/11/94	2345	2700.0	9639.9	20	86	43	86	29.3	25.4	21.2	36.4	36.3	36.4	.027	6.8	9.6	7.6	PN
28006	9/12/94	0449	2659.8	9711.3	21	25	12	22	29.3	29.3	29.3	36.3	36.3	36.3	.386	6.0	6.7	7.1	PN
28007	9/12/94	0935	2729.8	9700.1	20	28	13	26	29.1	29.3	29.4	35.0	35.2	35.5	.361	6.6	7.6	7.3	PN
28008	9/12/94	1328	2729.7	9630.0	20	74	37	74	29.1	28.7	22.0	36.1	36.4	36.5	.072	5.3	7.9	7.6	PN
28009	9/12/94	1725	2735.0	9600.0	20	136	63	135	29.1	24.1	16.7	36.3	36.7	36.4	.089	7.9	9.6	5.3	PN
28010	9/12/94	2123	2800.0	9600.0	20	45	22	34	29.3	29.2	29.2	34.2	35.3	36.1	.224	6.1	7.4	7.7	PN
28011	9/13/94	0058	2800.1	9630.0	19	27	13	27	29.4	29.5	29.5	33.9	33.9	33.9	1.006	5.9	7.6	7.7	PN
28012	9/13/94	0443	2819.7	9620.2	19	15	7	13	29.1	29.1	29.2	30.6	30.6	30.7	2.624	6.1	7.4	7.7	PN
28013	9/13/94	0807	2829.9	9600.1	19	15	7	13	29.0	29.1	29.3	30.6	30.7	31.2	3.613	6.1	6.8	7.0	PN
28014	9/13/94	1215	2830.0	9530.0	19	24	12	24	29.4	29.2	29.3	32.0	32.0	33.3	.741	6.9	8.2	8.0	PN
28015	9/13/94	1610	2759.9	9530.0	20	52	26	50	29.4	29.0	23.5	35.8	36.1	36.3	.157	5.9	8.0	8.0	PN
28016	9/13/94	1836	2745.7	9529.6	20	102	51	100	29.0	24.2	18.6	36.1	36.7	36.4	.094	6.6	9.5	5.2	PN
28017	9/13/94	2309	2800.0	9500.2	19	80	40	79	29.3	27.1	19.8	35.5	35.3	36.4	.100	7.7	8.4	5.9	PN
28018	9/14/94	0357	2830.2	9459.4	18	32	16	32	28.8	28.8	27.3	34.2	34.2	36.0	.174	6.3	7.8	6.4	PN
28019	9/14/94	1807	2924.8	9430.3	18	10	5	10	28.8	28.8	28.8	22.7	22.9	23.0	5.152	7.7	7.7	8.0	PN
28020	9/14/94	2134	2900.2	9429.9	18	18	8	18	29.0	29.0	29.0	31.8	31.8	31.8	.975	7.0	7.6	7.8	PN
28021	9/15/94	0101	2900.1	9500.0	19	15	8	15	28.8	28.8	28.8	28.6	28.6	28.6	2.654	6.5	7.6	7.7	PN
28022	9/15/94	0620	2829.9	9429.8	18	34	16	32	29.0	29.0	28.7	33.9	33.9	35.2	.199	6.2	7.8	7.2	PN
28023	9/15/94	1051	2800.1	9430.1	18	68	33	68	29.1	28.9	21.7	35.7	36.2	36.2	.349	7.9	8.1	7.4	PN
28024	9/15/94	1449	2800.1	9359.5	18	80	40	80	29.0	26.8	20.9	35.8	36.3	36.5	.112	6.0	8.9	7.7	PN
28025	9/15/94	1949	2829.8	9400.0	18	40	19	40	28.7	28.7	24.9	33.4	35.9	35.8	.174	7.4	7.8	4.4	PN
28026	9/16/94	0006	2900.9	9400.9	18	20	10	19	28.8	28.9	29.0	31.4	31.6	31.7	.208	6.5	7.6	7.8	PN
28027	9/16/94	0453	2929.8	9400.0	18	12	7	12	28.4	28.5	28.7	26.9	27.0	29.0	2.878	6.0	7.3	7.2	PN
28028	9/16/94	0845	2930.0	9330.0	17	10	5	10	28.6	28.6	28.6	28.5	28.5	28.5	3.582	6.6	7.5	7.6	PN
28029	9/16/94	1243	2900.2	9330.0	17	19	9	19	28.8	28.9	28.8	30.5	30.6	30.6	1.258	5.9	7.3	7.4	PN
28030	9/16/94	1629	2830.3	9331.5	17	40	20	39	28.9	28.8	25.4	33.8	34.6	36.1	.230	7.5	7.4	8.7	PN
28031	9/16/94	2023	2800.1	9330.0	17	91	45	90	29.1	24.7	19.5	35.2	35.1	36.3	.163	7.8	6.9	5.3	PN
28032	9/17/94	0011	2759.1	9300.8	17	107	54	106	28.9	22.1	18.2	35.3	36.2	35.5	.091	7.7	8.6	5.5	PN
28033	9/17/94	0536	2830.0	9259.9	16	43	21	41	28.6	29.4	25.5	34.1	35.2	36.9	.132	6.3	7.6	8.0	PN
28034	9/17/94	0933	2900.3	9300.4	16	24	12	24	28.2	28.6	28.8	30.8	31.2	32.7	1.438	7.3	7.8	7.0	PN
28035	9/17/94	1339	2930.0	9300.4	17	11	5	10	28.0	28.7	28.7	28.4	28.3	28.4	5.295	6.7	6.9	7.0	PN
28036	9/17/94	1708	2929.9	9230.1	16	8	3	7	28.7	28.6	28.5	26.8	26.9	27.0	16.141	5.1	5.6	6.1	PN
28037	9/17/94	2051	2900.1	9230.0	16	25	12	25	28.8	28.5	28.4	32.4	32.7	32.9	.683	6.1	6.8	6.4	PN
28038	9/18/94	0032	2900.9	9159.9	15	18	9	18	28.6	28.4	28.5	30.2	31.0	31.1	2.293	6.0	6.6	6.4	PN
28039	9/18/94	0551	2829.9	9229.9	16	48	23	46	28.5	29.1	23.9	32.5	34.4	36.0	.171	6.9	5.0	3.0	PN
28040	9/18/94	0959	2800.4	9229.9	16	102	49	102	28.4	23.3	17.9	35.1	36.1	36.3	.554	7.9	8.9	5.6	PN
28041	9/18/94	1359	2800.0	9200.0	16	117	59	117	28.9	20.6	17.1	30.5	36.0	36.3	.240	8.1	7.0	5.4	PN
28042	9/18/94	1826	2829.9	9200.0	16	48	23	46	28.9	28.2	23.1	34.7	35.2	36.2	.303	7.2	8.0	3.7	PN

Table 2. Selected environmental parameters (continued)

CHAPMAN, FALL PLANKTON SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M³ SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
28043	9/18/94	2230	2829.9	9130.9	15	46	23	46	28.5	28.3	24.9	33.6	35.8	36.3	.258	6.8	6.9	6.6	PN
28044	9/19/94	0250	2800.0	9130.0	15	153	76	153	28.5	18.7	16.3	34.6	36.2	36.3	.107	7.9	5.7	5.8	PN
28045	9/19/94	0706	2759.9	9059.9	14	147	74	147	28.5	19.4	16.2	35.5	36.3	36.3	.116	7.9	6.0	6.0	PN
28046	9/19/94	1103	2805.9	9029.5	14	135	61	135	28.8	21.2	17.2	34.9	36.2	36.3	.109	7.8	8.0	5.7	PN
28047	9/19/94	1536	2820.2	9000.2	14	105	51	104	28.8	22.8	19.0	34.7	36.4	36.5	.117	7.0	7.9	5.5	PN
28048	9/19/94	1735	2830.4	9000.3	14	87	43	85	28.6	25.8	19.6	34.0	35.8	34.5	.231	8.0	8.6	5.6	PN
28049	9/19/94	2154	2834.9	8930.0	13	184	92	184	28.1	18.3	14.9	30.3	36.3	35.9	.237	8.5	5.1	5.7	PN
28050	9/20/94	0358	2859.4	8900.0	11	70	32	64	28.2	28.5	20.2	29.5	34.9	37.3	6.074	8.4	6.6	5.2	PN
28051	9/20/94	0551	2905.0	8859.9	11	22	10	20	28.1	28.2	28.1	30.6	31.8	32.6	6.406	6.2	6.7	6.8	PN
28064	9/20/94	1943	3000.2	8830.0	11	25	13	25	28.1	28.1	28.1	31.9	31.9	32.9	.206	6.9	7.9	7.4	PN
28079	9/21/94	1942	3000.1	8759.9	11	21	10	21	27.7	27.7	27.7	32.2	32.2	32.3	.324	6.6	7.9	7.9	PN
28087	9/23/94	2243	2930.0	8829.9	11	49	24	49	27.6	28.0	23.6	34.0	35.0	36.2	.126	6.0	7.7	3.9	PN
28088	9/24/94	0131	2912.9	8830.4	11	114	55	111	27.5	21.5	17.1	34.6	36.0	36.4	.086	7.7	6.0	5.9	PN
28089	9/24/94	0611	2915.1	8800.0	11	243	101	201	27.4	18.2	14.2	34.8	36.3	35.9	.135	7.9	5.9	5.5	PN
28090	9/24/94	0912	2929.6	8759.9	11	45	23	45	27.4	23.3	23.1	32.7	34.9	36.3	.138	6.9	6.1	6.0	PN
28091	9/24/94	1311	2929.9	8730.0	10	69	36	69	27.5	25.1	19.7	34.3	36.1	36.6	.124	7.3	8.2	5.6	PN
28092	9/24/94	1728	3000.0	8729.8	10	24	12	24	27.5	27.5	27.8	33.8	34.0	34.6	.166	7.0	7.9	7.9	PN
28093	9/24/94	1951	3014.8	8729.9	10	10	4	7	27.1	27.1	27.3	30.7	30.8	30.8	.249	6.2	7.5	7.7	PN
28094	9/25/94	0034	2948.1	8700.1	10	192	96	192	27.5	18.5	14.2	34.5	36.2	35.8	.075	7.8	5.6	5.2	PN
28095	9/25/94	0314	3000.0	8700.0	10	70	35	70	27.5	28.2	18.4	33.6	34.8	36.7	.102	7.4	7.6	5.3	PN
28096	9/25/94	0618	3019.9	8700.1	9	18	9	18	27.1	27.2	27.3	32.2	32.3	32.6	.299	6.4	7.5	7.1	PN
28097	9/25/94	0959	3019.9	8630.1	9	24	12	23	26.6	27.1	27.2	31.3	31.6	32.6	.633	5.6	7.7	7.3	PN
28098	9/25/94	1249	3000.0	8629.9	9	53	27	53	27.6	27.7	22.0	34.1	34.4	36.4	.109	7.1	7.8	5.9	PN
28099	9/25/94	1657	2930.0	8630.1	9	203	100	200	27.7	18.6	14.5	34.3	36.2	38.9	.077	7.9	5.6	5.2	PN
28100	9/25/94	2148	2929.8	8600.2	9	61	30	61	27.7	27.7	20.5	33.9	34.3	36.3	.119	5.9	7.8	5.7	PN
28101	9/26/94	0208	3000.0	8600.0	9	31	15	30	27.1	27.4	27.5	31.7	33.1	33.6	.604	7.9	6.6	6.8	PN
28102	9/26/94	0612	2948.0	8530.1	8	19	9	19	26.7	27.3	27.3	32.4	32.8	32.9	1.253	7.0	8.0	7.0	PN
28103	9/26/94	0857	2930.1	8530.1	8	13	6	12	27.1	27.2	27.5	32.7	32.7	33.2	.804	8.1	9.3	8.9	PN
28104	9/26/94	1342	2929.8	8459.1	7	11	5	11	27.3	27.2	27.2	30.7	31.4	31.5	.844	9.1	9.0	8.8	PN
28105	9/26/94	1722	2930.0	8430.0	7	23	11	21	27.4	27.3	27.3	33.8	33.9	33.9	1.670	6.2	7.8	7.8	PN
28106	9/26/94	2128	2947.8	8400.0	7	10	5	9	26.3	26.3	26.5	31.8	31.8	32.2	.617	7.0	8.1	8.0	PN
28107	9/27/94	0006	2930.0	8400.0	7	20	10	20	26.9	27.0	27.2	34.3	34.4	34.6	.660	7.8	8.6	8.3	PN
28108	9/27/94	0312	2930.0	8335.2	7	10	4	9	26.1	26.2	26.6	31.7	31.8	32.9	.903	7.7	7.9	7.8	PN
28109	9/27/94	0711	2900.1	8330.0	7	16	8	15	27.5	27.5	27.5	35.6	35.6	35.6	1.103	7.0	8.0	8.4	PN
28110	9/27/94	0910	2900.0	8315.8	7	10	5	9	27.1	27.1	27.1	35.3	35.3	35.4	.417	8.7	8.7	8.7	PN
28111	9/27/94	1347	2829.9	8300.0	6	9	4	9	27.2	27.1	27.1	35.1	35.2	35.2	.910	8.0	8.4	8.5	PN
28112	9/27/94	1715	2830.1	8330.0	6	22	11	20	27.9	27.9	27.8	35.3	35.3	35.4	.293	7.3	8.4	8.5	PN
28113	9/27/94	2045	2830.0	8400.0	6	34	17	34	28.0	28.0	28.0	35.2	35.1	35.1	.174	8.2	8.6	8.7	PN
28114	9/28/94	0043	2900.5	8400.0	6	28	14	28	27.7	27.7	27.6	33.0	34.8	34.8	.212	8.5	8.8	8.5	PN
28115	9/28/94	0420	2900.0	8430.0	7	33	15	31	27.7	27.9	28.0	34.8	35.0	35.0	.162	7.5	8.7	8.7	PN
28116	9/28/94	0816	2829.8	8429.7	6	50	25	50	28.0	25.3	23.7	33.7	32.9	33.9	.107	8.6	8.8	8.8	PN
28117	9/28/94	1156	2830.0	8500.0	6	102	49	98							.080				PN

Table 2. Selected environmental parameters (continued)

CHAPMAN, FALL PLANKTON SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
28118	9/28/94	1550	2900.1	8459.7	7	36	17	34	28.0	27.8	27.8	35.0	35.0	35.1	.070	7.4	8.8	8.7	PN
28119	9/28/94	2011	2839.9	8529.9	8	177	87	177	27.5	18.1	15.1	34.7	36.4	36.0	.070	8.8	6.3	5.6	PN
28120	9/28/94	2330	2900.0	8530.1	8	70	32	67	27.8	27.9	19.7	34.9	35.4	36.3	.044	8.7	9.2	6.9	PN
28121	9/29/94	0332	2912.0	8600.0	9	183	91	183	27.4	17.6	14.6	34.1	36.3	35.9	.093	8.9	6.1	5.8	PN

Table 2. Selected environmental paramenters (continued)

LUMCON PELICAN, FALL PLANKTON SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M³ SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
37195	9/26/94	1047	2900.0	9030.0	14	10	5	10	26.4	26.4	28.5	26.5	26.6	31.6	2.701	9.2	9.1	1.4	PN
37196	9/26/94	1413	2859.9	9100.0	14	6	3	6	26.4	26.3	26.4	27.8	27.8	27.9	3.008	9.1	9.0	9.0	PN
37197	9/26/94	1714	2851.6	9120.5	15	12	6	12	26.2	26.5	28.1	27.6	28.7	31.4	3.112	9.1	9.0	7.1	ST
37198	9/26/94	2007	2851.5	9120.4	15	12	6	12	26.1	26.8	28.1	27.8	29.1	31.4	2.564	9.3	9.0	7.2	ST
37199	9/26/94	2138	2848.8	9122.5	15	16	9	16	26.3	26.9	28.1	28.6	30.1	31.4	.844	9.2	9.0	7.2	ST
37200	9/27/94	0114	2850.5	9052.2	14	14	7	14	26.9	27.5	28.8	29.1	29.9	32.5	.253	8.9	7.6	4.4	ST
37201	9/27/94	0439	2835.2	9113.8	15	28	15	28	26.8	28.4	28.2	30.4	32.5	35.2	.267	8.9	7.4	5.1	ST
37202	9/27/94	0823	2900.0	9130.0	15	10	5	10	25.5	27.5	28.3	20.2	29.7	31.9	5.121	9.4	8.3	6.0	PN
37203	9/27/94	1022	2848.6	9122.5	15	15	7	15	26.0	26.9	28.1	28.4	30.0	31.6	1.212	9.2	8.8	6.9	ST
37204	9/27/94	1405	2850.5	9052.3	14	13	8	13	26.9	26.7	28.8	28.8	29.3	32.7	.589	7.9	8.0	4.7	ST
37205	9/27/94	1732	2834.9	9113.8	15	28	14	28	27.7	28.1	28.4	30.4	32.1	35.1	.548	8.4	8.2	5.5	ST
37206	9/27/94	2038	2835.9	9051.3	14	20	10	20	27.9	28.5	28.3	29.5	31.0	32.1	.154	8.5	8.3	7.2	ST
37207	9/27/94	2155	2832.2	9047.2	14	27	15	27	27.6	28.2	28.4	29.3	32.0	33.7	.290	8.7	7.3	6.4	ST
37208	9/27/94	2257	2829.4	9044.7	14	34	18	34	27.9	28.4	27.6	29.1	33.1	36.1	.375	8.6	8.4	7.1	ST
37209	9/28/94	0800	2830.0	9100.0	15	33	17	33	27.2	28.3	28.4	28.3	33.1	35.6	.327	8.7	8.2	6.0	PN
37210	9/28/94	0949	2835.9	9051.2	14	19	10	19	27.3	28.4	28.3	29.5	31.1	32.0	.270	8.4	8.0	6.9	ST
37211	9/28/94	1106	2832.0	9047.5	14	26	14	26	27.3	28.2	28.7	29.3	32.0	34.8	.396	8.6	7.3	5.7	ST
37212	9/28/94	1223	2829.0	9044.5	14	33	17	33	27.5	28.6	27.2	29.4	34.0	36.2	.173	8.5	7.9	7.0	ST
37213	9/28/94	1440	2830.0	9030.1	14	37	19	37	27.3	28.3	26.1	27.5	34.0	36.3	.618	8.4	7.8	8.1	PN
37214	9/28/94	2204	2903.9	8943.5	13	30	15	30	27.1	28.4	27.3	28.1	31.1	35.0	.575	8.9	8.2	4.8	ST
37215	9/28/94	2347	2913.3	8938.4	13	8	5	8	26.7	27.3	28.3	24.9	27.5	30.8	2.024	9.2	8.7	3.9	ST
37216	9/29/94	0151	2901.3	8937.5	13	31	15	31	26.9	28.3	25.5	25.5	30.5	35.9	2.793	9.1	8.4	3.7	ST
37217	9/29/94	0256	2900.1	8932.5	13	17	9	17	26.8	27.1	28.2	24.5	28.2	31.8	3.533	9.1	8.9	4.3	ST
37218	9/29/94	0803	2859.9	8929.9	13	14	7	14	26.8	26.9	28.0	25.8	27.6	30.5	4.561	9.0	8.9	4.5	PN
37219	9/29/94	0854	2859.9	8932.5	13	17	10	17	26.7	27.3	28.2	23.7	28.5	30.4	9.683	9.1	8.7	5.8	ST
37220	9/29/94	1002	2900.9	8937.6	13	31	16	31	26.5	28.5	27.3	26.6	31.1	34.9	3.972	8.9	8.0	4.3	ST
37221	9/29/94	1202	2913.1	8938.5	13	8	4	8	26.9	27.1	28.1	24.1	27.2	30.6	2.993	8.5	8.2	2.9	ST
37222	9/29/94	1353	2903.8	8943.6	13	30	16	30	27.2	27.6	27.3	28.8	29.5	35.0	.501	8.7	8.6	3.9	ST
37223	9/29/94	1607	2902.0	8959.6	13	20	12	20	27.1	27.5	28.0	28.0	29.1	32.9	.446	8.8	8.6	2.1	ST
37224	9/29/94	1654	2900.0	9000.0	14	23	12	23	27.3	27.4	27.8	28.2	28.9	33.4	.567	8.6	8.6	1.9	PN
37225	9/29/94	2012	2902.0	8959.5	13	21	11	21	27.0	27.2	28.0	28.2	28.5	32.8	.618	8.8	8.8	3.0	ST

Table 2. Selected environmental parameters (continued)

A.E. VERRILL, FALL PLANKTON SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M³ SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
2301	9/28/94	1010	3012.3	8802.5	11	14	7	14	24.0	24.5	25.0	19.1	26.4	25.4	3.271	7.8	6.4	5.0	PN
2302	9/28/94	1102	3012.6	8806.6	11	7	4	7	26.0	26.5	27.0	28.4	30.3	30.5	2.841	6.6	7.0	6.4	PN
2303	9/28/94	1151	3008.4	8809.9	11	15	8	15	26.5	26.5	26.0	28.9	31.0	30.9	.748	7.2	6.6	7.2	PN
2304	9/28/94	1242	3007.6	8804.3	11	18	9	18	25.5	25.5	25.5	22.2	28.6	29.5	2.093	6.8	7.2	6.8	PN
2305	9/28/94	1333	3009.0	8759.3	10	15	8	15	28.0	26.5	26.5	27.8	30.4	30.6	1.383	6.8	6.2	6.8	PN
2306	9/28/94	1404	3010.8	8759.3	10	13	7	13	28.0	27.0	27.0	28.5	31.6	31.6	2.411	6.6	6.0	6.0	PN
2307	9/28/94	1542	3016.4	8759.4	10	5		5	27.0		26.0	18.8		20.4	3.343	7.8		5.8	PN
2308	9/28/94	1612	3016.6	8802.3	11	14	7	14	25.5	25.5	25.5	17.9	23.1	24.4	2.392	7.8	6.0	6.4	PN
2309	9/28/94	1635	3015.6	8803.5	11	5		5	26.5		24.5	16.5		18.4	2.934	7.4		7.2	PN

Table 2. Selected environmental parameters (continued)

HERNAN CORTEZ II, FALL PLANKTON SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
00016	9/28/94	1935	2800.0	8300.0	6	11	5	10	27.7	27.5	27.5	34.5	34.6	34.7	4.053	3.4	3.4	3.4	PN
00017	9/28/94	2308	2800.0	8330.0	5	28	13	27	26.1	28.0	28.2				.187				PN
00018	9/29/94	0241	2800.0	8400.3	5	46	22	45	28.1	28.1	25.5	34.9	35.4	36.1	.237	4.1	3.7	3.5	PN
00019	9/29/94	0622	2800.0	8430.0	5	75	35	70	27.2	23.7	17.6	34.7	36.3	36.3	.173	2.4	3.7	2.4	PN
00020	9/29/94	1031	2800.1	8500.0	6	252	97	195	27.6	18.6	14.4	34.4	36.4	35.9	.050	3.8	2.7	2.5	PN
00021	9/29/94	1650	2730.1	8430.0	5	132	56	132	27.8	20.1	16.3	35.2	36.4	36.2	.483	3.2	3.3	2.5	PN
00022	9/29/94	2111	2730.1	8359.9	5	59	25	50	27.7	27.8	21.9	35.6	36.1	36.3	.200	3.8	3.9	3.6	PN
00023	9/30/94	0115	2730.0	8329.9	5	40	17	34	28.1	28.1	28.3	35.5	35.5	35.7	.373	3.7	3.6	3.6	PN
00024	9/30/94	0545	2730.0	8259.9	5	16	6	13	28.0	28.0	28.0	35.4	35.4	35.4	3.170	3.5	3.5	3.5	PN
00025	10/ 5/94	1735	2700.0	8300.0	5	31	11	22	28.2	28.1	28.1	35.8	35.7	35.8	3.370	3.1	3.1	3.1	PN
00026	10/ 5/94	2118	2700.0	8330.0	5	51	23	48	27.7	27.6	25.6	35.6	35.6	36.2	.490	3.4	3.3	3.0	PN
00027	10/ 6/94	0106	2700.0	8400.1	5	82	36	72	27.1	24.2	17.8	35.3	36.4	36.4	.170	3.4	3.3	2.6	PN
00028	10/ 6/94	0450	2700.1	8430.1	5	176	78	156	27.0	19.2	14.9	35.6	36.5	36.0	.163	3.5	2.6	2.6	PN
00029	10/ 6/94	0938	2630.0	8430.1	5	200	95	190	27.7	17.7	13.2	35.2	36.3	35.7	.620	3.5	2.6	2.4	PN
00030	10/ 6/94	1413	2629.9	8400.0	4	125	54	108	27.4	22.0	17.1	35.4	36.7	36.3	.660	3.6	2.8	2.5	PN
00031	10/ 6/94	1834	2630.0	8330.0	4	57	25	50	27.7	27.4	23.3	35.6	35.6	36.4	.187	3.6	3.6	3.3	PN
00032	10/ 6/94	2230	2630.0	8300.0	4	39	17	34	28.2	28.1	28.1	35.5	35.5	35.6	.587	3.6	3.6	3.6	PN
00033	10/ 7/94	0210	2630.0	8230.0	4	20	8	15	27.9	27.9	27.9	35.5	35.6	35.8	2.347	3.5	3.5	3.4	PN
00034	10/ 7/94	0603	2559.9	8230.0	3	27	12	25	28.2	28.1	28.1	35.7	35.7	35.7	1.003	3.5	3.5	3.4	PN
00035	10/ 7/94	0941	2600.0	8300.1	4	43	19	39	28.2	27.9	27.5	35.3	35.3	36.0	.133	3.5	3.5	3.4	PN
00036	10/ 7/94	1317	2600.0	8330.0	4	63	30	60	27.9	27.2	19.2	35.6	35.7	36.4	.133	3.6	3.7	2.8	PN
00037	10/ 7/94	1654	2600.1	8400.1	4	134	66	133	28.0	19.5	15.7	35.4	36.3	36.1	.137	3.7	2.9	2.6	PN
00038	10/ 7/94	2036	2600.0	8430.0	4	219	101	202	27.6	17.9	13.8	35.2	36.4	35.8	.437	3.7	2.6	2.5	PN
00039	10/ 8/94	0032	2529.9	8430.0	3	200	82	163	27.8	24.0	17.6	36.2	36.6	36.4	.100	3.6	3.2	2.6	PN
00040	10/ 8/94	0436	2530.0	8400.0	3	136	61	123	27.8	21.8	17.3	35.4	36.6	36.4	.143	3.6	3.0	2.7	PN
00041	10/ 8/94	0836	2529.9	8330.0	3	69	32	64	27.6	26.0	18.6	35.5	36.2	36.4	.197	3.6	3.7	2.8	PN
00042	10/ 8/94	1212	2529.9	8259.9	3	50	23	46	28.6	28.5	26.2	35.3	35.4	36.3	.147	3.5	3.5	3.4	PN
00043	10/ 8/94	1546	2530.0	8230.0	3	31	14	28	29.1	28.5	28.5	35.6	35.6	35.6	1.177	3.5	3.4	3.4	PN
00044	10/ 8/94	1918	2530.0	8200.0	3	17	6	12	29.0	28.4	28.4	36.1	36.1	36.1	1.643	3.4	3.3	3.3	PN

Table 2. Selected environmental parameters (continued)

OREGON II, FALL SHRIMP/GROUNDFISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
1	10/14/94	1235	2624.8	9622.5	21	94	49	94	27.2	27.2	18.3	36.2	36.4	36.6	.085	8.0	8.1	5.1	ST/PN
3	10/14/94	2048	2635.1	9648.4	21	46	23	46	27.3	26.9	26.3	36.0	35.2	33.6	.716	7.4	7.9	8.3	ST
5	10/15/94	112	2622.1	9659.1	21	30	15	30	25.9	26.4	26.6	32.6	33.7	33.9		7.0	8.2	8.1	ST
6	10/15/94	509	2605.8	9708.3	21	16	8	15	25.5	25.5	25.5	31.6	31.6	31.6	.449	6.9	6.4	8.3	ST
7	10/15/94	736	2602.8	9707.7	21	13	7	12	25.4	25.4	25.4	31.5	31.5	31.5	.772	8.0	7.0	8.6	ST
8	10/15/94	957	2612.8	9701.2	21	27	12	25	25.9	26.3	26.7	32.1	34.0	34.2	.891	8.6	7.9	8.1	ST
9	10/15/94	1130	2617.9	9659.0	21	30	15	29	25.9	26.5	26.6	33.6	33.9	34.1	.361	6.7	8.1	7.7	ST
10	10/15/94	1323	2616.1	9708.1	21	17	9	17	25.6	25.4	25.4	31.8	31.9	31.8	.355	8.2	8.1	8.6	ST
11	10/15/94	1530	2630.7	9659.9	21	35	18	35	26.0	26.4	26.8	31.8	33.0	34.2	.430	8.9	8.0	7.0	PN
12	10/15/94	1720	2630.8	9706.3	21	22	11	21	26.0	25.7	26.3	31.8	31.8	32.8	.592	8.7	8.8	7.5	ST
13	10/15/94	1908	2629.0	9713.8	21	11	5	11	25.5	25.5	25.4	31.7	31.7	31.7	.819	9.2	9.1	9.1	ST
14	10/15/94	2137	2642.0	9708.6	21	28	14	28	25.6	25.9	26.4	31.1	32.8	33.4	.801	8.5	8.4	7.6	ST
15	10/15/94	2333	2634.9	9704.3	21	32	15	31	25.7	26.6	26.8	31.4	33.5	33.7	.629	8.0	7.6	7.2	ST
16	10/16/94	55	2632.9	9701.2	21	34	17	34	25.7	26.5	26.8	31.6	33.5	34.0	.449	8.5	8.1	7.2	ST
17	10/16/94	316	2638.3	9647.5	21	55	27	55	26.1	27.5	24.2	32.9	35.7	36.6	.368	7.8	7.4	6.9	ST
18	10/16/94	527	2644.2	9641.2	21	82	41	82	26.9	27.2	19.5	35.1	36.0	36.4	.692	7.3	7.8	4.8	ST
19	10/16/94	744	2648.7	9647.7	21	66	33	66	26.2	27.3	22.8	33.3	36.0	38.9	1.190	7.5	7.8	8.5	ST
21	10/16/94	1124	2643.1	9658.5	21	40	20	39	25.9	26.2	26.3	32.3	33.7	34.0	.766	8.3	8.1	7.9	ST
22	10/16/94	1256	2643.8	9703.6	21	35	18	34	25.8	26.0	26.1	32.4	33.0	33.2	.556	7.2	7.9	7.9	ST
23	10/16/94	1532	2654.0	9708.0	21	32	16	32	25.6	25.9	26.3	31.2	32.2	33.7	.535	9.0	8.6	7.4	ST
24	10/16/94	1726	2658.1	9720.8	21	15	7	14	25.3	25.3	25.1	30.7	30.7	30.8	.959	7.5	6.9	8.2	ST
25	10/16/94	1932	2707.3	9719.3	20	16	8	16	25.5	25.5	25.3	30.5	30.6	31.2	.741	9.1	9.1	8.4	ST
26	10/16/94	2141	2716.0	9713.9	20	22	11	21	25.1	25.6	25.6	30.3	32.0	32.0	.897	8.3	7.9	7.7	ST
27	10/17/94	213	2655.7	9645.6	21	73	36	73	26.7	27.3	21.0	34.3	36.1	36.5	.206	7.5	7.9	6.3	ST
28	10/17/94	453	2655.2	9658.0	21	46	23	45	25.9	26.4	27.3	32.2	34.3	35.9	.586	7.1	7.9	6.6	ST
29	10/17/94	640	2700.0	9658.4	21	44	22	44	25.5	26.8	27.4	31.0	34.8	35.9	1.171	8.4	7.5	6.9	PN
30	10/17/94	855	2700.4	9704.8	20	34	18	33	25.5	26.0	26.3	31.2	33.4	34.3	.716	8.1	8.0	7.8	ST
31	10/17/94	1207	2705.7	9644.3	20	71	35	70	26.1	27.4	21.7	31.8	36.1	36.6	.318	8.1	7.9	8.0	ST
32	10/17/94	1434	2708.1	9635.9	20	91	45	91	26.9	27.1	19.0	33.9	35.9	36.4	.174	8.1	7.8	4.7	ST
35	10/17/94	1912	2700.3	9629.3	20	141	70	140	27.1	21.9	17.5	35.6	36.4	36.3		8.0	7.8	4.8	PN
36	10/18/94	113	2730.1	9700.9	20	28	14	28	26.0	26.0	26.0	30.8	32.5	32.7	.409	8.1	8.5	8.6	ST/PN
37	10/18/94	254	2729.9	9708.5	20	21	10	21	25.4	25.5	25.2	29.6	30.2	30.6	.540	8.2	8.2	8.7	ST
38	10/18/94	534	2739.7	9702.5	20	20	10	18	25.5	25.5	25.2	29.8	29.8	30.2	1.009	7.3	8.6	8.6	ST
39	10/18/94	810	2730.7	9711.2	20	13	6	12	25.1	25.5	25.7	29.6	29.7	30.1	.959	7.4	7.5	8.5	ST
40	10/18/94	915	2732.4	9706.9	20	18	9	18	25.2	25.2	25.2	29.8	29.9	31.0	1.103	8.5	8.3	7.9	ST
41	10/18/94	1048	2735.3	9711.8	20	12	7	12	24.9	24.9	24.8	29.0	29.0	29.0	1.832	8.5	8.5	8.3	ST
42	10/18/94	1256	2736.9	9704.5	20	20	10	20	25.8	25.5	25.2	25.7	30.1	30.2	.491	7.8	7.6	7.6	ST
43	10/18/94	1421	2738.1	9659.7	20	22	11	22	25.6	25.4	25.3	30.0	30.8	30.9	1.599	8.8	8.1	7.7	ST
44	10/18/94	1646	2743.8	9644.8	20	30	15	28	29.2	26.8	26.7	32.3	34.8	35.0	.854	8.0	7.9	7.6	ST
45	10/18/94	1743	2741.1	9636.8	20	46	23	45	26.7	26.6	26.7	34.5	34.5	34.9	.386	6.3	7.9	7.6	ST
46	10/18/94	2010	2729.9	9629.8	20	76	37	75	26.8	27.1	21.3	33.8	35.7	36.5	.153	7.8	7.7	4.8	PN
47	10/18/94	2221	2742.4	9633.7	20	48	24	48	26.5	26.5	26.6	34.1	34.3	34.7	.255	6.4	7.9	7.7	ST

Table 2. Selected environmental parameters (continued)

OREGON II, FALL SHRIMP/GROUNDFISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
48	10/19/94	118	2743.2	9644.2	20	33	17	33	25.8	26.7	26.7	31.6	34.7	35.0	.619	7.7	7.7	7.5	ST
49	10/19/94	256	2751.4	9657.5	20	13	6	13	24.8	24.8	24.8	28.3	28.3	28.3	1.848	8.0	8.2	8.1	ST
50	10/19/94	456	2756.8	9653.6	20	13	6	12	27.7	24.7	24.7	28.0	28.0	28.0	2.222	8.0	8.1	8.2	ST
51	10/19/94	645	2756.8	9636.9	20	26	13	25	25.0	25.3	25.5	25.1	28.3	30.4	1.095	7.8	6.9	7.9	ST
52	10/19/94	841	2801.6	9635.5	19	23	11	23	25.2	25.6	25.7	30.0	31.4	31.4	1.146	7.2	7.6	7.6	ST
53	10/19/94	1045	2809.6	9638.5	19	10	5	10	24.7	24.7	24.7	27.8	27.8	27.8	2.388	8.0	8.0	8.0	ST
54	10/19/94	1323	2819.6	9620.7	19	16	8	16	24.8	24.8	25.2	24.7	28.0	30.2	1.900	7.2	8.0	7.7	ST
55	10/19/94	1545	2803.2	9622.1	19	24	12	24	25.8	26.4	26.5	31.1	33.9	34.0	1.234	8.3	7.9	7.8	ST
56	10/19/94	1705	2759.9	9629.8	20	27	14	26	26.1	25.6	26.0	30.7	31.2	25.7	1.121	8.4	8.3	7.9	PN
57	10/19/94	1857	2803.2	9622.2	19	27	14	27	26.4	26.5	26.5	25.3	32.2	34.1	1.885	6.8	7.4	7.4	ST
58	10/19/94	2112	2811.1	9610.9	19	26	13	26	25.6	26.1	26.6	32.2	33.4	34.4	.845	7.0	8.1	7.7	ST
59	10/19/94	2322	2759.9	9559.9	20	46	22	46	26.8	26.8	26.7	33.7	35.1	35.4	.141	5.9	7.8	7.4	PN
60	10/20/94	202	2809.6	9548.0	19	36	18	36	25.6	26.2	26.5	31.3	33.3	34.2	.644	6.6	7.5	7.7	ST
61	10/20/94	326	2803.8	9544.9	19	46	23	45	26.3	26.8	26.8	33.4	35.2	35.9	.430	8.2	8.0	7.7	ST
62	10/20/94	730	2806.5	9604.1	19	33	16	33	26.5	26.4	26.5	33.9	33.9	34.1	.312	8.0	8.1	7.7	ST
63	10/20/94	950	2806.1	9547.0	19	41	20	41	26.0	26.4	26.8	32.5	34.0	35.8	.411	7.3	7.8	7.3	ST
65	10/20/94	1309	2812.3	9538.8	19	38	18	38	26.7	26.8	26.8	29.9	35.0	35.5	.211	4.0	7.6	7.4	ST
66	10/20/94	1623	2758.6	9521.6	20	59	24	58	27.2	26.9	23.6	34.1	35.5	36.8	.157	8.0	7.9	7.3	ST
67	10/20/94	1820	2759.1	9529.1	20	55	27	55	27.1	26.8	26.5	34.6	35.5	35.9	.137	7.1	7.7	7.6	PN
68	10/20/94	2057	2750.2	9526.0	20	94	47	94	27.0	26.7	19.3	33.6	35.9	36.3	.629	8.1	7.2	4.4	ST
69	10/20/94	2342	2745.7	9535.7	20	92	46	92	26.7	26.8	19.4	33.4	35.9	36.4	.144	8.1	7.4	4.6	ST
70	10/21/94	149	2758.9	9534.0	20	52	26	52	26.9	26.8	26.7	34.6	35.6	35.8		7.6	7.5	7.3	ST
72	10/21/94	611	2817.5	9531.0	19	26	13	26	26.5	26.5	25.9	33.9	34.3	26.8	.210	7.1	7.9	7.9	ST
73	10/21/94	910	2829.9	9600.2	19	15	7	15	24.6	24.6	24.7	27.8	27.9	28.1	1.823	8.5	8.5	8.8	PN
74	10/21/94	1214	2834.9	9537.2	19	18	9	18	24.8	24.4	24.5	27.4	28.7	29.1	2.471	9.3	8.6	7.9	ST
75	10/21/94	1351	2829.7	9528.8	19	26	13	26	25.8	25.6	26.0	30.5	31.6	33.4	.530	8.3	8.3	7.3	PN
76	10/21/94	1626	2822.6	9512.8	19	35	18	34	26.4	26.4	26.4	33.1	35.5	34.2	.196	8.1	8.0	7.8	ST
77	10/21/94	1850	2819.2	9515.8	19	38	18	37	26.6	26.7	26.6	33.6	34.3	34.5	.212	7.7	7.9	7.6	ST
78	10/21/94	2142	2826.2	9538.6	19	25	12	25	25.5	26.1	26.5	30.1	33.1	34.0	.262	8.3	7.8	7.6	ST
79	10/21/94	2314	2829.1	9548.0	19	20	10	20	24.5	24.8	25.9	27.1	28.9	32.5	1.869	9.1	8.6	7.4	ST
80	10/22/94	202	2838.6	9532.7	19	16	8	15	25.4	24.3	24.3	24.9	28.1	28.5	1.890	10.5	8.4	7.8	ST
81	10/22/94	337	2839.6	9520.5	19	22	11	22	25.2	24.9	26.0	28.8	29.9	33.0	7.351	9.0	7.7	6.9	ST
82	10/22/94	609	2828.9	9459.8	19	37	17	37	26.5	26.4	26.8	33.3	33.6	35.5	.299	8.0	7.7	7.6	ST/PN
83	10/22/94	841	2833.4	9459.0	18	32	16	32	26.3	26.3	26.8	33.3	33.5	35.3	.374	7.7	7.5	7.4	ST
84	10/22/94	1028	2840.7	9504.1	19	26	13	26	25.9	26.4	26.2	30.2	33.1	33.3	.374	8.1	7.9	7.2	ST
85	10/22/94	1219	2842.9	9503.5	19	24	12	24	25.9	26.2	26.2	30.0	32.9	33.1	.262	8.3	7.7	7.5	ST
86	10/22/94	1359	2839.8	9507.8	19	27	14	27	26.2	26.1	26.5	29.8	33.0	33.8	.802	8.7	7.8	7.7	ST
87	10/22/94	1555	2843.8	9519.1	19	16	8	16	25.7	24.9	25.0	22.3	28.9	29.6	8.473	11.3	8.4	8.1	ST
88	10/22/94	1818	2900.1	9460.0	18	17	10	16	24.3	24.8	25.5	27.8	29.0	29.5	3.073	8.9	8.7	7.9	PN
89	10/22/94	2005	2900.1	9510.0	19	11	6	10	25.5	25.5	24.1	24.9	24.9	25.4	1.254	9.0	9.8	9.8	ST
90	10/22/94	2229	2849.8	9455.7	18	19	9	19	25.7	25.2	26.1	29.5	31.8	32.7	.866	8.1	7.7	7.5	ST
91	10/23/94	143	2910.1	9447.4	18	15	8	15	25.2	23.9	24.3	18.4	26.5	28.3	6.324	10.5	8.0	6.9	ST

Table 2. Selected environmental parameters (continued)

OREGON II, FALL SHRIMP/GROUNDFISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
92	10/23/94	557	2840.1	9413.8	18	33	16	33	26.2	26.2	26.8	33.0	33.4	35.4	.290	8.2	8.0	6.8	ST
94	10/23/94	918	2836.3	9420.1	18	35	17	34	26.4	26.6	26.9	33.1	34.5	35.4	.184	7.6	7.6	7.8	ST
95	10/23/94	1102	2829.9	9430.5	18	38	19	38	26.4	26.5	26.8	32.9	34.6	35.8	.214	7.8	7.2	7.6	PN
96	10/23/94	1335	2816.0	9445.1	18	46	23	46	26.9	27.0	25.2	34.5	35.7	36.2	.215	7.7	7.8	6.5	ST
99	10/23/94	1810	2804.1	9456.3	18	67	33	66	27.2	26.8	22.0	35.4	36.1	36.3		7.8	7.9	6.2	ST
100	10/23/94	1958	2804.0	9454.3	18	60	30	59	27.1	27.0	22.5	35.2	36.1	36.3	.174	7.8	7.9	6.0	ST
101	10/23/94	2100	2800.1	9500.4	19	81	40	81	27.0	26.4	20.5	35.5	35.2	36.4	.054	7.6	8.1	6.0	PN
102	10/23/94	2302	2757.2	9453.3	18	91	45	91	27.1	23.0	19.6	35.2	36.1	36.4	.150	7.1	7.3	5.2	ST
103	10/24/94	318	2758.6	9429.3	18	83	41	83	26.9	27.0	20.9	35.7	36.2	36.4	.068	7.5	7.8	5.9	ST/PN
105	10/24/94	517	2759.4	9426.3	18	93	32	92	26.9	27.0	19.0	35.6	36.2	36.5	.380	7.8	7.8	4.9	ST
106	10/24/94	810	2800.0	9400.0	18	83	40	83	27.0	26.0	20.2	36.1	35.8	36.5	.056	7.4	8.1	6.0	PN
107	10/24/94	1007	2758.4	9349.0	17	100	49	100	27.1	23.9	18.9	35.9	36.3	36.5	.098	7.9	8.7	4.9	ST
108	10/24/94	1415	2801.7	9418.4	18	73	36	73	27.1	26.9	21.1	35.6	36.2	36.4	.274	7.5	7.9	5.5	ST
110	10/24/94	1618	2759.3	9427.3	18	68	34	67	27.2	26.9	20.7	35.2	36.1	36.6	.156	7.7	7.8	6.1	ST
111	10/24/94	1707	2755.4	9426.4	18	118	59	116	27.2	22.0	17.1	35.5	36.3	36.3	.137	7.7	8.2	4.8	ST
112	10/24/94	2020	2803.5	9422.5	18	62	32	62	26.9	26.8	22.4	35.0	36.0	36.3	.143	7.9	7.6	6.2	ST
114	10/25/94	215	2814.1	9346.5	17	65	32	65	26.4	26.8	22.0	33.7	36.3	36.3	.107	7.6	7.8	5.3	ST
117	10/25/94	826	2800.4	9330.0	17	95	47	95	26.6	25.6	18.3	35.3	36.1	36.4	.109	7.8	6.8	4.8	PN
118	10/25/94	1241	2802.5	9406.0	18	73	37	73	27.2	27.1	20.2	36.2	36.2	36.5	.056	7.8	7.9	6.1	ST
120	10/25/94	1716	2829.4	9400.3	18	42	21	41	26.2	26.6	26.4	32.8	35.1	36.4	.206	8.0	6.8	6.9	PN
121	10/25/94	1924	2828.3	9349.8	17	46	23	45	26.0	26.5	26.0	33.7	35.6	36.1	.386	8.2	7.9	4.8	ST
122	10/25/94	2106	2835.3	9346.8	17	34	18	34	26.0	26.0	26.7	32.6	34.3	35.7	.212	7.9	7.2	6.6	ST
124	10/27/94	2040	2918.3	9408.0	18	12	6	12	23.6	23.9	24.1	28.7	29.1	29.7	1.078	6.2	7.2	7.6	ST
125	10/28/94	13	2920.3	9343.8	17	14	7	14	23.5	23.5	24.2	28.5	28.5	29.7	.910	8.7	8.8	8.1	ST
127	10/28/94	406	2935.9	9345.8	17	11	5	10	22.7	22.7	22.8	27.7	26.4	25.6	1.474	6.0	4.9	8.0	ST
128	10/28/94	627	2935.3	9407.8	18	9	4	9	21.6	22.0	23.1	22.7	23.2	24.0	3.136	8.4	8.1	7.1	ST
129	10/28/94	846	2930.0	9359.9	17	12	6	12	22.7	22.8	22.8	27.2	27.2	27.3	1.149	7.9	8.7	8.8	PN
130	10/28/94	1233	2923.2	9433.8	18	11	6	11	22.4	22.4	23.0	17.5	21.1	21.0	3.658	5.1	7.2	8.7	ST
131	10/28/94	1652	2904.6	9413.8	18	17	8	17	24.7	24.7	24.6	26.7	32.0	31.9	2.897	4.5	6.3	7.8	ST
132	10/28/94	1857	2859.9	9430.1	18	18	9	17	24.3	24.5	24.5	30.2	31.6	32.0	1.015	7.6	8.1	8.1	PN
133	10/28/94	2237	2859.8	9359.9	17	20	10	20	24.8	24.8	24.8	32.6	32.6	32.6	2.037	6.3	7.5	8.1	PN
134	10/29/94	152	2840.8	9347.8	17	27	14	27	25.4	25.5	26.5	32.0	34.4	35.6	.467	4.9	6.9	5.6	ST
135	10/29/94	322	2841.2	9339.5	17	30	15	30	25.4	25.4	25.4	34.6	34.6	34.6	.393	7.7	7.8	7.9	ST
136	10/29/94	616	2838.8	9326.9	17	33	16	32	25.5	25.5	25.7	35.1	35.1	35.2	1.371	7.8	7.9	7.5	ST
137	10/29/94	1028	2821.5	9349.8	17	56	28	56	26.1	26.4	23.6	35.9	36.0	36.4	.245	6.5	7.6	6.2	ST
140	10/29/94	1559	2831.2	9331.2	17	39	19	38	25.9	25.6	25.6	32.6	35.3	35.8	.336	6.3	7.9	7.6	ST/PN
142	10/29/94	2135	2840.6	9318.0	17	31	15	30	25.6	25.6	25.6	35.1	35.1	35.4	.823	6.7	7.7	7.7	ST
143	10/30/94	153	2829.4	9259.9	16	48	24	48	25.6	25.6	24.3	35.7	35.7	36.3	.604	6.3	7.8	5.5	ST/PN
147	10/30/94	920	2820.6	9308.0	17	55	27	54	25.7	25.8	24.7	35.7	35.7	36.3		9.7	7.6	5.3	ST
149	10/30/94	1438	2840.4	9311.2	17	32	16	32	25.7	25.5	25.5	35.7	35.7	35.8	.172	6.6	7.3	8.0	ST
150	10/30/94	1715	2846.2	9326.3	17	28	14	27	25.7	25.4	25.4	34.9	34.9	34.9	.542	6.1	6.9	7.9	ST
151	10/30/94	1920	2900.3	9330.0	17	24	12	23	25.1	25.1	25.1	34.3	34.4	34.5	1.009	8.1	8.0	8.1	PN

Table 2. Selected environmental parameters (continued)

OREGON II, FALL SHRIMP/GROUNDFISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M³ SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
152	10/30/94	2151	2858.2	9338.8	17	22	10	21	24.1	24.6	24.8	31.4	32.0	33.5	.803	7.3	7.6	7.6	ST
153	10/30/94	2342	2911.1	9339.3	17	17	8	17	23.9	23.9	24.0	31.0	31.8	31.9	.699	5.6	5.6	8.2	ST
154	10/31/94	308	2926.2	9329.3	17	13	7	13	23.4	23.5	23.5	29.6	30.1	30.5	.480	5.6	8.2	7.7	ST/PN
155	10/31/94	550	2914.1	9324.8	17	16	8	16	23.7	24.5	24.6	31.5	33.4	33.7	.915	7.2	6.9	7.7	ST
156	10/31/94	822	2901.3	9322.2	17	24	12	23	25.1	25.1	25.2	34.5	34.5	34.6	1.009	7.4	7.9	7.8	ST
157	10/31/94	1039	2859.8	9259.9	16	24	12	23	24.7	24.9	25.0	34.8	34.3	34.7	.449	4.5	7.3	7.7	PN
158	10/31/94	1338	2848.7	9258.3	16	28	14	28	24.9	25.5	25.4	35.1	34.5	35.0	.473	6.7	7.6	7.4	ST
159	10/31/94	1617	2835.1	9253.8	16	37	18	37	25.8	25.6	25.6	35.4	35.4	35.6	.229	5.8	7.7	7.7	ST
160	10/31/94	1721	2839.7	9249.8	16	36	18	35	25.4	25.5	25.5	35.1	35.4	35.4	.492	8.1	7.9	7.7	ST
161	10/31/94	2109	2823.3	9239.5	16	56	27	55	25.6	25.8	22.8	35.9	36.0	36.6	.116	7.8	8.1	6.6	ST
164	11/ 1/94	315	2808.6	9205.0	16	85	43	85	25.6	23.1	19.1	35.8	36.6	36.6	.125	7.9	8.1	4.9	ST/PN
165	11/ 1/94	649	2802.5	9220.0	16	117	58	116	25.4	20.8	17.5	35.9	36.5	36.5	.162	8.1	5.4	5.3	ST
166	11/ 1/94	1251	2759.4	9255.6	16	109	54	108	25.2	21.6	17.4	35.8	36.6	36.5	.139	6.3	5.4	5.1	ST/PN
168	11/ 1/94	1632	2810.6	9246.4	16	71	37	70	25.3	23.4	19.8	35.8	36.7	36.5	.187	8.2	8.2	4.6	ST
169	11/ 1/94	1956	2800.2	9230.2	16	107	53	106	25.2	21.2	17.5	35.8	36.5	36.6	.212	8.3	5.7	5.3	PN
170	11/ 1/94	2239	2806.3	9230.7	16	92	45	91	25.4	22.4	18.1	36.0	36.8	36.5	.355	8.2	8.2	5.0	ST
171	11/ 2/94	240	2830.0	9200.0	16	50	26	49	25.7	25.7	24.5	36.0	36.0	36.5	.125	5.7	8.0	6.9	PN
172	11/ 2/94	603	2829.9	9230.1	16	50	25	49	25.6	25.6	25.3	36.1	36.1	36.2	.393	8.0	8.1	7.6	PN
173	11/ 2/94	842	2816.2	9236.0	16	64	31	63	25.4	24.5	21.0	36.0	36.7	36.6	.098	8.0	8.1	5.9	ST
175	11/ 2/94	1615	2851.1	9233.0	16	31	16	31	25.0	25.1	25.6	34.2	34.7	35.4	.347	6.6	8.1	7.1	ST
176	11/ 2/94	1832	2848.0	9241.0	16	30	15	30	25.2	25.1	25.3	35.0	35.1	35.4	.723	8.3	8.0	7.7	ST
177	11/ 2/94	2109	2859.9	9230.4	16	25	12	24	24.5	24.6	25.1	33.2	33.3	34.9	.492	8.2	8.3	7.6	PN
178	11/ 2/94	2307	2901.0	9242.7	16	25	12	24	24.4	24.4	24.8	33.3	33.3	33.6	.548	6.5	8.3	7.9	ST
179	11/ 3/94	321	2929.9	9260.0	16	14	7	13	22.6	22.6	23.6	29.3	29.3	31.6	2.819	9.1	9.4	6.3	PN
180	11/ 3/94	727	2923.7	9242.1	16	15	8	14	22.2	22.7	24.4	28.7	29.0	32.6	3.400	9.7	8.5	6.4	ST
181	11/ 3/94	1030	2928.8	9229.9	16	9	4	8	21.2	21.5	23.0	25.6	26.0	30.7	5.514	9.7	9.4	4.3	ST
182	11/ 3/94	1249	2916.6	9232.8	16	15	8	14	23.0	23.0	23.5	31.6	31.9	32.3	1.371	9.1	8.9	8.5	ST
183	11/ 3/94	1552	2905.9	9215.2	16	17	8	15	24.2	24.2	24.0	32.2	32.2	32.4	.672	7.8	8.4	8.2	ST
184	11/ 3/94	1649	2901.0	9214.5	16	22	11	22	24.7	24.6	25.0	33.4	33.5	34.4	.530	8.7	8.6	7.2	ST
185	11/ 3/94	1849	2902.9	9215.9	16	21	11	19	24.8	24.8	24.5	33.6	33.6	33.8	.349	7.3	8.3	8.3	ST
186	11/ 3/94	2032	2900.5	9211.6	16	22	10	21	24.6	24.6	25.0	33.3	33.3	34.2	.517	6.8	8.1	7.1	ST
187	11/ 3/94	2313	2909.1	9157.6	15	9	4	8	23.3	23.3	23.2	31.5	31.5	31.5	1.244	8.2	8.2	8.5	ST
188	11/ 4/94	101	2902.5	9156.9	15	17	8	17	23.4	23.4	23.2	28.9	31.6	31.7	1.319	6.0	8.3	8.4	ST
189	11/ 4/94	355	2858.8	9144.8	15	17	8	16	22.7	22.7	22.7	31.0	31.0	31.0	2.741	8.5	8.7	8.7	ST
190	11/ 4/94	723	2857.4	9144.1	15	18	9	16	22.9	22.9	22.9	31.2	31.2	31.2	1.695	6.7	8.5	8.6	ST
191	11/ 4/94	1033	2859.6	9201.9	16	20	10	19	23.9	23.9	24.6	32.0	32.2	33.2	.667	7.1	8.2	8.1	ST/PN
192	11/ 4/94	1236	2908.8	9208.0	16	11	5	10	23.4	23.4	23.3	32.6	31.8	31.6	1.573	4.9	5.1	8.2	ST
193	11/ 4/94	1432	2858.9	9212.3	16	24	12	24	24.4	24.3	24.7	31.9	32.8	33.7	.365	4.9	7.9	7.7	ST
194	11/ 4/94	1638	2845.8	9211.2	16	35	17	34	25.5	25.4	25.4	35.9	35.9	36.0	.482	6.4	7.9	7.8	ST
195	11/ 4/94	1951	2845.2	9148.3	15	29	14	28	24.3	24.5	25.3	33.0	33.5	34.8	.449	8.0	8.4	7.5	ST
196	11/ 4/94	2239	2832.3	9143.8	15	46	22	45	25.3	25.5	25.4	35.0	36.2	36.3	.169	5.6	7.9	7.8	ST
198	11/ 5/94	333	2830.5	9129.2	15	46	23	45	25.5	25.5	25.5	36.1	36.2	36.2		6.1	7.8	7.8	ST/PN

Table 2. Selected environmental parameters (continued)

OREGON II, FALL SHRIMP/GROUNDFISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
199	11/ 5/94	708	2900.0	9129.9	15	11	6	10	23.4	23.4	23.4	30.6	30.7	30.7	1.346	6.7	7.2	8.1	PN
200	11/ 5/94	938	2846.9	9136.0	15	24	11	23	23.8	23.8	25.0	31.9	31.9	33.3	1.050	7.7	8.1	7.1	ST
201	11/ 5/94	1202	2841.0	9142.0	15	31	15	30	24.5	24.3	25.2	33.2	33.4	35.5	.771	6.5	8.0	7.3	ST
202	11/ 5/94	1432	2834.9	9129.4	15	36	18	35	25.6	25.3	25.4	35.8	35.8	35.9	.401	6.6	7.9	7.5	ST
204	11/ 5/94	1748	2827.3	9141.3	15	55	27	55	25.8	25.5	25.1	36.2	36.2	36.4	.125	7.7	8.1	7.3	ST
205	11/ 5/94	2025	2820.8	9138.6	15	65	33	64	26.0	25.7	21.8	36.2	36.2	36.7	.436	7.2	8.0	6.6	ST
208	11/ 6/94	27	2810.9	9137.0	15	84	42	83	26.2	26.1	19.0	32.6	36.3	36.8	.095	5.7	8.0	5.2	ST
209	11/ 6/94	208	2806.1	9131.0	15	117	58	116	26.1	22.2	16.8	36.3	36.7	36.6	.304	6.6	8.1	5.1	ST
210	11/ 6/94	430	2800.0	9130.0	15	162	81	160	25.8	19.7	15.9	36.2	36.8	36.5	.107	6.5	5.9	5.3	PN
211	11/ 6/94	847	2812.9	9109.3	15	81	40	80	25.4	25.4	18.2	35.8	36.3	36.8	.229	6.2	7.9	4.6	ST
212	11/ 6/94	1108	2819.7	9114.9	15	63	31	62	25.3	25.2	20.2	36.1	36.4	36.8	.280	7.3	7.5	4.0	ST
213	11/ 6/94	1348	2833.4	9115.3	15	32	16	32	24.5	25.1	25.4	35.5	35.7	36.1	.727	5.7	7.7	7.5	ST
214	11/ 6/94	1543	2838.7	9118.1	15	24	12	23	24.3	24.7	25.1	33.8	34.7	35.4	.966	6.5	7.9	7.5	ST
215	11/ 6/94	1643	2840.3	9113.0	15	20	10	20	24.3	24.3	24.4	33.1	33.5	34.4	.729	7.9	8.2	7.7	ST
216	11/ 6/94	1945	2845.9	9103.6	15	11	6	11	24.4	24.4	24.4	33.9	33.9	33.9	.819	7.3	8.0	8.1	ST
217	11/ 6/94	2218	2836.2	9108.0	15	24	11	23	24.5	24.5	25.2	34.7	34.6	34.9	.584	7.8	8.3	7.8	ST
218	11/ 6/94	2336	2830.0	9100.1	15	33	16	32	25.4	25.4	25.5	34.7	35.8	35.9	.324	5.9	7.5	7.5	PN
219	11/ 7/94	126	2828.1	9054.8	14	37	18	36	25.4	25.4	25.5	35.8	35.9	36.0	.251	7.4	7.8	7.6	ST
220	11/ 7/94	506	2812.4	9024.0	14	97	49	96	25.5	23.2	17.5	36.2	36.5	36.6	.143	6.8	6.6	5.1	ST
221	11/ 7/94	734	2810.4	9036.1	14	91	45	90	25.4	22.9	17.5	36.1	36.8	36.7	.436	7.8	7.6	5.0	ST
222	11/ 7/94	1101	2814.1	9050.1	14	73	36	72	25.4	25.4	18.2	25.5	24.4	36.6	.149	8.1	6.8	7.2	ST
224	11/ 7/94	1518	2828.1	9046.0	14	36	18	35	25.3	25.3	25.4	35.9	35.7	36.1	.312	6.5	7.1	7.2	ST
225	11/ 7/94	1654	2824.1	9034.0	14	45	22	44	25.4	25.4	25.2	35.9	35.9	36.3	.187	7.8	8.0	7.8	ST
226	11/ 7/94	1921	2830.1	9029.5	14	38	19	38	25.3	25.3	24.6	35.7	35.8	36.4	.218	7.5	8.0	5.4	PN
227	11/ 7/94	2220	2846.5	9018.2	14	24	12	23	23.7	24.0	25.3	31.9	32.5	35.5	.660	8.5	7.8	6.8	ST
228	11/ 8/94	53	2846.6	9003.3	14	40	20	39	24.2	25.1	25.1	34.3	35.2	36.1	.210	8.3	8.1	6.6	ST
229	11/ 8/94	222	2855.6	9008.8	14	23	11	22	23.8	24.0	25.1	32.1	33.8	35.5	.888	8.2	8.5	6.9	ST
230	11/ 8/94	445	2854.1	9017.9	14	20	10	20	23.5	23.5	25.2	31.2	31.3	35.4	1.084	6.8	8.4	4.0	ST
231	11/ 8/94	634	2900.1	9030.0	14	11	5	10	22.9	23.0	23.2	29.2	29.3	29.6	1.236	7.8	8.2	8.0	PN
232	11/ 8/94	751	2859.7	9026.1	14	12	5	11	22.9	23.2	23.6	28.7	29.7	31.4	1.308	8.3	8.5	8.3	ST
233	11/ 8/94	957	2855.9	9033.2	14	14	6	13	23.4	23.4	24.0	30.7	31.3	32.4	1.391	5.2	5.8	6.9	ST
234	11/ 8/94	1300	2836.1	9033.0	14	26	13	25	24.8	24.8	25.3	34.1	34.8	35.6	.654	4.2	7.6	7.6	ST
235	11/ 8/94	1545	2846.1	9015.3	14	28	14	27	23.6	24.2	25.2	31.2	33.9	36.2	.813	8.0	8.3	4.5	ST
236	11/ 8/94	1800	2842.1	8951.2	13	95	48	95	24.7	22.9	17.8	34.8	36.7	36.7	.205	8.0	7.0	3.3	ST
237	11/10/94	2041	2859.1	8808.9	11	27	13	26	23.2	23.2	23.4	34.3	34.3	34.5	.407	7.4	8.7	8.5	ST
239	11/11/94	108	2927.4	8828.7	11	54	27	53	23.6	24.5	20.7	34.6	35.6	36.8	.187	8.3	8.1	5.3	ST/PN
240	11/11/94	709	2916.0	8855.7	11	35	17	34	22.1	22.6	23.5	31.6	32.9	34.8	2.139	8.6	7.8	7.1	ST
241	11/11/94	902	2918.9	8851.9	11	40	20	39	22.7	23.0	23.5	31.7	33.6	35.9	.428	6.5	6.3	5.1	ST
242	11/11/94	1116	2924.8	8841.2	11	45	22	44	23.3	24.1	22.2	34.4	34.9	37.7	.417	10.2	9.9	7.4	ST
243	11/11/94	1412	2932.8	8835.9	11	31	13	29	23.0	23.0	23.1	34.0	34.0	34.1	.554	8.2	9.5	9.6	ST
244	11/11/94	1540	2936.6	8834.3	11	29	12	28	23.0	23.0	23.8	34.0	34.0	35.1	.716	7.9	9.7	7.1	ST
245	11/11/94	1708	2938.0	8830.0	11	41	20	40	23.6	23.6	22.5	34.7	34.8	36.5	.249	8.9	9.5	5.2	ST

Table 2. Selected environmental parameters (continued)

OREGON II, FALL SHRIMP/GROUNDFISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
246	11/11/94	1917	2934.2	8834.7	11	34	17	34	23.0	23.0	24.0	34.0	34.0	35.7	.442	9.7	10.0	7.6	ST
247	11/11/94	2213	2936.0	8852.7	11	11	5	10	21.8	21.8	21.8	31.4	31.4	31.4	1.412	10.0	10.2	10.2	ST
248	11/12/94	211	2944.9	8834.3	11	27	11	25	22.6	22.6	23.2	33.6	33.6	34.3	.573	8.1	9.4	8.3	ST
249	11/12/94	451	2959.9	8829.8	11	26	13	25	22.8	22.8	23.4	33.9	33.9	34.7	.405	9.7	9.7	9.4	PN
250	11/12/94	852	3010.7	8847.1	11	12	5	11	21.4	21.4	21.5	31.8	31.2	31.1	1.156	7.9	8.6	8.8	ST
251	11/12/94	1142	3006.1	8837.9	11	16	7	15	21.6	21.6	22.5	30.7	30.9	32.4	.845	7.7	7.3	9.1	ST
252	11/12/94	1359	3002.4	8827.0	11	22	10	20	22.5	22.6	23.1	33.8	33.9	34.5	.704	8.0	9.6	9.3	ST
253	11/12/94	1425	3001.2	8827.4	11	26	11	24	22.6	22.7	23.0	34.2	34.3	34.6	.922	10.0	10.0	9.7	ST
254	11/12/94	1623	2951.1	8834.8	11	25	13	25	22.3	23.3	23.6	33.9	34.5	35.0	.629	9.8	9.0	9.0	ST
255	11/12/94	2038	3003.7	8844.8	11	15	7	14	21.6	21.6	21.7	33.5	32.2	32.2	.579	7.8	8.3	10.0	ST
256	11/12/94	2340	3008.1	8828.0	11	14	6	13	21.3	21.3	22.8	31.9	31.4	31.9	1.082	7.3	7.5	9.6	ST
257	11/13/94	152	3007.8	8813.0	11	19	9	17	21.3	21.5	22.7	31.9	32.3	33.2	1.018	9.6	10.1	9.1	ST
258	11/13/94	412	3011.1	8825.0	11	12	6	12	20.9	21.0	22.1	30.3	30.9	30.2	1.173	8.6	8.8	9.8	ST
259	11/13/94	536	3006.1	8823.8	11	16	8	15	22.0	22.0	22.1	33.1	33.1	33.1	.890				ST
260	11/13/94	759	2948.9	8827.9	11	32	16	32	22.9	22.9	23.6	34.7	34.8	34.7	.336				ST
261	11/13/94	1907	2901.8	8930.0	13	12	6	12	22.7	22.7	24.0	29.1	30.0	32.0	4.311				ST/PN
262	11/13/94	2048	2856.9	8935.0	13	55	27	54	22.5	24.7	22.5	27.6	34.9	37.0	1.931	11.7	10.7	9.5	ST
263	11/17/94	1454	2943.3	8848.9	11	13	6	13	21.4	21.5	21.6	32.4	32.4	32.5	1.106		6.8	6.7	ST
264	11/17/94	2008	2909.1	8842.0	11	79	39	78	24.4	23.8	17.8	36.3	36.8	36.9	.115	6.2	6.1	2.8	ST
265	11/17/94	2225	2900.2	8859.7	11	72	36	71	20.8	24.3	16.3	32.2	36.2	36.8	2.336	9.3	6.0	2.3	PN
266	11/18/94	418	2854.4	8958.8	13	34	16	33	21.8	23.1	24.8	33.5	32.8	36.0	5.233	3.1	5.9	4.5	ST
267	11/18/94	509	2858.3	8956.2	13	31	16	30	21.9	23.4	24.5	28.4	31.7	36.1	1.967	3.4	5.9	3.4	ST
268	11/18/94	628	2900.1	9000.1	14	24	12	23	21.9	22.5	24.2	29.4	30.0	35.0	5.420	5.7	6.9	4.8	PN
269	11/18/94	755	2904.1	9005.9	14	14	7	13	22.0	22.8	22.9	31.4	31.1	31.2	4.037	4.6	5.1	5.8	ST
270	11/18/94	930	2905.5	9008.1	14	10	5	9	21.8	21.8	22.7	30.3	31.5	30.7	3.738	4.7	4.3	6.5	ST
271	11/18/94	1316	2900.9	8936.9	13	31	16	30	22.1	24.1	25.1	29.8	33.4	36.1	3.894	3.1	5.1	4.8	ST
272	11/18/94	1426	2900.2	8932.8	13	18	9	18	22.1	22.0	24.5	24.0	26.9	33.6	3.006	10.3	3.5	3.8	ST
273	11/18/94	1714	2906.3	8952.7	13	21	10	20	22.0	22.0	24.8	26.1	29.2	35.8	4.598	2.7	7.9	1.9	ST
274	11/18/94	1825	2904.0	8948.7	13	30	15	29	22.0	23.1	25.0	29.4	31.2	36.1	2.064	5.8	5.6	3.6	ST
276	11/19/94	432	2923.6	8819.2	11	54	26	54	22.9	24.1	21.0	31.9	35.8	36.9		4.1	6.3	4.1	ST
277	11/19/94	643	2924.1	8815.0	11	57	28	56	22.9	23.4	21.5	34.8	35.2	36.8	.449	5.5	6.2	2.8	ST
278	11/19/94	904	2916.2	8825.8	11	76	38	75	23.6	24.7	19.8	35.6	36.5	36.9	.199	4.6	6.3	3.6	ST
279	11/19/94	1150	2912.8	8836.0	11	73	36	72	24.5	24.6	18.6	36.6	36.6	37.0	.147	5.5	6.4	3.1	ST
280	11/19/94	1530	2939.9	8841.8	11	18	9	17	21.8	22.0	22.1	27.0	34.4	34.6	.517	2.6	5.9	6.4	ST
281	11/19/94	1746	2949.0	8824.0	11	35	17	35	22.7	22.8	21.7	34.6	35.0	36.7	.505	6.8	6.7	2.7	ST
282	11/19/94	1924	2950.8	8816.7	11	35	17	34	22.4	23.3	23.5	34.6	35.4	35.6	.498	6.7	6.6	5.9	ST
284	11/19/94	2316	2941.2	8806.0	11	38	19	37	22.7	23.1	23.8	34.8	35.0	36.2	.573	4.7	6.2	4.7	ST
285	11/20/94	223	2920.8	8813.9	11	65	33	65	22.9	24.2	19.0	34.9	35.9	37.5	.218	6.3	6.4	3.0	ST
286	11/20/94	419	2930.0	8800.1	11	45	23	45	23.0	22.7	23.2	35.2	35.2	35.6	.349	6.4	6.6	5.7	PN
287	11/20/94	715	2950.5	8805.5	11	34	17	33	22.0	22.8	23.5	34.6	35.1	35.7	.386	6.1	6.3	5.0	ST
288	11/20/94	912	3000.3	8800.3	11	21	11	20	20.9	21.2	22.3	32.2	32.7	34.5	.361	6.9	6.8	6.1	PN

Table 2. Selected environmental parameters (continued)

A.E. VERRILL, FALL SHRIMP/GROUNDFISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
2301	10/24/94	1005	3008.9	8805.1	11	12	6	12	24.1	24.6	25.0	24.0	32.3	33.2		6.6	6.3	5.7	ST
2302	10/24/94	1113	3005.4	8811.8	11	20	10	20	24.3	24.8	25.4	28.2	32.5	34.2		7.2	6.7	6.0	ST
2303	10/24/94	1242	3009.1	8817.3	11	18	9	18	24.3	24.8	25.2	27.4	32.3	33.7		7.3	6.7	6.0	ST
2304	10/24/94	1451	3002.1	8827.1	11	21	11	21	24.9	25.2	25.3	31.1	33.1	34.1		7.0	6.9	6.3	ST
2305	10/24/94	1541	3002.2	8828.0	11	23	12	23	24.9	25.2	25.3	31.1	33.0	34.1		6.9	6.8	6.1	ST
2306	10/24/94	1815	3001.6	8825.2	11	25	13	25	24.9	25.2	25.4	31.5	33.2	34.4		7.0	6.6	6.0	ST
2307	10/24/94	1848	3002.9	8825.0	11	22	11	22	24.9	24.9	25.3	31.4	32.4	34.0		6.9	6.9	6.3	ST
2308	10/24/94	2053	3007.2	8812.9	11	19	10	19	24.5	24.8	25.2	30.5	32.1	33.7		7.1	6.8	6.0	ST

Table 2. Selected environmental parameters (continued)

TOMMY MUNRO, FALL SHRIMP/GROUNDFISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
17001	10/27/94	1919	2902.9	8854.1	11	95	46	92	23.0	26.0	21.0	27.0	35.3	36.4	6.317	7.2	6.0	4.4	ST
17002	10/27/94	2301	2905.3	8854.0	11	72	35	70	22.5	24.9	22.0	26.7	34.3	36.4	5.065	6.9	6.0	6.0	ST
17003	10/28/94	0112	2904.1	8858.8	11	41	20	40	23.1	24.5	25.0	29.1	33.2	34.8	2.486	6.2	6.1	5.9	ST
17004	10/28/94	0302	2907.1	8856.9	11	32	16	31	22.9	22.6	24.9	27.6	32.5	34.2	4.693	6.4	6.6	5.9	ST
17005	10/28/94	0457	2916.1	8857.9	11	24	12	23	22.1	23.7	24.7	28.8	31.8	34.1	1.439	6.3	6.2	5.9	ST
17006	10/28/94	0720	2904.6	8852.9	11	94	46	92	23.8	22.0	18.1	31.9	36.4	36.3	.587	6.4	6.0	4.6	ST
17007	10/28/94	0953	2906.7	8847.8	11	84	41	82	24.0	23.0	23.0	32.7	36.5	36.5	.430	6.2	6.1	6.0	ST
17018	11/12/94	1438	2958.6	8847.9	11	8	4	7	21.3	21.2	21.2	31.0	31.0	31.0	1.757	6.3	6.2	6.2	ST
17019	11/12/94	1731	2953.8	8848.7	11	4	2	3	20.3	20.3	20.4	29.6	29.5	29.4	1.850	7.8	7.7	7.7	ST
17020	11/12/94	1921	3003.0	8850.8	11	7	3	6	21.4	21.2	21.3	31.1	31.1	31.1	1.738	7.5	8.0	8.0	ST
17022	11/13/94	0042	3011.1	8825.8	11	11	6	10	21.3	21.4	21.6	30.3	30.4	30.7	1.159	7.3	7.2	7.2	ST
17023	11/13/94	0309	3013.9	8842.9	11	6	3	5	20.9	20.8	20.8	30.5	30.5	30.5	2.598	7.1	7.0	7.1	ST

Table 2. Selected environmental parameters (continued)

ARANSAS BAY, FALL SHRIMP/GROUNDFISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
31001	11/14/94	0753	2752.3	9657.6	20	12	6	12	22.5	22.5	22.6	27.7	27.7	27.8		7.0	6.9	6.7	ST
31002	11/14/94	0832	2752.6	9655.4	20	15	8	15	22.4	22.7	23.0	27.7	28.1	29.6		6.4	6.4	5.8	ST
31003	11/14/94	0858	2753.4	9654.5	20	15	8	15	22.6	22.6	23.0	28.0	29.7	29.6		7.2	6.9	6.5	ST
31004	11/14/94	0929	2754.7	9655.5	20	13	7	13	22.5	22.6	22.9	27.7	27.9	28.9		7.2	6.9	6.3	ST
31005	11/14/94	0958	2756.5	9656.7	20	10	5	10	22.0	22.1	22.2	26.4	26.4	26.9		7.4	7.3	7.2	ST
31006	11/14/94	1041	2757.7	9651.5	20	14	7	14	22.7	22.6	23.0	27.6	28.0	29.1		7.1	7.0	6.4	ST
31007	11/14/94	1138	2747.3	9654.7	20	21	11	21	22.7	22.8	23.0	27.8	28.7	29.7		7.2	6.9	6.8	ST
31008	11/14/94	1207	2745.5	9655.6	20	21	11	21	23.4	22.7	22.8	28.0	28.7	29.6		7.1	7.2	6.9	ST
31009	11/17/94	0752	2749.5	9702.5	20	10	5	10	21.9	21.9	21.9	27.4	27.3	27.4		6.9	7.0	6.8	ST
31010	11/17/94	0825	2746.7	9704.5	20	9	5	9	21.9	21.9	22.3	27.2	27.1	27.6		7.0	7.0	6.7	ST
31011	11/17/94	0913	2743.4	9656.7	20	22	11	22	22.1	22.1	22.1	27.5	27.5	27.8		6.9	6.8	6.9	ST
31012	11/17/94	0944	2742.7	9659.7	20	20	10	20	22.1	22.1	22.2	27.8	28.1	28.1		7.1	7.1	7.3	ST
31013	11/17/94	1014	2741.4	9659.6	20	21	11	21	22.3	22.1	22.2	27.8	27.8	28.1		7.1	7.1	7.4	ST
31014	11/17/94	1047	2740.6	9702.6	20	18	9	18	22.4	22.2	22.4	27.9	27.9	28.3		7.3	7.1	7.0	ST
31015	11/17/94	1121	2738.4	9700.6	20	22	11	22	22.7	22.3	22.3	29.0	27.8	28.2		7.2	7.1	7.3	ST
31016	11/17/94	1154	2737.7	9704.7	20	18	9	18	22.7	22.3	22.3	28.2	28.6	28.4		7.0	6.9	6.8	ST
33011	11/17/94	1131	2619.8	9707.5	21	17	9	17	23.6	23.5	23.5	29.3	29.4	29.4		5.9	6.0	6.1	ST
33012	11/17/94	1211	2621.9	9708.4	21	17	8	17	23.7	23.6	23.8	29.4	29.5	30.0		6.1	6.1	6.0	ST
33013	11/17/94	1255	2620.8	9711.6	21	10	5	10	23.6	23.4	23.5	29.4	29.5	29.4		6.0	6.1	6.2	ST
33014	11/17/94	1331	2619.6	9710.6	21	14	7	14	23.7	23.6	23.5	29.4	29.6	29.5		5.8	6.0	5.9	ST
33015	11/17/94	1405	2618.7	9710.6	21	13	7	13	23.8	23.6	23.5	29.5	29.5	29.5		5.9	6.1	6.0	ST
33016	11/17/94	1452	2614.7	9710.5	21	8	4	8	23.8	23.8	23.7	29.8	29.7	29.8		6.1	6.1	6.2	ST

Table 2. Selected environmental parameters (continued)

MATAGORDA BAY, FALL SHRIMP/GROUNDFISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
32001	11/14/94	1028	2822.5	9613.5	19	16	8	16	22.6	22.4	22.4	26.9	27.1	27.1		7.6	7.5	7.5	ST
32002	11/14/94	1103	2824.5	9613.6	19	15	8	15	22.5	22.3	22.2	26.8	26.9	27.1		7.5	7.5	7.4	ST
32003	11/14/94	1149	2825.5	9610.4	19	16	8	16	22.6	22.0	21.6	26.6	26.5	26.5		7.6	7.4	7.1	ST
32004	11/14/94	1250	2829.5	9605.5	19	13	6	13	22.7	22.2	21.8	26.4	26.1	26.2		7.5	7.6	7.4	ST
32005	11/14/94	1335	2827.5	9604.5	19	16	8	16	22.9	22.3	22.3	26.3	26.6	29.2		7.5	7.4	7.1	ST
32006	11/14/94	1430	2824.5	9607.5	19	18	9	18	23.0	22.2	22.3	26.1	27.2	28.8		7.4	7.8	7.7	ST
32007	11/14/94	1507	2823.5	9609.5	19	18	9	18	22.8	22.6	22.6	26.8	28.4	27.3		7.6	7.8	7.6	ST
32008	11/14/94	1549	2822.5	9611.5	19	18	9	18	22.4	22.3	21.9	26.1	26.5	29.8		7.8	7.8	7.0	ST
32009	11/18/94	1019	2821.5	9622.5	19	6	3	6	22.6	21.4	22.5	24.3	24.4	25.4		8.8	9.0	8.8	ST
32010	11/18/94	1108	2817.5	9625.5	19	9	5	9	21.9	20.9		25.3	26.9	28.7		8.8	8.8	8.2	ST
32011	11/18/94	1143	2817.5	9626.5	19	8	4	8	20.9	20.8	20.5	25.1	25.9	27.0		8.8	8.3	8.7	ST
32012	11/18/94	1245	2810.5	9624.5	19	22	11	22	23.5	23.7	23.9	32.1	32.9	33.1		7.9	8.2	8.0	ST
32013	11/18/94	1330	2814.5	9622.6	19	20	10	20	20.9	21.2	20.0	30.1	31.9	31.4		8.8	8.4	8.6	ST
32014	11/18/94	1412	2815.5	9620.4	19	20	10	20	20.7	21.4	21.7	30.4	31.8	32.0		8.8	8.7	8.6	ST
32015	11/30/94	1240	2821.4	9613.6	19	18	9	18	20.1	19.7	20.4	29.1	29.2	29.7		7.5	7.1	7.1	ST
32016	11/30/94	1404	2813.8	9617.7	19	23	11	23	20.8	21.4	21.4	32.1	32.2	32.1		7.4	7.0	7.5	ST

Table 2. Selected environmental parameters (continued)

LAGUNA MADRE, FALL SHRIMP/GROUNDFISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
33001	11/ 8/94	0819	2601.7	9707.5	21	12	6	12	25.5	25.5	25.5	31.7	31.7	31.9		7.0	7.1	6.9	ST
33002	11/ 8/94	0935	2605.2	9659.4	21	27	14	27	25.6	25.6	25.6	31.7	31.7	32.6		6.8	6.8	6.8	ST
33003	11/ 8/94	1039	2604.6	9705.5	21	19	10	19	25.6	25.6	25.6	31.9	32.0	32.3		6.6	6.8	6.9	ST
33004	11/ 8/94	1117	2605.8	9705.5	21	18	9	18	25.6	25.6	25.6	32.0	32.0	31.9		6.7	6.7	6.8	ST
33005	11/ 8/94	1151	2607.6	9705.5	21	18	9	18	25.7	25.7	25.7	31.9	32.0	32.5		6.9	7.0	7.0	ST
33006	11/ 8/94	1240	2608.7	9702.3	21	22	11	22	25.8	25.7	25.7	32.0	32.1	32.0		7.0	7.1	7.2	ST
33007	11/ 8/94	1313	2609.8	9702.3	21	22	11	22	25.8	25.8	25.8	32.1	32.0	32.2		7.1	7.2	7.2	ST
33008	11/ 8/94	1406	2611.6	9707.7	21	16	8	16	25.7	25.7	25.7	31.9	31.9	32.2		7.1	7.2	7.2	ST
33009	11/17/94	1003	2615.7	9702.6	21	21	11	21	23.0	23.7	23.8	29.6	30.9	31.1		6.4	6.0	6.0	ST
33010	11/17/94	1058	2618.8	9707.6	21	17	9	17	23.6	23.5	23.5	29.4	29.4	29.5		6.1	6.2	6.1	ST

Table 2. Selected environmental parameters (continued)

GALVESTON BAY, FALL SHRIMP/GROUNDFISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M³ SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
34001	11/ 8/94	0849	2923.2	9439.3	18	8	4	8	22.4	22.4	22.4	25.1	25.0	25.1		7.2	7.3	6.7	ST
34002	11/ 8/94	0940	2928.8	9430.8	18	7	4	7	22.3	22.2	22.4	24.4	25.2	24.8		6.4	5.9	6.7	ST
34003	11/ 8/94	1012	2925.5	9431.6	18	11	6	11	22.6	22.3	22.5	25.9	26.2	26.3		6.5	6.3	6.0	ST
34004	11/ 8/94	1041	2922.5	9433.4	18	11	6	11	22.6	22.3	22.5	26.6	26.7	27.0		6.3	6.3	6.2	ST
34005	11/ 8/94	1124	2922.6	9431.8	18	13	7	13	22.8	22.5	22.8	26.9	26.9	27.0		6.3	6.0	4.7	ST
34006	11/ 8/94	1145	2921.6	9431.6	18	13	7	13	22.7	22.5	22.9	26.8	26.4	26.5		6.4	6.3	6.1	ST
34007	11/ 8/94	1205	2920.7	9431.6	18	13	7	13	22.8	22.5	22.9	26.5	26.5	26.8		6.3	6.2	4.5	ST
34008	11/ 8/94	1231	2920.9	9433.4	18	13	7	13	22.8	22.6	22.9	26.5	26.3	26.4		6.2	6.2	6.0	ST
34009	11/18/94	1055	2921.6	9439.1	18	9	5	9	21.6	21.2	21.3	25.4	26.7	26.7		5.1	5.0	4.8	ST
34010	11/18/94	1117	2919.3	9442.6	18	7	4	7	21.4	21.3	21.3	25.4	26.7	28.1		5.0	5.2	5.2	ST
34011	11/18/94	1138	2918.8	9440.5	18	9	5	9	21.4	21.3	21.3	25.4	26.7	28.2		5.2	5.2	5.4	ST
34012	11/18/94	1231	2911.4	9448.7	18	13	7	13	22.2	22.0	22.0	26.7	26.7	27.8		5.2	5.1	5.0	ST
34013	11/18/94	1259	2910.3	9448.4	18		7	13	22.2	22.0	22.0	26.7	26.7	27.8		5.4	5.1	5.0	ST
34014	11/18/94	1324	2909.9	9449.7	18	15	8	15	22.3	22.1	22.1	26.6	26.7	27.8		5.2	5.0	5.6	ST
34015	11/18/94	1354	2907.6	9446.6	18	17	9	17	22.3	22.1	22.1	25.4	27.6	27.2		5.6	5.2	5.2	ST
34016	11/18/94	1431	2909.5	9444.7	18	17	9	17	21.8	21.8	21.7	25.4	27.7	27.3		5.5	5.4	5.3	ST

Table 2. Selected environmental parameters (continued)

SABINE, FALL SHRIMP/GROUNDFISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
40001	11/ 7/94	0758	2935.6	9353.9	17	6	3	6	22.0	22.0	22.0	25.2	25.2	25.5		7.4	7.4	7.3	ST
40002	11/ 7/94	0836	2936.5	9356.6	17	6	3	6	21.9	21.9	22.0	24.8	24.6	25.2		7.1	7.0	6.5	ST
40003	11/ 7/94	0914	2937.3	9354.9	17	5	2	5	21.9	21.9	22.2	24.1	25.3	25.5		7.1	7.0	6.3	ST
40004	11/ 7/94	0949	2939.6	9355.4	17	2	1	2	21.6	21.7	22.6	21.9	22.2	23.2		7.1	7.0	6.2	ST
40005	11/ 7/94	1049	2937.4	9403.7	18	6	3	6	22.0	22.0	21.9	22.8	22.8	25.2		7.1	7.3	7.2	ST
40006	11/ 7/94	1135	2934.6	9359.7	17	8	4	8	22.2	22.2	22.2	26.0	26.1	26.9		7.0	6.8	6.9	ST
40007	11/ 7/94	1258	2937.5	9346.3	17	8	4	8	22.3	22.3	22.2	25.1	25.2	25.8		8.0	7.9	7.5	ST
40008	11/ 7/94	1334	2935.4	9346.5	17	10	5	10	22.6	22.5	22.5	25.9	26.5	26.4		7.7	7.7	7.4	ST
40009	11/18/94	0753	2941.5	9345.5	17	6	3	6	21.1	21.1	21.1	26.9	26.9	27.0		7.1	7.1	7.0	ST
40010	11/18/94	0832	2940.5	9341.5	17	8	4	8	21.2	21.2	21.2	27.6	27.5	27.5		7.4	7.5	7.5	ST
40011	11/18/94	0915	2940.5	9338.5	17	8	4	8	21.1	21.1	21.5	27.5	27.5	27.5		7.5	7.4	7.2	ST
40012	11/18/94	0958	2937.5	9335.5	17	10	5	10	21.2	21.2	21.3	27.4	27.4	28.5		7.5	7.6	7.2	ST
40013	11/18/94	1025	2937.5	9338.4	17	9	4	9	21.2	21.2	21.2	27.4	27.3	27.4		7.5	7.6	7.6	ST
40014	11/18/94	1100	2936.5	9339.5	17	10	5	10	21.4	21.4	21.7	27.6	27.6	28.3		7.5	7.3	5.9	ST
40015	11/18/94	1130	2936.6	9340.3	17	10	5	10	21.4	21.4	21.3	27.7	27.7	27.6		7.6	7.6	7.4	ST
40016	11/18/94	1208	2936.5	9344.4	17	9	4	9	21.4	21.4	21.4	28.2	28.2	28.2		7.5	7.5	7.5	ST

Table 2. Selected environmental parameters (continued)

LUMCON PELICAN, FALL SHRIMP/GROUNDFISH SURVEY

STA#	DATE MM/DD/YY	TIME	POSITION LAT	POSITION LONG	STAT ZONE	DEPTH (M)	SAMPLE DEPTHS (M) MID	SAMPLE DEPTHS (M) MAX	TEMPERATURE,C° SUR	TEMPERATURE,C° MID	TEMPERATURE,C° MAX	SALINITY,PPT SUR	SALINITY,PPT MID	SALINITY,PPT MAX	CL, MG/M^3 SUR	DISSOLVED OXYGEN,PPM SUR	DISSOLVED OXYGEN,PPM MID	DISSOLVED OXYGEN,PPM MAX	GEAR
37226	11/28/94	1645	2836.4	9029.3	14	37	14	37	23.7	23.7	23.7	35.3	35.3	35.3	.541	7.6	7.2	7.0	ST
37227	11/28/94	2004	2836.4	9029.2	14	27	14	27	23.7	23.7	23.7	35.3	35.3	35.3	.534	8.0	8.0	8.0	ST
37228	11/29/94	0553	2835.2	9042.5	14	18	9	18	23.8	23.8	23.8	35.3	35.3	35.3	.909	7.9	7.2	7.9	ST
37229	11/29/94	0804	2834.9	9043.0	14	18	10	18	23.8	23.8	23.8	35.3	35.3	35.3	.767	7.5	7.8	8.1	ST
37230	11/29/94	1442	2859.9	9015.8	14	13	8	13	21.1	21.5	22.6	29.2	29.5	31.7	5.759	8.9	8.9	7.6	ST
37231	11/29/94	1816	2900.0	9015.8	14	14	7	14	21.4	21.5	22.5	29.4	29.5	31.3	5.570	8.4	8.6	7.1	ST
37232	11/29/94	2145	2900.4	8952.9	13	21	9	21	21.5	21.5	23.0	29.3	29.3	32.4	5.116	8.3	8.4	7.2	ST
37233	11/29/94	2308	2903.9	8953.6	13	20	11	20	21.6	21.5	21.8	29.4	29.4	28.9	3.699	8.3	8.0	8.0	ST
37234	11/30/94	0037	2901.2	8949.2	13	34	17	34	21.2	22.0	24.1	28.2	30.0	36.0	6.998	8.1	7.7	4.6	ST
37235	11/30/94	0400	2908.0	8930.4	13	9	5	9	21.9	21.7	23.8	16.0	17.9	17.3	4.010	6.8	6.8	4.8	ST
37236	11/30/94	0752	2908.1	8930.5	13	9	5	9	21.9	22.0	24.1	18.1	18.6	17.6	3.733	7.1	6.7	5.9	ST
37237	11/30/94	1100	2906.6	8952.7	13	21	10	21	21.2	21.3	23.5	22.5	22.6	22.9	3.021	8.0	8.2	5.3	ST
37238	11/30/94	1215	2903.5	8953.5	13	25	13	25	21.3	21.6	24.2	29.4	29.8	34.4	4.898	8.6	8.6	4.6	ST
37239	11/30/94	1343	2901.1	8949.2	13	33	17	33	21.2	22.1	23.9	29.1	30.5	36.1	6.736	8.5	7.5	4.1	ST
37240	11/30/94	1520	2859.9	9000.2	14	25	12	25	21.4	21.5	23.2	29.4	29.5	32.8	5.448	8.5	8.1	6.6	PN
37241	11/30/94	2049	2850.0	9050.9	14	15	7	15	21.4	21.4	21.8	31.2	31.3	32.2	4.045	8.5	8.7	7.8	ST
37242	11/30/94	2353	2845.0	9112.8	15	13	7	13	21.6	21.6	21.7	33.6	33.6	33.6	3.092	7.9	7.9	7.8	ST
37243	12/ 1/94	0733	2900.1	9130.1	15	10	6	10	18.8	18.8	18.8	29.9	29.9	29.9	3.032	8.9	8.0	8.3	PN
37244	12/ 1/94	1123	2844.8	9112.8	15	14	8	14	21.4	21.4	21.4	32.9	32.9	33.0	6.995	8.4	8.2	8.0	ST
37245	12/ 1/94	1507	2849.9	9050.8	14	16	8	16	21.1	21.1	21.1	30.6	30.6	30.6	7.104	8.6	8.7	8.7	ST
37246	12/ 1/94	1833	2900.6	9032.5	14	10	5	10	20.0	20.0	20.1	29.4	29.4	28.4	2.094	7.7	7.5	7.0	ST
37247	12/ 2/94	0730	2900.1	9100.1	15	6	4	6	18.8	18.8	18.8	29.7	29.6	29.6	3.947	8.6	8.0	7.8	PN
37248	12/ 2/94	1113	2900.1	9030.2	14	10	6	10	19.2	19.2	19.4	28.9	29.0	29.3	2.992	9.1	8.8	9.0	PN
37249	12/ 2/94	1213	2900.5	9032.7	14	10	5	10	19.5	19.5	19.5	29.4	29.4	29.4	3.653	8.7	8.7	8.2	ST

Table 3. 1994 Spring Louisiana Trawl Survey species composition list, 24 trawl stations, for those vessels that used a 40-ft. trawl. Species with a total weight of less than 0.0227 kg (0.05 lb) are indicated on the table as 0.0 kg.

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	% FREQUENCY OF OCCURRENCE
Finfishes					
Micropogonias undulatus	Atlantic croaker	7394	345.9	16	66.7
Cynoscion nothus	silver seatrout	1394	32.5	12	50.0
Etropus crossotus	fringed flounder	1083	12.1	22	91.7
Anchoa hepsetus	striped anchovy	934	3.7	9	37.5
Prionotus longispinosus	bigeye searobin	789	12.7	24	100.0
Brevoortia patronus	gulf menhaden	778	37.0	3	12.5
Sphoeroides parvus	least puffer	743	5.9	15	62.5
Syacium gunteri	shoal flounder	513	5.6	16	66.7
Symphurus plagiusa	blackcheek tonguefish	480	9.2	17	70.8
Trichiurus lepturus	Atlantic cutlassfish	427	11.9	12	50.0
Cynoscion arenarius	sand seatrout	374	33.7	18	75.0
Synodus foetens	inshore lizardfish	301	12.9	14	58.3
Lepophidium brevibarbe	blackedge cusk-eel	230	4.0	12	50.0
Arius felis	hardhead catfish	229	65.4	15	62.5
Centropristis philadelphica	rock sea bass	220	6.8	18	75.0
Prionotus tribulus	bighead searobin	211	2.4	11	45.8
Urophycis floridana	southern hake	205	9.5	19	79.2
Anchoviella perfasciata	flat anchovy	195	4.1	5	20.8
Halieutichthys aculeatus	pancake batfish	185	1.0	11	45.8
Diplectrum bivittatum	dwarf sand perch	181	4.5	10	41.7
Bollmannia communis	ragged goby	174	.7	8	33.3
Etrumeus teres	round herring	150	3.7	5	20.8
Anchoa mitchilli	bay anchovy	110	.4	3	12.5
Prionotus stearnsi	shortwing searobin	101	.3	5	20.8
Chaetodipterus faber	Atlantic spadefish	97	.7	5	20.8
Leiostomus xanthurus	spot	94	7.2	5	20.8
Larimus fasciatus	banded drum	62	1.1	6	25.0
Peprilus burti	gulf butterfish	59	3.6	7	29.2
Antennarius radiosus	singlespot frogfish	53	.1	8	33.3
Chloroscombrus chrysurus	Atlantic bumper	44	.8	3	12.5
Monacanthus hispidus	planehead filefish	35	.5	7	29.2
Stellifer lanceolatus	star drum	34	1.0	6	25.0
Cyclopsetta chittendeni	Mexican flounder	31	.3	4	16.7
Saurida brasiliensis	largescale lizardfish	26	.2	5	20.8
Trachurus lathami	rough scad	18	.2	2	8.3

Table 3. Species composition list (continued)

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	% FREQUENCY OF OCCURRENCE
Lutjanus synagris	lane snapper	18	.8	5	20.8
Sardinella aurita	Spanish sardine	17	1.2	2	8.3
Porichthys plectrodon	Atlantic midshipman	17	.4	4	16.7
Menticirrhus littoralis	gulf kingfish	15	2.2	3	12.5
Citharichthys macrops	spotted whiff	13	.1	6	25.0
Citharichthys spilopterus	bay whiff	11	.1	4	16.7
Gymnothorax nigromarginatus	blackedge moray	10	.8	3	12.5
Serranus atrobranchus	blackear bass	10	.1	2	8.3
Opisthonema oglinum	Atlantic thread herring	9	.8	1	4.2
Scorpaena calcarata	smoothhead scorpionfish	9	.1	3	12.5
Menticirrhus americanus	southern kingfish	9	1.4	4	16.7
Dorosoma petenense	threadfin shad	8	.6	1	4.2
Myrophis punctatus	speckled worm eel	8	1.7	3	12.5
Peprilus alepidotus	harvestfish	7	.9	3	12.5
Harengula jaguana	scaled sardine	6	.4	1	4.2
Pristipomoides aquilonaris	wenchman	6	.1	2	8.3
Scomberomorus maculatus	Spanish mackerel	5	1.4	3	12.5
Archosargus probatocephalus	sheepshead	4	4.4	1	4.2
Balistes capriscus	gray triggerfish	4	1.8	1	4.2
Anchoa nasuta	longnose anchovy	3	.1	2	8.3
Ophichthus gomesi	shrimp eel	3	.4	2	8.3
Stenotomus caprinus	longspine porgy	3	.0	1	4.2
Paralichthys lethostigma	southern flounder	3	.9	1	4.2
Bagre marinus	gafftopsail catfish	2	.1	2	8.3
Rachycentron canadum	cobia	2	16.0	1	4.2
Eucinostomus argenteus	spotfin mojarra	2	.0	1	4.2
Lagodon rhomboides	pinfish	2	.1	2	8.3
Brotula barbata	bearded brotula	2	.4	1	4.2
Hoplunnis macrurus	freckled pike-conger	1	.0	1	4.2
Fistularia tabacaria	bluespotted cornetfish	1	.0	1	4.2
Syngnathus louisianae	chain pipefish	1	.0	1	4.2
Sphyraena guachancho	guaguanche	1	.1	1	4.2
Bairdiella chrysoura	silver perch	1	.0	1	4.2
Pogonias cromis	black drum	1	13.5	1	4.2
Upeneus parvus	dwarf goatfish	1	.0	1	4.2
Astroscopus y-graecum	southern stargazer	1	.0	1	4.2
Ogcocephalus radiatus	polka-dot batfish	1	.0	1	4.2

Table 3. Species composition list (continued)

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	%FREQUENCY OF OCCURRENCE
Crustaceans					
Trachypenaeus similis	roughback shrimp	18114	66.6	24	100.0
Squilla empusa	mantis shrimp	14472	149.5	24	100.0
Portunus gibbesii	irridescent swimming crab	3362	22.2	23	95.8
Sicyonia dorsalis	lesser rock shrimp	3207	9.3	18	75.0
Trachypenaeus constrictus	roughneck shrimp	2309	9.8	11	45.8
Callinectes similis	lesser blue crab	2022	35.4	23	95.8
Sicyonia brevirostris	brown rock shrimp	982	5.8	9	37.5
Portunus spinicarpus	longspine swimming crab	119	1.1	6	25.0
Squilla chydaea	mantis shrimp	109	.3	5	20.8
Penaeus aztecus	brown shrimp	94	2.6	14	58.3
Penaeus setiferus	white shrimp	72	3.1	22	91.7
Portunus spinimanus	blotched swimming crab	54	.9	4	16.7
Libinia emarginata	portly spider crab	36	6.1	8	33.3
Calappa sulcata	yellow box crab	26	5.8	12	50.0
Ovalipes floridanus	Florida lady crab	22	.1	5	20.8
Ovalipes stephensoni	coarsehand lady crab	15	.0	5	20.8
Hepatus epheliticus	calico crab	12	.1	5	20.8
Persephona mediterranea	mottled purse crab	11	.0	3	12.5
Callinectes sapidus	blue crab	11	1.7	5	20.8
Libinia dubia	longnose spider crab	9	.2	3	12.5
Speocarcinus carolinensis	Carolinian squareback crab	7	.0	2	8.3
Penaeus duorarum	pink shrimp	4	.1	3	12.5
Others					
Lolliguncula brevis	Atlantic brief squid	2831	22.0	22	91.7
Loligo pealeii	longfin squid	90	2.5	9	37.5

Table 4a
Statistical Zone 13
40-ft trawls

Summary of dominant organisms taken in statistical zone 13 during the 1994 Spring Louisiana Trawl Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken. No trawl samples were taken in depths less than 6 fm or greater than 20 fm.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Trachypenaeus similis	.0	.00	.0	.00	0	543.0	541.00	1.1	1.14	2	2024.0	1060.31	9.3	5.65	4
Squilla spp.	.0	.00	.0	.00	0	448.0	428.00	4.1	4.00	2	936.3	411.05	10.8	4.74	4
Trachypenaeus constrictus	.0	.00	.0	.00	0	.0	.00	.0	.00	2	310.5	229.50	1.8	1.36	4
Callinectes similis	.0	.00	.0	.00	0	7.0	5.00	.0	.05	2	260.8	135.90	7.0	3.72	4
Portunus gibbesii	.0	.00	.0	.00	0	16.0	16.00	.0	.05	2	179.0	81.10	1.3	.68	4
Sicyonia dorsalis	.0	.00	.0	.00	0	14.0	14.00	.0	.00	2	305.0	145.68	.9	.40	4
Micropogonias undulatus	.0	.00	.0	.00	0	133.0	121.00	1.3	1.23	2	2856.0	2434.64	159.5	136.59	4
Syacium gunteri	.0	.00	.0	.00	0	61.0	11.00	.6	.00	2	141.0	53.57	1.5	.58	4
Cynoscion nothus	.0	.00	.0	.00	0	49.0	29.00	1.4	.82	2	80.0	48.99	3.1	2.16	4
Cynoscion arenarius	.0	.00	.0	.00	0	2.0	2.00	.1	.09	2	71.3	38.35	8.8	5.40	4
Lepophidium brevibarbe	.0	.00	.0	.00	0	14.0	14.00	.2	.23	2	77.0	46.57	1.3	.85	4
Trichiurus lepturus	.0	.00	.0	.00	0	.0	.00	.0	.00	2	106.8	63.05	3.0	1.75	4
Etropus crossotus	.0	.00	.0	.00	0	13.0	7.00	.1	.05	2	73.3	40.83	1.3	.79	4
Sphoeroides parvus	.0	.00	.0	.00	0	71.0	61.00	.3	.23	2	.0	.00	.0	.00	4
Squid	.0	.00	.0	.00	0	799.0	171.00	8.8	1.86	2	192.8	139.12	1.7	1.10	4

Table 4b
Statistical Zone 13
40-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Spring Louisiana Trawl Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm. No trawl samples were taken in depths less than 6 fm or greater than 20 fm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	.0	.00	0	45.9	9.55	2	222.5	136.73	4	.0	.00	0	.0	.00	0	.0	.00	0
Total finfish kg	.0	.00	0	30.9	17.27	2	189.1	140.88	4	.0	.00	0	.0	.00	0	.0	.00	0
Total crustacean kg	.0	.00	0	5.9	5.91	2	32.0	14.43	4	.0	.00	0	.0	.00	0	.0	.00	0
Total others kg	.0	.00	0	9.1	1.82	2	1.4	1.08	4	.0	.00	0	.0	.00	0	.0	.00	0
Surface temperature	17.9	.00	1	19.2	.02	2	18.2	.24	4	.0	.00	0	.0	.00	0	.0	.00	0
Midwater temperature	18.5	.00	1	19.6	.02	2	19.6	.44	4	.0	.00	0	.0	.00	0	.0	.00	0
Bottom temperature	20.0	.00	1	19.8	.06	2	19.6	.08	4	.0	.00	0	.0	.00	0	.0	.00	0
Surface salinity	15.9	.00	1	21.5	.56	2	20.0	.62	4	.0	.00	0	.0	.00	0	.0	.00	0
Midwater salinity	18.7	.00	1	23.8	.61	2	30.8	1.52	4	.0	.00	0	.0	.00	0	.0	.00	0
Bottom salinity	28.6	.00	1	35.0	.39	2	36.1	.06	4	.0	.00	0	.0	.00	0	.0	.00	0
Surface chlorophyll	8.7	.00	1	14.4	1.02	2	8.4	1.05	4	.0	.00	0	.0	.00	0	.0	.00	0
Midwater chlorophyll	9.6	.00	1	10.1	2.03	2	1.3	.31	4	.0	.00	0	.0	.00	0	.0	.00	0
Bottom chlorophyll	3.5	.00	1	1.5	.31	2	1.0	.21	4	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	11.1	.00	1	11.1	.50	2	10.6	.09	4	.0	.00	0	.0	.00	0	.0	.00	0
Midwater oxygen	10.7	.00	1	9.8	.55	2	8.0	.29	4	.0	.00	0	.0	.00	0	.0	.00	0
Bottom oxygen	8.4	.00	1	4.4	.70	2	6.2	.28	4	.0	.00	0	.0	.00	0	.0	.00	0

Table 5a
Statistical Zone 14
40-ft trawls

Summary of dominant organisms taken in statistical zone 14 during the 1994 Spring Louisiana Trawl Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken. No trawl samples were taken in depths greater than 20 fm.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Squilla spp.	230.3	119.74	2.6	1.18	2	2387.6	1375.48	21.1	12.26	4	1697.5	986.92	20.8	12.21	8
Trachypenaeus similis	76.5	10.18	.1	.00	2	913.2	414.05	1.9	.85	4	1292.7	621.45	5.8	2.59	8
Portunus gibbesii	33.2	26.84	.2	.15	2	235.0	143.05	1.2	.78	4	793.1	221.05	5.7	1.50	8
Trachypenaeus constrictus	100.4	3.77	.1	.00	2	351.2	309.15	.7	.62	4	225.0	168.11	1.1	.76	8
Sicyonia brevirostris	.0	.00	.0	.00	2	2.7	2.68	.0	.02	4	437.2	251.26	2.6	1.18	8
Callinectes similis	48.2	41.84	.3	.30	2	357.7	190.42	4.5	2.40	4	71.4	44.61	2.4	1.51	8
Micropogonias undulatus	21.2	5.44	.6	.02	2	801.0	643.98	9.9	2.43	4	132.9	87.40	6.9	4.55	8
Brevoortia patronus	.0	.00	.0	.00	2	481.0	474.67	22.3	21.91	4	.0	.00	.0	.00	8
Anchoa hepsetus	868.4	868.42	2.4	2.44	2	88.8	85.45	.3	.25	4	1.9	1.88	.1	.05	8
Sphoeroides parvus	.0	.00	.0	.00	2	4.8	2.33	.0	.02	4	253.9	46.68	2.0	.33	8
Prionotus longispinosus	38.9	1.05	.3	.01	2	99.8	44.61	.7	.27	4	133.4	18.01	3.6	.71	8
Etropus crossotus	3.2	.09	.0	.00	2	17.4	7.28	.2	.08	4	188.5	34.71	2.4	.37	8
Cynoscion nothus	1.6	1.58	.1	.07	2	188.5	145.22	4.6	3.38	4	4.5	3.31	.2	.18	8
Symphurus plagiusa	.0	.00	.0	.00	2	3.6	2.86	.0	.02	4	95.7	52.82	1.9	1.05	8
Squid	8.1	1.40	.0	.00	2	106.0	71.54	1.0	.64	4	174.8	72.17	1.6	.53	8

Table 5b
Statistical Zone 14
40-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Spring Louisiana Trawl Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm. No trawl samples were taken in depths greater than 20 fm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	68.7	31.34	2	102.8	18.16	4	86.1	15.15	8	.0	.00	0	.0	.00	0	.0	.00	0
Total finfish kg	64.2	31.22	2	69.2	29.94	4	41.4	4.36	8	.0	.00	0	.0	.00	0	.0	.00	0
Total crustacean kg	5.2	.88	2	32.6	17.36	4	43.2	18.02	8	.0	.00	0	.0	.00	0	.0	.00	0
Total others kg	.0	.00	2	1.0	.69	4	1.5	.63	8	.0	.00	0	.0	.00	0	.0	.00	0
Surface temperature	20.0	.37	5	20.1	.36	3	19.3	.19	8	20.3	.00	1	.0	.00	0	.0	.00	0
Midwater temperature	20.0	.37	5	20.3	.22	3	20.0	.16	8	20.5	.00	1	.0	.00	0	.0	.00	0
Bottom temperature	19.6	.30	5	19.3	.12	3	19.6	.07	8	19.7	.00	1	.0	.00	0	.0	.00	0
Surface salinity	23.5	1.07	5	27.5	1.69	3	26.4	1.82	8	31.8	.00	1	.0	.00	0	.0	.00	0
Midwater salinity	23.6	1.04	5	27.9	2.00	3	32.9	.58	8	34.7	.00	1	.0	.00	0	.0	.00	0
Bottom salinity	27.6	2.18	5	35.0	.19	3	35.8	.09	8	36.3	.00	1	.0	.00	0	.0	.00	0
Surface chlorophyll	9.6	1.43	5	10.1	2.91	3	9.2	1.91	8	7.0	.00	1	.0	.00	0	.0	.00	0
Midwater chlorophyll	9.8	1.32	5	7.7	3.22	3	1.9	.36	8	1.3	.00	1	.0	.00	0	.0	.00	0
Bottom chlorophyll	8.9	1.21	5	4.1	1.90	3	1.1	.16	8	.7	.00	1	.0	.00	0	.0	.00	0
Surface oxygen	11.6	.67	5	10.0	.42	3	10.6	.44	8	10.1	.00	1	.0	.00	0	.0	.00	0
Midwater oxygen	10.4	.39	5	9.4	.88	3	8.0	.24	8	9.0	.00	1	.0	.00	0	.0	.00	0
Bottom oxygen	8.0	1.24	5	5.1	.17	3	5.8	.29	8	6.7	.00	1	.0	.00	0	.0	.00	0

Table 6a
Statistical Zone 15
40-ft trawls

Summary of dominant organisms taken in statistical zone 15 during the 1994 Spring Louisiana Trawl Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken. No trawl samples were taken in depths less than 6 fm or greater than 20 fm.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Trachypenaeus similis	.0	.00	.0	.00	0	5722.0	2244.00	14.2	4.14	2	6937.9	1843.57	33.8	10.26	2
Squilla spp.	.0	.00	.0	.00	0	1169.0	809.00	8.6	5.32	2	5065.7	1062.86	53.1	13.18	2
Sicyonia dorsalis	.0	.00	.0	.00	0	599.0	215.00	.9	.36	2	2568.6	457.14	8.2	2.11	2
Portunus gibbesii	.0	.00	.0	.00	0	176.0	132.00	.7	.55	2	1115.7	641.43	6.9	4.35	2
Callinectes similis	.0	.00	.0	.00	0	453.0	169.00	2.1	.50	2	328.6	11.43	9.2	1.59	2
Trachypenaeus constrictus	.0	.00	.0	.00	0	40.0	40.00	.1	.09	2	887.1	887.14	5.2	5.16	2
Cynoscion nothus	.0	.00	.0	.00	0	724.0	724.00	13.1	13.09	2	248.6	248.57	6.7	6.69	2
Etropus crossotus	.0	.00	.0	.00	0	341.0	87.00	2.5	.82	2	241.4	58.57	2.6	.91	2
Prionotus longispinosus	.0	.00	.0	.00	0	190.0	48.00	1.0	.05	2	62.1	23.57	1.2	.06	2
Symphurus plagiusa	.0	.00	.0	.00	0	40.0	.00	.3	.05	2	269.3	86.43	5.4	2.01	2
Anchoa hepsetus	.0	.00	.0	.00	0	111.0	111.00	.4	.41	2	102.9	102.86	.5	.45	2
Trichiurus lepturus	.0	.00	.0	.00	0	95.0	95.00	2.2	2.18	2	.0	.00	.0	.00	2
Sphoeroides parvus	.0	.00	.0	.00	0	.0	.00	.0	.00	2	137.1	51.43	1.9	1.46	2
Prionotus stearnsi	.0	.00	.0	.00	0	.0	.00	.0	.00	2	103.6	65.00	.4	.16	2
Squid	.0	.00	.0	.00	0	779.0	763.00	5.0	4.77	2	741.4	724.29	4.8	4.81	2

Table 6b
Statistical Zone 15
40-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Spring Louisiana Trawl Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm. No trawl samples were taken in depths less than 6 fm or greater than 20 fm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	.0	.00	0	68.6	32.27	2	166.6	26.30	2	.0	.00	0	.0	.00	0	.0	.00	0
Total finfish kg	.0	.00	0	34.5	20.00	2	39.6	4.55	2	.0	.00	0	.0	.00	0	.0	.00	0
Total crustacean kg	.0	.00	0	29.1	8.18	2	122.4	35.39	2	.0	.00	0	.0	.00	0	.0	.00	0
Total others kg	.0	.00	0	5.0	5.00	2	4.5	4.55	2	.0	.00	0	.0	.00	0	.0	.00	0
Surface temperature	19.5	.30	2	19.6	.06	2	19.8	.14	3	.0	.00	0	.0	.00	0	.0	.00	0
Midwater temperature	19.3	.42	2	20.2	.44	2	19.5	.10	3	.0	.00	0	.0	.00	0	.0	.00	0
Bottom temperature	19.4	.40	2	19.1	.03	2	19.4	.02	3	.0	.00	0	.0	.00	0	.0	.00	0
Surface salinity	22.2	.58	2	26.7	.05	2	31.4	.35	3	.0	.00	0	.0	.00	0	.0	.00	0
Midwater salinity	23.3	.42	2	29.8	.81	2	33.6	1.31	3	.0	.00	0	.0	.00	0	.0	.00	0
Bottom salinity	24.6	1.74	2	34.9	.13	2	36.1	.06	3	.0	.00	0	.0	.00	0	.0	.00	0
Surface chlorophyll	9.5	1.17	2	5.9	.44	2	3.3	.12	3	.0	.00	0	.0	.00	0	.0	.00	0
Midwater chlorophyll	9.9	3.75	2	3.9	.25	2	1.8	.56	3	.0	.00	0	.0	.00	0	.0	.00	0
Bottom chlorophyll	8.2	3.06	2	4.7	2.03	2	1.3	.26	3	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	10.1	.55	2	8.9	.45	2	9.2	.33	3	.0	.00	0	.0	.00	0	.0	.00	0
Midwater oxygen	8.4	.50	2	7.6	.05	2	6.8	.84	3	.0	.00	0	.0	.00	0	.0	.00	0
Bottom oxygen	8.0	.40	2	2.8	.55	2	4.8	.54	3	.0	.00	0	.0	.00	0	.0	.00	0

Table 7. 1994 Summer Shrimp/Groundfish Survey species composition list, 308 trawl stations, for those vessels that used a 40-ft. trawl. Species with a total weight of less than 0.0227 kg (0.05 lb) are indicated on the table as 0.0 kg.

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	% FREQUENCY OF OCCURRENCE
Finfishes					
Stenotomus caprinus	longspine porgy	81460	2848.0	236	76.6
Micropogonias undulatus	Atlantic croaker	55927	2396.8	140	45.5
Peprilus burti	gulf butterfish	48206	1284.7	208	67.5
Chloroscombrus chrysurus	Atlantic bumper	32472	626.0	72	23.4
Trachurus lathami	rough scad	8310	184.5	142	46.1
Prionotus longispinosus	bigeye searobin	7438	180.4	164	53.2
Leiostomus xanthurus	spot	6957	538.3	73	23.7
Centropristis philadelphica	rock sea bass	6884	289.5	171	55.5
Cynoscion nothus	silver seatrout	6559	260.3	56	18.2
Lagodon rhomboides	pinfish	5473	355.0	113	36.7
Prionotus stearnsi	shortwing searobin	5061	35.9	98	31.8
Serranus atrobranchus	blackear bass	4812	58.5	112	36.4
Synodus foetens	inshore lizardfish	4394	452.8	208	67.5
Trichiurus lepturus	Atlantic cutlassfish	3847	132.2	92	29.9
Arius felis	hardhead catfish	3707	415.9	41	13.3
Cynoscion arenarius	sand seatrout	3686	240.9	121	39.3
Upeneus parvus	dwarf goatfish	3119	79.9	121	39.3
Pristipomoides aquilonaris	wenchman	2785	162.3	124	40.3
Etropus crossotus	fringed flounder	2481	28.1	104	33.8
Saurida brasiliensis	largescale lizardfish	2169	13.1	103	33.4
Syacium gunteri	shoal flounder	2006	38.5	121	39.3
Harengula jaguana	scaled sardine	1986	73.0	68	22.1
Engraulis eurystole	silver anchovy	1698	7.5	15	4.9
Diplectrum bivittatum	dwarf sand perch	1600	40.6	109	35.4
Anchoa hepsetus	striped anchovy	1580	26.6	66	21.4
Lepophidium brevibarbe	blackedge cusk-eel	1568	62.8	87	28.2
Peprilus alepidotus	harvestfish	1492	11.3	19	6.2
Prionotus paralatus	Mexican searobin	1418	26.6	79	25.6
Steindachneria argentea	luminous hake	1414	19.7	7	2.3
Halieutichthys aculeatus	pancake batfish	1367	7.2	96	31.2
Trichopsetta ventralis	sash flounder	1150	32.1	54	17.5
Menticirrhus americanus	southern kingfish	1043	53.6	27	8.8
Lutjanus campechanus	red snapper	942	86.0	106	34.4
Prionotus tribulus	bighead searobin	886	15.5	58	18.8
Lagocephalus laevigatus	smooth puffer	787	27.1	101	32.8
Stellifer lanceolatus	star drum	743	7.8	13	4.2

Table 7. Species composition list (continued)

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	% FREQUENCY OF OCCURRENCE
Syacium spp.	lefteye flounders	702	12.1	23	7.5
Cynoscion spp.	seatrouts	690	4.1	11	3.6
Selar crumenophthalmus	bigeye scad	681	9.5	19	6.2
Decapterus punctatus	round scad	639	7.7	17	5.5
Bagre marinus	gafftopsail catfish	638	5.3	5	1.6
Larimus fasciatus	banded drum	631	14.4	19	6.2
Urophycis floridana	southern hake	570	46.7	74	24.0
Opisthonema oglinum	Atlantic thread herring	546	33.2	23	7.5
Mullus auratus	red goatfish	529	35.7	31	10.1
Selene setapinnis	Atlantic moonfish	496	24.3	61	19.8
Sphoeroides parvus	least puffer	468	3.5	63	20.5
Cyclopsetta chittendeni	Mexican flounder	432	36.4	61	19.8
Etrumeus teres	round herring	415	4.8	25	8.1
Symphurus plagiusa	blackcheek tonguefish	398	7.7	40	13.0
Anchoa mitchilli	bay anchovy	396	.5	14	4.5
Porichthys plectrodon	Atlantic midshipman	385	9.4	66	21.4
Saurida caribbaea	smallscale lizardfish	369	3.1	25	8.1
Scorpaena calcarata	smoothhead scorpionfish	352	5.0	32	10.4
Prionotus rubio	blackwing searobin	341	8.6	33	10.7
Bollmannia communis	ragged goby	309	1.0	25	8.1
Bellator militaris	horned searobin	305	3.0	16	5.2
Lepophidium jeannae	mottled cusk-eel	303	9.1	18	5.8
Orthopristis chrysoptera	pigfish	288	7.7	16	5.2
Brevoortia patronus	gulf menhaden	283	9.5	15	4.9
Polydactylus octonemus	Atlantic threadfin	249	7.0	14	4.5
Anchoa lyolepis	dusky anchovy	246	.5	7	2.3
Monacanthus hispidus	planehead filefish	245	3.8	53	17.2
Synodus poeyi	offshore lizardfish	230	2.4	39	12.7
Sardinella aurita	Spanish sardine	226	3.2	22	7.1
Neomerinthe hemingwayi	spinycheek scorpionfish	215	22.7	12	3.9
Symphurus civitatus	offshore tonguefish	190	3.8	5	1.6
Equetus umbrosus	cubbyu	181	12.5	14	4.5
Urophycis cirrata	gulf hake	177	7.5	24	7.8
Engyophrys senta	spiny flounder	177	1.5	26	8.4
Brotula barbata	bearded brotula	175	31.0	36	11.7
Balistes capriscus	gray triggerfish	162	20.1	45	14.6
Hoplunnis macrurus	freckled pike-conger	161	2.5	30	9.7
Scomberomorus cavalla	king mackerel	159	6.2	10	3.2
Haemulon aurolineatum	tomtate	158	10.4	9	2.9

Table 7. Species composition list (continued)

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	% FREQUENCY OF OCCURRENCE
Syacium papillosum	dusky flounder	146	6.4	17	5.5
Eucinostomus gula	silver jenny	141	6.0	29	9.4
Chaetodipterus faber	Atlantic spadefish	139	2.0	16	5.2
Ancylopsetta quadrocellata	ocellated flounder	139	9.9	45	14.6
Hildebrandia flava	yellow conger	136	12.1	27	8.8
Citharichthys spilopterus	bay whiff	130	1.7	28	9.1
Prionotus scitulus	leopard searobin	107	2.7	15	4.9
Etropus cyclosquamus	shelf flounder	105	.6	11	3.6
Ancylopsetta dilecta	three-eye flounder	104	5.7	35	11.4
Scomberomorus maculatus	Spanish mackerel	103	9.1	17	5.5
Caulolatilus intermedius	anchor tilefish	86	4.5	34	11.0
Ophidion holbrooki	bank cusk-eel	83	5.0	6	1.9
Lutjanus synagris	lane snapper	76	10.5	23	7.5
Rhomboplites aurorubens	vermilion snapper	71	9.9	8	2.6
Selene vomer	lookdown	66	3.8	13	4.2
Prionotus martis	barred searobin	60	.9	5	1.6
Kathetostoma albigutta	lancer stargazer	58	2.5	19	6.2
Ogcocephalus declivirostris	slantbrow batfish	57	1.5	17	5.5
Pontinus longispinis	longspine scorpionfish	56	1.5	9	2.9
Sphyraena guachancho	guaguanche	49	8.7	17	5.5
Synagrops bellus	blackmouth bass	49	.5	3	1.0
Gymnothorax nigromarginatus	blackedge moray	47	6.3	7	2.3
Bathyanthias mexicanus	yellowtail bass	46	.5	5	1.6
Raja texana	roundel skate	45	17.2	20	6.5
Neobythites gillii	cusk-eel	44	.5	6	1.9
Ogcocephalus nasutus	shortnose batfish	43	1.9	4	1.3
Priacanthus arenatus	bigeye	42	3.9	18	5.8
Citharichthys macrops	spotted whiff	42	.8	10	3.2
Pseudupeneus maculatus	spotted goatfish	41	.4	2	.6
Ophidion welshi	crested cusk-eel	40	1.6	14	4.5
Gymnachirus texae	fringed sole	37	.9	12	3.9
Prionotus roseus	bluespotted searobin	34	1.4	2	.6
Antennarius radiosus	singlespot frogfish	34	1.0	16	5.2
Prionotus ophryas	bandtail searobin	32	1.8	4	1.3
Bembrops anatirostris	duckbill flathead	31	2.0	1	.3
Paralichthys lethostigma	southern flounder	30	11.3	21	6.8
Ogcocephalus radiatus	polka-dot batfish	29	3.0	13	4.2
Symphurus diomedianus	spottedfin tonguefish	27	2.0	8	2.6
Ogcocephalus spp.	batfishes	27	.2	8	2.6

Table 7. Species composition list (continued)

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	% FREQUENCY OF OCCURRENCE
Etropus microstomus	smallmouth flounder	26	.1	7	2.3
Scomber japonicus	chub mackerel	24	1.4	11	3.6
Rhizoprionodon terraenovae	Atlantic sharpnose shark	23	13.5	10	3.2
Caranx crysos	blue runner	21	1.5	10	3.2
Serranus phoebe	tattler	20	1.4	3	1.0
Equetus acuminatus	high-hat	20	1.1	2	.6
Sphoeroides spengleri	bandtail puffer	19	.4	4	1.3
Mustelus canis	smooth dogfish	17	44.5	12	3.9
Rhinoptera bonasus	cownose ray	17	61.4	4	1.3
Trinectes maculatus	hogchoker	17	.2	8	2.6
Serraniculus pumilio	pygmy sea bass	16	.0	6	1.9
Peristedion gracile	slender searobin	15	.1	6	1.9
Squatina dumeril	Atlantic angel shark	14	7.2	7	2.3
Gymnachirus melas	naked sole	14	.0	2	.6
Chilomycterus schoepfi	striped burrfish	14	2.3	7	2.3
Mustelus norrisi	Florida smoothhound	13	11.8	7	2.3
Raja olseni	spreadfin skate	13	4.7	2	.6
Diplectrum formosum	sand perch	13	1.4	5	1.6
Cyclopsetta fimbriata	spotfin flounder	13	.7	4	1.3
Hemanthias aureorubens	streamer bass	11	.4	4	1.3
Pomatomus saltatrix	bluefish	11	1.5	3	1.0
Seriola dumerili	greater amberjack	11	1.9	6	1.9
Menticirrhus saxatilis	northern kingfish	11	.5	2	.6
Citharichthys cornutus	horned whiff	11	.0	2	.6
Diaphus splendidus	lanternfish	10	.1	1	.3
Menticirrhus littoralis	gulf kingfish	10	1.3	2	.6
Synagrops spinosus	keelcheek bass	9	.1	1	.3
Pogonias cromis	black drum	9	1.3	3	1.0
Paralichthys squamilentus	broad flounder	9	3.1	6	1.9
Ogcocephalus parvus	roughback batfish	9	.2	2	.6
Trachinocephalus myops	snakefish	8	.3	3	1.0
Bregmaceros atlanticus	antenna codlet	8	.0	6	1.9
Hippocampus erectus	lined seahorse	8	.1	3	1.0
Scorpaena dispar	hunchback scorpionfish	8	1.5	4	1.3
Decodon puellaris	red hogfish	8	.4	4	1.3
Gobionellus oceanicus	highfin goby	8	.0	1	.3
Aluterus scriptus	scrawled filefish	8	.1	4	1.3
Ogcocephalus corniger	longnose batfish	8	1.4	1	.3
Equetus wamotoi	blackbar drum	7	.6	2	.6

Table 7. Species composition list (continued)

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	% FREQUENCY OF OCCURRENCE
Chaetodon aya	bank butterflyfish	6	.3	2	.6
Ophidion grayi	blotched cusk-eel	6	.3	4	1.3
Physiculus fulvus	metallic codling	5	.0	3	1.0
Epinephelus flavolimbatus	yellowedge grouper	5	1.3	3	1.0
Symphurus urospilus	spottail tonguefish	5	.1	2	.6
Lophiodes reticulatus	reticulate goosefish	5	.3	3	1.0
Dorosoma petenense	threadfin shad	4	.1	1	.3
Centropristis ocyura	bank sea bass	4	.3	2	.6
Hemanthias leptus	longtail bass	4	.0	1	.3
Eucinostomus argenteus	spotfin mojarra	4	.1	2	.6
Epinnula orientalis	sackfish	4	.3	1	.3
Ariomma bondi	silver-rag	4	.2	3	1.0
Gobionellus hastatus	sharptail goby	4	.1	2	.6
Sphoeroides dorsalis	marbled puffer	4	.3	3	1.0
Mycteroperca phenax	scamp	3	1.1	1	.3
Apogon maculatus	flamefish	3	.0	1	.3
Haemulon carbonorium	caesar grunt	3	.3	1	.3
Promethichthys prometheus	rabbitfish	3	2.5	1	.3
Gobioides broussoneti	violet goby	3	.1	1	.3
Achirus lineatus	lined sole	3	.0	2	.6
Aluterus schoepfi	orange filefish	3	.1	1	.3
Carcharhinus acronotus	blacknose shark	2	.9	2	.6
Narcine brasiliensis	lesser electric ray	2	.2	2	.6
Anchoa nasuta	longnose anchovy	2	.0	1	.3
Echiophis intertinctus	spotted spoon-nose eel	2	.2	1	.3
Hemiramphus brasiliensis	ballyhoo	2	.0	1	.3
Scorpaena brasiliensis	barbfish	2	.2	2	.6
Rypticus saponaceus	greater soapfish	2	.1	1	.3
Echeneis naucrates	sharksucker	2	.8	2	.6
Rachycentron canadum	cobia	2	.1	2	.6
Seriola fasciata	lesser amberjack	2	.5	1	.3
Seriola zonata	banded rudderfish	2	.3	1	.3
Trachinotus carolinus	Florida pompano	2	.1	1	.3
Pagrus pagrus	red porgy	2	.1	1	.3
Lactophrys quadricornis	scrawled cowfish	2	.6	1	.3
Alosa spp.	herrings	1	.1	1	.3
Saurida spp.	lizardfishes	1	.0	1	.3
Ophichthus gomesi	shrimp eel	1	.8	1	.3
Fistularia tabacaria	bluespotted cornetfish	1	.0	1	.3

Table 7. Species composition list (continued)

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	% FREQUENCY OF OCCURRENCE
Scorpaena agassizi	longfin scorpionfish	1	.4	1	.3
Priacanthus cruentatus	glasseye snapper	1	.0	1	.3
Chromis enchrysurus	yellowtail reeffish	1	.0	1	.3
Pomacentrus planifrons	threespot damselfish	1	.0	1	.3
Bembrops gobioides	goby flathead	1	.1	1	.3
Astroscopus y-graecum	southern stargazer	1	.0	1	.3
Bothus robinsi	twospot flounder	1	.0	1	.3
Monacanthus setifer	pygmy filefish	1	.0	1	.3
Opsanus beta	gulf toadfish	1	.0	1	.3
Lophius americanus	goosefish	1	.3	1	.3
Crustaceans					
Penaeus aztecus	brown shrimp	22667	355.4	232	75.3
Trachypenaeus similis	roughback shrimp	19616	93.0	97	31.5
Sicyonia brevirostris	brown rock shrimp	15270	181.3	137	44.5
Squilla empusa	mantis shrimp	15266	144.7	151	49.0
Callinectes similis	lesser blue crab	8696	117.9	192	62.3
Portunus spinicarpus	longspine swimming crab	5757	30.0	106	34.4
Portunus gibbesii	irridescent swimming crab	4350	25.6	128	41.6
Squilla chydaea	mantis shrimp	3828	30.8	86	27.9
Penaeus duorarum	pink shrimp	2253	35.8	58	18.8
Sicyonia dorsalis	lesser rock shrimp	2126	8.0	81	26.3
Trachypenaeus constrictus	roughneck shrimp	1640	5.2	24	7.8
Solenocera vioscai	humpback shrimp	1140	5.0	39	12.7
Parapenaeus politus	deepwater rose shrimp	712	1.0	11	3.6
Callinectes sapidus	blue crab	642	52.6	31	10.1
Trachypenaeus spp.	roughneck shrimps	624	3.9	4	1.3
Penaeus setiferus	white shrimp	587	19.2	44	14.3
Portunus spinimanus	blotched swimming crab	436	10.6	66	21.4
Xiphopenaeus kroyeri	seabob	224	1.2	6	1.9
Anasimus latus	stilt spider crab	143	1.0	21	6.8
Calappa sulcata	yellow box crab	130	27.1	50	16.2
Raninoides loevis	furrowed frog crab	101	.5	5	1.6
Raninoides louisianensis	gulf frog crab	75	.3	20	6.5
Ovalipes floridanus	Florida lady crab	54	.4	13	4.2
Paguristes sericeus	blue-eyed hermit	35	4.1	5	1.6
Hepatus epheliticus	calico crab	28	.9	16	5.2
Plesionika longicauda	pandalid shrimp	25	.1	2	.6

Table 7. Species composition list (continued)

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	% FREQUENCY OF OCCURRENCE
Stenorhynchus seticornis	yellowline arrow crab	25	.2	7	2.3
Libinia emarginata	portly spider crab	23	5.3	10	3.2
Libinia dubia	longnose spider crab	23	5.7	10	3.2
Arenaeus cribrarius	speckled swimming crab	23	1.4	9	2.9
Porcellana sayana	spotted porcelain crab	19	.0	2	.6
Scyllarides nodifer	ridged slipper lobster	17	5.0	1	.3
Sicyonia burkenroadi	spiny rock shrimp	15	.0	3	1.0
Leiolambrus nitidus	white elbow crab	14	.0	2	.6
Stenocionops furcata	furcate crab	13	.1	3	1.0
Metoporhaphis calcarata	false arrow crab	13	.0	7	2.3
Solenocera spp.	humpback shrimps	12	.0	1	.3
Euphrosynoplax clausa	craggy bathyal crab	12	.0	5	1.6
Dardanus insignis	red brocade hermit	12	.3	3	1.0
Petrochirus diogenes	giant hermit crab	11	2.2	4	1.3
Persephona mediterranea	mottled purse crab	11	.1	6	1.9
Squilla neglecta	mantis shrimp	9	.0	4	1.3
Petrolisthes galathinus	banded porcelain crab	8	.0	1	.3
Myropsis quinquespinosa	fivespine purse crab	7	.0	5	1.6
Speocarcinus spp.	squareback crabs	6	.0	1	.3
Parthenope granulata	bladetooth elbow crab	5	.0	4	1.3
Squilla edentata	mantis shrimp	4	.2	1	.3
Pagurus bullisi	hermit crab	4	.0	2	.6
Portunus floridanus	swimming crab	4	.0	2	.6
Collodes robustus	spider crab	4	.0	3	1.0
Munida forceps	squat lobster	3	.0	1	.3
Podochela sidneyi	shortfinger neck crab	3	.0	2	.6
Porcellana sigsbeiana	striped porcelain crab	3	.0	3	1.0
Paguridae	right-handed hermit crabs	2	.0	2	.6
Persephona crinita	pink purse crab	2	.0	1	.3
Lysiosquilla scabricauda	mantis shrimp	1	.0	1	.3
Pagurus impressus	dimpled hermit	1	.0	1	.3
Pagurus pollicaris	flatclaw hermit crab	1	.0	1	.3
Portunus sayi	sargassum swimming crab	1	.0	1	.3
Collodes leptocheles	spider crab	1	.0	1	.3
Nibilia antilocapra	shorthorn spiny crab	1	.0	1	.3
Calappa flammea	flame box crab	1	.2	1	.3

Table 7. Species composition list (continued)

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	% FREQUENCY OF OCCURRENCE
Others					
Loligo pleii	arrow squid	29071	371.5	163	52.9
Loligo pealeii	longfin squid	6850	140.4	140	45.5
Renilla mulleri	short-stemmed sea pansy	1691	5.8	38	12.3
Lolliguncula brevis	Atlantic brief squid	1277	11.4	51	16.6
Loligo spp.	squids	994	11.4	13	4.2
Amusium papyraceum	paper scallop	919	7.5	65	21.1
Astropecten duplicatus	spiny beaded sea star	588	.6	39	12.7
Luidia clathrata	sea star	232	2.0	23	7.5
Astropecten cingulatus	starfish	102	1.1	29	9.4
Lolliguncula sp.	brief squids	83	.5	1	.3
Chrysaora quinquecirrha	sea nettle	74	3.9	8	2.6
Ophiolepis elegans	brittle star	39	.2	2	.6
Pitar cordatus	Schwengel's pitar	33	.4	12	3.9
Mellita quinquiesperforata	five-slotted sand dollar	30	.1	1	.3
Anadara baughmani	Baughman's ark	28	.2	10	3.2
Semirossia equalis	greater shining bobtail	24	.0	6	1.9
Asteroidea	starfishes	15	.1	3	1.0
Thyonella gemmata	sea cucumber	14	.4	2	.6
Distorsio clathrata	Atlantic distorsio	13	.1	8	2.6
Neverita duplicata	shark eye	10	.2	2	.6
Anadara transversa	transverse ark	10	.0	1	.3
Anthozoa	anthozoans	9	.1	6	1.9
Busycotypus spiratus	pearwhelk	8	.2	1	.3
Aurelia aurita	moon jellyfish	8	.1	3	1.0
Tethyaster grandis	starfish	8	.4	3	1.0
Styela plicata	tunicate	7	.0	2	.6
Calliactris tricolor	common sea anemone	7	.0	2	.6
Luidia alternata	banded luidia	7	.0	4	1.3
Clypeaster ravenelii	cake urchin	7	1.2	3	1.0
Polystira tellea	delicate giant turret	6	.0	4	1.3
Ventricolaria rigida	rigid venus	6	.1	2	.6
Tamoya haplonema	sea wasp	5	.0	1	.3
Chloeia viridis	red-tipped fire worm	5	.0	1	.3
Echinaster serpentarius	starfish	5	.1	2	.6
Asteroporpa annulata	starfish	5	.0	3	1.0
Busycon contrarium	lightning whelk	4	.0	1	.3
Conus austini	cone shell	4	.0	3	1.0

Table 7. Species composition list (continued)

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	% FREQUENCY OF OCCURRENCE
Solecurtus cumingianus	corrugate solecurtus	4	.0	1	.3
Stylocidaris affinis	sea urchin	4	.0	1	.3
Brachyura	crab	4	.0	2	.6
Sconsia striata	royal bonnet	3	.1	2	.6
Scaphella dubia	dubious volute	3	.1	2	.6
Polystira albida	white giant turris	3	.0	2	.6
Argopecten gibbus	calico scallop	3	.0	1	.3
Agriopuma texasianum	Texas venus	3	.0	1	.3
Distaplia spp.	tunicate	3	.1	1	.3
Astropecten americanus	starfish	3	.0	1	.3
Astrogordius cacaoticum	basket star	3	.1	1	.3
Astrocyclus caecilia	basket star	3	.0	2	.6
Urosalpinx cinerea	Atlantic oyster drill	2	.0	1	.3
Arca spp.	arcs	2	.1	1	.3
Anadara ovalis	blood ark	2	.0	2	.6
Macoma brevifrons	short macoma	2	.0	2	.6
Octopus vulgaris	common Atlantic octopus	2	.7	2	.6
Ophionereis reticulata	reticulate brittle star	2	.0	1	.3
Clypeaster prostratus	sea biscuit	2	.3	1	.3
Molpadia barbouri	sea cucumber	2	.0	1	.3
Architectonica nobilis	common sundial	1	.0	1	.3
Tonna galea	giant tun	1	.1	1	.3
Murex spp.	murexes	1	.0	1	.3
Cantharus cancellarius	cancellate cantharus	1	.0	1	.3
Oliva sayana	lettered olive	1	.0	1	.3
Pteria colymbus	Atlantic wing-oyster	1	.0	1	.3
Macoma spp.	macoma	1	.0	1	.3
Circomphalus strigillinus	empress venus	1	.0	1	.3
Periploma fragile	fragile spoonclam	1	.0	1	.3
Octopus burryi	Burry's octopus	1	.8	1	.3
Porifera	sponges	1	.1	1	.3
Actinidae	sea anemones	1	.1	1	.3
Paranthus rapiformis	onion anemone	1	.0	1	.3
Leptogorgia spp.	sea whips	1	.0	1	.3
Ophioderma devaneyi	brittle star	1	.0	1	.3
Echinoidea	echinoderms	1	.0	1	.3
Centrostephanus longispinosus	sea urchin	1	.0	1	.3
Clypeaster spp.	cake urchins	1	.1	1	.3
Paracaudina chilensis	sea cucumber	1	.0	1	.3

Table 8. 1994 Summer Shrimp/Groundfish Survey species composition list, 80 trawl stations, for those vessels that used a 20-ft. trawl. Species with a total weight of less than 0.0227 kg (0.05 lb) are indicated on the table as 0.0 kg.

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	% FREQUENCY OF OCCURRENCE
Finfishes					
Micropogonias undulatus	Atlantic croaker	3823	102.0	19	23.8
Chloroscombrus chrysurus	Atlantic bumper	3034	27.3	30	37.5
Peprilus burti	gulf butterfish	1689	14.5	27	33.8
Cynoscion nothus	silver seatrout	1075	30.1	32	40.0
Peprilus alepidotus	harvestfish	866	6.8	34	42.5
Syacium gunteri	shoal flounder	327	3.8	25	31.3
Leiostomus xanthurus	spot	265	6.5	13	16.3
Larimus fasciatus	banded drum	139	2.9	9	11.3
Upeneus parvus	dwarf goatfish	126	2.0	13	16.3
Chaetodipterus faber	Atlantic spadefish	70	1.8	8	10.0
Prionotus longispinosus	bigeye searobin	50	.2	3	3.8
Stellifer lanceolatus	star drum	50	.9	6	7.5
Stenotomus caprinus	longspine porgy	47	.3	8	10.0
Lagodon rhomboides	pinfish	44	1.2	4	5.0
Anchoa nasuta	longnose anchovy	41	.1	4	5.0
Trichiurus lepturus	Atlantic cutlassfish	39	2.0	9	11.3
Lutjanus campechanus	red snapper	35	.9	9	11.3
Polydactylus octonemus	Atlantic threadfin	32	.9	7	8.8
Anchoa hepsetus	striped anchovy	26	.5	4	5.0
Arius felis	hardhead catfish	26	4.0	13	16.3
Selene setapinnis	Atlantic moonfish	25	.5	6	7.5
Cynoscion arenarius	sand seatrout	22	.4	5	6.3
Lagocephalus laevigatus	smooth puffer	18	.3	9	11.3
Prionotus tribulus	bighead searobin	17	.1	7	8.8
Harengula jaguana	scaled sardine	14	.4	6	7.5
Prionotus rubio	blackwing searobin	14	.0	10	12.5
Selene vomer	lookdown	13	.0	6	7.5
Brevoortia patronus	gulf menhaden	12	.4	4	5.0
Hippocampus erectus	lined seahorse	11	.0	11	13.8
Trachurus lathami	rough scad	9	.1	4	5.0
Etropus crossotus	fringed flounder	9	.0	8	10.0
Anchoa mitchilli	bay anchovy	7	.0	2	2.5
Dorosoma petenense	threadfin shad	5	.1	2	2.5
Porichthys plectrodon	Atlantic midshipman	4	.1	2	2.5
Centropristis philadelphica	rock sea bass	3	.0	3	3.8
Decapterus punctatus	round scad	3	.0	1	1.3

Table 8. Species composition list (continued)

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	% FREQUENCY OF OCCURRENCE
Trachinotus carolinus	Florida pompano	3	.0	1	1.3
Symphurus plagiusa	blackcheek tonguefish	3	.0	3	3.8
Aluterus schoepfi	orange filefish	3	.0	2	2.5
Diplectrum bivittatum	dwarf sand perch	2	.0	2	2.5
Pomatomus saltatrix	bluefish	2	.3	2	2.5
Ancylopsetta quadrocellata	ocellated flounder	2	.1	2	2.5
Balistes capriscus	gray triggerfish	2	.1	2	2.5
Chilomycterus schoepfi	striped burrfish	2	.0	2	2.5
Opisthonema oglinum	Atlantic thread herring	1	.0	1	1.3
Trachinotus falcatus	permit	1	.0	1	1.3
Lutjanus synagris	lane snapper	1	.0	1	1.3
Bairdiella chrysoura	silver perch	1	.0	1	1.3
Menticirrhus americanus	southern kingfish	1	.0	1	1.3
Hemipteronotus novacula	pearly razorfish	1	.0	1	1.3
Scomberomorus cavalla	king mackerel	1	.0	1	1.3
Scomberomorus maculatus	Spanish mackerel	1	.0	1	1.3
Crustaceans					
Penaeus aztecus	brown shrimp	354	2.7	25	31.3
Callinectes similis	lesser blue crab	271	1.5	47	58.8
Trachypenaeus similis	roughback shrimp	138	.2	11	13.8
Penaeus duorarum	pink shrimp	45	.4	8	10.0
Penaeus setiferus	white shrimp	43	1.1	12	15.0
Callinectes sapidus	blue crab	42	4.5	12	15.0
Squilla empusa	mantis shrimp	31	.0	9	11.3
Portunus gibbesii	irridescent swimming crab	22	.2	13	16.3
Libinia emarginata	portly spider crab	21	.1	6	7.5
Libinia dubia	longnose spider crab	17	.1	12	15.0
Sicyonia dorsalis	lesser rock shrimp	15	.0	7	8.8
Xiphopenaeus kroyeri	seabob	9	.0	3	3.8
Portunus sayi	sargassum swimming crab	8	.0	6	7.5
Persephona crinita	pink purse crab	6	.0	4	5.0
Persephona mediterranea	mottled purse crab	5	.0	4	5.0
Dromidia antillensis	hairy sponge crab	5	.0	5	6.3
Portunus spinimanus	blotched swimming crab	4	.0	3	3.8
Trachypenaeus constrictus	roughneck shrimp	3	.0	3	3.8
Sicyonia brevirostris	brown rock shrimp	3	.0	2	2.5
Ovalipes floridanus	Florida lady crab	3	.0	2	2.5

Table 8. Species composition list (continued)

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	% FREQUENCY OF OCCURRENCE
Podochela sidneyi	shortfinger neck crab	3	.0	2	2.5
Hepatus epheliticus	calico crab	3	.0	3	3.8
Trachypenaeus spp.	roughneck shrimps	1	.0	1	1.3
Sicyonia typica	kinglet rock shrimp	1	.0	1	1.3
Arenaeus cribrarius	speckled swimming crab	1	.1	1	1.3
Metoporhaphis calcarata	false arrow crab	1	.0	1	1.3
Parthenope serrata	sawtooth elbow crab	1	.0	1	1.3
Others					
Renilla mulleri	short-stemmed sea pansy	515	3.3	12	15.0
Mellita quinquiesperforata	five-slotted sand dollar	510	.7	3	3.8
Lolliguncula brevis	Atlantic brief squid	435	5.4	47	58.8
Astropecten duplicatus	spiny beaded sea star	247	.1	5	6.3
Actinidae	sea anemones	227	.3	7	8.8
Chrysaora quinquecirrha	sea nettle	223	2.2	15	18.8
Loligo pleii	arrow squid	148	1.5	10	12.5
Loligo pealeii	longfin squid	90	1.4	16	20.0
Luidia clathrata	sea star	71	1.3	14	17.5
Ascidiacea	sea squirts	61	.1	3	3.8
Sargassaceae	sargassum	41	4.1	41	51.3
Holothuriidae	sea cucumbers	32	.0	3	3.8
Cantharus cancellarius	cancellate cantharus	14	.0	7	8.8
Neverita duplicata	shark eye	4	.0	4	5.0
Stomolophus meleagris	many-mouthed sea jelly	4	2.2	3	3.8
Luidia alternata	banded luidia	4	.1	4	5.0
Holothuroidea	sea cucumbers	4	.0	2	2.5
Algae	algae	4	.0	4	5.0
Sinum perspectivum	white baby-ear	2	.0	1	1.3
Porifera	sponges	2	.0	2	2.5
Gorgonidae	gorgonians	2	.0	2	2.5
Ophiuroidea	brittlestars	2	.0	2	2.5
Busycon sinistrum	lightning whelk	1	.0	1	1.3
Anadara ovalis	blood ark	1	.0	1	1.3
Hydroidae	hydras	1	.0	1	1.3
Pennatulidae	sea pens	1	.0	1	1.3

Table 9a
Statistical Zone 11
40-ft trawls

Summary of dominant organisms taken in statistical zone 11 during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Squilla spp.	.0	.00	.0	.00	3	54.1	18.62	.5	.19	13	137.1	49.00	1.1	.39	26
Trachypenaeus similis	.0	.00	.0	.00	3	177.0	140.53	.5	.37	13	366.9	125.39	1.5	.50	26
Portunus spinicarpus	.9	.91	.0	.00	3	8.7	5.51	.0	.01	13	73.7	23.78	.2	.06	26
Sicyonia brevirostris	.0	.00	.0	.00	3	49.5	22.85	.3	.16	13	106.5	33.29	.6	.21	26
Callinectes similis	1.3	1.33	.0	.00	3	45.2	25.92	.8	.63	13	98.2	60.42	1.0	.52	26
Trachypenaeus constrictus	.0	.00	.0	.00	3	165.9	165.88	.3	.30	13	45.3	25.25	.1	.07	26
Stenotomus caprinus	.0	.00	.0	.00	3	652.5	279.04	2.7	1.29	13	894.0	184.15	11.9	3.44	26
Micropogonias undulatus	132.0	132.00	6.7	6.67	3	123.4	122.88	7.3	7.26	13	.0	.00	.0	.00	26
Peprilus burti	283.2	251.14	6.8	6.05	3	52.3	45.32	1.6	1.43	13	236.3	129.60	4.8	2.81	26
Lagodon rhomboides	.0	.00	.0	.00	3	.1	.12	.0	.01	13	7.8	5.04	.5	.31	26
Trachurus lathami	1.3	1.33	.0	.00	3	118.6	67.50	1.1	.55	13	194.8	99.26	2.9	1.67	26
Centropristis philadelphica	.0	.00	.0	.00	3	38.9	10.52	.3	.13	13	277.5	100.43	2.8	1.03	26
Leiostomus xanthurus	.0	.00	.0	.00	3	.9	.77	.1	.08	13	.0	.00	.0	.00	26
Serranus atrobranchus	.0	.00	.0	.00	3	.0	.00	.0	.00	13	87.7	32.58	.5	.21	26
Squid	30.8	19.88	.2	.11	3	211.4	111.08	2.0	1.01	13	238.2	54.22	2.6	.48	26

Table 9a (continued)
Statistical Zone 11
40-ft trawls

Summary of dominant organisms taken in statistical zone 11 during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken.

	21-30 FM					31-40 FM					>40 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Squilla spp.	307.4	251.84	2.6	1.95	10	66.2	34.71	.9	.51	9	47.8	30.22	.6	.42	6
Trachypenaeus similis	40.7	19.97	.3	.13	10	7.9	5.88	.0	.03	9	.0	.00	.0	.00	6
Portunus spinicarpus	105.4	94.24	.5	.49	10	36.1	14.76	.2	.08	9	622.8	501.29	6.2	5.19	6
Sicyonia brevirostris	76.7	31.23	.7	.31	10	16.4	10.49	.3	.27	9	27.7	27.69	.4	.42	6
Callinectes similis	37.7	29.09	.8	.72	10	1.2	1.22	.0	.00	9	.0	.00	.0	.00	6
Trachypenaeus constrictus	20.3	20.25	.1	.07	10	.0	.00	.0	.00	9	.0	.00	.0	.00	6
Stenotomus caprinus	685.2	192.61	23.8	6.65	10	6322.9	4686.46	367.1	281.85	9	1301.2	488.81	62.4	22.90	6
Micropogonias undulatus	1094.5	600.71	62.7	34.12	10	1035.0	537.20	79.9	41.91	9	377.8	314.32	30.0	24.36	6
Peprilus burti	782.4	529.86	21.8	12.53	10	8.5	5.36	.6	.36	9	3.1	2.03	.2	.10	6
Lagodon rhomboides	26.4	11.22	1.5	.69	10	744.1	553.02	57.7	43.20	9	10.0	3.37	.6	.31	6
Trachurus lathami	96.7	65.71	5.1	3.46	10	1.5	1.06	.0	.02	9	11.6	6.92	1.3	.76	6
Centropristis philadelphica	104.2	44.42	5.9	2.70	10	68.5	21.13	9.2	3.44	9	75.7	22.80	6.7	2.10	6
Leiostomus xanthurus	32.1	24.58	3.0	2.19	10	507.3	259.90	57.1	29.23	9	37.3	33.12	4.6	4.29	6
Serranus atrobranchus	73.3	34.93	.9	.44	10	124.3	79.20	2.2	1.42	9	192.2	80.58	3.2	1.75	6
Squid	127.8	56.49	1.8	.91	10	21.9	10.44	.1	.06	9	153.9	78.16	1.2	.62	6

Table 9b
Statistical Zone 11
40-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	53.7	24.34	3	26.1	8.73	13	47.9	7.28	26	168.4	45.10	10	610.3	385.54	9	170.1	43.32	6
Total finfish kg	47.2	20.16	3	18.0	7.81	13	36.4	6.60	26	159.3	43.70	10	607.3	385.70	9	159.9	38.78	6
Total crustacean kg	.0	.00	3	5.8	1.93	13	8.5	2.35	26	7.2	3.48	10	2.3	.90	9	9.3	5.52	6
Total others kg	7.1	4.69	3	2.3	1.00	13	3.1	.53	26	1.8	.90	10	.7	.60	9	1.1	.56	6
Surface temperature	28.2	.41	5	28.0	.33	11	27.9	.23	27	28.3	.24	11	28.3	.35	5	28.5	.20	8
Midwater temperature	27.2	.48	5	24.6	.61	11	23.7	.32	27	22.6	.33	11	21.2	.44	5	21.7	.23	8
Bottom temperature	24.4	1.08	5	21.8	.24	11	21.3	.25	27	20.1	.13	11	18.9	.11	5	19.1	.19	8
Surface salinity	24.6	1.28	5	26.5	1.08	11	29.0	.60	27	28.3	1.12	11	28.2	1.53	5	29.2	1.76	8
Midwater salinity	26.3	1.27	5	32.5	1.02	11	35.9	.22	27	36.5	.15	11	36.3	.05	5	36.4	.02	8
Bottom salinity	30.7	2.26	5	35.3	.23	11	36.1	.05	27	36.2	.03	11	36.2	.05	5	36.2	.02	8
Surface chlorophyll	1.4	.28	5	1.8	.63	11	1.5	.36	27	6.9	3.62	11	4.3	2.24	5	5.2	2.65	8
Midwater chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	6.6	.33	5	6.6	.25	11	6.2	.19	27	6.2	.32	11	6.0	.62	5	6.2	.34	8
Midwater oxygen	6.8	.31	5	6.5	.15	11	6.3	.08	27	6.4	.10	11	6.9	.18	5	6.9	.20	8
Bottom oxygen	6.1	.17	5	5.8	.37	11	6.0	.16	27	5.2	.20	11	5.6	.22	5	5.4	.10	8

Table 10a
Statistical Zone 13
40-ft trawls

Summary of dominant organisms taken in statistical zone 13 during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken. No trawl samples were taken in depths greater than 30 fm.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Trachypenaeus similis	7.5	7.50	.0	.05	2	123.5	123.50	.6	.59	4	373.9	269.71	2.0	1.36	7
Squilla spp.	21.1	18.93	.1	.05	2	85.0	84.33	.9	.91	4	145.4	69.56	1.3	.74	7
Penaeus aztecus	.0	.00	.0	.00	2	87.1	83.02	1.1	1.05	4	51.8	27.16	.9	.41	7
Callinectes similis	14.4	12.26	.1	.05	2	4.0	4.00	.0	.05	4	16.3	9.73	.3	.16	7
Portunus gibbesii	1.1	1.11	.0	.00	2	.0	.00	.0	.00	4	10.5	4.70	.1	.06	7
Callinectes sapidus	1.1	1.11	.1	.10	2	9.1	6.60	1.7	1.27	4	2.0	1.04	.3	.15	7
Micropogonias undulatus	280.8	261.47	5.3	4.46	2	1.4	1.36	.0	.03	4	106.4	100.74	4.0	3.76	7
Chloroscombrus chrysurus	.0	.00	.0	.00	2	200.3	189.89	10.7	10.32	4	28.9	27.36	1.2	1.10	7
Syacium gunteri	7.5	7.50	.1	.15	2	153.2	125.94	2.2	1.75	4	38.7	24.88	.7	.41	7
Prionotus longispinosus	17.3	6.23	.1	.05	2	29.6	26.88	.3	.22	4	136.3	53.19	1.6	.61	7
Cynoscion nothus	14.2	.83	.0	.00	2	3.0	3.00	.0	.02	4	152.9	84.41	.7	.26	7
Centropristis philadelphica	.0	.00	.0	.00	2	65.0	64.33	.7	.70	4	17.8	10.67	.2	.11	7
Anchoa hepsetus	.0	.00	.0	.00	2	2.0	2.00	.0	.00	4	37.6	29.82	.9	.74	7
Peprilus burti	2.2	.04	.0	.00	2	.7	.68	.0	.00	4	74.4	38.13	2.3	1.24	7
Squid	37.5	35.32	.5	.49	2	14.0	12.69	.3	.26	4	189.6	131.40	2.2	1.74	7

Table 10a (continued)
Statistical Zone 13
40-ft trawls

Summary of dominant organisms taken in statistical zone 13 during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken. No trawl samples were taken in depths greater than 30 fm.

	21-30 FM					31-40 FM					>40 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Trachypenaeus similis	.0	.00	.0	.00	1	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Squilla spp.	65.2	.00	.5	.00	1	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Penaeus aztecus	17.6	.00	.5	.00	1	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Callinectes similis	3.1	.00	.0	.00	1	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Portunus gibbesii	14.5	.00	.1	.00	1	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Callinectes sapidus	.0	.00	.0	.00	1	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Micropogonias undulatus	3.1	.00	.2	.00	1	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Chloroscombrus chrysurus	.0	.00	.0	.00	1	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Syacium gunteri	1.0	.00	.0	.00	1	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Prionotus longispinosus	32.1	.00	.3	.00	1	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Cynoscion nothus	.0	.00	.0	.00	1	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Centropristis philadelphica	24.8	.00	.3	.00	1	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Anchoa hepsetus	62.1	.00	1.6	.00	1	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Peprilus burti	9.3	.00	.8	.00	1	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Squid	114.8	.00	2.9	.00	1	.0	.00	.0	.00	0	.0	.00	.0	.00	0

Table 10b
Statistical Zone 13
40-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm. No trawl samples were taken in depths greater than 30 fm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	21.0	11.29	2	28.5	10.34	4	25.0	6.58	7	10.8	.00	1	.0	.00	0	.0	.00	0
Total finfish kg	20.5	11.78	2	23.7	10.10	4	17.8	5.83	7	6.6	.00	1	.0	.00	0	.0	.00	0
Total crustacean kg	.0	.00	2	4.6	3.96	4	4.4	2.48	7	.9	.00	1	.0	.00	0	.0	.00	0
Total others kg	.5	.49	2	.2	.23	4	2.1	1.81	7	2.8	.00	1	.0	.00	0	.0	.00	0
Surface temperature	30.5	.29	2	30.0	.27	7	30.2	.28	6	29.3	.00	1	28.8	.00	1	.0	.00	0
Midwater temperature	30.5	.26	2	28.5	.36	7	26.7	.17	6	24.6	.00	1	21.5	.00	1	.0	.00	0
Bottom temperature	28.0	.10	2	26.1	.68	7	23.5	.30	6	22.0	.00	1	18.3	.00	1	.0	.00	0
Surface salinity	21.1	.00	2	22.3	1.10	7	22.6	.62	6	25.0	.00	1	33.3	.00	1	.0	.00	0
Midwater salinity	21.7	.62	2	29.1	1.50	7	34.9	.38	6	35.9	.00	1	36.7	.00	1	.0	.00	0
Bottom salinity	30.4	.53	2	35.1	.58	7	36.2	.08	6	36.3	.00	1	36.0	.00	1	.0	.00	0
Surface chlorophyll	6.0	.45	2	3.7	1.56	7	.7	.14	6	.3	.00	1	16.0	.00	1	.0	.00	0
Midwater chlorophyll	2.6	.10	2	1.1	.35	3	.4	.11	4	.0	.00	0	.0	.00	0	.0	.00	0
Bottom chlorophyll	5.5	2.75	2	1.3	.35	6	.6	.19	6	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	8.1	.05	2	6.7	.69	7	7.2	.22	6	6.5	.00	1	3.7	.00	1	.0	.00	0
Midwater oxygen	7.2	.10	2	4.7	.40	7	5.6	.15	6	5.7	.00	1	6.3	.00	1	.0	.00	0
Bottom oxygen	2.9	.70	2	3.6	.86	7	4.2	.63	6	5.7	.00	1	6.3	.00	1	.0	.00	0

Table 11a
Statistical Zone 14
40-ft trawls

Summary of dominant organisms taken in statistical zone 14 during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Squilla spp.	.0	.00	.0	.00	4	40.2	26.10	.3	.17	7	281.6	154.11	3.8	2.17	12
Portunus gibbesii	.0	.00	.0	.00	4	11.4	9.49	.0	.03	7	476.9	289.45	2.4	1.68	12
Trachypenaeus similis	.0	.00	.0	.00	4	2.0	1.45	.0	.00	7	469.2	321.62	3.7	2.69	12
Callinectes similis	1.5	1.50	.0	.00	4	6.2	4.38	.0	.02	7	224.7	178.35	5.9	4.26	12
Penaeus aztecus	104.0	63.69	.9	.58	4	80.1	66.41	1.0	.89	7	67.9	23.20	1.4	.47	12
Sicyonia dorsalis	.0	.00	.0	.00	4	.0	.00	.0	.00	7	146.8	84.43	.9	.51	12
Micropogonias undulatus	1774.8	1399.78	51.6	42.79	4	514.1	332.85	15.3	10.30	7	809.6	283.59	45.6	16.77	12
Peprilus burti	.0	.00	.0	.00	4	48.1	33.44	2.9	2.24	7	1875.3	679.25	97.3	37.58	12
Prionotus longispinosus	.0	.00	.0	.00	4	14.3	7.79	.2	.13	7	355.9	236.48	4.0	2.23	12
Trichiurus lepturus	114.6	82.75	1.3	.68	4	356.3	347.86	17.6	17.52	7	84.0	38.50	3.3	1.39	12
Stenotomus caprinus	.0	.00	.0	.00	4	1.7	1.71	.0	.01	7	211.6	70.57	2.3	.70	12
Centropristis philadelphica	.0	.00	.0	.00	4	.0	.00	.0	.00	7	43.5	32.84	.2	.09	12
Leiostomus xanthurus	564.5	346.54	21.5	12.89	4	43.5	28.35	2.3	1.58	7	33.4	21.45	3.3	1.90	12
Chloroscombrus chrysurus	354.8	353.55	15.9	15.85	4	64.7	39.10	3.1	2.00	7	.0	.00	.0	.00	12
Squid	14.8	7.70	.2	.13	4	19.1	14.88	.3	.19	7	182.5	111.14	2.4	1.41	12

Table 11a (continued)
Statistical Zone 14
40-ft trawls

Summary of dominant organisms taken in statistical zone 14 during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken.

	21-30 FM					31-40 FM					>40 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Squilla spp.	986.9	804.69	5.6	3.47	4	21.4	21.43	.4	.43	2	2.8	1.68	.0	.03	3
Portunus gibbesii	146.6	88.40	1.1	.47	4	.7	.68	.0	.00	2	.0	.00	.0	.00	3
Trachypenaeus similis	58.8	58.85	.1	.10	4	.0	.00	.0	.00	2	.0	.00	.0	.00	3
Callinectes similis	13.6	9.69	.3	.19	4	.0	.00	.0	.00	2	.0	.00	.0	.00	3
Penaeus aztecus	106.3	34.38	2.5	.65	4	23.9	3.49	.8	.26	2	15.7	14.42	.6	.57	3
Sicyonia dorsalis	.0	.00	.0	.00	4	.0	.00	.0	.00	2	.0	.00	.0	.00	3
Micropogonias undulatus	917.6	285.62	50.2	18.21	4	47.4	29.71	4.5	3.24	2	93.5	42.05	10.5	4.66	3
Peprilus burti	24.6	14.57	.7	.45	4	66.8	66.82	3.5	3.47	2	14.4	14.44	1.1	1.11	3
Prionotus longispinosus	145.8	110.54	4.9	1.89	4	6.0	6.00	.3	.27	2	10.8	7.32	1.0	.80	3
Trichiurus lepturus	15.3	15.25	.4	.40	4	30.7	30.68	.6	.62	2	22.2	22.22	2.2	2.22	3
Stenotomus caprinus	163.2	72.00	6.0	2.38	4	50.1	7.21	2.0	.09	2	102.9	50.26	4.6	3.62	3
Centropristis philadelphica	212.5	79.70	12.8	6.32	4	61.2	57.10	2.6	2.43	2	55.7	33.61	3.2	1.58	3
Leiostomus xanthurus	4.7	2.69	.5	.28	4	.0	.00	.0	.00	2	3.0	3.04	.3	.32	3
Chloroscombrus chrysurus	.8	.75	.0	.01	4	.0	.00	.0	.00	2	.0	.00	.0	.00	3
Squid	29.4	18.77	1.1	.98	4	14.3	14.32	.1	.09	2	128.2	114.33	.8	.72	3

Table 11b
Statistical Zone 14
40-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	155.7	54.19	4	48.1	34.56	7	200.7	49.22	12	109.4	31.93	4	21.0	5.50	2	42.2	14.18	3
Total finfish kg	151.5	54.30	4	45.9	33.47	7	179.2	47.99	12	95.3	27.84	4	18.4	4.17	2	39.3	15.04	3
Total crustacean kg	4.1	2.62	4	1.8	1.19	7	19.1	11.16	12	12.9	5.01	4	2.3	1.64	2	1.4	1.09	3
Total others kg	.7	.68	4	.2	.20	7	2.5	1.41	12	1.2	1.02	4	.3	.31	2	1.5	.77	3
Surface temperature	30.1	.19	8	29.3	.25	6	29.6	.20	14	29.5	.55	3	29.3	.00	1	29.2	.09	6
Midwater temperature	29.4	.30	8	27.8	.57	6	27.2	.20	14	25.5	.38	3	23.5	.00	1	21.0	.42	6
Bottom temperature	28.3	.46	8	26.2	.42	6	23.3	.30	14	21.3	.08	3	20.9	.00	1	19.0	.99	6
Surface salinity	22.6	1.26	8	24.1	1.08	6	23.9	.59	14	25.2	1.45	3	28.1	.00	1	29.1	1.25	6
Midwater salinity	23.7	1.88	8	28.5	1.94	6	32.9	.74	14	35.9	.16	3	36.2	.00	1	36.4	.06	6
Bottom salinity	27.6	1.96	8	34.2	.83	6	36.1	.07	14	36.3	.05	3	36.3	.00	1	36.2	.06	6
Surface chlorophyll	6.1	2.25	8	1.4	.38	6	.6	.05	14	.3	.04	3	.2	.00	1	.3	.06	6
Midwater chlorophyll	1.9	.48	3	3.7	1.01	2	.7	.07	7	.6	.00	1	.0	.00	0	.0	.00	0
Bottom chlorophyll	2.7	.37	5	4.4	1.32	6	.6	.08	14	.2	.00	1	.0	.00	0	.0	.00	0
Surface oxygen	6.5	.69	8	6.0	.69	6	6.2	.44	14	6.4	.71	3	4.6	.00	1	5.2	.43	6
Midwater oxygen	6.1	.72	8	4.3	.54	6	6.2	.16	14	6.4	.29	3	6.9	.00	1	6.4	.24	6
Bottom oxygen	4.7	.99	8	1.6	.64	6	2.3	.31	14	4.3	.38	3	5.7	.00	1	5.1	.15	6

Table 12a
Statistical Zone 15
40-ft trawls

Summary of dominant organisms taken in statistical zone 15 during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Squilla spp.	.0	.00	.0	.00	3	604.0	567.99	2.4	2.27	6	722.4	275.80	6.1	2.18	17
Trachypenaeus similis	.0	.00	.0	.00	3	131.0	130.12	.5	.52	6	1251.9	1015.65	6.4	5.08	17
Penaeus aztecus	66.7	63.77	.4	.37	3	1.0	1.03	.0	.02	6	79.5	29.59	1.3	.50	17
Sicyonia brevirostris	.0	.00	.0	.00	3	2.1	2.05	.0	.02	6	10.2	8.20	.1	.12	17
Portunus gibbesii	.0	.00	.0	.00	3	26.8	20.34	.2	.11	6	126.0	51.40	.4	.16	17
Callinectes similis	15.7	5.83	.1	.04	3	81.0	64.25	.8	.53	6	82.6	31.51	1.4	.55	17
Stenotomus caprinus	.0	.00	.0	.00	3	131.7	129.98	.6	.52	6	770.0	473.70	5.2	3.24	17
Peprilus burti	4.1	4.10	.1	.07	3	11.5	9.04	.5	.44	6	625.4	302.57	27.2	16.10	17
Micropogonias undulatus	314.2	217.57	5.3	4.61	3	461.0	319.29	13.3	8.98	6	65.6	27.99	3.6	2.30	17
Prionotus longispinosus	.5	.51	.0	.00	3	129.6	112.58	4.8	4.55	6	226.8	86.53	1.8	.67	17
Chloroscombrus chrysurus	472.0	311.56	4.9	3.37	3	337.8	242.36	10.1	6.43	6	4.0	2.75	.1	.09	17
Trachurus lathami	.0	.00	.0	.00	3	.4	.38	.0	.00	6	108.7	56.05	1.7	.84	17
Peprilus alepidotus	222.8	204.62	1.7	1.46	3	1.2	1.18	.3	.27	6	.2	.24	.0	.00	17
Etropus crossotus	2.0	1.02	.0	.02	3	47.8	42.11	.3	.22	6	65.9	28.56	.7	.28	17
Squid	3.4	3.39	.0	.03	3	28.8	24.79	.4	.37	6	401.8	168.86	6.0	2.38	17

Table 12a (continued)
Statistical Zone 15
40-ft trawls

Summary of dominant organisms taken in statistical zone 15 during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken.

	21-30 FM					31-40 FM					>40 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Squilla spp.	186.1	141.49	2.4	2.05	3	130.7	79.48	1.0	.45	3	19.5	18.02	.3	.24	4
Trachypenaeus similis	.0	.00	.0	.00	3	.0	.00	.0	.00	3	.0	.00	.0	.00	4
Penaeus aztecus	67.4	8.81	1.6	.59	3	88.3	18.02	3.2	.93	3	17.2	8.69	.9	.54	4
Sicyonia brevirostris	41.7	35.37	.3	.30	3	251.7	125.40	3.6	2.01	3	50.5	45.78	.6	.56	4
Portunus gibbesii	8.1	5.28	.0	.03	3	11.4	8.08	.1	.08	3	.0	.00	.0	.00	4
Callinectes similis	16.1	4.96	.5	.24	3	13.7	6.47	.3	.15	3	.0	.00	.0	.00	4
Stenotomus caprinus	211.1	99.55	9.2	4.36	3	240.8	78.76	9.6	2.23	3	131.1	40.06	5.8	1.39	4
Peprilus burti	1231.1	686.06	69.3	37.64	3	19.9	18.29	1.5	1.37	3	6.7	2.44	.6	.20	4
Micropogonias undulatus	7.6	6.59	.5	.43	3	6.0	1.60	.9	.28	3	2.7	1.98	.5	.31	4
Prionotus longispinosus	.7	.67	.0	.02	3	21.2	5.45	.9	.14	3	6.9	4.45	.4	.24	4
Chloroscombrus chrysurus	.0	.00	.0	.00	3	.0	.00	.0	.00	3	.0	.00	.0	.00	4
Trachurus lathami	37.0	21.45	.8	.54	3	1.2	1.18	.1	.05	3	25.5	17.33	2.0	1.86	4
Peprilus alepidotus	.0	.00	.0	.00	3	.0	.00	.0	.00	3	.0	.00	.0	.00	4
Etropus crossotus	.0	.00	.0	.00	3	.0	.00	.0	.00	3	.0	.00	.0	.00	4
Squid	1590.7	1044.48	10.3	4.51	3	24.0	21.57	.4	.26	3	105.1	77.89	.8	.52	4

Table 12b
Statistical Zone 15
40-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	28.8	5.16	3	43.5	19.34	6	72.3	17.08	17	120.2	55.63	3	30.6	3.65	3	34.7	9.34	4
Total finfish kg	26.5	6.97	3	38.7	17.34	6	49.7	16.39	17	105.0	49.53	3	21.8	1.74	3	31.8	8.95	4
Total crustacean kg	2.3	1.87	3	3.9	3.56	6	16.7	7.41	17	4.9	3.02	3	8.2	3.25	3	2.0	.98	4
Total others kg	.0	.00	3	.3	.35	6	5.9	2.40	17	10.0	4.32	3	.4	.23	3	.9	.48	4
Surface temperature	30.3	.32	6	29.6	.23	7	29.4	.21	15	29.0	.07	6	.0	.00	0	29.3	.06	3
Midwater temperature	29.8	.44	6	28.5	.31	7	27.3	.29	15	25.2	.45	6	.0	.00	0	22.1	.38	3
Bottom temperature	29.1	.52	6	25.7	.43	7	24.2	.26	15	22.0	.34	6	.0	.00	0	19.6	.23	3
Surface salinity	18.6	3.00	6	24.7	.69	7	25.7	.47	15	25.8	.13	6	.0	.00	0	30.2	1.28	3
Midwater salinity	20.6	3.24	6	27.9	1.45	7	31.7	.92	15	35.6	.27	6	.0	.00	0	36.3	.02	3
Bottom salinity	22.5	3.43	6	35.1	.34	7	35.9	.09	15	36.2	.01	6	.0	.00	0	36.3	.03	3
Surface chlorophyll	13.0	6.68	6	1.1	.25	7	.5	.03	15	.4	.04	6	.0	.00	0	.4	.14	3
Midwater chlorophyll	5.8	.25	2	2.1	1.23	2	.4	.10	4	.0	.00	0	.0	.00	0	.0	.00	0
Bottom chlorophyll	5.0	1.52	3	2.0	.48	7	1.1	.24	15	.4	.03	6	.0	.00	0	.0	.00	0
Surface oxygen	6.5	.77	6	6.4	.45	7	6.2	.26	15	5.9	.29	6	.0	.00	0	4.9	.49	3
Midwater oxygen	5.7	.57	6	6.4	.48	7	5.9	.34	15	5.7	.33	6	.0	.00	0	7.6	.03	3
Bottom oxygen	4.4	.37	6	2.9	1.15	7	2.4	.53	15	3.3	.44	6	.0	.00	0	5.4	.17	3

Table 13a
Statistical Zone 16
40-ft trawls

Summary of dominant organisms taken in statistical zone 16 during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Sicyonia brevirostris	.0	.00	.0	.00	1	.0	.00	.0	.00	1	170.4	119.01	2.0	1.33	14
Squilla spp.	.0	.00	.0	.00	1	.0	.00	.0	.00	1	105.0	43.50	1.1	.43	14
Penaeus aztecus	441.8	.00	3.5	.00	1	.0	.00	.0	.00	1	48.4	23.50	.9	.39	14
Callinectes similis	163.6	.00	1.1	.00	1	129.0	.00	.5	.00	1	30.8	8.45	.6	.19	14
Trachypenaeus constrictus	.0	.00	.0	.00	1	.0	.00	.0	.00	1	31.3	21.40	.1	.09	14
Trachypenaeus similis	.0	.00	.0	.00	1	.0	.00	.0	.00	1	26.8	15.88	.1	.09	14
Stenotomus caprinus	.0	.00	.0	.00	1	.0	.00	.0	.00	1	546.2	205.23	9.7	3.15	14
Peprilus burti	.0	.00	.0	.00	1	6.0	.00	.1	.00	1	381.3	175.35	10.6	4.96	14
Micropogonias undulatus	3627.3	.00	109.2	.00	1	1824.0	.00	49.9	.00	1	145.9	113.52	2.9	1.52	14
Cynoscion nothus	529.1	.00	19.5	.00	1	.0	.00	.0	.00	1	64.1	45.87	3.3	2.30	14
Centropristis philadelphica	.0	.00	.0	.00	1	.0	.00	.0	.00	1	66.4	37.76	1.0	.40	14
Chloroscombrus chrysurus	30.0	.00	1.2	.00	1	36.0	.00	1.2	.00	1	115.5	69.18	3.9	2.24	14
Prionotus longispinosus	.0	.00	.0	.00	1	.0	.00	.0	.00	1	67.3	29.18	.8	.34	14
Etropus crossotus	.0	.00	.0	.00	1	.0	.00	.0	.00	1	67.2	54.89	.7	.66	14
Squid	133.6	.00	1.7	.00	1	6.0	.00	.0	.00	1	126.7	49.35	1.8	.68	14

Table 13a (continued)
Statistical Zone 16
40-ft trawls

Summary of dominant organisms taken in statistical zone 16 during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken.

	21-30 FM					31-40 FM					>40 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Sicyonia brevirostris	238.0	229.46	3.0	2.85	4	167.5	103.24	2.5	1.45	6	18.3	13.63	.3	.22	6
Squilla spp.	37.3	35.32	1.0	1.00	4	3.0	1.91	.0	.02	6	36.2	24.11	.4	.27	6
Penaeus aztecus	25.0	19.07	.8	.65	4	25.9	8.87	1.2	.36	6	12.6	2.79	.9	.25	6
Callinectes similis	19.3	15.39	.3	.26	4	.0	.00	.0	.00	6	.8	.77	.0	.03	6
Trachypenaeus constrictus	.0	.00	.0	.00	4	.0	.00	.0	.00	6	.4	.38	.0	.00	6
Trachypenaeus similis	2.1	2.11	.0	.01	4	.0	.00	.0	.00	6	.0	.00	.0	.00	6
Stenotomus caprinus	408.9	115.80	16.6	4.38	4	517.0	285.85	14.1	3.51	6	133.4	31.86	6.2	1.20	6
Peprilus burti	177.5	77.31	13.1	5.87	4	20.2	12.34	1.8	1.07	6	4.3	4.04	.4	.34	6
Micropogonias undulatus	23.9	14.92	1.8	1.24	4	.6	.56	.1	.05	6	5.0	4.15	.7	.50	6
Cynoscion nothus	.8	.75	.1	.08	4	.0	.00	.0	.00	6	.0	.00	.0	.00	6
Centropristis philadelphica	9.7	7.79	.3	.22	4	50.9	32.96	3.3	2.05	6	5.1	1.48	.5	.13	6
Chloroscombrus chrysurus	.0	.00	.0	.00	4	.0	.00	.0	.00	6	.2	.20	.0	.01	6
Prionotus longispinosus	7.9	6.53	.2	.13	4	7.1	4.41	.4	.25	6	.8	.56	.1	.05	6
Etropus crossotus	4.2	4.21	.1	.07	4	.0	.00	.0	.00	6	.4	.38	.0	.00	6
Squid	125.0	59.29	.7	.22	4	70.2	30.65	1.7	1.06	6	105.5	47.91	.8	.34	6

Table 13b
Statistical Zone 16
40-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	178.5	.00	1	72.3	.00	1	57.1	11.40	14	47.1	5.57	4	47.6	12.79	6	27.0	5.64	6
Total finfish kg	162.4	.00	1	68.2	.00	1	49.9	9.89	14	40.8	8.66	4	41.3	11.06	6	24.1	5.69	6
Total crustacean kg	14.9	.00	1	4.1	.00	1	5.4	2.09	14	5.4	4.92	4	4.5	2.18	6	1.9	.50	6
Total others kg	1.2	.00	1	.0	.00	1	1.9	.68	14	.8	.37	4	1.9	.89	6	.8	.37	6
Surface temperature	29.6	.58	2	.0	.00	0	29.1	.11	14	29.0	.32	5	29.0	.22	4	29.2	.22	6
Midwater temperature	29.7	.22	2	.0	.00	0	28.1	.32	14	26.5	.70	5	22.8	.43	4	21.6	.15	6
Bottom temperature	29.5	.94	2	.0	.00	0	24.3	.30	14	21.7	.28	5	20.6	.16	4	18.9	.30	6
Surface salinity	21.4	3.50	2	.0	.00	0	27.4	.63	14	27.4	.77	5	29.1	.37	4	30.7	.63	6
Midwater salinity	22.3	3.59	2	.0	.00	0	31.1	.59	14	34.9	.25	5	36.1	.10	4	36.2	.14	6
Bottom salinity	26.8	.57	2	.0	.00	0	35.8	.10	14	36.2	.03	5	36.3	.01	4	36.3	.01	6
Surface chlorophyll	5.3	2.71	2	.0	.00	0	.5	.04	14	.5	.09	5	.3	.07	4	.3	.08	6
Midwater chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom chlorophyll	3.3	.00	1	.0	.00	0	.7	.07	13	.6	.00	1	.0	.00	0	.0	.00	0
Surface oxygen	4.8	.50	2	.0	.00	0	5.6	.24	14	5.9	.32	5	6.1	.44	4	5.6	.40	6
Midwater oxygen	4.4	.30	2	.0	.00	0	5.9	.23	14	6.7	.15	5	7.4	.12	4	7.6	.12	6
Bottom oxygen	5.1	.90	2	.0	.00	0	2.2	.41	14	5.1	.28	5	6.3	.09	4	5.1	.10	6

Table 14a
Statistical Zone 17
40-ft trawls

Summary of dominant organisms taken in statistical zone 17 during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken. No trawl samples were taken in depths greater than 40 fm.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Sicyonia brevirostris	.0	.00	.0	.00	4	.0	.00	.0	.00	10	276.6	173.60	4.0	2.62	8
Portunus spinicarpus	.0	.00	.0	.00	4	.0	.00	.0	.00	10	38.2	36.07	.1	.09	8
Callinectes similis	990.8	796.53	7.3	5.94	4	11.0	5.75	.3	.16	10	8.6	3.34	.2	.11	8
Squilla spp.	.0	.00	.0	.00	4	.2	.20	.0	.00	10	65.0	43.67	.6	.44	8
Penaeus aztecus	230.0	89.68	1.1	.42	4	8.6	4.85	.1	.05	10	49.0	22.67	1.1	.57	8
Callinectes sapidus	296.6	111.11	21.8	8.83	4	.2	.23	.0	.05	10	.1	.13	.0	.01	8
Chloroscombrus chrysurus	182.1	54.43	1.5	.81	4	684.6	382.76	19.5	10.61	10	346.7	177.77	13.4	6.71	8
Stenotomus caprinus	.0	.00	.0	.00	4	.8	.80	.0	.01	10	1057.7	465.42	18.3	6.20	8
Micropogonias undulatus	306.2	77.22	6.0	3.03	4	832.9	363.14	26.4	11.70	10	4.7	3.00	.3	.17	8
Peprilus burti	.0	.00	.0	.00	4	81.1	50.20	1.3	.66	10	327.0	222.91	4.6	2.58	8
Arius felis	538.5	348.12	29.7	14.87	4	347.4	140.10	48.8	19.70	10	.0	.00	.0	.00	8
Cynoscion arenarius	250.6	118.61	6.8	2.38	4	175.2	99.07	9.3	5.25	10	.3	.30	.1	.10	8
Cynoscion nothus	93.1	40.65	2.3	.97	4	210.8	128.38	8.5	5.13	10	2.5	1.89	.1	.06	8
Bagre marinus	401.3	198.94	3.4	1.75	4	.0	.00	.0	.00	10	.0	.00	.0	.00	8
Squid	18.0	5.80	.3	.16	4	150.3	117.71	2.3	1.74	10	585.4	255.00	7.9	3.64	8

Table 14a (continued)
Statistical Zone 17
40-ft trawls

Summary of dominant organisms taken in statistical zone 17 during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken. No trawl samples were taken in depths greater than 40 fm.

	21-30 FM					31-40 FM					>40 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Sicyonia brevirostris	1156.1	691.30	11.0	5.50	4	1.5	1.50	.0	.00	2	.0	.00	.0	.00	0
Portunus spinicarpus	575.4	331.83	2.2	1.28	4	2.5	2.50	.0	.05	2	.0	.00	.0	.00	0
Callinectes similis	30.6	25.03	1.1	.95	4	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Squilla spp.	166.4	113.30	2.5	1.61	4	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Penaeus aztecus	38.4	18.63	1.9	.86	4	1.5	1.50	.1	.09	2	.0	.00	.0	.00	0
Callinectes sapidus	.0	.00	.0	.00	4	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Chloroscombrus chrysurus	.0	.00	.0	.00	4	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Stenotomus caprinus	615.0	170.02	29.1	9.42	4	241.4	88.64	11.9	2.69	2	.0	.00	.0	.00	0
Micropogonias undulatus	7.5	4.41	.8	.48	4	.5	.50	.1	.09	2	.0	.00	.0	.00	0
Peprilus burti	37.4	27.30	.7	.29	4	2.0	2.00	.2	.20	2	.0	.00	.0	.00	0
Arius felis	.0	.00	.0	.00	4	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Cynoscion arenarius	.0	.00	.0	.00	4	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Cynoscion nothus	.0	.00	.0	.00	4	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Bagre marinus	.0	.00	.0	.00	4	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Squid	55.9	36.25	1.4	.93	4	79.1	19.09	1.5	.28	2	.0	.00	.0	.00	0

Table 14b
Statistical Zone 17
40-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm. No trawl samples were taken in depths greater than 40 fm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	96.5	20.82	4	130.1	47.03	10	64.3	12.07	8	76.3	17.15	4	24.1	1.80	2	.0	.00	0
Total finfish kg	64.8	17.68	4	126.1	46.92	10	48.9	8.49	8	53.6	14.16	4	23.2	.89	2	.0	.00	0
Total crustacean kg	31.8	12.97	4	1.6	.78	10	7.1	3.92	8	20.8	8.60	4	.2	.23	2	.0	.00	0
Total others kg	.3	.32	4	2.4	1.77	10	8.3	3.64	8	1.6	.94	4	1.9	.56	2	.0	.00	0
Surface temperature	30.3	.54	6	28.9	.10	7	29.2	.15	6	29.6	.09	5	.0	.00	0	.0	.00	0
Midwater temperature	30.3	.52	6	28.9	.10	7	29.0	.20	6	25.3	.46	5	.0	.00	0	.0	.00	0
Bottom temperature	30.1	.49	6	26.9	.51	7	24.9	.21	6	21.2	.37	5	.0	.00	0	.0	.00	0
Surface salinity	28.7	.95	6	30.8	.50	7	30.8	.90	6	29.4	.76	5	.0	.00	0	.0	.00	0
Midwater salinity	28.8	1.07	6	31.0	.60	7	31.1	.85	6	34.9	.41	5	.0	.00	0	.0	.00	0
Bottom salinity	29.0	1.15	6	33.3	.75	7	35.2	.24	6	36.2	.04	5	.0	.00	0	.0	.00	0
Surface chlorophyll	6.4	2.65	6	.5	.05	7	.2	.04	6	.2	.04	4	.0	.00	0	.0	.00	0
Midwater chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom chlorophyll	3.7	.00	1	2.6	.80	4	.9	.15	5	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	4.8	.14	6	5.3	.26	7	6.0	.27	6	5.9	.58	5	.0	.00	0	.0	.00	0
Midwater oxygen	5.1	.23	6	5.5	.35	7	6.6	.08	6	7.1	.03	5	.0	.00	0	.0	.00	0
Bottom oxygen	5.3	.27	6	4.7	.87	7	3.6	.93	6	5.0	.40	5	.0	.00	0	.0	.00	0

Table 15a
Statistical Zone 18
40-ft trawls

Summary of dominant organisms taken in statistical zone 18 during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Sicyonia brevirostris	.0	.00	.0	.00	1	.0	.00	.0	.00	2	533.1	222.91	4.9	2.14	7
Penaeus aztecus	16.2	.00	.1	.00	1	27.4	15.43	.3	.13	2	482.4	270.29	8.5	4.03	7
Squilla spp.	.0	.00	.0	.00	1	4.7	4.67	.1	.06	2	126.0	36.08	1.8	.67	7
Trachypenaeus similis	.0	.00	.0	.00	1	.0	.00	.0	.00	2	132.3	72.14	.9	.48	7
Callinectes similis	16.2	.00	.4	.00	1	38.0	6.04	.5	.07	2	61.2	13.28	1.0	.15	7
Portunus gibbesii	.0	.00	.0	.00	1	.7	.67	.0	.00	2	33.6	13.84	.2	.17	7
Chloroscombrus chrysurus	40.5	.00	.8	.00	1	11532.61	1508.61	162.1	161.18	2	9.2	7.12	.3	.31	7
Micropogonias undulatus	4172.4	.00	91.0	.00	1	3477.1	3457.14	111.3	110.77	2	.5	.48	.0	.02	7
Stenotomus caprinus	.0	.00	.0	.00	1	2.0	2.00	.0	.00	2	761.8	220.20	12.7	3.78	7
Peprilus burti	.0	.00	.0	.00	1	520.4	445.73	20.1	19.45	2	284.4	264.53	5.1	4.77	7
Cynoscion nothus	.0	.00	.0	.00	1	1486.4	1475.69	59.6	59.18	2	2.3	1.82	.2	.11	7
Pristipomoides aquilonaris	.0	.00	.0	.00	1	.0	.00	.0	.00	2	39.7	24.74	1.0	.55	7
Leiostomus xanthurus	64.9	.00	4.9	.00	1	417.6	416.27	19.8	19.73	2	1.0	.69	.2	.11	7
Centropristis philadelphica	.0	.00	.0	.00	1	48.7	48.67	.5	.45	2	55.6	33.36	2.6	1.84	7
Squid	64.9	.00	1.3	.00	1	175.2	21.90	2.6	.64	2	186.8	99.76	2.6	1.40	7

Table 15a (continued)
Statistical Zone 18
40-ft trawls

Summary of dominant organisms taken in statistical zone 18 during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken.

	21-30 FM					31-40 FM					>40 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Sicyonia brevirostris	259.5	240.50	2.7	2.48	2	46.7	24.05	.8	.47	6	1.6	1.60	.0	.01	5
Penaeus aztecus	133.2	118.21	3.2	2.78	2	32.7	15.52	1.8	.85	6	15.9	10.06	1.0	.61	5
Squilla spp.	63.2	48.21	.5	.30	2	.6	.39	.0	.00	6	.0	.00	.0	.00	5
Trachypenaeus similis	7.1	7.14	.1	.06	2	.0	.00	.0	.00	6	.0	.00	.0	.00	5
Callinectes similis	86.8	81.79	1.1	.88	2	.4	.36	.0	.02	6	.0	.00	.0	.00	5
Portunus gibbesii	114.1	100.14	1.0	.91	2	.2	.23	.0	.00	6	.0	.00	.0	.00	5
Chloroscombrus chrysurus	.0	.00	.0	.00	2	.0	.00	.0	.00	6	.0	.00	.0	.00	5
Micropogonias undulatus	.0	.00	.0	.00	2	.4	.36	.1	.11	6	2.2	1.56	.3	.19	5
Stenotomus caprinus	1146.3	582.29	37.0	13.11	2	300.7	55.60	14.8	2.28	6	314.4	53.06	16.4	2.36	5
Peprilus burti	141.9	60.93	7.2	.02	2	23.9	19.15	1.8	1.46	6	84.2	78.03	5.4	5.22	5
Cynoscion nothus	.0	.00	.0	.00	2	.0	.00	.0	.00	6	.0	.00	.0	.00	5
Pristipomoides aquilonaris	45.2	26.21	1.5	1.05	2	58.3	35.96	3.8	2.69	6	102.3	29.54	9.4	3.77	5
Leiostomus xanthurus	.0	.00	.0	.00	2	.0	.00	.0	.00	6	.0	.00	.0	.00	5
Centropristis philadelphica	22.9	22.86	.6	.65	2	30.5	16.63	2.1	1.06	6	28.7	21.16	2.1	1.64	5
Squid	425.6	148.64	5.7	4.01	2	83.8	42.14	.9	.40	6	98.8	60.13	1.8	.52	5

Table 15b
Statistical Zone 18
40-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	120.9	.00	1	403.0	389.62	2	66.4	10.42	7	91.4	26.82	2	42.5	3.47	6	62.7	9.95	5
Total finfish kg	118.7	.00	1	397.0	386.69	2	45.0	8.85	7	76.6	15.65	2	38.6	3.85	6	59.8	9.57	5
Total crustacean kg	.7	.00	1	3.1	2.48	2	18.6	5.21	7	9.1	7.76	2	2.9	1.36	6	1.1	.71	5
Total others kg	1.5	.00	1	2.6	.76	2	2.8	1.36	7	6.1	4.29	2	1.0	.50	6	2.0	.50	5
Surface temperature	29.4	.00	1	28.8	.27	3	29.3	.06	7	29.4	.01	2	29.3	.09	3	29.7	.06	6
Midwater temperature	29.4	.00	1	28.5	.20	3	28.3	.39	7	24.2	1.17	2	23.6	.66	3	22.2	.37	6
Bottom temperature	29.4	.00	1	24.4	1.09	3	22.7	.72	7	20.4	.11	2	20.4	.39	3	18.7	.31	6
Surface salinity	32.2	.00	1	33.1	.58	3	30.5	.41	7	30.9	.20	2	31.4	.39	3	31.8	.24	6
Midwater salinity	32.1	.00	1	32.8	.34	3	32.5	.33	7	34.4	.69	2	35.6	.28	3	35.9	.06	6
Bottom salinity	32.2	.00	1	35.5	.12	3	35.5	.11	7	36.1	.19	2	36.3	.11	3	36.3	.02	6
Surface chlorophyll	1.8	.00	1	.2	.08	3	.1	.01	7	.2	.07	2	3.5	3.01	3	.1	.01	6
Midwater chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	4.4	.00	1	3.4	.55	3	6.2	.26	7	5.5	.80	2	6.4	.03	3	6.0	.31	6
Midwater oxygen	4.1	.00	1	6.0	.15	3	6.6	.11	7	6.2	.50	2	6.4	.32	3	6.5	.18	6
Bottom oxygen	5.0	.00	1	6.6	.40	3	4.4	.62	7	4.8	.20	2	5.2	.07	3	5.0	.22	6

Table 16a
Statistical Zone 19
40-ft trawls

Summary of dominant organisms taken in statistical zone 19 during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken. No trawl samples were taken in depths less than 6 fm or greater than 30 fm.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Penaeus aztecus	.0	.00	.0	.00	0	338.0	131.84	3.4	1.33	6	303.8	117.67	4.1	1.54	12
Trachypenaeus similis	.0	.00	.0	.00	0	19.1	8.34	.0	.03	6	248.6	131.38	.9	.43	12
Callinectes similis	.0	.00	.0	.00	0	291.5	130.44	3.1	1.83	6	51.9	20.00	.5	.19	12
Squilla spp.	.0	.00	.0	.00	0	59.6	23.59	.5	.21	6	131.9	62.43	1.2	.58	12
Penaeus duorarum	.0	.00	.0	.00	0	37.6	23.28	.6	.41	6	40.8	34.57	.5	.39	12
Sicyonia brevirostris	.0	.00	.0	.00	0	.0	.00	.0	.00	6	.4	.36	.0	.00	12
Peprilus burti	.0	.00	.0	.00	0	1383.3	636.98	12.2	5.21	6	703.4	479.87	5.0	3.09	12
Micropogonias undulatus	.0	.00	.0	.00	0	3103.6	1455.07	105.8	49.46	6	22.7	15.55	1.3	.86	12
Stenotomus caprinus	.0	.00	.0	.00	0	1.0	1.00	.0	.00	6	262.9	138.90	.9	.40	12
Cynoscion nothus	.0	.00	.0	.00	0	478.4	251.72	18.3	10.21	6	12.5	11.41	.7	.60	12
Leiostomus xanthurus	.0	.00	.0	.00	0	755.4	455.43	23.8	11.78	6	3.8	2.67	.2	.11	12
Trachurus lathami	.0	.00	.0	.00	0	13.0	13.00	.2	.18	6	125.4	75.33	1.1	.55	12
Lagodon rhomboides	.0	.00	.0	.00	0	197.2	90.06	4.5	1.95	6	10.7	6.28	.3	.14	12
Prionotus stearnsi	.0	.00	.0	.00	0	.0	.00	.0	.00	6	48.5	30.77	.3	.17	12
Squid	.0	.00	.0	.00	0	628.2	443.14	8.3	6.26	6	929.5	240.00	14.0	4.00	12

Table 16a (continued)
Statistical Zone 19
40-ft trawls

Summary of dominant organisms taken in statistical zone 19 during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken. No trawl samples were taken in depths less than 6 fm or greater than 30 fm.

	21-30 FM					31-40 FM					>40 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Penaeus aztecus	53.7	23.71	1.6	.62	7	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Trachypenaeus similis	12.4	12.03	.1	.06	7	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Callinectes similis	16.5	7.31	.4	.14	7	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Squilla spp.	27.6	13.30	.5	.23	7	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Penaeus duorarum	.0	.00	.0	.00	7	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Sicyonia brevirostris	30.4	18.42	.3	.26	7	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Peprilus burti	42.1	34.62	.6	.37	7	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Micropogonias undulatus	.9	.49	.1	.03	7	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Stenotomus caprinus	222.3	94.88	8.3	3.53	7	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Cynoscion nothus	.0	.00	.0	.00	7	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Leiostomus xanthurus	.0	.00	.0	.00	7	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Trachurus lathami	47.7	25.67	1.0	.52	7	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Lagodon rhomboides	20.5	15.49	1.0	.75	7	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Prionotus stearnsi	50.8	16.19	.5	.13	7	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Squid	393.9	108.53	7.2	1.81	7	.0	.00	.0	.00	0	.0	.00	.0	.00	0

Table 16b
Statistical Zone 19
40-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm. No trawl samples were taken in depths less than 6 fm or greater than 30 fm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	.0	.00	0	213.8	65.29	6	38.4	6.18	12	36.2	4.77	7	.0	.00	0	.0	.00	0
Total finfish kg	.0	.00	0	195.7	68.28	6	16.9	4.36	12	25.7	4.79	7	.0	.00	0	.0	.00	0
Total crustacean kg	.0	.00	0	9.7	3.51	6	7.3	2.70	12	3.0	1.27	7	.0	.00	0	.0	.00	0
Total others kg	.0	.00	0	8.1	6.15	6	14.2	3.97	12	7.2	1.79	7	.0	.00	0	.0	.00	0
Surface temperature	25.5	.00	1	26.0	.63	6	27.4	.30	15	28.8	.18	3	29.2	.00	1	.0	.00	0
Midwater temperature	24.1	.00	1	25.8	.70	6	26.0	.48	15	24.0	.98	3	24.0	.00	1	.0	.00	0
Bottom temperature	22.4	.00	1	21.9	.40	6	21.1	.17	15	20.2	.02	3	20.1	.00	1	.0	.00	0
Surface salinity	34.9	.00	1	34.9	.13	6	34.6	.32	14	33.2	.24	3	33.3	.00	1	.0	.00	0
Midwater salinity	35.2	.00	1	35.1	.13	6	35.3	.12	14	34.5	.57	3	34.1	.00	1	.0	.00	0
Bottom salinity	35.5	.00	1	35.8	.04	6	36.0	.04	14	36.2	.04	3	36.1	.00	1	.0	.00	0
Surface chlorophyll	.4	.00	1	.9	.29	6	.2	.03	15	.1	.01	3	.1	.00	1	.0	.00	0
Midwater chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	6.3	.00	1	5.9	.32	6	5.9	.20	15	5.9	.15	3	.0	.00	0	.0	.00	0
Midwater oxygen	5.9	.00	1	5.7	.43	6	6.3	.06	15	6.5	.17	3	6.2	.00	1	.0	.00	0
Bottom oxygen	3.4	.00	1	5.2	.33	6	5.6	.12	15	5.5	.13	3	6.1	.00	1	.0	.00	0

Table 17a
Statistical Zone 20
40-ft trawls

Summary of dominant organisms taken in statistical zone 20 during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Penaeus aztecus	450.0	.00	3.0	.00	1	901.0	546.35	10.4	6.14	5	668.5	398.05	9.5	4.54	12
Trachypenaeus similis	.0	.00	.0	.00	1	7.2	4.42	.0	.02	5	831.7	501.73	2.9	1.45	12
Callinectes similis	852.0	.00	9.0	.00	1	138.6	39.80	1.8	.60	5	255.1	110.03	1.9	.60	12
Penaeus duorarum	120.0	.00	1.9	.00	1	567.0	392.11	8.7	5.54	5	.9	.53	.0	.02	12
Sicyonia dorsalis	.0	.00	.0	.00	1	.0	.00	.0	.00	5	34.7	15.07	.1	.04	12
Squilla spp.	.0	.00	.0	.00	1	16.9	6.48	.2	.05	5	59.6	18.27	.6	.22	12
Peprilus burti	.0	.00	.0	.00	1	72.8	36.01	.8	.50	5	974.4	458.61	10.9	4.96	12
Prionotus stearnsi	.0	.00	.0	.00	1	.0	.00	.0	.00	5	209.8	104.30	.8	.36	12
Micropogonias undulatus	13374.0	.00	340.6	.00	1	136.9	113.89	3.4	2.68	5	.4	.42	.0	.03	12
Stenotomus caprinus	.0	.00	.0	.00	1	45.8	22.02	.4	.21	5	210.4	110.36	1.3	.55	12
Engraulis eurystole	.0	.00	.0	.00	1	.7	.71	.0	.00	5	288.9	171.68	1.2	.66	12
Trachurus lathami	.0	.00	.0	.00	1	.0	.00	.0	.00	5	30.4	13.23	.3	.17	12
Menticirrhus americanus	624.0	.00	18.0	.00	1	170.3	115.69	8.4	5.78	5	.9	.62	.1	.05	12
Upeneus parvus	.0	.00	.0	.00	1	141.4	82.44	2.7	2.04	5	42.8	22.66	.3	.13	12
Squid	.0	.00	.0	.00	1	50.6	18.48	.5	.14	5	549.1	181.98	9.1	2.96	12

Table 17a (continued)
Statistical Zone 20
40-ft trawls

Summary of dominant organisms taken in statistical zone 20 during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken.

	21-30 FM					31-40 FM					>40 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Penaeus aztecus	25.1	13.97	.7	.38	6	39.4	2.58	1.4	.29	2	8.5	8.50	.3	.34	2
Trachypenaeus similis	89.1	48.10	.4	.20	6	1.1	1.05	.0	.00	2	.0	.00	.0	.00	2
Callinectes similis	79.6	33.13	.8	.31	6	13.1	10.95	.2	.06	2	.5	.50	.0	.00	2
Penaeus duorarum	.0	.00	.0	.00	6	.0	.00	.0	.00	2	.0	.00	.0	.00	2
Sicyonia dorsalis	88.4	57.45	.2	.10	6	.0	.00	.0	.00	2	.0	.00	.0	.00	2
Squilla spp.	26.1	10.55	.2	.12	6	1.1	1.05	.0	.00	2	.0	.00	.0	.00	2
Peprilus burti	61.7	28.36	1.7	1.15	6	78.7	29.26	4.0	.13	2	53.7	33.70	4.0	2.92	2
Prionotus stearnsi	358.9	174.97	2.0	.94	6	48.3	24.32	.7	.39	2	54.9	43.13	.3	.16	2
Micropogonias undulatus	.0	.00	.0	.00	6	.0	.00	.0	.00	2	2.0	1.96	.3	.33	2
Stenotomus caprinus	2.7	2.09	.1	.08	6	151.9	85.95	6.0	4.09	2	90.0	3.96	4.6	.81	2
Engraulis eurystole	.0	.00	.0	.00	6	.0	.00	.0	.00	2	.0	.00	.0	.00	2
Trachurus lathami	44.3	16.37	1.2	.44	6	542.5	441.47	15.7	13.21	2	152.3	120.30	7.0	6.48	2
Menticirrhus americanus	.0	.00	.0	.00	6	.0	.00	.0	.00	2	.0	.00	.0	.00	2
Upeneus parvus	3.6	2.80	.0	.02	6	7.7	1.74	.2	.19	2	37.8	18.22	1.4	.46	2
Squid	385.8	123.05	6.7	2.25	6	31.4	25.42	.9	.91	2	111.1	92.87	2.0	1.51	2

Table 17b
Statistical Zone 20
40-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	430.9	.00	1	57.9	12.29	5	47.4	6.48	12	24.4	1.84	6	41.3	7.80	2	38.4	6.10	2
Total finfish kg	414.5	.00	1	33.6	8.75	5	22.1	5.96	12	14.2	1.13	6	36.2	7.46	2	35.3	8.53	2
Total crustacean kg	16.4	.00	1	23.1	6.42	5	15.2	6.67	12	3.2	.92	6	3.7	1.77	2	.9	.91	2
Total others kg	.0	.00	1	1.2	.53	5	9.8	2.89	12	6.8	2.26	6	1.4	1.44	2	2.3	1.75	2
Surface temperature	.0	.00	0	24.5	.49	6	27.6	.31	14	28.6	.21	4	28.3	.15	2	29.1	.27	2
Midwater temperature	.0	.00	0	23.5	.33	6	25.9	.29	14	24.0	.83	4	22.6	.41	2	22.7	.86	2
Bottom temperature	.0	.00	0	21.8	.26	6	20.8	.10	14	20.0	.14	4	19.6	.13	2	18.8	.15	2
Surface salinity	.0	.00	0	34.8	.41	6	35.1	.31	14	34.9	.32	4	35.0	.67	2	33.6	1.26	2
Midwater salinity	.0	.00	0	35.7	.11	6	35.9	.12	14	36.1	.41	4	36.1	.09	2	36.4	.04	2
Bottom salinity	.0	.00	0	35.9	.16	6	36.1	.03	14	36.2	.01	4	36.3	.03	2	36.4	.07	2
Surface chlorophyll	.0	.00	0	1.5	.42	6	.2	.05	14	.1	.01	4	.1	.00	2	.1	.00	2
Midwater chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	.0	.00	0	4.5	.26	6	5.2	.21	14	5.0	.41	4	5.4	.45	2	4.8	.25	2
Midwater oxygen	.0	.00	0	4.9	.24	6	6.2	.10	14	6.6	.11	4	6.6	.20	2	7.1	.10	2
Bottom oxygen	.0	.00	0	5.2	.20	6	5.5	.08	14	5.1	.02	4	5.5	.10	2	4.6	.50	2

Table 18a
Statistical Zone 21
40-ft trawls

Summary of dominant organisms taken in statistical zone 21 during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Penaeus aztecus	9.0	9.00	.1	.14	2	39.0	33.28	.2	.16	5	3313.1	2197.25	34.7	22.05	8
Penaeus duorarum	225.0	225.00	5.7	5.73	2	283.8	174.84	5.1	3.12	5	67.9	41.65	1.3	.78	8
Callinectes similis	120.0	114.00	2.0	2.05	2	74.9	67.08	.9	.81	5	56.8	30.26	.8	.39	8
Portunus spinicarpus	.0	.00	.0	.00	2	3.6	3.60	.0	.00	5	.6	.58	.0	.00	8
Trachypenaeus constrictus	6.0	6.00	.0	.00	2	1.2	1.20	.1	.05	5	34.4	33.10	.2	.17	8
Trachypenaeus similis	.0	.00	.0	.00	2	.0	.00	.0	.00	5	68.2	68.18	.4	.40	8
Chloroscombrus chrysurus	3753.0	3747.00	46.6	46.64	2	2389.6	2332.37	30.4	29.42	5	33.9	32.79	.4	.38	8
Stenotomus caprinus	.0	.00	.0	.00	2	15.7	15.69	.1	.08	5	592.8	330.34	4.5	2.70	8
Prionotus stearnsi	.0	.00	.0	.00	2	.0	.00	.0	.00	5	73.6	64.41	.2	.12	8
Upeneus parvus	.0	.00	.0	.00	2	155.1	100.59	1.7	1.25	5	237.5	64.25	3.4	1.00	8
Peprilus burti	912.0	906.00	10.2	10.23	2	6.0	4.65	.0	.00	5	199.7	82.64	1.7	.82	8
Trachurus lathami	.0	.00	.0	.00	2	568.8	558.36	7.4	7.15	5	28.9	26.21	.5	.48	8
Serranus atrobranchus	.0	.00	.0	.00	2	1.2	1.20	.0	.00	5	.0	.00	.0	.00	8
Pristipomoides aquilonaris	.0	.00	.0	.00	2	.0	.00	.0	.00	5	13.7	9.35	.2	.14	8
Squid	12.0	12.00	.1	.14	2	847.7	319.51	16.7	6.68	5	747.1	271.96	10.3	4.69	8

Table 18a (continued)
Statistical Zone 21
40-ft trawls

Summary of dominant organisms taken in statistical zone 21 during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken.

	21-30 FM					31-40 FM					>40 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Penaeus aztecus	24.0	20.55	1.3	1.08	3	60.0	5.45	2.8	.60	2	10.4	3.62	.5	.15	3
Penaeus duorarum	.0	.00	.0	.00	3	.0	.00	.0	.00	2	.0	.00	.0	.00	3
Callinectes similis	11.3	5.70	.2	.12	3	.0	.00	.0	.00	2	.0	.00	.0	.00	3
Portunus spinicarpus	35.4	17.58	.2	.06	3	38.0	28.50	.2	.14	2	13.4	10.45	.1	.06	3
Trachypenaeus constrictus	.0	.00	.0	.00	3	.0	.00	.0	.00	2	.0	.00	.0	.00	3
Trachypenaeus similis	.6	.57	.0	.00	3	.0	.00	.0	.00	2	.0	.00	.0	.00	3
Chloroscombrus chrysurus	.0	.00	.0	.00	3	.0	.00	.0	.00	2	.0	.00	.0	.00	3
Stenotomus caprinus	41.4	14.11	.8	.24	3	89.7	49.36	4.6	2.33	2	62.6	30.70	3.3	1.23	3
Prionotus stearnsi	49.3	44.79	.2	.23	3	534.0	246.00	6.1	2.55	2	34.5	20.93	.4	.28	3
Upeneus parvus	61.0	9.41	1.4	.49	3	92.9	66.68	2.2	1.65	2	59.5	3.25	2.3	.54	3
Peprilus burti	2.0	1.53	.1	.05	3	8.2	8.18	.6	.56	2	17.3	7.83	1.5	.66	3
Trachurus lathami	21.9	14.59	.3	.17	3	22.0	17.59	.6	.37	2	30.4	12.28	1.2	.09	3
Serranus atrobranchus	25.0	23.52	.5	.46	3	89.0	5.86	1.9	.29	2	133.2	111.42	2.5	2.32	3
Pristipomoides aquilonaris	31.1	10.80	.7	.17	3	44.9	11.05	4.1	.29	2	109.4	79.49	9.2	5.64	3
Squid	91.6	45.57	.9	.21	3	102.8	101.73	1.6	1.53	2	109.2	74.97	1.5	1.17	3

Table 18b
Statistical Zone 21
40-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	143.2	9.55	2	71.8	30.88	5	75.2	32.48	8	14.8	3.06	3	32.6	10.79	2	36.3	10.72	3
Total finfish kg	135.0	1.36	2	48.0	30.33	5	17.6	4.66	8	11.8	2.34	3	26.9	9.05	2	33.0	10.47	3
Total crustacean kg	8.2	8.18	2	6.8	4.19	5	47.0	30.34	8	1.8	1.08	3	3.5	.43	2	1.3	.43	3
Total others kg	.0	.00	2	16.7	6.80	5	10.9	4.64	8	1.3	.19	3	1.9	1.86	2	2.4	1.05	3
Surface temperature	.0	.00	0	25.6	.40	8	28.3	.17	9	28.8	.14	2	28.6	.67	4	28.5	.17	3
Midwater temperature	.0	.00	0	25.1	.82	8	25.3	.58	9	25.3	.04	2	23.0	.27	4	22.4	.34	3
Bottom temperature	.0	.00	0	22.9	.27	8	23.0	.17	9	21.1	.55	2	19.3	.44	4	19.6	.12	3
Surface salinity	.0	.00	0	34.2	.96	8	35.3	.18	9	35.0	.67	2	34.2	.55	4	34.8	.89	3
Midwater salinity	.0	.00	0	36.0	.42	8	36.3	.19	9	36.2	.26	2	36.3	.12	4	36.1	.30	3
Bottom salinity	.0	.00	0	35.7	.06	8	36.3	.03	9	36.3	.17	2	36.4	.02	4	36.5	.04	3
Surface chlorophyll	.0	.00	0	.8	.10	8	.2	.03	9	.1	.06	2	.1	.00	2	.1	.01	3
Midwater chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	.0	.00	0	4.7	.35	8	5.2	.28	9	5.6	.50	2	5.0	.36	4	5.1	.22	3
Midwater oxygen	.0	.00	0	5.7	.32	8	6.3	.14	9	7.0	.00	2	6.8	.28	4	6.8	.21	3
Bottom oxygen	.0	.00	0	5.2	.16	8	6.1	.23	9	5.5	.30	2	4.8	.33	4	4.9	.32	3

Table 19a
Statistical Zone 17
20-ft trawls

Summary of dominant organisms taken in statistical zone 17 during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken. No trawl samples were taken in depths greater than 10 fm.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Callinectes similis	14.0	6.00	.0	.00	9	5.1	3.32	.0	.00	7	.0	.00	.0	.00	0
Callinectes sapidus	13.3	12.60	1.3	1.14	9	.9	.86	.2	.19	7	.0	.00	.0	.00	0
Penaeus aztecus	10.7	7.80	.1	.09	9	.0	.00	.0	.00	7	.0	.00	.0	.00	0
Penaeus setiferus	6.0	4.00	.1	.09	9	3.4	3.43	.1	.12	7	.0	.00	.0	.00	0
Xiphopenaeus kroyeri	4.7	4.67	.0	.03	9	.0	.00	.0	.00	7	.0	.00	.0	.00	0
Portunus sayi	1.3	.88	.0	.00	9	1.7	1.71	.0	.00	7	.0	.00	.0	.00	0
Micropogonias undulatus	549.3	318.68	13.9	8.38	9	113.1	104.26	3.0	2.74	7	.0	.00	.0	.00	0
Cynoscion nothus	230.0	96.41	6.7	2.77	9	142.3	129.51	4.7	4.23	7	.0	.00	.0	.00	0
Peprilus alepidotus	92.0	43.28	.8	.41	9	41.1	18.77	.3	.16	7	.0	.00	.0	.00	0
Stellifer lanceolatus	23.3	12.59	.4	.23	9	2.6	2.57	.0	.04	7	.0	.00	.0	.00	0
Chloroscombrus chrysurus	2.0	1.41	.1	.04	9	24.0	9.26	.5	.24	7	.0	.00	.0	.00	0
Chaetodipterus faber	12.7	11.20	.4	.36	9	.9	.86	.2	.16	7	.0	.00	.0	.00	0
Arius felis	6.0	2.24	.9	.33	9	6.9	5.14	.9	.60	7	.0	.00	.0	.00	0
Leiostomus xanthurus	8.0	6.63	.2	.15	9	1.7	1.71	.0	.04	7	.0	.00	.0	.00	0
Squid	17.3	7.51	.4	.16	9	31.7	10.85	.6	.23	7	.0	.00	.0	.00	0

Table 19b
Statistical Zone 17
20-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm. No trawl samples were taken in depths greater than 10 fm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	26.4	10.58	9	11.3	7.75	7	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Total finfish kg	23.6	10.48	9	10.1	7.47	7	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Total crustacean kg	1.5	1.52	9	.0	.00	7	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Total others kg	.9	.45	9	.8	.50	7	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface temperature	28.8	.20	10	29.3	.44	6	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater temperature	28.7	.19	10	28.8	.20	6	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom temperature	28.5	.17	10	28.7	.28	6	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface salinity	13.0	.89	10	13.7	2.55	6	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater salinity	15.0	.86	10	21.4	.97	6	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom salinity	18.5	1.53	10	23.7	.43	6	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface chlorophyll	15.5	1.55	2	10.9	.95	3	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	7.4	.35	10	7.4	.44	6	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater oxygen	6.8	.36	10	6.4	.24	6	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom oxygen	6.1	.43	10	6.0	.69	6	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0

Table 20a
Statistical Zone 18
20-ft trawls

Summary of dominant organisms taken in statistical zone 18 during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken. No trawl samples were taken in depths greater than 10 fm.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Penaeus aztecus	253.2	244.24	1.9	1.79	5	12.0	8.68	.1	.08	11	.0	.00	.0	.00	0
Penaeus setiferus	28.8	9.75	.7	.22	5	2.2	1.67	.1	.05	11	.0	.00	.0	.00	0
Callinectes similis	4.8	3.50	.0	.00	5	12.5	7.17	.1	.10	11	.0	.00	.0	.00	0
Libinia emarginata	9.6	4.07	.0	.00	5	7.1	4.11	.0	.03	11	.0	.00	.0	.00	0
Callinectes sapidus	19.2	8.78	2.4	1.43	5	.5	.55	.0	.00	11	.0	.00	.0	.00	0
Portunus gibbesii	.0	.00	.0	.00	5	2.2	2.18	.0	.00	11	.0	.00	.0	.00	0
Micropogonias undulatus	452.4	211.83	12.5	6.95	5	708.5	707.95	17.4	17.43	11	.0	.00	.0	.00	0
Peprilus alepidotus	336.0	123.82	3.3	1.29	5	34.9	32.02	.3	.35	11	.0	.00	.0	.00	0
Cynoscion nothus	111.6	48.02	3.2	1.39	5	117.3	114.88	3.1	3.07	11	.0	.00	.0	.00	0
Leiostomus xanthurus	28.8	20.20	1.1	.88	5	37.6	37.64	1.1	1.07	11	.0	.00	.0	.00	0
Larimus fasciatus	37.2	30.26	.8	.64	5	17.5	17.45	.3	.32	11	.0	.00	.0	.00	0
Chaetodipterus faber	42.0	24.22	.9	.53	5	8.2	8.18	.2	.17	11	.0	.00	.0	.00	0
Peprilus burti	34.8	33.32	.6	.53	5	7.6	4.99	.2	.12	11	.0	.00	.0	.00	0
Cynoscion arenarius	.0	.00	.0	.00	5	9.3	8.69	.1	.08	11	.0	.00	.0	.00	0
Squid	14.4	8.18	.2	.10	5	7.6	5.95	.1	.12	11	.0	.00	.0	.00	0

Table 20b
Statistical Zone 18
20-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm. No trawl samples were taken in depths greater than 10 fm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	31.6	10.01	5	23.6	23.01	11	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Total finfish kg	24.5	9.05	5	22.8	22.81	11	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Total crustacean kg	5.5	1.93	5	.0	.00	11	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Total others kg	2.2	2.18	5	.2	.25	11	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface temperature	28.3	.57	5	27.1	.28	11	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater temperature	27.7	.75	5	25.9	.47	11	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom temperature	27.5	.77	5	25.0	.29	11	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface salinity	21.6	2.67	5	26.0	1.82	11	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater salinity	21.8	2.60	5	27.5	1.74	11	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom salinity	24.5	2.66	5	29.3	1.72	11	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface chlorophyll	3.4	.93	5	4.1	.58	11	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	6.3	.82	5	5.4	.43	11	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater oxygen	5.0	1.11	5	3.1	.79	11	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom oxygen	2.9	1.14	5	1.1	.26	11	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0

Table 21a
Statistical Zone 19
20-ft trawls

Summary of dominant organisms taken in statistical zone 19 during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken. No trawl samples were taken in depths greater than 20 fm.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Callinectes similis	.0	.00	.0	.00	1	30.9	12.60	.1	.07	13	180.0	42.00	1.0	.14	2
Trachypenaeus similis	.0	.00	.0	.00	1	19.4	13.84	.0	.03	13	144.0	66.00	.0	.00	2
Squilla spp.	.0	.00	.0	.00	1	1.8	.80	.0	.00	13	69.0	63.00	.1	.14	2
Penaeus aztecus	.0	.00	.0	.00	1	8.3	3.82	.0	.03	13	.0	.00	.0	.00	2
Penaeus duorarum	.0	.00	.0	.00	1	6.9	6.44	.1	.08	13	.0	.00	.0	.00	2
Persephona crinita	.0	.00	.0	.00	1	2.8	1.46	.0	.00	13	.0	.00	.0	.00	2
Peprilus burti	.0	.00	.0	.00	1	671.5	486.02	5.2	3.69	13	.0	.00	.0	.00	2
Micropogonias undulatus	.0	.00	.0	.00	1	537.2	369.80	16.0	11.22	13	.0	.00	.0	.00	2
Chloroscombrus chrysurus	276.0	.00	2.7	.00	1	110.8	64.86	1.2	.70	13	.0	.00	.0	.00	2
Peprilus alepidotus	24.0	.00	.3	.00	1	117.7	80.62	.6	.41	13	9.0	9.00	.0	.00	2
Cynoscion nothus	126.0	.00	3.3	.00	1	102.5	33.93	2.5	1.10	13	.0	.00	.0	.00	2
Leiostomus xanthurus	318.0	.00	6.3	.00	1	36.9	21.37	.9	.50	13	.0	.00	.0	.00	2
Larimus fasciatus	18.0	.00	.3	.00	1	28.6	25.69	.6	.56	13	.0	.00	.0	.00	2
Prionotus longispinosus	.0	.00	.0	.00	1	16.6	16.12	.1	.06	13	42.0	42.00	.1	.14	2
Squid	24.0	.00	.3	.00	1	54.5	16.90	.8	.28	13	12.0	12.00	.0	.00	2

Table 21b
Statistical Zone 19
20-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm. No trawl samples were taken in depths greater than 20 fm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	16.4	.00	1	31.7	13.33	13	2.7	.00	2	.0	.00	0	.0	.00	0	.0	.00	0
Total finfish kg	13.6	.00	1	29.2	13.56	13	.0	.00	2	.0	.00	0	.0	.00	0	.0	.00	0
Total crustacean kg	.0	.00	1	.4	.28	13	.0	.00	2	.0	.00	0	.0	.00	0	.0	.00	0
Total others kg	2.7	.00	1	2.5	.48	13	1.4	1.36	2	.0	.00	0	.0	.00	0	.0	.00	0
Surface temperature	27.5	.00	1	28.3	.27	13	28.3	.20	2	.0	.00	0	.0	.00	0	.0	.00	0
Midwater temperature	27.5	.00	1	28.1	.29	13	28.0	.05	2	.0	.00	0	.0	.00	0	.0	.00	0
Bottom temperature	26.1	.00	1	26.2	.60	13	23.1	.50	2	.0	.00	0	.0	.00	0	.0	.00	0
Surface salinity	27.8	.00	1	27.7	.25	13	30.2	.37	2	.0	.00	0	.0	.00	0	.0	.00	0
Midwater salinity	28.1	.00	1	29.4	.39	13	31.5	.03	2	.0	.00	0	.0	.00	0	.0	.00	0
Bottom salinity	29.8	.00	1	32.0	.49	13	34.5	.00	1	.0	.00	0	.0	.00	0	.0	.00	0
Surface chlorophyll	2.8	.00	1	1.5	.23	12	.2	.00	2	.0	.00	0	.0	.00	0	.0	.00	0
Midwater chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	6.8	.00	1	6.7	.23	13	6.1	.10	2	.0	.00	0	.0	.00	0	.0	.00	0
Midwater oxygen	7.1	.00	1	6.6	.21	13	5.8	.15	2	.0	.00	0	.0	.00	0	.0	.00	0
Bottom oxygen	4.7	.00	1	4.8	.48	13	5.0	.20	2	.0	.00	0	.0	.00	0	.0	.00	0

Table 22a
Statistical Zone 20
20-ft trawls

Summary of dominant organisms taken in statistical zone 20 during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken. No trawl samples were taken in depths less than 6 fm or greater than 20 fm.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Penaeus aztecus	.0	.00	.0	.00	0	1.4	.73	.0	.00	13	140.0	77.49	1.2	.64	3
Callinectes similis	.0	.00	.0	.00	0	7.8	3.49	.1	.05	13	68.0	7.21	.5	.16	3
Trachypenaeus similis	.0	.00	.0	.00	0	1.8	1.42	.0	.00	13	84.0	15.10	.3	.00	3
Libinia dubia	.0	.00	.0	.00	0	3.2	1.46	.0	.00	13	4.0	4.00	.1	.09	3
Portunus gibbesii	.0	.00	.0	.00	0	3.7	1.60	.0	.03	13	.0	.00	.0	.00	3
Squilla spp.	.0	.00	.0	.00	0	.9	.92	.0	.00	13	2.0	2.00	.0	.00	3
Chloroscombrus chrysurus	.0	.00	.0	.00	0	1191.7	350.16	10.2	3.14	13	248.0	248.00	2.1	2.09	3
Syacium gunteri	.0	.00	.0	.00	0	13.8	6.13	.2	.07	13	396.0	189.20	4.3	2.10	3
Peprilus burti	.0	.00	.0	.00	0	2.3	2.31	.0	.04	13	316.0	199.67	4.3	2.18	3
Upeneus parvus	.0	.00	.0	.00	0	47.5	17.79	.8	.30	13	10.0	5.29	.1	.09	3
Peprilus alepidotus	.0	.00	.0	.00	0	29.5	16.21	.2	.09	13	20.0	20.00	.1	.09	3
Lagodon rhomboides	.0	.00	.0	.00	0	17.5	17.04	.5	.44	13	.0	.00	.0	.00	3
Stenotomus caprinus	.0	.00	.0	.00	0	.0	.00	.0	.00	13	74.0	41.62	.5	.31	3
Lutjanus campechanus	.0	.00	.0	.00	0	13.8	4.77	.4	.14	13	.0	.00	.0	.00	3
Squid	.0	.00	.0	.00	0	113.1	46.01	1.0	.33	13	348.0	175.68	3.5	1.70	3

Table 22b
Statistical Zone 20
20-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm. No trawl samples were taken in depths less than 6 fm or greater than 20 fm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	.0	.00	0	15.5	3.58	13	24.5	1.57	3	.0	.00	0	.0	.00	0	.0	.00	0
Total finfish kg	.0	.00	0	13.2	3.63	13	13.6	3.15	3	.0	.00	0	.0	.00	0	.0	.00	0
Total crustacean kg	.0	.00	0	.0	.00	13	1.8	.91	3	.0	.00	0	.0	.00	0	.0	.00	0
Total others kg	.0	.00	0	1.5	.59	13	9.1	2.41	3	.0	.00	0	.0	.00	0	.0	.00	0
Surface temperature	.0	.00	0	28.5	.13	13	28.5	.44	3	.0	.00	0	.0	.00	0	.0	.00	0
Midwater temperature	.0	.00	0	28.1	.19	13	27.9	.23	3	.0	.00	0	.0	.00	0	.0	.00	0
Bottom temperature	.0	.00	0	27.7	.28	13	26.6	.90	3	.0	.00	0	.0	.00	0	.0	.00	0
Surface salinity	.0	.00	0	30.0	.28	13	31.0	.78	3	.0	.00	0	.0	.00	0	.0	.00	0
Midwater salinity	.0	.00	0	30.4	.30	13	32.2	.57	3	.0	.00	0	.0	.00	0	.0	.00	0
Bottom salinity	.0	.00	0	30.8	.33	13	33.3	.71	3	.0	.00	0	.0	.00	0	.0	.00	0
Surface chlorophyll	.0	.00	0	1.4	.21	13	.5	.30	3	.0	.00	0	.0	.00	0	.0	.00	0
Midwater chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	.0	.00	0	6.9	.09	13	6.7	.36	3	.0	.00	0	.0	.00	0	.0	.00	0
Midwater oxygen	.0	.00	0	6.8	.08	13	6.6	.32	3	.0	.00	0	.0	.00	0	.0	.00	0
Bottom oxygen	.0	.00	0	6.3	.12	13	6.6	.25	3	.0	.00	0	.0	.00	0	.0	.00	0

Table 23a
Statistical Zone 21
20-ft trawls

Summary of dominant organisms taken in statistical zone 21 during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken. No trawl samples were taken in depths less than 6 fm or greater than 20 fm.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Callinectes similis	.0	.00	.0	.00	0	6.5	3.08	.0	.02	11	22.0	10.00	.2	.09	3
Penaeus duorarum	.0	.00	.0	.00	0	7.6	6.53	.0	.05	11	4.0	4.00	.0	.00	3
Penaeus aztecus	.0	.00	.0	.00	0	.0	.00	.0	.00	11	20.0	20.00	.2	.18	3
Portunus gibbesii	.0	.00	.0	.00	0	4.4	1.83	.0	.02	11	2.0	2.00	.1	.09	3
Sicyonia dorsalis	.0	.00	.0	.00	0	1.1	1.09	.0	.00	11	8.0	8.00	.0	.00	3
Dromidia antillensis	.0	.00	.0	.00	0	2.2	.91	.0	.00	11	2.0	2.00	.0	.00	3
Syacium gunteri	.0	.00	.0	.00	0	15.8	3.55	.2	.06	11	18.0	9.17	.3	.16	3
Peprilus burti	.0	.00	.0	.00	0	7.6	3.25	.0	.00	11	10.0	10.00	.1	.09	3
Upeneus parvus	.0	.00	.0	.00	0	3.3	2.73	.0	.05	11	18.0	9.17	.2	.09	3
Stenotomus caprinus	.0	.00	.0	.00	0	1.6	.85	.0	.00	11	10.0	7.21	.0	.00	3
Etropus crossotus	.0	.00	.0	.00	0	2.7	1.24	.0	.02	11	2.0	2.00	.0	.00	3
Lutjanus campechanus	.0	.00	.0	.00	0	2.7	1.87	.0	.03	11	.0	.00	.0	.00	3
Hippocampus erectus	.0	.00	.0	.00	0	1.6	.85	.0	.00	11	2.0	2.00	.0	.00	3
Prionotus rubio	.0	.00	.0	.00	0	.5	.55	.0	.00	11	4.0	4.00	.0	.00	3
Squid	.0	.00	.0	.00	0	12.5	7.52	.3	.25	11	18.0	10.39	.1	.09	3

Table 23b
Statistical Zone 21
20-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm. No trawl samples were taken in depths less than 6 fm or greater than 20 fm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	.0	.00	0	.5	.50	11	1.8	.91	3	.0	.00	0	.0	.00	0	.0	.00	0
Total finfish kg	.0	.00	0	.2	.25	11	.0	.00	3	.0	.00	0	.0	.00	0	.0	.00	0
Total crustacean kg	.0	.00	0	.0	.00	11	.0	.00	3	.0	.00	0	.0	.00	0	.0	.00	0
Total others kg	.0	.00	0	.5	.50	11	.0	.00	3	.0	.00	0	.0	.00	0	.0	.00	0
Surface temperature	.0	.00	0	26.8	.44	11	26.8	.72	3	.0	.00	0	.0	.00	0	.0	.00	0
Midwater temperature	.0	.00	0	26.4	.49	11	26.7	.77	3	.0	.00	0	.0	.00	0	.0	.00	0
Bottom temperature	.0	.00	0	24.9	.64	11	26.2	1.07	3	.0	.00	0	.0	.00	0	.0	.00	0
Surface salinity	.0	.00	0	35.0	.10	11	35.1	.17	3	.0	.00	0	.0	.00	0	.0	.00	0
Midwater salinity	.0	.00	0	35.0	.10	11	35.4	.23	3	.0	.00	0	.0	.00	0	.0	.00	0
Bottom salinity	.0	.00	0	35.1	.13	11	35.9	.35	3	.0	.00	0	.0	.00	0	.0	.00	0
Surface chlorophyll	.0	.00	0	.4	.08	11	.2	.03	3	.0	.00	0	.0	.00	0	.0	.00	0
Midwater chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	.0	.00	0	6.4	.21	11	6.0	.06	3	.0	.00	0	.0	.00	0	.0	.00	0
Midwater oxygen	.0	.00	0	6.6	.24	11	6.1	.06	3	.0	.00	0	.0	.00	0	.0	.00	0
Bottom oxygen	.0	.00	0	6.3	.34	11	6.4	.17	3	.0	.00	0	.0	.00	0	.0	.00	0

Table 24a
Statistical Zone 22
20-ft trawls

Summary of dominant organisms taken in statistical zone 22 during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken. No trawl samples were taken in depths less than 6 fm or greater than 20 fm.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Callinectes similis	.0	.00	.0	.00	0	48.0	.00	.3	.00	1	48.0	.00	.3	.00	1
Penaeus duorarum	.0	.00	.0	.00	0	.0	.00	.0	.00	1	60.0	.00	.5	.00	1
Penaeus aztecus	.0	.00	.0	.00	0	24.0	.00	.3	.00	1	.0	.00	.0	.00	1
Podochela sidneyi	.0	.00	.0	.00	0	12.0	.00	.0	.00	1	6.0	.00	.0	.00	1
Sicyonia dorsalis	.0	.00	.0	.00	0	.0	.00	.0	.00	1	12.0	.00	.0	.00	1
Sicyonia brevirostris	.0	.00	.0	.00	0	.0	.00	.0	.00	1	12.0	.00	.0	.00	1
Syacium gunteri	.0	.00	.0	.00	0	126.0	.00	1.6	.00	1	108.0	.00	1.6	.00	1
Upeneus parvus	.0	.00	.0	.00	0	.0	.00	.0	.00	1	18.0	.00	.3	.00	1
Prionotus rubio	.0	.00	.0	.00	0	6.0	.00	.0	.00	1	6.0	.00	.3	.00	1
Stenotomus caprinus	.0	.00	.0	.00	0	.0	.00	.0	.00	1	12.0	.00	.0	.00	1
Centropristis philadelphica	.0	.00	.0	.00	0	.0	.00	.0	.00	1	6.0	.00	.0	.00	1
Peprilus burti	.0	.00	.0	.00	0	6.0	.00	.0	.00	1	.0	.00	.0	.00	1
Hippocampus erectus	.0	.00	.0	.00	0	6.0	.00	.0	.00	1	.0	.00	.0	.00	1
Lagocephalus laevigatus	.0	.00	.0	.00	0	6.0	.00	.0	.00	1	.0	.00	.0	.00	1
Squid	.0	.00	.0	.00	0	6.0	.00	.0	.00	1	36.0	.00	1.1	.00	1

Table 24b
Statistical Zone 22
20-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Summer Shrimp/Groundfish Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm. No trawl samples were taken in depths less than 6 fm or greater than 20 fm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	.0	.00	0	8.2	.00	1	2.7	.00	1	.0	.00	0	.0	.00	0	.0	.00	0
Total finfish kg	.0	.00	0	2.7	.00	1	2.7	.00	1	.0	.00	0	.0	.00	0	.0	.00	0
Total crustacean kg	.0	.00	0	.0	.00	1	.0	.00	1	.0	.00	0	.0	.00	0	.0	.00	0
Total others kg	.0	.00	0	5.5	.00	1	.0	.00	1	.0	.00	0	.0	.00	0	.0	.00	0
Surface temperature	.0	.00	0	24.8	.00	1	26.4	.00	1	.0	.00	0	.0	.00	0	.0	.00	0
Midwater temperature	.0	.00	0	24.3	.00	1	26.1	.00	1	.0	.00	0	.0	.00	0	.0	.00	0
Bottom temperature	.0	.00	0	24.3	.00	1	23.0	.00	1	.0	.00	0	.0	.00	0	.0	.00	0
Surface salinity	.0	.00	0	35.7	.00	1	35.1	.00	1	.0	.00	0	.0	.00	0	.0	.00	0
Midwater salinity	.0	.00	0	36.1	.00	1	36.2	.00	1	.0	.00	0	.0	.00	0	.0	.00	0
Bottom salinity	.0	.00	0	36.6	.00	1	36.1	.00	1	.0	.00	0	.0	.00	0	.0	.00	0
Surface chlorophyll	.0	.00	0	2.8	.00	1	.2	.00	1	.0	.00	0	.0	.00	0	.0	.00	0
Midwater chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	.0	.00	0	6.3	.00	1	5.8	.00	1	.0	.00	0	.0	.00	0	.0	.00	0
Midwater oxygen	.0	.00	0	6.6	.00	1	5.9	.00	1	.0	.00	0	.0	.00	0	.0	.00	0
Bottom oxygen	.0	.00	0	6.5	.00	1	5.9	.00	1	.0	.00	0	.0	.00	0	.0	.00	0

Table 25. 1994 Fall Shrimp/Groundfish Survey species composition list, 293 trawl stations, for those vessels that used a 40-ft. trawl. Species with a total weight of less than 0.0227 kg (0.05 lb) are indicated on the table as 0.0 kg.

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	% FREQUENCY OF OCCURRENCE
Finfishes					
Stenotomus caprinus	longspine porgy	49373	1636.7	208	71.0
Micropogonias undulatus	Atlantic croaker	27691	1744.2	208	71.0
Chloroscombrus chrysurus	Atlantic bumper	18363	384.6	123	42.0
Leiostomus xanthurus	spot	11889	1331.4	167	57.0
Serranus atrobranchus	blackear bass	10729	130.6	93	31.7
Arius felis	hardhead catfish	8732	1178.3	112	38.2
Peprilus burti	gulf butterfish	6479	390.3	159	54.3
Diplectrum bivittatum	dwarf sand perch	4913	67.6	103	35.2
Lutjanus campechanus	red snapper	4911	148.4	170	58.0
Cynoscion nothus	silver seatrout	4486	186.0	135	46.1
Upeneus parvus	dwarf goatfish	4481	118.0	94	32.1
Syacium gunteri	shoal flounder	4380	69.8	121	41.3
Centropristis philadelphica	rock sea bass	4105	209.7	165	56.3
Synodus foetens	inshore lizardfish	4073	522.3	228	77.8
Trachurus lathami	rough scad	3638	111.9	101	34.5
Prionotus longispinosus	bigeye searobin	3318	137.5	171	58.4
Anchoa hepsetus	striped anchovy	2871	33.5	83	28.3
Trichiurus lepturus	Atlantic cutlassfish	2659	103.7	99	33.8
Cynoscion spp.	seatrouts	2459	7.6	49	16.7
Prionotus stearnsi	shortwing searobin	2317	22.5	56	19.1
Pristipomoides aquilonaris	wenchman	2182	137.5	64	21.8
Cynoscion arenarius	sand seatrout	1890	238.3	154	52.6
Prionotus paralatus	Mexican searobin	1772	57.7	62	21.2
Lagodon rhomboides	pinfish	1722	113.5	126	43.0
Harengula jaguana	scaled sardine	1666	64.8	89	30.4
Trichopsetta ventralis	sash flounder	1423	34.4	50	17.1
Saurida brasiliensis	largescale lizardfish	1418	8.0	93	31.7
Halieutichthys aculeatus	pancake batfish	1390	10.7	107	36.5
Sphoeroides parvus	least puffer	1353	8.0	94	32.1
Etropus crossotus	fringed flounder	1160	24.6	90	30.7
Mullus auratus	red goatfish	1137	79.3	43	14.7
Anchoa mitchilli	bay anchovy	1068	2.0	27	9.2
Lepophidium brevibarbe	blackedge cusk-eel	842	28.1	78	26.6
Balistes capriscus	gray triggerfish	696	67.1	95	32.4
Synodus poeyi	offshore lizardfish	685	4.5	51	17.4
Scorpaena calcarata	smoothhead scorpionfish	634	9.5	62	21.2

Table 25. Species composition list (continued)

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	% FREQUENCY OF OCCURRENCE
Lutjanus synagris	lane snapper	610	29.7	88	30.0
Symphurus plagiusa	blackcheek tonguefish	593	10.3	47	16.0
Lagocephalus laevigatus	smooth puffer	581	71.5	96	32.8
Menticirrhus americanus	southern kingfish	569	53.4	30	10.2
Opisthonema oglinum	Atlantic thread herring	519	30.9	62	21.2
Eucinostomus gula	silver jenny	502	11.5	89	30.4
Pontinus longispinis	longspine scorpionfish	434	3.9	9	3.1
Anchoa lyolepis	dusky anchovy	428	.9	10	3.4
Cyclopsetta chittendeni	Mexican flounder	426	45.2	96	32.8
Selene setapinnis	Atlantic moonfish	421	23.9	52	17.7
Prionotus rubio	blackwing searobin	416	14.5	49	16.7
Porichthys plectrodon	Atlantic midshipman	412	7.4	71	24.2
Stellifer lanceolatus	star drum	352	6.6	20	6.8
Chaetodipterus faber	Atlantic spadefish	343	27.1	85	29.0
Peprilus alepidotus	harvestfish	311	13.6	37	12.6
Steindachneria argentea	luminous hake	303	1.6	6	2.0
Decapterus punctatus	round scad	303	8.7	27	9.2
Ophidion welshi	crested cusk-eel	300	12.9	37	12.6
Citharichthys spilopterus	bay whiff	294	6.4	42	14.3
Brevoortia patronus	gulf menhaden	292	18.3	26	8.9
Conodon nobilis	barred grunt	289	6.7	3	1.0
Rhomboplites aurorubens	vermilion snapper	281	24.2	17	5.8
Haemulon aurolineatum	tomtate	243	19.4	11	3.8
Monacanthus hispidus	planehead filefish	223	4.3	54	18.4
Caranx crysos	blue runner	222	24.2	47	16.0
Larimus fasciatus	banded drum	219	12.5	34	11.6
Syacium papillosum	dusky flounder	217	13.7	21	7.2
Priacanthus arenatus	bigeye	183	18.0	36	12.3
Sardinella aurita	Spanish sardine	179	5.4	20	6.8
Engyophrys senta	spiny flounder	171	.8	25	8.5
Orthopristis chrysoptera	pigfish	165	11.0	28	9.6
Gymnachirus texae	fringed sole	163	2.5	39	13.3
Prionotus tribulus	bighead searobin	158	10.4	38	13.0
Syacium spp.	lefteye flounders	144	2.0	11	3.8
Caulolatilus intermedius	anchor tilefish	143	9.1	22	7.5
Eucinostomus argenteus	spotfin mojarra	136	2.5	12	4.1
Sphyraena guachancho	guaguanche	133	18.3	38	13.0
Bellator militaris	horned searobin	126	3.5	10	3.4
Ancylopsetta dilecta	three-eye flounder	117	8.7	25	8.5

Table 25. Species composition list (continued)

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	% FREQUENCY OF OCCURRENCE
Bollmannia communis	ragged goby	115	.9	22	7.5
Equetus umbrosus	cubbyu	112	8.1	17	5.8
Symphurus diomedianus	spottedfin tonguefish	110	2.6	17	5.8
Brotula barbata	bearded brotula	101	21.4	42	14.3
Hoplunnis macrurus	freckled pike-conger	96	1.5	28	9.6
Ogcocephalus parvus	roughback batfish	87	2.1	13	4.4
Anchoa nasuta	longnose anchovy	80	.1	5	1.7
Centropristis ocyura	bank sea bass	77	7.0	8	2.7
Rhizoprionodon terraenovae	Atlantic sharpnose shark	76	93.8	22	7.5
Urophycis floridana	southern hake	76	12.2	21	7.2
Bagre marinus	gafftopsail catfish	73	10.9	20	6.8
Prionotus roseus	bluespotted searobin	73	2.2	8	2.7
Prionotus ophryas	bandtail searobin	71	1.6	22	7.5
Bellator egretta	streamer searobin	71	.8	6	2.0
Paralichthys lethostigma	southern flounder	70	26.5	43	14.7
Ogcocephalus declivirostris	slantbrow batfish	69	3.6	23	7.8
Hildebrandia flava	yellow conger	67	4.8	24	8.2
Lepophidium jeannae	mottled cusk-eel	66	3.7	8	2.7
Ancylopsetta quadrocellata	ocellated flounder	62	11.3	27	9.2
Scomberomorus maculatus	Spanish mackerel	61	12.0	16	5.5
Decodon puellaris	red hogfish	56	2.0	8	2.7
Citharichthys spp.	lefteye flounders	52	.4	1	.3
Etropus cyclosquamus	shelf flounder	52	.6	6	2.0
Symphurus civitatus	offshore tonguefish	50	.7	7	2.4
Kathetostoma albigutta	lancer stargazer	47	3.9	19	6.5
Sphoeroides dorsalis	marbled puffer	46	1.1	9	3.1
Selene vomer	lookdown	44	2.1	18	6.1
Calamus leucosteus	whitebone porgy	44	14.2	5	1.7
Ophidion holbrooki	bank cusk-eel	38	2.2	5	1.7
Equetus wamotoi	blackbar drum	33	2.5	7	2.4
Scomberomorus cavalla	king mackerel	33	8.7	12	4.1
Neomerinthe hemingwayi	spinycheek scorpionfish	32	21.0	11	3.8
Selar crumenophthalmus	bigeye scad	32	2.5	10	3.4
Raja texana	roundel skate	31	13.3	18	6.1
Prionotus scitulus	leopard searobin	28	.7	8	2.7
Urophycis cirrata	gulf hake	27	1.8	11	3.8
Polydactylus octonemus	Atlantic threadfin	25	.6	5	1.7
Serranus phoebe	tattler	24	.8	5	1.7
Hemanthias aureorubens	streamer bass	23	.5	2	.7

Table 25. Species composition list (continued)

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	% FREQUENCY OF OCCURRENCE
Saurida caribbaea	smallscale lizardfish	22	.2	1	.3
Diplectrum formosum	sand perch	22	2.1	7	2.4
Conger oceanicus	conger eel	21	1.8	4	1.4
Echeneis naucrates	sharksucker	21	6.7	11	3.8
Citharichthys macrops	spotted whiff	21	.2	5	1.7
Etrumeus teres	round herring	20	.4	4	1.4
Rachycentron canadum	cobia	20	13.8	15	5.1
Peristedion gracile	slender searobin	19	.3	1	.3
Lactophrys quadricornis	scrawled cowfish	19	1.1	5	1.7
Mustelus canis	smooth dogfish	18	53.6	7	2.4
Pagrus pagrus	red porgy	17	2.9	2	.7
Scomber japonicus	chub mackerel	17	1.7	2	.7
Monacanthus setifer	pygmy filefish	17	.5	1	.3
Scorpaena dispar	hunchback scorpionfish	16	.8	2	.7
Pomatomus saltatrix	bluefish	16	5.1	9	3.1
Gymnothorax nigromarginatus	blackedge moray	14	2.5	11	3.8
Bathyanthias mexicanus	yellowtail bass	14	.6	6	2.0
Neobythites gillii	cusk-eel	14	.1	4	1.4
Gymnothorax saxicola	honeycomb moray	13	1.3	7	2.4
Trachinocephalus myops	snakefish	12	.6	3	1.0
Sciaenops ocellatus	red drum	12	41.3	5	1.7
Raja eglanteria	clearnose skate	11	12.7	6	2.0
Narcine brasiliensis	lesser electric ray	11	5.0	4	1.4
Serraniculus pumilio	pygmy sea bass	11	.1	5	1.7
Rypticus maculatus	whitespotted soapfish	10	.6	5	1.7
Menticirrhus littoralis	gulf kingfish	10	2.2	3	1.0
Gymnothorax kolpos	blacktail moray	9	6.3	1	.3
Physiculus fulvus	metallic codling	9	.0	4	1.4
Apogon affinis	bigtooth cardinalfish	9	.2	3	1.0
Synagrops bellus	blackmouth bass	9	.1	3	1.0
Ogcocephalus radiatus	polka-dot batfish	9	2.0	5	1.7
Dasyatis sabina	Atlantic stingray	8	5.8	4	1.4
Sphyrna tiburo	bonnethead	7	5.7	5	1.7
Ophichthus gomesi	shrimp eel	7	.9	6	2.0
Chilomycterus schoepfi	striped burrfish	7	2.0	5	1.7
Squatina dumeril	Atlantic angel shark	6	8.3	5	1.7
Dasyatis americana	southern stingray	6	12.5	6	2.0
Scorpaena brasiliensis	barbfish	6	1.0	2	.7
Seriola dumerili	greater amberjack	6	2.8	3	1.0

Table 25. Species composition list (continued)

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	% FREQUENCY OF OCCURRENCE
Etropus spp.	lefteye flounders	6	.0	2	.7
Scorpaena plumieri	spotted scorpionfish	5	1.1	3	1.0
Hemicaranx amblyrhynchus	bluntnose jack	5	.3	4	1.4
Scomber spp.	mackerals	5	.1	1	.3
Etropus rimosus	gray flounder	5	.1	2	.7
Symphurus urospilus	spottail tonguefish	5	.1	3	1.0
Ogcocephalus spp.	batfishes	5	.1	3	1.0
Ogcocephalus pantostictus	spotted batfish	5	.8	3	1.0
Rhinobatos lentiginosus	Atlantic guitarfish	4	2.8	2	.7
Dasyatis say	bluntnose stingray	4	3.2	2	.7
Sardinella spp.	sardine	4	.0	1	.3
Myctophidae	lanternfishes	4	.0	1	.3
Paraconger caudilimbatus	margintail conger	4	.5	2	.7
Epinephelus flavolimbatus	yellowedge grouper	4	.5	2	.7
Hemanthias vivanus	red barbier	4	.0	1	.3
Bairdiella chrysoura	silver perch	4	.2	2	.7
Archosargus probatocephalus	sheepshead	4	2.9	3	1.0
Paralichthys squamilentus	broad flounder	4	.8	3	1.0
Achirus lineatus	lined sole	4	.0	3	1.0
Antennarius radiosus	singlespot frogfish	4	.1	2	.7
Mustelus norrisi	Florida smoothhound	3	13.7	3	1.0
Raja olseni	spreadfin skate	3	.0	1	.3
Anchoa spp.	anchovies	3	.0	1	.3
Myrophis punctatus	speckled worm eel	3	.1	1	.3
Bregmaceros atlanticus	antenna codlet	3	.0	1	.3
Scorpaenidae	scorpionfishes	3	1.0	1	.3
Serranidae	sea basses	3	.0	1	.3
Holanthias martinicensis	roughtongue bass	3	.0	1	.3
Apogon pseudomaculatus	twospot cardinalfish	3	.1	2	.7
Remora remora	remora	3	1.5	2	.7
Caranx hippos	crevalle jack	3	.3	2	.7
Trachinotus carolinus	Florida pompano	3	1.1	3	1.0
Etelis oculatus	queen snapper	3	.1	1	.3
Chaetodon sedentarius	reef butterflyfish	3	.2	3	1.0
Ophidion grayi	blotched cusk-eel	3	.1	2	.7
Sphoeroides spengleri	bandtail puffer	3	.0	1	.3
Carcharhinus acronotus	blacknose shark	2	7.8	2	.7
Engraulis eurystole	silver anchovy	2	.0	1	.3
Mugil cephalus	striped mullet	2	1.0	1	.3

Table 25. Species composition list (continued)

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	% FREQUENCY OF OCCURRENCE
Scorpaena agassizi	longfin scorpionfish	2	.0	1	.3
Prionotus alatus	spiny searobin	2	.1	2	.7
Hemanthias leptus	longtail bass	2	.5	2	.7
Echeneis neucratoides	whitefin sharksucker	2	2.2	1	.3
Pogonias cromis	black drum	2	5.5	2	.7
Pseudupeneus maculatus	spotted goatfish	2	.0	1	.3
Chaetodon aya	bank butterflyfish	2	.0	1	.3
Ariomma bondi	silver-rag	2	.2	1	.3
Trinectes maculatus	hogchoker	2	.0	2	.7
Dasyatis centroura	roughtail stingray	1	62.1	1	.3
Saurida spp.	lizardfishes	1	.0	1	.3
Conger triporiceps	manytooth conger	1	.1	1	.3
Echiophis punctifer	snapper eel	1	.4	1	.3
Aplatophis chauliodus	tusky eel	1	.3	1	.3
Urophycis regia	spotted hake	1	.1	1	.3
Syngnathus scovelli	gulf pipefish	1	.0	1	.3
Sphyraena borealis	northern sennet	1	.1	1	.3
Prionotus spp.	searobins	1	.0	1	.3
Pristigenys alta	short bigeye	1	.2	1	.3
Apogon spp.	cardinalfishes	1	.0	1	.3
Lutjanus apodus	schoolmaster	1	.0	1	.3
Opistognathidae	jawfishes	1	.0	1	.3
Foetorepus agassizi	spotfin dragonet	1	.0	1	.3
Lepophidium spp.	cusk-eels	1	.1	1	.3
Pleuronectiformes (order)	flounders	1	.0	1	.3
Citharichthys cornutus	horned whiff	1	.0	1	.3
Monolene sessilicauda	deepwater flounder	1	.0	1	.3
Bothus ocellatus	eyed flounder	1	.0	1	.3
Paralichthys dentatus	summer flounder	1	.9	1	.3
Symphurus pelicanus	longtail tonguefish	1	.0	1	.3
Parahollardia lineata	jambeau	1	.1	1	.3
Aluterus schoepfi	orange filefish	1	.7	1	.3
Lophius americanus	goosefish	1	.2	1	.3
Ogcocephalus nasutus	shortnose batfish	1	.1	1	.3
Ogcocephalus corniger	longnose batfish	1	.0	1	.3
Zalieutes mcgintyi	tricorn batfish	1	.0	1	.3

Table 25. Species composition list (continued)

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	% FREQUENCY OF OCCURRENCE
Crustaceans					
Penaeus aztecus	brown shrimp	10152	237.5	234	79.9
Portunus gibbesii	irridescent swimming crab	5853	30.8	159	54.3
Callinectes similis	lesser blue crab	5814	120.1	188	64.2
Portunus spinicarpus	longspine swimming crab	5371	43.7	50	17.1
Trachypenaeus similis	roughback shrimp	4329	10.2	96	32.8
Sicyonia brevirostris	brown rock shrimp	4023	59.3	96	32.8
Squilla empusa	mantis shrimp	3695	42.0	150	51.2
Penaeus setiferus	white shrimp	2585	54.3	99	33.8
Sicyonia dorsalis	lesser rock shrimp	1968	6.5	48	16.4
Solenocera vioscai	humpback shrimp	1718	13.3	36	12.3
Trachypenaeus constrictus	roughneck shrimp	1346	1.8	23	7.8
Penaeus duorarum	pink shrimp	1060	14.6	61	20.8
Parapenaeus politus	deepwater rose shrimp	646	1.5	9	3.1
Squilla chydaea	mantis shrimp	553	3.2	55	18.8
Portunus spinimanus	blotched swimming crab	276	7.7	58	19.8
Calappa sulcata	yellow box crab	141	29.0	63	21.5
Anasimus latus	stilt spider crab	108	1.2	14	4.8
Hepatus epheliticus	calico crab	47	2.5	14	4.8
Sicyonia typica	kinglet rock shrimp	29	.0	1	.3
Raninoides louisianensis	gulf frog crab	27	.2	8	2.7
Plesionika longicauda	pandalid shrimp	25	.0	5	1.7
Persephona crinita	pink purse crab	20	.1	10	3.4
Stenorhynchus seticornis	yellowline arrow crab	19	.0	8	2.7
Paguristes triangulatus	hermit crab	17	.0	4	1.4
Persephona mediterranea	mottled purse crab	16	.1	13	4.4
Ovalipes floridanus	Florida lady crab	16	.1	8	2.7
Callinectes sapidus	blue crab	15	2.9	12	4.1
Arenaeus cribrarius	speckled swimming crab	12	.1	4	1.4
Myropsis quinquespinosa	fivespine purse crab	11	.0	3	1.0
Cirripedia	barnacles	10	.2	1	.3
Balamus trigonus	(symmetrical) sessile barnacle	10	.0	1	.3
Pagurus bullisi	hermit crab	9	.0	4	1.4
Pagurus pollicaris	flatclaw hermit crab	9	.0	6	2.0
Libinia emarginata	portly spider crab	7	.6	3	1.0
Scyllarides nodifer	ridged slipper lobster	7	1.5	3	1.0
Podochela sidneyi	shortfinger neck crab	7	.0	2	.7
Acanthocarpus alexandri	gladiator box crab	7	.1	2	.7

Table 25. Species composition list (continued)

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	% FREQUENCY OF OCCURRENCE
Leiolambrus nitidus	white elbow crab	7	.0	1	.3
Squilla neglecta	mantis shrimp	6	.0	5	1.7
Speocarcinus spp.	squareback crabs	6	.0	3	1.0
Pagurus impressus	dimpled hermit	5	.0	3	1.0
Stenocionops coelata	spider crab	5	.1	2	.7
Dardanus insignis	red brocade hermit	5	.0	3	1.0
Mesopenaeus tropicalis	salmon shrimp	4	.0	1	.3
Petrochirus diogenes	giant hermit crab	4	.2	3	1.0
Libinia dubia	longnose spider crab	4	.1	3	1.0
Scyllarus chacei	chace slipper lobster	4	.0	2	.7
Goneplacidae	brachyuran crab	4	.0	1	.3
Euphrosynoplax clausa	craggy bathyal crab	4	.0	3	1.0
Parthenope granulata	bladetooth elbow crab	4	.0	3	1.0
Metapenaeopsis goodei	velvet shrimp	3	.0	1	.3
Axiidae	lobster shrimps	3	.0	1	.3
Stenocionops furcata	furcate crab	3	.2	2	.7
Sicyonia burkenroadi	spiny rock shrimp	2	.0	1	.3
Collodes robustus	spider crab	2	.0	2	.7
Nibilia antilocapra	shorthorn spiny crab	2	.0	2	.7
Porcellana sigsbeiana	striped porcelain crab	2	.0	1	.3
Lysiosquilla scabricauda	mantis shrimp	1	.1	1	.3
Lysmata spp.	caridean shrimp	1	.0	1	.3
Dyspanopeus texana	gulf grassflat crab	1	.0	1	.3
Manucomplanus curallinus	right-handed hermit crab	1	.0	1	.3
Scyllarus depressus	scaled slipper lobster	1	.0	1	.3
Munida forceps	squat lobster	1	.0	1	.3
Calappa flammea	flame box crab	1	.0	1	.3
Uroptychus spp.	anomuran crab	1	.0	1	.3
Raninoides loevis	furrowed frog crab	1	.0	1	.3
Parthenope serrata	sawtooth elbow crab	1	.0	1	.3
Paguristes hummi	left-handed hermit crabs	1	.0	1	.3
Others					
Loligo pleii	arrow squid	3424	22.2	110	37.5
Astropecten duplicatus	spiny beaded sea star	2583	3.1	48	16.4
Lolliguncula brevis	Atlantic brief squid	2494	25.7	91	31.1
Amusium papyraceum	paper scallop	1877	15.3	52	17.7
Loligo pealeii	longfin squid	928	36.9	83	28.3

Table 25. Species composition list (continued)

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	% FREQUENCY OF OCCURRENCE
Aurelia aurita	moon jellyfish	913	279.5	66	22.5
Renilla mulleri	short-stemmed sea pansy	669	3.0	23	7.8
Ophiolepis elegans	brittle star	263	.4	21	7.2
Chrysaora quinquecirrha	sea nettle	244	3.2	20	6.8
Luidia clathrata	sea star	215	2.8	37	12.6
Astropecten cingulatus	starfish	138	1.5	32	10.9
Astropecten articulatus	plated-margined sea star	109	.1	1	.3
Anadara baughmani	Baughman's ark	80	2.1	8	2.7
Astropecten alligator	starfish	68	.0	9	3.1
Loligo spp.	squids	62	1.4	7	2.4
Tamoya haplonema	sea wasp	52	9.0	13	4.4
Anthozoa	anthozoans	51	.3	21	7.2
Macoma brevifrons	short macoma	30	.3	3	1.0
Clypeaster ravenelii	cake urchin	25	3.3	6	2.0
Astrocyclus caecilia	basket star	24	.6	3	1.0
Astropecten americanus	starfish	19	.1	4	1.4
Styela plicata	tunicate	18	.1	8	2.7
Luidia alternata	banded luidia	17	.2	6	2.0
Tethyaster grandis	starfish	17	1.1	6	2.0
Clypeaster prostratus	sea biscuit	17	1.5	5	1.7
Pitar cordatus	Schwengel's pitar	16	.2	7	2.4
Circomphalus strigillinus	empress venus	15	.4	1	.3
Astrogordius cacaoticum	basket star	14	.2	2	.7
Encope aberrans	sand dollar	14	.3	4	1.4
Porifera	sponges	13	3.4	6	2.0
Asteroporpa annulata	starfish	13	.2	6	2.0
Hydrozoa	hydroids	11	.0	1	.3
Polystira albida	white giant turris	10	.2	5	1.7
Asteroidea	starfishes	9	.1	1	.3
Chione clenchi	Clench venus	8	.1	2	.7
Virgularia presbytes	sea pen	8	.0	2	.7
Echinaster spp.	thorny sea stars	6	.0	4	1.4
Neverita duplicata	shark eye	5	.0	4	1.4
Distorsio clathrata	Atlantic distorsio	5	.0	3	1.0
Pteria colymbus	Atlantic wing-oyster	5	.0	2	.7
Mellita quinquiesperforata	five-slotted sand dollar	5	.0	3	1.0
Crepidula convexa	convex slippersnail	4	.0	1	.3
Semirossia equalis	greater shining bobtail	4	.0	2	.7
Cerianthus spp.	anemones	4	.2	2	.7

Table 25. Species composition list (continued)

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	% FREQUENCY OF OCCURRENCE
Comactinia meridionalis	crinoid	4	.1	2	.7
Echinaster serpentarius	starfish	4	.0	2	.7
Ventricolaria rigida	rigid venus	3	.1	1	.3
Luidia spp.	sea stars	3	.1	2	.7
Anthenoides piercei	starfish	3	.2	1	.3
Schizaster orbignyanus	heart urchin	3	.1	2	.7
Ophionereis reticulata	reticulate brittle star	3	.0	2	.7
Brachyura	crab	3	.0	1	.3
Tonna galea	giant tun	2	.5	1	.3
Phyllonotus pomum	apple murex	2	.1	1	.3
Fasciolaria hunteria	tulip	2	.1	1	.3
Argopecten gibbus	calico scallop	2	.0	1	.3
Abralia redfieldi	Redfield's abralia (squid)	2	.0	1	.3
Octopus vulgaris	common Atlantic octopus	2	.4	2	.7
Leptogorgia spp.	sea whips	2	.0	1	.3
Astropecten spp.	sea stars	2	.0	1	.3
Goniaster tesselatus	starfish	2	.1	1	.3
Arbacia punctulata	purple sea-urchin	2	.0	1	.3
Molpadia spp.	sea cucumber	2	.0	1	.3
Thais haemastoma	rocksnail	1	.0	1	.3
Muricanthus fulvescens	giant eastern murex	1	.0	1	.3
Anadara ovalis	blood ark	1	.0	1	.3
Atrina spp.	penshells	1	.4	1	.3
Chama congregata	corrugate jewelbox	1	.0	1	.3
Laevicardium sybariticum	delicate eggcockle	1	.0	1	.3
Stomolophus meleagris	many-mouthed sea jelly	1	.2	1	.3
Echinoidea	echinoderms	1	.0	1	.3
Centrostephanus longispinosus	sea urchin	1	.0	1	.3
Encope michelini	sand dollar	1	.0	1	.3

Table 26. 1994 Fall Shrimp/Groundfish Survey species composition list, 80 trawl stations, for those vessels that used a 20-ft. trawl. Species with a total weight of less than 0.0227 kg (0.05 lb) are indicated on the table as 0.0 kg.

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	% FREQUENCY OF OCCURRENCE
Finfishes					
Chloroscombrus chrysurus	Atlantic bumper	2784	13.5	34	42.5
Cynoscion nothus	silver seatrout	765	6.3	37	46.3
Peprilus burti	gulf butterfish	189	3.6	35	43.8
Syacium gunteri	shoal flounder	170	2.5	27	33.8
Stellifer lanceolatus	star drum	153	2.0	18	22.5
Harengula jaguana	scaled sardine	144	1.6	23	28.8
Trichiurus lepturus	Atlantic cutlassfish	132	1.5	24	30.0
Anchoa mitchilli	bay anchovy	119	.1	19	23.8
Anchoa nasuta	longnose anchovy	110	1.6	15	18.8
Selene setapinnis	Atlantic moonfish	86	.4	12	15.0
Lutjanus campechanus	red snapper	72	1.0	17	21.3
Cynoscion arenarius	sand seatrout	63	2.7	21	26.3
Arius felis	hardhead catfish	51	4.8	10	12.5
Symphurus plagiusa	blackcheek tonguefish	51	.7	27	33.8
Anchoa hepsetus	striped anchovy	50	.1	5	6.3
Selene vomer	lookdown	49	.2	11	13.8
Micropogonias undulatus	Atlantic croaker	32	1.3	10	12.5
Etropus crossotus	fringed flounder	28	.2	17	21.3
Menticirrhus americanus	southern kingfish	23	2.1	11	13.8
Sphoeroides parvus	least puffer	23	.0	16	20.0
Bagre marinus	gafftopsail catfish	22	1.7	6	7.5
Peprilus alepidotus	harvestfish	19	.1	10	12.5
Diplectrum bivittatum	dwarf sand perch	18	.3	6	7.5
Prionotus tribulus	bighead searobin	17	.1	4	5.0
Saurida brasiliensis	largescale lizardfish	16	.1	6	7.5
Lagocephalus laevigatus	smooth puffer	15	.1	6	7.5
Trachurus lathami	rough scad	14	.4	4	5.0
Brevoortia patronus	gulf menhaden	13	.5	4	5.0
Citharichthys spilopterus	bay whiff	12	.0	12	15.0
Eucinostomus argenteus	spotfin mojarra	10	.1	4	5.0
Larimus fasciatus	banded drum	9	.1	5	6.3
Synodus foetens	inshore lizardfish	8	.4	7	8.8
Prionotus rubio	blackwing searobin	7	.1	6	7.5
Chaetodipterus faber	Atlantic spadefish	7	.0	5	6.3
Lagodon rhomboides	pinfish	6	.2	6	7.5
Opisthonema oglinum	Atlantic thread herring	5	.0	2	2.5

Table 26. Species composition list (continued)

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	% FREQUENCY OF OCCURRENCE
Eucinostomus gula	silver jenny	5	.0	4	5.0
Orthopristis chrysoptera	pigfish	4	.2	4	5.0
Upeneus parvus	dwarf goatfish	4	.1	1	1.3
Etrumeus teres	round herring	3	.1	3	3.8
Sardinella aurita	Spanish sardine	3	.2	1	1.3
Leiostomus xanthurus	spot	3	.2	3	3.8
Porichthys plectrodon	Atlantic midshipman	3	.0	2	2.5
Hemicaranx amblyrhynchus	bluntnose jack	2	.0	2	2.5
Lutjanus synagris	lane snapper	2	.0	2	2.5
Gymnachirus texae	fringed sole	2	.0	1	1.3
Halieutichthys aculeatus	pancake batfish	2	.0	2	2.5
Dorosoma petenense	threadfin shad	1	.0	1	1.3
Anchoa spp.	anchovies	1	.0	1	1.3
Scorpaena calcarata	smoothhead scorpionfish	1	.0	1	1.3
Prionotus scitulus	leopard searobin	1	.0	1	1.3
Centropristis philadelphica	rock sea bass	1	.0	1	1.3
Serraniculus pumilio	pygmy sea bass	1	.0	1	1.3
Trachinotus falcatus	permit	1	.0	1	1.3
Conodon nobilis	barred grunt	1	.0	1	1.3
Archosargus probatocephalus	sheepshead	1	1.7	1	1.3
Bollmannia communis	ragged goby	1	.0	1	1.3
Lepophidium brevibarbe	blackedge cusk-eel	1	.0	1	1.3
Ophidion marginatum	striped cusk-eel	1	.0	1	1.3
Achirus lineatus	lined sole	1	.0	1	1.3
Balistes capriscus	gray triggerfish	1	.0	1	1.3
Monacanthus hispidus	planehead filefish	1	.0	1	1.3
Ogcocephalus radiatus	polka-dot batfish	1	.0	1	1.3
Crustaceans					
Trachypenaeus similis	roughback shrimp	231	.2	21	26.3
Penaeus setiferus	white shrimp	154	1.3	30	37.5
Xiphopenaeus kroyeri	seabob	144	.6	6	7.5
Callinectes similis	lesser blue crab	96	.4	33	41.3
Sicyonia dorsalis	lesser rock shrimp	91	.0	22	27.5
Portunus gibbesii	irridescent swimming crab	66	.3	25	31.3
Squilla empusa	mantis shrimp	65	.5	22	27.5
Penaeus aztecus	brown shrimp	17	.1	10	12.5
Sicyonia brevirostris	brown rock shrimp	11	.1	5	6.3

Table 26. Species composition list (continued)

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	% FREQUENCY OF OCCURRENCE
Pagurus pollicaris	flatclaw hermit crab	11	.1	9	11.3
Callinectes sapidus	blue crab	10	.6	3	3.8
Penaeus duorarum	pink shrimp	9	.1	6	7.5
Persephona mediterranea	mottled purse crab	5	.0	4	5.0
Portunus spinimanus	blotched swimming crab	5	.0	2	2.5
Persephona crinita	pink purse crab	4	.0	4	5.0
Sicyonia typica	kinglet rock shrimp	2	.0	2	2.5
Libinia dubia	longnose spider crab	2	.0	2	2.5
Ovalipes floridanus	Florida lady crab	2	.1	2	2.5
Calappa sulcata	yellow box crab	2	.1	2	2.5
Penaeus spp.	penaeid shrimps	1	.0	1	1.3
Trachypenaeus spp.	roughneck shrimps	1	.0	1	1.3
Petrochirus diogenes	giant hermit crab	1	.0	1	1.3
Arenaeus cribrarius	speckled swimming crab	1	.1	1	1.3
Porcellana sayana	spotted porcelain crab	1	.0	1	1.3
Calappa flammea	flame box crab	1	.2	1	1.3
Parthenope serrata	sawtooth elbow crab	1	.0	1	1.3
Others					
Lolliguncula brevis	Atlantic brief squid	2761	20.1	72	90.0
Renilla mulleri	short-stemmed sea pansy	999	2.0	27	33.8
Loligo pealeii	longfin squid	168	1.5	11	13.8
Mellita quinquiesperforata	five-slotted sand dollar	102	.4	3	3.8
Stomolophus meleagris	many-mouthed sea jelly	43	15.7	11	13.8
Astropecten duplicatus	spiny beaded sea star	40	.1	5	6.3
Luidia clathrata	sea star	22	.4	13	16.3
Actinidae	sea anemones	18	.0	9	11.3
Neverita duplicata	shark eye	17	.2	6	7.5
Aurelia aurita	moon jellyfish	11	1.3	3	3.8
Cantharus cancellarius	cancellate cantharus	6	.0	2	2.5
Gorgonidae	gorgonians	5	.1	5	6.3
Chrysaora quinquecirrha	sea nettle	4	.1	3	3.8
Algae	algae	4	.0	4	5.0
Sargassaceae	sargassum	4	.3	4	5.0
Busycon sinistrum	lightning whelk	3	.7	3	3.8
Luidia alternata	banded luidia	2	.0	2	2.5
Strombus alatus	Florida fighting conch	1	.0	1	1.3
Busycotypus spiratus	pearwhelk	1	.1	1	1.3

Table 26. Species composition list (continued)

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	% FREQUENCY OF OCCURRENCE
Cancellaria reticulata	common nutmeg	1	.0	1	1.3
Loligo pleii	arrow squid	1	.0	1	1.3
Mnemiidae	ctenophores	1	.2	1	1.3

Table 27a
Statistical Zone 11
40-ft trawls

Summary of dominant organisms taken in statistical zone 11 during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Portunus spinicarpus	.0	.00	.0	.00	7	.0	.00	.0	.00	14	.4	.31	.0	.00	27
Callinectes similis	9.8	8.41	.1	.05	7	2.4	1.12	.0	.02	14	94.8	58.92	2.5	1.93	27
Solenocera vioscai	.0	.00	.0	.00	7	.0	.00	.0	.00	14	.3	.26	.0	.00	27
Penaeus aztecus	3.7	2.39	.0	.03	7	11.4	7.22	.2	.11	14	30.0	14.82	.5	.21	27
Squilla spp.	14.5	6.46	.1	.10	7	20.3	12.17	.2	.08	14	17.2	10.39	.1	.06	27
Parapenaeus politus	.0	.00	.0	.00	7	.0	.00	.0	.00	14	.0	.00	.0	.00	27
Stenotomus caprinus	.0	.00	.0	.00	7	199.1	109.38	3.4	1.89	14	770.3	207.82	18.4	4.62	27
Leiostomus xanthurus	4.2	2.01	.3	.13	7	3.7	1.34	.3	.12	14	37.7	18.85	3.6	1.71	27
Arius felis	300.7	79.37	37.4	13.18	7	244.6	83.59	38.8	12.76	14	21.8	12.89	5.0	3.20	27
Serranus atrobranchus	.0	.00	.0	.00	7	.0	.00	.0	.00	14	9.8	5.20	.1	.04	27
Micropogonias undulatus	130.7	80.01	6.5	3.85	7	33.1	10.19	2.2	.70	14	91.0	32.66	5.7	1.96	27
Trachurus lathami	.0	.00	.0	.00	7	133.8	96.80	3.2	2.30	14	8.1	3.27	.3	.10	27
Anchoa hepsetus	106.7	38.44	.8	.35	7	83.3	56.03	.7	.53	14	8.2	6.40	.1	.04	27
Chloroscombrus chrysurus	23.6	6.27	.2	.08	7	34.9	27.37	1.0	.91	14	104.4	57.70	2.9	1.41	27
Squid	134.2	68.68	.7	.43	7	79.0	49.76	.7	.49	14	12.4	3.25	.1	.02	27

Table 27a (continued)
Statistical Zone 11
40-ft trawls

Summary of dominant organisms taken in statistical zone 11 during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken.

	21-30 FM					31-40 FM					>40 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Portunus spinicarpus	1.1	.65	.0	.00	10	2360.3	2354.94	18.4	18.40	6	420.1	186.08	3.8	1.80	4
Callinectes similis	217.1	176.81	1.9	1.25	10	.0	.00	.0	.00	6	1.2	1.20	.0	.03	4
Solenocera vioscai	3.3	2.47	.0	.00	10	74.2	74.17	.4	.38	6	338.3	310.39	2.0	1.78	4
Penaeus aztecus	70.9	25.69	2.0	.52	10	30.2	16.83	.9	.33	6	7.7	7.74	.3	.29	4
Squilla spp.	37.1	17.90	.5	.25	10	49.2	49.17	.1	.08	6	74.3	40.86	.9	.42	4
Parapenaeus politus	59.4	59.40	.1	.08	10	12.5	12.50	.0	.04	6	230.5	180.26	.6	.46	4
Stenotomus caprinus	140.7	60.37	4.7	2.29	10	987.5	195.43	55.1	11.02	6	116.4	67.57	8.4	4.88	4
Leiostomus xanthurus	62.1	19.63	6.6	2.03	10	1328.7	1220.38	156.3	142.99	6	2.2	1.27	.3	.20	4
Arius felis	.0	.00	.0	.00	10	.0	.00	.0	.00	6	.0	.00	.0	.00	4
Serranus atrobranchus	177.5	84.99	1.6	.66	10	321.7	321.67	6.8	6.82	6	971.4	121.24	21.8	2.96	4
Micropogonias undulatus	112.4	58.88	7.6	3.61	10	79.8	57.05	6.0	4.22	6	1.2	1.20	.0	.03	4
Trachurus lathami	8.4	4.17	.4	.20	10	38.9	23.31	2.5	1.55	6	16.2	9.93	1.8	1.07	4
Anchoa hepsetus	82.1	61.55	.8	.65	10	.0	.00	.0	.00	6	1.0	.97	.0	.00	4
Chloroscombrus chrysurus	.8	.80	.0	.02	10	.0	.00	.0	.00	6	.0	.00	.0	.00	4
Squid	8.8	3.48	.1	.02	10	.0	.00	.0	.00	6	35.1	13.62	.5	.24	4

Table 27b
Statistical Zone 11
40-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	62.6	16.48	7	59.3	11.93	14	56.5	6.73	27	57.6	9.50	10	293.6	153.39	6	120.4	4.63	4
Total finfish kg	59.8	16.74	7	57.6	11.93	14	52.2	6.90	27	51.2	8.43	10	272.0	155.00	6	111.8	5.84	4
Total crustacean kg	1.3	.60	7	.7	.30	14	4.0	2.14	27	6.3	2.04	10	20.8	19.03	6	7.9	4.13	4
Total others kg	.7	.73	7	.8	.46	14	.5	.17	27	.1	.09	10	.8	.37	6	.7	.24	4
Surface temperature	21.0	.25	4	22.1	.32	14	23.0	.23	22	23.1	.13	8	22.7	.60	5	23.8	.24	5
Midwater temperature	20.9	.21	4	22.2	.37	14	23.3	.23	22	23.7	.25	8	24.3	.25	5	23.9	.69	5
Bottom temperature	20.9	.21	4	22.7	.37	14	23.9	.23	22	22.7	.51	8	19.5	1.04	5	19.9	.96	5
Surface salinity	30.6	.35	4	30.4	.70	14	32.6	.47	22	33.3	.77	8	33.0	1.73	5	32.7	1.66	5
Midwater salinity	30.5	.37	4	32.0	.27	14	33.7	.21	22	34.8	.32	8	35.6	.41	5	36.3	.26	5
Bottom salinity	30.5	.38	4	32.4	.34	14	34.7	.15	22	36.3	.32	8	36.9	.18	5	36.6	.12	5
Surface chlorophyll	2.0	.21	4	1.0	.08	11	.9	.26	17	.7	.31	7	1.6	.95	5	1.5	1.20	5
Midwater chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom chlorophyll	.0	.00	0	.0	.00	0	.5	.04	4	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	7.2	.32	4	7.5	.53	12	7.7	.27	21	6.9	.74	8	6.7	.70	5	6.1	.42	5
Midwater oxygen	7.2	.40	4	7.7	.38	13	7.9	.32	21	7.4	.56	8	6.2	.09	5	6.1	.05	5
Bottom oxygen	7.3	.40	4	8.0	.48	13	7.0	.39	21	5.4	.34	8	3.4	.65	5	4.3	.54	5

Table 28a
Statistical Zone 13
40-ft trawls

Summary of dominant organisms taken in statistical zone 13 during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken. No trawl samples were taken in depths between 31-40 fm.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Squilla spp.	95.0	43.00	.8	.27	2	28.5	28.50	.1	.14	2	106.3	38.89	.9	.34	11
Penaeus setiferus	243.0	29.00	3.7	.05	2	100.5	25.50	1.4	.48	2	86.6	22.89	1.6	.38	11
Trachypenaeus similis	86.0	30.00	.2	.00	2	.0	.00	.0	.00	2	62.1	18.14	.2	.05	11
Callinectes similis	41.0	33.00	.4	.27	2	3.0	3.00	.1	.14	2	49.0	25.49	.9	.38	11
Penaeus aztecus	9.0	5.00	.1	.05	2	9.0	9.00	.1	.07	2	55.6	31.26	.7	.41	11
Solenocera vioscai	.0	.00	.0	.00	2	.0	.00	.0	.00	2	.0	.00	.0	.00	11
Micropogonias undulatus	259.0	175.00	14.5	9.82	2	40.5	40.50	2.3	2.25	2	379.3	150.73	23.6	9.51	11
Trichiurus lepturus	6.0	6.00	.0	.05	2	18.0	18.00	.3	.27	2	265.0	105.69	7.6	3.57	11
Arius felis	567.0	51.00	8.6	2.45	2	.0	.00	.0	.00	2	5.6	2.87	2.9	2.07	11
Leiostomus xanthurus	14.0	8.00	1.1	.68	2	39.0	27.00	2.9	1.84	2	82.8	25.29	5.9	1.59	11
Cynoscion arenarius	90.0	30.00	3.5	2.27	2	1.5	1.50	.1	.14	2	41.0	13.71	3.8	1.33	11
Lagodon rhomboides	3.0	3.00	.3	.27	2	3.0	3.00	.3	.27	2	18.5	6.46	1.3	.56	11
Cynoscion spp.	.0	.00	.0	.00	2	.0	.00	.0	.00	2	65.1	37.66	.2	.10	11
Sphoeroides parvus	43.0	25.00	.2	.09	2	1.5	1.50	.0	.00	2	41.5	16.59	.3	.14	11
Squid	34.0	34.00	.7	.73	2	61.5	22.50	.3	.20	2	9.9	3.21	.1	.05	11

Table 28a (continued)
Statistical Zone 13
40-ft trawls

Summary of dominant organisms taken in statistical zone 13 during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken. No trawl samples were taken in depths between 31-40 fm.

	21-30 FM					31-40 FM					>40 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Squilla spp.	134.4	.00	1.7	.00	1	.0	.00	.0	.00	0	24.0	.00	.3	.00	1
Penaeus setiferus	24.0	.00	.8	.00	1	.0	.00	.0	.00	0	.0	.00	.0	.00	1
Trachypenaeus similis	104.4	.00	.8	.00	1	.0	.00	.0	.00	0	.0	.00	.0	.00	1
Callinectes similis	190.8	.00	3.3	.00	1	.0	.00	.0	.00	0	.0	.00	.0	.00	1
Penaeus aztecus	64.8	.00	1.2	.00	1	.0	.00	.0	.00	0	24.0	.00	.8	.00	1
Solenocera vioscai	145.2	.00	.8	.00	1	.0	.00	.0	.00	0	444.0	.00	3.0	.00	1
Micropogonias undulatus	15.6	.00	1.3	.00	1	.0	.00	.0	.00	0	6.0	.00	1.1	.00	1
Trichiurus lepturus	15.6	.00	.2	.00	1	.0	.00	.0	.00	0	.0	.00	.0	.00	1
Arius felis	.0	.00	.0	.00	1	.0	.00	.0	.00	0	.0	.00	.0	.00	1
Leiostomus xanthurus	190.8	.00	18.2	.00	1	.0	.00	.0	.00	0	.0	.00	.0	.00	1
Cynoscion arenarius	140.4	.00	22.5	.00	1	.0	.00	.0	.00	0	.0	.00	.0	.00	1
Lagodon rhomboides	224.4	.00	17.4	.00	1	.0	.00	.0	.00	0	.0	.00	.0	.00	1
Cynoscion spp.	76.8	.00	.5	.00	1	.0	.00	.0	.00	0	.0	.00	.0	.00	1
Sphoeroides parvus	.0	.00	.0	.00	1	.0	.00	.0	.00	0	.0	.00	.0	.00	1
Squid	7.2	.00	.1	.00	1	.0	.00	.0	.00	0	36.0	.00	.0	.00	1

Table 28b
Statistical Zone 13
40-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm. No trawl samples were taken in depths between 31-40 fm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	44.5	25.45	2	13.6	2.73	2	55.7	10.02	11	87.8	.00	1	.0	.00	0	32.7	.00	1
Total finfish kg	38.6	25.00	2	11.6	3.41	2	50.7	9.78	11	76.9	.00	1	.0	.00	0	27.3	.00	1
Total crustacean kg	5.0	.45	2	2.0	.68	2	4.8	.79	11	10.4	.00	1	.0	.00	0	5.5	.00	1
Total others kg	.9	.91	2	.0	.00	2	.0	.00	11	.5	.00	1	.0	.00	0	.0	.00	1
Surface temperature	21.9	.04	2	22.4	.33	2	21.6	.11	11	22.5	.00	1	.0	.00	0	24.7	.00	1
Midwater temperature	21.8	.14	2	22.3	.34	2	22.3	.28	11	24.7	.00	1	.0	.00	0	22.9	.00	1
Bottom temperature	23.9	.16	2	24.2	.25	2	24.1	.30	11	22.5	.00	1	.0	.00	0	17.8	.00	1
Surface salinity	17.1	1.02	2	26.6	2.54	2	28.6	.81	11	27.6	.00	1	.0	.00	0	34.8	.00	1
Midwater salinity	18.2	.37	2	28.5	1.55	2	30.0	.86	11	34.9	.00	1	.0	.00	0	36.7	.00	1
Bottom salinity	17.4	.17	2	32.8	.83	2	33.7	1.28	11	37.0	.00	1	.0	.00	0	36.7	.00	1
Surface chlorophyll	3.9	.14	2	3.7	.65	2	4.4	.50	11	1.9	.00	1	.0	.00	0	.2	.00	1
Midwater chlorophyll	4.2	.60	2	.0	.00	0	3.7	.41	6	.0	.00	0	.0	.00	0	.0	.00	0
Bottom chlorophyll	4.6	1.34	2	3.8	.00	1	2.1	.38	11	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	6.9	.15	2	10.3	.00	1	6.2	.78	11	11.7	.00	1	.0	.00	0	8.0	.00	1
Midwater oxygen	6.8	.05	2	3.5	.00	1	7.2	.38	11	10.7	.00	1	.0	.00	0	7.0	.00	1
Bottom oxygen	5.4	.55	2	3.8	.00	1	4.7	.51	11	9.5	.00	1	.0	.00	0	3.3	.00	1

Table 29a
Statistical Zone 14
40-ft trawls

Summary of dominant organisms taken in statistical zone 14 during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Penaeus aztecus	.0	.00	.0	.00	1	6.0	2.43	.1	.05	12	64.7	22.86	1.1	.41	8
Penaeus setiferus	28.2	.00	.3	.00	1	48.4	13.84	.9	.22	12	6.8	6.82	.2	.17	8
Portunus gibbesii	3.5	.00	.0	.00	1	16.9	6.22	.2	.08	12	28.7	21.92	.3	.26	8
Squilla spp.	.0	.00	.0	.00	1	13.0	7.27	.2	.15	12	8.1	5.28	.1	.05	8
Trachypenaeus similis	.0	.00	.0	.00	1	10.0	5.72	.0	.01	12	2.3	1.67	.0	.01	8
Callinectes similis	3.5	.00	.2	.00	1	3.8	2.00	.1	.09	12	12.5	9.98	.7	.67	8
Micropogonias undulatus	49.4	.00	2.9	.00	1	619.3	208.54	37.1	12.31	12	1873.0	495.31	106.9	28.49	8
Arius felis	.0	.00	.0	.00	1	222.7	77.60	16.9	4.80	12	3.1	2.59	1.3	1.03	8
Leiostomus xanthurus	.0	.00	.0	.00	1	58.5	24.84	5.0	2.30	12	84.1	36.07	7.8	3.37	8
Stenotomus caprinus	.0	.00	.0	.00	1	4.5	3.06	.2	.11	12	88.8	39.76	2.4	1.14	8
Anchoa hepsetus	70.6	.00	1.1	.00	1	40.7	20.08	.6	.32	12	129.2	120.89	1.3	1.28	8
Prionotus longispinosus	3.5	.00	.3	.00	1	30.7	17.95	1.0	.63	12	100.7	49.78	3.1	1.29	8
Trichiurus lepturus	3.5	.00	.2	.00	1	7.0	4.24	.2	.10	12	145.4	93.56	2.4	1.86	8
Cynoscion nothus	.0	.00	.0	.00	1	30.0	12.16	2.3	1.03	12	51.1	21.21	3.6	1.93	8
Squid	28.2	.00	.2	.00	1	20.8	10.23	.5	.23	12	5.8	2.63	.0	.03	8

Table 29a (continued)
Statistical Zone 14
40-ft trawls

Summary of dominant organisms taken in statistical zone 14 during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken.

	21-30 FM					31-40 FM					>40 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Penaeus aztecus	100.7	96.68	1.8	1.69	2	13.0	.00	.2	.00	1	5.8	4.75	.3	.30	2
Penaeus setiferus	.0	.00	.0	.00	2	.0	.00	.0	.00	1	.0	.00	.0	.00	2
Portunus gibbesii	5.5	5.53	.1	.07	2	.0	.00	.0	.00	1	.0	.00	.0	.00	2
Squilla spp.	8.7	8.68	.1	.07	2	.0	.00	.0	.00	1	3.5	3.53	.1	.08	2
Trachypenaeus similis	13.4	13.42	.1	.07	2	.0	.00	.0	.00	1	.0	.00	.0	.00	2
Callinectes similis	16.0	14.00	.5	.44	2	1.3	.00	.1	.00	1	7.1	7.06	.2	.16	2
Micropogonias undulatus	1813.8	1757.79	103.7	99.65	2	.0	.00	.0	.00	1	15.9	15.88	1.8	1.76	2
Arius felis	.0	.00	.0	.00	2	.0	.00	.0	.00	1	.0	.00	.0	.00	2
Leiostomus xanthurus	32.4	32.37	2.9	2.94	2	1.3	.00	.1	.00	1	.0	.00	.0	.00	2
Stenotomus caprinus	89.4	5.37	2.0	.34	2	74.3	.00	4.6	.00	1	101.6	53.65	5.3	3.16	2
Anchoa hepsetus	.0	.00	.0	.00	2	.0	.00	.0	.00	1	.0	.00	.0	.00	2
Prionotus longispinosus	25.5	15.53	2.1	1.46	2	1.3	.00	.1	.00	1	20.5	18.32	1.3	1.15	2
Trichiurus lepturus	.5	.50	.3	.25	2	1.3	.00	.2	.00	1	1.1	1.09	.4	.45	2
Cynoscion nothus	8.7	8.68	.6	.57	2	.0	.00	.0	.00	1	.0	.00	.0	.00	2
Squid	.0	.00	.0	.00	2	11.7	.00	.1	.00	1	38.2	38.18	.4	.42	2

Table 29b
Statistical Zone 14
40-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	12.8	.00	1	84.5	17.25	12	147.1	31.38	8	140.6	96.96	2	17.2	.00	1	31.0	2.71	2
Total finfish kg	11.2	.00	1	81.9	16.83	12	144.1	31.05	8	135.9	92.30	2	15.4	.00	1	28.1	2.35	2
Total crustacean kg	.0	.00	1	2.0	.55	12	2.2	1.04	8	2.5	2.51	2	.6	.00	1	.8	.80	2
Total others kg	1.6	.00	1	.5	.24	12	1.0	.75	8	2.2	2.15	2	1.2	.00	1	1.8	.19	2
Surface temperature	20.1	.58	4	22.4	.35	10	23.7	.37	11	25.0	.36	3	25.4	.00	1	25.5	.06	2
Midwater temperature	20.2	.58	4	22.5	.34	10	23.9	.35	11	25.3	.07	3	25.4	.00	1	23.0	.12	2
Bottom temperature	20.4	.78	4	22.9	.30	10	24.7	.25	11	25.0	.19	3	18.2	.00	1	17.5	.01	2
Surface salinity	29.5	.30	4	31.1	.75	10	32.9	.75	11	35.3	.52	3	25.5	.00	1	36.2	.03	2
Midwater salinity	29.8	.57	4	31.3	.71	10	33.5	.69	11	35.7	.21	3	24.4	.00	1	36.7	.15	2
Bottom salinity	29.5	.48	4	32.1	.58	10	35.4	.28	11	36.3	.09	3	36.6	.00	1	36.7	.01	2
Surface chlorophyll	3.1	.38	4	3.2	.75	10	1.5	.59	11	.2	.01	3	.1	.00	1	.3	.15	2
Midwater chlorophyll	2.5	.27	3	4.4	1.24	6	2.2	1.52	3	.0	.00	0	.0	.00	0	.0	.00	0
Bottom chlorophyll	3.6	.82	4	3.7	.87	10	1.6	.22	11	2.7	.00	1	.0	.00	0	.0	.00	0
Surface oxygen	7.6	.99	4	7.6	.47	10	7.2	.40	11	7.9	.23	3	8.1	.00	1	7.3	.50	2
Midwater oxygen	7.3	1.05	4	7.8	.42	10	7.8	.16	11	8.0	.03	3	6.8	.00	1	7.1	.50	2
Bottom oxygen	7.7	.57	4	7.6	.26	10	6.5	.41	11	6.6	.69	3	7.2	.00	1	5.1	.05	2

Table 30a
Statistical Zone 15
40-ft trawls

Summary of dominant organisms taken in statistical zone 15 during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Portunus gibbesii	57.3	.00	.2	.00	1	448.9	187.25	2.0	.77	6	26.3	8.01	.2	.09	8
Penaeus aztecus	19.1	.00	.2	.00	1	38.2	16.96	.3	.16	6	161.8	54.42	2.6	.96	8
Callinectes similis	21.8	.00	.5	.00	1	103.3	68.03	1.0	.61	6	26.2	9.05	.9	.35	8
Sicyonia brevirostris	.0	.00	.0	.00	1	.0	.00	.0	.00	6	.3	.31	.0	.00	8
Squilla spp.	.0	.00	.0	.00	1	27.7	12.91	.2	.10	6	7.4	2.86	.1	.03	8
Penaeus setiferus	51.8	.00	1.4	.00	1	43.2	14.10	1.4	.52	6	7.2	3.67	.3	.15	8
Micropogonias undulatus	2.7	.00	.2	.00	1	1290.1	255.42	72.1	14.80	6	1004.3	283.88	59.8	17.10	8
Stenotomus caprinus	2.7	.00	.0	.00	1	13.0	7.40	.1	.08	6	108.0	40.56	2.2	.90	8
Arius felis	188.2	.00	54.2	.00	1	224.4	64.24	43.2	14.96	6	8.7	6.12	1.5	1.05	8
Prionotus longispinosus	16.4	.00	.2	.00	1	54.4	33.13	1.5	.80	6	70.9	40.49	2.0	1.15	8
Centropristis philadelphica	.0	.00	.0	.00	1	12.3	7.88	.2	.17	6	3.2	1.62	.1	.04	8
Etropus crossotus	54.5	.00	.5	.00	1	143.4	66.05	2.3	1.04	6	3.0	2.31	.1	.07	8
Serranus atrobranchus	.0	.00	.0	.00	1	.0	.00	.0	.00	6	.6	.58	.0	.00	8
Trichopsetta ventralis	.0	.00	.0	.00	1	.0	.00	.0	.00	6	.8	.77	.0	.02	8
Squid	.0	.00	.0	.00	1	28.0	22.24	.5	.44	6	14.8	4.97	.1	.04	8

Table 30a (continued)
Statistical Zone 15
40-ft trawls

Summary of dominant organisms taken in statistical zone 15 during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken.

	21-30 FM					31-40 FM					>40 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Portunus gibbesii	3.2	2.20	.0	.02	5	.0	.00	.0	.00	4	.0	.00	.0	.00	3
Penaeus aztecus	92.6	24.33	2.3	.62	5	46.1	6.98	2.1	.42	4	34.4	19.48	1.5	.92	3
Callinectes similis	12.0	5.03	.4	.14	5	5.7	3.04	.2	.09	4	.3	.33	.0	.02	3
Sicyonia brevirostris	58.7	31.42	.8	.44	5	31.8	18.42	.5	.23	4	12.1	10.62	.1	.09	3
Squilla spp.	10.6	4.83	.2	.10	5	8.2	3.52	.1	.03	4	.0	.00	.0	.00	3
Penaeus setiferus	.0	.00	.0	.00	5	.0	.00	.0	.00	4	.0	.00	.0	.00	3
Micropogonias undulatus	141.8	32.24	14.9	2.58	5	3.5	2.87	.4	.28	4	.0	.00	.0	.00	3
Stenotomus caprinus	160.1	50.27	4.6	1.50	5	143.4	21.58	8.0	1.59	4	113.4	39.10	5.8	2.08	3
Arius felis	.0	.00	.0	.00	5	.0	.00	.0	.00	4	.0	.00	.0	.00	3
Prionotus longispinosus	23.9	16.18	1.4	.89	5	38.5	18.09	2.7	1.16	4	16.6	10.39	.9	.55	3
Centropristis philadelphica	44.4	16.68	2.8	1.14	5	98.6	32.90	7.8	2.59	4	43.4	26.91	3.6	1.99	3
Etropus crossotus	.0	.00	.0	.00	5	.0	.00	.0	.00	4	.0	.00	.0	.00	3
Serranus atrobranchus	28.9	12.19	.2	.09	5	29.2	13.10	.2	.07	4	86.6	44.36	.8	.41	3
Trichopsetta ventralis	.0	.00	.0	.00	5	61.8	25.35	1.6	.60	4	61.9	26.44	1.1	.48	3
Squid	.8	.59	.1	.04	5	1.7	1.01	.0	.00	4	14.0	13.01	.1	.06	3

Table 30b
Statistical Zone 15
40-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	62.0	.00	1	136.8	29.00	6	89.1	22.58	8	46.8	3.67	5	40.8	4.65	4	30.1	6.00	3
Total finfish kg	59.5	.00	1	131.1	28.89	6	84.1	20.80	8	40.3	1.80	5	37.0	3.95	4	27.7	5.41	3
Total crustacean kg	2.5	.00	1	5.2	1.25	6	4.1	1.41	8	3.8	1.27	5	2.9	.66	4	1.5	.79	3
Total others kg	.0	.00	1	.5	.45	6	.8	.71	8	2.7	2.02	5	.9	.43	4	.6	.40	3
Surface temperature	20.3	1.49	3	22.8	.39	7	24.6	.19	9	25.5	.15	3	25.6	.35	2	25.9	.17	4
Midwater temperature	20.3	1.48	3	22.8	.39	7	24.7	.18	9	25.5	.01	3	25.5	.22	2	23.4	1.48	4
Bottom temperature	20.3	1.48	3	22.8	.38	7	25.2	.11	9	25.3	.12	3	21.0	.80	2	17.5	.70	4
Surface salinity	30.4	.57	3	31.7	.68	7	34.0	.43	9	35.7	.39	3	36.2	.04	2	35.2	.88	4
Midwater salinity	30.3	.59	3	32.1	.50	7	34.3	.45	9	36.2	.00	3	36.3	.08	2	36.5	.13	4
Bottom salinity	30.4	.58	3	32.2	.50	7	35.1	.30	9	36.3	.05	3	36.8	.03	2	36.6	.08	4
Surface chlorophyll	2.7	.79	3	2.6	.80	7	.7	.08	9	.1	.02	2	.4	.08	2	.2	.05	4
Midwater chlorophyll	4.0	.05	2	2.8	.33	2	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom chlorophyll	2.9	.87	3	3.8	.99	7	1.1	.18	9	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	8.6	.20	3	7.4	.36	7	7.0	.30	9	6.5	.63	3	7.3	.05	2	6.3	.20	4
Midwater oxygen	8.1	.07	3	8.1	.18	7	8.0	.10	9	7.9	.09	3	7.8	.25	2	7.5	.53	4
Bottom oxygen	8.2	.21	3	8.2	.13	7	7.5	.07	9	7.6	.17	3	5.3	1.30	2	5.0	.16	4

Table 31a
Statistical Zone 16
40-ft trawls

Summary of dominant organisms taken in statistical zone 16 during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Penaeus aztecus	.0	.00	.0	.00	1	33.8	16.82	.3	.16	4	143.1	56.67	2.0	.77	12
Sicyonia brevirostris	.0	.00	.0	.00	1	.0	.00	.0	.00	4	.5	.31	.0	.01	12
Portunus gibbesii	4.0	.00	.1	.00	1	70.8	42.30	.4	.21	4	121.0	91.84	.6	.47	12
Callinectes similis	142.7	.00	2.4	.00	1	32.6	11.85	.5	.20	4	45.6	19.24	.8	.28	12
Squilla spp.	80.0	.00	.6	.00	1	19.6	4.45	.4	.09	4	15.0	10.59	.1	.09	12
Penaeus setiferus	118.7	.00	1.9	.00	1	75.2	29.21	1.6	.53	4	13.9	6.97	.6	.27	12
Stenotomus caprinus	.0	.00	.0	.00	1	68.9	68.23	1.0	1.01	4	730.6	168.87	19.0	5.02	12
Chloroscombrus chrysurus	.0	.00	.0	.00	1	43.6	34.37	.9	.75	4	724.7	366.37	17.3	8.77	12
Micropogonias undulatus	4.0	.00	.4	.00	1	12.1	2.76	.5	.19	4	180.1	54.13	10.8	3.27	12
Peprilus burti	142.7	.00	8.4	.00	1	117.6	94.16	8.8	7.03	4	44.4	19.99	3.2	1.41	12
Centropristis philadelphica	.0	.00	.0	.00	1	8.5	4.42	.2	.12	4	21.1	9.69	.5	.19	12
Trichiurus lepturus	330.7	.00	8.8	.00	1	88.5	64.25	1.8	.90	4	3.6	1.98	.3	.22	12
Prionotus longispinosus	.0	.00	.0	.00	1	5.3	2.23	.4	.14	4	55.9	39.94	1.2	.78	12
Arius felis	.0	.00	.0	.00	1	109.2	92.44	10.2	9.03	4	38.6	32.65	8.2	6.61	12
Squid	68.0	.00	.8	.00	1	48.0	8.25	.7	.05	4	12.7	5.18	.1	.09	12

Table 31a (continued)
Statistical Zone 16
40-ft trawls

Summary of dominant organisms taken in statistical zone 16 during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken.

	21-30 FM					31-40 FM					>40 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Penaeus aztecus	112.4	16.35	3.5	.22	5	37.5	11.02	1.6	.47	5	16.2	4.02	1.1	.24	5
Sicyonia brevirostris	263.0	96.65	4.0	1.40	5	74.3	32.06	1.0	.46	5	4.6	2.72	.1	.03	5
Portunus gibbesii	.0	.00	.0	.00	5	.0	.00	.0	.00	5	.0	.00	.0	.00	5
Callinectes similis	59.2	29.89	.9	.45	5	2.4	1.50	.1	.05	5	.0	.00	.0	.00	5
Squilla spp.	53.0	23.06	.9	.31	5	7.1	2.92	.1	.04	5	.3	.29	.0	.00	5
Penaeus setiferus	.0	.00	.0	.00	5	.0	.00	.0	.00	5	.0	.00	.0	.00	5
Stenotomus caprinus	290.8	65.03	10.5	2.94	5	192.0	32.28	8.4	1.43	5	174.5	39.88	7.6	1.57	5
Chloroscombrus chrysurus	.0	.00	.0	.00	5	.0	.00	.0	.00	5	.0	.00	.0	.00	5
Micropogonias undulatus	10.8	6.29	1.0	.54	5	.0	.00	.0	.00	5	.0	.00	.0	.00	5
Peprilus burti	4.4	3.43	.5	.34	5	31.6	22.32	2.2	1.69	5	29.6	16.36	2.5	1.39	5
Centropristis philadelphica	111.4	29.53	7.7	2.07	5	29.6	17.36	1.6	1.35	5	8.9	5.05	.7	.33	5
Trichiurus lepturus	.0	.00	.0	.00	5	.7	.46	.1	.05	5	12.6	6.22	.7	.26	5
Prionotus longispinosus	32.2	8.08	1.7	.51	5	8.4	6.41	.4	.36	5	3.8	2.35	.3	.17	5
Arius felis	.0	.00	.0	.00	5	.0	.00	.0	.00	5	.0	.00	.0	.00	5
Squid	1.2	.80	.3	.21	5	10.1	5.52	.2	.06	5	22.7	8.87	.9	.38	5

Table 31b
Statistical Zone 16
40-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	37.0	.00	1	44.5	4.88	4	81.7	12.66	12	56.6	11.58	5	32.0	5.16	5	39.6	5.59	5
Total finfish kg	23.6	.00	1	39.4	5.23	4	77.2	12.85	12	45.8	10.81	5	27.4	4.18	5	35.6	5.57	5
Total crustacean kg	4.8	.00	1	3.6	.82	4	4.5	1.50	12	10.1	1.32	5	3.0	.95	5	1.7	.43	5
Total others kg	7.9	.00	1	1.7	.47	4	.1	.07	12	.7	.42	5	1.5	.52	5	2.4	.87	5
Surface temperature	21.2	.00	1	23.1	.34	5	24.8	.13	14	25.6	.04	3	25.4	.10	3	25.4	.08	5
Midwater temperature	21.5	.00	1	23.2	.28	5	24.9	.14	14	25.6	.04	3	24.6	.67	3	21.8	.41	5
Bottom temperature	23.0	.00	1	23.8	.19	5	25.1	.10	14	24.7	.32	3	21.2	.87	3	17.9	.32	5
Surface salinity	25.6	.00	1	30.9	.80	5	34.0	.33	14	35.9	.12	3	35.9	.04	3	35.9	.04	5
Midwater salinity	26.0	.00	1	30.9	.70	5	34.1	.30	14	35.9	.13	3	36.5	.23	3	36.6	.05	5
Bottom salinity	30.7	.00	1	32.1	.21	5	34.6	.23	14	36.4	.09	3	36.6	.04	3	36.5	.02	5
Surface chlorophyll	5.5	.00	1	2.0	.50	5	.5	.03	14	.4	.14	3	.1	.03	3	.2	.04	5
Midwater chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom chlorophyll	6.2	.00	1	7.1	1.91	5	1.0	.19	14	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	9.7	.00	1	8.1	.86	5	6.9	.33	14	6.7	.69	3	8.0	.12	3	7.8	.37	5
Midwater oxygen	9.4	.00	1	8.1	.76	5	8.0	.09	14	8.0	.09	3	8.1	.03	3	6.6	.65	5
Bottom oxygen	4.3	.00	1	7.5	.48	5	7.6	.09	14	6.7	.62	3	5.7	.59	3	5.1	.08	5

Table 32a
Statistical Zone 17
40-ft trawls

Summary of dominant organisms taken in statistical zone 17 during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken. No trawl samples were taken in depths less than 6 fm.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Sicyonia brevirostris	.0	.00	.0	.00	0	.6	.63	.0	.00	6	57.9	21.59	.9	.35	9
Penaeus aztecus	.0	.00	.0	.00	0	91.0	29.26	1.3	.38	6	112.0	47.03	2.7	1.12	9
Squilla spp.	.0	.00	.0	.00	0	80.6	32.45	1.1	.39	6	11.6	5.17	.1	.05	9
Trachypenaeus similis	.0	.00	.0	.00	0	53.6	21.59	.1	.03	6	6.0	2.76	.0	.01	9
Penaeus setiferus	.0	.00	.0	.00	0	61.6	54.28	.9	.56	6	.0	.00	.0	.00	9
Portunus gibbesii	.0	.00	.0	.00	0	38.9	10.28	.2	.07	6	2.6	1.40	.0	.02	9
Stenotomus caprinus	.0	.00	.0	.00	0	82.5	68.18	2.1	1.77	6	420.1	161.59	15.7	5.66	9
Arius felis	.0	.00	.0	.00	0	500.2	200.30	63.1	16.41	6	26.9	10.72	6.3	2.34	9
Peprilus burti	.0	.00	.0	.00	0	4.7	3.17	.3	.13	6	5.9	2.41	.4	.16	9
Leiostomus xanthurus	.0	.00	.0	.00	0	.6	.61	.0	.04	6	129.3	95.23	15.1	11.33	9
Micropogonias undulatus	.0	.00	.0	.00	0	42.2	27.22	1.9	1.15	6	179.8	74.70	15.0	6.16	9
Centropristis philadelphica	.0	.00	.0	.00	0	69.6	27.12	1.7	.65	6	21.1	14.03	.6	.38	9
Synodus foetens	.0	.00	.0	.00	0	3.2	1.26	.3	.12	6	25.7	6.59	3.9	.77	9
Upeneus parvus	.0	.00	.0	.00	0	.0	.00	.0	.00	6	11.5	3.82	.4	.14	9
Squid	.0	.00	.0	.00	0	48.6	15.61	.5	.19	6	17.4	15.23	.1	.10	9

Table 32a (continued)
Statistical Zone 17
40-ft trawls

Summary of dominant organisms taken in statistical zone 17 during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken. No trawl samples were taken in depths less than 6 fm.

	21-30 FM					31-40 FM					>40 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Sicyonia brevirostris	72.7	60.31	.9	.83	5	122.8	57.90	1.8	.84	5	15.9	.00	.2	.00	1
Penaeus aztecus	30.9	17.12	1.0	.56	5	47.3	13.81	2.4	.81	5	2.4	.00	.1	.00	1
Squilla spp.	52.5	52.04	.7	.71	5	.6	.60	.0	.01	5	.0	.00	.0	.00	1
Trachypenaeus similis	2.7	2.69	.0	.01	5	.0	.00	.0	.00	5	.0	.00	.0	.00	1
Penaeus setiferus	.0	.00	.0	.00	5	.0	.00	.0	.00	5	.0	.00	.0	.00	1
Portunus gibbesii	.4	.40	.0	.01	5	.8	.80	.0	.01	5	.0	.00	.0	.00	1
Stenotomus caprinus	887.5	189.54	36.6	10.27	5	597.5	153.56	22.2	5.09	5	990.6	.00	36.7	.00	1
Arius felis	.0	.00	.0	.00	5	.0	.00	.0	.00	5	.0	.00	.0	.00	1
Peprilus burti	340.2	129.76	24.6	9.46	5	28.0	18.82	2.2	1.67	5	121.2	.00	9.0	.00	1
Leiostomus xanthurus	88.2	47.12	10.8	5.81	5	11.9	6.29	1.6	.85	5	.0	.00	.0	.00	1
Micropogonias undulatus	57.9	45.12	5.3	3.65	5	1.7	1.75	.5	.48	5	.0	.00	.0	.00	1
Centropristis philadelphica	50.4	45.10	2.3	1.71	5	34.7	14.07	1.4	.47	5	19.6	.00	1.2	.00	1
Synodus foetens	52.3	19.95	7.6	2.65	5	51.6	4.60	8.6	.61	5	89.4	.00	15.6	.00	1
Upeneus parvus	22.3	12.21	.6	.51	5	75.8	20.87	2.3	.65	5	246.1	.00	8.2	.00	1
Squid	3.0	3.00	.0	.01	5	18.9	12.07	.3	.12	5	7.3	.00	.8	.00	1

Table 32b
Statistical Zone 17
40-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm. No trawl samples were taken in depths less than 6 fm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	.0	.00	0	88.9	14.52	6	87.5	17.94	9	105.0	19.76	5	56.9	9.28	5	92.4	.00	1
Total finfish kg	.0	.00	0	83.0	13.58	6	81.8	18.29	9	102.0	19.17	5	48.8	6.24	5	89.1	.00	1
Total crustacean kg	.0	.00	0	4.3	.38	6	4.7	1.58	9	2.8	2.13	5	4.3	1.79	5	1.1	.00	1
Total others kg	.0	.00	0	2.2	1.02	6	.4	.23	9	.1	.09	5	3.8	1.90	5	2.2	.00	1
Surface temperature	.0	.00	0	23.3	.21	6	25.3	.16	11	25.9	.09	3	26.3	.14	2	26.9	.27	2
Midwater temperature	.0	.00	0	23.5	.28	6	25.3	.12	11	26.0	.28	3	26.6	.20	2	24.7	.83	2
Bottom temperature	.0	.00	0	23.7	.30	6	25.5	.19	11	25.4	.39	3	22.8	.80	2	18.6	.33	2
Surface salinity	.0	.00	0	29.2	.72	6	33.9	.44	11	34.0	.91	3	34.8	1.09	2	35.6	.29	2
Midwater salinity	.0	.00	0	29.6	1.12	6	34.3	.33	11	35.5	.12	3	36.2	.15	2	36.2	.12	2
Bottom salinity	.0	.00	0	29.8	1.21	6	34.7	.30	11	36.1	.13	3	36.3	.03	2	36.4	.02	2
Surface chlorophyll	.0	.00	0	.9	.14	6	.8	.17	11	.4	.02	2	.2	.07	2	.1	.01	2
Midwater chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom chlorophyll	.0	.00	0	2.0	.51	6	1.1	.17	9	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	.0	.00	0	6.8	.53	6	7.0	.29	11	8.1	.98	3	7.1	.55	2	7.9	.05	2
Midwater oxygen	.0	.00	0	7.2	.68	6	7.5	.12	11	7.8	.10	3	7.7	.10	2	7.8	.95	2
Bottom oxygen	.0	.00	0	8.1	.17	6	7.5	.23	11	5.9	.86	3	5.8	.45	2	4.9	.05	2

Table 33a
Statistical Zone 18
40-ft trawls

Summary of dominant organisms taken in statistical zone 18 during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Portunus spinicarpus	.0	.00	.0	.00	1	.0	.00	.0	.00	5	.0	.00	.0	.00	4
Penaeus aztecus	1.4	.00	.0	.00	1	91.0	66.76	1.3	1.07	5	42.8	36.35	1.2	1.05	4
Sicyonia brevirostris	.0	.00	.0	.00	1	1.0	1.00	.0	.01	5	8.2	4.74	.1	.08	4
Trachypenaeus similis	.0	.00	.0	.00	1	152.0	113.82	.2	.13	5	3.0	3.00	.0	.02	4
Squilla spp.	4.1	.00	.0	.00	1	120.3	78.90	1.2	.73	5	7.1	7.13	.1	.05	4
Penaeus setiferus	43.6	.00	.6	.00	1	76.8	54.71	1.4	1.07	5	1.5	1.50	.0	.02	4
Stenotomus caprinus	.0	.00	.0	.00	1	68.8	51.07	1.6	1.12	5	849.6	183.16	22.8	4.79	4
Chloroscombrus chrysurus	175.9	.00	.7	.00	1	41.4	15.13	.5	.30	5	165.3	125.93	4.7	3.20	4
Upeneus parvus	.0	.00	.0	.00	1	.0	.00	.0	.00	5	157.2	66.90	3.5	1.44	4
Diplectrum bivittatum	.0	.00	.0	.00	1	116.8	113.31	1.9	1.80	5	152.4	100.75	2.6	1.60	4
Trachurus lathami	.0	.00	.0	.00	1	1.5	1.50	.1	.08	5	23.7	10.28	.6	.34	4
Lutjanus campechanus	.0	.00	.0	.00	1	130.7	80.75	11.3	9.99	5	86.2	46.15	1.7	.33	4
Peprilus burti	51.8	.00	2.5	.00	1	35.0	34.48	2.1	2.09	5	19.9	10.77	1.1	.52	4
Pristipomoides aquilonaris	.0	.00	.0	.00	1	.0	.00	.0	.00	5	.0	.00	.0	.00	4
Squid	366.8	.00	3.8	.00	1	66.3	43.26	.7	.43	5	113.8	52.09	.7	.32	4

Table 33a (continued)
Statistical Zone 18
40-ft trawls

Summary of dominant organisms taken in statistical zone 18 during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken.

	21-30 FM					31-40 FM					>40 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Portunus spinicarpus	.7	.68	.0	.00	4	343.7	160.75	2.8	1.38	6	7.8	6.38	.1	.11	4
Penaeus aztecus	3.6	1.61	.1	.08	4	41.8	15.48	1.9	.80	6	11.3	4.01	.8	.30	4
Sicyonia brevirostris	3.7	2.44	.1	.02	4	89.0	50.67	1.5	.87	6	.0	.00	.0	.00	4
Trachypenaeus similis	.0	.00	.0	.00	4	.0	.00	.0	.00	6	.0	.00	.0	.00	4
Squilla spp.	.0	.00	.0	.00	4	4.4	3.04	.0	.02	6	.3	.33	.0	.00	4
Penaeus setiferus	.0	.00	.0	.00	4	.0	.00	.0	.00	6	.0	.00	.0	.00	4
Stenotomus caprinus	241.4	49.67	10.4	1.77	4	445.1	61.12	21.2	2.43	6	245.1	56.05	11.1	2.65	4
Chloroscombrus chrysurus	12.9	6.61	.8	.37	4	.0	.00	.0	.00	6	.0	.00	.0	.00	4
Upeneus parvus	31.1	17.80	.7	.53	4	76.7	40.36	2.6	1.54	6	117.6	43.19	3.3	1.56	4
Diplectrum bivittatum	.0	.00	.0	.00	4	.5	.50	.0	.00	6	.0	.00	.0	.00	4
Trachurus lathami	30.0	27.06	.8	.63	4	85.8	85.83	2.0	2.01	6	232.4	137.86	7.3	3.94	4
Lutjanus campechanus	13.8	5.46	1.8	1.05	4	9.0	4.03	3.4	1.94	6	.9	.56	.5	.27	4
Peprilus burti	19.8	11.58	1.6	.95	4	21.7	20.68	1.4	1.32	6	106.2	70.98	7.2	4.55	4
Pristipomoides aquilonaris	1.6	.94	.1	.14	4	82.9	35.26	6.0	2.90	6	168.5	41.11	13.1	5.31	4
Squid	130.4	27.26	.5	.13	4	31.7	17.57	.3	.17	6	96.7	42.98	1.9	.84	4

Table 33b
Statistical Zone 18
40-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	11.2	.00	1	48.8	12.27	5	74.8	13.36	4	39.1	7.47	4	91.0	16.48	6	67.9	19.38	4
Total finfish kg	6.8	.00	1	42.2	14.05	5	71.9	14.25	4	38.4	7.33	4	79.4	14.28	6	62.9	18.33	4
Total crustacean kg	.6	.00	1	5.2	1.86	5	1.3	1.16	4	.2	.13	4	7.3	2.17	6	1.1	.43	4
Total others kg	3.7	.00	1	1.6	.61	5	1.0	.42	4	.8	.37	4	5.1	2.90	6	3.7	1.83	4
Surface temperature	21.6	.00	1	24.3	.40	7	26.3	.06	3	26.5	.19	3	27.1	.04	6	27.0	.05	5
Midwater temperature	22.0	.00	1	24.2	.35	7	26.4	.13	3	26.7	.14	3	26.9	.04	6	25.0	1.04	5
Bottom temperature	23.1	.00	1	24.6	.39	7	26.8	.03	3	26.1	.49	3	21.5	.39	6	19.3	.65	5
Surface salinity	22.7	.00	1	25.6	2.01	7	33.1	.07	3	33.4	.57	3	35.4	.17	6	35.6	.15	5
Midwater salinity	23.2	.00	1	28.7	1.47	7	33.8	.34	3	35.1	.30	3	36.1	.04	6	36.1	.09	5
Bottom salinity	24.0	.00	1	29.3	1.51	7	35.4	.04	3	36.1	.16	3	36.4	.05	6	36.4	.03	5
Surface chlorophyll	3.1	.00	1	2.7	.74	7	.3	.05	3	.2	.00	3	.2	.03	5	.2	.06	5
Midwater chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	8.4	.00	1	7.3	.81	7	7.8	.19	3	7.8	.09	3	7.8	.06	6	7.5	.12	5
Midwater oxygen	8.1	.00	1	7.6	.29	7	7.7	.15	3	7.3	.29	3	7.8	.05	6	7.8	.16	5
Bottom oxygen	7.1	.00	1	7.8	.21	7	7.3	.29	3	7.0	.32	3	6.0	.11	6	5.4	.25	5

Table 34a
Statistical Zone 19
40-ft trawls

Summary of dominant organisms taken in statistical zone 19 during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken. No trawl samples were taken in depths less than 6 fm or greater than 30 fm.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Penaeus aztecus	.0	.00	.0	.00	0	65.5	33.22	.7	.40	6	168.7	44.00	3.3	.86	17
Trachypenaeus similis	.0	.00	.0	.00	0	171.2	115.89	.3	.18	6	64.8	26.92	.1	.06	17
Callinectes similis	.0	.00	.0	.00	0	25.0	21.21	.1	.05	6	32.1	7.68	.7	.16	17
Squilla spp.	.0	.00	.0	.00	0	120.0	43.73	1.3	.49	6	19.2	6.55	.1	.04	17
Portunus gibbesii	.0	.00	.0	.00	0	126.7	57.76	.6	.31	6	18.3	6.21	.1	.03	17
Sicyonia dorsalis	.0	.00	.0	.00	0	.0	.00	.0	.00	6	31.3	13.96	.1	.05	17
Stenotomus caprinus	.0	.00	.0	.00	0	.0	.00	.0	.00	6	391.9	212.63	9.5	5.56	17
Chloroscombrus chrysurus	.0	.00	.0	.00	0	503.4	312.01	7.5	4.73	6	421.0	149.64	8.2	2.90	17
Lutjanus campechanus	.0	.00	.0	.00	0	33.1	30.64	.2	.18	6	213.7	40.85	2.3	.53	17
Serranus atrobranchus	.0	.00	.0	.00	0	.0	.00	.0	.00	6	52.0	30.32	.5	.26	17
Diplectrum bivittatum	.0	.00	.0	.00	0	6.1	4.90	.1	.07	6	235.0	60.07	2.6	.52	17
Syacium gunteri	.0	.00	.0	.00	0	7.4	2.88	.2	.09	6	89.1	27.59	1.1	.36	17
Upeneus parvus	.0	.00	.0	.00	0	.0	.00	.0	.00	6	52.9	30.65	1.2	.68	17
Micropogonias undulatus	.0	.00	.0	.00	0	6.6	3.25	.4	.27	6	70.0	27.62	5.5	2.22	17
Squid	.0	.00	.0	.00	0	138.3	63.20	1.1	.36	6	122.0	38.93	1.0	.26	17

Table 34a (continued)
Statistical Zone 19
40-ft trawls

Summary of dominant organisms taken in statistical zone 19 during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken. No trawl samples were taken in depths less than 6 fm or greater than 30 fm.

	21-30 FM					31-40 FM					>40 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Penaeus aztecus	57.5	29.22	2.5	1.21	4	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Trachypenaeus similis	3.5	3.50	.0	.01	4	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Callinectes similis	101.4	35.40	2.7	.79	4	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Squilla spp.	13.1	8.20	.1	.05	4	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Portunus gibbesii	2.5	.87	.2	.08	4	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Sicyonia dorsalis	16.8	12.58	.1	.04	4	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Stenotomus caprinus	767.0	324.80	14.4	5.69	4	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Chloroscombrus chrysurus	62.1	41.50	2.9	2.08	4	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Lutjanus campechanus	54.0	6.91	.9	.22	4	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Serranus atrobranchus	390.2	153.12	2.9	1.12	4	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Diplectrum bivittatum	7.3	4.75	.1	.05	4	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Syacium gunteri	40.3	13.80	.6	.22	4	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Upeneus parvus	102.0	42.06	1.8	.76	4	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Micropogonias undulatus	14.6	5.11	1.3	.49	4	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Squid	91.7	60.25	.4	.19	4	.0	.00	.0	.00	0	.0	.00	.0	.00	0

Table 34b
Statistical Zone 19
40-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm. No trawl samples were taken in depths less than 6 fm or greater than 30 fm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	.0	.00	0	43.2	6.26	6	61.7	8.57	17	57.9	13.86	4	.0	.00	0	.0	.00	0
Total finfish kg	.0	.00	0	30.1	4.49	6	54.1	8.48	17	50.7	14.21	4	.0	.00	0	.0	.00	0
Total crustacean kg	.0	.00	0	5.8	2.01	6	4.8	.97	17	6.4	1.21	4	.0	.00	0	.0	.00	0
Total others kg	.0	.00	0	6.7	4.36	6	2.7	.77	17	.3	.22	4	.0	.00	0	.0	.00	0
Surface temperature	24.7	.00	1	25.1	.19	6	25.8	.15	16	26.4	.16	4	.0	.00	0	27.0	.00	1
Midwater temperature	24.7	.00	1	24.7	.18	6	26.0	.13	16	26.7	.09	4	.0	.00	0	26.4	.00	1
Bottom temperature	24.7	.00	1	24.6	.17	6	26.3	.08	16	26.7	.06	4	.0	.00	0	20.5	.00	1
Surface salinity	27.8	.00	1	25.3	.82	6	30.7	.59	16	32.4	.86	4	.0	.00	0	35.5	.00	1
Midwater salinity	27.8	.00	1	27.7	.60	6	32.8	.41	16	34.6	.29	4	.0	.00	0	35.2	.00	1
Bottom salinity	27.8	.00	1	28.5	.69	6	33.2	.49	16	35.4	.33	4	.0	.00	0	36.4	.00	1
Surface chlorophyll	2.4	.00	1	3.0	1.11	6	1.1	.44	16	.3	.06	4	.0	.00	0	.1	.00	1
Midwater chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	8.0	.00	1	9.3	.59	6	7.9	.19	16	6.8	.95	4	.0	.00	0	7.6	.00	1
Midwater oxygen	8.0	.00	1	8.6	.25	6	7.9	.08	16	7.8	.09	4	.0	.00	0	8.1	.00	1
Bottom oxygen	8.0	.00	1	8.4	.33	6	7.5	.06	16	7.5	.09	4	.0	.00	0	6.0	.00	1

Table 35a
Statistical Zone 20
40-ft trawls

Summary of dominant organisms taken in statistical zone 20 during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Portunus gibbesii	.0	.00	.0	.00	0	209.8	96.83	.9	.38	6	250.8	58.40	1.0	.26	10
Penaeus aztecus	.0	.00	.0	.00	0	46.3	20.50	.5	.23	6	168.9	50.93	2.9	1.11	10
Trachypenaeus similis	.0	.00	.0	.00	0	92.3	60.45	.1	.06	6	199.2	65.15	.4	.19	10
Trachypenaeus constrictus	.0	.00	.0	.00	0	343.6	331.34	.4	.33	6	.4	.38	.0	.00	10
Callinectes similis	.0	.00	.0	.00	0	16.9	8.98	.2	.13	6	117.3	48.38	1.7	.91	10
Sicyonia dorsalis	.0	.00	.0	.00	0	11.7	6.94	.0	.00	6	63.0	26.41	.1	.04	10
Serranus atrobranchus	.0	.00	.0	.00	0	.0	.00	.0	.00	6	.0	.00	.0	.00	10
Syacium gunteri	.0	.00	.0	.00	0	35.8	14.21	.6	.28	6	235.3	67.49	3.6	.88	10
Diplectrum bivittatum	.0	.00	.0	.00	0	34.1	28.87	.3	.25	6	170.3	62.82	2.0	.78	10
Upeneus parvus	.0	.00	.0	.00	0	.0	.00	.0	.00	6	11.6	7.31	.2	.17	10
Cynoscion nothus	.0	.00	.0	.00	0	73.8	57.45	1.6	1.46	6	168.1	77.90	2.3	.93	10
Stenotomus caprinus	.0	.00	.0	.00	0	.0	.00	.0	.00	6	6.8	6.16	.1	.05	10
Peprilus burti	.0	.00	.0	.00	0	341.1	169.54	9.0	4.53	6	27.5	14.05	1.0	.37	10
Lutjanus campechanus	.0	.00	.0	.00	0	69.0	50.52	.6	.35	6	91.1	25.31	1.0	.30	10
Squid	.0	.00	.0	.00	0	65.1	30.59	.7	.23	6	109.7	39.58	1.1	.43	10

Table 35a (continued)
Statistical Zone 20
40-ft trawls

Summary of dominant organisms taken in statistical zone 20 during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken.

	21-30 FM					31-40 FM					>40 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Portunus gibbesii	2.7	1.76	.0	.03	3	3.5	3.50	.0	.05	2	18.8	18.82	.2	.16	3
Penaeus aztecus	86.9	30.53	3.3	1.09	3	9.5	4.50	.4	.18	2	13.8	9.24	.9	.61	3
Trachypenaeus similis	6.3	6.33	.0	.05	3	.0	.00	.0	.00	2	.0	.00	.0	.00	3
Trachypenaeus constrictus	.0	.00	.0	.00	3	.0	.00	.0	.00	2	.0	.00	.0	.00	3
Callinectes similis	81.3	40.99	2.2	1.24	3	4.8	2.25	.1	.03	2	.0	.00	.0	.00	3
Sicyonia dorsalis	97.6	50.68	.5	.45	3	.0	.00	.0	.00	2	.0	.00	.0	.00	3
Serranus atrobranchus	384.0	188.00	3.1	1.76	3	47.3	39.75	.6	.54	2	231.0	179.03	3.4	2.41	3
Syacium gunteri	85.6	64.40	1.8	1.31	3	.0	.00	.0	.00	2	3.4	2.05	.1	.10	3
Diplectrum bivittatum	26.7	24.73	.6	.53	3	.0	.00	.0	.00	2	.0	.00	.0	.00	3
Upeneus parvus	54.3	22.53	1.0	.25	3	274.3	33.25	5.9	.26	2	201.0	105.06	7.2	4.08	3
Cynoscion nothus	2.0	1.95	.3	.31	3	.0	.00	.0	.00	2	.0	.00	.0	.00	3
Stenotomus caprinus	143.9	26.95	3.4	.73	3	152.5	17.50	5.9	.40	2	192.7	39.93	9.0	1.77	3
Peprilus burti	8.3	8.29	.5	.47	3	6.8	4.25	.5	.37	2	8.0	8.00	.4	.38	3
Lutjanus campechanus	111.4	28.72	2.0	.78	3	1.3	1.25	.0	.03	2	.0	.00	.0	.00	3
Squid	48.6	38.89	.7	.32	3	25.5	19.50	1.1	.75	2	88.8	47.04	4.4	2.10	3

Table 35b
Statistical Zone 20
40-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	.0	.00	0	100.5	28.36	6	74.5	13.54	10	43.0	6.89	3	83.9	38.41	2	80.1	11.67	3
Total finfish kg	.0	.00	0	54.5	11.43	6	41.9	7.20	10	34.0	5.04	3	80.1	38.58	2	71.5	13.39	3
Total crustacean kg	.0	.00	0	5.0	1.81	6	7.4	1.45	10	7.9	3.09	3	1.4	.85	2	2.3	.54	3
Total others kg	.0	.00	0	41.1	22.85	6	25.1	11.59	10	.7	.39	3	2.4	1.02	2	5.8	2.96	3
Surface temperature	.0	.00	0	25.5	.45	6	25.9	.34	11	26.8	.09	5	26.7	.56	2	26.9	.08	5
Midwater temperature	.0	.00	0	25.1	.15	6	25.8	.16	11	26.7	.07	5	27.1	.25	2	25.9	1.00	5
Bottom temperature	.0	.00	0	25.1	.17	6	25.8	.17	11	26.7	.04	5	22.6	.94	2	19.3	.59	5
Surface salinity	.0	.00	0	29.2	.39	6	29.7	.69	11	34.3	.17	5	32.9	1.13	2	34.1	.39	5
Midwater salinity	.0	.00	0	29.3	.40	6	31.6	.63	11	35.0	.26	5	35.8	.29	2	36.0	.12	5
Bottom salinity	.0	.00	0	29.6	.55	6	31.5	.82	11	35.3	.24	5	36.7	.11	2	36.4	.04	5
Surface chlorophyll	.0	.00	0	1.5	.24	6	.9	.10	11	.2	.06	4	.2	.08	2	.3	.12	4
Midwater chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	.0	.00	0	8.3	.24	6	8.0	.12	11	6.7	.30	5	8.1	.05	2	8.0	.06	5
Midwater oxygen	.0	.00	0	8.3	.21	6	8.0	.14	11	7.8	.07	5	7.9	.00	2	7.6	.12	5
Bottom oxygen	.0	.00	0	8.2	.09	6	8.0	.14	11	7.5	.07	5	7.7	.35	2	4.7	.07	5

Table 36a
Statistical Zone 21
40-ft trawls

Summary of dominant organisms taken in statistical zone 21 during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Callinectes similis	6.0	.00	.1	.14	2	.7	.71	.1	.06	3	34.3	13.16	.8	.34	8
Sicyonia dorsalis	.0	.00	.0	.00	2	.0	.00	.0	.00	3	5.8	3.07	.0	.02	8
Penaeus aztecus	3.0	3.00	.0	.00	2	10.0	10.00	.1	.09	3	99.1	45.89	2.2	.97	8
Solenocera vioscai	.0	.00	.0	.00	2	.0	.00	.0	.00	3	.0	.00	.0	.00	8
Portunus gibbesii	33.0	3.00	.7	.41	2	19.2	11.02	.1	.06	3	135.7	74.92	.7	.31	8
Trachypenaeus similis	.0	.00	.0	.00	2	.0	.00	.0	.00	3	10.3	5.16	.0	.03	8
Chloroscombrus chrysurus	39.0	39.00	.3	.27	2	3014.6	2271.97	42.9	28.35	3	1481.0	1009.91	20.2	14.11	8
Serranus atrobranchus	.0	.00	.0	.00	2	.0	.00	.0	.00	3	11.8	8.90	.1	.08	8
Syacium gunteri	.0	.00	.0	.00	2	.0	.00	.0	.00	3	107.9	59.66	1.7	.94	8
Prionotus stearnsi	.0	.00	.0	.00	2	.0	.00	.0	.00	3	.0	.00	.0	.00	8
Cynoscion nothus	.0	.00	.0	.00	2	23.6	23.64	1.2	1.24	3	202.0	157.91	2.7	1.17	8
Peprilus burti	18.0	6.00	.5	.00	2	13.4	12.39	.4	.30	3	71.4	35.96	1.8	.94	8
Upeneus parvus	.0	.00	.0	.00	2	1.8	1.82	.0	.00	3	18.7	9.93	.3	.16	8
Diplectrum bivittatum	3.0	3.00	.0	.00	2	5.2	.51	.1	.08	3	54.0	16.20	.8	.20	8
Squid	48.0	48.00	.3	.27	2	171.3	51.82	1.4	.42	3	177.3	59.52	2.0	1.00	8

Table 36a (continued)
Statistical Zone 21
40-ft trawls

Summary of dominant organisms taken in statistical zone 21 during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken.

	21-30 FM					31-40 FM					>40 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Callinectes similis	205.6	94.24	6.0	2.66	5	114.6	62.71	2.8	1.61	3	.0	.00	.0	.00	1
Sicyonia dorsalis	105.6	72.53	.3	.12	5	211.1	122.65	.8	.37	3	.0	.00	.0	.00	1
Penaeus aztecus	79.9	17.12	2.8	.63	5	22.8	8.80	.8	.37	3	.0	.00	.0	.00	1
Solenocera vioscai	62.2	41.12	.3	.21	5	51.4	51.38	1.8	1.83	3	.0	.00	.0	.00	1
Portunus gibbesii	4.9	4.10	.0	.04	5	.0	.00	.0	.00	3	.0	.00	.0	.00	1
Trachypenaeus similis	51.6	30.98	.2	.11	5	2.0	2.00	.0	.00	3	.0	.00	.0	.00	1
Chloroscombrus chrysurus	73.2	71.97	1.8	1.81	5	28.0	22.27	1.0	.79	3	.0	.00	.0	.00	1
Serranus atrobranchus	366.8	102.81	3.7	.92	5	396.1	97.87	3.6	1.04	3	50.8	.00	.9	.00	1
Syacium gunteri	144.5	76.81	2.2	1.21	5	12.7	6.34	.1	.05	3	.0	.00	.0	.00	1
Prionotus stearnsi	32.2	29.48	.2	.20	5	403.3	62.66	3.1	.35	3	60.0	.00	.7	.00	1
Cynoscion nothus	6.0	5.37	.3	.28	5	.0	.00	.0	.00	3	.0	.00	.0	.00	1
Peprilus burti	28.9	28.30	.9	.90	5	147.3	102.72	9.8	6.19	3	.0	.00	.0	.00	1
Upeneus parvus	42.6	23.62	.9	.56	5	182.3	67.33	3.5	1.15	3	18.5	.00	.7	.00	1
Diplectrum bivittatum	76.0	31.60	1.5	.66	5	.0	.00	.0	.00	3	.0	.00	.0	.00	1
Squid	40.9	28.95	.3	.24	5	52.2	19.88	.8	.22	3	18.5	.00	.2	.00	1

Table 36b
Statistical Zone 21
40-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	49.1	32.73	2	82.4	48.61	3	65.6	25.68	8	31.6	6.32	5	57.5	8.07	3	31.5	.00	1
Total finfish kg	46.4	32.73	2	75.9	43.13	3	58.2	26.03	8	20.7	5.93	5	47.6	8.83	3	29.4	.00	1
Total crustacean kg	4.1	1.36	2	.3	.32	3	4.0	1.55	8	10.1	3.26	5	8.8	2.51	3	1.0	.00	1
Total others kg	.0	.00	2	7.0	5.19	3	2.4	1.30	8	.6	.35	5	1.2	.83	3	.0	.00	1
Surface temperature	.0	.00	0	25.5	.06	5	25.8	.05	10	26.1	.30	5	26.5	.26	2	27.1	.16	2
Midwater temperature	.0	.00	0	25.4	.05	5	26.2	.10	10	26.8	.24	5	27.3	.01	2	27.2	.01	2
Bottom temperature	.0	.00	0	25.4	.07	5	26.5	.08	10	26.3	.58	5	21.9	.90	2	18.9	.61	2
Surface salinity	.0	.00	0	31.5	.20	5	32.0	.24	10	32.9	.84	5	33.8	.50	2	35.6	.54	2
Midwater salinity	.0	.00	0	31.5	.20	5	33.1	.23	10	34.7	.36	5	36.1	.06	2	36.2	.20	2
Bottom salinity	.0	.00	0	31.5	.17	5	33.7	.15	10	35.2	.59	5	37.7	1.17	2	36.5	.07	2
Surface chlorophyll	.0	.00	0	.7	.12	5	.6	.06	9	.7	.13	5	.7	.49	2	.4	.30	2
Midwater chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	.0	.00	0	8.0	.38	5	8.1	.27	10	7.8	.25	5	7.5	.00	2	7.7	.35	2
Midwater oxygen	.0	.00	0	7.5	.49	5	8.2	.11	10	7.8	.13	5	7.9	.05	2	8.0	.15	2
Bottom oxygen	.0	.00	0	8.6	.16	5	7.6	.12	10	7.3	.33	5	7.4	1.10	2	4.9	.15	2

Table 37a
Statistical Zone 17
20-ft trawls

Summary of dominant organisms taken in statistical zone 17 during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken. No trawl samples were taken in depths greater than 10 fm.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Xiphopenaeus kroyeri	66.0	38.29	.3	.14	13	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Penaeus setiferus	43.4	18.69	.3	.11	13	12.0	12.00	.1	.14	2	.0	.00	.0	.00	0
Callinectes similis	28.6	15.40	.1	.09	13	9.0	3.00	.0	.00	2	.0	.00	.0	.00	0
Portunus gibbesii	11.5	6.50	.0	.03	13	6.0	6.00	.0	.00	2	.0	.00	.0	.00	0
Squilla spp.	6.5	3.36	.1	.05	13	3.0	3.00	.0	.00	2	.0	.00	.0	.00	0
Callinectes sapidus	4.6	2.64	.3	.16	13	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Stellifer lanceolatus	17.1	12.28	.1	.07	13	18.0	18.00	.1	.14	2	.0	.00	.0	.00	0
Cynoscion arenarius	9.7	3.30	.3	.15	13	24.0	24.00	1.6	1.64	2	.0	.00	.0	.00	0
Micropogonias undulatus	10.2	5.01	.4	.20	13	18.0	18.00	.7	.68	2	.0	.00	.0	.00	0
Prionotus tribulus	7.4	6.41	.1	.05	13	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Brevoortia patronus	5.5	4.16	.2	.13	13	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Symphurus plagiusa	4.2	2.39	.1	.05	13	3.0	3.00	.0	.00	2	.0	.00	.0	.00	0
Citharichthys spilopterus	2.8	.86	.0	.02	13	3.0	3.00	.0	.00	2	.0	.00	.0	.00	0
Arius felis	3.2	2.41	.0	.02	13	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Squid	37.4	11.75	.6	.17	13	9.0	9.00	.3	.27	2	.0	.00	.0	.00	0

Table 37b
Statistical Zone 17
20-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm. No trawl samples were taken in depths greater than 10 fm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	7.3	2.92	13	2.7	2.73	2	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Total finfish kg	2.1	.88	13	2.7	2.73	2	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Total crustacean kg	1.0	.58	13	.0	.00	2	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Total others kg	3.4	2.47	13	.0	.00	2	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface temperature	21.6	.12	15	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater temperature	21.6	.12	15	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom temperature	21.8	.13	15	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface salinity	26.2	.44	15	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater salinity	26.4	.41	15	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom salinity	26.7	.37	15	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	7.4	.07	15	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater oxygen	7.4	.08	15	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom oxygen	7.0	.14	15	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0

Table 38a
Statistical Zone 18
20-ft trawls

Summary of dominant organisms taken in statistical zone 18 during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken. No trawl samples were taken in depths greater than 10 fm.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Squilla spp.	4.0	2.00	.0	.05	6	11.5	5.08	.1	.06	11	.0	.00	.0	.00	0
Penaeus setiferus	15.0	9.13	.1	.06	6	5.5	3.18	.0	.02	11	.0	.00	.0	.00	0
Callinectes similis	1.0	1.00	.0	.00	6	7.6	2.30	.0	.00	11	.0	.00	.0	.00	0
Trachypenaeus similis	.0	.00	.0	.00	6	2.7	1.24	.0	.00	11	.0	.00	.0	.00	0
Portunus gibbesii	.0	.00	.0	.00	6	1.1	.73	.0	.00	11	.0	.00	.0	.00	0
Sicyonia dorsalis	.0	.00	.0	.00	6	1.1	1.09	.0	.00	11	.0	.00	.0	.00	0
Cynoscion nothus	24.0	16.32	.1	.09	6	30.0	13.94	.1	.06	11	.0	.00	.0	.00	0
Stellifer lanceolatus	28.0	15.15	.2	.09	6	4.4	3.80	.0	.05	11	.0	.00	.0	.00	0
Trichiurus lepturus	4.0	2.00	.0	.05	6	15.3	5.27	.2	.10	11	.0	.00	.0	.00	0
Peprilus burti	17.0	6.28	.6	.29	6	3.3	1.48	.0	.02	11	.0	.00	.0	.00	0
Anchoa mitchilli	2.0	1.26	.0	.00	6	7.1	3.11	.0	.00	11	.0	.00	.0	.00	0
Arius felis	14.0	14.00	.1	.14	6	.0	.00	.0	.00	11	.0	.00	.0	.00	0
Symphurus plagiusa	4.0	2.00	.0	.05	6	3.8	1.46	.0	.03	11	.0	.00	.0	.00	0
Cynoscion arenarius	1.0	1.00	.1	.09	6	4.4	3.34	.3	.20	11	.0	.00	.0	.00	0
Squid	124.0	29.13	1.5	.32	6	120.0	13.87	1.3	.16	11	.0	.00	.0	.00	0

Table 38b
Statistical Zone 18
20-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm. No trawl samples were taken in depths greater than 10 fm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	4.5	1.35	6	2.5	.44	11	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Total finfish kg	1.8	.57	6	.2	.25	11	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Total crustacean kg	.0	.00	6	.0	.00	11	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Total others kg	2.3	1.30	6	1.2	.43	11	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface temperature	21.9	.16	7	22.5	.10	10	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater temperature	21.8	.19	7	22.3	.08	10	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom temperature	21.8	.19	7	22.4	.14	10	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface salinity	25.0	.46	7	26.3	.18	10	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater salinity	25.7	.56	7	26.8	.16	10	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom salinity	26.6	.57	7	27.0	.17	10	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	5.9	.36	7	5.9	.16	10	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater oxygen	5.9	.39	7	5.8	.18	10	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom oxygen	5.9	.37	7	5.5	.19	10	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0

Table 39a
Statistical Zone 19
20-ft trawls

Summary of dominant organisms taken in statistical zone 19 during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken. No trawl samples were taken in depths greater than 20 fm.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Trachypenaeus similis	.0	.00	.0	.00	3	82.0	70.90	.1	.09	9	90.0	84.04	.1	.14	4
Sicyonia dorsalis	.0	.00	.0	.00	3	17.3	3.80	.0	.00	9	28.5	10.21	.0	.00	4
Squilla spp.	.0	.00	.0	.00	3	8.7	7.94	.1	.06	9	12.0	4.24	.1	.07	4
Penaeus setiferus	2.0	2.00	.0	.00	3	8.7	6.49	.1	.09	9	.0	.00	.0	.00	4
Portunus gibbesii	4.0	4.00	.0	.00	3	6.7	3.80	.0	.00	9	1.5	1.50	.0	.00	4
Callinectes similis	.0	.00	.0	.00	3	4.0	2.65	.0	.00	9	4.5	1.50	.0	.00	4
Chloroscombrus chrysurus	1336.0	1038.55	3.7	2.49	3	.7	.67	.0	.00	9	46.5	26.20	.4	.26	4
Cynoscion nothus	32.0	32.00	.3	.27	3	203.3	58.70	1.6	.57	9	100.5	94.60	.6	.61	4
Peprilus burti	128.0	72.77	.5	.24	3	21.3	13.61	.8	.48	9	15.0	5.20	.7	.24	4
Anchoa nasuta	8.0	4.00	.0	.00	3	54.7	24.61	.9	.39	9	12.0	10.10	.2	.20	4
Anchoa mitchilli	.0	.00	.0	.00	3	60.0	29.55	.1	.06	9	.0	.00	.0	.00	4
Harengula jaguana	6.0	3.46	.0	.00	3	43.3	21.09	.4	.19	9	7.5	7.50	.1	.14	4
Stellifer lanceolatus	10.0	7.21	.1	.09	3	40.0	37.05	.8	.72	9	.0	.00	.0	.00	4
Anchoa hepsetus	94.0	82.29	.2	.18	3	.7	.67	.0	.00	9	.0	.00	.0	.00	4
Squid	1152.0	258.37	7.7	2.34	3	433.3	66.06	3.0	.67	9	322.5	104.71	2.3	.53	4

Table 39b
Statistical Zone 19
20-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm. No trawl samples were taken in depths greater than 20 fm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	16.4	1.57	3	11.2	1.73	9	6.1	1.31	4	.0	.00	0	.0	.00	0	.0	.00	0
Total finfish kg	5.5	2.73	3	7.0	1.21	9	3.4	.68	4	.0	.00	0	.0	.00	0	.0	.00	0
Total crustacean kg	.0	.00	3	.3	.30	9	.0	.00	4	.0	.00	0	.0	.00	0	.0	.00	0
Total others kg	10.9	.00	3	3.9	1.12	9	2.0	.68	4	.0	.00	0	.0	.00	0	.0	.00	0
Surface temperature	21.8	.49	3	22.4	.29	9	21.5	.68	4	.0	.00	0	.0	.00	0	.0	.00	0
Midwater temperature	21.0	.19	3	22.0	.29	9	21.9	.59	4	.0	.00	0	.0	.00	0	.0	.00	0
Bottom temperature	21.5	1.00	2	21.9	.22	9	21.8	.81	4	.0	.00	0	.0	.00	0	.0	.00	0
Surface salinity	24.9	.28	3	26.8	.31	9	31.2	.54	4	.0	.00	0	.0	.00	0	.0	.00	0
Midwater salinity	25.7	.73	3	27.2	.33	9	32.2	.25	4	.0	.00	0	.0	.00	0	.0	.00	0
Bottom salinity	27.0	.93	3	28.0	.47	9	32.2	.35	4	.0	.00	0	.0	.00	0	.0	.00	0
Surface chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	8.8	.00	3	7.6	.04	9	8.2	.35	4	.0	.00	0	.0	.00	0	.0	.00	0
Midwater oxygen	8.7	.21	3	7.5	.08	9	8.1	.37	4	.0	.00	0	.0	.00	0	.0	.00	0
Bottom oxygen	8.6	.19	3	7.3	.08	9	8.2	.27	4	.0	.00	0	.0	.00	0	.0	.00	0

Table 40a
Statistical Zone 20
20-ft trawls

Summary of dominant organisms taken in statistical zone 20 during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken. No trawl samples were taken in depths greater than 20 fm.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Trachypenaeus similis	3.0	3.00	.0	.00	2	7.5	4.64	.0	.00	8	32.0	10.24	.0	.00	6
Sicyonia dorsalis	.0	.00	.0	.00	2	1.5	.98	.0	.00	8	37.0	17.49	.0	.00	6
Penaeus setiferus	3.0	3.00	.0	.00	2	4.5	3.72	.1	.10	8	8.0	4.29	.1	.09	6
Penaeus aztecus	.0	.00	.0	.00	2	.8	.75	.0	.00	8	11.0	3.61	.1	.06	6
Portunus gibbesii	.0	.00	.0	.00	2	3.8	1.94	.0	.00	8	6.0	3.79	.0	.00	6
Callinectes similis	3.0	3.00	.0	.00	2	.0	.00	.0	.00	8	6.0	2.19	.0	.05	6
Chloroscombrus chrysurus	4113.0	3849.00	13.2	12.14	2	156.0	98.20	.8	.49	8	31.0	20.46	.3	.23	6
Cynoscion nothus	90.0	90.00	.8	.82	2	125.3	34.29	.8	.18	8	100.0	33.36	1.5	.45	6
Syacium gunteri	.0	.00	.0	.00	2	9.0	3.76	.1	.05	8	60.0	12.68	.9	.22	6
Harengula jaguana	39.0	9.00	.4	.14	2	29.3	8.89	.3	.14	8	18.0	9.03	.3	.18	6
Selene setapinnis	27.0	3.00	.0	.00	2	43.5	35.27	.2	.20	8	.0	.00	.0	.00	6
Trichiurus lepturus	3.0	3.00	.1	.14	2	39.0	28.37	.4	.37	8	.0	.00	.0	.00	6
Selene vomer	99.0	75.00	.4	.14	2	5.3	3.09	.0	.00	8	.0	.00	.0	.00	6
Peprilus burti	9.0	9.00	.0	.00	2	1.5	1.50	.0	.03	8	29.0	15.05	1.0	.52	6
Squid	96.0	36.00	.5	.27	2	528.0	135.52	2.9	.71	8	281.0	59.71	2.0	.53	6

Table 40b
Statistical Zone 20
20-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm. No trawl samples were taken in depths greater than 20 fm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	31.4	9.55	2	13.3	3.02	8	10.5	.84	6	.0	.00	0	.0	.00	0	.0	.00	0
Total finfish kg	20.5	6.82	2	5.8	1.74	8	5.5	.70	6	.0	.00	0	.0	.00	0	.0	.00	0
Total crustacean kg	.0	.00	2	.0	.00	8	.0	.00	6	.0	.00	0	.0	.00	0	.0	.00	0
Total others kg	9.5	4.09	2	6.8	2.19	8	4.5	.57	6	.0	.00	0	.0	.00	0	.0	.00	0
Surface temperature	21.9	.03	3	22.5	.05	7	22.5	.20	6	.0	.00	0	.0	.00	0	.0	.00	0
Midwater temperature	22.0	.07	3	22.5	.07	7	22.3	.13	6	.0	.00	0	.0	.00	0	.0	.00	0
Bottom temperature	22.1	.12	3	22.7	.12	7	22.4	.15	6	.0	.00	0	.0	.00	0	.0	.00	0
Surface salinity	27.0	.31	3	27.8	.08	7	28.0	.21	6	.0	.00	0	.0	.00	0	.0	.00	0
Midwater salinity	26.9	.26	3	28.3	.26	7	28.1	.20	6	.0	.00	0	.0	.00	0	.0	.00	0
Bottom salinity	27.3	.23	3	28.8	.26	7	28.6	.33	6	.0	.00	0	.0	.00	0	.0	.00	0
Surface chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	7.1	.15	3	7.0	.11	7	7.1	.04	6	.0	.00	0	.0	.00	0	.0	.00	0
Midwater oxygen	7.1	.10	3	6.9	.08	7	7.0	.06	6	.0	.00	0	.0	.00	0	.0	.00	0
Bottom oxygen	6.9	.15	3	6.5	.15	7	7.1	.11	6	.0	.00	0	.0	.00	0	.0	.00	0

Table 41a
Statistical Zone 21
20-ft trawls

Summary of dominant organisms taken in statistical zone 21 during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. The mean number (NUM) of organisms per hour, the standard error of the mean (SEM) for numbers, the mean weight (WT) in kg per hour, the SEM for weight and the number (N) of samples taken. No trawl samples were taken in depths greater than 20 fm.

	0- 5 FM					6-10 FM					11-20 FM				
SPECIES	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N	NUM	SEM	WT	SEM	N
Portunus gibbesii	.0	.00	.0	.00	2	5.4	2.75	.1	.04	10	6.0	6.00	.1	.07	4
Sicyonia brevirostris	.0	.00	.0	.00	2	1.2	.80	.0	.00	10	13.5	5.12	.1	.08	4
Sicyonia dorsalis	.0	.00	.0	.00	2	2.4	1.83	.0	.00	10	1.5	1.50	.0	.00	4
Portunus spinimanus	.0	.00	.0	.00	2	.0	.00	.0	.00	10	6.0	6.00	.0	.00	4
Penaeus setiferus	.0	.00	.0	.00	2	1.2	1.20	.0	.00	10	.0	.00	.0	.00	4
Sicyonia typica	.0	.00	.0	.00	2	.6	.60	.0	.00	10	1.5	1.50	.0	.00	4
Chloroscombrus chrysurus	.0	.00	.0	.00	2	119.4	38.68	1.1	.43	10	400.5	175.96	5.5	2.43	4
Syacium gunteri	.0	.00	.0	.00	2	4.2	2.54	.1	.06	10	91.5	39.22	1.4	.62	4
Lutjanus campechanus	.0	.00	.0	.00	2	5.4	2.44	.1	.04	10	64.5	20.11	1.1	.29	4
Peprilus burti	3.0	3.00	.0	.00	2	12.0	7.85	.0	.00	10	.0	.00	.0	.00	4
Diplectrum bivittatum	.0	.00	.0	.00	2	3.6	2.04	.0	.03	10	18.0	6.00	.4	.14	4
Etropus crossotus	.0	.00	.0	.00	2	7.8	4.82	.1	.06	10	6.0	2.45	.0	.00	4
Arius felis	12.0	12.00	2.2	2.18	2	4.2	3.58	.7	.55	10	.0	.00	.0	.00	4
Eucinostomus argenteus	.0	.00	.0	.00	2	1.2	.80	.0	.00	10	12.0	7.35	.1	.08	4
Squid	3.0	3.00	.1	.14	2	18.0	5.22	.1	.06	10	19.5	6.65	.1	.07	4

Table 41b
Statistical Zone 21
20-ft trawls

Summary of mean total catch and environmental data (X), the standard error of the mean (SEM), and the number (n) of samples taken during the 1994 Fall Shrimp/Groundfish Survey by depth stratum. Catch values in kg per hour, temperature in °C, salinity in ppt, chlorophyll in mg/m^3, and oxygen in ppm. No trawl samples were taken in depths greater than 20 fm.

	0-5 fm			6-10 fm			11-20 fm			21-30 fm			31-40 fm			Over 40 fm		
Environmental category	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n	X	SEM	n
Total catch kg	2.7	2.73	2	2.7	.70	10	10.2	2.58	4	.0	.00	0	.0	.00	0	.0	.00	0
Total finfish kg	2.7	2.73	2	2.7	.70	10	10.2	2.58	4	.0	.00	0	.0	.00	0	.0	.00	0
Total crustacean kg	.0	.00	2	.3	.27	10	.0	.00	4	.0	.00	0	.0	.00	0	.0	.00	0
Total others kg	.0	.00	2	.0	.00	10	.0	.00	4	.0	.00	0	.0	.00	0	.0	.00	0
Surface temperature	23.7	.10	2	24.6	.32	10	25.0	.68	4	.0	.00	0	.0	.00	0	.0	.00	0
Midwater temperature	23.6	.20	2	24.6	.34	10	25.2	.50	4	.0	.00	0	.0	.00	0	.0	.00	0
Bottom temperature	23.6	.10	2	24.6	.34	10	25.2	.48	4	.0	.00	0	.0	.00	0	.0	.00	0
Surface salinity	29.6	.19	2	30.7	.42	10	31.4	.58	4	.0	.00	0	.0	.00	0	.0	.00	0
Midwater salinity	29.6	.12	2	30.7	.41	10	31.7	.27	4	.0	.00	0	.0	.00	0	.0	.00	0
Bottom salinity	29.6	.18	2	30.9	.44	10	32.0	.31	4	.0	.00	0	.0	.00	0	.0	.00	0
Surface chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	6.1	.05	2	6.4	.16	10	6.8	.15	4	.0	.00	0	.0	.00	0	.0	.00	0
Midwater oxygen	6.1	.00	2	6.5	.15	10	6.8	.27	4	.0	.00	0	.0	.00	0	.0	.00	0
Bottom oxygen	6.2	.00	2	6.5	.16	10	6.8	.28	4	.0	.00	0	.0	.00	0	.0	.00	0

Table 42. 1994 Reef Fish Survey species composition list, 180 stations. Species with a total weight of less than 0.0227 kg (0.05 lb) are indicated on the table as 0.0 kg.

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF SETS WHERE CAUGHT	% FREQUENCY OF OCCURRENCE
Finfishes					
Rhomboplites aurorubens	vermilion snapper	311	57.6	24	13.3
Lutjanus campechanus	red snapper	270	192.0	14	7.8
Pagrus pagrus	red porgy	170	48.7	30	16.7
Haemulon aurolineatum	tomtate	131	13.7	5	2.8
Centropristis ocyura	bank sea bass	49	4.9	9	5.0
Balistes capriscus	gray triggerfish	35	22.0	12	6.7
Haemulon carbonorium	caesar grunt	32	2.9	1	.6
Epinephelus morio	red grouper	29	50.3	19	10.6
Centropristis philadelphica	rock sea bass	15	2.2	7	3.9
Calamus proridens	littlehead porgy	15	5.4	5	2.8
Calamus calamus	saucereye porgy	7	3.5	3	1.7
Haemulon striatum	striped grunt	6	.4	2	1.1
Stenotomus caprinus	longspine porgy	6	.3	3	1.7
Mycteroperca phenax	scamp	3	2.9	3	1.7
Chaetodipterus faber	Atlantic spadefish	3	.7	1	.6
Monacanthus hispidus	planehead filefish	3	.4	2	1.1
Diplectrum formosum	sand perch	2	.2	1	.6
Mycteroperca microlepis	gag	2	3.4	2	1.1
Rypticus saponaceus	greater soapfish	2	.1	2	1.1
Seriola fasciata	lesser amberjack	2	1.0	1	.6
Haemulon plumieri	white grunt	2	.2	1	.6
Holacanthus bermudensis	blue angelfish	2	.7	2	1.1
Gymnothorax moringa	spotted moray	1	1.5	1	.6
Hypoplectrus unicolor	butter hamlet	1	.4	1	.6
Paranthias furcifer	creole-fish	1	.3	1	.6
Lutjanus synagris	lane snapper	1	1.2	1	.6
Calamus nodosus	knobbed porgy	1	.5	1	.6
Calamus penna	sheepshead porgy	1	.7	1	.6
Chaetodon sedentarius	reef butterflyfish	1	.0	1	.6

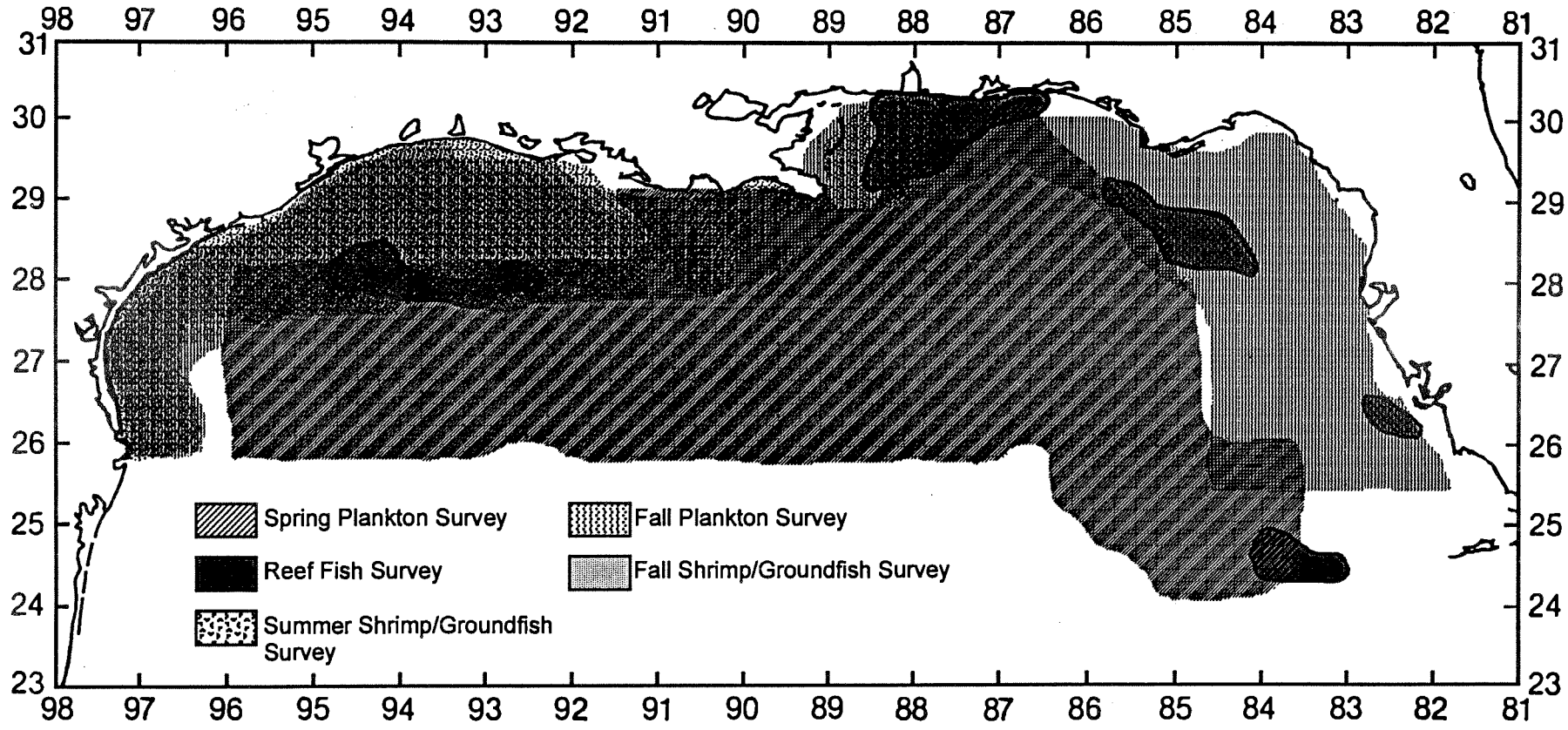

Figure 1. 1994 SEAMAP Surveys, Gulf of Mexico.

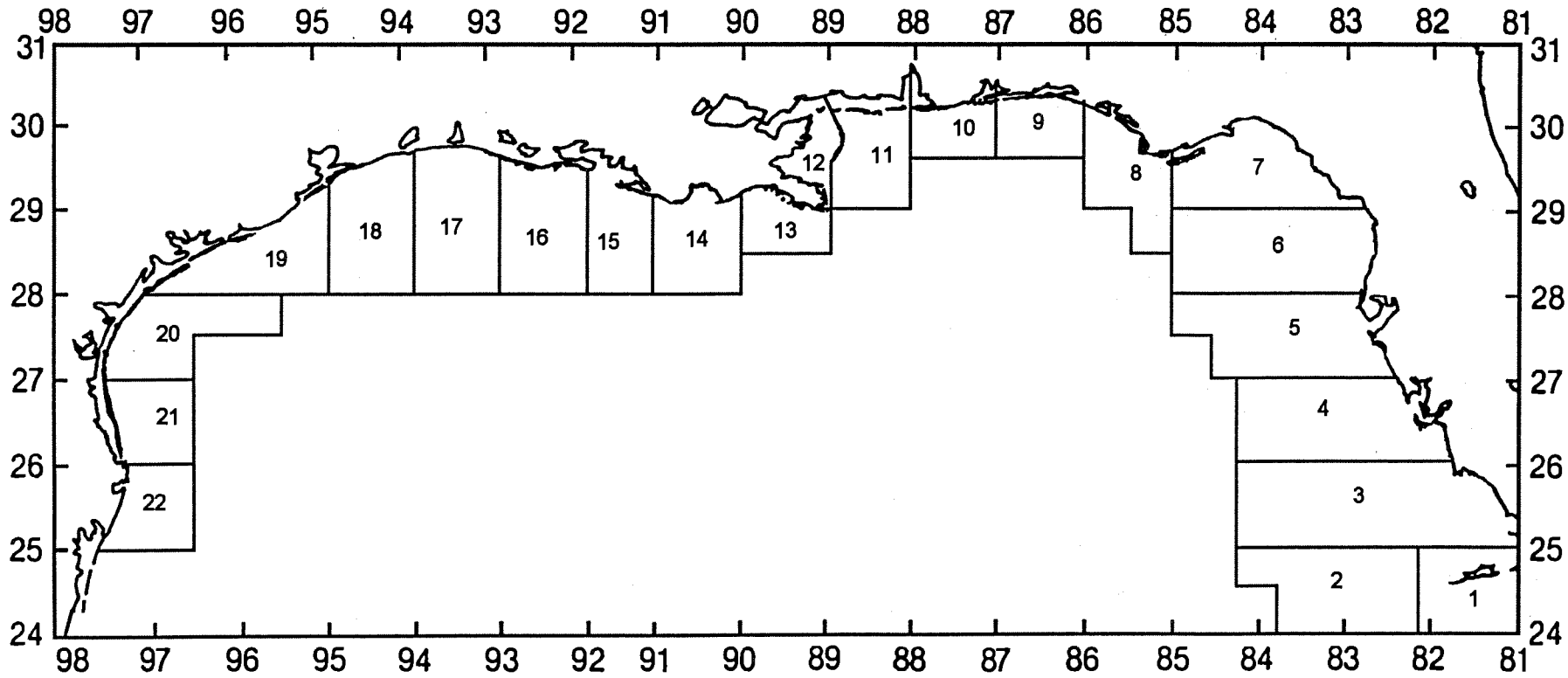

Figure 2. Statistical zones for shrimp in the Gulf of Mexico.

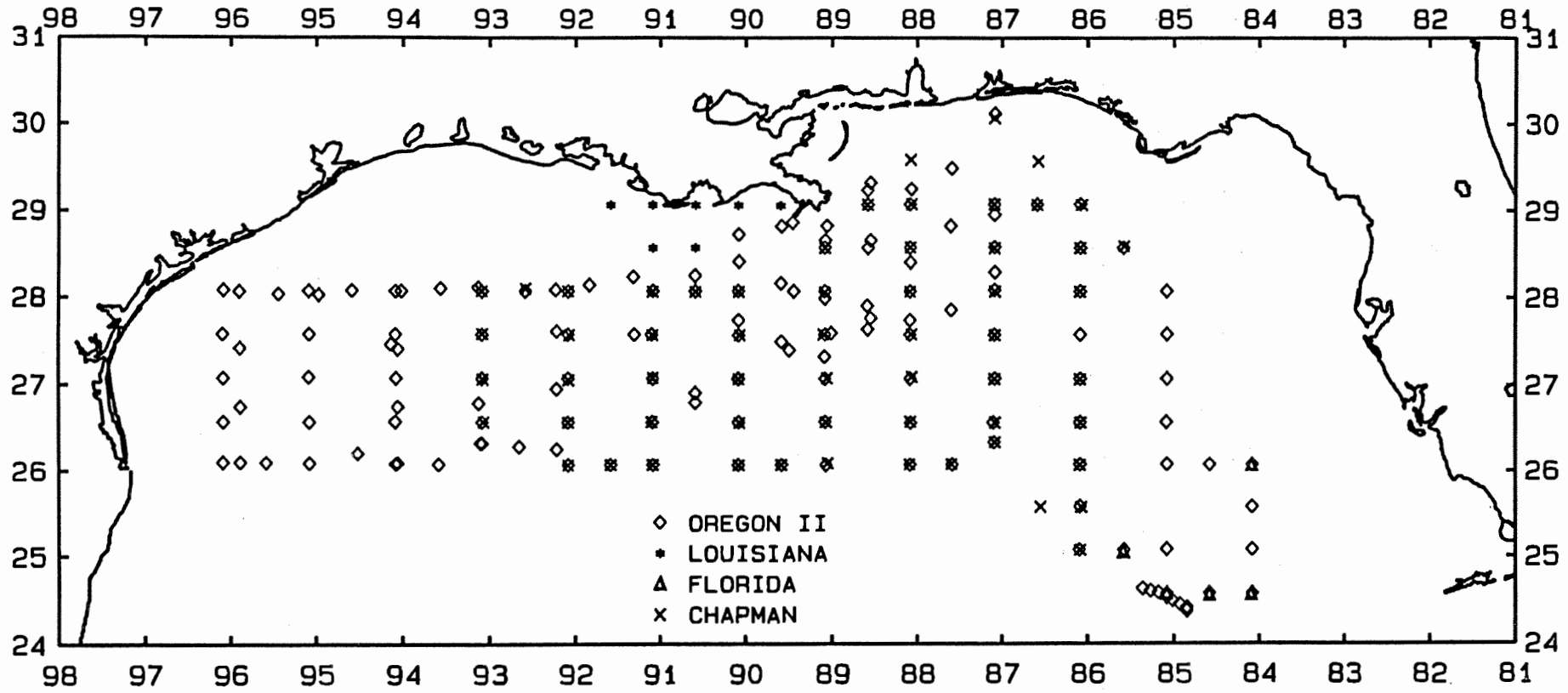

Figure 3. Locations of plankton and environmental stations during 1994 Spring Plankton Survey.

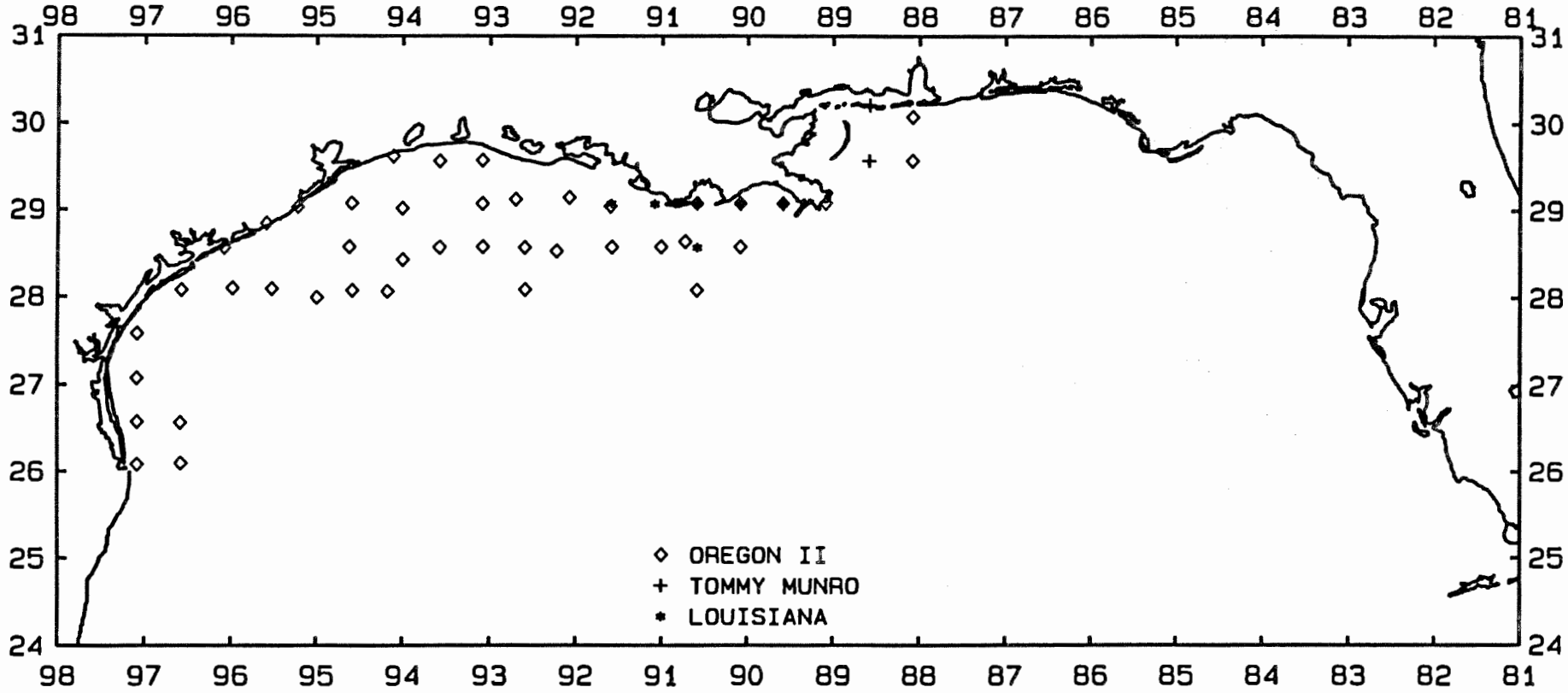

Figure 4. Locations of plankton stations during 1994 Summer Shrimp/Groundfish Survey.

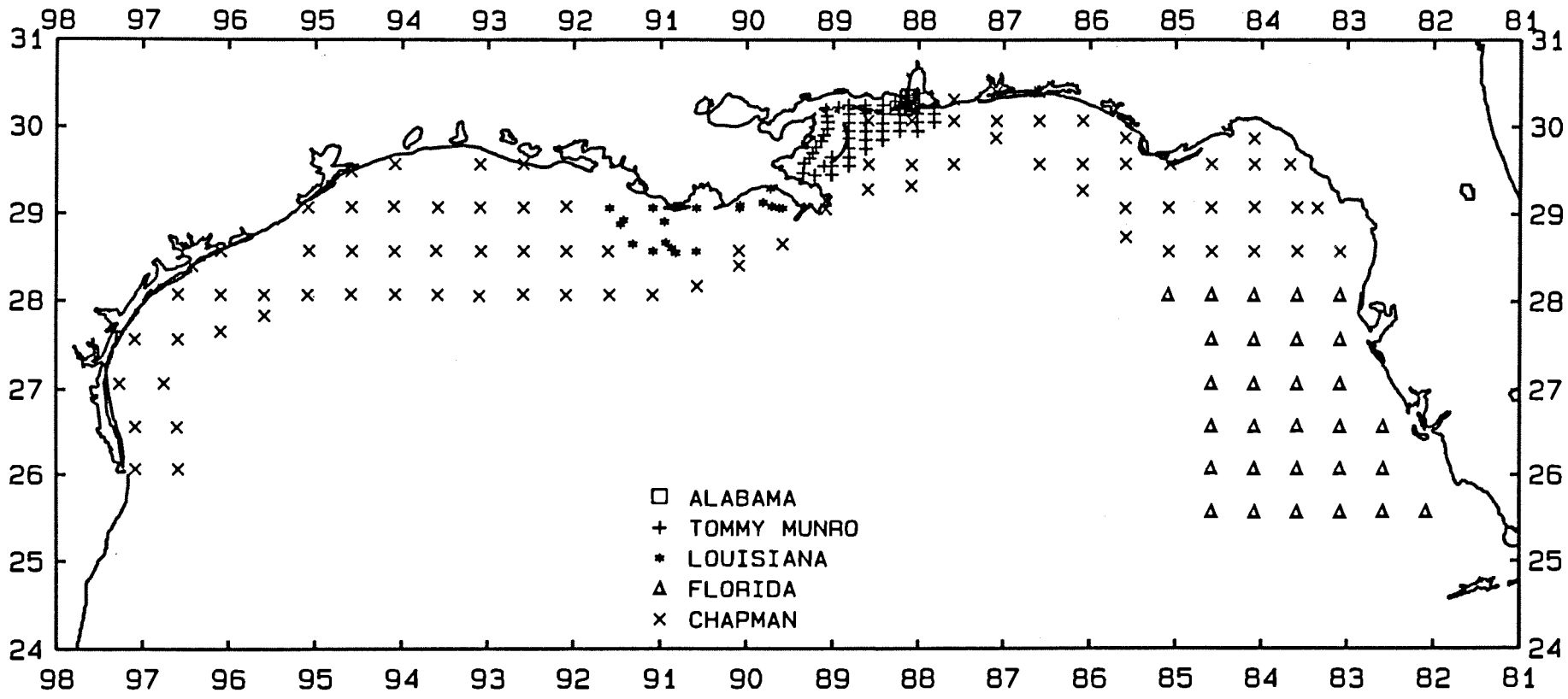

Figure 5. Locations of plankton and environmental stations during 1994 Fall Plankton Survey.

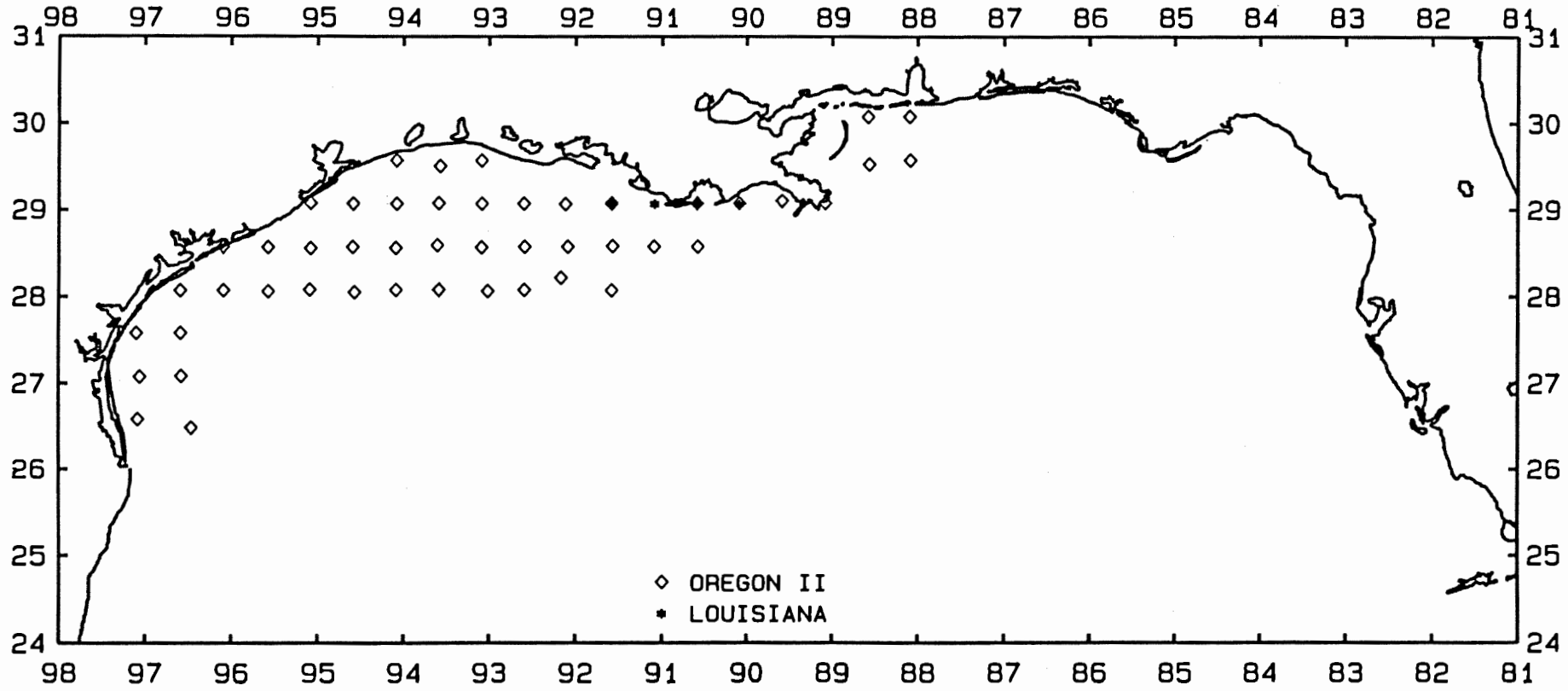

Figure 6. Locations of plankton stations during 1994 Fall Shrimp/Groundfish Survey.

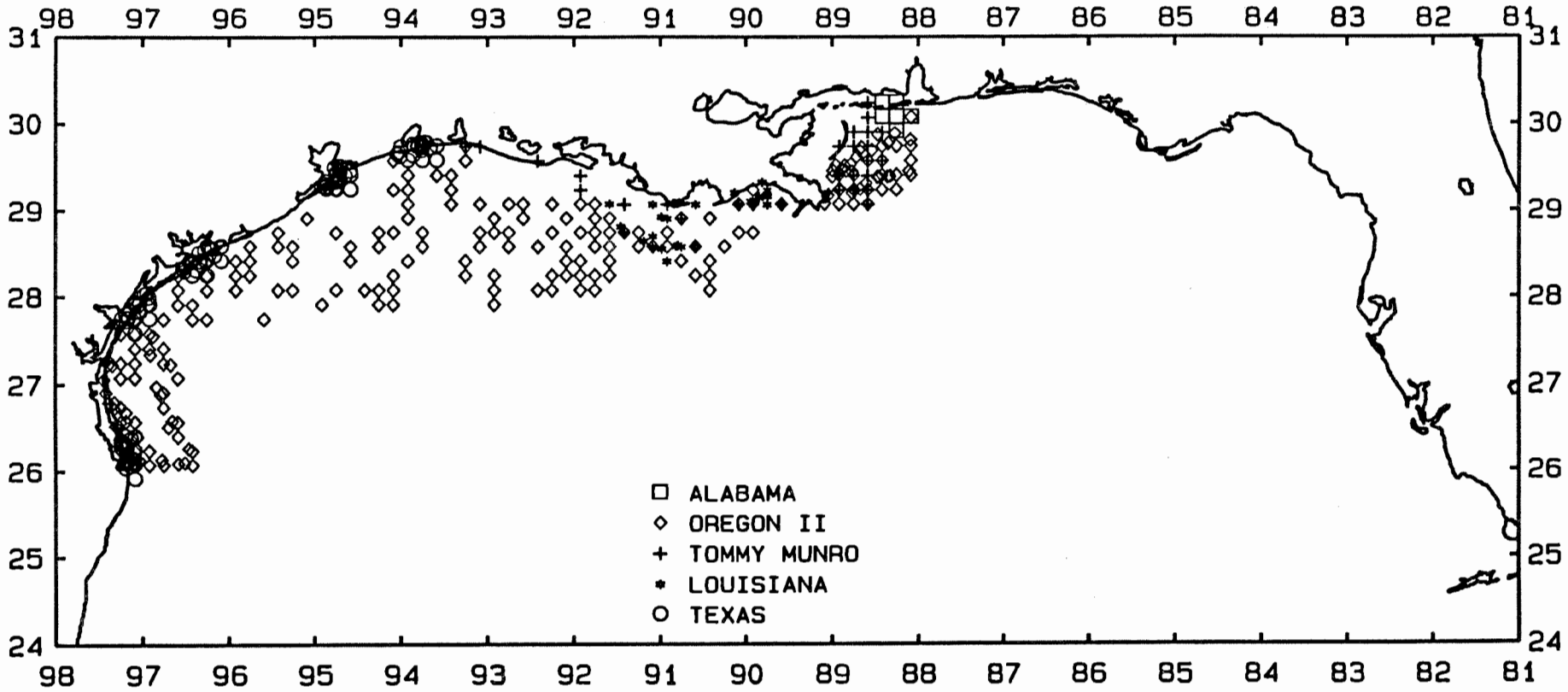

Figure 7. Locations of environmental stations during the 1994 Summer Shrimp/Groundfish Survey summarized by 10-minute squares.

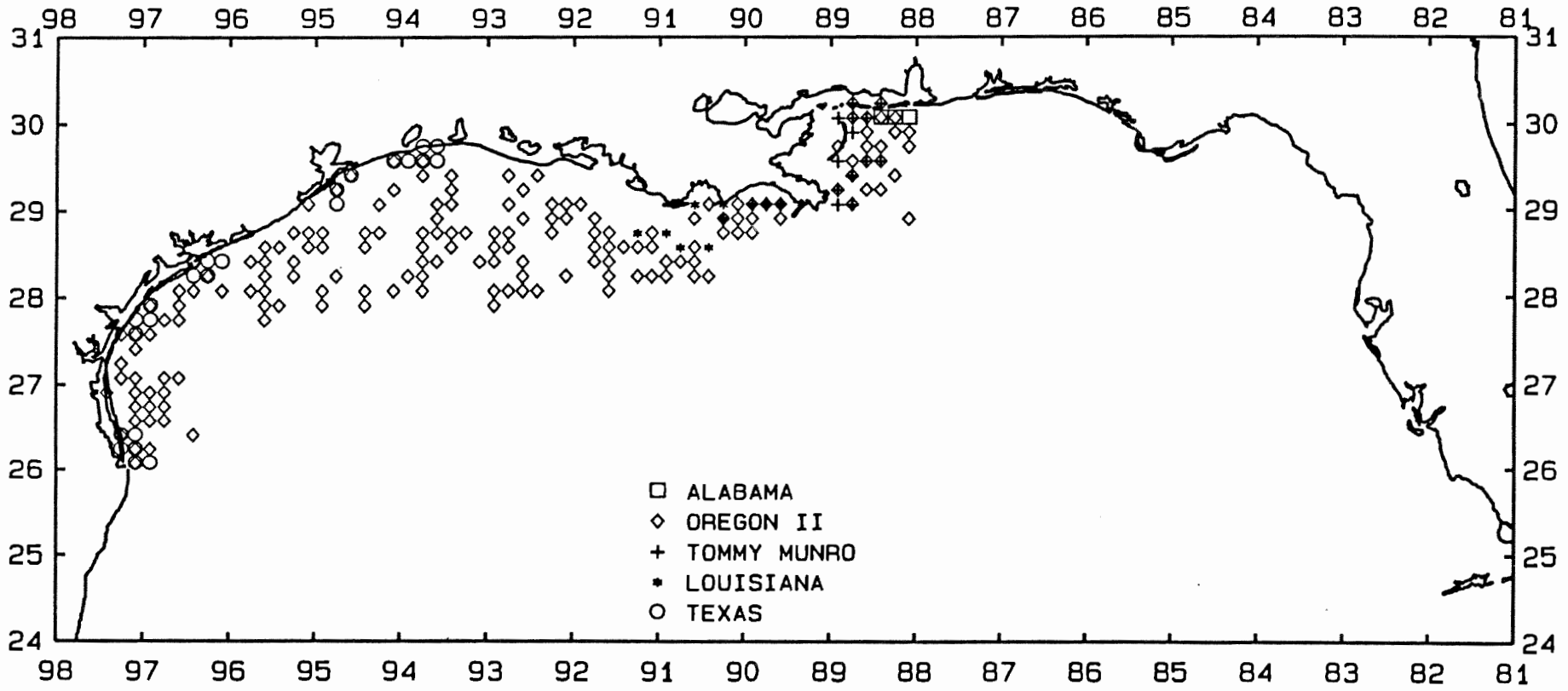

Figure 8. Locations of environmental stations during the 1994 Fall Shrimp/Groundfish Survey summarized by 10-minute squares.

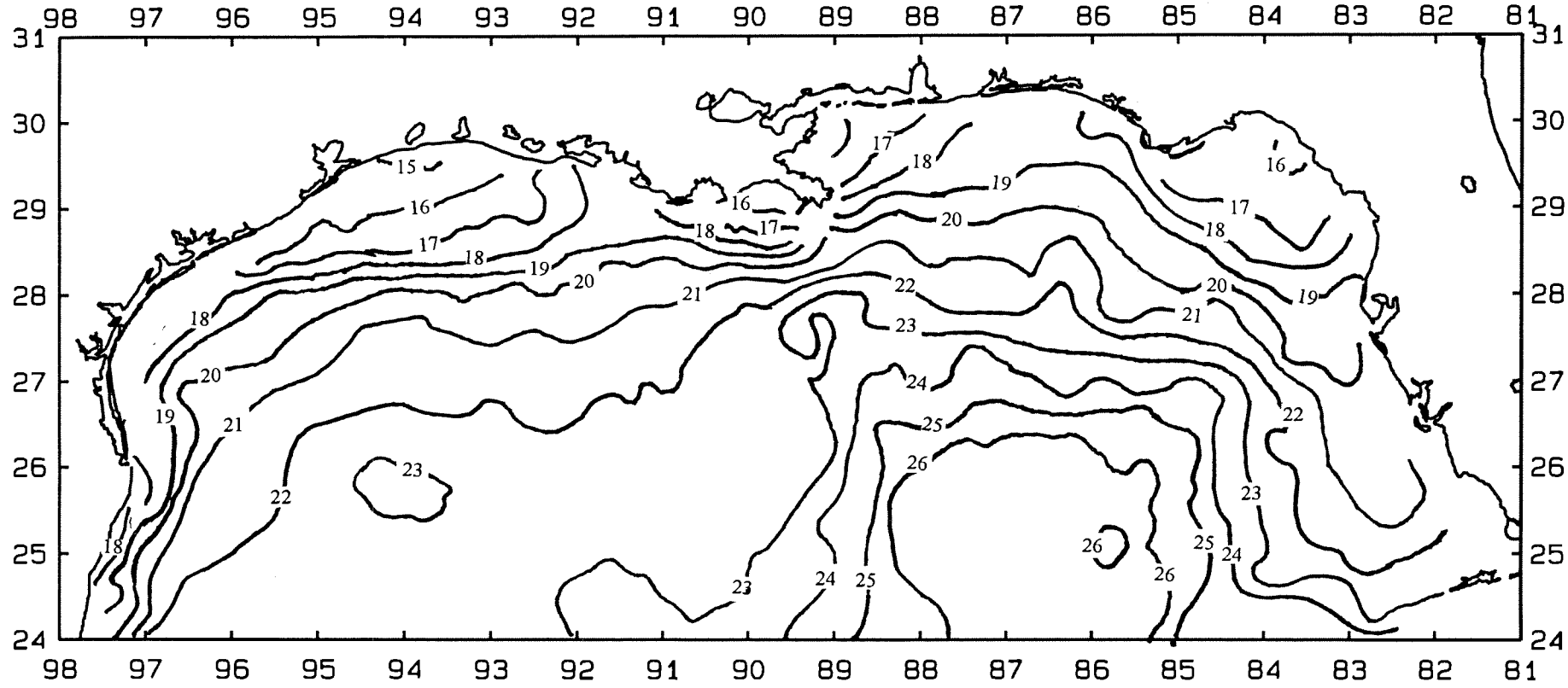

Figure 9. Satellite measurement of surface temperature (°C) in the Gulf of Mexico, March 1, 1994 (modified from NWS/NESS Sea Surface Thermal Analysis).

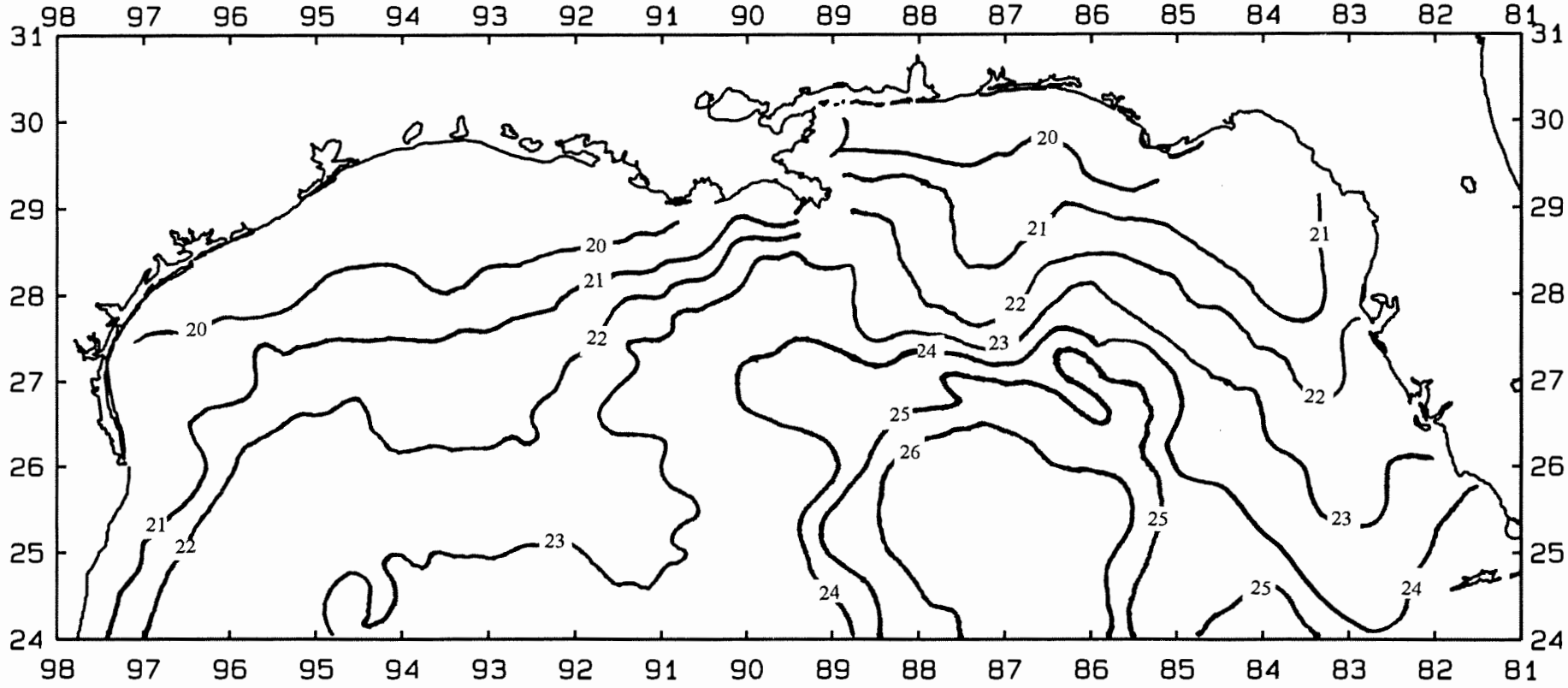

Figure 10. Satellite measurement of surface temperature (°C) in the Gulf of Mexico, April 10, 1994 (modified from NWS/NESS Sea Surface Thermal Analysis).

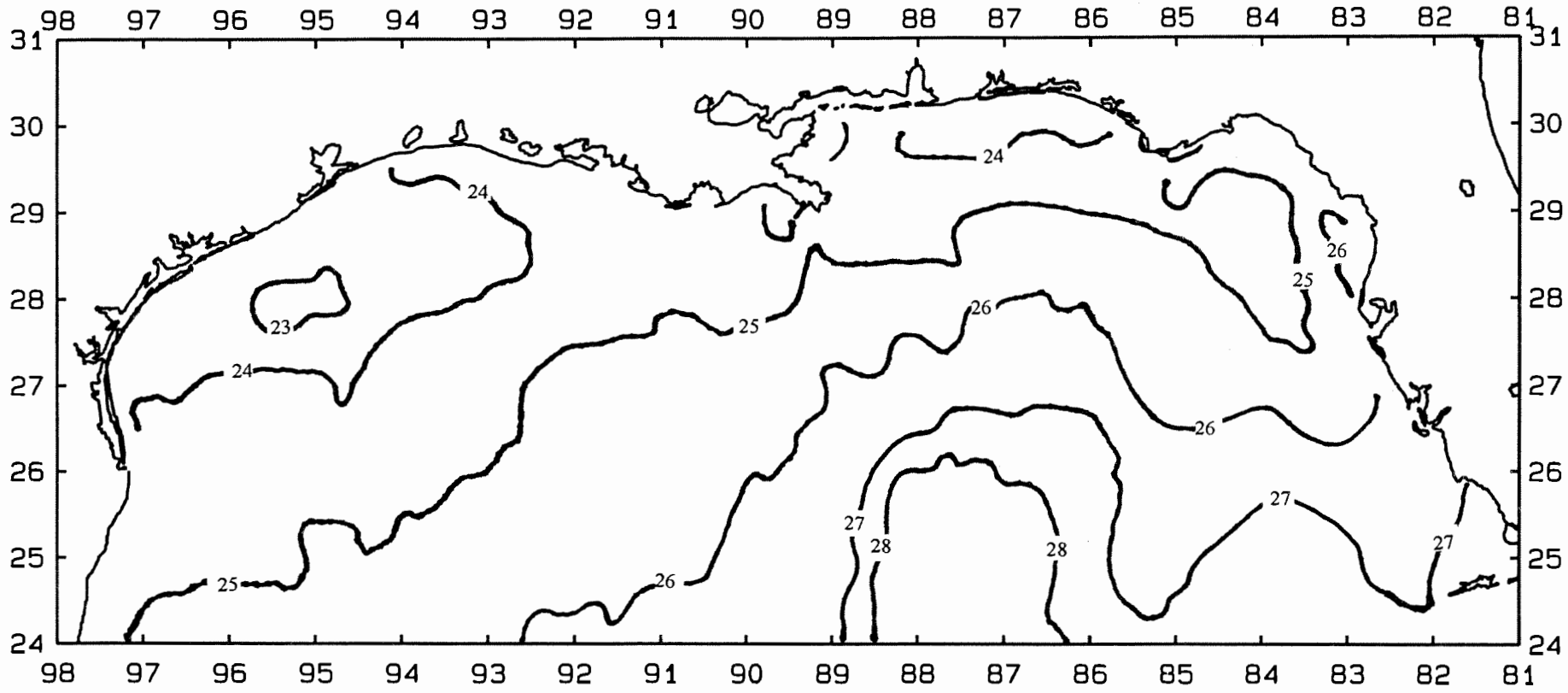

Figure 11. Satellite measurement of surface temperature (°C) in the Gulf of Mexico, May 8, 1994 (modified from NWS/NESS Sea Surface Thermal Analysis).

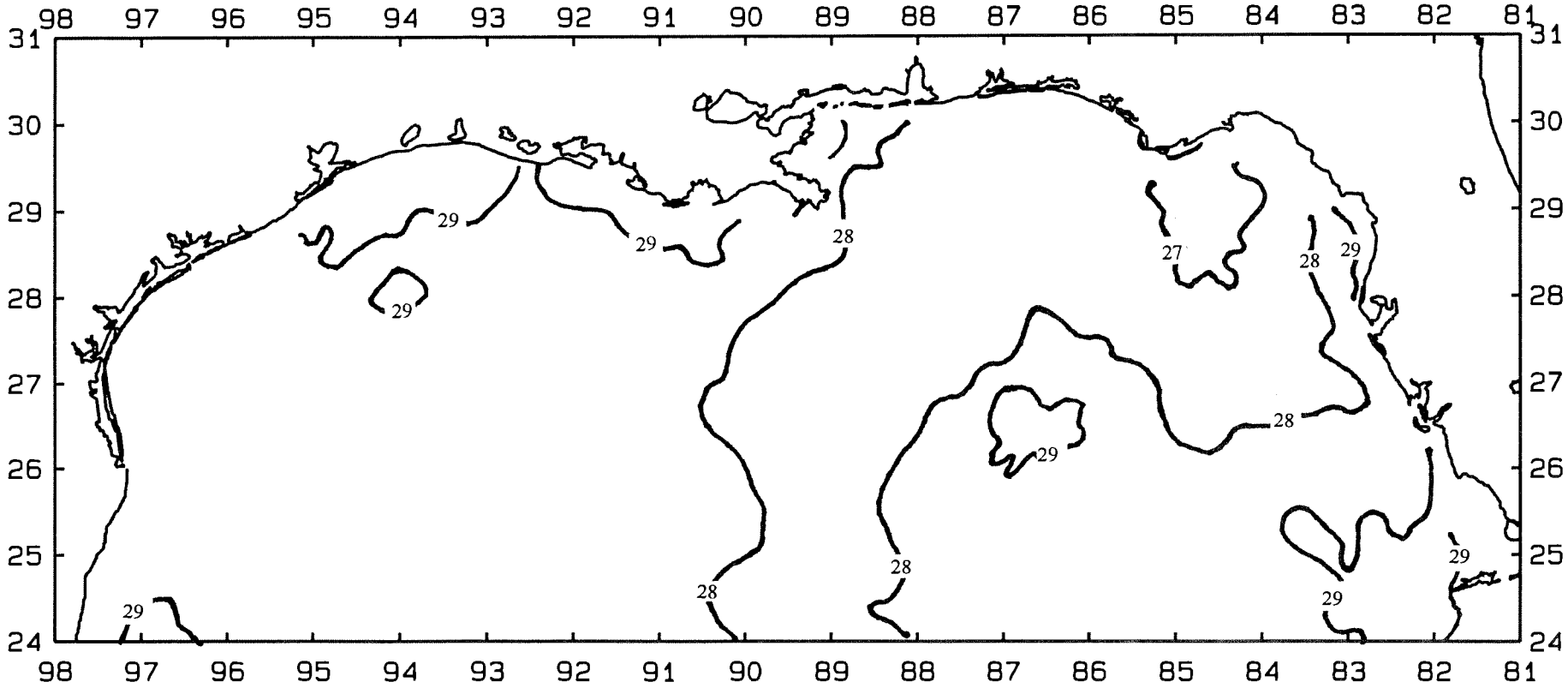

Figure 12. Satellite measurement of surface temperature (°C) in the Gulf of Mexico, June 12, 1994 (modified from NWS/NESS Sea Surface Thermal Analysis).

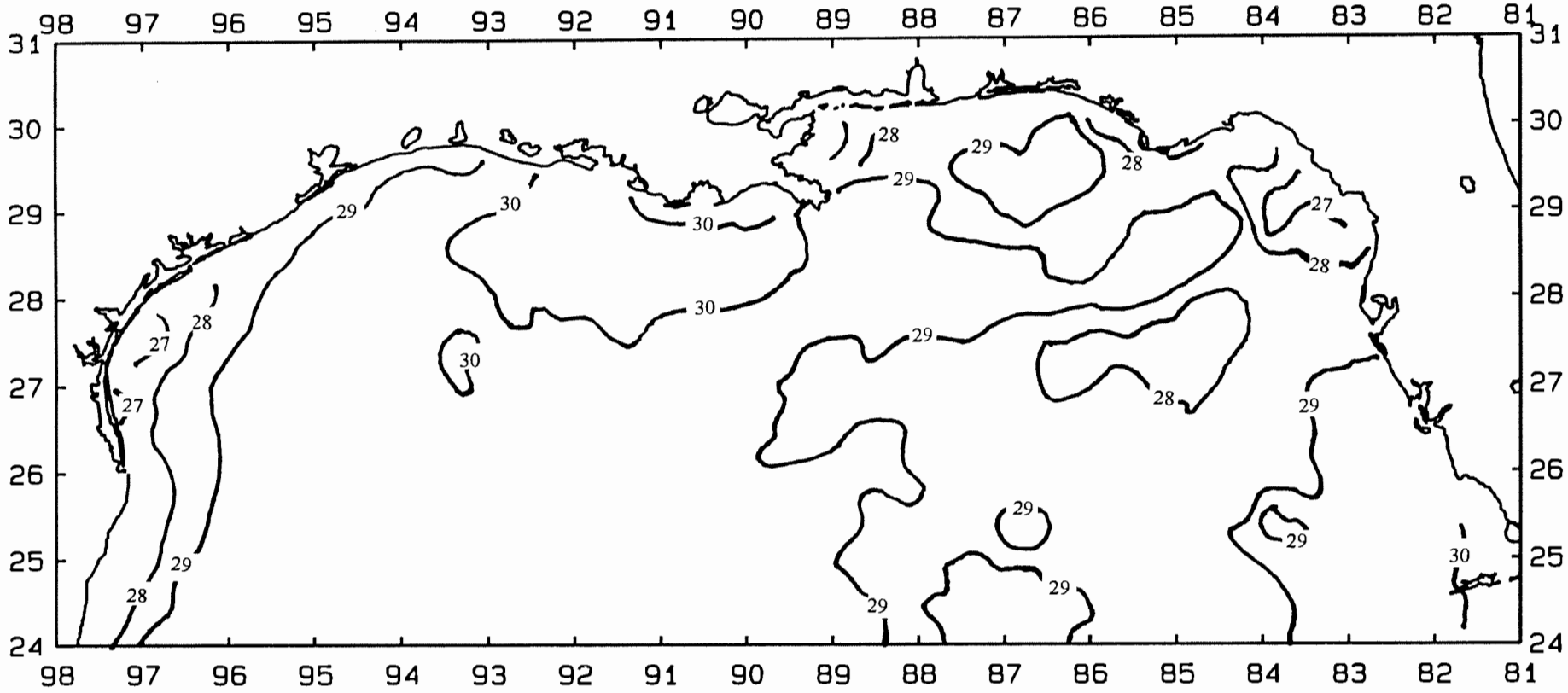

Figure 13. Satellite measurement of surface temperature (°C) in the Gulf of Mexico, July 3, 1994 (modified from NWS/NESS Sea Surface Thermal Analysis).

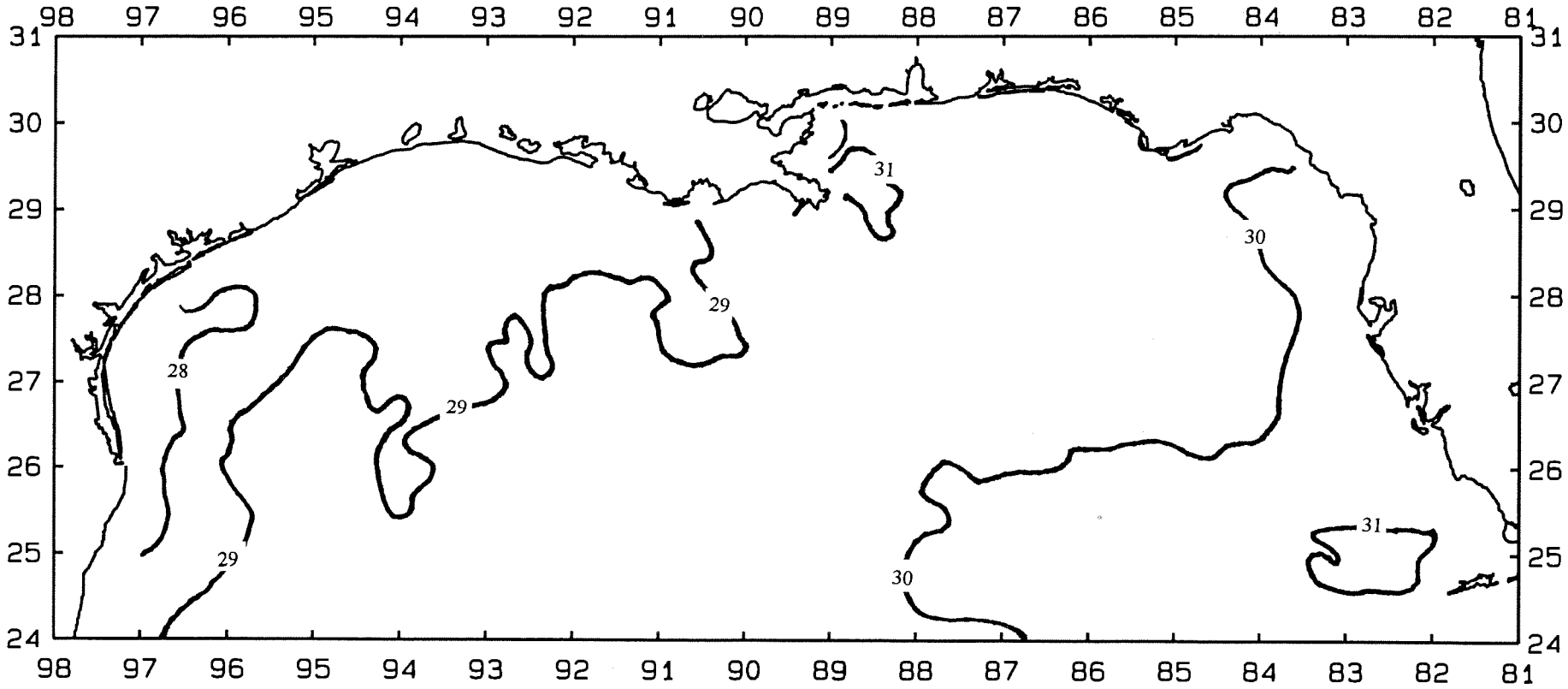

Figure 14. Satellite measurement of surface temperature (°C) in the Gulf of Mexico, August 7, 1994 (modified from NWS/NESS Sea Surface Thermal Analysis).

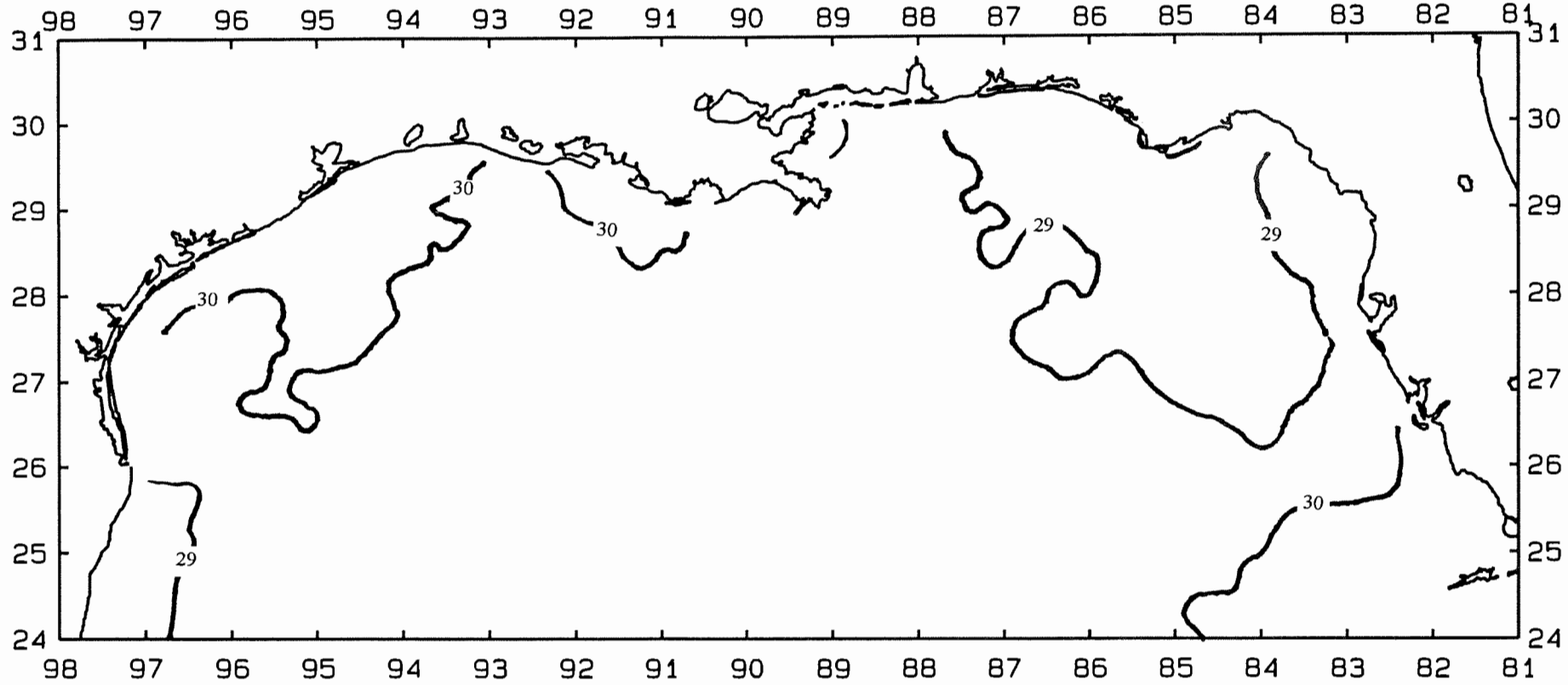

Figure 15. Satellite measurement of surface temperature (°C) in the Gulf of Mexico, September 6, 1994 (modified from NWS/NESS Sea Surface Thermal Analysis).

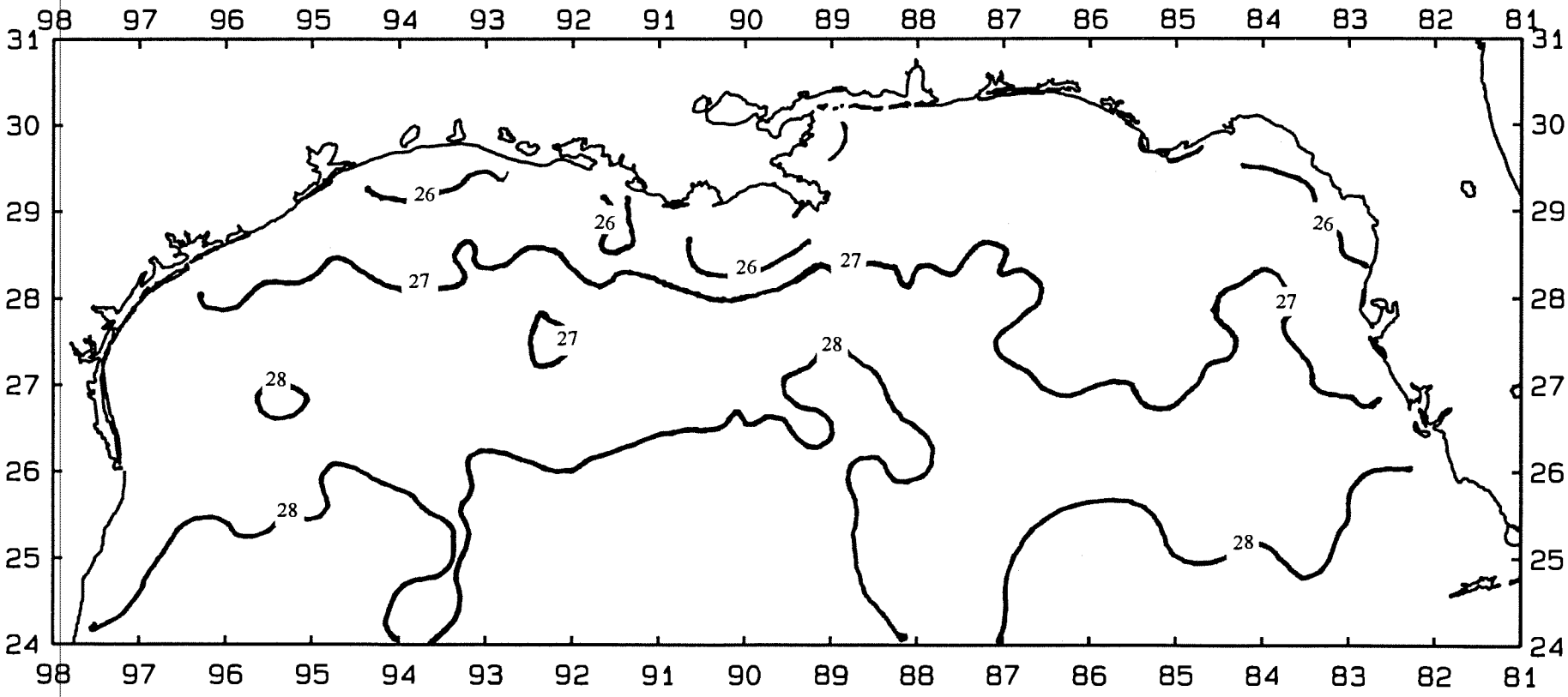

Figure 16. Satellite measurement of surface temperature (°C) in the Gulf of Mexico, October 11, 1994 (modified from NWS/NESS Sea Surface Thermal Analysis).

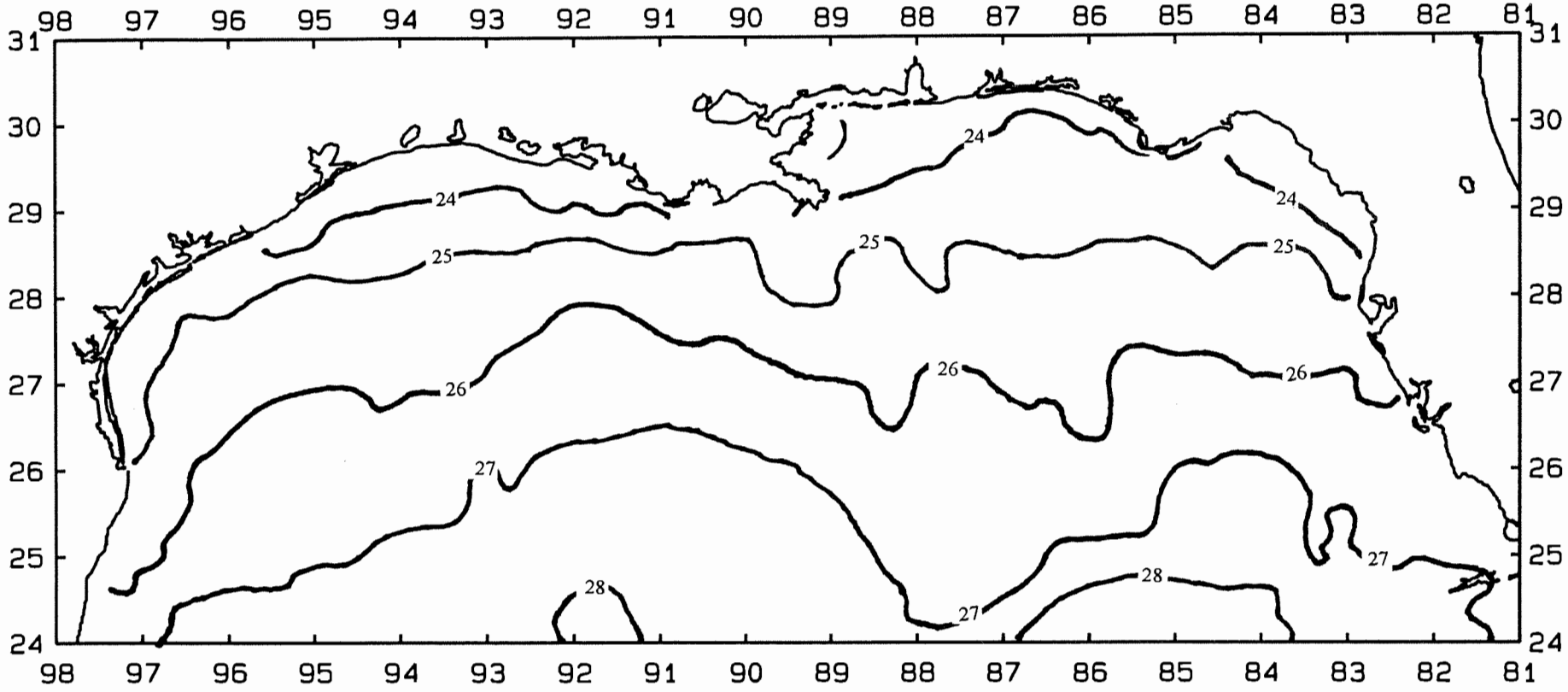

Figure 17. Satellite measurement of surface temperature (°C) in the Gulf of Mexico, November 8, 1994 (modified from NWS/NESS Sea Surface Thermal Analysis).

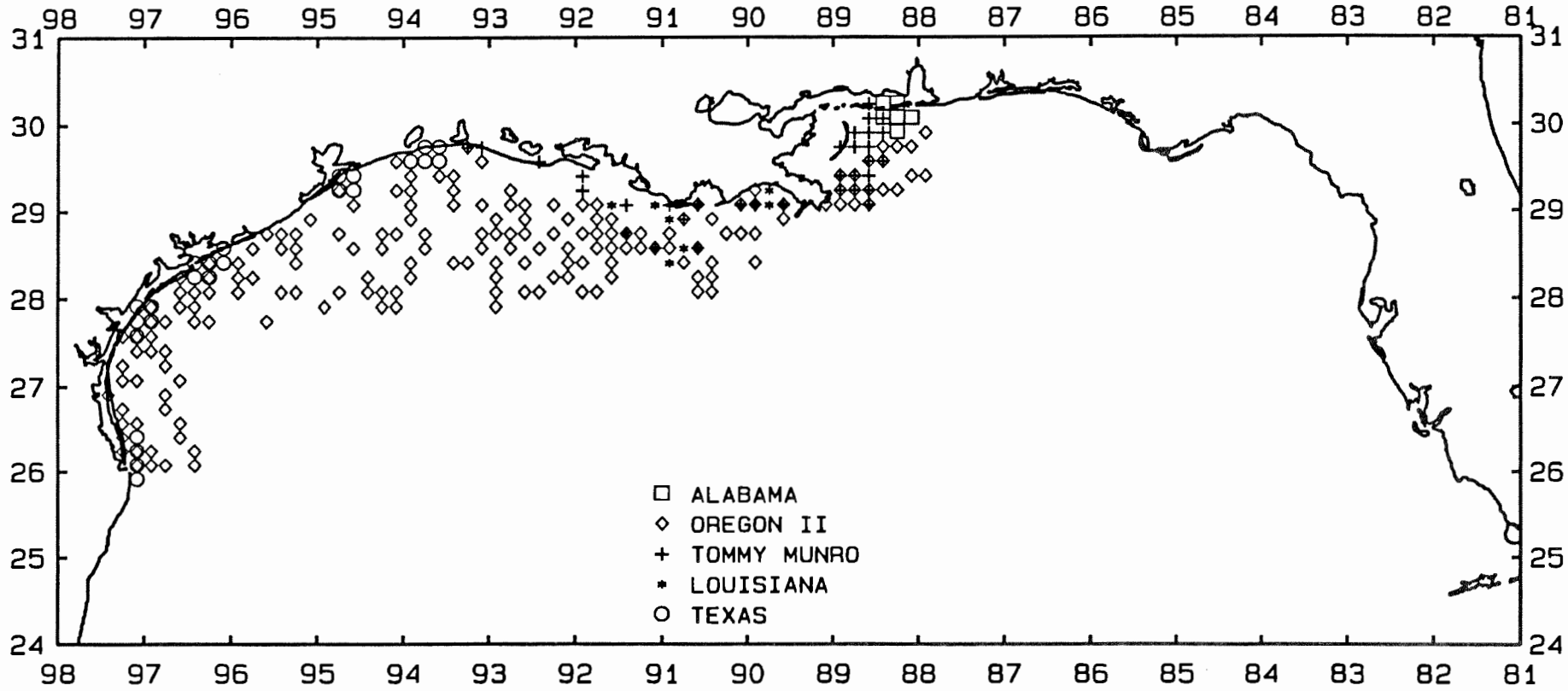

Figure 18. Locations of trawl stations during the 1994 Summer Shrimp/Groundfish Survey summarized by 10-minute squares.

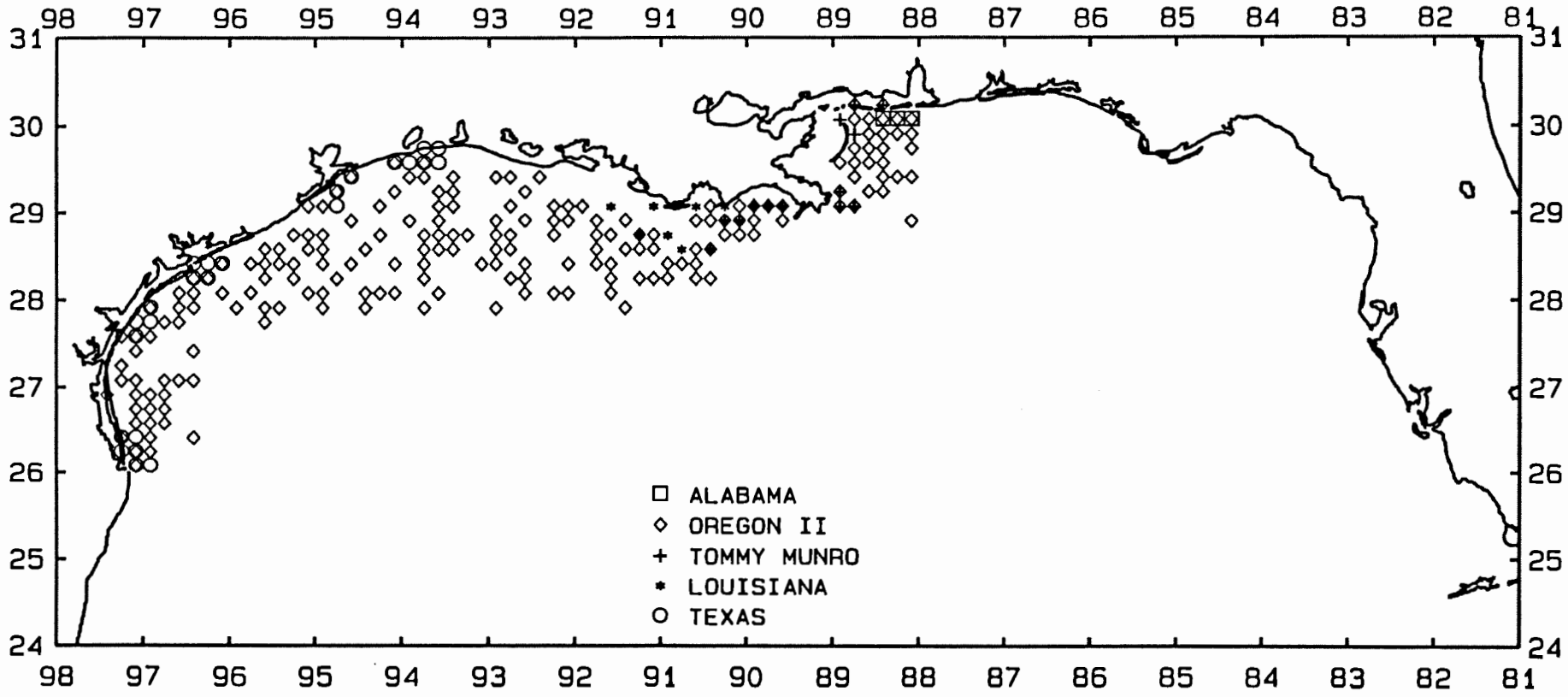

Figure 19. Locations of trawl stations during the 1994 Fall Shrimp/Groundfish Survey, summarized by 10-minute squares.

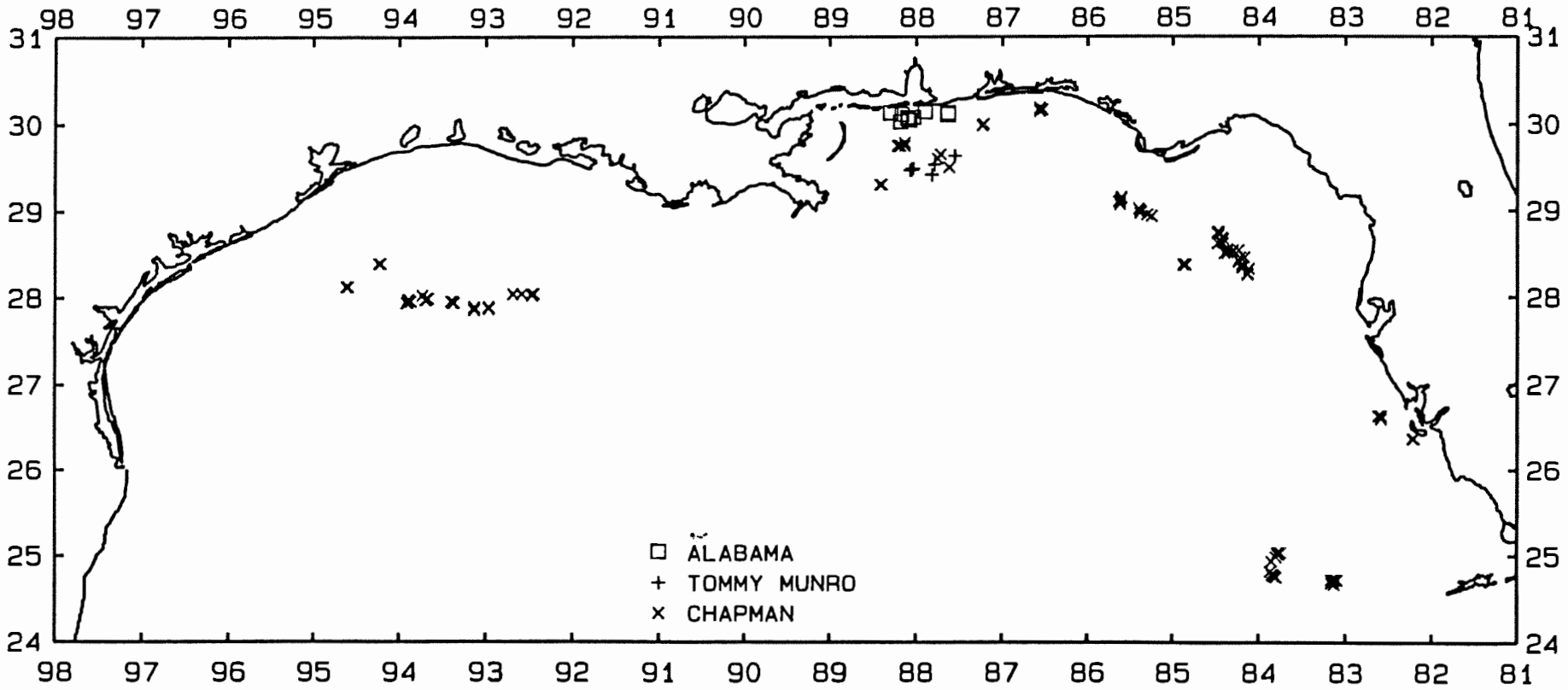

Figure 20. Locations of trap stations during 1994 Spring Reef Fish Survey.

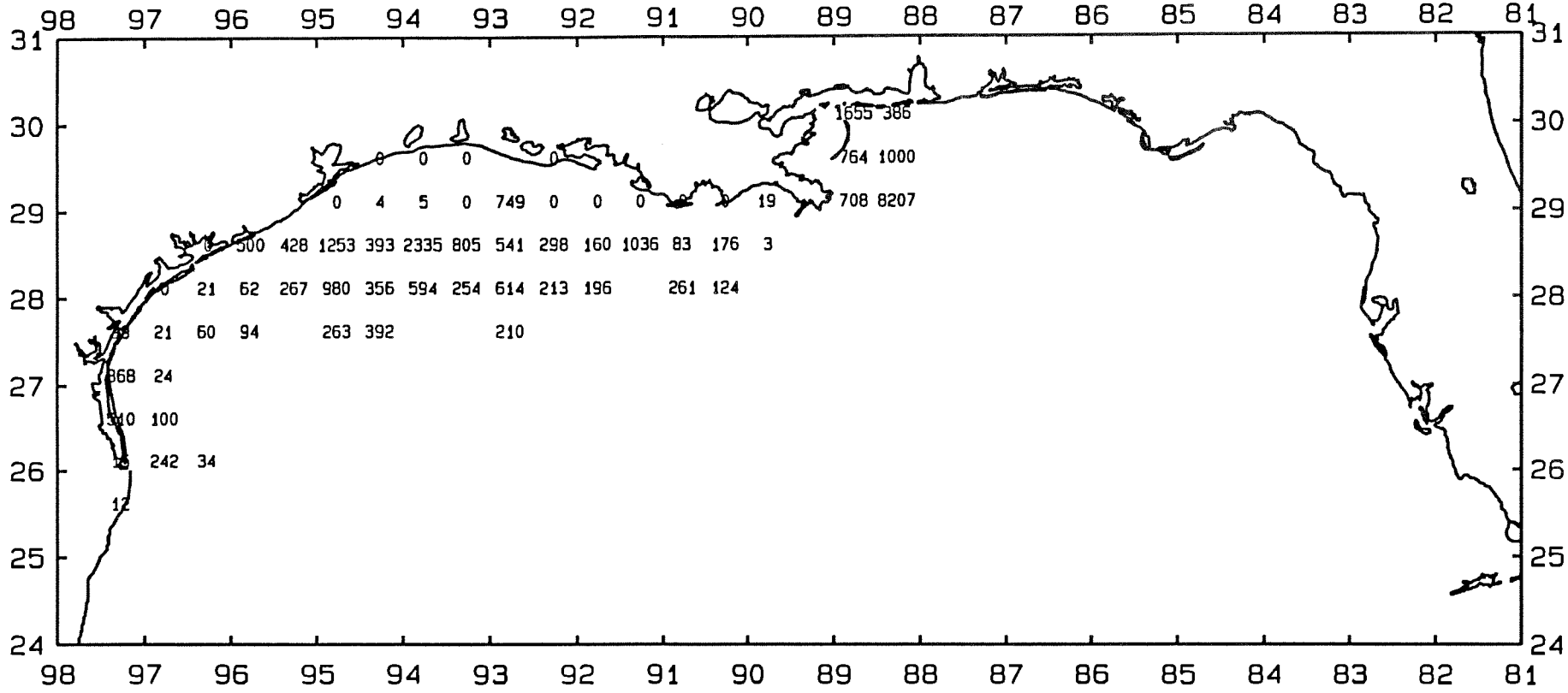

Figure 21. Longspine porgy, Stenotomus caprinus, number/hour for June-July 1994.

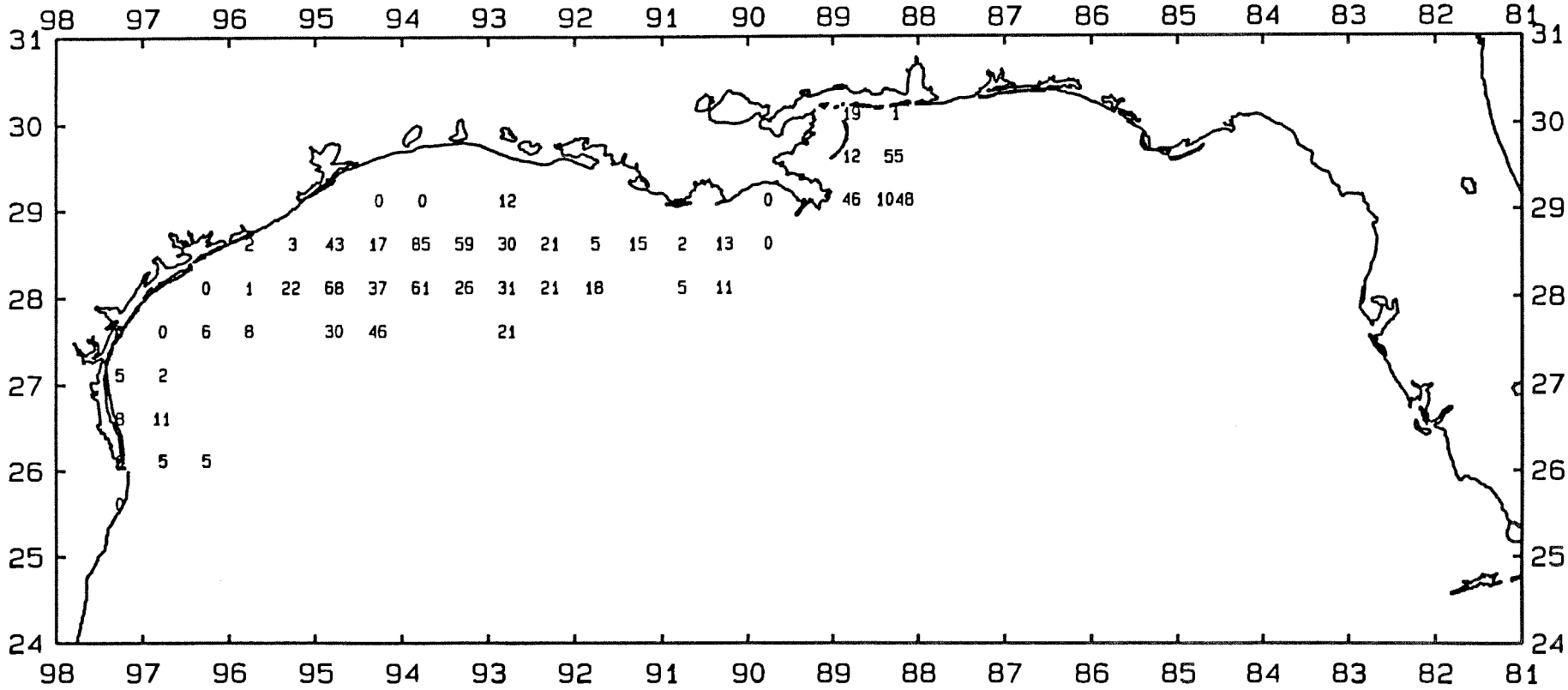

Figure 22. Longspine porgy, Stenotomus caprinus, lb/hour for June-July 1994.

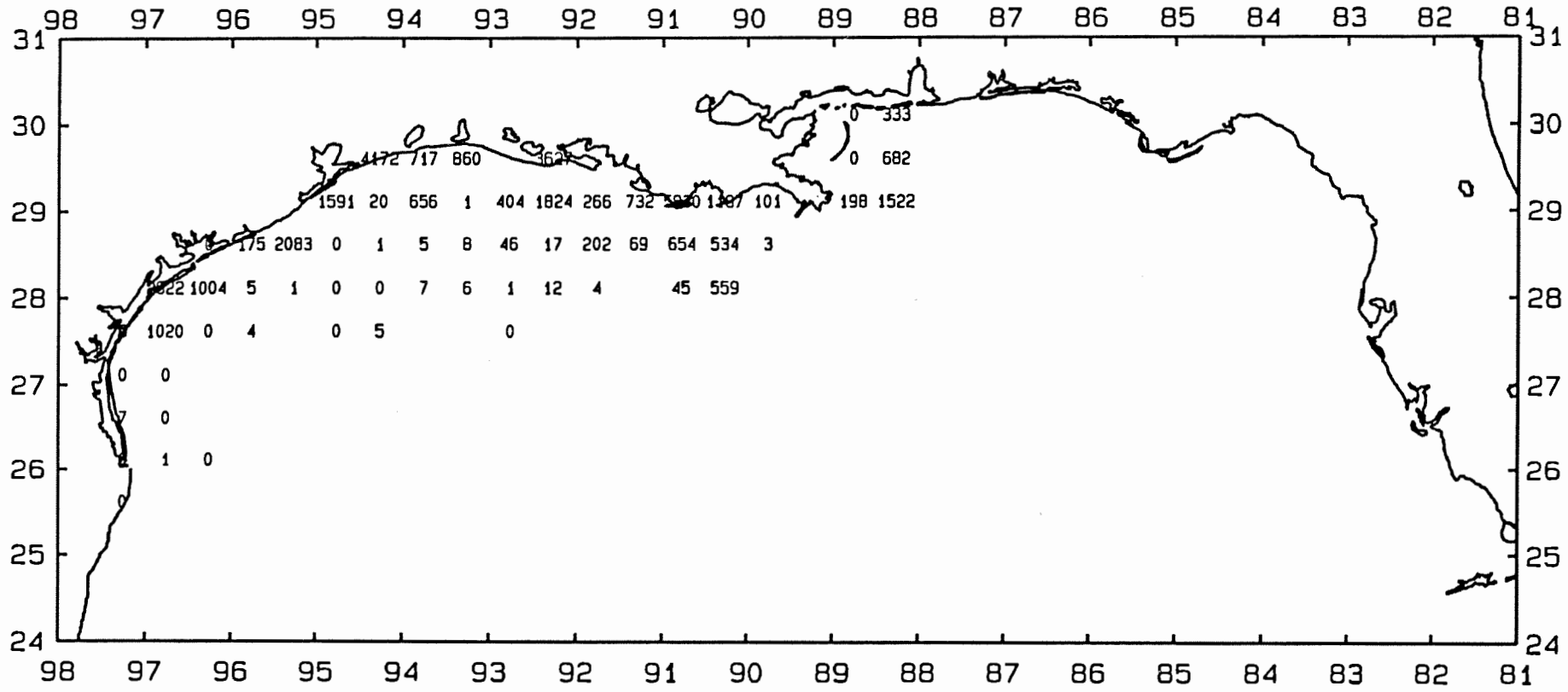

Figure 23. Atlantic croaker, Micropogonias undulatus, number/hour for June-July 1994.

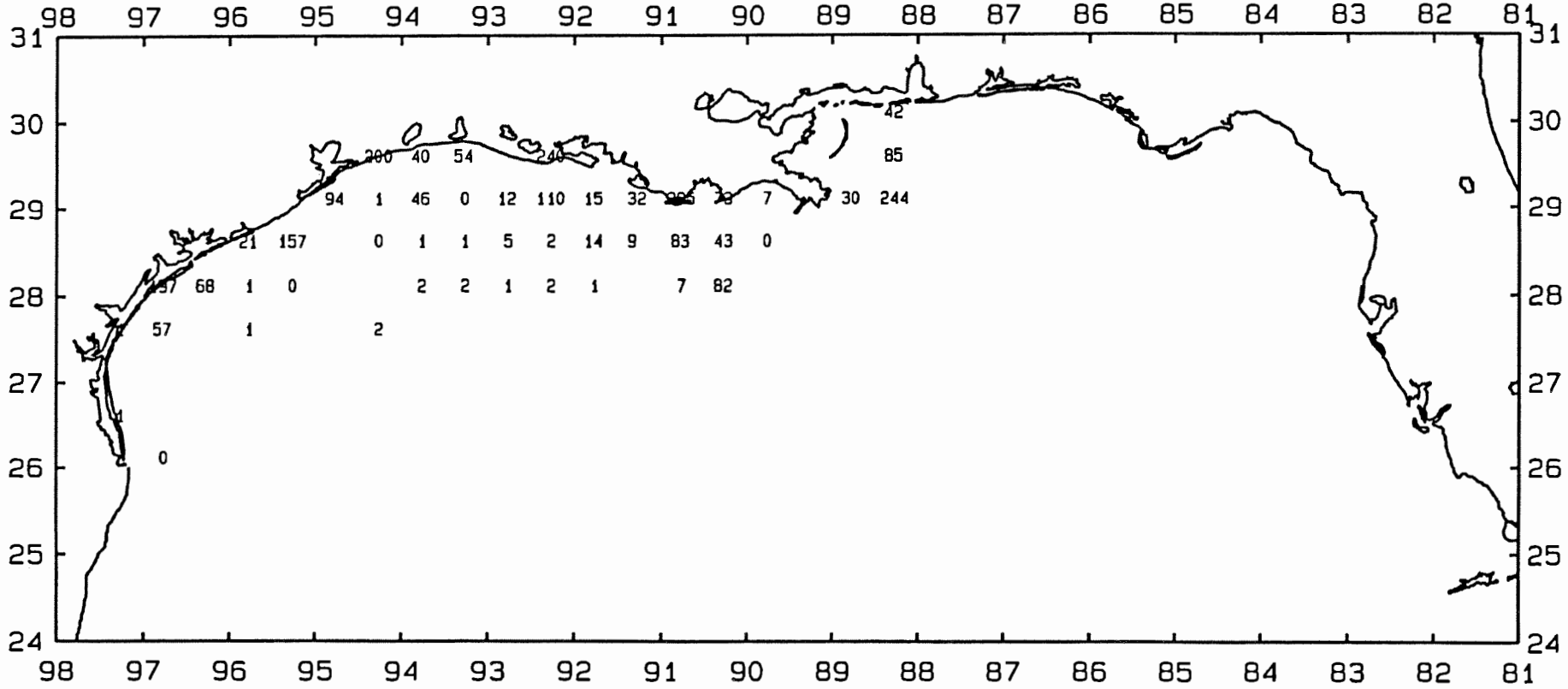

Figure 24. Atlantic croaker, Micropogonias undulatus, lb/hour for June-July 1994.

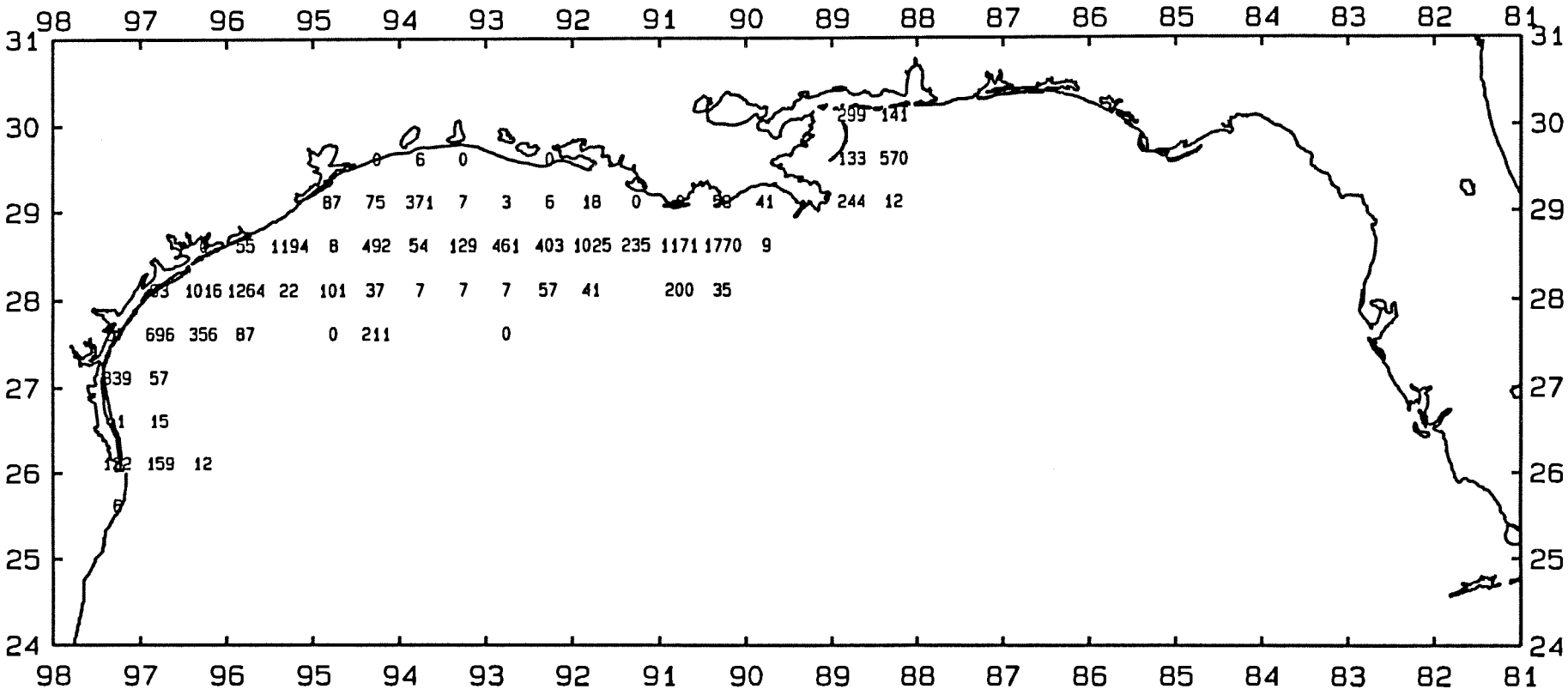

Figure 25. Gulf butterfish, Peprilus burti, number/hour for June-July 1994.

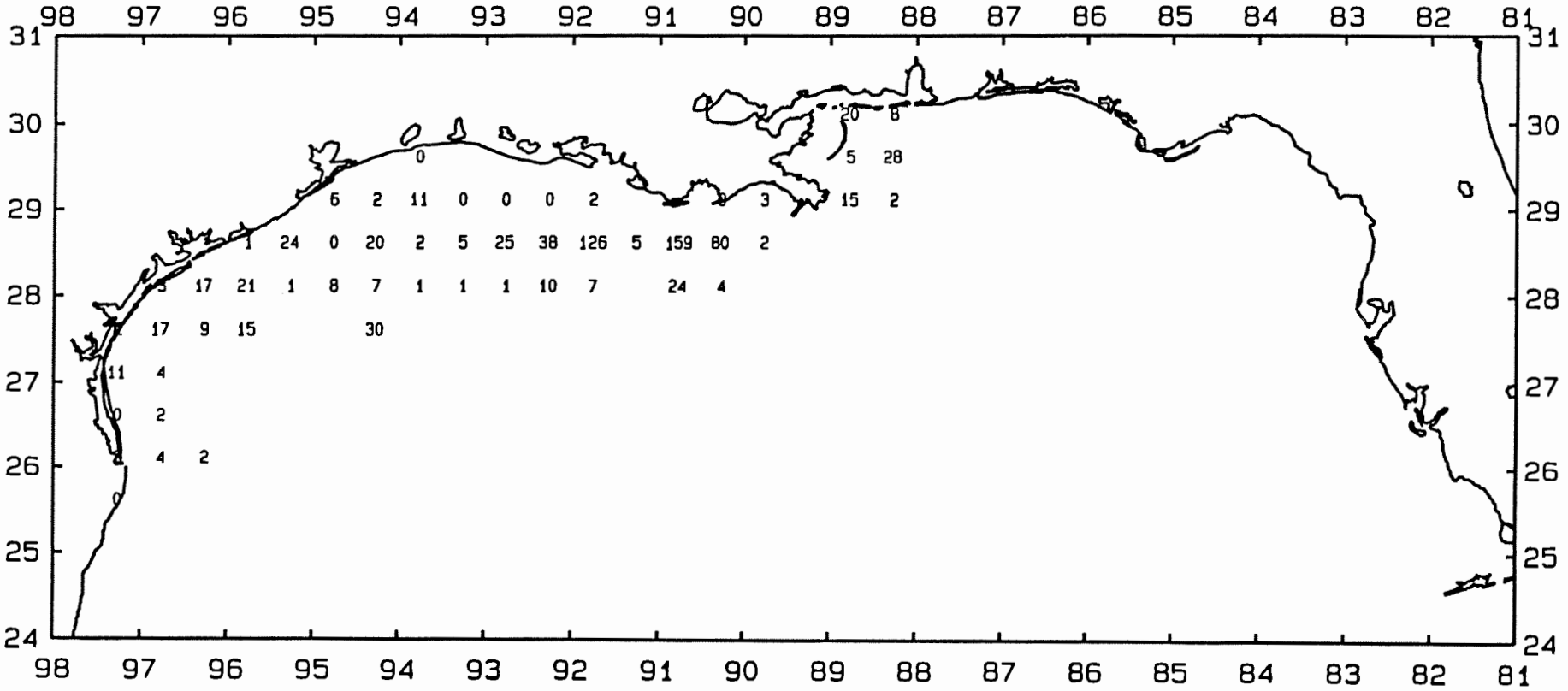

Figure 26. Gulf butterfish, Peprilus burti, lb/hour for June-July 1994.

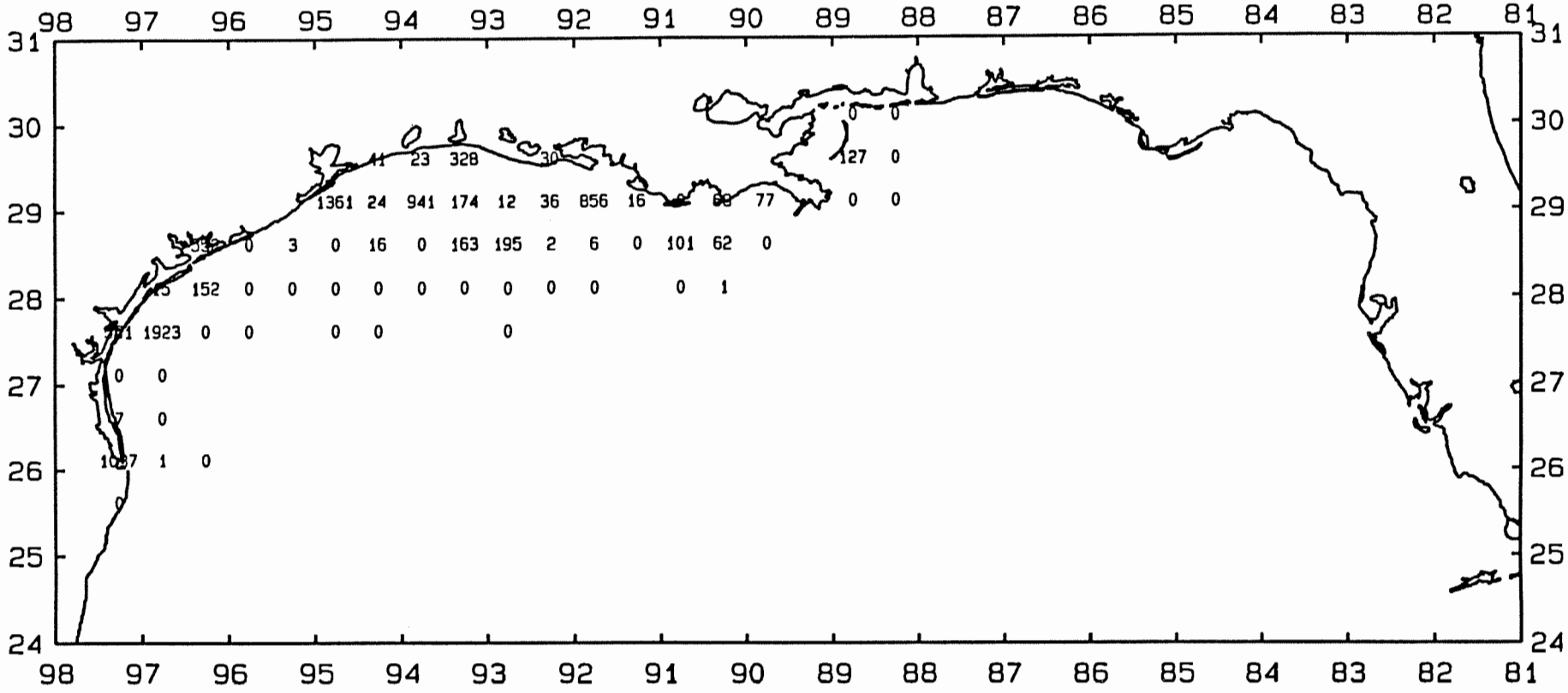

Figure 27. Atlantic bumper, Chloroscombrus chrysurus, number/hour for June-July 1994.

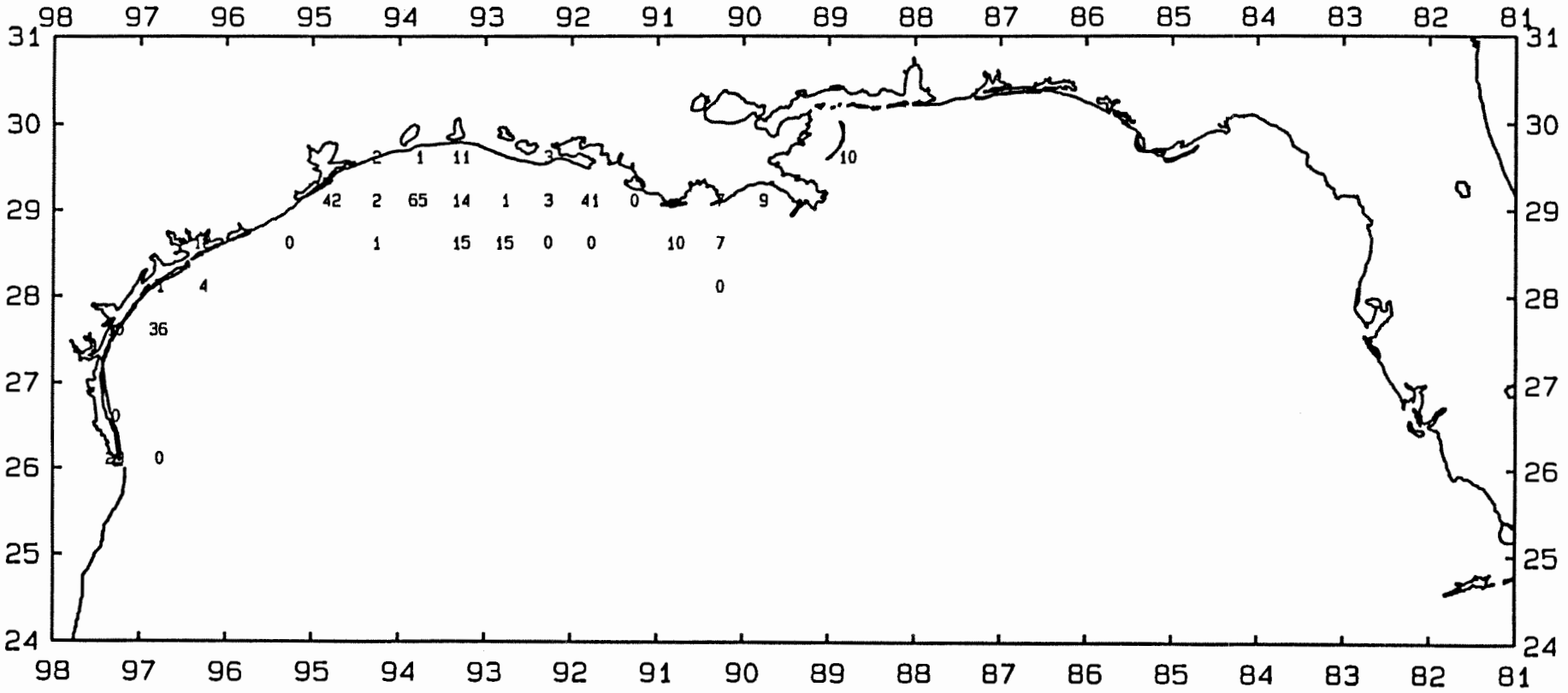

Figure 28. Atlantic bumper, Chloroscombrus chrysurus, lb/hour for June-July 1994.

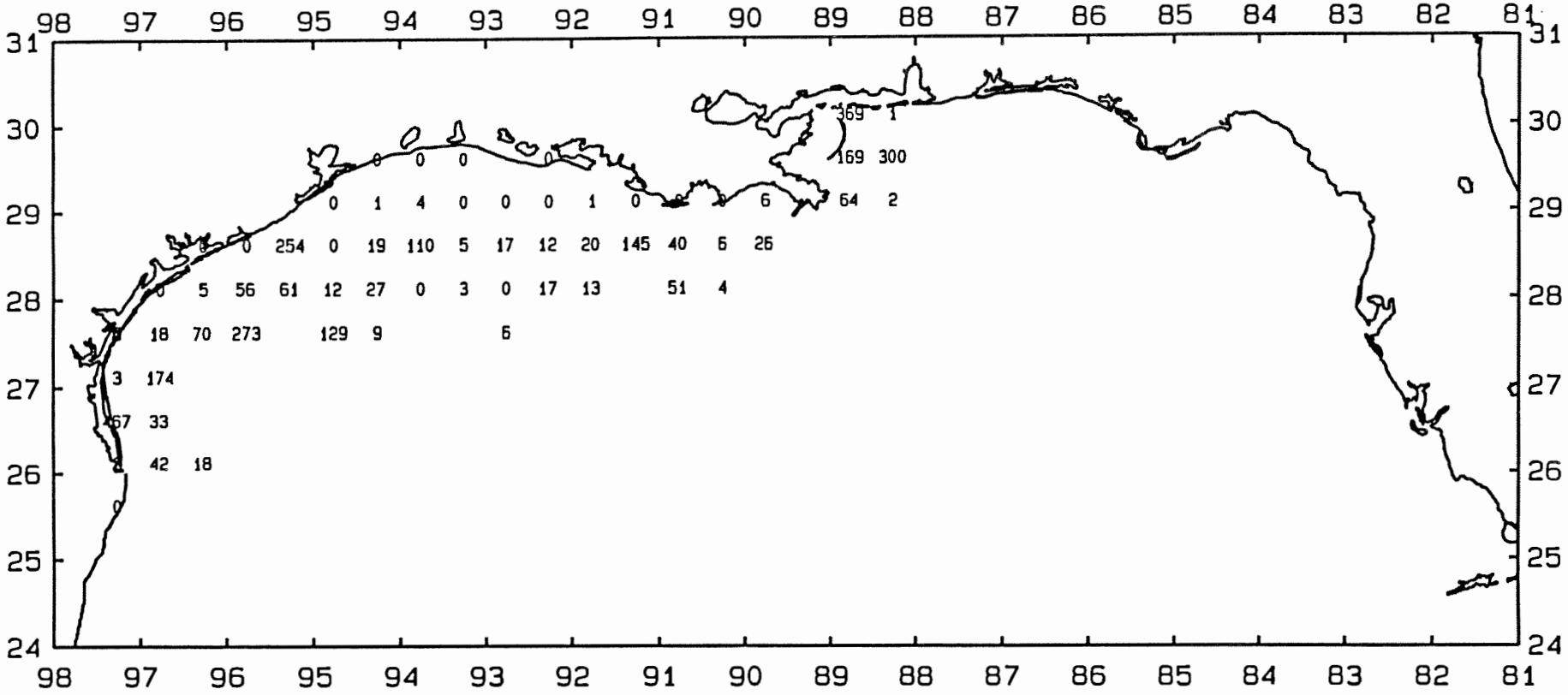

Figure 29. Rough scad, Trachurus lathami, number/hour for June-July 1994.

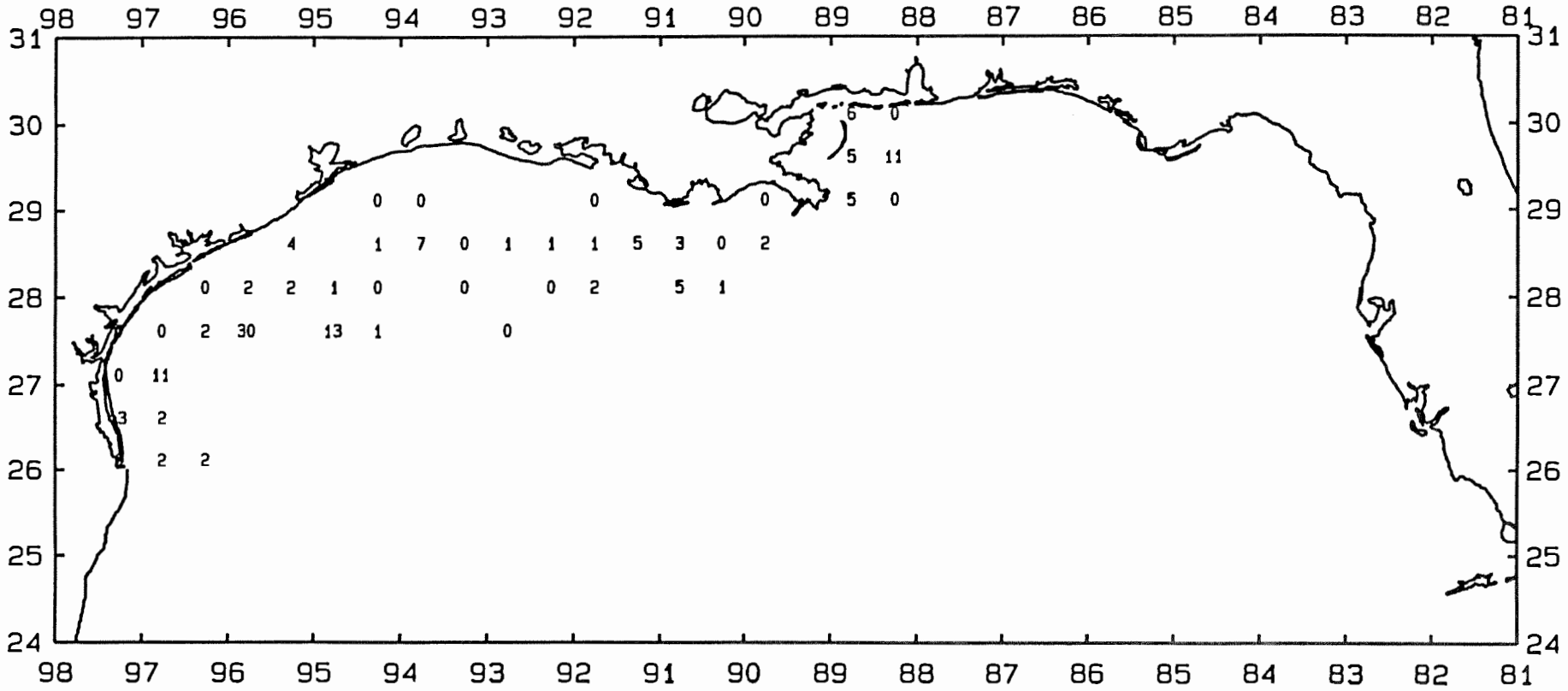

Figure 30. Rough scad, Trachurus lathami, lb/hour for June-July 1994.

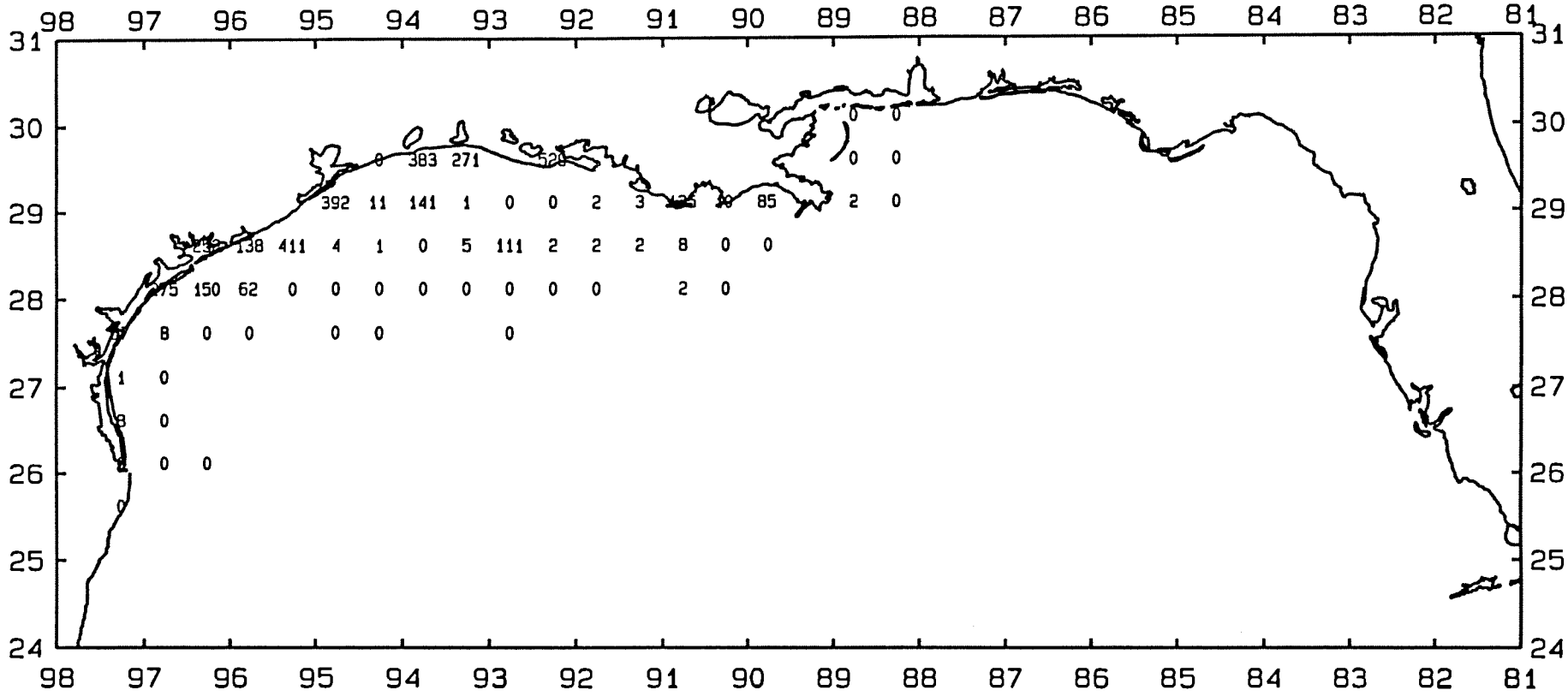

Figure 31. Silver seatrout, Cynoscion nothus, number/hour for June-July 1994.

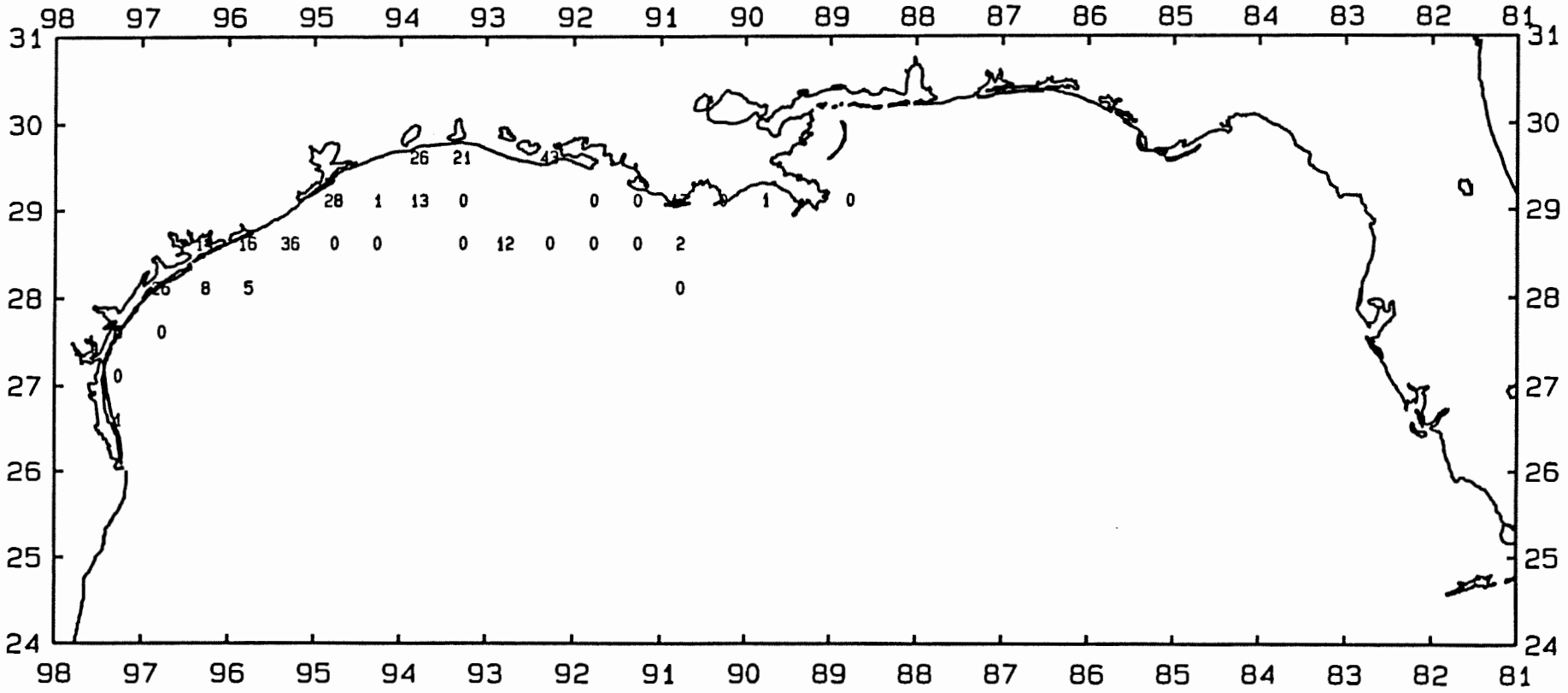

Figure 32. Silver seatrout, Cynoscion nothus, lb/hour for June-July 1994.

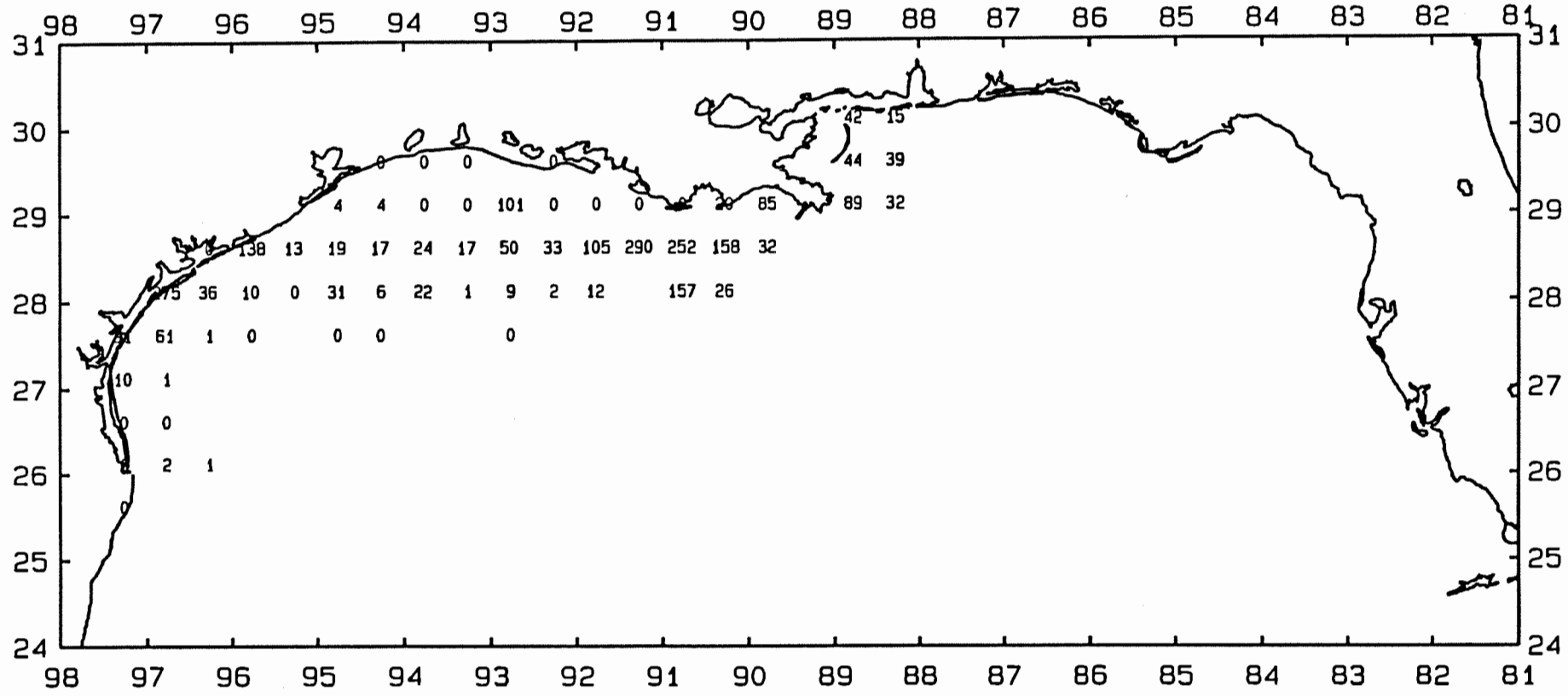

Figure 33. Bigeye searobin, Prionotus longispinosus, number/hour for June-July 1994.

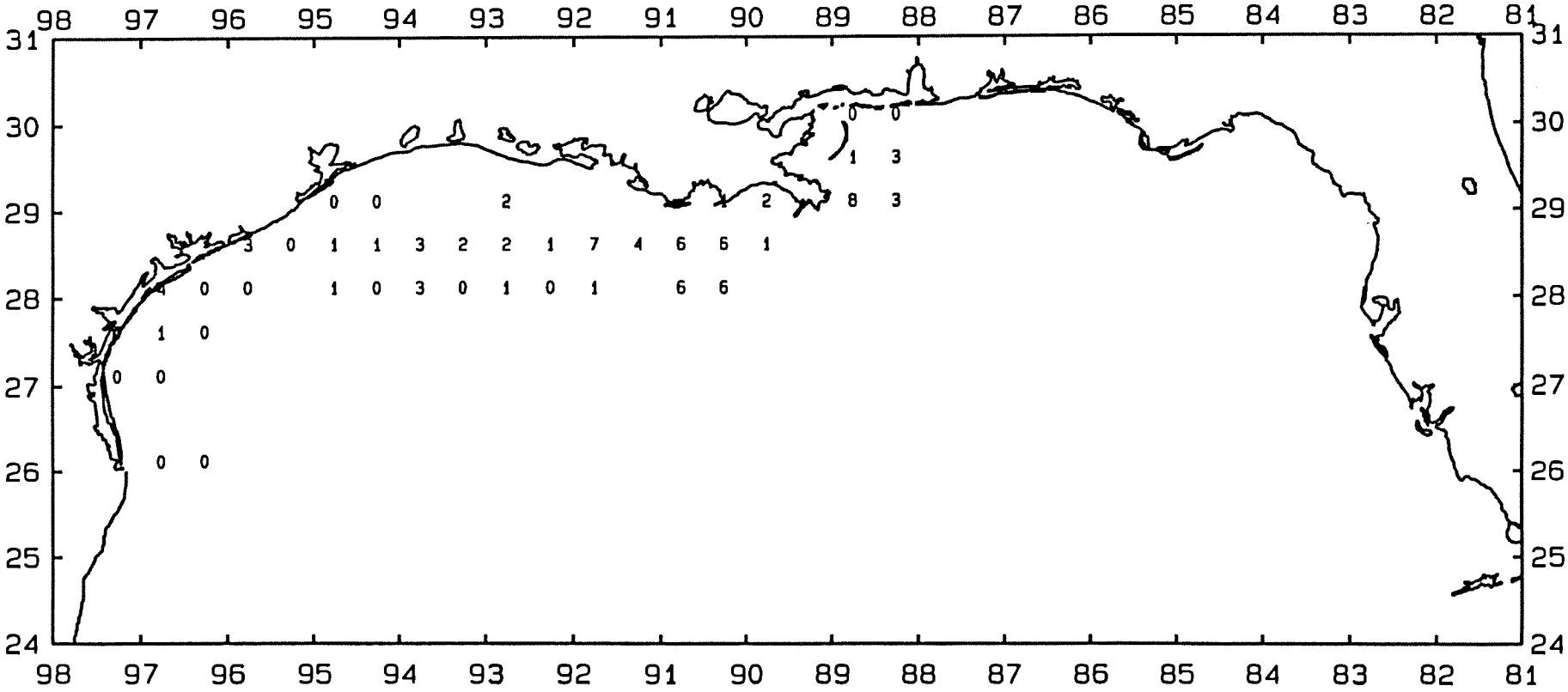

Figure 34. Bigeye searobin, Prionotus longispinosus, lb/hour for June-July 1994.

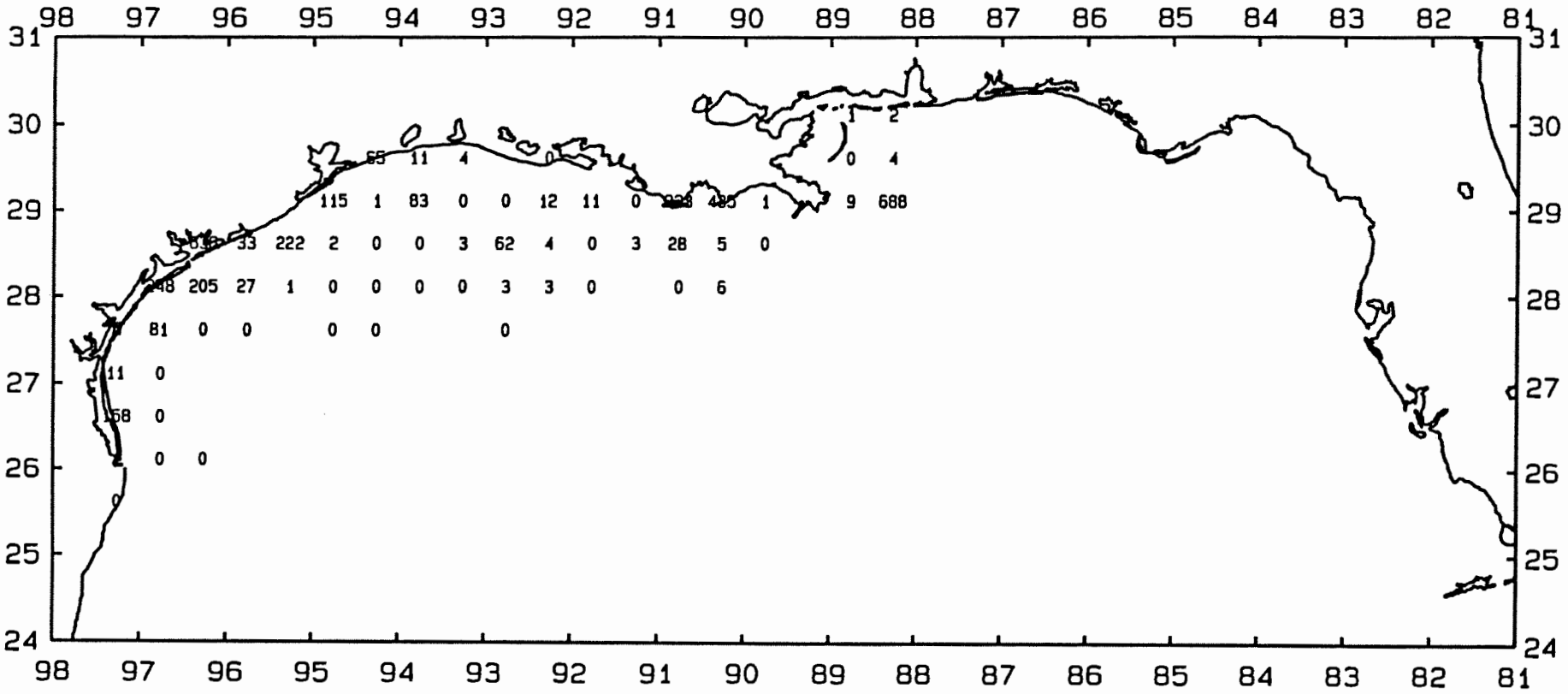

Figure 35. Spot, Leiostomus xanthurus, number/hour for June-July 1994.

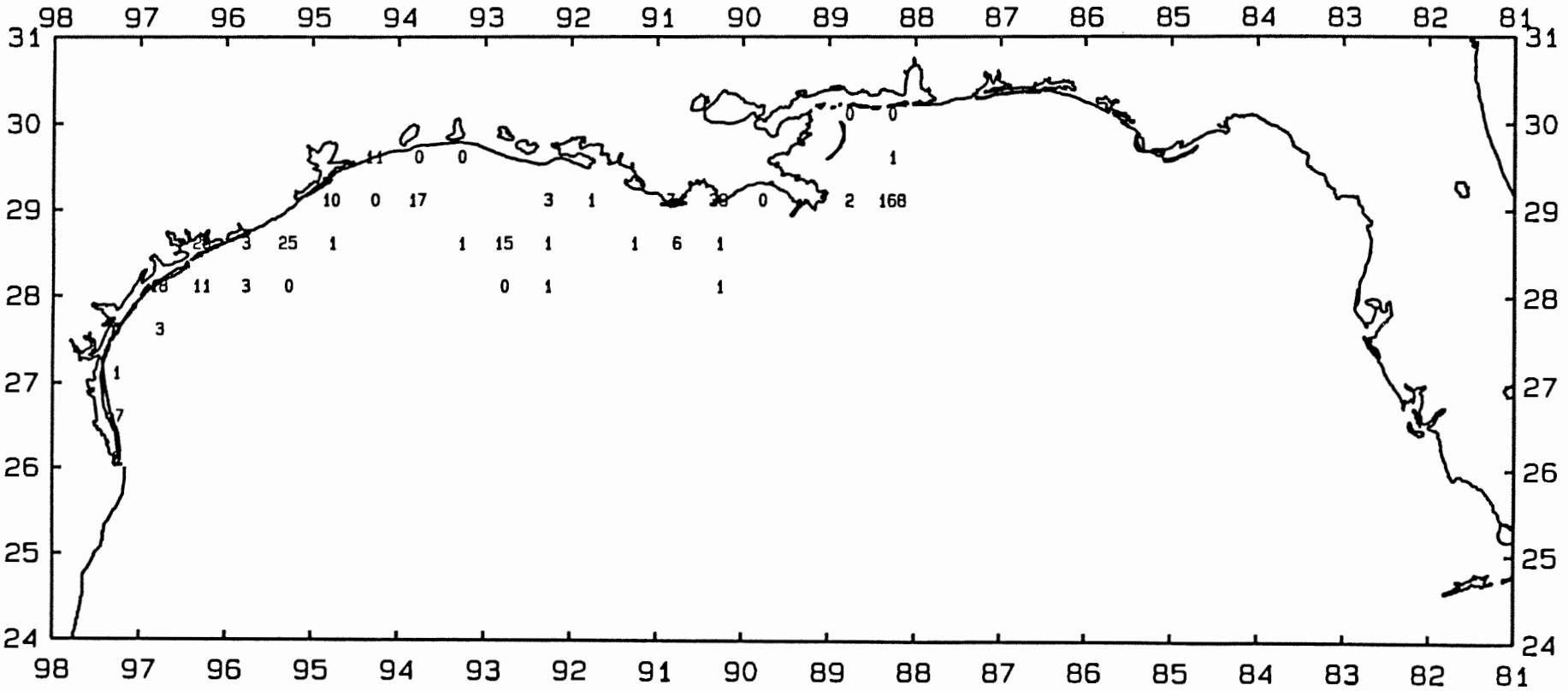

Figure 36. Spot, Leiostomus xanthurus, lb/hour for June-July 1994.

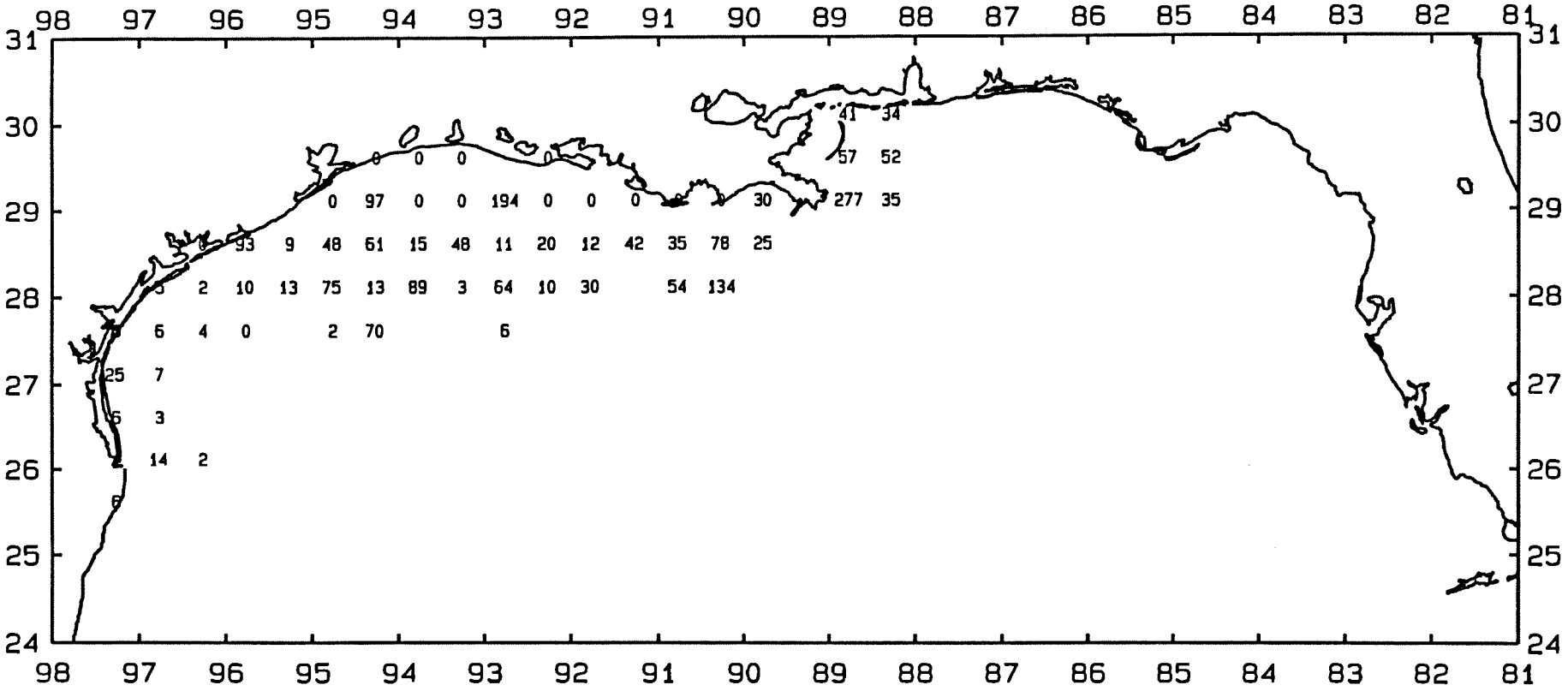

Figure 37. Rock sea bass, Centropristis philadelphica, number/hour for June-July 1994.

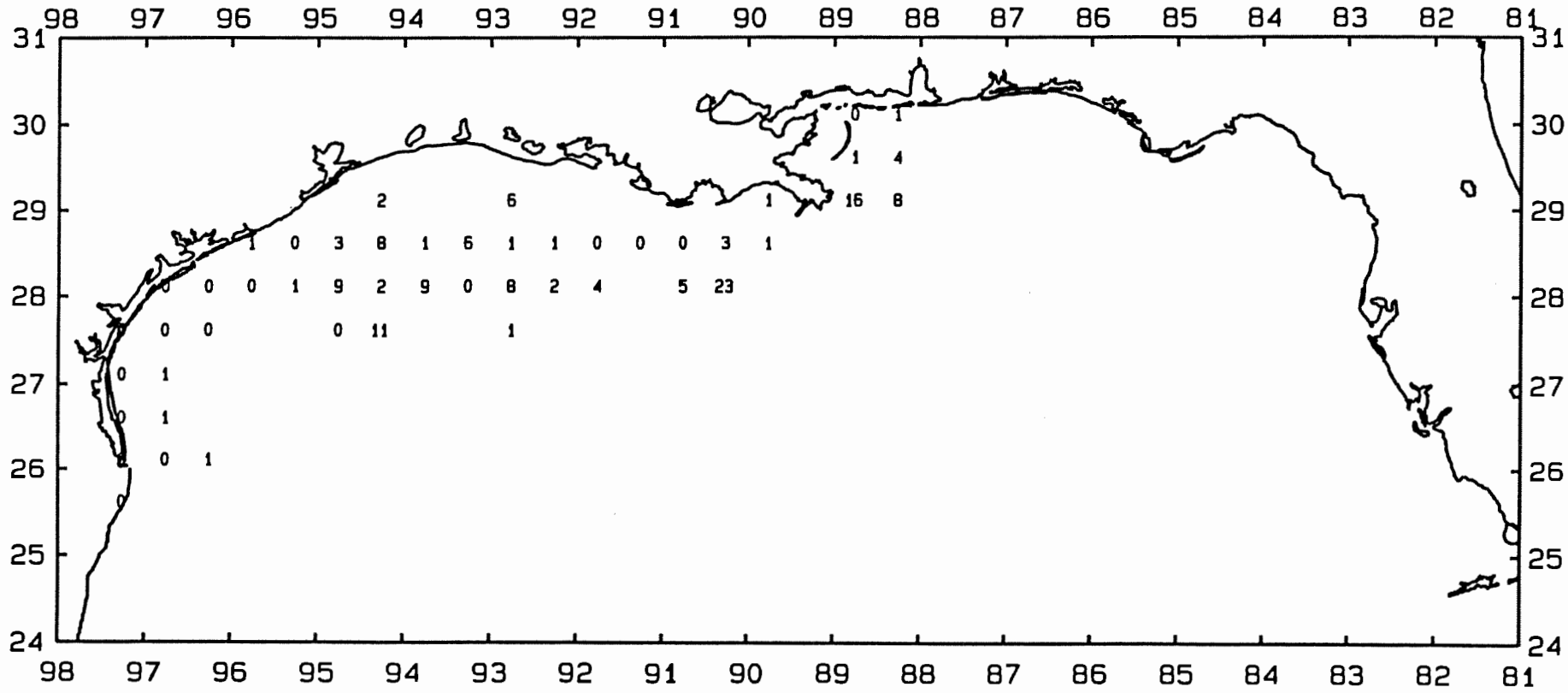

Figure 38. Rock sea bass, Centropristis philadelphica, lb/hour for June-July 1994.

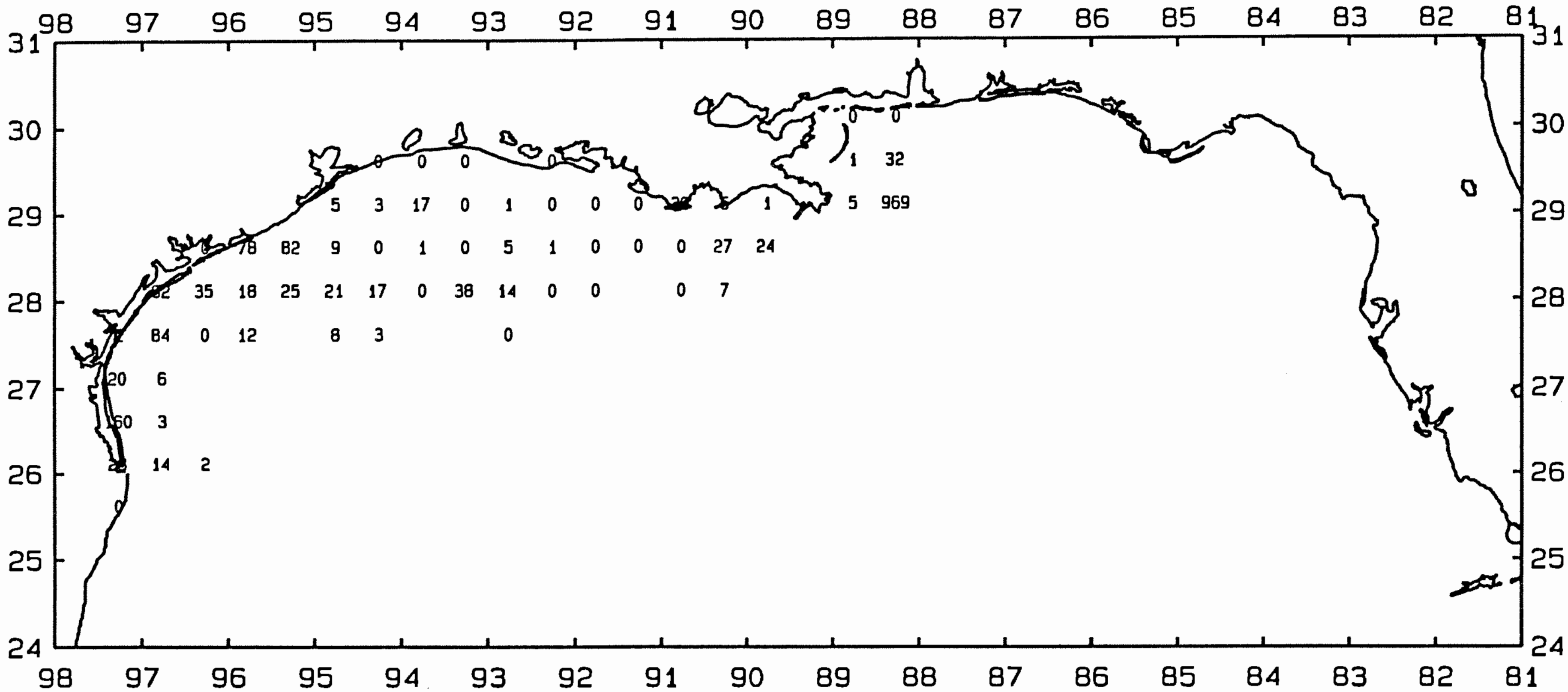

Figure 39. Pinfish, Lagodon rhomboides, number/hour for June-July 1994.

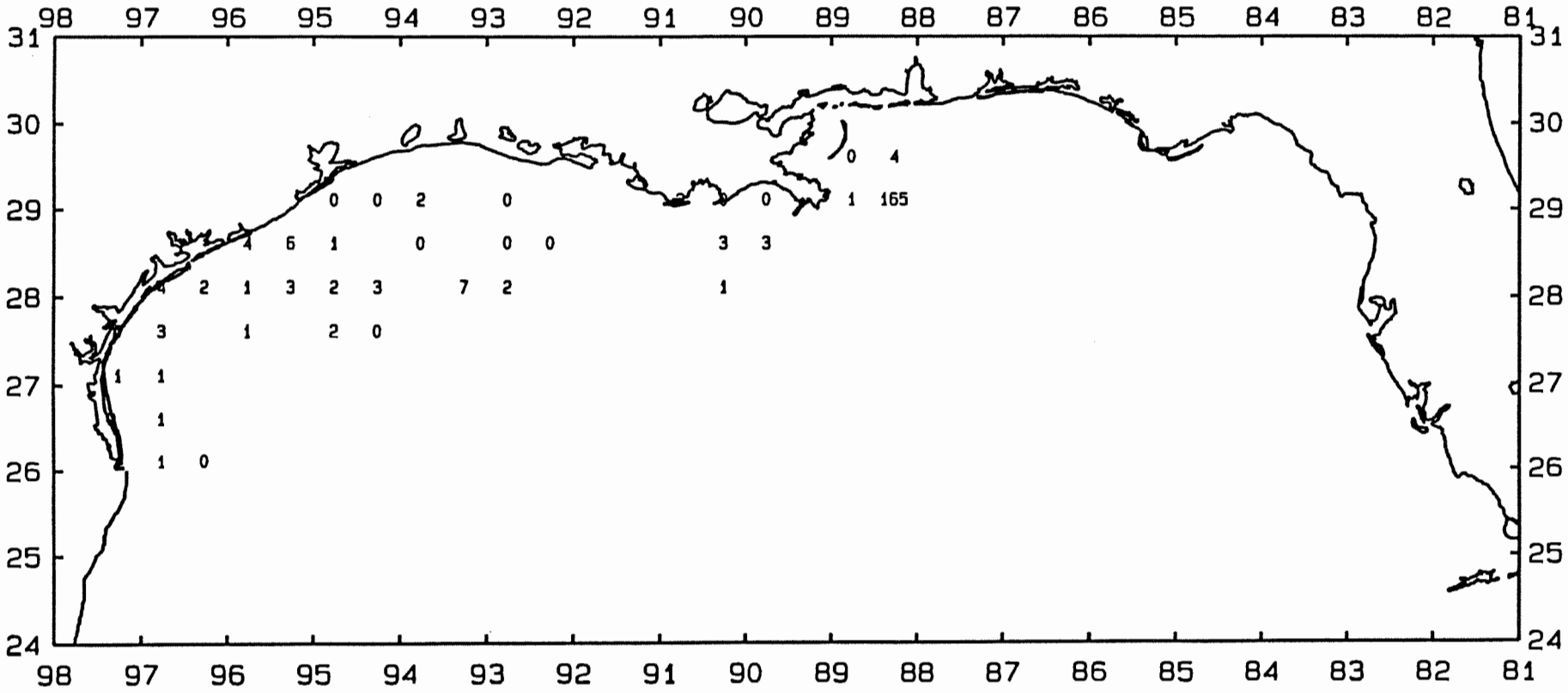

Figure 40. Pinfish, Lagodon rhomboides, lb/hour for June-July 1994.

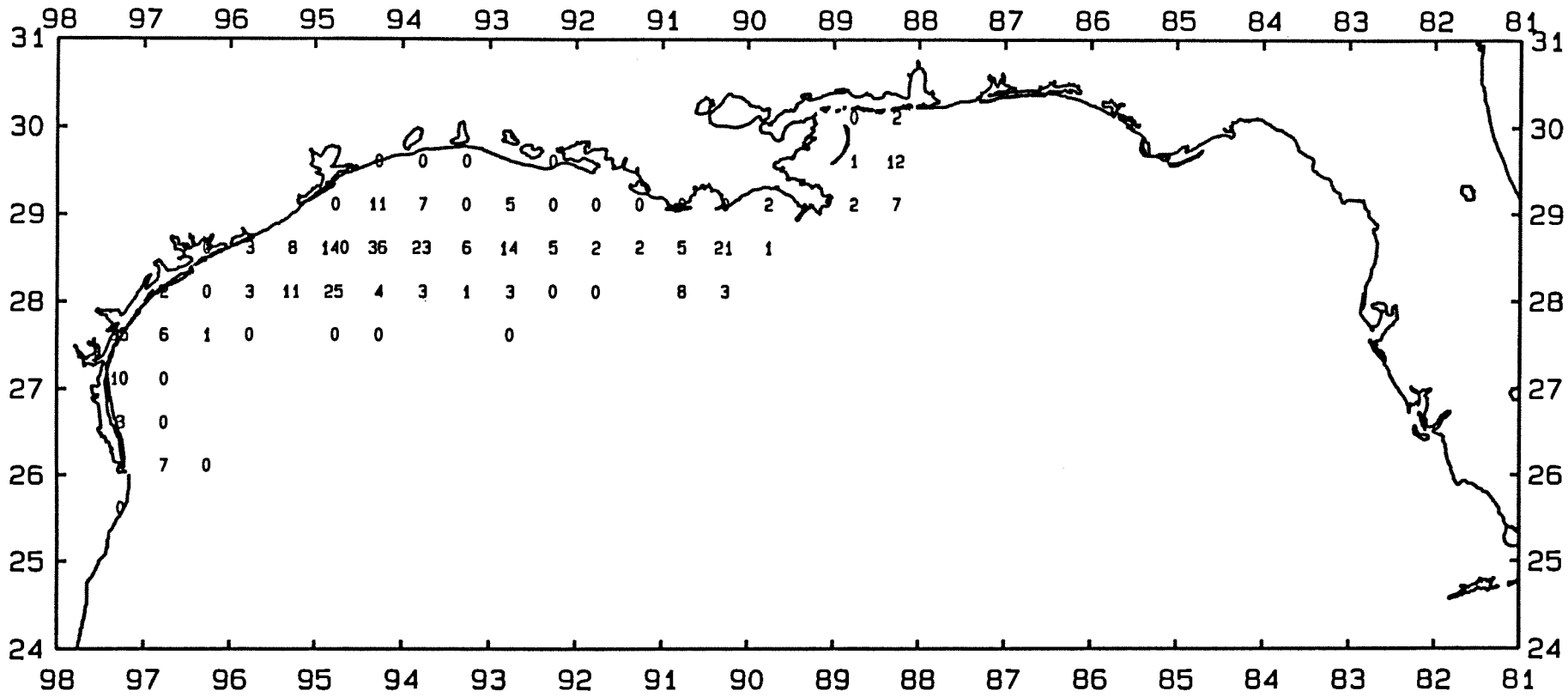

Figure 41. Red snapper, Lutjanus campechanus, number/hour for June-July 1994.

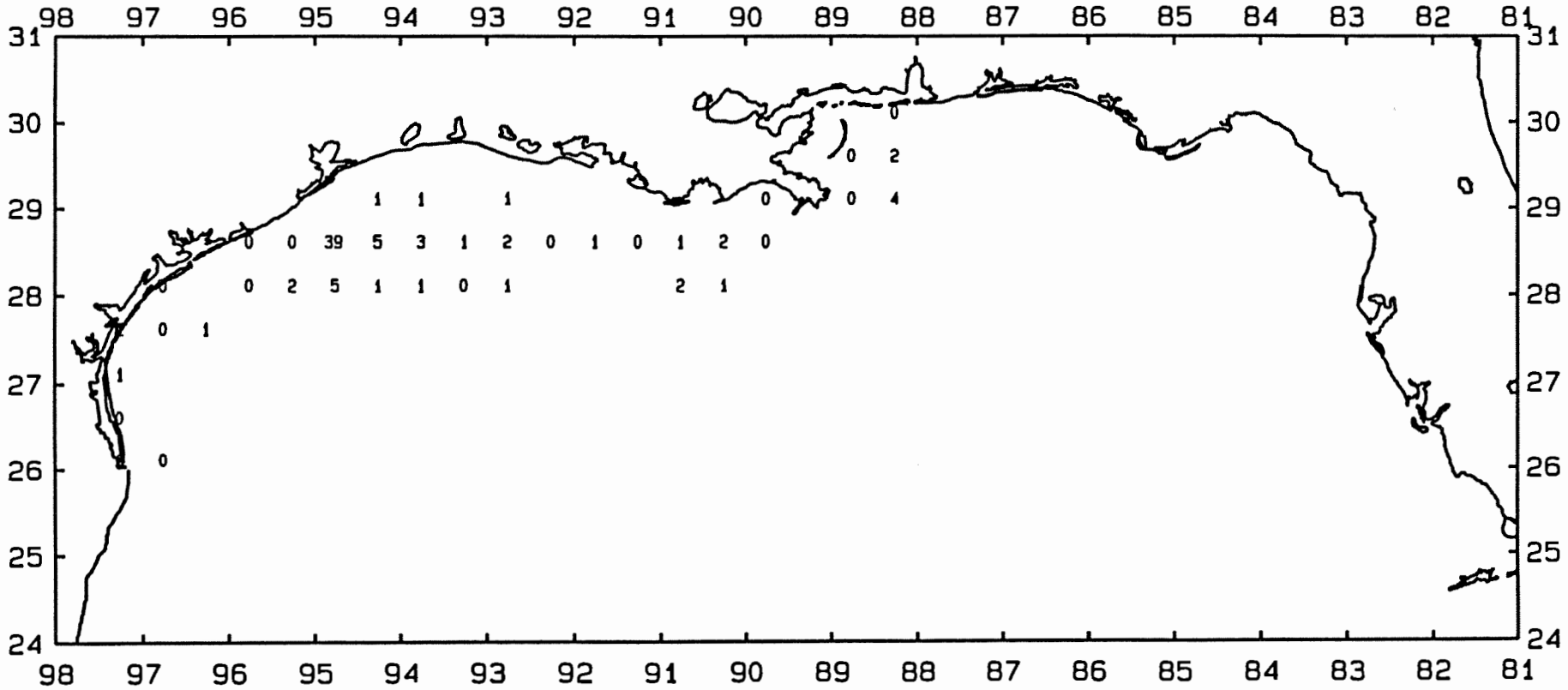

Figure 42. Red snapper, Lutjanus campechanus, lb/hour for June-July 1994.

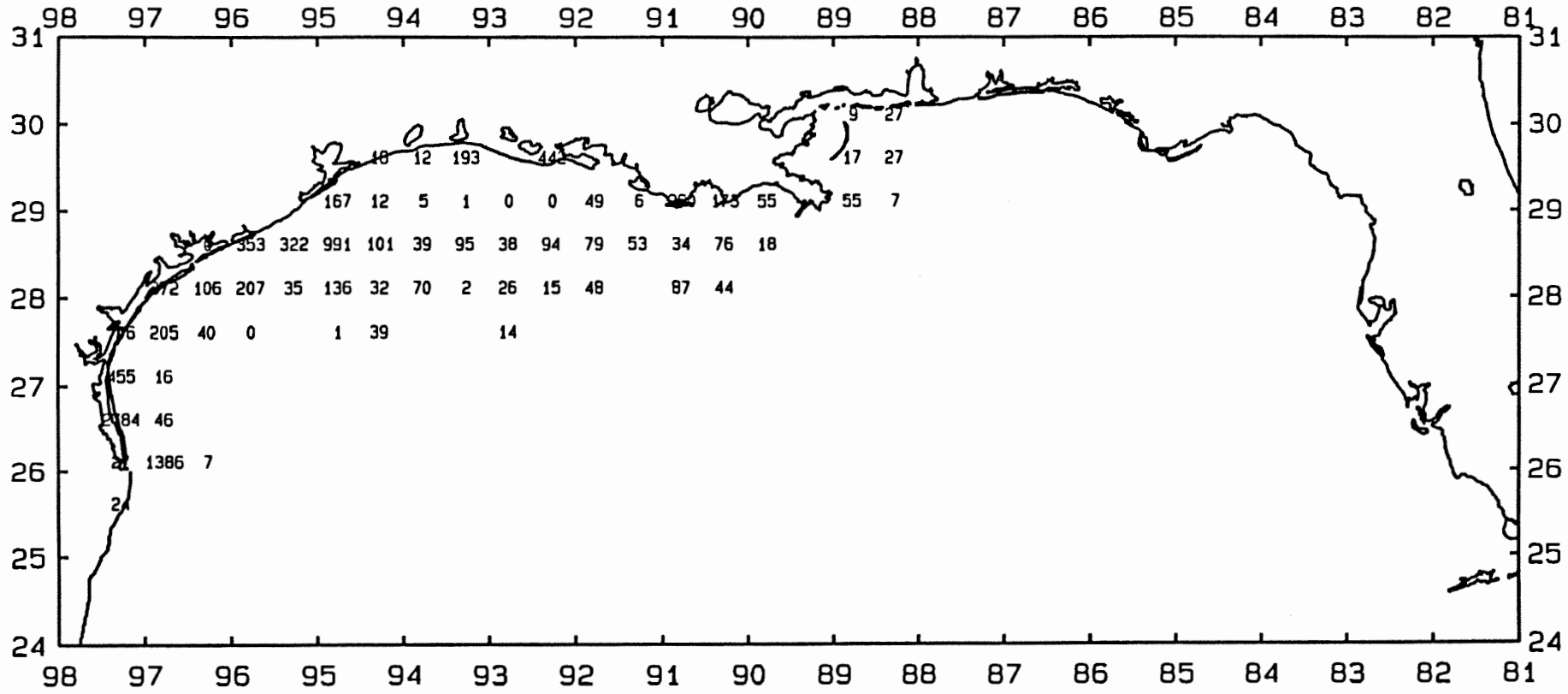

Figure 43. Brown shrimp, Penaeus aztecus, number/hour for June-July 1994.

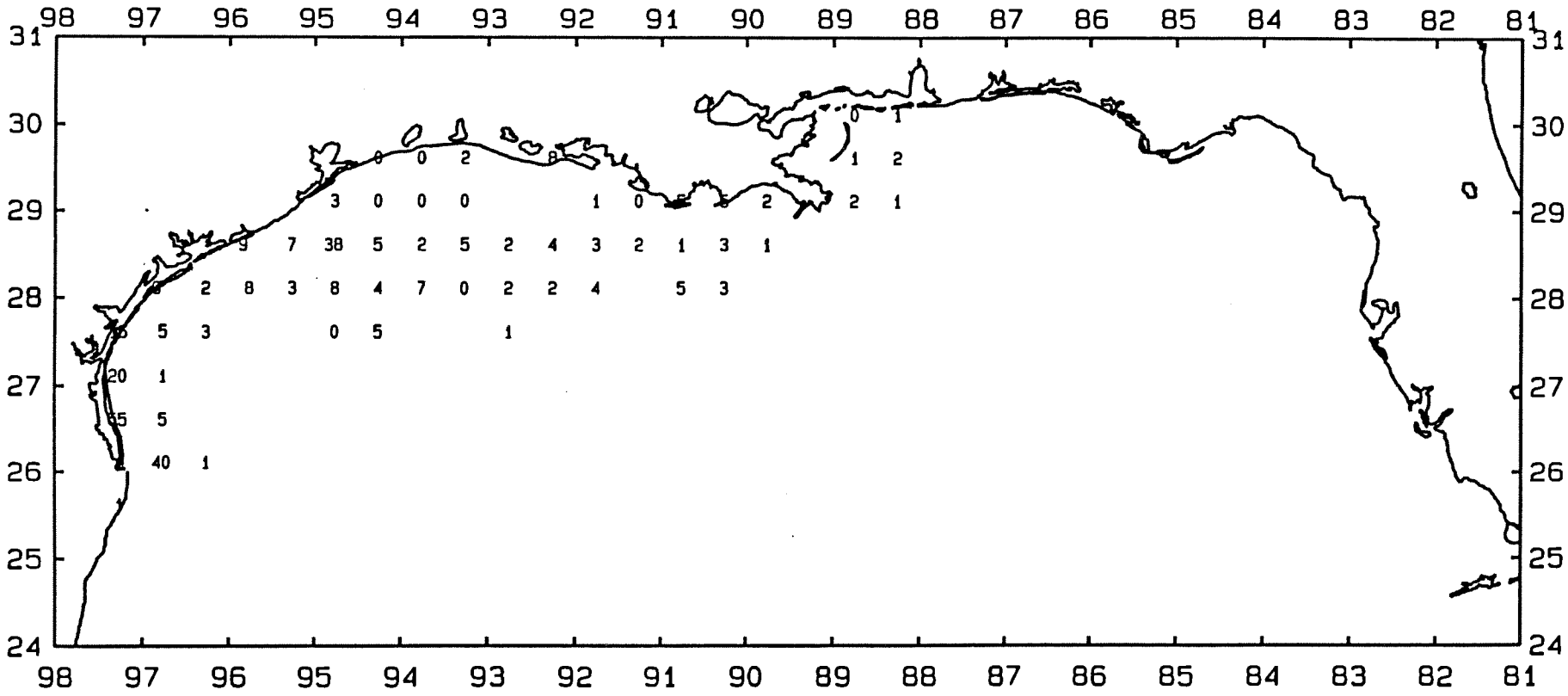

Figure 44. Brown shrimp, Penaeus aztecus, lb/hour for June-July 1994.

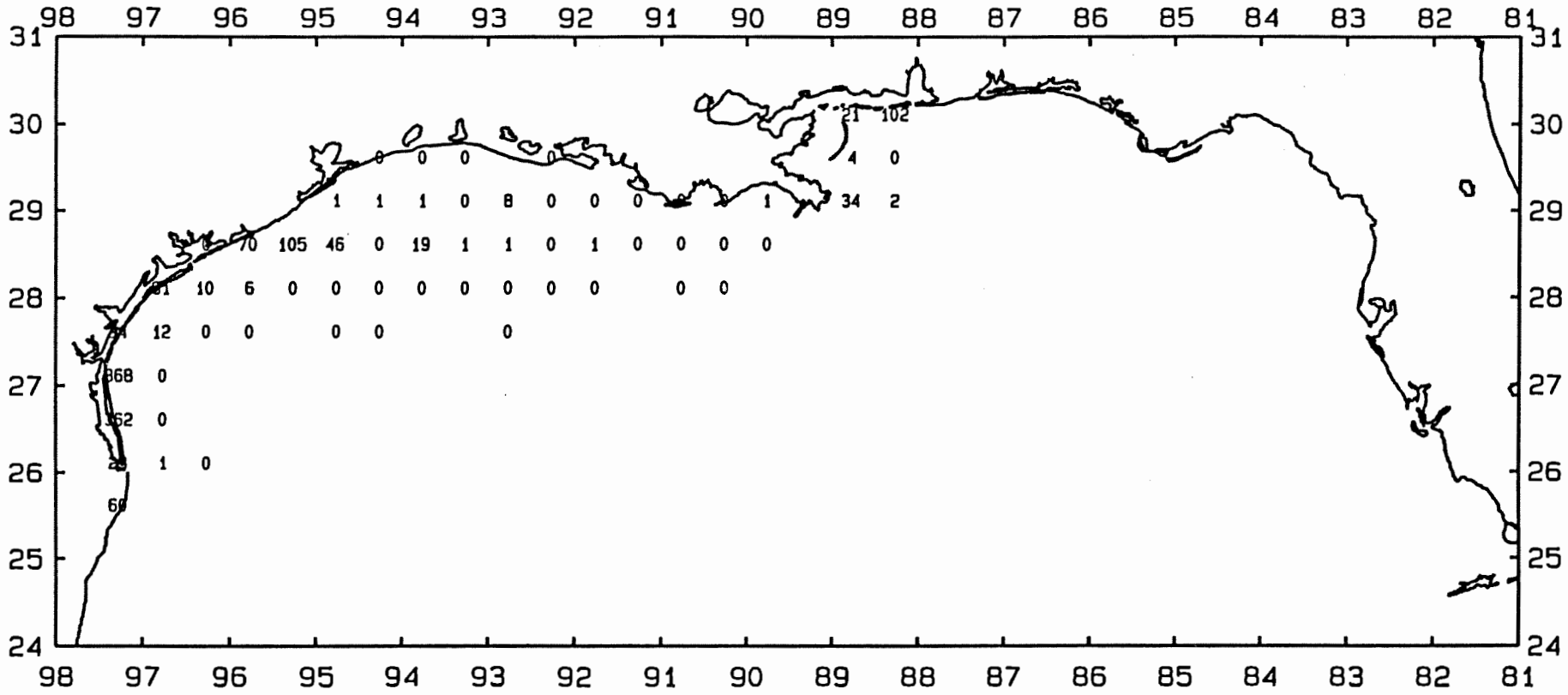

Figure 45. Pink shrimp, Penaeus duorarum, number/hour for June-July 1994.

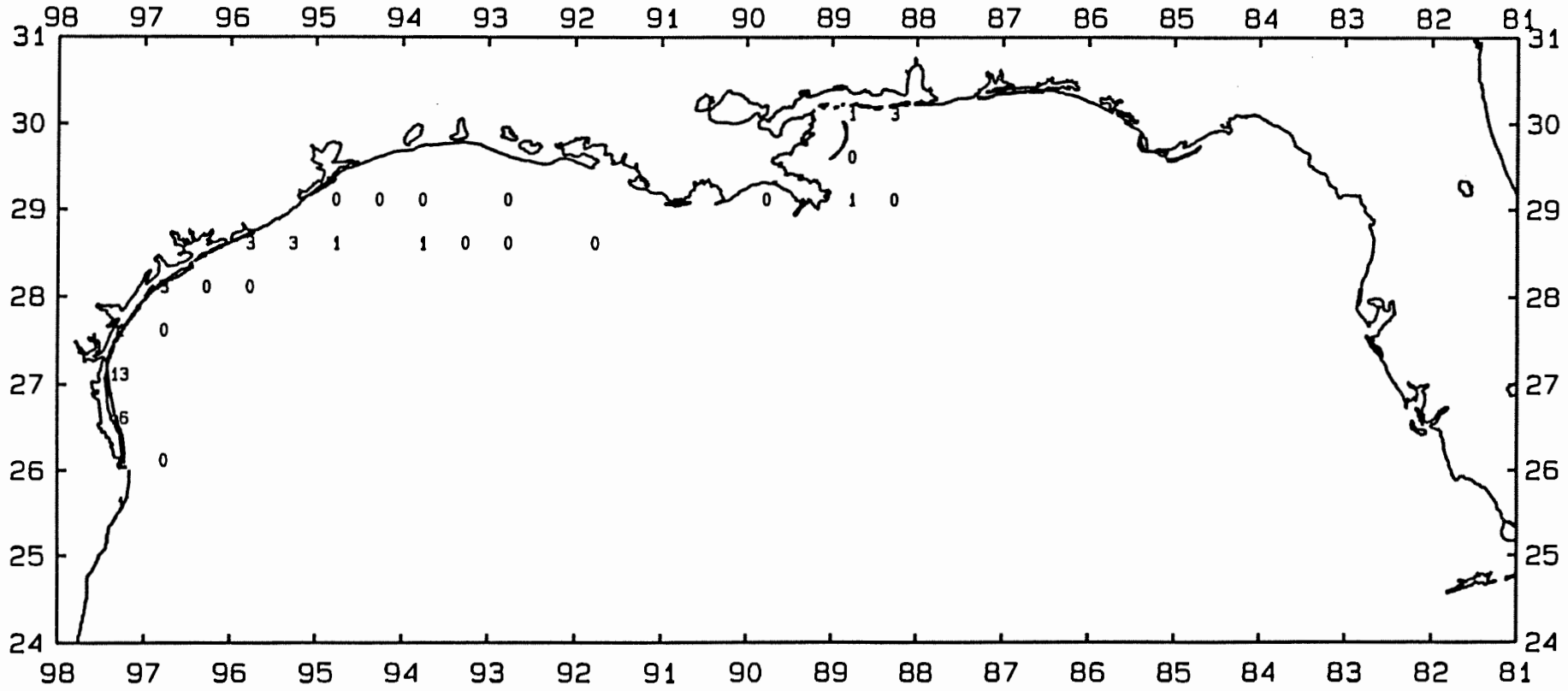

Figure 46. Pink shrimp, Penaeus duorarum, lb/hour for June-July 1994.

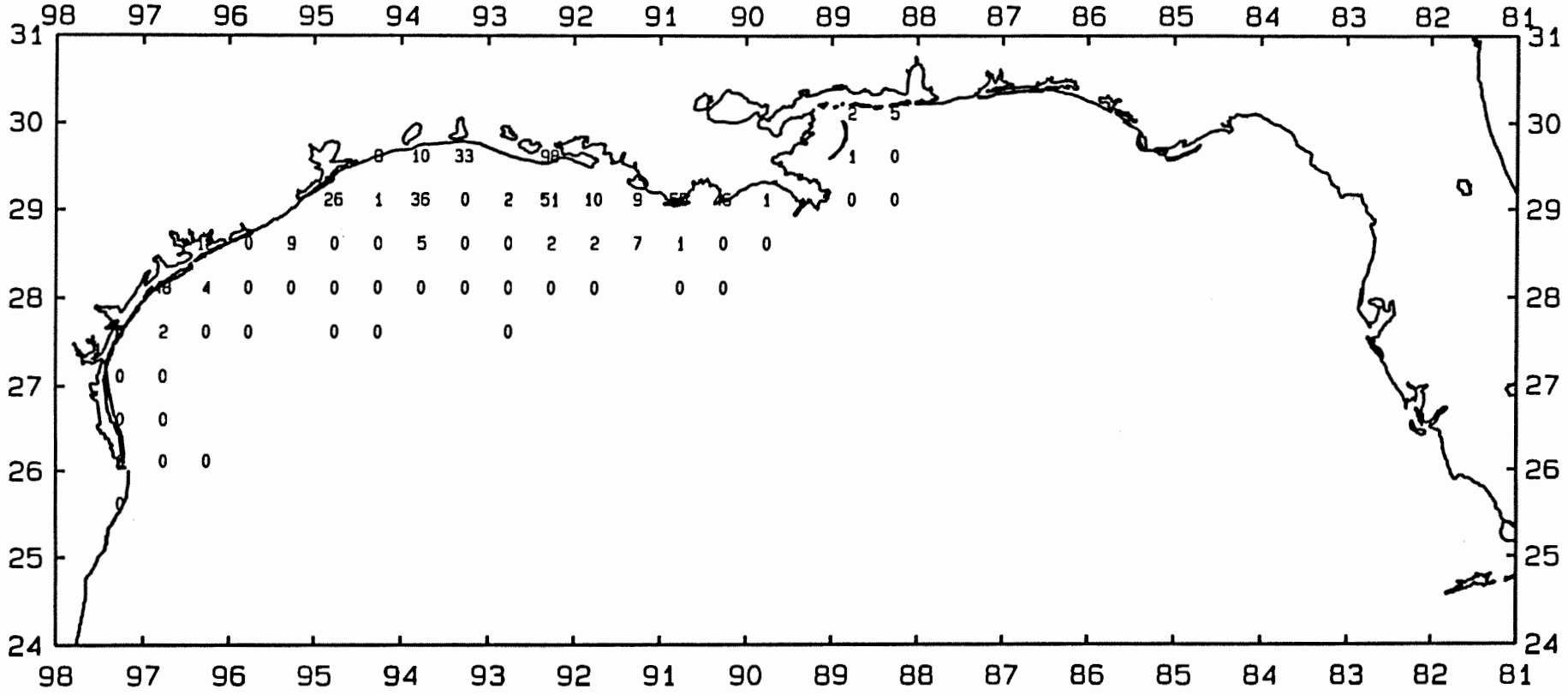

Figure 47. White shrimp, Penaeus setiferus, number/hour for June-July 1994.

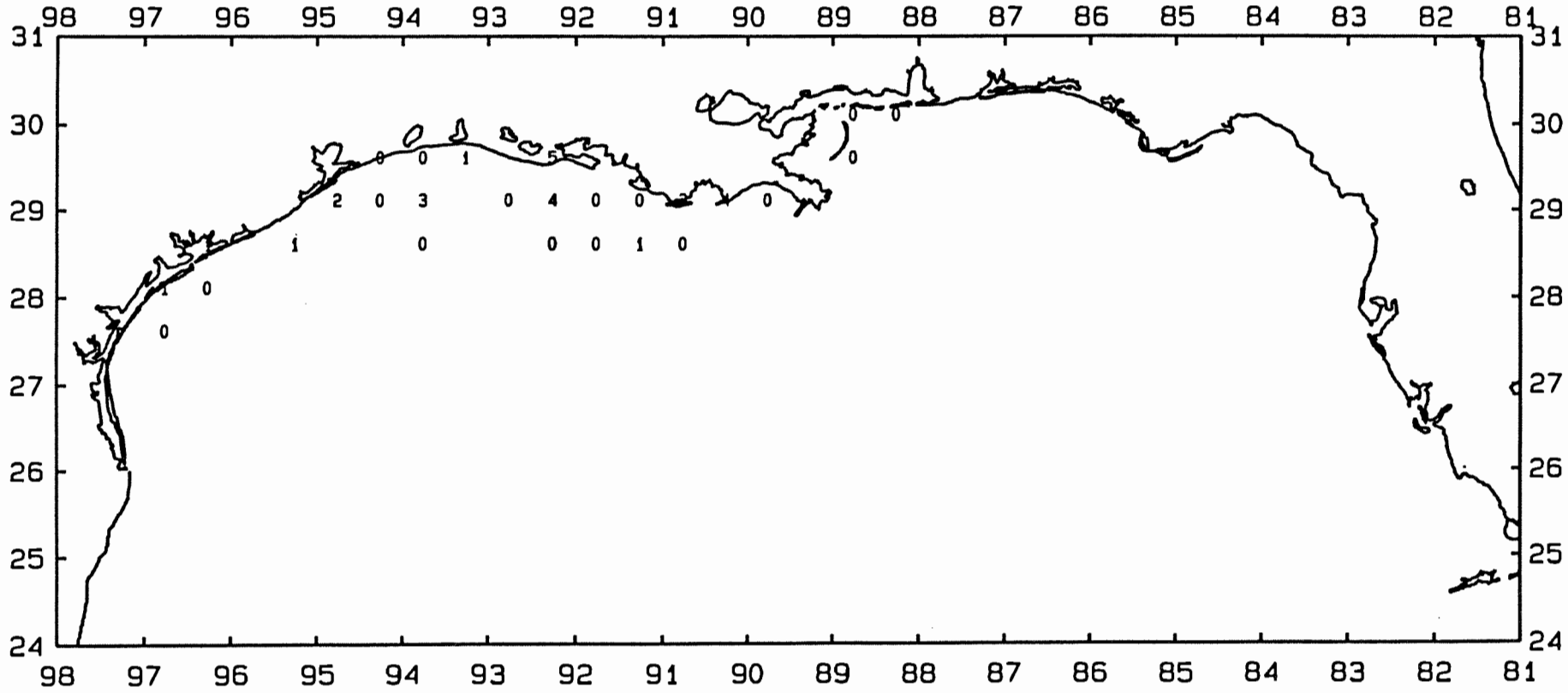

Figure 48. White shrimp, Penaeus setiferus, lb/hour for June-July 1994.

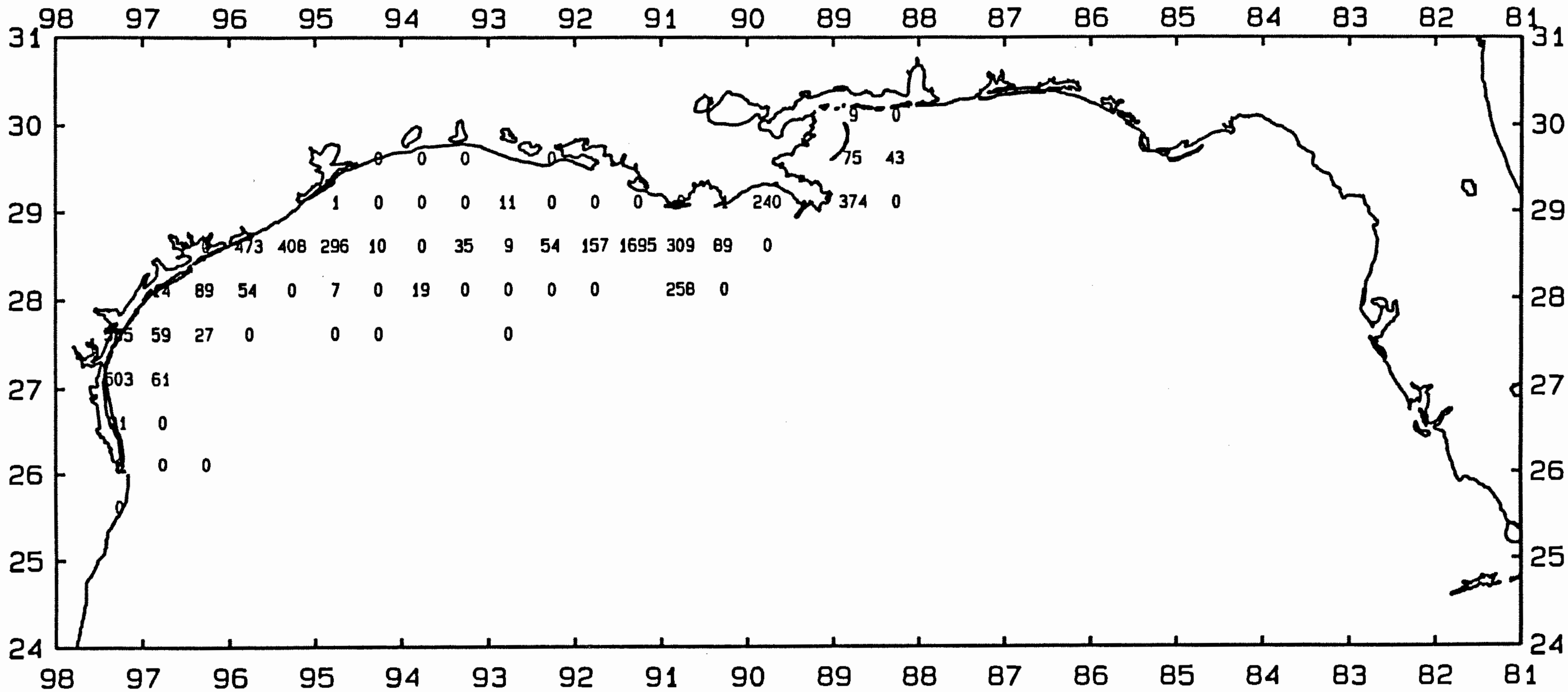

Figure 49. Roughback shrimp, Trachypenaeus similis, number/hour for June-July 1994.

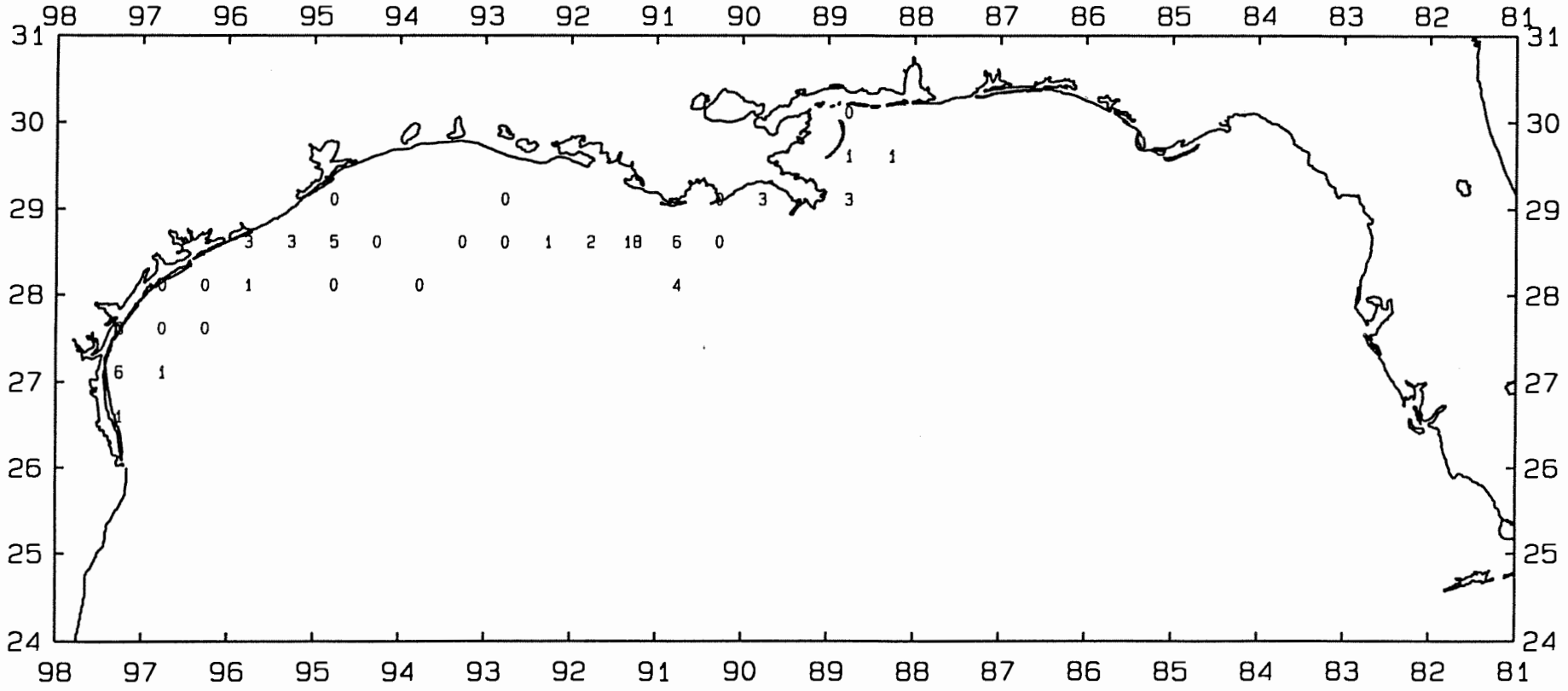

Figure 50. Roughback shrimp, Trachypenaeus similis, lb/hour for June-July 1994.

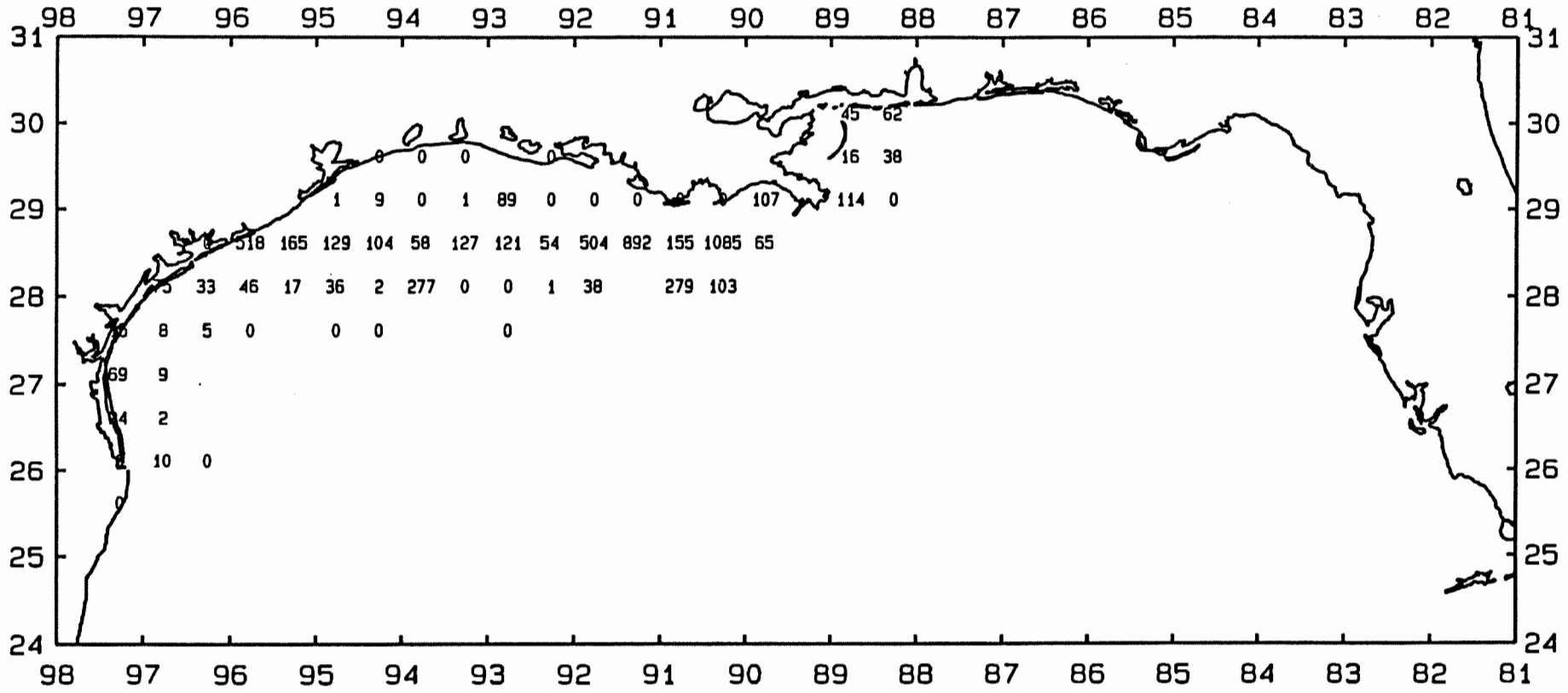

Figure 51. Mantis shrimp, Squilla empusa, number/hour for June-July 1994.

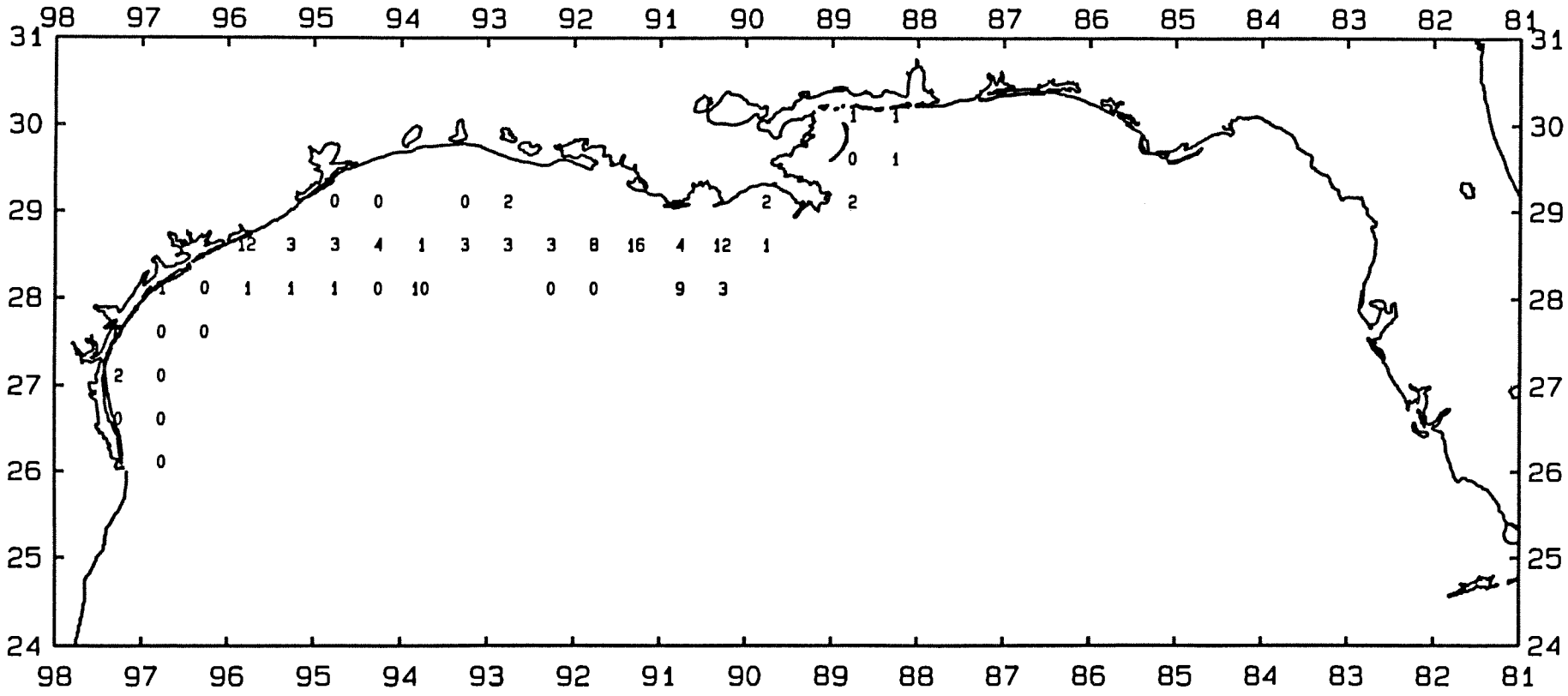

Figure 52. Mantis shrimp, Squilla empusa, lb/hour for June-July 1994.

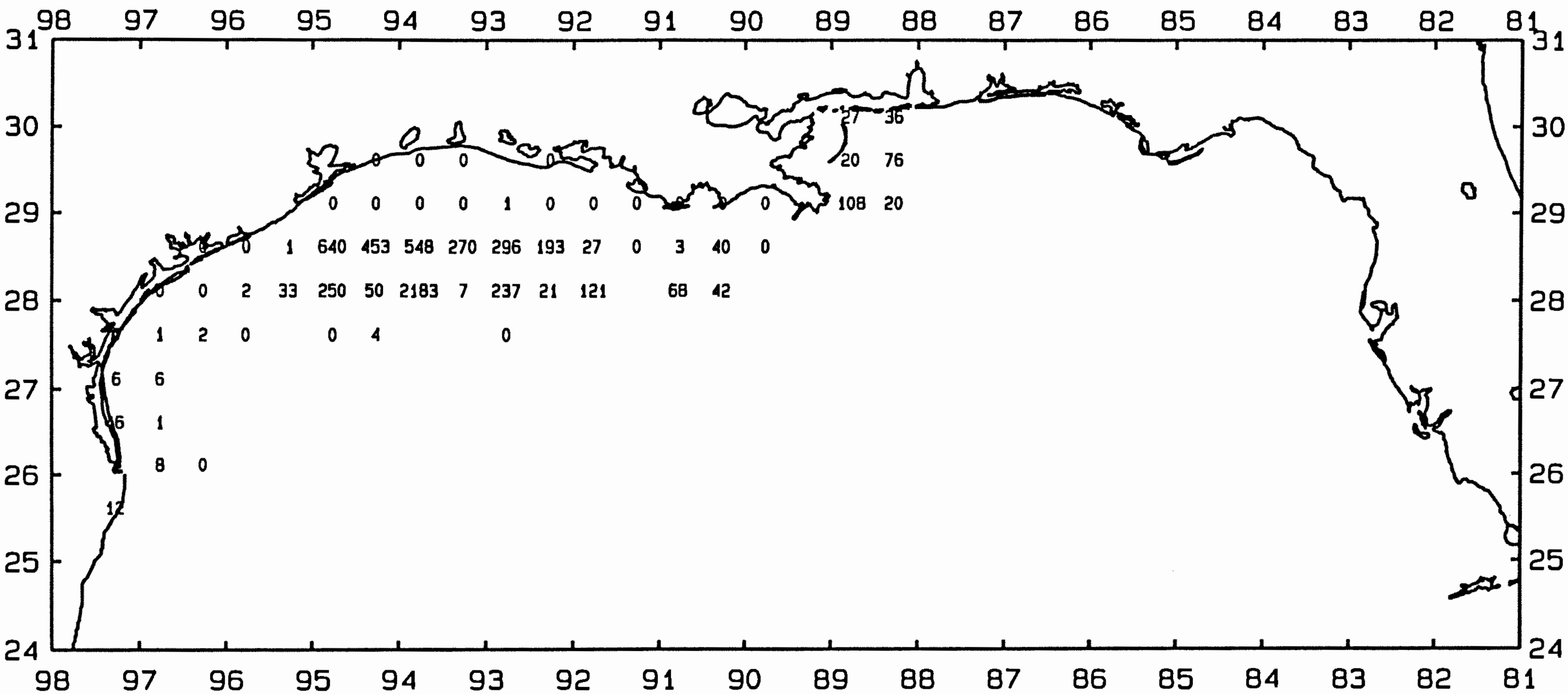

Figure 53. Brown rock shrimp, Sicyonia brevirostris, number/hour for June-July 1994.

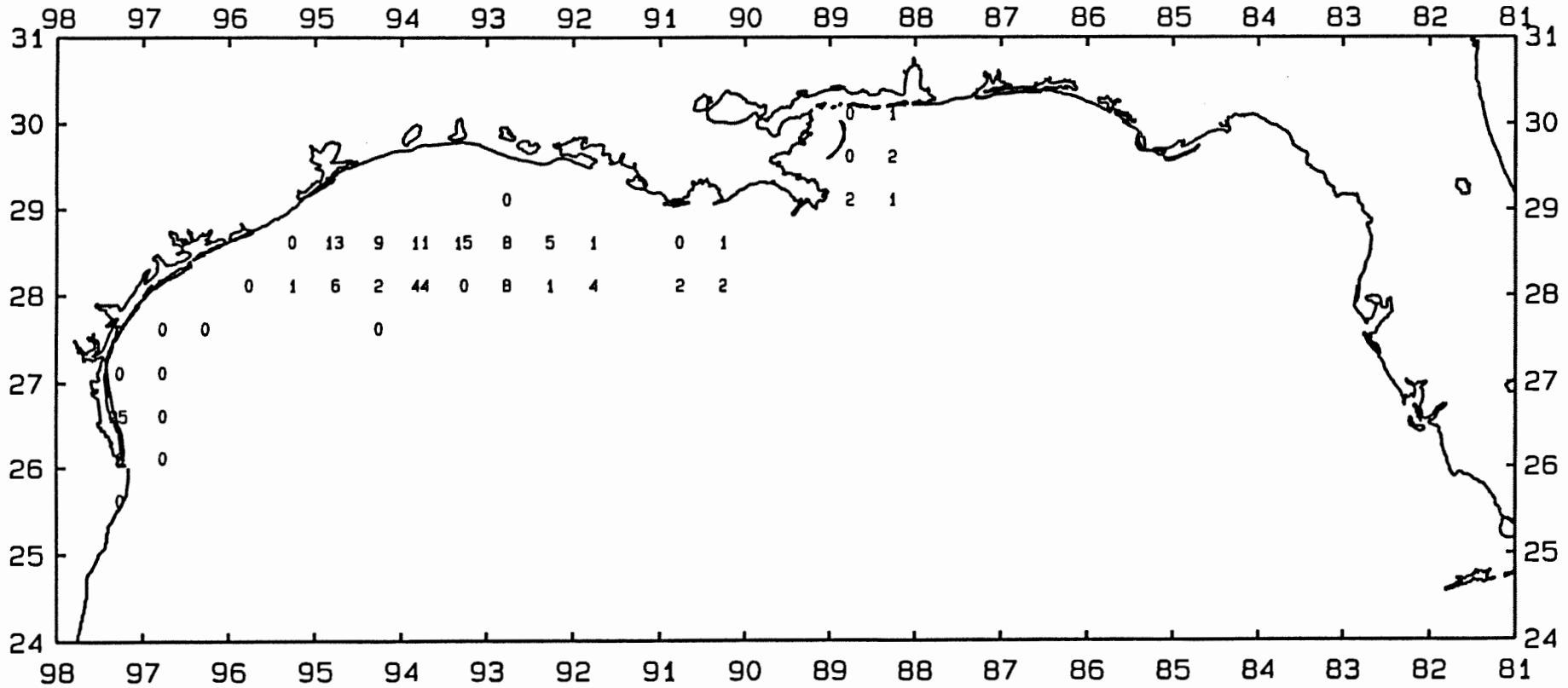

Figure 54. Brown rock shrimp, Sicyonia brevirostris, lb/hour for June-July 1994.

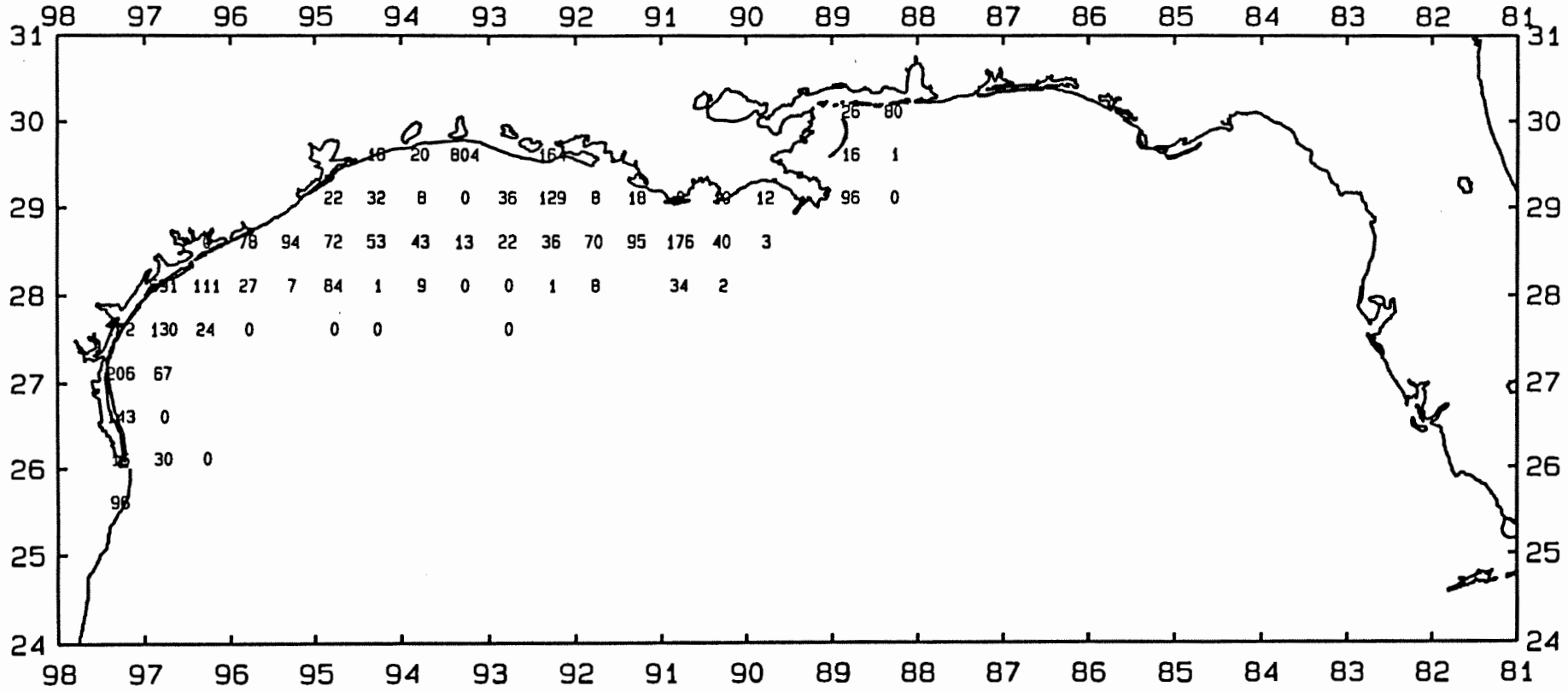

Figure 55. Lesser blue crab, Callinectes similis, number/hour for June-July 1994.

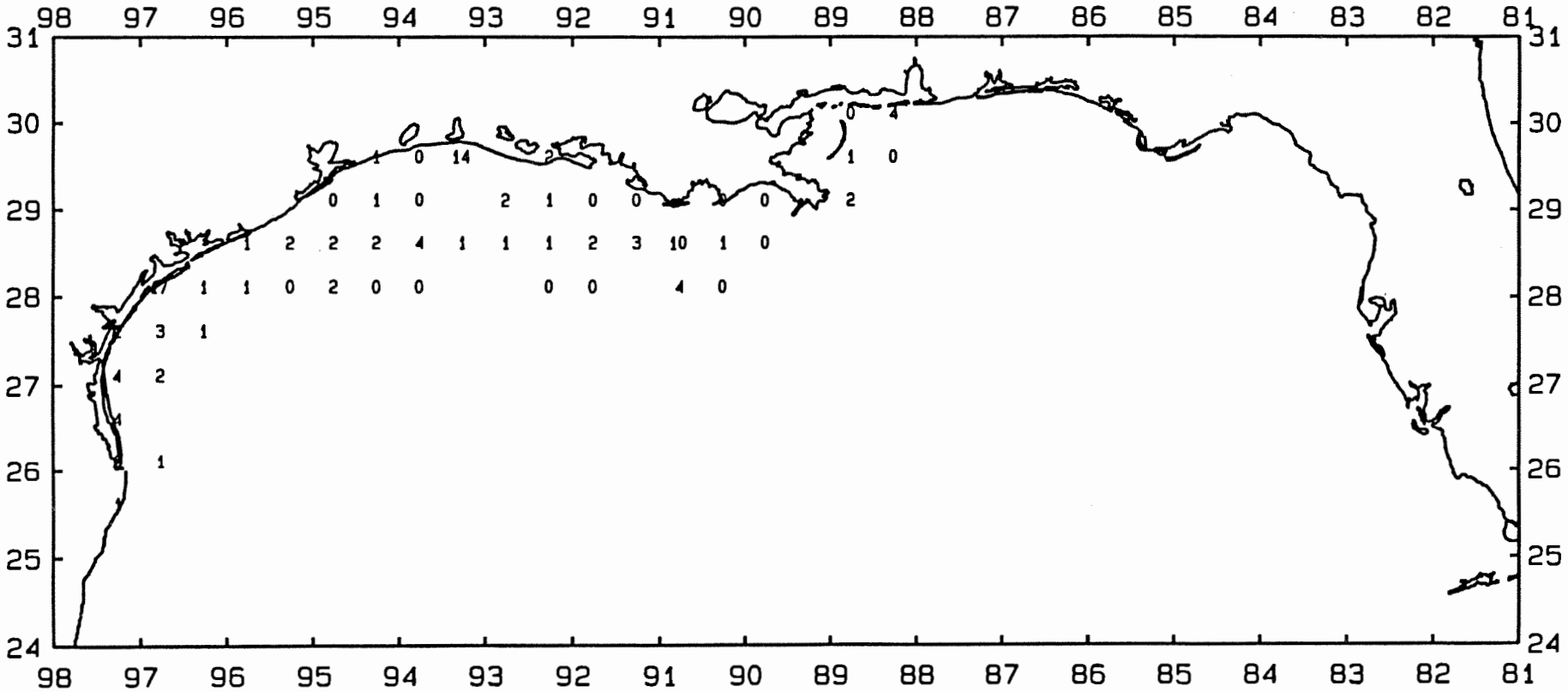

Figure 56. Lesser blue crab, Callinectes similis, lb/hour for June-July 1994.

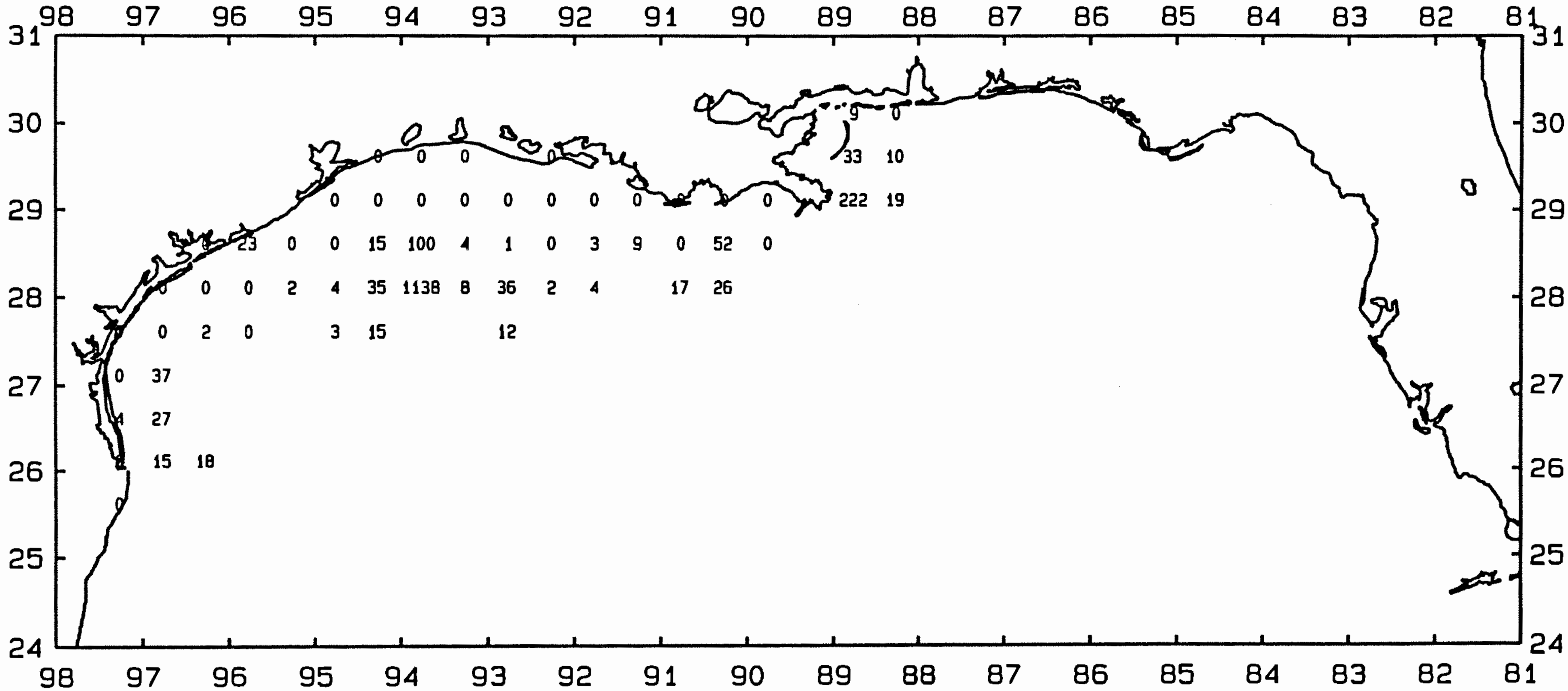

Figure 57. Longspine swimming crab, Portunus spinicarpus, number/hour for June-July 1994.

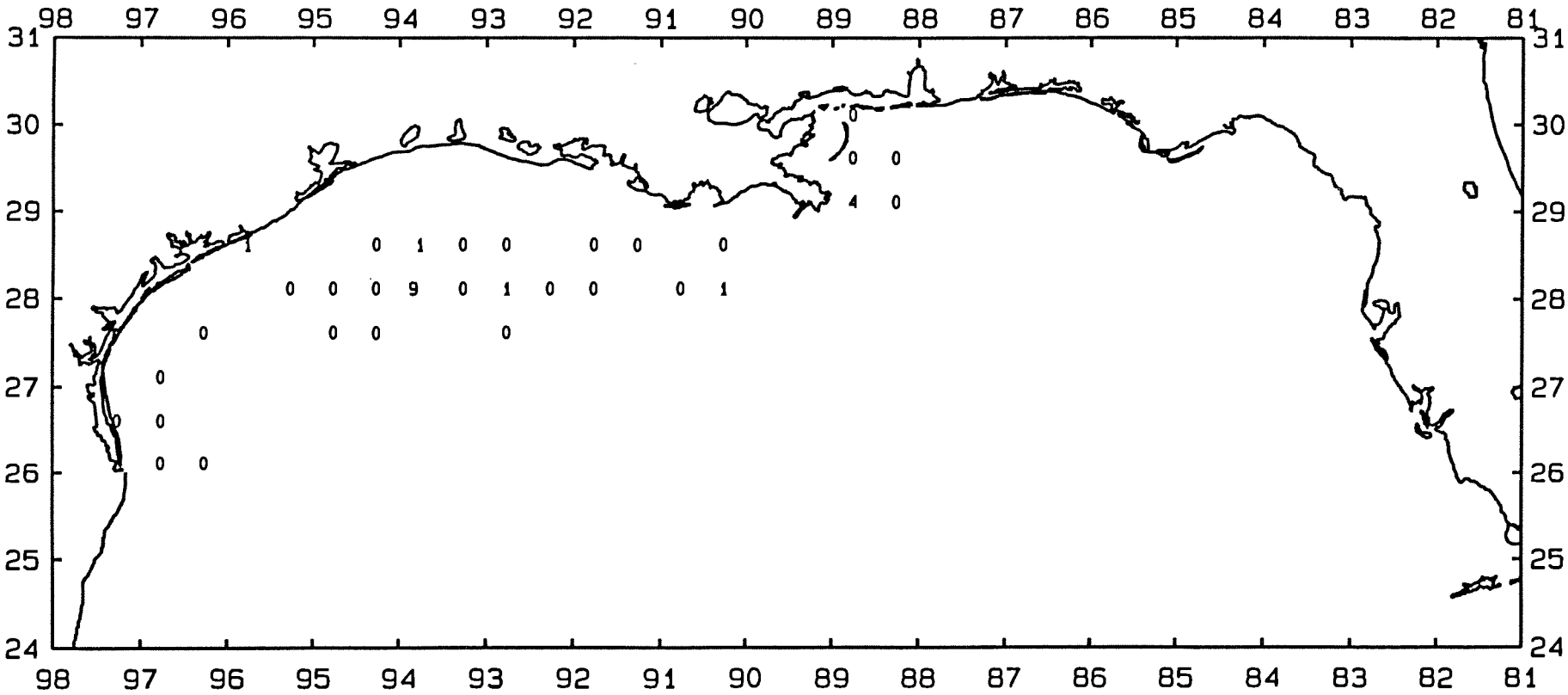

Figure 58. Longspine swimming crab, Portunus spinicarpus, lb/hour for June-July 1994.

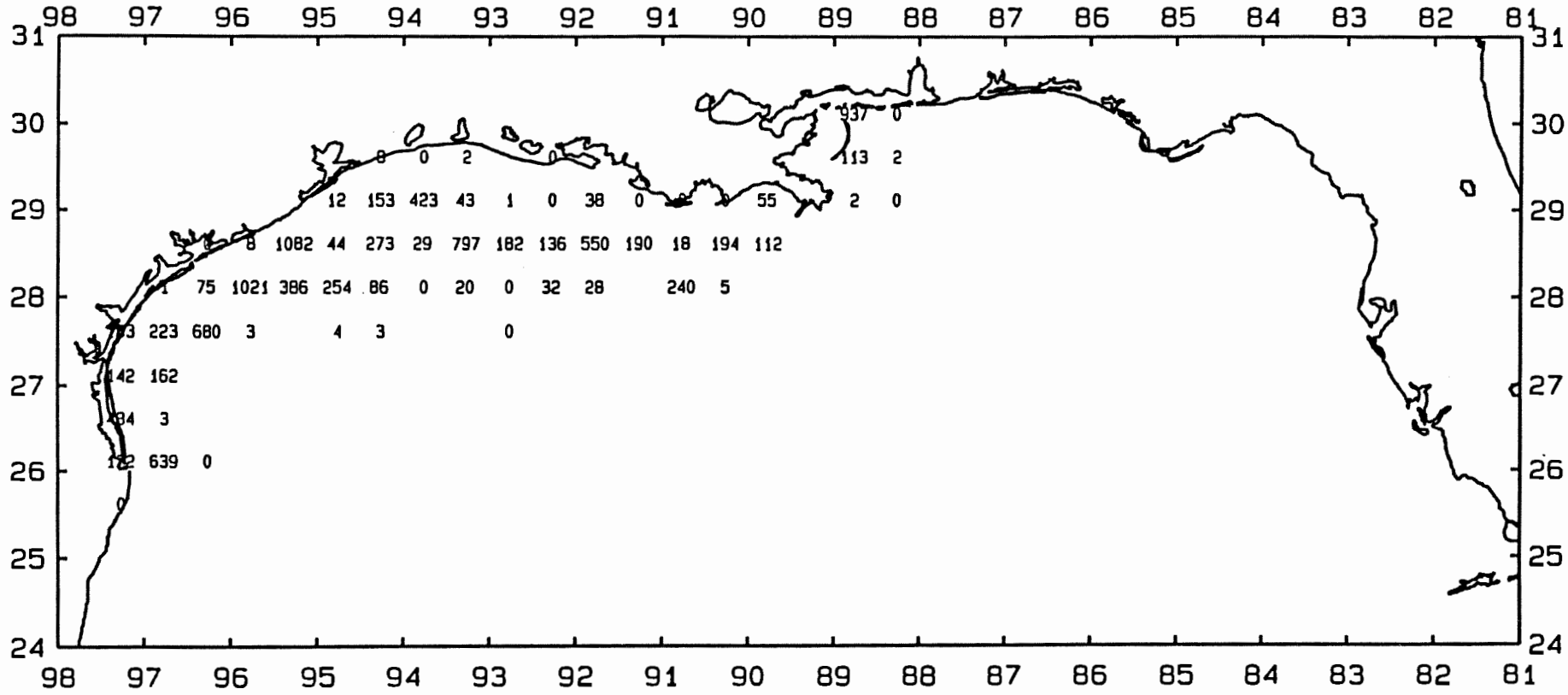

Figure 59. Arrow squid, Loligo pleii, number/hour for June-July 1994.

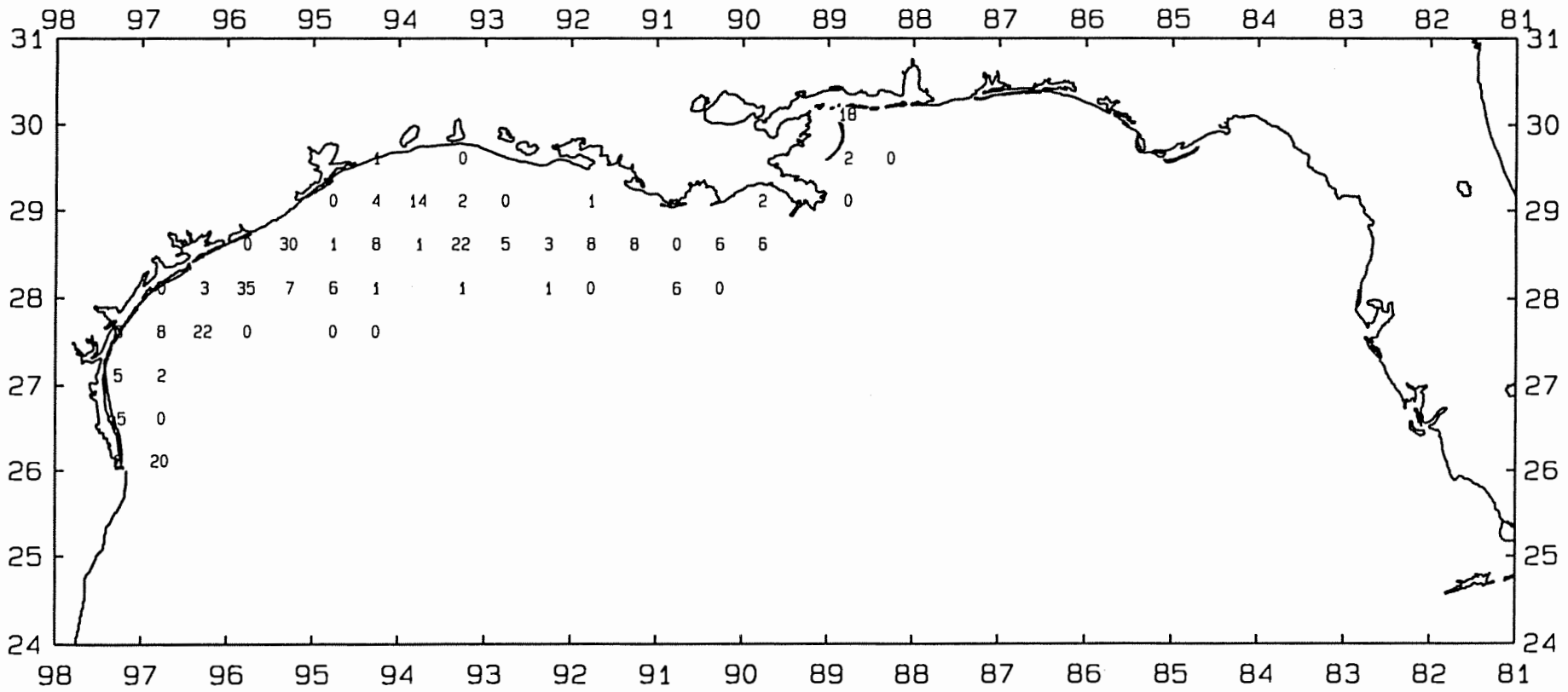

Figure 60. Arrow squid, Loligo pleii, lb/hour for June-July 1994.

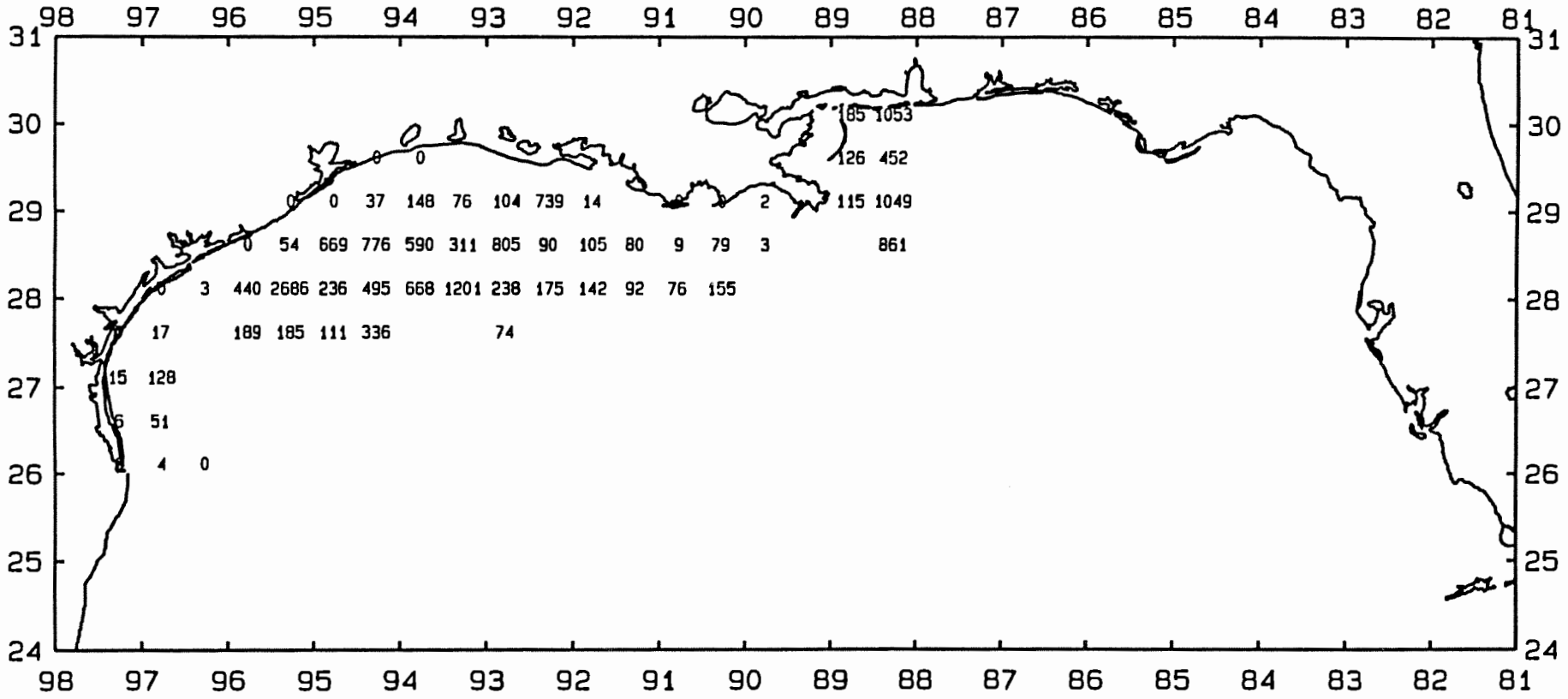

Figure 61. Longspine porgy, Stenotomus caprinus, number/hour for October-December 1994.

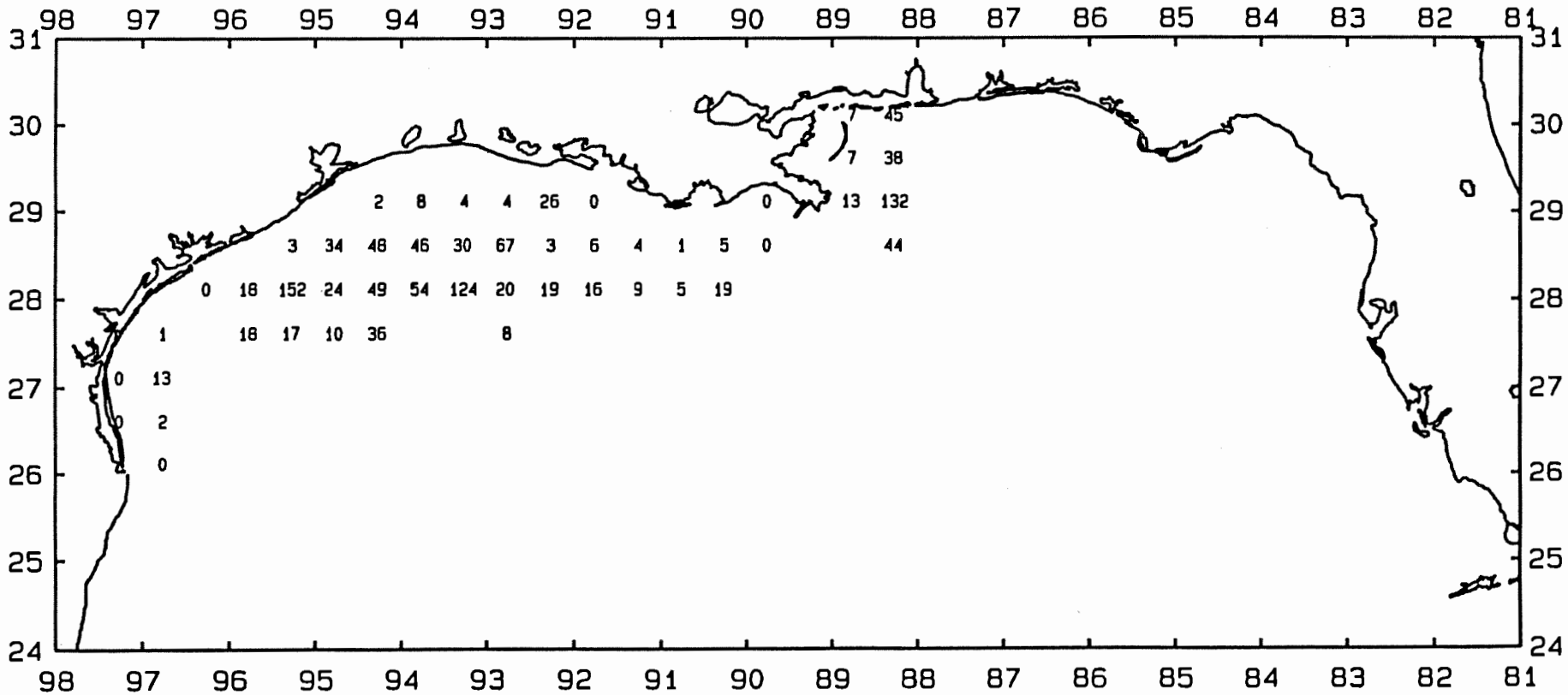

Figure 62. Longspine porgy, Stenotomus caprinus, lb/hour for October-December 1994.

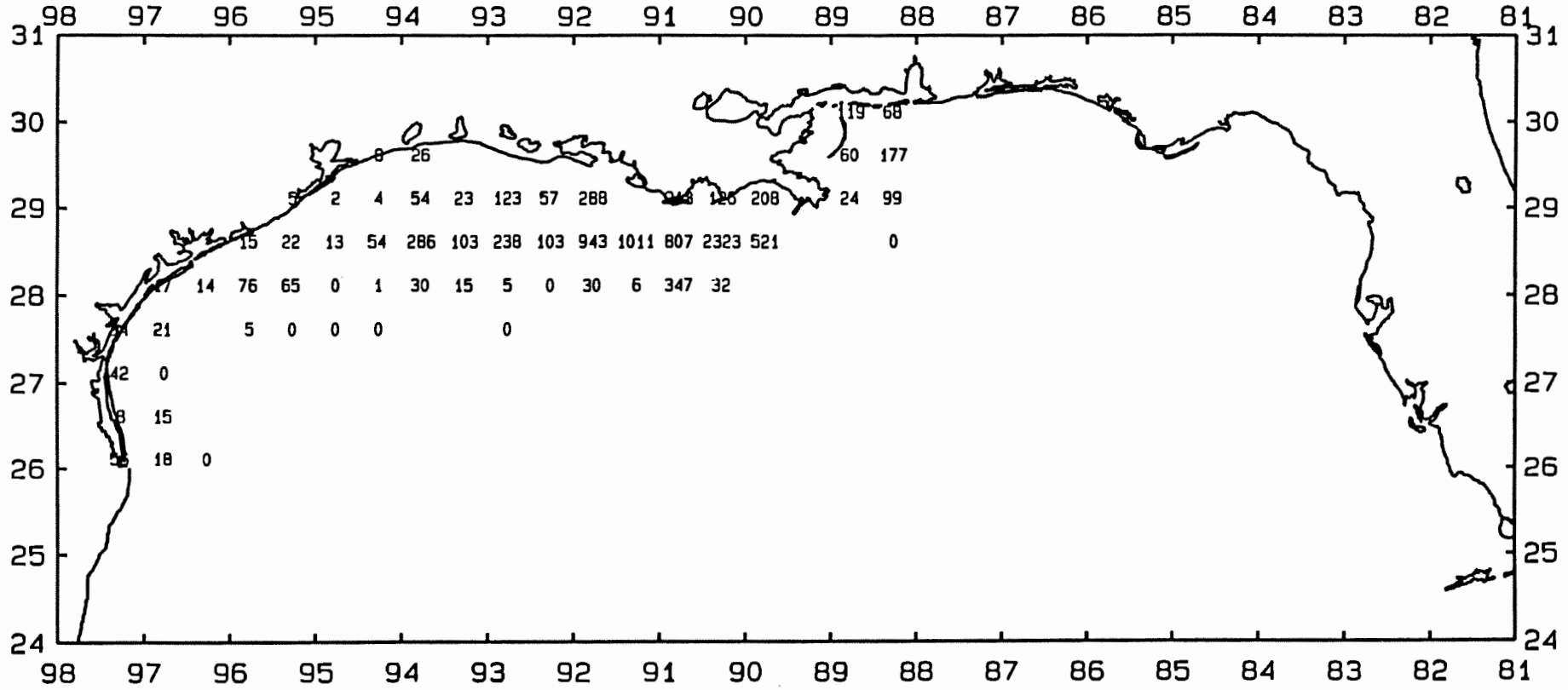

Figure 63. Atlantic croaker, Micropogonias undulatus, number/hour for October-December 1994.

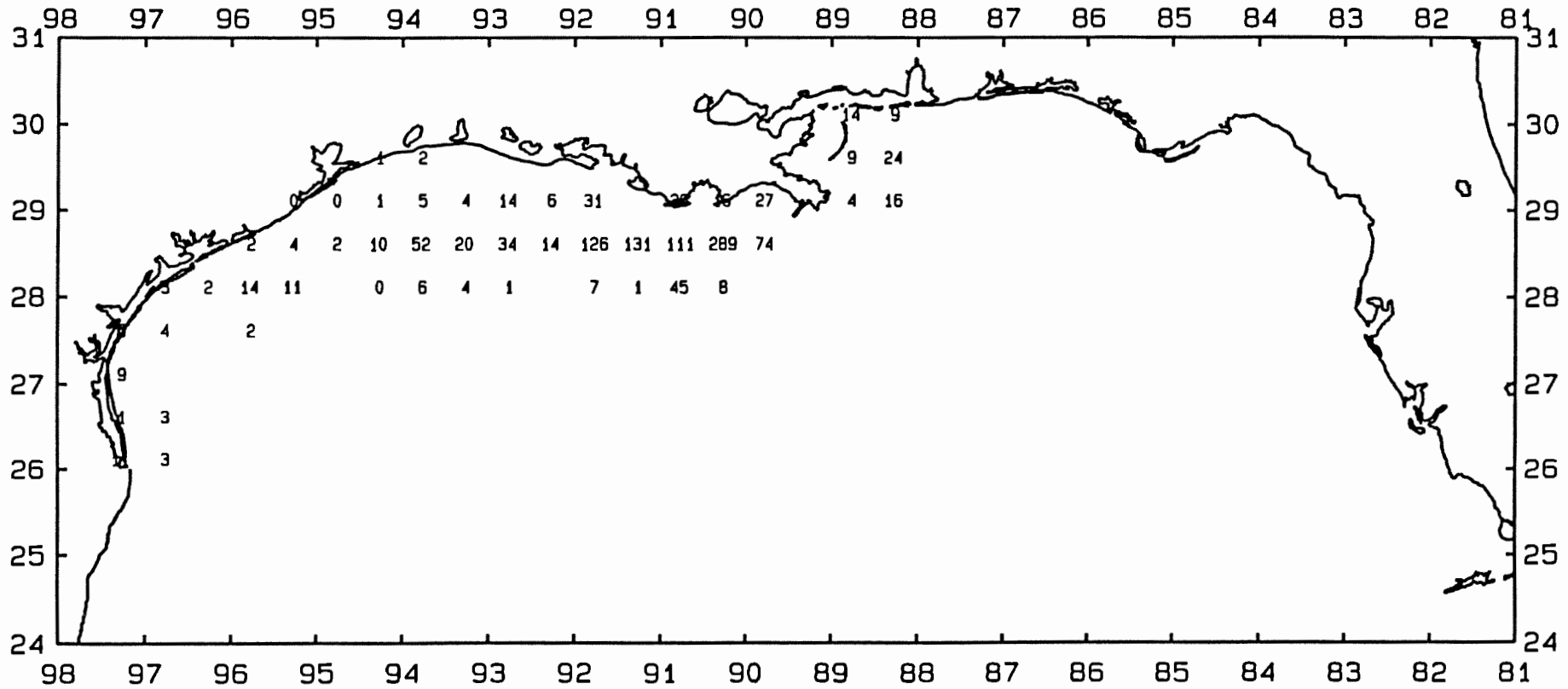

Figure 64. Atlantic croaker, Micropogonias undulatus, lb/hour for October-December 1994.

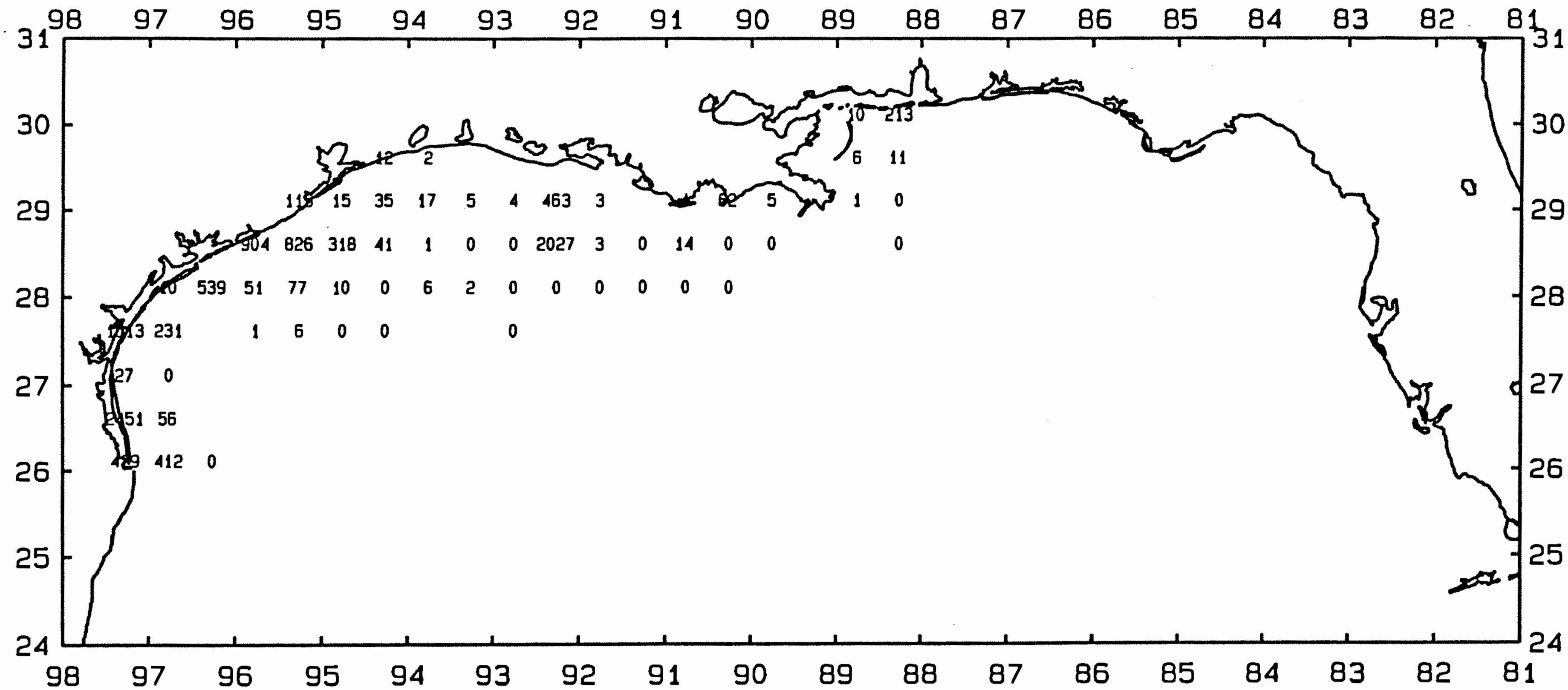

Figure 65. Atlantic bumper, Chloroscombrus chrysurus, number/hour for October-December 1994.

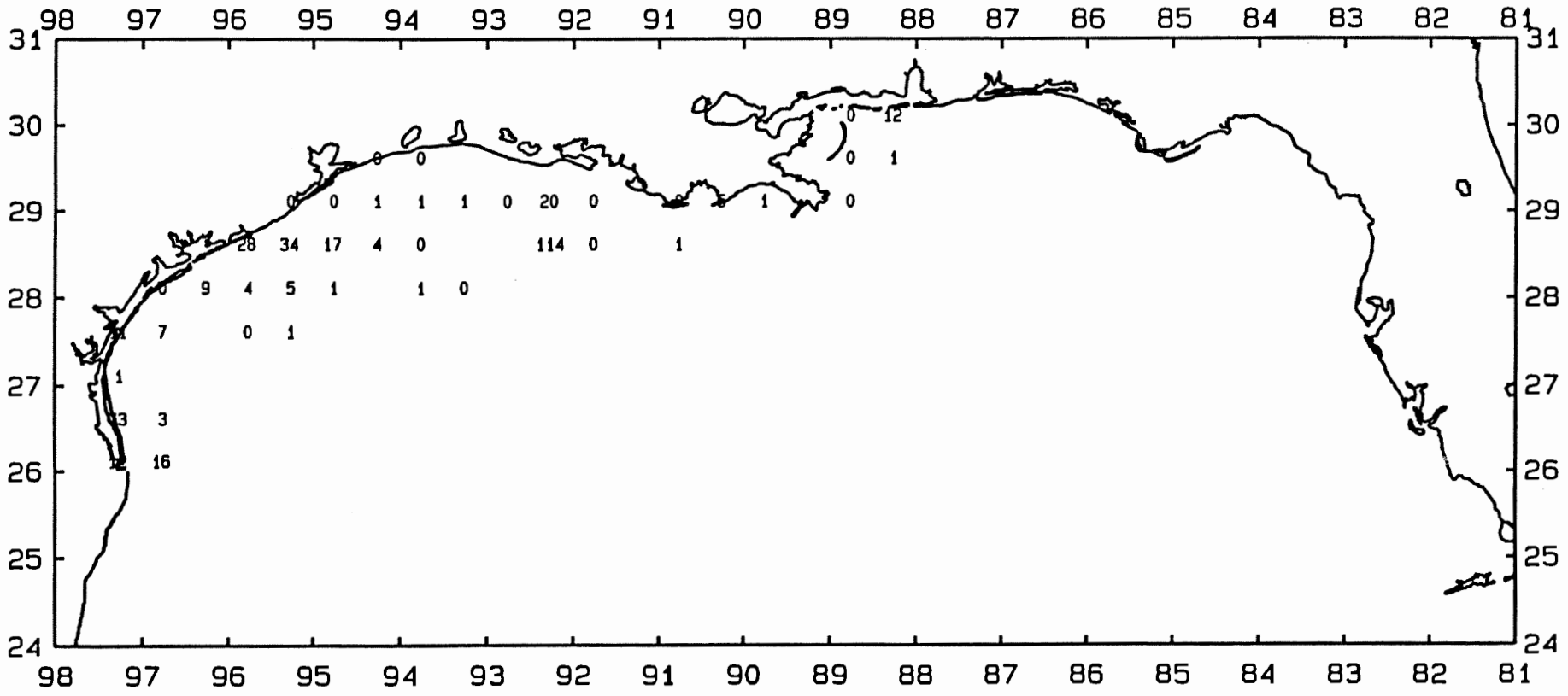

Figure 66. Atlantic bumper, Chloroscombrus chrysurus, lb/hour for October-December 1994.

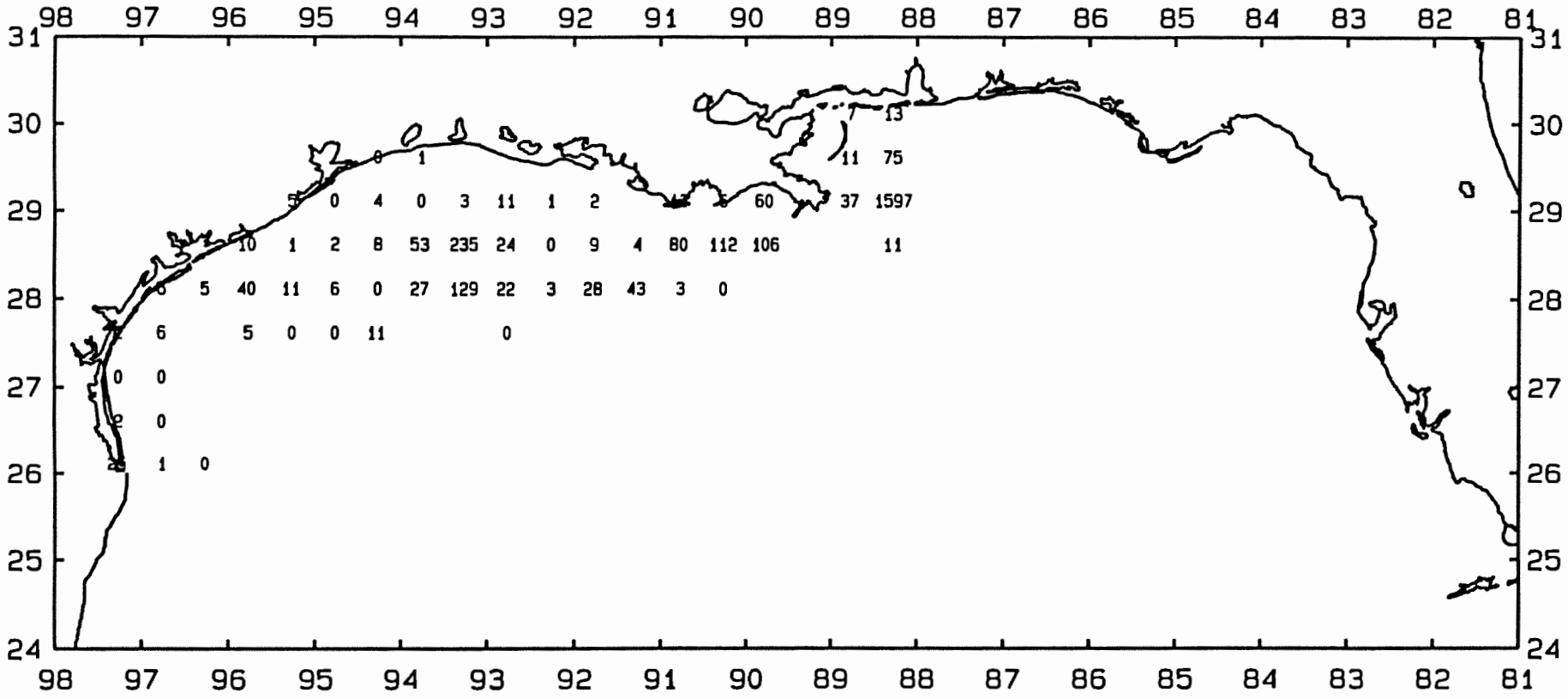

Figure 67. Spot, Leiostomus xanthurus, number/hour for October-December 1994.

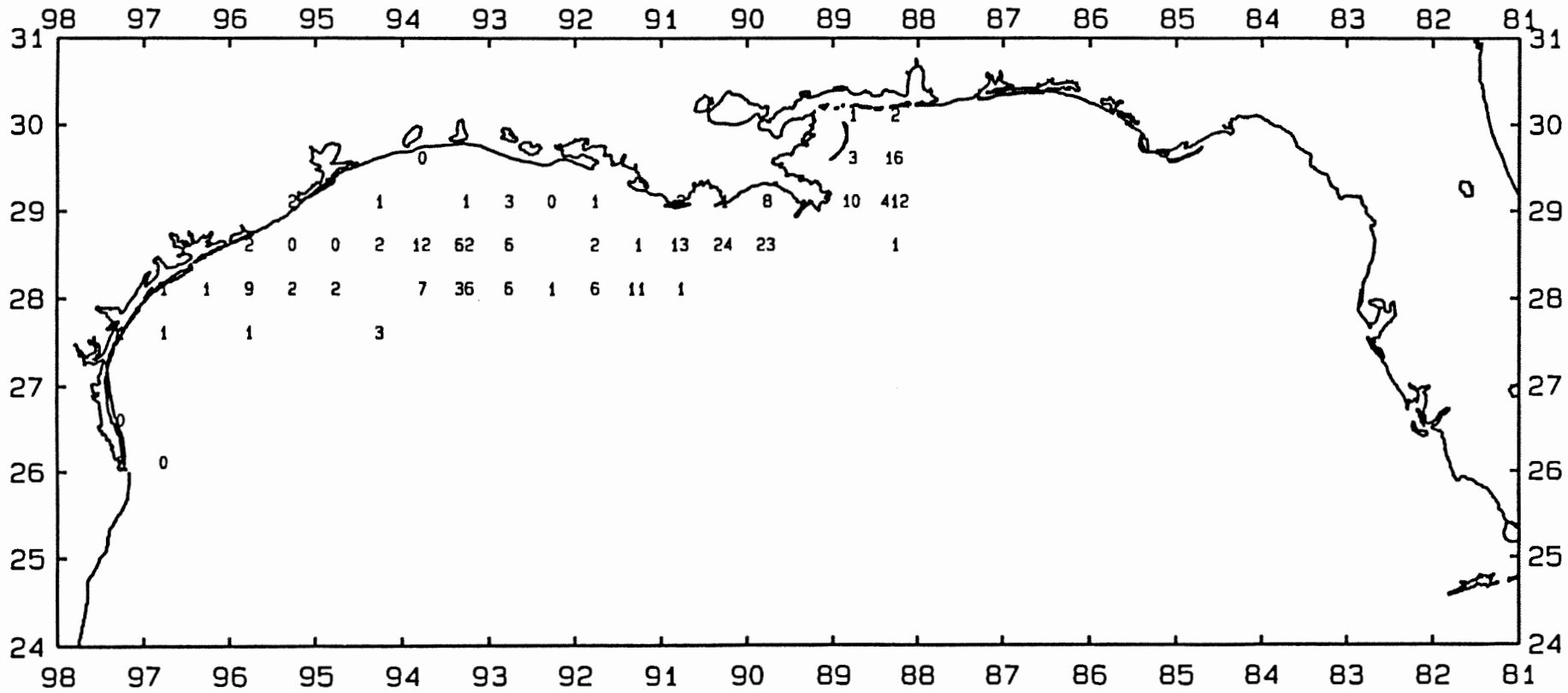

Figure 68. Spot, Leiostomus xanthurus, lb/hour for October-December 1994.

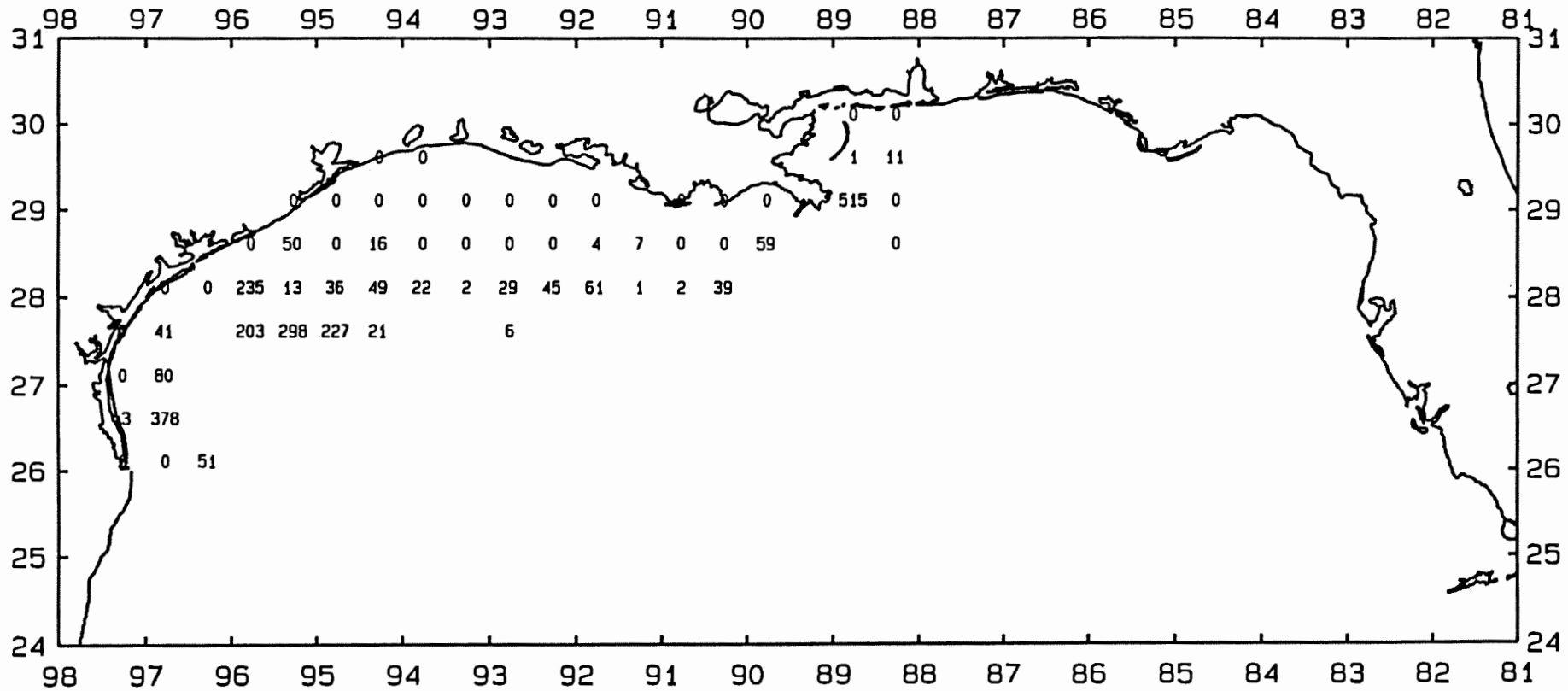

Figure 69. Blackear bass, Serranus atrobranchus, number/hour for October-December 1994.

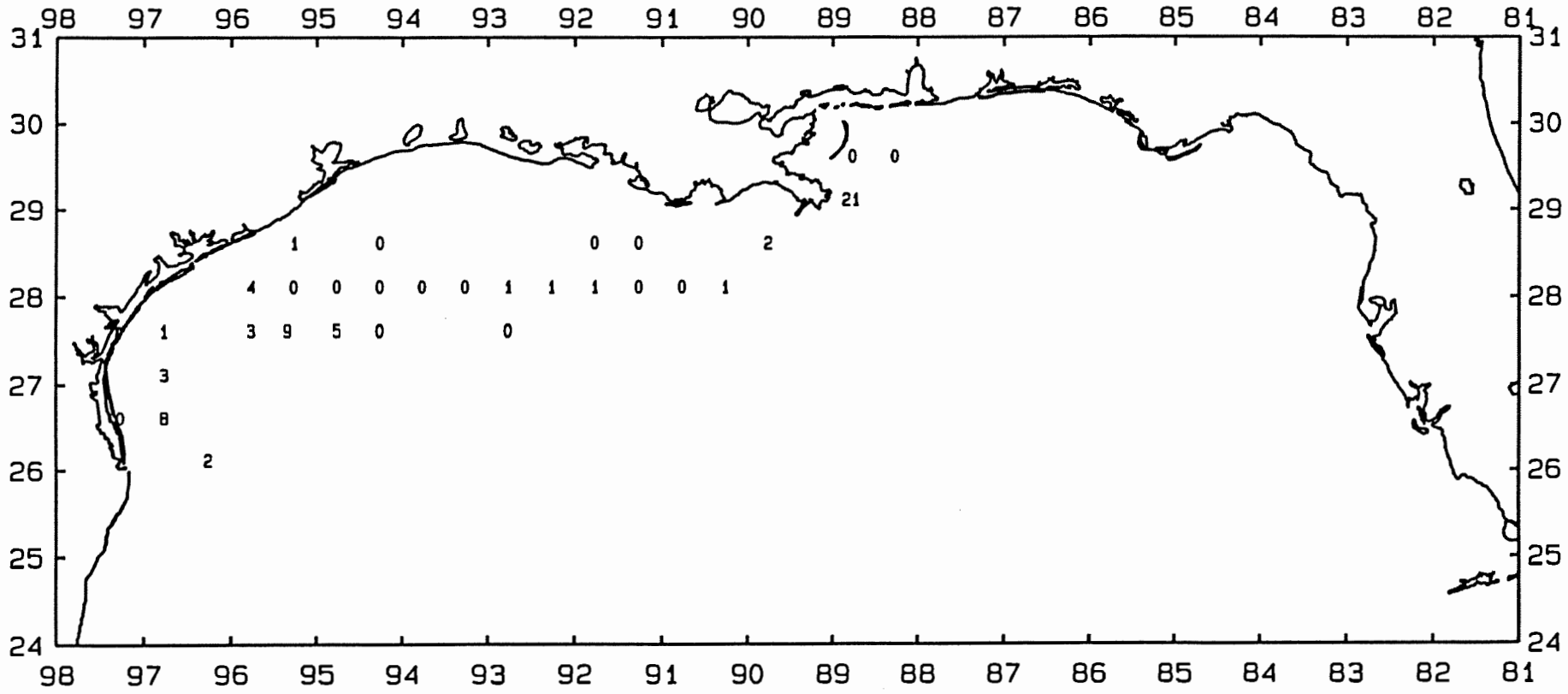

Figure 70. Blackear bass, Serranus atrobranchus, lb/hour for October-December 1994.

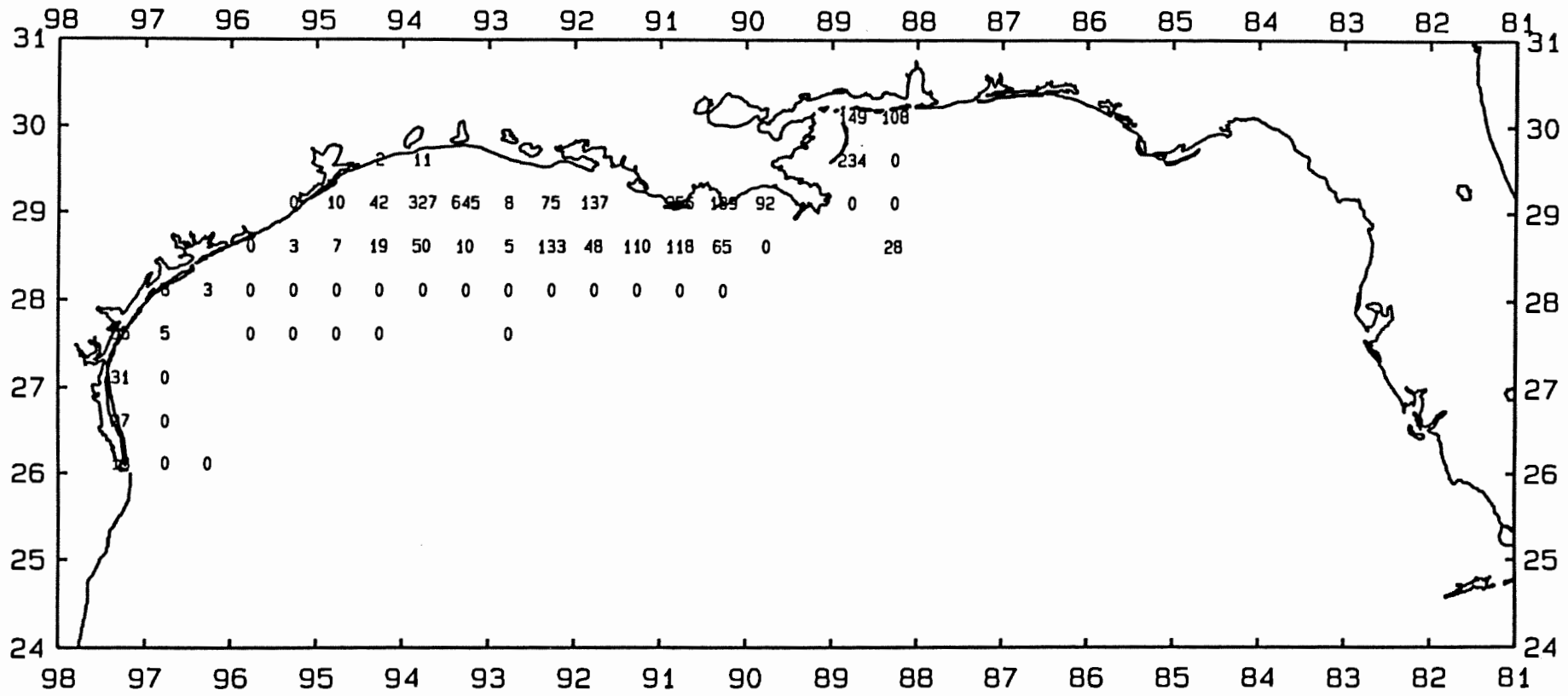

Figure 71. Hardhead catfish, Arius felis, number/hour for October-December 1994.

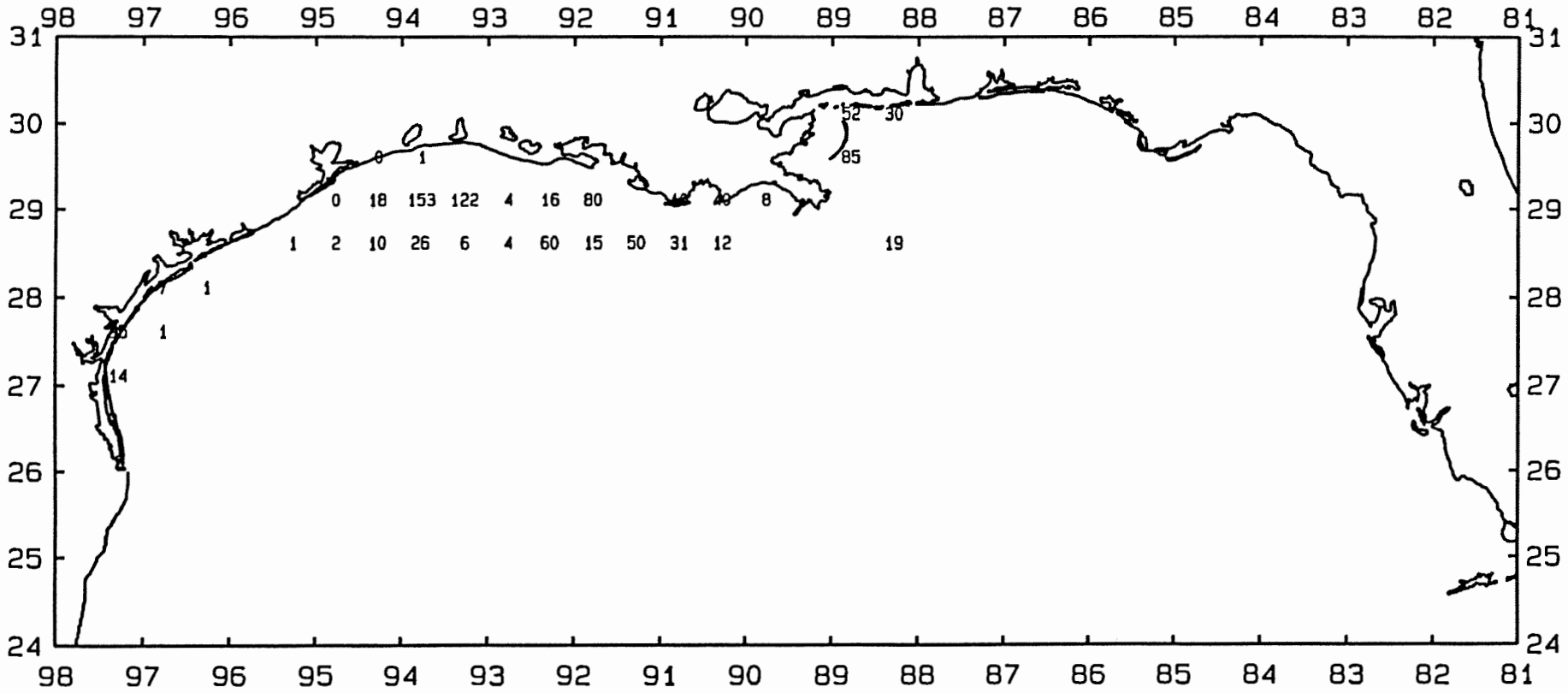

Figure 72. Hardhead catfish, Arius felis, lb/hour for October-December 1994.

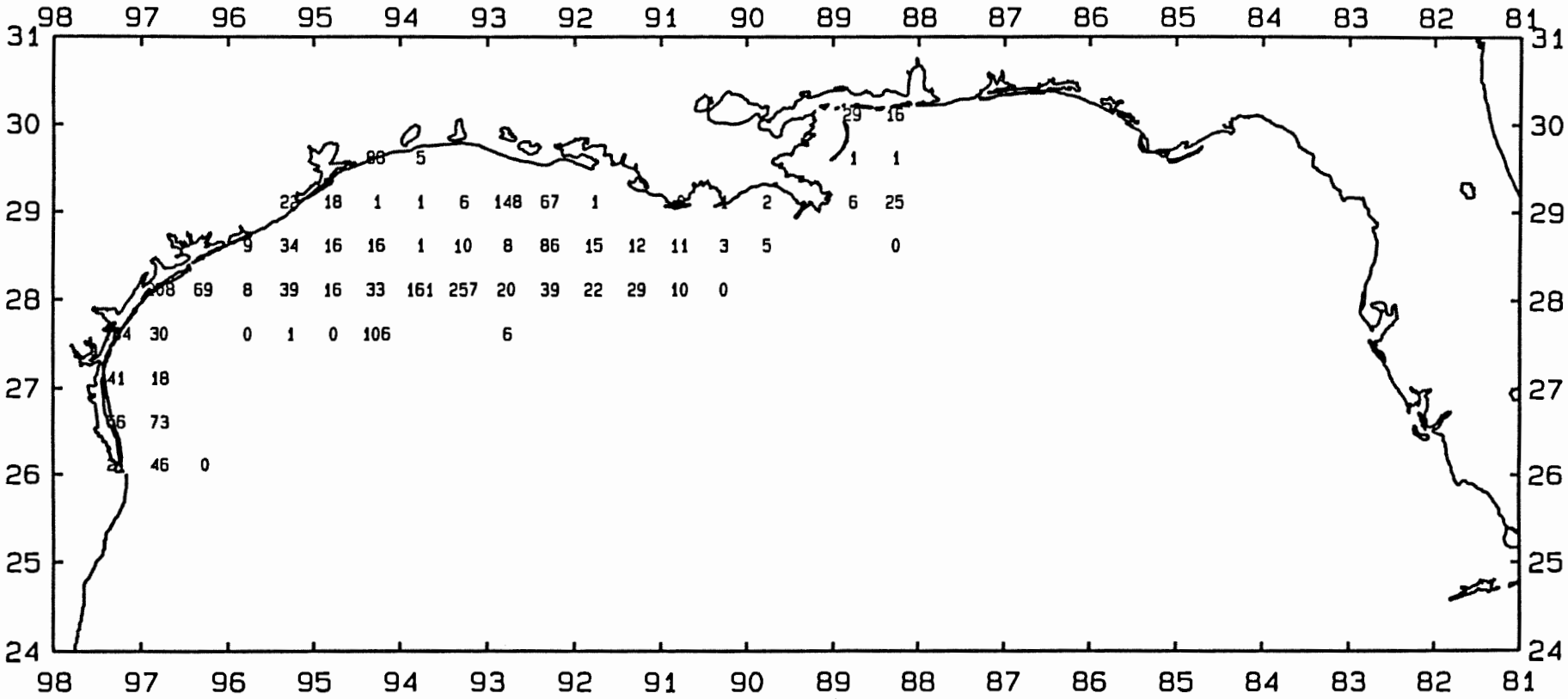

Figure 73. Gulf butterfish, Peprilus burti, number/hour for October-December 1994.

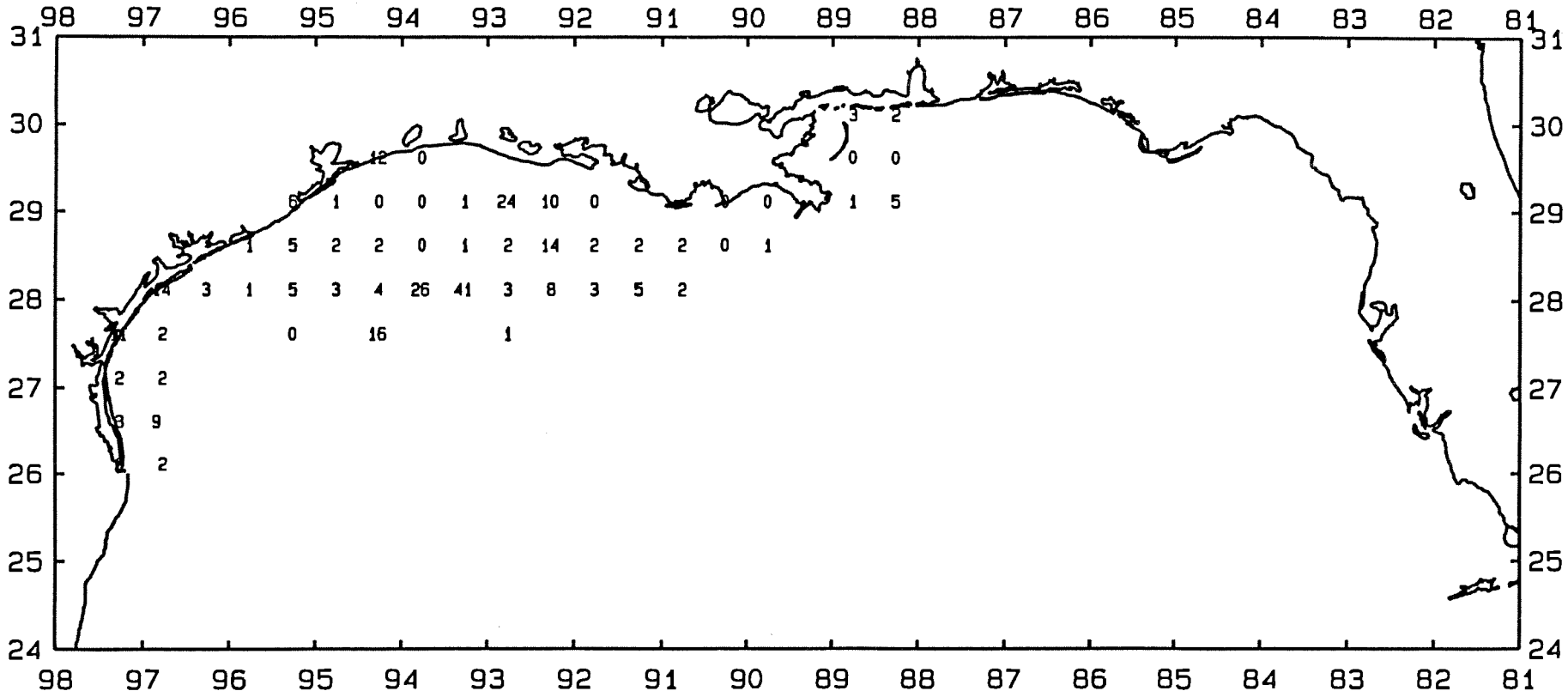

Figure 74. Gulf butterfish, Peprilus burti, lb/hour for October-December 1994.

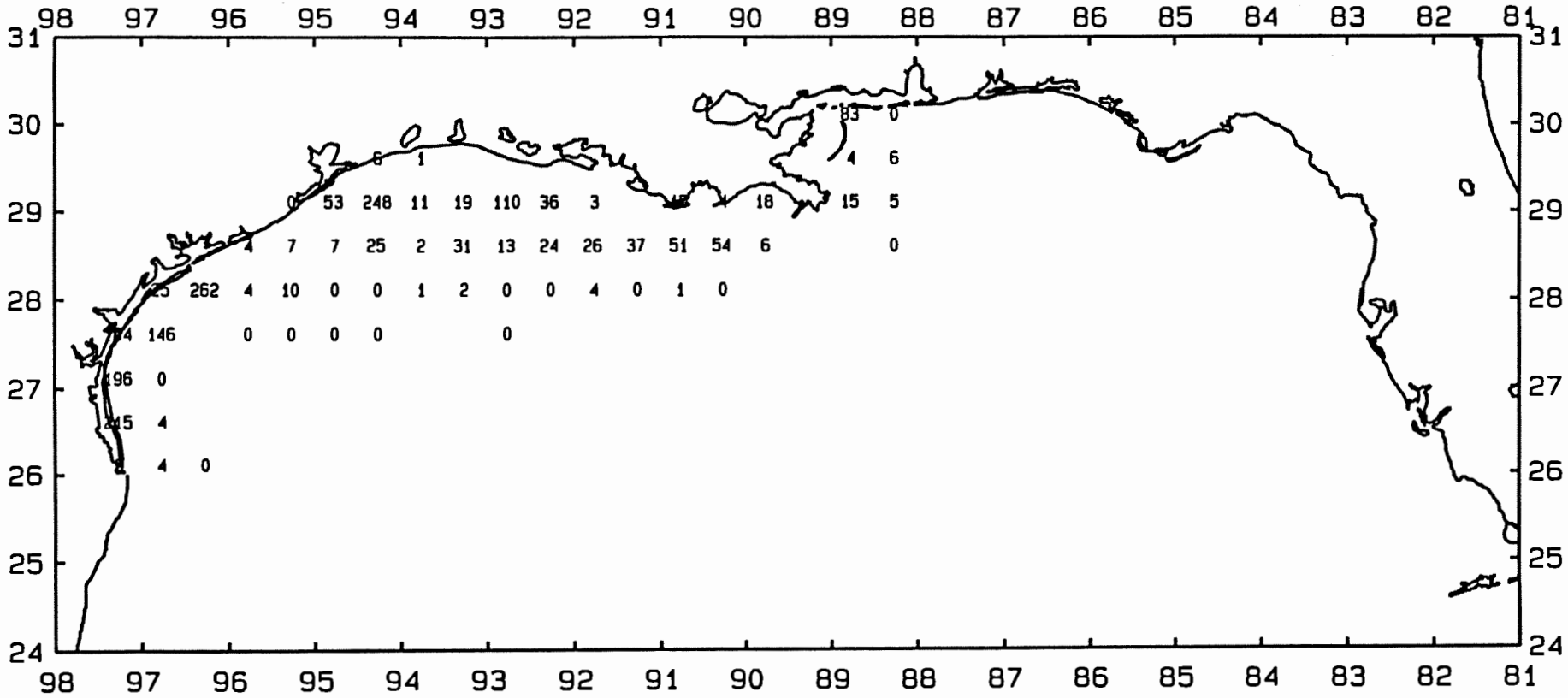

Figure 75. Silver seatrout, Cynoscion nothus, number/hour for October-December 1994.

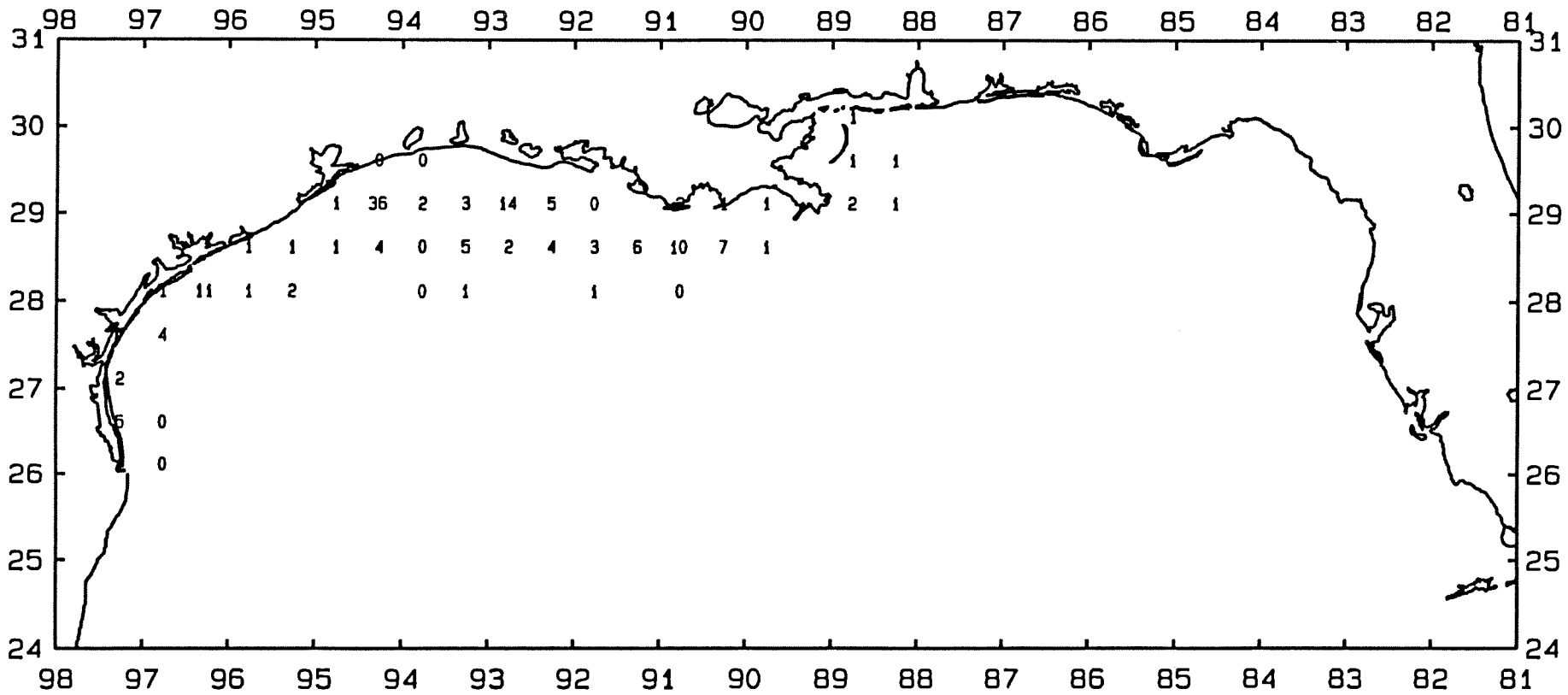

Figure 76. Silver seatrout, Cynoscion nothus, lb/hour for October-December 1994.

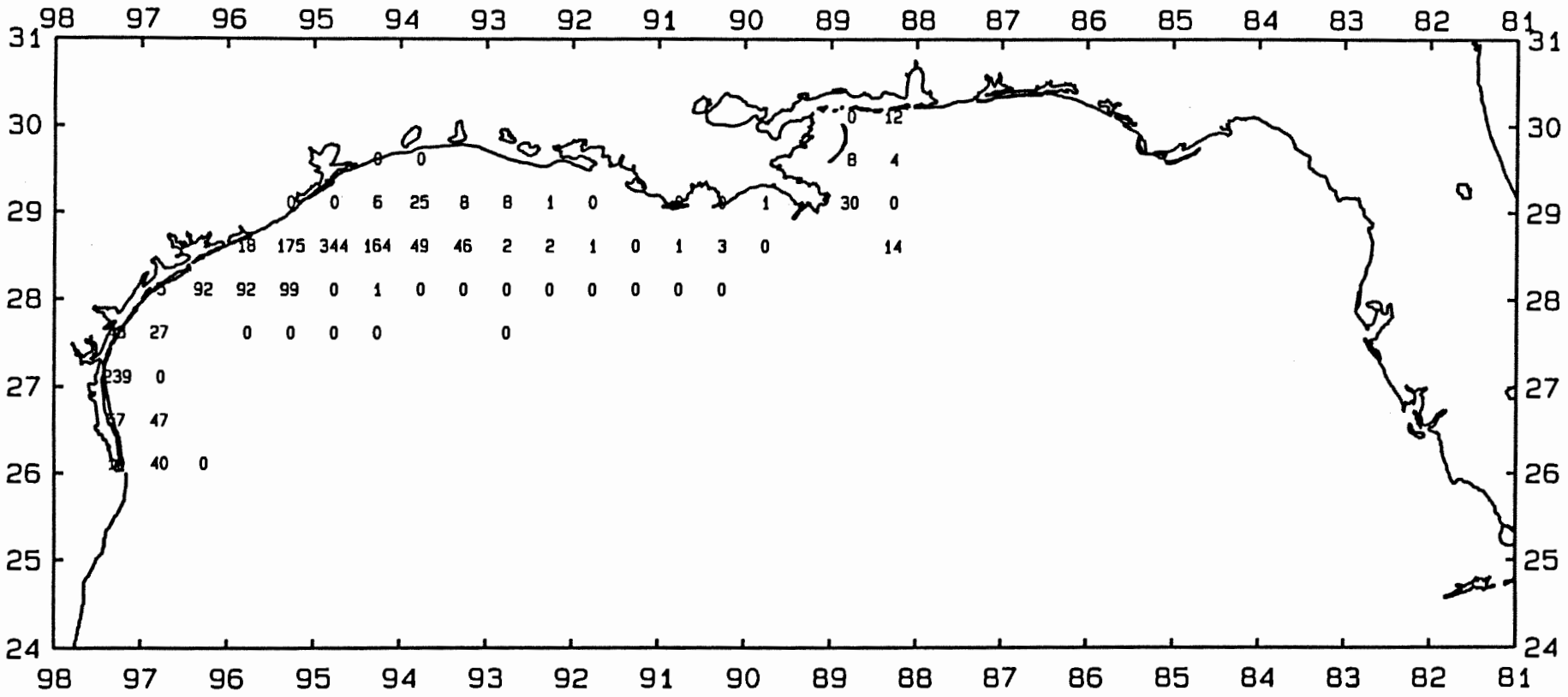

Figure 77. Dwarf sand perch, Diplectrum bivittatum, number/hour for October-December 1994.

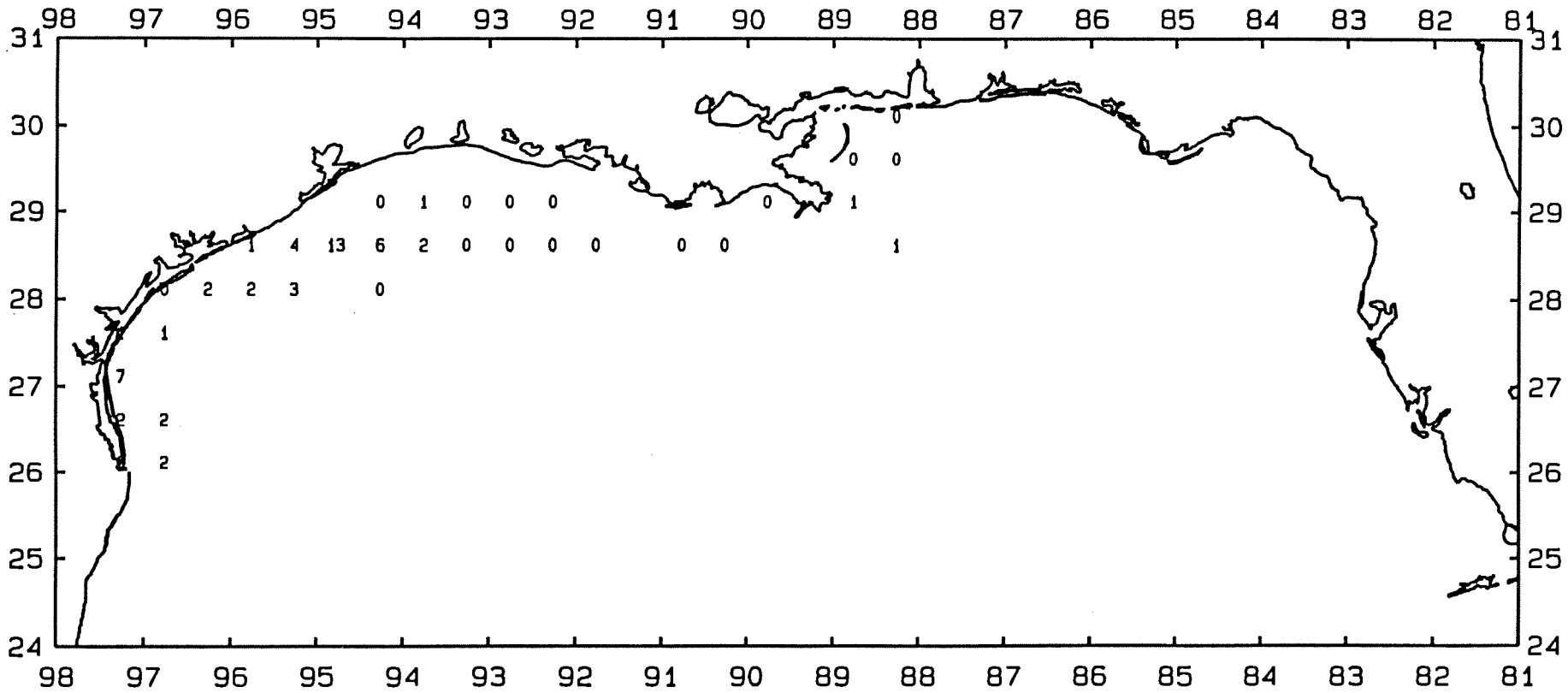

Figure 78. Dwarf sand perch, Diplectrum bivittatum, lb/hour for October-December 1994.

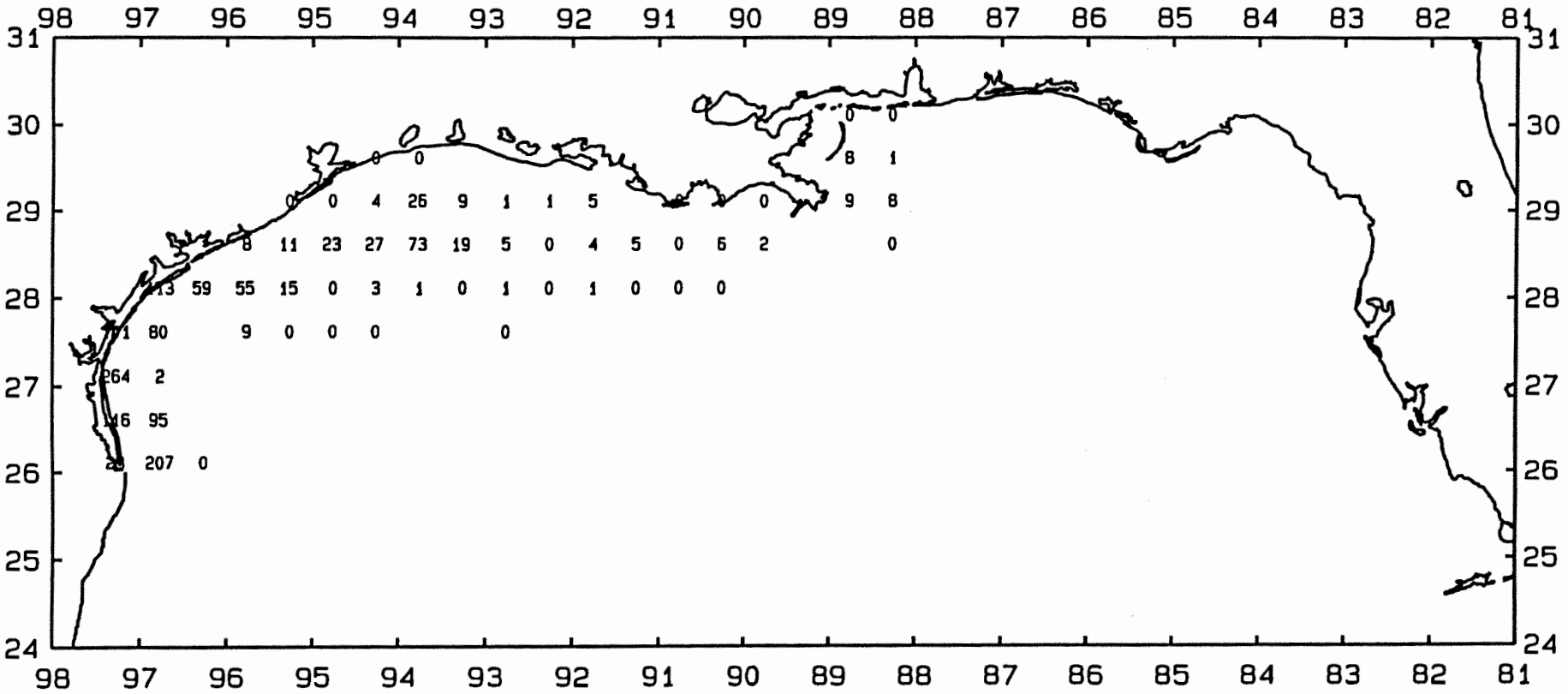

Figure 79. Shoal flounder, Syacium gunteri, number/hour for October-December 1994.

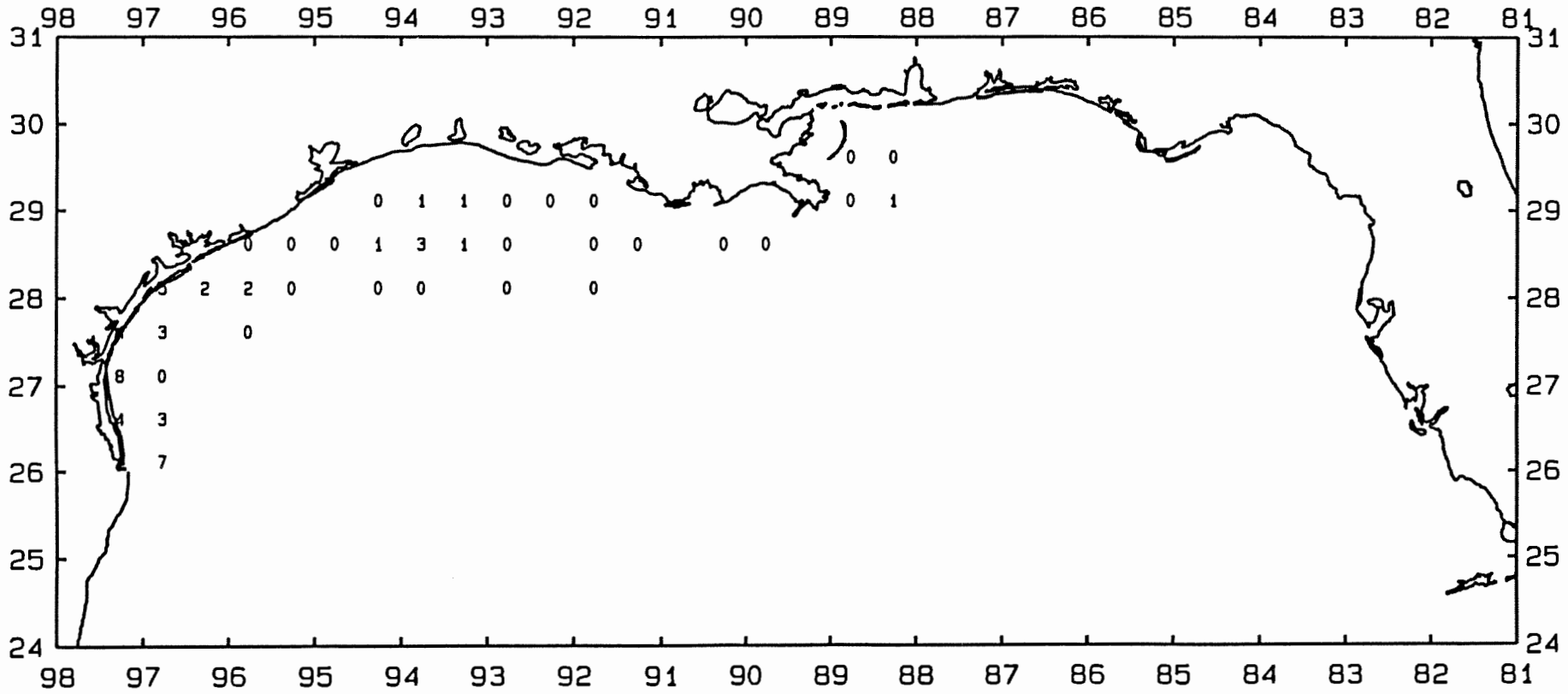

Figure 80. Shoal flounder, Syacium gunteri, lb/hour for October-December 1994.

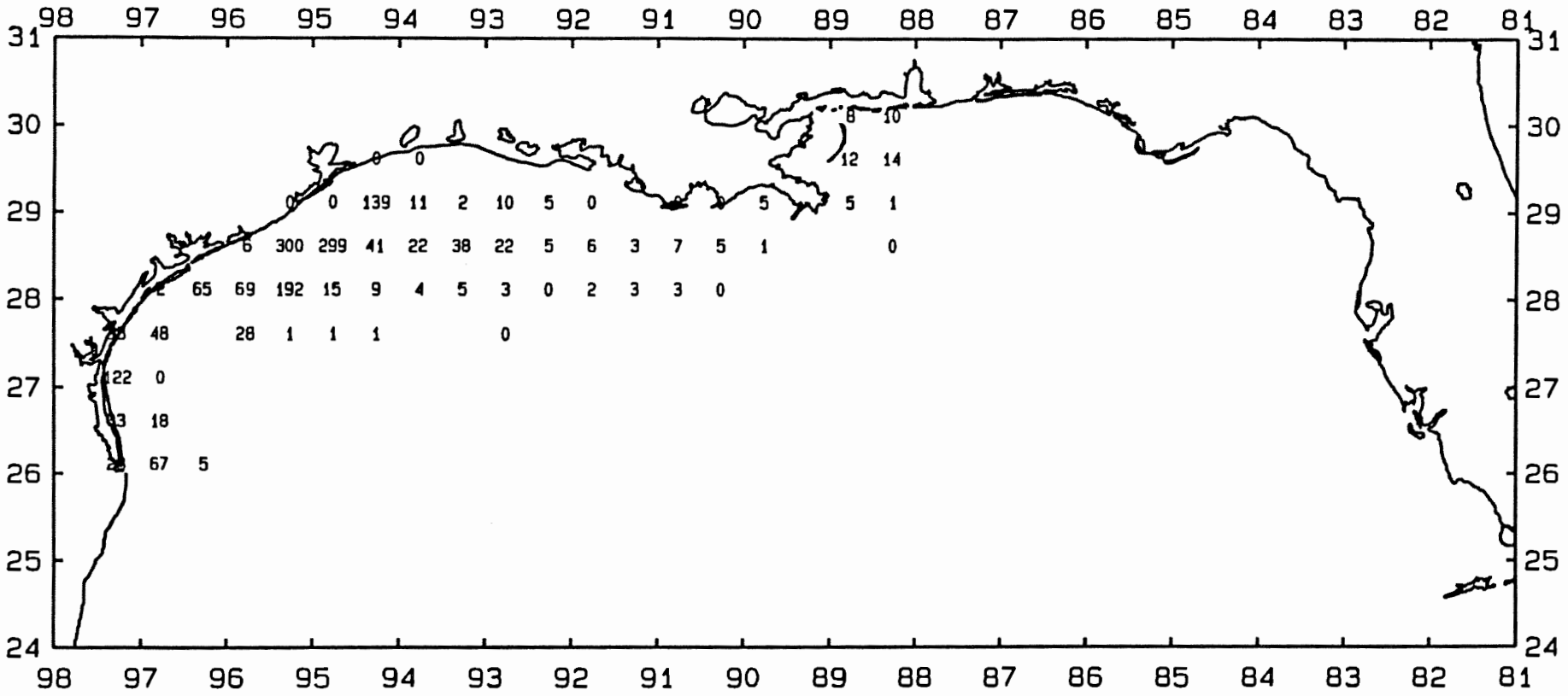

Figure 81. Red snapper, Lutjanus campechanus, number/hour for October-December 1994.

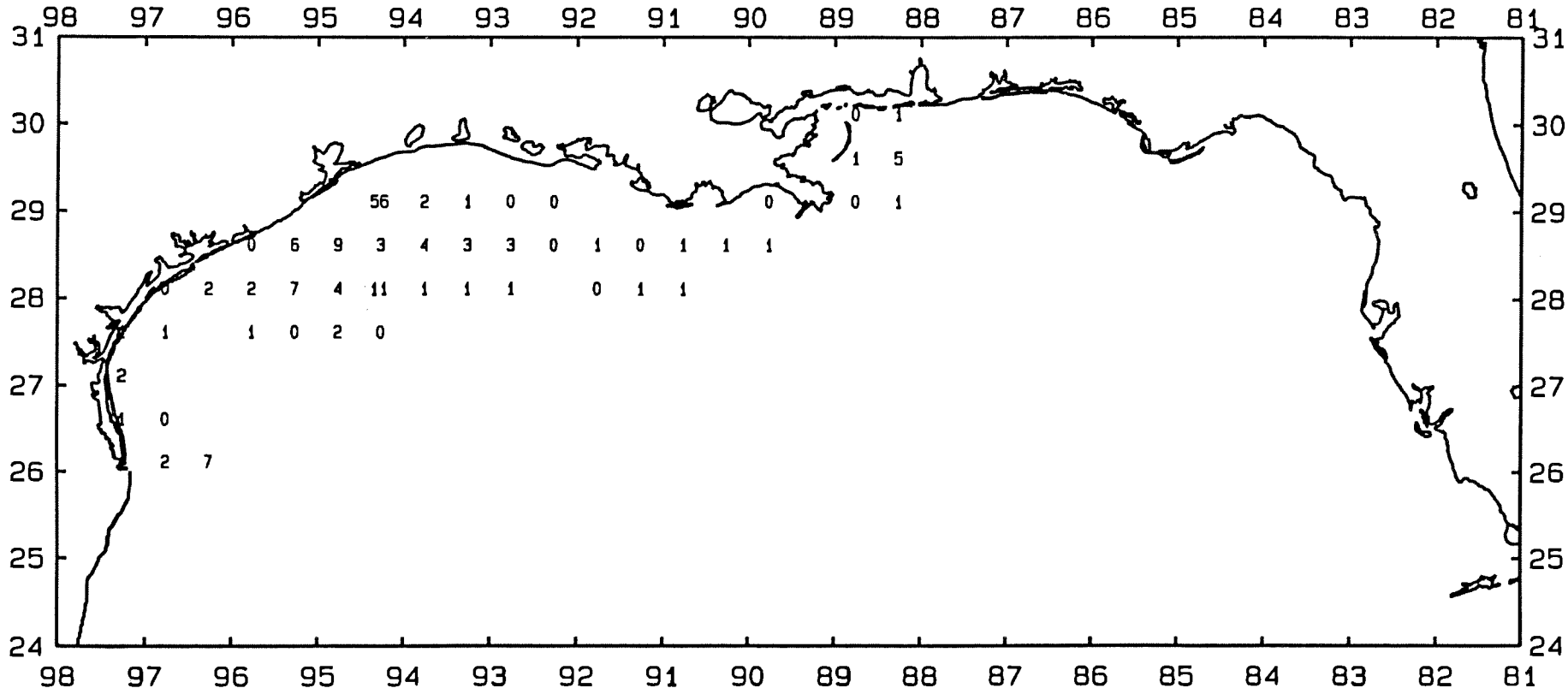

Figure 82. Red snapper, Lutjanus campechanus, lb/hour for October-December 1994.

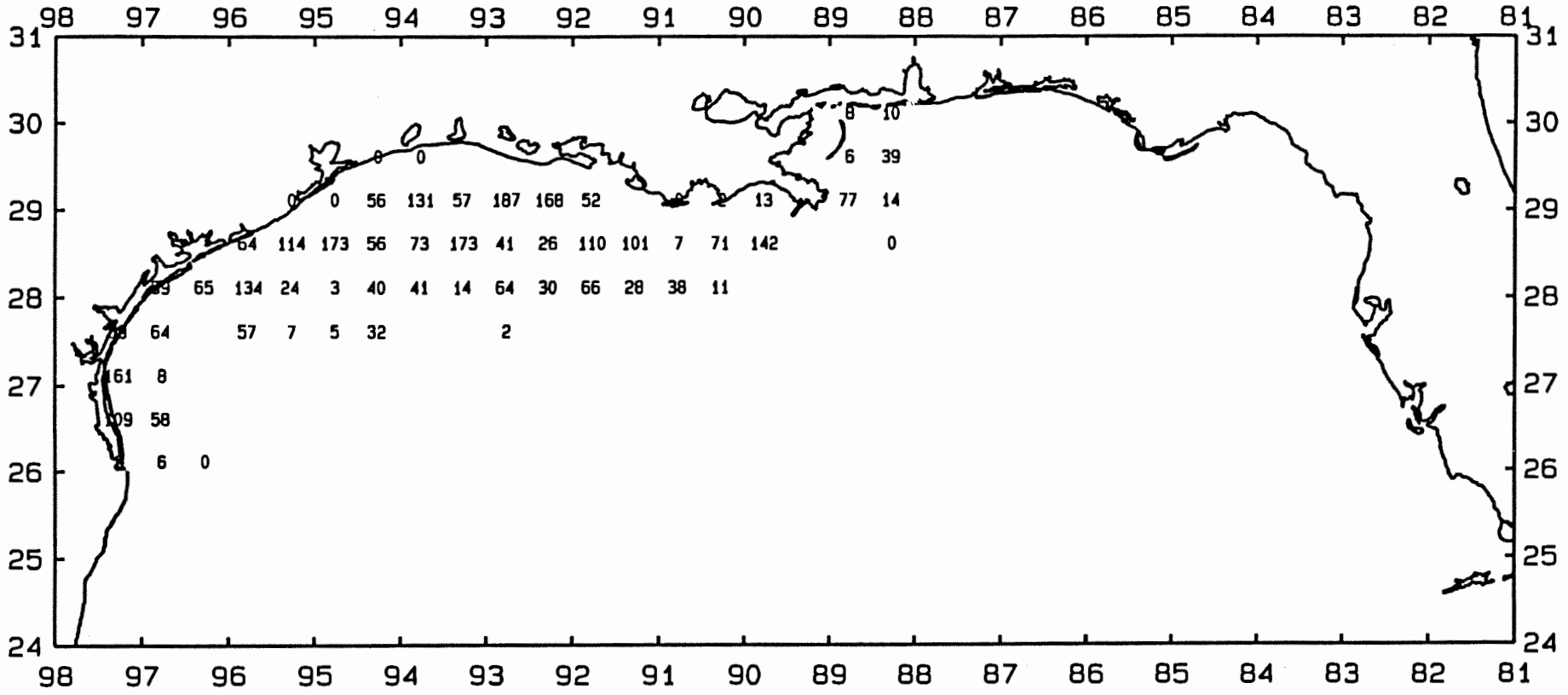

Figure 83. Brown shrimp, Penaeus aztecus, number/hour for October-December 1994.

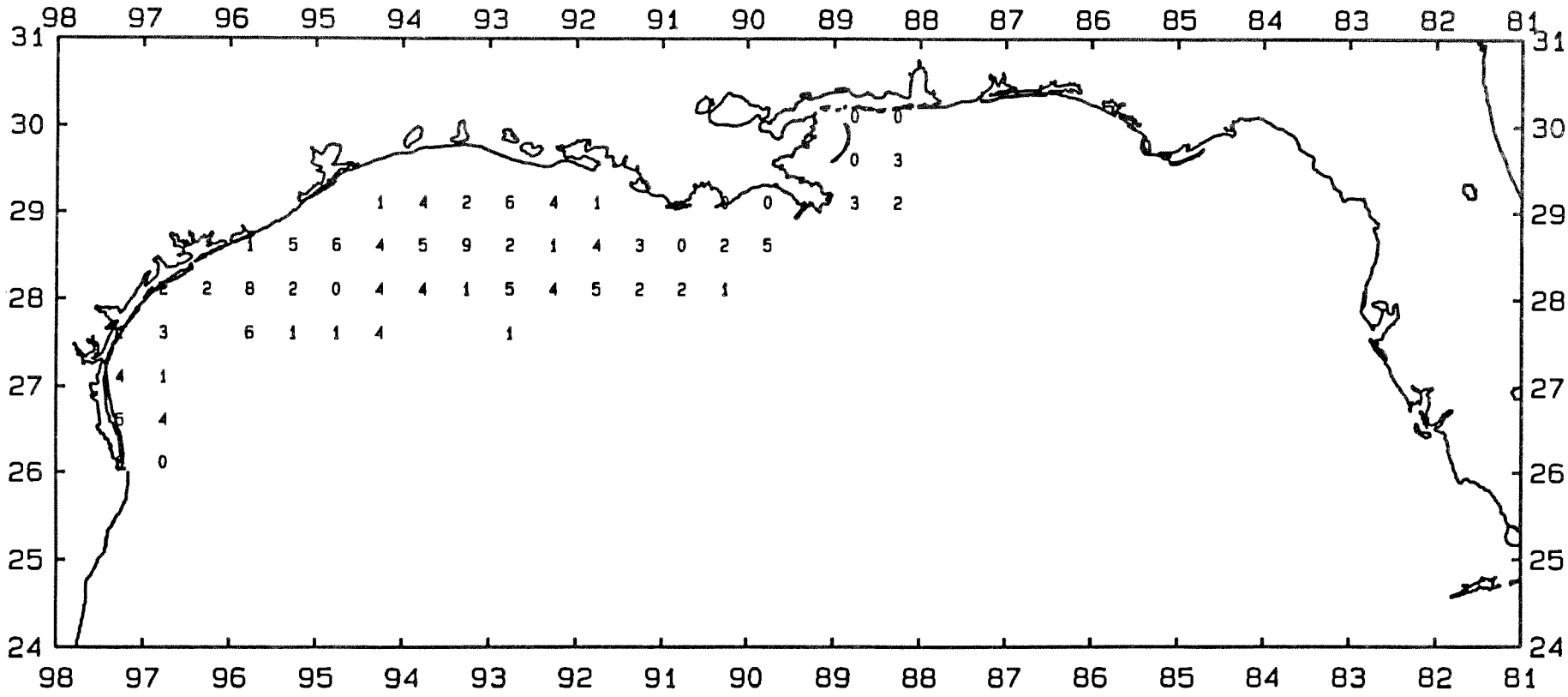

Figure 84. Brown shrimp, Penaeus aztecus, lb/hour for October-December 1994.

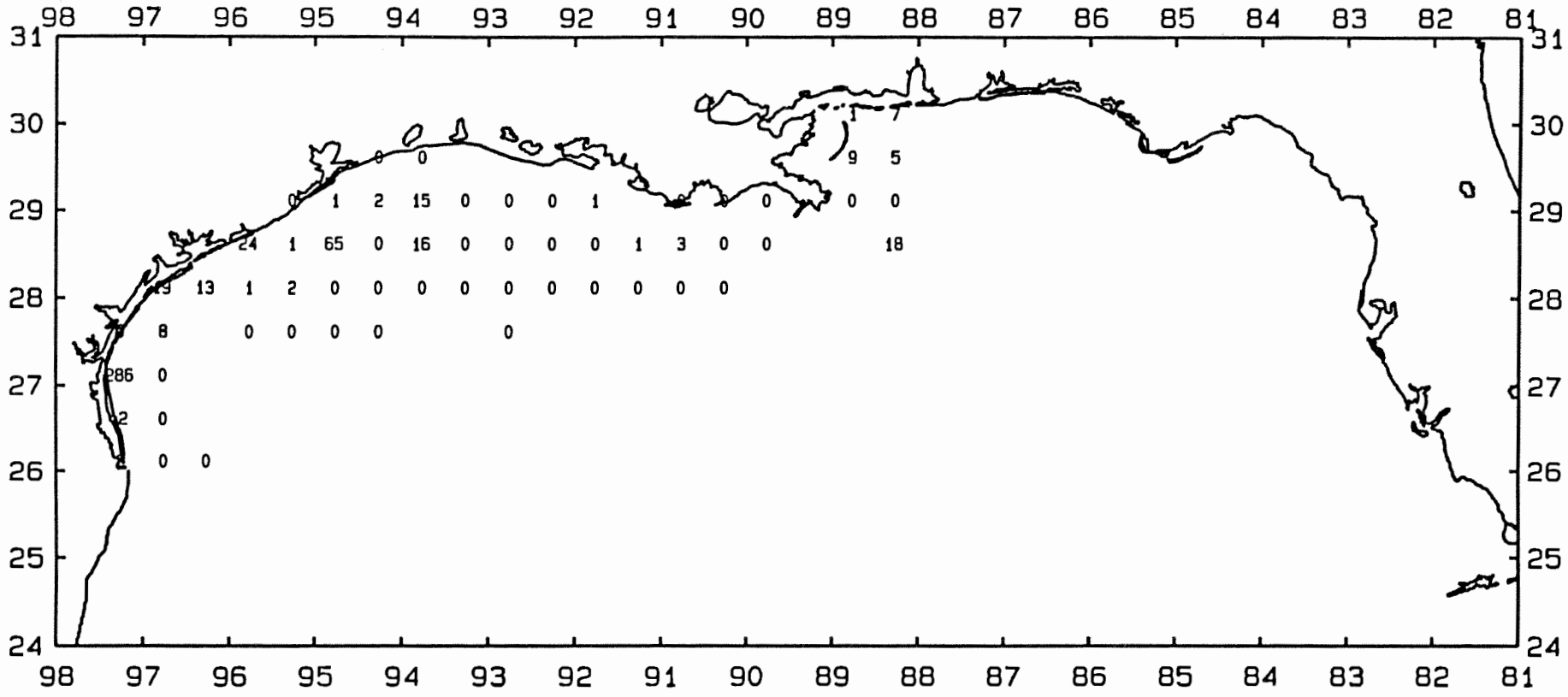

Figure 85. Pink shrimp, Penaeus duorarum, number/hour for October-December 1994.

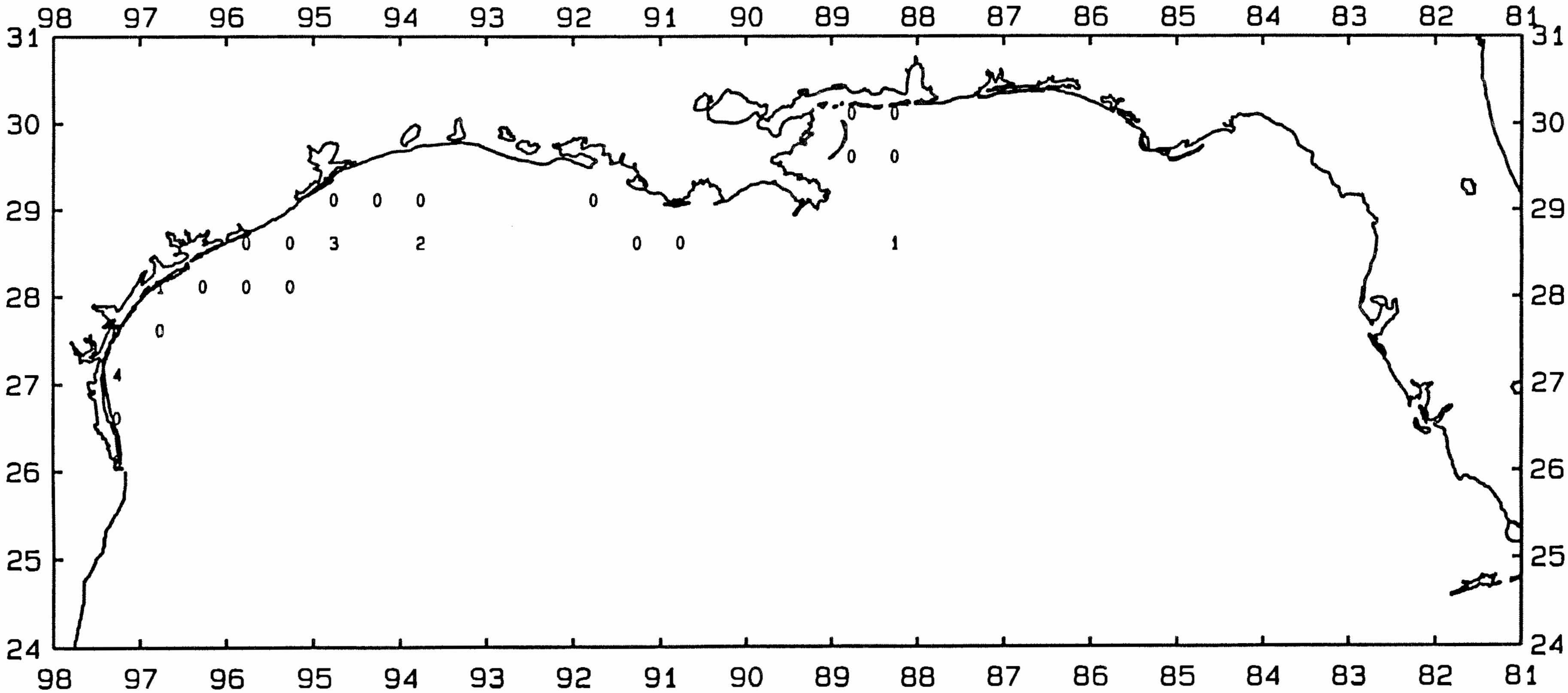

Figure 86. Pink shrimp, <u>Penaeus</u> <u>duorarum</u>, lb/hour for October-December 1994.

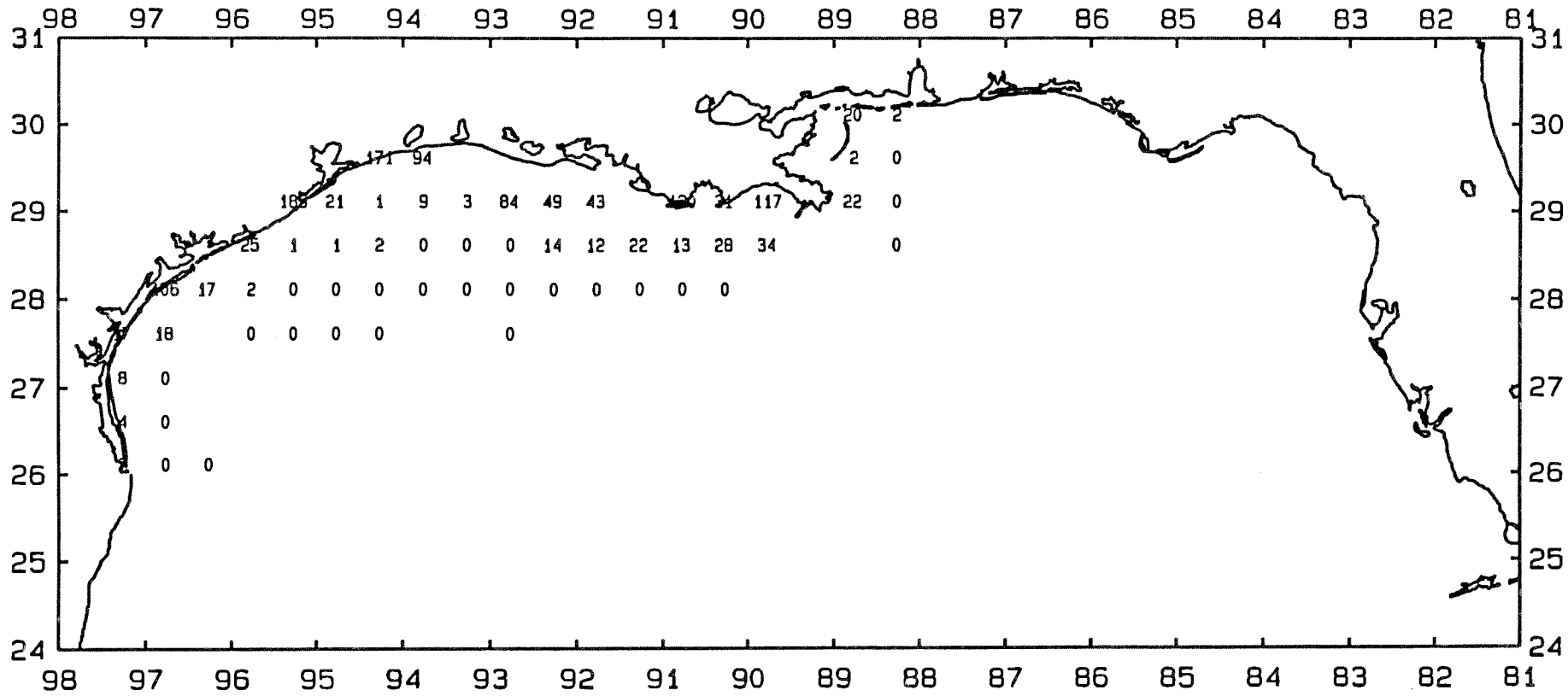

Figure 87. White shrimp, Penaeus setiferus, number/hour for October-December 1994.

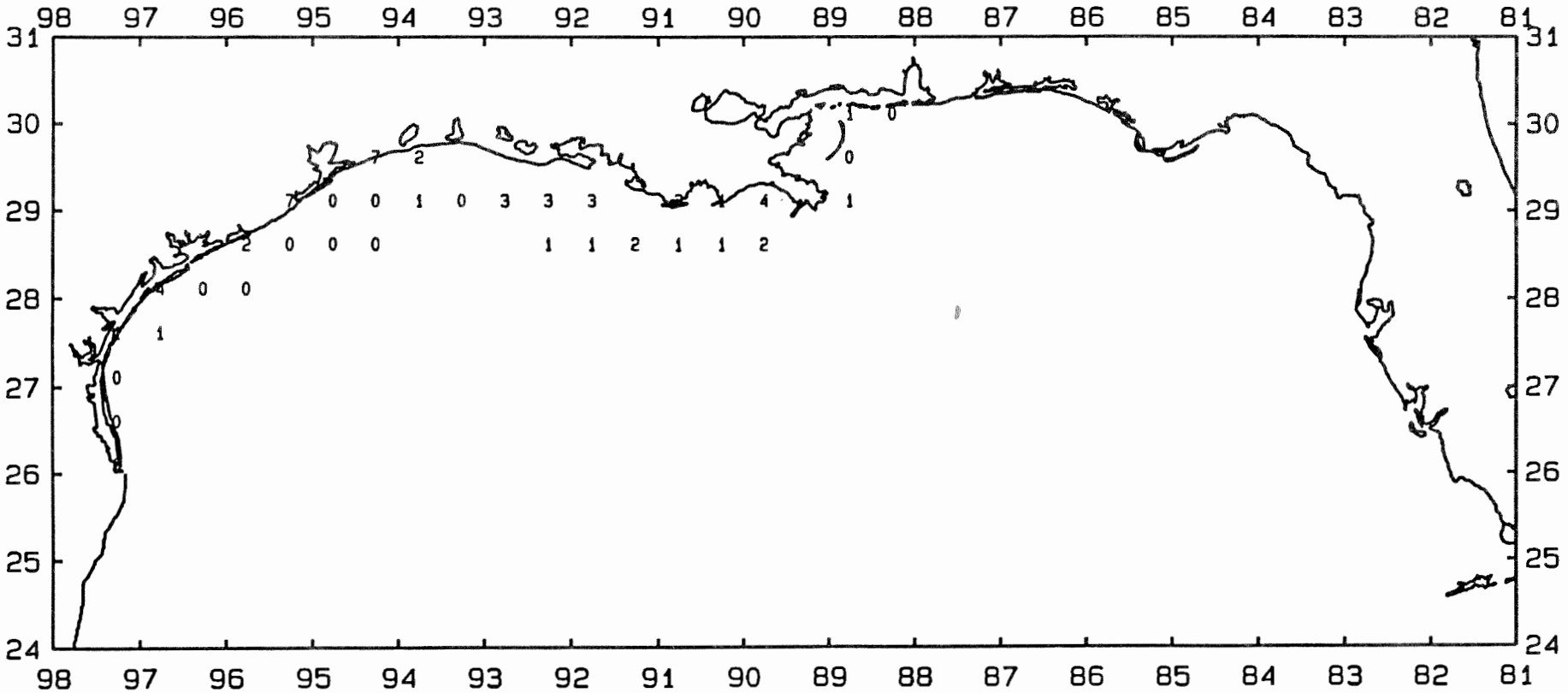

Figure 88. White shrimp, Penaeus setiferus, lb/hour for October-December 1994.

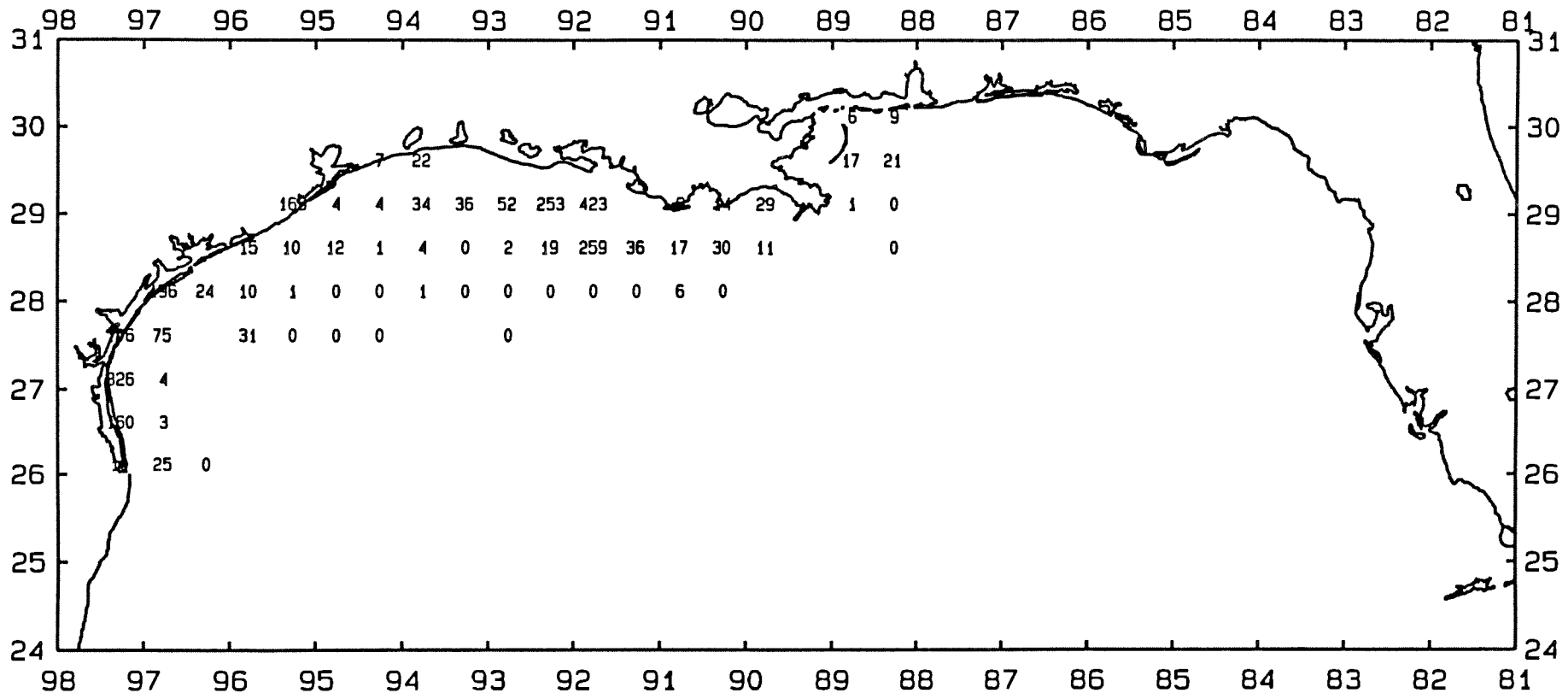

Figure 89. Irridescent swimming crab, Portunus gibbesii, number/hour for October-December 1994.

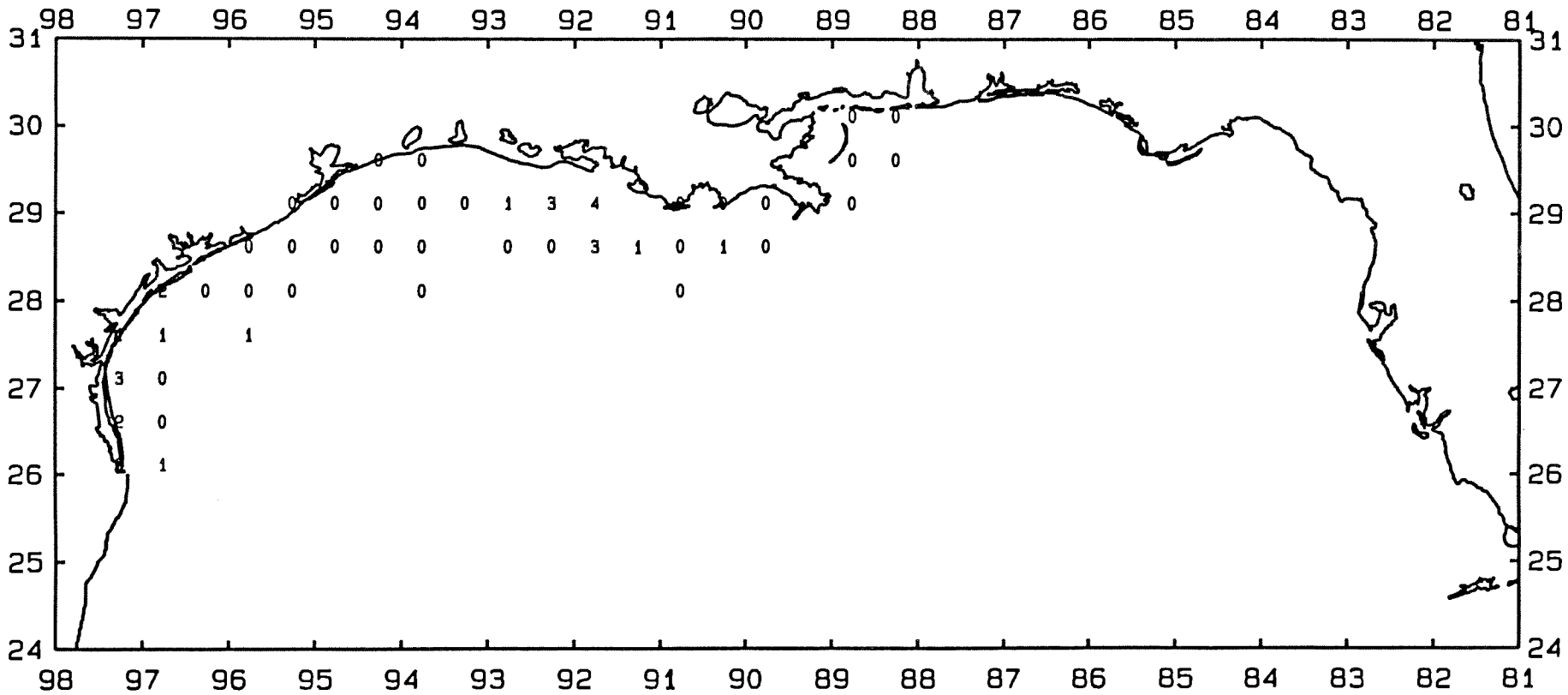

Figure 90. Irridescent swimming crab, Portunus gibbesii, lb/hour for October-December 1994.

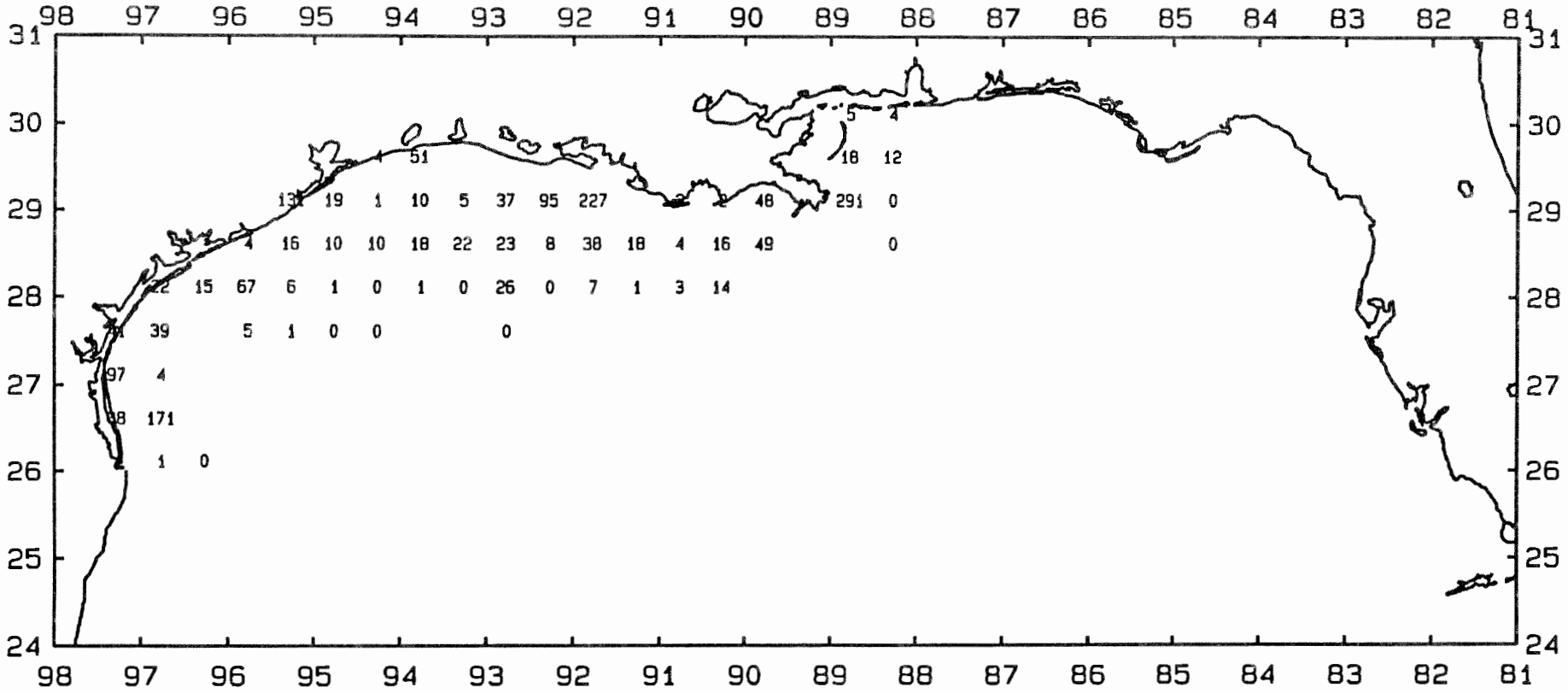

Figure 91. Lesser blue crab, Callinectes similis, number/hour for October-December 1994.

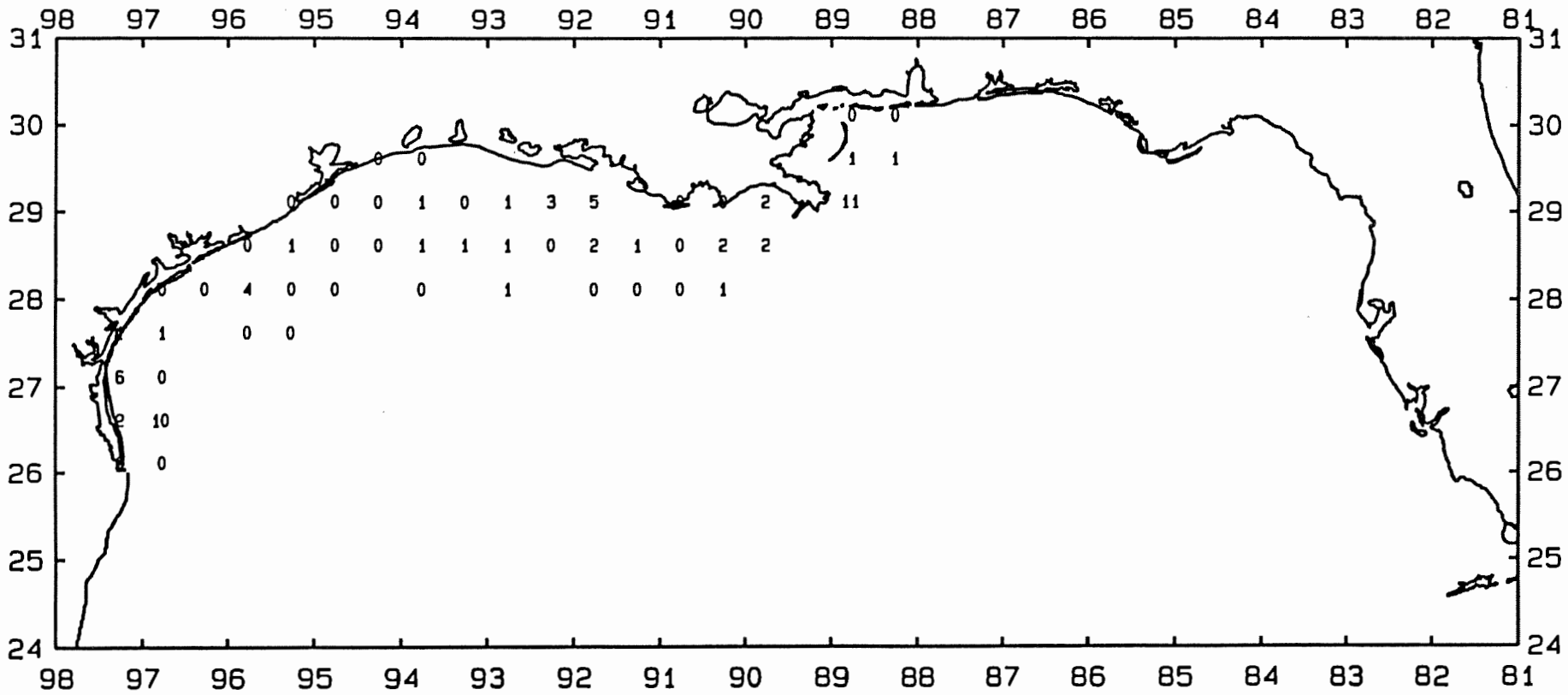

Figure 92. Lesser blue crab, Callinectes similis, lb/hour for October-December 1994.

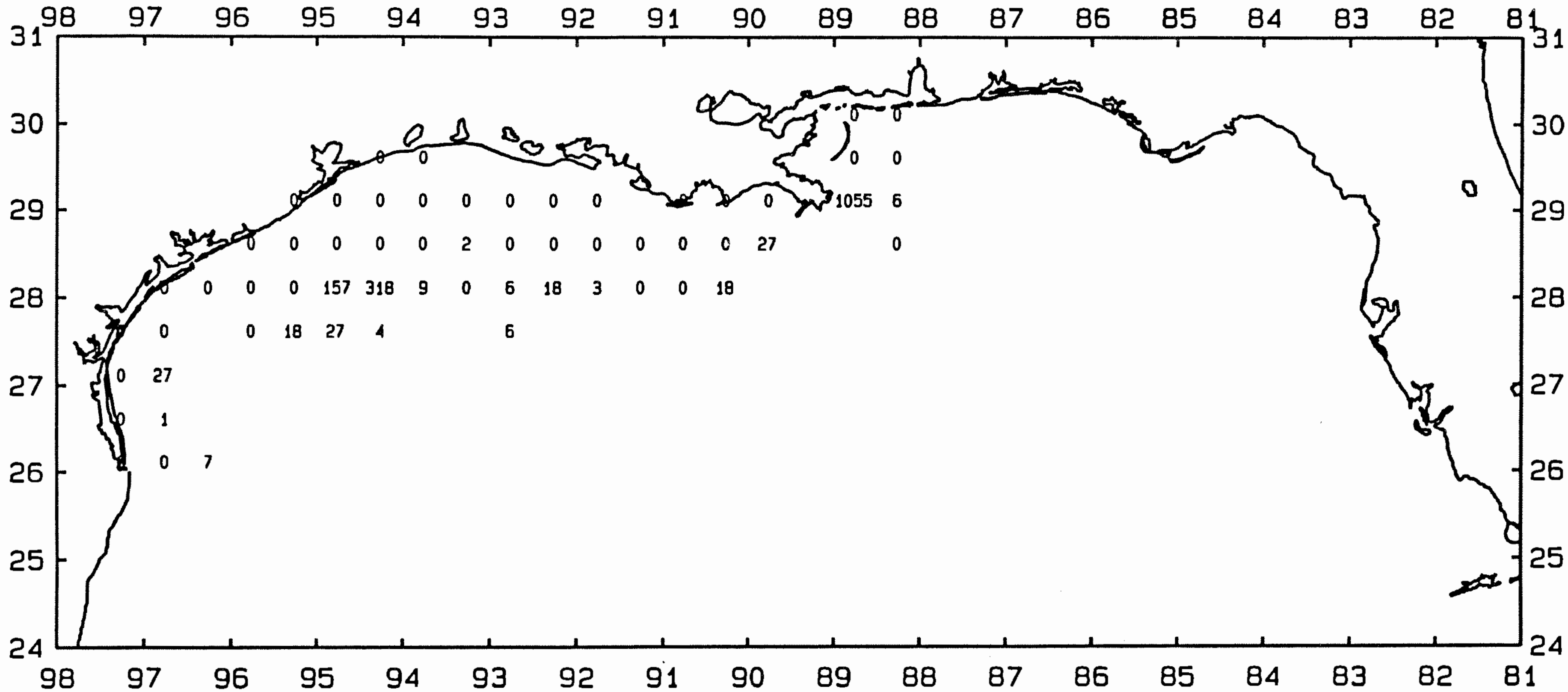

Figure 93. Longspine swimming crab, <u>Portunis</u> <u>spinicarpus</u>, number/hour for October-December 1994.

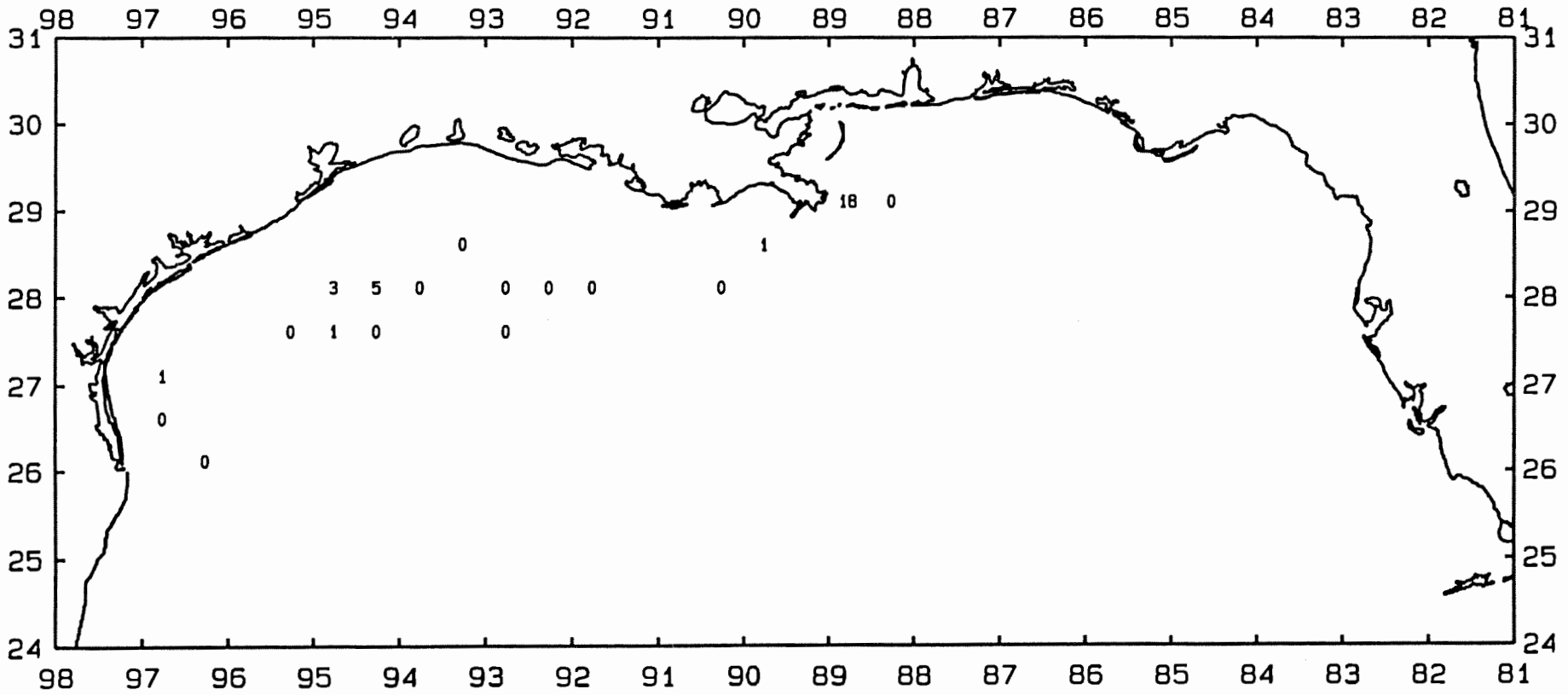

Figure 94. Longspine swimming crab, Portunis spinicarpus, lb/hour for October-December 1994.

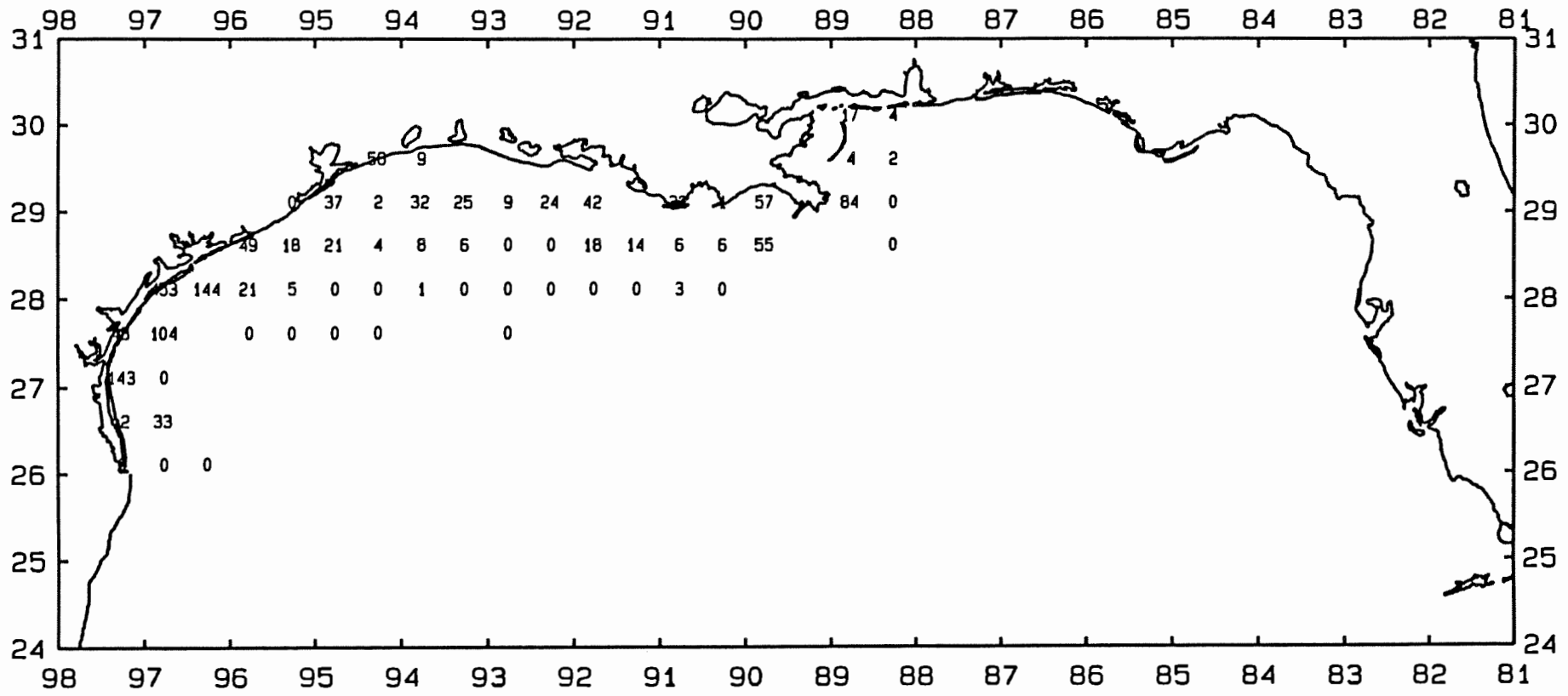

Figure 95. Roughback shrimp, Trachypenaeus similis, number/hour for October-December 1994.

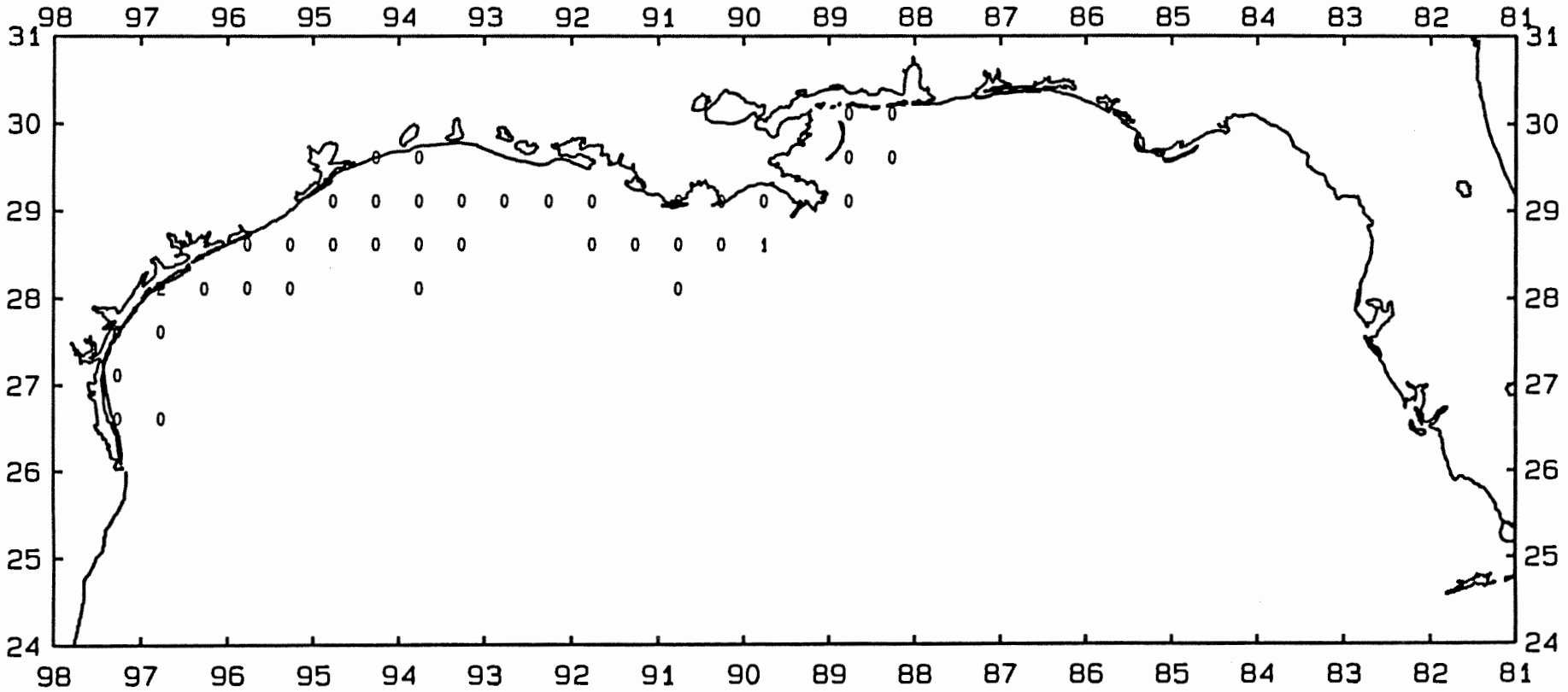

Figure 96. Roughback shrimp, Trachypenaeus similis, lb/hour for October-December 1994.

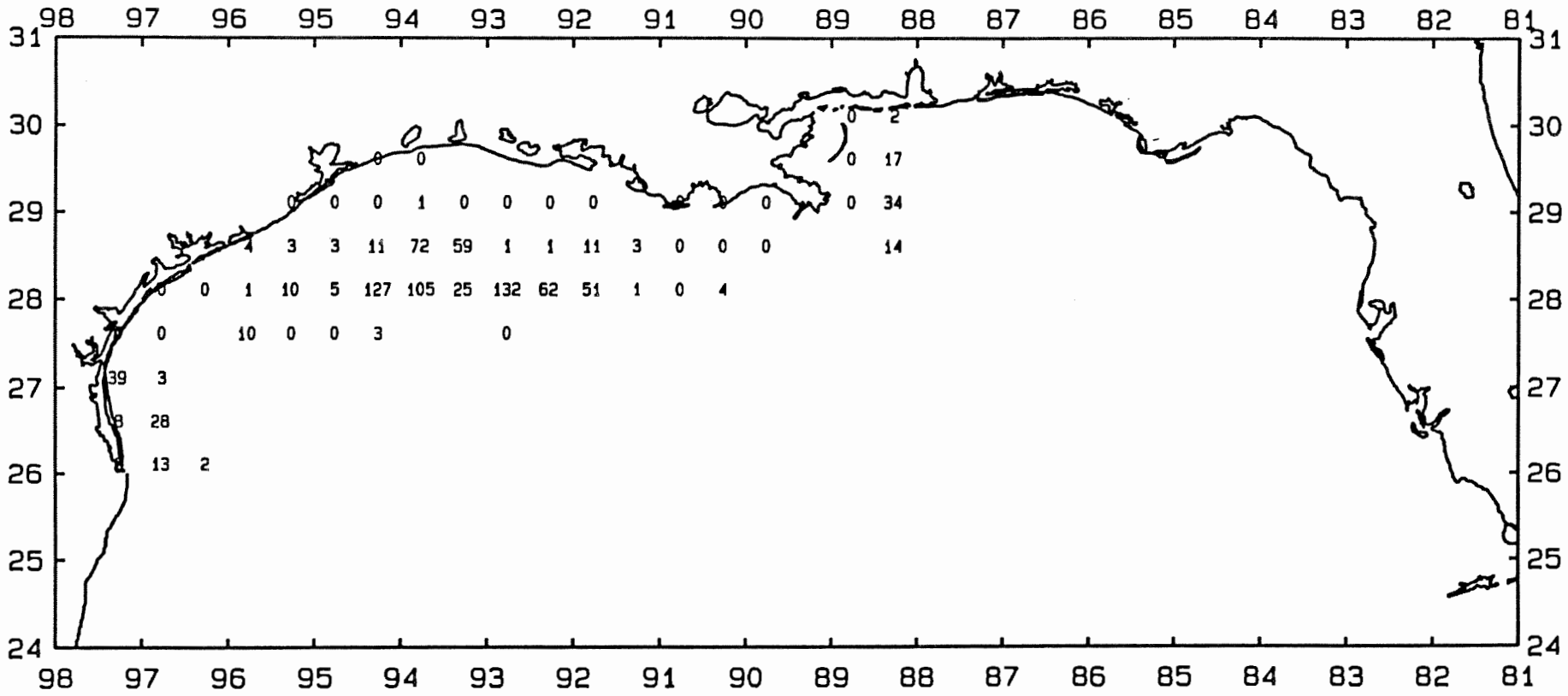

Figure 97. Brown rock shrimp, Sicyonia brevirostris, number/hour for October-December 1994.

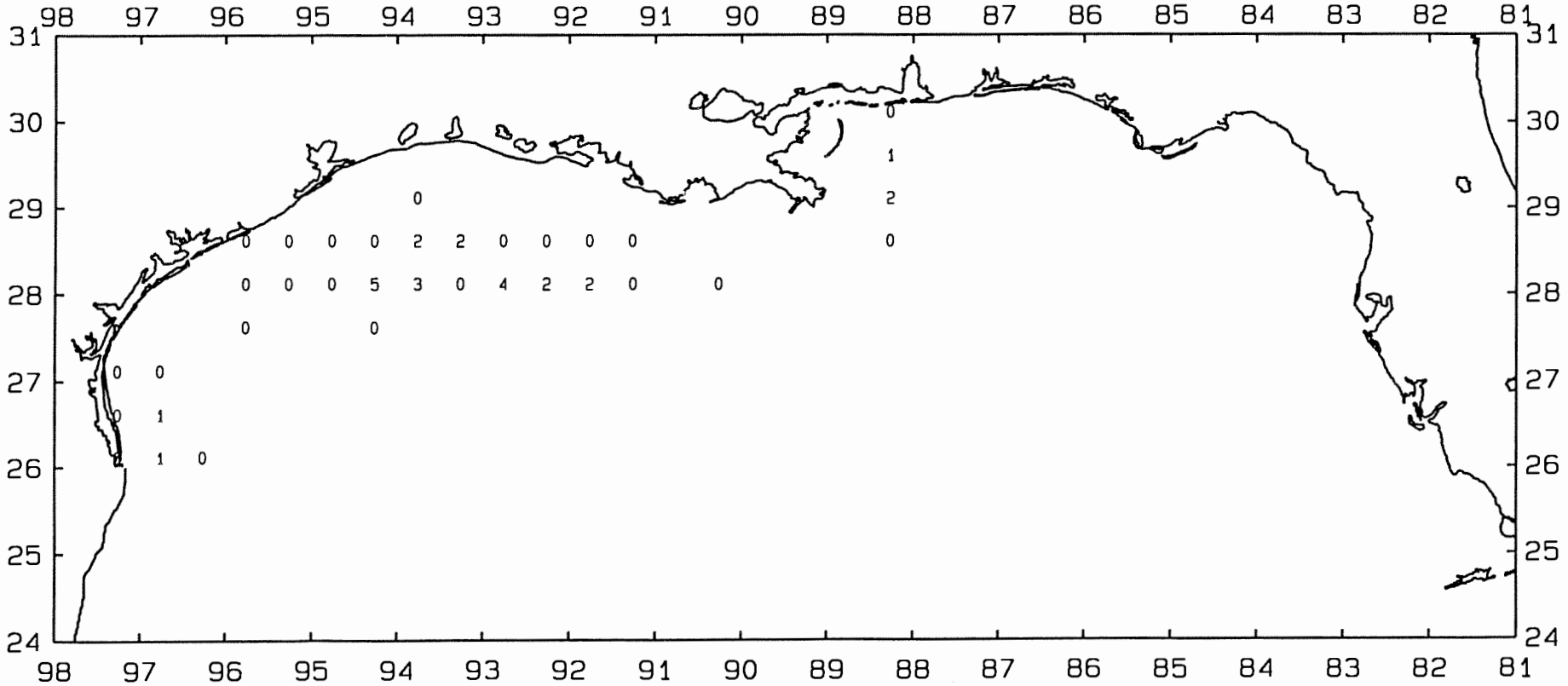

Figure 98. Brown rock shrimp, Sicyonia brevirostris, lb/hour for October-December 1994.

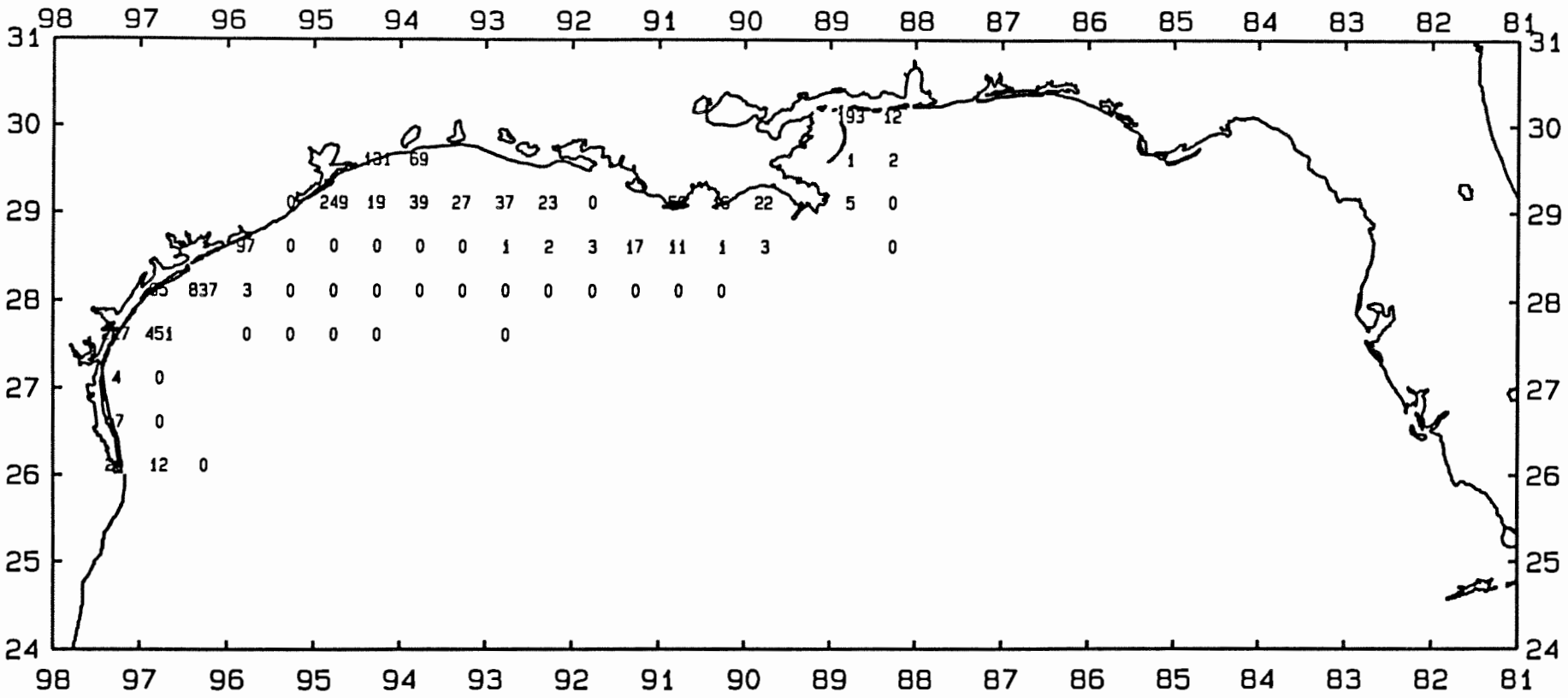

Figure 99. Atlantic brief squids, Lolliguncula brevis, number/hour for October-December 1994.

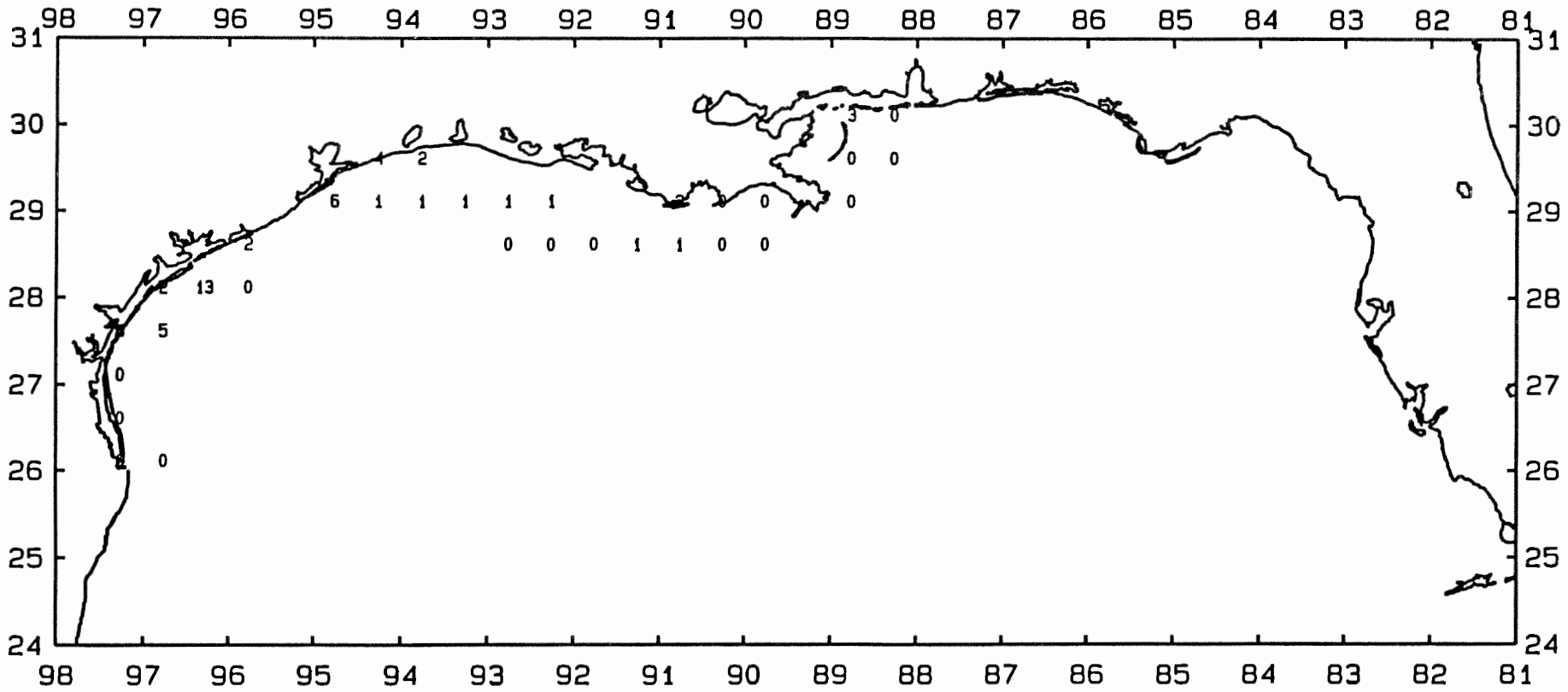

Figure 100. Atlantic brief squids, Lolliguncula brevis, lb/hour for October-December 1994.

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