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SEAMAP ENVIRONMENTAL AND BIOLOGICAL ATLAS OF THE GULF OF MEXICO, 1995

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The 1995 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, University of Southern Mississippi Institute of Marine Science, 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 University of Southern Mississippi Institute of Marine Science, Gulf Coast Research Laboratory (USM/IMS/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 1994 (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); 1993 (Donaldson et. al. 1996); and 1994 (Donaldson et. al. 1997). Environmental assessment activities occurred with each of the surveys found in Table 1.

In March 1995, 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 1994. Overall survey objectives in 1982 to 1994 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 1995 SEAMAP surveys. The area covered in the Gulf of Mexico for all SEAMAP survey activities during 1995 is shown in Figure 1.

MATERIALS AND METHODS

Methodology for the 1995 SEAMAP surveys is similar to that of the 1982 through 1994 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 19-June 7) and the Florida vessel SUNCOASTER (May 20 and 28-30). The Louisiana vessel PELICAN collected plankton samples off Louisiana during its seasonal trawl surveys (March 21-25).

Vessels that participated in the Summer Shrimp/Groundfish Survey and concurrently sampled plankton and environmental data included the USM/IMS/GCRL vessel TOMMY MUNRO (June 9-13 and July 6-8); the NOAA Ship OREGON II (June 17 - July 19); and the Louisiana vessel PELICAN (June 26-30). The TPWD vessels ARANSAS BAY, MATAGORDA BAY, LAGUNA MADRE, GALVESTON BAY and SABINE (June 1-22) and the Alabama vessel A.E. VERRILL (June 6 and 8) did not sample plankton in conjunction with the summer survey.

Vessels that participated in the Reef Fish Survey and concurrently sampled plankton and environmental data included the Alabama Vessel A.E. VERRILL (January 9; June 20-21; August 21 and 23; and December 1); the NOAA Ship CHAPMAN (June 21-July 28); and the USM/IMS/GCRL vessel TOMMY

MUNRO (September 20-22). In addition, the NOAA Ship CHAPMAN collected periodic plankton samples during the survey.

Vessels that participated in collecting plankton and environmental data during the Fall Plankton Survey included the NOAA Ship CHAPMAN (September 6-26); the USM/IMS/GCRL vessel TOMMY MUNRO (September 16-18); the Alabama vessel A.E. VERRILL (September 14); the Florida vessel SUNCOASTER (September 24-28) and the Louisiana vessel PELICAN (September 25-29).

Vessels that participated in the Fall Shrimp/Groundfish Survey and concurrently sampled plankton and environmental data included the NOAA Ship OREGON II (October 16-November 16); the USM/IMS/GCRL vessel TOMMY MUNRO (October 28-29 and November 6-9 and 15). The Alabama vessel A.E. VERRILL (December 4); and the TPWD vessels ARANSAS BAY, MATAGORDA BAY, LAGUNA MADRE, GALVESTON BAY and SABINE (November 7-25) 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) and during the Fall Plankton Survey, Mississippi sampled stations set at an interval of 6 nautical miles. 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. The Tucker trawl, with 1 m^2 mouth, is outfitted with 0.335 micron mesh net. 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 1994 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 USM/IMS/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 USM/IMS/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 or by in situ electronic sensors onboard ship. 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. Salinity samples were also measured with in situ electronic sensors.

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. In addition, chlorophyll samples were also collected using a Seabird CTD. This method only obtains measures of chlorophyll a.

Dissolved oxygen: Dissolved oxygen values were measured by electronic probes 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.

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 stages 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 fm. Additionally, the USM/IMS/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 strata.

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 nets 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

Eight thousand and five (8,005) identified ichthyoplankton lots were received at the SAC in 1995. 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-four 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), June (Figure 11), July (Figure 12), August (Figure 13), September (Figure 14), and November (Figure 15). There are no sea-surface temperatures for the months of May, October and December due to unavailability of data.

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 within NMFS statistical zones 13-15 by depth stratum. Tables 4b-6b list the total catch and environmental data from the 40-ft nets within 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 16. 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-Penaeus invertebrates and squid species, taken from Table 7 and 8 are displayed in plots of number/hour and lb/hour in Figures 19-58. 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 17. 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 59 to 98. 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-42a 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 22, by depth stratum. Tables 37b-42b 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 June to July from the Texas Flower Garden Banks to the Florida Keys by NMFS personnel; during September in the area between the Mississippi River and Mobile Bay by State of Mississippi personnel; and

throughout the year 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 18. A species composition listing from the traps is presented in Table 43. The species list for Table 43 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, 1985-1995. The presence of this phenomenon and some of the related conditions and biological effects were reported by Hanifen et al. (1995) and 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 to assist in the identification of the minimum 1997 reduction in red snapper shrimp trawl bycatch mortality rate that would enable the red snapper fishery to still recover to the 20% spawning potential ratio (SPR) by the year 2019 (Goodyear 1997). This analysis was requested and supported by the Gulf of Mexico Fishery Management Council to address the issue of red snapper bycatch. SEAMAP data were also used by some coastal states to determine the status of shrimp stocks and their movements just as the shrimping seasons were to be opened and SEAMAP data were 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 1996) to the GMFMC in January 1996. 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 1996.

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: 1990-1995.

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 1994.

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
1994	APRIL-MAY	JUNE-JULY	--	SEPTEMBER-OCTOBER	OCTOBER-NOVEMBER	--	MAY-JULY, AUGUST-OCTOBER, DECEMBER

Table 2. Selected environmental parameters measured during 1995 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 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	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
37250	3/21/95	1114	2900.4	9030.0	14	10	5	10	20.7	20.0	18.0	26.8	28.3	31.7	6.781		11.4	11.2	6.9	PN
37251	3/21/95	1449	2837.6	9028.1	14	23	11	23	21.5	19.1	20.3	25.7	33.3	36.1	6.728		11.0	8.7	6.6	ST
37252	3/21/95	1642	2832.3	9038.9	14	29	14	29	20.6	19.6	20.3	30.8	34.6	36.1	.783		10.8	9.2	6.4	ST
37253	3/21/95	1952	2834.8	9047.4	14	21	11	21	20.6	19.2	19.9	31.3	32.8	35.1	.808		10.0	9.8	7.0	ST
37254	3/21/95	2120	2834.5	9053.6	14	22	11	22	20.8	19.8	20.0	31.1	33.4	35.6	.494		11.4	10.4	7.2	ST
37255	3/21/95	2331	2832.4	9038.8	14	24	12	24	20.5	18.9	20.3	30.8	32.4	36.1	.730		10.9	10.0	6.5	ST
37256	3/22/95	0132	2837.6	9028.2	14	24	13	24	19.8	19.3	20.3	29.3	33.5	36.1	3.985		11.7	6.1	6.6	ST
37257	3/22/95	0733	2830.2	9030.0	14	38	18	38	20.4	20.4	20.4	30.4	35.8	36.3	1.095		10.4	8.9	7.6	PN
37258	3/22/95	1041	2835.2	9047.1	14	20	10	20	20.5	20.2	19.7	31.4	31.4	34.4	.679		10.3	10.4	7.4	ST
37259	3/22/95	1223	2834.7	9053.7	14	23	10	23	20.6	20.0	20.0	31.1	31.5	35.3	.881		9.7	10.4	7.0	ST
37260	3/22/95	1338	2830.1	9059.9	14	33	16	33	20.8	20.5	20.5	31.9	36.0	36.3	.488		9.7	8.4	7.5	PN
37261	3/22/95	1618	2844.9	9101.9	15	13	5	13	21.6	20.1	19.4	24.6	30.9	33.6	4.466		11.3	10.3	6.7	ST
37262	3/22/95	1940	2844.9	9101.8	15	12	6	12	21.4	19.4	19.4	27.6	33.2	33.7	3.621		10.7	9.2	6.6	ST
37263	3/22/95	2219	2846.8	9116.9	15	13	6	13	21.6	18.6	19.0	23.0	31.3	33.7	4.238		11.0	8.7	5.0	ST
37264	3/23/95	0731	2900.1	9129.9	15	10	4	10	20.6	20.6	18.8	27.4	27.4	33.7	4.660		9.4	9.3	4.7	PN
37265	3/23/95	1018	2846.6	9116.7	15	13	5	13	21.8	20.0	19.2	23.5	29.9	33.7	4.908		11.4	11.1	5.1	ST
37266	3/23/95	1318	2900.2	9100.0	15	7	4	7	21.3	19.9	19.2	25.5	29.7	31.8	8.374		8.2	6.1	3.3	PN
37267	3/23/95	1726	2853.3	9021.3	14	17	9	17	21.4	19.2	19.2	27.2	34.5	34.5	3.400		9.9	7.8	7.2	ST
37268	3/23/95	1929	2855.0	9021.6	14	17	10	17	20.7	19.3	19.2	28.5	34.5	34.5	4.069		9.8	7.9	8.8	ST
37269	3/23/95	2120	2847.9	9013.4	14	27	14	27	21.7	19.8	20.0	24.1	34.8	35.6	3.502		11.5	8.2	6.5	ST
37270	3/24/95	0000	2857.9	8958.6	13	28	14	28	21.7	18.6	19.4	20.7	34.1	35.4	8.434		11.7	9.0	6.6	ST
37271	3/24/95	0116	2854.9	8957.7	13	34	18	34	22.2	20.0	20.3	23.0	35.4	36.0	3.426		11.4	8.2	6.3	ST
37272	3/24/95	0739	2847.9	9013.3	14	27	14	27	21.4	19.5	20.1	23.6	34.8	35.6	5.814		11.5	8.2	7.0	ST
37273	3/24/95	0955	2859.9	9000.0	14	25	12	25	21.9	18.7	19.1	22.6	34.0	35.0	14.876		10.9	8.3	6.8	PN
37274	3/24/95	1050	2857.8	8958.6	13	29	14	29	22.3	19.1	19.4	22.6	34.7	35.4	2.686		11.1	8.6	7.3	ST
37275	3/24/95	1159	2854.7	8957.7	13	34	18	34	22.6	19.7	20.4	23.0	35.1	36.1	4.430		10.9	7.9	6.4	ST
37276	3/24/95	1520	2907.7	8939.0	13	15	8	15	23.1	19.0	18.6	9.4	29.4	33.8	7.840		11.3	7.9	3.6	ST
37277	3/24/95	1648	2900.8	8937.3	13	32	16	32	21.9	19.0	19.7	16.1	34.5	36.0	11.550		11.7	8.2	5.7	ST
37278	3/24/95	1935	2907.7	8939.1	13	15	9	15	22.3	17.7	18.6	15.1	30.1	33.8	11.457		11.7	7.9	4.3	ST
37279	3/24/95	2054	2901.2	8937.5	13	32	17	32	22.0	18.8	19.8	20.0	34.2	35.9	13.128		11.6	7.1	6.1	ST
37280	3/25/95	0725	2859.9	8930.0	13	15	8	15	18.7	17.7	19.7	4.0	30.2	35.1	3.970		11.4	7.3	6.0	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
04001	4/19/95	1020	2929.6	8629.5	99	209	100	200	23.5	18.9	15.9	36.1	36.4	36.1		2.540	7.1	4.7	4.1	PN
04002	4/19/95	1535	2900.0	8629.9	99	375	100	200	23.7	17.7	13.6	36.1	36.3	35.7		2.320	7.3	4.5	4.3	PN
04003	4/19/95	1849	2859.9	8600.1	99	245	102	201	23.0	18.9	15.2	36.0	36.3	36.0		2.735	7.5	5.7	4.6	PN
04004	4/19/95	2300	2830.2	8559.9	99	337	101	202	23.8	17.5	14.9	36.1	36.3	35.9		2.418	7.2	4.6	4.5	PN
04005	4/20/95	0238	2800.0	8600.1	99	990	100	200	23.6	17.8	13.9	35.6	36.3	35.8		3.126	6.9	4.5	4.4	PN
04006	4/20/95	0653	2730.0	8600.0	99	3228	100	200	27.0	22.5	18.3	36.1	36.5	34.5		2.540	6.6	5.5	5.0	PN
04007	4/20/95	1054	2700.0	8600.0	99	3181	101	202	27.3	26.2	19.8	36.0	36.3	36.7		1.880	6.6	6.2	4.9	PN
04008	4/20/95	1544	2630.1	8600.1	99	3138	101	201	27.4	26.5	20.9	35.9	35.0	36.4		1.929	6.6	6.4	5.0	PN
04009	4/20/95	1946	2600.2	8559.9	99	3200	101	200	27.3	26.6	22.3	36.0	36.2	36.8		2.100	6.5	6.3	4.9	PN
04010	4/20/95	2350	2530.2	8600.1	99	3185	99	200	27.0	26.3	22.6	36.0	35.0	36.8		1.905	6.6	6.4	5.1	PN
04011	4/21/95	0343	2500.1	8560.0	99	3274	101	202	26.8	25.8	22.0	36.1	35.1	32.5		1.978	6.6	6.7	5.0	PN
04012	4/21/95	0820	2530.2	8629.8	99	3181	98	205	27.3	26.2	18.9	36.0	36.0	36.0		2.027	6.5	6.1	5.1	PN
04013	4/21/95	1232	2600.1	8660.0	99	3150	98	199	25.4	19.5	15.1	35.6	35.6	36.0		6.862	6.2	6.2	4.3	PN
04014	4/21/95	1603	2630.1	8700.0	99	3001	100	201	25.3	19.8	15.2	36.3	36.4	36.0		1.929	7.1	4.9	4.3	PN
04015	4/21/95	1924	2659.9	8700.0	99	2928	102	198	26.5	20.0	16.0	36.3	36.4	36.1		3.028	6.8	5.1	4.3	PN
04016	4/21/95	2320	2730.0	8659.8	99	3056	102	205	26.4	17.9	15.9	36.2	36.3	36.1		2.076	6.8	4.7	4.3	PN
04017	4/22/95	0237	2800.1	8700.0	99	1165	100	201	24.0	16.0	11.6	35.0	36.2	35.4		4.225	7.4	4.7	4.1	PN
04018	4/22/95	0602	2830.1	8700.0	99	858	103	200	23.6	16.1	12.0	35.8	36.1	35.4		3.370	7.2	4.6	4.2	PN
04019	4/22/95	0912	2859.9	8700.1	99	700	105	210	23.7	16.5	12.7	35.9	36.2	35.6		2.540	7.2	4.4	4.2	PN
04020	4/22/95	1250	2900.0	8730.0	99	1682	99	199	23.9	16.8	13.0	36.1	36.2	35.6		1.954	7.4	4.6	4.2	PN
04021	4/22/95	1542	2859.9	8800.0	99	1375	98	198	23.8	17.0	13.2	35.9	36.2	35.7		2.418	7.4	4.6	4.2	PN
04022	4/22/95	1914	2830.0	8800.0	99	2819	101	202	24.3	18.8	14.1	35.0	36.4	35.8		4.713	7.2	5.0	4.1	PN
04023	4/22/95	2212	2800.6	8757.8	99	2435	101	201	26.0	20.8	16.7	36.3	35.1	36.2		2.418	6.8	5.9	4.5	PN
04024	4/23/95	0130	2730.1	8800.1	99	2466	102	199	26.0	23.8	17.9	36.2	35.4	36.4		2.247	6.7	5.6	4.9	PN
04025	4/23/95	0440	2700.1	8800.0	99	2728	102	202	26.2	21.0	17.2	36.3	36.3	36.2		2.344	6.7	6.4	4.4	PN
04026	4/23/95	0829	2630.4	8800.1	99	2690	102	201	26.4	21.6	16.9	36.1	35.4	34.8		2.051	6.8	5.1	5.5	PN
04027	4/23/95	1149	2600.2	8800.1	99	2961	99	201	25.5	18.2	13.4	36.2	34.4	35.5		1.856	7.1	4.7	4.2	PN
04028	4/23/95	1517	2559.9	8830.0	99	2992	99	202	25.6	19.5	14.4	36.3	36.4	35.9		1.856	7.1	5.2	4.1	PN
04029	4/23/95	1800	2600.1	8900.1	99	3092	99	201	25.4	20.0	14.7	36.3	36.4	35.9		2.466	7.1	5.2	4.6	PN
04030	4/23/95	2156	2629.9	8859.9	99	2875	102	204	26.7	24.1	18.4	36.2	36.5	36.4		2.051	6.6	6.5	4.7	PN
04031	4/24/95	0117	2659.9	8900.2	99	2340	98	200	25.5	24.9	21.3	36.2	36.2	36.8		2.027	6.8	6.7	4.8	PN
04032	4/24/95	1948	2700.5	9000.3	99	2300	100	200	26.4	24.4	18.7	36.2	36.6	36.5		3.053	6.6	5.5	5.0	PN
04033	4/25/95	0027	2659.9	8930.0	99	2430	98	202	25.5	24.9	21.3	36.1	36.2	36.8		2.759	6.7	6.5	4.7	PN
04034	4/25/95	0514	2630.1	9000.2	99	2728	101	201	25.9	21.0	14.9	36.2	36.3	35.9		2.808	6.8	6.4	4.3	PN
04035	4/25/95	0843	2600.2	8959.8	99	2891	100	202	24.7	18.8	13.9	36.3	36.4	35.8		2.979	7.0	4.9	4.4	PN
04036	4/25/95	1255	2559.5	9030.0	99	3276	90	204	24.1	19.0	13.8	36.3	36.5	35.7		2.564	7.1	5.1	4.2	PN
04037	4/25/95	1600	2600.1	9100.1	99	2692	101	204	24.1	19.9	15.1	36.4	36.2	35.9		2.833	7.1	6.0	4.3	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
04038	4/25/95	1949	2630.1	9100.0	99	2100	96	202	23.8	17.9	14.3	36.3	36.3	35.8		2.930	7.2	4.3	4.5	PN
04039	4/25/95	2259	2659.8	9100.0	99	1700	100	202	24.5	17.9	13.8	36.3	36.5	35.7		2.613	7.0	4.6	4.4	PN
04040	4/26/95	0234	2700.0	9130.0	99	1890	100	201	24.0	17.3	14.4	36.2	36.3	35.8		3.028	7.1	4.3	4.3	PN
04041	4/26/95	0543	2659.9	9200.0	99	1450	95	201	23.1	18.8	15.4	36.2	36.6	36.0		2.906	7.2	5.1	4.3	PN
04042	4/26/95	0914	2630.2	9159.8	99	1818	102	207	24.0	19.9	14.9	36.3	36.3	35.9		2.149	7.1	5.8	3.9	PN
04043	4/26/95	1225	2559.0	9200.1	99	2160	100	201	24.1	22.4	16.1	36.4	36.3	36.1		2.027	7.0	6.6	4.2	PN
04044	4/26/95	1604	2600.3	9229.9	99	2182	99	202	24.1	22.1	16.3	36.4	36.4	36.1		2.540	7.0	6.1	4.1	PN
04045	4/26/95	1940	2600.1	9300.0	99	2200	100	200	24.3	20.7	15.6	36.3	36.3	36.0		2.784	7.0	5.1	4.1	PN
04046	4/26/95	2311	2629.8	9259.9	99	1650	102	203	24.1	20.5	15.2	36.2	36.4	36.0		2.369	7.0	4.9	3.4	PN
04047	4/27/95	0213	2659.9	9300.0	99	1260	100	202	24.1	20.9	15.6	36.3	36.4	36.1		2.271	7.0	5.2	3.9	PN
04048	4/27/95	0543	2659.9	9330.0	99	1100	97	203	23.6	19.8	13.8	35.6	36.1	35.8		2.759	7.1	6.1	3.8	PN
04049	4/27/95	0839	2700.1	9400.2	99	980	102	201	23.6	19.2	12.8	36.1	36.3	35.6		2.369	7.1	4.6	3.9	PN
04050	4/27/95	1225	2630.0	9400.0	99	1532	100	200	23.3	17.7	11.7	36.0	36.2	35.4		1.478	7.2	3.9	3.6	PN
04051	4/27/95	1542	2601.1	9400.0	99	2546	100	203	23.4	17.6	11.7	36.1	36.3	35.4		2.247	7.3	3.9	3.7	PN
04052	4/27/95	1915	2601.1	9430.0	99	2910	100	202	23.5	17.6	12.9	36.1	36.3	35.6		2.271	7.3	4.1	4.0	PN
04053	4/27/95	2213	2601.2	9500.0	99	2380	100	199	23.4	20.4	15.0	36.3	36.3	35.9		2.344	7.2	4.9	3.9	PN
04054	4/28/95	0224	2629.9	9500.0	99	1674	100	200	23.5	20.3	15.0	36.3	36.2	35.9		2.198	7.2	5.8	3.8	PN
04055	4/28/95	0513	2700.0	9500.1	99	1455	97	200	23.4	19.9	15.3	36.3	36.1	36.0		2.173	7.1	5.8	4.2	PN
04056	4/28/95	0945	2630.4	9529.6	99	1554	102	203	23.1	21.0	14.7	33.9	36.4	35.9		3.223	7.3	5.3	3.9	PN
04057	4/28/95	1433	2601.1	9600.0	99	1000	100	200	23.8	20.6	16.1	34.9	36.4	36.1		2.515	7.2	4.8	4.1	PN
04058	4/28/95	1747	2630.0	9600.0	99	1050	101	197	24.5	19.4	14.4	35.6	36.4	35.9		2.320	7.0	4.2	4.0	PN
04059	4/28/95	2057	2659.9	9600.0	99	804	100	201	23.3	19.4	13.1	35.4	36.2	35.7		2.833	7.4	4.2	3.8	PN
04060	4/29/95	0030	2730.0	9600.0	20	210	101	200	23.0	19.0	15.1	34.0	36.4	35.9		3.346	7.4	4.2	3.9	PN
04061	4/29/95	0348	2800.9	9600.0	19	48	23	44	21.6	21.5	21.0	35.3	35.3	35.7		3.980	7.5	7.5	6.9	PN
04062	4/29/95	0654	2800.0	9529.9	19	55	26	52	22.2	21.8	21.2	35.7	35.8	35.8		2.857	7.4	7.4	7.0	PN
04063	4/29/95	0935	2800.0	9500.0	99	82	40	81	22.6	21.8	19.3	35.9	35.8	36.1		2.173	7.3	7.4	5.5	PN
04064	4/29/95	1301	2800.0	9430.0	99	73	34	68	22.7	21.9	19.4	35.8	35.8	36.0		2.051	7.3	7.5	6.0	PN
04065	4/29/95	1553	2759.9	9400.0	99	82	39	77	22.4	21.9	19.9	36.0	36.0	36.1		2.320	7.4	7.5	6.8	PN
04066	4/29/95	1900	2800.0	9330.0	99	95	47	93	22.5	21.1	18.9	36.1	36.0	36.2		2.613	7.4	7.5	4.9	PN
04067	4/29/95	2149	2800.4	9300.2	17	106	54	105	23.8	21.7	19.0	36.1	36.1	36.2		2.027	7.1	7.5	4.7	PN
04068	4/30/95	0100	2800.1	9230.1	16	107	51	102	23.0	21.2	18.7	36.1	36.0	36.3		2.247	7.3	7.4	4.6	PN
04069	4/30/95	0355	2759.9	9159.9	99	120	58	116	23.3	21.0	18.6	36.2	36.1	36.3		2.564	7.2	7.2	4.3	PN
04070	4/30/95	0704	2800.0	9130.0	99	162	78	156	24.5	20.3	17.6	36.3	36.5	36.3		2.442	7.0	5.3	4.4	PN
04071	4/30/95	0953	2800.0	9100.7	15	152	75	151	25.7	22.1	18.3	36.2	36.3	36.4		2.173	6.7	6.9	4.5	PN
04072	4/30/95	1306	2800.0	9030.1	99	313	101	200	25.5	20.6	17.5	36.2	36.2	36.3		2.198	6.9	6.1	5.2	PN
04073	4/30/95	1551	2800.0	8959.9	99	535	101	201	25.8	25.0	18.9	36.2	36.5	36.5		1.807	6.8	6.0	4.8	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
04074	4/30/95	1906	2759.9	8929.2	99	979	100	203	25.3	24.9	20.9	36.1	36.2	36.7		2.295	6.8	6.7	5.0	PN
04075	4/30/95	2206	2800.0	8900.4	99	1275	102	202	25.3	24.8	21.4	36.1	36.2	36.8		2.320	6.8	6.7	4.8	PN
04076	5/ 1/95	0221	2829.9	8830.0	99	1700	101	202	25.0	18.7	14.5	36.2	36.4	35.9		2.540	6.9	4.8	4.7	PN
04077	5/ 4/95	0348	2959.8	8659.9	9	73	36	73	22.7	22.5	18.6	36.1	36.1	36.0		2.882	7.2	7.5	5.2	PN
04078	5/ 4/95	0750	2930.0	8629.9	99	210	100	201	22.6	18.0	12.1	36.0	36.1	35.5		3.053	7.3	5.3	4.2	PN
04079	5/ 4/95	1149	3000.0	8600.0	8	248	100	202	23.8	18.3	14.9	36.1	36.4	35.9		2.344	7.2	4.6	4.4	PN
04081	5/ 4/95	1629	2830.2	8530.1	99	201	100	198	24.1	18.5	12.8	36.2	36.3	35.6		2.564	7.2	4.9	4.1	PN
04083	5/ 4/95	2035	2800.1	8500.0	6	250	100	201	26.9	19.2	14.1	36.1	36.4	35.8		2.491	6.7	4.8	4.3	PN
04085	5/ 5/95	0044	2729.9	8500.2	99	405	100	202	27.1	20.7	17.3	36.1	36.2	36.3		1.978	6.7	6.7	5.0	PN
04087	5/ 5/95	0354	2700.0	8460.0	99	859	100	205	27.1	21.2	16.9	36.1	36.3	36.2		1.954	6.5	6.2	5.2	PN
04089	5/ 5/95	0739	2630.1	8459.6	99	1064	100	202	27.7	22.0	16.9	36.1	36.5	36.2		2.051	6.5	5.9	4.2	PN
04091	5/ 5/95	1040	2600.0	8500.0	99	3272	100	200	28.1	26.3	18.8	36.1	36.4	36.5		1.612	6.2	6.2	4.9	PN
04092	5/ 5/95	1423	2559.9	8430.0	99	219	101	201	28.2	21.4	17.1	36.0	36.3	36.2		1.758	6.5	6.4	4.3	PN
04093	5/ 5/95	1719	2559.9	8400.1	99	138	67	135	26.2	20.2	14.8	35.9	36.3	35.9		2.442	7.0	6.2	4.3	PN
04094	5/ 5/95	2023	2530.3	8400.2	99	138	70	137	27.5	20.8	16.9	35.9	36.3	36.2		2.344	6.8	6.2	4.2	PN
04095	5/ 5/95	2314	2500.2	8359.9	3	127	63	126	27.4	22.2	17.8	36.2	36.4	36.3		2.076	6.8	7.0	4.3	PN
04096	5/ 6/95	0246	2430.1	8360.0	2	2401	103	201	26.4	19.6	14.6	36.2	36.1	35.9		2.344	6.9	6.5	4.4	PN
04097	5/ 6/95	0550	2430.0	8429.9	99	3420	100	203	28.0	26.1	19.0	36.1	36.3	36.3		1.929	6.4	6.2	5.1	PN
04098	5/ 6/95	0913	2430.0	8459.6	99	3367	101	201	27.9	25.9	23.0	36.0	36.2	36.8		1.465	6.4	6.4	5.0	PN
04099	5/ 6/95	1347	2500.1	8500.0	99	3327	101	203	28.2	26.6	21.7	35.9	36.2	36.8		1.465	6.4	6.4	4.8	PN
04100	5/ 6/95	1750	2500.1	8529.9	99	3303	103	199	28.0	26.2	25.1	35.9	36.2	36.7		1.538	6.4	6.3	5.6	PN
04101	5/ 6/95	2104	2500.0	8559.5	99	3272	101	201	27.9	25.5	23.7	36.0	36.2	36.8		1.734	6.4	6.3	5.1	PN
04102	5/ 7/95	0107	2530.2	8559.8	99	3183	100	202	28.2	25.3	21.3	36.0	36.2	36.8		1.685	6.5	6.4	4.8	PN
04103	5/ 7/95	0421	2530.2	8627.7	99	3273	102	197	28.0	25.2	18.8	36.0	36.6	36.5		2.173	6.5	5.9	4.7	PN
04104	5/ 7/95	0803	2559.9	8560.0	99	3220	101	199	28.1	21.5	16.7	36.0	36.4	36.2		1.167	6.4	6.9	4.9	PN
04106	5/ 7/95	1213	2630.3	8559.9	99	3183	101	203	26.8	18.5	14.9	36.4	36.4	35.9		1.612	6.9	4.8	4.7	PN
04108	5/ 7/95	1515	2700.0	8600.0	99	3183	100	201	27.5	18.3	14.4	36.3	36.4	35.8		1.880	6.7	4.9	4.3	PN
04110	5/ 7/95	1857	2730.1	8600.1	99	3230	101	204	27.5	19.7	15.1	36.2	36.4	36.0		1.929	6.7	4.8	4.3	PN
04112	5/ 7/95	2205	2759.6	8559.9	99	1025	100	200	25.6	19.4	15.8	36.4	36.5	36.1		2.198	6.8	5.0	5.0	PN
04114	5/ 8/95	0234	2829.9	8560.0	99	339	102	203	25.2	19.5	15.0	36.3	36.4	36.0		2.173	7.0	4.5	4.4	PN
04116	5/ 8/95	0650	2900.0	8629.8	99	382	101	203	25.9	18.8	15.1	36.4	36.3	36.0		2.662	6.9	6.1	4.8	PN
04118	5/ 8/95	1003	2859.9	8659.8	99	696	101	200	25.5	18.3	13.8	36.4	36.4	35.7		1.978	7.0	4.2	4.5	PN
04120	5/ 8/95	1427	2830.1	8659.9	99	867	103	200	25.6	17.9	13.1	36.1	36.4	35.7		1.783	7.1	4.5	4.1	PN
04122	5/ 8/95	1815	2800.1	8659.8	99	2875	101	204	26.0	17.9	13.2	36.1	36.3	35.7		2.320	7.0	4.7	4.3	PN
04124	5/ 8/95	2221	2730.2	8700.0	99	3045	101	201	25.9	17.7	13.1	36.2	36.4	35.7		2.051	7.1	4.2	4.2	PN
04126	5/ 9/95	0216	2700.0	8700.0	99	3000	102	204	25.9	18.3	13.7	35.7	36.3	35.7		2.540	7.1	4.6	4.2	PN
04128	5/ 9/95	0612	2630.0	8659.9	99	3000	105	209	26.1	17.6	13.5	36.3	36.4	35.6		2.247	6.8	4.5	4.2	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
04129	5/ 9/95	0815	2616.2	8659.8	99	3072	100	200	26.4	18.9	14.3	36.4	36.4	35.8		1.929	6.9	4.3	4.1	PN
04131	5/ 9/95	1243	2559.9	8729.9	99	3128	103	202	26.7	19.2	14.6	36.6	36.5	35.9		1.514	6.9	5.7	4.4	PN
04133	5/ 9/95	1606	2600.0	8800.1	99	3020	102	202	26.5	20.0	14.8	35.6	36.2	35.9		3.394	7.0	5.5	4.1	PN
04135	5/ 9/95	2015	2629.8	8800.0	99	2708	102	201	26.3	24.4	18.9	36.2	36.7	36.6		1.709	6.8	5.5	4.9	PN
04137	5/10/95	0008	2700.0	8759.7	99	2728	101	204	26.1	24.9	18.9	36.2	36.3	36.6		1.685	6.8	6.4	4.9	PN
04139	5/10/95	0442	2730.4	8759.9	99	2562	103	200	26.3	21.4	15.6	36.3	36.5	36.1		2.002	6.8	5.4	4.5	PN
04141	5/10/95	0815	2759.8	8800.0	99	2527	99	200	25.4	17.2	13.3	35.1	36.2	35.6		4.078	7.2	4.5	4.2	PN
04143	5/10/95	1211	2830.0	8800.0	99	2273	102	201	25.0	16.1	11.8	36.0	36.1	35.5		2.320	7.2	4.6	4.1	PN
04145	5/10/95	1636	2859.9	8759.9	99	1384	101	205	25.8	17.4	12.6	35.6	36.3	35.5		3.761	6.7	4.6	4.3	PN
04146	5/10/95	2023	2929.8	8800.0	11	44	22	44	23.9	23.3	22.0	35.4	36.1	36.0		3.883	7.1	7.2	7.4	PN
04147	5/11/95	0735	2900.0	8830.0	11	640	105	204	24.7	17.8	13.4	32.5	36.3	35.7		8.059	7.2	4.5	4.2	PN
04148	5/11/95	1043	2900.0	8859.8	99	74	37	73	24.8	21.6	20.0	34.8	35.8	36.0		1.744	7.6	6.2	5.4	PN
04150	5/11/95	1419	2829.9	8859.8	99	839	101	200	26.5	19.8	14.9	36.2	36.4	35.9		2.125	6.8	5.2	4.3	PN
04152	5/11/95	1740	2800.1	8900.3	99	1280	101	201	26.8	23.9	18.2	36.2	36.6	36.4		2.125	6.6	5.7	4.9	PN
04154	5/11/95	2152	2730.1	8900.0	99	1800	100	200	26.7	24.9	21.3	36.2	36.2	36.8		1.783	6.7	6.5	4.8	PN
04156	5/12/95	0106	2700.0	8900.0	99	2350	100	203	26.6	25.0	22.0	36.2	36.2	36.8		1.758	6.7	6.6	4.8	PN
04158	5/12/95	0454	2629.8	8900.0	99	2800	102	204	26.6	25.0	20.4	36.2	36.2	36.7		1.661	6.7	6.5	4.9	PN
04160	5/12/95	0835	2600.0	8900.1	99	3090	103	200	26.5	23.6	18.3	36.2	36.5	36.5		1.783	6.7	6.0	5.0	PN
04162	5/12/95	1214	2559.2	8930.0	99	2892	102	203	26.8	21.6	15.4	36.2	36.6	36.0		1.636	6.8	5.5	4.6	PN
04164	5/12/95	1516	2559.4	9000.0	99	2892	100	203	26.6	18.9	13.9	36.2	36.3	35.8		1.734	7.0	5.6	4.3	PN
04166	5/12/95	1907	2629.9	8959.8	99	2708	102	204	26.4	19.5	14.9	36.2	36.4	35.9		2.100	6.9	5.7	4.5	PN
04168	5/12/95	2203	2659.8	9000.0	99	2345	101	200	26.8	23.0	17.4	36.2	36.6	36.4		2.076	6.7	5.7	4.4	PN
04170	5/13/95	0142	2659.5	9030.1	99	1536	103	207	26.4	18.4	14.6	36.4	36.3	35.9		2.100	6.9	4.7	4.2	PN
04172	5/13/95	0447	2659.9	9100.0	99	1700	100	208	25.9	18.7	13.8	36.1	36.4	35.7		2.100	7.0	4.5	4.4	PN
04174	5/13/95	0919	2630.1	9059.9	99	2091	100	200	25.9	17.9	13.8	36.1	36.3	35.7		1.856	7.0	4.4	4.2	PN
04176	5/13/95	1259	2600.0	9100.0	99	2692	103	203	26.2	18.2	14.1	36.1	36.4	35.9			6.5	4.6	4.2	PN
04177	5/13/95	1819	2559.9	9130.0	99	2196	102	201	26.1	17.9	13.9	36.1	36.3	35.8		2.125	7.0	4.6	4.4	PN
04178	5/13/95	2122	2600.0	9159.9	99	2136	101	202	25.8	20.8	15.1	36.3	36.6	36.0		1.807	6.9	2.0	4.7	PN
04179	5/14/95	0145	2631.0	9159.8	99	1868	103	204	26.1	19.6	15.5	36.1	36.2	36.0		1.954	6.9	5.6	4.2	PN
04180	5/14/95	0507	2659.9	9159.9	99	1450	101	203	26.2	19.3	13.9	36.2	36.4	35.8		2.051	6.8	5.1	4.3	PN
04181	5/14/95	0845	2659.9	9229.8	99	1436	98	200	25.7	19.5	15.6	36.1	36.2	36.0		1.783	6.9	5.2	4.4	PN
04182	5/14/95	1200	2700.1	9259.9	99	1250	100	200	26.1	20.9	16.0	36.1	36.3	36.1		1.514	6.8	5.7	4.2	PN
04183	5/14/95	1555	2629.9	9300.0	99	1740	105	198	26.3	21.0	15.9	35.6	36.2	36.1		1.880	6.6	5.6	4.0	PN
04184	5/14/95	1919	2600.0	9300.0	99	2200	104	210	26.5	19.9	15.1	35.5	36.2	36.0		2.076	6.7	5.6	4.0	PN
04185	5/14/95	2248	2601.0	9329.9	99	2272	100	201	26.7	19.0	13.6	32.9	36.5	35.7		3.150	6.9	4.7	3.8	PN
04186	5/15/95	0158	2601.1	9360.0	99	3001	102	202	26.4	18.2	13.0	33.3	36.4	35.6		3.150	6.9	3.9	3.8	PN
04187	5/15/95	0530	2630.0	9359.9	99	1470	101	203	26.4	18.6	11.8	35.2	36.3	35.5		2.271	6.8	4.0	3.7	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
04188	5/15/95	0831	2659.9	9400.1	99	987	99	205	26.3	19.8	14.4	34.6	36.4	35.8		2.515	6.8	4.7	3.8	PN
04189	5/15/95	1215	2700.0	9430.1	99	1280	103	200	26.0	18.5	13.4	35.5	36.3	35.7		1.758	6.9	4.1	3.8	PN
04190	5/15/95	1503	2700.0	9500.0	99	1450	100	202	26.4	19.1	13.8	35.7	36.4	35.8		1.758	6.9	4.3	3.8	PN
04191	5/15/95	1902	2629.9	9460.0	99	1630	100	204	26.6	19.8	12.8	35.3	36.3	35.6		2.198	6.9	5.2	3.8	PN
04192	5/15/95	2200	2601.2	9500.0	99	2327	99	203	26.9	20.4	14.5	32.5	36.3	35.9		3.272	6.9	5.5	3.9	PN
04193	5/16/95	0202	2601.0	9530.0	99	1425	103	201	26.9	19.1	15.1	34.8	36.5	35.9		2.735	6.8	4.6	3.9	PN
04194	5/16/95	0511	2601.0	9600.0	99	1043	105	201	26.5	18.9	14.4	32.8	36.4	35.8		3.761	6.9	4.2	3.9	PN
04195	5/16/95	0849	2630.0	9600.0	99	1055	100	202	26.1	18.6	14.4	32.7	36.2	35.8		4.054	7.0	4.1	3.8	PN
04196	5/16/95	1217	2700.0	9600.2	99	800	101	201	26.0	19.6	12.9	31.6	36.2	35.7		3.541	7.1	4.6	3.6	PN
04197	5/16/95	1616	2730.0	9559.8	99	212	102	204	26.6	19.0	14.3	32.8	36.4	35.8		2.759	7.0	4.2	3.9	PN
04198	5/16/95	1953	2759.9	9600.0	20	47	23	44	26.0	22.4	20.1	29.8	34.5	35.6		6.447	7.3	6.7	5.4	PN
04199	5/16/95	2308	2800.0	9530.2	19	56	26	53	25.4	21.9	20.1	32.6	34.9	35.8		4.420	7.2	7.3	5.1	PN
04200	5/17/95	0208	2759.8	9459.9	99	81	41	81	26.3	22.3	19.1	32.8	35.6	36.1		3.321	6.9	7.1	4.9	PN
04201	5/17/95	0530	2800.1	9430.0	18	72	34	71	25.8	21.9	19.5	34.0	35.7	36.1		2.955	7.0	7.5	5.4	PN
04202	5/17/95	0828	2759.8	9400.0	99	84	41	82	24.6	21.9	18.7	35.1	35.7	36.1		2.247	7.1	7.4	4.5	PN
04203	5/17/95	1248	2759.9	9329.9	99	96	48	95	25.7	22.1	19.6	36.2	35.8	36.1		1.661	6.9	7.3	5.9	PN
04204	5/17/95	1558	2759.9	9300.0	99	108	54	104	25.6	22.1	18.9	35.8	36.0	36.3		1.661	6.9	7.4	4.4	PN
04205	5/17/95	2105	2759.9	9230.1	99	109	52	105	25.7	21.7	18.4	36.0	36.0	36.3		1.783	6.9	7.4	4.1	PN
04206	5/18/95	0024	2800.0	9200.0	15	119	60	118	25.8	21.5	18.2	35.9	36.2	36.3		1.929	6.9	7.2	3.8	PN
04207	5/18/95	0356	2800.0	9130.0	15	161	78	159	26.4	21.4	15.5	36.2	36.6	36.0		1.978	6.9	5.5	4.3	PN
04208	5/18/95	0726	2800.0	9100.1	15	152	76	152	26.5	20.8	15.5	36.2	36.3	36.0		2.051	6.9	6.4	4.4	PN
04210	5/18/95	1124	2759.7	9030.1	99	335	98	202	26.7	19.7	14.1	36.3	36.6	35.7		1.783	7.0	5.2	4.2	PN
04212	5/18/95	1424	2800.0	9000.0	99	547	101	201	26.4	19.1	15.1	36.2	36.4	36.0		1.856	7.0	5.6	3.9	PN
04214	5/18/95	1755	2800.0	8930.0	99	982	100	200	26.9	22.5	17.7	36.3	36.3	36.4		2.002	6.8	6.6	4.7	PN
04215	5/23/95	0214	3000.0	8700.0	10	72	36	72	24.8	23.4	19.6	34.1	36.1	36.2		3.761	7.2	7.4	5.7	PN
04216	5/23/95	0632	2929.8	8630.0	99	212	100	204	25.4	19.1	13.3	35.5	36.3	35.7		3.175	7.2	5.1	3.8	PN
04217	5/23/95	1037	2900.1	8600.0	99	250	101	203	25.9	18.2	14.5	35.8	36.2	35.9		2.466	6.8	5.3	3.9	PN
04218	5/23/95	1509	2830.1	8530.0	99	201	99	201	26.2	18.4	13.5	35.8	36.1	35.7		2.759	7.2	5.6	4.0	PN
04219	5/23/95	1919	2800.1	8500.0	99	253	100	204	26.9	18.2	14.8	36.4	36.4	35.9		1.832	7.0	4.9	4.3	PN
04220	5/23/95	2334	2730.0	8459.8	5	403	106	204	25.6	18.6	14.2	35.7	36.5	35.8		2.515	7.1	4.7	4.3	PN
04221	5/24/95	0247	2659.9	8500.0	99	864	104	199	27.4	20.6		36.4	36.7	36.0		1.826	6.7	5.0	4.6	PN
04222	5/24/95	0643	2630.0	8500.1	99	1800	100	203	27.5	20.7	15.8	36.4	36.6	36.1		1.856	6.9	5.2	4.5	PN
04223	5/24/95	1003	2600.0	8459.9	99	3309	100	203	27.4	19.9	14.9	36.2	36.5	36.0		2.271	6.9	5.0	4.2	PN
04224	5/24/95	1358	2600.0	8429.9	99	219	96	201	27.7	19.9	14.4	36.5	36.4	35.9		1.685	6.7	5.4	4.0	PN
04225	5/24/95	1700	2600.0	8400.1	99	137	68	130	27.8	20.9	16.3	36.3	36.3	36.2		1.807	7.0	6.9	4.1	PN
04226	5/24/95	2035	2529.9	8400.0	3	138	69	135	27.7	20.3	15.3	36.3	36.2	36.0		2.100	6.9	7.3	3.9	PN
04227	5/24/95	2342	2500.1	8359.9	3	126	63	126	28.2	21.5	17.1	36.4	36.1	36.2		2.100	6.8	7.6	4.1	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
04228	5/25/95	0352	2430.0	8400.0	99	1980	100	204	28.0	19.9	14.5	36.3	36.5	35.9		2.247	7.0	5.1	4.0	PN
04229	5/25/95	0659	2429.9	8430.7	99	3366	104	202	27.3	20.7	15.7	36.3	36.4	36.1		2.100	6.9	5.7	4.4	PN
04230	5/25/95	1022	2430.0	8459.9	99	3382	101	202	28.4	25.8	20.2	36.1	36.6	36.8		1.416	6.5	5.9	4.6	PN
04231	5/27/95	0954	2500.0	8500.1	99	3327	100	201	28.5	25.1	19.5	36.2	36.7	36.7		1.734	6.3	5.7	4.7	PN
04232	5/27/95	1359	2500.0	8530.0	99	3283	100	199	28.9	26.0	23.0	36.2	36.3	36.8		2.100	6.4	6.0	4.9	PN
04233	5/27/95	1719	2500.0	8600.0	99	3240	103	204	28.8	25.6	24.9	36.1	36.2	36.7		1.490	6.5	6.6	5.3	PN
04234	5/27/95	2059	2530.0	8559.9	99	3202	101	203	28.9	26.3	22.2	36.1	36.2	36.8			6.5	6.4	4.7	PN
04235	5/28/95	0002	2530.0	8628.0	99	3257	99	204	28.8	26.0	22.6	36.1	36.2	36.9		1.783	6.6	6.6	4.8	PN
04236	5/28/95	0352	2600.0	8559.9	99	3168	102	204	28.7	26.4	20.6	36.1	36.3	36.7		2.442	6.5	6.3	4.7	PN
04237	5/28/95	0743	2630.2	8600.1	99	3182	103	204	28.4	23.9	17.7	36.1	36.8	36.4		2.491	6.6	5.4	4.8	PN
04238	5/28/95	1147	2700.0	8600.1	99	3182	100	203	28.0	20.4	14.8	36.3	36.4	35.9		1.514	6.8	5.6	4.2	PN
04239	5/28/95	1519	2730.0	8600.1	99	3201	102	200	28.3	19.5	15.9	36.5	36.5	36.1		2.100	6.9	5.7	4.7	PN
04240	5/28/95	1849	2800.0	8600.0	99	900	101	205	28.2	21.0	16.3	36.5	36.6	36.2		1.905	6.9	5.3	4.5	PN
04241	5/28/95	2232	2829.9	8600.1	99	339	106	214	27.0	19.6	14.9	36.1	36.4	35.9		2.076	7.1	5.8	4.5	PN
04242	5/29/95	0250	2900.1	8630.1	99	384	103	198	27.6	19.9	16.3	36.4	36.4	36.2		1.954	6.9	5.5	4.4	PN
04243	5/29/95	0557	2900.0	8700.0	99	695	101	203	27.6	18.6	14.9	36.3	36.4	35.9		1.954	7.0	4.3	4.3	PN
04244	5/29/95	0937	2830.0	8659.9	99	868	103	202	27.8	19.0	15.6	36.2	36.4	36.0		1.661	6.9	4.5	4.5	PN
04245	5/29/95	1328	2800.0	8700.2	99	2819	100	200	27.5	18.3	14.2	35.3	36.4	35.8		1.490	7.1	4.8	3.9	PN
04246	5/29/95	1718	2729.8	8700.1	99	3006	100	204	28.0	17.1	12.8	35.1	36.2	35.6		3.346	7.3	4.5	3.9	PN
04247	5/29/95	2036	2659.9	8700.0	99	2950	101	201	28.4	17.2	13.1	34.8	36.3	35.6		4.322	7.3	4.9	4.2	PN
04248	5/30/95	0028	2630.1	8659.1	99	3097	101	198	28.5	20.7	15.1	36.2	36.2	36.0		1.954	6.6	6.8	4.2	PN
04249	5/30/95	0314	2615.9	8700.2	99	3074	100	201	28.9	24.8	18.8	36.2	36.7	36.6		1.832	6.4	5.6	4.9	PN
04250	5/30/95	0742	2559.9	8729.7	99	3127	100	206	28.8	24.4	18.0	36.2	36.7	36.4		1.856	6.5	5.5	4.6	PN
04251	5/30/95	1111	2600.0	8759.9	99	2890	103	200	28.6	22.3	17.6	36.2	36.8	36.4		1.978	6.6	5.0	4.8	PN
04252	5/30/95	1501	2629.9	8759.9	99	2692	99	201	27.7	23.4	16.9	36.3	36.6	36.2		1.661	6.7	6.0	3.9	PN
04253	5/30/95	1901	2659.9	8800.0	99	2718	106	203	28.2	20.6	15.2	36.4	36.3	36.0		1.978	6.8	6.6	4.3	PN
04254	5/30/95	2336	2730.0	8759.9	99	2520	116	242	28.1	16.8	11.7	34.3	36.2	35.4		5.006	7.1	4.5	3.9	PN
04255	5/31/95	0309	2800.1	8800.0	99	2419	100	200	28.1	17.9	11.5	34.1	36.3	35.4		4.249	7.2	4.6	3.9	PN
04256	5/31/95	0654	2830.0	8800.0	99	2286	100	205	28.2	18.3	13.4	34.3	36.4	35.7		5.617	7.1	4.8	4.0	PN
04257	5/31/95	0959	2859.9	8759.9	99	1300	100	209	28.0	18.6	13.5	36.4	36.4	35.7		1.807	6.8	4.7	4.1	PN
04258	5/31/95	1600	2930.0	8800.0	11	45	22	44	27.9	24.4	22.4	32.1	35.8	36.0		3.443	7.0	7.2	6.7	PN
04259	5/31/95	1955	2859.9	8830.1	99	636	103	203	28.5	17.8	13.5	28.6	36.3	35.7		1.954	7.6	4.4	4.0	PN
04260	5/31/95	2305	2900.1	8900.0	13	70	34	69	26.9	21.2	19.5	29.0	35.6	36.2		1.236	6.9	5.2	4.2	PN
04261	6/ 1/95	0227	2829.9	8900.0	99	832	100	201	26.4	18.2	13.7	33.1	36.4	35.8		1.709	7.4	4.5	4.0	PN
04262	6/ 1/95	0543	2800.0	8900.0	99	1280	102	202	28.2	19.3	14.9	36.5	36.4	35.9		2.173	6.9	4.7	4.0	PN
04263	6/ 1/95	0925	2730.0	8859.9	99	1805	101	201	27.9	24.6	19.2	36.3	36.5	36.6		1.563	6.6	5.9	4.6	PN
04264	6/ 1/95	1243	2700.0	8900.0	99	2255	100	199	28.0	25.0	21.4	36.3	36.2	36.8		1.685	6.6	6.8	4.7	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
04265	6/ 1/95	1632	2630.0	8900.0	99	2822	100	201	28.2	25.0	21.5	36.4	36.2	36.8		1.514	6.5	6.7	4.6	PN
04266	6/ 1/95	1937	2600.0	8900.1	99	3078	100	197	27.9	24.9	19.4	36.3	36.2	36.6		1.880	6.7	6.7	4.7	PN
04267	6/ 1/95	2251	2600.0	8930.1	99	3140	100	202	28.0	24.9	20.2	36.3	36.2	36.7		1.685	6.7	6.7	4.6	PN
04268	6/ 2/95	0139	2600.0	9000.0	99	3200	98	201	27.8	24.8	19.2	36.3	36.4	36.6		1.490	6.6	6.4	4.8	PN
04269	6/ 2/95	0504	2630.1	9000.0	99	2610	101	205	28.1	24.9	19.5	36.3	36.2	36.6		1.758	6.6	6.6	4.7	PN
04270	6/ 2/95	0749	2659.7	8959.9	99	2363	103	201	28.0	24.2	17.8	36.4	36.6	36.4		1.905	6.7	5.9	4.2	PN
04271	6/ 2/95	1146	2700.0	9030.0	99	1520	111	223	19.5	14.8	15.3	36.4	35.9	36.0		5.665	5.4	4.4	4.3	PN
04272	6/ 2/95	1451	2700.0	9100.0	99	1690	100	200	28.5	18.9	14.7	36.2	36.4	35.9			6.9	4.6	4.0	PN
04273	6/ 2/95	1845	2630.1	9100.1	99	2075	103	207	28.1	19.3	14.8	36.0	36.5	35.9		1.929	7.1	4.3	3.8	PN
04274	6/ 2/95	2208	2600.1	9059.9	99	2745	103	202	27.9	19.5	15.2	36.3	36.5	36.0		2.027	6.9	5.3	4.3	PN
04275	6/ 3/95	0154	2600.0	9130.1	99	2450	100	205	27.6	19.8	14.7	36.1	36.4	35.9		1.734	6.9	4.8	6.9	PN
04276	6/ 3/95	0501	2600.0	9200.0	99	2115	102	206	27.4	19.5	14.4	35.8	36.4	35.9		1.978	6.8	5.2	4.3	PN
04277	6/ 3/95	0841	2629.9	9159.9	99	1825	101	202	27.6	18.7	13.1	36.3	36.4	35.6		1.905	6.9	4.7	4.1	PN
04278	6/ 3/95	1205	2700.1	9200.1	99	2562	100	202	27.6	19.0	14.5	36.3	36.5	35.9		1.783	7.0	4.8	4.1	PN
04279	6/ 3/95	1536	2700.1	9230.1	99	1375	102	202	27.5	19.9	14.8	34.8	36.4	35.9		1.954	6.9	5.0	4.3	PN
04280	6/ 3/95	1829	2700.0	9259.9	99	1245	101	202	27.7	20.8	15.8	35.7	36.2	36.1		2.149	7.0	5.9	3.9	PN
04281	6/ 3/95	2202	2630.1	9300.0	99	1740	101	218	27.8	20.4	15.4	36.0	36.2	36.1		1.832	6.9	6.2	3.9	PN
04282	6/ 4/95	0131	2559.8	9300.3	99	2182	101	200	27.4	20.0	15.5	36.2	36.4	36.0		1.661	6.7	5.0	4.1	PN
04283	6/ 4/95	0459	2601.0	9330.0	99	2340	109	203	27.4	19.4	13.9	34.9	36.4	35.8		2.076	6.7	4.4	3.7	PN
04284	6/ 4/95	0801	2601.0	9400.0	99	2727	105	201	27.6	18.4	12.9	34.7	36.3	35.6		2.320	6.9	4.0	3.5	PN
04285	6/ 4/95	1144	2630.1	9400.0	99	1465	102	204	27.5	18.5	13.7	34.9	36.4	35.8		1.734	7.0	4.1	3.6	PN
04286	6/ 4/95	1456	2700.0	9400.1	99	980	99	200	27.8	19.3	14.9	35.8	36.2	36.0		1.587	6.8	5.6	3.9	PN
04287	6/ 4/95	1822	2700.0	9429.9	99	1240	101	206	28.0	18.8	14.0	34.5	36.4	35.8		2.369	7.0	4.2	3.8	PN
04288	6/ 4/95	2131	2700.1	9459.9	99	1460	101	204	27.9	19.0	13.3	34.5	36.3	35.7		2.295	6.6	4.2	3.8	PN
04289	6/ 5/95	0117	2630.0	9500.1	99	1655	99	202	27.6	18.7	12.8	25.0	36.3	35.6		2.344	5.4	2.8	3.1	PN
04290	6/ 5/95	0417	2601.0	9500.0	99	2304	100	206	27.5	20.0	13.4	34.2	36.3	35.7		2.222	5.6	3.2	3.1	PN
04291	6/ 5/95	0800	2601.1	9530.0	99	1425	102	200	28.0	20.6	14.4	36.5	36.4	35.9		1.661	6.5	5.2	3.7	PN
04292	6/ 5/95	1125	2600.9	9559.8	99	1000	105	200	27.5	18.0	14.0	32.9	36.3	35.8		3.297	7.1	4.2	3.8	PN
04293	6/ 5/95	1527	2630.1	9600.0	99	1050	101	200	27.7	19.0	13.8	33.7	36.4	35.8		2.271	6.9	4.2	3.8	PN
04294	6/ 5/95	1904	2659.9	9600.0	99	900	104	199	27.9	19.8	13.6	33.4	36.4	35.8		2.613	7.1	4.4	3.7	PN
04295	6/ 5/95	2257	2730.1	9600.0	20	211	103	202	28.0	19.4	14.9	28.5	36.3	36.0		7.277	6.9	4.7	3.9	PN
04296	6/ 6/95	0219	2800.1	9600.0	19	46	21	43	27.5	26.5	22.4	30.0	34.3	35.6		5.299	6.8	6.9	5.5	PN
04297	6/ 6/95	0527	2800.0	9530.0	19	54	26	53	27.4	22.2	20.8	30.3	35.0	35.9		4.151	6.8	6.7	5.5	PN
04298	6/ 6/95	0809	2759.9	9459.9	99	83	42	81	27.4	23.8	19.8	34.2	36.2	36.0		2.076	6.7	7.2	4.1	PN
04299	6/ 6/95	1111	2800.0	9430.0	18	74	40	73	27.6	22.4	20.4	34.3	35.7	36.0		2.076	6.7	7.1	5.2	PN
04300	6/ 6/95	1357	2800.0	9400.1	99	82	37	79	27.7	23.4	19.6	33.9	35.9	36.1		2.173	6.7	7.4	5.0	PN
04301	6/ 6/95	1709	2759.9	9330.0	99	95	46	93	27.5	22.0	19.3	33.9	35.7	36.2		2.344	6.9	9.7	4.6	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
04302	6/ 6/95	1956	2800.4	9300.0	17	106	52	106	27.5	22.0	18.5	34.5	35.9	36.3		2.149	6.8	7.3	4.1	PN
04303	6/ 6/95	2316	2759.9	9231.1	99	106	53	105	27.5	22.8	18.7	34.5	36.2	36.3		2.198	6.9	7.2	4.0	PN
04304	6/ 7/95	0208	2800.1	9160.0	15	120	59	117	27.4	21.8	17.9	34.4	36.0	36.3		2.589	6.8	7.3	4.0	PN
04305	6/ 7/95	0538	2800.0	9130.0	15	155	78	155	27.6	20.5	15.6	34.5	36.1	36.1		2.271	6.8	6.8	4.0	PN
04306	6/ 7/95	0828	2759.9	9100.0	99	154	76	153	27.6	21.3	15.4	36.3	36.2	36.0		1.709	6.7	7.1	4.3	PN
04307	6/ 7/95	1218	2800.1	9030.1	14	307	100	201	27.9	19.4	13.7	36.3	36.4	35.7		1.636	6.5	5.0	5.3	PN
04308	6/ 7/95	1510	2800.0	9000.0	99	547	98	204	28.1	19.0	14.7	36.4	36.4	35.9		1.587	6.8	4.9		PN
04309	6/ 7/95	1832	2800.1	8930.0	99	975	103	204	28.7	19.9	14.4	36.4	36.3	35.9		1.905	6.7	5.5	4.4	PN

Table 2. Selected Environmental Parameters (continued)

SUNCOASTER, 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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
001	4/20/95	0222	2800.0	8500.0	6	600	120	241	24.2	16.7	12.1	36.2	36.2	35.5	.130		3.7	2.5	2.4	PN
002	4/20/95	0719	2730.0	8500.0	5	400	109	218	24.3	18.0	13.5	17.3	33.6	33.8	.109		3.6	3.8	4.8	PN
003	4/30/95	1539	2700.0	8500.0	99	620	109	218	27.1	21.4	17.5	36.2	36.3	36.4	.098		3.6	3.5	2.8	PN
004	4/30/95	1121	2630.0	8500.0	99	630	110	221	26.9	22.0	17.4	36.1	36.8	36.4	.097		5.0	4.0	3.9	PN
005	4/30/95	0631	2600.0	8500.0	99	900	108	217	27.2	26.2	19.6	36.1	36.3	36.7	.127		4.9	4.7	3.8	PN
006	4/30/95	0158	2600.0	8430.0	99	160	79	159	26.8	24.9	18.9	36.2	36.6	36.4	.126		5.0	5.1	4.0	PN
007	4/29/95	2212	2600.0	8400.0	4	136	65	130	24.7	21.3	17.0	36.2	36.4	36.3	.132		5.2	4.4	3.6	PN
008	4/29/95	1806	2530.0	8400.0	3	136	63	126	25.1	21.7	17.7	36.2	36.3	36.4	.130		5.2	4.9	3.6	PN
009	4/29/95	1312	2500.0	8400.0	3	127	63	127	25.5	21.8	17.7	36.3	36.6	36.4	.126		5.1	4.0	3.6	PN
010	4/29/95	0836	2500.0	8430.0	99	900	108	217	26.0	23.7	18.1	36.2	36.5	36.4	.240		5.0	4.7	3.6	PN
011	4/29/95	0405	2500.0	8500.0	99	900	103	207	27.0	26.4	21.5	36.0	36.3	36.8	.458		5.0	4.6	3.9	PN
012	4/28/95	2331	2500.0	8530.0	99	900	113	226	27.2	26.7	22.0	36.0	36.3	36.9	.139		5.0	4.8	3.9	PN
013	4/28/95	1702	2430.0	8500.0	99	1350	108	216	26.9	26.2	20.9	36.0	36.3	36.8	.146		5.0	4.7	4.0	PN
014	4/28/95	1215	2430.0	8430.0	99	1350	108	216	26.9	25.0	18.2	36.1	36.6	36.4	.155		4.9	4.5	3.6	PN
015	4/28/95	0801	2430.0	8400.0	99	1350	110	221	25.5	19.1	13.4	36.2	36.4	35.7	.145		5.0	3.9	3.4	PN

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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
31001	6/13/95	0759	2750.6	9659.2	20	13	7	13	27.4	29.0	27.6	28.7	30.2	30.4	1.228		5.9	7.5	5.9	ST
31002	6/13/95	0834	2752.2	9658.9	20	12	6	12	27.4	27.5	27.5	29.3	29.3	30.1	1.573		6.0	5.9	5.8	ST
31003	6/13/95	0916	2754.5	9656.5	20	13	7	13	27.5	27.5	27.5	29.2	29.2	29.6	1.549		5.8	5.8	5.8	ST
31004	6/13/95	0957	2756.4	9651.5	20	15	8	15	27.5	27.5	27.5	29.3	29.6	30.0	1.773		5.7	5.7	5.6	ST
31005	6/13/95	1033	2753.3	9650.1	20	19	10	19	27.3	27.3	27.3	30.4	30.4	30.6	1.004		5.9	5.9	5.9	ST
31006	6/13/95	1120	2749.4	9652.6	20	21	11	21	27.4	27.4	27.3	31.2	31.2	31.3	4.000		6.0	6.0	5.9	ST
31007	6/13/95	1152	2748.5	9652.5	20	22	11	22	27.5	27.5	27.5	30.8	31.0	31.5	1.458		6.0	6.0	5.9	ST
31008	6/13/95	1237	2748.6	9655.7	20	19	10	19	27.7	27.7	27.6	30.9	30.9	33.2	.977		6.1	6.1	6.1	ST
31009	6/21/95	0755	2748.5	9701.5	20	14	7	14	27.6	27.6	27.8	27.3	27.8	29.0			6.7	6.6	7.1	ST
31010	6/21/95	0834	2747.5	9704.4	20	6	3	6	28.2	28.2	28.2	27.8	27.8	27.8			6.9	6.9	6.8	ST
31011	6/21/95	0905	2746.7	9703.3	20	11	6	11	28.0	27.9	27.5	27.7	27.7	29.5			7.1	6.9	5.8	ST
31012	6/21/95	1006	2744.1	9702.7	20	15	8	15	27.8	27.8	27.7	27.4	29.6	29.1			6.8	6.8	6.7	ST
31013	6/21/95	1107	2743.7	9702.3	20	16	8	16	27.8	27.8	27.0	27.7	29.7	29.7			7.2	7.0	6.7	ST
31014	6/21/95	1208	2737.4	9705.7	20	17	8	17	28.2	27.8	27.6	28.8	29.3	29.4			7.3	7.4	6.6	ST
31015	6/21/95	1321	2745.2	9656.3	20	21	11	21	28.7	27.8	27.4	28.5	29.8	29.6			7.7	7.7	7.4	ST
31016	6/21/95	1410	2746.4	9658.5	20	18	9	18	29.1	27.5	27.5	27.2	29.3	29.8			7.6	7.8	7.6	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
32001	6/ 5/95	1024	2823.5	9621.4	19	6	3	6	27.8	27.6	27.5	24.1	24.1	24.9	3.460		6.3	6.2	6.1	ST
32002	6/ 5/95	1110	2824.6	9617.6	19	11	5	11	28.1	27.6	27.6	24.2	26.2	26.4			6.4	6.3	6.3	ST
32003	6/ 5/95	1216	2825.5	9615.4	19	11	5	11	27.8	27.5	27.5	25.9	26.2	27.9			6.3	6.2	6.0	ST
32004	6/ 5/95	1304	2823.4	9613.5	19	16	8	16	28.5	27.2	26.5	24.4	26.7	31.7			6.7	5.5	4.3	ST
32005	6/ 5/95	1405	2821.6	9610.4	19	19	9	19	28.1	27.3	27.2	26.8	27.1	33.5			6.2	6.2	5.8	ST
32006	6/ 5/95	1438	2822.4	9609.5	19	18	9	18	28.7	27.3	24.1	25.6	27.4	31.7			6.3	6.0	2.1	ST
32007	6/ 5/95	1521	2823.5	9608.3	19	17	9	17	29.0	27.3	24.3	25.4	27.1	33.5			6.6	6.0	2.3	ST
32008	6/ 5/95	1618	2825.5	9602.5	19	18	9	18	28.5	27.6	24.1	26.5	27.5	33.4			6.4	6.6	2.0	ST
32009	6/20/95	1048	2820.4	9621.6	19	11	5	11	27.4	27.3	27.5	24.6	26.0	27.6			6.7	5.7	5.8	ST
32010	6/20/95	1127	2818.5	9622.5	19	14	7	14	27.7	27.5	27.5	25.0	27.6	28.7			6.6	5.7	6.2	ST
32011	6/20/95	1211	2817.6	9622.8	19	16	8	16	27.9	27.5	27.4	25.0	28.1	28.8			6.8	6.0	6.2	ST
32012	6/20/95	1332	2813.7	9619.4	19	22	11	22	28.2	27.5	27.3	28.6	28.7	31.6			6.0	6.2	5.8	ST
32013	6/20/95	1421	2816.5	9619.6	19	20	10	20	28.3	27.4	27.4	26.1	28.7	28.7			6.6	6.0	5.9	ST
32014	6/20/95	1518	2817.8	9618.5	19	18	9	18	28.4	27.4	27.5	26.9	28.6	28.8			6.8	6.0	6.1	ST
32015	6/20/95	1605	2817.7	9615.5	19	20	10	20	27.7	27.5	27.4	28.5	28.6	28.6			6.2	6.0	5.9	ST
32016	6/20/95	1652	2820.6	9618.5	19	15	8	15	28.7	27.4	27.5	25.6	27.6	28.1			7.1	5.9	5.8	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
33001	6/ 1/95	1110	2608.7	9706.9	21	18	9	18	26.5	26.3	26.2	31.2	31.1	31.2			6.1	4.3	5.7	ST
33002	6/ 1/95	1151	2610.7	9705.2	21	19	10	19	26.6	26.4	25.8	31.2	31.2	31.4			4.8	4.3	4.4	ST
33003	6/ 1/95	1224	2611.7	9704.2	21	19	10	19	26.8	26.5	25.4	31.2	31.3	31.5			4.8	4.9	4.0	ST
33004	6/ 1/95	1308	2613.1	9706.9	21	18	9	18	27.0	26.4	26.4	31.3	31.3	31.4			4.8	4.9	4.5	ST
33005	6/ 1/95	1412	2612.1	9700.8	21	27	13	27	27.0	26.4	24.5	31.3	31.5	33.4			5.0	4.9	4.2	ST
33006	6/ 1/95	1457	2613.2	9700.9	21	26	13	26	26.7	25.9	24.8	31.4	31.8	32.9			7.0	6.2	4.6	ST
33007	6/ 1/95	1546	2615.1	9704.8	21	19	8	19	27.0	26.5	25.4	31.4	31.3	31.6			4.7	4.9	4.5	ST
33008	6/ 1/95	1659	2622.4	9709.9	21	16	8	16	26.7	26.4	26.0	31.2	31.4	31.7			5.1	5.3	5.1	ST
33009	6/22/95	0841	2608.0	9705.5	21	28	14	28	28.0	27.9	27.9	31.9	31.9	31.9			5.8	5.8	5.5	ST
33010	6/22/95	0931	2608.5	9702.5	21	22	11	22	27.7	27.6	27.6	31.9	31.9	31.9			6.1	6.0	5.8	ST
33011	6/22/95	1057	2559.1	9659.1	22	27	14	27	27.4	27.4	27.5	31.5	31.5	31.8			6.2	6.2	6.1	ST
33012	6/22/95	1202	2600.5	9702.5	21	23	12	23	27.8	27.6	27.5	31.7	31.8	31.9			6.2	6.2	5.9	ST
33013	6/22/95	1238	2559.6	9703.0	22	22	11	22	27.7	27.4	27.5	31.7	31.6	31.7			6.3	6.3	5.9	ST
33014	6/22/95	1428	2558.5	9705.5	22	17	9	17	28.1	27.7	27.8	31.9	32.0	32.0			6.3	6.5	6.3	ST
33015	6/22/95	1505	2601.1	9704.5	21	19	10	19	28.3	27.8	27.6	31.9	32.0	32.0			6.3	6.4	6.2	ST
33016	6/22/95	1552	2603.4	9703.5	21	21	11	21	28.4	27.7	27.6	31.9	31.8	31.9			6.1	6.4	6.3	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	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
34001	6/12/95	1004	2921.4	9441.3	18	4	2	4	27.7	27.7	27.7	23.2	23.2	23.2			5.7	5.9	5.8	ST
34002	6/12/95	1032	2922.2	9442.4	18	5	3	5	27.3	27.5	27.5	23.2	23.2	23.2			5.4	5.8	5.7	ST
34003	6/12/95	1106	2925.4	9433.6	18	9	5	9	27.5	27.9	27.8	23.3	23.2	23.2			5.0	5.6	4.9	ST
34004	6/12/95	1143	2927.2	9432.0	18	9	5	9	27.6	27.6	27.9	23.4	23.3	23.3			4.7	5.5	5.4	ST
34005	6/12/95	1222	2921.7	9430.6	18	13	7	13	27.6	27.9	28.2	22.8	22.8	22.9			5.5	6.2	3.8	ST
34006	6/12/95	1252	2921.3	9429.0	18	13	7	13	27.4	27.9	28.0	23.1	23.3	23.4			5.7	6.1	5.9	ST
34007	6/12/95	1321	2920.3	9432.3	18	13	7	13	27.4	27.9	27.8	23.7	23.7	23.7			5.3	6.0	5.9	ST
34008	6/12/95	1408	2924.7	9440.7	18	6	3	6	27.7	28.0	27.8	23.3	23.2	23.2			5.7	5.9	5.6	ST
34009	6/20/95	1023	2918.4	9434.4	18	14	7	14	27.7	27.5	27.5	17.7	18.0	17.9			6.3	6.0	6.0	ST
34010	6/20/95	1108	2915.6	9442.4	18	11	6	11	28.2	27.4	27.6	22.1	23.1	23.0			6.6	5.0	4.8	ST
34011	6/20/95	1138	2915.9	9445.2	18	9	5	9	28.3	27.5	27.7	22.5	22.6	23.1			6.1	5.5	5.1	ST
34012	6/20/95	1215	2914.1	9442.9	18	13	7	13	28.7	27.5	27.5	22.1	22.8	24.7			6.7	5.2	5.5	ST
34013	6/20/95	1241	2912.8	9441.5	18	15	8	15	28.6	27.4	27.5	22.2	23.1	26.7			6.6	5.8	4.6	ST
34014	6/20/95	1305	2911.5	9442.6	18	16	8	16	29.3	27.4	27.5	22.3	24.1	25.6			6.3	5.8	5.2	ST
34015	6/20/95	1352	2912.8	9452.6	18	9	5	9	29.7	27.6	27.7	22.6	23.3	23.5			6.6	5.8	4.8	ST
34016	6/20/95	1437	2918.5	9445.4	18	6	3	6	30.5	27.5	27.6	22.5	22.3	22.4			6.2	5.1	5.2	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
40001	6/ 2/95	0817	2938.6	9347.1	17	8	4	8	26.6	26.6	26.7	16.7	21.5	28.2			7.7	5.6	6.0	ST
40002	6/ 2/95	0935	2939.7	9357.8	17	3	2	3	27.7	27.6	27.3	16.0	16.0	17.2			7.7	7.5	5.6	ST
40003	6/ 2/95	1017	2940.0	9357.4	17	2	1	2	27.4	27.3	27.3	15.2	15.2	15.2			7.2	7.2	7.0	ST
40004	6/ 2/95	1056	2940.1	9400.7	18	2	1	2	28.0	27.9	27.7	16.7	16.7	16.7			7.9	7.8	7.5	ST
40005	6/ 2/95	1332	2933.6	9355.4	17	9	4	9	28.2	27.3	26.8	16.4	18.7	29.2			8.6	8.0	6.8	ST
40006	6/ 2/95	1412	2934.6	9353.7	17	8	4	8	28.1	27.5	26.9	15.4	18.9	29.1			8.9	7.9	4.1	ST
40007	6/ 2/95	1511	2932.5	9347.5	17	12	6	12	28.3	26.9	26.8	14.9	27.3	30.9			8.1	5.2	4.2	ST
40008	6/ 2/95	1554	2933.4	9345.8	17	12	6	12	28.5	27.5	26.7	14.9	26.9	30.9			9.6	8.1	4.1	ST
40009	6/16/95	0805	2943.5	9338.5	17	5	2	5	23.4	23.5	23.8	19.8	19.8	21.0			7.6	7.6	6.4	ST
40010	6/16/95	0928	2939.5	9337.6	17	9	4	9	23.9	24.2	24.7	20.0	21.1	24.0			7.6	7.5	7.3	ST
40011	6/16/95	1659	2937.5	9336.4	17	10	5	10	22.9	23.2	23.3	21.4	22.2	24.6			8.7	8.4	7.0	ST
40012	6/16/95	1750	2935.6	9341.7	17	11	6	11	25.2	25.3	24.8	21.5	23.0	29.4			8.5	8.3	7.0	ST
40013	6/20/95	1536	2939.4	9341.8	17	8	4	8	25.7	22.7	22.8	19.4	19.6	21.9			8.9	8.4	6.0	ST
40014	6/20/95	1607	2938.5	9341.7	17	9	4	9	28.3	26.0	26.3	20.2	19.3	22.0			8.3	6.8	5.9	ST
40015	6/20/95	1641	2937.6	9343.4	17	9	4	9	28.7	26.4	26.2	19.9	20.1	22.4			8.7	7.5	6.0	ST
40016	6/20/95	1710	2938.6	9344.6	17	8	4	8	28.2	26.2	26.3	19.5	20.1	21.9			8.6	6.9	5.8	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
2301	6/ 6/95	1012	3010.2	8804.3	11	6	3	6	27.3	27.1	26.6	31.0	32.2	32.4			6.4	6.0	5.1	ST
2302	6/ 6/95	1056	3008.5	8805.1	11	14	7	14	28.1	27.2	26.6	29.0	32.3	33.3			6.6	6.5	5.6	ST
2303	6/ 6/95	1301	3014.0	8816.3	11	5	3	5	27.2	26.9	26.1	30.0	31.4	32.4			6.2	6.0	5.1	ST
2304	6/ 6/95	1423	3009.3	8819.3	11	17	9	17	29.0	27.0	25.3	24.0	32.8	33.2			6.9	6.5	5.4	ST
2305	6/ 6/95	1604	3000.6	8820.0	11	27	14	27	28.5	24.3	23.8	31.4	34.0	34.7			6.6	6.8	6.3	ST
2306	6/ 6/95	2000	3000.0	8819.9	11	29	15		28.7	25.3		30.7	34.3				6.4	6.7		ST
2307	6/ 6/95	2040	3000.9	8819.2	11	27	14	27	28.6	24.3	23.7	29.1	34.1	34.7			6.4	6.8	5.9	ST
2308	6/ 6/95	2304	3011.6	8805.3	11	9	5	9	27.9	27.7	26.1	30.4	30.7	32.5			6.5	6.5	5.3	ST
2309	6/ 8/95	2000	3009.9	8821.5	11	16	8	16	29.2	25.1	25.2	20.6	33.4	33.7			7.0	5.4	5.5	ST
2310	6/ 8/95	2049	3007.3	8819.3	11	20	10	20	30.2	25.2	24.3	18.2	33.7	34.2			7.0	5.6	5.1	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	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
17001	6/ 9/95	0932	2905.9	8857.5	11	31	15	30	27.7	22.7	22.4	9.5	35.4	35.7	5.421		6.2	5.5	5.6	ST
17002	6/ 9/95	1141	2907.1	8857.2	11	27	13	26	28.1	23.4	22.6	9.2	35.2	35.7	5.509		6.2	5.4	5.6	ST
17003	6/ 9/95	1448	2915.5	8858.2	11	22	11	21	30.0	23.2	23.0	1.3	35.6	35.7	2.794		6.2	5.6	5.6	ST
17004	6/ 9/95	1759	2914.1	8849.2	11	65	32	64	32.0	22.8	21.2	12.9	36.0	36.2	30.347		11.5	6.0	5.4	ST
17005	6/ 9/95	1952	2908.8	8844.1	11	78	39	74	28.4	23.5	20.2	25.2	36.3	36.4	9.233		8.8	6.3	5.6	ST
17006	6/ 9/95	2309	2909.9	8846.1	11	75	36	73	28.5	23.6	20.2	17.3	36.1	36.3	18.815		9.2	6.6	5.5	ST
17007	6/10/95	0250	2909.5	8852.2	11	64	32	63	28.0	22.7	21.0	19.2	35.8	36.1	16.466		9.9	5.6	5.1	ST
17008	6/10/95	0514	2906.2	8856.6	11	59	30	59	26.5	22.6	20.7	12.7	35.9	36.1	5.308		6.4	6.0	5.2	ST
17009	6/10/95	0845	2924.7	8852.9	11	16	8	16	27.5	26.2	23.5	7.4	33.5	35.3	9.375		7.8	5.8	5.6	ST
17010	6/10/95	1032	2924.9	8845.3	11	32	16	31	29.6	23.0	23.1						9.8	6.0	5.6	ST
17011	6/10/95	1201	2927.2	8840.9	11	36	18	35	31.4	23.3	22.7	18.8	35.4	35.8	9.476		9.8	5.9	5.2	ST
17012	6/10/95	1531	2930.0	8830.2	11	50	25	49	32.5	24.0	23.0	20.9	36.1	36.2	5.927		8.5	6.3	5.8	PN
17013	6/10/95	2006	2922.7	8849.0	11	32	16	31	29.2	26.5	22.5	17.8	35.9	35.9	20.086		12.8	6.0	5.8	ST
17014	6/10/95	2219	2925.7	8847.8	11	23	11	22	30.6	26.2	22.6	16.9	35.3	35.4	13.197		11.5	5.8	5.6	ST
17015	6/11/95	0049	2925.5	8852.3	11	18	9	17	30.1	26.3	23.2	35.3	35.7	10.4	27.642		12.0	5.8	5.7	ST
17016	6/11/95	0338	2925.8	8850.4	11	19	9	18	29.9	25.8	23.3	8.7	35.2	35.3	30.969		11.2	5.8	5.5	ST
17017	6/11/95	0513	2928.4	8839.6	11	26	13	25	30.0	26.7	22.5	19.6	35.0	35.7	6.392		9.6	5.5	5.3	ST
17018	6/11/95	0826	2940.5	8849.7	11	11	5	9	29.8	28.0	24.6	19.2	29.9	32.8	7.981		10.0	6.5	3.9	ST
17019	6/11/95	1022	2946.8	8837.8	11	20	10	19	30.5	26.3	22.7	18.8	30.5	35.6	8.710		10.1	5.1	5.4	ST
17020	6/11/95	1151	2949.1	8830.2	11	30	15	29	30.6	27.0	22.7	20.2	33.6	35.7	6.074		11.0	5.8	5.6	ST
17021	6/11/95	1419	2953.9	8834.3	11	23	12	22	30.3		23.2	22.2	32.8	35.7	4.934		10.4	5.9	5.5	ST
17022	6/11/95	1625	3000.1	8830.6	11	25	12	24	29.2	26.5	23.0	22.4	34.2	35.3	3.869		8.0	6.0	4.8	PN
17023	6/11/95	2152	2931.5	8857.9	11	9	4	8	28.1	28.0	24.2	27.5	27.7	34.7	4.411		6.7	6.4	5.4	ST
17024	6/12/95	0026	2933.4	8853.3	11	11	6	10	28.5	26.7	24.8	27.1	32.8	35.0	3.869		7.4	5.9	4.9	ST
17025	6/12/95	0310	2934.3	8850.8	11	13	6	12	28.2	26.0	24.8	25.6	33.4	35.0	4.168		7.4	5.9	5.0	ST
17026	6/12/95	0756	3004.7	8846.5	11	12	6	11	28.8	28.2	23.3	21.1	22.5	33.6	13.917		6.4	6.4	4.4	ST
17027	6/13/95	1715	3011.0	8832.7	11	9	4	8	26.0	26.0	26.0	17.9	22.4	26.0	8.394					ST
17028	6/13/95	2030	2951.4	8829.3	11	30	15	29	27.0	23.8	22.5	28.0	33.9	35.9	.689		6.0	4.9	5.9	ST
17029	6/13/95	2313	2947.8	8834.2	11	24	13	23	27.3	26.2	22.0	28.6	35.9		.569		6.2	5.6	5.5	ST
17030	7/ 6/95	2346	2944.4	9311.3	17	6	3	5	28.3	28.7	28.3	10.0	10.0	10.0			5.9	6.1	5.5	ST
17031	7/ 7/95	0304	2942.5	9332.2	17	8	4	7	28.6	28.8	28.7	13.0	13.0	13.0			6.0	5.8	5.7	ST
17032	7/ 7/95	1243	2942.4	9324.3	17	6	3	5	30.4	28.8	28.6	12.0	16.0	18.0			6.9	4.7	4.3	ST
17033	7/ 7/95	1822	2931.4	9235.4	16	8	4	7	30.8	29.2	28.5	6.0	18.0	24.0			8.3	6.6	2.7	ST
17034	7/ 7/95	2040	2935.3	9243.1	16	4	2	3	29.0	29.1	28.4	11.5	12.0	15.5			4.8	5.2	4.5	ST
17035	7/ 8/95	0519	2901.3	9138.4	15	8	4	7	29.3	28.9	27.9	19.0	27.0	27.5			7.2	5.3	3.4	ST
17036	7/ 8/95	1100	2852.6	9047.3	14	8	4	7	29.1	29.3	27.8	24.0	24.0	29.0			6.3	5.9	2.7	ST
17037	7/ 8/95	1325	2902.4	9035.9	14	4	2	3	30.0	30.5	30.7	14.0	14.5	15.0			7.2	6.6	6.7	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	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
17038	7/ 8/95	1553	2902.6	9021.5	14	6	3	5	31.0	31.1	30.7	11.0	11.0	11.5			10.2	9.3	8.5	ST
17039	7/ 8/95	2005	2901.1	9058.7	14	6	3	5	29.8	30.2	29.8	16.0	17.0	18.0			8.3	7.6	6.4	ST
17040	7/ 8/95	2315	2903.4	9037.2	14	4	2	3	29.7	30.3	30.2	15.0	15.0	15.0			6.8	6.6	6.6	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
00001	6/17/95	2132	2949.3	8809.3	11	34	17	34	27.0	27.0	22.4	31.8	32.9	35.6		.623	6.9	6.9	5.4	ST
00002	6/18/95	0034	2940.2	8829.6	11	38	20	38	27.0	23.6	22.0	29.1	35.7	36.0		.178	7.2	6.0	5.2	ST
00003	6/18/95	0259	2929.2	8837.3	11	40	20	40	27.0	24.1	22.3	29.8	35.4	35.9		1.702	7.0	5.6	4.6	ST
00004	6/18/95	0622	2929.7	8810.1	11	45	22	45	27.1	25.3	22.4	32.3	35.9	35.8		.713	6.7	7.2	5.9	ST
00006	6/18/95	1201	2946.3	8803.7	11	34	17	34	26.9	26.9	22.7	32.1	33.8	35.5		.420	6.8	6.9	5.7	ST
00007	6/18/95	1439	2942.7	8815.5	11	40	20	39	27.1	27.0	22.6	31.5	34.6	35.9		.484	6.9	6.9	5.8	ST
00008	6/18/95	1954	2924.1	8813.3	11	54	27	54	27.3	27.5	22.3	33.3	36.4	36.2		.610	6.8	6.8	6.2	ST
00009	6/18/95	2336	2911.3	8835.4	11	77	37	76	26.5	23.7	18.1	30.7	36.1	36.3		2.071	7.3	7.1	4.3	ST
00010	6/19/95	0322	2858.1	8859.4	11	91	44	90	26.1	23.1	20.8					4.415	6.9	4.2	6.1	ST
00011	6/19/95	0740	2921.3	8840.5	11	54	27	54	26.9	24.9	22.1					.010				ST
00013	6/19/95	1256	2920.8	8808.3	11	82	41	81	27.2	24.5	19.5		34.2	36.9		.010	6.1	6.6	5.2	ST
00015	6/23/95	1220	2610.7	9623.5	21	83	41	83	27.8	22.5	17.8	32.1	35.9	36.2			6.3	6.2	6.3	ST
00016	6/23/95	1404	2602.1	9630.0	21	62	31	62	28.0	23.0	22.4	32.1	35.8	35.8			6.6	6.6	5.0	PN
00017	6/23/95	1718	2629.9	9629.8	21	80	40	80	28.0	22.9	17.9	32.8	36.1	36.3			6.4	6.6	3.9	PN
00018	6/23/95	2028	2635.0	9637.2	21	70	35	70				32.4	36.1	36.3			6.5	6.9	4.3	ST
00019	6/23/95	2359	2618.0	9621.4	21	84	42	84				34.1	36.3	36.3			6.5	7.0	4.2	ST
00020	6/24/95	0405	2600.1	9660.0	21	25	12	25	28.1	28.0	27.6	30.4	31.6	32.6			6.5	6.6	5.4	PN
00021	6/24/95	0639	2601.2	9651.8	21	36	18	36	28.0	27.0	22.6	31.2	31.6	35.9			6.4	6.3	5.5	ST
00022	6/24/95	0710	2600.6	9654.3	21	31	15	31				31.2	31.4	35.8			6.2	6.2	5.4	ST
00023	6/24/95	0940	2609.3	9706.0	21	18	9	18				32.0	31.9	31.9			6.1	6.3	6.3	ST
00024	6/24/95	1111	2608.2	9708.3	21	12	6	12	28.4	28.2	28.2	32.0	32.0	32.0		1.915	5.8	6.5	6.5	ST
00025	6/24/95	1310	2610.0	9709.0	21	13	6	12	28.6	28.0	28.0	31.9	32.0	22.9		1.006	6.7	6.7	5.1	ST
00026	6/24/95	1347	2611.6	9709.2	21	15	7	14	28.5	28.0	27.9	27.6	28.9	30.0		.908	6.8	4.3	4.3	ST
00027	6/24/95	1510	2615.0	9709.2	21	16	7	15	28.8	28.2	28.0	28.0	31.2	27.4			4.4	4.2	4.3	ST
00028	6/24/95	1643	2619.9	9708.2	21	16	7	14	28.6	28.3	28.0	26.2	34.1	18.6			4.1	3.9	4.9	ST
00029	6/24/95	1834	2623.3	9700.1	21	30	15	30	28.6	27.7	22.2	26.5	27.1	22.4		.012	3.4	6.9	4.8	ST
00030	6/24/95	1941	2627.5	9702.6	21	27	13	27	28.1	27.8	22.8	21.3	31.2	29.7		.012	4.6	6.7	4.4	ST
00031	6/24/95	2207	2615.9	9656.3	21	31	15	31	27.0	27.5	22.9	31.2	30.6	30.6		.425	6.8	6.5	5.9	ST
00032	6/24/95	2338	2608.8	9657.9	21	30	15	30	28.4	27.6	23.1	34.7		33.4		.010	3.9	3.7	4.2	ST
00033	6/25/95	0101	2602.2	9704.8	21	20	9	19	28.2	28.0	27.4	37.5	27.6	31.5		.012	5.4	3.0	4.9	ST
00034	6/25/95	0241	2602.7	9706.9	21	17	8	17	28.4	28.3	27.6	36.1		23.0		.010	3.5	4.0	3.6	ST
00035	6/25/95	0529	2626.7	9712.7	21	12	6	12	28.5	28.5	28.2	23.4	27.6	25.0		.012	3.3	3.9	3.8	ST
00036	6/25/95	0714	2630.0	9700.0	21	34	17	34	28.3	27.7	21.8					.017	6.8	4.5	4.1	PN
00037	6/25/95	1059	2657.4	9703.3	21	35	17	35	28.2	27.7	21.5	24.3	32.0	27.4		.022	4.2	3.7	4.2	ST
00038	6/25/95	1206	2700.0	9700.0	20	42	20	41	28.5	27.8	21.2	34.8	32.1	31.6		.010	3.6	3.2	5.4	PN
00039	6/25/95	1506	2700.1	9630.1	20	135	77	134	29.3	21.2	16.6	29.9	36.2	36.2		.001	4.3	6.6	4.0	PN
00040	6/25/95	2032	2657.6	9638.6	21	92	46	92	28.9	23.6	19.2	26.2	32.9	33.4		.012	3.1	7.4	4.2	ST
00041	6/25/95	2355	2646.2	9702.0	21	36	18	36	29.0	27.8	21.2	33.4		28.6		.035	6.4	3.5	4.4	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
00042	6/26/95	0202	2657.4	9708.1	21	31	14	31	28.5	27.9	21.9	32.3	28.4	32.7		.010	6.7	3.6	5.0	ST
00043	6/26/95	0405	2706.6	9702.6	20	37	18	36	28.3	27.8	21.7	28.1	32.4	32.3		.017	4.3	6.7	5.5	ST
00044	6/26/95	0753	2730.0	9630.1	20	74	37	74	28.7	22.4	20.0	30.2	31.5	36.1		.051	5.0	4.9	4.6	PN
00045	6/26/95	0945	2730.0	9623.5	20	90	45	90	28.5	22.9	19.9	24.4	36.0	36.2		.022	4.3	7.0	4.5	ST
00047	6/26/95	1410	2721.7	9633.5	20	82	40	81	28.9	22.8	20.0	28.6	35.8	36.3		.022	3.9	7.0	5.0	ST
00048	6/26/95	1555	2725.4	9638.5	20	64	32	64	29.1	23.9	20.0	28.6	34.4	36.1		.049	4.1	6.9	4.7	ST
00051	6/26/95	2221	2708.7	9643.6	20	72	36	72	29.2	22.1	19.8	32.4	34.8	36.0		.037	5.2	6.8	4.2	ST
00052	6/26/95	2353	2712.2	9650.6	20	54	25	54	28.6	24.5	20.2	25.0	30.8	35.9		.029	3.5	5.4	4.3	ST
00053	6/27/95	0329	2713.1	9708.0	20	29	14	29	28.4	27.9	22.4	23.3	25.2	32.8		.100	5.3	6.5	4.4	ST
00054	6/27/95	0521	2703.8	9715.2	20	22	11	22	28.5	28.0	23.3	25.7	31.3	32.1		.459	6.1	3.2	3.0	ST
00055	6/27/95	0854	2726.1	9710.8	20	20	10	20	28.7	28.5	24.9	27.2	29.6	30.2		.012	3.9	6.6	2.8	ST
00056	6/27/95	1036	2732.2	9705.2	20	22	11	22	28.7	27.9	24.0	29.9	26.9	36.3		.559	6.5	5.4	3.0	ST
00057	6/27/95	1354	2733.0	9658.9	20	28	14	28	29.1	27.5	26.1	23.2	23.6	29.2		.107	4.7	6.6	4.6	ST/PN
00058	6/27/95	1605	2727.3	9704.4	20	25	13	25	29.3	27.9	23.9	24.0	25.4	31.6		.051	4.6	4.1	4.7	ST
00059	6/27/95	2135	2714.7	9715.1	20	20	10	20	29.0	28.6	24.2	31.4	27.9	32.3		.655	6.6	6.8	4.9	ST
00060	6/27/95	2307	2709.2	9718.2	20	17	8	17	28.9	28.9	26.7	26.1	32.1	31.4		.044	3.8	6.5	5.5	ST
00061	6/27/95	2358	2708.3	9720.7	20	14	6	13	29.3	28.9	27.5	29.0	29.5	31.3		1.140	6.5	6.7	6.4	ST
00062	6/28/95	0228	2720.2	9711.8	20	22	11	22	28.7	28.5	24.4	24.9	29.1	31.7		.571	6.8	6.6	4.4	ST
00063	6/28/95	0442	2735.9	9709.1	20	15	7	15	28.9	28.9	26.9	29.6	29.4	31.8		.440	6.5	6.5	5.8	ST
00064	6/28/95	0752	2720.0	9655.2	20	40	20	40	28.7	26.9	21.2	24.9	31.9	35.6		.457	6.8	6.1	3.9	ST
00065	6/28/95	1234	2757.9	9654.0	20	13	6	13	29.3	29.3	28.1	29.5	29.9	31.3		.735	6.6	6.6	6.7	ST
00066	6/28/95	1430	2802.1	9648.0	19	13	6	13	28.9	28.8	27.4	28.7	30.2	31.9		.669	6.5	6.3	5.5	ST
00067	6/28/95	1615	2754.0	9642.6	20	24	12	24	29.2	27.8	24.8	30.6	29.8	32.4		.488	6.6	6.6	4.7	ST
00068	6/28/95	1834	2742.1	9623.0	20	65	37	65	29.1	21.7	20.6	26.3	34.8	34.3		.115	5.3	6.0	5.2	ST
00069	6/28/95	2224	2731.4	9639.5	20	55	27	55	29.2	26.8	20.5	26.6	33.0	33.6		.549	6.7	6.4	4.6	ST
00071	6/29/95	0225	2754.9	9639.9	20	25	12	24	28.8	27.5	25.6	26.3	29.7	33.2		.711	6.7	6.2	5.8	ST
00072	6/29/95	0511	2755.3	9621.0	20	40	20	39	29.2	27.8	21.6	29.3	32.5	35.4		.410	6.5	6.7	4.0	ST
00073	6/29/95	0838	2812.6	9618.2	19	23	11	23	28.9	28.8	25.4	23.9	27.8	33.4		.481	6.6	6.6	5.8	ST
00074	6/29/95	1217	2801.4	9630.3	19	24	12	24	28.5	27.7	26.9	27.5	29.1	33.2		.576	6.5	6.6	5.5	ST/PN
00075	6/29/95	1344	2801.4	9622.6	19	31	15	31	28.8	27.6	22.8	27.7	31.2	33.8		.708	6.5	6.4	4.3	ST
00076	6/29/95	1534	2801.1	9618.8	19	32	16	32	28.7	27.5	22.9	28.3	28.6	31.2		.745	6.6	6.3	4.7	ST
00077	6/29/95	1734	2800.1	9600.0	19	46	23	46	28.9	26.2	21.7	28.1	30.7	33.4		.630	6.6	6.9	4.8	PN
00078	6/29/95	2024	2803.4	9558.4	19	38	19	38	28.8	27.3	23.0	32.2	31.1	34.2		.576	6.4	6.5	5.5	ST
00079	6/30/95	0000	2802.8	9623.3	19	28	14	28	28.8	27.8	23.1	29.6	30.3	33.3		.701	6.5	6.4	4.0	ST
00080	6/30/95	0155	2813.3	9629.3	19	15	7	14	28.7	28.7	26.1	30.3	30.4	32.7		.618	6.3	6.3	4.3	ST
00081	6/30/95	0414	2818.1	9615.1	19	20	10	20	28.7	27.6	25.5	29.1	31.8	35.3		.833	6.4	6.1	6.4	ST
00082	6/30/95	0539	2823.9	9606.8	19	17	8	17	28.8	28.8	25.3	29.0	29.4	33.5		1.094	6.4	6.4	3.3	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
00083	6/30/95	0819	2822.5	9604.6	19	19	9	19	28.6	28.5	25.2	30.4	29.5	32.9		.908	6.3	6.2	3.0	ST
00084	6/30/95	1018	2822.5	9613.9	19	16	8	16	28.6	27.4	26.3	29.9	30.2	33.6		4.999	6.4	5.5	4.7	ST
00085	6/30/95	1316	2824.6	9609.2	19	17	9	15	28.8	29.7	25.5	29.8	28.3	33.5		1.123	6.4	6.5	2.6	ST
00086	6/30/95	1706	2827.6	9554.4	19	18	9	17	28.9	28.5	26.7	29.7	27.9	33.5		1.797	6.4	6.3	3.0	ST/PN
00087	6/30/95	2028	2817.7	9536.3	19	30	15	30	28.5	28.2	24.2	28.7	28.9	33.5		.745	6.6	6.4	4.6	ST
00088	6/30/95	2107	2814.5	9533.8	19	36	18	36	28.5	28.1	23.4	26.9	30.0	32.8		.132	5.8	6.3	4.7	ST
00089	7/ 1/95	0010	2805.6	9549.4	19	40	20	40	28.5	21.1	23.3	29.8	24.0	31.7		.007	3.9	6.7	5.8	ST
00091	7/ 1/95	0253	2801.8	9550.2	19	45	22	45	28.4	27.4	21.8	28.7	30.8	34.2		.022	3.7	6.6	5.0	ST
00094	7/ 1/95	0822	2743.2	9543.2	20	88	44	88	28.3	23.5	18.7	31.0	35.9	34.8		.742	6.5	7.2	4.0	ST
00095	7/ 1/95	1142	2805.8	9549.5	19	40	20	40	28.5	27.5	22.7	28.0	31.5	28.2		.610	6.6	6.5	5.3	ST
00096	7/ 1/95	1418	2809.4	9537.4	19	40	20	40	28.7	28.3	22.8	25.7	27.6	32.1		.007	4.0	4.6	4.4	ST
00097	7/ 1/95	1720	2819.4	9528.2	19	33	16	32	29.0	28.1	24.0	23.1	27.0	32.3		.032	6.7	6.6	5.1	ST
00098	7/ 1/95	2030	2819.8	9520.8	19	34	17	34	28.9	28.0	23.8	28.5	31.0	30.8		.549	6.8	6.2	5.0	ST
00099	7/ 1/95	2232	2834.2	9527.4	19	22	11	22	29.1	28.4	25.0	21.5	28.8	31.9		.684	6.8	6.6	3.0	ST/PN
00100	7/ 2/95	0139	2842.8	9538.8	19	10	5	9	28.7	28.4	27.4	24.8	26.8	25.7		1.651	6.6	5.1	2.4	ST
00101	7/ 2/95	0455	2842.7	9513.1	19	21	10	20	28.5	28.4	26.4	25.9	25.4	32.7		.657	6.7	6.6	4.2	ST
00102	7/ 2/95	0716	2844.0	9459.2	18	22	11	22	28.3	28.1	26.7	24.6	25.8	26.2		.923	6.6	6.6	4.0	ST
00103	7/ 2/95	1006	2837.3	9455.7	18	28	14	28	28.4	27.9	26.3	29.5	31.8	34.3		1.140	6.4	5.9	4.2	ST/PN
00104	7/ 2/95	1317	2820.5	9510.0	19	36	18	36	29.0	27.3	22.4	28.9	31.4	35.3		.437	6.2	5.5	4.8	ST
00105	7/ 2/95	1557	2801.0	9505.6	19	71	35	70	28.6	25.7	19.8	30.8	33.5	36.3		.386	6.6	7.2	4.6	ST
00106	7/ 2/95	2047	2759.1	9428.0	18	68	34	68	29.5	25.6	20.1	28.8	32.6	35.1		.442	6.5	6.9	5.1	ST
00107	7/ 2/95	2144	2800.8	9425.1	18	76	38	76	29.3	23.7	17.3	29.2	33.8	36.2		.466	6.5	6.7	3.8	ST
00108	7/ 5/95	0012	2914.4	9441.9	18	12	6	10	27.7	27.7	26.9	28.0	27.1	28.4		3.888	4.8	3.2	.2	ST
00109	7/ 5/95	0546	2858.3	9502.6	19	16	7	15	28.2	28.2	26.8	31.1	31.1	34.1		1.431	6.0	6.0	4.9	ST
00110	7/ 5/95	2034	2901.1	9505.1	19	13	6	12	28.1	27.9	26.7	32.2	32.3	34.3		6.733	6.2	5.5	4.6	ST
00111	7/ 6/95	0041	2839.1	9506.9	19	25	13	24	28.8	28.6	25.6	30.7	30.8	34.8		.535	6.4	6.5	3.8	ST
00112	7/ 6/95	0435	2838.7	9440.2	18	29	14	28	28.6	28.6	24.9	30.4	30.4	35.1		.742	6.4	6.4	1.6	ST
00113	7/ 6/95	0857	2823.4	9415.0	18	45	23	45	28.4	27.6	23.3	31.3	34.5	35.6		.052	6.3	6.5	5.3	ST
00117	7/ 6/95	1536	2809.3	9418.3	18	49	24	48	29.1	27.1	21.5	32.5	35.3	35.9		.291	6.5	6.4	5.1	ST
00119	7/ 6/95	1847	2802.7	9406.4	18	72	36	70	29.1	27.5	18.1	33.3	35.9	36.3		.310	6.3	6.5	4.0	ST
00120	7/ 6/95	2115	2800.5	9408.6	18	79	39	77	29.1	26.5	17.4	33.2	36.0	36.2		.298	6.3	6.8	4.1	ST
00122	7/ 7/95	0200	2811.4	9416.0	18	52	27	51	28.8	25.3	21.5	30.7	34.9	36.0		.418	6.4	5.9	4.9	ST
00123	7/ 7/95	0543	2757.3	9357.3	17	90	45	88	28.6	24.5	17.6	33.9	36.2	36.4		.273	6.3	7.1	3.9	ST/PN
00124	7/ 7/95	1559	2807.2	9331.3	17	70	34	70	28.8	24.2	19.5	34.1	35.8	36.3		.298	6.3	7.4	3.8	ST/PN
00125	7/ 7/95	1925	2830.6	9341.1	17	39	19	38	29.7	27.7	24.0	29.0	33.9	35.8		1.016	6.8	5.8	5.3	ST
00126	7/ 7/95	2345	2821.9	9320.0	17	54	27	52	29.4	27.3	21.2	31.3	35.1	36.0		.645	6.4	6.6	5.7	ST
00129	7/ 8/95	0640	2840.2	9315.4	17	31	16	30	29.3	27.3	25.3	28.2	35.0	35.9		.879	6.5	4.6	5.6	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
00130	7/ 8/95	0803	2840.4	9316.9	17	32	16	29	29.0	27.4	25.1	28.0	34.7	35.9		1.260	6.6	4.4	5.6	ST
00131	7/ 8/95	0946	2844.6	9325.0	17	28	14	27	29.0	27.6	26.6	27.9	33.8	35.5		1.436	6.7	4.2	4.0	ST
00132	7/ 8/95	1209	2840.2	9338.3	17	31	15	31	29.3	27.6	25.3	29.5	32.4	35.8		9.304	6.5	4.7	3.6	ST
00133	7/ 8/95	1407	2834.6	9344.1	17	35	17	34	29.4	27.6	24.3	28.9	33.9	35.7		.821	6.7	5.8	4.8	ST
00134	7/ 8/95	1549	2842.8	9348.4	17	25	12	23	29.8	28.5	26.8	28.1	29.2	34.9		1.223	6.8	6.5	4.5	ST
00135	7/ 8/95	2045	2839.3	9342.1	17	32	16	31	29.7	27.3	25.0	28.8	34.5	35.7		1.516	6.8	4.3	3.9	ST
00136	7/ 8/95	2249	2841.2	9336.9	17	28	14	26	29.6	28.2	25.5	28.6	32.9	35.7		1.096	6.6	6.3	3.9	ST
00137	7/ 9/95	0049	2843.0	9333.0	17	29	15	27	29.6	27.3	25.4	29.1	34.4	35.7		.947	6.3	5.4	4.5	ST
00138	7/ 9/95	0229	2849.5	9334.0	17	20	11	19	29.2	28.4	27.3	28.0	28.8	34.7		1.375	6.9	5.9	2.8	ST
00139	7/ 9/95	0531	2858.2	9356.1	17	20	10	19	29.5	28.7	27.3	29.2	29.9	34.3		.852	6.6	6.4	1.8	ST
00140	7/ 9/95	1024	2931.5	9415.7	18	10	5	9	29.6	29.3	28.9	16.5	20.5	22.5		9.585	8.4	4.9	5.1	ST
00141	7/ 9/95	1228	2930.2	9400.1	18	12	6	12	30.4	29.5	28.4	15.4	26.8	29.0		10.000	9.1	7.2	4.2	PN
00142	7/ 9/95	1428	2922.8	9356.5	17	10	5	9	29.7	29.5	28.7	27.4	28.4	28.9		1.590	7.1	6.9	5.1	ST
00143	7/ 9/95	1806	2911.8	9328.4	17	17	9	16	29.9	28.6	27.2	28.8	29.7	33.5		1.302	7.1	6.7	.2	ST
00144	7/ 9/95	2146	2905.9	9357.9	17	18	9	17	30.1	28.9	27.5	28.3	28.6	33.6		.586	6.7	6.7	.9	ST
00146	7/10/95	0248	2915.3	9334.4	17	15	7	14	29.6	29.5	27.7	28.6	28.7	32.4		1.116	7.0	6.9	.2	ST
00147	7/10/95	0536	2918.0	9307.0	17	17	9	17	29.9	29.5	27.3	27.8	27.9	32.9		2.852	7.3	7.7	.0	ST
00148	7/10/95	0836	2922.1	9320.2	17	14	7	13	29.0	28.9	27.4	27.3	27.4	32.2		2.584	7.1	6.8	.0	ST
00149	7/10/95	1049	2919.6	9305.3	17	17	8	16	29.8	29.8	27.3	27.7	27.7	32.5		2.669	7.6	7.6	.0	ST
00150	7/10/95	1234	2930.0	9300.0	17	13	6	12	30.1	29.4	28.4	18.8	23.8	26.7		3.734	8.2	7.1	3.3	PN
00151	7/10/95	1425	2934.9	9259.5	16	11	6	10	30.1	29.1	27.9	20.2	24.1	27.6		8.437	8.5	6.6	1.1	ST
00152	7/10/95	2020	2933.8	9248.3	16	9	4	8	29.9	28.3	27.5	19.0	23.0	30.7		7.744	7.8	3.5	.0	ST
00153	7/10/95	2258	2925.1	9257.0	16	15	7	14	29.6	29.3	27.7	23.9	26.4	30.7		5.827	7.3	6.8	.7	ST
00154	7/11/95	0248	2900.1	9259.9	16	24	12	24	29.8	28.4	27.1	27.0	29.8	35.3		1.507	6.7	5.6	4.0	PN
00155	7/11/95	0623	2910.6	9246.0	16	20	10	19	29.6	29.2	26.7	25.6	26.2	35.2		1.814	6.7	6.5	.5	ST
00156	7/11/95	0924	2906.3	9225.6	16	21	10	20	29.6	28.4	26.6	20.8	26.2	35.5		4.857	7.0	4.4	1.1	ST
00157	7/11/95	1112	2859.4	9229.4	16	25	12	25	29.9	28.3	26.9	24.2	26.7	35.4		4.200	6.9	3.3	3.0	PN
00158	7/11/95	1432	2906.8	9241.6	16	22	11	22	29.7	28.8	26.7	25.8	26.4	35.3		1.204	6.6	6.2	1.1	ST
00159	7/11/95	1822	2834.0	9250.0	16	43	21	42	29.7	27.5	23.8	32.7	34.8	36.1		.469	6.3	6.3	5.7	ST
00160	7/11/95	2141	2833.5	9308.7	17	40	20	39	29.9	27.4	24.0	28.4	34.8	36.0		1.216	6.7	5.7	5.6	ST
00161	7/12/95	0027	2839.0	9308.3	17	35	17	34	29.8	27.4	25.0	28.3	34.6	36.0		1.158	6.8	4.8	5.9	ST
00162	7/12/95	0405	2838.7	9240.9	16	36	19	35	29.5	28.6	25.7	26.7	34.2	36.0		2.366	6.7	6.3	5.7	ST
00163	7/12/95	0742	2827.7	9220.6	16	55	28	54	29.3	26.0	21.9	32.4	35.8	36.1		.606	6.2	6.9	5.4	ST
00167	7/12/95	1323	2810.7	9218.3	16	76	38	76	29.5	24.6	18.2	32.3	36.0	36.2		.471	6.2	7.2	4.1	ST
00168	7/12/95	1611	2805.6	9223.0	16	89	45	88	30.1	23.4	18.0	33.8	36.3	36.2		.234	6.1	7.2	4.2	ST
00170	7/12/95	1918	2807.9	9232.9	16	80	40	79	30.2	23.5	17.3	30.7	36.2	36.2		.662	6.2	7.1	3.9	ST
00171	7/12/95	2243	2805.4	9221.3	16	93	46	92	29.7	23.4	18.3	31.7	36.2	36.2		.662	6.2	7.1	4.2	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
00172	7/13/95	0201	2810.3	9235.7	16	71	35	70	30.1	24.0	19.1	30.1	35.8	36.2		.796	6.3	7.0	4.2	ST
00174	7/13/95	0556	2814.2	9251.3	16	64	32	63	29.7	26.5	19.1	29.7	35.4	36.2		.799	6.3	6.5	4.2	ST
00175	7/13/95	1116	2827.3	9203.9	16	55	27	53	29.7	27.9	22.2	22.9	35.1	36.1		2.498	6.5	6.3	5.5	ST
00177	7/13/95	1532	2836.1	9147.1	15	41	21	39	30.7	27.0	23.5	23.1	35.6	36.1		2.640	7.0	4.5	6.1	ST
00178	7/13/95	1710	2835.6	9142.3	15	34	17	33	30.9	27.6	24.5	18.8	35.4	36.1		3.131	7.2	6.2	5.3	ST
00179	7/13/95	2016	2841.4	9149.9	15	33	16	32	30.1	27.3	24.9	22.8	35.4	36.0		2.232	7.0	5.7	5.7	ST
00180	7/13/95	2115	2846.2	9149.7	15	27	13	26	30.2	27.5	25.5	24.2	34.4	36.0		2.269	6.5	4.6	4.8	ST
00181	7/14/95	0049	2851.1	9204.2	16	27	13	27	30.0	26.9	25.5	22.6	35.4	36.0		2.266	6.8	2.7	4.1	ST
00182	7/14/95	0351	2900.2	9221.3	16	24	12	23	30.1	26.9	26.9	23.6	35.2	35.6		1.182	6.3	1.7	2.6	ST
00183	7/14/95	0611	2907.9	9202.8	16	12	6	11	29.3	27.4	26.9	26.2	33.3	35.0		3.028	4.5	.7	.1	ST
00184	7/14/95	0829	2904.7	9149.2	15	10	5	8	29.9	29.1	27.2	24.0	26.7	34.2		3.929	6.6	2.8	.7	ST
00185	7/14/95	1204	2855.8	9201.9	16	24	12	22	29.7	27.0	26.1	22.3	35.4	36.0		2.244	6.3	2.8	3.2	ST/PN
00186	7/14/95	1527	2829.9	9200.0	15	50	25	50	29.8	28.2	22.5	18.8	34.8	36.1		2.952	6.7	6.3	4.8	PN
00187	7/14/95	2001	2835.8	9220.9	16	39	19	38	29.9	27.9	23.6	27.1	34.9	36.1		2.613	6.5	6.0	5.6	ST
00190	7/15/95	0118	2830.3	9206.1	16	51	25	48	29.2	27.9	23.1	20.4	35.0	36.1		2.991	6.5	6.2	5.5	ST
00192	7/15/95	0513	2837.0	9153.2	15	39	20	37	29.0	27.3	24.1	23.2	35.7	36.2		2.249	6.1	5.9	5.3	ST
00193	7/15/95	0929	2815.6	9132.4	15	75	38	74	29.1	24.2	18.6	33.5	36.2	36.2		.388	6.0	7.0	3.7	ST
00195	7/15/95	1212	2810.0	9125.9	15	96	49	93	29.0	24.1	16.6	33.8	36.4	36.2		.254	6.0	6.9	3.8	ST
00196	7/15/95	1455	2810.3	9121.3	15	90	46	88	29.0	25.8	16.9	34.0	36.3	36.1		.259	6.0	6.6	5.3	ST
00198	7/15/95	1808	2819.6	9116.1	15	65	33	64	29.1	22.3	20.6	33.5	35.7	36.2		.293	6.1	7.0	4.3	ST
00199	7/15/95	2132	2827.0	9105.8	15	40	20	39	29.8	28.1	23.3	28.5	34.9	36.1		3.792	6.5	6.0	4.7	ST
00200	7/16/95	0024	2840.9	9110.0	15	16	8	14	29.7	27.4	26.7	17.5	33.2	35.2		3.683	6.8	2.1	.0	ST
00201	7/16/95	0247	2837.7	9123.1	15	30	15	28	29.4	27.5	25.8	24.4	35.1	36.0		2.772	6.3	5.6	3.1	ST
00202	7/16/95	0350	2841.8	9126.5	15	25	12	24	29.5	27.3	26.6	19.0	34.8	35.9		3.504	6.4	2.4	2.8	ST
00203	7/16/95	0549	2846.6	9136.1	15	24	11	23	29.1	28.1	26.5	22.0	34.0	35.9		2.249	4.9	5.5	3.2	ST
00204	7/16/95	0755	2838.5	9131.4	15	31	16	30	29.2	28.5	26.2	20.1	34.8	35.8		3.077	6.5	6.0	5.0	ST
00205	7/16/95	1028	2839.7	9115.0	15	23	11	22	29.5	26.6	26.5	18.2	35.5	35.5		4.486	6.6	.0	.0	ST
00206	7/16/95	1223	2836.7	9105.0	15	21	11	20	29.7	27.7	26.3	18.4	32.9	35.7		2.943	7.0	2.1	2.5	ST
00207	7/16/95	1349	2834.9	9057.2	14	23	11	22	30.1	28.3	26.2	17.7	34.8	35.8		2.652	7.1	5.1	3.2	ST
00208	7/16/95	1614	2850.1	9048.1	14	17	8	16	30.2	29.0	26.2	19.7	28.3	35.4		3.778	8.2	3.4	.0	ST
00209	7/16/95	1812	2840.6	9034.9	14	19	10	18	30.0	28.8	27.0	25.4	32.7	35.6		1.656	6.4	4.9	3.4	ST
00210	7/16/95	2116	2823.7	9032.7	14	46	23	45	30.0	27.1	22.8	30.8	35.6	36.2		.628	6.0	6.5	3.7	ST
00212	7/17/95	0106	2814.1	9040.2	14	69	34	68	30.2	25.9	19.0	27.6	36.1	36.2		2.879	6.6	6.7	3.9	ST
00213	7/17/95	0324	2812.7	9029.1	14	78	39	76	29.8	24.2	18.3	31.8	36.1	36.2		1.248	6.2	6.9	4.0	ST
00214	7/17/95	0432	2810.0	9024.6	14	136	67	135	29.9	19.0	15.6	31.9	36.2	36.0		1.385	6.1	4.5	4.2	ST
00215	7/17/95	0659	2817.7	9022.8	14	64	32	63	29.2	27.1	19.8	32.9	35.6	36.2		.518	6.0	5.9	4.7	ST
00216	7/17/95	1012	2830.9	9034.0	14	36	18	35	30.2	28.4	23.9	27.8	34.7	36.1		1.233	6.0	5.8	3.3	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
00217	7/17/95	1334	2841.6	9008.0	14	42	21	42	30.5	27.8	21.9	25.3	35.2	36.1		1.477	6.7	5.9	5.3	ST
00218	7/17/95	1637	2903.5	9014.3	14	9	4	8	31.4	30.0	27.8	23.3	25.6	31.6		7.380	7.5	6.2	2.0	ST
00219	7/17/95	1842	2858.7	9027.0	14	12	6	11	30.7	29.8	26.9	24.0	25.8	34.6		2.540	6.3	4.7	.0	ST
00220	7/17/95	2100	2856.8	9033.0	14	12	7	11	30.6	30.1	26.2	23.5	24.9	34.8		2.965	7.0	6.1	.0	ST
00221	7/17/95	2345	2854.2	9022.6	14	18	10	17	30.6	27.0	26.2	22.9	34.6	35.6		2.083	6.9	.0	.0	ST
00222	7/18/95	0213	2837.1	9021.5	14	31	15	30	30.4	27.5	23.8	27.8	35.3	36.1		1.263	6.1	5.1	2.0	ST
00223	7/18/95	0254	2835.3	9021.7	14	38	19	37	29.9	27.2	23.5	29.2	35.7	36.1		.857	5.8	6.0	1.8	ST
00224	7/18/95	0546	2842.8	8953.9	13	77	39	77	29.7	25.2	19.8	26.0	36.0	36.3		2.286	6.2	6.8	3.8	ST
00225	7/18/95	0931	2857.6	8933.4	13	47	25	45	30.0	26.1	22.1	17.1	36.1	36.1		9.800	8.3	3.2	5.9	ST
00226	7/18/95	1044	2900.9	8936.2	13	30	15	29	30.3	27.9	25.4	16.5	34.9	36.1		9.661	8.6	4.2	1.0	ST
00227	7/18/95	1155	2905.9	8940.6	13	18	9	18	31.1	28.8	26.4	16.7	34.3	35.9		8.767	8.6	5.4	.4	ST
00228	7/18/95	1354	2905.0	8947.5	13	25	13	25	31.0	28.3	25.4	16.3	34.7	36.1		7.976	9.4	5.7	.0	ST
00229	7/18/95	1455	2901.9	8951.0	13	31	15	31	31.0	28.0	23.1	16.0	35.2	36.1		7.802	10.6	5.9	.0	ST
00230	7/18/95	2000	2913.0	8953.7	13	9	5	8	30.8	29.8	26.9	22.7	25.9	33.8		6.176	8.1	5.0	.0	ST
00231	7/18/95	2120	2913.1	8947.3	13	12	6	11	31.2	29.5	26.7	18.3	27.6	35.2		8.484	9.0	5.3	.1	ST
00232	7/19/95	0018	2901.0	8933.5	13	18	8	17	30.8	29.2	26.5	17.0	32.9	35.5		8.112	8.4	5.4	.2	ST
00233	7/19/95	0112	2859.4	8931.1	13	17	8	16	30.3	29.3	26.8	17.0	30.6	35.5		7.841	8.1	5.6	1.6	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
37281	6/26/95	1616	2829.7	9030.0	14	38	18	38	30.4	27.2	24.4	22.3	35.8	36.3	2.660		7.8	6.2	4.4	PN
37282	6/26/95	1814	2831.0	9036.0	14	32	16	32	30.8	27.3	25.1	18.9	35.7	36.3	4.580		8.2	5.8	3.3	ST
37283	6/26/95	2137	2833.0	9043.2	14	24	12	24	30.6	27.2	25.1	16.9	35.4	36.3	7.890		8.4	5.5	3.1	ST
37284	6/26/95	2320	2831.1	9036.1	14	33	16	33	28.5	27.0	25.1	27.4	35.6	36.3	2.210		6.5	5.4	3.2	ST
37285	6/27/95	0117	2832.5	9046.9	14	25	12	25	30.4	27.1	25.2	15.8	35.2	36.3	5.470		8.1	6.0	3.2	ST
37286	6/27/95	0724	2833.1	9042.7	14	24	13	24	29.5	27.2	25.1	17.4	35.4	36.2	3.200		8.6	5.4	2.6	ST
37287	6/27/95	0844	2833.2	9046.4	14	24	13	24	29.5	27.1	25.3	18.0	35.3	36.3	6.280		8.2	5.7	3.2	ST
37288	6/27/95	1114	2829.9	9059.9	14	32	17	32	29.5	27.2	24.3	23.5	35.1	36.3	4.220		8.2	6.5	5.6	PN
37289	6/27/95	1515	2847.7	9117.7	15	12	7	12	31.1	27.5	27.0	21.2	27.4	34.7	7.250		7.7	3.9	1.5	ST
37290	6/27/95	1654	2841.9	9121.5	15	21	12	21	30.4	27.4	26.8	21.6	35.6	35.9	7.310		8.0	5.6	3.6	ST
37291	6/27/95	1830	2840.1	9128.0	15	26	14	26	31.8	27.4	26.5	21.6	35.4	36.0	5.180		7.7	6.2	2.5	ST
37292	6/27/95	2130	2840.1	9128.2	15	27	13	27	30.8	27.4	26.5	22.0	35.5	36.0	6.760		8.1	6.3	2.9	ST
37293	6/27/95	2326	2842.1	9121.4	15	21	9	21	30.4	27.5	26.8	21.7	35.1	35.9	5.730		8.2	5.8	3.3	ST
37294	6/28/95	0122	2848.2	9117.7	15	12	6	12	30.3	27.1	27.0	22.1	30.0	34.8	4.890		8.2	2.3	1.4	ST
37295	6/28/95	0715	2859.8	9129.8	15	11	6	11	29.2	27.7	27.0	21.5	27.3	32.4	10.580		6.9	3.2	.4	PN
37296	6/28/95	1103	2900.0	9100.2	15	7	4	7	30.1	30.1	27.7	18.9	18.9	23.6	9.820		6.6	5.4	1.3	PN
37297	6/28/95	1600	2856.1	9020.2	14	16	8	16	28.9	27.1	25.9	17.6	34.6	35.7	17.900		6.8	2.9	.7	ST
37298	6/28/95	1820	2855.3	9010.9	14	21	9	21	26.6	26.6	26.8	35.3	35.3	36.3	7.910		3.1	3.1	2.6	ST
37299	6/28/95	2129	2855.0	9021.8	14	16	8	16	28.6	27.2	26.0	19.1	34.8	35.7	12.870		6.5	3.1	.3	ST
37300	6/28/95	2347	2855.8	9011.3	14	20	11	20	28.5	26.5	26.8	25.5	35.3	36.3	9.440		6.6	2.8	2.6	ST
37301	6/29/95	0353	2911.2	8949.7	13	14	7	14	29.2	27.0	26.6	14.1	28.4	35.2	16.300		6.2	3.8	1.5	ST
37302	6/29/95	0705	2859.9	8930.0	13	16	8	16	28.9	27.0	26.9	13.6	32.2	35.7	14.560		6.1	1.4	1.8	PN
37303	6/29/95	1020	2911.4	8949.9	13	14	8	14	28.9	27.5	26.6	13.0	31.1	35.3	23.260		7.0	4.5	2.5	ST
37304	6/29/95	1450	2900.0	9000.0	14	23	11	23	27.6	27.2	26.7	24.4	35.7	36.3	18.720		6.8	4.4	2.9	PN
37305	6/30/95	0705	2900.0	9030.0	14	11	6	11	27.6	27.3	27.0	18.0	29.1	33.5	9.420		4.9	1.5	.7	PN

Table 2. Selected Environmental Parameters (continued)

A.E. VERRILL, 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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
02301	1/ 9/95	1011	3000.2	8759.6	10	29	14	29	16.5	14.0	18.0	32.0	33.4	34.0			7.2	6.9	4.6	TV
02302	6/20/95	1030	3005.3	8807.5	11	26	13	26				30.0	32.0	32.0			7.8	7.6	7.6	TV
02303	6/20/95	1115	2957.5	8809.8	11	21	11	21	26.5	26.0	26.0	28.0	28.0	32.0			7.4	7.2	6.6	TV
02304	6/21/95	1355	3005.3	8807.5	11	29	15	29	27.0	26.0	25.5	28.0	30.0	30.0			6.6	6.6	6.4	TV
02305	6/22/95	1055	2958.7	8746.7	10	22	11	22	28.0	26.0	25.5	24.0	30.0	30.0			6.4	7.2	7.2	TV
02306	6/22/95	1355	2956.9	8746.6	10	27	14	27	27.5	26.5	26.0	34.0	34.0	34.0			7.4	7.4	6.4	TV
02307	8/21/95	1015	3000.4	8800.0	10	33	17	33	28.0	27.4	26.5	32.0	34.0	34.0			6.4	7.2	7.2	TV
02308	8/21/95	1436	3001.8	8805.3	11	22	11	22	30.0	30.0	30.0	32.0	32.0	32.0			6.4	6.4	6.4	TV
02309	8/23/95	0912	3001.7	8805.3	11	24	12	24	31.0	30.0	30.0	28.0	30.0	32.0			6.8	6.4	6.2	TV
02310	8/23/95	1120	2959.3	8806.7	11	24	12	24	30.0	30.0	30.0	30.0	31.0	31.0			6.2	6.0		TV
02311	12/ 1/95	1025	2958.0	8806.6	11	26	13	26	30.0	30.0	30.0	31.0	31.0	32.0			6.6	6.6	7.0	TV
02312	12/ 1/95	1225	2958.3	8805.7	11	29	15	29	14.0	14.5	16.5	30.0	32.0	34.0			7.6	6.8	8.0	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
00002	6/21/95	0846	2757.2	9201.1	99	54	26	53	27.4	26.9	21.9	35.6	35.8	36.0		.374	6.5	6.5	7.1	TV
00003	6/21/95	1047	2757.2	9201.3	99	99	49	99	27.5	22.6	18.7	35.2	35.9	36.2		.244	6.5	7.0	7.5	TV
00004	6/21/95	1323	2757.4	9202.3	99	75	38	75	27.1	24.7	20.5	35.3	35.8	36.0		.386	6.5	6.8	7.3	TV
00005	6/21/95	1611	2758.6	9203.4	99	111	54	111	27.7	22.2	18.4	34.9	35.7	36.2		.239	6.4	7.1	7.5	TV
00006	6/21/95	1920	2756.3	9202.2	99	71	35	71	27.7	26.0	20.4	35.0	35.4	36.1		.283	6.5	6.6	7.3	TV
00008	6/22/95	0750	2758.5	9222.6	99	63	30	63	27.6	24.8	22.9	34.7	35.6	36.2		.298	6.5	6.8	7.0	TV
00009	6/22/95	1029	2758.9	9223.6	99	84	44	84	27.6	23.8	20.7	34.6	36.2	36.1		.413	6.5	6.8	7.2	TV
00010	6/22/95	1324	2757.0	9223.1	99	95	43	95	27.8	23.4	20.0	34.6	35.8	36.2		.291	6.5	6.9	7.3	TV
00011	6/22/95	1536	2756.9	9223.0	99	108	52	108	27.9	23.6	17.8	34.6	36.3	36.3		.315	6.5	6.9	7.6	TV
00012	6/22/95	1752	2757.9	9222.4	99	62	30	62	27.9	25.8	22.5	34.5	35.0	36.5		.510	6.5	6.7	7.0	TV
00013	6/23/95	0526	2749.2	9255.6	99	185	92	184	27.5	21.0	13.6	33.4	36.0	35.7		.366		7.2	8.3	PN
00014	6/23/95	0854	2749.8	9254.7	99	161	81	161	27.6	21.6	15.5	33.4	36.0	36.0		.361	6.5	7.1	8.0	TV
00015	6/23/95	1205	2749.5	9253.6	99	101	51	101	28.0	23.8	20.3	33.4	36.1	36.2		.344	6.5	6.9	7.3	TV
00016	6/23/95	1400	2749.8	9253.2	99	108	55	108	28.3	23.4	19.6	33.4	36.3	36.1		.386	6.5	6.8	7.3	TV
00017	6/23/95	1601	2749.8	9253.4	99	102	51	102	28.5	23.6	20.3	33.6	36.2	36.2		.391	6.4	6.9	7.3	TV
00018	6/23/95	1755	2749.4	9253.0	99	95	45	95	28.1	24.1	20.8	33.7	36.3	36.2		.391	6.4	6.8	7.2	TV
00020	6/24/95	0516	2748.0	9304.7	99	62	31	62	27.6	27.2	22.2	34.0	36.1	36.2		.383	6.5	6.5	7.0	PN
00022	6/24/95	0955	2748.4	9303.5	99	62	31	62	27.6	27.3	22.3	34.0	36.1	36.2		.418	6.5	6.5	7.0	TV
00023	6/24/95	1202	2748.3	9304.8	99	90	35	69	28.0	26.5	22.2	33.9	35.4	36.2		.361	6.5	6.6	7.0	TV
00024	6/24/95	1429	2749.7	9303.9	99	81	40	81	28.0	24.5	21.6	34.0	36.1	36.2		.386	6.5	6.8	7.1	TV
00025	6/24/95	1643	2747.6	9304.0	99	61	31	61	28.2	27.1	23.0	33.8	35.5	36.3		.430	6.4	6.5	6.9	TV
00026	6/24/95	1818	2748.1	9304.3	99	56	28	55	28.2	27.5	23.4	33.8	36.0	36.3		.413	6.5	6.4	6.9	TV
00027	6/26/95	0840	2752.8	9318.5	99	51	23	51	28.8	27.7	23.3	34.5	36.0	36.2		.425	6.4	6.4	6.9	TV
00028	6/26/95	1043	2752.9	9318.6	99	79	40	79	29.1	24.8	21.3	34.3	35.9	36.2		.391	6.3	6.7	7.2	TV
00029	6/26/95	1348	2754.1	9319.9	99	81	40	81	28.8	24.1	20.2	34.0	36.2	36.2		.464	6.4	6.8	7.3	TV
00030	6/26/95	1548	2751.9	9319.5	99	70	35	70	28.5	24.7	22.3	34.5	36.1	36.3		.361	6.4	6.7	7.0	TV
00031	6/26/95	1754	2753.6	9318.2	99	30	13	30	28.6	27.4	26.3	34.0	35.0	36.2		.400	6.4	6.5	6.6	TV
00033	6/27/95	0724	2755.0	9336.8	99	49	25	49	28.7	25.9	23.4	34.5	36.1	36.2		.432	6.4	6.6	6.9	TV
00034	6/27/95	0907	2754.3	9336.0	99	16	8	16	28.7	28.5	27.5	34.3	34.4	35.6		.354	6.4	6.4	6.4	TV
00035	6/27/95	1252	2754.8	9336.2	99	40	20	40	28.9	27.5	23.8	34.3	35.5	36.2		.317	6.4	6.5	6.8	TV
00036	6/27/95	1443	2756.4	9336.6	99	71	33	71	29.1	23.7	20.7	33.9	35.4	36.2		.400	6.3	6.9	7.2	TV
00037	6/27/95	1713	2754.2	9334.8	99	99	49	99	29.1	23.4	18.8	34.0	36.1	36.8		.466	6.3	6.9	7.5	TV
00041	6/28/95	0736	2752.3	9349.3	99	22	10	21	28.3	28.0	26.2	34.3	34.8	35.6		.410	6.4	6.7	6.6	TV
00042	6/28/95	0952	2754.5	9349.5	99	92	46	92	28.4	23.1	19.2	34.5	36.0	36.3		.662	6.4	6.9	7.4	TV
00043	6/28/95	1148	2755.0	9349.8	99	82	40	82	28.4	22.8	19.6	34.9	36.3	36.5		.454	6.4	7.0	7.4	TV
00044	6/28/95	1358	2753.3	9349.7	99	76	47	76	28.5	22.8	20.8	34.9	36.1	36.2		.364	6.3	7.0	7.2	TV
00045	6/28/95	1623	2753.1	9349.6	99	86	42	86	28.5	23.8	20.3	34.7	36.2	36.4		.442	6.4	6.9	7.3	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
00046	6/28/95	1824	2751.8	9349.1	99	71	36	71	28.7	27.5	21.7	35.2	35.4	36.4		.454	6.3	6.5	7.1	TV
00050	6/29/95	0727	2752.3	9351.9	99	65	33	65	28.5	26.0	22.0	35.3	36.2	36.2		.408	6.4	6.6	7.1	TV
00051	6/29/95	1000	2751.1	9352.6	99	87	44	84	28.6	24.6	20.7	35.8	36.2	36.2		.305	6.3	6.8	7.2	TV
00052	6/29/95	1225	2752.7	9350.3	99	82	36	82	28.8	25.0	20.5	35.4	36.0	36.2		.342	6.3	6.7	7.3	TV
00053	6/29/95	1613	2752.8	9350.2	99	74	36	74	28.6	24.5	21.4	32.7	36.1	36.2		.549	6.4	6.8	7.1	TV
00054	6/30/95	0505	2808.5	9329.0	17	60	30	59	28.2	23.5	20.9	34.2	36.7	36.1		.537	6.4	6.9	7.2	PN
00056	6/30/95	1020	2808.3	9329.0	17	49	25	49	28.1	25.0	21.5	34.3	35.4	35.9		.647	6.4	6.7	7.1	TV
00057	6/30/95	1226	2807.7	9328.9	17	61	36	59	28.1	23.2	21.5	34.3	35.7	36.0			6.4	6.9	7.1	TV
00058	6/30/95	1608	2808.5	9328.9	17	62	30	61	28.0	24.1	21.4	34.4	35.4	36.0			6.4	6.8	7.2	TV
00059	6/30/95	1741	2808.2	9329.1	17	57	28	57	28.0	24.1	21.4	34.4	35.5	36.1		.735	6.4	6.8	7.1	TV
00062	7/ 2/95	0732	2751.5	9149.8	99	116	58	116	28.0	23.7	18.1	35.8	36.2	36.3		.440	6.4	6.8	7.6	TV
00063	7/ 2/95	0934	2750.9	9149.5	99	106	51	106	28.0	23.6	19.7	35.7	36.2	36.2		.371	6.4	6.9	7.4	TV
00064	7/ 2/95	1156	2751.2	9149.5	99	136	67	136	28.4	22.5	17.5	35.3	36.1	36.2		.322	6.4	7.0	7.7	TV
00065	7/ 2/95	1338	2751.1	9149.0	99	113	57	113	28.4	23.3	18.4	35.4	36.1	36.5		.342	6.4	6.9	7.5	TV
00066	7/ 2/95	1508	2750.7	9146.7	99	95	47	95	28.6	23.9	20.8	35.2	36.2	36.3		.332	6.4	6.8	7.2	TV
00067	7/ 2/95	1638	2750.8	9148.6	99	105	52	105	28.7	23.9	19.1	34.9	36.2	36.5		.664	6.3	6.8	7.4	TV
00070	7/ 8/95	0822	2941.4	8805.0	11	33	15	30	28.7	26.4	23.1	30.8	35.4	35.9		.236	6.5	6.6	6.9	TV
00071	7/ 8/95	1039	2943.2	8803.1	11		17	32	28.8	25.7	22.9	31.5	35.7	36.0		.489	6.5	6.6	7.0	TV
00072	7/ 8/95	1337	2944.2	8801.3	11	34	15	34	29.2	26.3	22.6	30.6	35.8	36.0		.539	6.5	6.6	6.9	TV
00073	7/ 8/95	1537	2944.9	8802.0	11	35	19	35	30.2	26.5	22.6	28.9	36.1	36.0		.208	6.4	6.5	7.0	TV
00076	7/ 9/95	0723	2930.8	8729.3	10	66	33	63	29.3	25.9	20.6	30.1	36.1	36.2		.831	6.5	6.6	7.2	TV
00077	7/ 9/95	0916	2931.1	8729.5	10	62	31	61	29.4	26.8	22.1	30.1	36.0	36.1		.615	6.5	6.5	7.1	TV
00079	7/ 9/95	1525	2931.1	8729.2	10	66	33	66	30.0	26.7	20.7	30.0	36.1	36.2		.524	6.4	6.5	7.2	TV
00081	7/10/95	0846	3006.4	8655.9	9	57	28	56	28.0	24.1	20.3	34.3	36.0	36.3		.965	6.5	6.8	7.3	TV
00082	7/10/95	1037	3005.3	8658.2	9	47	26	46	28.1	26.1	21.5	34.1	36.1	36.3		.979	6.4	6.6	7.1	TV
00083	7/10/95	1234	3004.9	8658.7	9	55	27	54	28.0	25.3	20.5	34.0	35.9	36.3		.110	6.5	6.7	7.3	TV
00084	7/11/95	0945	3004.5	8659.3	9	52	26	51	28.0	26.6	21.5	32.8	35.7	36.2		.120	6.5	6.5	7.1	TV
00086	7/12/95	0708	2855.2	8516.2	8	72	34	72	28.8	27.5	19.3	35.4	36.2	36.2		.327	6.3	6.4	7.4	TV
00087	7/12/95	0950	2854.7	8515.3	8	66	33	65	28.8	26.6	19.4	35.5	35.9	36.2		.361	6.3	6.5	7.4	TV
00088	7/12/95	1237	2854.0	8513.4	8	65	32	65	29.0	26.7	19.3	35.4	36.0	36.3		.317	6.3	6.5	7.4	TV
00089	7/12/95	1433	2859.9	8513.3	8	68	34	67	29.2	26.4	19.2	35.3	36.0	36.3		.320	6.3	6.6	7.4	TV
00090	7/12/95	1647	2854.3	8514.4	8		24	54	29.2	27.5	20.9	35.3	36.0	36.1		.364	6.3	6.4	7.2	TV
00091	7/12/95	1842	2853.7	8513.3	8		34	69	29.1	26.2	19.3	35.4	36.0	36.2		.361	6.3	6.6	7.4	
00094	7/13/95	0722	2844.0	8503.5	8	77	37	76	29.0	24.3	18.6	35.8	36.0	36.3		.291	6.3	6.8	7.5	TV
00095	7/13/95	0916	2843.6	8503.3	8	79	36	75	29.0	24.8	18.5	35.8	35.8	36.3		.261	6.3	6.7	7.5	TV
00096	7/13/95	1108	2842.6	8502.8	8	82	41	81	29.1	22.2	18.4	35.8	36.1	36.3		.264	6.3	7.1	7.5	TV
00097	7/13/95	1341	2847.5	8505.5	8	71	37	70	29.1	23.9	18.6	35.8	36.0	36.3		.315	6.3	6.9	7.5	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
00098	7/13/95	1526	2847.7	8505.8	8	71	35	70	29.2	25.0	19.0	35.8	35.7	36.3		.374	6.3	6.7	7.5	TV
00099	7/13/95	1740	2846.6	8504.7	8	71	35	71	29.2	26.9	19.2	35.8	36.0	36.3		.410	6.3	6.5	7.4	TV
00101	7/14/95	0722	2837.9	8422.0	6	36	16	35	29.0	28.1	27.3	36.1	36.1	36.1		.369	6.3	6.4	6.5	TV
00102	7/14/95	0909	2836.5	8422.4	6	31	16	30	29.1	27.9	27.6	36.2	36.1	36.1		.325	6.3	6.4	6.4	TV
00103	7/14/95	1055	2836.4	8423.7	6	32	15	31	29.1	28.5	27.5	36.1	36.2	36.1		.296	6.3	6.3	6.4	TV
00104	7/14/95	1242	2836.8	8421.3	6	30	13	26	29.4	29.1	27.6	36.2	36.2	36.1		.298	6.2	6.3	6.4	TV
00105	7/14/95	1433	2835.0	8421.2	6	32	16	32	29.5	28.6	27.2	36.1	35.9	36.1		.310	6.2	6.3	6.5	TV
00106	7/14/95	1616	2835.2	8423.7	6	43	21	41	29.4	28.0	25.3	36.0	36.1	36.1		.361	6.3	6.4	6.7	TV
00110	7/15/95	0710	2825.6	8418.4	6	33	18	32	29.2	28.3	26.8	36.2	36.1	36.1		.339	6.3	6.4	6.5	TV
00111	7/15/95	0841	2826.1	8417.8	6	36	18	35	29.2	29.0	27.0	36.2	36.0	36.2		.281	6.3	6.3	6.5	TV
00112	7/15/95	1030	2826.0	8419.1	6	33	17	32	29.4	28.5	26.5	36.1	36.1	36.5		.273	6.2	6.3	6.5	TV
00113	7/15/95	1231	2827.6	8419.4	6	36	19	36	29.4	27.7	25.7	36.0	36.0	36.4		.298	6.2	6.4	6.6	TV
00114	7/15/95	1616	2827.4	8416.8	6	41	21	41	29.5	28.1	25.8	36.1	36.1	36.3		.313	6.2	6.4	6.6	TV
00115	7/15/95	1727	2827.4	8416.8	6	25	13	25	29.5	28.4	27.4	36.2	36.1	36.2		.337	6.2	6.3	6.4	TV
00119	7/16/95	0721	2812.8	8403.6	6	36	17	35	29.6	29.1	26.5	36.0	36.0	36.1		.271	6.2	6.3	6.5	TV
00120	7/16/95	0905	2814.3	8404.6	6	31	15	30	29.7	29.0	27.3	36.1	36.1	36.1		.239	6.2	6.3	6.5	TV
00121	7/16/95	1106	2813.8	8407.9	6	42	21	41	29.7	27.8	23.5	36.1	36.0	36.1		.247	6.2	6.4	6.9	TV
00122	7/16/95	1245	2813.6	8409.1	6	38	19	37	29.7	27.9	24.6	36.0	35.9	36.8		.242	6.2	6.4	6.7	TV
00123	7/16/95	1451	2815.1	8407.2	6	37	18	36	29.8	28.8	26.8	36.0	36.2	36.1		.259	6.2	6.3	6.5	TV
00124	7/16/95	1624	2816.2	8407.5	6	35	18	34	29.7	28.6	26.5	36.0	36.0	36.2		.322	6.2	6.3	6.5	TV
00126	7/17/95	0721	2809.8	8435.2	6	70	35	69	29.3	25.3	19.2	35.4	36.0	36.2		.332	6.3	6.7	7.4	TV
00127	7/17/95	0910	2809.5	8434.5	6	69	34	68	29.2	25.8	19.3	35.3	35.9	36.2		.339	6.3	6.6	7.4	TV
00128	7/17/95	1054	2809.2	8435.3	6	73	36	72	29.1	25.0	19.0	35.5	36.1	36.2		.308	6.3	6.7	7.5	TV
00129	7/17/95	1349	2808.7	8435.9	6	71	36	71	29.1	25.1	19.0	35.4	36.0	36.2		.313	6.3	6.7	7.5	TV
00131	7/18/95	0749	2743.4	8410.6	5	51	25	50	29.3	28.5	21.4	35.9	35.9	36.2		.320	6.3	6.3	7.1	TV
00132	7/18/95	0943	2743.9	8410.4	5	52	25	51	29.3	28.2	21.3	35.9	36.0	36.3		.337	6.3	6.4	7.2	TV
00133	7/18/95	1229	2744.0	8410.5	5	47	26	47	29.3	28.2	21.4	36.0	35.9	36.1		.296	6.3	6.4	7.2	TV
00134	7/18/95	1432	2744.4	8410.5	5	52	23	52	29.3	28.5	20.9	35.9	35.9	36.1		.386	6.3	6.3	7.2	TV
00135	7/18/95	1634	2744.5	8410.7	5	51	25	51	29.3	28.0	20.5	35.9	35.9	36.5		.452	6.3	6.4	7.2	TV
00137	7/21/95	0834	2429.9	8138.9	1	4	2	4	30.3	30.2	30.2	36.0	36.0	36.8		.635	6.1	6.2	6.2	TV
00138	7/21/95	0959	2429.8	8138.0	1	12	6	12	30.4	30.2	29.4	36.2	36.0	36.1		.225	6.1	6.2	6.2	TV
00139	7/21/95	1127	2429.6	8139.5	1	5	2	5	30.5	30.1	30.1	35.9	36.0	36.0		.628	6.1	6.2	6.2	TV
00140	7/21/95	1253	2429.6	8138.9	1	15	7	15	30.8	29.4	29.0	35.8	36.1	36.1		.681	6.1	6.2	6.3	TV
00142	7/23/95	0721	2434.6	8253.5	2	26	12	25	29.9	29.8	29.7	36.2	36.2	36.2		.698	6.2	6.2	6.2	TV
00143	7/23/95	0931	2433.4	8254.8	2	26	12	25	30.0	29.8	29.7	36.1	36.2	36.2		.488	6.2	6.2	6.2	TV
00144	7/23/95	1132	2433.7	8255.5	2	12	6	11	30.1	30.0	29.9	36.2	36.2	36.2		.398	6.2	6.2	6.2	TV
00145	7/23/95	1342	2434.3	8255.3	2	9	4	9	30.2	30.1	30.0	36.1	36.2	36.2		.491	6.2	6.2	6.2	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
00146	7/23/95	1554	2434.2	8256.6	2	15	8	15	30.2	30.2	30.1	36.2	36.2	36.2		.598	6.2	6.2	6.2	TV
00148	7/24/95	0722	2442.9	8259.4	2	16	8	15	29.6	29.5	27.9	36.2	36.2	36.2		.271	6.2	6.2	6.4	TV
00149	7/24/95	0913	2442.7	8259.8	2	16	8	15	29.8	29.6	28.5	36.2	36.2	36.2		.217	6.2	6.2	6.3	TV
00150	7/24/95	1138	2442.0	8255.2	2	13	7	12	30.1	29.3	26.4	36.2	36.2	36.2		.266	6.2	6.3	6.6	TV
00151	7/24/95	1344	2442.1	8253.4	2	9	5	9	29.2	29.1	29.1	36.2	36.1	36.2		.205	6.3	6.3	6.3	TV
00152	7/24/95	1534	2442.1	8252.9	2	10	5	10	29.5	29.2	29.1	36.2	36.2	36.2		.486	6.2	6.3	6.3	TV
00153	7/24/95	1658	2442.2	8252.8	2	9	5	9	30.5	29.6	29.1	36.2	36.2	36.2		.601	6.1	6.2	6.3	TV
00156	7/25/95	0721	2439.8	8302.4	2	19	9	18	29.5	29.2	29.1	36.2	36.2	36.2		.278	6.2	6.3	6.3	TV
00157	7/25/95	0903	2439.8	8301.1	2	20	10	19	29.7	29.1	27.7	36.2	36.2	36.2		.261	6.2	6.3	6.4	TV
00158	7/25/95	1051	2438.4	8302.4	2	12	6	12	29.5	29.2	29.1	36.3	36.2	36.2		.249	6.2	6.3	6.3	TV
00159	7/25/95	1241	2437.7	8302.9	2	13	7	13	29.4	29.3	29.2	36.2	36.2	36.2		.327	6.2	6.3	6.2	TV
00160	7/25/95	1435	2437.7	8304.4	2	12	7	12	29.4	29.3	29.3	36.1	36.1	36.2		.313	6.2	6.2	6.2	TV
00161	7/25/95	1601	2437.6	8304.8	2	13	7	13	29.5	29.3	29.3	36.2	36.2	36.2		.359	6.2	6.2	6.2	TV
00163	7/27/95	0726	2429.0	8317.8	2	11	5	11	29.6	29.6	29.6	34.0	34.0	34.0		.185	6.3	6.3	6.3	TV
00164	7/27/95	0911	2429.0	8317.8	2	11	6	11	29.6	29.6	29.6	34.1	34.1	34.1		.204	6.3	6.3	6.3	TV
00165	7/28/95	0832	2822.0	8407.4	6	32	15	31	29.4	29.4	27.7	35.9	35.9	36.1		.479	6.3	6.3	6.4	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
17001	9/20/95	0818	2931.1	8728.9	10	70	35	69	28.3	27.3	21.5	35.3	36.5	36.4	.147		5.8	6.3	5.8	TV
17002	9/20/95	1012	2932.0	8729.9	10	70	35	69	29.3	28.2	21.3	35.4	36.4	36.5	.462		5.7	5.8	5.5	TV
17003	9/20/95	1300	2930.7	8729.2	10	70	35	69	30.1	28.1	21.7	35.4	36.5	36.5			4.4	4.8	4.3	TV
17004	9/20/95	1505	2934.2	8729.4	10	69	34	68	31.0	28.0	21.5	35.5	36.4	36.5	.267		4.6	5.5	5.2	TV
17005	9/20/95	1701	2934.2	8728.6	10	72	36	71	30.7	27.2	21.1	35.5	36.4	36.5	.192		4.2	5.0	4.8	TV
17006	9/21/95	0734	2956.3	8729.7	10	32	16	31	29.0	28.7	25.0	34.6	35.4	36.2	.171		4.4	4.4	5.0	TV
17007	9/21/95	0940	2952.0	8722.0	10	36	18	35	29.2	29.1	25.6	34.6	35.3	36.1	.096		4.5	4.3	4.0	TV
17008	9/22/95	0813	2951.6	8721.3	10	39	20	38	29.1	28.9	21.9	34.5	35.0	36.4	.133		4.4	4.4	4.5	TV

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	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
28001	9/ 6/95	1744	3011.0	8832.3	11	12			29.1			30.0								PN
28002	9/ 6/95	1920	3010.8	8820.2	11	12			29.4			31.1								PN
28003	9/ 6/95	2114	3010.5	8807.8	11	11			29.2			30.6								PN
28004	9/ 6/95	2304	3010.6	8755.8	10	13			29.1			31.1								PN
28005	9/ 7/95	0008	3004.9	8756.1	10	16			29.3			32.5								PN
28006	9/ 7/95	0115	2959.0	8756.1	10	23			29.4			32.6								PN
28007	9/ 7/95	0238	2959.1	8808.1	11	25			29.4			32.7								PN
28008	9/ 7/95	0340	3005.1	8808.3	11	20			29.2			31.9								PN
28009	9/ 7/95	0501	3004.9	8820.0	11	19			29.3			33.1								PN
28011	9/ 7/95	0736	2952.8	8832.0	11	27			29.1			32.5								PN
28012	9/ 7/95	0838	2958.9	8831.5	11	26			29.3			33.4								PN
28013	9/ 7/95	1004	3004.9	8832.0	11	57			29.3			33.0								PN
28014	9/ 7/95	1133	3011.0	8844.1	11	40			29.1			31.1								PN
28015	9/ 7/95	1233	3004.9	8844.1	11	14			29.4			32.1								PN
28016	9/ 7/95	1330	2958.9	8844.2	11	14			29.4			32.6								PN
28017	9/ 7/95	1425	2952.8	8844.2	11	14			29.4			32.6								PN
28018	9/ 7/95	1522	2946.9	8844.1	11	15			29.4			32.5								PN
28019	9/ 7/95	1621	2940.8	8844.0	11	15			29.3			32.2								PN
28020	9/ 7/95	1715	2934.8	8844.1	11	14			29.4			31.9								PN
28021	9/ 7/95	1814	2928.9	8843.9	11	19			29.1			34.3								PN
28022	9/ 7/95	1910	2922.9	8844.1	11	44			29.1			33.7								PN
28024	9/ 9/95	2157	2600.0	9700.0	21	26			30.1			33.8								PN
28025	9/10/95	0158	2630.1	9700.1	21	33			29.9			34.9								PN
28027	9/10/95	0948	2659.8	9639.9	21	86			30.0			36.3								PN
28028	9/10/95	1334	2659.9	9711.6	21	23			30.8			31.8								PN
28029	9/10/95	1837	2729.9	9700.0	20	26			30.2			32.8								PN
28030	9/10/95	2200	2730.0	9629.8	20	70			29.9			35.0								PN
28031	9/11/95	0134	2734.8	9600.2	20	136			30.0			33.9					6.0			PN
28032	9/11/95	0442	2800.0	9600.0	19	43			30.2			31.5								PN
28033	9/11/95	0746	2800.0	9629.8	19	26			29.8			33.7								PN
28034	9/11/95	1030	2819.7	9620.2	19	15			30.0			29.7								PN
28035	9/11/95	1300	2829.8	9600.3	19	13			30.1			29.8				.502	6.2			PN
28036	9/11/95	1613	2830.0	9530.2	19	24			30.6			31.1								PN
28037	9/11/95	1939	2800.2	9530.0	19	52			30.1			33.7								PN
28038	9/11/95	2145	2745.2	9530.1	20	99			29.9			33.9								PN
28039	9/12/95	0130	2759.8	9500.3	99	76			29.6			33.8				.145	6.1			PN
28040	9/12/95	0455	2830.1	9500.0	18	32	5	9	29.9			32.0								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	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
28041	9/12/95	0831	2859.8	9500.0	18	16			29.9			27.6								PN
28042	9/12/95	1134	2900.1	9430.2	18	16			30.2			30.8								PN
28043	9/13/95	0816	2927.0	9429.9	18	10			29.7			26.7								PN
28044	9/13/95	1120	2930.0	9400.0	18	12			29.8			24.5				2.221				PN
28045	9/13/95	1547	2929.9	9330.1	17	10			30.5			23.0				2.885	8.3			PN
28046	9/13/95	1933	2930.0	9300.1	17	13			29.9			21.0				2.916				PN
28047	9/13/95	2236	2930.0	9230.2	16	8			30.0			20.8				4.479				PN
28048	9/14/95	0344	2859.9	9200.1	16	19			29.8			27.3				1.199	6.3			PN
28049	9/14/95	0654	2900.1	9230.0	16	24			29.7			28.2				2.027				PN
28050	9/14/95	0957	2859.9	9259.9	16	23			30.0			28.2				.638				PN
28051	9/14/95	1306	2900.1	9329.9	17	22			30.6			29.3				.400	6.6			PN
28052	9/14/95	1607	2900.0	9359.9	17	19			30.8			30.1				.460				PN
28053	9/14/95	1948	2830.0	9400.0	18	38			29.9			32.0				.190				PN
28054	9/14/95	2259	2830.0	9430.1	18	35			29.8			31.8				.249				PN
28055	9/15/95	0236	2800.0	9430.0	18	66			29.8			32.3				.181	6.8			PN
28056	9/15/95	0554	2800.1	9400.2	18	77			29.8			34.5				.119				PN
28057	9/15/95	1121	2759.9	9330.1	99	90			30.3			29.3				.319				PN
28058	9/15/95	1500	2830.0	9330.0	17	40			29.7			32.0				.249	6.1			PN
28059	9/15/95	1818	2830.0	9300.3	17	44			29.8			31.9				.312				PN
28060	9/15/95	2157	2800.0	9300.2	17	101			29.6			36.5				.109				PN
28061	9/16/95	0106	2800.3	9230.6	16	187			29.8			30.3				.470	6.2			PN
28062	9/16/95	0435	2829.9	9230.0	16	48			29.4			30.4				.324				PN
28063	9/16/95	0751	2830.1	9200.1	16	47			29.6			31.9				.374				PN
28064	9/16/95	1121	2800.1	9200.1	16	113			29.6			30.9				.322				PN
28065	9/16/95	1432	2800.0	9129.9	99	152			29.7			34.0				.199				PN
28066	9/16/95	1815	2830.0	9130.0	15	46			30.1			32.1				.318				PN
28067	9/16/95	2251	2759.9	9100.3	99	143			29.8			32.5				.159				PN
28068	9/17/95	0231	2804.9	9030.6	14	319			29.7			34.0				.106				PN
28069	9/17/95	0624	2819.9	9000.0	14	105			29.8			28.0				1.352				PN
28070	9/17/95	0810	2830.2	8959.9	13	88			29.6			31.3				.249				PN
28071	9/17/95	1125	2835.0	8930.2	13	179			29.6			29.5				.648				PN
28072	9/17/95	1617	2905.0	8900.1	13	20			30.3			15.9				27.433				PN
28073	9/17/95	1931	2912.9	8830.2	11	110			29.3			34.2				.353				PN
28074	9/17/95	2255	2915.0	8800.1	11	236			29.2			34.6				.069				PN
28075	9/18/95	0309	2929.8	8730.5	99	101			28.8			35.4				.089	6.1			PN
28076	9/18/95	0705	2947.9	8700.2	10	180			28.9			34.7				.095				PN
28077	9/18/95	1202	2930.1	8630.0	9	195			28.9			34.7				.120				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	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
28078	9/18/95	1528	2930.1	8600.0	9	53			29.2			33.8				.899	6.3			PN
28079	9/18/95	1751	2911.4	8600.3	99	181			29.1			34.4				.142				PN
28080	9/18/95	2210	2859.9	8529.8	8	68			29.1			35.8				.105				PN
28081	9/19/95	0212	2929.9	8530.0	8	12			28.6			33.6				.151	6.2			PN
28082	9/19/95	0437	2948.0	8530.0	8	19			28.1			34.1				.442				PN
28083	9/19/95	0827	2959.9	8600.1	9	30			28.5			33.7				.161				PN
28084	9/19/95	1132	2959.9	8630.0	9	53			28.7			34.3				.107				PN
28085	9/19/95	1359	3020.1	8629.9	9	19			29.0			33.6				.171	6.2			PN
28086	9/19/95	1707	3019.9	8660.0	9	15			29.1			32.9				.313				PN
28087	9/19/95	1934	3000.2	8659.7	9	67			29.1			33.7				.108				PN
28088	9/19/95	2254	3000.1	8730.1	10	24			28.8			34.4				.104				PN
28089	9/20/95	0057	3014.9	8730.0	10	15			28.0			32.6				.242				PN
28090	9/23/95	1230	2840.1	8529.9	8	160	80	159	29.6	22.9	19.7	25.9	26.7	36.6		.087	6.2	5.3	4.8	PN
28091	9/23/95	1711	2830.0	8500.8	8	99	48	92	29.6	26.3	22.3	35.4	36.5	36.9		.296	6.2	6.1	5.1	PN
28092	9/23/95	2119	2758.7	8458.6	99	251	92	184	29.6	22.6	19.0	35.9	36.7	36.5		1.929	6.2	5.0	4.8	PN
28093	9/24/95	0148	2800.1	8429.9	6	73	33	67	29.5	28.0	20.4	35.4	36.2	36.7		2.418	6.1	7.1	4.9	PN
28094	9/24/95	0515	2759.5	8400.0	5	46	21	46	29.2	26.3	20.0	34.3	36.0	36.4		3.492	5.9	6.2	4.6	PN
28095	9/24/95	0839	2800.2	8329.3	6	29	14	29	29.3	29.3	25.0	35.1	35.4	36.0		4.298	6.0	6.3	4.6	PN
28096	9/24/95	1158	2800.1	8300.1	5	11	5	9	30.3	29.8	29.8	32.4	32.4	32.5		3.043	4.3	5.1	4.8	PN
28097	9/24/95	1543	2829.7	8300.1	6	8	4	7	29.8	29.8	29.8	34.2	34.1	34.1		3.179	5.5	5.9	6.1	PN
28098	9/24/95	1907	2830.4	8330.2	6	22	10	19	30.1	29.6	29.6	35.2	35.3	39.3		2.974	6.2	6.1	6.2	PN
28099	9/24/95	2239	2830.0	8400.7	6	33	17	33	29.3	28.9	22.6	35.0	35.7	36.2		.405	6.3	6.5	5.5	PN
28100	9/25/95	0206	2829.5	8430.4	6	48	21	41	29.0	27.3	20.7	33.9	36.2	36.4		4.737	6.4	6.7	5.2	PN
28101	9/25/95	0658	2900.1	8460.0	7	37	17	35	28.3	24.0	21.4	34.1	36.1	36.4		1.243	6.8	5.7	4.6	PN
28102	9/25/95	1038	2900.6	8429.6	6	32	15	28	28.9	29.0	24.4	36.7	35.7	36.1		3.663	6.4	6.4	5.5	PN
28103	9/25/95	1406	2859.9	8359.7	7	28	15	28	29.2	29.2	29.2	35.6	35.6	35.6		1.551	5.9	5.8	5.8	PN
28104	9/25/95	1728	2900.0	8330.7	7	15	7	13	29.4	29.4	29.4	35.3	35.3	35.3		2.164	5.4	6.1	6.1	PN
28105	9/25/95	1938	2900.7	8315.3	6	9	4	8	29.2	29.2	29.2	35.0	35.0	35.0		1.419	6.2	6.2	6.2	PN
28106	9/25/95	2343	2930.1	8335.6	7	10	3	7	28.6	28.3	28.7	33.5	33.5	33.6		2.982	4.7	5.8	5.9	PN
28107	9/26/95	0235	2930.1	8400.0	7	19	9	19	28.7	28.8	28.8	35.0	35.1	35.1		9.426	6.0	5.9	5.9	PN
28108	9/26/95	0509	2947.9	8359.4	7	8	3	7	27.9	27.9	27.9	33.7	33.7	33.7		1.263	6.0	6.0	6.0	PN
28109	9/26/95	0903	2929.9	8430.1	7	22	11	22	28.8	28.7	28.7	35.5	35.5	35.5		7.131	6.0	6.0	6.0	PN
28110	9/26/95	1229	2929.9	8400.0	7	10	5	9	28.1	28.1	28.1	34.5	34.6	34.6		1.702	6.0	6.3	6.4	PN

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	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
2301	9/14/95	0938	3012.1	8802.6	11	15	8	15	28.9	29.4	29.4	26.2	30.8	31.1			6.2	5.4	5.4	PN
2302	9/14/95	1030	3014.5	8807.7	11	4	2	4	29.5	29.5	29.6	30.6	30.8	31.2			5.9	5.8	5.7	PN
2303	9/14/95	1125	3008.8	8807.6	11	15	8	15	29.6	29.5	29.3	31.7	31.9	33.0			5.8	5.7	4.4	PN
2304	9/14/95	1200	3007.6	8804.3	11	18	9	18	30.0	29.4	29.4	31.0	32.0	33.5			5.6	5.3	4.8	PN
2305	9/14/95	1235	3000.1	8800.8	11	18	9	18	29.9	29.5	29.4	31.9	33.1	33.5			5.8	5.5	5.5	PN
2306	9/14/95	1325	3012.7	8800.3	11	8	4	8	30.1	29.6	29.5	31.4	31.6	31.7			5.5	5.6	5.1	PN
2307	9/14/95	1456	3016.4	8800.6	11	4	2	4	29.7	29.6	29.4	24.1	24.2	28.2			6.8	6.6	5.3	PN
2308	9/14/95	1522	3016.8	8802.7	11	15	8	15	29.7	29.5	29.7	23.6	29.4	31.6			6.4	5.5	5.1	PN
2309	9/14/95	1555	3017.3	8805.9	11	4	2	4	30.8	30.5	29.7	24.1	24.3	28.2			6.5	6.6	6.6	PN

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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
17001	9/16/95	0806	2952.8	8744.0	10	29			29.2			33.9								PN
17002	9/16/95	0909	2958.9	8744.0	10	27			29.2			33.9								PN
17003	9/16/95	1013	3005.2	8744.1	10	16			29.5			33.3								PN
17004	9/16/95	1109	3010.9	8744.0	10	12			30.1			32.2								PN
17005	9/16/95	1229	3010.9	8756.3	10	14			30.1			32.1								PN
17006	9/16/95	1328	3004.9	8756.3	10	16			29.8			33.9								PN
17007	9/16/95	1425	2958.9	8756.2	10	26	13	25	29.7	29.1	27.6	33.9	35.8	35.8	.168		5.7	5.4	3.6	PN
17008	9/16/95	1637	2952.9	8756.3	10	31			29.7			34.1								PN
17009	9/16/95	1802	2952.9	8807.9	11	33			29.6			33.4								PN
17010	9/16/95	1857	2958.9	8808.0	11	26			29.5			33.4								PN
17011	9/16/95	1953	3004.9	8808.0	11	20			29.5			31.5								PN
17012	9/16/95	2049	3010.9	8808.1	11	12			29.6			31.5								PN
17013	9/16/95	2211	3010.9	8820.0	11	13			29.6			30.6								PN
17014	9/16/95	2308	3005.0	8820.1	11	19			29.3			32.1								PN
17015	9/17/95	0012	2958.7	8820.1	11	27			29.3			32.9								PN
17016	9/17/95	0120	2953.0	8820.2	11	33			29.6			33.2								PN
17017	9/17/95	0231	2946.6	8820.4	11	35			29.5			33.3								PN
17018	9/17/95	0440	2934.9	8832.1	11	40	20	39	29.5	28.9	24.8	32.6	35.6	36.2	.219		4.6	5.8	3.8	PN
17019	9/17/95	0649	2940.2	8832.0	11	31			29.2			34.3								PN
17020	9/17/95	0750	2946.8	8832.0	11	27			29.5			33.0								PN
17021	9/17/95	0849	2952.9	8832.0	11	26			29.5			32.8								PN
17022	9/17/95	0942	2958.9	8832.0	11	26	13	25	29.6	29.0	27.8	32.3	33.4	35.4	.395		4.6	3.2	4.3	PN
17023	9/17/95	1134	3004.8	8832.0	11	17			29.6			31.3								PN
17024	9/17/95	1227	3010.9	8832.4	11	12			30.1			29.3								PN
17025	9/17/95	1347	3010.9	8844.1	11	12			30.1			30.5								PN
17026	9/17/95	1440	3004.9	8844.2	11	14			30.3			30.4								PN
17027	9/17/95	1532	2958.9	8844.2	11	15			30.1			30.1								PN
17028	9/17/95	1619	2952.9	8844.2	11	14			30.2			32.2								PN
17029	9/17/95	1711	2946.9	8844.1	11	15			30.3			32.2								PN
17030	9/17/95	1802	2941.0	8844.0	11	15			30.0			31.4								PN
17031	9/17/95	1857	2934.9	8844.0	11	15			30.1			31.9								PN
17032	9/17/95	1954	2928.9	8844.0	11	19			30.0			31.7								PN
17033	9/17/95	2132	2923.0	8856.1	11	17			29.8			30.7								PN
17034	9/17/95	2229	2928.8	8856.0	11	12			29.6			30.0								PN
17035	9/17/95	2318	2934.9	8856.0	11	10			29.7			29.5								PN
17036	9/18/95	0027	2928.1	8902.4	12	8	4	7	29.5	29.0	27.8	28.2	28.4	33.0	2.149		6.0	6.2	4.6	PN
17037	9/18/95	0241	2922.9	8908.1	12	9			29.5			30.2								PN

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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
17038	9/18/95	0350	2924.1	8916.1	12	6			30.1			23.5								PN
17039	9/18/95	0508	2930.9	8915.1	12	5			29.8			24.3								PN
17040	9/18/95	0612	2934.2	8911.5	12	5			29.5			25.3								PN
17041	9/18/95	0654	2937.6	8907.7	12	5			29.5			24.1								PN
17042	9/18/95	0742	2941.9	8905.6	12	4			29.5			23.2								PN
17043	9/18/95	0823	2946.2	8903.5	12	5			29.5			24.1								PN
17044	9/18/95	0907	2950.4	8901.5	12	5			29.6			26.5								PN
17045	9/18/95	1000	2954.5	8859.0	11	5			29.5			29.9								PN
17046	9/18/95	1128	2959.3	8858.9	11	6			29.6			29.1								PN
17047	9/18/95	1208	3003.5	8859.2	11	7	3	6	29.3	29.8	29.6	29.6	29.9	29.9	4.112		6.1	6.1	6.2	PN
17048	9/18/95	1343	3008.0	8860.0	11	8			29.9			29.6								PN
17049	9/18/95	1442	3009.6	8851.5	11	11			29.8			30.2								PN

Table 2. Selected Environmental Parameters (continued)

SUNCOASTER, 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	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
016	9/24/95	1400	2730.0	8300.0	5	20	10	19	30.0	29.9	29.7	33.9	34.0	34.5	1.949					PN
017	9/24/95	1724	2730.0	8330.0	5	44	21	44	29.6	29.2	21.0	34.9	35.6	36.2	1.981					PN
018	9/24/95	2101	2729.9	8400.1	5	60	19	37	29.1	28.9	24.5	34.3	35.4	36.5	1.692		5.2	5.3	5.3	PN
019	9/25/95	0044	2730.2	8429.9	5	130	41	81	29.5	26.4	23.8	35.9	36.4	36.8	1.577		5.2	5.0	4.4	PN
020	9/25/95	0425	2730.0	8500.0	5	250	62	123	29.6	22.0	18.4	36.4	36.8	36.6			5.2	4.2	4.1	PN
021	9/25/95	1014	2700.0	8430.0	5	177	52	104	29.7	26.1	22.8	36.2	36.5	36.9	1.417		5.0	4.8	4.2	PN
022	9/25/95	1400	2700.0	8400.0	5	84	26	51	29.1	29.9	25.8	34.1	36.2	36.3	1.660		5.3	5.3	5.6	PN
023	9/25/95	1731	2700.0	8330.0	5	53	16	31	29.6	28.8	21.3	34.8	35.1	36.5	1.810		5.1	5.2	4.5	PN
024	9/25/95	2049	2700.0	8300.0	5	32	10	20	29.5	29.4	29.4	35.9	35.8	35.9	1.479		4.9	4.9	4.9	PN
025	9/26/95	0139	2630.0	8230.0	4	21	10	20	29.6	29.6	29.6	35.5	35.4	35.5	1.603		4.9	4.9	4.9	PN
026	9/26/95	0506	2630.0	8300.0	4	38	19	38	29.6	29.6	27.1	35.9	35.8	36.1	1.833		5.0	5.1	5.1	PN
027	9/26/95	0832	2630.0	8330.0	4	59	29	57	29.1	24.6	21.9	34.4	36.0	36.8	1.546		4.9	4.7	3.9	PN
028	9/26/95	1212	2630.0	8400.0	4	124	59	118	29.9	25.9	21.1	36.2	36.5	36.7	1.362		5.0	4.9	4.0	PN
029	9/26/95	1557	2630.0	8430.0	99	202	97	193	30.0	19.1	13.6	35.9	36.5	35.8	1.580		5.1	3.8	3.7	PN
030	9/26/95	2030	2600.0	8430.0	99	219	98	196	30.1	19.7	14.9	35.3	36.5	36.0	1.579		5.1	3.8	3.6	PN
031	9/27/95	0013	2600.0	8400.0	4	138	69	138	29.9	24.7	18.4	36.3	36.7	36.5	1.754		5.0	4.3	3.9	PN
032	9/27/95	0405	2600.0	8330.0	4	62	31	61	29.3	27.7	20.9	34.6	36.0	36.5	1.641		5.0	5.2	4.2	PN
033	9/27/95	0813	2600.0	8300.0	4	45	21	41	29.7	29.7	27.4	36.0	36.0	36.2	1.325		4.9	5.0	5.0	PN
034	9/27/95	1157	2600.0	8230.0	4	30	14	28	29.5	29.5	29.3	35.7	36.7	35.9	1.818		4.9	4.9	4.9	PN
035	9/27/95	1713	2530.0	8200.0	3	20	8	16	30.1	30.0	30.0	35.4	35.4	35.4	1.938		5.0	5.0	5.0	PN
036	9/27/95	2033	2530.0	8230.0	3	31	14	28	29.7	29.7	29.2	35.9	35.9	36.0	1.891		4.9	4.9	5.2	PN
037	9/28/95	0003	2530.0	8259.1	3	50	24	48	29.7	29.4	24.2	35.7	35.7	36.3	1.783		5.0	5.3	4.9	PN
038	9/28/95	0340	2530.0	8330.0	3	70	34	68	29.3	25.9	20.2	34.6	36.4	36.5	1.829		5.0	5.1	4.0	PN
039	9/28/95	0700	2530.0	8400.0	3	138	63	125	29.7	23.5	19.0	35.8	36.5	36.6	1.738		5.0	5.2	3.7	PN
040	9/28/95	1057	2530.0	8430.0	99	400	97	193	29.5	25.7	18.3	35.9	36.6	36.5	1.826		4.9	4.6	3.9	PN

Table 2. Selected Environmental Parameters (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	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
37306	9/25/95	1146	2900.0	9030.0	14	10	5	10	27.9	27.9	27.9	30.0	30.0	30.0	1.425		6.7	6.5	6.6	PN
37307	9/25/95	1409	2858.4	9021.9	14	13	6	13	28.3	28.2	28.2	29.7	29.7	29.7	.697		6.6	6.5	6.5	ST
37308	9/25/95	1738	2904.5	9001.9	14	15	9	15	28.4	28.3	28.8	30.3	30.3	32.3	3.604		7.0	6.4	5.0	ST
37309	9/25/95	2046	2858.6	9021.4	14	13	8	13	28.2	28.2	28.2	29.8	29.8	29.8	.663		6.5	6.4	6.5	ST
37310	9/26/95	0022	2904.5	9001.8	14	17	9	17	28.4	28.4	28.6	30.6	30.6	32.0	2.757		7.0	6.8	6.0	ST
37311	9/26/95	0222	2906.7	8953.1	13	20	13	20	28.2	28.3	28.5	30.2	30.2	30.6	2.619		6.4	6.5	5.3	ST
37312	9/26/95	0453	2904.2	8938.0	13	19	10	19	28.3	28.3	29.3	30.1	30.1	34.3	2.125		7.0	6.4	2.0	ST
37313	9/26/95	0750	2859.9	8930.0	13	15	8	15	27.6	28.5	29.0	28.2	30.4	33.5	2.208		6.4	6.4	4.0	PN
37314	9/26/95	0940	2904.0	8937.8	13	19	10	19	28.1	28.1	29.1	30.0	30.0	34.5	2.297		7.2	6.1	2.8	ST
37315	9/26/95	1155	2906.5	8953.0	13	20	10	20	28.3	28.2	29.0	30.9	30.3	33.5	2.963		6.4	6.4	3.1	ST
37316	9/26/95	1324	2859.9	9000.2	14	24	12	24	28.4	28.4	28.6	30.9	30.7	32.0	.844		6.7	6.4	6.0	PN
37317	9/26/95	1725	2837.6	9019.9	14	31	15	31	29.0	29.0	28.1	33.6	35.1	36.1	1.605		7.0	6.4	3.5	ST
37318	9/26/95	2025	2837.5	9019.7	14	31	15	31	28.9	29.1	28.3	34.3	35.3	36.1	.898		6.9	6.6	3.3	ST
37319	9/26/95	2141	2838.0	9025.1	14	22	11	22	28.4	29.4	29.3	31.3	34.1	35.3	2.200		7.3	6.9	4.6	ST
37320	9/26/95	2252	2836.2	9030.5	14	26	13	26	28.7	28.8	29.1	33.0	33.5	35.5	1.119		7.4	6.7	4.6	ST
37321	9/27/95	0022	2833.0	9037.7	14	29	16	29	28.5	28.7	29.1	33.6	34.5	35.3	.532		7.7	6.1	3.6	ST
37322	9/27/95	0830	2838.2	9024.9	14	24	12	24	28.1	29.5	28.9	31.0	34.7	35.8	2.032		6.4	5.5	3.9	ST
37323	9/27/95	0937	2836.2	9030.5	14	26	13	26	28.3	28.9	29.1	31.1	32.9	35.5	1.454		6.8	6.5	4.2	ST
37324	9/27/95	1045	2829.5	9030.4	14	38	19	38	28.9	29.0	26.8	33.9	34.6	36.3	.646		6.8	6.0	3.2	PN
37325	9/27/95	1238	2833.0	9037.6	14	28	15	28	28.8	28.6	28.8	33.5	33.7	34.9	.980		6.6	6.8	5.6	ST
37326	9/27/95	1516	2830.0	9100.0	15	32	17	32	28.8	28.8	28.3	34.7	34.9	36.1	.631		6.6	6.2	2.6	PN
37327	9/27/95	1747	2838.3	9113.7	15	21	11	21	28.5	28.4	28.4	33.2	33.2	33.4	.616		7.0	6.5	5.9	ST
37328	9/27/95	2026	2835.6	9124.9	15	32	17	32	28.8	28.9	28.3	33.7	34.7	36.2	.189		6.7	6.8	5.4	ST
37329	9/27/95	2223	2839.1	9113.8	15	21	11	21	28.4	28.4	28.3	33.1	33.1	33.3	.706		6.9	6.7	6.1	ST
37330	9/28/95	0048	2848.4	9111.6	15	8	4	8	28.1	28.1	28.1	31.4	31.4	31.4	1.317		7.1	7.1	6.9	ST
37331	9/28/95	0218	2851.8	9116.7	15	10	6	10	27.8	27.9	27.9	30.6	30.8	31.3	1.368		7.7	7.2	8.0	ST
37332	9/28/95	0818	2835.7	9124.8	15	32	16	32	28.6	28.7	28.6	34.0	34.0	35.9	.208		6.5	6.4	5.8	ST
37333	9/28/95	1117	2848.4	9111.6	15	8	4	8	28.2	28.0	28.0	30.9	31.1	31.2	1.620		8.2	7.2	6.5	ST
37334	9/28/95	1235	2851.6	9116.8	15	9	4	9	27.9	27.9	27.9	30.6	30.6	30.7	2.999		8.4	8.0	6.7	ST
37335	9/28/95	1500	2900.3	9130.3	15	10	5	10	28.0	27.9	28.3	28.8	30.0	31.5	4.581		7.2	7.0	4.4	PN
37336	9/29/95	0755	2900.1	9101.2	15	7	4	7	27.3	27.3	27.3	29.5	29.5	29.5	2.654		6.7	6.7	6.6	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	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
00001	10/16/95	1430	2611.1	9703.9	21	20	10	18	25.5	29.2	25.4	29.2	25.5	29.2		1.910	5.4	8.1	8.0	ST
00002	10/16/95	1614	2611.1	9655.9	21	30	15	27	25.9	26.5	26.6	30.4	32.1	32.1		3.143	7.9	7.1	7.1	ST
00003	10/16/95	1732	2607.9	9656.8	21	32	16	32	25.7	26.2	26.3	30.8	31.9	32.0		3.087	7.6	7.2	6.5	ST
00004	10/16/95	1959	2559.5	9659.2	22	27	18	27	25.5	26.1	26.7	29.4	31.1	32.6		2.022	7.1	7.2	7.0	PN
00005	10/16/95	2232	2610.2	9704.2	21	21	10	21	25.3	25.3	26.1	28.7	28.8	30.6		1.797	6.7	7.6	7.1	ST
00006	10/17/95	31	2614.6	9703.6	21	19	10	18	25.3	25.8	25.9	29.2	30.8	31.1		1.973	7.6	7.2	7.0	ST
00007	10/17/95	314	2621.9	9710.2	21	17	9	16	24.9	25.2	25.4	28.5	29.2	29.9		2.032	9.6	7.5	10.7	ST
00008	10/17/95	505	2629.8	9659.7	21	34	17	32	26.1	26.4	27.2	32.5	32.8	34.4		1.585	7.4	7.3	7.1	PN
00010	10/17/95	905	2626.7	9636.8	21	58	29	58	27.5	27.5	27.5	35.9	35.9	36.0		.437	7.0	7.1	7.1	ST
00011	10/17/95	1300	2616.1	9621.4	21	86	43	84	27.7	27.5	26.5	36.0	36.2	36.3		.361	6.9	7.0	7.7	ST
00012	10/17/95	1521	2608.0	9628.5	21	62	31	61	27.5	27.5	27.5	35.9	35.9	35.9		.322	7.0	7.2	7.1	ST
00013	10/17/95	1716	2601.4	9629.7	21	63	31	61	27.4	27.4	27.4	35.9	35.9	35.9		.415	7.0	7.1	7.3	PN
00014	10/17/95	2125	2630.7	9630.2	21	81	40	81	27.3	27.5	27.2	35.3	36.0	36.1		.635	6.0	7.1	7.4	PN
00015	10/17/95	2313	2631.0	9634.4	21	71	35	69	27.5	27.5	27.5	35.9	35.9	36.0		.464	7.0	6.9	7.0	ST
00016	10/18/95	309	2638.1	9659.8	21	37	19	35	26.1	26.2	26.6	33.7	33.8	34.3		1.131	7.2	7.4	6.9	ST
00017	10/18/95	415	2635.3	9704.7	21	30	15	28	26.2	26.2	26.4	33.5	35.5	33.5		1.717	7.0	7.1	7.1	ST
00018	10/18/95	751	2656.0	9721.3	21	14	7	14	24.7	24.7	25.5	28.6	28.9	31.0		3.897	8.2	7.9	6.9	ST
00019	10/18/95	957	2642.9	9718.7	21	13	6	13	25.0	25.0	25.6	28.7	28.8	31.3		3.394	8.2	10.9	6.8	ST
00020	10/18/95	1134	2647.8	9711.3	21	28	13	26	25.4	25.5	26.1	31.2	31.4	33.1		2.391	6.9	7.2	7.1	ST
00021	10/18/95	1411	2638.0	9702.1	21	34	17	33	25.9	26.1	26.4	32.8	33.3	33.8		2.283	9.7	6.9	7.0	ST
00022	10/18/95	1708	2652.9	9703.2	21	36	18	35	26.1	26.5	26.7	33.3	33.9	34.1		1.858	7.3	6.6	6.8	ST
00023	10/18/95	2000	2658.8	9718.1	21	19	9	19	25.1	25.7	25.8	30.5	32.3	32.5		2.943	7.7	7.7	8.1	ST
00024	10/18/95	2240	2712.0	9713.5	20	24	12	24	25.5	25.5	25.6	31.7	31.7	31.7		2.718	7.2	7.6	7.8	ST
00025	10/19/95	222	2704.0	9648.5	20	65	32	63	27.1	27.4	27.5	35.0	35.3	35.5		.474	7.0	6.9	6.9	ST
00026	10/19/95	450	2701.8	9638.3	20	92	46	91	26.8	27.6	22.4	34.8	35.9	36.4		.606	6.9	6.9	4.8	ST
00028	10/19/95	822	2700.5	9628.9	20	147	73	147	27.1	24.3	18.7	34.7	36.4	36.4		1.048	6.6	6.5	4.0	PN
00029	10/19/95	1045	2658.0	9642.6	21	79	39	77	27.0	27.5	26.9	34.9	35.4	36.1		.354	6.9	6.8	6.3	ST
00030	10/19/95	1353	2650.0	9648.4	21	65	33	63	26.7	27.4	27.5	34.2	35.4	35.7		.740	7.3	6.8	6.8	ST
00031	10/19/95	1623	2659.8	9659.6	21	41	21	39	26.8	26.3	26.5	33.9	34.0	34.4		1.463	7.3	7.1	7.2	PN
00032	10/19/95	1812	2709.0	9706.3	20	31	15	31	25.9	26.1	26.1	31.9	33.5	35.5		2.168	8.1	7.4	7.4	ST
00033	10/19/95	2052	2724.7	9716.8	20	13	6	13	25.5	24.9	25.1	28.8	29.9	30.7		4.364	8.1	7.4	7.2	ST
00035	10/20/95	201	2734.0	9702.7	20	23	11	22	26.0	26.0	26.1	31.7	33.2	33.6		1.585	7.4	7.3	7.1	ST
00036	10/20/95	307	2733.8	9656.4	20	29	15	27	26.4	26.2	26.2	33.5	33.6	33.7		1.067	7.0	7.3	6.9	ST
00037	10/20/95	509	2727.2	9658.8	20	31	15	29	26.0	26.0	26.3	32.8	33.6	33.8		1.714	7.2	7.0	7.0	ST
00038	10/20/95	803	2720.1	9709.7	20	24	12	24	25.5	25.7	25.9	31.4	31.7	33.2		1.880	7.4	7.4	6.9	ST
00039	10/20/95	1011	2728.3	9712.6	20	15	7	15	25.5	25.5	25.5	30.1	30.1	30.1		2.107	7.8	7.8	7.8	ST
00040	10/20/95	1226	2734.1	9702.6	20	24	12	23	25.8	25.8	25.8	32.9	32.9	32.9		1.507	7.0	7.2	7.3	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
00041	10/20/95	1516	2735.0	9655.0	20	29	15	28	26.0	26.0	26.0	33.2	33.2	33.2		1.353	7.3	7.3	7.3	ST
00042	10/20/95	1913	2759.3	9654.6	20	11	5	11	24.5	24.5	24.5	29.3	29.3	29.3		4.520	7.8	7.8	7.8	ST
00043	10/20/95	2037	2750.9	9641.8	20	27	18	27	25.6	25.6	25.8	32.5	32.5	32.7		1.751	7.4	7.5	7.5	ST
00044	10/20/95	2246	2745.0	9640.7	20	35	17	35	25.7	25.8	26.0	33.1	33.1	33.4		1.507	7.2	7.4	7.3	ST
00045	10/21/95	7	2741.5	9639.4	20	42	21	41	26.4	26.4	26.4	34.7	34.7	34.7		1.158	6.9	7.1	7.1	ST
00047	10/21/95	319	2736.1	9635.5	20	56	28	56	26.4	26.7	27.3	34.8	35.0	35.7		1.209	6.8	6.9	6.4	ST
00048	10/21/95	508	2731.9	9621.0	20	94	47	94	26.9	27.0	21.7	35.1	35.2	36.3		.684	6.8	6.9	5.5	ST
00049	10/21/95	734	2727.9	9632.1	20	72	36	72	27.3	27.3	27.3	35.3	35.3	35.3		.586	6.7	6.8	6.9	ST/PN
00050	10/21/95	1119	2742.5	9638.8	20	39	19	37	25.7	25.8	26.4	33.2	33.3	34.7		.767	7.3	7.4	7.0	ST
00051	10/21/95	1405	2752.5	9647.6	20	19	9	18	25.0	24.9	24.8	30.7	30.7	30.7		1.941	7.8	7.7	7.8	ST
00052	10/21/95	1608	2753.6	9653.7	20	17	9	17	24.6	24.5	24.8	30.0	30.0	30.5		2.476	7.6	7.7	7.4	ST
00053	10/21/95	1701	2755.9	9657.0	20	12	6	11	24.1	24.2	24.1	29.1	29.1	29.1		5.045	8.0	6.4	7.9	ST
00055	10/21/95	2219	2743.4	9620.6	20	66	33	66	26.6	26.7	26.3	35.3	35.4	35.9		.869	6.9	6.9	5.9	ST
00056	10/22/95	8	2752.1	9626.5	20	40	20	39	25.4	26.1	26.7	32.9	33.9	35.2		1.492	7.4	7.1	6.3	ST
00057	10/22/95	300	2800.9	9621.8	19	32	16	32	25.4	25.5	25.5	32.5	32.5	32.5		1.431	7.4	7.4	7.4	ST
00058	10/22/95	447	2807.0	9629.1	19	22	11	22	24.3	24.4	25.3	30.2	30.2	31.9		.955	7.8	7.8	7.3	ST
00059	10/22/95	558	2812.1	9631.5	19	14	7	14	24.1	24.4	24.5	29.2	29.7	29.9		2.452	7.1	8.0	7.9	ST
00060	10/22/95	819	2800.7	9630.1	19	26	13	26	25.1	25.5	25.6	31.7	32.2	32.5		1.663	7.4	7.3	7.0	PN
00061	10/22/95	1026	2805.6	9619.4	19	26	13	26	25.2	25.2	26.0	32.2	32.2	33.5		1.250	6.8	7.2	6.4	ST
00062	10/22/95	1248	2813.0	9613.3	19	24	12	24	25.0	24.9	25.8	31.5	31.5	33.3		1.314	7.4	7.7	6.6	ST
00063	10/22/95	1454	2804.4	9611.1	19	33	17	33	24.8	25.9	26.5	31.4	33.8	35.0		1.707	7.5	7.1	6.5	ST
00064	10/22/95	1636	2759.8	9559.8	20	47	23	47	25.7	26.5	26.5	34.1	35.1	35.2		1.162	7.3	7.0	6.7	PN
00065	10/22/95	1902	2802.9	9547.1	19	45	27	45	25.9	26.1	26.3	34.8	35.2	35.4		1.651	7.2	6.9	6.7	ST
00066	10/22/95	2036	2808.9	9551.7	19	34	17	34	25.7	25.7	26.4	34.2	34.3	35.0		1.836	6.9	7.1	6.4	ST
00067	10/22/95	2225	2809.6	9557.5	19	32	16	32	25.4	25.9	26.4	33.5	34.3	34.8		2.164	6.1	7.8	6.5	ST
00068	10/23/95	52	2816.6	9554.1	19	26	13	26	24.9	24.9	25.8	32.2	32.2	34.5		1.512	7.2	7.1	6.8	ST
00069	10/23/95	459	2833.8	9535.2	19	20	10	20	24.2	24.2	24.9	31.1	31.0	32.4		1.133	7.7	7.7	7.3	ST
00070	10/23/95	704	2835.2	9525.6	19	25	12	25	24.4	24.4	25.9	31.6	31.6	34.6		1.404	7.6	7.6	6.8	ST
00071	10/23/95	914	2842.5	9539.3	19	11	5	11	23.8	23.8	23.8	28.3	28.3	28.4		3.773	7.7	7.7	7.7	ST
00073	10/23/95	1157	2835.2	9540.6	19	17	8	16	24.2	24.2	24.6	29.6	29.6	31.5		1.729	8.4	8.1	7.4	ST
00074	10/23/95	1407	2829.1	9546.3	19	20	10	19	24.7	24.6	25.1	31.0	31.4	32.5		1.624	7.7	7.5	6.3	ST
00075	10/23/95	1615	2817.0	9543.2	19	29	14	28	24.6	25.2	25.9	31.4	34.0	34.8		.823	7.4	7.3	6.9	ST
00076	10/23/95	1850	2829.8	9559.9	19	14	7	14	24.7	24.3	25.2	29.2	29.4	31.0		1.653	7.4	7.8	5.9	PN
00077	10/23/95	2033	2836.7	9553.3	19	9	4	9	23.7	23.5	24.4	27.6	27.9	29.0		3.553	7.3	7.3	6.7	ST
00078	10/23/95	2233	2840.1	9544.8	19	11	5	11	23.7	23.6	24.7	27.6	27.9	30.5		2.945	7.5	7.0	5.5	ST
00079	10/24/95	122	2842.8	9531.0	19	15	7	15	24.2	24.1	25.5	28.9	28.9	31.7		1.800	7.4	7.4	6.5	ST
00080	10/24/95	317	2830.0	9527.1	19	28	14	27	24.3	24.9	25.7	31.5	32.5	35.0		1.023	7.5	7.3	6.8	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
00081	10/24/95	831	2803.1	9521.2	19	56	28	56	25.9	25.9	25.9	35.5	35.5	35.7		1.160	6.8	6.7	6.7	ST
00083	10/24/95	1245	2757.3	9518.0	19	75	37	74	26.2	26.2	24.3	35.9	35.9	36.2		.789	6.5	6.8	4.9	ST
00084	10/24/95	1551	2801.8	9511.3	19	62	31	61	25.9	25.9	25.9	35.7	35.8	35.9		1.028	7.0	6.9	6.6	ST
00085	10/24/95	1907	2752.7	9513.1	19	114	57	114	26.2	25.2	18.8	35.8	36.1	36.4		1.409	6.4	5.9	4.2	ST
00087	10/25/95	18	2802.2	9452.2	18	74	37	74				36.2	36.0	36.2		.410	5.2	5.1	4.0	ST
00089	10/25/95	500	2758.3	9430.1	18	83	41	82				36.1	36.1	36.4		.208	6.4	6.3	5.0	ST
00090	10/25/95	733	2755.3	9443.0	18	113	56	113	25.1	25.7	18.5					.511	6.3	6.3	3.9	ST
00092	10/25/95	1304	2818.5	9505.1	19	45						36.0				.480				ST
00093	10/25/95	1510	2824.9	9519.1	19		16	33				34.3				.519				ST
00099	10/28/95	234	2815.9	9407.8	18	53	26	52				36.2	36.3	36.4		.188	7.2	7.0	6.4	ST
00101	10/28/95	823	2809.8	9439.8	18	55	25	55				36.3	36.3	36.4		.212	6.4	6.3	6.1	ST
00103	10/28/95	1241	2816.8	9448.1	18	48	24	47				36.1	36.3	36.2		.802	6.2	6.3	6.3	ST
00105	10/28/95	1615	2829.7	9456.0	18	36	18	36				35.6	35.6	35.8		.546	6.3	6.4	6.3	ST
00106	10/28/95	1853	2828.5	9448.4	18	37	18	36				35.9	35.9	35.9		.383	6.4	6.3	6.3	ST
00108	10/28/95	2346	2808.7	9443.3	18	54	27	54				36.0	36.3	36.3		.280	6.8	6.8	7.0	ST
00111	10/29/95	701	2853.6	9426.1	18	19	10	19				35.0	34.9	34.9		.349	6.9	6.7	6.7	ST
00112	10/29/95	856	2849.8	9420.0	18	25	12	24				35.0	35.1	35.1		.436	6.5	6.5	6.5	ST
00113	10/29/95	1143	2853.0	9410.3	18	18	9	18				34.6	34.2	34.1		.505	6.5	6.6	6.5	ST
00114	10/29/95	1543	2916.8	9405.6	18	15	7	15				32.5	32.5	23.5		1.215	6.6	6.7	6.8	ST
00115	10/29/95	1710	2919.5	9402.3	18	20	10	19				32.4	32.2	32.2		1.417	6.8	6.6	6.6	ST
00116	10/29/95	1843	2922.6	9400.6	18	10	5	9				31.4	31.4	31.4		2.414	6.8	6.6	6.6	ST
00117	10/29/95	2147	2928.0	9337.5	17	11	5	11				31.0	31.0	31.0		2.196	6.6	6.5	6.6	ST
00118	10/30/95	1	2915.8	9326.2	17	13	6	13				32.4	32.4	32.4		1.184	6.8	6.7	6.8	ST
00119	10/30/95	147	2910.6	9331.8	17	18	9	18				32.5	32.5	32.5		1.355	6.8	6.8	6.8	ST
00121	10/30/95	637	2914.9	9344.1	17	16	7	15				32.6	32.6	32.6		1.480	6.9	6.7	6.8	ST
00122	10/30/95	1147	2851.5	9323.8	17	22	10	21				34.6	34.8	34.8		.445	6.6	6.6	6.6	ST
00124	10/31/95	639	2931.6	9242.7	16	11	5	11				24.1	24.3	26.9		4.566	7.3	7.1		ST
00126	10/31/95	909	2932.4	9256.2	16	14	7	13				29.0	28.9	29.0		2.134	6.7	6.6	6.4	ST/PN
00127	10/31/95	1220	2919.7	9245.0	16	16	8	16				32.3	32.3	32.6		2.617	6.6	6.5	6.4	ST
00129	10/31/95	1640	2908.6	9227.9	16	18	9	17				33.8	33.8	33.8		1.364	7.3	7.2	7.0	ST
00130	10/31/95	2015	2859.4	9230.8	16	26	13	26				34.1	34.0	34.1		1.047	7.2	6.7	6.7	ST
00131	10/31/95	2210	2907.7	9224.8	16	16	8	15				34.1	34.1	34.1		1.153	8.2	8.3	8.3	ST
00132	10/31/95	2312	2911.4	9226.0	16	16	8	16				34.0		34.0		1.558	6.4		6.3	ST
00133	11/ 1/95	125	2910.8	9243.1	16	19	9	19				34.1	34.1	34.0		.659	6.1	6.1	6.0	ST
00135	11/ 1/95	428	2900.0	9230.0	16	25	12	24				33.9	33.9	33.8		1.204	6.3	6.4	6.1	PN
00136	11/ 1/95	656	2903.7	9242.0	16	24	12	23				34.3	34.3	34.3		.474	6.8	6.5	6.3	ST
00137	11/ 1/95	936	2841.5	9247.8	16	29	14	28				35.2	35.1	35.1		.430	6.4	6.4	6.3	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
00138	11/ 1/95	1241	2840.4	9306.8	17	33	16	33				35.2	35.2	35.2		.419	6.3	6.4	6.2	ST
00139	11/ 1/95	1421	2840.1	9315.9	17		16	33				35.4	35.2	35.4		.547	6.3	6.3	6.2	ST
00140	11/ 1/95	1656	2836.4	9336.6	17	36	18	35				35.6	35.6	35.6		.255	6.2	6.3	5.9	ST
00142	11/ 1/95	2151	2856.3	9349.8	17	22	11	21				34.7	34.7	34.7		.498	6.6	6.6	6.5	ST
00143	11/ 2/95	43	2835.8	9355.2	17	35	14	34				35.7	35.7	35.7		.255	6.4	6.4	6.2	ST
00144	11/ 2/95	408	2830.8	9323.0	17	46	22	45				35.7	35.8	35.8		.386	6.0	6.0	5.9	ST
00145	11/ 2/95	701	2828.3	9326.6	17	46	23	45				35.8	35.9	36.0		.262	6.1	5.8	6.0	ST/PN
00147	11/ 2/95	1156	2830.8	9343.6	17	41	20	41				36.2	35.8	35.8		.199	6.2	6.4	6.0	ST
00149	11/ 2/95	1547	2839.4	9349.8	17	29	14	28				35.8	35.8	35.8		.246	6.2	6.2	6.0	ST
00150	11/ 2/95	2030	2810.8	9323.6	17	64	32	64				36.0	36.0	36.3		.193	6.3	6.2	6.0	ST
00151	11/ 2/95	2304	2809.7	9310.3	17	73	37	73				36.2	36.3	36.7		.174	6.2	6.1	4.3	ST
00152	11/ 3/95	136	2803.8	9244.0	16	82	41	82				36.2	36.7	36.8		.094	6.1	6.2	3.6	ST
00153	11/ 3/95	515	2807.3	9242.3	16	80	40	79				36.6	36.6	36.8		.079	6.3	6.2	4.0	ST
00154	11/ 3/95	736	2804.2	9244.2	16	91	42	90				36.4	36.2	36.4		.085	6.3	6.1	4.6	ST
00155	11/ 3/95	1046	2803.9	9301.8	17		46	92				34.9	36.3			.190	6.9	6.8		ST
00156	11/ 3/95	1410	2815.0	9301.8	17	64	32	64				36.1	36.1	36.2		.312	7.0	6.9	6.1	ST
00158	11/ 3/95	2123	2844.6	9300.0	16	32	16	32				35.1	35.0	35.0		.553	6.6	6.6	6.5	ST
00159	11/ 4/95	206	2851.6	9233.0	16	29	14	28				34.6	34.6	34.6		.943	6.7	6.5	6.5	ST
00160	11/ 4/95	626	2857.9	9211.3	16	24	12	23				34.2	34.1	34.1		1.308	7.0	6.8	6.7	ST
00161	11/ 4/95	829	2906.7	9214.1	16	15	7	14				33.9	33.8	33.9		1.807	6.6	6.5	6.6	ST
00162	11/ 4/95	1025	2906.8	9203.8	16	14	7	13				34.0	33.9	33.9		1.682	6.9	6.7	6.7	ST
00163	11/ 4/95	1200	2904.1	9158.1	15	15	7	14				34.0	34.0	34.0		1.641	6.6	6.3	6.3	ST/PN
00164	11/ 4/95	1857	2816.6	9231.6	16	64	32	63				36.1	36.0	36.2		.523	6.7	6.2	6.3	ST
00168	11/ 5/95	0046	2832.0	9229.2	16	41	20	40				35.6	35.5	35.8		.796	6.4	6.2	6.3	ST/PN
00169	11/ 5/95	416	2836.5	9250.2	16	37	18	36				35.4	35.3	35.4		.505	6.7	6.7	6.3	ST
00170	11/ 5/95	631	2834.0	9243.0	16	39	19	38				35.5	35.5	35.5		.492	7.5	7.0	7.0	ST
00171	11/ 5/95	933	2816.4	9233.4	16	64	32	64				36.4	36.2	36.2		.220	6.9	6.9		ST
00173	11/ 5/95	1331	2807.8	9227.3	16	82	41	82				36.2	36.1	36.2		.542	6.8	6.6	6.7	ST
00174	11/ 5/95	2003	2844.9	9201.0	16	33	16	32				35.0	35.1	35.0		.667	7.2	7.2	7.2	ST
00175	11/ 5/95	2134	2851.2	9204.1	16	27	13	27				34.7	34.7	34.6		.872	6.5	6.5	6.5	ST
00176	11/ 6/95	101	2852.3	9137.9	15	20	10	20				33.1	33.1	33.1		1.526	6.8	6.7	6.8	ST
00177	11/ 6/95	340	2835.7	9146.7	15	40	20	40				35.7	35.6	35.7		.639	6.4	6.4	6.4	ST
00179	11/ 6/95	626	2831.5	9150.9	15	46	23	45				35.9	35.9	35.9		.411	7.1	7.0	7.0	ST
00181	11/ 6/95	1003	2829.7	9200.0	16	42	21	42				35.6	36.0	35.8		.517	6.7	6.6	6.6	PN
00182	11/ 6/95	1302	2825.8	9137.0	15	55	27	55				36.2	36.1	36.1		.308	6.7	6.6	6.5	ST
00184	11/ 6/95	1651	2830.0	9130.0	15	46	23	45				35.9	35.9	35.8		.579	6.7	6.6	6.5	PN
00185	11/ 6/95	1812	2836.1	9129.4	15	36	18	36				35.9	35.9	36.0		.567	6.8	6.6	6.6	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
00186	11/ 6/95	1942	2838.9	9128.0	15	29	14	29				35.7	35.7	35.7		.785	6.7	6.7	6.4	ST
00187	11/ 6/95	2124	2832.9	9122.2	15	36	18	36				36.1	35.9	36.0		.411	6.4	6.3	6.2	ST
00188	11/ 7/95	13	2818.4	9106.1	15	64	32	64				36.2	36.2	35.4		.262	6.2	6.1	6.1	ST
00189	11/ 7/95	308	2829.9	9100.0	15	34	17	34				35.4	35.7	36.0		.786	6.4	6.2	6.1	PN
00190	11/ 7/95	416	2833.7	9103.4	15	28	14	27				34.6	34.2	35.6		.885	7.0	6.9	6.6	ST
00191	11/ 7/95	459	2835.2	9100.5	15	19	9	18				33.0	33.0	35.5		.972	7.3	7.3	6.7	ST
00192	11/ 7/95	631	2834.6	9102.4	15	25	12	25				33.4	33.4	35.6		.872	7.2	7.2	7.3	ST
00193	11/ 7/95	746	2842.1	9103.1	15	13	6	13				32.4	32.4	32.4		1.454	7.0	7.0	6.9	ST
00194	11/ 7/95	1027	2835.7	9047.9	14	20	10	20				33.6	34.4	35.2		.966	7.3	6.8	7.3	ST
00195	11/11/95	1148	2859.0	8932.2	13	26	13	26	23.0	23.3	24.1	33.2	33.9	34.4		1.990	5.2	4.9	4.4	ST
00196	11/11/95	1326	2902.5	8936.1	13	19	9	19	22.9	22.9	24.0	33.0	33.0	34.4		2.447	5.5	5.6	5.3	ST
00197	11/11/95	1449	2900.8	8939.2	13	41	20	40	22.9	23.4	24.8	33.5	34.4	35.6		2.652	5.5	5.3	3.5	ST
00198	11/11/95	1652	2859.7	8956.9	13	27	13	26	22.7	22.8	23.5	33.2	33.5	34.5		1.795	5.8	5.5	5.5	ST
00199	11/11/95	1826	2859.4	8952.0	13	36	18	35	23.1	23.4	24.5	34.1	34.2	35.3		1.946	5.3	5.3	4.9	ST
00200	11/11/95	2145	2859.0	8932.0	13	23	11	23	22.1	22.7	24.6	32.1	33.0	35.2		3.353	5.1	4.8	4.0	ST
00201	11/11/95	2350	2903.1	8945.1	13	33	16	33	22.8	23.1	23.7	33.9	34.1	34.7		2.000	5.2	5.2	5.0	ST
00202	11/12/95	104	2906.5	8943.7	13	25	12	24	22.6	22.6	23.8	33.5	33.6	34.8		2.781	5.4	5.3	4.9	ST
00203	11/12/95	226	2910.3	8948.1	13	17	8	16	21.8	21.8	23.6	32.9	32.9	34.0		2.142	5.5	5.6	4.6	ST
00204	11/12/95	454	2908.0	9002.6	14	11	6	11	20.5	20.5	20.5	32.2	32.2	32.2		3.736	5.7	5.8	5.7	ST
00205	11/12/95	717	2855.5	9006.2	14	25	12	25	22.8	22.8	22.8	34.0	34.0	34.0		1.717	5.7	5.3	5.2	ST
00206	11/12/95	815	2855.8	9009.3	14	21	10	21	22.4	22.4	22.4	33.5	33.5	33.5		1.512	4.4	4.4	4.2	ST
00207	11/12/95	1037	2900.1	9000.1	14	24	12	24	22.7	22.7	22.7	33.8	33.8	33.8		1.365	5.3	5.3	5.3	PN
00208	11/12/95	1333	2840.6	9014.1	14	31	15	31	23.6	23.6	23.6	35.1	35.1	35.1		1.214	5.2	5.1	5.1	ST
00209	11/12/95	1558	2859.5	9025.6	14	8	4	8	19.5	19.5	19.5	32.0	32.0	32.0		3.497	5.8	6.1	6.2	ST/PN
00210	11/12/95	1828	2854.3	9034.7	14	13	7	13	21.4	21.4	21.4	32.6	32.6	32.6		2.789	5.6	6.0	6.2	ST
00211	11/12/95	2044	2851.8	9048.1	14	11	5	11	21.2	21.2	20.9	33.2	33.1	33.2		3.890	4.5	5.4	5.7	ST
00212	11/12/95	2242	2837.6	9054.2	14	18	9	18	22.1	22.2	22.3	34.6	34.6	34.8		2.774	5.5	5.5	5.5	ST
00213	11/12/95	2355	2839.3	9058.0	14	16	8	15	22.0	22.0	22.1	34.7	34.7	34.7		2.479	4.4	5.2	5.3	ST
00214	11/13/95	643	2839.7	9112.4	15	21	10	21	21.5	21.6	22.0	34.1	34.1	34.5		3.475	5.6	5.6	5.6	ST
00215	11/13/95	754	2846.1	9116.1	15	14	7	14	20.2	20.6	20.7	33.0	33.5	33.6		3.087	5.4	5.4	5.6	ST
00216	11/13/95	1101	2837.8	9128.2	15	30	15	30	22.6	22.5	22.5	34.8	34.8	34.8		1.292	5.3	5.3	5.5	ST
00217	11/13/95	1324	2832.5	9120.1	15	35	17	34	22.4	22.4	22.5	34.8	35.0	35.1		1.219	5.5	5.3	5.3	ST
00218	11/13/95	1529	2822.7	9109.2	15	54	26	54	24.1	24.0	23.9	35.8	35.2	35.8		1.734	5.2	5.2	5.6	ST
00219	11/13/95	1915	2819.0	9050.0	14	53	26	53	24.1	24.0	23.8	36.0	36.0	36.0		1.263	5.3	5.2	5.2	ST
00220	11/13/95	2214	2823.8	9031.5	14	45	27	45	24.2	24.1	24.1	36.0	36.0	36.1		1.067	5.6	6.7	7.1	ST
00222	11/14/95	142	2813.1	9026.0	14	80	40	79	24.4	24.4	20.7	36.1	36.1	36.4		1.133	5.2	8.4	8.0	ST
00223	11/14/95	340	2817.2	9014.7	14	86	43	86	24.1	24.2	20.6	36.0	36.0	36.4		.913	5.1	5.1	3.7	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
00224	11/14/95	635	2816.0	9021.1	14	69	34	68	24.0	24.0	22.6	36.0	36.1	36.7		.994	5.1	5.1	5.0	ST
00225	11/14/95	927	2808.2	9030.2	14	112	56	112	24.4	24.4	18.3	36.1	36.1	36.4		.864	4.9	4.9	3.3	ST
00226	11/14/95	1237	2812.5	9041.1	14	78	38	76	24.7	24.7	21.1	36.2	36.2	36.4		.823	5.3	5.0	3.6	ST
00228	11/14/95	2110	2842.7	8938.7	13	90	45	90	23.4	24.0	20.2	35.4	35.9	36.4		1.810	5.3	5.1	3.4	ST
00230	11/15/95	333	2903.2	8859.6	11	41	20	40	20.5	22.7	23.8	32.0	34.7	36.1		2.527	6.3	9.1	10.6	ST/PN
00231	11/15/95	515	2904.1	8859.5	11	43	21	42	20.9	22.6	23.4	32.6	34.6	36.2		1.919	5.4	5.2	4.5	ST
00232	11/15/95	912	2916.9	8822.9	11	74	37	74	24.0	23.9	20.7	36.2	36.2	36.5		.559	5.9	6.1	9.4	ST
00233	11/15/95	1114	2920.8	8813.2	11	65	32	65	22.9	22.7	22.7	35.9	35.9	35.9		1.038	5.9	5.2	5.3	ST
00235	11/15/95	1358	2925.4	8808.0	11	57	28	56	22.5	22.5	22.5	36.0	36.0	36.0		.669	5.3	5.4	5.3	ST
00236	11/15/95	1600	2921.1	8808.5	11	85	43	85	23.0	22.9	22.6	36.0	36.0	35.9		1.302	5.3	5.2	5.1	ST
00237	11/15/95	1806	2921.7	8759.5	11	97	48	96	23.5	22.8	17.8	36.1	36.1	36.4		1.111	5.2	5.2	3.5	ST
00238	11/15/95	2025	2922.4	8810.1	11	66	33	66	22.6	22.6	22.6	35.9	35.9	36.0		1.158	6.4	8.6	10.3	ST
00239	11/15/95	2207	2919.9	8811.8	11	85	42	85	22.9	22.7	22.6	35.9	35.9	35.9		1.238	5.2	5.3	5.2	ST
00240	11/16/95	36	2918.9	8823.9	11	64	35	63	23.9	23.9	23.5	36.3	36.3	36.3		.794	5.2	5.2	5.0	ST
00241	11/16/95	244	2914.9	8830.1	11	75	37	74	24.0	24.0	20.1	36.2	36.2	36.5		.786	5.1	5.1	3.6	ST
00242	11/16/95	624	2927.0	8841.3	11	34	16	33	21.9	23.8	23.4	34.5	35.7	36.2		1.021	5.3	5.0	4.5	ST
00243	11/16/95	823	2933.0	8831.9	11	46	23	46	20.1	23.5	23.6	34.5	36.1	36.2		1.199	6.2	5.0	5.1	ST
00244	11/16/95	1142	2956.0	8825.8	11	31	15	31	21.5	21.5	21.6	35.3	35.3	35.4		.589	5.5	5.4	5.5	ST
00245	11/16/95	1322	2956.3	8823.2	11	31	15	30	21.8	21.7	21.7	35.4	35.5	35.5		.742	5.4	5.4	5.5	ST
00246	11/16/95	1537	2954.7	8808.2	11	32	16	32	21.2	21.4	21.4	34.8	35.4	35.4		1.138	5.5	5.5	5.5	ST
00247	11/16/95	1758	3000.3	8802.0	11	24	12	24	19.3	19.9	21.1	33.4	34.4	35.1		1.788	5.9	5.5	5.4	ST/PN
00248	11/16/95	2009	2957.9	8814.2	11	31	15	31	21.1	21.4	21.5	35.5	35.3	35.4		1.214	6.7	7.6	5.7	ST
00249	11/16/95	2153	2959.1	8823.6	11	29	17	29	20.6	21.3	21.5	35.8	35.5	34.7		.987	7.4	10.4	8.7	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
17001	10/28/95	1416	2954.4	8847.9	11	8	3	7	22.8	23.1	23.1	32.6	32.7	32.7	.553		7.0	7.0	7.0	ST
17002	10/28/95	1523	2952.3	8844.1	11	15	7	14	23.5	23.5	23.5	32.3	32.4	32.8	1.194		6.8	6.8	6.8	ST
17003	10/28/95	1918	2937.3	8857.9	11	6	3	5	23.1	22.9	23.0	32.2	32.3	32.3	.878		6.6	6.7	6.8	ST
17004	10/28/95	2046	2931.6	8858.5	11	10	5	9	23.1	23.2	23.1	33.1	33.1	33.3	.449		7.1	7.0	6.9	ST
17005	10/28/95	2308	2924.3	8849.3	11	24	12	23	24.1	23.7	23.7	34.7	34.8	34.8	.216		6.5	6.5	6.2	ST
17006	10/29/95	0042	2925.3	8846.8	11	28	14	27	24.1	23.9	24.1	35.1	35.1	35.3	.240		6.3	6.1	6.0	ST
17007	10/29/95	0126	2922.2	8849.0	11	33	16	32	24.0	23.7	24.4	34.8	34.9	36.0	.235		6.2	6.1	5.8	ST
17008	11/ 6/95	1604	2930.3	8841.3	11	22	11	21	23.0	23.1	22.8	35.4	35.5	35.3	.312		4.9	6.4	6.6	ST
17009	11/ 6/95	1708	2930.4	8841.1	11	24	12	23	23.1	23.1	23.0	35.5	35.5	35.4	.262		6.6	6.5	6.6	ST
17010	11/ 6/95	1859	2930.9	8836.8	11	37	18	36	23.5	23.3	23.4	35.4	35.7	35.7	.355		6.4	6.2	6.2	ST
17011	11/ 6/95	2121	2943.5	8835.8	11	26	13	25	22.5	22.3	22.5	34.7	34.7	34.9	.542		6.4	6.6	6.2	ST
17012	11/ 6/95	2343	2945.2	8846.1	11	13	6	12	21.3	21.3	21.6	33.0	33.1	33.9	1.383		7.0	7.0	6.7	ST
17013	11/ 7/95	0406	2920.6	8859.7	11	35	17	34	21.6	23.3	22.7	32.8	35.2	35.2	.561		6.8	6.3	6.3	ST
17014	11/ 7/95	0714	2911.3	8833.6	11	97	48	96	24.5	24.3	20.4	36.4	36.5	36.5	.262		6.0	6.2	5.2	ST
17015	11/ 7/95	1055	2914.1	8830.4	11	85	42	84	24.7	24.6	23.1	36.4	36.5	36.5	.168		6.2	6.1	5.7	ST
17016	11/ 7/95	1457	2938.5	8836.8	11	18	9	17	22.5	22.3	22.5	34.6	34.7	35.1	.481		7.0	6.6	6.6	ST
17017	11/ 7/95	1637	2942.9	8829.0	11	35	17	34	22.5	22.8	23.2	34.8	35.4	35.8	.454		6.6	6.3	6.2	ST
17018	11/ 9/95	1212	3009.1	8834.2	11	13	6	12	19.7	19.6	20.6	32.1	32.1	33.3	.993		6.4	6.5	6.1	ST
17019	11/ 9/95	1446	2954.0	8833.3	11	26	13	25	21.6	21.3	21.3	35.0	35.0	35.2	.561		7.0	7.0	6.8	ST
17020	11/ 9/95	1637	2954.1	8831.5	11	27	13	26	21.8	21.6	21.4	35.2	35.3	35.3	.400		6.8	6.7	6.7	ST
17021	11/ 9/95	1855	2945.3	8838.2	11	21	10	20	21.5	21.3	21.3	34.9	34.9	34.9	.561		6.7	6.7	6.7	ST
17022	11/ 9/95	2045	2947.4	8841.1	11	20	10	19	21.0	20.8	20.8	34.3	34.4	34.4	.374		7.4	7.5	7.5	ST
17023	11/ 9/95	2349	3003.4	8844.8	11	14	7	13	20.0	20.0	20.1	33.1	33.2	33.5	1.318		7.5	7.6	7.5	ST
17024	11/15/95	1138	3013.4	8837.9	11	6	3	5	16.7	17.1	17.8	29.2	31.0	32.3	1.645		7.5	7.4	7.4	ST
17025	11/15/95	1345	3000.1	8830.1	11	26	13	25	20.2	20.1	20.3	35.1	35.2	35.3	.822		7.5	7.8	7.5	PN
17026	11/15/95	1800	2956.3	8848.8	11	4	2	3	16.7	16.7	16.7	31.7	31.7	31.7	.393		8.6	8.5	8.4	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
31001	11/13/95	0902	2754.3	9659.3	20	8	4	8	19.2	19.2	19.4	29.7	29.7	29.8			8.4	7.7	7.6	ST
31002	11/13/95	0932	2754.4	9658.5	20	10	5	10	19.3	19.2	19.6	29.8	29.9	30.5			8.3	8.2	8.0	ST
31003	11/13/95	1031	2759.6	9653.4	20	11	6	11	19.1	19.3	19.5	29.9	30.1	30.1			8.1	7.9	7.8	ST
31004	11/13/95	1125	2755.4	9650.7	20	17	9	17	19.7	20.1	20.6	30.2	31.7	32.2			7.8	7.6	6.8	ST
31005	11/13/95	1159	2755.6	9651.5	20	17	9	17	19.8	19.5	20.3	30.4	31.1	31.9			7.8	7.7	7.4	ST
31006	11/13/95	1238	2755.4	9653.6	20	14	7	14	20.0	19.5	20.3	30.5	30.5	31.0			7.9	7.6	7.3	ST
31007	11/13/95	1328	2751.7	9651.3	20	20	10	20	20.4	20.7	21.1	31.1	32.4	32.8			7.8	7.7	6.8	ST
31008	11/13/95	1418	2752.4	9656.5	20	14	7	14	20.0	20.0	20.4	30.1	31.3	31.5			7.5	7.2	6.7	ST
31009	11/16/95	0800	2746.6	9702.3	20	13	7	13	19.5	19.5	19.5	30.5	30.5	30.7			7.8	7.7	7.6	ST
31010	11/16/95	0859	2742.4	9704.5	20	15	8	15	19.9	19.8	19.7	30.8	31.1	31.6			7.9	7.8	7.7	ST
31011	11/16/95	0940	2740.6	9708.5	20	12	6	12	19.6	19.6	19.6	30.9	30.8	30.8			7.5	7.5	7.6	ST
31012	11/16/95	1036	2740.3	9702.6	20	19	10	19	19.7	20.0	19.9	31.6	31.9	32.4			7.4	7.3	7.2	ST
31013	11/16/95	1126	2742.5	9659.3	20	21	11	21	19.9	19.9	19.9	31.8	31.8	33.9			7.4	7.4	7.3	ST
31014	11/16/95	1246	2749.8	9657.8	20	15	8	15	19.7	19.7	19.6	31.3	31.3	31.3			7.8	7.8	7.7	ST
31015	11/16/95	1322	2750.1	9700.1	20	13	6	12	19.4	19.4	19.4	31.0	31.2	31.1			7.6	7.7	7.6	ST
31016	11/16/95	1352	2750.0	9700.5	20	12	6	12	19.4	19.4	19.4	31.2	31.2	31.1			7.6	7.6	7.9	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
32001	11/ 7/95	1016	2824.7	9614.4	19	13	7	13	18.5	19.7	19.7	29.1	29.6	31.7			7.2	6.5	6.4	ST
32002	11/ 7/95	1058	2822.5	9613.5	19	16	8	16	18.6	20.0	20.6	29.2	31.4	33.3			7.2	6.4	6.0	ST
32003	11/ 7/95	1145	2822.6	9609.5	19	18	9	18	18.9	20.1	21.4	29.6	34.1	34.9			7.4	6.5	6.1	ST
32004	11/ 7/95	1252	2825.6	9608.3	19	16	8	16	18.8	19.8	20.9	27.7	30.4	32.4			7.4	6.4	6.0	ST
32005	11/ 7/95	1336	2826.5	9605.4	19	16	8	16	19.2	20.2	20.9	27.9	31.1	32.4			7.2	6.4	6.0	ST
32006	11/ 7/95	1412	2826.5	9603.3	19	16	8	16	19.2	20.0	21.1	28.0	31.6	32.7			7.0	6.3	6.0	ST
32007	11/ 7/95	1615	2829.4	9610.3	19	9	4	9	19.9	19.3	19.4	28.6	28.7	29.1			6.9	6.8	6.5	ST
32008	11/ 7/95	1648	2828.5	9610.5	19	11	6	11	19.1	19.2	19.5	27.9	29.3	29.5			7.0	6.5	6.2	ST
32009	11/16/95	0951	2820.5	9621.4	19	11	6	11	19.0	19.0	19.1	30.0	29.9	30.1			8.1	8.1	7.8	ST
32010	11/16/95	1030	2818.5	9622.5	19	14	7	14	19.3	19.3	19.7	30.3	30.3	30.9			7.8	7.9	7.6	ST
32011	11/16/95	1122	2817.4	9629.3	19	5	3	5	19.4	19.4	19.4	30.0	30.0	30.0			8.6	8.5	8.7	ST
32012	11/22/95	1031	2814.5	9623.5	19	19	10	19	19.2	19.4	20.8	28.7	32.6	33.6			7.3	6.8	6.8	ST
32013	11/22/95	1108	2815.4	9622.7	19	19	9	19	19.0	19.2	20.7	28.6	33.6	33.5			7.4	7.2	7.1	ST
32014	11/22/95	1205	2814.5	9621.5	19	20	10	20	19.2	19.0	20.7	28.4	33.5	33.7			7.7	7.5	7.0	ST
32015	11/22/95	1251	2812.6	9620.6	19	23	11	23	19.9	20.8	21.0	30.2	34.0	34.5			7.2	6.9	7.2	ST
32016	11/22/95	1338	2812.5	9619.5	19	24	12	24	21.2	21.1	21.1	34.1	34.3	34.7			6.8	6.9	6.6	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
33001	11/13/95	0848	2557.1	9705.0	22	16	8	16	21.6	21.7	22.0	31.0	31.1	31.6			11.1	11.1	10.7	ST
33002	11/13/95	0934	2559.6	9702.1	22	22	11	22	21.8	21.7	22.3	31.2	31.3	32.7			11.9	11.6	10.9	ST
33003	11/13/95	1043	2607.1	9704.4	21	18	9	18	21.8	21.5	21.6	31.2	31.4	31.3			11.4	11.4	11.1	ST
33004	11/13/95	1123	2610.8	9704.0	21	19	9	19	21.7	21.4	21.7	31.1	31.2	31.8			12.8	11.9	11.7	ST
33005	11/13/95	1203	2609.4	9706.3	21	18	9	18	22.3	21.3	21.4	31.2	31.2	31.3			12.5	11.5	11.3	ST
33006	11/13/95	1241	2608.2	9707.3	21	17	9	17	22.3	21.1	21.0	31.3	31.2	31.3			11.7	12.7	12.3	ST
33007	11/13/95	1314	2607.4	9707.3	21	17	9	17	22.0	21.1	21.2	31.2	31.2	31.3			12.9	12.9	12.8	ST
33008	11/13/95	1356	2605.4	9708.3	21	11	6	11	21.2	20.8	20.7	31.1	31.2	31.1			7.7	7.8	7.9	ST
33009	11/22/95	0846	2610.2	9705.3	21	18	9	18	20.3	20.4	20.4	31.8	31.7	31.8			6.1	6.1	6.1	ST
33010	11/22/95	0919	2611.4	9705.3	21	19	10	19	20.3	20.3	20.3	31.6	31.7	31.8			6.6	6.7	6.7	ST
33011	11/22/95	0949	2612.3	9705.3	21	18	9	18	20.3	20.3	20.3	31.6	31.6	31.7			6.7	6.7	6.6	ST
33012	11/22/95	1024	2613.4	9706.4	21	18	9	18	20.5	20.3	20.3	31.5	31.5	31.7			6.7	6.7	6.9	ST
33013	11/22/95	1053	2613.2	9707.3	21	17	9	17	20.5	20.3	20.3	31.6	31.6	31.6			6.9	7.0	7.1	ST
33014	11/22/95	1140	2616.4	9710.3	21	10	5	10	20.7	20.3	20.3	31.0	31.1	31.4			7.3	7.4	7.1	ST
33015	11/22/95	1217	2619.4	9710.3	21	14	7	14	20.6	20.1	20.2	31.2	31.2	31.3			7.3	7.4	7.2	ST
33016	11/22/95	1254	2621.4	9711.4	21	11	6	11	20.6	20.5	20.3	30.7	30.8	31.1			7.5	7.8	7.6	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	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
34001	11/13/95	1047	2916.9	9442.5	18	9	5	9	18.9	18.8	19.4	26.6	28.5	29.3			8.1	7.3	6.8	ST
34002	11/13/95	1120	2917.1	9439.3	18	10	5	10	18.9	18.6	19.4	27.0	29.9	30.1			9.0	9.1	9.3	ST
34003	11/13/95	1159	2917.5	9436.7	18	13	7	13	19.1	18.2	18.5	26.7	27.7	28.4			8.3	8.1	8.1	ST
34004	11/13/95	1232	2920.6	9434.4	18	12	6	12	19.1	18.4	18.5	27.3	28.2	29.6			8.1	8.6	10.1	ST
34005	11/13/95	1302	2921.1	9429.5	18	13	7	13	18.9	18.4	18.6	27.9	28.5	28.8			9.6	8.8	9.0	ST
34006	11/13/95	1339	2924.8	9433.3	18	10	5	10	18.7	18.4	18.8	26.5	28.6	28.6			8.7	9.1	9.2	ST
34007	11/13/95	1421	2927.6	9436.4	18	5	3	5	18.7	18.0	18.1	26.2	27.0	27.8			8.3	8.7	8.3	ST
34008	11/13/95	1440	2926.9	9436.7	18	6	3	6	18.7	18.0	18.1	26.3	27.0	27.1			8.4	8.6	8.4	ST
34009	11/16/95	1018	2913.4	9438.8	18	15	8	15	18.5	18.5	18.5	29.5	29.4	29.4			5.9	5.8	5.8	ST
34010	11/16/95	1048	2912.8	9442.7	18	15	8	15	18.5	18.5	18.5	29.3	28.9	28.8			5.8	5.8	5.9	ST
34011	11/16/95	1115	2912.4	9445.4	18	13	7	13	18.9	18.9	18.8	28.7	28.7	28.8			6.0	5.9	5.9	ST
34012	11/22/95	1030	2914.0	9446.6	18	11	6	11	18.2	18.5	18.9	28.2	28.2	28.3			5.4	5.1	5.6	ST
34013	11/22/95	1104	2912.5	9448.9	18	11	6	11	18.1	17.9	18.3	28.2	28.1	28.4			7.6	7.4	7.4	ST
34014	11/22/95	1127	2911.0	9449.4	18	13	7	13	18.1	18.0	18.1	28.6	28.5	28.6			7.5	7.4	7.4	ST
34015	11/22/95	1148	2909.6	9450.4	18	13	7	13	18.2	18.1	18.6	28.9	29.0	29.1			7.7	7.6	7.0	ST
34016	11/22/95	1212	2907.5	9449.8	18	15	8	15	18.3	18.1	18.1	28.6	28.6	28.7			7.7	7.6	7.5	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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
40001	11/13/95	1017	2934.3	9348.1	17	11	6	11	18.0	18.3	18.9	26.9	31.2	31.9			8.8	8.3	8.0	ST
40002	11/13/95	1100	2932.6	9348.8	17	11	6	11	18.4	18.3	19.0	27.8	30.5	32.6			8.8	8.3	7.6	ST
40003	11/13/95	1200	2934.6	9354.5	17	7	4	7	18.5	17.8	18.9	26.5	30.0	30.1			7.3	7.9	7.6	ST
40004	11/13/95	1250	2935.5	9356.6	17	6	3	6	18.9	17.9	18.9	26.4	29.3	30.3			7.6	6.7	6.2	ST
40005	11/13/95	1336	2938.6	9400.2	18	4	2	4	19.4	17.6	17.5	26.4	26.6	26.7			8.0	7.7	7.5	ST
40006	11/13/95	1416	2938.6	9356.8	17	4	2	4	18.6	17.6	17.2	26.6	27.2	27.0			8.1	7.5	7.1	ST
40007	11/13/95	1509	2939.9	9353.4	17	1	1	1	19.8	19.4	18.3	25.9	26.1	26.0			8.6	8.2	7.4	ST
40008	11/13/95	1545	2939.5	9351.7	17	2	1	2	20.5	19.7	18.8	26.3	26.2	26.4			8.6	9.1	8.1	ST
40009	11/25/95	0811	2943.4	9338.8	17	5	2	5	16.9	16.9	16.9	25.7	25.9	25.8			8.2	8.3	8.3	ST
40010	11/25/95	0847	2942.6	9341.2	17	5	2	5	17.0	17.0	17.7	25.9	25.9	27.0			8.2	7.9	6.4	ST
40011	11/25/95	0920	2941.4	9342.8	17	6	3	6	17.0	17.0	17.2	26.0	26.0	26.2			8.4	8.4	8.1	ST
40012	11/25/95	0954	2940.5	9342.3	17	7	4	7	17.1	17.1	17.2	26.1	26.2	26.6			8.4	8.4	8.1	ST
40013	11/25/95	1030	2940.6	9341.9	17	7	4	7	17.1	17.1	17.2	26.1	26.1	26.4			8.3	8.2	7.8	ST
40014	11/25/95	1106	2940.6	9340.2	17	7	4	7	17.3	17.3	17.3	26.1	26.2	28.0			8.2	8.0	7.2	ST
40015	11/25/95	1147	2938.6	9338.8	17	8	4	8	17.5	17.5	17.6	27.2	27.3	29.4			8.0	7.9	7.5	ST
40016	11/25/95	1234	2936.6	9339.6	17	10	5	10	17.8	17.6	17.8	28.4	28.6	30.2			8.2	8.0	7.4	ST

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/M3 SUR	FL SUR	DISSOLVED OXYGEN, PPM SUR	DISSOLVED OXYGEN, PPM MID	DISSOLVED OXYGEN, PPM MAX	GEAR
2301	12/ 4/95	1133	3011.9	8806.1	11	9	5	9	17.9	19.5	20.5	20.8	33.0	34.6			8.8	7.2	3.7	ST
2302	12/ 4/95	1227	3009.3	8804.0	11	11	6	11	18.2	19.4	19.6	26.2	34.5	34.9			7.9	6.1	5.3	ST
2303	12/ 4/95	1330	3006.3	8808.9	11	20	10	20	18.3	20.1	20.4	30.1	34.8	35.2			7.6	6.1	5.0	ST
2304	12/ 4/95	1549	3009.1	8816.2	11	18	9	18	18.0	19.2	20.6	29.7	32.9	33.8			7.7	6.8	5.4	ST
2305	12/ 4/95	1701	3010.9	8821.9	11	13	7	13	18.4	19.8	20.4	29.1	33.6	34.8			7.7	7.0	5.1	ST
2306	12/ 4/95	1818	3010.4	8815.2	11	16	8	16	18.2	19.5	20.7	28.3	33.3	35.2			8.0	6.4	4.9	ST

Table 3. 1995 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					
Anchoviella perfasciata	flat anchovy	449	3.9	4	16.7
Trichiurus lepturus	Atlantic cutlassfish	408	9.4	17	70.8
Anchoa hepsetus	striped anchovy	347	5.4	16	66.7
Cynoscion arenarius	sand seatrout	319	25.3	20	83.3
Cynoscion nothus	silver seatrout	284	9.0	21	87.5
Prionotus longispinosus	bigeye searobin	252	5.0	15	62.5
Peprilus burti	gulf butterfish	215	16.6	13	54.2
Arius felis	hardhead catfish	198	44.6	13	54.2
Etropus crossotus	fringed flounder	172	3.9	16	66.7
Sphoeroides parvus	least puffer	144	1.4	13	54.2
Anchoa mitchilli	bay anchovy	123	.5	5	20.8
Micropogonias undulatus	Atlantic croaker	117	7.5	9	37.5
Leiostomus xanthurus	spot	87	5.5	7	29.2
Lagocephalus laevigatus	smooth puffer	76	.8	2	8.3
Syacium gunteri	shoal flounder	73	1.7	15	62.5
Bollmannia communis	ragged goby	66	.2	5	20.8
Archosargus probatocephalus	sheepshead	58	54.1	4	16.7
Urophycis floridana	southern hake	47	1.7	8	33.3
Centropristis philadelphica	rock sea bass	38	1.5	11	45.8
Diplectrum bivittatum	dwarf sand perch	37	1.4	10	41.7
Synodus foetens	inshore lizardfish	33	2.1	7	29.2
Lutjanus campechanus	red snapper	32	2.0	4	16.7
Stellifer lanceolatus	star drum	32	.9	2	8.3
Antennarius radiosus	singlespot frogfish	29	.0	10	41.7
Prionotus tribulus	bighead searobin	24	.5	3	12.5
Halieutichthys aculeatus	pancake batfish	19	.1	9	37.5
Lepophidium brevibarbe	blackedge cusk-eel	12	.3	4	16.7
Symphurus plagiusa	blackcheek tonguefish	12	.3	7	29.2
Scorpaena calcarata	smoothhead scorpionfish	11	.2	5	20.8
Larimus fasciatus	banded drum	9	.3	6	25.0
Balistes capriscus	gray triggerfish	9	1.6	6	25.0
Citharichthys spilopterus	bay whiff	8	.2	6	25.0
Chloroscombrus chrysurus	Atlantic bumper	6	.2	2	8.3
Menticirrhus americanus	southern kingfish	6	.8	3	12.5
Chaetodipterus faber	Atlantic spadefish	6	.2	4	16.7

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
Citharichthys macrops	spotted whiff	6	.2	3	12.5
Saurida brasiliensis	largescale lizardfish	5	.0	2	8.3
Stenotomus caprinus	longspine porgy	5	.1	2	8.3
Rhizoprionodon terraenovae	Atlantic sharpnose shark	4	14.0	1	4.2
Opisthonema oglinum	Atlantic thread herring	4	.3	3	12.5
Lutjanus synagris	lane snapper	4	.2	2	8.3
Cyclopsetta chittendeni	Mexican flounder	4	.4	2	8.3
Bagre marinus	gafftopsail catfish	3	.8	3	12.5
Scomber japonicus	chub mackerel	3	.0	2	8.3
Scomberomorus maculatus	Spanish mackerel	3	1.3	2	8.3
Peprilus alepidotus	harvestfish	3	.4	2	8.3
Ancylopsetta quadrocellata	ocellated flounder	3	.1	2	8.3
Porichthys plectrodon	Atlantic midshipman	3	.1	3	12.5
Aetobatus narinari	spotted eagle ray	2	10.0	2	8.3
Rhinoptera bonasus	cownose ray	2	30.0	1	4.2
Selene setapinnis	Atlantic moonfish	2	.1	2	8.3
Trachurus lathami	rough scad	2	.1	2	8.3
Pristipomoides aquilonaris	wenchman	2	.0	1	4.2
Pogonias cromis	black drum	2	14.0	1	4.2
Harengula jaguana	scaled sardine	1	.0	1	4.2
Sardinella aurita	Spanish sardine	1	.1	1	4.2
Anchoa nasuta	longnose anchovy	1	.0	1	4.2
Gymnothorax nigromarginatus	blackedge moray	1	.0	1	4.2
Hoplunnis macrurus	freckled pike-conger	1	.0	1	4.2
Hildebrandia flava	yellow conger	1	.5	1	4.2
Prionotus ophryas	bandtail searobin	1	.0	1	4.2
Prionotus rubio	blackwing searobin	1	.1	1	4.2
Rachycentron canadum	cobia	1	11.0	1	4.2
Lagodon rhomboides	pinfish	1	.1	1	4.2
Monacanthus hispidus	planehead filefish	1	.0	1	4.2
Crustaceans					
Trachypenaeus similis	roughback shrimp	4175	12.7	15	62.5
Trachypenaeus constrictus	roughneck shrimp	432	1.3	4	16.7
Portunus gibbesii	irridescent swimming crab	404	3.6	21	87.5
Squilla empusa	mantis shrimp	390	5.1	15	62.5
Sicyonia brevirostris	brown rock shrimp	219	2.0	10	41.7
Sicyonia dorsalis	lesser rock shrimp	156	.5	10	41.7

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
Penaeus setiferus	white shrimp	136	6.8	18	75.0
Callinectes similis	lesser blue crab	117	3.0	14	58.3
Penaeus duorarum	pink shrimp	29	.9	6	25.0
Penaeus aztecus	brown shrimp	16	.5	6	25.0
Ovalipes stephensoni	coarsehand lady crab	13	.0	5	20.8
Squilla chydaea	mantis shrimp	8	.0	5	20.8
Portunus spinimanus	blotched swimming crab	7	.1	5	20.8
Alpheus formosus	striped snapping shrimp	6	.0	2	8.3
Libinia emarginata	portly spider crab	4	1.3	3	12.5
Mesopenaeus tropicalis	salmon shrimp	3	.0	2	8.3
Persephona mediterranea	mottled purse crab	2	.0	2	8.3
Hepatus epheliticus	calico crab	2	.0	2	8.3
Callinectes sapidus	blue crab	1	.2	1	4.2
Stenorhynchus seticornis	yellowline arrow crab	1	.0	1	4.2
Calappa sulcata	yellow box crab	1	.0	1	4.2
Leiolambrus nitidus	white elbow crab	1	.0	1	4.2
Others					
Lolliguncula brevis	Atlantic brief squid	252	3.6	17	70.8
Loligo pealeii	longfin squid	162	4.1	10	41.7
Loligo spp.	squids	28	1.2	5	20.8
Loligo pleii	arrow squid	13	.5	2	8.3

Table 4a
Statistical Zone 13
40-ft trawls

Summary of dominant organisms taken in statistical zone 13 during the 1995 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	44.3	44.29	.2	.19	2	543.8	259.11	1.7	.76	6
Squilla spp.	.0	.00	.0	.00	0	20.0	20.00	.2	.19	2	49.0	26.12	.5	.30	6
Portunus gibbesii	.0	.00	.0	.00	0	2.9	2.86	.0	.00	2	39.2	18.98	.4	.20	6
Callinectes similis	.0	.00	.0	.00	0	1.3	1.25	.1	.11	2	17.4	7.96	.4	.25	6
Penaeus setiferus	.0	.00	.0	.00	0	.0	.00	.0	.00	2	13.1	4.88	.7	.27	6
Penaeus duorarum	.0	.00	.0	.00	0	31.1	26.07	.8	.72	2	.0	.00	.0	.00	6
Trichiurus lepturus	.0	.00	.0	.00	0	36.6	9.11	.7	.32	2	172.5	90.16	3.5	1.90	6
Cynoscion nothus	.0	.00	.0	.00	0	29.3	19.29	.8	.60	2	111.2	59.86	2.5	1.16	6
Anchoa hepsetus	.0	.00	.0	.00	0	77.5	77.50	1.6	1.65	2	19.7	18.52	.5	.45	6
Cynoscion arenarius	.0	.00	.0	.00	0	65.2	57.68	7.6	6.69	2	25.8	10.60	3.0	1.08	6
Anchoa mitchilli	.0	.00	.0	.00	0	121.6	115.89	.5	.45	2	2.0	2.00	.0	.00	6
Arius felis	.0	.00	.0	.00	0	110.2	92.68	11.3	3.00	2	7.7	6.90	1.3	.91	6
Peprilus burti	.0	.00	.0	.00	0	5.0	5.00	.3	.34	2	22.5	16.21	1.9	1.48	6
Archosargus probatocephalus	.0	.00	.0	.00	0	69.8	32.68	52.1	20.53	2	.0	.00	.0	.00	6
Squid	.0	.00	.0	.00	0	113.2	21.79	1.7	.19	2	55.8	37.55	.7	.44	6

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 1995 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	90.3	18.83	2	35.8	15.91	6	.0	.00	0	.0	.00	0	.0	.00	0
Total finfish kg	.0	.00	0	86.6	19.07	2	31.2	16.25	6	.0	.00	0	.0	.00	0	.0	.00	0
Total crustacean kg	.0	.00	0	1.9	.73	2	3.8	1.63	6	.0	.00	0	.0	.00	0	.0	.00	0
Total others kg	.0	.00	0	1.8	.49	2	.5	.45	6	.0	.00	0	.0	.00	0	.0	.00	0
Surface temperature	.0	.00	0	21.4	1.33	3	22.1	.14	6	.0	.00	0	.0	.00	0	.0	.00	0
Midwater temperature	.0	.00	0	18.1	.43	3	19.2	.22	6	.0	.00	0	.0	.00	0	.0	.00	0
Bottom temperature	.0	.00	0	19.0	.35	3	19.8	.18	6	.0	.00	0	.0	.00	0	.0	.00	0
Surface salinity	.0	.00	0	9.5	3.22	3	20.9	1.09	6	.0	.00	0	.0	.00	0	.0	.00	0
Midwater salinity	.0	.00	0	29.9	.27	3	34.6	.21	6	.0	.00	0	.0	.00	0	.0	.00	0
Bottom salinity	.0	.00	0	34.2	.45	3	35.8	.13	6	.0	.00	0	.0	.00	0	.0	.00	0
Surface chlorophyll	.0	.00	0	7.8	2.16	3	7.3	1.81	6	.0	.00	0	.0	.00	0	.0	.00	0
Surface fluorescence	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	.0	.00	0	11.5	.12	3	11.4	.14	6	.0	.00	0	.0	.00	0	.0	.00	0
Midwater oxygen	.0	.00	0	7.7	.20	3	8.2	.26	6	.0	.00	0	.0	.00	0	.0	.00	0
Bottom oxygen	.0	.00	0	4.6	.71	3	6.4	.22	6	.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 1995 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	171.0	171.00	.5	.50	2	469.2	245.55	1.9	.64	10
Portunus gibbesii	.0	.00	.0	.00	0	1.0	1.00	.0	.00	2	85.2	30.03	.8	.30	10
Squilla spp.	.0	.00	.0	.00	0	39.1	36.93	.5	.50	2	46.8	24.63	.7	.29	10
Sicyonia brevirostris	.0	.00	.0	.00	0	.0	.00	.0	.00	2	59.2	26.92	.6	.29	10
Sicyonia dorsalis	.0	.00	.0	.00	0	.0	.00	.0	.00	2	41.6	18.52	.1	.06	10
Penaeus setiferus	.0	.00	.0	.00	0	11.0	11.00	.5	.50	2	23.6	6.09	1.2	.32	10
Anchoviella perfasciata	.0	.00	.0	.00	0	.0	.00	.0	.00	2	115.6	65.42	1.0	.57	10
Anchoa hepsetus	.0	.00	.0	.00	0	26.8	26.79	.6	.63	2	59.8	22.42	.7	.32	10
Etropus crossotus	.0	.00	.0	.00	0	1.1	1.07	.0	.00	2	49.8	13.22	1.1	.31	10
Prionotus longispinosus	.0	.00	.0	.00	0	1.0	1.00	.2	.18	2	36.8	13.99	1.1	.43	10
Cynoscion arenarius	.0	.00	.0	.00	0	36.0	36.00	1.5	1.50	2	24.1	8.90	2.5	.86	10
Sphoeroides parvus	.0	.00	.0	.00	0	.0	.00	.0	.00	2	27.5	13.82	.3	.11	10
Leiostomus xanthurus	.0	.00	.0	.00	0	20.0	20.00	1.2	1.18	2	19.6	8.49	1.1	.53	10
Lagocephalus laevigatus	.0	.00	.0	.00	0	.0	.00	.0	.00	2	24.0	23.65	.2	.24	10
Squid	.0	.00	.0	.00	0	14.6	2.57	.3	.04	2	63.9	42.01	1.8	1.15	10

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 1995 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	28.2	12.73	2	30.4	6.95	10	.0	.00	0	.0	.00	0	.0	.00	0
Total finfish kg	.0	.00	0	26.8	14.09	2	22.4	7.34	10	.0	.00	0	.0	.00	0	.0	.00	0
Total crustacean kg	.0	.00	0	1.4	1.36	2	6.3	1.60	10	.0	.00	0	.0	.00	0	.0	.00	0
Total others kg	.0	.00	0	.0	.00	2	1.5	1.10	10	.0	.00	0	.0	.00	0	.0	.00	0
Surface temperature	20.7	.00	1	21.1	.33	2	20.9	.17	12	20.4	.00	1	.0	.00	0	.0	.00	0
Midwater temperature	20.0	.00	1	19.2	.07	2	19.6	.16	12	20.4	.00	1	.0	.00	0	.0	.00	0
Bottom temperature	18.0	.00	1	19.2	.01	2	20.0	.11	12	20.4	.00	1	.0	.00	0	.0	.00	0
Surface salinity	26.8	.00	1	27.8	.66	2	28.6	1.02	12	30.4	.00	1	.0	.00	0	.0	.00	0
Midwater salinity	28.3	.00	1	34.5	.00	2	33.5	.40	12	35.8	.00	1	.0	.00	0	.0	.00	0
Bottom salinity	31.7	.00	1	34.5	.01	2	35.6	.17	12	36.3	.00	1	.0	.00	0	.0	.00	0
Surface chlorophyll	6.8	.00	1	3.7	.33	2	3.3	1.23	12	1.1	.00	1	.0	.00	0	.0	.00	0
Surface fluorescence	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	11.4	.00	1	9.9	.05	2	10.8	.20	12	10.4	.00	1	.0	.00	0	.0	.00	0
Midwater oxygen	11.2	.00	1	7.9	.05	2	9.0	.37	12	8.9	.00	1	.0	.00	0	.0	.00	0
Bottom oxygen	6.9	.00	1	8.0	.80	2	6.9	.11	12	7.6	.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 1995 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 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
Trachypenaeus similis	.0	.00	.0	.00	0	653.8	648.76	1.3	1.29	4	.0	.00	.0	.00	0
Trachypenaeus constrictus	.0	.00	.0	.00	0	207.1	206.29	.6	.61	4	.0	.00	.0	.00	0
Squilla spp.	.0	.00	.0	.00	0	36.5	32.57	.5	.39	4	.0	.00	.0	.00	0
Callinectes similis	.0	.00	.0	.00	0	21.1	16.52	.2	.15	4	.0	.00	.0	.00	0
Portunus gibbesii	.0	.00	.0	.00	0	21.4	5.69	.1	.02	4	.0	.00	.0	.00	0
Sicyonia brevirostris	.0	.00	.0	.00	0	12.0	12.00	.0	.05	4	.0	.00	.0	.00	0
Prionotus longispinosus	.0	.00	.0	.00	0	65.8	34.12	.5	.38	4	.0	.00	.0	.00	0
Peprilus burti	.0	.00	.0	.00	0	70.9	68.88	5.0	5.00	4	.0	.00	.0	.00	0
Cynoscion arenarius	.0	.00	.0	.00	0	59.6	48.06	2.2	1.04	4	.0	.00	.0	.00	0
Arius felis	.0	.00	.0	.00	0	49.1	21.87	15.0	6.88	4	.0	.00	.0	.00	0
Cynoscion nothus	.0	.00	.0	.00	0	32.4	16.75	1.1	.46	4	.0	.00	.0	.00	0
Trichiurus lepturus	.0	.00	.0	.00	0	37.5	31.01	.9	.86	4	.0	.00	.0	.00	0
Urophycis floridanus	.0	.00	.0	.00	0	18.5	9.03	.5	.23	4	.0	.00	.0	.00	0
Stellifer lanceolatus	.0	.00	.0	.00	0	17.6	10.24	.5	.30	4	.0	.00	.0	.00	0
Squid	.0	.00	.0	.00	0	55.1	15.80	.8	.21	4	.0	.00	.0	.00	0

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 1995 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 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	.0	.00	0	45.3	10.85	4	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Total finfish kg	.0	.00	0	40.6	12.50	4	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Total crustacean kg	.0	.00	0	3.5	2.02	4	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Total others kg	.0	.00	0	.7	.25	4	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface temperature	21.0	.37	2	21.6	.10	4	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater temperature	20.2	.33	2	19.5	.35	4	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom temperature	19.0	.18	2	19.2	.10	4	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface salinity	26.5	.93	2	24.7	1.04	4	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater salinity	28.5	1.14	2	31.3	.69	4	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom salinity	32.7	.92	2	33.7	.03	4	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface chlorophyll	6.5	1.86	2	4.3	.27	4	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface fluorescence	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	8.8	.60	2	11.1	.16	4	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater oxygen	7.7	1.60	2	9.8	.54	4	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom oxygen	4.0	.70	2	5.8	.46	4	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0

Table 7. 1995 Summer Shrimp/Groundfish Survey species composition list, 278 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	47971	1467.7	201	72.3
Micropogonias undulatus	Atlantic croaker	32102	1223.0	124	44.6
Peprilus burti	gulf butterfish	21453	706.9	164	59.0
Cynoscion arenarius	sand seatrout	17604	431.5	122	43.9
Chloroscombrus chrysurus	Atlantic bumper	13984	383.6	90	32.4
Anchoa hepsetus	striped anchovy	11718	129.6	86	30.9
Saurida brasiliensis	largescale lizardfish	11314	56.0	160	57.6
Serranus atrobranchus	blackear bass	10403	109.1	108	38.8
Prionotus longispinosus	bigeye searobin	9176	125.1	155	55.8
Upeneus parvus	dwarf goatfish	8408	111.9	145	52.2
Trichiurus lepturus	Atlantic cutlassfish	6832	206.0	112	40.3
Trachurus lathami	rough scad	6117	74.0	95	34.2
Centropristis philadelphica	rock sea bass	5065	137.5	158	56.8
Synodus foetens	inshore lizardfish	4285	388.0	203	73.0
Polydactylus octonemus	Atlantic threadfin	4215	79.6	24	8.6
Peprilus alepidotus	harvestfish	4105	38.2	51	18.3
Harengula jaguana	scaled sardine	3815	122.4	67	24.1
Leiostomus xanthurus	spot	3643	185.2	53	19.1
Cynoscion spp.	seatrouts	3261	47.1	15	5.4
Syacium gunteri	shoal flounder	2935	46.4	128	46.0
Prionotus stearnsi	shortwing searobin	2224	16.3	81	29.1
Arius felis	hardhead catfish	2177	188.5	40	14.4
Diplectrum bivittatum	dwarf sand perch	2138	41.1	93	33.5
Pristipomoides aquilonaris	wenchman	2000	103.5	91	32.7
Lagodon rhomboides	pinfish	1947	90.6	111	39.9
Cynoscion nothus	silver seatrout	1821	80.2	52	18.7
Halieutichthys aculeatus	pancake batfish	1808	12.7	98	35.3
Engraulis eurystole	silver anchovy	1700	7.2	14	5.0
Stellifer lanceolatus	star drum	1665	14.9	13	4.7
Etrumeus teres	round herring	1629	11.9	44	15.8
Lepophidium brevibarbe	blackedge cusk-eel	1511	34.5	89	32.0
Brevoortia patronus	gulf menhaden	1367	39.0	14	5.0
Sphoeroides parvus	least puffer	1345	5.2	86	30.9
Anchoa mitchilli	bay anchovy	1297	3.0	22	7.9
Prionotus rubio	blackwing searobin	1297	17.5	45	16.2
Anchoa lyolepis	dusky anchovy	1261	3.7	18	6.5

Table 7. Species composition (continued)

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	%FREQUENCY OF OCCURRENCE
Trichopsetta ventralis	sash flounder	1215	32.7	47	16.9
Selene setapinnis	Atlantic moonfish	1172	54.1	91	32.7
Prionotus paralatus	Mexican searobin	1073	25.8	63	22.7
Porichthys plectrodon	Atlantic midshipman	996	15.5	87	31.3
Chaetodipterus faber	Atlantic spadefish	863	3.9	17	6.1
Bagre marinus	gafftopsail catfish	848	8.5	5	1.8
Bollmannia communis	ragged goby	747	3.0	35	12.6
Lutjanus campechanus	red snapper	734	79.4	92	33.1
Prionotus tribulus	bighead searobin	727	13.5	32	11.5
Symphurus plagiusa	blackcheek tonguefish	715	14.8	58	20.9
Prionotus alatus	spiny searobin	636	5.5	13	4.7
Larimus fasciatus	banded drum	636	23.2	21	7.6
Etropus crossotus	fringed flounder	533	7.9	73	26.3
Monacanthus hispidus	planehead filefish	426	5.0	65	23.4
Scorpaena calcarata	smoothhead scorpionfish	394	5.3	22	7.9
Mullus auratus	red goatfish	369	19.9	30	10.8
Synodus poeyi	offshore lizardfish	365	2.6	35	12.6
Anchoa nasuta	longnose anchovy	331	1.4	6	2.2
Hildebrandia flava	yellow conger	327	23.1	34	12.2
Syacium papillosum	dusky flounder	321	15.7	17	6.1
Lagocephalus laevigatus	smooth puffer	309	11.0	68	24.5
Urophycis cirrata	gulf hake	303	11.5	18	6.5
Opisthonema oglinum	Atlantic thread herring	293	21.4	28	10.1
Urophycis floridana	southern hake	273	21.9	40	14.4
Cyclopsetta chittendeni	Mexican flounder	271	26.6	64	23.0
Citharichthys spilopterus	bay whiff	257	2.5	41	14.7
Eucinostomus gula	silver jenny	243	8.0	25	9.0
Etropus cyclosquamus	shelf flounder	242	1.4	16	5.8
Menticirrhus americanus	southern kingfish	223	17.5	26	9.4
Sardinella aurita	Spanish sardine	212	5.5	23	8.3
Pontinus longispinis	longspine scorpionfish	200	4.5	8	2.9
Haemulon aurolineatum	tomtate	194	9.0	15	5.4
Steindachneria argentea	luminous hake	193	1.1	5	1.8
Hoplunnis macrurus	freckled pike-conger	187	3.8	31	11.2
Lutjanus synagris	lane snapper	180	18.9	32	11.5
Scomberomorus maculatus	Spanish mackerel	178	10.9	15	5.4
Decapterus punctatus	round scad	176	7.2	20	7.2
Sphyraena guachancho	guaguanche	153	14.2	34	12.2
Engyophrys senta	spiny flounder	143	1.3	30	10.8

Table 7. Species composition (continued)

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	%FREQUENCY OF OCCURRENCE
Brotula barbata	bearded brotula	140	8.4	43	15.5
Balistes capriscus	gray triggerfish	135	37.8	35	12.6
Kathetostoma albigutta	lancer stargazer	134	5.9	21	7.6
Orthopristis chrysoptera	pigfish	132	2.0	9	3.2
Syacium spp.	lefteye flounders	127	1.8	8	2.9
Bregmaceros atlanticus	antenna codlet	125	.2	15	5.4
Equetus umbrosus	cubbyu	124	5.2	12	4.3
Scomberomorus cavalla	king mackerel	122	6.0	18	6.5
Ancylopsetta dilecta	three-eye flounder	117	6.1	34	12.2
Ophidion holbrooki	bank cusk-eel	87	5.9	6	2.2
Antennarius radiosus	singlespot frogfish	87	1.0	26	9.4
Symphurus diomedianus	spottedfin tonguefish	86	2.5	16	5.8
Rhizoprionodon terraenovae	Atlantic sharpnose shark	79	55.2	24	8.6
Equetus wamotoi	blackbar drum	76	7.0	16	5.8
Gymnachirus texae	fringed sole	76	1.1	17	6.1
Chilomycterus schoepfi	striped burrfish	76	5.6	11	4.0
Synagrops bellus	blackmouth bass	74	.4	4	1.4
Gymnothorax nigromarginatus	blackedge moray	65	5.6	26	9.4
Prionotus scitulus	leopard searobin	65	.5	4	1.4
Caulolatilus intermedius	anchor tilefish	64	4.3	23	8.3
Ancylopsetta quadrocellata	ocellated flounder	59	4.4	20	7.2
Ogcocephalus declivirostris	slantbrow batfish	58	1.8	12	4.3
Peristedion gracile	slender searobin	53	.9	6	2.2
Ophidion welshi	crested cusk-eel	53	2.2	20	7.2
Raja texana	roundel skate	52	20.0	22	7.9
Ogcocephalus parvus	roughback batfish	50	1.2	10	3.6
Priacanthus arenatus	bigeye	49	3.8	24	8.6
Rhomboplites aurorubens	vermilion snapper	47	.9	8	2.9
Paralichthys lethostigma	southern flounder	45	16.0	27	9.7
Neomerinthe hemingwayi	spinycheek scorpionfish	41	16.0	9	3.2
Trinectes maculatus	hogchoker	41	.5	5	1.8
Serraniculus pumilio	pygmy sea bass	35	.3	8	2.9
Alectis ciliaris	African pompano	35	.2	2	.7
Selar crumenophthalmus	bigeye scad	34	2.0	9	3.2
Bellator militaris	horned searobin	33	.0	9	3.2
Ogcocephalus nasutus	shortnose batfish	32	1.9	10	3.6
Diplectrum formosum	sand perch	28	3.4	6	2.2
Lepophidium jeannae	mottled cusk-eel	28	1.1	6	2.2
Caelorinchus caribbaeus	blackfin grenadier	27	.1	1	.4

Table 7. Species composition (continued)

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	%FREQUENCY OF OCCURRENCE
Prionotus ophryas	bandtail searobin	26	.5	9	3.2
Symphurus civitatus	offshore tonguefish	26	.3	8	2.9
Ogcocephalus spp.	batfishes	25	3.8	7	2.5
Centropristis ocyura	bank sea bass	23	1.2	4	1.4
Myrophis punctatus	speckled worm eel	22	.5	1	.4
Seriola dumerili	greater amberjack	22	4.3	11	4.0
Gymnothorax saxicola	honeycomb moray	21	1.9	10	3.6
Citharichthys macrops	spotted whiff	21	.3	9	3.2
Aluterus schoepfi	orange filefish	21	.4	4	1.4
Selene vomer	lookdown	20	.0	7	2.5
Neobythites gillii	cusk-eel	20	.1	5	1.8
Aluterus scriptus	scrawled filefish	20	1.9	7	2.5
Mustelus canis	smooth dogfish	19	21.1	15	5.4
Caranx crysos	blue runner	18	1.7	9	3.2
Rhinoptera bonasus	cownose ray	17	140.1	4	1.4
Trachinocephalus myops	snakefish	17	1.5	2	.7
Physiculus fulvus	metallic codling	17	.1	4	1.4
Monacanthus setifer	pygmy filefish	17	.5	3	1.1
Urophycis regia	spotted hake	15	2.0	3	1.1
Conodon nobilis	barred grunt	14	.5	1	.4
Serranidae	sea basses	13	.0	3	1.1
Apogon affinis	bigtooth cardinalfish	11	.1	5	1.8
Bairdiella chrysoura	silver perch	11	.2	5	1.8
Prionotus roseus	bluespotted searobin	10	.4	3	1.1
Hemicaranx amblyrhynchus	bluntnose jack	10	.1	1	.4
Symphurus urospilus	spottail tonguefish	10	.2	4	1.4
Ogcocephalus radiatus	polka-dot batfish	10	10.4	3	1.1
Squatina dumeril	Atlantic angel shark	9	19.8	6	2.2
Decodon puellaris	red hogfish	9	.4	3	1.1
Bembrops gobioides	goby flathead	9	.3	4	1.4
Mugil curema	white mullet	8	.1	1	.4
Sphyrna tiburo	bonnethead	7	7.9	3	1.1
Lactophrys quadricornis	scrawled cowfish	7	.6	2	.7
Equetus acuminatus	high-hat	6	.3	2	.7
Epinnula orientalis	sackfish	6	.4	1	.4
Opsanus beta	gulf toadfish	6	.9	2	.7
Ogcocephalus corniger	longnose batfish	6	.0	2	.7
Narcine brasiliensis	lesser electric ray	5	1.1	3	1.1
Mugil cephalus	striped mullet	5	.1	1	.4

Table 7. Species composition (continued)

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	%FREQUENCY OF OCCURRENCE
Etropus spp.	lefteye flounders	5	.0	1	.4
Antennarius striatus	striated frogfish	5	.0	1	.4
Ogcocephalus pantostictus	spotted batfish	5	.1	1	.4
Mustelus norrisi	Florida smoothhound	4	10.3	3	1.1
Hippocampus erectus	lined seahorse	4	.0	4	1.4
Scorpaena agassizi	longfin scorpionfish	4	.1	1	.4
Decapterus macarellus	mackeral scad	4	.0	1	.4
Astroscopus y-graecum	southern stargazer	4	.6	3	1.1
Scomber japonicus	chub mackerel	4	.4	1	.4
Ariomma bondi	silver-rag	4	.0	1	.4
Gobionellus hastatus	sharptail goby	4	.1	3	1.1
Aluterus heudeloti	dotterel filefish	4	.4	2	.7
Raja olseni	spreadfin skate	3	2.0	3	1.1
Gymnothorax kolpos	blacktail moray	3	.8	2	.7
Ophichthidae	snake eels	3	.1	1	.4
Ophichthus gomesi	shrimp eel	3	.3	1	.4
Fistularia tabacaria	bluespotted cornetfish	3	.1	1	.4
Hippocampus reidi	longsnout seahorse	3	.0	2	.7
Rypticus maculatus	whitespotted soapfish	3	.1	3	1.1
Apogon aurolineatus	bridle cardinalfish	3	.0	1	.4
Pomatomus saltatrix	bluefish	3	.6	2	.7
Echeneis naucrates	sharksucker	3	1.0	2	.7
Rachycentron canadum	cobia	3	2.6	3	1.1
Seriola fasciata	lesser amberjack	3	.6	2	.7
Calamus leucosteus	whitebone porgy	3	1.0	2	.7
Hemipteronotus novacula	pearly razorfish	3	.2	2	.7
Raja eglanteria	clearnose skate	2	2.0	1	.4
Paraconger caudilimbatus	margintail conger	2	.1	1	.4
Echiophis intertinctus	spotted spoon-nose eel	2	.2	2	.7
Aplatophis chauliodus	tusky eel	2	.5	1	.4
Scorpaena brasiliensis	barbfish	2	.0	1	.4
Hemanthias leptus	longtail bass	2	.2	1	.4
Rypticus saponaceus	greater soapfish	2	.1	1	.4
Apogon maculatus	flamefish	2	.0	1	.4
Cyclopsetta fimbriata	spotfin flounder	2	.0	1	.4
Etropus microstomus	smallmouth flounder	2	.0	2	.7
Dasyatis say	bluntnose stingray	1	20.6	1	.4
Myliobatis goodei	southern eagle ray	1	.6	1	.4
Rhechias vicinalis	conger eel	1	.2	1	.4

Table 7. Species composition (continued)

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	%FREQUENCY OF OCCURRENCE
Echiophis punctifer	snapper eel	1	.3	1	.4
Syngnathus louisianae	chain pipefish	1	.0	1	.4
Bathyanthias mexicanus	yellowtail bass	1	.0	1	.4
Apogon pseudomaculatus	twospot cardinalfish	1	.0	1	.4
Oligoplites saurus	leatherjack	1	.1	1	.4
Trachinotus carolinus	Florida pompano	1	.2	1	.4
Eucinostomus argenteus	spotfin mojarra	1	.0	1	.4
Ophidion grayi	blotched cusk-eel	1	.0	1	.4
Citharichthys cornutus	horned whiff	1	.0	1	.4
Gymnachirus melas	naked sole	1	.0	1	.4
Opsanus pardus	leopard toadfish	1	.8	1	.4
Histrio histrio	sargassumfish	1	.0	1	.4
Crustaceans					
Trachypenaeus similis	roughback shrimp	60496	192.8	98	35.3
Penaeus aztecus	brown shrimp	35372	519.4	217	78.1
Callinectes similis	lesser blue crab	27615	223.8	186	66.9
Trachypenaeus constrictus	roughneck shrimp	16974	66.5	32	11.5
Squilla empusa	mantis shrimp	8690	88.9	128	46.0
Sicyonia dorsalis	lesser rock shrimp	5953	14.8	96	34.5
Sicyonia brevirostris	brown rock shrimp	5828	52.4	89	32.0
Portunus spinicarpus	longspine swimming crab	5352	27.1	77	27.7
Parapenaeus politus	deepwater rose shrimp	3176	4.9	14	5.0
Solenocera vioscai	humpback shrimp	2731	8.0	53	19.1
Squilla chydaea	mantis shrimp	2101	14.2	72	25.9
Portunus gibbesii	irridescent swimming crab	2083	10.4	95	34.2
Penaeus duorarum	pink shrimp	1921	32.7	54	19.4
Xiphopenaeus kroyeri	seabob	1253	6.0	10	3.6
Penaeus setiferus	white shrimp	938	38.1	50	18.0
Portunus spinimanus	blotched swimming crab	337	7.2	48	17.3
Anasimus latus	stilt spider crab	192	1.4	24	8.6
Callinectes sapidus	blue crab	169	22.9	39	14.0
Calappa sulcata	yellow box crab	169	33.5	55	19.8
Ovalipes floridanus	Florida lady crab	114	.5	19	6.8
Hepatus epheliticus	calico crab	71	5.1	21	7.6
Raninoides louisianensis	gulf frog crab	71	.5	18	6.5
Parthenope granulata	bladetooth elbow crab	54	.2	13	4.7
Libinia emarginata	portly spider crab	50	9.0	23	8.3

Table 7. Species composition (continued)

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	%FREQUENCY OF OCCURRENCE
Sicyonia burkenroadi	spiny rock shrimp	43	.0	10	3.6
Porcellana sayana	spotted porcelain crab	42	.0	6	2.2
Parapenaeus spp.	penaeid shrimps	36	.0	1	.4
Stenorhynchus seticornis	yellowline arrow crab	28	.0	7	2.5
Persephona crinita	pink purse crab	24	.2	7	2.5
Metoporhaphis calcarata	false arrow crab	20	.0	11	4.0
Persephona mediterranea	mottled purse crab	15	.1	6	2.2
Arenaeus cribrarius	speckled swimming crab	15	1.1	4	1.4
Podochela sidneyi	shortfinger neck crab	15	.0	8	2.9
Dardanus insignis	red brocade hermit	15	1.8	7	2.5
Munida forceps	squat lobster	14	.0	4	1.4
Calappa flammea	flame box crab	14	5.8	7	2.5
Petrochirus diogenes	giant hermit crab	12	.5	6	2.2
Speocarcinus spp.	squareback crabs	12	.2	5	1.8
Euphrosynoplax clausa	craggy bathyal crab	11	.1	6	2.2
Goneplacidae	brachyuran crab	9	.1	1	.4
Speocarcinus lobatus	gulf squareback crab	8	.0	3	1.1
Glypturus spp.	ghost shrimps	6	.0	2	.7
Pagurus bullisi	hermit crab	6	.0	3	1.1
Collodes robustus	spider crab	6	.0	4	1.4
Stenocionops spinosissimus	tenspine spider crab	6	1.1	2	.7
Paguristes triangulatus	hermit crab	6	.0	3	1.1
Paguridae	right-handed hermit crabs	5	.0	3	1.1
Scyllarides nodifer	ridged slipper lobster	5	.6	2	.7
Plesionika longicauda	pandalid shrimp	4	.0	2	.7
Iliacantha liodactylus	purse crab	4	.0	1	.4
Albunea paretii	beach mole crab	4	.0	2	.7
Lysiosquilla scabricauda	mantis shrimp	3	.0	1	.4
Stenocionops coelata	spider crab	3	.5	3	1.1
Scyllarus chacei	chace slipper lobster	2	.0	2	.7
Scyllarus depressus	scaled slipper lobster	2	.0	1	.4
Ethusa microphthalma	broadback Sumo crab	2	.0	1	.4
Paguristes sericeus	blue-eyed hermit	2	.0	1	.4
Hexapanopeus paulensis	knobbed mud crab	1	.0	1	.4
Pagurus pollicaris	flatclaw hermit crab	1	.0	1	.4
Manucomplanus ungulatus	hermit crab	1	.0	1	.4
Myropsis quinquespinosa	fivespine purse crab	1	.0	1	.4
Portunus sayi	sargassum swimming crab	1	.0	1	.4
Stenocionops spinimanus	prickly spider crab	1	.3	1	.4

Table 7. Species composition (continued)

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	%FREQUENCY OF OCCURRENCE
Porcellana sigsbeiana	striped porcelain crab	1	.0	1	.4
Hypoconcha arcuata	granulate shellback crab	1	.0	1	.4
Dromidia antillensis	hairy sponge crab	1	.0	1	.4
Acanthocarpus alexandri	gladiator box crab	1	.0	1	.4
Diogenidae	hermit crabs	1	.0	1	.4
Others					
Loligo pleii	arrow squid	22135	291.5	160	57.6
Loligo pealeii	longfin squid	5400	54.7	97	34.9
Lolliguncula brevis	Atlantic brief squid	4318	59.6	99	35.6
Renilla mulleri	short-stemmed sea pansy	3306	13.4	34	12.2
Luidia clathrata	sea star	2331	25.1	31	11.2
Amusium papyraceum	paper scallop	1463	16.5	66	23.7
Chrysaora quinquecirrha	sea nettle	1439	55.4	41	14.7
Astropecten duplicatus	spiny beaded sea star	1232	1.6	41	14.7
Loligo spp.	squids	843	12.0	10	3.6
Ophiolepis elegans	brittle star	432	1.1	22	7.9
Stomolophus meleagris	many-mouthed sea jelly	253	257.0	5	1.8
Astropecten cingulatus	starfish	130	1.1	30	10.8
Clypeaster prostratus	sea biscuit	126	6.5	5	1.8
Paranthus rapiformis	onion anemone	86	.1	2	.7
Mellita quinquiesperforata	five-slotted sand dollar	85	.1	4	1.4
Aurelia aurita	moon jellyfish	84	14.4	13	4.7
Anadara baughmani	Baughman's ark	75	1.3	8	2.9
Chione clenchi	Clench venus	73	.1	2	.7
Argopecten gibbus	calico scallop	52	.3	5	1.8
Pitar cordatus	Schwengel's pitar	46	.8	10	3.6
Clypeaster ravenelii	cake urchin	45	5.5	6	2.2
Polystira albida	white giant turris	34	.3	8	2.9
Leptogorgia virgulata	gorgoniidae (sea whips)	21	.5	1	.4
Echinaster spp.	thorny sea stars	18	.1	9	3.2
Anthozoa	anthozoans	17	1.0	8	2.9
Tethyaster grandis	starfish	14	.5	6	2.2
Anadara ovalis	blood ark	13	.0	4	1.4
Porifera	sponges	13	8.5	4	1.4
Astropecten antillensis	beaded sea star	13	.0	5	1.8
Distorsio clathrata	Atlantic distorsio	11	.0	6	2.2
Macoma brevifrons	short macoma	11	.0	1	.4

Table 7. Species composition (continued)

GENUS/SPECIES	COMMON NAME	TOTAL NUMBER CAUGHT	TOTAL WEIGHT CAUGHT(KG)	NUMBER OF TOWS WHERE CAUGHT	%FREQUENCY OF OCCURRENCE
Neverita duplicata	shark eye	10	.1	5	1.8
Laevicardium sybariticum	delicate eggcockle	9	.2	3	1.1
Amiantis	white venus	9	.2	2	.7
Asteroidea	starfishes	9	.1	2	.7
Allothyone mexicana	sea cucumber	8	.0	2	.7
Arbacia punctulata	purple sea-urchin	6	.1	1	.4
Cantharus cancellarius	cancellate cantharus	5	.0	5	1.8
Luidia alternata	banded luidia	5	.1	5	1.8
Asteroporpa annulata	starfish	5	.1	4	1.4
Holothuroidea	sea cucumbers	5	.0	1	.4
Fasciolaria lilium	banded tulip	4	.0	1	.4
Pecten raveneli	Ravenel's scallop	4	.0	2	.7
Cephalopoda	cephalopods	4	.0	1	.4
Semirossia equalis	greater shining bobtail	4	.0	3	1.1
Tamoya haplonema	sea wasp	4	.1	4	1.4
Tonna galea	giant tun	3	.3	3	1.1
Thais haemastoma	rocksnail	3	.0	1	.4
Pelecypoda	bivalve mollusks	3	.1	1	.4
Eucrassatella speciosa	beautiful crassatella	3	.0	1	.4
Octopus macropus	grass octopus	3	.0	1	.4
Astropecten alligator	starfish	3	.0	3	1.1
Schizaster orbignyanus	heart urchin	3	.5	3	1.1
Holothuria spp.	sea cucumbers	3	.1	1	.4
Aplysia willcoxi	seahare	2	.0	1	.4
Echinaster serpentarius	starfish	2	.0	1	.4
Sconsia striata	royal bonnet	1	.0	1	.4
Oliva reticularis	netted olive	1	.0	1	.4
Aplysia spp.	sea hares	1	.0	1	.4
Aequipecten muscosus	rough scallop	1	.0	1	.4
Anatinella	duck clam	1	.0	1	.4
Ventricolaria rigida	rigid venus	1	.1	1	.4
Hydroidae	hydras	1	.1	1	.4
Phyllorhiza punctata	jellyfish	1	.0	1	.4
Astropecten articulatus	plated-margined sea star	1	.0	1	.4
Astrophyton muricatum	basket star	1	.2	1	.4
Stylocidaris affinis	sea urchin	1	.0	1	.4

Table 8. 1995 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	2546	51.4	41	51.3
Cynoscion arenarius	sand seatrout	2470	28.2	41	51.3
Peprilus alepidotus	harvestfish	804	4.5	37	46.3
Polydactylus octonemus	Atlantic threadfin	714	17.8	17	21.3
Chloroscombrus chrysurus	Atlantic bumper	369	6.0	41	51.3
Peprilus burti	gulf butterfish	282	2.0	18	22.5
Leiostomus xanthurus	spot	196	4.3	23	28.8
Trichiurus lepturus	Atlantic cutlassfish	187	2.5	25	31.3
Cynoscion nothus	silver seatrout	177	7.8	16	20.0
Syacium gunteri	shoal flounder	169	1.9	24	30.0
Stellifer lanceolatus	star drum	158	3.2	17	21.3
Prionotus longispinosus	bigeye searobin	140	.5	12	15.0
Arius felis	hardhead catfish	98	8.2	26	32.5
Larimus fasciatus	banded drum	84	2.1	14	17.5
Selene setapinnis	Atlantic moonfish	77	.3	15	18.8
Lagodon rhomboides	pinfish	77	1.9	19	23.8
Selene vomer	lookdown	51	.1	4	5.0
Brevoortia patronus	gulf menhaden	39	1.8	11	13.8
Bairdiella chrysoura	silver perch	31	1.2	8	10.0
Anchoa mitchilli	bay anchovy	21	.0	15	18.8
Prionotus rubio	blackwing searobin	20	.0	7	8.8
Stenotomus caprinus	longspine porgy	20	.1	5	6.3
Anchoa nasuta	longnose anchovy	17	.3	4	5.0
Chaetodipterus faber	Atlantic spadefish	17	.0	9	11.3
Symphurus plagiusa	blackcheek tonguefish	16	.2	9	11.3
Monacanthus hispidus	planehead filefish	14	.0	11	13.8
Harengula jaguana	scaled sardine	11	.2	5	6.3
Etropus crossotus	fringed flounder	11	.1	9	11.3
Lagocephalus laevigatus	smooth puffer	10	.2	7	8.8
Hippocampus erectus	lined seahorse	9	.0	6	7.5
Prionotus tribulus	bighead searobin	9	.1	4	5.0
Lutjanus campechanus	red snapper	9	.1	5	6.3
Dorosoma petenense	threadfin shad	8	.2	4	5.0
Porichthys plectrodon	Atlantic midshipman	8	.1	4	5.0
Orthopristis chrysoptera	pigfish	6	.0	5	6.3
Upeneus parvus	dwarf goatfish	6	.0	5	6.3

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
Scomberomorus maculatus	Spanish mackerel	6	.3	4	5.0
Citharichthys spilopterus	bay whiff	6	.1	3	3.8
Balistes capriscus	gray triggerfish	5	.1	2	2.5
Serraniculus pumilio	pygmy sea bass	3	.0	2	2.5
Halieutichthys aculeatus	pancake batfish	3	.0	3	3.8
Dorosoma cepedianum	gizzard shad	2	.0	1	1.3
Pomatomus saltatrix	bluefish	2	.3	2	2.5
Hemicaranx amblyrhynchus	bluntnose jack	2	.0	1	1.3
Trachinotus carolinus	Florida pompano	2	.0	1	1.3
Lepophidium brevibarbe	blackedge cusk-eel	2	.0	1	1.3
Engyophrys senta	spiny flounder	2	.0	1	1.3
Trinectes maculatus	hogchoker	2	.0	2	2.5
Sphoeroides parvus	least puffer	2	.0	2	2.5
Rhizoprionodon terraenovae	Atlantic sharpnose shark	1	.1	1	1.3
Dasyatis say	bluntnose stingray	1	.2	1	1.3
Rhinoptera bonasus	cownose ray	1	2.3	1	1.3
Opisthonema oglinum	Atlantic thread herring	1	.0	1	1.3
Syngnathidae	pipefishes	1	.0	1	1.3
Syngnathus scovelli	gulf pipefish	1	.0	1	1.3
Sphyraena guachancho	guaguanche	1	.0	1	1.3
Oligoplites saurus	leatherjack	1	.0	1	1.3
Menticirrhus americanus	southern kingfish	1	.0	1	1.3
Brotula barbata	bearded brotula	1	.0	1	1.3
Scomberomorus cavalla	king mackerel	1	.0	1	1.3
Ophidion welshi	crested cusk-eel	1	.0	1	1.3
Paralichthys albigutta	gulf flounder	1	.0	1	1.3
Antennarius radiosus	singlespot frogfish	1	.0	1	1.3
Crustaceans					
Penaeus aztecus	brown shrimp	1930	14.3	39	48.8
Trachypenaeus similis	roughback shrimp	1104	2.5	21	26.3
Callinectes similis	lesser blue crab	528	2.5	39	48.8
Squilla empusa	mantis shrimp	347	1.4	22	27.5
Xiphopenaeus kroyeri	seabob	88	.8	14	17.5
Portunus gibbesii	irridescent swimming crab	87	.2	27	33.8
Penaeus setiferus	white shrimp	68	2.2	16	20.0
Portunus spinimanus	blotched swimming crab	64	1.0	7	8.8
Sicyonia dorsalis	lesser rock shrimp	45	.0	17	21.3

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
Callinectes sapidus	blue crab	35	2.2	12	15.0
Libinia dubia	longnose spider crab	32	.0	12	15.0
Penaeus duorarum	pink shrimp	19	.1	8	10.0
Persephona crinita	pink purse crab	10	.0	7	8.8
Trachypenaeus constrictus	roughneck shrimp	6	.0	4	5.0
Dromidia antillensis	hairy sponge crab	5	.0	2	2.5
Pagurus pollicaris	flatclaw hermit crab	4	.1	4	5.0
Arenaeus cribrarius	speckled swimming crab	3	.0	3	3.8
Ovalipes floridanus	Florida lady crab	3	.0	2	2.5
Podochela sidneyi	shortfinger neck crab	3	.0	3	3.8
Hepatus epheliticus	calico crab	3	.0	2	2.5
Sicyonia brevirostris	brown rock shrimp	2	.0	2	2.5
Petrochirus diogenes	giant hermit crab	2	.0	2	2.5
Persephona mediterranea	mottled purse crab	2	.0	2	2.5
Portunus sayi	sargassum swimming crab	2	.0	2	2.5
Podochela riisei	longfinger neck crab	2	.0	2	2.5
Calappa flammea	flame box crab	2	.1	2	2.5
Porcellana sigsbeiana	striped porcelain crab	1	.0	1	1.3
Porcellana sayana	spotted porcelain crab	1	.0	1	1.3
Others					
Renilla mulleri	short-stemmed sea pansy	4143	13.6	25	31.3
Scyphozoa	jellyfishes	1634	24.1	15	18.8
Lolliguncula brevis	Atlantic brief squid	1142	16.0	65	81.3
Chrysaora quinquecirrha	sea nettle	309	5.3	20	25.0
Mellita quinquiesperforata	five-slotted sand dollar	83	.2	1	1.3
Loligo pleii	arrow squid	57	1.5	12	15.0
Sargassaceae	sargassum	50	10.5	41	51.3
Luidia clathrata	sea star	47	1.0	13	16.3
Stomolophus meleagris	many-mouthed sea jelly	37	39.3	8	10.0
Neverita duplicata	shark eye	29	.1	9	11.3
Loligo pealeii	longfin squid	24	.6	8	10.0
Actinidae	sea anemones	24	.0	13	16.3
Asteroidea	starfishes	10	.0	1	1.3
Holothuroidea	sea cucumbers	8	.0	1	1.3
Astropecten duplicatus	spiny beaded sea star	7	.0	2	2.5
Gorgonidae	gorgonians	6	.1	4	5.0
Calliactris tricolor	common sea anemone	6	.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
Hemipholis elongata	brittle star	6	.0	1	1.3
Luidia alternata	banded luidia	3	.1	3	3.8
Cantharus cancellarius	cancellate cantharus	2	.0	2	2.5
Busycon sinistrum	lightning whelk	2	.1	2	2.5
Sinum perspectivum	white baby-ear	1	.0	1	1.3
Thais haemastoma	rocksnail	1	.0	1	1.3
Muricanthus fulvescens	giant eastern murex	1	.2	1	1.3
Nudibranchia	sea slugs	1	.0	1	1.3
Armina tigrina	tiger armina	1	.0	1	1.3
Porifera	sponges	1	.0	1	1.3

Table 9a
Statistical Zone 11
40-ft trawls

Summary of dominant organisms taken in statistical zone 11 during the 1995 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
Trachypenaeus similis	.0	.00	.0	.00	5	417.0	294.82	1.1	.77	10	975.4	404.91	2.9	1.24	20
Parapenaeus politus	.0	.00	.0	.00	5	.0	.00	.0	.00	10	.0	.00	.0	.00	20
Callinectes similis	269.7	152.95	2.1	1.19	5	15.1	3.62	.1	.03	10	159.2	42.36	.7	.21	20
Portunus spinicarpus	.0	.00	.0	.00	5	21.1	14.19	.0	.01	10	60.7	33.47	.1	.05	20
Trachypenaeus constrictus	248.6	244.12	.3	.35	5	156.5	111.09	.5	.38	10	192.5	133.38	.6	.39	20
Solenocera vioscai	.0	.00	.0	.00	5	87.0	62.33	.1	.06	10	58.5	38.99	.1	.05	20
Stenotomus caprinus	4.5	3.25	.0	.02	5	117.6	39.14	.7	.32	10	1276.3	453.71	12.5	4.28	20
Serranus atrobranchus	.0	.00	.0	.00	5	.0	.00	.0	.00	10	277.7	128.20	.9	.37	20
Saurida brasiliensis	9.5	6.99	.0	.00	5	69.8	46.49	.2	.19	10	479.6	199.21	2.9	1.15	20
Anchoa hepsetus	373.8	267.85	2.2	1.21	5	63.0	40.57	.6	.43	10	433.7	374.18	6.6	5.63	20
Peprilus burti	9.0	3.26	.2	.11	5	2.2	1.99	.0	.04	10	202.2	102.87	7.3	3.43	20
Prionotus longispinosus	1.2	1.20	.0	.00	5	52.4	36.39	.2	.12	10	154.0	75.20	1.2	.43	20
Centropristis philadelphica	3.3	3.33	.0	.02	5	22.3	10.96	.1	.05	10	94.6	21.99	.6	.14	20
Prionotus rubio	247.9	180.31	2.3	1.28	5	162.0	89.69	.3	.19	10	41.0	26.57	.4	.25	20
Squid	339.3	280.36	2.5	1.79	5	301.7	114.07	4.1	2.31	10	358.0	87.30	4.0	1.08	20

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

Summary of dominant organisms taken in statistical zone 11 during the 1995 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
Trachypenaeus similis	531.7	309.34	2.4	1.54	6	126.2	80.58	.3	.23	6	15.6	15.60	.0	.00	2
Parapenaeus politus	.0	.00	.0	.00	6	600.6	595.09	.7	.71	6	1345.8	1207.80	2.7	2.43	2
Callinectes similis	766.2	593.39	2.6	2.01	6	4.1	4.09	.0	.04	6	.0	.00	.0	.00	2
Portunus spinicarpus	93.1	69.71	.2	.16	6	336.5	181.43	1.9	.94	6	526.2	412.20	2.7	2.43	2
Trachypenaeus constrictus	.0	.00	.0	.00	6	.0	.00	.0	.00	6	.0	.00	.0	.00	2
Solenocera vioscai	242.8	178.19	.3	.20	6	158.5	106.18	.5	.43	6	115.2	115.20	.2	.16	2
Stenotomus caprinus	382.2	149.23	16.7	7.00	6	1852.3	311.75	100.8	20.73	6	2208.0	2208.00	110.7	110.73	2
Serranus atrobranchus	152.9	76.81	1.1	.70	6	676.3	246.57	13.2	4.96	6	217.2	133.20	4.5	3.14	2
Saurida brasiliensis	627.1	465.00	1.6	1.20	6	91.2	37.31	.3	.14	6	.0	.00	.0	.00	2
Anchoa hepsetus	.0	.00	.0	.00	6	15.5	15.45	.2	.19	6	.0	.00	.0	.00	2
Peprilus burti	3.7	2.62	.1	.07	6	385.5	349.01	14.9	13.97	6	.0	.00	.0	.00	2
Prionotus longispinosus	33.6	19.88	.7	.42	6	80.4	29.90	9.3	3.88	6	78.6	59.40	4.3	4.12	2
Centropristis philadelphica	80.9	75.07	.9	.89	6	90.8	44.07	7.4	3.62	6	97.2	58.80	9.4	.44	2
Prionotus rubio	14.9	11.55	.9	.73	6	.0	.00	.0	.00	6	.0	.00	.0	.00	2
Squid	640.6	382.44	2.5	1.29	6	96.2	45.62	1.0	.55	6	16.2	13.80	.3	.22	2

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 1995 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	83.5	26.03	5	29.9	12.27	10	70.4	10.75	20	64.7	8.76	6	211.3	33.72	6	207.8	114.00	2
Total finfish kg	17.3	4.54	5	18.2	11.08	10	56.3	10.29	20	48.8	7.14	6	204.5	34.27	6	189.5	113.18	2
Total crustacean kg	5.6	1.91	5	5.6	2.24	10	9.4	2.30	20	12.1	6.24	6	5.9	2.79	6	10.9	5.45	2
Total others kg	60.1	21.45	5	6.1	2.18	10	4.6	1.07	20	4.3	1.08	6	1.0	.61	6	6.5	4.36	2
Surface temperature	27.3	.36	5	28.9	.27	10	29.1	.31	20	27.8	.78	7	28.8	1.64	3	27.3	.49	5
Midwater temperature	27.1	.35	5	26.7	.31	10	25.1	.36	19	25.2	.57	7	22.7	.06	3	23.7	.23	5
Bottom temperature	25.8	.42	5	24.5	.36	10	22.9	.13	19	22.4	.13	7	21.0	.15	3	19.8	.46	5
Surface salinity	27.4	2.45	5	21.8	2.72	10	21.4	1.96	19	29.5	1.82	6	15.0	2.14	3	24.4	3.87	3
Midwater salinity	28.9	1.80	5	32.2	1.18	10	34.3	.30	19	35.7	.26	6	35.9	.07	3	35.7	.49	4
Bottom salinity	31.6	1.48	5	31.8	2.39	10	35.5	.11	17	36.0	.07	6	36.1	.03	3	36.5	.13	4
Surface chlorophyll	6.4	1.99	2	14.0	4.17	7	6.7	1.47	13	5.9	.00	1	17.4	7.24	3	14.0	4.79	2
Surface fluorescence	.0	.00	0	.0	.00	0	.5	.10	2	.6	.24	6	.0	.00	0	2.2	1.27	3
Surface oxygen	6.4	.10	4	8.3	.64	10	8.2	.49	20	7.2	.27	6	9.3	1.51	3	7.7	.58	5
Midwater oxygen	6.2	.13	4	6.1	.12	10	5.9	.13	20	6.5	.25	6	5.9	.13	3	6.2	.51	5
Bottom oxygen	5.2	.08	4	5.2	.19	10	5.5	.07	19	5.6	.24	6	5.2	.09	3	5.3	.30	5

Table 10a
Statistical Zone 13
40-ft trawls

Summary of dominant organisms taken in statistical zone 13 during the 1995 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
Penaeus aztecus	.0	.00	.0	.00	1	.0	.00	.0	.00	4	19.2	13.99	.3	.21	5
Trachypenaeus similis	.0	.00	.0	.00	1	7.5	7.50	.0	.05	4	120.0	120.00	.4	.38	5
Squilla spp.	.0	.00	.0	.00	1	25.1	18.00	.2	.12	4	50.3	48.93	.2	.16	5
Callinectes similis	.0	.00	.0	.00	1	5.9	4.24	.0	.05	4	8.8	6.97	.1	.11	5
Portunus gibbesii	.0	.00	.0	.00	1	.0	.00	.0	.00	4	.0	.00	.0	.00	5
Sicyonia dorsalis	.0	.00	.0	.00	1	.0	.00	.0	.00	4	.0	.00	.0	.00	5
Anchoa mitchilli	.0	.00	.0	.00	1	65.4	37.20	.2	.09	4	564.0	528.74	1.2	1.11	5
Cynoscion arenarius	.0	.00	.0	.00	1	1.5	1.50	.0	.02	4	576.0	573.00	9.2	9.16	5
Prionotus longispinosus	.0	.00	.0	.00	1	16.5	15.84	.1	.09	4	231.6	231.60	1.3	1.31	5
Centropristis philadelphica	.0	.00	.0	.00	1	.0	.00	.0	.00	4	104.4	104.40	.6	.60	5
Trichiurus lepturus	.0	.00	.0	.00	1	.0	.00	.0	.00	4	.0	.00	.0	.00	5
Anchoa lyolepis	.0	.00	.0	.00	1	10.9	10.91	.0	.00	4	65.2	63.71	.1	.15	5
Serranus atrobranchus	.0	.00	.0	.00	1	.0	.00	.0	.00	4	.0	.00	.0	.00	5
Saurida brasiliensis	.0	.00	.0	.00	1	.0	.00	.0	.00	4	.0	.00	.0	.00	5
Squid	.0	.00	.0	.00	1	1.0	1.00	.0	.02	4	323.6	322.10	3.2	3.24	5

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

Summary of dominant organisms taken in statistical zone 13 during the 1995 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
Penaeus aztecus	558.6	23.18	9.4	.57	2	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Trachypenaeus similis	369.6	142.68	1.8	.50	2	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Squilla spp.	45.6	4.01	.6	.15	2	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Callinectes similis	25.9	2.81	.6	.21	2	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Portunus gibbesii	17.0	16.96	.1	.12	2	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Sicyonia dorsalis	9.2	9.23	.0	.00	2	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Anchoa mitchilli	4.6	4.62	.0	.00	2	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Cynoscion arenarius	3.9	3.91	.8	.77	2	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Prionotus longispinosus	31.4	12.94	.9	.44	2	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Centropristis philadelphica	45.1	35.82	.8	.55	2	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Trichiurus lepturus	260.3	228.96	7.9	7.03	2	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Anchoa lyolepis	.0	.00	.0	.00	2	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Serranus atrobranchus	70.5	52.07	.5	.31	2	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Saurida brasiliensis	68.5	59.30	.4	.42	2	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Squid	613.9	92.21	6.0	.97	2	.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 1995 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	9.9	.00	1	9.0	7.80	4	18.7	13.31	5	40.1	8.12	2	.0	.00	0	.0	.00	0
Total finfish kg	9.9	.00	1	8.7	7.86	4	14.0	12.26	5	20.8	6.52	2	.0	.00	0	.0	.00	0
Total crustacean kg	.0	.00	1	.2	.23	4	1.1	1.09	5	12.8	.23	2	.0	.00	0	.0	.00	0
Total others kg	.0	.00	1	.0	.00	4	3.3	3.27	5	5.5	.78	2	.0	.00	0	.0	.00	0
Surface temperature	30.8	.00	1	30.0	.39	7	30.8	.24	3	30.0	.00	1	.0	.00	0	29.7	.00	1
Midwater temperature	29.8	.00	1	28.3	.42	7	28.1	.14	3	26.1	.00	1	.0	.00	0	25.2	.00	1
Bottom temperature	26.9	.00	1	26.6	.07	7	24.7	.76	3	22.1	.00	1	.0	.00	0	19.8	.00	1
Surface salinity	22.7	.00	1	15.7	.78	7	16.2	.15	3	17.1	.00	1	.0	.00	0	26.0	.00	1
Midwater salinity	25.9	.00	1	31.0	.91	7	34.9	.15	3	36.1	.00	1	.0	.00	0	36.0	.00	1
Bottom salinity	33.8	.00	1	35.5	.10	7	36.1	.01	3	36.1	.00	1	.0	.00	0	36.3	.00	1
Surface chlorophyll	.0	.00	0	18.0	2.66	3	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface fluorescence	6.2	.00	1	8.3	.20	4	8.5	.59	3	9.8	.00	1	.0	.00	0	2.3	.00	1
Surface oxygen	8.1	.00	1	7.6	.45	7	9.5	.58	3	8.3	.00	1	.0	.00	0	6.2	.00	1
Midwater oxygen	5.0	.00	1	4.5	.57	7	5.3	.54	3	3.2	.00	1	.0	.00	0	6.8	.00	1
Bottom oxygen	.0	.00	1	1.2	.35	7	.3	.33	3	5.9	.00	1	.0	.00	0	3.8	.00	1

Table 11a
Statistical Zone 14
40-ft trawls

Summary of dominant organisms taken in statistical zone 14 during the 1995 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
Trachypenaeus similis	.0	.00	.0	.00	6	.0	.00	.0	.00	7	572.7	352.95	2.5	1.42	12
Penaeus aztecus	315.1	150.81	3.0	1.47	6	.3	.29	.0	.00	7	270.0	77.00	4.7	1.40	12
Portunus spinicarpus	.0	.00	.0	.00	6	.0	.00	.0	.00	7	.9	.94	.0	.03	12
Squilla spp.	2.0	2.00	.0	.00	6	23.7	23.71	.1	.05	7	147.3	83.19	1.5	.65	12
Sicyonia brevirostris	.0	.00	.0	.00	6	.0	.00	.0	.00	7	35.9	16.54	.4	.16	12
Callinectes similis	20.7	14.99	.1	.07	6	2.3	2.29	.0	.04	7	59.4	20.29	1.1	.37	12
Stenotomus caprinus	.0	.00	.0	.00	6	.0	.00	.0	.00	7	698.4	294.44	5.8	2.36	12
Micropogonias undulatus	761.8	694.76	28.3	25.86	6	.0	.00	.0	.00	7	249.6	156.71	15.7	10.19	12
Peprilus burti	2.7	1.89	.1	.08	6	1.1	.85	.0	.03	7	415.0	186.17	15.9	7.21	12
Prionotus longispinosus	5.2	3.36	.0	.02	6	3.4	2.82	.0	.02	7	309.4	154.62	2.7	.97	12
Anchoa hepsetus	43.4	41.74	.9	.86	6	.0	.00	.0	.00	7	326.8	277.58	6.4	5.62	12
Leiostomus xanthurus	335.4	219.30	15.0	10.67	6	.0	.00	.0	.00	7	3.7	1.91	.3	.15	12
Chloroscombrus chrysurus	39.2	22.10	1.7	.92	6	23.6	23.57	1.3	1.29	7	101.3	76.96	5.1	3.84	12
Engraulis eurystole	.0	.00	.0	.00	6	.0	.00	.0	.00	7	131.3	131.25	.4	.42	12
Squid	41.0	18.41	.4	.20	6	2.3	1.97	.0	.01	7	226.6	90.02	3.7	1.14	12

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

Summary of dominant organisms taken in statistical zone 14 during the 1995 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
Trachypenaeus similis	2.2	1.37	.0	.00	3	.0	.00	.0	.00	2	.0	.00	.0	.00	2
Penaeus aztecus	142.5	87.44	3.6	2.01	3	43.5	12.55	1.7	.17	2	24.8	24.83	1.2	1.22	2
Portunus spinicarpus	.7	.67	.0	.02	3	763.6	763.64	3.8	3.84	2	103.1	27.23	1.0	.34	2
Squilla spp.	28.3	12.42	.4	.25	3	7.3	7.27	.1	.08	2	.0	.00	.0	.00	2
Sicyonia brevirostris	103.0	63.18	1.2	.68	3	256.0	244.00	3.1	2.90	2	33.5	14.09	.2	.11	2
Callinectes similis	54.8	42.40	1.1	.86	3	.9	.91	.0	.04	2	.0	.00	.0	.00	2
Stenotomus caprinus	158.1	45.51	9.2	1.42	3	86.5	13.50	5.0	.84	2	124.7	25.34	8.9	2.58	2
Micropogonias undulatus	274.4	138.77	19.2	9.75	3	18.5	10.55	2.4	1.68	2	448.9	411.82	40.1	36.69	2
Peprilus burti	16.5	16.47	1.2	1.18	3	271.0	271.00	22.5	22.52	2	.0	.00	.0	.00	2
Prionotus longispinosus	46.2	26.44	2.2	1.11	3	12.7	12.73	.6	.62	2	10.0	6.51	.8	.50	2
Anchoa hepsetus	18.8	18.82	.1	.11	3	.0	.00	.0	.00	2	.0	.00	.0	.00	2
Leiostomus xanthurus	1.7	1.67	.2	.17	3	.0	.00	.0	.00	2	.0	.00	.0	.00	2
Chloroscombrus chrysurus	.0	.00	.0	.00	3	.0	.00	.0	.00	2	.0	.00	.0	.00	2
Engraulis eurystole	96.5	96.47	.4	.37	3	.0	.00	.0	.00	2	.0	.00	.0	.00	2
Squid	383.9	383.36	3.2	3.19	3	95.6	88.36	.7	.60	2	6.2	6.21	.1	.09	2

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 1995 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	89.6	48.97	6	31.2	23.95	7	79.4	13.65	12	56.4	9.89	3	49.9	11.03	2	77.5	32.56	2
Total finfish kg	77.8	45.30	6	31.1	23.98	7	63.3	14.96	12	45.7	10.81	3	39.8	17.48	2	73.5	30.94	2
Total crustacean kg	4.8	2.17	6	.1	.13	7	12.3	3.28	12	6.5	3.95	3	9.0	6.71	2	2.7	1.08	2
Total others kg	7.1	4.41	6	.0	.00	7	3.4	1.12	12	3.4	3.10	3	1.1	.27	2	1.3	.54	2
Surface temperature	30.2	.35	6	29.7	.40	8	29.4	.35	13	30.2	.14	4	29.7	.50	2	29.8	.05	2
Midwater temperature	30.2	.24	6	28.3	.45	8	27.3	.15	13	27.3	.15	4	26.5	.58	2	21.6	2.62	2
Bottom temperature	29.5	.55	6	26.4	.16	8	25.3	.28	13	23.2	.53	4	19.4	.36	2	16.9	1.37	2
Surface salinity	17.2	2.15	6	21.3	1.07	8	22.8	1.63	13	26.9	1.91	4	30.2	2.64	2	31.8	.06	2
Midwater salinity	17.9	2.34	6	30.6	1.44	8	35.3	.08	13	35.6	.13	4	35.9	.25	2	36.2	.05	2
Bottom salinity	20.0	3.38	6	35.1	.27	8	36.2	.03	13	36.2	.03	4	36.2	.01	2	36.1	.10	2
Surface chlorophyll	.0	.00	0	13.4	2.46	3	7.0	1.49	10	2.7	.00	1	.0	.00	0	.0	.00	0
Surface fluorescence	7.4	.00	1	2.6	.37	5	1.7	.47	3	1.0	.25	3	1.7	1.18	2	1.3	.07	2
Surface oxygen	7.7	.57	6	6.6	.32	8	7.1	.42	13	6.6	.45	4	6.3	.30	2	6.1	.05	2
Midwater oxygen	7.0	.51	6	3.3	.69	8	5.1	.30	13	6.2	.13	4	6.3	.40	2	5.7	1.20	2
Bottom oxygen	5.5	1.04	6	.6	.41	8	3.1	.23	13	3.8	.74	4	4.3	.40	2	4.1	.10	2

Table 12a
Statistical Zone 15
40-ft trawls

Summary of dominant organisms taken in statistical zone 15 during the 1995 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
Trachypenaeus similis	.0	.00	.0	.00	1	70.0	70.00	.2	.20	4	283.6	159.11	1.4	.71	13
Penaeus aztecus	.0	.00	.0	.00	1	.5	.50	.0	.00	4	175.3	60.46	4.4	1.53	13
Trachypenaeus constrictus	.0	.00	.0	.00	1	.0	.00	.0	.00	4	205.8	205.85	.8	.83	13
Squilla spp.	6.0	.00	.0	.00	1	114.8	106.57	.7	.65	4	87.2	33.06	1.0	.39	13
Callinectes similis	.0	.00	.0	.00	1	16.5	13.90	.3	.16	4	47.8	14.90	1.0	.30	13
Sicyonia dorsalis	.0	.00	.0	.00	1	1.0	1.00	.0	.00	4	47.3	17.45	.2	.06	13
Stenotomus caprinus	.0	.00	.0	.00	1	7.7	4.94	.1	.04	4	462.0	169.13	5.4	1.88	13
Peprilus burti	.0	.00	.0	.00	1	84.3	84.31	1.5	1.53	4	83.7	30.33	5.3	2.11	13
Serranus atrobranchus	.0	.00	.0	.00	1	.0	.00	.0	.00	4	58.5	23.17	.4	.23	13
Chloroscombrus chrysurus	66.0	.00	1.9	.00	1	232.8	232.76	11.7	11.66	4	94.7	33.83	3.7	1.26	13
Prionotus longispinosus	.0	.00	.0	.00	1	23.0	22.33	.3	.27	4	70.1	35.27	1.0	.47	13
Synodus foetens	.0	.00	.0	.00	1	.5	.52	.0	.02	4	37.6	13.27	1.8	.60	13
Etrumeus teres	.0	.00	.0	.00	1	.0	.00	.0	.00	4	8.0	7.96	.0	.03	13
Prionotus tribulus	.0	.00	.0	.00	1	.0	.00	.0	.00	4	82.6	78.99	1.3	1.12	13
Squid	6.0	.00	.0	.00	1	61.6	61.55	1.1	1.06	4	221.6	61.27	3.2	.85	13

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

Summary of dominant organisms taken in statistical zone 15 during the 1995 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
Trachypenaeus similis	249.8	203.67	1.3	.94	4	.0	.00	.0	.00	2	.0	.00	.0	.00	4
Penaeus aztecus	184.9	95.18	4.1	2.01	4	27.5	7.50	1.0	.32	2	12.4	10.57	.6	.46	4
Trachypenaeus constrictus	.0	.00	.0	.00	4	.0	.00	.0	.00	2	.0	.00	.0	.00	4
Squilla spp.	41.6	13.45	.6	.21	4	2.5	2.50	.0	.00	2	.0	.00	.0	.00	4
Callinectes similis	48.2	18.10	.6	.22	4	4.5	3.50	.1	.11	2	1.0	1.00	.0	.00	4
Sicyonia dorsalis	75.1	67.48	.3	.21	4	.0	.00	.0	.00	2	.0	.00	.0	.00	4
Stenotomus caprinus	135.6	38.66	4.7	1.70	4	76.0	12.00	4.1	.86	2	161.8	10.91	8.0	1.23	4
Peprilus burti	23.8	21.51	1.8	1.55	4	38.0	22.00	3.1	1.89	2	112.6	50.88	9.3	4.39	4
Serranus atrobranchus	260.0	174.93	1.8	1.40	4	7.0	3.00	.1	.07	2	13.9	6.69	.4	.27	4
Chloroscombrus chrysurus	43.5	43.53	2.0	2.01	4	.0	.00	.0	.00	2	.0	.00	.0	.00	4
Prionotus longispinosus	13.7	5.83	.5	.21	4	1.5	.50	.1	.02	2	4.4	2.53	.3	.18	4
Synodus foetens	53.8	26.00	4.6	2.07	4	20.0	5.00	3.2	.84	2	26.7	8.98	4.3	1.60	4
Etrumeus teres	.0	.00	.0	.00	4	150.5	140.50	1.0	.98	2	54.3	43.22	.5	.31	4
Prionotus tribulus	.0	.00	.0	.00	4	.0	.00	.0	.00	2	.0	.00	.0	.00	4
Squid	129.8	67.33	.9	.53	4	120.0	104.00	.7	.39	2	92.8	55.70	.9	.57	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 1995 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	51.8	.00	1	17.1	15.06	4	43.1	6.22	13	37.1	5.76	4	23.9	7.95	2	42.8	5.44	4
Total finfish kg	51.8	.00	1	14.8	13.89	4	29.6	4.38	13	28.0	6.41	4	21.6	8.86	2	40.2	5.52	4
Total crustacean kg	.0	.00	1	1.4	1.08	4	10.3	2.92	13	8.1	2.03	4	1.6	.23	2	.6	.43	4
Total others kg	.0	.00	1	1.2	1.18	4	3.4	.84	13	1.1	.46	4	.9	.45	2	1.5	.59	4
Surface temperature	29.8	.23	3	30.1	.41	4	30.1	.21	13	29.8	.36	4	29.1	.00	1	29.1	.05	3
Midwater temperature	29.4	.37	3	27.4	.13	4	27.5	.12	13	27.6	.29	4	22.3	.00	1	24.7	.54	3
Bottom temperature	27.6	.20	3	26.9	.09	4	26.1	.20	13	23.4	.31	4	20.6	.00	1	17.4	.63	3
Surface salinity	20.6	1.69	3	20.6	1.04	4	21.1	.58	13	23.4	1.98	4	33.5	.00	1	33.8	.15	3
Midwater salinity	24.2	2.65	3	29.5	1.40	4	34.9	.21	13	35.3	.23	4	35.7	.00	1	36.3	.05	3
Bottom salinity	28.4	3.10	3	34.3	.64	4	35.9	.04	13	36.1	.02	4	36.2	.00	1	36.2	.04	3
Surface chlorophyll	9.8	.00	1	7.6	1.65	3	6.2	.48	4	.0	.00	0	.0	.00	0	.0	.00	0
Surface fluorescence	3.9	.00	1	3.7	.00	1	3.0	.24	9	2.9	.33	4	.3	.00	1	.3	.04	3
Surface oxygen	6.8	.20	3	7.4	.33	4	7.0	.25	13	6.6	.19	4	6.1	.00	1	6.0	.00	3
Midwater oxygen	4.5	.85	3	2.9	.42	4	4.8	.55	13	5.7	.40	4	7.0	.00	1	6.8	.12	3
Bottom oxygen	1.8	.82	3	.8	.37	4	3.4	.42	13	5.2	.32	4	4.3	.00	1	4.3	.52	3

Table 13a
Statistical Zone 16
40-ft trawls

Summary of dominant organisms taken in statistical zone 16 during the 1995 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
Trachypenaeus similis	.0	.00	.0	.00	3	17.7	17.73	.1	.06	4	743.5	545.45	3.8	2.81	8
Penaeus aztecus	461.4	279.13	2.9	1.54	3	23.0	23.02	.2	.24	4	99.2	42.44	2.1	.88	8
Sicyonia brevirostris	.0	.00	.0	.00	3	.0	.00	.0	.00	4	115.1	112.82	.2	.15	8
Squilla spp.	.0	.00	.0	.00	3	6.4	3.98	.0	.02	4	43.7	29.91	.4	.24	8
Callinectes similis	127.0	104.52	.3	.24	3	1.8	1.22	.0	.01	4	16.3	5.79	.2	.07	8
Xiphopenaeus kroyeri	157.8	106.27	.3	.14	3	.0	.00	.0	.00	4	.0	.00	.0	.00	8
Stenotomus caprinus	.0	.00	.0	.00	3	4.1	4.09	.0	.00	4	416.8	110.25	9.4	4.18	8
Chloroscombrus chrysurus	272.9	272.86	.5	.45	3	1001.6	1001.64	28.1	28.08	4	35.8	23.24	1.6	.93	8
Peprilus burti	.0	.00	.0	.00	3	12.9	12.27	.3	.28	4	290.0	239.78	2.9	1.70	8
Micropogonias undulatus	283.8	142.19	3.8	2.00	3	252.9	252.93	8.1	8.12	4	26.4	15.52	1.5	.94	8
Cynoscion arenarius	472.5	320.65	5.3	2.79	3	124.9	124.91	3.7	3.71	4	49.5	41.26	2.1	1.74	8
Peprilus alepidotus	384.3	331.77	2.8	2.23	3	177.2	177.16	2.3	2.34	4	22.1	14.47	.1	.09	8
Brevoortia patronus	1032.9	1032.86	8.7	8.70	3	.0	.00	.0	.00	4	.0	.00	.0	.00	8
Serranus atrobranchus	.0	.00	.0	.00	3	.0	.00	.0	.00	4	23.5	23.53	.1	.07	8
Squid	47.1	36.95	.4	.28	3	179.0	99.50	2.0	1.31	4	588.3	287.86	8.8	4.25	8

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

Summary of dominant organisms taken in statistical zone 16 during the 1995 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
Trachypenaeus similis	1.6	1.27	.0	.01	5	.0	.00	.0	.00	7	.0	.00	.0	.00	4
Penaeus aztecus	87.5	40.27	2.2	.93	5	45.3	19.65	2.3	.97	7	6.0	3.19	.5	.27	4
Sicyonia brevirostris	23.3	16.97	.3	.21	5	1.1	.83	.0	.02	7	.0	.00	.0	.00	4
Squilla spp.	34.8	21.52	.4	.27	5	7.8	6.27	.1	.06	7	.3	.25	.0	.00	4
Callinectes similis	5.2	2.13	.1	.03	5	.9	.70	.0	.02	7	.0	.00	.0	.00	4
Xiphopenaeus kroyeri	.0	.00	.0	.00	5	.0	.00	.0	.00	7	.0	.00	.0	.00	4
Stenotomus caprinus	312.1	125.52	15.3	6.58	5	247.6	70.62	12.4	3.61	7	358.1	47.81	16.5	2.00	4
Chloroscombrus chrysurus	2.8	1.38	.1	.06	5	.0	.00	.0	.00	7	.0	.00	.0	.00	4
Peprilus burti	23.5	12.39	1.7	.88	5	18.5	6.31	1.5	.52	7	13.2	4.71	1.1	.38	4
Micropogonias undulatus	9.5	4.02	.8	.38	5	51.1	31.09	4.8	2.92	7	2.2	1.66	.5	.33	4
Cynoscion arenarius	.2	.22	.1	.09	5	3.3	2.01	.7	.40	7	2.1	.76	.5	.22	4
Peprilus alepidotus	.0	.00	.0	.00	5	.0	.00	.0	.00	7	.0	.00	.0	.00	4
Brevoortia patronus	.0	.00	.0	.00	5	.0	.00	.0	.00	7	.0	.00	.0	.00	4
Serranus atrobranchus	39.3	23.59	.2	.10	5	28.0	22.69	.3	.28	7	46.1	35.77	.8	.52	4
Squid	121.3	71.10	.8	.38	5	28.4	19.02	.2	.10	7	104.2	80.61	1.0	.83	4

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 1995 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	39.5	21.47	3	61.6	51.84	4	45.3	8.44	8	33.3	7.31	5	37.7	10.74	7	49.8	9.00	4
Total finfish kg	32.0	17.25	3	58.4	50.46	4	29.2	8.86	8	29.0	8.30	5	34.2	9.48	7	47.6	9.35	4
Total crustacean kg	5.9	3.37	3	.4	.35	4	7.1	3.45	8	3.4	1.60	5	2.7	1.08	7	.8	.55	4
Total others kg	1.8	1.13	3	2.2	1.29	4	9.0	4.24	8	1.0	.39	5	1.0	.30	7	2.0	.80	4
Surface temperature	29.9	.52	3	29.6	.23	3	29.8	.06	9	29.5	.12	5	29.9	.21	2	29.9	.17	4
Midwater temperature	28.9	.27	3	28.6	.60	3	28.1	.30	9	27.4	.37	5	25.3	1.23	2	23.7	.28	4
Bottom temperature	28.1	.31	3	27.5	.32	3	26.5	.19	9	22.9	.38	5	19.1	.00	2	18.0	.23	4
Surface salinity	12.2	3.76	3	23.4	1.75	3	24.3	.71	9	27.1	2.48	5	29.9	.17	2	32.1	.66	4
Midwater salinity	17.7	3.18	3	28.0	2.77	3	30.6	1.45	9	35.1	.18	5	35.6	.19	2	36.2	.06	4
Bottom salinity	23.4	4.40	3	31.1	2.15	3	35.6	.11	9	36.1	.01	5	36.2	.01	2	36.2	.00	4
Surface chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface fluorescence	7.7	.00	1	5.8	1.56	3	2.4	.43	9	1.8	.54	5	.8	.00	2	.5	.10	4
Surface oxygen	7.0	1.09	3	6.8	1.19	3	6.7	.08	9	6.4	.06	5	6.3	.00	2	6.2	.02	4
Midwater oxygen	5.1	.90	3	4.7	2.00	3	4.4	.61	9	6.3	.15	5	6.8	.25	2	7.2	.03	4
Bottom oxygen	2.4	1.31	3	.6	.29	3	2.8	.56	9	5.5	.05	5	4.2	.00	2	4.1	.07	4

Table 14a
Statistical Zone 17
40-ft trawls

Summary of dominant organisms taken in statistical zone 17 during the 1995 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
Callinectes similis	2065.5	1766.40	5.2	4.15	3	1.5	1.50	.0	.02	6	36.1	16.06	.7	.35	14
Sicyonia brevirostris	.0	.00	.0	.00	3	.0	.00	.0	.00	6	187.3	67.25	1.5	.50	14
Penaeus aztecus	189.7	38.79	1.3	.31	3	.2	.17	.0	.00	6	135.4	46.56	2.6	.79	14
Xiphopenaeus kroyeri	793.4	368.33	3.2	2.21	3	.0	.00	.0	.00	6	.2	.15	.0	.00	14
Trachypenaeus similis	.0	.00	.0	.00	3	12.8	12.83	.0	.04	6	74.8	30.57	.4	.15	14
Squilla spp.	.0	.00	.0	.00	3	11.8	11.83	.1	.10	6	41.6	14.37	.5	.17	14
Stenotomus caprinus	.0	.00	.0	.00	3	.3	.33	.0	.00	6	864.5	180.41	27.2	6.44	14
Micropogonias undulatus	754.1	126.29	11.0	2.83	3	28.0	20.43	.7	.60	6	142.6	58.27	8.3	3.12	14
Cynoscion arenarius	935.4	426.48	14.7	7.36	3	164.4	140.86	2.8	2.31	6	53.5	36.64	1.9	.99	14
Chloroscombrus chrysurus	88.0	44.31	.2	.12	3	232.5	227.12	6.0	5.95	6	90.0	33.96	3.5	1.40	14
Upeneus parvus	.0	.00	.0	.00	3	.0	.00	.0	.00	6	198.3	111.26	2.2	1.14	14
Stellifer lanceolatus	816.7	377.57	2.7	1.23	3	.0	.00	.0	.00	6	.0	.00	.0	.00	14
Peprilus alepidotus	440.0	201.09	4.2	2.04	3	63.1	60.35	.6	.62	6	12.4	11.94	.0	.04	14
Centropristis philadelphica	.0	.00	.0	.00	3	51.8	51.83	.5	.47	6	26.7	8.35	.9	.31	14
Squid	20.0	20.00	.3	.30	3	35.6	34.64	.4	.36	6	158.3	48.23	2.5	.68	14

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

Summary of dominant organisms taken in statistical zone 17 during the 1995 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
Callinectes similis	2.0	2.00	.0	.00	2	.0	.00	.0	.00	3	.0	.00	.0	.00	1
Sicyonia brevirostris	202.4	156.56	2.3	1.73	2	84.3	67.59	1.1	.93	3	3.2	.00	.1	.00	1
Penaeus aztecus	74.2	11.82	2.7	1.18	2	39.6	17.64	2.0	.85	3	92.4	.00	4.7	.00	1
Xiphopenaeus kroyeri	.0	.00	.0	.00	2	.0	.00	.0	.00	3	.0	.00	.0	.00	1
Trachypenaeus similis	2.0	2.00	.0	.00	2	.0	.00	.0	.00	3	.0	.00	.0	.00	1
Squilla spp.	9.0	9.00	.0	.02	2	.7	.67	.0	.00	3	.0	.00	.0	.00	1
Stenotomus caprinus	378.4	253.38	20.1	12.42	2	325.4	67.90	17.3	4.80	3	257.8	.00	17.2	.00	1
Micropogonias undulatus	60.5	60.50	5.3	5.32	2	675.6	656.69	61.5	59.78	3	3.2	.00	.6	.00	1
Cynoscion arenarius	.0	.00	.0	.00	2	.0	.00	.0	.00	3	.0	.00	.0	.00	1
Chloroscombrus chrysurus	.0	.00	.0	.00	2	.0	.00	.0	.00	3	.0	.00	.0	.00	1
Upeneus parvus	31.1	24.15	.7	.50	2	25.3	9.60	1.4	.81	3	309.7	.00	11.1	.00	1
Stellifer lanceolatus	.0	.00	.0	.00	2	.0	.00	.0	.00	3	.0	.00	.0	.00	1
Peprilus alepidotus	.0	.00	.0	.00	2	.0	.00	.0	.00	3	.0	.00	.0	.00	1
Centropristis philadelphica	46.4	27.59	3.5	2.32	2	50.0	25.53	3.3	1.73	3	3.2	.00	.4	.00	1
Squid	157.9	146.85	1.8	1.67	2	11.6	3.81	.4	.15	3	460.5	.00	3.9	.00	1

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 1995 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	343.9	245.96	3	29.5	17.79	6	100.7	17.06	14	58.7	9.18	2	114.1	46.50	3	60.4	.00	1
Total finfish kg	56.0	6.18	3	28.5	17.54	6	89.3	16.50	14	51.1	11.51	2	107.1	49.17	3	51.6	.00	1
Total crustacean kg	14.1	6.94	3	.3	.30	6	7.8	1.76	14	5.6	3.48	2	3.7	1.62	3	5.2	.00	1
Total others kg	274.0	251.70	3	.6	.35	6	3.2	.63	14	2.3	1.42	2	3.4	2.65	3	3.7	.00	1
Surface temperature	29.3	.49	4	29.8	.14	7	29.4	.08	12	29.7	.15	3	28.8	.00	1	28.6	.00	1
Midwater temperature	29.0	.19	4	29.2	.16	7	27.8	.15	12	27.5	.12	3	24.2	.00	1	24.5	.00	1
Bottom temperature	28.6	.09	4	27.5	.15	7	25.7	.29	12	23.1	.93	3	19.5	.00	1	17.6	.00	1
Surface salinity	15.6	3.97	4	26.8	1.33	7	28.5	.15	12	29.6	.87	3	34.1	.00	1	33.9	.00	1
Midwater salinity	16.9	4.05	4	27.7	.72	7	32.8	.66	12	34.6	.37	3	35.8	.00	1	36.2	.00	1
Bottom salinity	17.5	4.14	4	32.0	.90	7	35.5	.15	12	35.9	.08	3	36.3	.00	1	36.4	.00	1
Surface chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface fluorescence	1.6	.00	1	2.1	.43	7	1.8	.68	12	1.0	.17	3	.3	.00	1	.3	.00	1
Surface oxygen	6.5	.31	4	7.3	.18	7	6.6	.05	12	6.6	.12	3	6.3	.00	1	6.3	.00	1
Midwater oxygen	5.9	.46	4	7.1	.16	7	5.3	.25	12	6.0	.28	3	7.4	.00	1	7.1	.00	1
Bottom oxygen	5.2	.31	4	.7	.46	7	4.2	.34	12	5.5	.12	3	3.8	.00	1	3.9	.00	1

Table 15a
Statistical Zone 18
40-ft trawls

Summary of dominant organisms taken in statistical zone 18 during the 1995 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.

	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	.0	.00	.0	.00	2	1172.6	1156.37	4.7	4.65	3
Callinectes similis	.0	.00	.0	.00	0	5.3	5.25	.5	.55	2	687.6	677.58	9.6	9.52	3
Penaeus aztecus	.0	.00	.0	.00	0	29.3	29.25	.2	.24	2	73.9	28.48	1.1	.78	3
Portunus spinicarpus	.0	.00	.0	.00	0	.0	.00	.0	.00	2	.0	.00	.0	.00	3
Sicyonia brevirostris	.0	.00	.0	.00	0	.0	.00	.0	.00	2	2.2	2.22	.0	.02	3
Sicyonia dorsalis	.0	.00	.0	.00	0	.0	.00	.0	.00	2	110.6	108.73	.9	.93	3
Peprilus burti	.0	.00	.0	.00	0	.0	.00	.0	.00	2	2028.4	1478.48	22.2	14.13	3
Micropogonias undulatus	.0	.00	.0	.00	0	2309.6	2085.39	79.2	72.13	2	.0	.00	.0	.00	3
Stenotomus caprinus	.0	.00	.0	.00	0	.0	.00	.0	.00	2	425.3	425.33	2.1	2.10	3
Cynoscion spp.	.0	.00	.0	.00	0	1946.3	1946.25	29.1	29.15	2	.0	.00	.0	.00	3
Chloroscombrus chrysurus	.0	.00	.0	.00	0	1257.0	1225.46	30.3	30.27	2	173.5	153.71	5.0	4.32	3
Peprilus alepidotus	.0	.00	.0	.00	0	385.5	385.50	5.0	5.05	2	10.9	9.08	.3	.29	3
Trichiurus lepturus	.0	.00	.0	.00	0	381.8	378.67	17.9	17.93	2	5.2	5.19	.2	.17	3
Trachurus lathami	.0	.00	.0	.00	0	.0	.00	.0	.00	2	52.2	26.53	.5	.29	3
Squid	.0	.00	.0	.00	0	69.8	66.67	1.3	1.33	2	526.8	283.47	8.6	4.41	3

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

Summary of dominant organisms taken in statistical zone 18 during the 1995 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.

	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	5	1.5	1.06	.0	.01	5	.0	.00	.0	.00	1
Callinectes similis	4.0	1.76	.1	.04	5	1.1	1.07	.0	.02	5	.0	.00	.0	.00	1
Penaeus aztecus	29.3	11.29	.9	.34	5	149.8	84.09	5.2	2.37	5	216.0	.00	11.5	.00	1
Portunus spinicarpus	.9	.73	.0	.00	5	172.5	159.74	1.2	1.13	5	36.0	.00	.3	.00	1
Sicyonia brevirostris	19.5	8.57	.4	.21	5	141.0	134.86	2.1	2.03	5	6.0	.00	.0	.00	1
Sicyonia dorsalis	.0	.00	.0	.00	5	.0	.00	.0	.00	5	.0	.00	.0	.00	1
Peprilus burti	43.1	6.77	3.5	.74	5	25.2	14.04	2.0	1.07	5	.0	.00	.0	.00	1
Micropogonias undulatus	.8	.58	.1	.06	5	681.8	671.62	64.8	63.82	5	.0	.00	.0	.00	1
Stenotomus caprinus	202.4	44.76	10.6	3.38	5	430.5	86.76	28.1	7.90	5	282.0	.00	20.5	.00	1
Cynoscion spp.	.0	.00	.0	.00	5	.0	.00	.0	.00	5	.0	.00	.0	.00	1
Chloroscombrus chrysurus	.0	.00	.0	.00	5	.0	.00	.0	.00	5	.0	.00	.0	.00	1
Peprilus alepidotus	.0	.00	.0	.00	5	.0	.00	.0	.00	5	.0	.00	.0	.00	1
Trichiurus lepturus	.8	.58	.1	.04	5	2.6	1.67	.3	.20	5	.0	.00	.0	.00	1
Trachurus lathami	63.7	16.14	1.2	.24	5	25.6	23.65	.9	.87	5	.0	.00	.0	.00	1
Squid	407.9	108.72	5.2	1.64	5	144.0	144.00	.9	.93	5	12.0	.00	.0	.00	1

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 1995 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.

	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	199.9	181.24	2	74.6	8.61	3	38.1	5.40	5	130.4	60.63	5	70.9	.00	1
Total finfish kg	.0	.00	0	190.3	173.09	2	46.5	8.61	3	31.1	5.14	5	119.5	61.95	5	60.0	.00	1
Total crustacean kg	.0	.00	0	8.2	6.78	2	19.7	18.66	3	1.4	.50	5	9.1	5.25	5	10.9	.00	1
Total others kg	.0	.00	0	1.4	1.36	2	8.6	4.49	3	5.5	1.66	5	2.0	.77	5	.0	.00	1
Surface temperature	29.6	.00	1	29.1	1.32	2	28.4	.09	3	28.8	.22	3	29.3	.20	2	29.2	.10	2
Midwater temperature	29.3	.00	1	28.6	.87	2	28.2	.20	3	26.6	.69	3	26.6	.97	2	25.1	1.38	2
Bottom temperature	28.9	.00	1	27.6	.75	2	26.0	.53	3	22.1	.62	3	19.1	.97	2	17.3	.03	2
Surface salinity	16.5	.00	1	21.7	6.29	2	28.2	1.80	3	31.5	.55	3	31.0	2.23	2	31.2	2.02	2
Midwater salinity	20.5	.00	1	26.9	.16	2	29.3	1.79	3	34.9	.24	3	34.3	1.61	2	34.9	1.12	2
Bottom salinity	22.5	.00	1	28.7	.33	2	31.9	2.84	3	35.8	.10	3	35.7	.61	2	36.2	.01	2
Surface chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface fluorescence	9.6	.00	1	6.9	3.06	2	.9	.11	3	.3	.11	3	.4	.07	2	.4	.08	2
Surface oxygen	8.4	.00	1	7.0	2.15	2	6.5	.07	3	6.4	.06	3	6.4	.10	2	6.4	.10	2
Midwater oxygen	4.9	.00	1	5.2	2.00	2	6.3	.21	3	6.3	.19	3	6.7	.20	2	6.8	.05	2
Bottom oxygen	5.1	.00	1	2.2	2.00	2	3.3	.84	3	5.1	.12	3	4.6	.55	2	3.9	.15	2

Table 16a
Statistical Zone 19
40-ft trawls

Summary of dominant organisms taken in statistical zone 19 during the 1995 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	.0	.00	.0	.00	1	213.8	151.90	.6	.46	7	2341.3	1346.71	5.2	2.68	16
Penaeus aztecus	64.3	.00	.8	.00	1	1082.2	514.71	7.8	2.06	7	734.6	187.54	11.2	3.02	16
Callinectes similis	55.7	.00	.2	.00	1	834.8	395.21	8.3	4.79	7	660.9	250.96	5.1	1.90	16
Squilla spp.	.0	.00	.0	.00	1	230.2	94.88	1.6	.72	7	277.9	103.69	2.6	.87	16
Trachypenaeus constrictus	.0	.00	.0	.00	1	4.3	4.29	.0	.01	7	304.5	301.66	1.5	1.51	16
Sicyonia dorsalis	.0	.00	.0	.00	1	.0	.00	.0	.00	7	43.2	13.17	.1	.03	16
Micropogonias undulatus	3167.1	.00	82.4	.00	1	3428.8	1362.06	88.0	35.17	7	78.2	73.17	2.8	2.64	16
Cynoscion arenarius	287.1	.00	6.2	.00	1	2303.6	750.08	43.1	14.88	7	493.6	265.49	8.6	4.51	16
Trachurus lathami	.0	.00	.0	.00	1	.0	.00	.0	.00	7	453.8	418.51	1.9	1.68	16
Saurida brasiliensis	.0	.00	.0	.00	1	.0	.00	.0	.00	7	201.7	108.28	1.0	.51	16
Prionotus longispinosus	17.1	.00	.4	.00	1	406.6	129.50	2.1	.72	7	190.8	94.15	1.0	.48	16
Trichiurus lepturus	.0	.00	.0	.00	1	680.2	333.35	19.2	9.83	7	93.2	33.93	1.4	.58	16
Chloroscombrus chrysurus	98.6	.00	.2	.00	1	672.5	391.21	13.5	7.92	7	85.5	38.00	1.9	.85	16
Anchoa hepsetus	.0	.00	.0	.00	1	33.7	16.73	.5	.20	7	307.2	135.18	3.2	1.42	16
Squid	4.3	.00	.2	.00	1	221.1	157.63	4.2	3.18	7	610.9	192.33	7.1	1.94	16

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

Summary of dominant organisms taken in statistical zone 19 during the 1995 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	2094.6	1096.94	8.4	4.40	6	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Penaeus aztecus	73.8	26.57	1.0	.33	6	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Callinectes similis	450.8	182.17	6.0	2.48	6	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Squilla spp.	145.8	65.33	1.8	.75	6	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Trachypenaeus constrictus	.0	.00	.0	.00	6	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Sicyonia dorsalis	203.4	85.97	.5	.19	6	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Micropogonias undulatus	.0	.00	.0	.00	6	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Cynoscion arenarius	1.3	1.33	.1	.14	6	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Trachurus lathami	54.8	26.83	.6	.38	6	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Saurida brasiliensis	540.2	469.01	2.7	2.29	6	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Prionotus longispinosus	23.2	10.51	.3	.16	6	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Trichiurus lepturus	7.7	4.59	.1	.03	6	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Chloroscombrus chrysurus	.0	.00	.0	.00	6	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Anchoa hepsetus	.2	.21	.0	.00	6	.0	.00	.0	.00	0	.0	.00	.0	.00	0
Squid	293.9	125.22	5.2	2.17	6	.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 1995 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	144.2	.00	1	254.4	38.79	7	78.6	13.28	16	46.4	9.20	6	.0	.00	0	.0	.00	0
Total finfish kg	140.3	.00	1	227.1	36.32	7	44.1	9.86	16	22.3	4.00	6	.0	.00	0	.0	.00	0
Total crustacean kg	1.9	.00	1	22.4	7.76	7	26.7	6.91	16	18.5	8.02	6	.0	.00	0	.0	.00	0
Total others kg	1.9	.00	1	4.7	3.26	7	7.7	1.90	16	5.1	2.16	6	.0	.00	0	.0	.00	0
Surface temperature	28.7	.00	1	28.6	.09	9	28.8	.06	14	28.6	.09	6	28.6	.00	1	.0	.00	0
Midwater temperature	28.4	.00	1	28.5	.21	9	28.0	.12	14	26.3	1.08	6	25.7	.00	1	.0	.00	0
Bottom temperature	27.4	.00	1	26.2	.25	9	24.4	.38	14	22.5	.26	6	19.8	.00	1	.0	.00	0
Surface salinity	24.8	.00	1	30.1	.36	9	27.2	.71	14	28.7	.89	6	30.8	.00	1	.0	.00	0
Midwater salinity	26.8	.00	1	29.9	.45	9	29.4	.50	14	29.3	1.20	6	33.5	.00	1	.0	.00	0
Bottom salinity	25.7	.00	1	33.4	.24	9	33.2	.37	14	32.3	.93	6	36.3	.00	1	.0	.00	0
Surface chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface fluorescence	1.7	.00	1	2.2	.73	9	.6	.06	14	.3	.13	6	.4	.00	1	.0	.00	0
Surface oxygen	6.6	.00	1	6.3	.05	9	6.5	.07	14	5.2	.60	6	6.6	.00	1	.0	.00	0
Midwater oxygen	5.1	.00	1	6.1	.12	9	6.4	.08	14	6.3	.35	6	7.2	.00	1	.0	.00	0
Bottom oxygen	2.4	.00	1	4.0	.34	9	4.7	.23	14	5.1	.21	6	4.6	.00	1	.0	.00	0

Table 17a
Statistical Zone 20
40-ft trawls

Summary of dominant organisms taken in statistical zone 20 during the 1995 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.

	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	10.0	4.24	.1	.09	4	1490.7	564.10	17.2	5.17	11
Trachypenaeus constrictus	.0	.00	.0	.00	0	91.4	53.49	.2	.12	4	867.3	542.19	3.3	2.17	11
Callinectes similis	.0	.00	.0	.00	0	343.1	116.49	3.7	1.52	4	445.8	167.04	3.6	1.13	11
Trachypenaeus similis	.0	.00	.0	.00	0	3.9	3.91	.0	.03	4	147.8	89.53	.8	.46	11
Sicyonia dorsalis	.0	.00	.0	.00	0	2.8	1.63	.0	.00	4	28.1	16.57	.0	.02	11
Squilla spp.	.0	.00	.0	.00	0	26.5	12.49	.3	.18	4	119.8	54.17	1.4	.68	11
Peprilus burti	.0	.00	.0	.00	0	7.5	7.50	.0	.00	4	43.1	23.77	.2	.10	11
Anchoa hepsetus	.0	.00	.0	.00	0	25.7	15.86	.1	.06	4	331.0	148.28	2.1	1.04	11
Stenotomus caprinus	.0	.00	.0	.00	0	15.8	9.62	.0	.03	4	401.5	201.15	.8	.30	11
Upeneus parvus	.0	.00	.0	.00	0	190.1	161.51	5.3	4.96	4	309.9	112.38	1.9	.63	11
Micropogonias undulatus	.0	.00	.0	.00	0	723.2	507.19	17.0	13.33	4	36.3	20.38	.7	.35	11
Trichiurus lepturus	.0	.00	.0	.00	0	35.3	35.25	1.2	1.23	4	23.1	10.02	.2	.07	11
Serranus atrobranchus	.0	.00	.0	.00	0	.0	.00	.0	.00	4	19.1	18.59	.0	.03	11
Cynoscion arenarius	.0	.00	.0	.00	0	245.6	198.05	6.0	4.88	4	112.2	46.96	1.7	.62	11
Squid	.0	.00	.0	.00	0	133.2	42.21	1.8	.42	4	255.2	85.23	3.3	1.22	11

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

Summary of dominant organisms taken in statistical zone 20 during the 1995 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.

	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	159.7	41.25	2.4	.65	9	120.0	44.19	3.0	.92	3	7.5	4.78	.3	.16	3
Trachypenaeus constrictus	936.6	709.35	3.7	2.83	9	377.7	377.67	1.5	1.52	3	.0	.00	.0	.00	3
Callinectes similis	759.1	370.85	5.0	2.22	9	32.7	32.67	.3	.26	3	1.0	1.00	.0	.00	3
Trachypenaeus similis	535.0	457.48	1.3	.91	9	18.3	18.33	.0	.05	3	.0	.00	.0	.00	3
Sicyonia dorsalis	380.3	224.87	.7	.45	9	.0	.00	.0	.00	3	.0	.00	.0	.00	3
Squilla spp.	165.1	76.69	1.5	.68	9	68.0	46.13	.9	.61	3	.0	.00	.0	.00	3
Peprilus burti	407.5	206.29	12.6	7.26	9	648.0	638.51	34.9	34.55	3	222.1	158.28	12.9	7.61	3
Anchoa hepsetus	109.6	102.32	2.2	2.03	9	.0	.00	.0	.00	3	.0	.00	.0	.00	3
Stenotomus caprinus	44.9	26.87	2.2	1.34	9	115.3	37.40	4.9	1.54	3	44.7	6.29	2.4	.54	3
Upeneus parvus	14.0	8.79	.2	.13	9	12.0	12.00	.3	.27	3	14.2	3.26	.4	.16	3
Micropogonias undulatus	.9	.85	.0	.03	9	.0	.00	.0	.00	3	.0	.00	.0	.00	3
Trichiurus lepturus	262.3	177.15	3.2	1.89	9	40.0	14.47	2.1	.90	3	11.2	3.60	.6	.13	3
Serranus atrobranchus	194.7	117.40	.6	.19	9	100.7	34.37	1.7	.69	3	18.8	12.05	.2	.10	3
Cynoscion arenarius	4.9	2.87	.5	.48	9	8.0	6.56	1.1	1.00	3	.0	.00	.0	.00	3
Squid	192.3	90.13	2.5	.92	9	40.7	39.18	.9	.77	3	297.4	115.29	2.3	.53	3

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 1995 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.

	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	101.2	20.79	4	53.0	9.20	11	60.5	8.98	9	65.0	31.37	3	34.0	7.69	3
Total finfish kg	.0	.00	0	82.5	23.46	4	20.6	2.01	11	42.1	9.76	9	56.7	33.82	3	30.7	8.30	3
Total crustacean kg	.0	.00	0	16.2	2.89	4	27.9	8.39	11	15.4	6.27	9	7.4	3.69	3	.3	.16	3
Total others kg	.0	.00	0	2.9	1.01	4	4.6	1.35	11	2.8	.84	9	1.1	.84	3	3.0	.61	3
Surface temperature	.0	.00	0	29.1	.12	4	28.8	.10	11	28.8	.15	5	29.0	.11	4	28.8	.22	4
Midwater temperature	.0	.00	0	29.0	.09	4	28.0	.12	11	26.7	.60	5	22.5	.47	4	22.6	.49	4
Bottom temperature	.0	.00	0	27.3	.32	4	24.1	.39	11	20.9	.25	5	20.1	.19	4	18.8	.79	4
Surface salinity	.0	.00	0	28.5	.84	4	26.8	.88	11	28.1	1.86	5	29.4	1.29	4	28.5	1.45	4
Midwater salinity	.0	.00	0	30.2	.64	4	28.3	.83	11	32.1	.36	5	33.9	.80	4	36.0	.09	4
Bottom salinity	.0	.00	0	31.4	.12	4	32.2	.54	11	34.4	.80	5	35.6	.44	4	35.9	.35	4
Surface chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface fluorescence	.0	.00	0	.6	.23	4	.3	.08	11	.3	.11	5	.1	.02	4	.2	.18	4
Surface oxygen	.0	.00	0	5.8	.68	4	5.6	.33	11	5.4	.77	5	4.9	.27	4	4.8	.59	4
Midwater oxygen	.0	.00	0	6.6	.05	4	5.9	.36	11	5.6	.63	5	6.2	.46	4	6.9	.13	4
Bottom oxygen	.0	.00	0	6.1	.27	4	4.3	.30	11	4.4	.27	5	4.7	.21	4	4.4	.24	4

Table 18a
Statistical Zone 21
40-ft trawls

Summary of dominant organisms taken in statistical zone 21 during the 1995 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 between 21-30 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	2	18.5	18.46	.2	.17	5	1561.1	727.05	16.2	7.66	10
Trachypenaeus constrictus	.0	.00	.0	.00	2	116.3	116.31	.4	.38	5	270.8	209.57	1.0	.83	10
Trachypenaeus similis	.0	.00	.0	.00	2	.0	.00	.0	.00	5	463.4	299.98	1.4	1.00	10
Sicyonia dorsalis	3.0	3.00	.0	.00	2	12.0	12.00	.0	.04	5	176.7	83.07	.5	.26	10
Callinectes similis	9.0	9.00	.1	.14	2	1.8	1.85	.0	.00	5	129.0	56.78	1.3	.58	10
Squilla spp.	3.0	3.00	.0	.00	2	6.5	6.46	.0	.04	5	129.0	80.12	1.1	.48	10
Upeneus parvus	759.0	741.00	6.0	6.00	2	1184.5	499.55	9.0	4.16	5	453.7	194.92	3.4	1.69	10
Anchoa hepsetus	555.0	555.00	1.8	1.77	2	2244.0	2214.12	9.1	8.84	5	85.4	42.70	1.1	.60	10
Stenotomus caprinus	.0	.00	.0	.00	2	26.9	19.72	.0	.04	5	624.8	295.36	1.6	.54	10
Micropogonias undulatus	3.0	3.00	.1	.14	2	12.9	12.92	.4	.38	5	544.9	544.91	12.7	12.73	10
Saurida brasiliensis	9.0	9.00	.0	.00	2	61.9	41.51	.3	.21	5	305.0	153.21	1.3	.66	10
Serranus atrobranchus	.0	.00	.0	.00	2	.0	.00	.0	.00	5	128.2	67.27	.4	.26	10
Chloroscombrus chrysurus	816.0	114.00	16.2	2.32	2	580.2	305.80	11.8	6.11	5	55.5	41.02	1.3	.89	10
Polydactylus octonemus	3.0	3.00	.1	.14	2	230.8	230.77	3.7	3.69	5	236.5	236.45	3.1	3.11	10
Squid	747.0	51.00	11.6	8.05	2	897.4	271.88	14.7	3.54	5	346.4	113.84	4.2	1.21	10

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

Summary of dominant organisms taken in statistical zone 21 during the 1995 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 between 21-30 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	.0	.00	.0	.00	0	61.5	.00	3.5	.00	1	20.3	20.34	1.0	.99	3
Trachypenaeus constrictus	.0	.00	.0	.00	0	.0	.00	.0	.00	1	.0	.00	.0	.00	3
Trachypenaeus similis	.0	.00	.0	.00	0	.0	.00	.0	.00	1	.0	.00	.0	.00	3
Sicyonia dorsalis	.0	.00	.0	.00	0	.0	.00	.0	.00	1	.0	.00	.0	.00	3
Callinectes similis	.0	.00	.0	.00	0	.0	.00	.0	.00	1	.0	.00	.0	.00	3
Squilla spp.	.0	.00	.0	.00	0	4.5	.00	.1	.00	1	8.2	6.75	.1	.07	3
Upeneus parvus	.0	.00	.0	.00	0	198.0	.00	6.0	.00	1	137.3	102.49	3.9	2.61	3
Anchoa hepsetus	.0	.00	.0	.00	0	.0	.00	.0	.00	1	.0	.00	.0	.00	3
Stenotomus caprinus	.0	.00	.0	.00	0	55.5	.00	2.5	.00	1	49.9	28.48	3.4	2.19	3
Micropogonias undulatus	.0	.00	.0	.00	0	.0	.00	.0	.00	1	.0	.00	.0	.00	3
Saurida brasiliensis	.0	.00	.0	.00	0	184.5	.00	.7	.00	1	202.7	154.77	.5	.36	3
Serranus atrobranchus	.0	.00	.0	.00	0	409.5	.00	8.3	.00	1	268.6	124.35	4.1	2.04	3
Chloroscombrus chrysurus	.0	.00	.0	.00	0	.0	.00	.0	.00	1	.0	.00	.0	.00	3
Polydactylus octonemus	.0	.00	.0	.00	0	.0	.00	.0	.00	1	.0	.00	.0	.00	3
Squid	.0	.00	.0	.00	0	232.5	.00	2.9	.00	1	511.7	494.15	1.7	1.40	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 1995 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 between 21-30 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	40.9	5.45	2	63.1	12.08	5	79.3	30.45	10	.0	.00	0	73.6	.00	1	60.5	7.32	3
Total finfish kg	25.9	4.09	2	43.1	10.15	5	50.1	29.65	10	.0	.00	0	61.4	.00	1	56.2	7.58	3
Total crustacean kg	2.7	2.73	2	3.6	2.33	5	24.8	10.52	10	.0	.00	0	5.5	.00	1	1.8	.95	3
Total others kg	12.3	6.82	2	15.2	3.88	5	3.9	1.22	10	.0	.00	0	6.8	.00	1	3.3	1.07	3
Surface temperature	.0	.00	0	28.5	.06	7	28.2	.15	11	.0	.00	0	28.0	.00	1	28.2	.34	3
Midwater temperature	.0	.00	0	28.2	.06	7	27.7	.08	11	.0	.00	0	23.0	.00	1	23.0	.31	3
Bottom temperature	.0	.00	0	28.0	.08	7	23.2	.66	11	.0	.00	0	22.4	.00	1	18.3	.43	3
Surface salinity	.0	.00	0	29.6	1.44	8	30.4	1.41	11	.0	.00	0	32.3	.14	2	31.3	1.75	4
Midwater salinity	.0	.00	0	31.1	.82	7	30.2	.63	9	.0	.00	0	35.9	.13	2	35.3	.81	4
Bottom salinity	.0	.00	0	26.3	1.71	8	31.0	1.18	11	.0	.00	0	36.0	.26	2	35.6	.72	4
Surface chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface fluorescence	.0	.00	0	.8	.36	5	.1	.05	9	.0	.00	0	.0	.00	0	.0	.00	1
Surface oxygen	.0	.00	0	5.1	.50	8	5.6	.36	12	.0	.00	0	6.6	.05	2	5.6	.83	4
Midwater oxygen	.0	.00	0	5.0	.45	8	5.1	.45	12	.0	.00	0	6.8	.15	2	6.8	.26	4
Bottom oxygen	.0	.00	0	4.8	.38	8	4.8	.17	12	.0	.00	0	4.7	.35	2	4.7	.55	4

Table 19a
Statistical Zone 17
20-ft trawls

Summary of dominant organisms taken in statistical zone 17 during the 1995 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	485.5	276.98	3.7	2.14	11	139.5	127.78	1.5	1.41	4	.0	.00	.0	.00	0
Xiphopenaeus kroyeri	34.4	16.06	.3	.15	11	3.0	3.00	.1	.07	4	.0	.00	.0	.00	0
Trachypenaeus similis	8.2	6.01	.0	.00	11	39.0	28.30	.1	.07	4	.0	.00	.0	.00	0
Callinectes sapidus	12.0	4.58	.9	.29	11	.0	.00	.0	.00	4	.0	.00	.0	.00	0
Libinia dubia	1.1	.73	.0	.00	11	25.5	15.95	.0	.00	4	.0	.00	.0	.00	0
Penaeus setiferus	7.6	4.13	.2	.10	11	.0	.00	.0	.00	4	.0	.00	.0	.00	0
Micropogonias undulatus	322.9	102.62	4.9	1.40	11	295.5	293.50	5.5	5.45	4	.0	.00	.0	.00	0
Cynoscion arenarius	73.6	17.20	1.0	.27	11	31.5	18.23	.8	.58	4	.0	.00	.0	.00	0
Stellifer lanceolatus	31.6	15.54	.5	.31	11	.0	.00	.0	.00	4	.0	.00	.0	.00	0
Arius felis	25.1	5.77	1.3	.41	11	9.0	7.14	.7	.52	4	.0	.00	.0	.00	0
Brevoortia patronus	9.3	8.69	.4	.39	11	.0	.00	.0	.00	4	.0	.00	.0	.00	0
Larimus fasciatus	4.9	2.78	.0	.02	11	6.0	4.24	.1	.14	4	.0	.00	.0	.00	0
Leiostomus xanthurus	4.9	2.78	.1	.06	11	6.0	4.24	.1	.07	4	.0	.00	.0	.00	0
Chaetodipterus faber	4.4	3.80	.0	.00	11	1.5	1.50	.0	.00	4	.0	.00	.0	.00	0
Squid	31.6	14.85	.5	.23	11	10.5	6.18	.1	.08	4	.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 1995 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	33.5	18.51	11	8.9	7.98	4	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Total finfish kg	8.4	1.54	11	6.8	6.82	4	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Total crustacean kg	5.0	2.46	11	1.4	1.36	4	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Total others kg	19.1	16.75	11	.0	.00	4	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface temperature	26.6	.61	12	27.3	1.07	3	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater temperature	25.7	.52	12	26.6	.66	3	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom temperature	25.7	.46	12	26.1	.65	3	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface salinity	18.3	.63	12	17.1	2.18	3	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater salinity	19.4	.60	12	25.8	1.38	3	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom salinity	23.1	1.26	12	30.4	.52	3	.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
Surface fluorescence	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	8.2	.17	12	8.7	.45	3	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater oxygen	7.4	.22	12	7.2	1.00	3	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom oxygen	6.2	.25	12	5.1	.95	3	.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 1995 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	160.7	159.92	1.3	1.27	9	1.5	.98	.0	.00	8	.0	.00	.0	.00	0
Penaeus setiferus	12.0	9.11	.3	.21	9	3.0	2.27	.1	.07	8	.0	.00	.0	.00	0
Callinectes sapidus	5.3	2.33	.3	.27	9	3.0	3.00	.0	.00	8	.0	.00	.0	.00	0
Xiphopenaeus kroyeri	5.3	3.38	.1	.04	9	.0	.00	.0	.00	8	.0	.00	.0	.00	0
Libinia dubia	.7	.67	.0	.00	9	2.3	2.25	.0	.00	8	.0	.00	.0	.00	0
Persephona crinita	1.3	1.33	.0	.00	9	.8	.75	.0	.00	8	.0	.00	.0	.00	0
Micropogonias undulatus	100.0	68.61	2.7	1.79	9	66.8	38.48	1.6	.85	8	.0	.00	.0	.00	0
Peprilus alepidotus	15.3	9.39	.1	.06	9	69.0	8.49	.5	.07	8	.0	.00	.0	.00	0
Chloroscombrus chrysurus	17.3	10.22	.3	.13	9	33.8	10.33	.8	.24	8	.0	.00	.0	.00	0
Cynoscion arenarius	18.0	11.49	.3	.15	9	18.0	7.86	.9	.45	8	.0	.00	.0	.00	0
Arius felis	20.0	11.22	1.8	.60	9	9.0	3.76	1.5	.55	8	.0	.00	.0	.00	0
Peprilus burti	.0	.00	.0	.00	9	8.3	8.25	.4	.41	8	.0	.00	.0	.00	0
Trichiurus lepturus	1.3	1.33	.0	.03	9	6.8	3.66	.2	.09	8	.0	.00	.0	.00	0
Leiostomus xanthurus	3.3	2.03	.2	.15	9	3.0	1.96	.1	.04	8	.0	.00	.0	.00	0
Squid	10.7	2.79	.2	.05	9	28.5	8.91	.6	.18	8	.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 1995 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	11.2	2.85	9	8.5	2.09	8	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Total finfish kg	6.1	1.49	9	6.8	1.93	8	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Total crustacean kg	1.8	1.51	9	.0	.00	8	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Total others kg	3.0	1.24	9	1.4	.52	8	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface temperature	28.3	.37	9	28.1	.25	8	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater temperature	27.7	.07	9	27.6	.09	8	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom temperature	27.7	.04	9	27.7	.10	8	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface salinity	22.3	.71	9	22.0	.64	8	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater salinity	22.3	.71	9	22.6	.68	8	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom salinity	22.4	.72	9	23.5	.92	8	.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
Surface fluorescence	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	5.9	.32	9	6.1	.19	8	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater oxygen	5.9	.25	9	5.8	.15	8	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom oxygen	5.6	.27	9	5.2	.27	8	.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 1995 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
Trachypenaeus similis	.0	.00	.0	.00	1	515.0	238.23	1.2	.49	12	10.0	7.21	.0	.00	3
Penaeus aztecus	.0	.00	.0	.00	1	312.0	95.61	2.0	.60	12	16.0	5.29	.0	.00	3
Callinectes similis	.0	.00	.0	.00	1	202.0	80.50	.7	.28	12	18.0	3.46	.0	.00	3
Squilla spp.	.0	.00	.0	.00	1	161.0	88.31	.7	.26	12	4.0	2.00	.0	.00	3
Portunus gibbesii	12.0	.00	.0	.00	1	17.0	3.53	.0	.02	12	2.0	2.00	.0	.00	3
Penaeus setiferus	.0	.00	.0	.00	1	12.0	5.86	.5	.22	12	.0	.00	.0	.00	3
Cynoscion arenarius	6.0	.00	.0	.00	1	1000.5	218.64	9.9	2.46	12	358.0	232.03	4.6	3.55	3
Micropogonias undulatus	6.0	.00	.0	.00	1	680.0	187.15	14.5	4.11	12	110.0	110.00	2.8	2.82	3
Polydactylus octonemus	6.0	.00	.0	.00	1	308.0	109.92	7.5	2.72	12	78.0	78.00	2.1	2.09	3
Peprilus alepidotus	.0	.00	.0	.00	1	73.0	32.99	.5	.21	12	980.0	783.50	4.9	3.96	3
Peprilus burti	12.0	.00	.0	.00	1	70.0	25.77	.3	.13	12	248.0	184.65	1.6	1.10	3
Leiostomus xanthurus	.0	.00	.0	.00	1	79.0	26.85	1.7	.61	12	4.0	4.00	.1	.09	3
Prionotus longispinosus	.0	.00	.0	.00	1	67.0	22.01	.3	.09	12	.0	.00	.0	.00	3
Trichiurus lepturus	.0	.00	.0	.00	1	41.5	17.41	.6	.24	12	58.0	43.03	.5	.18	3
Squid	6.0	.00	.0	.00	1	213.5	71.20	2.1	.72	12	834.0	75.97	12.0	.96	3

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 1995 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	62.3	14.66	12	39.1	10.24	3	.0	.00	0	.0	.00	0	.0	.00	0
Total finfish kg	13.6	.00	1	39.5	9.34	12	21.8	10.33	3	.0	.00	0	.0	.00	0	.0	.00	0
Total crustacean kg	.0	.00	1	5.0	1.50	12	.0	.00	3	.0	.00	0	.0	.00	0	.0	.00	0
Total others kg	.0	.00	1	17.7	6.51	12	16.4	.00	3	.0	.00	0	.0	.00	0	.0	.00	0
Surface temperature	27.8	.00	1	28.2	.14	12	28.1	.19	3	.0	.00	0	.0	.00	0	.0	.00	0
Midwater temperature	27.6	.00	1	27.4	.04	12	27.5	.03	3	.0	.00	0	.0	.00	0	.0	.00	0
Bottom temperature	27.5	.00	1	26.6	.42	12	27.4	.03	3	.0	.00	0	.0	.00	0	.0	.00	0
Surface salinity	24.1	.00	1	25.5	.26	12	27.8	.82	3	.0	.00	0	.0	.00	0	.0	.00	0
Midwater salinity	24.1	.00	1	27.2	.23	12	28.7	.04	3	.0	.00	0	.0	.00	0	.0	.00	0
Bottom salinity	24.9	.00	1	30.0	.74	12	29.6	.96	3	.0	.00	0	.0	.00	0	.0	.00	0
Surface chlorophyll	3.5	.00	1	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface fluorescence	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	6.3	.00	1	6.6	.08	12	6.3	.18	3	.0	.00	0	.0	.00	0	.0	.00	0
Midwater oxygen	6.2	.00	1	6.0	.09	12	6.1	.07	3	.0	.00	0	.0	.00	0	.0	.00	0
Bottom oxygen	6.1	.00	1	4.9	.51	12	5.9	.03	3	.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 1995 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	6.0	.00	.0	.00	1	21.5	6.71	.2	.05	12	72.0	3.46	.5	.00	3
Penaeus aztecus	.0	.00	.0	.00	1	4.5	3.47	.0	.02	12	94.0	40.15	1.0	.48	3
Trachypenaeus similis	.0	.00	.0	.00	1	.5	.50	.0	.00	12	52.0	28.84	.1	.09	3
Portunus gibbesii	.0	.00	.0	.00	1	6.5	3.00	.0	.00	12	10.0	7.21	.0	.00	3
Squilla spp.	.0	.00	.0	.00	1	1.5	.78	.0	.00	12	10.0	5.29	.0	.00	3
Penaeus setiferus	.0	.00	.0	.00	1	4.0	4.00	.2	.18	12	.0	.00	.0	.00	3
Chloroscombrus chrysurus	30.0	.00	.0	.00	1	102.5	37.64	1.6	.59	12	44.0	7.21	.6	.09	3
Micropogonias undulatus	6.0	.00	.0	.00	1	50.0	35.77	1.1	.87	12	2.0	2.00	.1	.09	3
Cynoscion arenarius	.0	.00	.0	.00	1	41.0	38.87	1.0	1.02	12	.0	.00	.0	.00	3
Cynoscion nothus	.0	.00	.0	.00	1	5.5	4.01	.1	.06	12	112.0	83.81	4.1	2.95	3
Stellifer lanceolatus	6.0	.00	.0	.00	1	32.0	32.00	.8	.82	12	.0	.00	.0	.00	3
Polydactylus octonemus	12.0	.00	.3	.00	1	24.5	24.50	.8	.75	12	6.0	6.00	.2	.18	3
Syacium gunteri	.0	.00	.0	.00	1	7.0	3.12	.0	.03	12	76.0	11.14	.6	.09	3
Trichiurus lepturus	.0	.00	.0	.00	1	15.0	9.59	.2	.16	12	36.0	36.00	.5	.45	3
Squid	18.0	.00	.3	.00	1	77.5	16.59	1.6	.38	12	110.0	48.04	2.5	1.16	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 1995 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	14.3	4.34	12	27.3	5.68	3	.0	.00	0	.0	.00	0	.0	.00	0
Total finfish kg	10.9	.00	1	6.6	3.68	12	6.4	3.96	3	.0	.00	0	.0	.00	0	.0	.00	0
Total crustacean kg	.0	.00	1	.2	.23	12	1.8	.91	3	.0	.00	0	.0	.00	0	.0	.00	0
Total others kg	2.7	.00	1	7.7	1.25	12	19.1	3.15	3	.0	.00	0	.0	.00	0	.0	.00	0
Surface temperature	28.2	.00	1	27.8	.14	12	27.9	.42	3	.0	.00	0	.0	.00	0	.0	.00	0
Midwater temperature	28.2	.00	1	27.7	.13	12	27.6	.12	3	.0	.00	0	.0	.00	0	.0	.00	0
Bottom temperature	28.2	.00	1	27.5	.06	12	27.4	.06	3	.0	.00	0	.0	.00	0	.0	.00	0
Surface salinity	27.8	.00	1	28.7	.35	12	30.2	.86	3	.0	.00	0	.0	.00	0	.0	.00	0
Midwater salinity	27.8	.00	1	29.4	.27	12	30.6	.44	3	.0	.00	0	.0	.00	0	.0	.00	0
Bottom salinity	27.8	.00	1	30.0	.32	12	30.8	.58	3	.0	.00	0	.0	.00	0	.0	.00	0
Surface chlorophyll	.0	.00	0	1.4	.13	6	2.7	1.27	2	.0	.00	0	.0	.00	0	.0	.00	0
Surface fluorescence	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	6.9	.00	1	6.5	.20	12	6.6	.57	3	.0	.00	0	.0	.00	0	.0	.00	0
Midwater oxygen	6.9	.00	1	6.6	.21	12	6.6	.57	3	.0	.00	0	.0	.00	0	.0	.00	0
Bottom oxygen	6.8	.00	1	6.3	.18	12	6.4	.50	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 1995 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
Portunus spinimanus	.0	.00	.0	.00	0	44.3	37.74	.8	.64	8	2.4	1.47	.0	.00	5
Sicyonia dorsalis	.0	.00	.0	.00	0	16.5	5.64	.0	.00	8	15.6	5.88	.0	.00	5
Portunus gibbesii	.0	.00	.0	.00	0	14.3	6.31	.1	.05	8	7.2	7.20	.1	.05	5
Callinectes similis	.0	.00	.0	.00	0	4.5	2.95	.1	.07	8	18.0	9.86	.3	.15	5
Penaeus aztecus	.0	.00	.0	.00	0	5.3	3.83	.0	.03	8	1.2	1.20	.0	.00	5
Penaeus duorarum	.0	.00	.0	.00	0	3.8	2.25	.0	.00	8	1.2	1.20	.0	.00	5
Syacium gunteri	.0	.00	.0	.00	0	24.0	10.70	.3	.10	8	61.2	18.92	1.0	.38	5
Chloroscombrus chrysurus	.0	.00	.0	.00	0	17.3	6.36	.3	.12	8	.0	.00	.0	.00	5
Prionotus rubio	.0	.00	.0	.00	0	7.5	3.72	.0	.00	8	3.6	3.60	.0	.00	5
Lagodon rhomboides	.0	.00	.0	.00	0	9.0	4.94	.3	.16	8	1.2	1.20	.0	.00	5
Stenotomus caprinus	.0	.00	.0	.00	0	.0	.00	.0	.00	8	14.4	7.73	.1	.05	5
Trichiurus lepturus	.0	.00	.0	.00	0	9.0	4.81	.0	.03	8	.0	.00	.0	.00	5
Monacanthus hispidus	.0	.00	.0	.00	0	3.8	1.58	.0	.00	8	1.2	1.20	.0	.00	5
Upeneus parvus	.0	.00	.0	.00	0	1.5	1.50	.0	.00	8	3.6	1.47	.0	.00	5
Squid	.0	.00	.0	.00	0	20.3	6.31	.6	.17	8	8.4	4.49	.2	.10	5

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 1995 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	3.1	.96	8	2.7	.86	5	.0	.00	0	.0	.00	0	.0	.00	0
Total finfish kg	.0	.00	0	.7	.45	8	.5	.55	5	.0	.00	0	.0	.00	0	.0	.00	0
Total crustacean kg	.0	.00	0	1.0	.72	8	.0	.00	5	.0	.00	0	.0	.00	0	.0	.00	0
Total others kg	.0	.00	0	.3	.34	8	.5	.55	5	.0	.00	0	.0	.00	0	.0	.00	0
Surface temperature	.0	.00	0	27.0	.23	7	27.6	.26	6	.0	.00	0	.0	.00	0	.0	.00	0
Midwater temperature	.0	.00	0	26.6	.20	7	27.2	.34	6	.0	.00	0	.0	.00	0	.0	.00	0
Bottom temperature	.0	.00	0	26.1	.29	7	26.6	.64	6	.0	.00	0	.0	.00	0	.0	.00	0
Surface salinity	.0	.00	0	31.3	.11	7	31.7	.10	6	.0	.00	0	.0	.00	0	.0	.00	0
Midwater salinity	.0	.00	0	31.4	.11	7	31.8	.05	6	.0	.00	0	.0	.00	0	.0	.00	0
Bottom salinity	.0	.00	0	31.6	.09	7	32.3	.28	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
Surface fluorescence	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	.0	.00	0	5.2	.26	7	6.0	.26	6	.0	.00	0	.0	.00	0	.0	.00	0
Midwater oxygen	.0	.00	0	5.0	.27	7	5.9	.22	6	.0	.00	0	.0	.00	0	.0	.00	0
Bottom oxygen	.0	.00	0	4.9	.30	7	5.4	.33	6	.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 1995 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	.0	.00	.0	.00	1	27.0	3.00	.5	.00	2
Penaeus aztecus	.0	.00	.0	.00	0	.0	.00	.0	.00	1	24.0	24.00	.3	.27	2
Sicyonia dorsalis	.0	.00	.0	.00	0	.0	.00	.0	.00	1	18.0	12.00	.0	.00	2
Portunus gibbesii	.0	.00	.0	.00	0	.0	.00	.0	.00	1	6.0	6.00	.0	.00	2
Portunus spinimanus	.0	.00	.0	.00	0	.0	.00	.0	.00	1	3.0	3.00	.0	.00	2
Petrochirus diogenes	.0	.00	.0	.00	0	.0	.00	.0	.00	1	3.0	3.00	.0	.00	2
Syacium gunteri	.0	.00	.0	.00	0	.0	.00	.0	.00	1	60.0	18.00	.7	.14	2
Selene setapinnis	.0	.00	.0	.00	0	24.0	.00	.3	.00	1	15.0	3.00	.1	.14	2
Stenotomus caprinus	.0	.00	.0	.00	0	.0	.00	.0	.00	1	24.0	18.00	.1	.14	2
Prionotus rubio	.0	.00	.0	.00	0	.0	.00	.0	.00	1	18.0	12.00	.0	.00	2
Chloroscombrus chrysurus	.0	.00	.0	.00	0	12.0	.00	.3	.00	1	6.0	6.00	.1	.14	2
Lutjanus campechanus	.0	.00	.0	.00	0	6.0	.00	.3	.00	1	.0	.00	.0	.00	2
Upeneus parvus	.0	.00	.0	.00	0	.0	.00	.0	.00	1	3.0	3.00	.0	.00	2
Peprilus burti	.0	.00	.0	.00	0	.0	.00	.0	.00	1	3.0	3.00	.0	.00	2
Squid	.0	.00	.0	.00	0	6.0	.00	.0	.00	1	33.0	9.00	.5	.00	2

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 1995 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	2.7	.00	1	4.1	1.36	2	.0	.00	0	.0	.00	0	.0	.00	0
Total finfish kg	.0	.00	0	.0	.00	1	2.7	.00	2	.0	.00	0	.0	.00	0	.0	.00	0
Total crustacean kg	.0	.00	0	.0	.00	1	.0	.00	2	.0	.00	0	.0	.00	0	.0	.00	0
Total others kg	.0	.00	0	.0	.00	1	.0	.00	2	.0	.00	0	.0	.00	0	.0	.00	0
Surface temperature	.0	.00	0	28.1	.00	1	27.5	.15	2	.0	.00	0	.0	.00	0	.0	.00	0
Midwater temperature	.0	.00	0	27.7	.00	1	27.4	.00	2	.0	.00	0	.0	.00	0	.0	.00	0
Bottom temperature	.0	.00	0	27.8	.00	1	27.5	.00	2	.0	.00	0	.0	.00	0	.0	.00	0
Surface salinity	.0	.00	0	31.9	.00	1	31.6	.09	2	.0	.00	0	.0	.00	0	.0	.00	0
Midwater salinity	.0	.00	0	32.0	.00	1	31.6	.08	2	.0	.00	0	.0	.00	0	.0	.00	0
Bottom salinity	.0	.00	0	32.0	.00	1	31.7	.05	2	.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
Surface fluorescence	.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	6.3	.05	2	.0	.00	0	.0	.00	0	.0	.00	0
Midwater oxygen	.0	.00	0	6.5	.00	1	6.3	.05	2	.0	.00	0	.0	.00	0	.0	.00	0
Bottom oxygen	.0	.00	0	6.3	.00	1	6.0	.10	2	.0	.00	0	.0	.00	0	.0	.00	0

Table 25. 1995 Fall Shrimp/Groundfish Survey species composition list, 278 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					
Chloroscombrus chrysurus	Atlantic bumper	39671	650.8	162	58.3
Micropogonias undulatus	Atlantic croaker	35587	2245.3	208	74.8
Stenotomus caprinus	longspine porgy	34424	1135.0	187	67.3
Leiostomus xanthurus	spot	21131	2236.7	156	56.1
Arius felis	hardhead catfish	11110	1662.5	88	31.7
Prionotus longispinosus	bigeye searobin	8891	249.3	198	71.2
Peprilus burti	gulf butterfish	5265	348.6	124	44.6
Synodus foetens	inshore lizardfish	5186	612.0	199	71.6
Cynoscion arenarius	sand seatrout	4245	438.5	166	59.7
Lutjanus campechanus	red snapper	4243	138.6	186	66.9
Lagodon rhomboides	pinfish	4230	260.5	143	51.4
Serranus atrobranchus	blackear bass	4001	46.0	87	31.3
Syacium gunteri	shoal flounder	3922	70.6	137	49.3
Upeneus parvus	dwarf goatfish	3594	105.8	89	32.0
Cynoscion nothus	silver seatrout	2855	268.1	106	38.1
Trachurus lathami	rough scad	2423	104.5	58	20.9
Centropristis philadelphica	rock sea bass	2381	143.6	161	57.9
Harengula jaguana	scaled sardine	1869	57.0	52	18.7
Trichiurus lepturus	Atlantic cutlassfish	1847	145.2	78	28.1
Pristipomoides aquilonaris	wenchman	1467	119.0	44	15.8
Anchoa nasuta	longnose anchovy	1400	3.0	7	2.5
Diplectrum bivittatum	dwarf sand perch	1394	24.2	81	29.1
Sphoeroides parvus	least puffer	1298	10.7	105	37.8
Halieutichthys aculeatus	pancake batfish	1222	13.0	121	43.5
Chaetodipterus faber	Atlantic spadefish	1162	56.5	150	54.0
Prionotus paralatus	Mexican searobin	1044	37.5	50	18.0
Trichopsetta ventralis	sash flounder	1004	22.6	45	16.2
Cyclopsetta chittendeni	Mexican flounder	958	70.5	129	46.4
Anchoa hepsetus	striped anchovy	925	10.7	38	13.7
Cynoscion spp.	seatrouts	866	3.6	45	16.2
Peprilus alepidotus	harvestfish	846	41.0	67	24.1
Brevoortia patronus	gulf menhaden	835	32.6	29	10.4
Saurida brasiliensis	largescale lizardfish	827	5.7	63	22.7
Selene setapinnis	Atlantic moonfish	651	26.8	66	23.7
Menticirrhus americanus	southern kingfish	631	66.1	44	15.8
Etropus crossotus	fringed flounder	620	10.6	89	32.0

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
Lepophidium brevibarbe	blackedge cusk-eel	609	24.5	67	24.1
Porichthys plectrodon	Atlantic midshipman	534	10.4	86	30.9
Mullus auratus	red goatfish	448	25.6	33	11.9
Stellifer lanceolatus	star drum	432	10.5	20	7.2
Bagre marinus	gafftopsail catfish	362	35.4	23	8.3
Eucinostomus gula	silver jenny	337	9.6	72	25.9
Lutjanus synagris	lane snapper	323	24.1	68	24.5
Balistes capriscus	gray triggerfish	322	29.3	69	24.8
Syacium spp.	lefteye flounders	317	5.3	17	6.1
Prionotus stearnsi	shortwing searobin	313	3.1	25	9.0
Opisthonema oglinum	Atlantic thread herring	302	23.7	48	17.3
Larimus fasciatus	banded drum	283	17.3	35	12.6
Sardinella aurita	Spanish sardine	280	15.2	16	5.8
Citharichthys spilopterus	bay whiff	266	5.3	58	20.9
Caranx crysos	blue runner	232	18.5	47	16.9
Menticirrhus littoralis	gulf kingfish	230	23.0	11	4.0
Prionotus rubio	blackwing searobin	221	5.5	31	11.2
Lagocephalus laevigatus	smooth puffer	208	28.0	56	20.1
Orthopristis chrysoptera	pigfish	207	14.1	44	15.8
Anchoa mitchilli	bay anchovy	191	.2	13	4.7
Bellator militaris	horned searobin	165	1.6	15	5.4
Sphyraena guachancho	guaguanche	142	19.1	26	9.4
Scorpaena calcarata	smoothhead scorpionfish	126	1.8	28	10.1
Synodus poeyi	offshore lizardfish	110	1.2	24	8.6
Prionotus tribulus	bighead searobin	108	9.0	25	9.0
Hildebrandia flava	yellow conger	106	7.9	17	6.1
Rhomboplites aurorubens	vermilion snapper	106	7.1	16	5.8
Syacium papillosum	dusky flounder	93	3.8	11	4.0
Paralichthys lethostigma	southern flounder	93	31.4	42	15.1
Ogcocephalus spp.	batfishes	87	3.5	27	9.7
Ancylopsetta quadrocellata	ocellated flounder	84	14.8	34	12.2
Equetus umbrosus	cubbyu	83	4.4	18	6.5
Symphurus plagiusa	blackcheek tonguefish	83	1.8	25	9.0
Raja texana	roundel skate	80	25.4	34	12.2
Haemulon aurolineatum	tomtate	80	6.9	10	3.6
Pontinus longispinis	longspine scorpionfish	74	1.4	9	3.2
Brotula barbata	bearded brotula	71	8.5	29	10.4
Scomberomorus maculatus	Spanish mackerel	71	20.5	28	10.1
Monacanthus hispidus	planehead filefish	64	3.0	20	7.2

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
Lepophidium jeannae	mottled cusk-eel	63	2.6	11	4.0
Hoplunnis macrurus	freckled pike-conger	59	.6	21	7.6
Gymnachirus texae	fringed sole	59	1.3	26	9.4
Priacanthus arenatus	bigeye	55	7.6	14	5.0
Symphurus diomedianus	spottedfin tonguefish	54	1.7	12	4.3
Kathetostoma albigutta	lancer stargazer	52	3.5	17	6.1
Caulolatilus intermedius	anchor tilefish	47	5.5	17	6.1
Eucinostomus argenteus	spotfin mojarra	46	.7	12	4.3
Ogcocephalus declivirostris	slantbrow batfish	46	1.1	17	6.1
Diplectrum formosum	sand perch	43	3.0	12	4.3
Ancylopsetta dilecta	three-eye flounder	43	2.9	6	2.2
Decapterus punctatus	round scad	38	1.6	11	4.0
Etropus microstomus	smallmouth flounder	38	.6	6	2.2
Anchoa lyolepis	dusky anchovy	37	.0	4	1.4
Polydactylus octonemus	Atlantic threadfin	37	3.0	9	3.2
Rhizoprionodon terraenovae	Atlantic sharpnose shark	36	37.0	21	7.6
Bollmannia communis	ragged goby	36	.4	14	5.0
Selene vomer	lookdown	34	1.7	14	5.0
Bathyanthias mexicanus	yellowtail bass	33	.7	3	1.1
Steindachneria argentea	luminous hake	32	.2	2	.7
Ophidion welshi	crested cusk-eel	32	2.1	12	4.3
Narcine brasiliensis	lesser electric ray	31	8.4	10	3.6
Urophycis floridana	southern hake	30	5.7	9	3.2
Engyophrys senta	spiny flounder	30	.1	9	3.2
Etropus rimosus	gray flounder	29	.2	3	1.1
Antennarius radiosus	singlespot frogfish	29	.4	10	3.6
Bairdiella chrysoura	silver perch	27	.9	3	1.1
Scomberomorus cavalla	king mackerel	27	6.1	7	2.5
Decodon puellaris	red hogfish	23	1.5	7	2.5
Prionotus scitulus	leopard searobin	22	.5	3	1.1
Trachinotus carolinus	Florida pompano	22	8.8	8	2.9
Prionotus roseus	bluespotted searobin	19	.5	6	2.2
Rachycentron canadum	cobia	19	35.2	12	4.3
Selar crumenophthalmus	bigeye scad	19	1.2	4	1.4
Citharichthys macrops	spotted whiff	19	.5	7	2.5
Sphoeroides dorsalis	marbled puffer	19	.8	9	3.2
Equetus wamotoi	blackbar drum	17	1.1	8	2.9
Mustelus canis	smooth dogfish	14	43.5	12	4.3
Centropristis ocyura	bank sea bass	13	1.0	5	1.8

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
Dasyatis say	bluntnose stingray	12	16.0	7	2.5
Trachinocephalus myops	snakefish	12	.7	5	1.8
Sciaenops ocellatus	red drum	12	60.5	9	3.2
Symphurus spp.	tonguefishes	12	.3	4	1.4
Chilomycterus schoepfi	striped burrfish	12	1.2	4	1.4
Dasyatis sabina	Atlantic stingray	10	5.9	5	1.8
Neomerinthe hemingwayi	spinycheek scorpionfish	10	5.0	6	2.2
Sphoeroides spengleri	bandtail puffer	10	.5	3	1.1
Gymnothorax nigromarginatus	blackedge moray	9	.9	5	1.8
Peristedion gracile	slender searobin	9	.4	2	.7
Pogonias cromis	black drum	9	56.5	5	1.8
Neobythites gillii	cusk-eel	9	.1	3	1.1
Etrumeus teres	round herring	8	.2	3	1.1
Echeneis naucrates	sharksucker	8	2.7	6	2.2
Ogcocephalus nasutus	shortnose batfish	8	.1	4	1.4
Prionotus ophryas	bandtail searobin	7	.1	5	1.8
Pomatomus saltatrix	bluefish	7	3.2	6	2.2
Etropus cyclosquamus	shelf flounder	7	.0	5	1.8
Carcharhinus acronotus	blacknose shark	6	11.8	4	1.4
Sphyrna tiburo	bonnethead	6	9.6	4	1.4
Remora remora	remora	6	3.1	6	2.2
Caranx hippos	crevalle jack	6	.5	3	1.1
Symphurus civitatus	offshore tonguefish	6	.2	3	1.1
Squatina dumeril	Atlantic angel shark	5	32.2	5	1.8
Physiculus fulvus	metallic codling	5	.0	1	.4
Epinephelus flavolimbatus	yellowedge grouper	5	.6	3	1.1
Hemicaranx amblyrhynchus	bluntnose jack	5	.3	2	.7
Seriola dumerili	greater amberjack	5	1.7	2	.7
Astroscopus y-graecum	southern stargazer	5	.4	2	.7
Ogcocephalus parvus	roughback batfish	5	.0	2	.7
Dasyatis americana	southern stingray	4	7.6	3	1.1
Gymnothorax kolpos	blacktail moray	4	.6	2	.7
Rypticus maculatus	whitespotted soapfish	4	.5	4	1.4
Equetus spp.	drums	4	.1	1	.4
Equetus acuminatus	high-hat	4	.0	2	.7
Calamus penna	sheepshead porgy	4	.6	2	.7
Mustelus norrisi	Florida smoothhound	3	5.8	3	1.1
Raja eglanteria	clearnose skate	3	5.6	3	1.1
Synodontidae	lizardfishes	3	.0	1	.4

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
Prionotus martis	barred searobin	3	.0	2	.7
Conodon nobilis	barred grunt	3	.2	1	.4
Achirus lineatus	lined sole	3	.0	1	.4
Aluterus schoepfi	orange filefish	3	.4	3	1.1
Rhinoptera bonasus	cownose ray	2	3.9	1	.4
Hirundichthys rondeleti	blackwing flyingfish	2	.0	1	.4
Urophycis cirrata	gulf hake	2	.1	1	.4
Serraniculus pumilio	pygmy sea bass	2	.0	2	.7
Alectis ciliaris	African pompano	2	.7	2	.7
Pagrus pagrus	red porgy	2	.3	2	.7
Ophidion grayi	blotched cusk-eel	2	.1	2	.7
Bothidae	lefteye flounders	2	.0	1	.4
Bothus lunatus	peacock flounder	2	.0	1	.4
Aluterus monoceros	unicorn filefish	2	1.3	2	.7
Ogcocephalus radiatus	polka-dot batfish	2	.3	2	.7
Rhinobatos lentiginosus	Atlantic guitarfish	1	.6	1	.4
Torpedo nobiliana	Atlantic torpedo	1	1.0	1	.4
Saurida spp.	lizardfishes	1	.0	1	.4
Gymnothorax saxicola	honeycomb moray	1	.1	1	.4
Bregmaceros atlanticus	antenna codlet	1	.0	1	.4
Hippocampus erectus	lined seahorse	1	.0	1	.4
Scorpaena brasiliensis	barbfish	1	.9	1	.4
Scorpaena plumieri	spotted scorpionfish	1	.3	1	.4
Epinephelus niveatus	snowy grouper	1	.0	1	.4
Serranus phoebe	tattler	1	.0	1	.4
Pristigenys alta	short bigeye	1	.3	1	.4
Uraspis secunda	cottonmouth jack	1	.0	1	.4
Lutjanus griseus	grey snapper	1	.3	1	.4
Chaetodon sedentarius	reef butterflyfish	1	.1	1	.4
Lepophidium spp.	cusk-eels	1	.0	1	.4
Ophidion selenops	mooneye cusk-eel	1	.0	1	.4
Citharichthys cornutus	horned whiff	1	.0	1	.4
Gastropsetta frontalis	shrimp flounder	1	.2	1	.4
Paralichthys albigutta	gulf flounder	1	.3	1	.4
Paralichthys squamilentus	broad flounder	1	.2	1	.4
Symphurus urospilus	spottail tonguefish	1	.0	1	.4
Aluterus scriptus	scrawled filefish	1	.5	1	.4
Lactophrys quadricornis	scrawled cowfish	1	.1	1	.4

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	14747	321.5	233	83.8
Callinectes similis	lesser blue crab	8060	143.1	182	65.5
Portunus gibbesii	irridescent swimming crab	5736	28.7	128	46.0
Trachypenaeus similis	roughback shrimp	4374	12.8	84	30.2
Penaeus setiferus	white shrimp	3816	88.1	91	32.7
Sicyonia dorsalis	lesser rock shrimp	2973	7.5	53	19.1
Portunus spinicarpus	longspine swimming crab	2911	24.9	48	17.3
Sicyonia brevirostris	brown rock shrimp	1640	26.6	62	22.3
Squilla empusa	mantis shrimp	1601	18.0	120	43.2
Penaeus duorarum	pink shrimp	1310	24.0	99	35.6
Solenocera vioscai	humpback shrimp	848	5.2	28	10.1
Squilla chydaea	mantis shrimp	536	4.3	55	19.8
Trachypenaeus constrictus	roughneck shrimp	439	1.0	24	8.6
Portunus spinimanus	blotched swimming crab	220	8.4	43	15.5
Calappa sulcata	yellow box crab	186	36.5	67	24.1
Anasimus latus	stilt spider crab	126	1.3	26	9.4
Parapenaeus politus	deepwater rose shrimp	80	.3	6	2.2
Libinia emarginata	portly spider crab	61	17.6	28	10.1
Arenaeus cribrarius	speckled swimming crab	60	.8	5	1.8
Porcellana sayana	spotted porcelain crab	44	.0	6	2.2
Hepatus epheliticus	calico crab	41	4.5	19	6.8
Raninoides louisianensis	gulf frog crab	25	.3	12	4.3
Callinectes sapidus	blue crab	23	2.7	10	3.6
Paguristes triangulatus	hermit crab	21	.0	3	1.1
Xiphopenaeus kroyeri	seabob	19	.1	4	1.4
Pagurus bullisi	hermit crab	17	.2	5	1.8
Petrochirus diogenes	giant hermit crab	12	1.2	7	2.5
Parthenope granulata	bladetooth elbow crab	11	.0	5	1.8
Persephona mediterranea	mottled purse crab	9	.0	4	1.4
Sicyonia burkenroadi	spiny rock shrimp	8	.0	2	.7
Persephona crinita	pink purse crab	8	.0	5	1.8
Stenorhynchus seticornis	yellowline arrow crab	8	.0	2	.7
Ovalipes floridanus	Florida lady crab	7	.0	4	1.4
Porcellana sigsbeiana	striped porcelain crab	7	.0	3	1.1
Sicyonia typica	kinglet rock shrimp	6	.0	2	.7
Squilla neglecta	mantis shrimp	5	.0	2	.7
Plesionika tenuipes	pandalidae shrimp	5	.0	1	.4

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
Solenocera atlantidis	dwarf humpback shrimp	5	.0	2	.7
Myropsis quinquespinosa	fivespine purse crab	5	.0	3	1.1
Libinia dubia	longnose spider crab	5	1.4	3	1.1
Podochela sidneyi	shortfinger neck crab	5	.0	3	1.1
Calappa flammea	flame box crab	5	.6	2	.7
Speocarcinus spp.	squareback crabs	5	.0	3	1.1
Metapenaeopsis goodei	velvet shrimp	4	.0	2	.7
Stenocionops furcata	furcate crab	4	.1	3	1.1
Pagurus impressus	dimpled hermit	3	.0	1	.4
Phimochirus holthuisi	red-striped hermit crab	3	.0	1	.4
Menippe adina	Gulf stone crab	3	.0	1	.4
Galathea rostrata	squat lobster	3	.0	1	.4
Stenocionops coelata	spider crab	3	.0	1	.4
Dyspanopeus texana	gulf grassflat crab	2	.0	1	.4
Menippe spp.	stone crabs	2	.0	1	.4
Menippe mercenaria	Florida stone crab	2	.0	1	.4
Scyllarus chacei	chace slipper lobster	2	.0	2	.7
Stenocionops spinosissimus	tenspine spider crab	2	.9	1	.4
Metoporhaphis calcarata	false arrow crab	2	.0	1	.4
Raninoides loevis	furrowed frog crab	2	.0	1	.4
Euphrosynoplax clausa	craggy bathyal crab	2	.0	2	.7
Lysiosquilla scabricauda	mantis shrimp	1	.1	1	.4
Lysmata wurdemanni	peppermint shrimp	1	.0	1	.4
Plesionika longicauda	pandalid shrimp	1	.0	1	.4
Stenopus scutellatus	golden coral shrimp	1	.0	1	.4
Paguridae	right-handed hermit crabs	1	.0	1	.4
Scyllarides nodifer	ridged slipper lobster	1	.4	1	.4
Collodes robustus	spider crab	1	.0	1	.4
Stenocionops spinimanus	prickly spider crab	1	.3	1	.4
Dardanus insignis	red brocade hermit	1	.0	1	.4
Paguristes	hermit crabs	1	.0	1	.4
Others					
Aurelia aurita	moon jellyfish	15234	4236.2	135	48.6
Amusium papyraceum	paper scallop	2713	24.7	58	20.9
Loligo pleii	arrow squid	2165	14.4	96	34.5
Astropecten duplicatus	spiny beaded sea star	1395	2.0	47	16.9
Chrysaora quinquecirrha	sea nettle	1341	34.1	28	10.1

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
Ophiolepis elegans	brittle star	702	.8	21	7.6
Lolliguncula brevis	Atlantic brief squid	533	4.9	42	15.1
Loligo pealeii	longfin squid	504	21.3	65	23.4
Luidia clathrata	sea star	501	3.8	37	13.3
Renilla mulleri	short-stemmed sea pansy	390	1.2	18	6.5
Astropecten cingulatus	starfish	196	2.5	30	10.8
Loligo spp.	squids	138	1.5	14	5.0
Anthozoa	anthozoans	52	.4	12	4.3
Polystira albida	white giant turris	33	.3	7	2.5
Mellita quinquiesperforata	five-slotted sand dollar	32	.3	4	1.4
Pitar cordatus	Schwengel's pitar	29	.6	9	3.2
Anadara baughmani	Baughman's ark	27	.3	7	2.5
Tamoya haplonema	sea wasp	19	3.1	7	2.5
Clypeaster ravenelii	cake urchin	18	2.1	5	1.8
Astropecten americanus	starfish	17	.2	2	.7
Tethyaster grandis	starfish	11	.7	7	2.5
Astropecten articulatus	plated-margined sea star	9	.0	5	1.8
Luidia alternata	banded luidia	9	.0	3	1.1
Asteroporpa annulata	starfish	9	.1	4	1.4
Porifera	sponges	6	3.9	2	.7
Clypeaster prostratus	sea biscuit	6	.5	3	1.1
Conus austini	cone shell	5	.1	3	1.1
Crucibulum auricula	West Indian cup-and-saucer	4	.0	1	.4
Scaphella dubia	dubious volute	4	.1	2	.7
Cantharus cancellarius	cancellate cantharus	3	.0	2	.7
Atrina serrata	sawtooth penshell	3	.5	1	.4
Pecten raveneli	Ravenel's scallop	3	.0	1	.4
Dinocardium robustum	Atlantic giant-cockle	3	.6	1	.4
Octopus vulgaris	common Atlantic octopus	3	.4	3	1.1
Echinaster spp.	thorny sea stars	3	.0	3	1.1
Brissopsis atlantica	heart urchin	3	.3	1	.4
Sconsia striata	royal bonnet	2	.0	1	.4
Distorsio clathrata	Atlantic distorsio	2	.0	2	.7
Muricanthus fulvescens	giant eastern murex	2	.0	2	.7
Polystira tellea	delicate giant turret	2	.0	2	.7
Anadara ovalis	blood ark	2	.0	1	.4
Nematoda	roundworms	2	.0	1	.4
Neverita duplicata	shark eye	1	.0	1	.4
Thais haemastoma	rocksnail	1	.0	1	.4

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
Phyllonotus pomum	apple murex	1	.0	1	.4
Busycon contrarium	lightning whelk	1	.8	1	.4
Fasciolaria lilium	banded tulip	1	.1	1	.4
Eucrassatella speciosa	beautiful crassatella	1	.0	1	.4
Chiropsalmus quadrumanus	jellyfish	1	4.2	1	.4
Sipunculidae	unsegmented worms	1	.0	1	.4
Arbacia punctulata	purple sea-urchin	1	.0	1	.4

Table 26. 1995 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	559	3.7	36	45.0
Cynoscion arenarius	sand seatrout	363	7.4	42	52.5
Selene setapinnis	Atlantic moonfish	350	1.5	26	32.5
Cynoscion nothus	silver seatrout	349	2.7	31	38.8
Stellifer lanceolatus	star drum	199	2.6	33	41.3
Peprilus alepidotus	harvestfish	189	1.1	41	51.3
Peprilus burti	gulf butterfish	76	.6	22	27.5
Symphurus plagiusa	blackcheek tonguefish	74	1.4	29	36.3
Syacium gunteri	shoal flounder	67	1.0	18	22.5
Sphoeroides parvus	least puffer	53	.1	22	27.5
Selene vomer	lookdown	50	.1	22	27.5
Arius felis	hardhead catfish	48	1.1	9	11.3
Chaetodipterus faber	Atlantic spadefish	38	.4	21	26.3
Trichiurus lepturus	Atlantic cutlassfish	37	.3	15	18.8
Micropogonias undulatus	Atlantic croaker	31	.5	12	15.0
Etropus crossotus	fringed flounder	21	.2	12	15.0
Orthopristis chrysoptera	pigfish	19	.8	14	17.5
Menticirrhus americanus	southern kingfish	16	1.1	15	18.8
Harengula jaguana	scaled sardine	15	.3	6	7.5
Anchoa mitchilli	bay anchovy	15	.0	8	10.0
Lagodon rhomboides	pinfish	15	.5	13	16.3
Larimus fasciatus	banded drum	13	.3	8	10.0
Citharichthys spilopterus	bay whiff	13	.3	8	10.0
Lutjanus campechanus	red snapper	9	.1	3	3.8
Porichthys plectrodon	Atlantic midshipman	8	.2	7	8.8
Leiostomus xanthurus	spot	7	.6	5	6.3
Dorosoma petenense	threadfin shad	6	.1	4	5.0
Menticirrhus littoralis	gulf kingfish	5	.5	2	2.5
Prionotus tribulus	bighead searobin	4	.2	4	5.0
Narcine brasiliensis	lesser electric ray	3	.6	2	2.5
Hemicaranx amblyrhynchus	bluntnose jack	3	.0	3	3.8
Eucinostomus argenteus	spotfin mojarra	3	.0	3	3.8
Brevoortia patronus	gulf menhaden	2	.1	1	1.3
Etrumeus teres	round herring	2	.1	2	2.5
Anchoa hepsetus	striped anchovy	2	.0	2	2.5
Menidia beryllina	inland silverside	2	.0	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
Finfishes					
Prionotus rubio	blackwing searobin	2	.1	2	2.5
Centropristis philadelphica	rock sea bass	2	.0	2	2.5
Archosargus probatocephalus	sheepshead	2	6.6	2	2.5
Lagocephalus laevigatus	smooth puffer	2	.0	2	2.5
Halieutichthys aculeatus	pancake batfish	2	.0	1	1.3
Dasyatis sabina	Atlantic stingray	1	1.0	1	1.3
Urophycis floridana	southern hake	1	.0	1	1.3
Scomberomorus maculatus	Spanish mackerel	1	.0	1	1.3
Gobiidae	gobies	1	.0	1	1.3
Ophidion welshi	crested cusk-eel	1	.0	1	1.3
Trinectes maculatus	hogchoker	1	.0	1	1.3
Ogcocephalus radiatus	polka-dot batfish	1	.0	1	1.3
Crustaceans					
Penaeus setiferus	white shrimp	666	6.0	60	75.0
Portunus gibbesii	irridescent swimming crab	485	1.4	68	85.0
Trachypenaeus similis	roughback shrimp	338	.6	24	30.0
Squilla empusa	mantis shrimp	245	1.5	31	38.8
Callinectes similis	lesser blue crab	120	.2	32	40.0
Sicyonia dorsalis	lesser rock shrimp	56	.0	13	16.3
Callinectes sapidus	blue crab	36	.4	3	3.8
Penaeus duorarum	pink shrimp	23	.2	8	10.0
Trachypenaeus constrictus	roughneck shrimp	22	.0	10	12.5
Persephona crinita	pink purse crab	17	.0	15	18.8
Xiphopenaeus kroyeri	seabob	14	.0	4	5.0
Pagurus pollicaris	flatclaw hermit crab	13	.3	10	12.5
Arenaeus cribrarius	speckled swimming crab	10	.0	3	3.8
Calappa sulcata	yellow box crab	6	1.5	6	7.5
Libinia dubia	longnose spider crab	5	.0	5	6.3
Persephona mediterranea	mottled purse crab	4	.0	2	2.5
Libinia emarginata	portly spider crab	3	.0	1	1.3
Penaeus aztecus	brown shrimp	2	.0	2	2.5
Hepatus epheliticus	calico crab	2	.1	2	2.5
Squilla neglecta	mantis shrimp	1	.0	1	1.3
Synalpheus fritzmuelleri	speckled snapping shrimp	1	.0	1	1.3
Xanthidae	mud crabs	1	.0	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
Portunus spinimanus	blotched swimming crab	1	.0	1	1.3
Pelia mutica	cryptic teardrop crab	1	.0	1	1.3
Calappa flammea	flame box crab	1	.2	1	1.3
Aurelia aurita	moon jellyfish	811	310.7	22	27.5
Renilla mulleri	short-stemmed sea pansy	638	1.2	22	27.5
Chrysaora quinquecirrha	sea nettle	431	97.0	22	27.5
Lolliguncula brevis	Atlantic brief squid	274	2.6	54	67.5
Asteroidea	starfishes	140	.2	12	15.0
Aurelia spp.	jellyfishes	49	19.3	6	7.5
Luidia clathrata	sea star	31	.3	14	17.5
Cantharus cancellarius	cancellate cantharus	26	.0	9	11.3
Stomolophus meleagris	many-mouthed sea jelly	23	10.3	6	7.5
Ctenophora	comb jellies	15	1.0	3	3.8
Dactylometra quinquecirrha	compass jellyfish	10	1.0	2	2.5
Neverita duplicata	shark eye	9	.0	6	7.5
Mellita quinquiesperforata	five-slotted sand dollar	8	.0	3	3.8
Actinidae	sea anemones	6	.0	4	5.0
Algae	algae	6	.3	6	7.5
Thais haemastoma	rocksnail	5	.1	4	5.0
Sargassaceae	sargassum	4	.0	4	5.0
Busycotypus spiratus	pearwhelk	2	.1	1	1.3
Busycon sinistrum	lightning whelk	2	.2	2	2.5
Loligo pealeii	longfin squid	2	.0	1	1.3
Strombus alatus	Florida fighting conch	1	.0	1	1.3
Anadara ovalis	blood ark	1	.0	1	1.3
Others					
Loligo pleii	arrow squid	1	.1	1	1.3
Molgula manhattensis	seasquirt	1	.0	1	1.3
Gorgonidae	gorgonians	1	.0	1	1.3
Ophiura spp.	brittle stars	1	.0	1	1.3

Table 27a
Statistical Zone 11
40-ft trawls

Summary of dominant organisms taken in statistical zone 11 during the 1995 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	6	.0	.00	.0	.00	10	11.2	10.89	.1	.09	20
Trachypenaeus similis	4.5	4.50	.0	.00	6	334.2	280.97	.8	.74	10	4.3	2.35	.0	.01	20
Penaeus aztecus	7.1	4.75	.1	.09	6	13.1	9.06	.2	.13	10	32.7	13.12	.9	.37	20
Sicyonia brevirostris	.0	.00	.0	.00	6	.4	.38	.0	.00	10	3.8	2.29	.0	.03	20
Penaeus duorarum	8.1	5.40	.1	.06	6	7.3	3.35	.1	.08	10	36.1	15.90	.6	.25	20
Trachypenaeus constrictus	32.9	30.68	.0	.05	6	.0	.00	.0	.00	10	44.8	22.49	.1	.04	20
Leiostomus xanthurus	1.0	1.00	.0	.00	6	.4	.43	.0	.02	10	3.7	1.69	.4	.17	20
Micropogonias undulatus	2.3	1.56	.1	.05	6	15.1	6.67	.8	.38	10	21.1	8.12	1.3	.49	20
Stenotomus caprinus	.0	.00	.0	.00	6	7.0	4.95	.1	.08	10	259.8	68.14	6.1	1.52	20
Chloroscombrus chrysurus	16.5	12.53	.1	.09	6	586.6	517.11	7.1	6.22	10	68.1	32.75	2.5	1.24	20
Arius felis	137.6	91.63	29.4	19.06	6	252.0	105.00	57.0	25.37	10	193.8	137.89	47.4	34.71	20
Lagodon rhomboides	2.5	2.50	.1	.08	6	.9	.64	.1	.05	10	8.5	2.69	.4	.11	20
Synodus foetens	.0	.00	.0	.00	6	22.9	10.23	1.4	.82	10	30.6	6.73	2.8	.55	20
Cynoscion arenarius	20.5	20.50	.3	.25	6	109.6	73.24	.8	.59	10	1.1	.62	.2	.08	20
Squid	58.2	44.92	.3	.21	6	149.0	73.81	.8	.39	10	10.7	4.11	.1	.05	20

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

Summary of dominant organisms taken in statistical zone 11 during the 1995 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	25.3	18.66	.2	.17	5	827.5	738.92	7.2	6.30	6	282.4	193.53	2.2	1.38	4
Trachypenaeus similis	25.8	22.24	.1	.05	5	.6	.61	.0	.00	6	.0	.00	.0	.00	4
Penaeus aztecus	38.9	26.55	.5	.23	5	82.5	45.12	3.5	1.90	6	42.3	11.50	2.1	.89	4
Sicyonia brevirostris	39.3	39.09	.7	.71	5	89.8	44.68	1.7	.76	6	76.3	64.50	1.6	1.47	4
Penaeus duorarum	1.1	1.14	.0	.03	5	.9	.66	.0	.03	6	.0	.00	.0	.00	4
Trachypenaeus constrictus	.0	.00	.0	.00	5	.0	.00	.0	.00	6	.0	.00	.0	.00	4
Leiostomus xanthurus	6.5	4.50	.6	.47	5	9122.5	9078.59	969.0	964.20	6	11.8	6.28	1.3	.51	4
Micropogonias undulatus	13.3	7.85	.7	.42	5	3581.8	3507.38	236.8	231.60	6	23.8	11.38	2.1	1.11	4
Stenotomus caprinus	147.1	97.38	4.6	3.13	5	253.0	72.61	9.3	2.40	6	312.3	133.19	18.9	7.81	4
Chloroscombrus chrysurus	.0	.00	.0	.00	5	.0	.00	.0	.00	6	.0	.00	.0	.00	4
Arius felis	.0	.00	.0	.00	5	.0	.00	.0	.00	6	.0	.00	.0	.00	4
Lagodon rhomboides	14.8	7.30	.8	.39	5	369.4	292.31	22.3	16.82	6	18.5	12.03	1.9	1.39	4
Synodus foetens	11.2	4.85	1.0	.42	5	142.1	87.24	12.2	7.22	6	59.9	22.10	7.1	3.02	4
Cynoscion arenarius	10.5	6.98	1.1	.69	5	81.9	79.63	13.2	12.76	6	128.3	44.87	20.2	6.79	4
Squid	.6	.57	.0	.00	5	2.8	2.01	.0	.00	6	5.8	3.61	.0	.05	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 1995 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	125.4	95.47	6	82.9	25.50	10	110.5	45.59	20	22.0	6.64	5	1288.5	1243.99	6	119.8	23.82	4
Total finfish kg	41.6	23.23	6	76.8	26.53	10	70.3	35.36	20	18.3	5.93	5	1272.8	1236.81	6	111.7	25.21	4
Total crustacean kg	1.4	.86	6	1.6	.75	10	2.3	.72	20	3.3	1.24	5	12.7	8.28	6	7.7	2.20	4
Total others kg	82.4	77.93	6	4.4	2.23	10	37.9	29.54	20	.9	.91	5	2.9	2.18	6	.2	.24	4
Surface temperature	20.0	1.33	6	20.0	.68	9	21.8	.32	22	20.5	.23	3	23.2	.32	5	23.8	.31	6
Midwater temperature	20.4	1.25	6	20.5	.50	9	22.1	.27	22	23.0	.30	3	23.1	.33	5	23.5	.35	6
Bottom temperature	20.7	1.17	6	21.1	.41	9	22.2	.26	22	23.6	.10	3	22.4	.45	5	21.1	.83	6
Surface salinity	29.9	1.92	6	30.9	.91	9	34.7	.26	22	33.0	.75	3	36.1	.08	5	36.2	.09	6
Midwater salinity	32.3	.34	6	33.3	.29	9	35.2	.08	22	35.1	.49	3	36.1	.07	5	36.2	.10	6
Bottom salinity	32.8	.41	6	34.1	.29	9	35.3	.09	22	36.2	.03	3	36.1	.11	5	36.3	.12	6
Surface chlorophyll	.8	.23	5	1.1	.16	5	.4	.05	14	.0	.00	0	.0	.00	0	.2	.05	2
Surface fluorescence	.0	.00	0	.0	.00	0	1.1	.15	7	1.9	.38	3	.8	.11	5	1.1	.11	4
Surface oxygen	7.6	.37	6	7.3	.18	9	6.4	.16	22	6.0	.28	3	5.7	.22	5	5.5	.19	6
Midwater oxygen	7.3	.26	6	6.8	.14	9	6.5	.24	22	6.4	1.33	3	6.1	.65	5	5.5	.20	6
Bottom oxygen	6.7	.65	6	6.0	.30	9	6.2	.20	22	6.7	1.94	3	7.1	1.15	5	4.7	.38	6

Table 28a
Statistical Zone 13
40-ft trawls

Summary of dominant organisms taken in statistical zone 13 during the 1995 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 between 21-40 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
Penaeus setiferus	.0	.00	.0	.00	0	276.0	246.00	4.4	3.62	2	114.5	32.11	2.6	.63	11
Penaeus aztecus	.0	.00	.0	.00	0	15.4	1.44	.1	.04	2	154.2	100.85	1.7	1.09	11
Solenocera vioscai	.0	.00	.0	.00	0	.0	.00	.0	.00	2	.0	.00	.0	.00	11
Portunus spinicarpus	.0	.00	.0	.00	0	.0	.00	.0	.00	2	.6	.39	.0	.00	11
Trachypenaeus similis	.0	.00	.0	.00	0	20.0	20.00	.1	.09	2	147.3	92.30	.4	.27	11
Callinectes similis	.0	.00	.0	.00	0	21.4	2.63	.5	.29	2	109.5	78.64	1.7	1.20	11
Micropogonias undulatus	.0	.00	.0	.00	0	186.0	186.00	12.1	12.14	2	101.4	38.15	5.5	1.85	11
Brevoortia patronus	.0	.00	.0	.00	0	.9	.94	.2	.17	2	241.7	239.29	.7	.72	11
Lagodon rhomboides	.0	.00	.0	.00	0	96.4	17.63	4.5	.54	2	111.9	36.62	6.1	1.97	11
Leiostomus xanthurus	.0	.00	.0	.00	0	34.0	34.00	1.9	1.91	2	102.0	33.13	8.7	2.93	11
Sphoeroides parvus	.0	.00	.0	.00	0	58.8	21.25	.3	.05	2	65.4	31.15	.3	.16	11
Anchoa nasuta	.0	.00	.0	.00	0	.0	.00	.0	.00	2	117.5	107.07	.2	.16	11
Trichiurus lepturus	.0	.00	.0	.00	0	.0	.00	.0	.00	2	98.8	60.48	3.0	2.19	11
Cynoscion spp.	.0	.00	.0	.00	0	12.9	9.13	.1	.05	2	65.0	33.75	.4	.24	11
Squid	.0	.00	.0	.00	0	64.3	48.25	.8	.15	2	41.1	16.04	.4	.16	11

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

Summary of dominant organisms taken in statistical zone 13 during the 1995 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 between 21-40 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
Penaeus setiferus	.0	.00	.0	.00	0	.0	.00	.0	.00	0	.0	.00	.0	.00	2
Penaeus aztecus	.0	.00	.0	.00	0	.0	.00	.0	.00	0	97.4	23.58	3.0	.71	2
Solenocera vioscai	.0	.00	.0	.00	0	.0	.00	.0	.00	0	484.4	129.42	3.8	1.20	2
Portunus spinicarpus	.0	.00	.0	.00	0	.0	.00	.0	.00	0	348.4	25.42	3.9	.33	2
Trachypenaeus similis	.0	.00	.0	.00	0	.0	.00	.0	.00	0	6.9	6.92	.0	.00	2
Callinectes similis	.0	.00	.0	.00	0	.0	.00	.0	.00	0	17.4	3.58	.2	.03	2
Micropogonias undulatus	.0	.00	.0	.00	0	.0	.00	.0	.00	0	.0	.00	.0	.00	2
Brevoortia patronus	.0	.00	.0	.00	0	.0	.00	.0	.00	0	.0	.00	.0	.00	2
Lagodon rhomboides	.0	.00	.0	.00	0	.0	.00	.0	.00	0	1.5	1.50	.1	.14	2
Leiostomus xanthurus	.0	.00	.0	.00	0	.0	.00	.0	.00	0	25.0	25.00	2.9	2.93	2
Sphoeroides parvus	.0	.00	.0	.00	0	.0	.00	.0	.00	0	.0	.00	.0	.00	2
Anchoa nasuta	.0	.00	.0	.00	0	.0	.00	.0	.00	0	.0	.00	.0	.00	2
Trichiurus lepturus	.0	.00	.0	.00	0	.0	.00	.0	.00	0	.0	.00	.0	.00	2
Cynoscion spp.	.0	.00	.0	.00	0	.0	.00	.0	.00	0	.0	.00	.0	.00	2
Squid	.0	.00	.0	.00	0	.0	.00	.0	.00	0	1.5	1.50	.0	.00	2

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 1995 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 between 21-40 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	.0	.00	0	50.2	28.89	2	46.4	8.14	11	.0	.00	0	.0	.00	0	50.7	14.34	2
Total finfish kg	.0	.00	0	31.3	15.09	2	39.1	7.66	11	.0	.00	0	.0	.00	0	36.4	11.85	2
Total crustacean kg	.0	.00	0	5.4	3.69	2	6.7	2.02	11	.0	.00	0	.0	.00	0	13.3	1.43	2
Total others kg	.0	.00	0	13.1	10.54	2	.6	.30	11	.0	.00	0	.0	.00	0	2.1	2.10	2
Surface temperature	.0	.00	0	25.7	1.40	5	24.1	.91	8	22.9	.00	1	.0	.00	0	23.4	.00	1
Midwater temperature	.0	.00	0	25.9	1.48	5	24.3	.86	8	23.4	.00	1	.0	.00	0	24.0	.00	1
Bottom temperature	.0	.00	0	27.0	1.32	5	25.2	.78	8	24.8	.00	1	.0	.00	0	20.2	.00	1
Surface salinity	.0	.00	0	30.8	.92	5	32.6	.51	8	33.5	.00	1	.0	.00	0	35.4	.00	1
Midwater salinity	.0	.00	0	31.3	.67	5	32.8	.59	8	34.4	.00	1	.0	.00	0	35.9	.00	1
Bottom salinity	.0	.00	0	34.1	.18	5	34.1	.53	8	35.6	.00	1	.0	.00	0	36.4	.00	1
Surface chlorophyll	.0	.00	0	2.2	.05	3	2.8	.17	2	.0	.00	0	.0	.00	0	.0	.00	0
Surface fluorescence	.0	.00	0	2.3	.15	2	2.3	.25	6	2.7	.00	1	.0	.00	0	1.8	.00	1
Surface oxygen	.0	.00	0	6.3	.36	5	5.6	.19	8	5.5	.00	1	.0	.00	0	5.3	.00	1
Midwater oxygen	.0	.00	0	6.0	.18	5	5.5	.22	8	5.3	.00	1	.0	.00	0	5.1	.00	1
Bottom oxygen	.0	.00	0	3.7	.60	5	4.6	.28	8	3.5	.00	1	.0	.00	0	3.4	.00	1

Table 29a
Statistical Zone 14
40-ft trawls

Summary of dominant organisms taken in statistical zone 14 during the 1995 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
Penaeus aztecus	.0	.00	.0	.00	0	23.4	14.22	.4	.25	10	41.2	14.34	.8	.39	12
Penaeus setiferus	.0	.00	.0	.00	0	51.4	29.57	1.2	.69	10	13.3	5.89	.6	.23	12
Callinectes similis	.0	.00	.0	.00	0	3.9	3.50	.0	.04	10	17.4	6.40	.7	.27	12
Squilla spp.	.0	.00	.0	.00	0	8.5	4.42	.1	.07	10	4.2	3.25	.1	.04	12
Portunus spinicarpus	.0	.00	.0	.00	0	.0	.00	.0	.00	10	.0	.00	.0	.00	12
Penaeus duorarum	.0	.00	.0	.00	0	12.4	7.93	.3	.22	10	6.7	3.67	.2	.12	12
Micropogonias undulatus	.0	.00	.0	.00	0	1840.2	1267.01	105.5	73.15	10	1180.1	456.50	81.9	32.26	12
Arius felis	.0	.00	.0	.00	0	1730.5	1125.38	248.7	183.52	10	1.0	1.00	.3	.32	12
Chloroscombrus chrysurus	.0	.00	.0	.00	0	654.3	535.23	27.3	22.50	10	7.3	5.44	.6	.49	12
Stenotomus caprinus	.0	.00	.0	.00	0	183.3	130.97	4.3	3.06	10	345.5	141.30	8.1	3.40	12
Anchoa nasuta	.0	.00	.0	.00	0	.0	.00	.0	.00	10	569.3	376.10	1.3	.82	12
Cynoscion nothus	.0	.00	.0	.00	0	7.6	3.69	.6	.30	10	344.7	150.22	37.7	16.28	12
Leiostomus xanthurus	.0	.00	.0	.00	0	28.3	14.56	2.7	1.47	10	29.8	11.21	3.1	1.10	12
Cynoscion arenarius	.0	.00	.0	.00	0	168.9	154.38	15.3	13.72	10	39.1	14.09	7.8	3.24	12
Squid	.0	.00	.0	.00	0	18.9	7.21	.2	.10	10	14.6	6.25	.1	.03	12

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

Summary of dominant organisms taken in statistical zone 14 during the 1995 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
Penaeus aztecus	242.5	17.42	6.8	.53	3	120.5	54.29	5.3	.72	2	50.7	27.88	2.0	1.16	3
Penaeus setiferus	.0	.00	.0	.00	3	.0	.00	.0	.00	2	.0	.00	.0	.00	3
Callinectes similis	64.3	11.80	1.6	.30	3	.0	.00	.0	.00	2	.0	.00	.0	.00	3
Squilla spp.	22.4	9.42	.3	.13	3	26.0	15.70	.2	.07	2	.7	.71	.0	.03	3
Portunus spinicarpus	.0	.00	.0	.00	3	54.9	15.56	.4	.10	2	25.9	1.95	.3	.06	3
Penaeus duorarum	.0	.00	.0	.00	3	.0	.00	.0	.00	2	.0	.00	.0	.00	3
Micropogonias undulatus	397.3	206.98	29.1	13.59	3	10.9	5.67	1.7	.59	2	2.9	1.89	.3	.13	3
Arius felis	.0	.00	.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	149.6	32.00	5.4	1.47	3	223.3	14.62	12.1	3.87	2	170.0	8.95	11.4	.27	3
Anchoa nasuta	.0	.00	.0	.00	3	.0	.00	.0	.00	2	.0	.00	.0	.00	3
Cynoscion nothus	12.1	2.14	1.4	.18	3	.0	.00	.0	.00	2	.0	.00	.0	.00	3
Leiostomus xanthurus	95.1	33.81	9.7	3.52	3	21.7	21.72	2.2	2.21	2	282.9	281.79	32.6	32.47	3
Cynoscion arenarius	10.8	6.49	1.1	.65	3	8.3	2.11	1.6	.50	2	4.6	1.00	.8	.32	3
Squid	3.5	.93	.2	.10	3	21.7	21.72	.8	.85	2	32.2	19.91	.4	.20	3

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 1995 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	508.4	190.31	10	176.6	39.72	12	108.8	24.12	3	64.2	2.56	2	99.4	33.63	3
Total finfish kg	.0	.00	0	425.6	194.10	10	172.4	39.46	12	68.7	21.02	3	55.8	2.47	2	87.5	27.41	3
Total crustacean kg	.0	.00	0	2.1	.88	10	3.1	.73	12	9.0	.40	3	6.4	.74	2	3.5	1.44	3
Total others kg	.0	.00	0	80.2	65.60	10	.6	.43	12	31.3	29.41	3	2.5	1.29	2	9.0	5.27	3
Surface temperature	23.7	4.20	2	24.5	1.21	9	26.8	.77	13	25.7	1.57	3	24.0	.00	1	24.4	.12	4
Midwater temperature	23.7	4.20	2	24.5	1.21	9	27.1	.82	13	25.7	1.66	3	24.0	.00	1	24.4	.11	4
Bottom temperature	23.7	4.20	2	24.6	1.25	9	27.0	.80	13	24.9	.95	3	22.6	.00	1	20.2	.64	4
Surface salinity	31.0	.99	2	32.0	.65	9	33.0	.36	14	35.3	.70	3	36.0	.00	1	36.1	.05	4
Midwater salinity	31.0	.98	2	32.0	.65	9	34.0	.32	14	35.5	.47	3	36.1	.00	1	36.1	.04	4
Bottom salinity	31.0	.96	2	32.4	.60	9	34.9	.31	14	36.1	.10	3	36.7	.00	1	36.4	.01	4
Surface chlorophyll	1.4	.00	1	1.9	.74	4	1.3	.19	9	.6	.00	1	.0	.00	0	.0	.00	0
Surface fluorescence	3.5	.00	1	3.1	.28	5	1.4	.13	5	1.2	.10	2	1.0	.00	1	.9	.07	4
Surface oxygen	6.3	.45	2	5.9	.33	9	6.5	.26	14	5.9	.46	3	5.1	.00	1	5.1	.09	4
Midwater oxygen	6.3	.20	2	6.0	.19	9	6.1	.21	14	6.0	.43	3	5.1	.00	1	5.8	.85	4
Bottom oxygen	6.4	.20	2	5.8	.17	9	4.7	.29	14	5.2	1.13	3	5.0	.00	1	4.7	1.12	4

Table 30a
Statistical Zone 15
40-ft trawls

Summary of dominant organisms taken in statistical zone 15 during the 1995 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 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
Penaeus aztecus	.0	.00	.0	.00	2	5.5	2.29	.0	.03	5	246.9	75.48	4.7	1.58	14
Callinectes similis	5.0	5.00	.2	.23	2	1.1	1.06	.0	.02	5	55.8	13.77	1.2	.32	14
Penaeus setiferus	.0	.00	.0	.00	2	83.2	66.31	2.2	1.71	5	16.6	6.52	.7	.26	14
Trachypenaeus constrictus	.0	.00	.0	.00	2	1.1	1.06	.0	.00	5	10.5	10.47	.0	.04	14
Squilla spp.	.0	.00	.0	.00	2	2.8	2.82	.0	.03	5	6.3	2.37	.1	.03	14
Trachypenaeus similis	.0	.00	.0	.00	2	.0	.00	.0	.00	5	13.8	7.85	.1	.03	14
Micropogonias undulatus	25.0	25.00	1.5	1.48	2	33.7	22.86	1.8	1.08	5	960.0	326.17	57.5	19.81	14
Stenotomus caprinus	22.5	22.50	.5	.45	2	.3	.31	.0	.00	5	391.0	163.22	8.5	3.59	14
Chloroscombrus chrysurus	65.0	65.00	2.3	2.27	2	842.2	353.55	10.5	4.27	5	8.5	3.38	.4	.18	14
Prionotus longispinosus	10.0	10.00	.7	.68	2	9.4	1.95	.3	.07	5	140.5	29.03	3.8	.81	14
Leiostomus xanthurus	2.5	2.50	.2	.23	2	8.3	6.03	.8	.62	5	59.5	29.30	5.3	2.51	14
Arius felis	17.5	17.50	1.1	1.14	2	346.9	142.43	57.4	28.95	5	2.5	1.94	.8	.56	14
Synodus foetens	.0	.00	.0	.00	2	.0	.00	.0	.00	5	84.2	18.49	10.2	2.18	14
Cynoscion nothus	5.0	5.00	.5	.45	2	3.1	1.62	.2	.13	5	31.1	7.88	2.8	.68	14
Squid	9.5	5.50	.1	.11	2	8.9	6.70	.1	.05	5	42.9	20.16	.6	.19	14

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

Summary of dominant organisms taken in statistical zone 15 during the 1995 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 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
Penaeus aztecus	135.5	76.98	2.9	1.52	6	291.8	197.51	8.3	6.46	2	.0	.00	.0	.00	0
Callinectes similis	48.1	20.72	1.2	.59	6	42.2	21.89	1.0	.58	2	.0	.00	.0	.00	0
Penaeus setiferus	.0	.00	.0	.00	6	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Trachypenaeus constrictus	.0	.00	.0	.00	6	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Squilla spp.	7.5	4.84	.2	.14	6	11.9	11.90	.3	.26	2	.0	.00	.0	.00	0
Trachypenaeus similis	2.3	1.48	.0	.02	6	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Micropogonias undulatus	1177.1	613.72	56.4	23.27	6	44.3	22.91	4.0	1.63	2	.0	.00	.0	.00	0
Stenotomus caprinus	700.4	154.08	28.3	7.42	6	497.3	271.27	15.3	6.26	2	.0	.00	.0	.00	0
Chloroscombrus chrysurus	1.3	.88	.0	.03	6	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Prionotus longispinosus	72.3	11.74	3.1	.77	6	75.6	8.15	3.7	1.13	2	.0	.00	.0	.00	0
Leiostomus xanthurus	110.1	37.73	10.1	3.43	6	221.0	152.44	23.2	15.05	2	.0	.00	.0	.00	0
Arius felis	.0	.00	.0	.00	6	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Synodus foetens	66.7	12.36	7.7	1.52	6	42.4	15.48	5.6	1.32	2	.0	.00	.0	.00	0
Cynoscion nothus	71.4	21.81	6.8	1.83	6	2.1	1.02	.2	.09	2	.0	.00	.0	.00	0
Squid	13.3	6.55	.2	.12	6	5.9	5.89	.3	.27	2	.0	.00	.0	.00	0

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 1995 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 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	11.1	9.32	2	131.9	53.64	5	123.7	19.35	14	159.1	31.62	6	82.0	30.86	2	.0	.00	0
Total finfish kg	11.1	9.32	2	74.6	28.68	5	106.0	20.19	14	152.9	31.34	6	69.7	22.46	2	.0	.00	0
Total crustacean kg	.0	.00	2	2.4	1.83	5	7.7	1.67	14	5.9	2.44	6	10.2	7.24	2	.0	.00	0
Total others kg	.0	.00	2	54.9	53.86	5	10.3	7.10	14	.6	.21	6	2.1	1.16	2	.0	.00	0
Surface temperature	27.9	.13	6	20.2	.00	1	26.2	1.19	8	24.1	.00	1	.0	.00	0	.0	.00	0
Midwater temperature	27.9	.11	6	20.6	.00	1	26.2	1.20	8	24.0	.00	1	.0	.00	0	.0	.00	0
Bottom temperature	27.9	.13	6	20.7	.00	1	26.1	1.11	8	23.9	.00	1	.0	.00	0	.0	.00	0
Surface salinity	30.3	.40	6	33.1	.32	4	34.4	.26	15	35.9	.08	5	36.2	.00	1	.0	.00	0
Midwater salinity	30.6	.28	6	33.2	.35	4	34.5	.27	15	35.8	.15	5	36.2	.00	1	.0	.00	0
Bottom salinity	30.9	.30	6	33.9	.64	4	35.1	.28	15	35.9	.08	5	35.4	.00	1	.0	.00	0
Surface chlorophyll	2.4	.52	6	.0	.00	0	.5	.11	5	.0	.00	0	.0	.00	0	.0	.00	0
Surface fluorescence	.0	.00	0	1.8	.46	4	1.2	.28	10	.7	.26	5	.3	.00	1	.0	.00	0
Surface oxygen	7.5	.27	6	6.6	.42	4	6.5	.15	15	6.4	.32	5	6.2	.00	1	.0	.00	0
Midwater oxygen	7.2	.18	6	6.5	.42	4	6.4	.15	15	6.4	.31	5	6.1	.00	1	.0	.00	0
Bottom oxygen	6.5	.48	6	6.4	.29	4	5.9	.28	15	6.4	.23	5	6.1	.00	1	.0	.00	0

Table 31a
Statistical Zone 16
40-ft trawls

Summary of dominant organisms taken in statistical zone 16 during the 1995 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
Penaeus aztecus	.0	.00	.0	.00	0	62.3	41.56	.7	.52	10	385.2	88.40	5.1	1.28	10
Penaeus setiferus	.0	.00	.0	.00	0	228.4	55.83	5.0	.70	10	19.4	11.95	.8	.47	10
Portunus gibbesii	.0	.00	.0	.00	0	205.4	120.57	.5	.24	10	47.0	25.22	.2	.08	10
Callinectes similis	.0	.00	.0	.00	0	34.9	12.33	.3	.11	10	42.8	10.06	.2	.05	10
Sicyonia brevirostris	.0	.00	.0	.00	0	.0	.00	.0	.00	10	5.7	4.24	.0	.03	10
Squilla spp.	.0	.00	.0	.00	0	17.4	9.18	.1	.04	10	6.5	2.94	.1	.02	10
Stenotomus caprinus	.0	.00	.0	.00	0	365.7	229.84	5.9	3.73	10	779.8	284.38	18.5	6.20	10
Prionotus longispinosus	.0	.00	.0	.00	0	103.6	53.44	2.0	1.04	10	520.8	176.05	10.4	3.56	10
Chloroscombrus chrysurus	.0	.00	.0	.00	0	745.8	436.69	8.9	5.62	10	61.0	49.87	1.4	1.06	10
Arius felis	.0	.00	.0	.00	0	398.3	237.75	16.8	14.10	10	27.8	9.62	7.3	2.57	10
Micropogonias undulatus	.0	.00	.0	.00	0	4.3	1.70	.2	.09	10	124.1	39.64	8.0	2.99	10
Leiostomus xanthurus	.0	.00	.0	.00	0	1.1	.57	.1	.09	10	7.5	2.01	.7	.24	10
Synodus foetens	.0	.00	.0	.00	0	1.6	1.23	.3	.24	10	55.5	8.35	6.7	1.28	10
Peprilus burti	.0	.00	.0	.00	0	61.7	24.84	2.7	1.37	10	42.4	26.88	3.0	1.86	10
Squid	.0	.00	.0	.00	0	11.3	5.18	.3	.10	10	17.5	11.77	.2	.15	10

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

Summary of dominant organisms taken in statistical zone 16 during the 1995 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
Penaeus aztecus	208.7	95.71	4.8	1.96	4	148.5	46.59	4.3	1.25	6	69.4	.00	3.3	.00	1
Penaeus setiferus	.0	.00	.0	.00	4	.0	.00	.0	.00	6	.0	.00	.0	.00	1
Portunus gibbesii	.0	.00	.0	.00	4	.0	.00	.0	.00	6	.0	.00	.0	.00	1
Callinectes similis	86.7	50.47	1.8	1.20	4	29.7	18.01	.7	.49	6	.0	.00	.0	.00	1
Sicyonia brevirostris	30.0	6.69	.4	.09	4	24.0	14.14	.4	.38	6	8.2	.00	.2	.00	1
Squilla spp.	10.0	5.80	.1	.05	4	4.3	2.65	.0	.02	6	40.0	.00	.4	.00	1
Stenotomus caprinus	411.5	152.47	17.3	8.18	4	181.2	29.86	6.9	1.07	6	214.1	.00	8.8	.00	1
Prionotus longispinosus	63.9	6.29	3.2	.39	4	63.5	36.79	2.0	.67	6	8.2	.00	.1	.00	1
Chloroscombrus chrysurus	4.1	3.45	.2	.17	4	.0	.00	.0	.00	6	.0	.00	.0	.00	1
Arius felis	.0	.00	.0	.00	4	.0	.00	.0	.00	6	.0	.00	.0	.00	1
Micropogonias undulatus	191.0	40.47	14.6	2.71	4	30.0	13.13	3.0	1.26	6	.0	.00	.0	.00	1
Leiostomus xanthurus	58.6	22.98	6.1	2.17	4	166.1	148.66	19.6	17.45	6	.0	.00	.0	.00	1
Synodus foetens	69.0	38.24	8.3	5.05	4	77.0	25.23	8.8	3.01	6	60.0	.00	8.0	.00	1
Peprilus burti	89.3	89.35	7.7	7.68	4	16.9	10.02	1.6	.99	6	11.8	.00	1.2	.00	1
Squid	.3	.25	.0	.02	4	12.9	6.10	.5	.18	6	23.5	.00	1.7	.00	1

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 1995 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	276.4	73.72	10	95.6	8.49	10	91.7	25.31	4	65.2	18.40	6	62.0	.00	1
Total finfish kg	.0	.00	0	52.7	16.17	10	76.1	7.43	10	83.5	26.94	4	57.7	18.30	6	55.1	.00	1
Total crustacean kg	.0	.00	0	6.9	.86	10	7.8	1.54	10	8.1	2.60	4	5.8	1.68	6	4.3	.00	1
Total others kg	.0	.00	0	216.9	74.58	10	11.7	4.92	10	.4	.16	4	1.8	.56	6	2.7	.00	1
Surface temperature	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater temperature	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom temperature	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface salinity	.0	.00	0	32.1	1.15	9	34.7	.16	10	35.6	.03	3	36.2	.17	2	36.4	.10	4
Midwater salinity	.0	.00	0	31.9	1.25	8	34.6	.16	10	35.6	.17	3	36.1	.09	2	36.4	.14	4
Bottom salinity	.0	.00	0	32.5	.89	9	34.6	.16	10	35.7	.10	3	36.2	.00	2	36.5	.15	4
Surface chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface fluorescence	.0	.00	0	1.9	.38	9	.8	.10	10	.6	.10	3	.4	.15	2	.2	.11	4
Surface oxygen	.0	.00	0	6.9	.21	9	6.7	.10	10	6.9	.33	3	6.8	.10	2	6.4	.15	4
Midwater oxygen	.0	.00	0	6.9	.24	8	6.6	.08	10	6.6	.23	3	6.6	.35	2	6.3	.11	4
Bottom oxygen	.0	.00	0	6.7	.25	8	6.5	.10	10	6.6	.20	3	6.3	.00	1	4.7	.69	4

Table 32a
Statistical Zone 17
40-ft trawls

Summary of dominant organisms taken in statistical zone 17 during the 1995 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 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
Penaeus aztecus	.0	.00	.0	.00	0	17.3	7.35	.4	.23	4	26.4	13.44	.6	.28	10
Sicyonia brevirostris	.0	.00	.0	.00	0	.0	.00	.0	.00	4	10.5	8.41	.2	.11	10
Portunus spinicarpus	.0	.00	.0	.00	0	.0	.00	.0	.00	4	.0	.00	.0	.00	10
Callinectes similis	.0	.00	.0	.00	0	16.9	7.02	.2	.10	4	12.7	5.99	.3	.17	10
Portunus gibbesii	.0	.00	.0	.00	0	32.6	16.44	.2	.17	4	3.0	2.06	.0	.02	10
Squilla spp.	.0	.00	.0	.00	0	.3	.33	.0	.00	4	7.2	6.27	.1	.05	10
Stenotomus caprinus	.0	.00	.0	.00	0	183.1	170.16	3.4	3.16	4	508.6	93.62	23.1	5.28	10
Prionotus longispinosus	.0	.00	.0	.00	0	181.5	89.34	3.8	1.76	4	79.2	46.46	1.9	.98	10
Micropogonias undulatus	.0	.00	.0	.00	0	3.3	3.25	.3	.30	4	99.8	34.69	7.3	2.46	10
Peprilus burti	.0	.00	.0	.00	0	2.0	2.00	.1	.14	4	100.9	56.25	8.1	4.60	10
Leiostomus xanthurus	.0	.00	.0	.00	0	.8	.75	.1	.14	4	29.3	12.10	3.2	1.42	10
Arius felis	.0	.00	.0	.00	0	262.2	87.39	38.2	10.27	4	21.3	15.27	4.4	2.90	10
Synodus foetens	.0	.00	.0	.00	0	6.6	3.37	.7	.34	4	42.8	12.57	5.1	1.50	10
Trachurus lathami	.0	.00	.0	.00	0	.0	.00	.0	.00	4	50.2	24.31	2.4	1.18	10
Squid	.0	.00	.0	.00	0	.3	.33	.0	.00	4	14.6	6.85	.1	.05	10

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

Summary of dominant organisms taken in statistical zone 17 during the 1995 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 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
Penaeus aztecus	47.7	27.24	1.7	.97	3	75.0	19.29	3.1	.98	4	.0	.00	.0	.00	0
Sicyonia brevirostris	56.0	52.56	.8	.82	3	47.0	20.41	.9	.38	4	.0	.00	.0	.00	0
Portunus spinicarpus	1.0	1.00	.0	.00	3	47.0	28.42	.3	.20	4	.0	.00	.0	.00	0
Callinectes similis	9.9	2.81	.1	.10	3	.0	.00	.0	.00	4	.0	.00	.0	.00	0
Portunus gibbesii	.0	.00	.0	.00	3	.0	.00	.0	.00	4	.0	.00	.0	.00	0
Squilla spp.	.0	.00	.0	.00	3	.3	.31	.0	.00	4	.0	.00	.0	.00	0
Stenotomus caprinus	275.5	99.58	14.9	5.22	3	660.8	343.53	34.5	17.25	4	.0	.00	.0	.00	0
Prionotus longispinosus	5.9	4.50	.5	.32	3	25.8	14.39	2.2	1.47	4	.0	.00	.0	.00	0
Micropogonias undulatus	83.0	23.00	7.5	1.40	3	19.6	14.98	1.6	1.19	4	.0	.00	.0	.00	0
Peprilus burti	75.7	40.39	5.9	3.11	3	14.6	8.88	1.1	.65	4	.0	.00	.0	.00	0
Leiostomus xanthurus	101.4	56.25	11.2	6.29	3	45.1	42.33	5.3	4.95	4	.0	.00	.0	.00	0
Arius felis	.0	.00	.0	.00	3	.0	.00	.0	.00	4	.0	.00	.0	.00	0
Synodus foetens	32.9	1.67	5.7	.54	3	118.4	48.47	12.2	4.21	4	.0	.00	.0	.00	0
Trachurus lathami	54.0	27.15	1.9	.94	3	13.2	7.38	.8	.47	4	.0	.00	.0	.00	0
Squid	.7	.67	.1	.06	3	7.1	5.32	.2	.12	4	.0	.00	.0	.00	0

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 1995 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 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	.0	.00	0	131.9	34.64	4	75.9	13.04	10	84.0	9.44	3	90.3	35.93	4	.0	.00	0
Total finfish kg	.0	.00	0	60.0	10.97	4	70.9	13.05	10	69.7	21.46	3	84.4	36.41	4	.0	.00	0
Total crustacean kg	.0	.00	0	1.1	.43	4	1.6	.59	10	2.7	1.77	3	4.6	.95	4	.0	.00	0
Total others kg	.0	.00	0	71.2	43.35	4	3.5	1.99	10	11.6	11.41	3	1.4	1.06	4	.0	.00	0
Surface temperature	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater temperature	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom temperature	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface salinity	35.1	.24	2	32.2	.38	4	35.3	.21	6	35.9	.15	3	36.1	.06	3	.0	.00	0
Midwater salinity	35.8	.54	2	32.1	.39	4	35.3	.18	6	35.8	.04	3	36.1	.08	3	.0	.00	0
Bottom salinity	35.4	.00	1	32.1	.38	4	35.3	.18	6	35.9	.06	3	36.4	.14	3	.0	.00	0
Surface chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface fluorescence	.4	.18	2	1.6	.22	4	.4	.05	6	.3	.05	3	.2	.04	3	.0	.00	0
Surface oxygen	6.6	.30	2	6.8	.06	4	6.4	.07	6	6.1	.06	3	6.5	.25	3	.0	.00	0
Midwater oxygen	6.6	.25	2	6.7	.06	4	6.4	.07	6	6.1	.18	3	6.4	.25	3	.0	.00	0
Bottom oxygen	6.2	.00	1	6.8	.05	4	6.2	.11	6	6.0	.03	3	5.5	.58	3	.0	.00	0

Table 33a
Statistical Zone 18
40-ft trawls

Summary of dominant organisms taken in statistical zone 18 during the 1995 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	5.4	.36	.2	.02	2	60.3	54.00	.9	.79	3	21.5	18.53	.7	.59	4
Sicyonia brevirostris	.0	.00	.0	.00	2	2.0	2.00	.0	.00	3	.0	.00	.0	.00	4
Callinectes similis	5.7	5.71	.0	.00	2	4.0	4.00	.0	.00	3	11.9	8.48	.1	.05	4
Portunus spinicarpus	.0	.00	.0	.00	2	.0	.00	.0	.00	3	.0	.00	.0	.00	4
Squilla spp.	.0	.00	.0	.00	2	10.9	9.60	.1	.09	3	1.0	1.00	.0	.02	4
Sicyonia dorsalis	.0	.00	.0	.00	2	4.3	4.35	.0	.00	3	7.6	6.52	.0	.02	4
Stenotomus caprinus	.0	.00	.0	.00	2	24.0	24.00	.2	.18	3	514.3	211.06	16.1	5.75	4
Chloroscombrus chrysurus	6.4	3.57	.2	.23	2	76.2	40.53	.4	.22	3	469.3	322.17	6.6	3.55	4
Arius felis	232.9	72.86	43.7	6.67	2	444.7	171.79	95.1	72.14	3	44.6	32.15	10.6	8.06	4
Synodus foetens	.0	.00	.0	.00	2	55.0	52.07	9.3	9.29	3	88.3	36.53	10.0	4.00	4
Micropogonias undulatus	.0	.00	.0	.00	2	.4	.43	.0	.04	3	77.3	35.68	3.8	1.24	4
Serranus atrobranchus	.0	.00	.0	.00	2	.0	.00	.0	.00	3	94.2	93.62	.6	.61	4
Lutjanus campechanus	2.5	2.50	.2	.23	2	37.8	37.18	10.1	10.03	3	78.0	17.11	1.4	.44	4
Upeneus parvus	.0	.00	.0	.00	2	.0	.00	.0	.00	3	102.4	61.18	3.1	2.03	4
Squid	2.5	2.50	.0	.00	2	.4	.43	.0	.00	3	34.6	23.63	.2	.10	4

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

Summary of dominant organisms taken in statistical zone 18 during the 1995 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	63.7	21.68	2.5	.85	7	93.1	10.06	4.0	.18	2	105.0	.00	8.2	.00	1
Sicyonia brevirostris	47.3	24.34	.8	.40	7	46.8	26.19	.9	.45	2	.0	.00	.0	.00	1
Callinectes similis	25.2	10.87	.6	.27	7	.5	.50	.0	.00	2	.0	.00	.0	.00	1
Portunus spinicarpus	1.9	1.95	.0	.01	7	32.1	26.06	.4	.40	2	.0	.00	.0	.00	1
Squilla spp.	4.1	2.83	.1	.05	7	.0	.00	.0	.00	2	10.0	.00	.2	.00	1
Sicyonia dorsalis	.2	.23	.0	.00	7	.0	.00	.0	.00	2	.0	.00	.0	.00	1
Stenotomus caprinus	67.6	12.35	3.2	.69	7	206.5	63.50	9.7	3.82	2	260.0	.00	20.5	.00	1
Chloroscombrus chrysurus	30.7	18.60	1.4	.84	7	.0	.00	.0	.00	2	.0	.00	.0	.00	1
Arius felis	.3	.28	.0	.01	7	.0	.00	.0	.00	2	.0	.00	.0	.00	1
Synodus foetens	30.8	4.37	4.3	.68	7	26.8	6.19	1.8	.19	2	35.0	.00	5.5	.00	1
Micropogonias undulatus	54.2	33.94	4.1	2.48	7	9.9	6.13	1.2	.32	2	.0	.00	.0	.00	1
Serranus atrobranchus	12.6	6.20	.1	.06	7	12.8	5.25	.1	.00	2	35.0	.00	.5	.00	1
Lutjanus campechanus	31.7	6.86	1.0	.17	7	7.3	.25	4.4	4.17	2	.0	.00	.0	.00	1
Upeneus parvus	10.0	4.78	.2	.11	7	1.0	1.00	.1	.09	2	.0	.00	.0	.00	1
Squid	17.3	10.16	.1	.04	7	2.0	2.00	.2	.20	2	.0	.00	.0	.00	1

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 1995 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	66.9	21.43	2	129.7	90.15	3	102.4	46.51	4	42.2	7.30	7	80.3	6.99	2	131.8	.00	1
Total finfish kg	66.9	21.43	2	121.8	93.97	3	99.5	45.34	4	26.2	3.42	7	39.9	25.77	2	118.2	.00	1
Total crustacean kg	.0	.00	2	.9	.91	3	2.5	1.27	4	4.6	1.58	7	5.1	.06	2	9.1	.00	1
Total others kg	.0	.00	2	6.2	3.23	3	.2	.18	4	11.3	4.83	7	35.4	32.81	2	4.5	.00	1
Surface temperature	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	25.1	.00	1
Midwater temperature	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	25.7	.00	1
Bottom temperature	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	18.5	.00	1
Surface salinity	31.4	.00	1	34.0	.76	3	34.8	.80	4	36.1	.07	4	36.2	.00	1	36.1	.00	1
Midwater salinity	31.4	.00	1	33.9	.72	3	34.7	.85	4	36.3	.01	4	36.0	.00	1	36.1	.00	1
Bottom salinity	31.4	.00	1	30.9	3.68	3	34.7	.86	4	36.3	.04	4	36.2	.00	1	36.4	.00	1
Surface chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface fluorescence	2.4	.00	1	.7	.27	3	.7	.24	4	.4	.15	4	.4	.00	1	.4	.15	2
Surface oxygen	6.8	.00	1	6.7	.12	3	6.5	.11	4	6.6	.22	4	5.2	.00	1	6.4	.05	2
Midwater oxygen	6.6	.00	1	6.7	.03	3	6.5	.06	4	6.6	.18	4	5.1	.00	1	6.3	.00	2
Bottom oxygen	6.6	.00	1	6.7	.09	3	6.4	.07	4	6.4	.19	4	4.0	.00	1	4.4	.55	2

Table 34a
Statistical Zone 19
40-ft trawls

Summary of dominant organisms taken in statistical zone 19 during the 1995 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 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
Penaeus aztecus	.0	.00	.0	.00	0	5.8	5.84	.0	.04	7	147.3	53.96	2.6	.89	18
Callinectes similis	.0	.00	.0	.00	0	59.3	53.18	.2	.15	7	55.0	22.56	1.0	.34	18
Penaeus setiferus	.0	.00	.0	.00	0	162.9	39.11	2.6	.56	7	9.3	6.22	.3	.18	18
Portunus gibbesii	.0	.00	.0	.00	0	72.2	27.03	.4	.13	7	26.4	9.96	.2	.06	18
Squilla spp.	.0	.00	.0	.00	0	60.1	21.58	.9	.35	7	27.9	10.94	.3	.12	18
Sicyonia dorsalis	.0	.00	.0	.00	0	2.2	2.24	.0	.00	7	7.6	3.43	.0	.02	18
Chloroscombrus chrysurus	.0	.00	.0	.00	0	58.5	16.80	.5	.15	7	1730.6	578.08	24.1	7.50	18
Micropogonias undulatus	.0	.00	.0	.00	0	35.5	19.21	2.3	1.21	7	101.1	43.25	7.4	3.43	18
Lutjanus campechanus	.0	.00	.0	.00	0	.1	.14	.0	.03	7	89.0	17.10	1.2	.23	18
Stenotomus caprinus	.0	.00	.0	.00	0	.0	.00	.0	.00	7	47.2	29.26	1.0	.66	18
Syacium gunteri	.0	.00	.0	.00	0	4.1	2.32	.1	.05	7	88.0	23.32	1.6	.43	18
Cynoscion arenarius	.0	.00	.0	.00	0	18.8	11.55	1.2	.67	7	16.5	9.40	1.9	.98	18
Peprilus burti	.0	.00	.0	.00	0	6.5	4.25	.5	.37	7	55.5	21.96	3.3	1.21	18
Diplectrum bivittatum	.0	.00	.0	.00	0	.0	.00	.0	.00	7	38.7	14.96	.6	.20	18
Squid	.0	.00	.0	.00	0	5.5	4.17	.0	.00	7	54.4	18.18	.6	.21	18

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

Summary of dominant organisms taken in statistical zone 19 during the 1995 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 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
Penaeus aztecus	33.3	29.86	1.0	.86	3	8.2	5.57	.1	.06	2	.0	.00	.0	.00	0
Callinectes similis	101.6	96.72	2.0	1.86	3	3.2	.57	.0	.03	2	.0	.00	.0	.00	0
Penaeus setiferus	.0	.00	.0	.00	3	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Portunus gibbesii	.0	.00	.0	.00	3	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Squilla spp.	2.7	2.67	.0	.05	3	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Sicyonia dorsalis	89.0	89.00	.3	.27	3	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Chloroscombrus chrysurus	94.7	33.95	3.5	1.21	3	18.6	6.14	1.7	.30	2	.0	.00	.0	.00	0
Micropogonias undulatus	437.3	346.75	33.6	27.19	3	3.2	1.85	.3	.11	2	.0	.00	.0	.00	0
Lutjanus campechanus	49.9	23.14	1.1	.40	3	8.8	6.20	.5	.45	2	.0	.00	.0	.00	0
Stenotomus caprinus	147.1	51.45	5.6	2.60	3	10.8	1.68	.3	.09	2	.0	.00	.0	.00	0
Syacium gunteri	25.3	22.40	.4	.41	3	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Cynoscion arenarius	187.2	179.30	21.2	20.62	3	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Peprilus burti	38.5	9.35	1.8	.41	3	11.7	7.91	.7	.60	2	.0	.00	.0	.00	0
Diplectrum bivittatum	1.3	1.33	.0	.00	3	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Squid	32.6	25.72	.3	.14	3	48.0	6.77	.8	.04	2	.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 1995 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 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	.0	.00	0	161.1	36.87	7	97.3	18.98	18	101.4	59.86	3	22.8	5.71	2	.0	.00	0
Total finfish kg	.0	.00	0	21.5	5.21	7	57.1	12.41	18	97.6	61.20	3	21.6	5.68	2	.0	.00	0
Total crustacean kg	.0	.00	0	4.2	.91	7	5.7	1.46	18	3.9	2.85	3	.3	.30	2	.0	.00	0
Total others kg	.0	.00	0	135.2	37.84	7	34.4	18.94	18	.3	.15	3	.9	.27	2	.0	.00	0
Surface temperature	23.7	.00	1	24.1	.15	6	24.9	.12	14	25.9	.00	1	25.9	.00	2	26.2	.00	2
Midwater temperature	23.5	.00	1	24.1	.13	6	25.1	.15	14	26.1	.00	1	25.9	.00	2	25.7	.50	2
Bottom temperature	24.4	.00	1	24.7	.24	6	25.8	.13	14	26.3	.00	1	25.9	.01	2	21.5	2.75	2
Surface salinity	30.9	3.31	2	28.8	.29	6	31.8	.27	14	35.4	.62	2	35.6	.11	2	35.9	.04	2
Midwater salinity	27.9	.00	1	29.0	.29	6	32.4	.34	14	35.2	.00	1	35.6	.11	2	36.0	.13	2
Bottom salinity	29.0	.00	1	30.5	.50	6	33.7	.32	14	35.4	.00	1	35.8	.07	2	36.3	.08	2
Surface chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface fluorescence	2.0	1.52	2	2.4	.34	6	1.4	.10	14	1.1	.59	2	1.1	.07	2	1.1	.31	2
Surface oxygen	7.3	.00	1	7.6	.18	6	7.3	.12	14	7.2	.00	1	6.9	.10	2	6.4	.05	2
Midwater oxygen	7.3	.00	1	7.7	.17	6	7.4	.07	14	6.9	.00	1	6.8	.10	2	6.4	.45	2
Bottom oxygen	6.7	.00	1	6.8	.41	6	6.8	.10	14	6.7	.00	1	6.6	.05	2	4.6	.35	2

Table 35a
Statistical Zone 20
40-ft trawls

Summary of dominant organisms taken in statistical zone 20 during the 1995 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	6.00	.0	.00	2	13.2	9.18	.3	.28	4	168.3	44.22	2.1	.61	12
Sicyonia dorsalis	.0	.00	.0	.00	2	.0	.00	.0	.00	4	16.2	9.22	.0	.01	12
Portunus gibbesii	375.0	333.00	1.5	1.50	2	233.0	125.06	1.5	.85	4	169.2	44.73	.8	.20	12
Trachypenaeus similis	.0	.00	.0	.00	2	.0	.00	.0	.00	4	226.5	79.33	.6	.18	12
Penaeus aztecus	.0	.00	.0	.00	2	10.8	6.06	.2	.07	4	119.2	27.24	1.8	.37	12
Penaeus setiferus	906.0	18.00	14.2	2.73	2	121.4	25.39	2.9	.88	4	26.0	12.90	.9	.38	12
Chloroscombrus chrysurus	2547.0	2193.00	8.3	7.23	2	1013.4	673.02	6.7	4.48	4	324.7	228.29	4.9	3.25	12
Micropogonias undulatus	.0	.00	.0	.00	2	1.4	1.43	.2	.19	4	193.0	57.86	14.0	4.27	12
Peprilus burti	246.0	228.00	10.4	10.09	2	145.9	134.30	6.5	5.98	4	114.6	61.40	5.8	3.20	12
Syacium gunteri	3.0	3.00	.1	.14	2	16.8	5.90	.3	.20	4	151.8	20.33	2.6	.37	12
Serranus atrobranchus	.0	.00	.0	.00	2	.0	.00	.0	.00	4	.5	.42	.0	.00	12
Pristipomoides aquilonaris	.0	.00	.0	.00	2	.0	.00	.0	.00	4	.0	.00	.0	.00	12
Lutjanus campechanus	.0	.00	.0	.00	2	49.7	11.94	1.8	.90	4	74.8	39.41	1.0	.48	12
Stenotomus caprinus	.0	.00	.0	.00	2	.0	.00	.0	.00	4	4.3	2.96	.1	.06	12
Squid	15.0	3.00	.0	.00	2	13.0	11.90	.1	.10	4	9.7	6.92	.1	.09	12

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

Summary of dominant organisms taken in statistical zone 20 during the 1995 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	244.3	117.91	4.9	2.23	5	274.5	178.61	5.1	3.44	3	1.5	.70	.1	.02	6
Sicyonia dorsalis	268.5	82.78	1.0	.38	5	471.0	447.21	.9	.91	3	2.6	1.35	.0	.00	6
Portunus gibbesii	2.8	2.77	.3	.34	5	9.8	8.62	.1	.04	3	.0	.00	.0	.00	6
Trachypenaeus similis	38.9	25.51	.2	.14	5	13.3	13.33	.0	.05	3	.3	.33	.0	.00	6
Penaeus aztecus	69.9	20.42	2.4	.62	5	58.3	20.18	1.8	.61	3	45.4	15.64	1.9	.78	6
Penaeus setiferus	.0	.00	.0	.00	5	.0	.00	.0	.00	3	.0	.00	.0	.00	6
Chloroscombrus chrysurus	231.1	228.49	4.4	4.35	5	1.5	.75	.2	.14	3	3.9	3.92	.1	.14	6
Micropogonias undulatus	33.0	7.91	2.3	.53	5	25.3	15.68	1.0	.75	3	1.6	1.04	.1	.06	6
Peprilus burti	1.5	1.53	.1	.12	5	102.0	102.04	5.5	5.51	3	17.6	14.41	1.1	.84	6
Syacium gunteri	86.7	28.41	1.9	.57	5	9.0	4.58	.2	.17	3	.4	.43	.0	.01	6
Serranus atrobranchus	117.7	44.77	1.3	.48	5	156.7	73.08	1.7	.77	3	127.6	55.01	2.0	1.05	6
Pristipomoides aquilonaris	1.0	.63	.0	.00	5	12.5	11.52	.5	.46	3	186.7	56.77	16.4	5.49	6
Lutjanus campechanus	57.1	11.23	1.5	.22	5	59.5	32.23	.8	.55	3	8.6	8.18	.9	.58	6
Stenotomus caprinus	55.8	19.16	1.6	.72	5	74.9	67.68	2.4	2.07	3	116.0	42.09	6.1	2.73	6
Squid	27.4	26.68	.4	.35	5	26.5	21.03	.8	.27	3	12.7	5.52	.4	.21	6

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 1995 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	84.5	40.91	2	195.5	90.80	4	65.2	9.58	12	44.7	5.39	5	51.7	10.33	3	63.5	10.81	6
Total finfish kg	42.3	20.45	2	69.4	12.93	4	48.3	10.60	12	28.2	7.10	5	35.6	17.41	3	54.3	11.31	6
Total crustacean kg	16.4	.00	2	7.0	1.73	4	7.3	.95	12	10.7	3.56	5	9.5	4.94	3	3.3	.91	6
Total others kg	24.5	19.09	2	119.0	99.19	4	9.2	4.53	12	6.4	3.80	5	6.4	3.39	3	6.3	5.20	6
Surface temperature	.0	.00	0	24.8	.22	6	25.8	.09	10	25.8	.20	4	26.9	.22	4	26.9	.09	3
Midwater temperature	.0	.00	0	24.7	.18	6	25.9	.06	10	26.2	.16	4	27.0	.19	4	26.3	1.03	3
Bottom temperature	.0	.00	0	24.8	.19	6	26.0	.07	10	26.5	.08	4	27.1	.28	4	20.9	1.14	3
Surface salinity	.0	.00	0	29.7	.29	6	32.5	.24	10	33.7	.41	4	35.1	.12	4	34.9	.13	3
Midwater salinity	.0	.00	0	29.9	.24	6	32.9	.23	10	34.3	.41	4	35.3	.09	4	35.8	.35	3
Bottom salinity	.0	.00	0	30.1	.29	6	33.4	.31	10	34.9	.14	4	35.6	.13	4	36.4	.00	3
Surface chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface fluorescence	.0	.00	0	3.4	.56	6	1.7	.15	10	1.1	.15	4	.8	.16	4	.8	.14	3
Surface oxygen	.0	.00	0	7.8	.07	6	7.3	.10	10	7.2	.11	4	6.8	.06	4	6.8	.09	3
Midwater oxygen	.0	.00	0	7.5	.22	6	7.3	.05	10	7.2	.09	4	6.9	.03	4	6.8	.13	3
Bottom oxygen	.0	.00	0	7.7	.11	6	7.3	.09	10	6.8	.18	4	6.5	.24	4	4.8	.43	3

Table 36a
Statistical Zone 21
40-ft trawls

Summary of dominant organisms taken in statistical zone 21 during the 1995 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
Portunus gibbesii	.0	.00	.0	.00	0	197.4	74.38	2.0	.59	5	443.0	97.45	2.0	.46	9
Callinectes similis	.0	.00	.0	.00	0	14.5	4.14	.3	.10	5	327.0	139.43	5.5	2.29	9
Penaeus aztecus	.0	.00	.0	.00	0	37.8	19.73	.8	.55	5	278.3	92.94	3.4	.89	9
Penaeus duorarum	.0	.00	.0	.00	0	50.2	15.80	1.0	.30	5	71.9	40.22	.9	.53	9
Trachypenaeus similis	.0	.00	.0	.00	0	.0	.00	.0	.00	5	73.3	28.82	.2	.11	9
Squilla spp.	.0	.00	.0	.00	0	1.8	1.85	.0	.00	5	37.0	4.55	.3	.04	9
Chloroscombrus chrysurus	.0	.00	.0	.00	0	870.9	299.26	12.4	5.17	5	814.6	513.23	6.5	3.91	9
Lagodon rhomboides	.0	.00	.0	.00	0	.9	.92	.0	.04	5	18.0	8.90	1.1	.48	9
Upeneus parvus	.0	.00	.0	.00	0	.0	.00	.0	.00	5	.4	.36	.0	.01	9
Harengula jaguana	.0	.00	.0	.00	0	1.4	1.38	.0	.04	5	169.3	91.57	4.5	2.43	9
Syacium gunteri	.0	.00	.0	.00	0	70.1	32.74	1.0	.36	5	114.7	34.28	1.8	.55	9
Trachurus lathami	.0	.00	.0	.00	0	.0	.00	.0	.00	5	.0	.00	.0	.00	9
Arius felis	.0	.00	.0	.00	0	560.0	379.04	52.6	33.05	5	25.9	17.92	4.7	3.24	9
Stenotomus caprinus	.0	.00	.0	.00	0	.0	.00	.0	.00	5	2.8	1.72	.0	.03	9
Squid	.0	.00	.0	.00	0	3.6	3.60	.0	.00	5	14.8	5.52	.2	.05	9

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

Summary of dominant organisms taken in statistical zone 21 during the 1995 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
Portunus gibbesii	.0	.00	.0	.00	2	.0	.00	.0	.00	2	.0	.00	.0	.00	2
Callinectes similis	42.5	12.50	1.4	1.08	2	19.7	19.66	.4	.45	2	3.5	3.50	.0	.02	2
Penaeus aztecus	14.8	13.21	.5	.38	2	13.7	8.00	.4	.18	2	52.6	18.58	1.8	.77	2
Penaeus duorarum	.0	.00	.0	.00	2	.5	.52	.0	.00	2	.0	.00	.0	.00	2
Trachypenaeus similis	7.5	7.50	.0	.00	2	.0	.00	.0	.00	2	4.2	4.19	.0	.00	2
Squilla spp.	5.3	3.71	.0	.00	2	.0	.00	.0	.00	2	5.6	5.58	.0	.03	2
Chloroscombrus chrysurus	54.3	41.68	3.0	2.52	2	127.7	101.97	5.3	3.89	2	15.0	15.00	.7	.68	2
Lagodon rhomboides	600.3	497.68	37.8	28.95	2	12.0	7.68	.6	.44	2	6.5	6.50	.3	.34	2
Upeneus parvus	101.5	.47	3.2	1.06	2	624.4	512.71	20.5	18.15	2	40.5	40.50	1.0	1.00	2
Harengula jaguana	6.0	6.00	.6	.61	2	17.6	17.59	.5	.54	2	.0	.00	.0	.00	2
Syacium gunteri	14.7	2.68	.3	.03	2	20.7	20.69	.3	.33	2	.0	.00	.0	.00	2
Trachurus lathami	.0	.00	.0	.00	2	.0	.00	.0	.00	2	291.0	291.00	8.4	8.43	2
Arius felis	.0	.00	.0	.00	2	.0	.00	.0	.00	2	.0	.00	.0	.00	2
Stenotomus caprinus	125.2	118.84	3.1	3.09	2	38.6	1.38	1.0	.39	2	135.1	49.94	8.6	3.53	2
Squid	14.2	7.84	.0	.02	2	65.1	46.58	.4	.30	2	39.9	37.10	1.0	.87	2

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 1995 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
	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	516.4	234.54	5	123.7	49.98	9	73.7	42.17	2	53.4	8.27	2	69.7	25.30	2
Total finfish kg	.0	.00	0	122.2	44.49	5	43.9	10.86	9	71.0	40.84	2	51.7	9.36	2	62.8	26.70	2
Total crustacean kg	.0	.00	0	4.9	.66	5	14.0	2.34	9	2.8	1.33	2	1.2	1.18	2	2.8	.99	2
Total others kg	.0	.00	0	389.4	200.79	5	66.0	41.20	9	.0	.00	2	.5	.47	2	4.0	.40	2
Surface temperature	.0	.00	0	25.0	.11	5	25.8	.11	10	26.8	.00	1	27.3	.16	5	27.3	.19	3
Midwater temperature	.0	.00	0	25.3	.20	5	26.4	.33	10	26.3	.00	1	27.5	.03	5	27.5	.01	3
Bottom temperature	.0	.00	0	25.6	.09	5	26.4	.15	10	26.5	.00	1	27.5	.03	5	26.9	.21	3
Surface salinity	.0	.00	0	29.1	.38	5	31.6	.57	10	33.9	.00	1	35.6	.33	5	35.4	.33	3
Midwater salinity	.0	.00	0	30.0	.68	5	31.9	.91	10	34.0	.00	1	35.8	.10	5	35.9	.21	3
Bottom salinity	.0	.00	0	31.1	.41	5	32.7	.55	10	34.4	.00	1	35.9	.05	5	36.2	.07	3
Surface chlorophyll	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface fluorescence	.0	.00	0	2.8	.38	5	2.1	.20	10	1.5	.00	1	.5	.07	5	.5	.09	3
Surface oxygen	.0	.00	0	8.3	.36	5	7.3	.34	10	7.3	.00	1	7.1	.06	5	6.6	.30	3
Midwater oxygen	.0	.00	0	8.2	.67	5	7.3	.13	10	7.1	.00	1	7.0	.07	5	7.0	.09	3
Bottom oxygen	.0	.00	0	7.9	.74	5	7.1	.12	10	7.2	.00	1	7.1	.08	5	7.1	.43	3

Table 37a
Statistical Zone 17
20-ft trawls

Summary of dominant organisms taken in statistical zone 17 during the 1995 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
Portunus gibbesii	36.0	14.68	.1	.06	13	99.0	69.00	.3	.27	2	.0	.00	.0	.00	0
Penaeus setiferus	31.4	11.79	.3	.10	13	33.0	33.00	.3	.27	2	.0	.00	.0	.00	0
Callinectes sapidus	16.2	10.94	.2	.14	13	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Xiphopenaeus kroyeri	5.5	4.27	.0	.02	13	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Pagurus pollicaris	1.4	1.38	.0	.02	13	6.0	.00	.1	.14	2	.0	.00	.0	.00	0
Callinectes similis	1.4	1.00	.0	.00	13	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Trichiurus lepturus	11.5	4.43	.1	.03	13	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Peprilus burti	7.4	2.46	.0	.03	13	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Cynoscion arenarius	3.7	1.45	.2	.12	13	3.0	3.00	.1	.14	2	.0	.00	.0	.00	0
Citharichthys spilopterus	.9	.62	.0	.02	13	18.0	6.00	.4	.14	2	.0	.00	.0	.00	0
Peprilus alepidotus	1.8	1.42	.0	.02	13	9.0	3.00	.0	.00	2	.0	.00	.0	.00	0
Chloroscombrus chrysurus	2.3	1.45	.0	.00	13	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Stellifer lanceolatus	2.3	1.45	.0	.03	13	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Dorosoma petenense	1.8	1.05	.0	.02	13	.0	.00	.0	.00	2	.0	.00	.0	.00	0
Squid	7.4	2.73	.1	.05	13	3.0	3.00	.0	.00	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 1995 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	12.0	6.73	13	36.8	4.09	2	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Total finfish kg	1.3	1.05	13	.0	.00	2	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Total crustacean kg	.4	.28	13	.0	.00	2	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Total others kg	9.9	6.58	13	34.1	4.09	2	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface temperature	18.0	.33	13	18.2	.20	2	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater temperature	17.7	.25	13	18.3	.00	2	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom temperature	17.8	.20	13	19.0	.05	2	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface salinity	26.4	.19	13	27.4	.45	2	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater salinity	27.0	.39	13	30.8	.38	2	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom salinity	27.6	.48	13	32.2	.34	2	.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
Surface fluorescence	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	8.2	.10	13	8.8	.00	2	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater oxygen	8.0	.15	13	8.3	.00	2	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom oxygen	7.5	.18	13	7.8	.20	2	.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 1995 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
Penaeus setiferus	56.4	16.39	.4	.14	5	73.5	21.48	.5	.15	12	.0	.00	.0	.00	0
Portunus gibbesii	12.0	7.82	.0	.00	5	69.0	23.60	.1	.05	12	.0	.00	.0	.00	0
Callinectes similis	6.0	3.79	.0	.00	5	21.0	8.57	.0	.00	12	.0	.00	.0	.00	0
Squilla spp.	1.2	1.20	.0	.00	5	16.0	5.64	.1	.05	12	.0	.00	.0	.00	0
Trachypenaeus similis	.0	.00	.0	.00	5	14.0	5.24	.0	.00	12	.0	.00	.0	.00	0
Persephona crinita	3.6	1.47	.0	.00	5	2.0	.85	.0	.00	12	.0	.00	.0	.00	0
Cynoscion arenarius	30.0	14.07	.9	.48	5	41.5	20.19	1.5	.51	12	.0	.00	.0	.00	0
Chloroscombrus chrysurus	4.8	2.24	.0	.00	5	46.0	29.74	.3	.21	12	.0	.00	.0	.00	0
Stellifer lanceolatus	18.0	13.94	.1	.05	5	29.0	16.51	.3	.11	12	.0	.00	.0	.00	0
Peprilus alepidotus	12.0	5.02	.1	.05	5	7.5	3.14	.0	.03	12	.0	.00	.0	.00	0
Arius felis	7.2	4.80	.1	.05	5	6.0	4.95	.1	.07	12	.0	.00	.0	.00	0
Selene vomer	2.4	1.47	.0	.00	5	7.5	5.18	.1	.05	12	.0	.00	.0	.00	0
Etropus crossotus	.0	.00	.0	.00	5	5.5	2.27	.1	.05	12	.0	.00	.0	.00	0
Anchoa mitchilli	9.6	4.87	.0	.00	5	.5	.50	.0	.00	12	.0	.00	.0	.00	0
Squid	4.8	2.94	.0	.00	5	29.5	14.71	.3	.09	12	.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 1995 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	7.6	5.68	5	13.4	8.52	12	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Total finfish kg	7.1	5.76	5	2.5	.78	12	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Total crustacean kg	.0	.00	5	.9	.39	12	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Total others kg	.0	.00	5	9.8	8.57	12	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface temperature	18.9	.11	6	18.5	.12	11	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater temperature	18.2	.18	6	18.3	.09	11	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom temperature	18.5	.32	6	18.5	.08	11	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface salinity	26.5	.12	6	28.4	.24	11	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater salinity	27.9	.52	6	28.5	.14	11	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom salinity	28.3	.54	6	28.8	.13	11	.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
Surface fluorescence	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	8.4	.15	6	7.2	.39	11	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater oxygen	8.4	.31	6	7.1	.38	11	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom oxygen	8.3	.40	6	7.2	.43	11	.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 1995 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	42.0	42.00	.0	.00	2	92.4	27.54	.2	.06	10	204.0	40.47	.5	.13	4
Penaeus setiferus	249.0	249.00	1.4	1.36	2	79.8	39.59	.9	.36	10	4.5	4.50	.1	.07	4
Squilla spp.	9.0	9.00	.1	.14	2	58.2	18.68	.4	.13	10	138.0	60.84	.8	.31	4
Portunus gibbesii	33.0	15.00	.3	.00	2	56.4	18.18	.1	.06	10	37.5	9.60	.1	.08	4
Callinectes similis	3.0	3.00	.0	.00	2	16.8	5.99	.1	.04	10	34.5	6.18	.1	.08	4
Sicyonia dorsalis	.0	.00	.0	.00	2	10.8	3.32	.0	.00	10	51.0	15.59	.0	.00	4
Cynoscion arenarius	.0	.00	.0	.00	2	79.2	32.68	.9	.33	10	9.0	3.87	.6	.23	4
Cynoscion nothus	9.0	9.00	.0	.00	2	43.8	22.24	.2	.12	10	54.0	13.64	.1	.08	4
Symphurus plagiusa	9.0	9.00	.1	.14	2	11.4	6.48	.2	.12	10	36.0	10.95	.7	.18	4
Stellifer lanceolatus	30.0	24.00	.3	.27	2	18.6	11.54	.3	.20	10	.0	.00	.0	.00	4
Chloroscombrus chrysurus	.0	.00	.0	.00	2	24.0	20.77	.1	.11	10	.0	.00	.0	.00	4
Sphoeroides parvus	6.0	6.00	.0	.00	2	18.6	5.69	.1	.04	10	6.0	3.46	.0	.00	4
Peprilus burti	93.0	81.00	.3	.27	2	2.4	1.33	.1	.04	10	1.5	1.50	.0	.00	4
Micropogonias undulatus	.0	.00	.0	.00	2	3.0	1.00	.1	.05	10	33.0	21.98	.1	.07	4
Squid	9.0	3.00	.1	.14	2	42.0	11.03	.4	.11	10	55.5	16.13	.5	.13	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 1995 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	17.7	12.27	2	21.3	9.63	10	5.5	.00	4	.0	.00	0	.0	.00	0	.0	.00	0
Total finfish kg	.0	.00	2	3.3	.55	10	2.7	.00	4	.0	.00	0	.0	.00	0	.0	.00	0
Total crustacean kg	1.4	1.36	2	2.2	.68	10	1.4	.79	4	.0	.00	0	.0	.00	0	.0	.00	0
Total others kg	15.0	15.00	2	15.8	9.53	10	1.4	.79	4	.0	.00	0	.0	.00	0	.0	.00	0
Surface temperature	19.6	.25	2	19.0	.08	11	20.1	.59	3	.0	.00	0	.0	.00	0	.0	.00	0
Midwater temperature	19.3	.05	2	19.6	.13	11	20.3	.66	3	.0	.00	0	.0	.00	0	.0	.00	0
Bottom temperature	19.4	.00	2	20.4	.23	11	20.9	.12	3	.0	.00	0	.0	.00	0	.0	.00	0
Surface salinity	29.3	.66	2	28.8	.27	11	30.9	1.69	3	.0	.00	0	.0	.00	0	.0	.00	0
Midwater salinity	29.3	.64	2	31.3	.48	11	33.9	.24	3	.0	.00	0	.0	.00	0	.0	.00	0
Bottom salinity	29.6	.43	2	32.3	.49	11	34.3	.31	3	.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
Surface fluorescence	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	7.8	.85	2	7.4	.10	11	7.2	.26	3	.0	.00	0	.0	.00	0	.0	.00	0
Midwater oxygen	7.7	.85	2	6.8	.19	11	7.1	.20	3	.0	.00	0	.0	.00	0	.0	.00	0
Bottom oxygen	7.6	1.10	2	6.5	.20	11	6.9	.18	3	.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 1995 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
Penaeus setiferus	93.0	15.00	.7	.14	2	45.3	8.06	.4	.08	11	30.0	21.63	.6	.51	3
Portunus gibbesii	27.0	15.00	.1	.14	2	10.9	5.29	.0	.02	11	6.0	3.46	.0	.00	3
Callinectes similis	9.0	3.00	.0	.00	2	6.5	2.62	.0	.00	11	4.0	2.00	.1	.09	3
Squilla spp.	3.0	3.00	.0	.00	2	4.9	2.11	.0	.02	11	8.0	5.29	.0	.00	3
Trachypenaeus constrictus	12.0	.00	.0	.00	2	1.6	.85	.0	.00	11	.0	.00	.0	.00	3
Trachypenaeus similis	.0	.00	.0	.00	2	.5	.55	.0	.00	11	4.0	4.00	.0	.00	3
Selene setapinnis	.0	.00	.0	.00	2	126.0	80.49	.5	.29	11	6.0	3.46	.0	.00	3
Peprilus alepidotus	18.0	.00	.0	.00	2	49.6	20.02	.3	.14	11	.0	.00	.0	.00	3
Cynoscion nothus	30.0	12.00	.3	.27	2	26.7	10.99	.2	.09	11	46.0	20.88	1.2	.81	3
Chloroscombrus chrysurus	.0	.00	.0	.00	2	28.4	26.58	.1	.10	11	8.0	4.00	.0	.00	3
Stellifer lanceolatus	36.0	12.00	.7	.14	2	22.9	9.11	.3	.12	11	.0	.00	.0	.00	3
Peprilus burti	21.0	9.00	.1	.14	2	7.6	4.58	.2	.17	11	.0	.00	.0	.00	3
Syacium gunteri	.0	.00	.0	.00	2	.0	.00	.0	.00	11	42.0	18.00	.6	.36	3
Chaetodipterus faber	33.0	21.00	.5	.27	2	2.7	1.24	.0	.00	11	4.0	4.00	.1	.09	3
Squid	6.0	6.00	.0	.00	2	8.2	3.90	.0	.03	11	10.0	2.00	.1	.09	3

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 1995 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	128.2	81.82	2	174.0	80.28	11	4.5	1.82	3	.0	.00	0	.0	.00	0	.0	.00	0
Total finfish kg	2.7	2.73	2	3.0	.58	11	2.7	1.57	3	.0	.00	0	.0	.00	0	.0	.00	0
Total crustacean kg	.0	.00	2	.0	.00	11	.9	.91	3	.0	.00	0	.0	.00	0	.0	.00	0
Total others kg	125.5	81.82	2	170.8	79.86	11	.0	.00	3	.0	.00	0	.0	.00	0	.0	.00	0
Surface temperature	19.3	.05	2	19.6	.08	12	20.1	.25	2	.0	.00	0	.0	.00	0	.0	.00	0
Midwater temperature	19.2	.00	2	19.6	.08	12	20.3	.40	2	.0	.00	0	.0	.00	0	.0	.00	0
Bottom temperature	19.5	.10	2	19.9	.13	12	20.5	.60	2	.0	.00	0	.0	.00	0	.0	.00	0
Surface salinity	29.7	.05	2	30.7	.15	12	31.4	.36	2	.0	.00	0	.0	.00	0	.0	.00	0
Midwater salinity	29.8	.09	2	31.0	.15	12	32.1	.32	2	.0	.00	0	.0	.00	0	.0	.00	0
Bottom salinity	30.2	.35	2	31.3	.19	12	33.3	.51	2	.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
Surface fluorescence	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	8.4	.05	2	7.7	.06	12	7.6	.20	2	.0	.00	0	.0	.00	0	.0	.00	0
Midwater oxygen	7.9	.25	2	7.6	.06	12	7.6	.15	2	.0	.00	0	.0	.00	0	.0	.00	0
Bottom oxygen	7.8	.20	2	7.4	.11	12	7.1	.25	2	.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 1995 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 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 setiferus	.0	.00	.0	.00	0	180.0	.00	2.7	.00	1	.0	.00	.0	.00	1
Trachypenaeus constrictus	.0	.00	.0	.00	0	30.0	.00	.0	.00	1	24.0	.00	.0	.00	1
Penaeus duorarum	.0	.00	.0	.00	0	30.0	.00	.3	.00	1	18.0	.00	.0	.00	1
Portunus gibbesii	.0	.00	.0	.00	0	36.0	.00	.0	.00	1	12.0	.00	.0	.00	1
Portunus spinimanus	.0	.00	.0	.00	0	6.0	.00	.0	.00	1	.0	.00	.0	.00	1
Persephona crinita	.0	.00	.0	.00	0	6.0	.00	.0	.00	1	.0	.00	.0	.00	1
Chloroscombrus chrysurus	.0	.00	.0	.00	0	132.0	.00	.8	.00	1	882.0	.00	7.6	.00	1
Cynoscion nothus	.0	.00	.0	.00	0	42.0	.00	.3	.00	1	108.0	.00	1.6	.00	1
Selene setapinnis	.0	.00	.0	.00	0	84.0	.00	.3	.00	1	6.0	.00	.3	.00	1
Peprilus alepidotus	.0	.00	.0	.00	0	18.0	.00	.0	.00	1	42.0	.00	.3	.00	1
Lutjanus campechanus	.0	.00	.0	.00	0	.0	.00	.0	.00	1	30.0	.00	.3	.00	1
Syacium gunteri	.0	.00	.0	.00	0	12.0	.00	.0	.00	1	18.0	.00	.3	.00	1
Symphurus plagiusa	.0	.00	.0	.00	0	18.0	.00	.5	.00	1	.0	.00	.0	.00	1
Stellifer lanceolatus	.0	.00	.0	.00	0	18.0	.00	.0	.00	1	.0	.00	.0	.00	1
Squid	.0	.00	.0	.00	0	.0	.00	.0	.00	1	18.0	.00	.3	.00	1

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 1995 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 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	10.9	.00	1	4.8	1.08	13	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Total finfish kg	10.9	.00	1	3.1	.75	13	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Total crustacean kg	.0	.00	1	.4	.28	13	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Total others kg	.0	.00	1	.4	.28	13	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface temperature	20.7	.00	1	21.1	.22	13	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater temperature	20.3	.00	1	20.7	.14	13	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom temperature	20.3	.00	1	20.7	.16	13	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface salinity	31.0	.00	1	31.3	.08	13	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater salinity	31.1	.00	1	31.3	.07	13	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom salinity	31.4	.00	1	31.5	.07	13	.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
Surface fluorescence	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	7.3	.00	1	9.0	.76	13	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Midwater oxygen	7.4	.00	1	9.0	.73	13	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Bottom oxygen	7.1	.00	1	8.9	.70	13	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0

Table 42a
Statistical Zone 22
20-ft trawls

Summary of dominant organisms taken in statistical zone 22 during the 1995 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 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 setiferus	.0	.00	.0	.00	0	180.0	.00	2.7	.00	1	.0	.00	.0	.00	1
Trachypenaeus constrictus	.0	.00	.0	.00	0	30.0	.00	.0	.00	1	24.0	.00	.0	.00	1
Penaeus duorarum	.0	.00	.0	.00	0	30.0	.00	.3	.00	1	18.0	.00	.0	.00	1
Portunus gibbesii	.0	.00	.0	.00	0	36.0	.00	.0	.00	1	12.0	.00	.0	.00	1
Portunus spinimanus	.0	.00	.0	.00	0	6.0	.00	.0	.00	1	.0	.00	.0	.00	1
Persephona crinita	.0	.00	.0	.00	0	6.0	.00	.0	.00	1	.0	.00	.0	.00	1
Chloroscombrus chrysurus	.0	.00	.0	.00	0	132.0	.00	.8	.00	1	882.0	.00	7.6	.00	1
Cynoscion nothus	.0	.00	.0	.00	0	42.0	.00	.3	.00	1	108.0	.00	1.6	.00	1
Selene setapinnis	.0	.00	.0	.00	0	84.0	.00	.3	.00	1	6.0	.00	.3	.00	1
Peprilus alepidotus	.0	.00	.0	.00	0	18.0	.00	.0	.00	1	42.0	.00	.3	.00	1
Lutjanus campechanus	.0	.00	.0	.00	0	.0	.00	.0	.00	1	30.0	.00	.3	.00	1
Syacium gunteri	.0	.00	.0	.00	0	12.0	.00	.0	.00	1	18.0	.00	.3	.00	1
Symphurus plagiusa	.0	.00	.0	.00	0	18.0	.00	.5	.00	1	.0	.00	.0	.00	1
Stellifer lanceolatus	.0	.00	.0	.00	0	18.0	.00	.0	.00	1	.0	.00	.0	.00	1
Squid	.0	.00	.0	.00	0	.0	.00	.0	.00	1	18.0	.00	.3	.00	1

Table 42b
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 1995 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 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	19.1	.00	1	.0	.00	0	.0	.00	0	.0	.00	0
Total finfish kg	.0	.00	0	2.7	.00	1	13.6	.00	1	.0	.00	0	.0	.00	0	.0	.00	0
Total crustacean kg	.0	.00	0	2.7	.00	1	2.7	.00	1	.0	.00	0	.0	.00	0	.0	.00	0
Total others kg	.0	.00	0	2.7	.00	1	5.5	.00	1	.0	.00	0	.0	.00	0	.0	.00	0
Surface temperature	.0	.00	0	21.6	.00	1	21.8	.00	1	.0	.00	0	.0	.00	0	.0	.00	0
Midwater temperature	.0	.00	0	21.7	.00	1	21.7	.00	1	.0	.00	0	.0	.00	0	.0	.00	0
Bottom temperature	.0	.00	0	22.0	.00	1	22.3	.00	1	.0	.00	0	.0	.00	0	.0	.00	0
Surface salinity	.0	.00	0	31.0	.00	1	31.2	.00	1	.0	.00	0	.0	.00	0	.0	.00	0
Midwater salinity	.0	.00	0	31.1	.00	1	31.3	.00	1	.0	.00	0	.0	.00	0	.0	.00	0
Bottom salinity	.0	.00	0	31.6	.00	1	32.7	.00	1	.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
Surface fluorescence	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0	.0	.00	0
Surface oxygen	.0	.00	0	11.1	.00	1	11.9	.00	1	.0	.00	0	.0	.00	0	.0	.00	0
Midwater oxygen	.0	.00	0	11.1	.00	1	11.6	.00	1	.0	.00	0	.0	.00	0	.0	.00	0
Bottom oxygen	.0	.00	0	10.7	.00	1	10.9	.00	1	.0	.00	0	.0	.00	0	.0	.00	0

Table 43. 1995 Reef Fish Survey species composition list, 148 trap 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 TOWS WHERE CAUGHT	%FREQUENCY OF OCCURRENCE
Finfishes					
Lutjanus campechanus	red snapper	183	134.0	13	8.8
Pagrus pagrus	red porgy	93	26.6	23	15.5
Rhomboplites aurorubens	vermilion snapper	51	12.9	8	5.4
Balistes capriscus	gray triggerfish	41	13.4	11	7.4
Haemulon aurolineatum	tomtate	36	4.4	4	2.7
Centropristis ocyura	bank sea bass	34	3.5	9	6.1
Epinephelus morio	red grouper	6	8.3	5	3.4
Ocyurus chrysurus	yellowtail snapper	6	1.2	2	1.4
Haemulon parrai	sailors choice	6	.0	1	.7
Decodon puellaris	red hogfish	6	1.4	3	2.0
Mycteroperca phenax	scamp	5	10.2	3	2.0
Centropristis philadelphica	rock sea bass	4	.3	1	.7
Haemulon plumieri	white grunt	4	1.5	2	1.4
Stenotomus caprinus	longspine porgy	4	.2	3	2.0
Serranus phoebe	tattler	2	.2	2	1.4
Rypticus maculatus	whitespotted soapfish	2	.1	1	.7
Calamus nodosus	knobbed porgy	2	1.2	2	1.4
Chaetodon sedentarius	reef butterflyfish	2	.1	2	1.4
Lutjanus synagris	lane snapper	1	.8	1	.7
Orthopristis chrysoptera	pigfish	1	.0	1	.7
Equetus umbrosus	cubbyu	1	.2	1	.7
Pseudupeneus maculatus	spotted goatfish	1	.4	1	.7
Chaetodon capistratus	foureye butterflyfish	1	.0	1	.7
Holacanthus bermudensis	blue angelfish	1	.3	1	.7

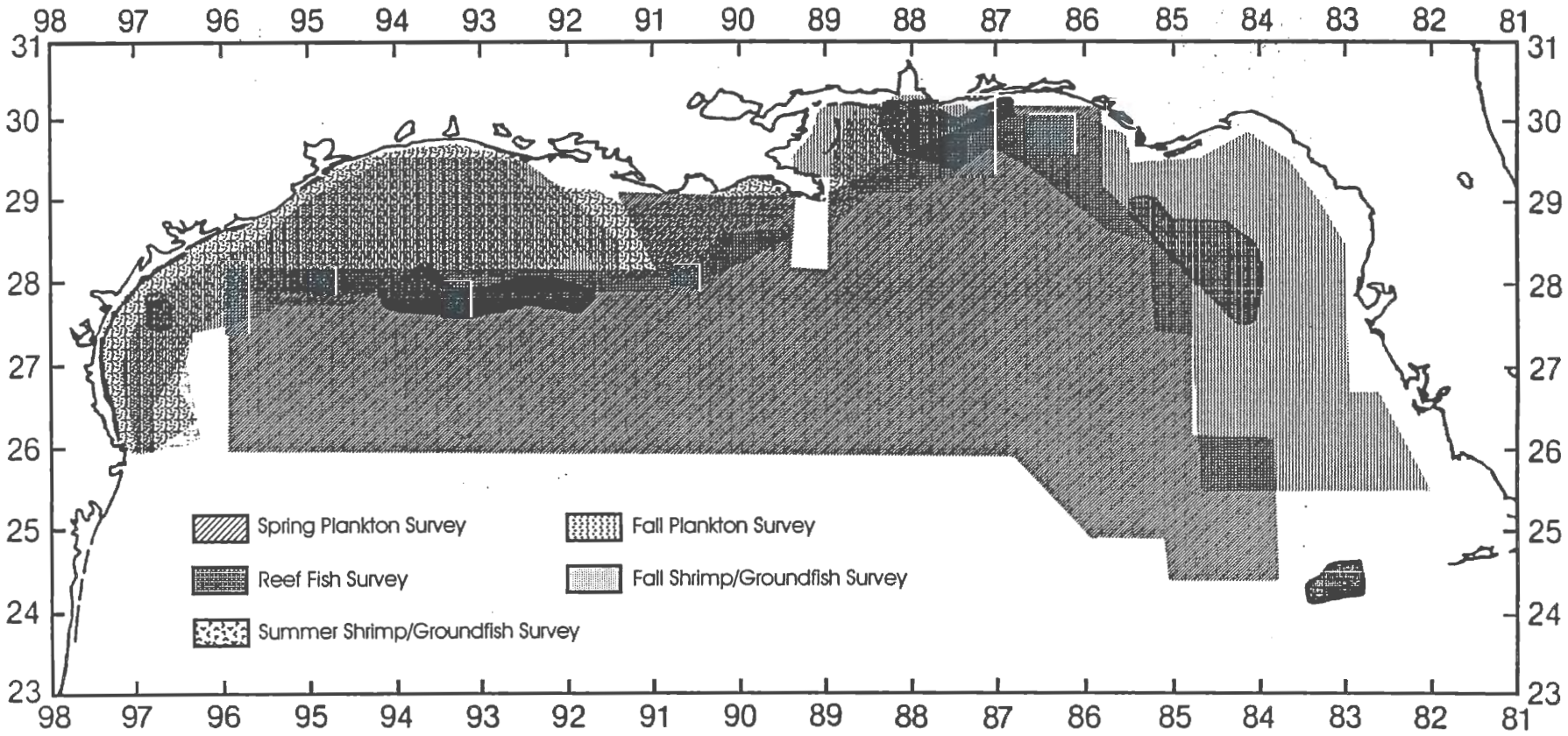

Figure 1. 1995 SEAMAP Surveys, Gulf of Mexico.

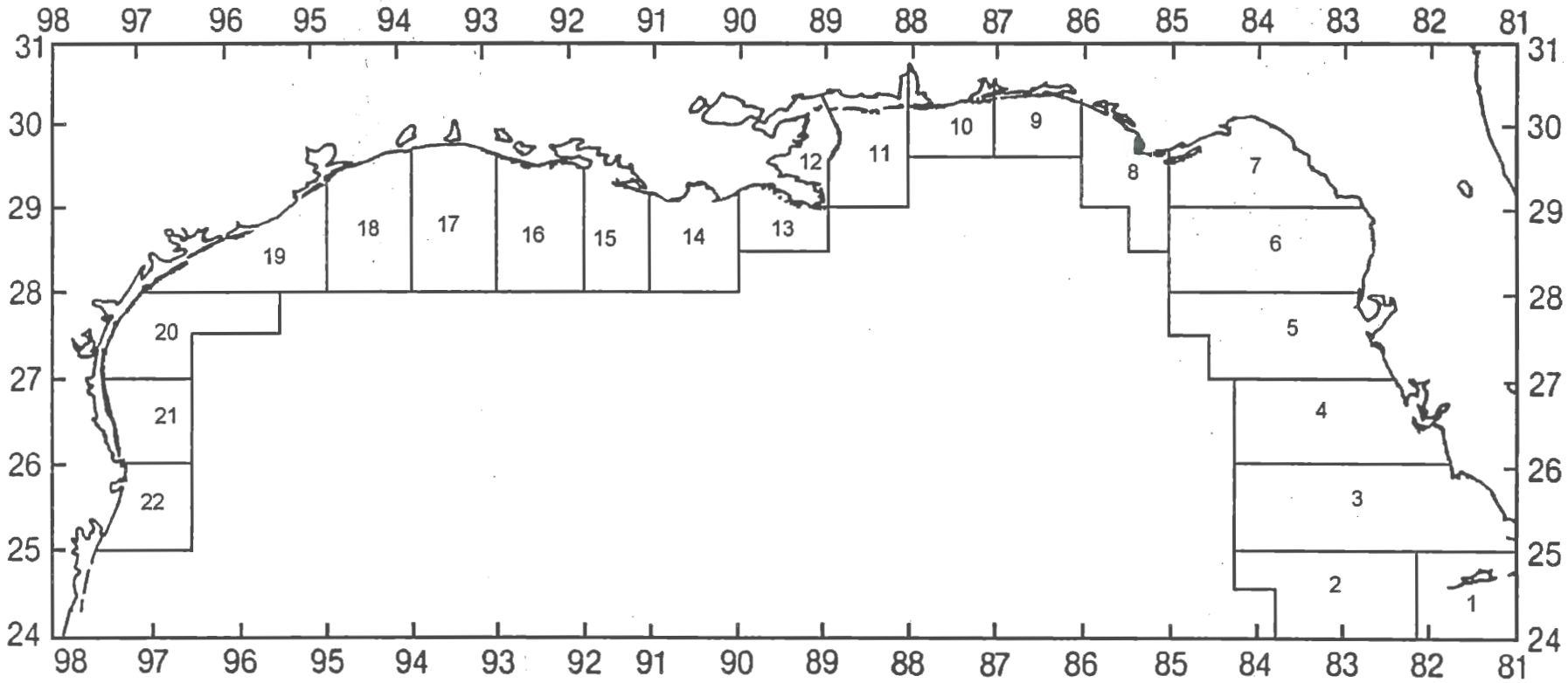

Figure 2. Statistical zones for shrimp in the Gulf of Mexico.

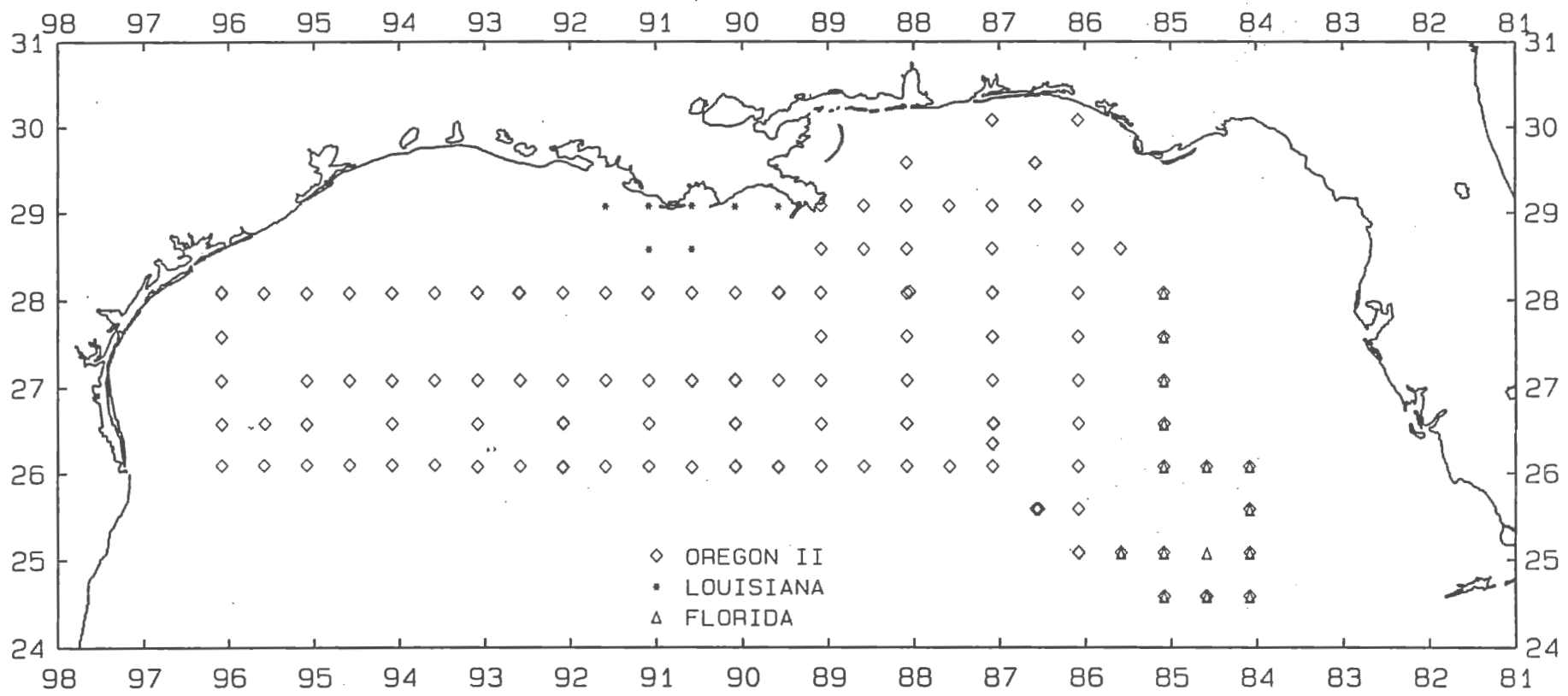

Figure 3. Locations of plankton and environmental stations during 1995 Spring Plankton Survey.

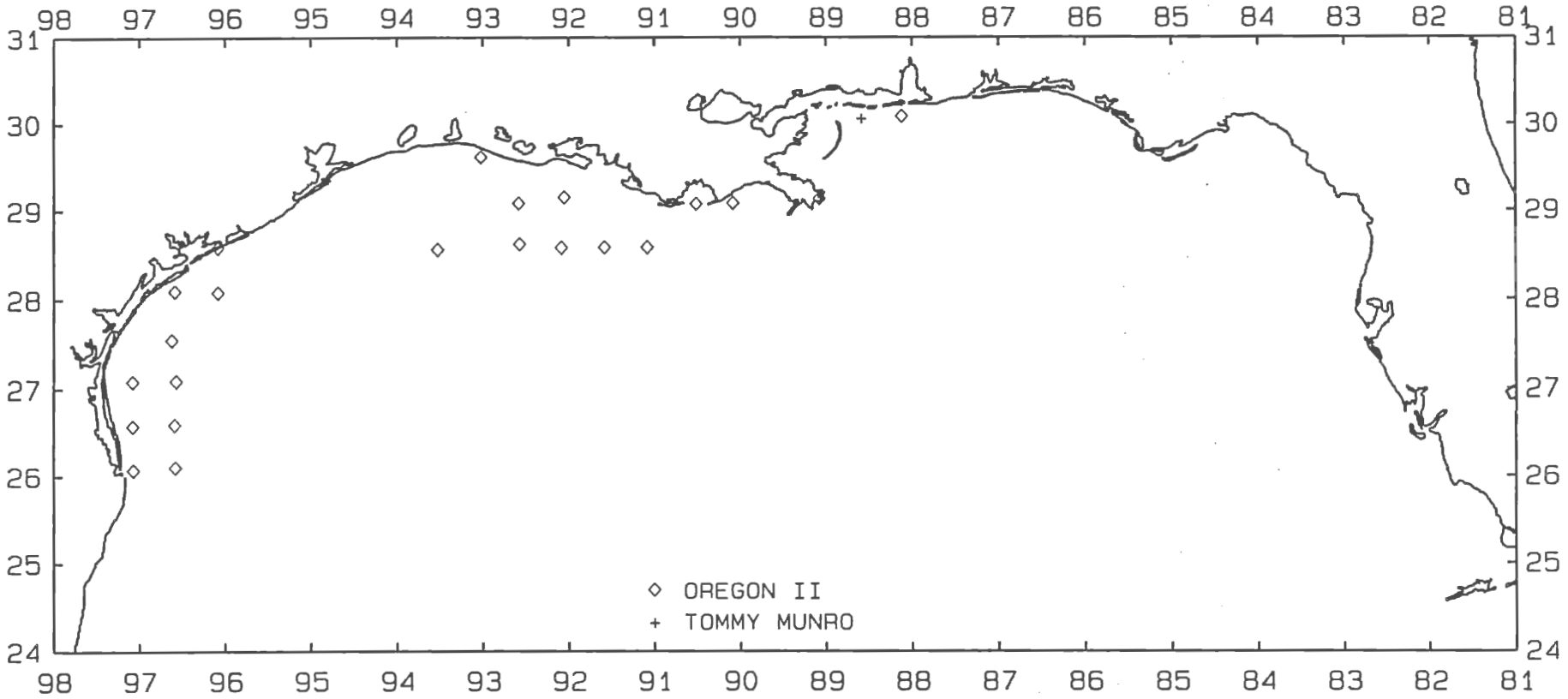

Figure 4. Locations of plankton stations during 1995 Summer Shrimp/Groundfish Survey.

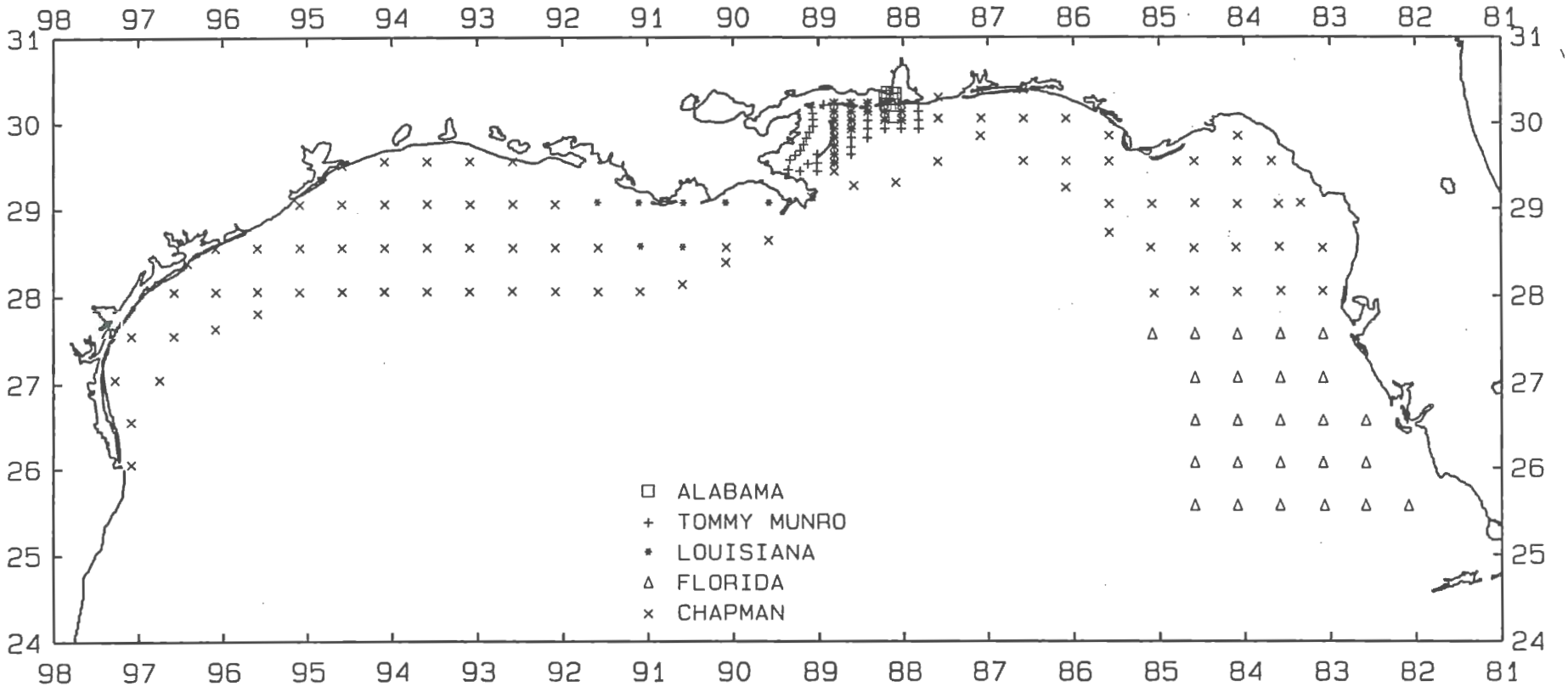

Figure 5. Locations of plankton and environmental stations during 1995 Fall Plankton Survey.

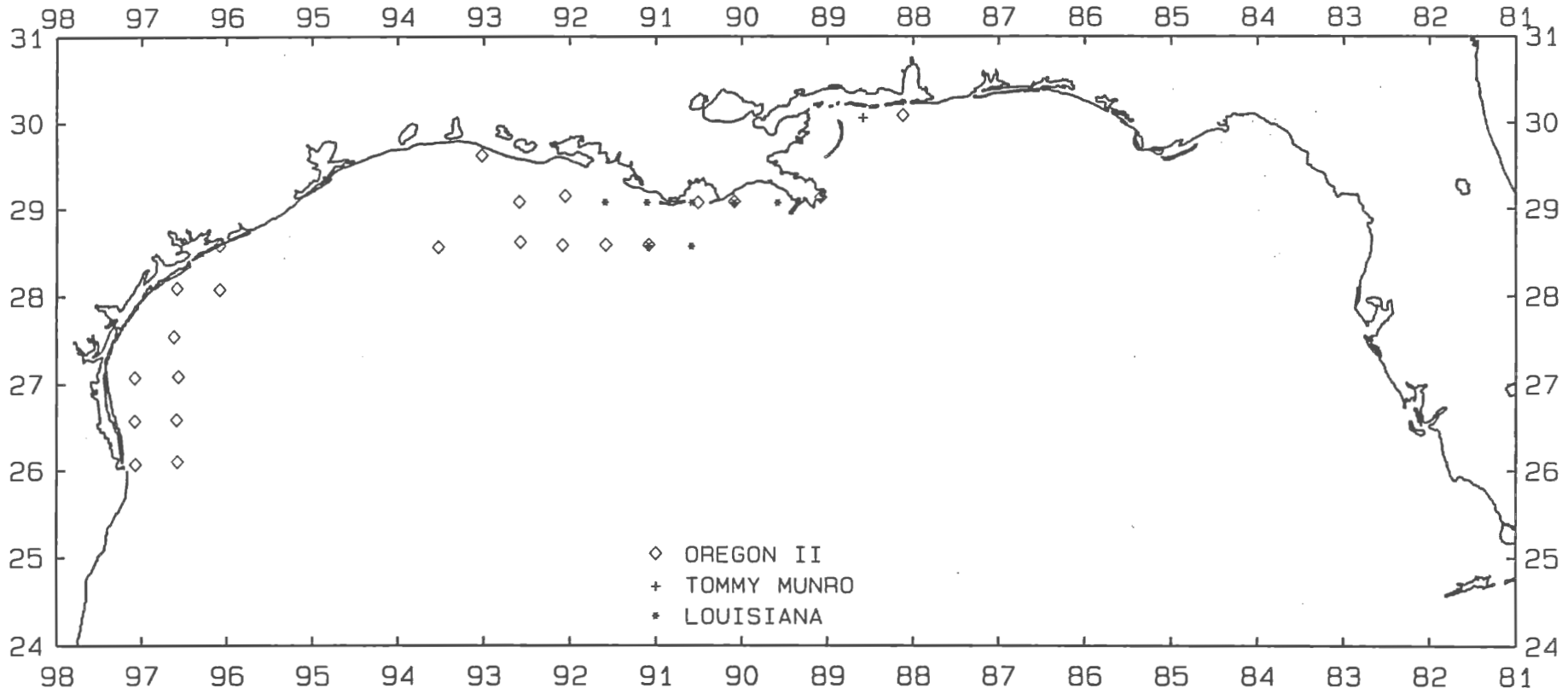

Figure 6. Locations of plankton stations during 1995 Fall Shrimp/Groundfish Survey.

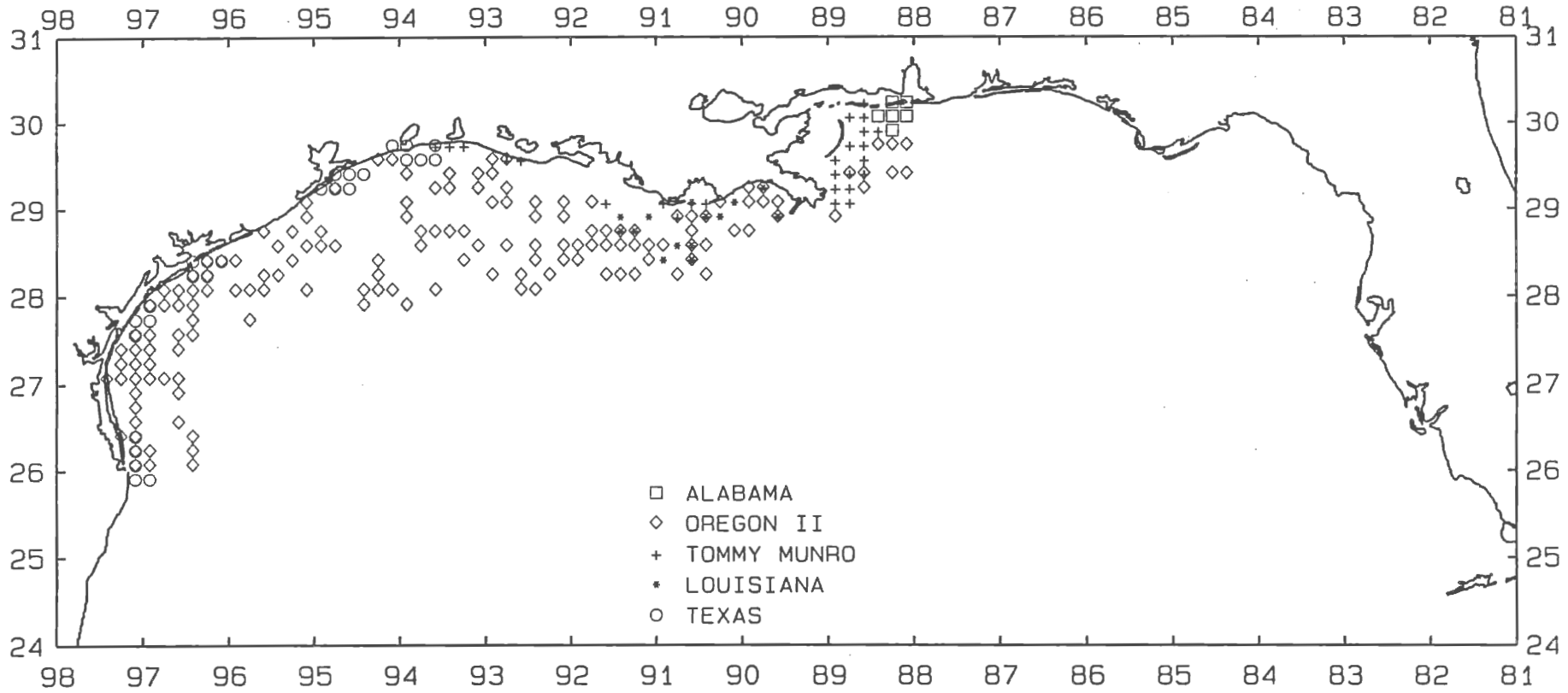

Figure 7. Locations of environmental stations during the 1995 Summer Shrimp/Groundfish Survey summarized by 10-minute squares.

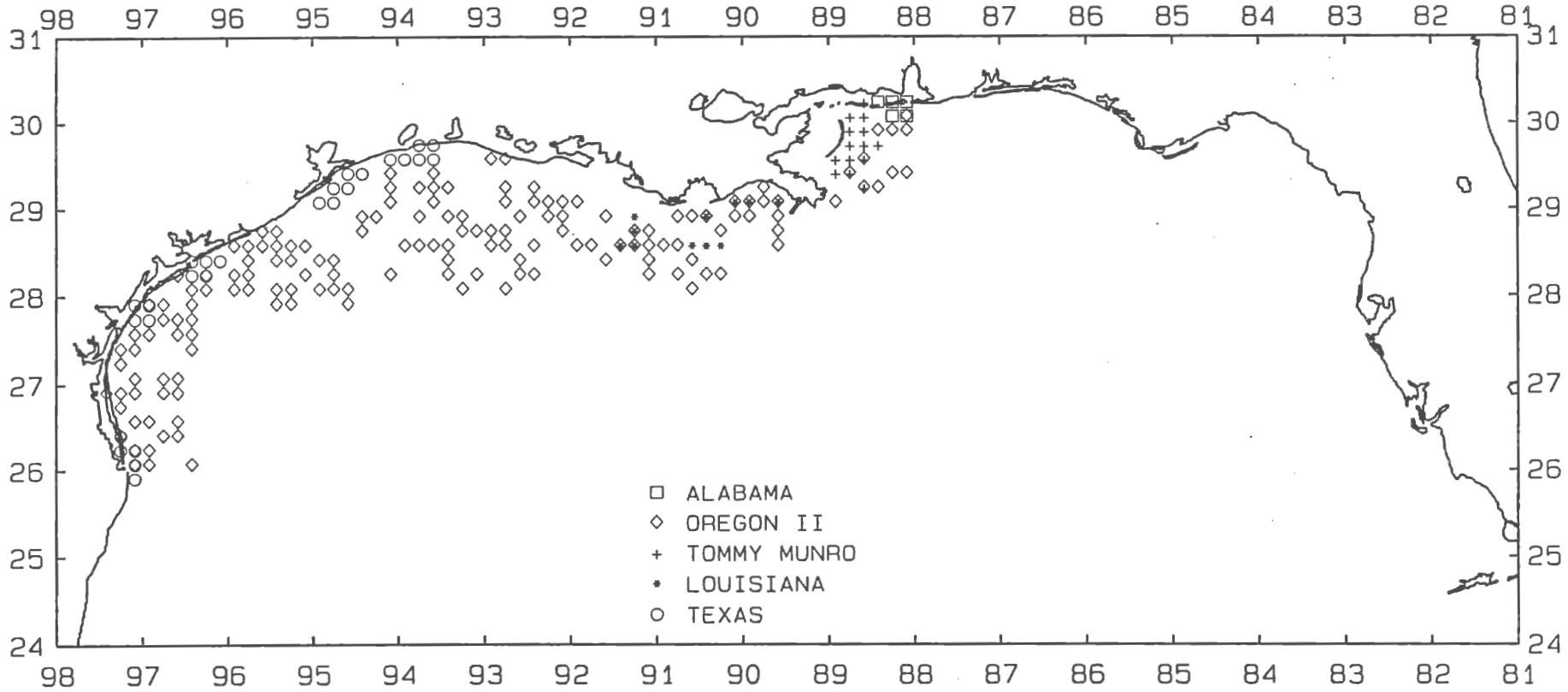

Figure 8. Locations of environmental stations during the 1995 Fall Shrimp/Groundfish Survey summarized by 10-minute squares.

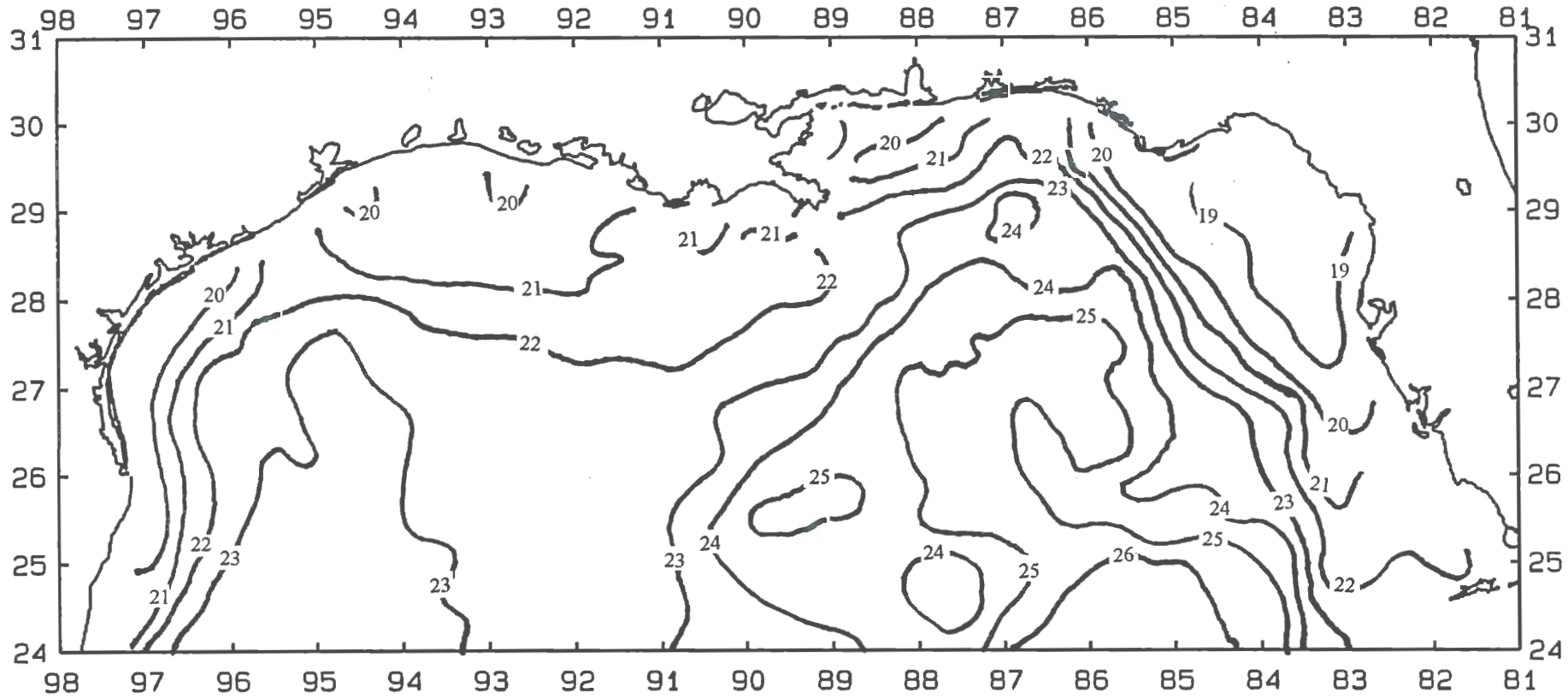

Figure 9. Satellite measurement of surface temperature (°C) in the Gulf of Mexico, March 21, 1995 (modified from NWS/NESS Sea Surface Thermal Analysis).

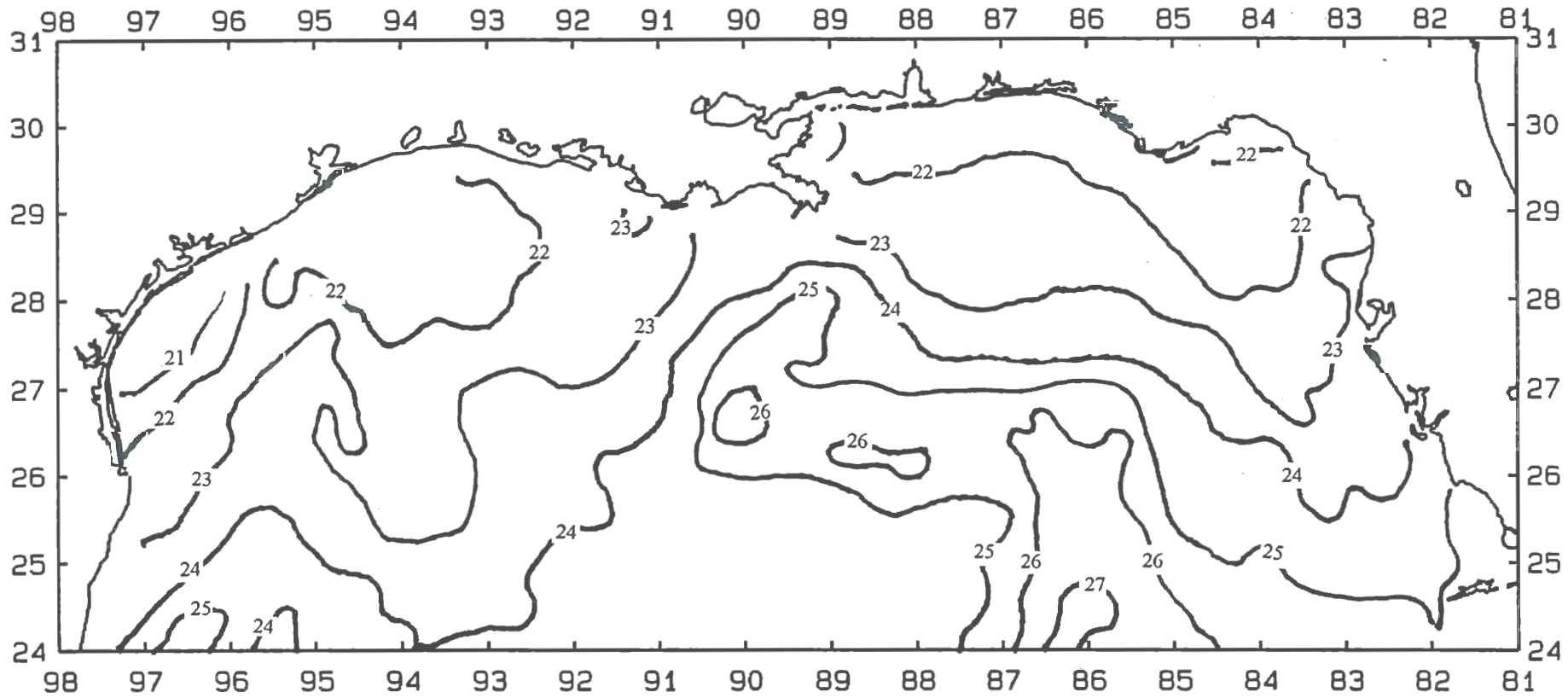

Figure 10. Satellite measurement of surface temperature (°C) in the Gulf of Mexico, April 18, 1995 (modified from NWS/NESS Sea Surface Thermal Analysis).

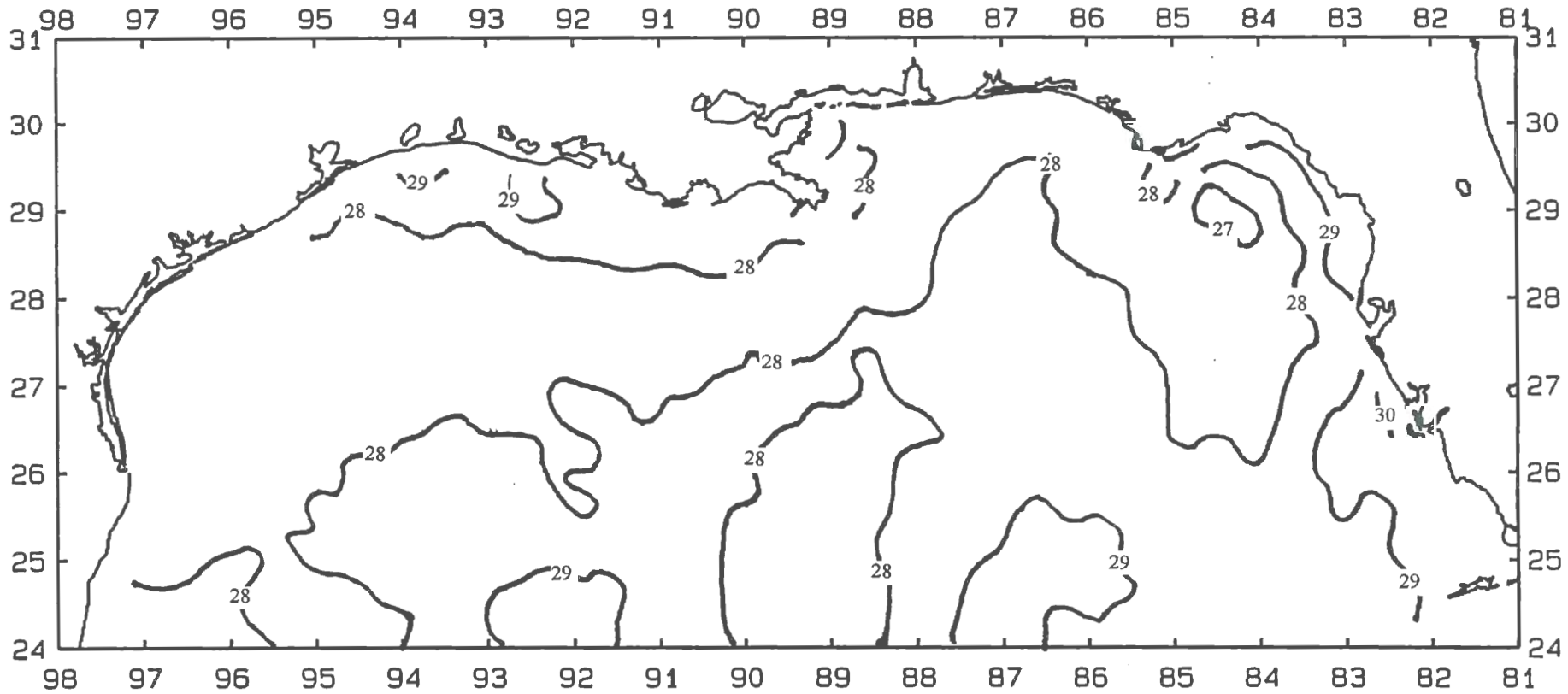

Figure 11. Satellite measurement of surface temperature (°C) in the Gulf of Mexico, June 6, 1995 (modified from NWS/NESS Sea Surface Thermal Analysis).

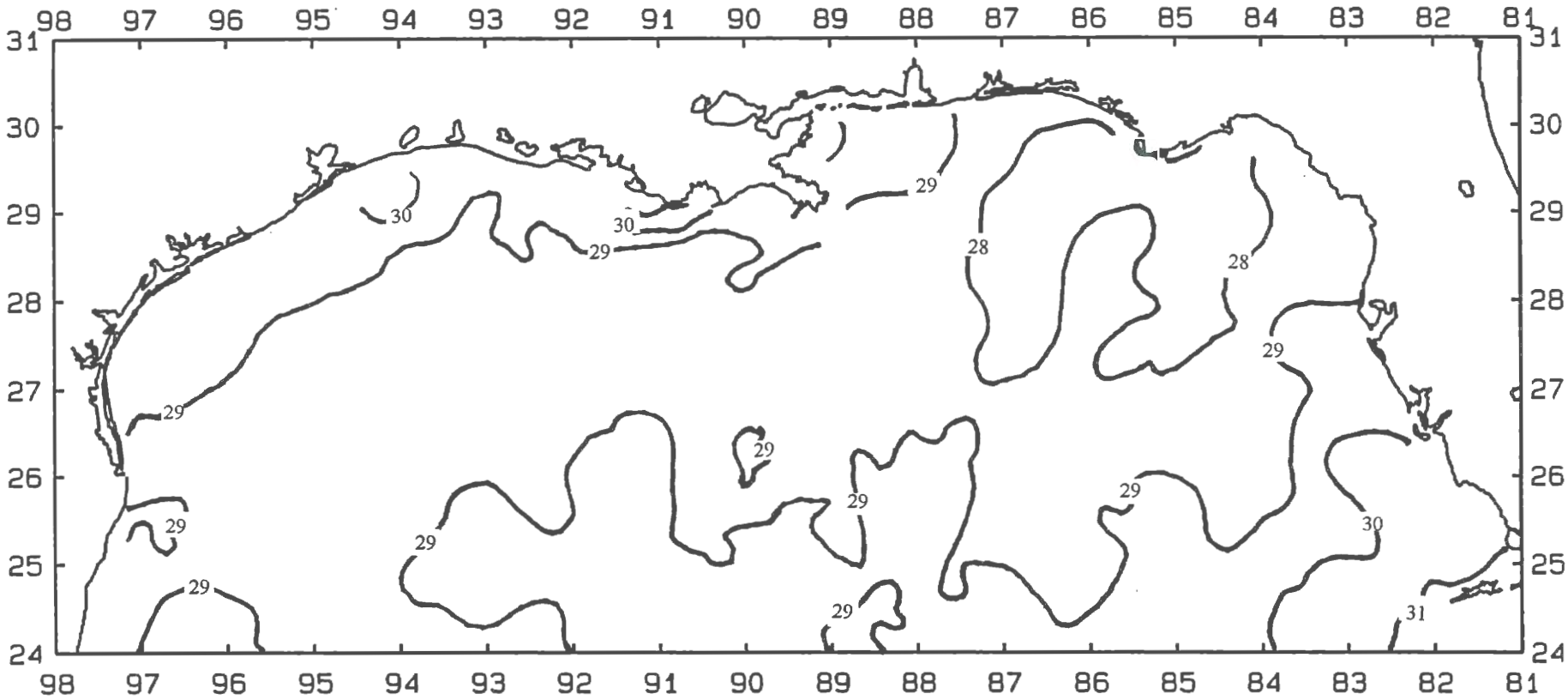

Figure 12. Satellite measurement of surface temperature (°C) in the Gulf of Mexico, July 4, 1995 (modified from NWS/NESS Sea Surface Thermal Analysis).

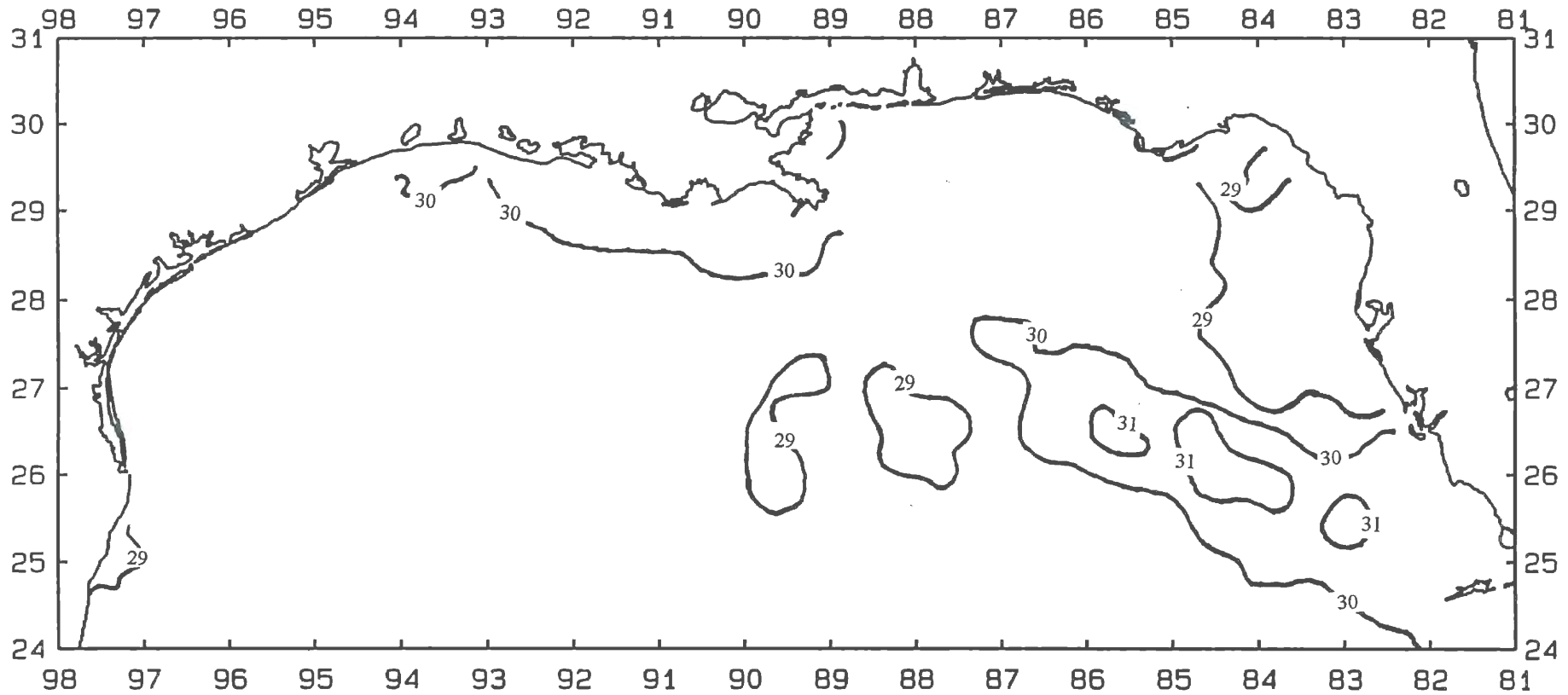

Figure 13. Satellite measurement of surface temperature (°C) in the Gulf of Mexico, August 13, 1995 (modified from NWS/NESS Sea Surface Thermal Analysis).

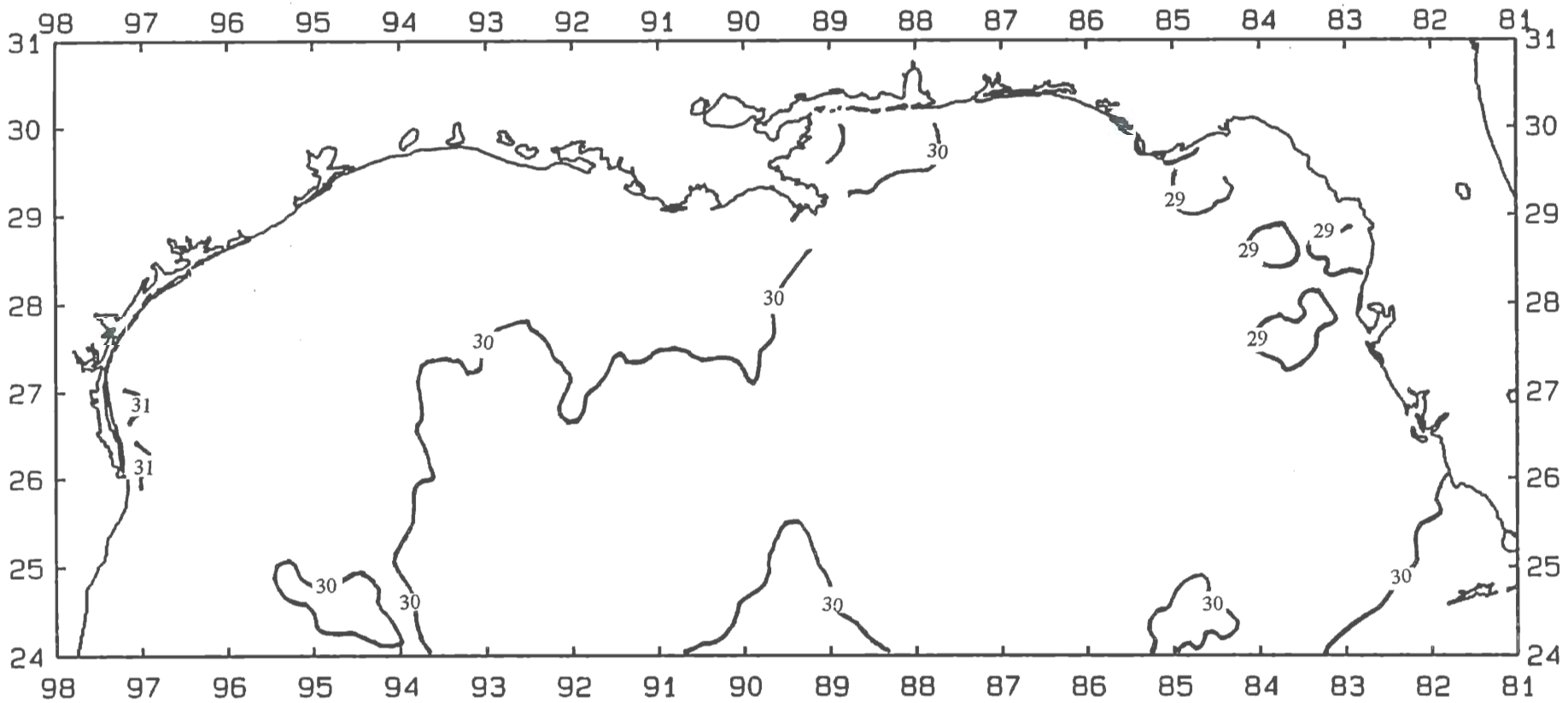

Figure 14. Satellite measurement of surface temperature (°C) in the Gulf of Mexico, September 10, 1995 (modified from NWS/NESS Sea Surface Thermal Analysis).

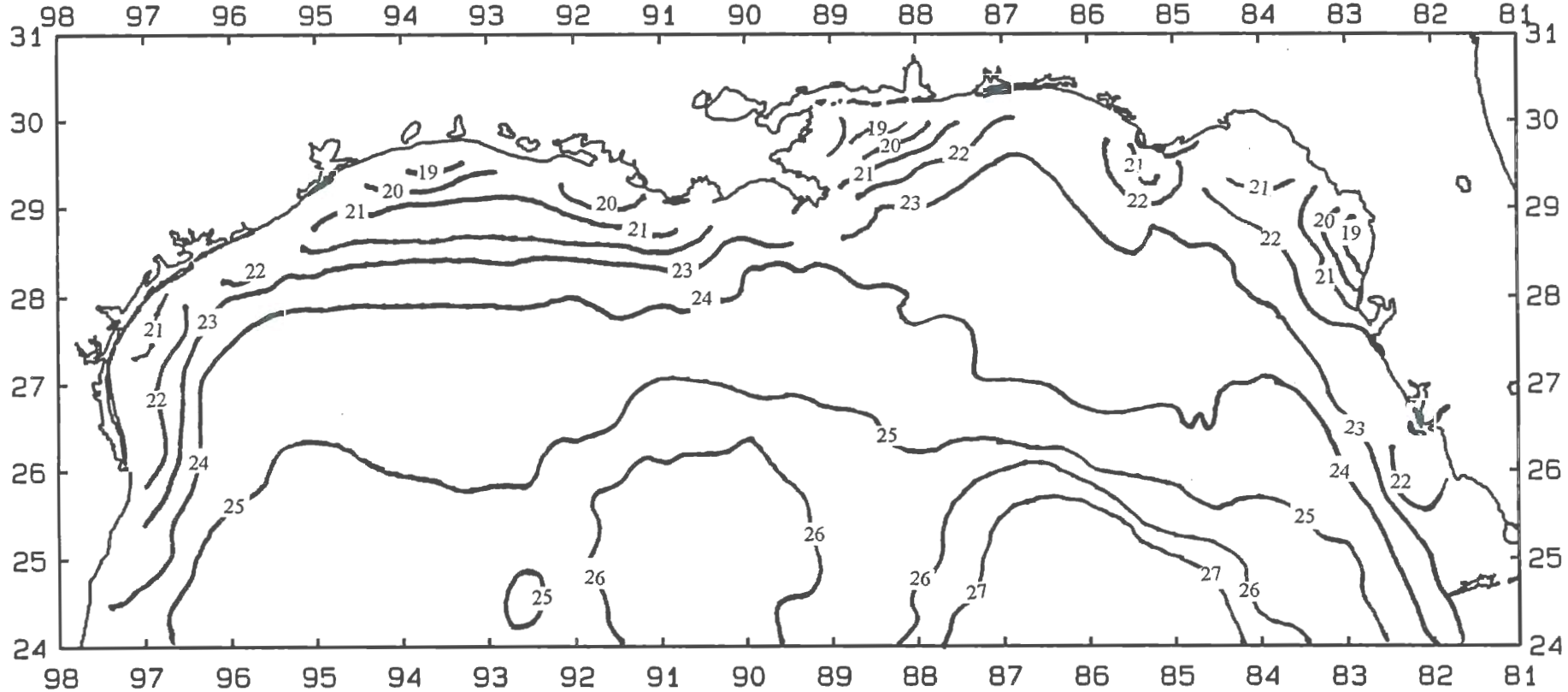

Figure 15. Satellite measurement of surface temperature (°C) in the Gulf of Mexico, November 26, 1995 (modified from NWS/NESS Sea Surface Thermal Analysis).

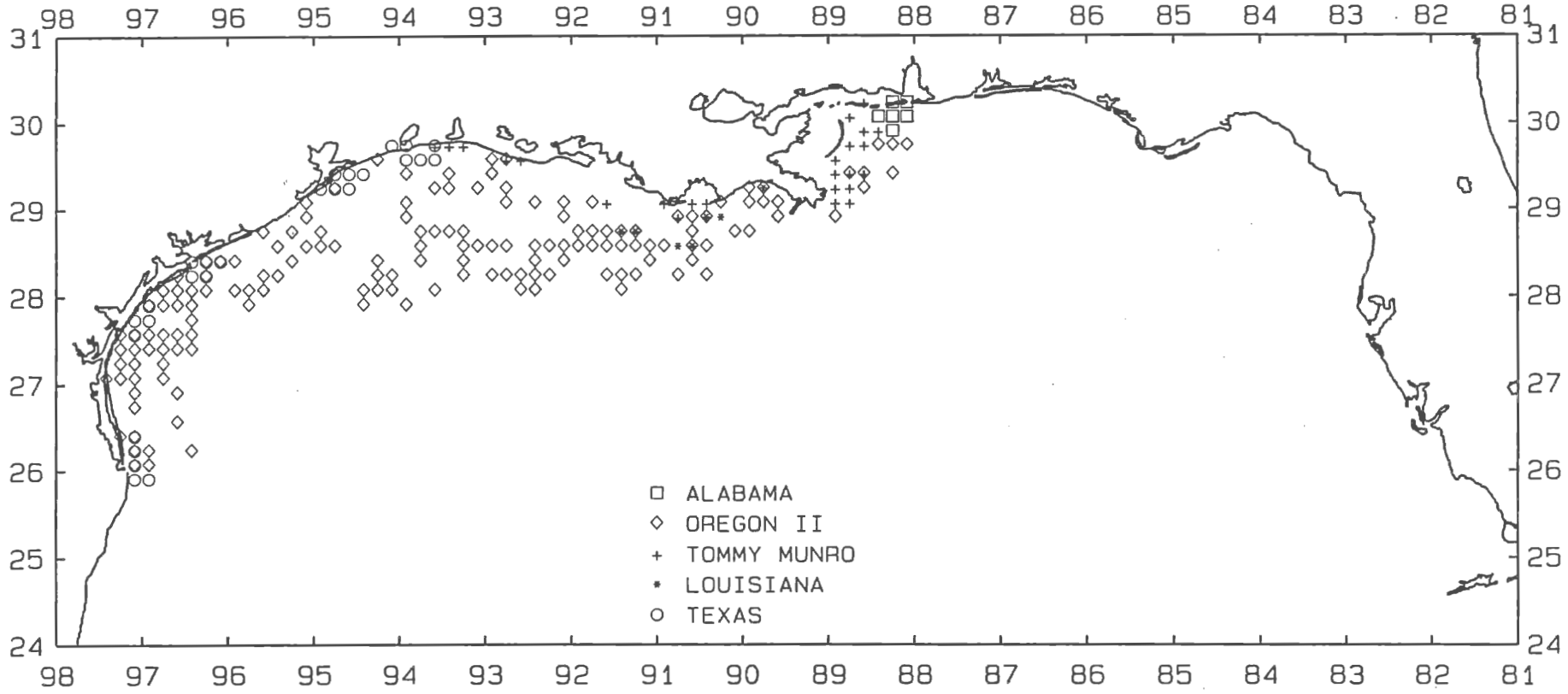

Figure 16. Locations of trawl stations during the 1995 Summer Shrimp/Groundfish Survey summarized by 10-minute squares.

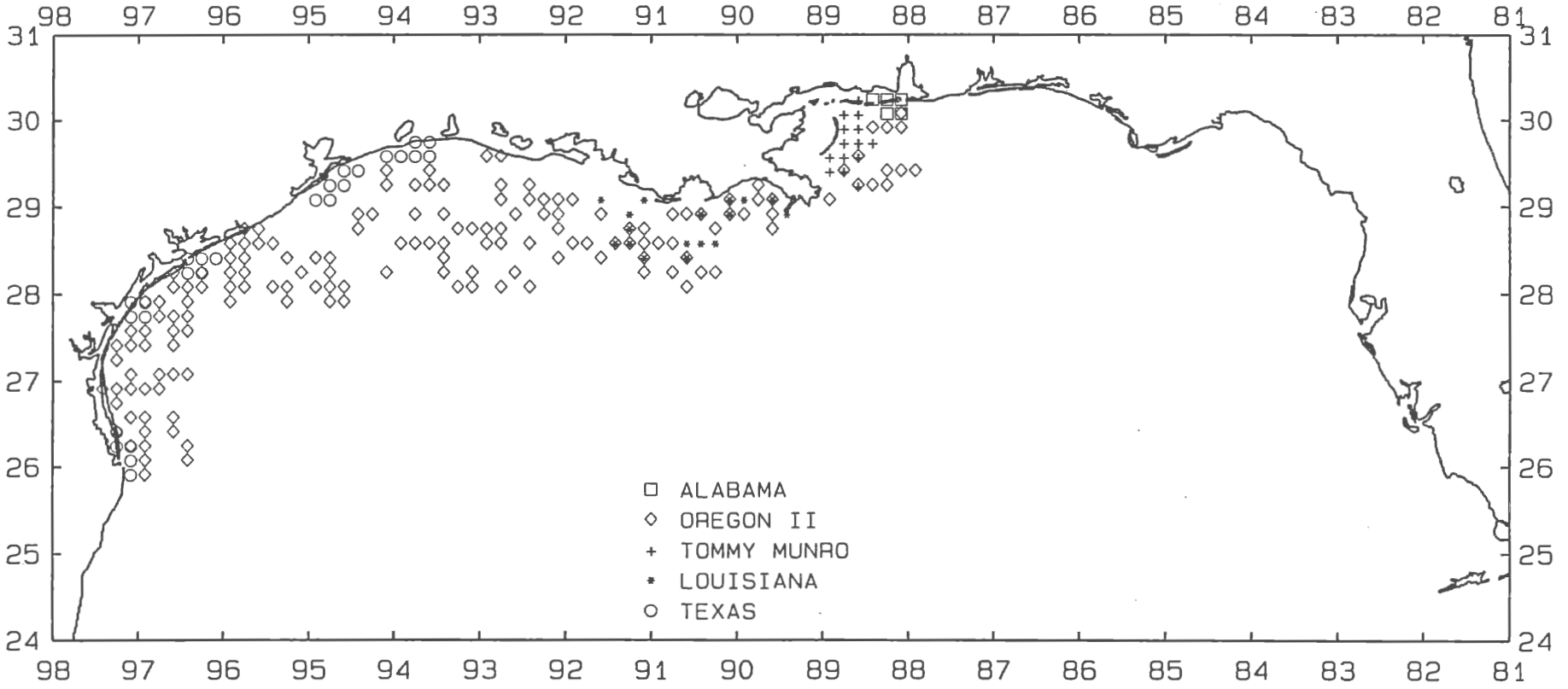

Figure 17. Locations of trawl stations during the 1995 Fall Shrimp/Groundfish Survey, summarized by 10-minute squares.

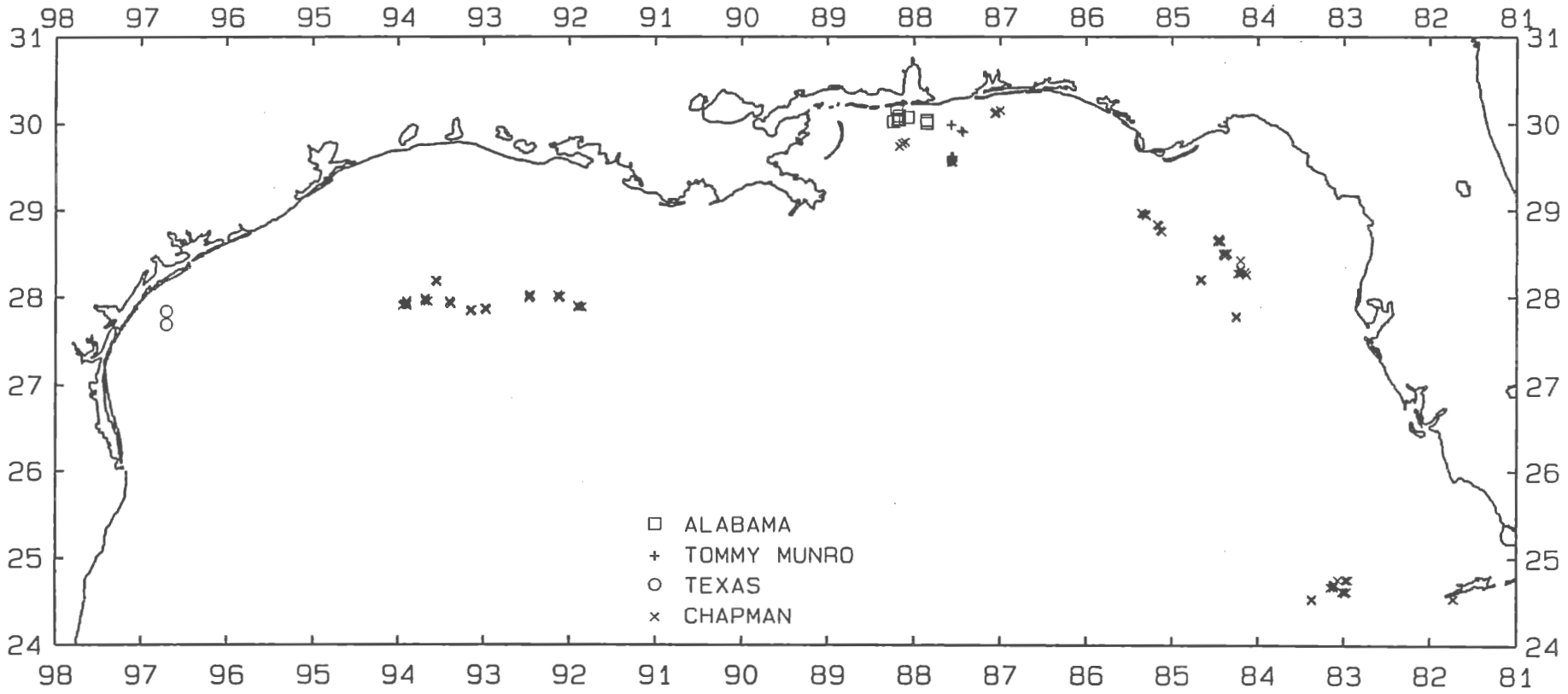

Figure 18. Locations of trap stations during 1995 Spring Reef Fish Survey.

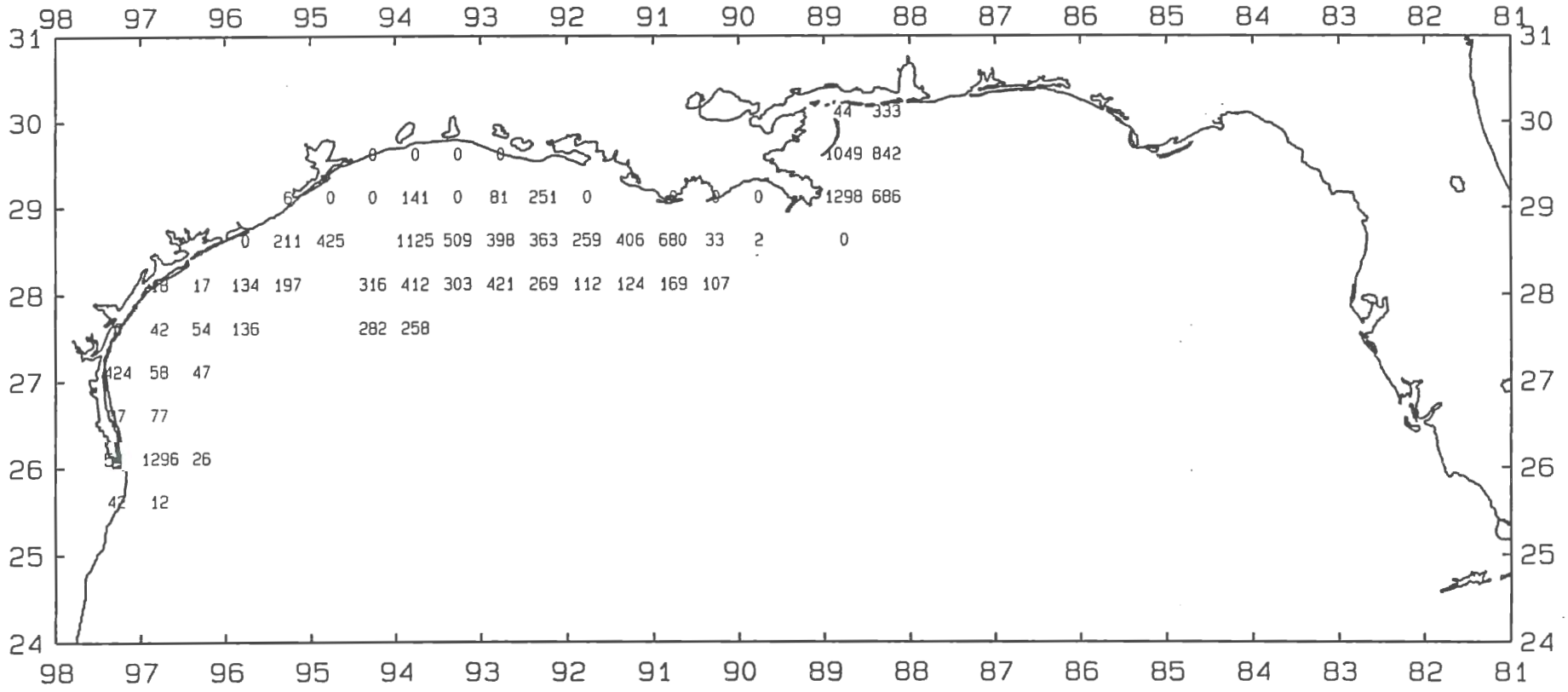

Figure 19. Longspine porgy, Stenotomus caprinus, number/hour for June-July 1995.

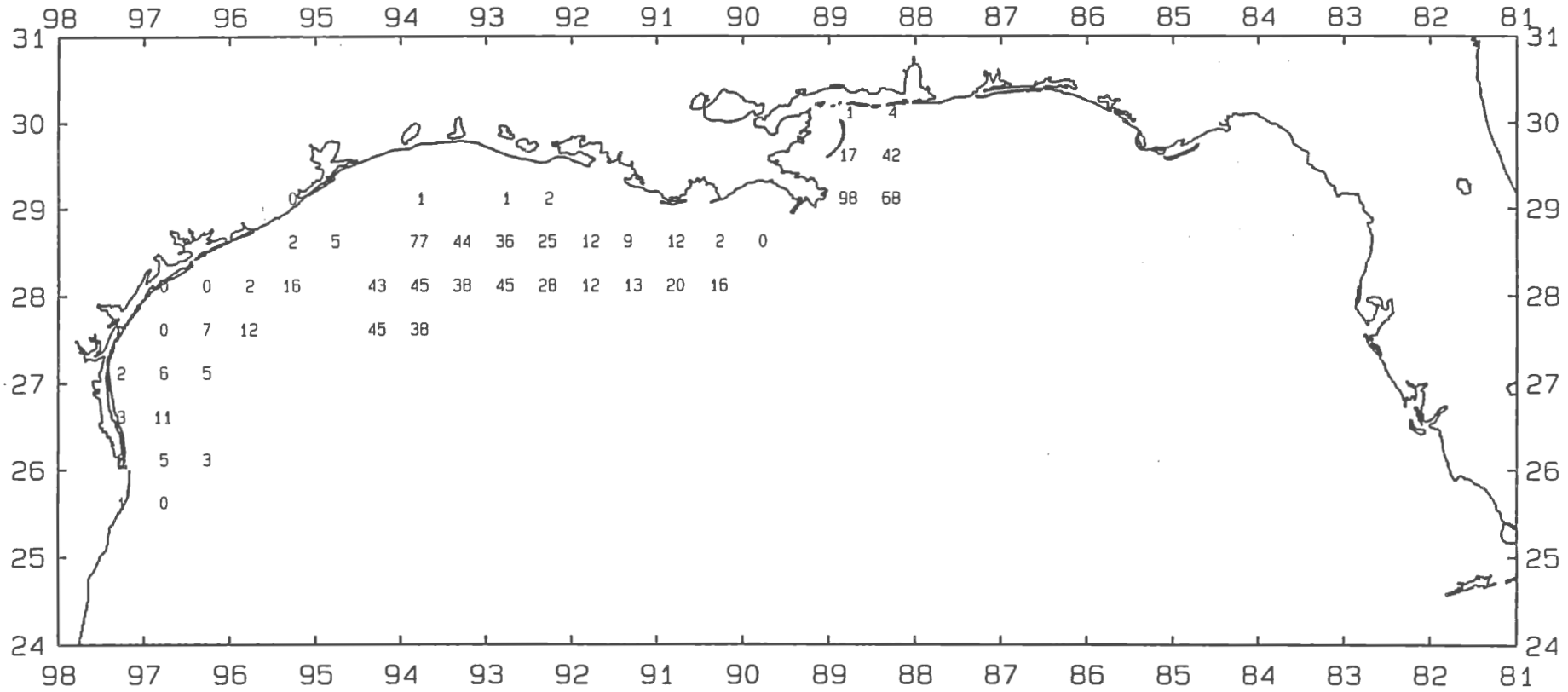

Figure 20. Longspine porgy, Stenotomus caprinus, lb/hour for June-July 1995.

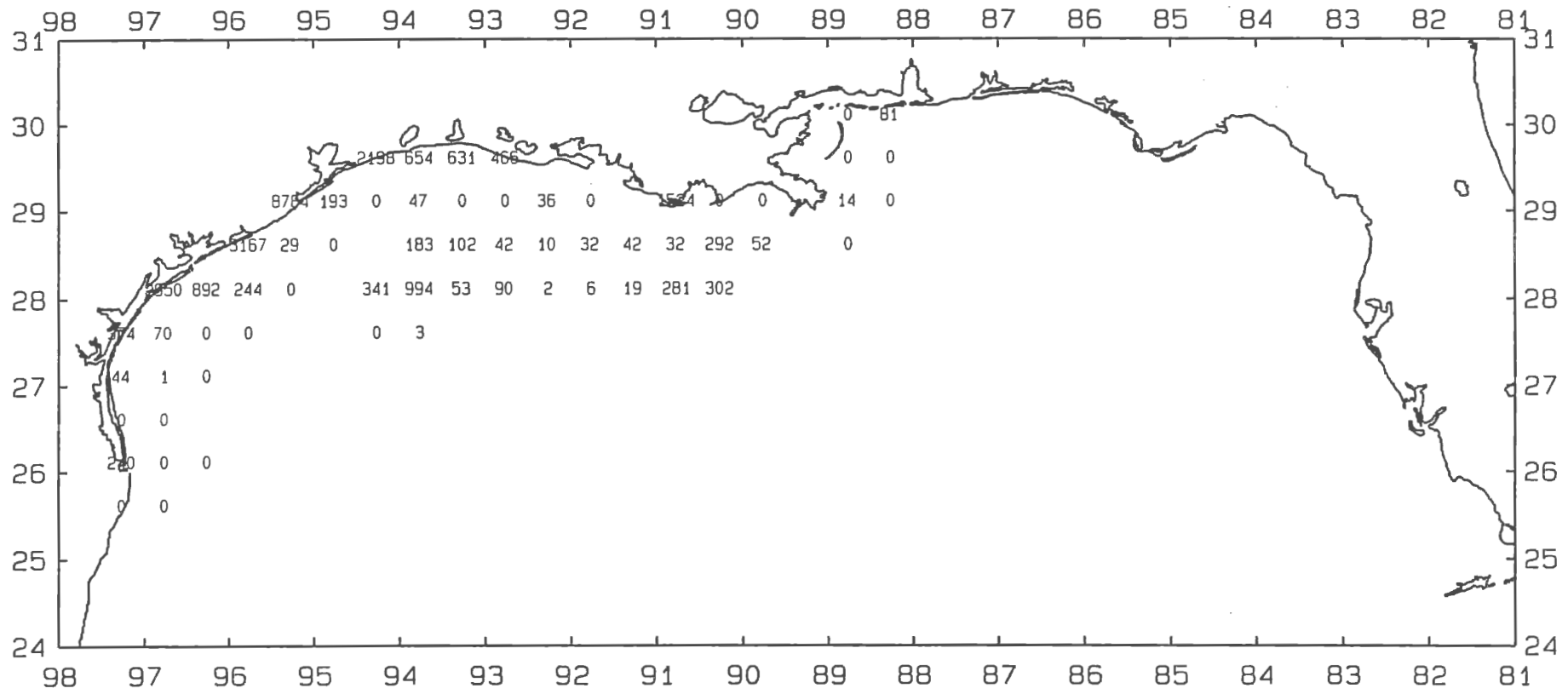

Figure 21. Atlantic croaker, Micropogonias undulatus, number/hour for June-July 1995.

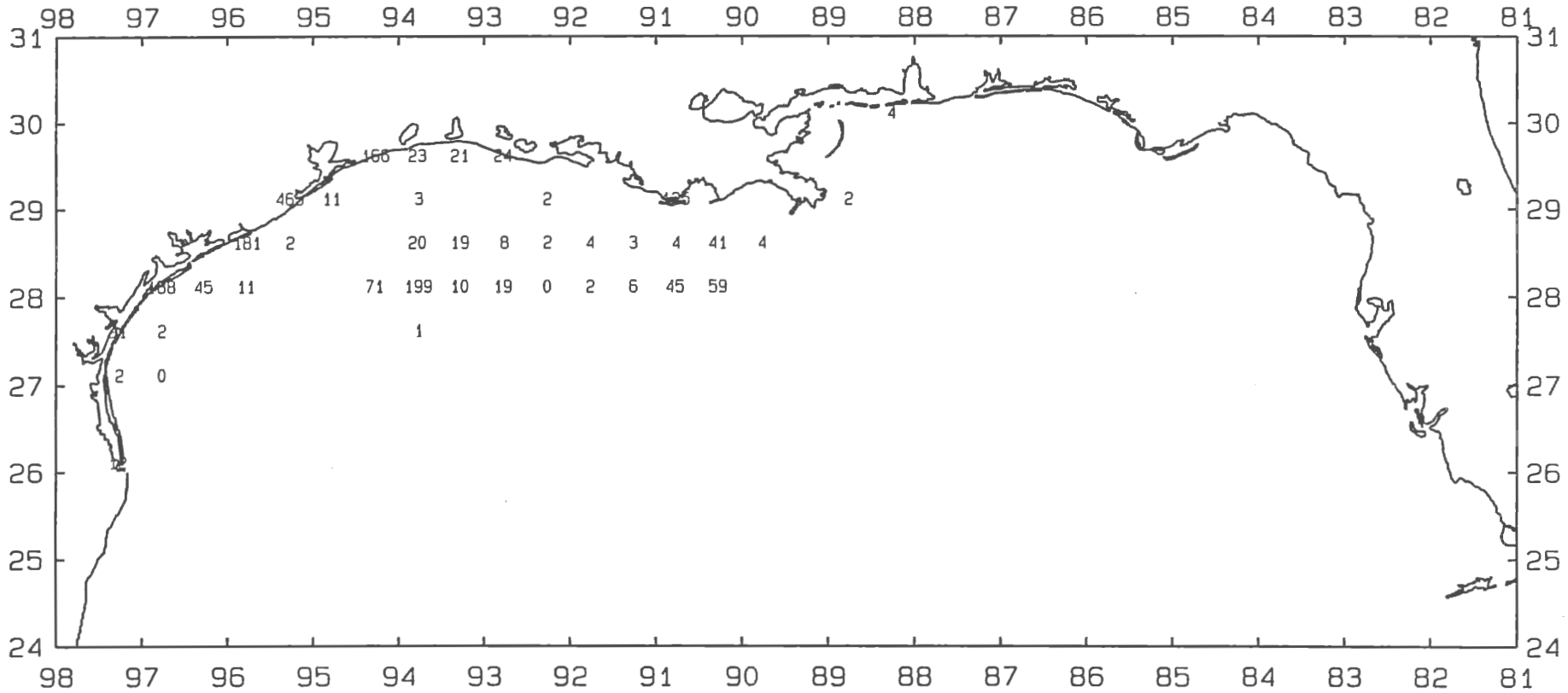

Figure 22. Atlantic croaker, Micropogonias undulatus, lb/hour for June-July 1995.

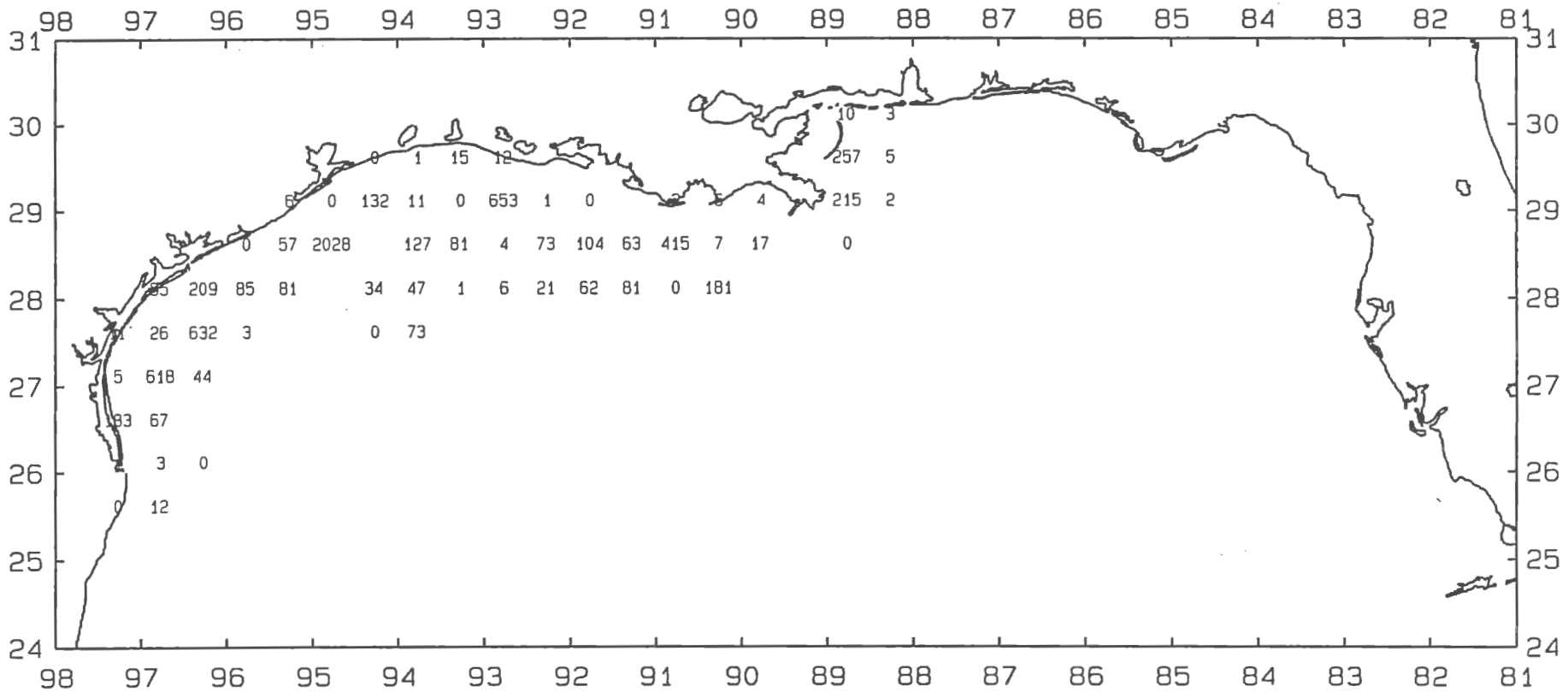

Figure 23. Gulf butterfish, Peprilus burti, number/hour for June-July 1995.

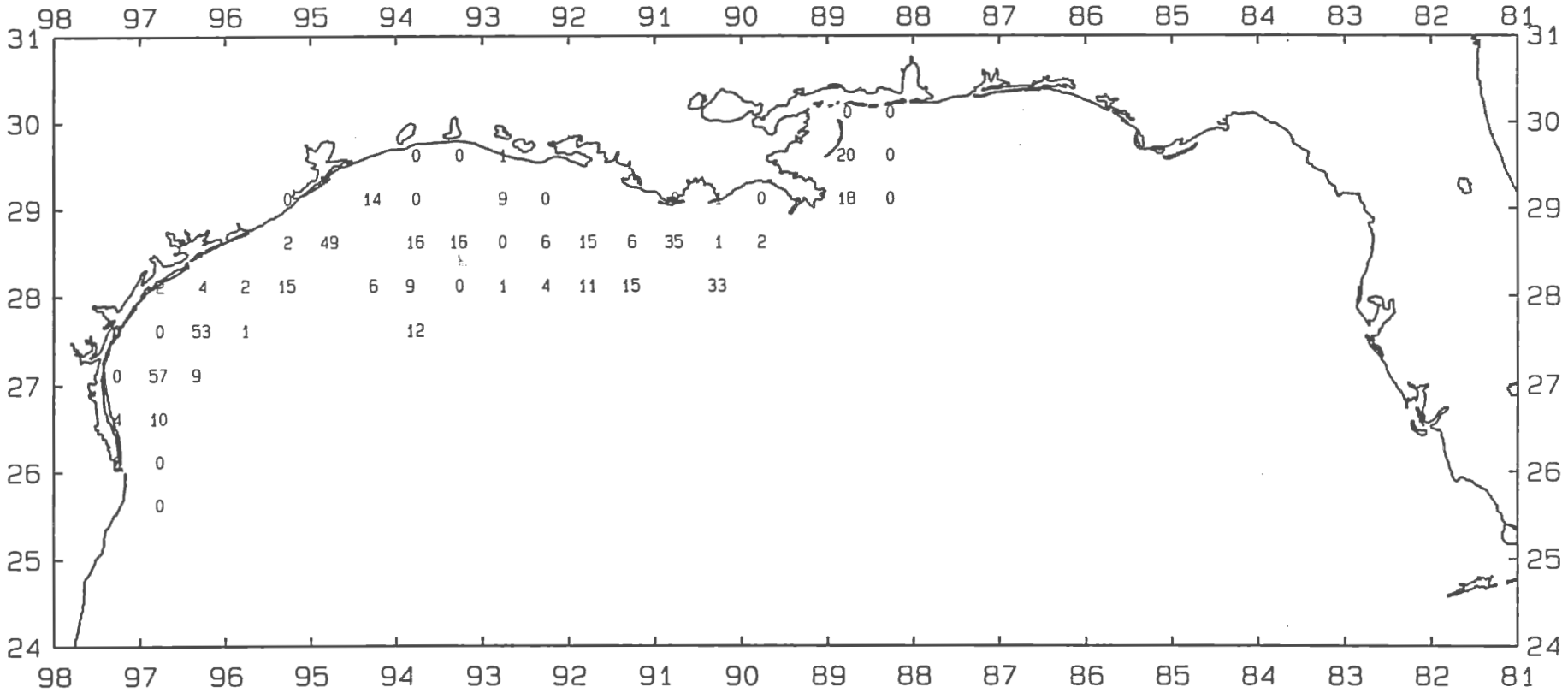

Figure 24. Gulf butterfish, Peprilus burti, lb/hour for June-July 1995.

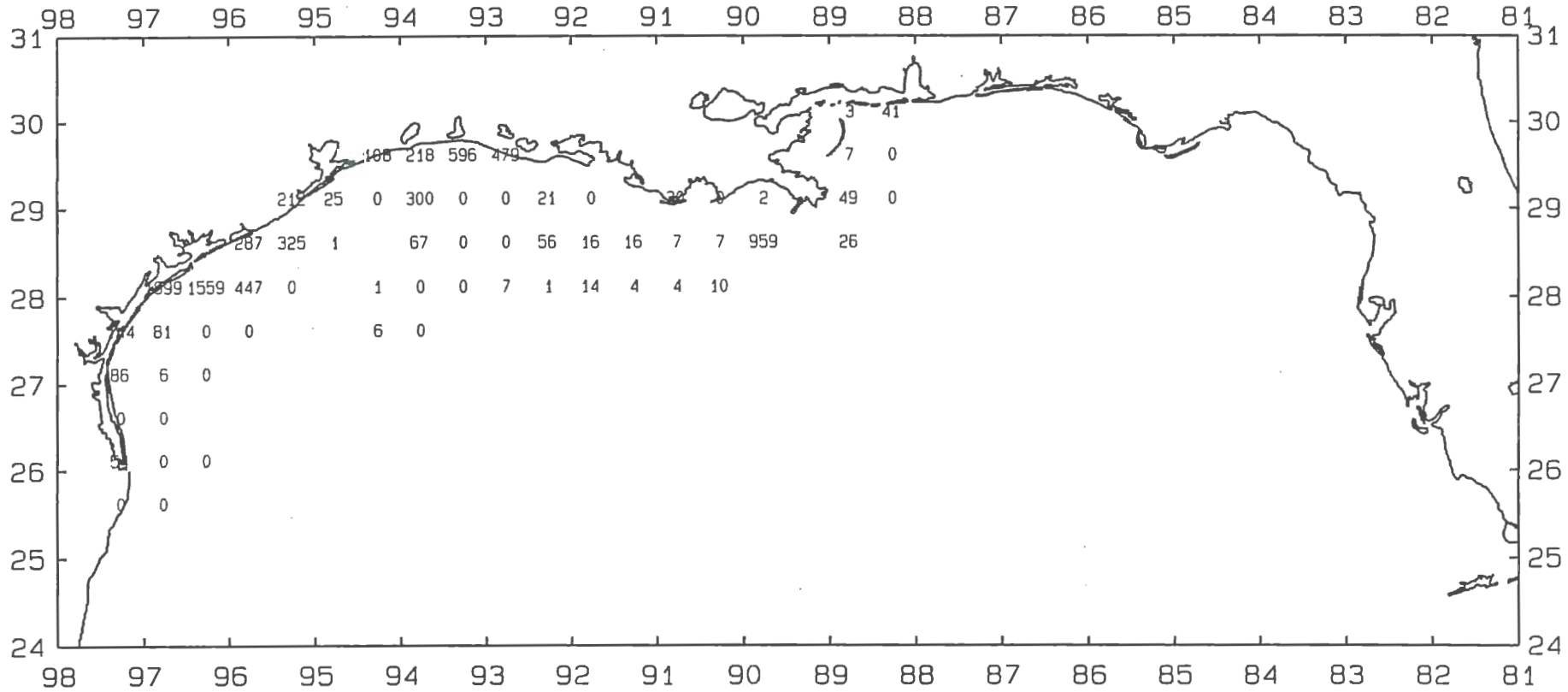

Figure 25. Sand seatrout, Cynoscion arenarius, number/hour for June-July 1995.

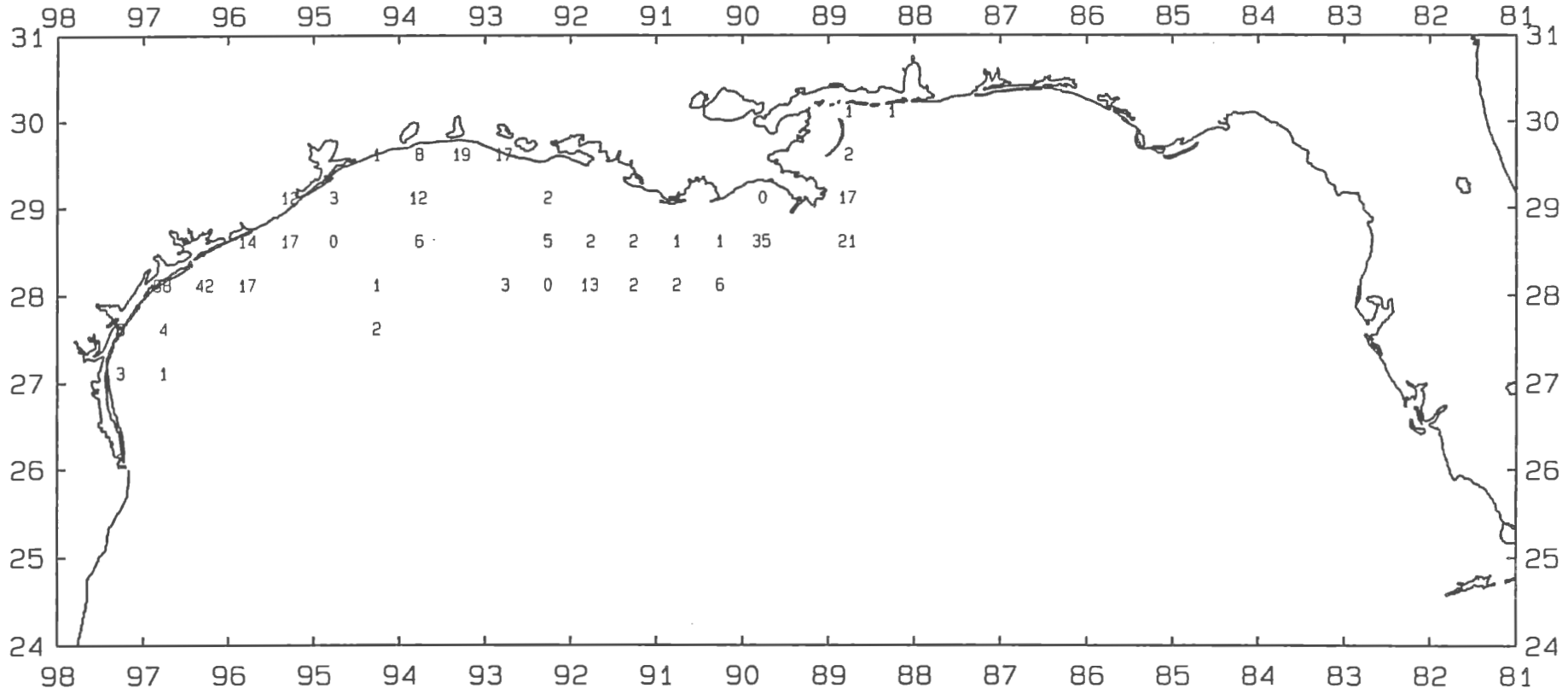

Figure 26. Sand seatrout, Cynoscion arenarius, lb/hour for June-July 1995.

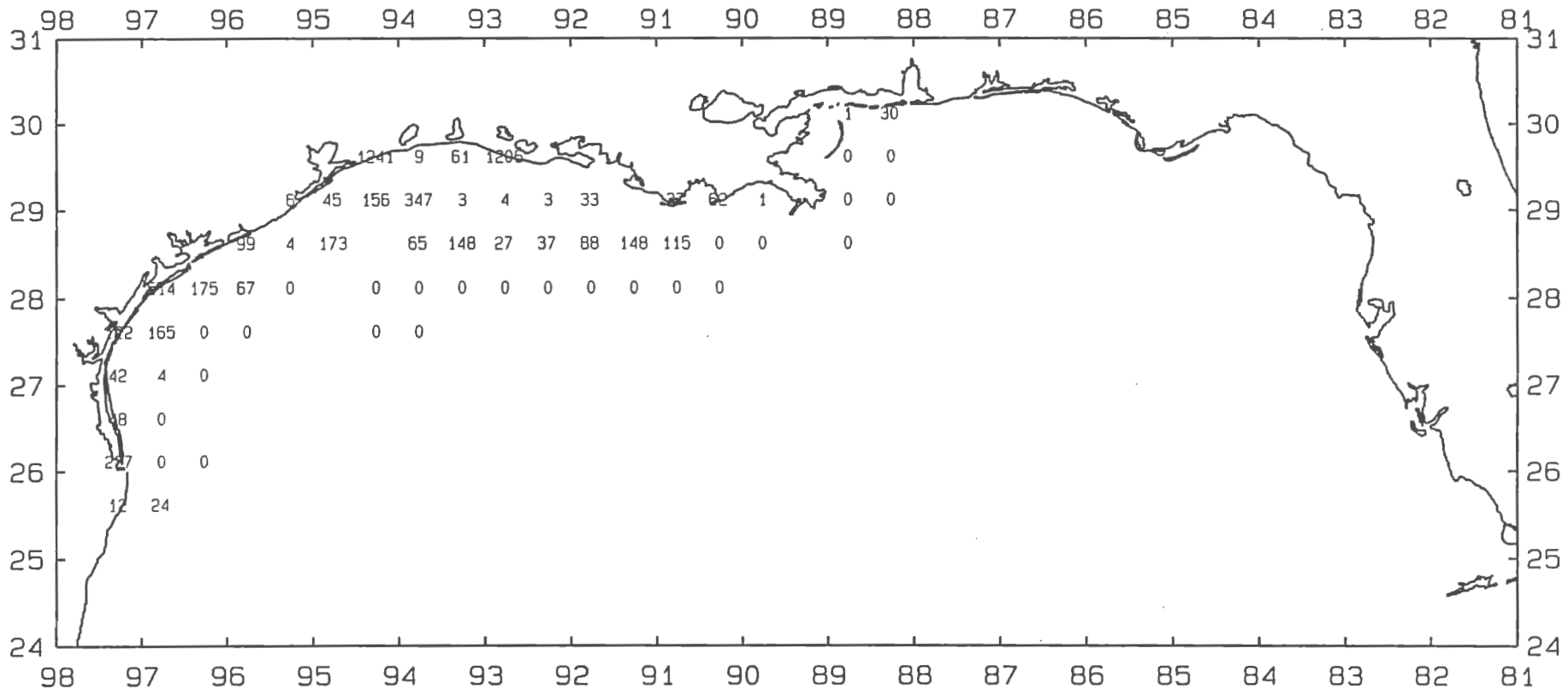

Figure 27. Atlantic bumper, Chloroscombrus chrysurus, number/hour for June-July 1995.

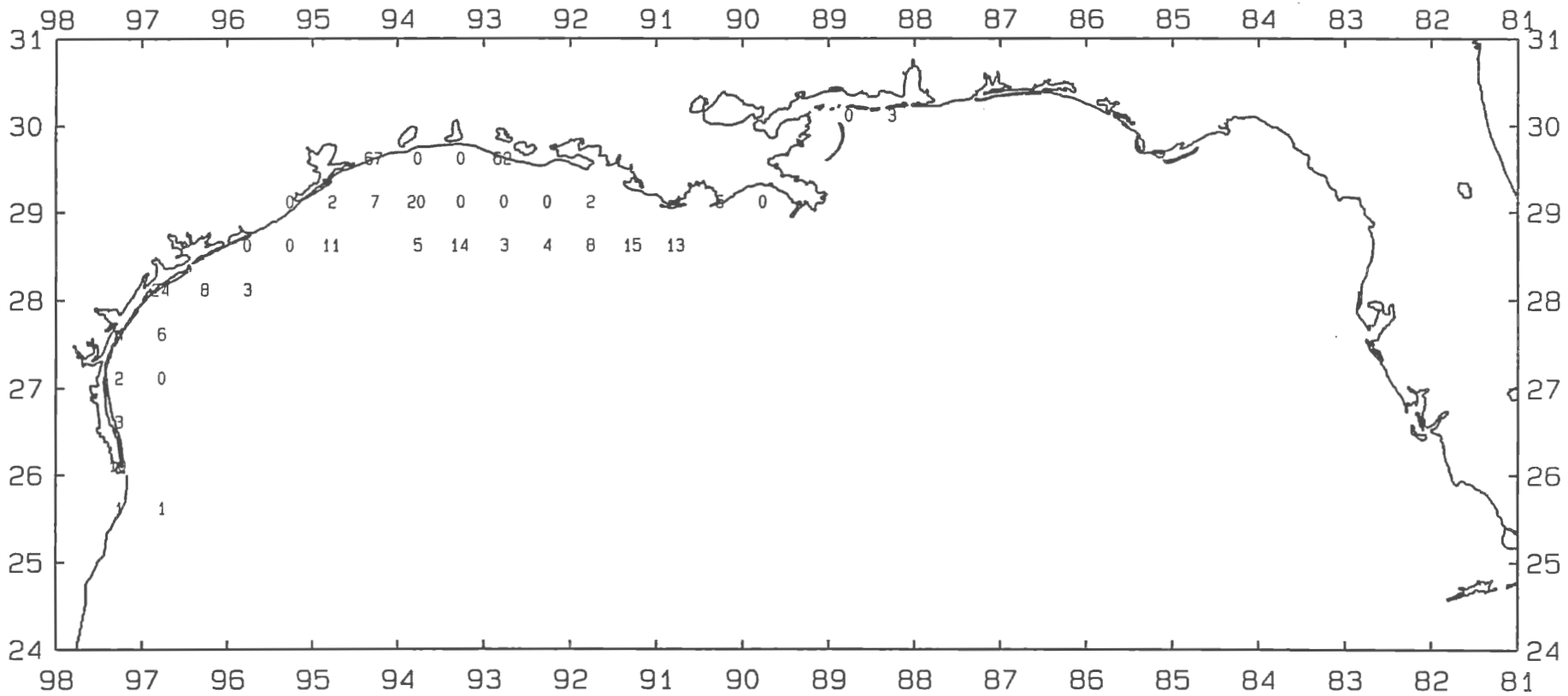

Figure 28. Atlantic bumper, Chloroscombrus chrysurus, lb/hour for June-July 1995.

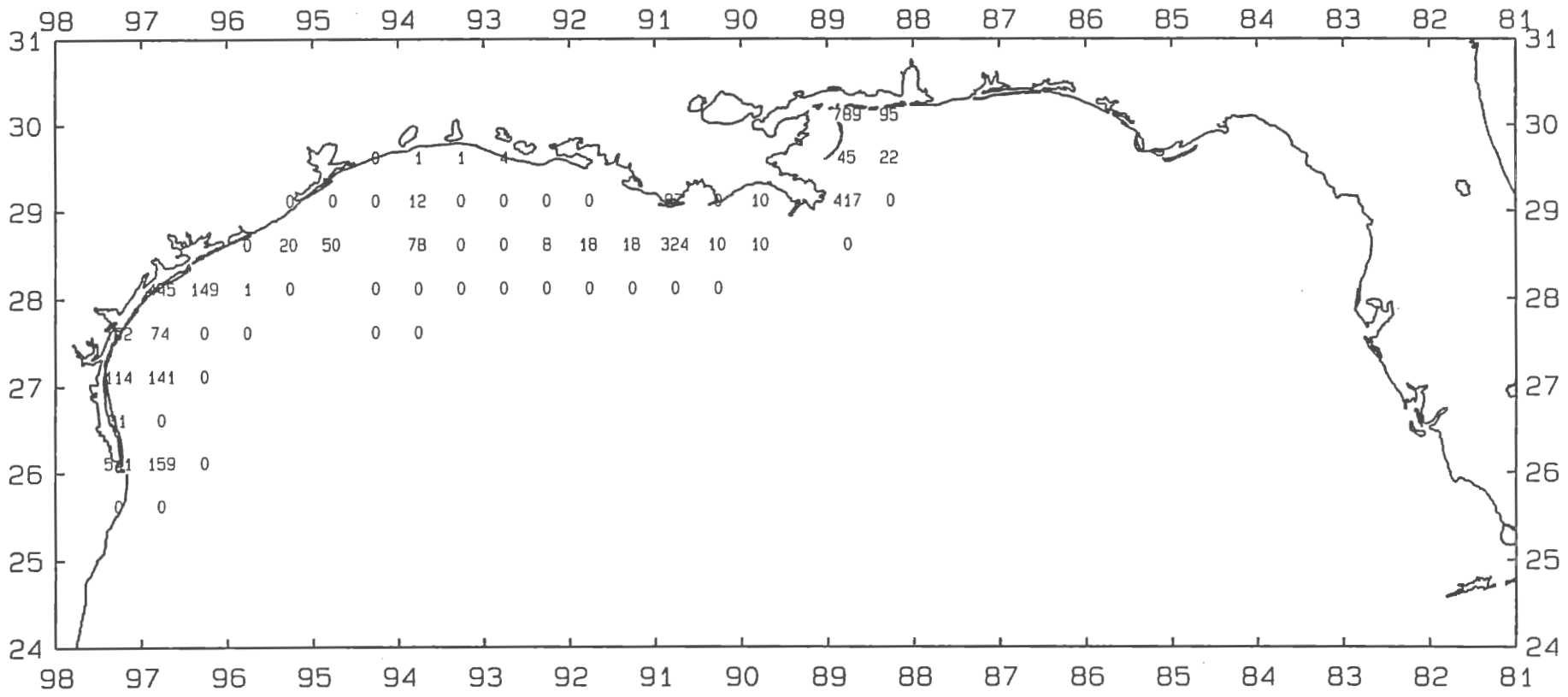

Figure 29. Striped anchovy, Anchoa hepsetus, number/hour for June-July 1995.

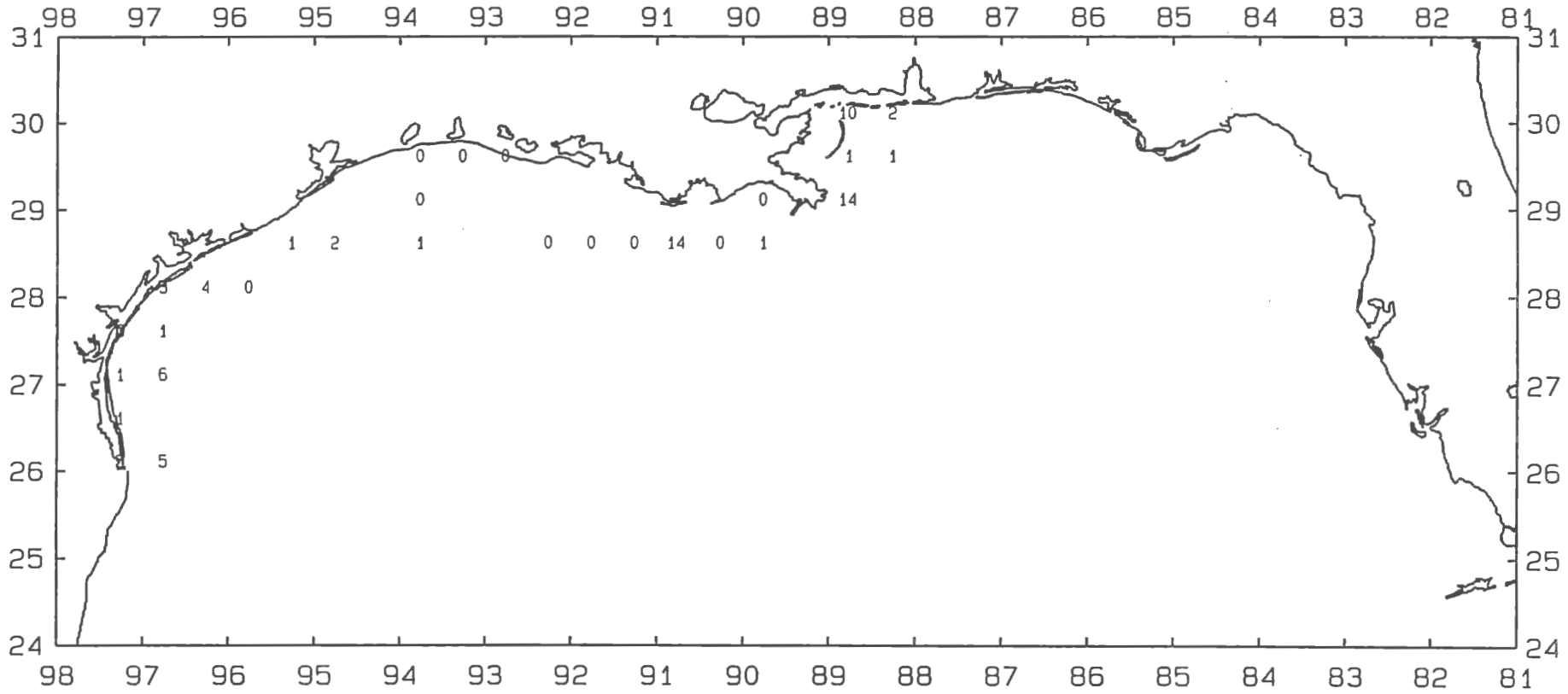

Figure 30. Striped anchovy, Anchoa hepsetus, lb/hour for June-July 1995.

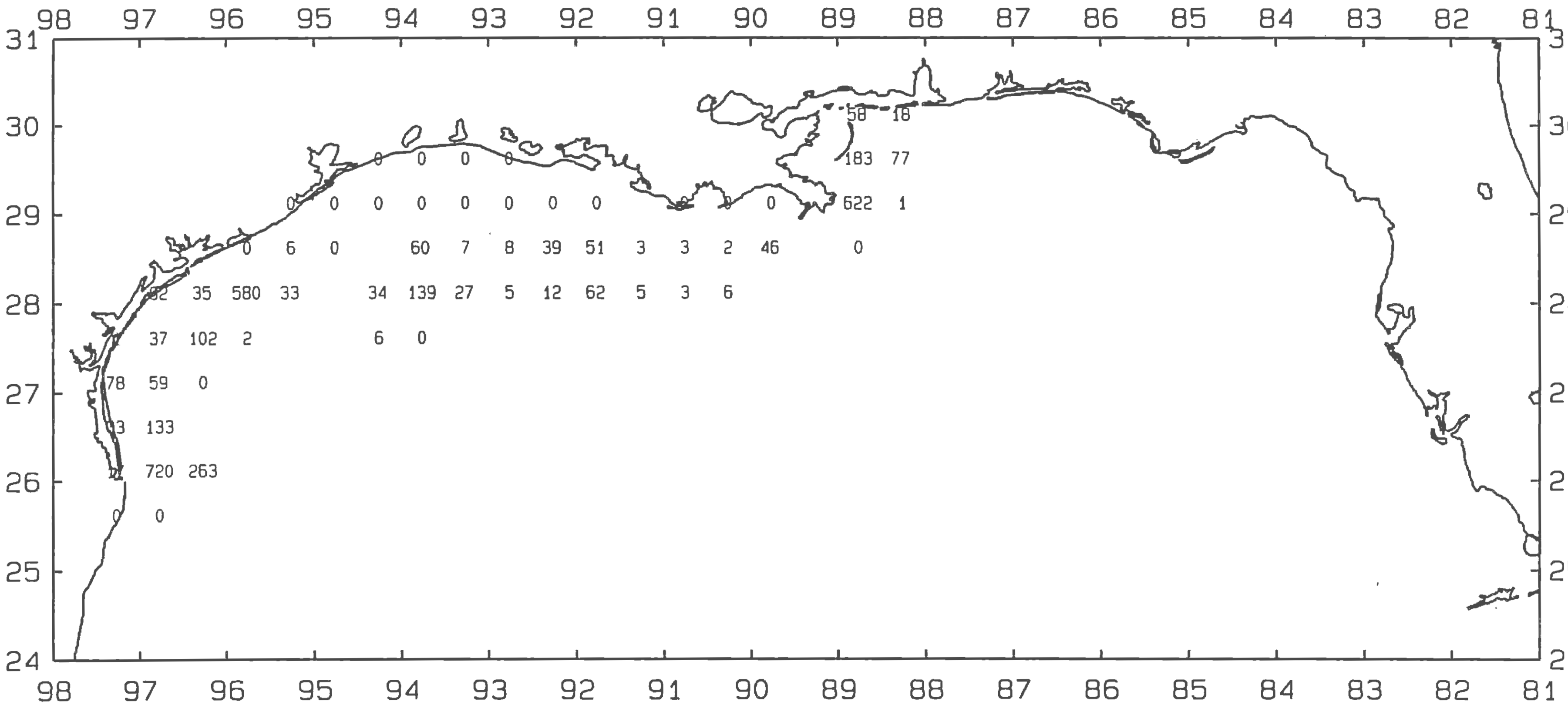

Figure 31. Largescale lizardfish, <u>Saurida</u> <u>brasiliensis</u>, number/hour for June-July 1995.

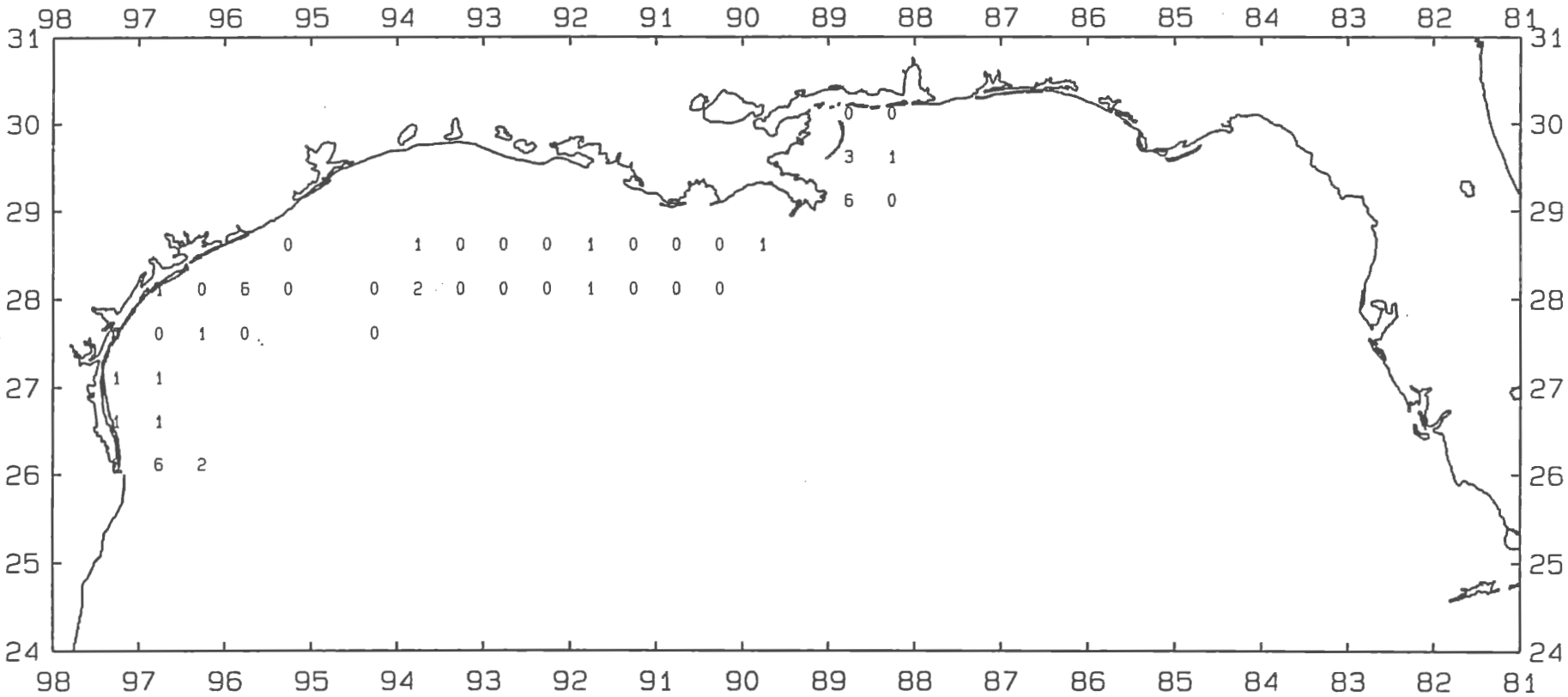

Figure 32. Largescale lizardfish, Saurida brasiliensis, lb/hour for June-July 1995.

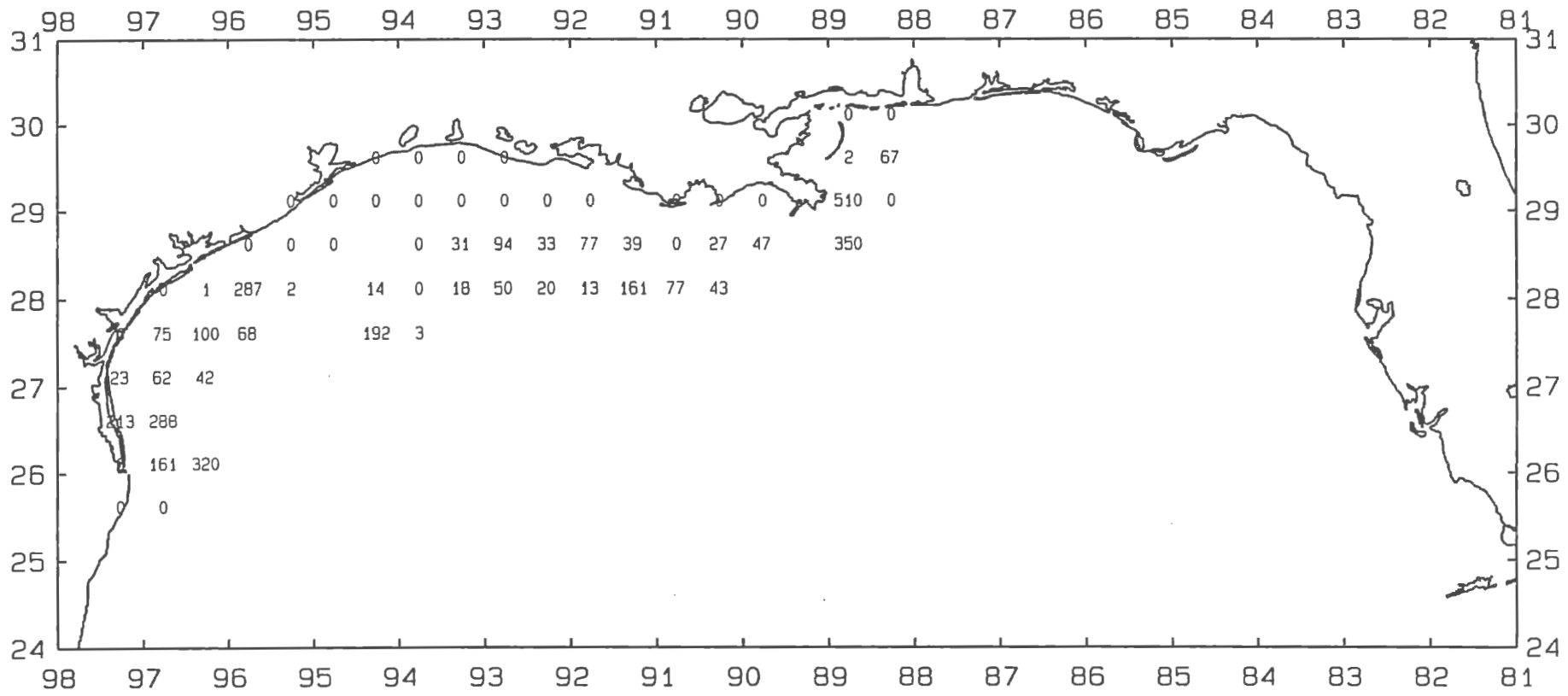

Figure 33. Blackear bass, Serranus atrobranchus, number/hour for June-July 1995.

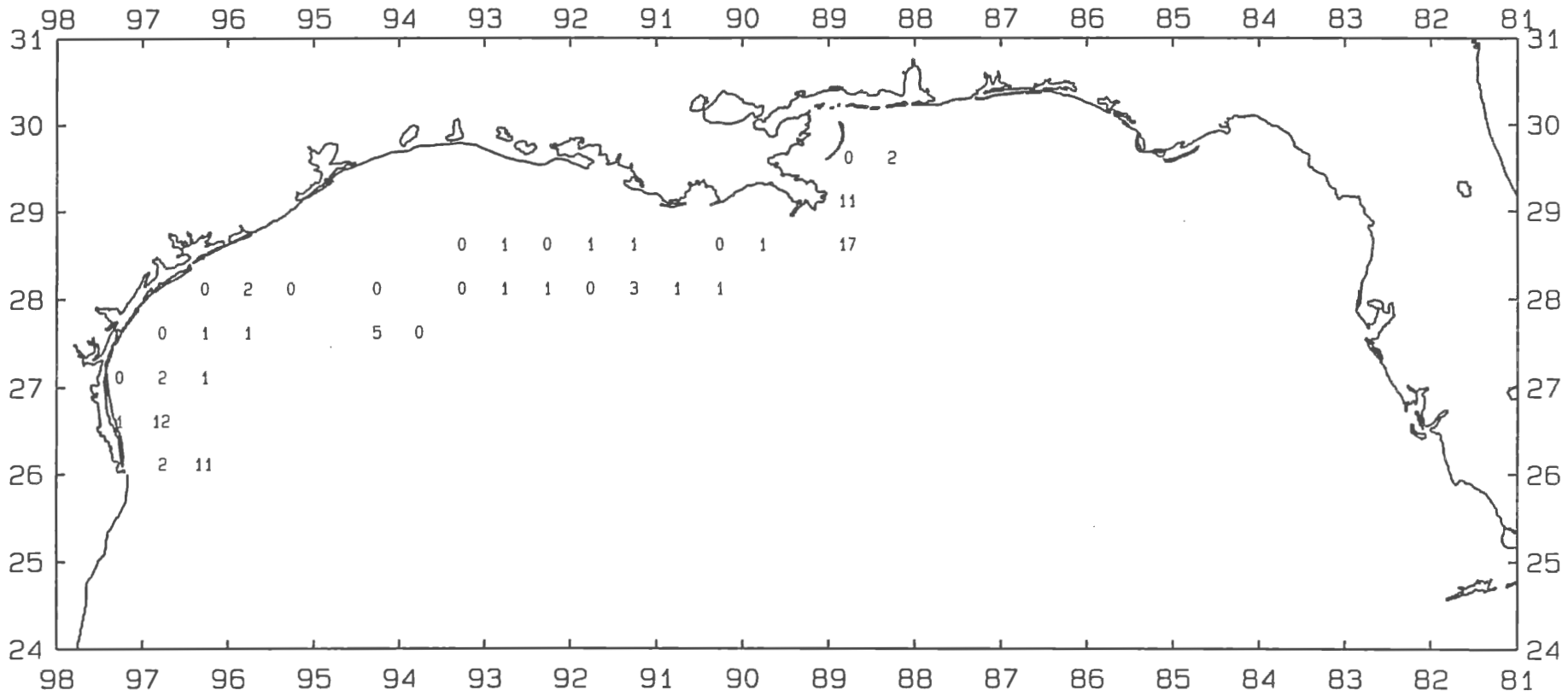

Figure 34. Blackear bass, Serranus atrobranchus, lb/hour for June-July 1995.

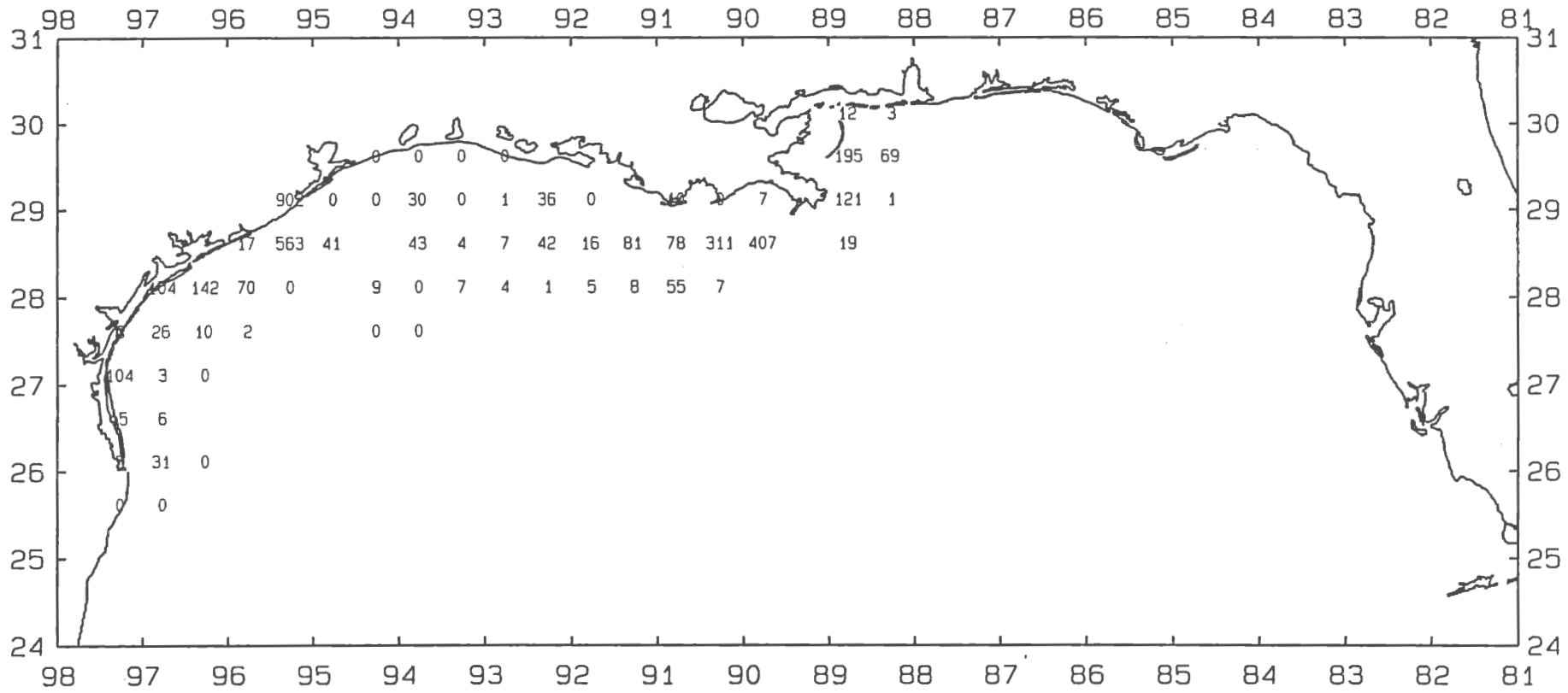

Figure 35. Bigeye searobin, Prionotus longispinosus, number/hour for June-July 1995.

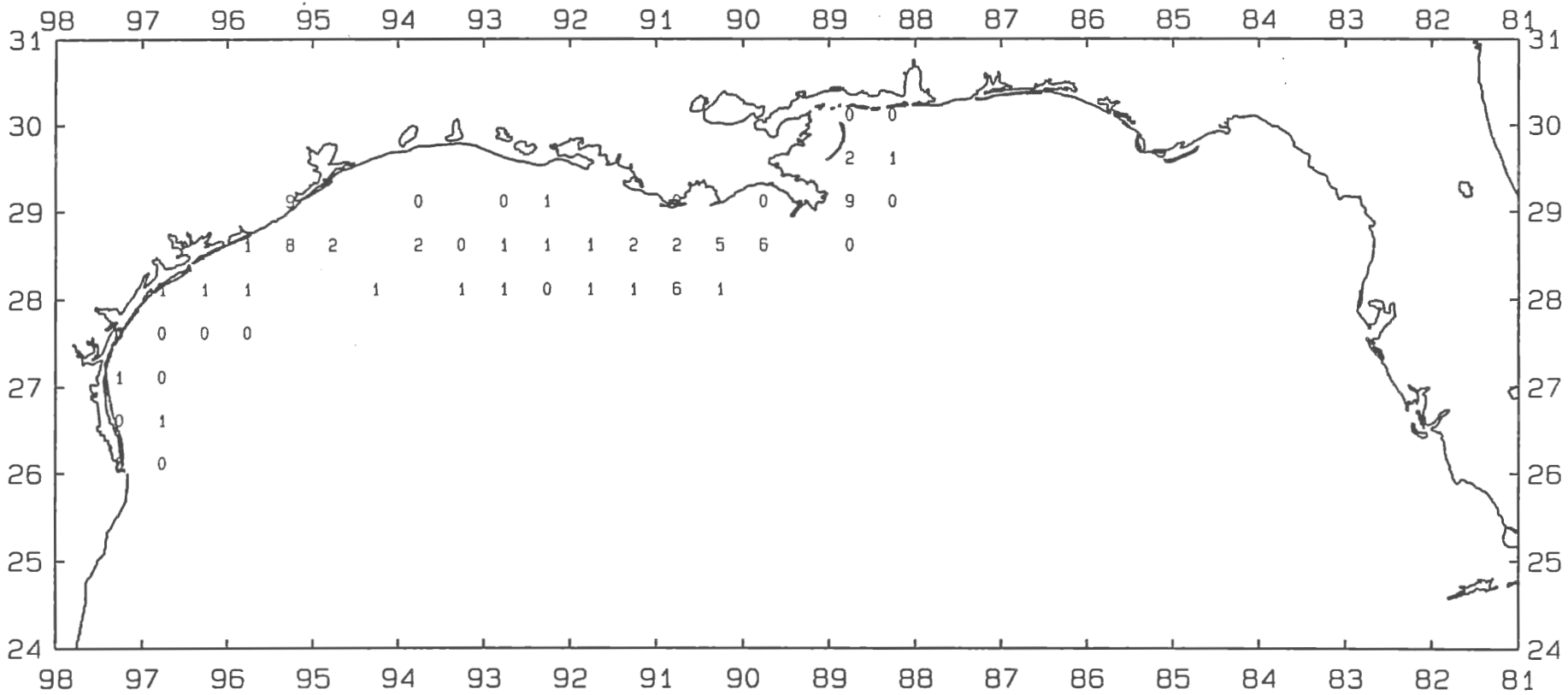

Figure 36. Bigeye searobin, Prionotus longispinosus, lb/hour for June-July 1995.

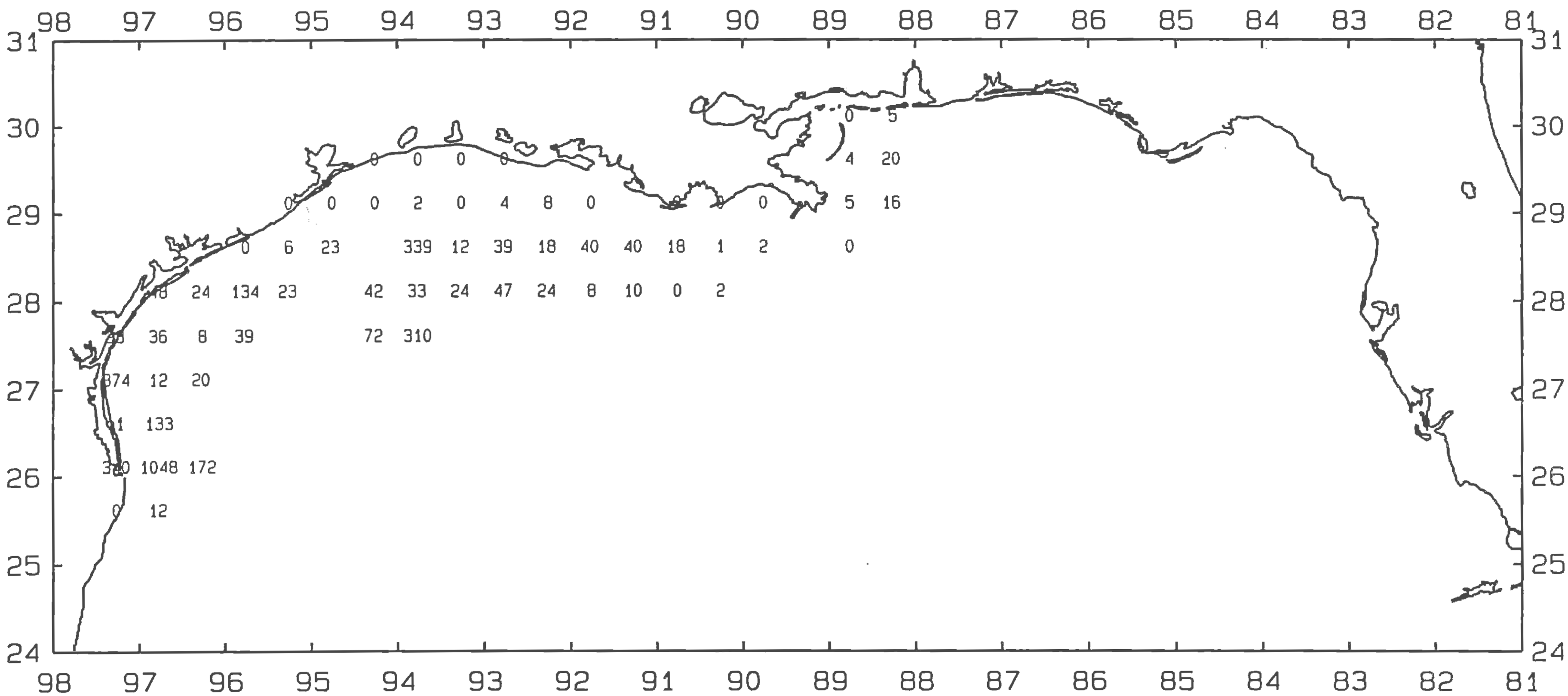

Figure 37. Dwarf goatfish, Upeneus parvus, number/hour for June-July 1995.

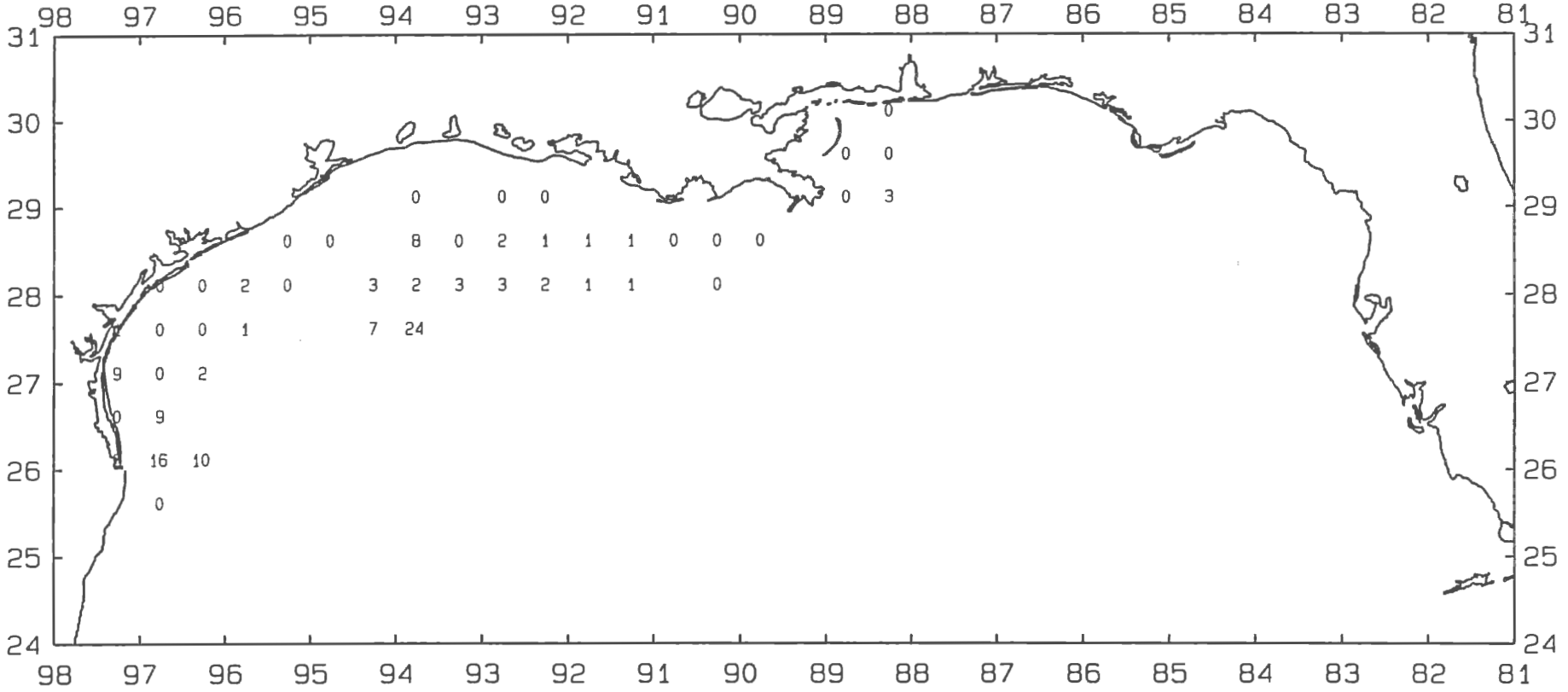

Figure 38. Dwarf goatfish, Upeneus parvus, lb/hour for June-July 1995.

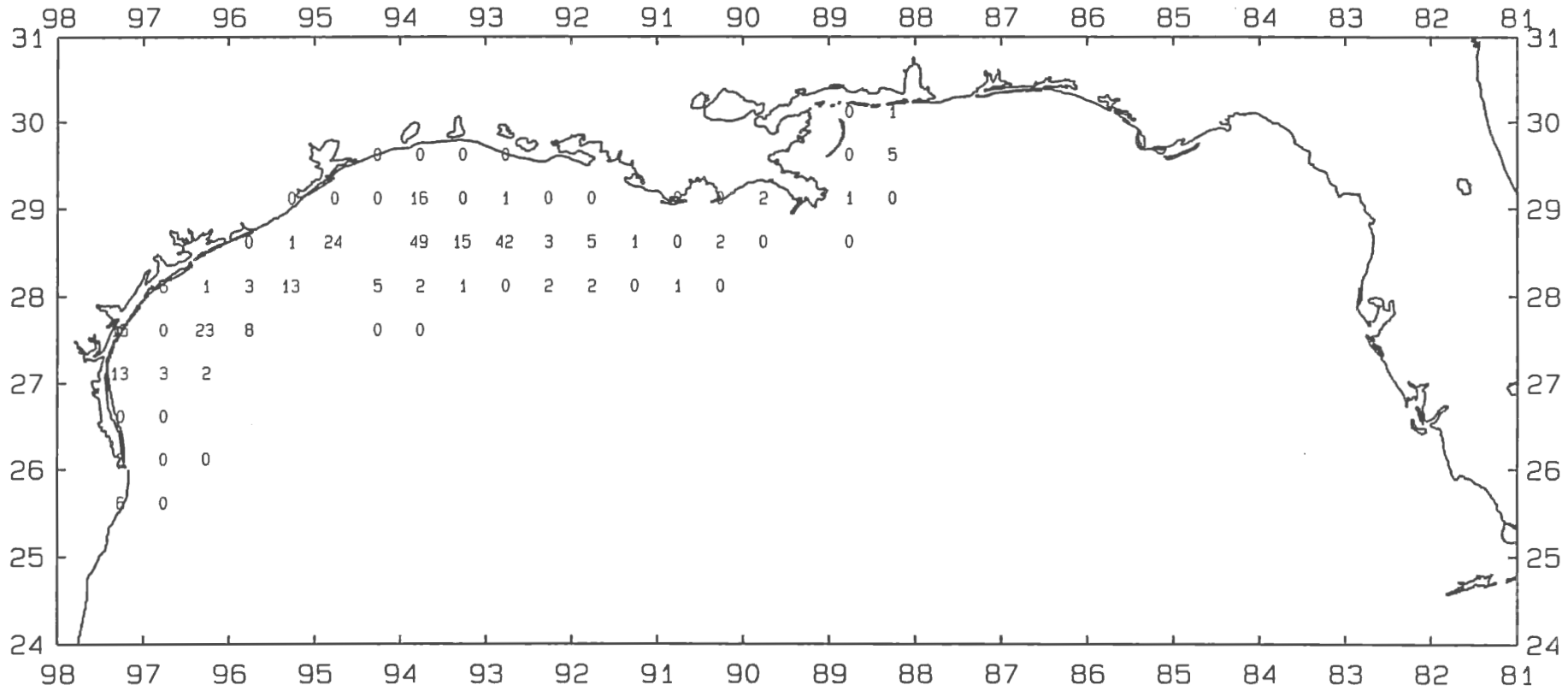

Figure 39. Red snapper, Lutjanus campechanus, number/hour for June-July 1995.

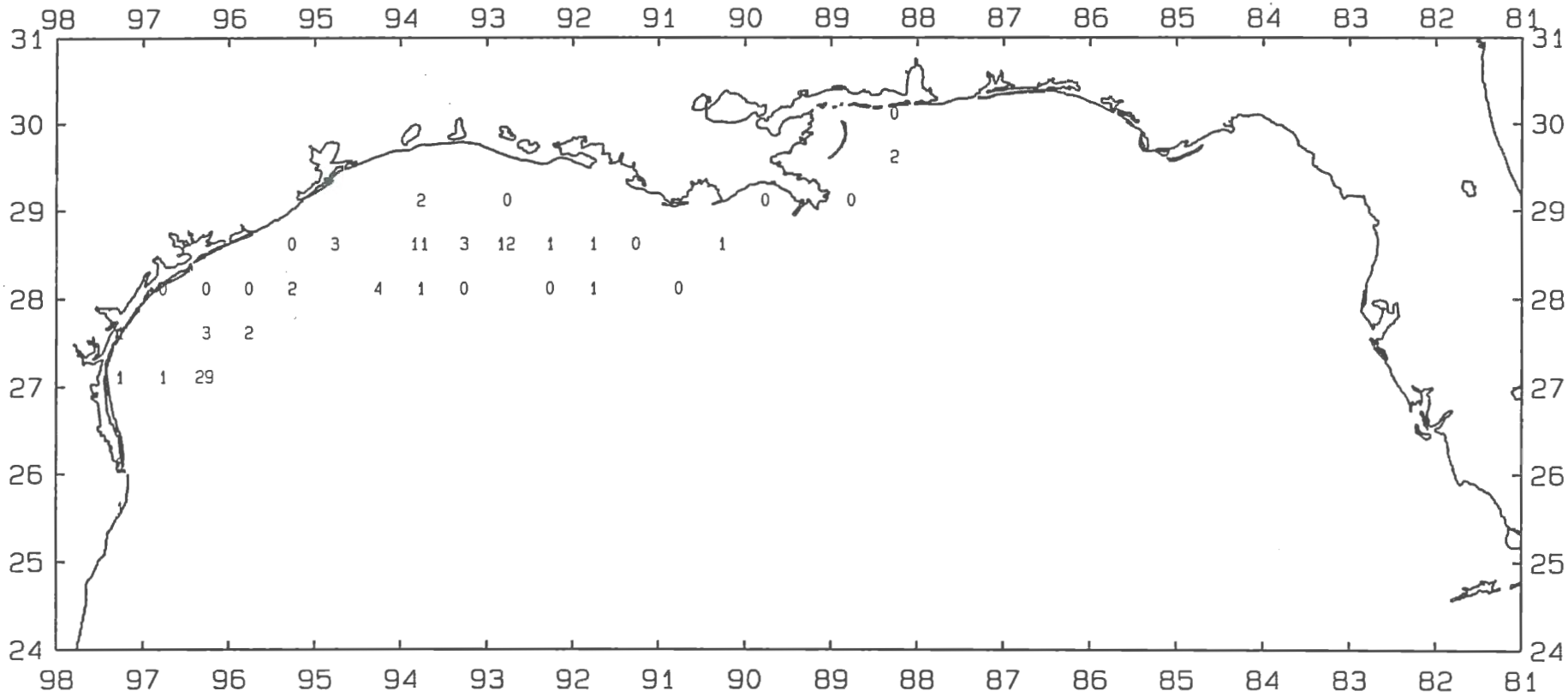

Figure 40. Red snapper, Lutjanus campechanus, lb/hour for June-July 1995.

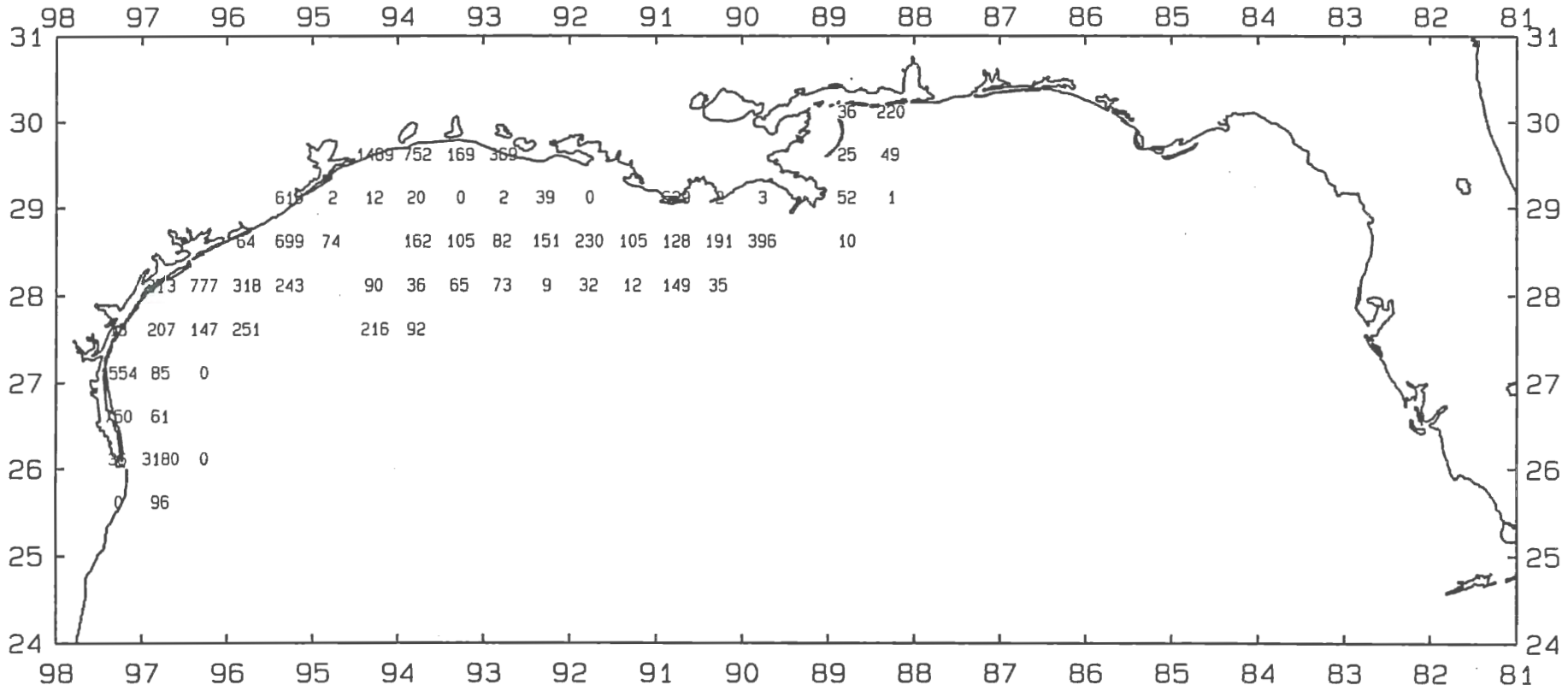

Figure 41. Brown shrimp, Penaeus aztecus, number/hour for June-July 1995.

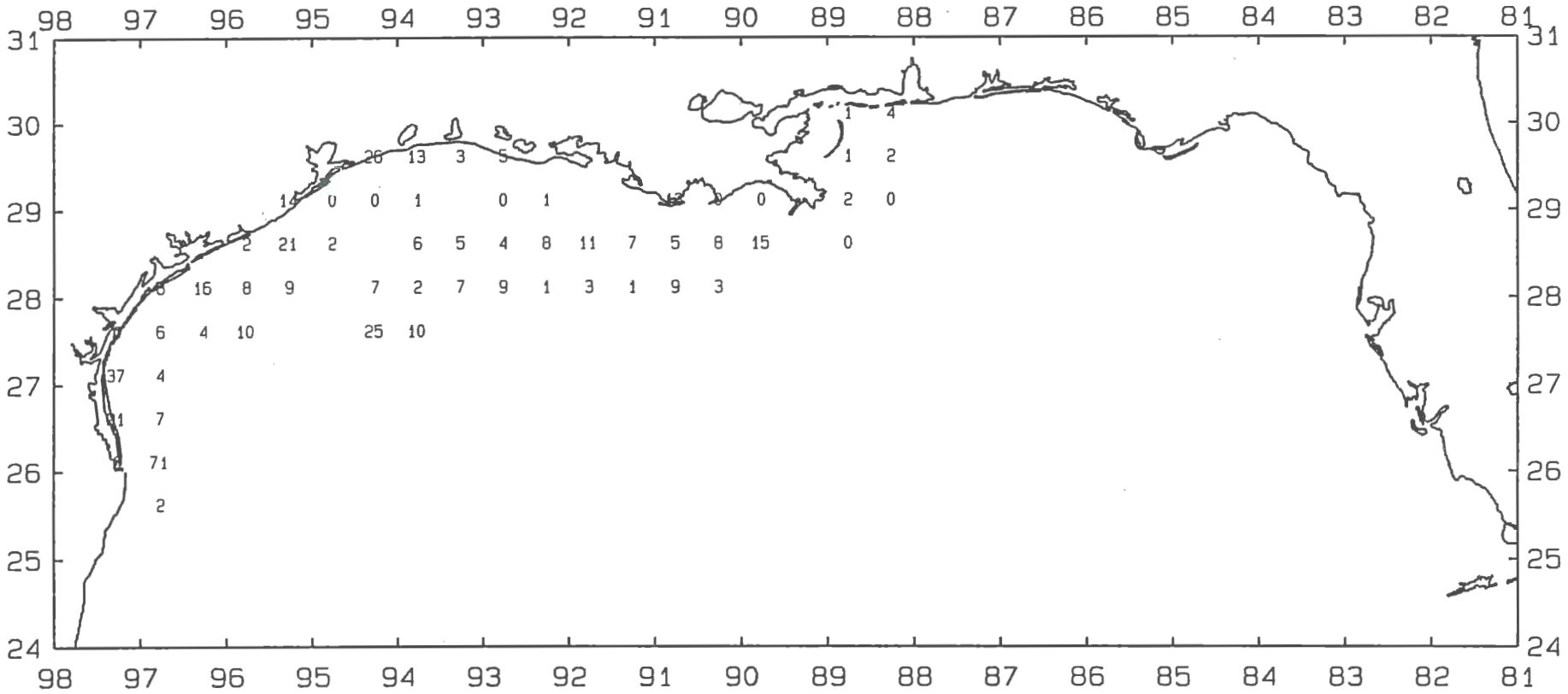

Figure 42. Brown shrimp, Penaeus aztecus, lb/hour for June-July 1995.

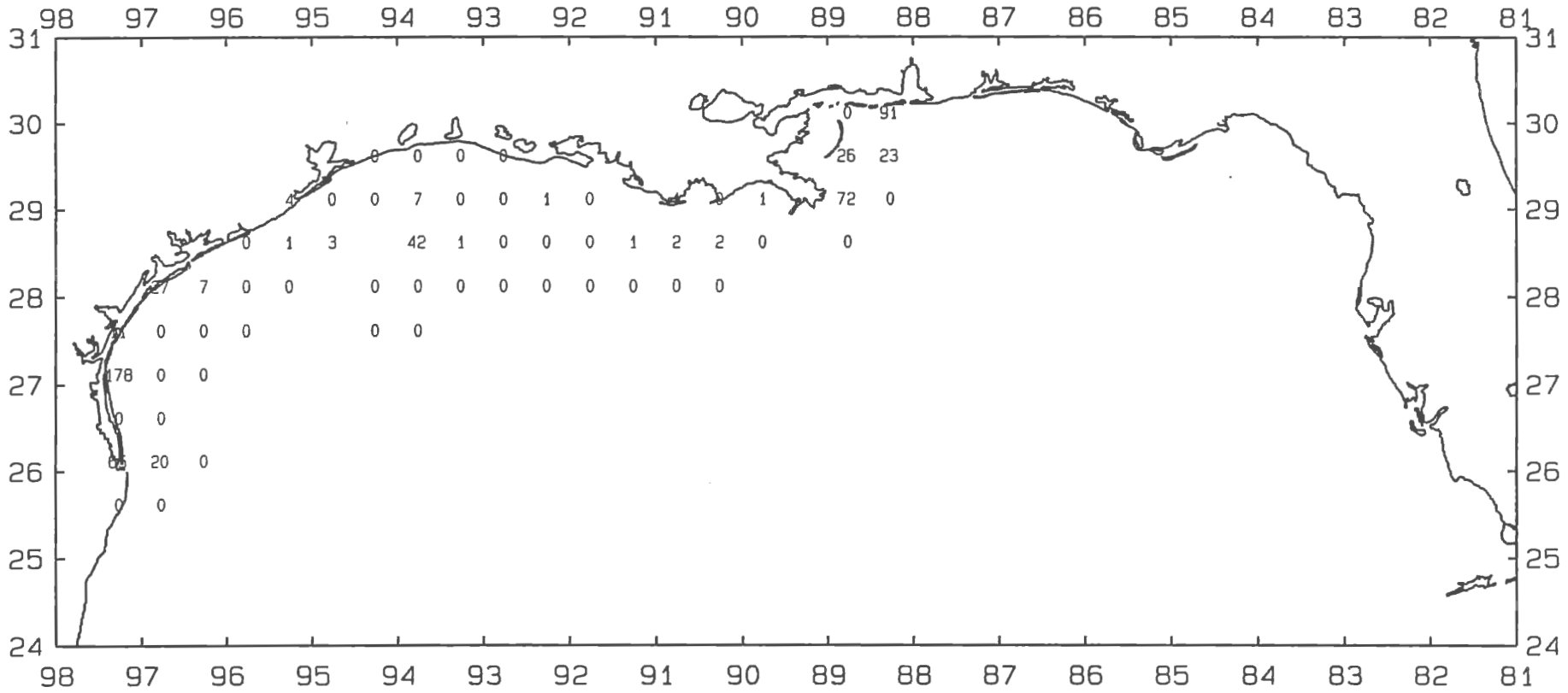

Figure 43. Pink shrimp, Penaeus duorarum, number/hour for June-July 1995.

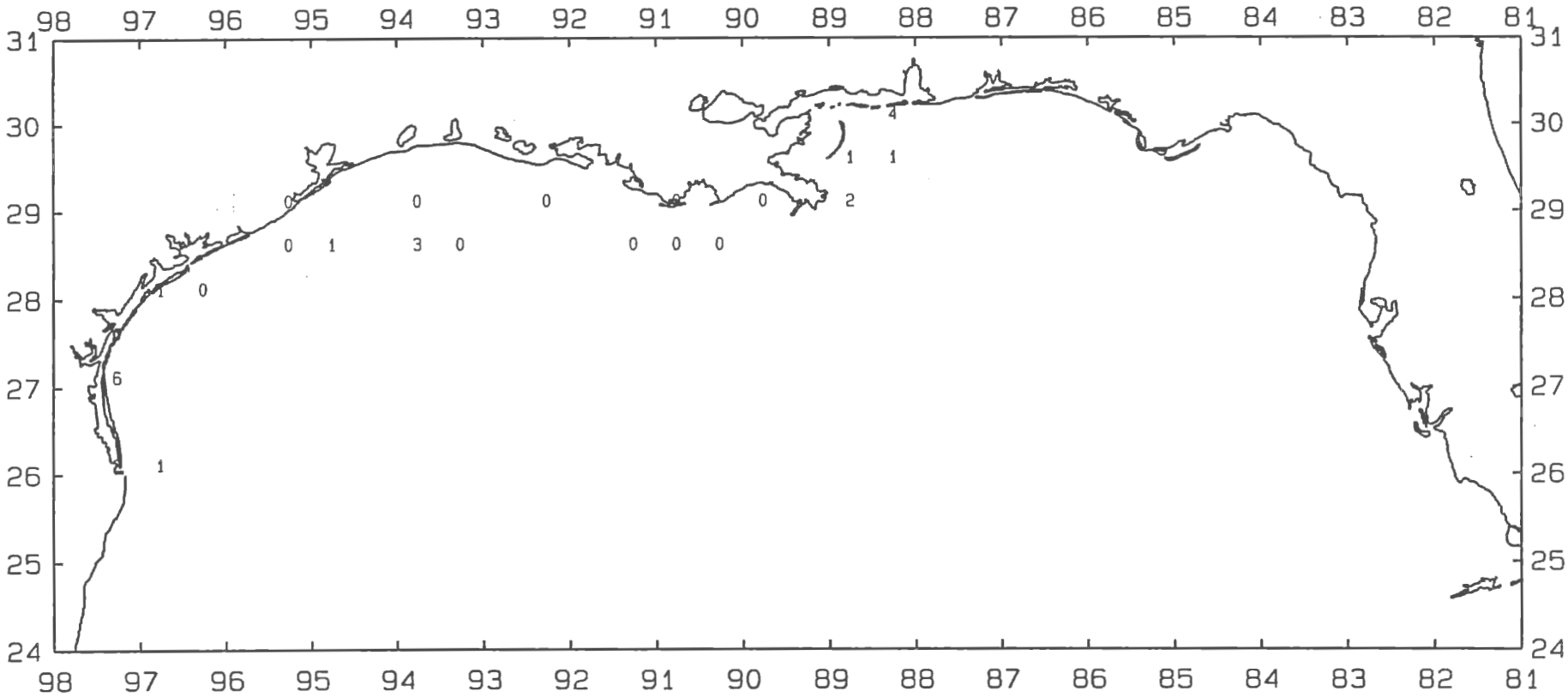

Figure 44. Pink shrimp, Penaeus duorarum, lb/hour for June-July 1995.

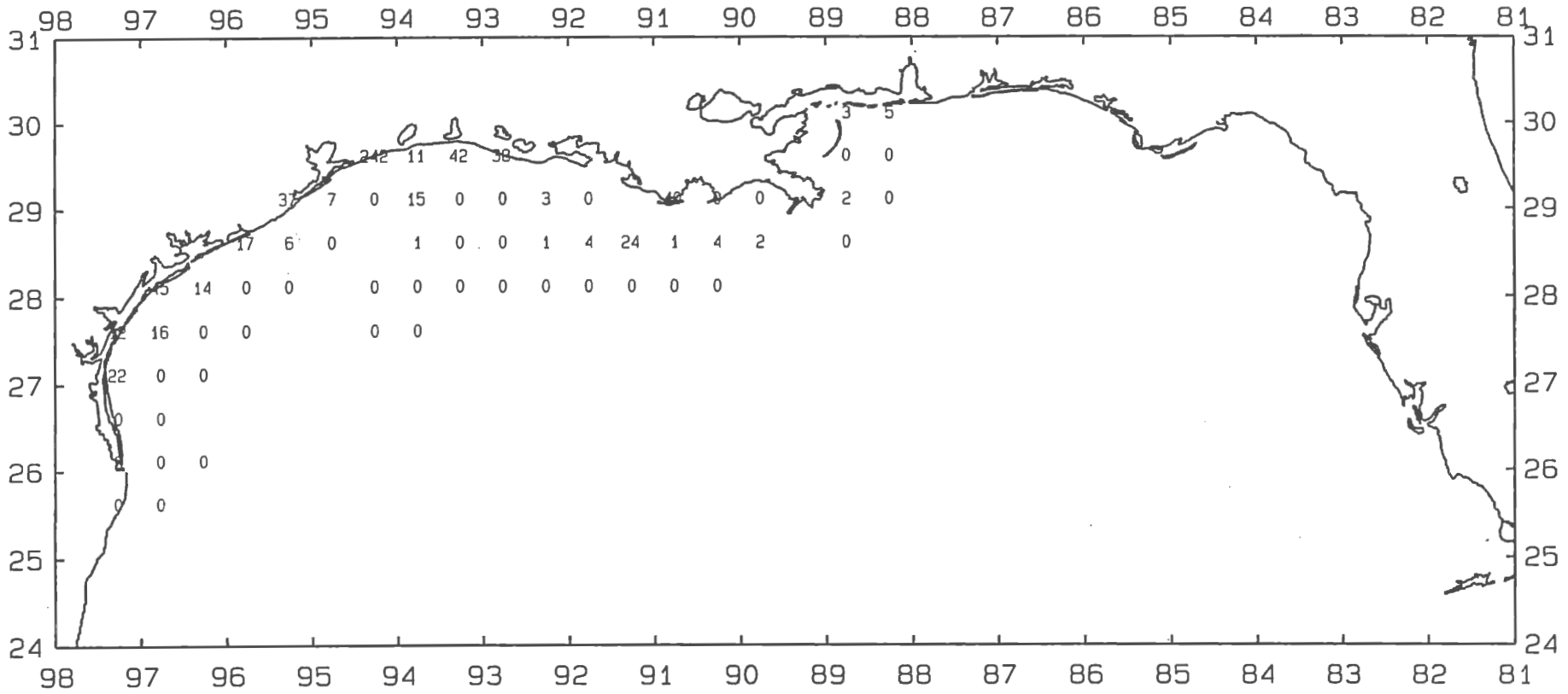

Figure 45. White shrimp, Penaeus setiferus, number/hour for June-July 1995.

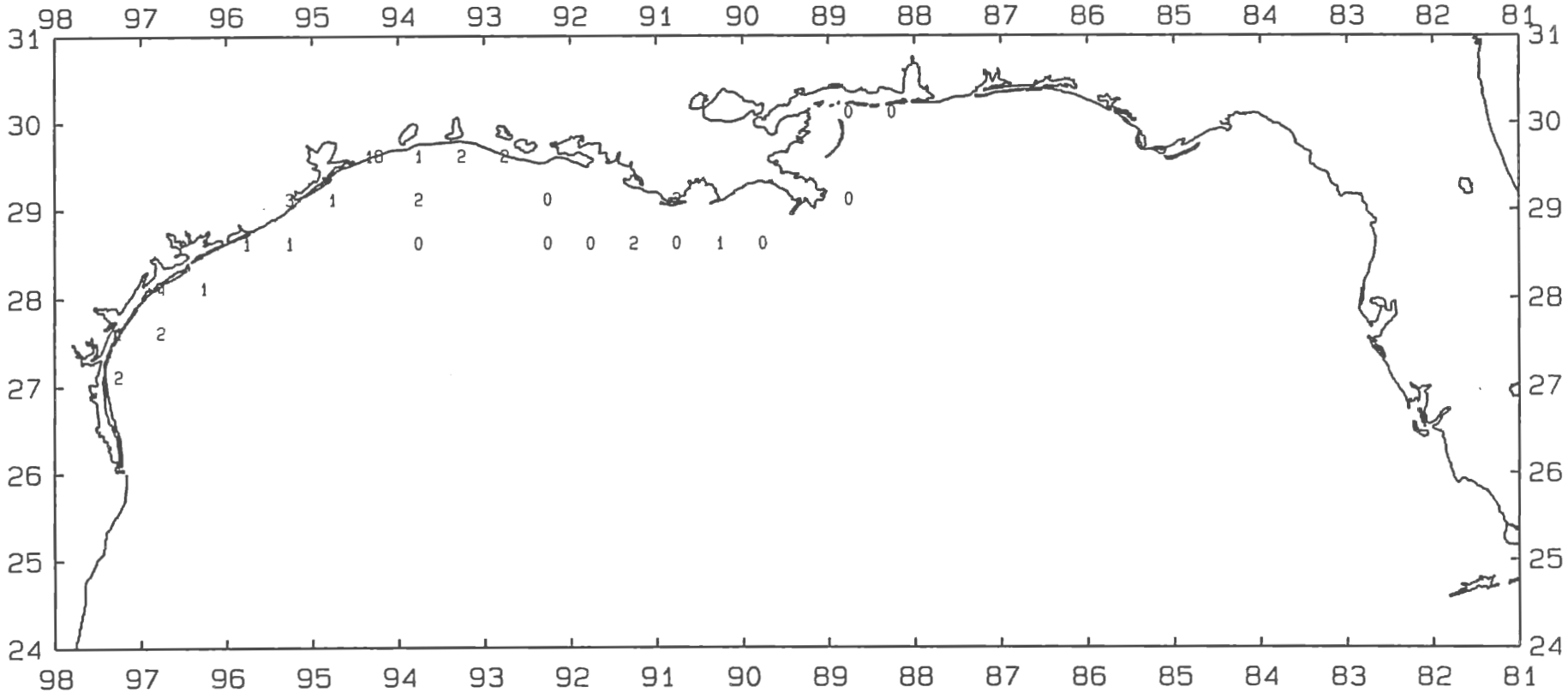

Figure 46. White shrimp, Penaeus setiferus, lb/hour for June-July 1995.

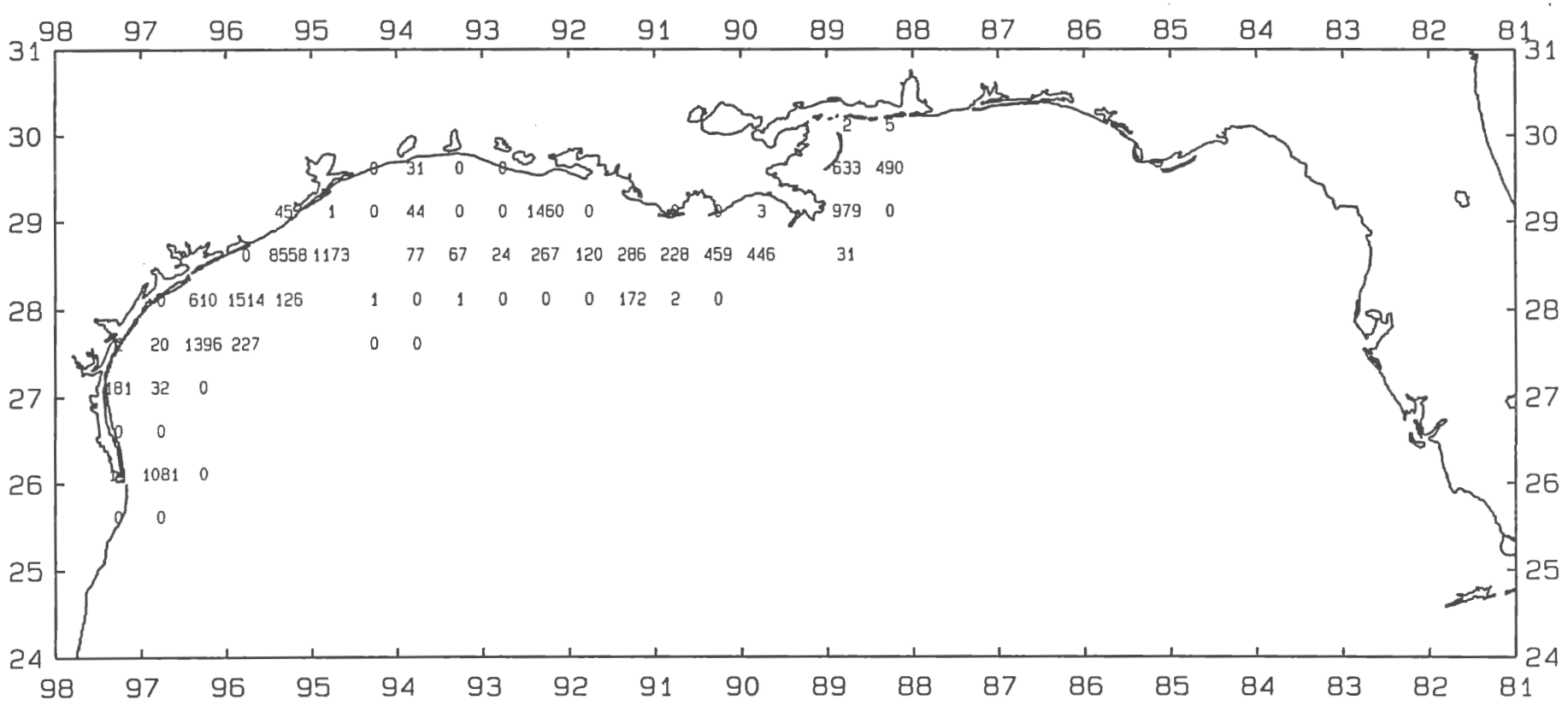

Figure 47. Roughback shrimp, Trachypenaeus similis, number/hour for June-July 1995.

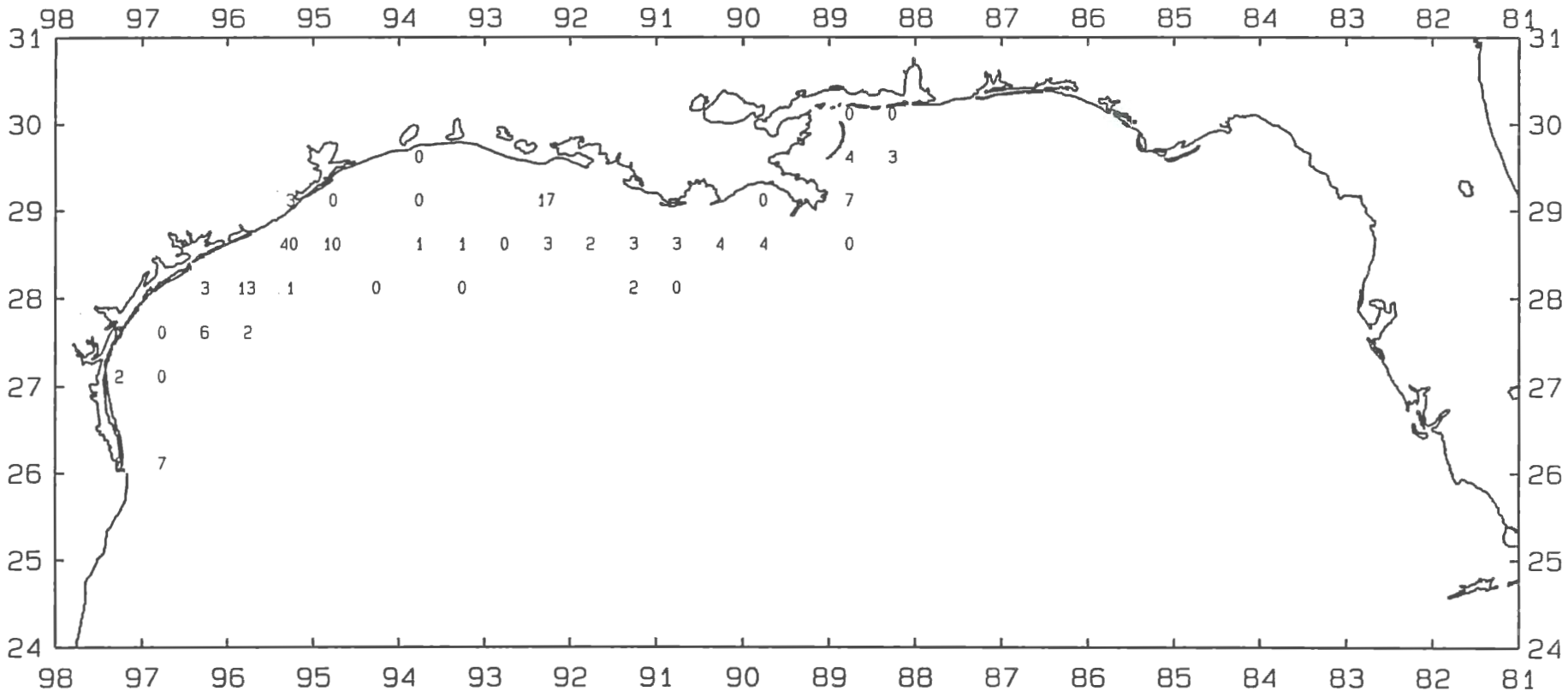

Figure 48. Roughback shrimp, Trachypenaeus similis, lb/hour for June-July 1995.

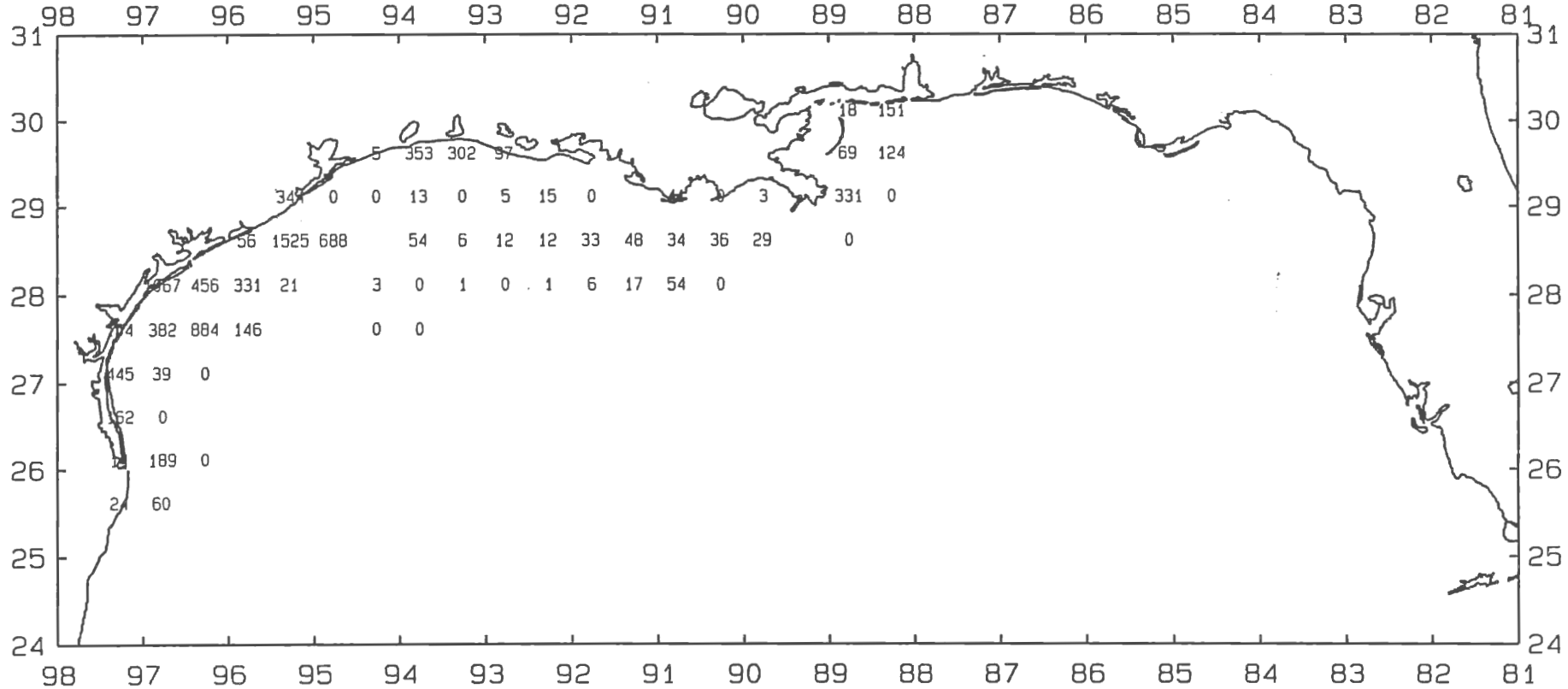

Figure 49. Lesser blue crab, Callinectes similis, number/hour for June-July 1995.

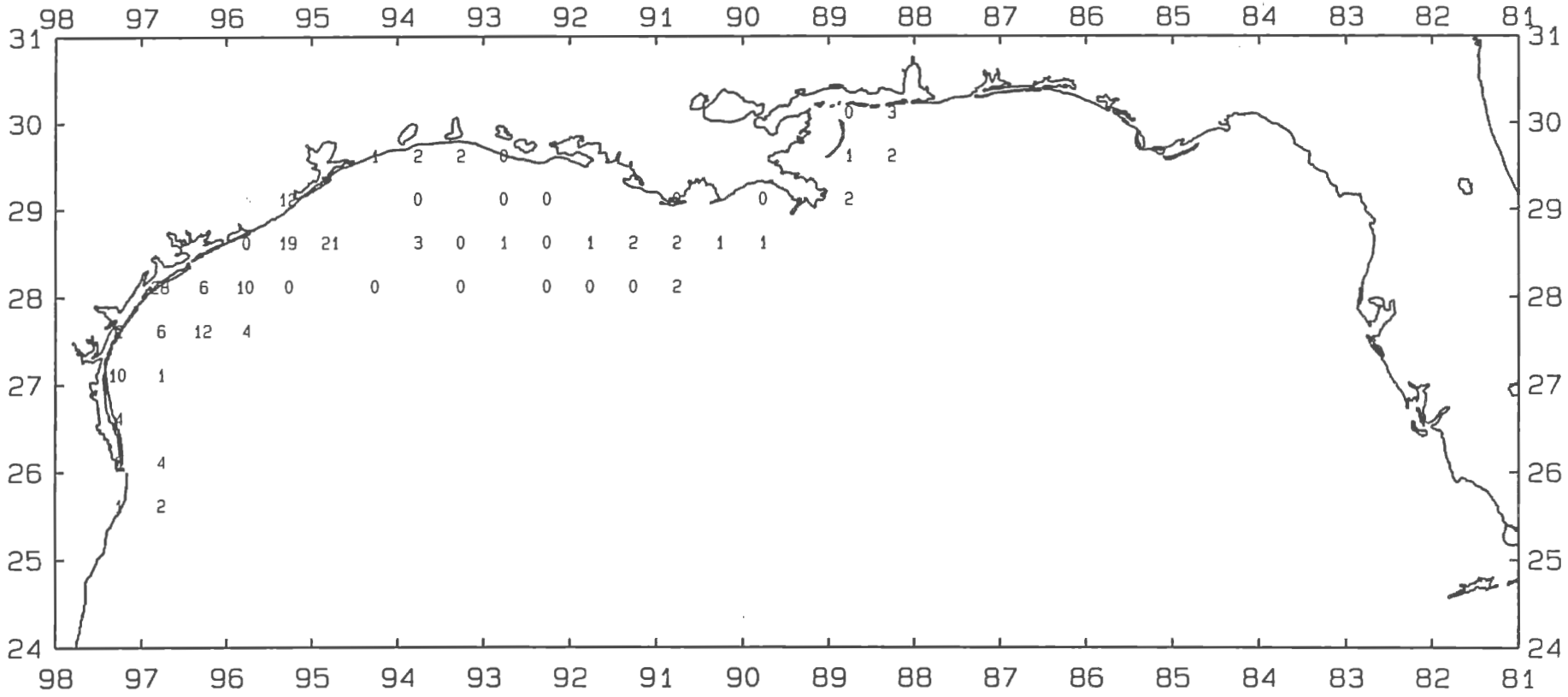

Figure 50. Lesser blue crab, Callinectes similis, lb/hour for June-July 1995.

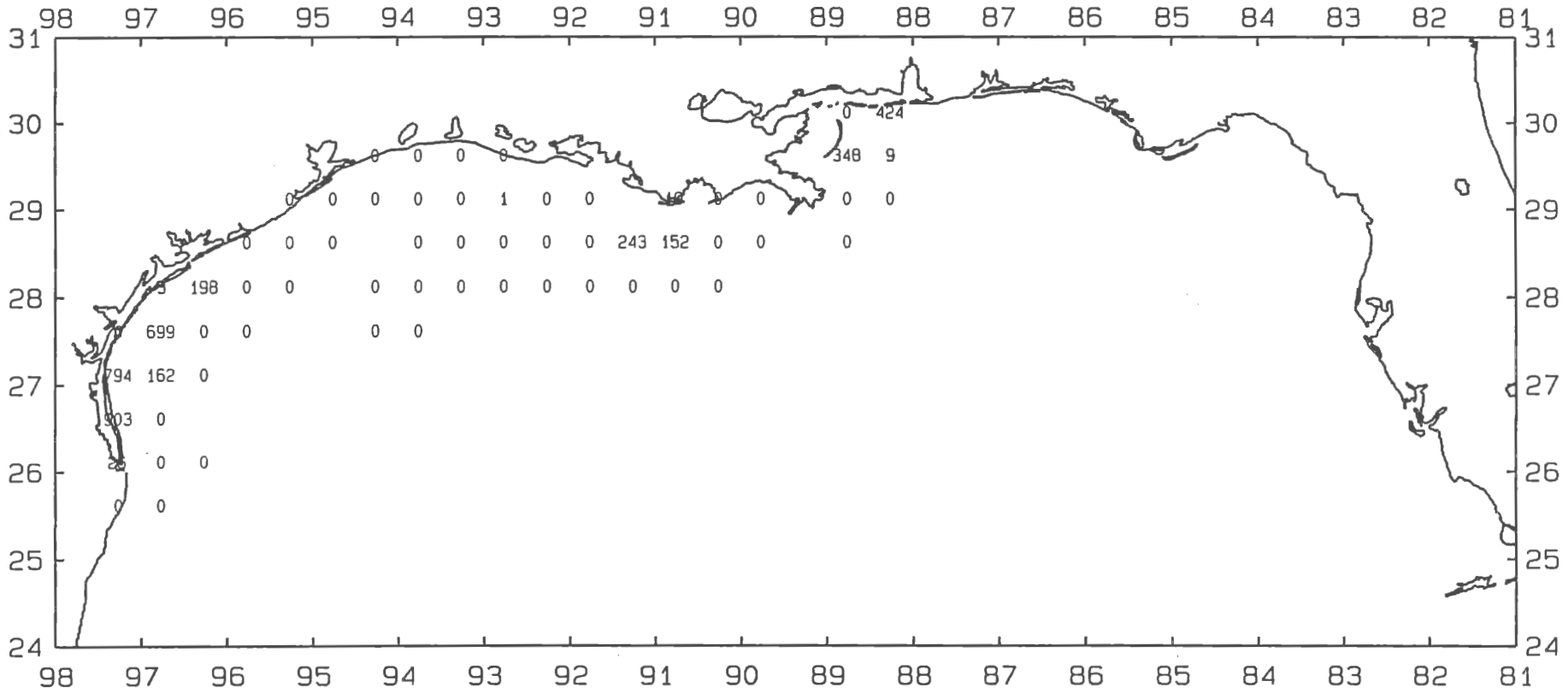

Figure 51. Roughneck shrimp, Trachypenaeus constrictus, number/hour for June-July 1995.

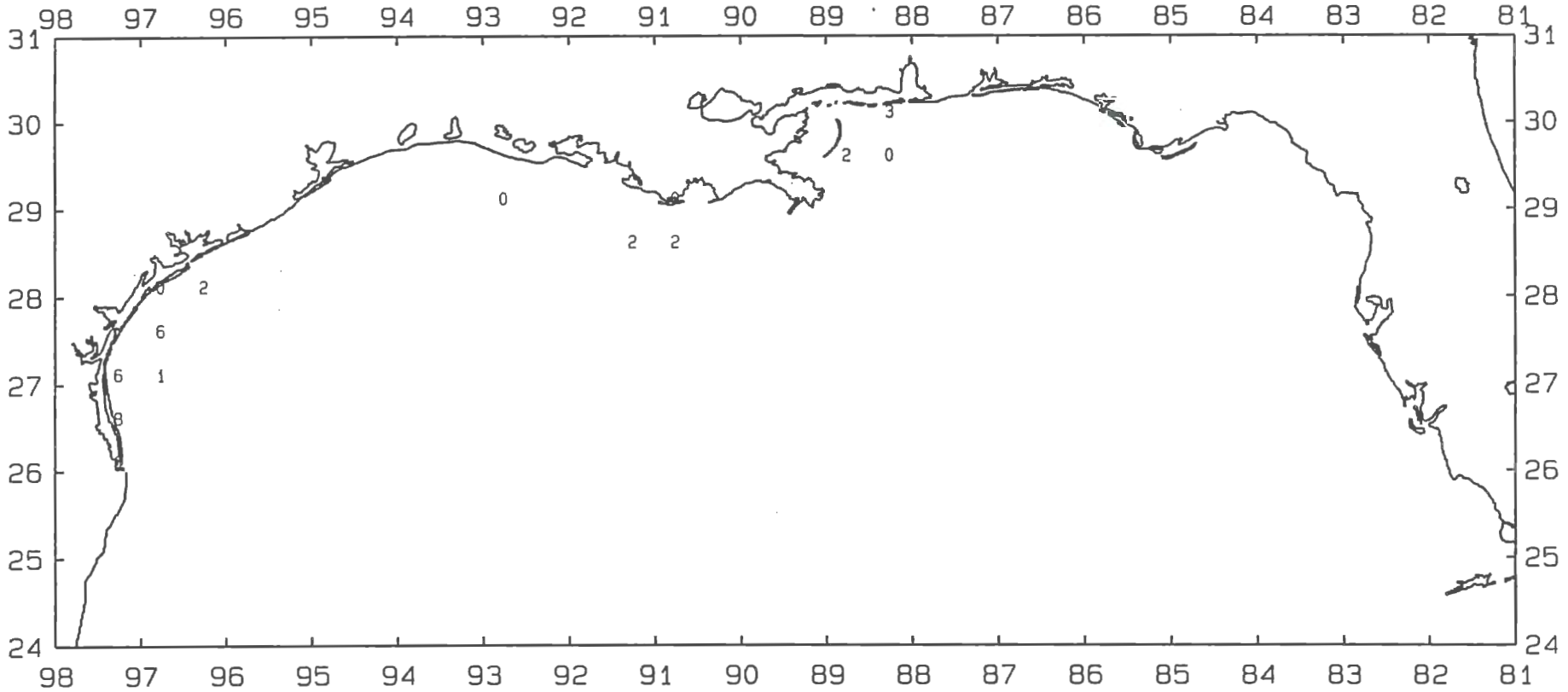

Figure 52. Roughneck shrimp, Trachypenaeus constrictus, lb/hour for June-July 1995.

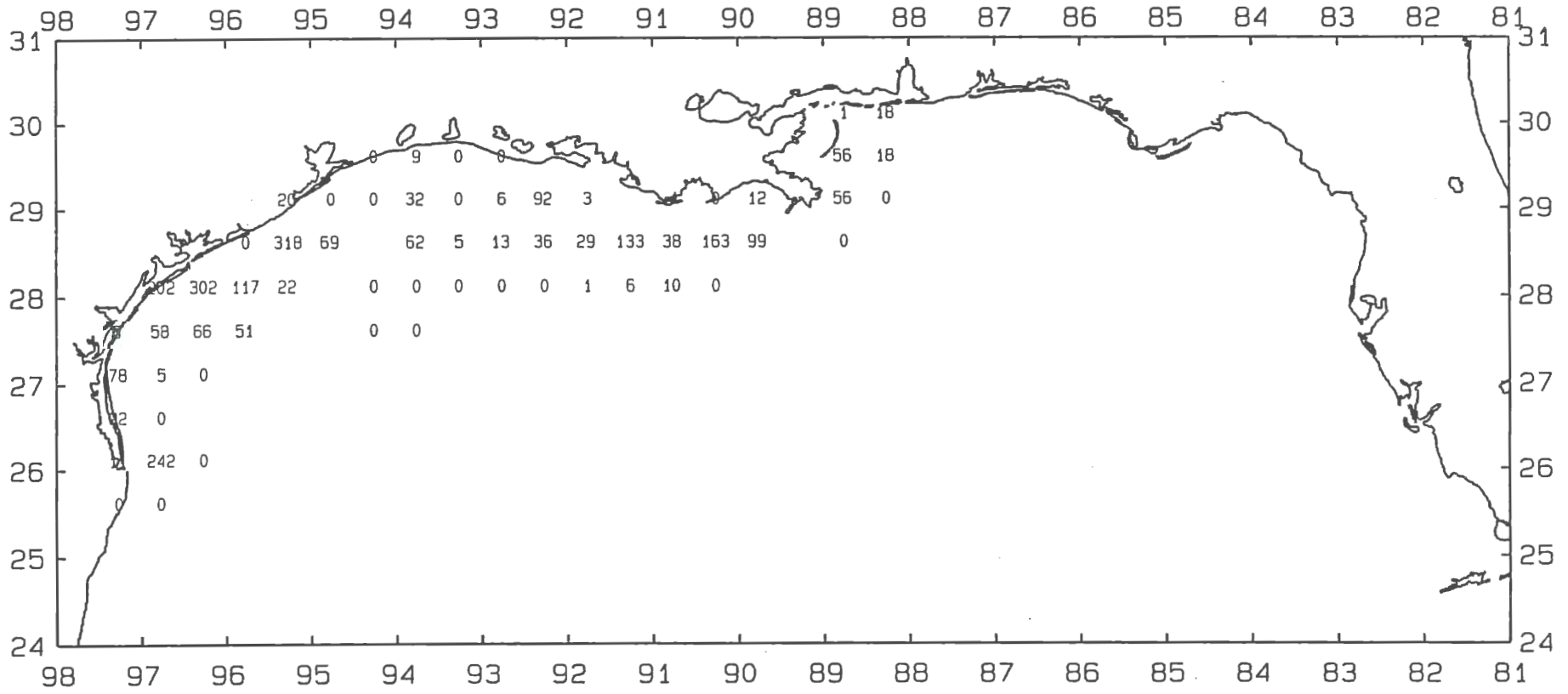

Figure 53. Mantis shrimp, Squilla empusa, number/hour for June-July 1995.

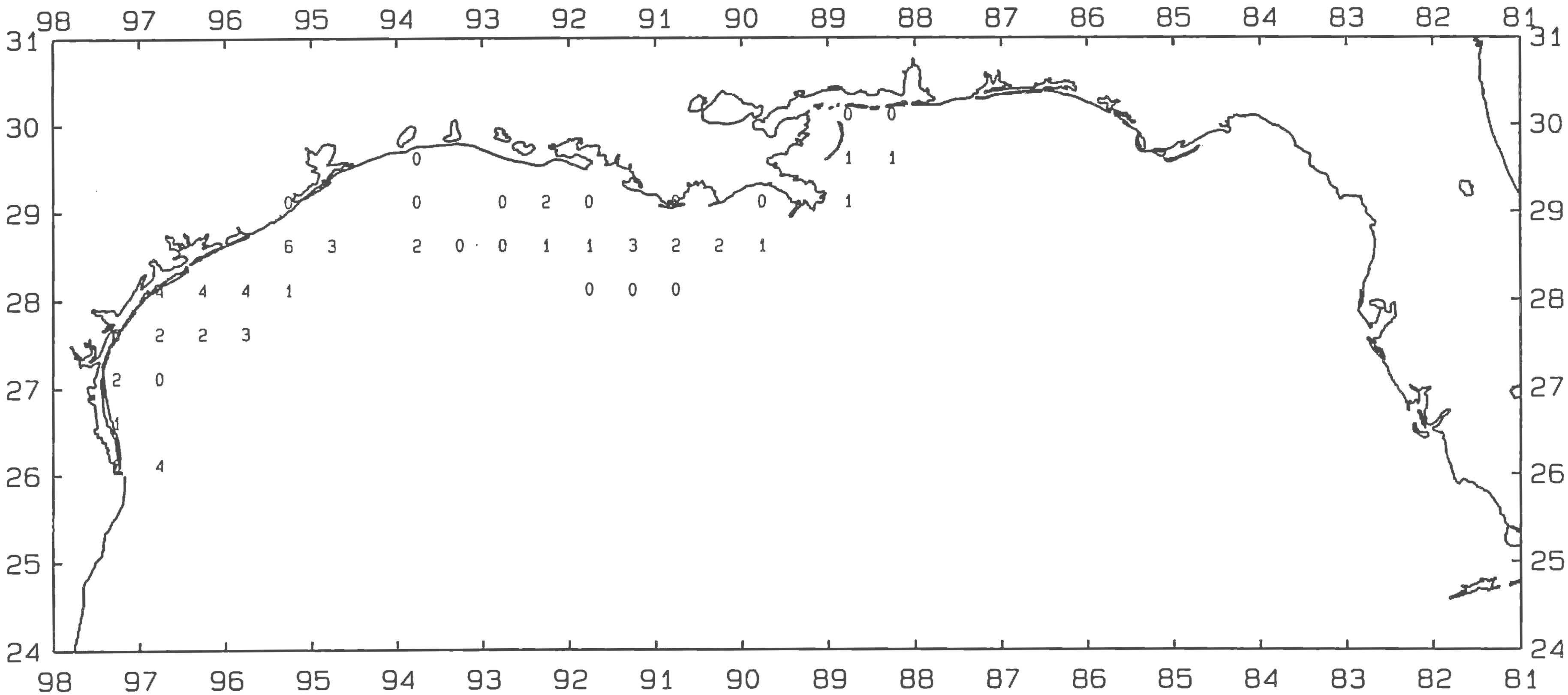

Figure 54. Mantis shrimp, Squilla empusa, lb/hour for June-July 1995.

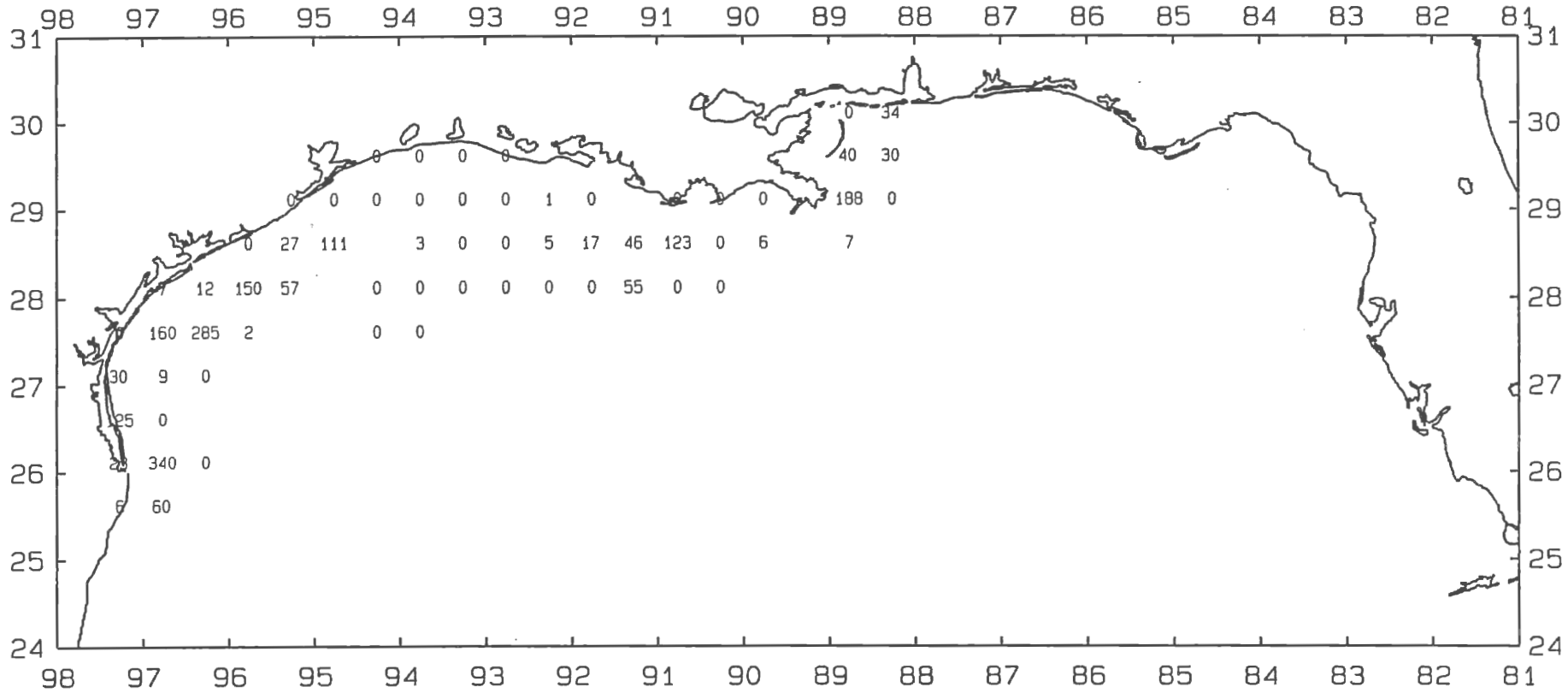

Figure 55. Lesser rock shrimp, Sicyonia dorsalis, number/hour for June-July 1995.

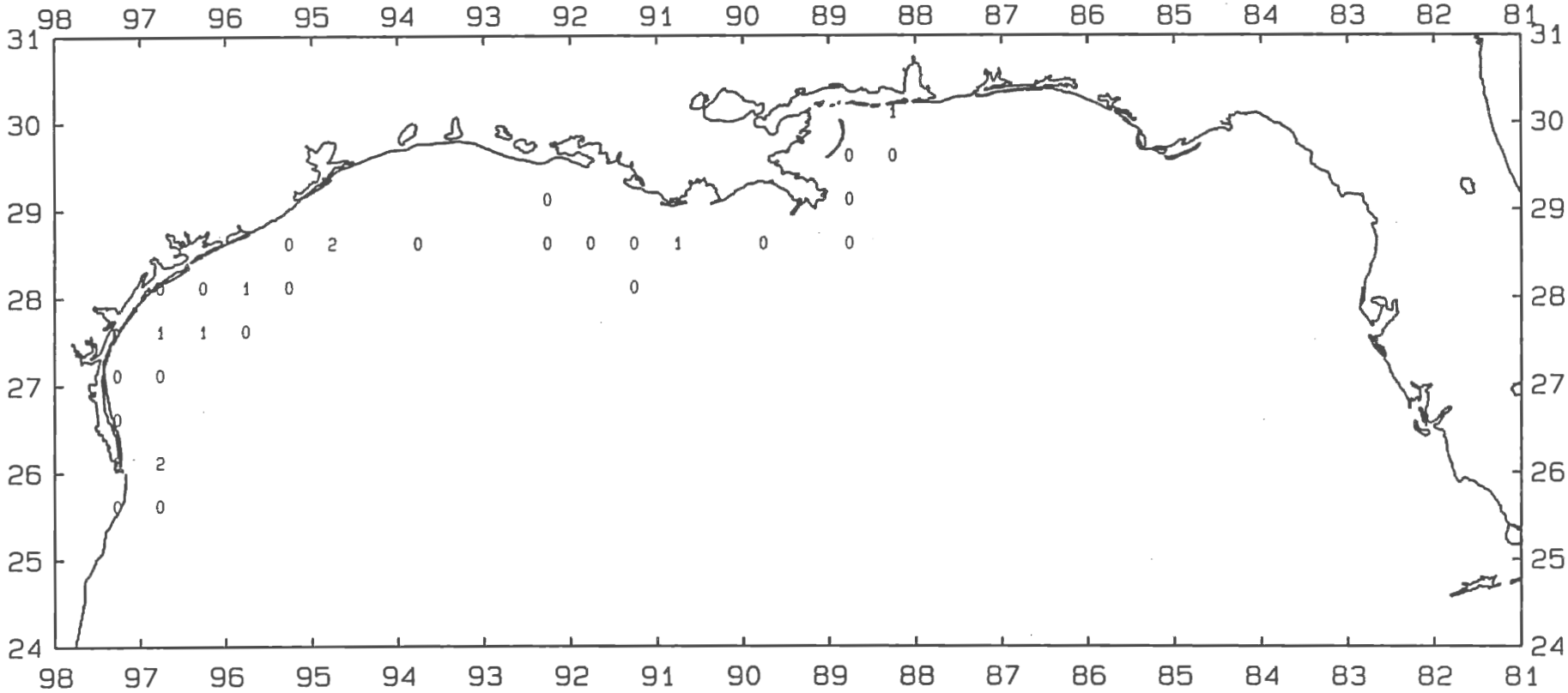

Figure 56. Lesser rock shrimp, Sicyonia dorsalis, lb/hour for June-July 1995.

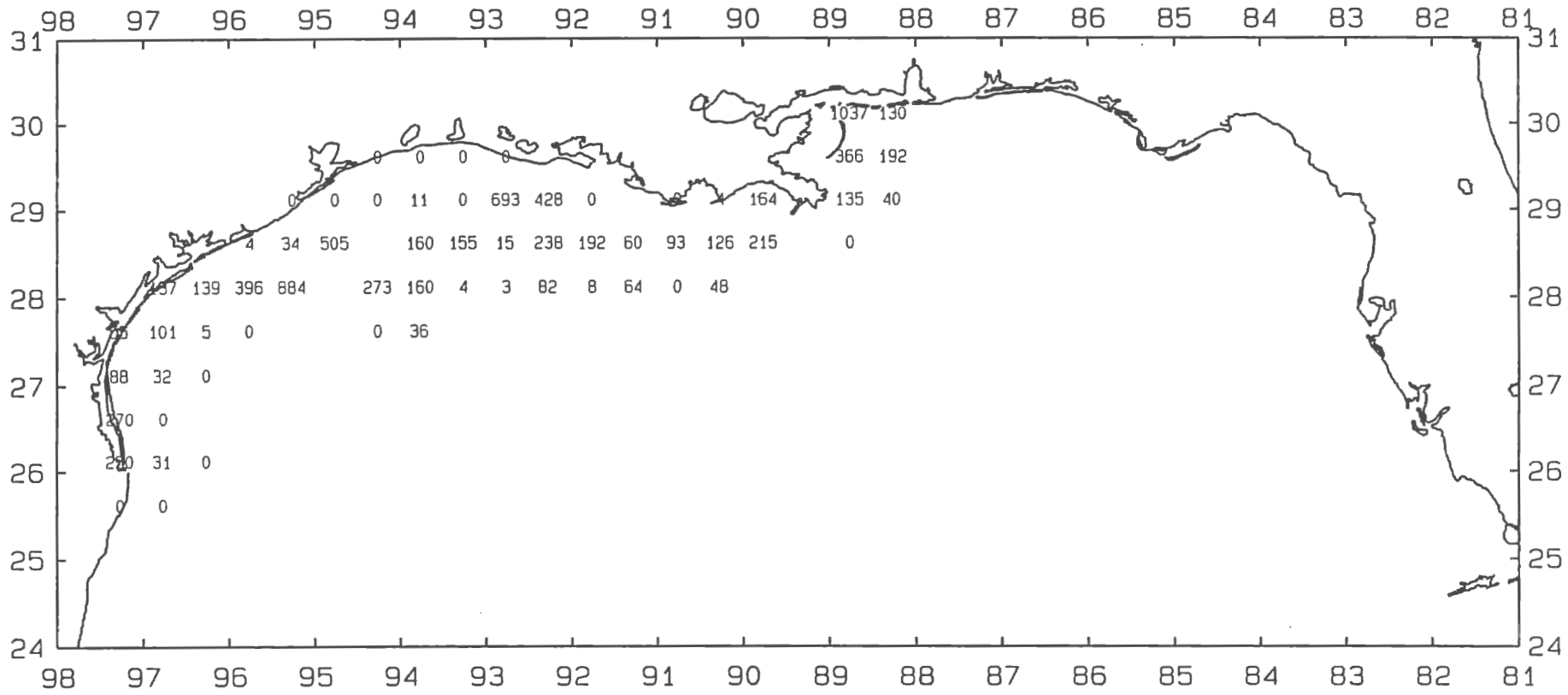

Figure 57. Arrow squid, Loligo pleii, number/hour for June-July 1995.

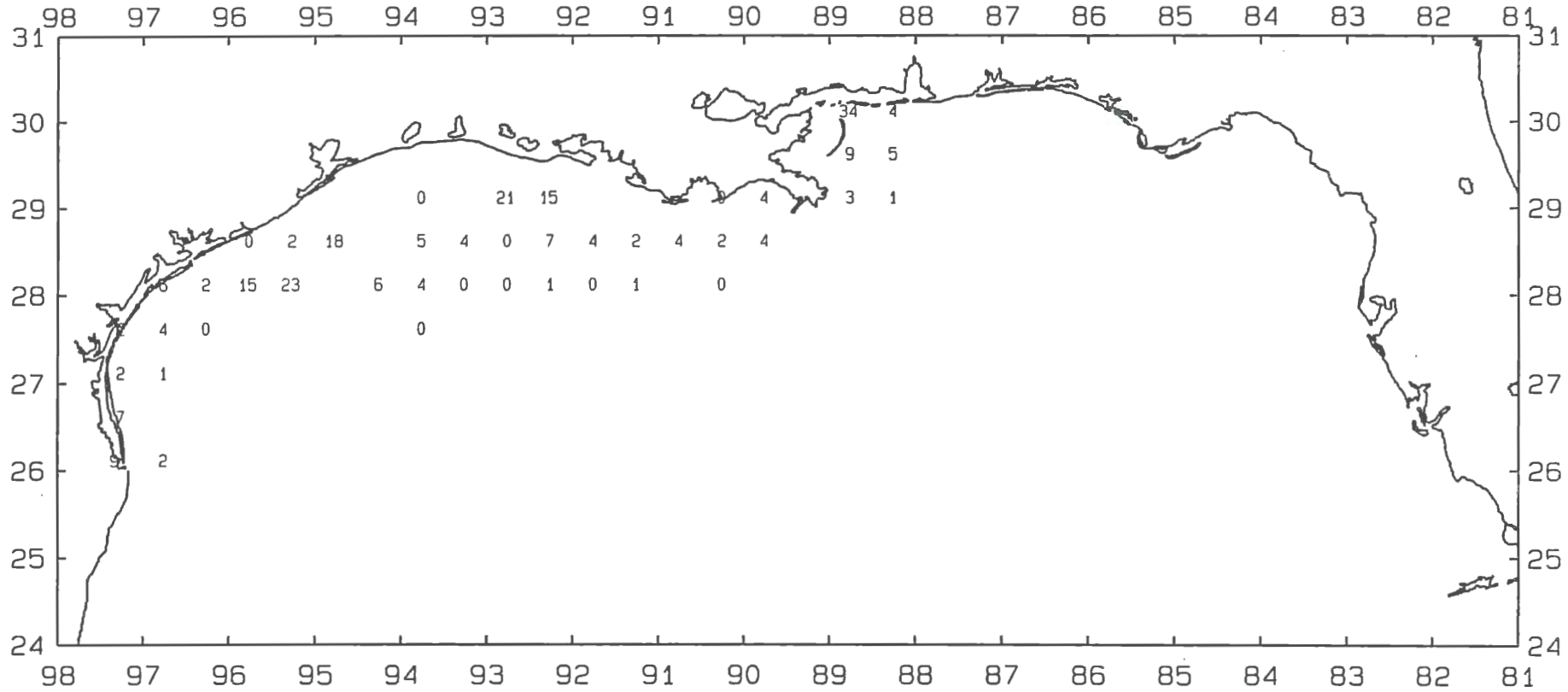

Figure 58. Arrow squid, Loligo pleii, lb/hour for June-July 1995.

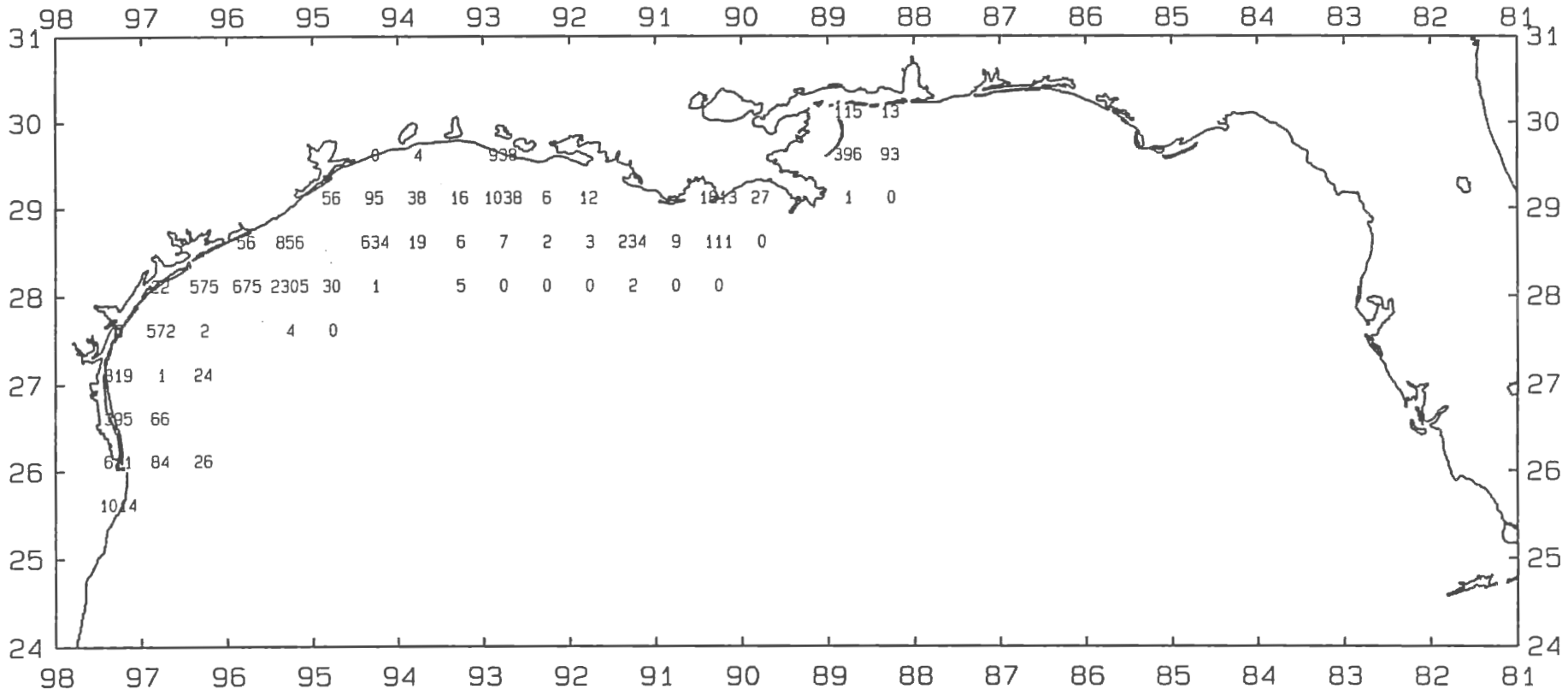

Figure 59. Atlantic bumper, Chloroscombrus chrysurus, number/hour for October-December 1995.

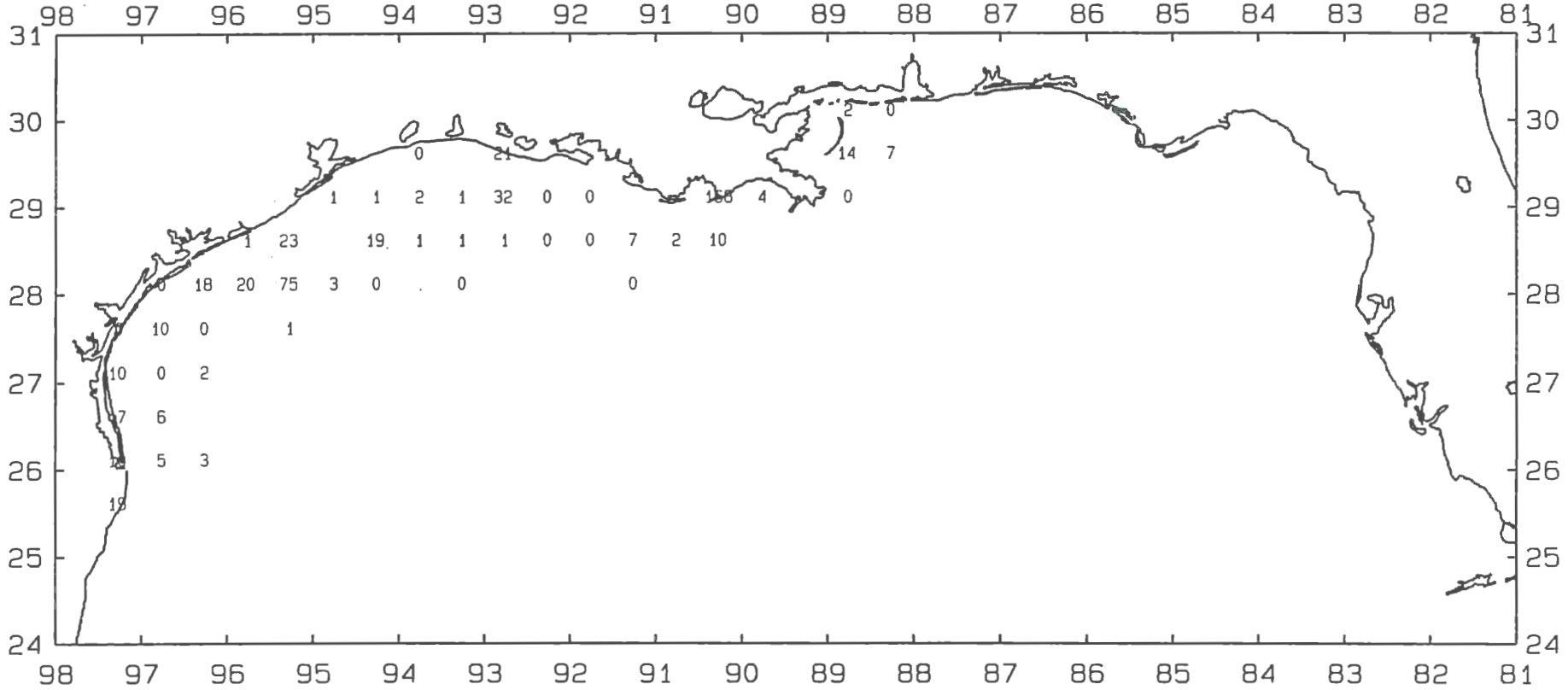

Figure 60. Atlantic bumper, Chloroscombrus chrysurus, lb/hour for October-December 1995.

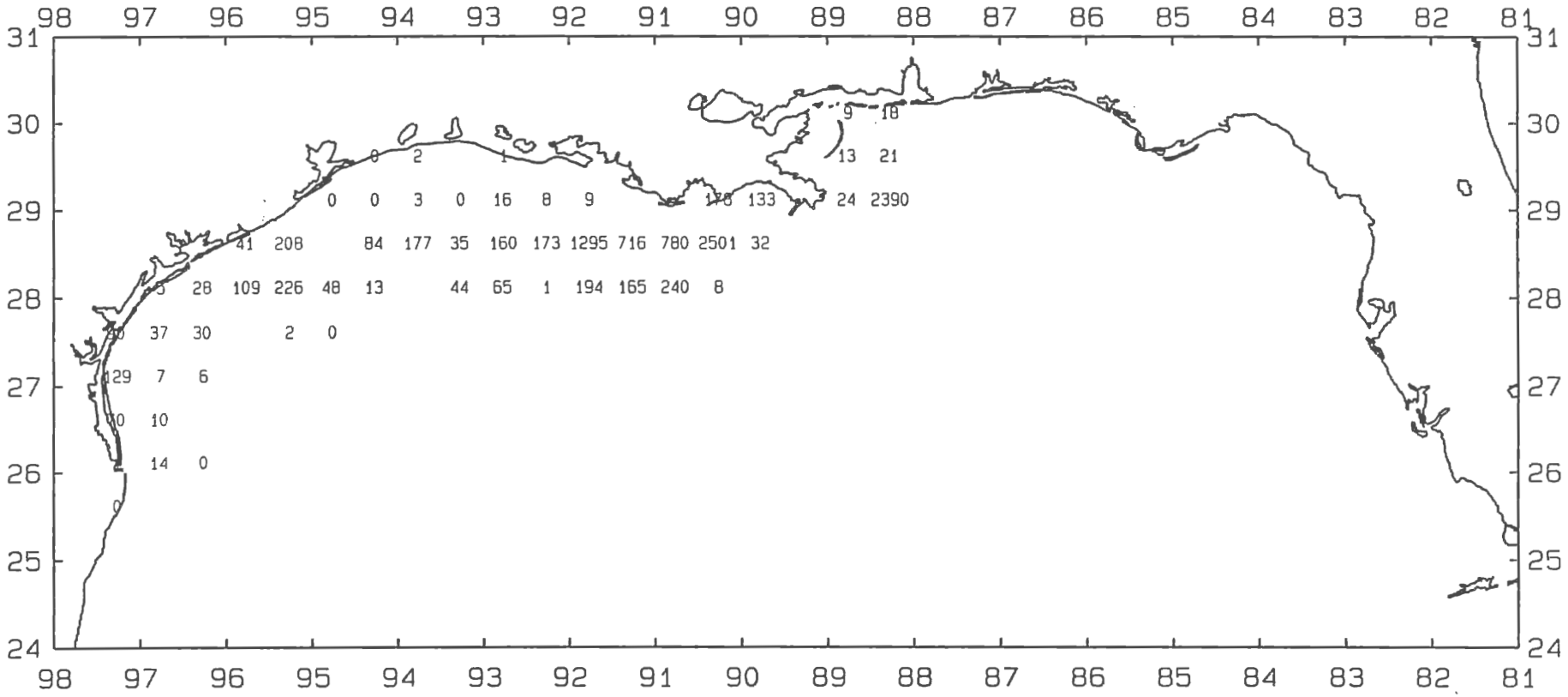

Figure 61. Atlantic croaker, Micropogonias undulatus, number/hour for October-December 1995.

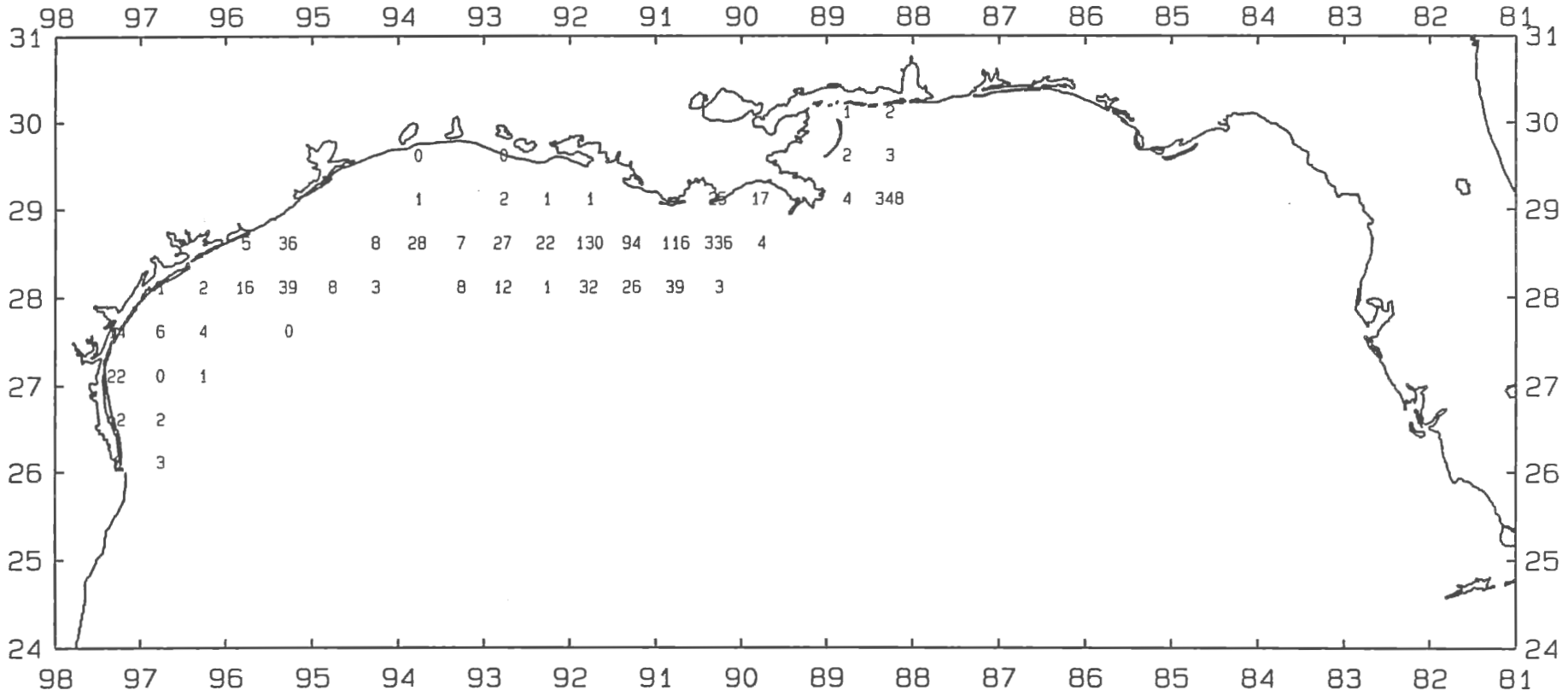

Figure 62. Atlantic croaker, Micropogonias undulatus, lb/hour for October-December 1995.

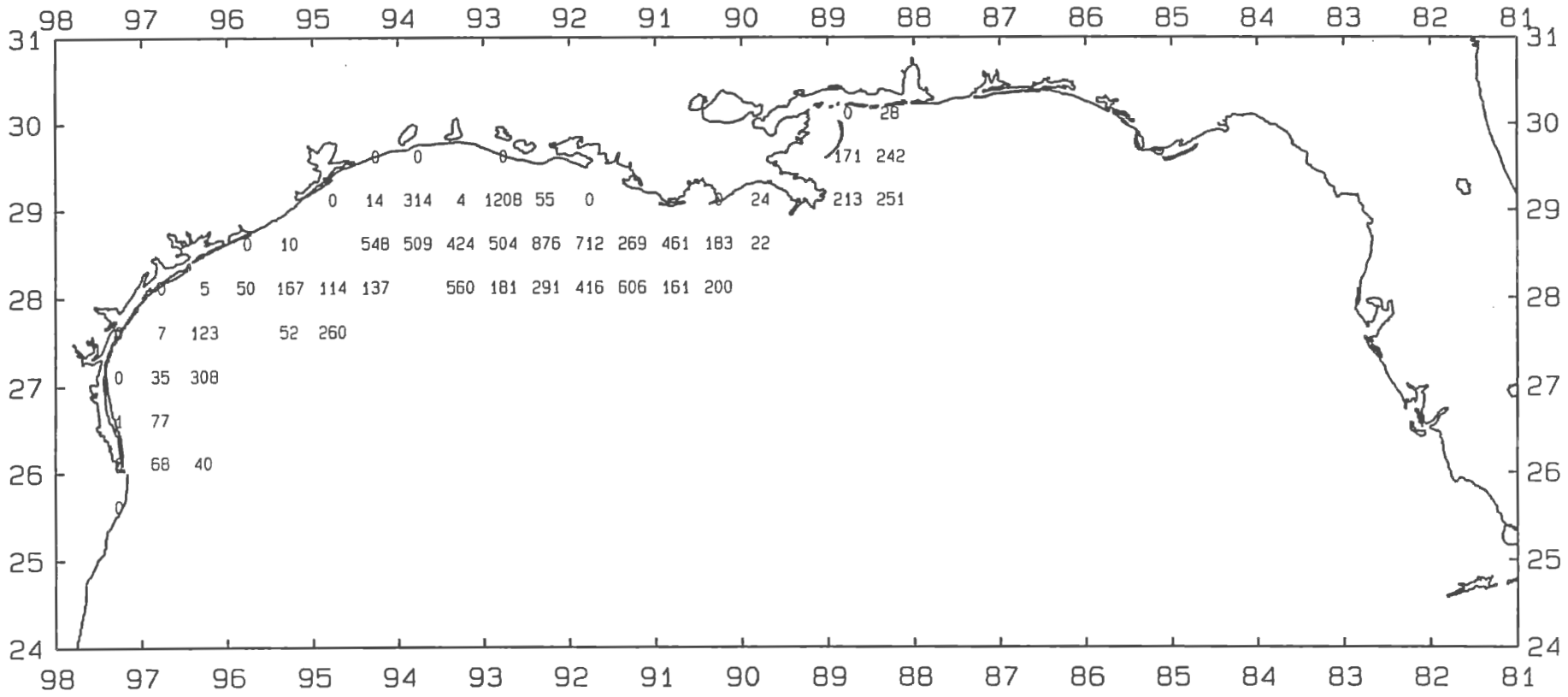

Figure 63. Longspine porgy, Stenotomus caprinus, number/hour for October-December 1995.

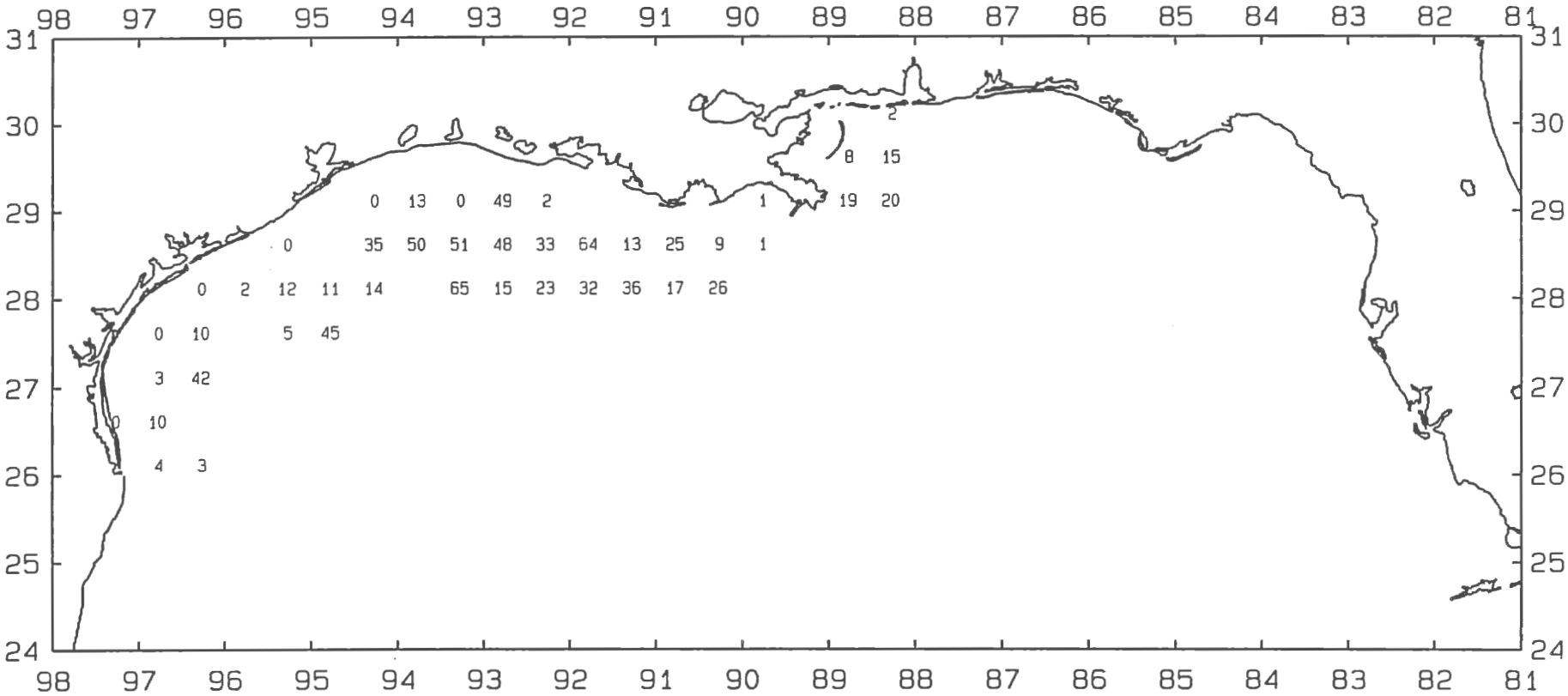

Figure 64. Longspine porgy, Stenotomus caprinus, lb/hour for October-December 1995.

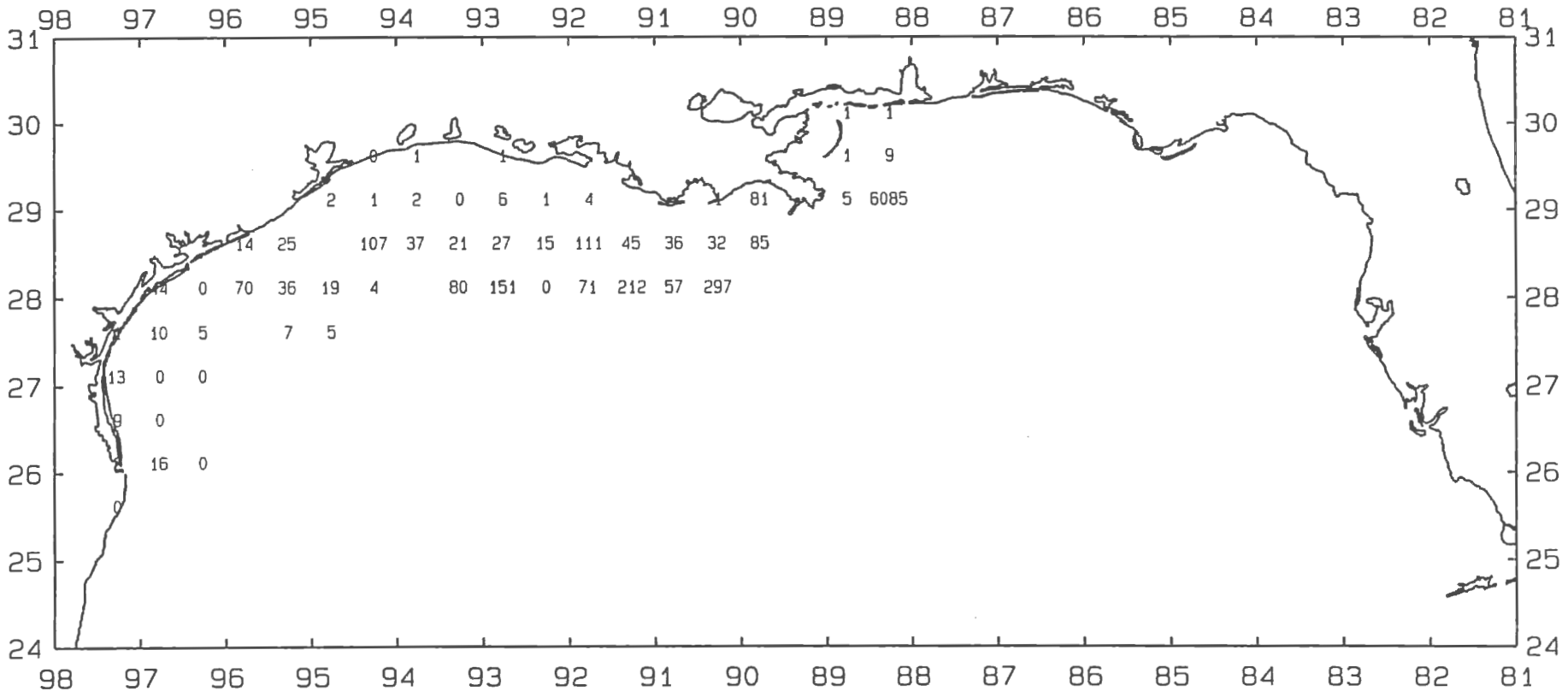

Figure 65. Spot, Leiostomus xanthurus, number/hour for October-December 1995.

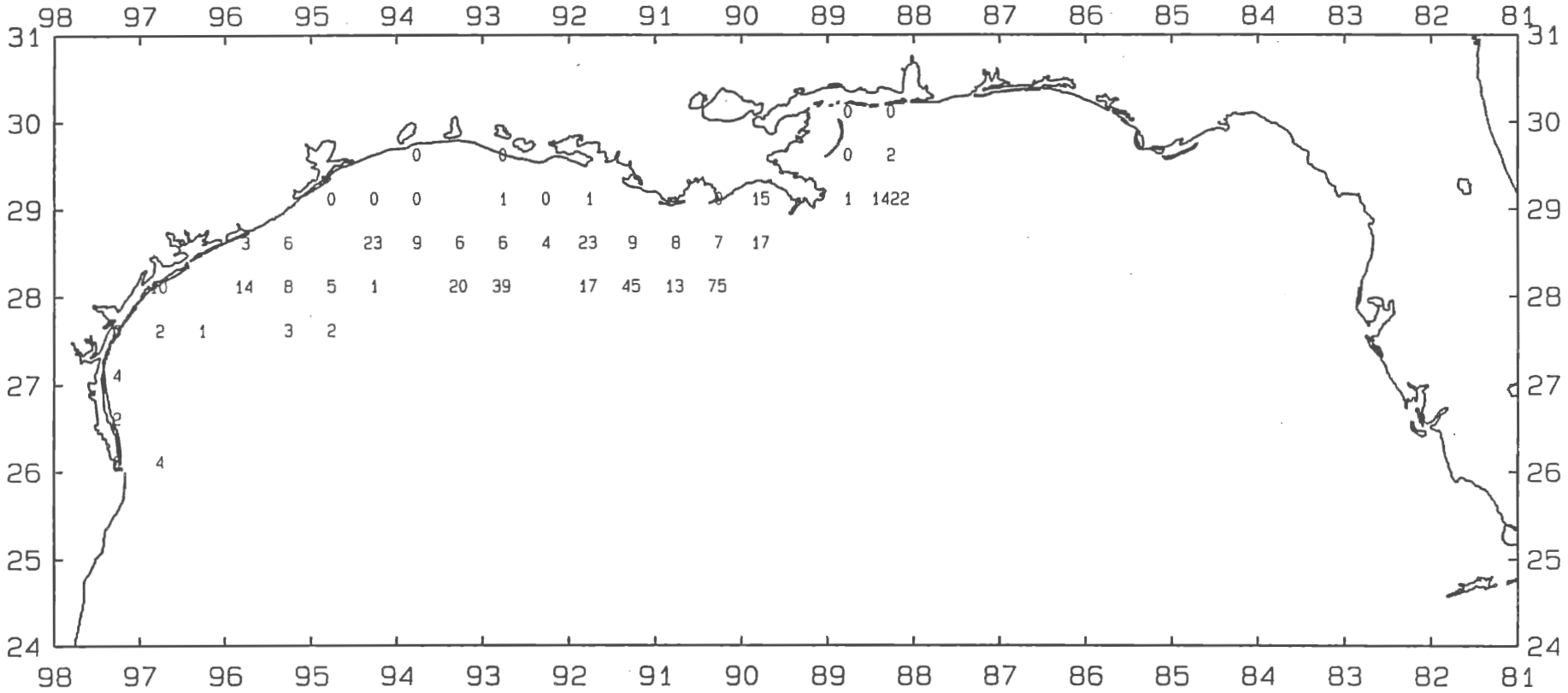

Figure 66. Spot, Leiostomus xanthurus, lb/hour for October-December 1995.

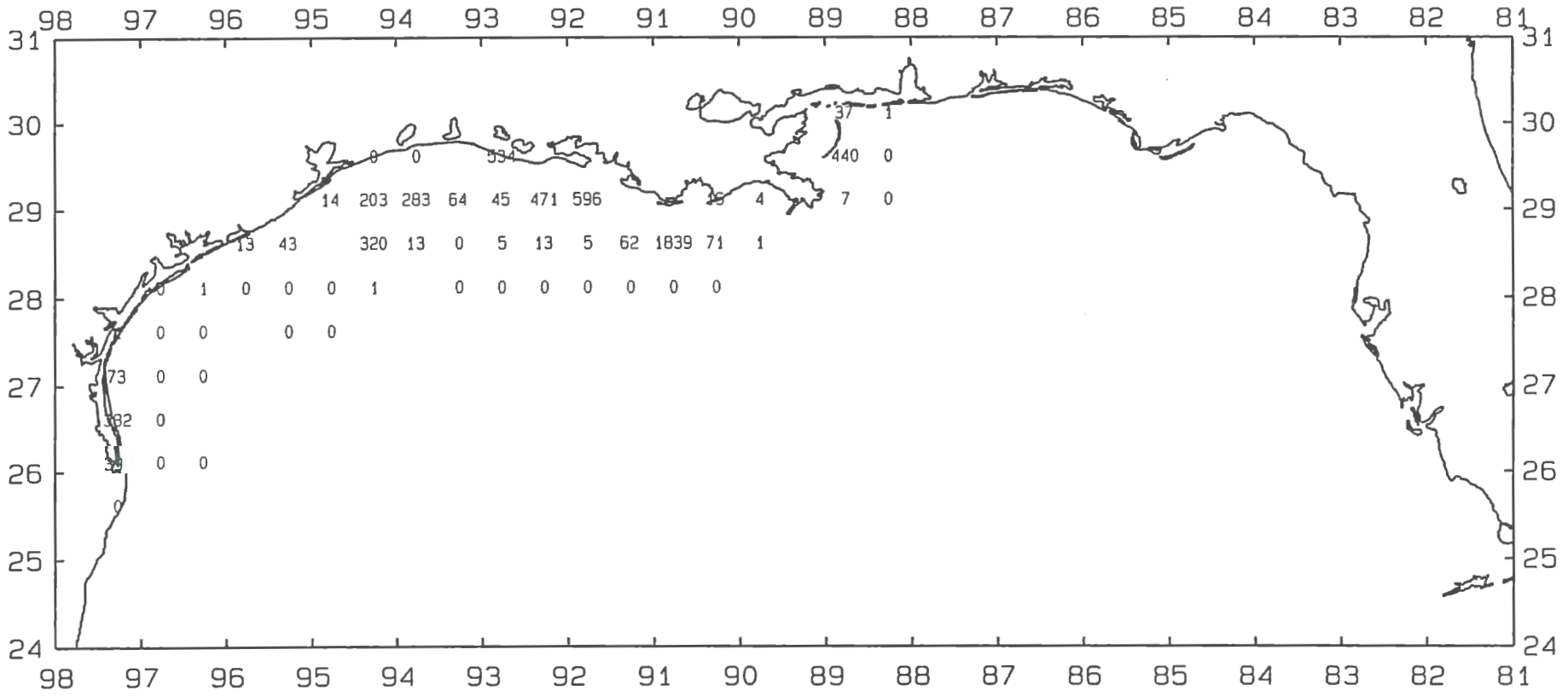

Figure 67. Hardhead catfish, Arius felis, number/hour for October-December 1995.

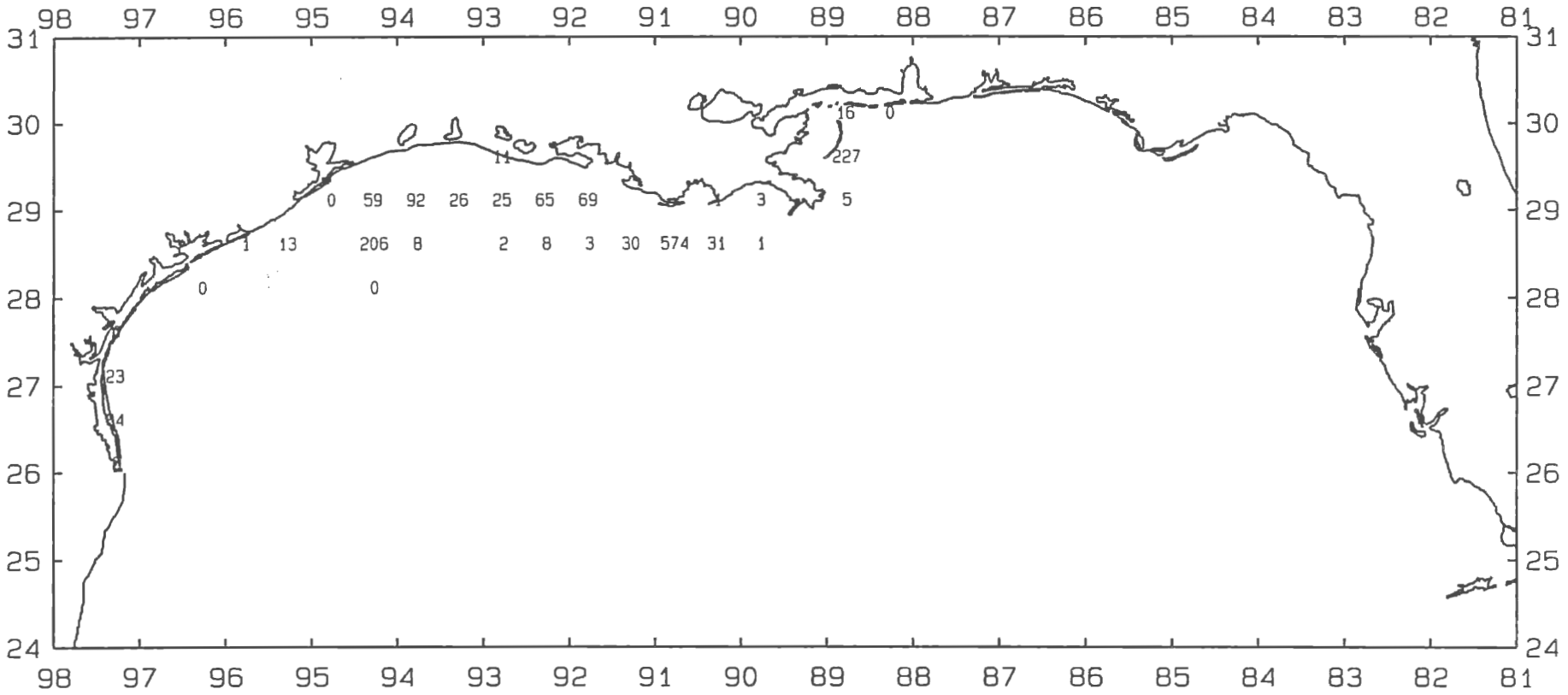

Figure 68. Hardhead catfish, Arius felis, lb/hour for October-December 1995.

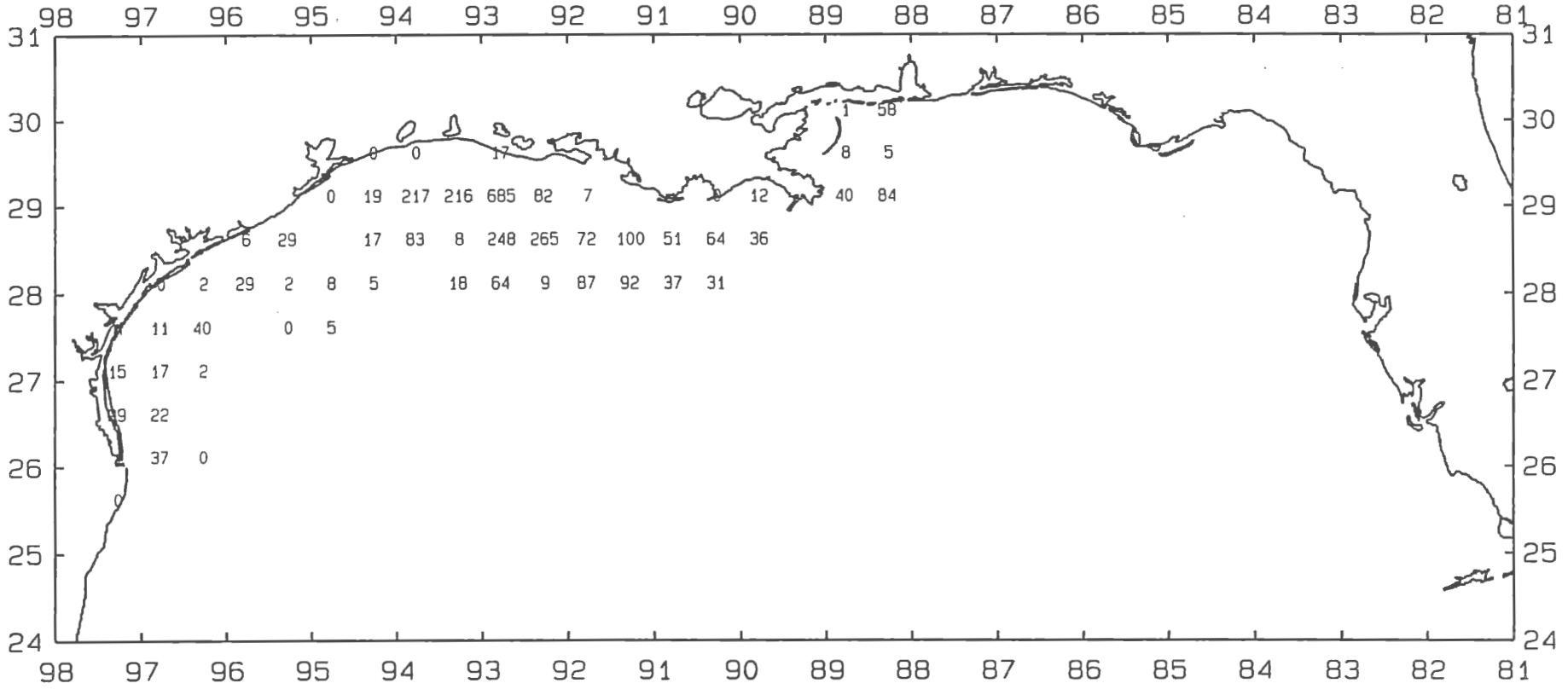

Figure 69. Bigeye searobin, Prionotus longispinosus, number/hour for October-December 1995.

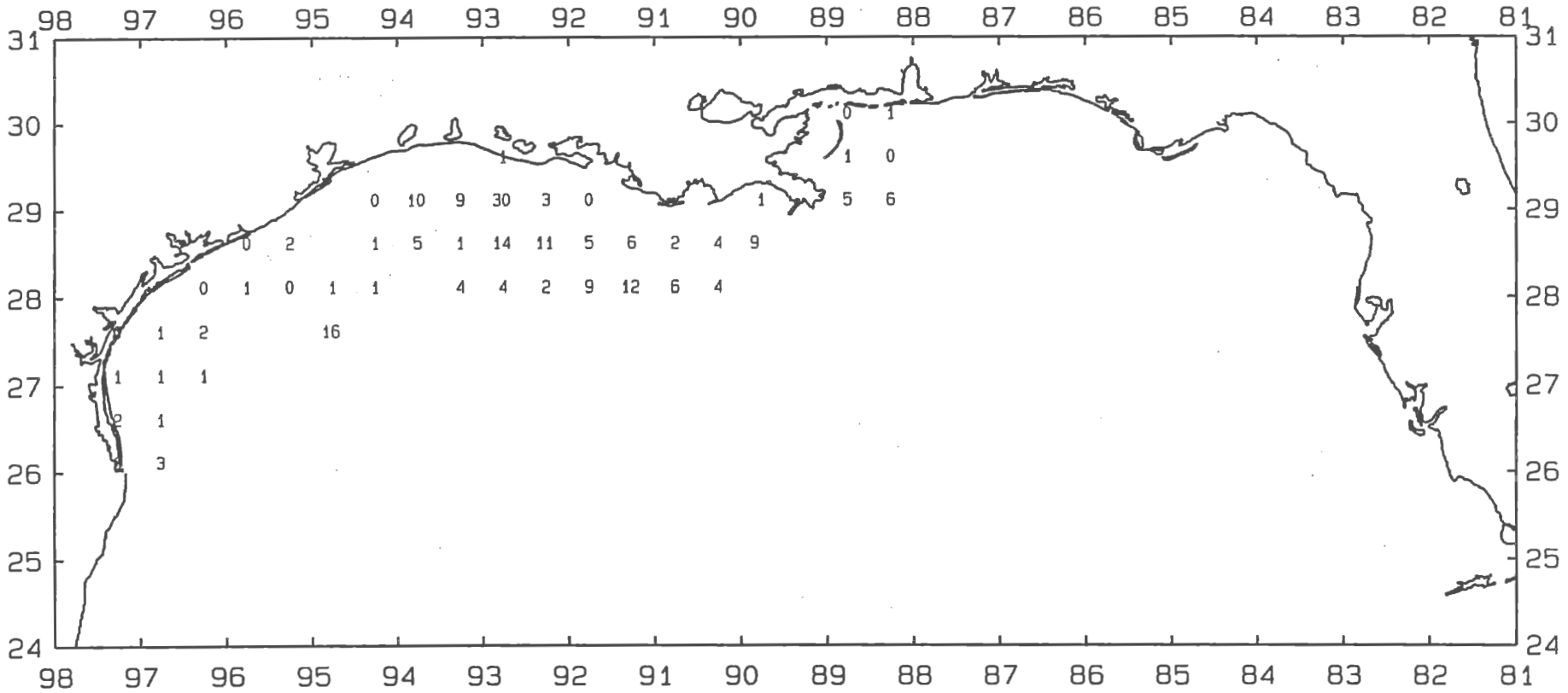

Figure 70. Bigeye searobin, Prionotus longispinosus, lb/hour for October-December 1995.

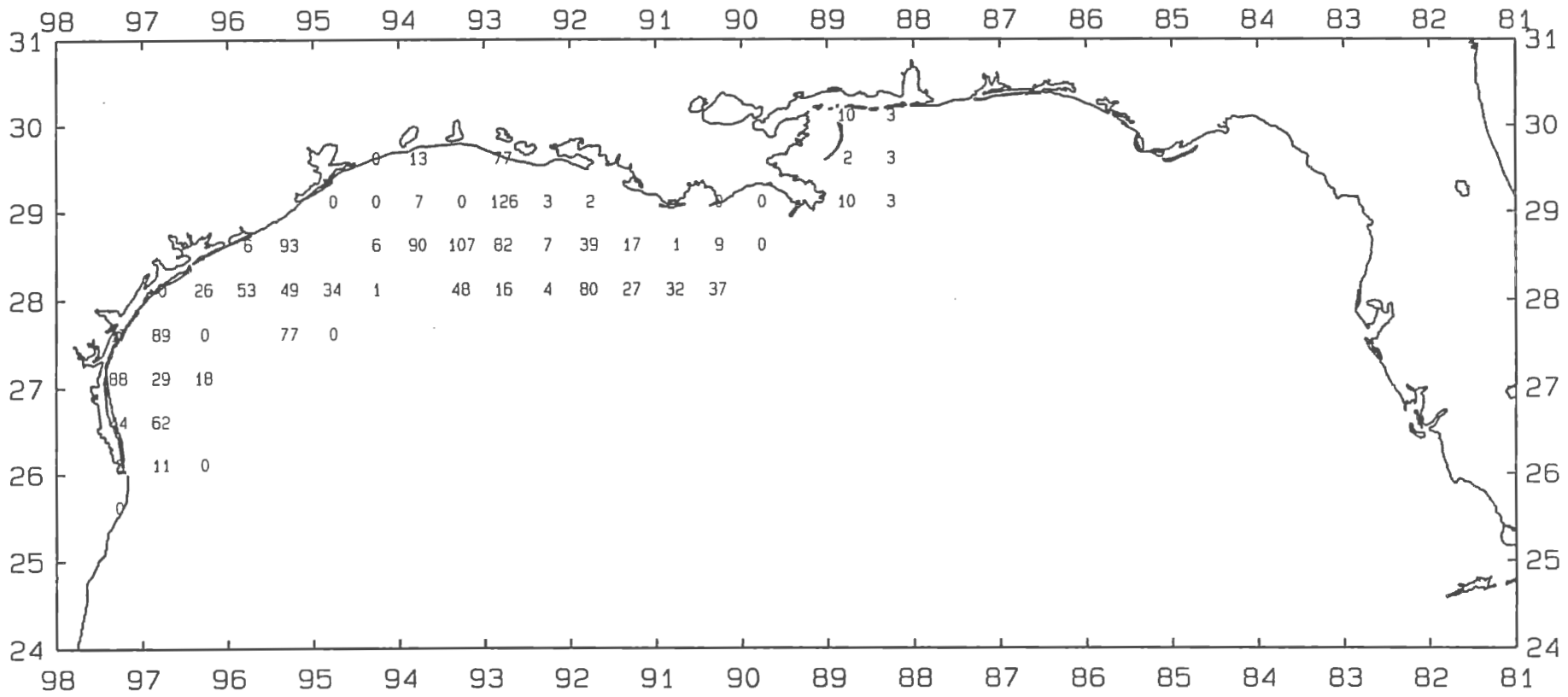

Figure 71. Gulf butterfish, Peprilus burti, number/hour for October-December 1995.

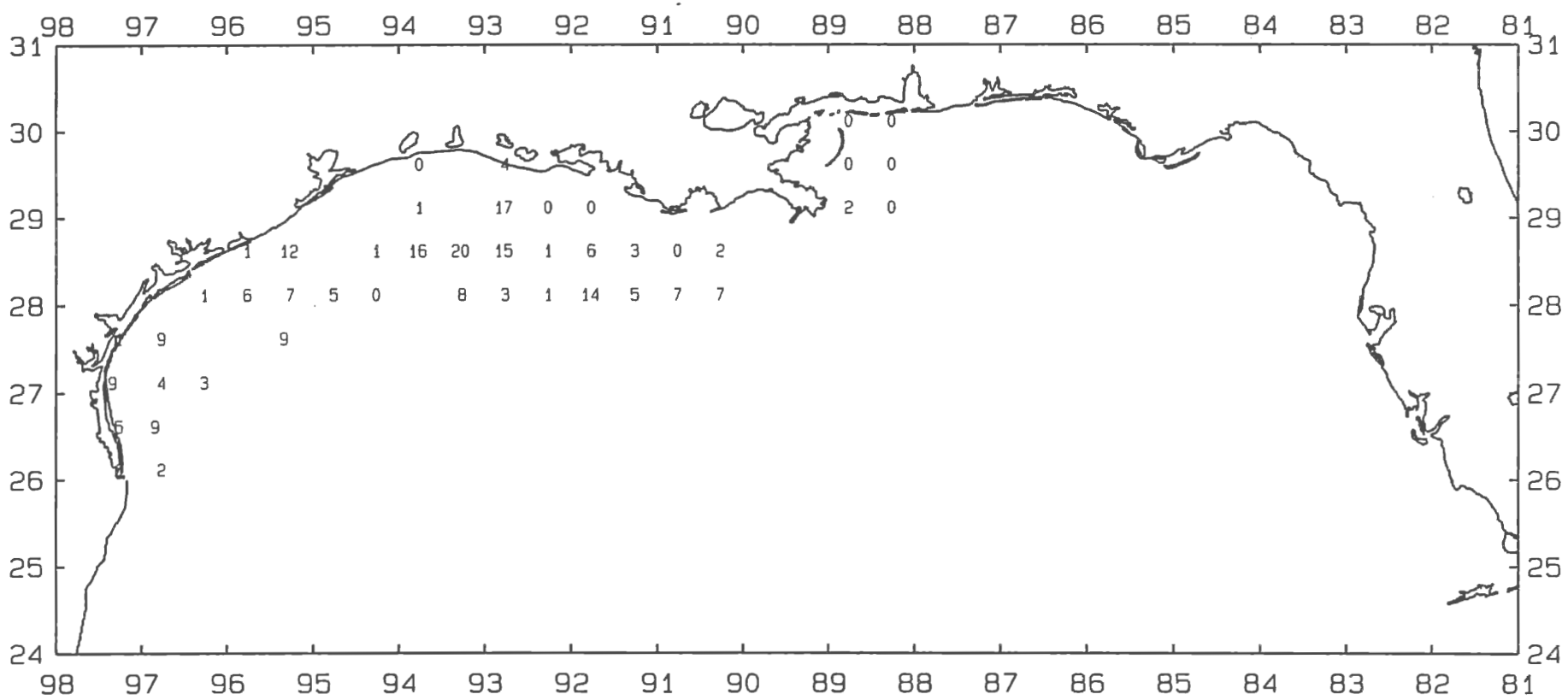

Figure 72. Gulf butterfish, Peprilus burti, lb/hour for October-December 1995.

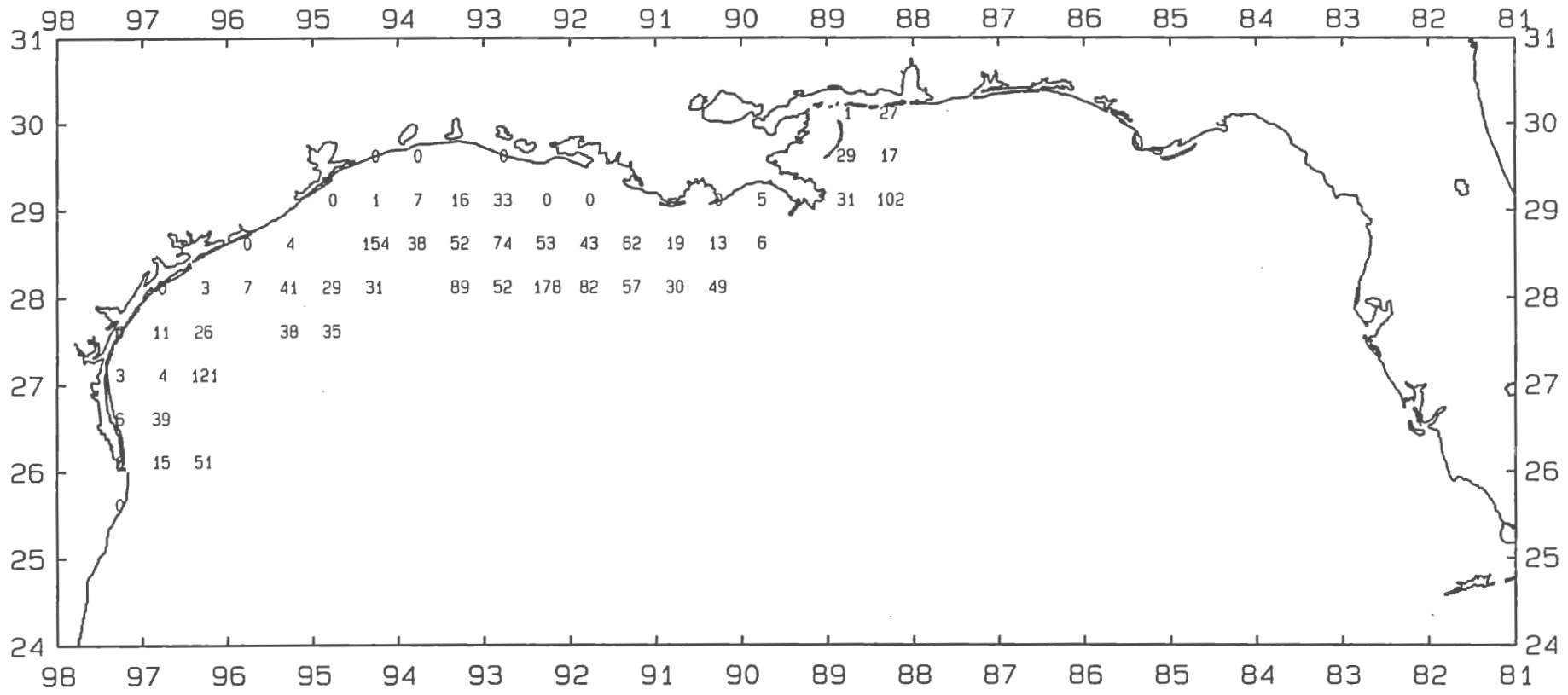

Figure 73. Inshore lizardfish, Synodus foetens, number/hour for October-December 1995.

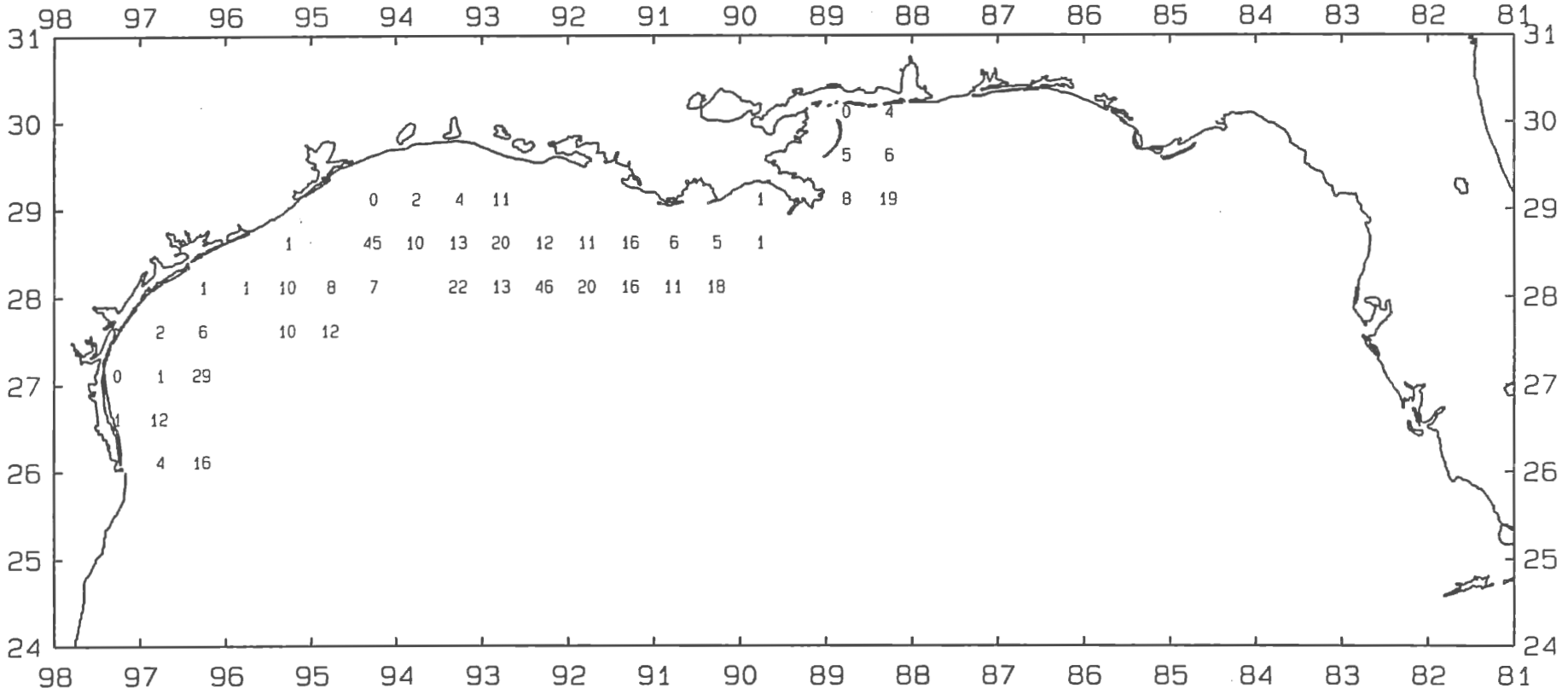

Figure 74. Inshore lizardfish, Synodus foetens, lb/hour for October-December 1995.

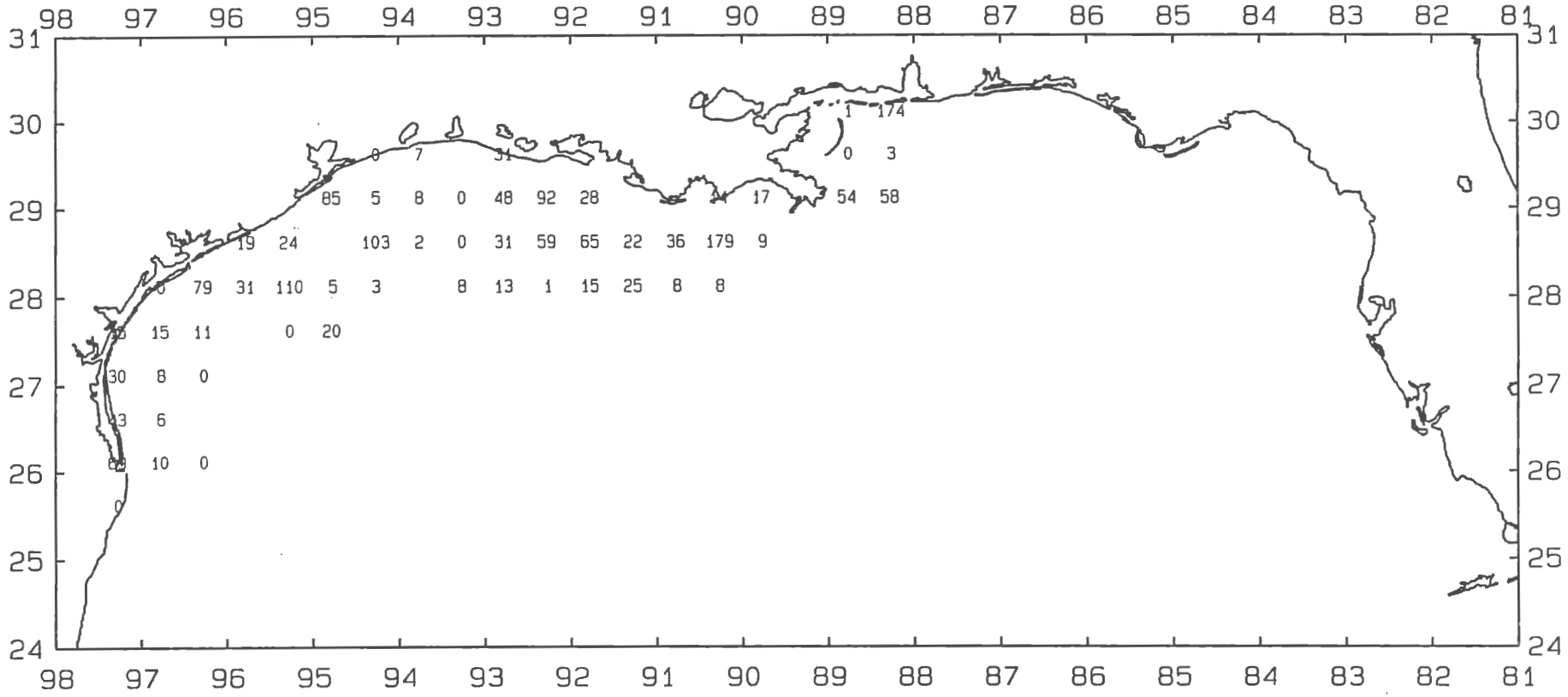

Figure 75. Sand seatrout, Cynoscion arenarius, number/hour for October-December 1995.

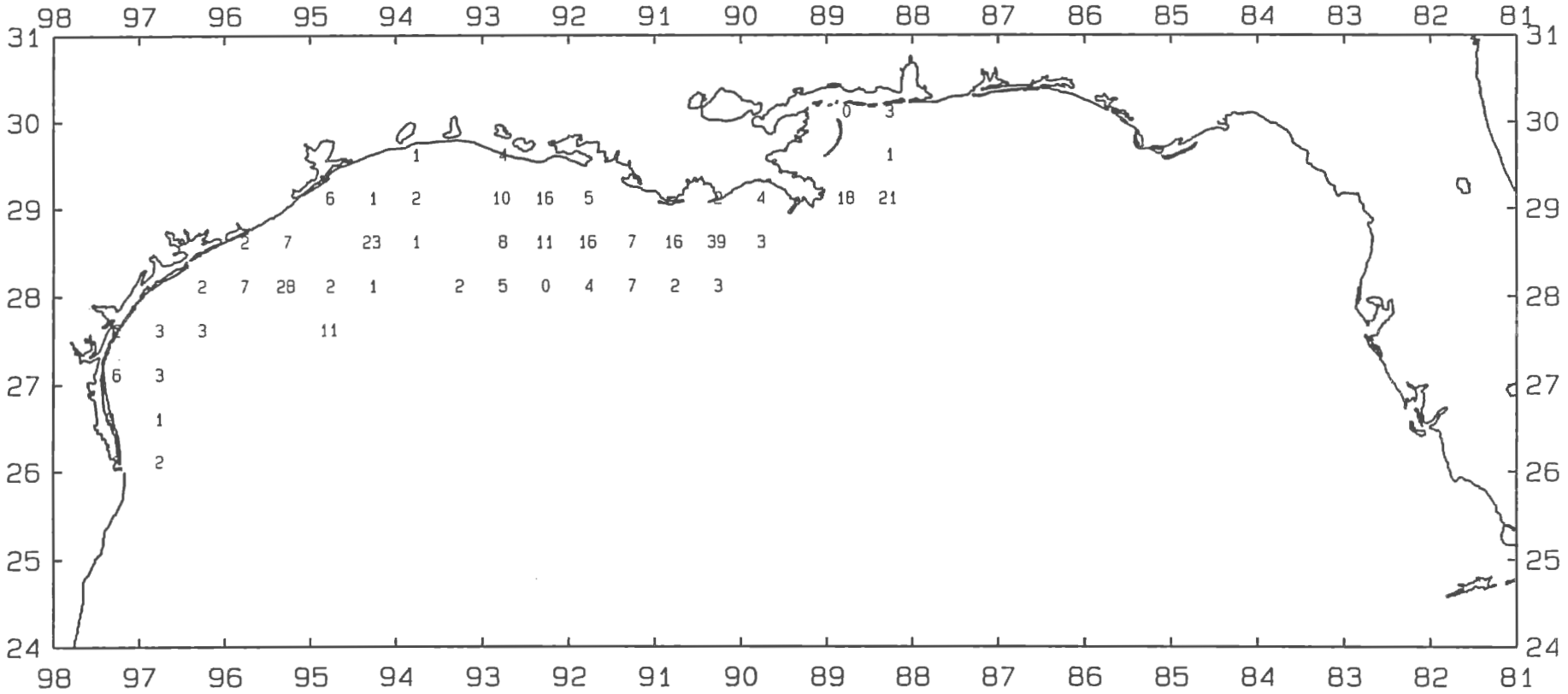

Figure 76. Sand seatrout, Cynoscion arenarius, lb/hour for October-December 1995.

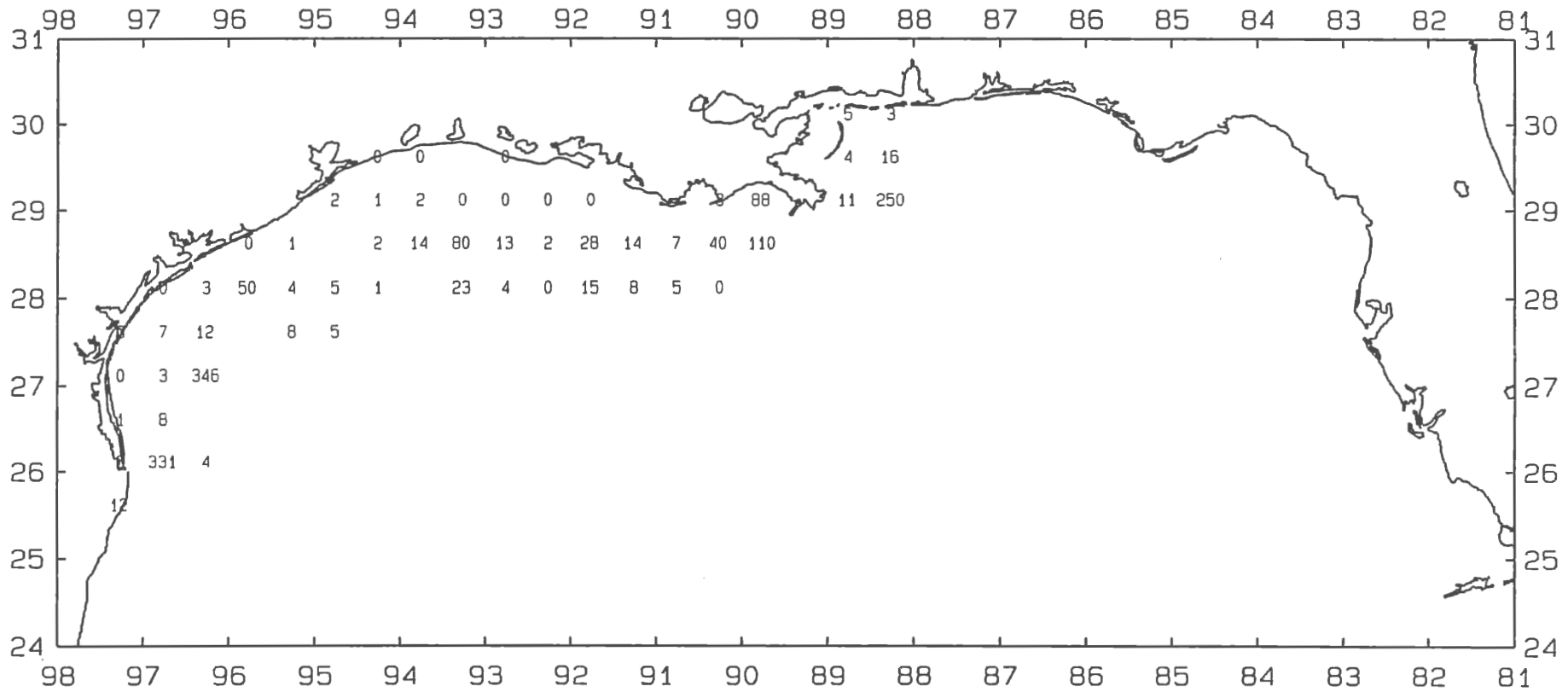

Figure 77. Pinfish, Lagodon rhomboides, number/hour for October-December 1995.

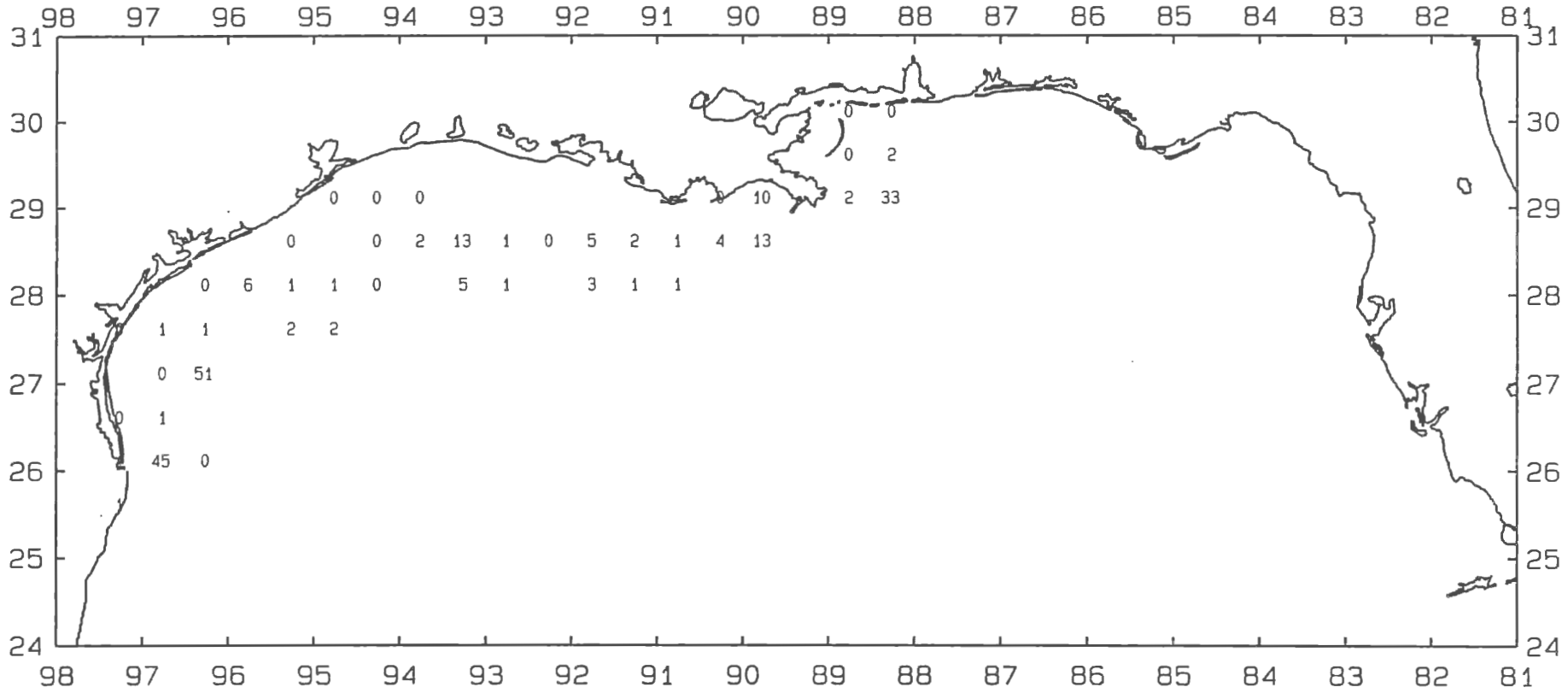

Figure 78. Pinfish, Lagodon rhomboides, lb/hour for October-December 1995.

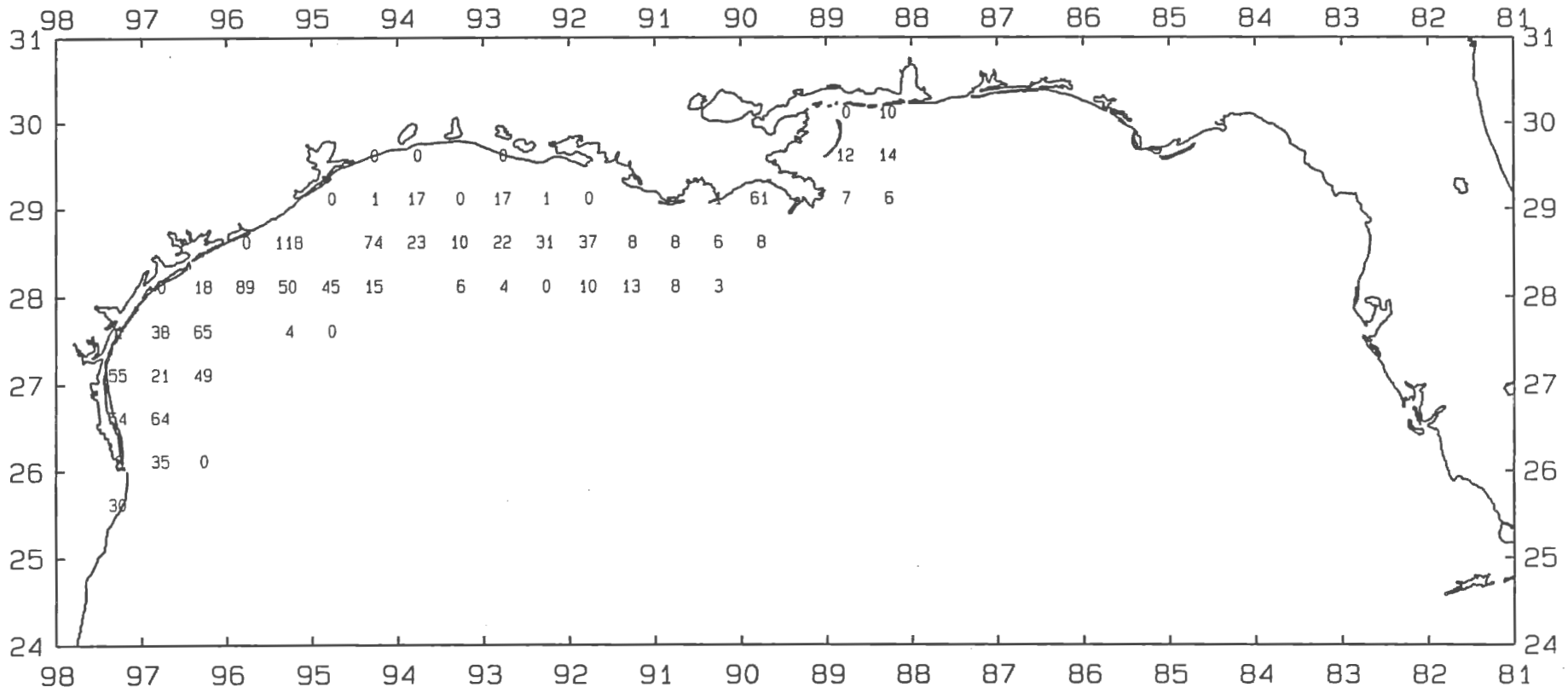

Figure 79. Red snapper, Lutianus campechanus, number/hour for October-December 1995.

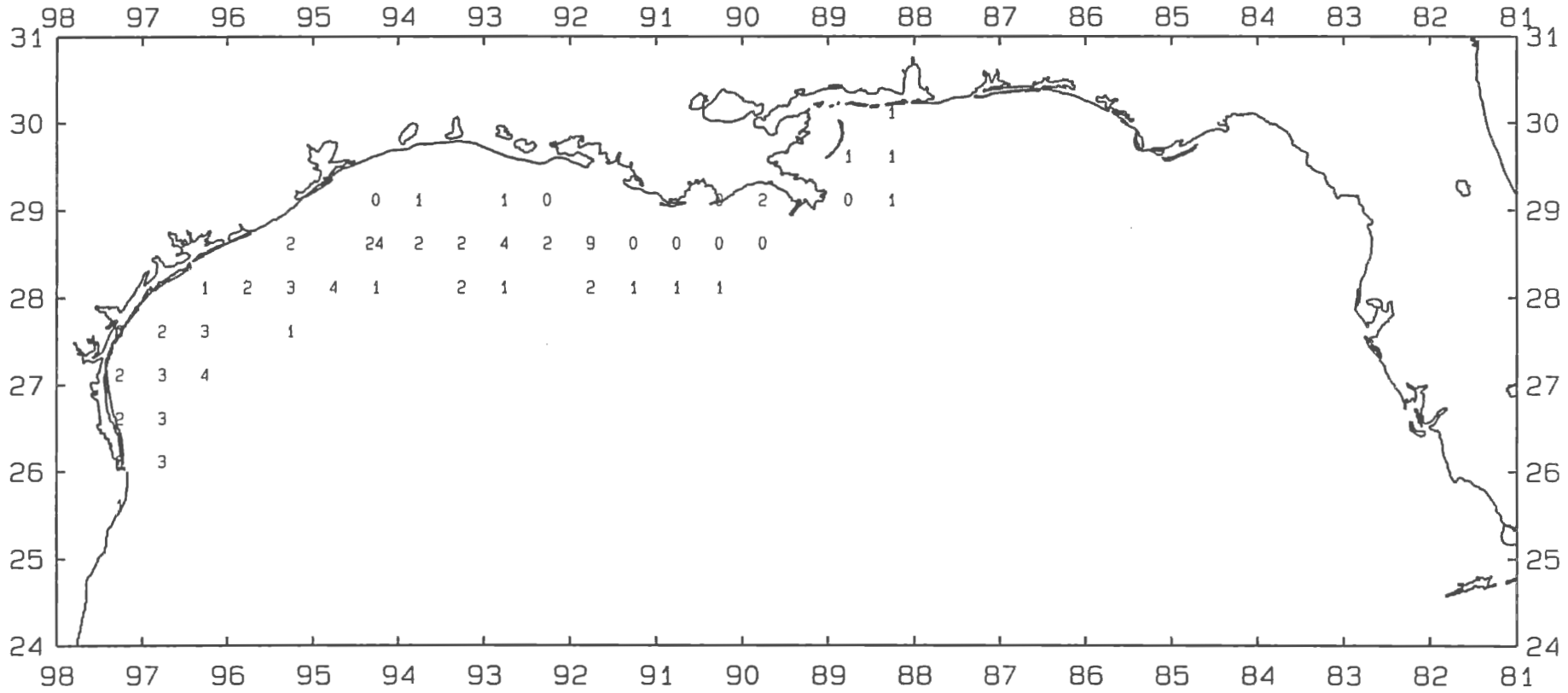

Figure 80. Red snapper, Lutjanus campechanus, lb/hour for October-December 1995.

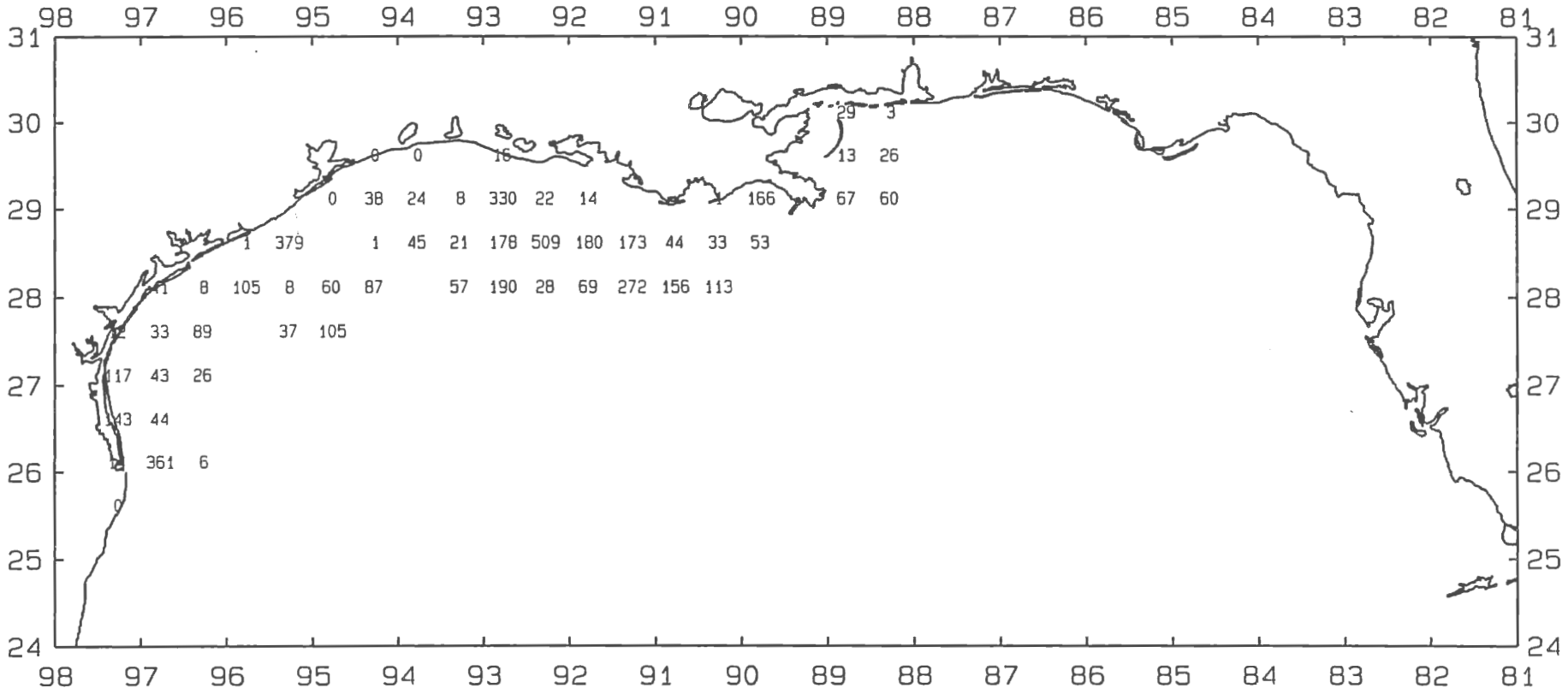

Figure 81. Brown shrimp, Penaeus aztecus, number/hour for October-December 1995.

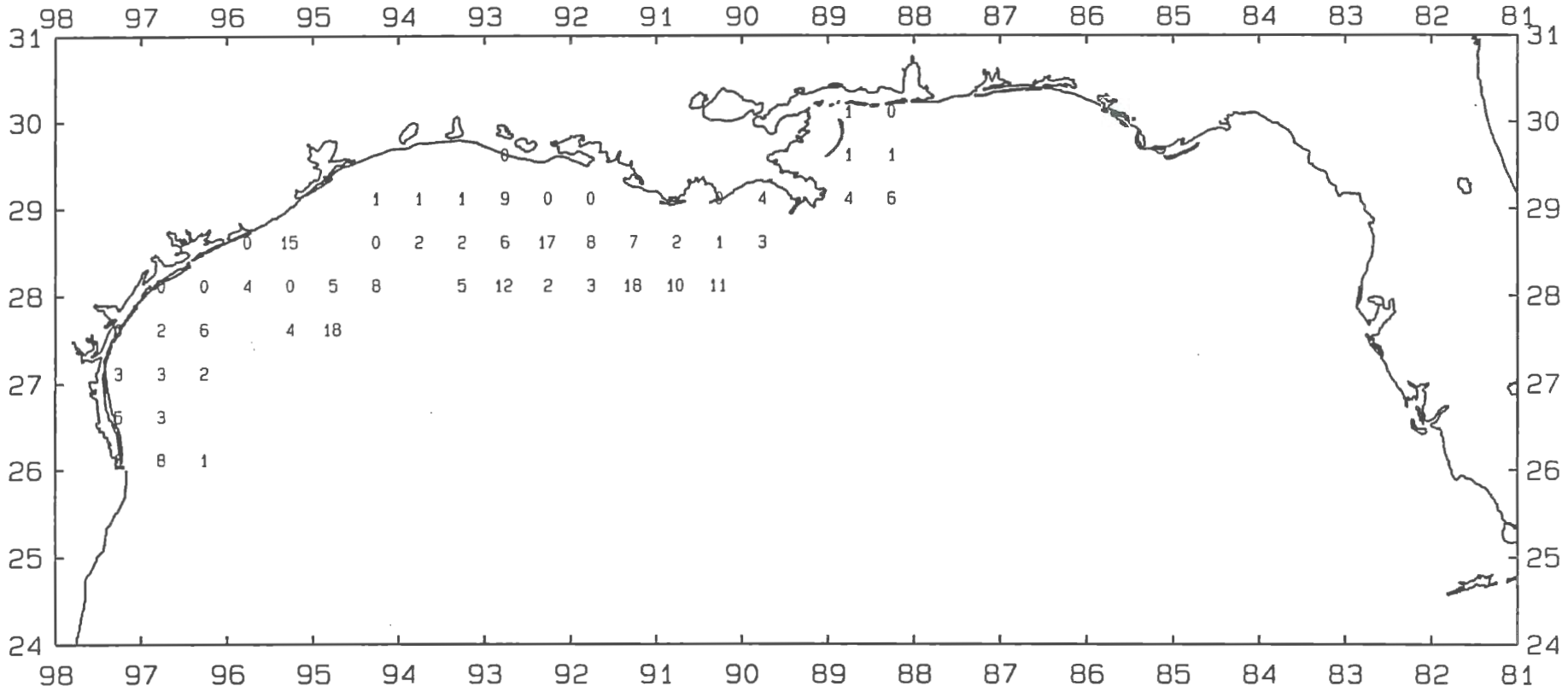

Figure 82. Brown shrimp, Penaeus aztecus, lb/hour for October-December 1995.

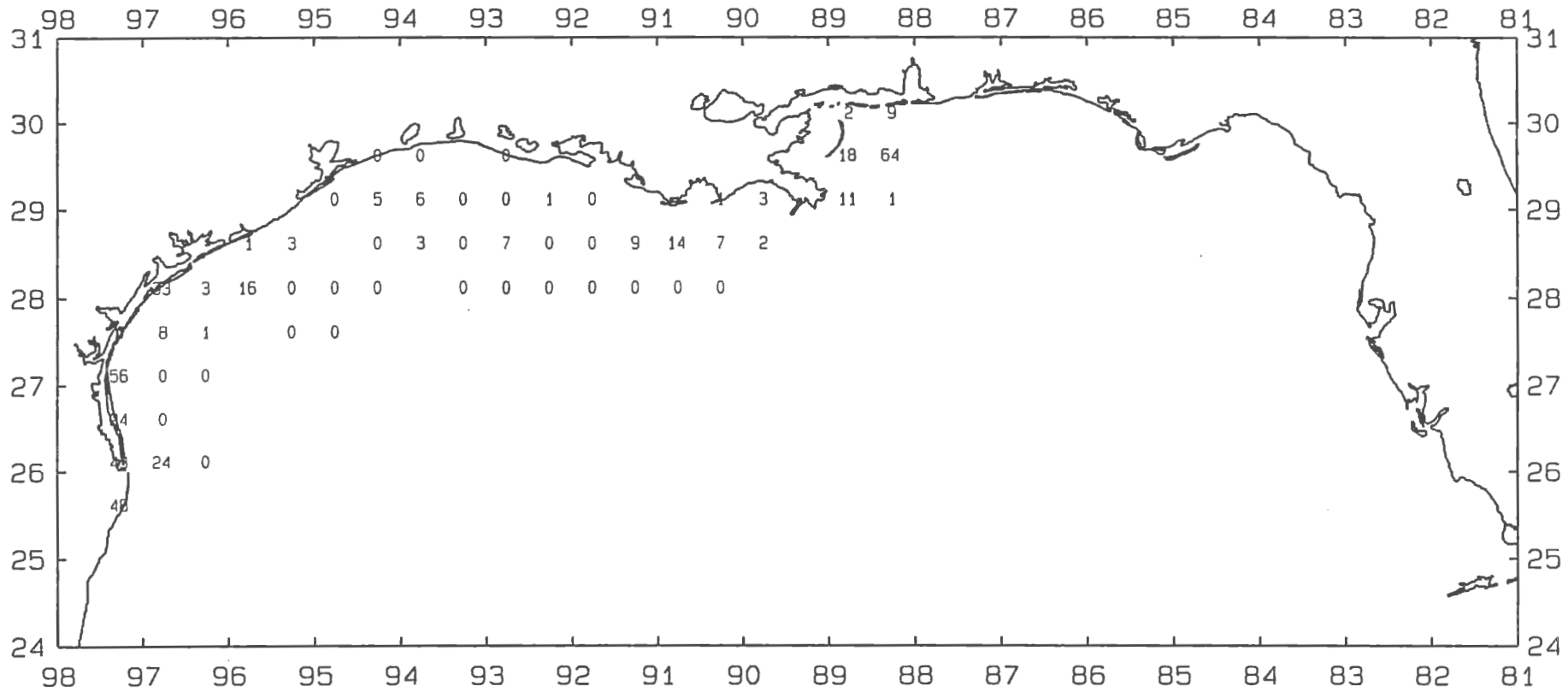

Figure 83. Pink shrimp, Penaeus duorarum, number/hour for October-December 1995.

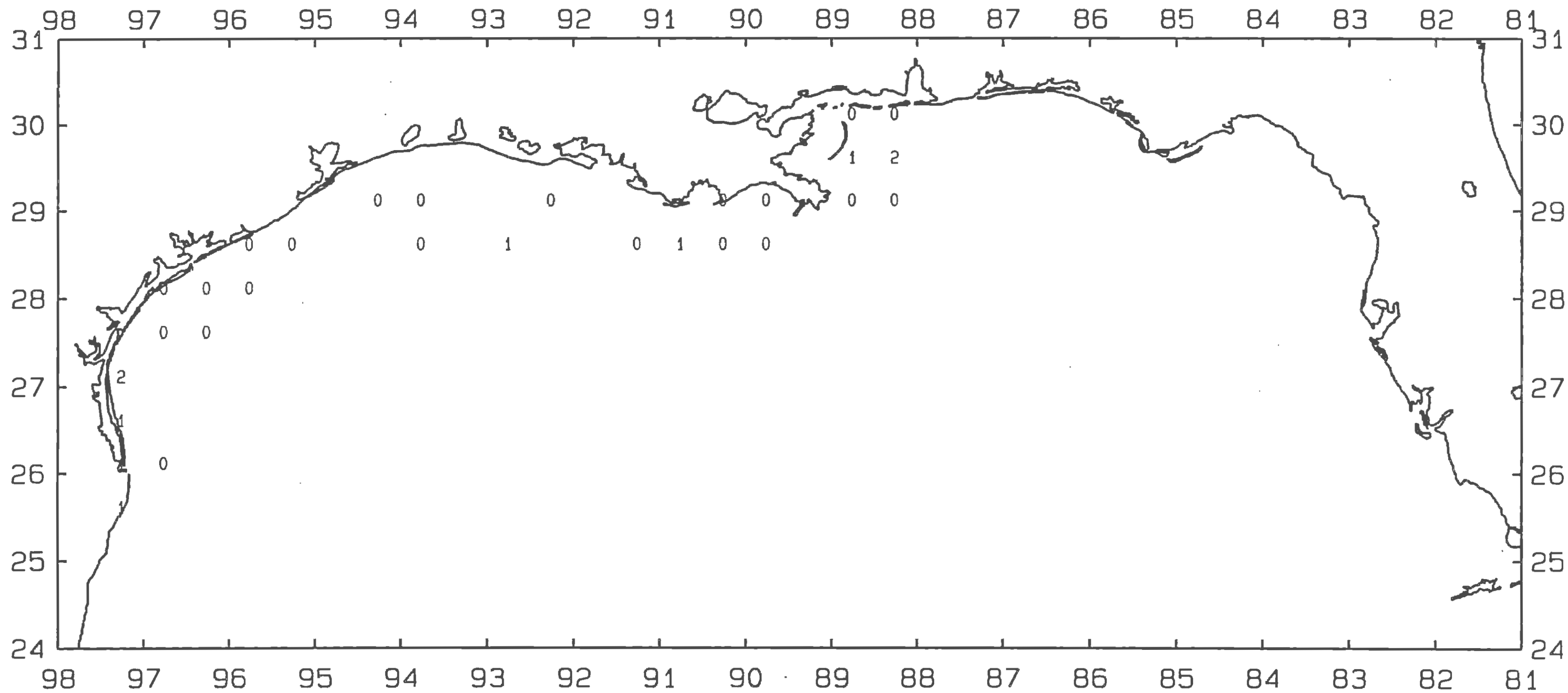

Figure 84. Pink shrimp, Penaeus duorarum, lb/hour for October-December 1995.

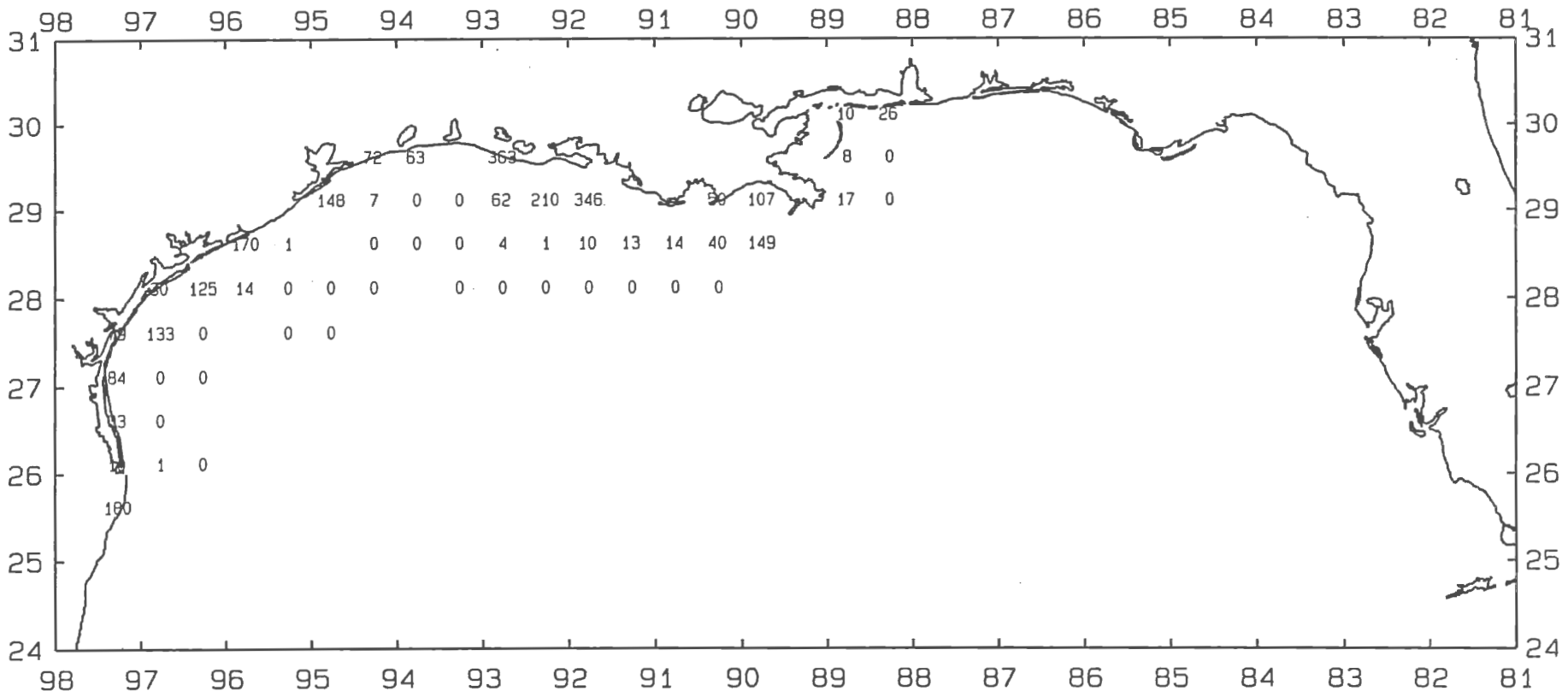

Figure 85. White shrimp, Penaeus setiferus, number/hour for October-December 1995.

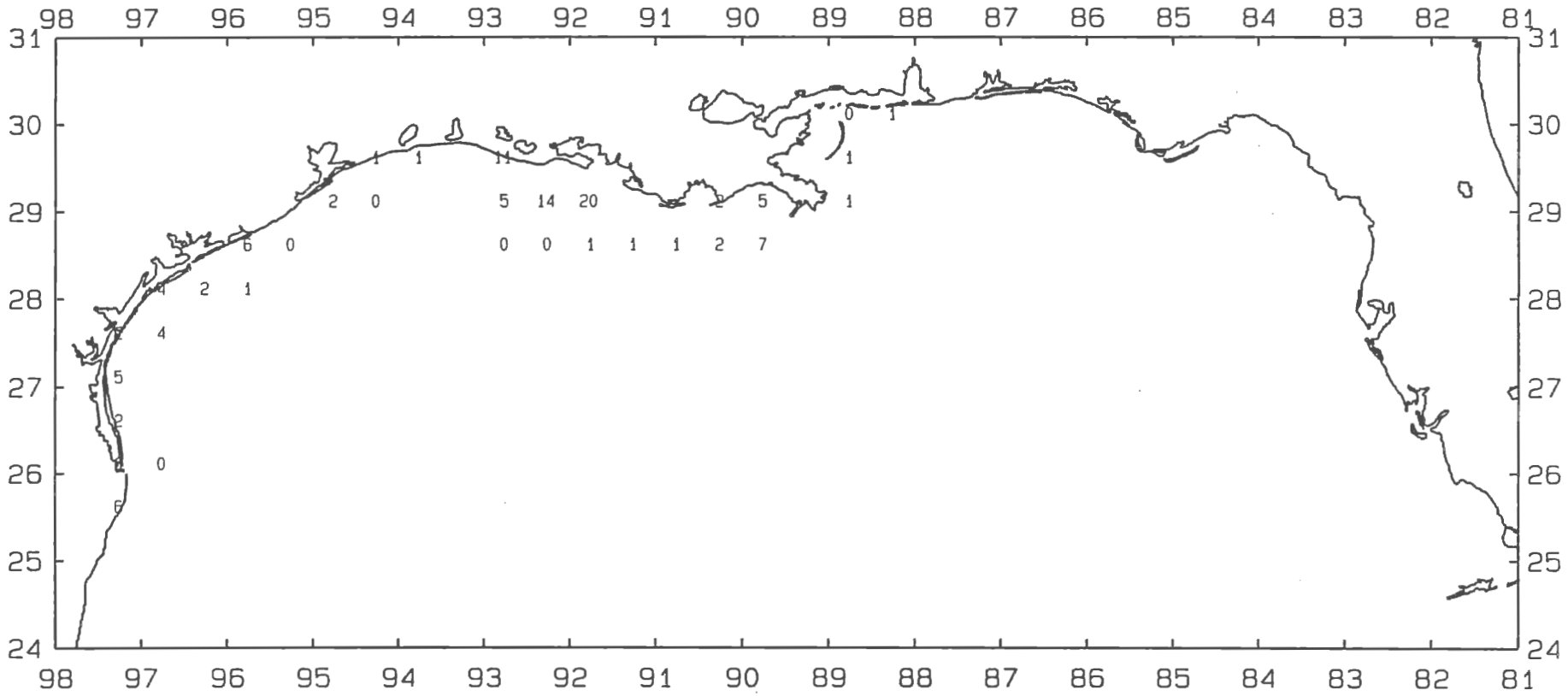

Figure 86. White shrimp, Penaeus setiferus, lb/hour for October-December 1995.

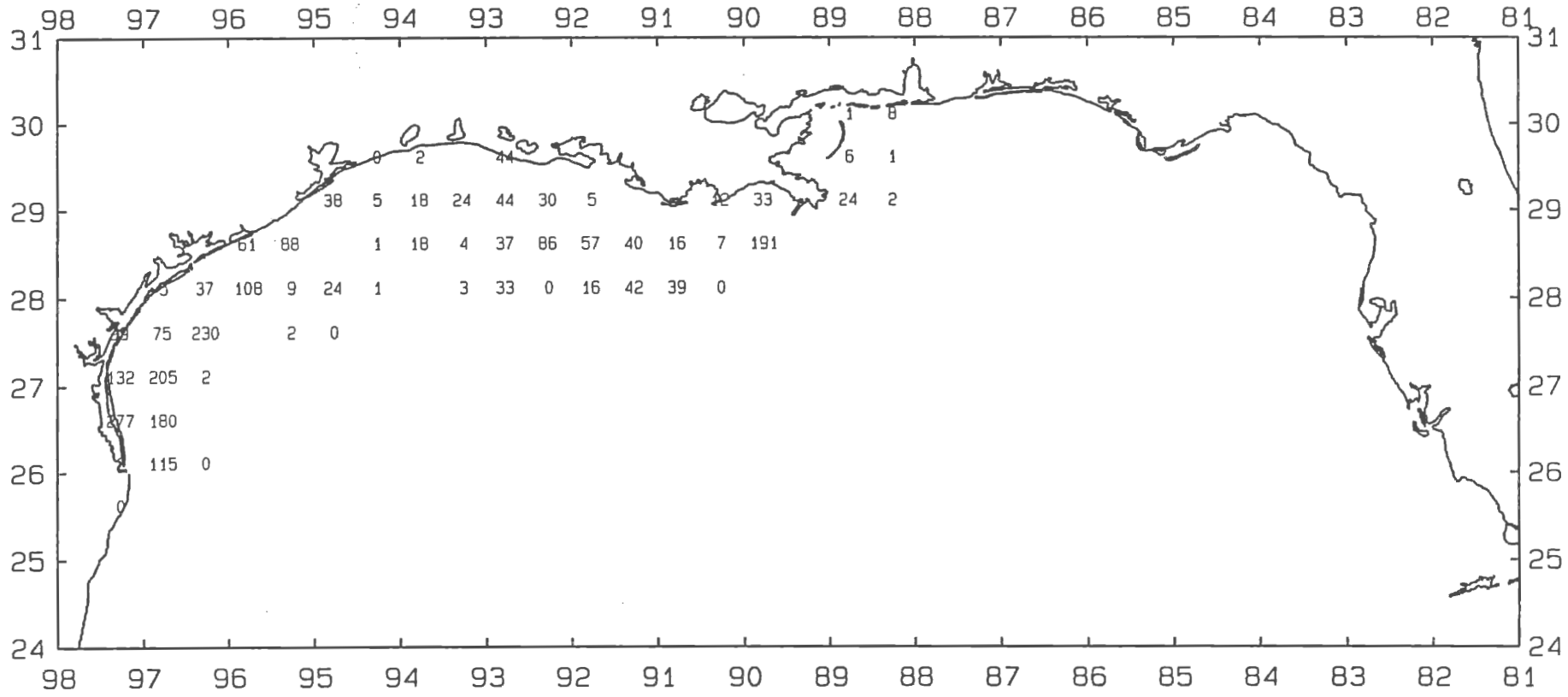

Figure 87. Lesser blue crab, Callinectes similis, number/hour for October-December 1995.

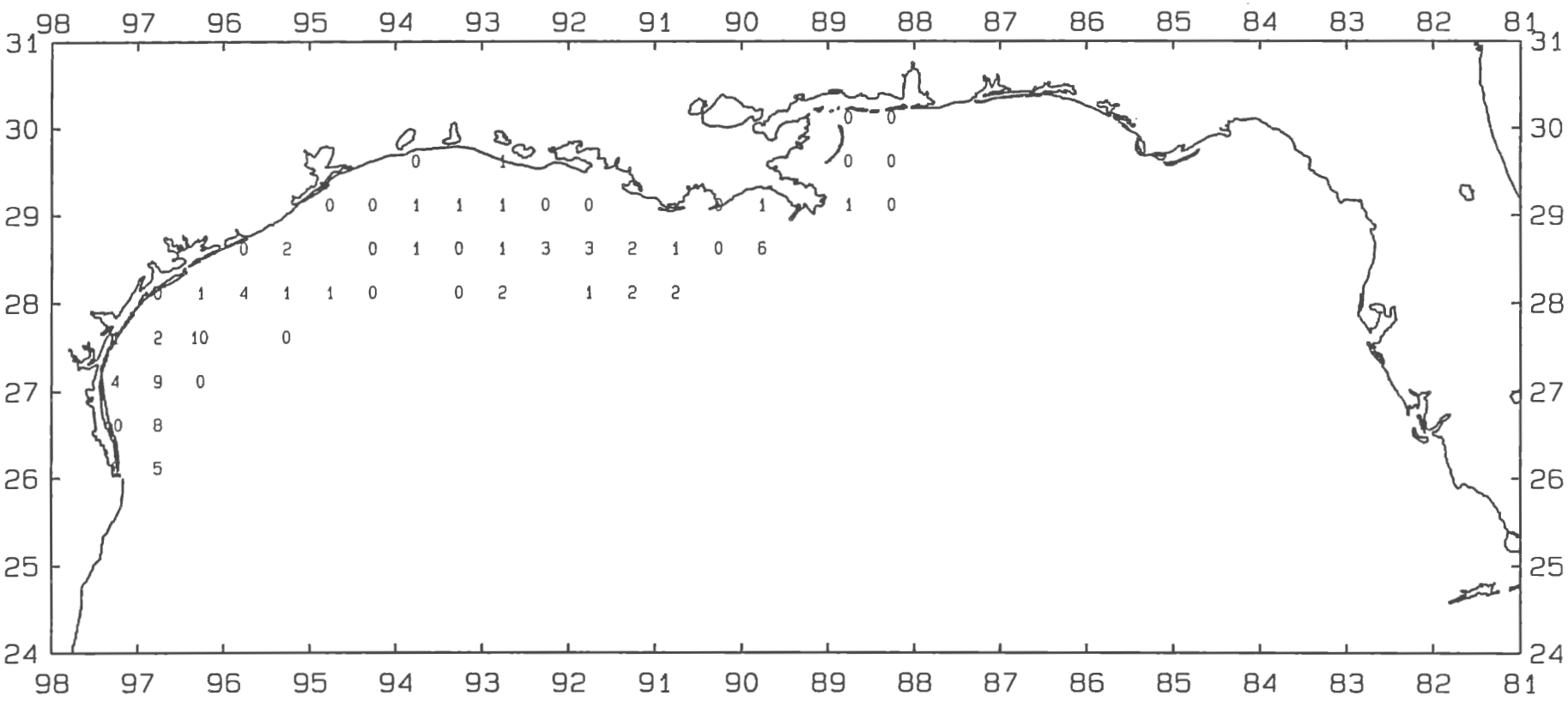

Figure 88. Lesser blue crab, Callinectes similis, lb/hour for October-December 1995.

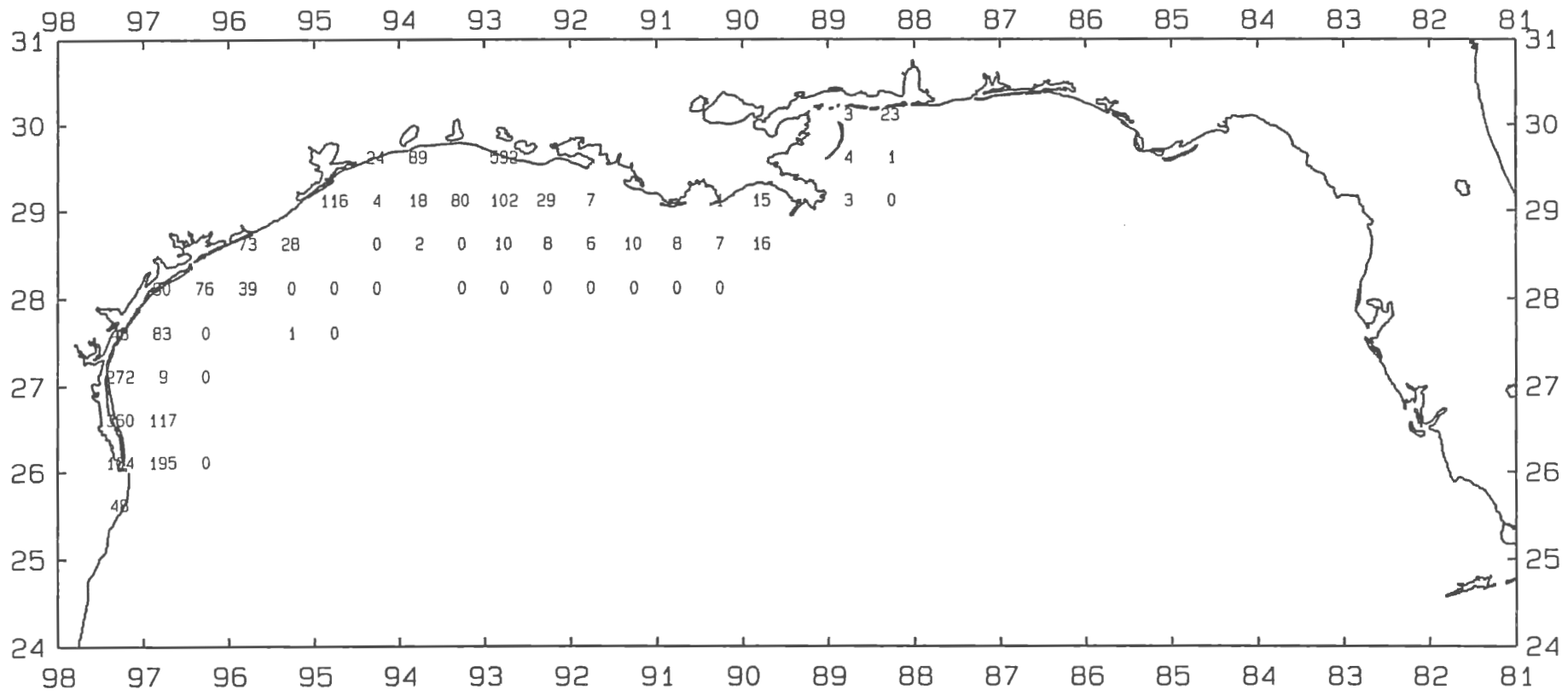

Figure 89. Irridescent swimming crab, Portunus gibbesii, number/hour for October-December 1995.

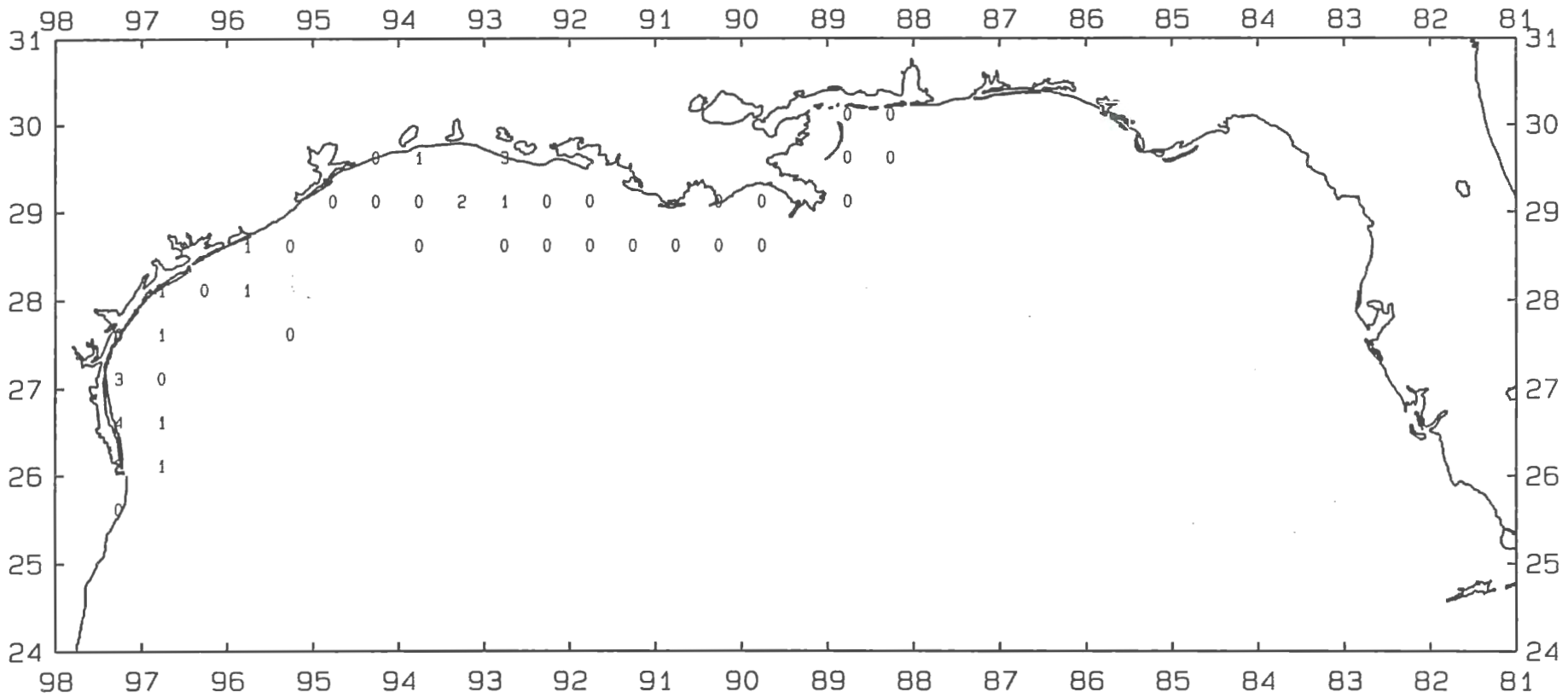

Figure 90. Irridescent swimming crab, Portunus gibbesii, lb/hour for October-December 1995.

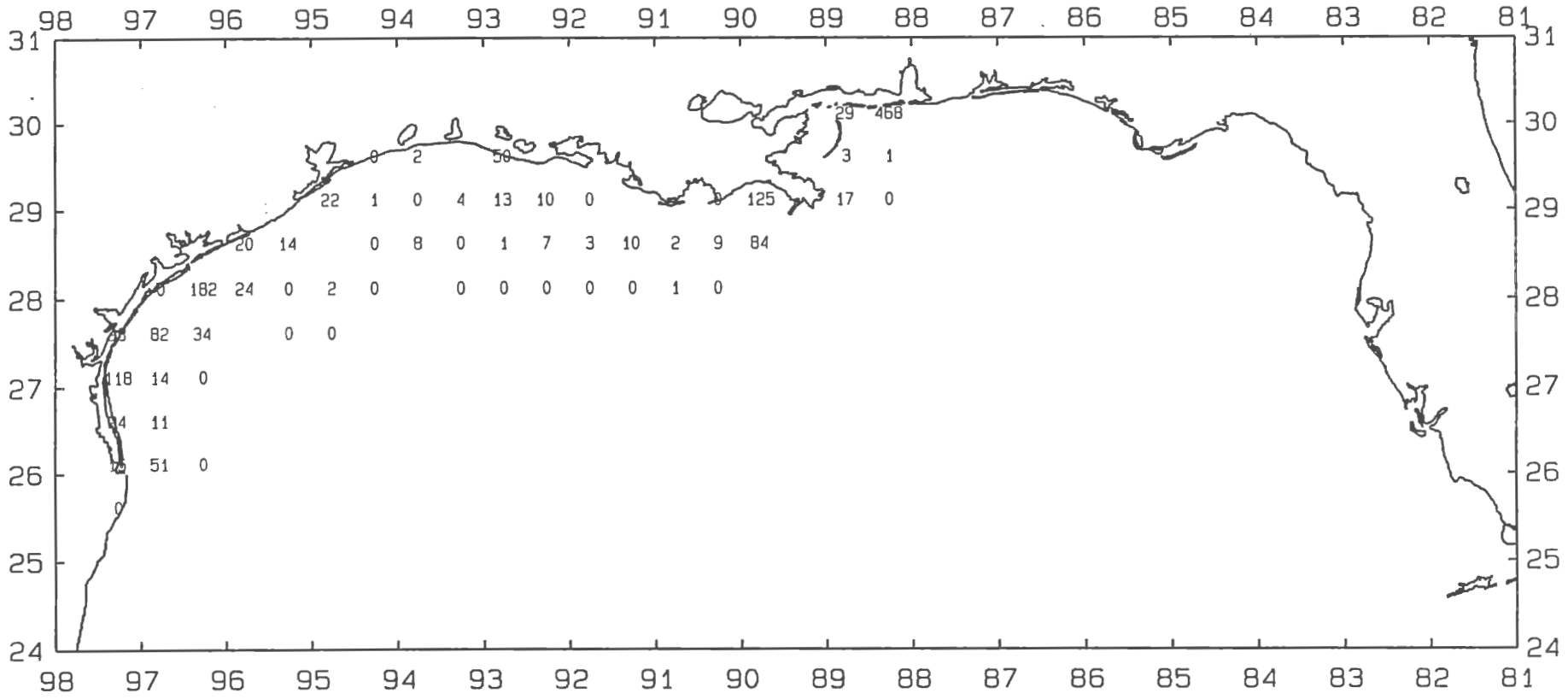

Figure 91. Roughback shrimp, Trachypenaeus similis, number/hour for October-December 1995.

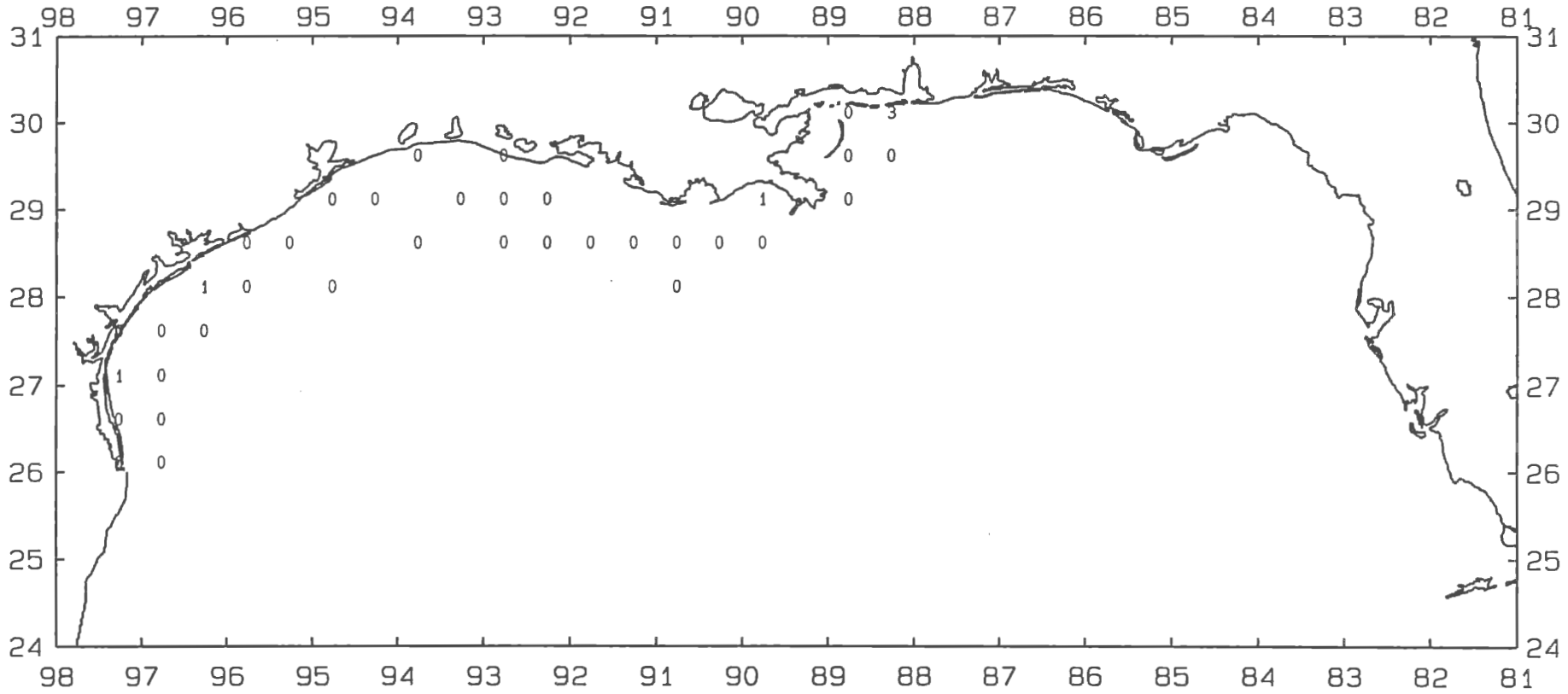

Figure 92. Roughback shrimp, Trachypenaeus similis, lb/hour for October-December 1995.

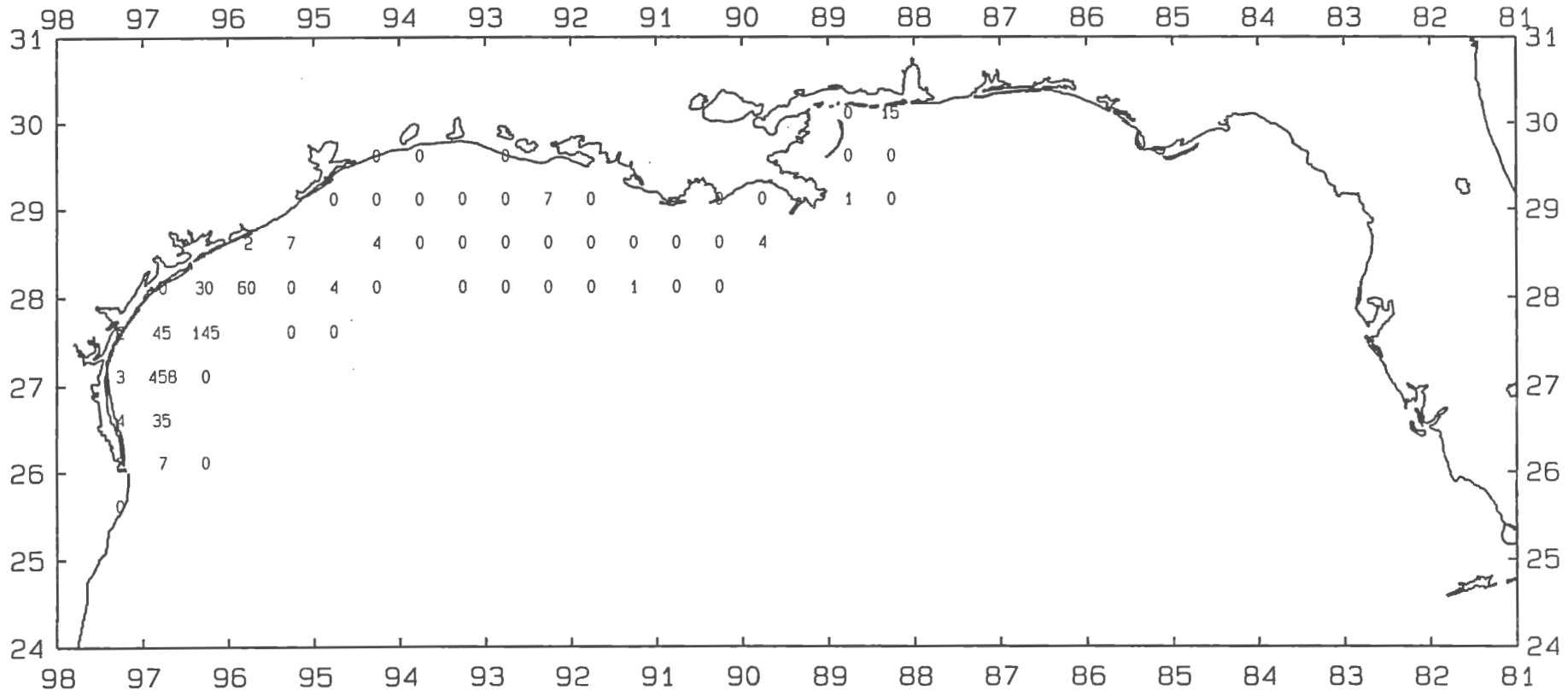

Figure 93. Lesser rock shrimp, Sicyonia dorsalis, number/hour for October-December 1995.

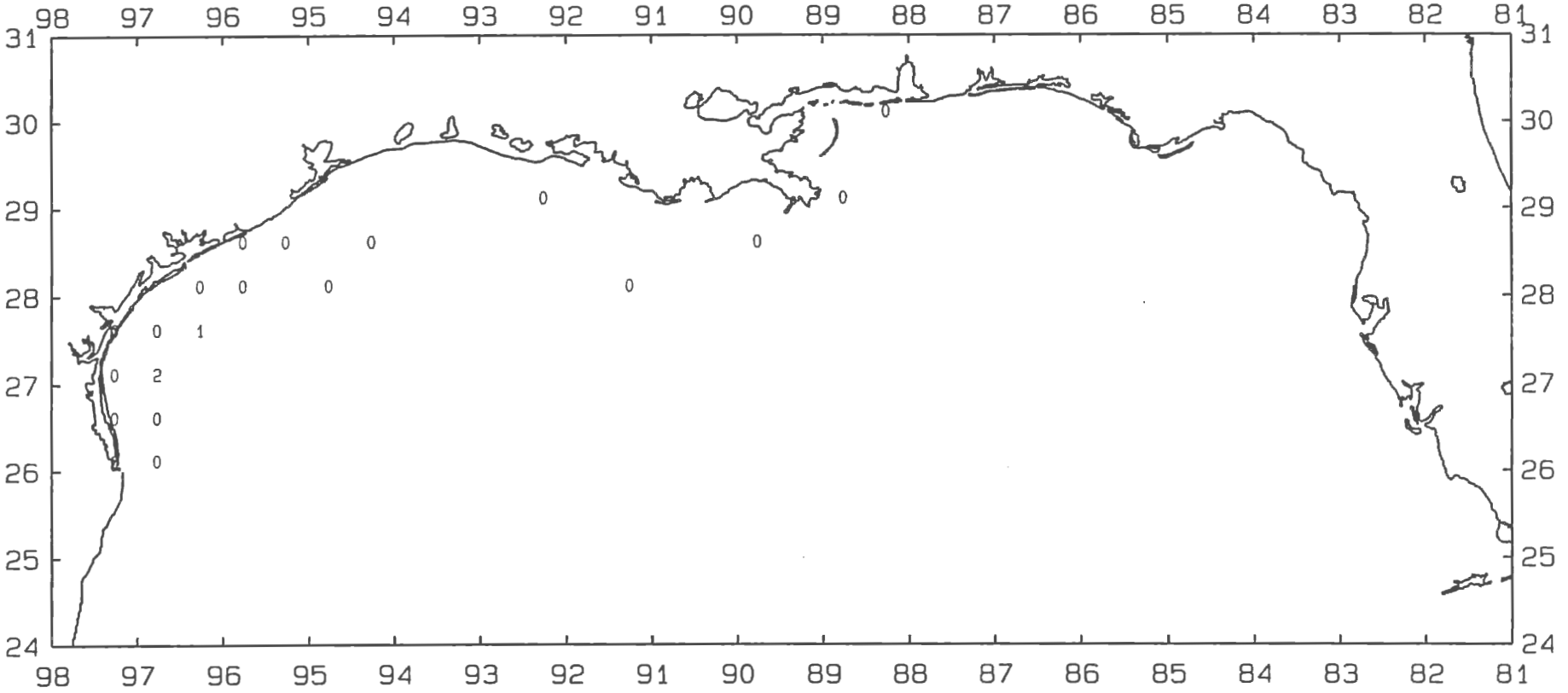

Figure 94. Lesser rock shrimp, Sicyonia dorsalis, lb/hour for October-December 1995.

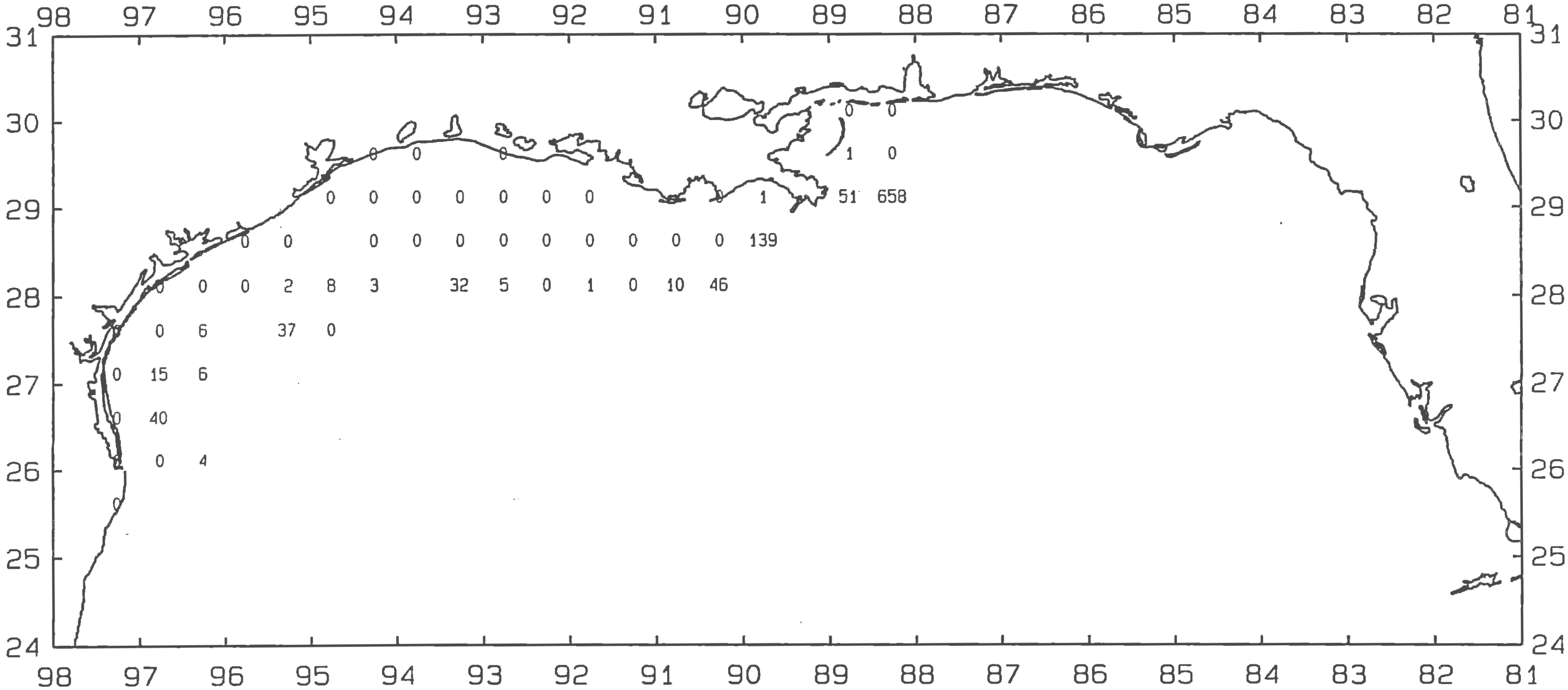

Figure 95. Longspine swimming crab, Portunis spinicarpus, number/hour for October-December 1995.

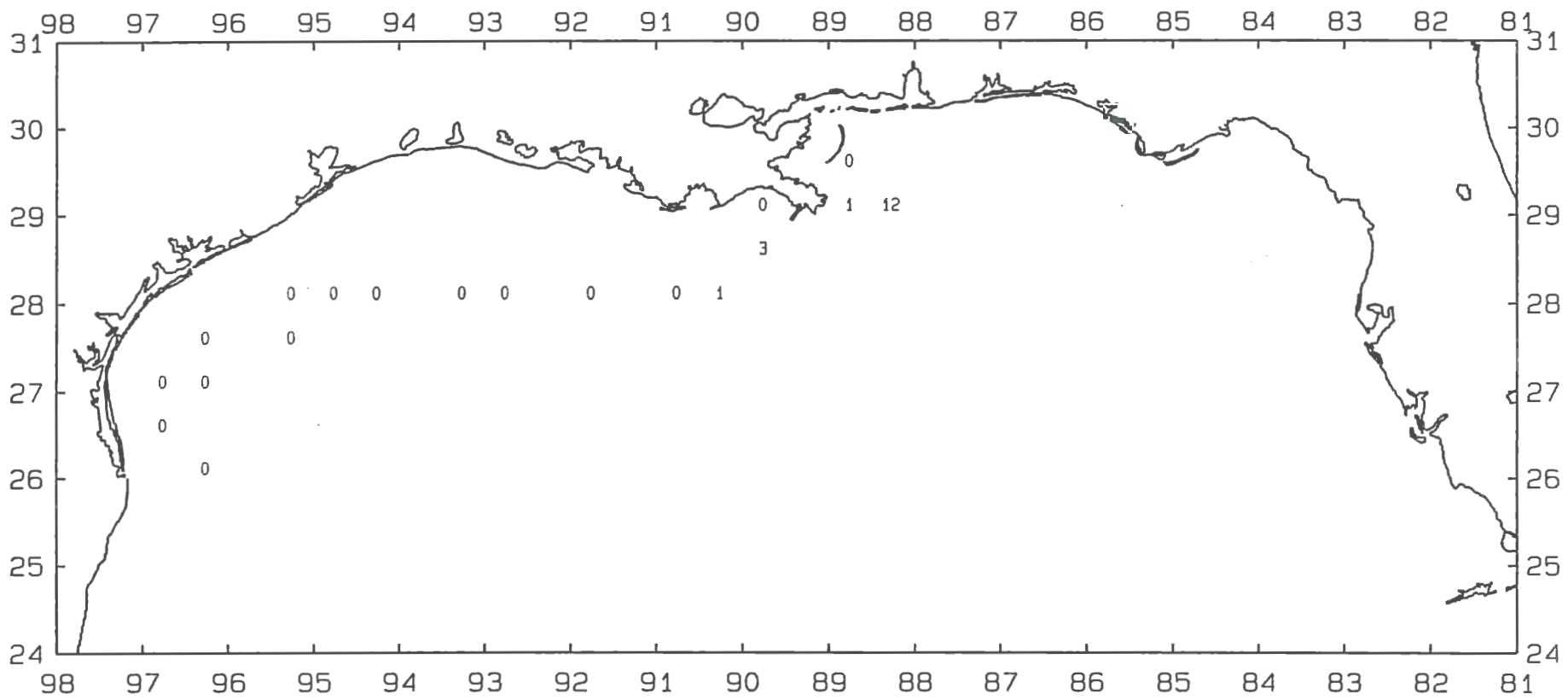

Figure 96. Longspine swimming crab, Portunis spinicarpus, lb/hour for October-December 1995.

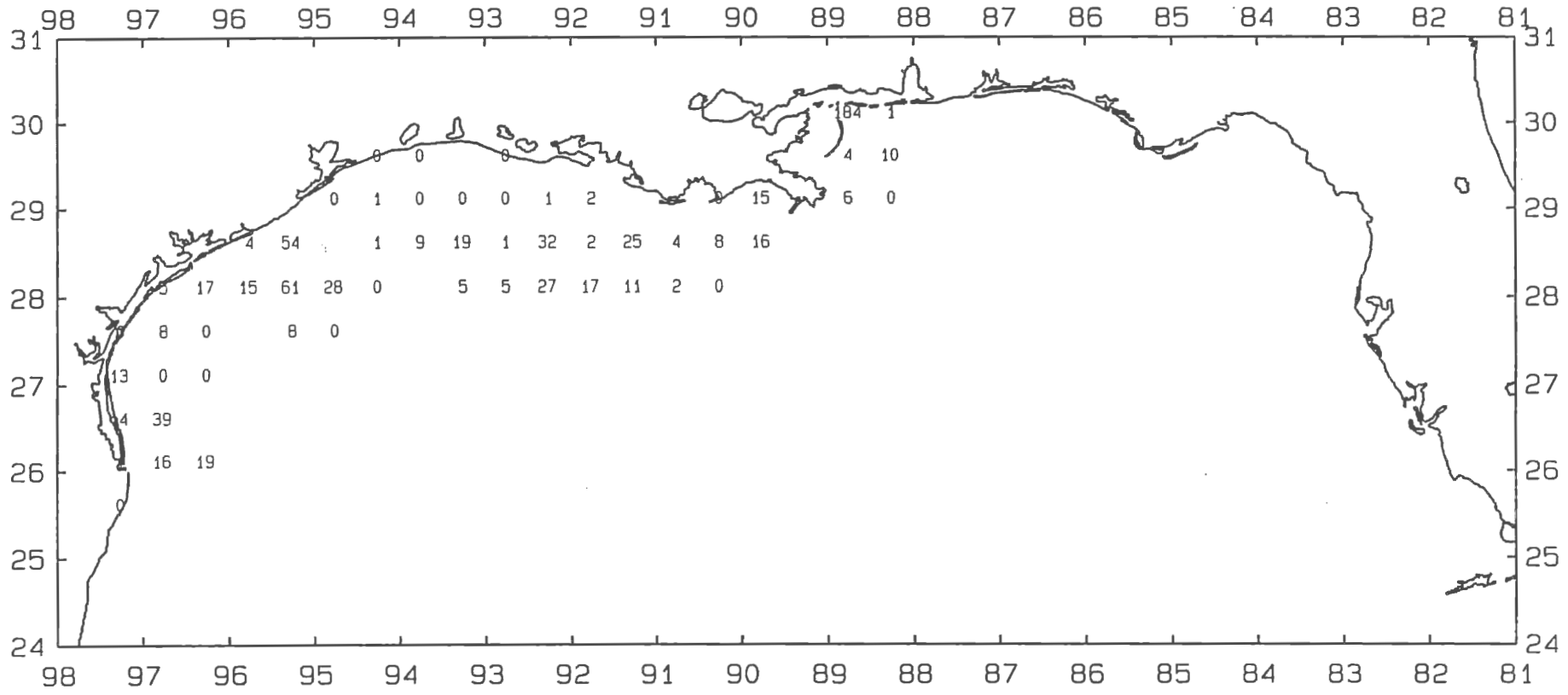

Figure 97. Arrow squid, Loligo pleii, number/hour for October-December 1995.

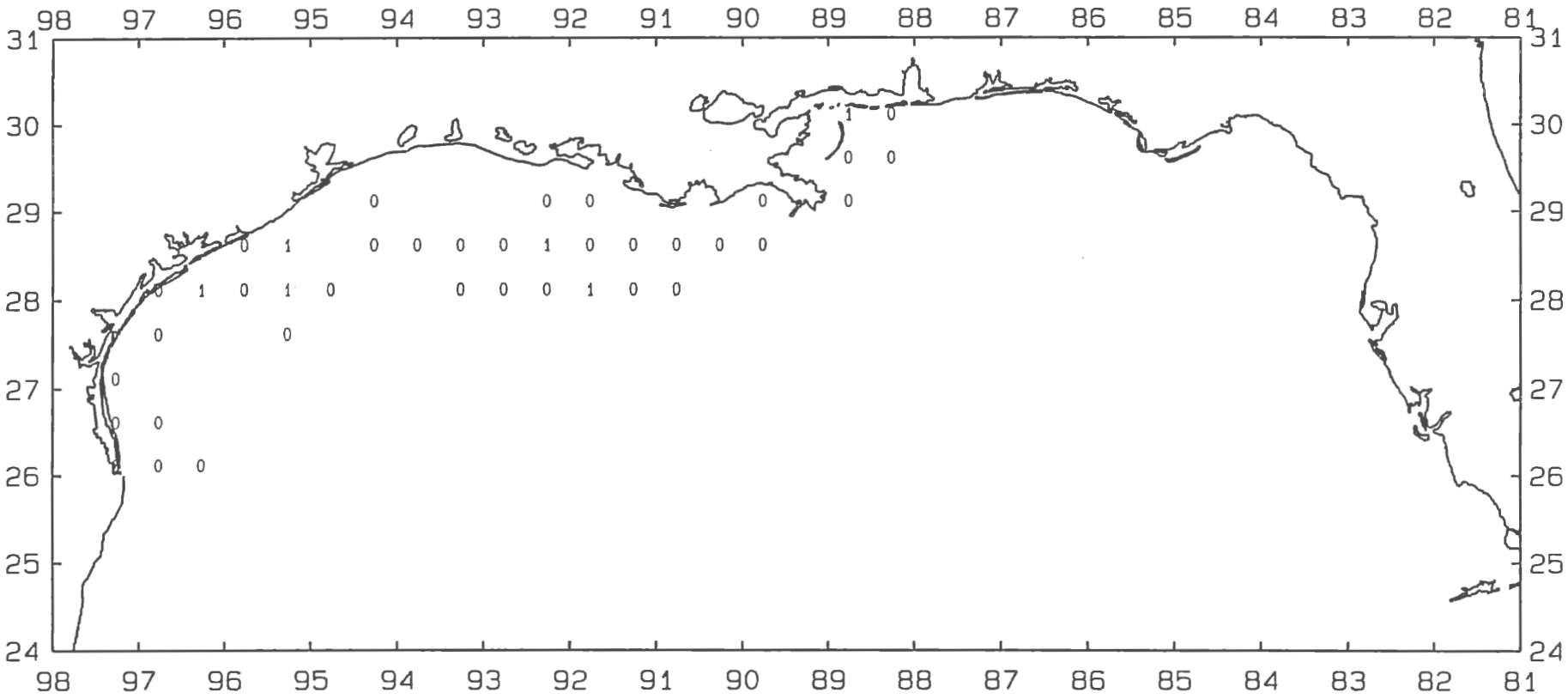

Figure 98. Arrow squid, Loligo pleii, lb/hour for October-December 1995.

LITERATURE CITED

Atlantic States Marine Fisheries Commission. 1990. SEAMAP Management Plan: 1990-1995. Washington, DC: ASMFC. 56 p.

Center for Wetland Resources. 1980. Management plan and final environmental impact statement for the shrimp fishery of the Gulf of Mexico, United States waters. Louisiana State Univ., Baton Rouge, Louisiana. 185 p.

Donaldson, D.M., N.J. Sanders, and P.A. Thompson. 1993. SEAMAP environmental and biological atlas of the Gulf of Mexico, 1991. Gulf States Marine Fisheries Commission. No. 29. 321 p.

Donaldson, D.M., N.J. Sanders, and P.A. Thompson. 1994. SEAMAP environmental and biological atlas of the Gulf of Mexico, 1992. Gulf States Marine Fisheries Commission. No. 30. 293 p.

Donaldson, D.M., N.J. Sanders, P.A. Thompson and R. Minkler. 1996. SEAMAP environmental and biological atlas of the Gulf of Mexico, 1993. Gulf States Marine Fisheries Commission. No. 34. 284 p.

Donaldson, D.M., N.J. Sanders, P.A. Thompson and R. Minkler. 1997. SEAMAP environmental and biological atlas of the Gulf of Mexico, 1994. Gulf States Marine Fisheries Commission. No. 40. 277 p.

Eldridge, P.J. 1988. The Southeast Area Monitoring and Assessment Program (SEAMAP): A state-federal-university program for collection, management and dissemination of fishery-independent data and information in the southeast United States. Mar. Fish. Rev. 50(2): 29-39.

Jeffrey, S.W. and G.F. Humphrey. 1975. New spectrophotometric equations for determining chlorophylls a, b, c_1 and c_2 in higher plants, algae and natural phytoplankton. Biochem. Physiol. Pflanzer Bpp. 167: 191-194.

Goodyear, C.P. 1997. An evaluation of the minimum reduction in the 1997 red snapper shrimp bycatch mortality rate consistent with the 2019 recovery target. GMFMC. 14p. + appendix.

Grace, M., K.R. Rademacher and M. Russell. 1994. Pictorial guide to the groupers (Teleostei: Serrenidae) of the western North Atlantic. NOAA Tech. Report. NMFS 118. 46p.

Hanifen, J.G., W.S. Perret, R.P. Allemand and T.L. Romaire. 1995. Potential impacts of hypoxia on fisheries: Louisiana's fishery-independent data. In proceedings of Gulf of Mexico Program's Hypoxia Conference. November 1995, New Orleans, LA.

Kelley, S., J.V. Gartner, Jr., W.J. Richards and L. Ejsymont. 1993. SEAMAP 1984 & 1985 - Ichthyoplankton. Larval distribution and abundance of Carangidae, Clupeidae, Coryphaenidae, Engraulididae, Gobiidae, Istiophoridae, Lutjanidae, Scombridae, Serranidae, and Xiphiidae in the Gulf of Mexico. NOAA Tech. Mem., NMFS-SESC-317.

Kelley, S., J.V. Gartner, Jr., W.J. Richards and L. Ejsymont. 1990. SEAMAP 1986 - Ichthyoplankton. Larval distribution and abundance of Engraulididae, Carangidae, Clupeidae, Gobiidae, Lutjanidae, Serranidae, Coryphaenidae, Istiophoridae and Scombridae in the Gulf of Mexico. NOAA Tech. Mem., NMFS-SESC-245.

Kelley, S., T. Potthoff, W.J. Richards, L. Ejsymont and J.V. Gartner. 1985. SEAMAP 1983 - Ichthyoplankton. Larval distribution and abundance of Engraulididae, Carangidae, Clupeidae, Lutjanidae, Serranidae, Sciaenidae, Coryphaenidae, Istiophoridae, Xiphiidae and Scombridae in the Gulf of Mexico. NOAA Tech. Mem., NMFS-SEFC-167.

Kramer, D., M.J. Kalin, E.G. Stevens, J.R. Thrailkill and J.R. Zweifel. 1972. Collecting and processing data on fish eggs and larvae in the California Current region. NOAA Technical Report. NMFS Circular 370. 38 p.

Leming, T.D. and W.E. Stuntz. 1984. Zones of coastal hypoxia revealed by satellite scanning have implications for strategic fishing. Nature, 310 (5973): 131-138.

McGowan, M.F. and W.J. Richards. 1986. Distribution and abundance of bluefin tuna (Thunnus thynnus) larvae in the Gulf of Mexico in 1982 and 1983 with estimates of the biomass and population size of the spawning stock from 1977, 1978, and 1981-1983. International Commission for the Conservation of Atlantic Tunas. Collective Volume of Scientific Papers. 24: 182-195.

Nance, J.M. 1996. Biological review of the 1995 Texas Closure. NOAA Tech. Mem., NMFS-SEFSC-379.

Nichols, S. 1982. Impacts of the 1981 and 1982 Texas closure on brown shrimp yields. NOAA, NMFS-SEFC. 44 p.

LITERATURE CITED

Nichols, S. 1984. Impacts of the 1982 and 1983 closure of the Texas FCZ on brown shrimp yields. Report to the Gulf of Mexico Fishery Management Council.

Nichols, S. and J.R. Poffenberger. 1987. Analysis of alternative closures for improving brown shrimp yield in the Gulf of Mexico. Report to the Gulf of Mexico Fishery Management Council.

Posgay, J.A. and R.R. Marak. 1980. The MARMAP bongo zooplankton samplers. J. Northw. Atl. Fish. Sci. 1: 9-99.

Richards, W.J., T. Potthoff, S. Kelley, M.F. McGowan, L. Ejsymont, J.H. Power and R.M. Olvera L. 1984. SEAMAP 1982 - Ichthyoplankton. Larval distribution and abundance of Engraulididae, Carangidae, Clupeidae, Lutjanidae, Serranidae, Sciaenidae, Coryphaenidae, Istiophoridae, Xiphiidae and Scombridae in the Gulf of Mexico. NOAA Tech. Mem., NMFS-SEFC-167.

Russell, G.M. Unpublished report. Reef fish assessment methodology for SEAMAP surveys of hardbottom areas. National Marine Fisheries Service. 25 p.

Sanders, N.J., P.A. Thompson and T. Van Devender. 1990a. SEAMAP environmental and biological atlas of the Gulf of Mexico, 1986. Gulf States Marine Fisheries Commission. No. 20. 328 p.

Sanders, N.J., P.A. Thompson and D.M. Donaldson. 1990b. SEAMAP environmental and biological atlas of the Gulf of Mexico, 1987. Gulf States Marine Fisheries Commission. No. 22. 337 p.

Sanders, N.J., D.M. Donaldson and P.A. Thompson. 1991a. SEAMAP environmental and biological atlas of the Gulf of Mexico, 1988. Gulf States Marine Fisheries Commission. No. 23. 320 p.

Sanders, N.J., D.M. Donaldson and P.A. Thompson. 1991b. SEAMAP environmental and biological atlas of the Gulf of Mexico, 1989. Gulf States Marine Fisheries Commission. No. 25. 318 p.

Sanders, N.J., D.M. Donaldson and P.A. Thompson. 1992. SEAMAP environmental and biological atlas of the Gulf of Mexico, 1990. Gulf States Marine Fisheries Commission. No. 27. 311 p.

Scott, G.P., S.C. Turner, C.B. Grimes, W.J. Richards, and E. B. Brothers. 1990. Indices of larval bluefin tuna (Thunnus thynnus) abundance from ichthyoplankton surveys in the Gulf of Mexico. SCRS/90/77 pages 257-270.

Scott, G.P. and S.C. Turner. 1991. Updated indices of larval bluefin tuna (Thunnus thynnus) abundance from ichthyoplankton surveys in the Gulf of Mexico. SCRS/91/95.

Sherman, K., R. Lasker, W. Richards and A.W. Kendall, Jr. 1983. Ichthyoplankton and fish recruitment studies in large marine ecosystems. Mar. Fish. Rev. 45 (10, 11, 12): 1-25.

Smith, P.E. and S.L. Richardson, eds. 1977. Standard techniques for pelagic fish egg and larva surveys. FAO Fish. Tech. Paper 175. 100 p.

Southeast Area Monitoring and Assessment Program (SEAMAP) Strategic Plan. 1981. Report to the Gulf States Marine Fisheries Commission. 50 p.

Strickland, J.D.H. and T.R. Parsons. 1972. A practical handbook of seawater analysis. Ottawa: Fish. Res. Bd. Can. 310 p.

Stuntz, W.E., C.E. Bryan, K. Savastano, R.S. Waller and P.A. Thompson. 1985. SEAMAP environmental and biological atlas of the Gulf of Mexico, 1982. Gulf States Marine Fisheries Commission. 145 p.

Thompson, P.A. and N. Bane. 1986a. SEAMAP environmental and biological atlas of the Gulf of Mexico, 1983. Gulf States Marine Fisheries Commission. No. 13. 179 p.

Thompson, P.A. and N. Bane. 1986b. SEAMAP environmental and biological atlas of the Gulf of Mexico, 1984. Gulf States Marine Fisheries Commission. No. 15. 171 p.

Thompson, P.A., T. Van Devender and N.J. Sanders, Jr. 1988. SEAMAP environmental and biological atlas of the Gulf of Mexico, 1985. Gulf States Marine Fisheries Commission. No. 17. 338 p.