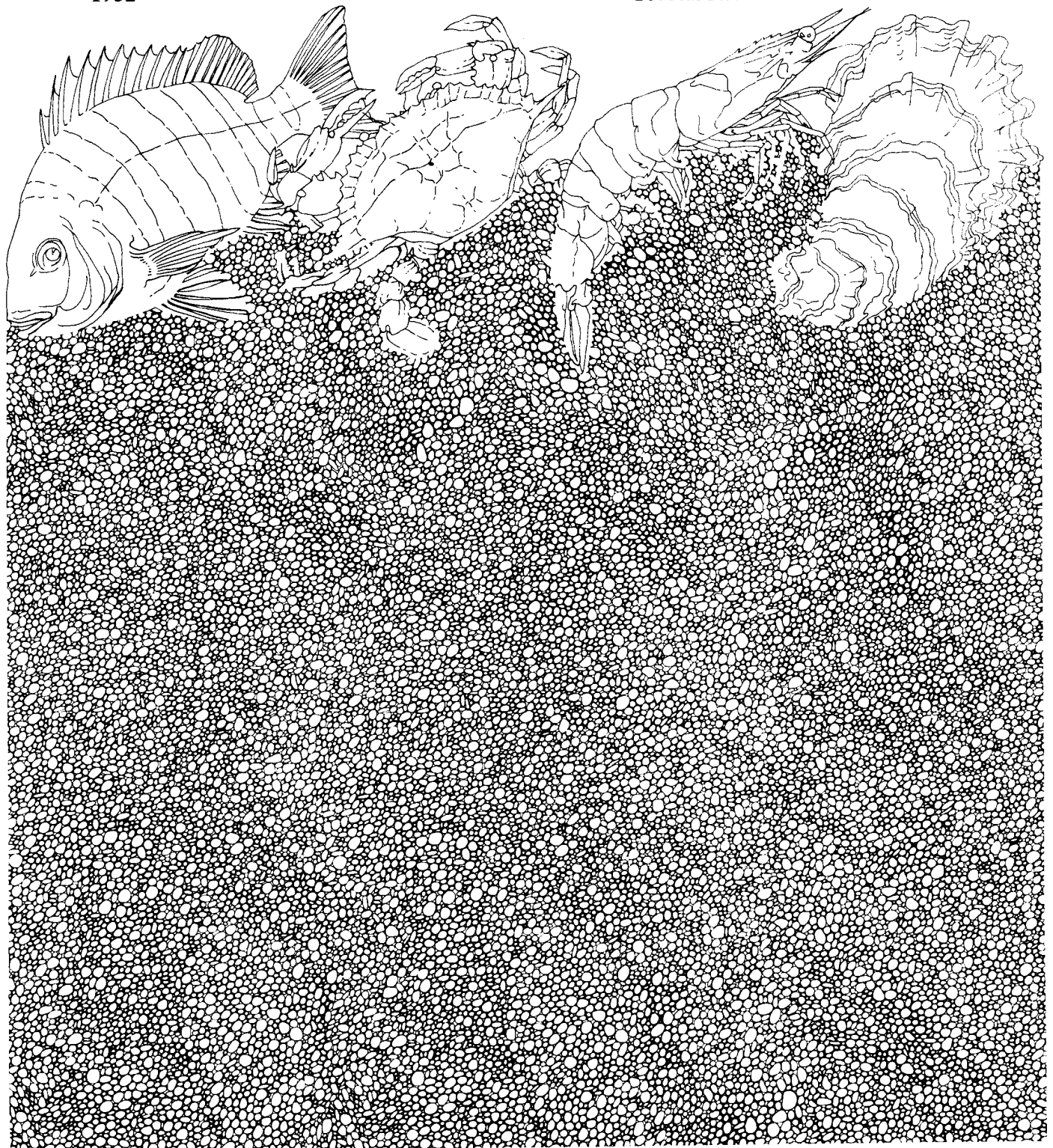


MONITORING OF COASTAL FINFISH RESOURCES FOR SPORT FISH MANAGEMENT OCTOBER 1980 - SEPTEMBER 1981

By: H.E. Hegen

Management Data Series Number 33
1982

Texas Parks and Wildlife
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ACKNOWLEDGEMENTS

I would like to express my appreciation to each member of the Bay Finfish Monitoring Program who so conscientiously collected all scheduled samples. Thanks also go to all Coastal Fisheries staff who have aided in many ways toward the successful completion of this program. This study was conducted with partial funding from the U. S. Department of Interior; Fish and Wildlife Service under DJ 15.605 (Project F-32-R-3).

MONITORING OF COASTAL FINFISH RESOURCES
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ABSTRACT

Seasonal (November-March) catch rates of red drum (Sciaenops ocellatus) in gill nets declined ~50% from 1975-76 through 1977-78 and increased ~50% from 1977-78 through 1979-80 within each bay system except East Matagorda Bay and the lower Laguna Madre. The 1980-81 seasonal catch rates declined to approximately the 1977-78 levels in Galveston, Matagorda and San Antonio Bays; remained at 1979-80 levels in Aransas and Corpus Christi Bays; and declined slightly from the 1979-80 levels in the upper Laguna Madre. Catches of red drum in East Matagorda Bay have remained at about 0.3 fish/h during 1976-1980, the 1980-81 seasonal catch rate increased to 0.7 fish/h. In the lower Laguna Madre seasonal catches of red drum declined ~50% from about 1.0 fish/h during 1975-77 to about 0.5 fish/h during 1978-1981. The highest seasonal mean catch rate (1.4 fish/h) of red drum occurred in 1979-80 in Matagorda Bay; the lowest catch rate (0.1 fish/h) occurred in 1977-78 in the upper Laguna Madre. Seasonal mean lengths ranged from 371 to 522 mm.

Seasonal catch rates of spotted seatrout (Cynoscion nebulosus) declined at least 50% within each bay system from 1975-76 through 1980-81. The highest seasonal mean catch rate of spotted seatrout (1.6 fish/h) occurred in 1975-76 in the lower Laguna Madre; the lowest catch rate (0.1 fish/h) occurred at least once in each bay system except Matagorda and Aransas Bays and the lower Laguna Madre. Mean total lengths ranged from 387 to 552 mm.

Seasonal catch rates of black drum (Pogonias cromis) in Galveston Bay, Aransas Bay and the lower Laguna Madre have declined ~50% from 1975-76 through 1979-80 followed by increases in 1980-81. In East Matagorda Bay, San Antonio Bay, Corpus Christi Bay and the upper Laguna Madre the seasonal catch rates of black drum have remained low and within narrow ranges. In Matagorda Bay catch rates have declined >50% from 1975-76 (1.3 fish/h) to 1980-81 (0.4 fish/h) except during 1978-79 (1.1 fish/h). The highest seasonal mean catch rate of black drum (2.3 fish/h) occurred in 1975-76 in the lower Laguna Madre; the lowest catch rates (0.1 fish/h) occurred in 1977-78 and 1978-79 in Corpus Christi Bay. Larger black drum (383-455 mm total length) occurred in the upper and lower Laguna Madre than in the other bay systems (304-412 mm).

Seasonal catch rates of sheepshead (Archosargus probatocephalus) with gill nets were either too low or erratic to detect annual patterns or trends. Seasonal catch rates of sheepshead generally remained ≤ 0.3 fish/h in all bay systems during 1975-81; the highest catch rate (1.0 fish/h) of

sheepshead occurred in the lower Laguna Madre during 1975-76. Seasonal mean lengths ranged from 253 to 408 mm.

Season catch rates of southern flounder (Paralichthys lethostigma) remained at < 0.1 fish/h in all bay systems from 1975-76 through 1980-81. Seasonal mean total lengths of southern flounder ranged from 279 to 468 mm. The seasonal catch rates of Atlantic croaker (Micropogonias undulatus) remained at < 0.1 fish/h in all bay systems from 1975-76 through 1980-81, except in 1975-76 in the lower Laguna Madre when the catch rate was 0.2 fish/h. Seasonal mean total lengths ranged from 238 to 363 mm.

The individual meshes of the gill net were selective for species and size. In each bay system, the 7.6- and 10.2-cm stretched meshes caught primarily red drum and spotted seatrout. Black drum and southern flounder were caught primarily in the 10.2- and 12.7-cm meshes; sheepshead were caught primarily in the 12.7- and 15.2-cm meshes. Atlantic croaker were restricted almost exclusively to the 7.6-cm mesh.

Red drum catch rates with trammel nets were generally higher in each fall (October-November) than those in the following spring (April-May) in each bay system. The highest trammel net catch rate of red drum (7.24 fish/ha) occurred in the spring 1980 in Matagorda Bay. Seasonal mean total lengths for red drum were larger in the spring (361-502 mm) than in the fall (346-459 mm).

Seasonal trammel net catch rates of spotted seatrout were generally highest during the fall in Galveston, Matagorda and San Antonio Bay and generally highest during the spring in Aransas Bay and the upper and lower Laguna Madre. The highest seasonal catch (7.35 fish/ha) of spotted seatrout occurred in spring 1981 in the lower Laguna Madre. Seasonal mean total lengths ranged from 398 to 578 mm.

Fall trammel net catch rates of black drum were generally higher than spring catch rates in all bay systems except in Aransas and Corpus Christi Bays. The highest seasonal catch rate (9.46 fish/ha) occurred in fall 1978 in Matagorda Bay. Seasonal mean total lengths ranged from 226 to 388 mm.

Spring 1981 trammel catch rates of sheepshead in each bay system except the upper and lower Laguna Madre exceeded the catch rates of the previous years within the same season. The highest seasonal catch rate (9.67 fish/h) occurred in spring 1981 in Matagorda Bay. Seasonal mean total lengths ranged from 238 to 422 mm.

The seasonal mean trammel net catch rates of southern flounder varied among seasons and among bay systems. The highest seasonal catch rate (1.40 fish/ha) occurred in spring 1980 in Corpus Christi Bay. Seasonal mean total lengths ranged from 202 to 399 mm.

Seasonal mean trammel net catch rates of Atlantic croaker in Matagorda, San Antonio and Aransas Bays were substantially lower than those in the other

bay systems. The highest seasonal catch rate of Atlantic croaker (11.36 fish/ha) occurred in spring 1978 in the lower Laguna Madre. The seasonal mean total length ranged from 244 to 310 mm.

Annual catch rates (1977-81) with bag seines indicated considerable variation in relative abundance among bay systems of juvenile red drum (0.35-70.09 fish/ha), spotted seatrout (0.34-39.41 fish/ha), black drum (0.00-37.04 fish/ha), sheepshead (0.00-15.74 fish/ha), southern flounder (0.00-10.98 fish/ha) and Atlantic croaker (0.35-1086.92 fish/ha).

Monthly catch rate patterns revealed specific seasons during which red drum (October-April), spotted seatrout (July-November), black drum (May-September), sheepshead (May-August), southern flounder (February-May) and Atlantic croaker (January-June) were most available. During the season of highest availability, the mean total lengths of red drum, black drum and Atlantic croaker generally increased monthly.

INTRODUCTION

Finfish in Texas bays support both commercial and recreational industries. Commercial fishermen in the Texas bay systems (Galveston, East Matagorda, Matagorda, San Antonio, Aransas, Corpus Christi Bays and Laguna Madre) reported landing 1,781,393 kg of fish during January-December 1980 (Hamilton 1981). From September 1979 through August 1980 recreational boat, wade/bank and lighted pier fishermen harvested an estimated 1,851,700 kg of fish from these same bay systems (McEachron et al. 1981). Six species-- spotted seatrout (Cynoscion nebulosus), red drum (Sciaenops ocellatus), black drum (Pogonias cromis), sheepshead (Archosargus probatocephalus), southern flounder (Paralichthys lethostigma) and Atlantic croaker (Micropogonias undulatus)--accounted for 94.4% of the total weight reported by commercial fishermen and 87.2% of the estimated total weight caught by recreational fishermen.

Estimates of the harvest and availability of the finfish resource are necessary in order to evaluate and implement management decisions effectively. Commercial harvest statistics have been collected by the Texas Parks and Wildlife Department (TPWD) since 1936 (Heffernan and Kemp 1980). Collection of coastwide marine recreational harvest and pressure statistics were initiated by the TPWD in 1974 (Heffernan et al. 1976).

Fish availability and gear selectivity studies have been conducted periodically along the Texas coast since the late 1800's (Stevenson 1893). Information has been gathered on species diversities, relative abundances and life histories of the commercially and recreationally important fishes.

In November 1975 the Coastal Fisheries Branch of TPWD initiated a standardized program for gathering comparable information on the availability of finfish in Texas bay systems. In addition to gathering baseline data, various gear types and techniques were evaluated from November 1975 to September 1977. In October 1977 an 8-mo study was funded by NOAA, NMFS under PL 88-309 (Project No. 2-313-R) to continue monitoring finfish resources with gill nets, trammel nets and bag seines for developing long-term fish availability trends.

In October 1978 the U. S. Department of Interior, Fish and Wildlife Service approved a 5-yr program to continue monitoring trends in relative abundance and size of economically important saltwater fishes. Gill nets, trammel nets and bag seines were employed. Annual, seasonal and monthly catch rate and mean total length data for each gear type were summarized with previous years' data. This report is the summarization of the data collected during the third year, October 1980-September 1981. Any difference in this report compared to previous reports is due to updating of the data base and the most recent report should be considered the most accurate.

AREA DESCRIPTION

The Texas Gulf coastline, extending from Sabine Pass to the mouth of the Rio Grande is approximately 595 km long (Diener 1975). Situated behind the barrier islands and peninsulas is a series of enclosed or semienclosed estuarine complexes (Figure 1).

Excluding Sabine Lake, the estuarine complexes of the Texas coast can be separated into eight physically and biologically distinct bay systems. These include Galveston, East Matagorda, Matagorda, San Antonio, Aransas and Corpus Christi Bay systems; the Laguna Madre can be considered as two distinct systems (upper and lower areas) due to the geographical barrier created by the "land cut" located approximately in the middle of the Laguna Madre.

Diener (1975) gave a comprehensive description of physical and biological characteristics of the Texas coastal zone. Photocopies of the area descriptions from Matlock and Weaver (1979) are presented in Appendix A.

MATERIALS AND METHODS

Gill Nets

Gill nets were 183 m long and 1.2 m deep with separate 46-m sections of 7.6-, 10.2-, 12.7- and 15.2-cm stretched monofilament meshes. Thread sizes were #12 (Nylon Net Company) for the 7.6- and 10.2-cm meshes, #6 for the 12.7-cm mesh and #7 for the 15.2-cm mesh. Webbing in each section was hung to both the float and lead lines on a one-half basis. One-half basis indicates that a hung or finished gill net is one half the length of the amount (length) of a stretched webbing before hanging. All four sections were tied together; 7.6-cm tied to 10.2-cm, 10.2-cm tied to 12.7-cm and 12.7-cm tied to 15.2-cm.

From October 1980 through May 1981 samples were collected with monofilament gill nets in the Galveston Bay, East Matagorda Bay, Matagorda Bay, San Antonio Bay, Aransas Bay, Corpus Christi Bay, upper Laguna Madre and lower Laguna Madre systems (Figures 2-10). One overnight set was made at four different stations each month in each bay system. Stations were randomly selected from a list of <100 sample stations compiled for each bay system (Appendix B). Each station on the list was at least 1.6 km of continuous shoreline from any other gill net stations.

Two gill net sets were completed during the first two fullest weeks of each month and two additional sets were made during the last two fullest weeks of each month. Each sampling week extended from 1 h before sunset on Sunday through 1 h after sunrise the following Sunday.

Each gill net was set extending from the surface to the bottom and perpendicular to shore with the end with the smallest mesh on shore. Gill nets were set within 1 h before sunset and were raised within 1 h after the following sunrise. The total fishing time (to the nearest 0.1 h) was recorded.

Each fish landed was identified to species (Gallaway et al. 1972, Hoese and Moore 1977) and counted. The mesh size capturing each fish was noted. Total lengths (to the nearest mm) and wet weights (to the nearest 5 g) were obtained for the first 20 individuals of each species from each mesh size during each month.

Catch rates and fish sizes were determined on a monthly basis for red drum, black drum, spotted seatrout, sheepshead, southern flounder and Atlantic croaker caught in each mesh size and in the total net.

Monthly catch rates (no/h) for each species were calculated using the ratio estimator:

$$\frac{N}{H} \quad \begin{array}{l} N = \text{total number of fish caught} \\ H = \text{total hours fished} \end{array}$$

Values were reported to the nearest 0.1 fish/h; the notation <.1 fish/h was used to indicate that at least one fish was caught but due to the rounding, the value of the derived catch rate was less than the established degree of precision (Cochran 1977). Monthly catch rates (kg/h) for each species were calculated using the ratio estimator:

$$\frac{\sum_{i=1}^n W_i \cdot N}{n \cdot H}$$

$$\begin{array}{l} W_i = \text{individual fish weights} \\ n = \text{number of fish weighed} \\ N = \text{total number of fish caught} \\ H = \text{total hours fished} \end{array}$$

Values were reported to the nearest 0.1 kg/h; the notation <.1 kg/h was used to indicate that at least one fish was weighed but due to rounding, the value of the derived catch rate was less than the established degree of precision. Size (total length to the nearest 1 mm) of each species for each month was calculated using the ratio estimator:

$$\frac{\sum_{i=1}^n L_i}{n}$$

$$\begin{array}{l} L_i = \text{individual fish lengths} \\ n = \text{number of fish measured} \end{array}$$

Trammel Nets

Trammel nets were 366 m long and 1.2 m deep with 30.5-cm stretched nylon multifilament (#15) mesh outer walls and 7.6-cm stretched nylon multifilament (#415) mesh inner walls. Webbing was colored with a combination of green and brown dyes.

During October-December 1980 and March-May 1981 samples were collected with multifilament trammel nets in the Galveston Bay, Matagorda Bay, San Antonio Bay, Aransas Bay, Corpus Christi Bay, upper Laguna Madre and lower Laguna Madre systems (Figures 11-18). Twelve different sets were made each month in each bay system. Stations were randomly selected from a list of ≤ 100 sample stations compiled for each bay system (Appendix C). Each station on the list was at least 1.6 km of continuous shoreline from any other trammel net station.

Six trammel net sets were completed during the first two fullest weeks of each month and six additional sets were made during the last two fullest weeks of each month. Each sampling week extended from sunrise Monday through sunset the following Sunday. Trammel nets were utilized only during daylight hours.

Each trammel net was set to form a 1.67-ha rectangular area (91 m by 183 m) with the shoreline as one long side. The enclosed area was "struck" utilizing an outboard motor or walking techniques in order to create a disturbance thus scaring the enclosed fish into the net.

Each fish landed was identified to species (Galloway et al. 1972, Hoese and Moore 1977) and counted. Total lengths (to the nearest mm) and wet weights (to the nearest 5 g) were obtained for the first 20 individuals of each species caught in each set during each month.

Abundances and fish sizes were determined on a monthly basis for red drum, black drum, spotted seatrout, sheepshead, southern flounder and Atlantic croaker. Monthly abundances (no/ha and kg/ha) for each species were calculated identical to catch rates for gill nets, except total area fished (ha to the nearest 0.01) was used instead of total hours fished. Size of each species was also calculated identical to mean lengths for gill nets.

Bag Seines

Each bag seine was 18.3 m long and 1.8 m deep with 1.9-cm stretched nylon multifilament mesh in the lateral wings and 1.3-cm stretched nylon multifilament mesh in the central bag.

From October 1980 through September 1981 samples were taken with bag seines in the Galveston Bay, Matagorda Bay, San Antonio Bay, Aransas Bay, Corpus Christi Bay, upper Laguna Madre and lower Laguna Madre systems (Figures 19-26). Six different shoreline stations were sampled each month in each bay system. Stations were randomly selected from a list of ≤ 100 sample stations compiled for each bay system (Appendix D). Each station on the list was at least 1.6 km of continuous shoreline from any other bag seine station.

Three different stations were sampled with bag seines during each of the first two and last two fullest weeks of each month. Each sampling week extended from sunrise Monday through sunset of the following Sunday. Stations were sampled only during daylight hours.

A bag seine sample was collected by pulling an extended seine parallel to shore for a distance of no less than 15.2 m and no more than 30.5 m. The rectangular surface area sampled was estimated using the distance pulled and the length of extension of the bag seine.

From each bag seine sample collected all fish were identified to species (Hoese and Moore 1977; Walls 1975; Gutherz 1967; Hildebrand and Cable 1930, 1940; Pearson 1928) and counted. In addition, a random sample of no more than 20 individuals of each species were measured (total length). Abundance estimates (no/ha) and sizes were calculated in the same manner used for trammel net data.

General Procedures

The randomly selected stations for each gear type could not always be sampled as scheduled. If a preselected station could not be sampled, an alternate randomly selected station or an alternate day was substituted.

Fish data from each gear type were recorded on standard data forms. These data were key punched, placed on magnetic tape and summarized by computer at the Data Processing Section, TPWD, Austin.

Several hydrological parameters were measured at the time of the set and retrieval of each gill net sample and at the set of each trammel net and bag seine sample. Monthly means of salinity, water temperature, turbidity and dissolved oxygen are summarized in Appendix E.

RESULTS

Gill Nets

During each month from October 1980 to May 1981, 4 overnight net sets were completed in each bay system. The seasonal mean catch rates (no/h)

and mean total lengths (mm) for all meshes combined for the period November-March, 1975-1981 are summarized in Table 1. The monthly mean catch rates and mean total lengths by mesh size for October 1980-May 1981 are summarized in Tables 2-49.

Red Drum

The seasonal (November-March) catch rates of red drum declined $\sim 50\%$ from 1975-76 through 1977-78 and increased $\sim 50\%$ from 1977-78 through 1979-80 within each bay system except East Matagorda Bay and the lower Laguna Madre (Table 1). The 1980-81 seasonal catch rates declined to approximately the 1977-78 levels in Galveston, Matagorda and San Antonio Bays; remained at 1979-80 levels in Aransas and Corpus Christi Bays; and declined slightly from the 1979-80 levels in the upper Laguna Madre. Catch rates in East Matagorda Bay have remained at about 0.3 fish/h during 1976-1980; the 1980-81 seasonal catch rate increased to 0.7 fish/h. In the lower Laguna Madre seasonal catches of red drum declined $\sim 50\%$ from about 1.0 fish/h during 1975-1977 to about 0.5 fish/h during 1978-1981. The highest seasonal mean catch rate of red drum (1.4 fish/h) occurred in 1979-80 in Matagorda Bay; the lowest catch rate (0.1 fish/h) occurred in 1977-78 in the upper Laguna Madre. Seasonal mean total lengths ranged from 371 to 522 mm.

In all bay systems, the highest monthly mean catch rate of red drum occurred in the 7.6- and 10.2-cm meshes (Tables 2-9). For all meshes combined, the lowest catch rates (<0.1 fish/h) occurred in Galveston Bay in January and February and in East Matagorda Bay in February and March. The highest catch rate (1.8 fish/h) occurred in Aransas Bay in November. Mean total lengths ranged from 342 mm in December in Matagorda Bay to 580 mm in March in East Matagorda Bay.

Spotted Seatrout

The seasonal (November-March) catch rates of spotted seatrout declined at least 50% within each bay system from 1975-76 through 1980-81 (Table 1). In Matagorda Bay the catch rates declined from 1975-76 (0.5 fish/h) to 1977-78 (0.3 fish/h) and increased to 0.6 fish/h in 1978-79 followed by another decline in 1980-81 to 0.2 fish/h. The highest seasonal mean catch rate of spotted seatrout (1.6 fish/h) occurred in 1975-76 in the lower Laguna Madre; the lowest catch rate (0.1 fish/h) occurred at least once in each bay system except Matagorda and Aransas Bays and the lower Laguna Madre. Mean total lengths ranged from 387 to 552 mm.

The highest monthly mean catches of spotted seatrout occurred in the 7.6- and 10.2-cm meshes in all bay systems (Table 10-17). No spotted seatrout were caught in the 12.7- or 15.2-cm meshes in Matagorda Bay. For all meshes combined, the lowest monthly mean catch rate (<0.1 fish/h) occurred at least once in each bay system except the upper and lower Laguna Madre; the highest catch rate (2.8 fish/h) occurred in April in the lower Laguna Madre. Mean total lengths ranged from 375 mm in April in Matagorda Bay to 645 mm in January in the upper Laguna Madre.

Black Drum

The seasonal catch rates of black drum in Galveston Bay, Aransas Bay and the lower Laguna Madre have declined $>50\%$ from 1975-76 through 1979-80 followed by increases in 1980-81. In East Matagorda Bay, San Antonio Bay, Corpus Christi Bay and the upper Laguna Madre the seasonal catch rates of black drum have remained low and within narrow ranges (0.2-0.5 fish/h, 0.3-0.6 fish/h, 0.1-0.3 fish/h and 0.3-0.7 fish/h, respectively). In Matagorda Bay catch rates have declined $>50\%$ from 1975-76 (1.3 fish/h) to 1980-81 (0.4 fish/h) except during 1978-79 (1.1 fish/h). The highest seasonal mean catch rate (2.3 fish/h) of black drum occurred in 1975-76 in the lower Laguna Madre; the lowest catch rates (0.1 fish/h) occurred in 1977-78 and 1978-79 in Corpus Christi Bay. Larger black drum (383-455 mm total length) occurred in the upper and lower Laguna Madre than in the other bay systems (304-412 mm).

Black drum were caught most consistently in the 10.2- and 12.7-cm meshes in all bay systems (Tables 18-25). The lowest monthly catches (0.0 fish/h) for all meshes combined occurred in February in East Matagorda and San Antonio Bays; the highest monthly mean catch rate (2.3 fish/h) occurred in December in Aransas Bay. Mean total lengths ranged from 257 mm in May in Matagorda Bay to 474 mm in January in the upper Laguna Madre.

Sheepshead

Seasonal catch rates of sheepshead remained at ≤ 0.2 fish/h in Galveston, East Matagorda and Matagorda Bays from 1975-76 through 1980-81 (Table 1). Catch rates in other bay systems ranged from 0.1 fish/h to 1.0 fish/h, but generally remained at ≤ 0.3 fish/h. Seasonal total lengths ranged from 253 to 408 mm.

Sheepshead were caught most consistently in the 12.7- and 15.2-cm meshes (Tables 26-33). No sheepshead were caught in the 7.6-cm mesh in East Matagorda Bay, San Antonio Bay or the upper Laguna Madre. East Matagorda Bay, Matagorda Bay, San Antonio and the upper Laguna Madre had at least one month during which no sheepshead were caught. The highest mean monthly catch (1.5 fish/h) was in February in the lower Laguna Madre. The smallest sheepshead (236 mm total length) occurred in December in Matagorda Bay and the largest sheepshead (536 mm) occurred there in April.

Southern Flounder

Seasonal catch rates of southern flounder remained at ≤ 0.1 fish/h in all bay systems from 1975-76 through 1980-81 (Table 1). East Matagorda Bay had the most consistent catch rates (0.1 fish/h) for the time period. Seasonal mean total lengths ranged from 279 to 468 mm.

Southern flounder were predominantly caught in the 10.2- and 12.7-cm meshes (Tables 34-41). No flounder were caught in the 15.2-cm mesh in Galveston Bay. All bay systems except Matagorda Bay and the lower Laguna

Madre had at least one month during which no southern flounder were collected. The highest catch rate (0.5 fish/h) occurred in East Matagorda Bay during October. Mean total length ranged from 232 mm in May in San Antonio Bay to 420 mm in December in the upper Laguna Madre.

Atlantic Croaker

Seasonal catch rates of Atlantic croaker remained at < 0.1 fish/h in all bay systems from 1975-76 through 1980-81, except in 1975-76 in the lower Laguna Madre when the catch rate was 0.2 fish/h (Table 1). Mean total lengths ranged from 238 mm in East Matagorda Bay to 363 mm in San Antonio Bay.

Atlantic croaker were caught predominantly in the 7.6-cm mesh (Tables 42-49). Croaker were caught in the 15.2-cm mesh only in April in Galveston Bay and the upper Laguna Madre. Each bay system had at least two months during which no Atlantic croaker were caught. The highest monthly catch rate (3.9 fish/h) occurred in October in Corpus Christi Bay. Monthly mean total lengths ranged from 238 mm in East Matagorda Bay to 355 mm in the lower Laguna Madre.

Trammel Nets

During October-December 1980 and March-May 1981, 72 trammel net strikes were successfully completed in each bay system. Seasonal mean catch rates (no/ha and kg/ha) and mean total lengths (mm) for spring (April-May) and fall (October-November), 1977-1981 are summarized in Tables 50 and 51, respectively. Monthly catch rates and mean total lengths are summarized in Tables 52-93.

Red Drum

Red drum catches with trammel nets in each fall (October-November) were generally higher than those in the following spring (April-May) in each bay system (Table 50). Fall 1979 catch rates exceeded all other fall catch rates within each bay system except in the upper Laguna Madre where the fall 1980 catch rate was the highest. Spring 1980 catch rates exceeded all other spring catch rates within each bay system except in San Antonio Bay where the spring 1981 catch rate was the highest. The highest trammel net catch rate of red drum (7.24 fish/ha) occurred in the spring 1980 in Matagorda Bay; the lowest catch (0.10 fish/ha) occurred in the spring 1979 in the upper Laguna Madre.

Seasonal mean total lengths for red drum were larger in the spring (361-502 mm) than in the previous fall (346-459 mm) (Table 51). The fall 1979 and the spring 1980 mean total lengths in each bay system except San Antonio Bay were less than all the mean lengths within the same season for all years. In San Antonio Bay, fish caught in the fall 1980 and spring 1981 had the smallest mean total lengths.

The highest monthly mean trammel net catch rate of red drum (5.26 fish/ha) occurred in April in Galveston Bay; the lowest catch rate (0.20 fish/ha) occurred in December in Corpus Christi Bay (Table 52-58). The smallest red drum (341 mm total length) occurred in November and December in San Antonio Bay and the upper Laguna Madre, respectively; the largest monthly mean total length (509 mm) occurred in April in Galveston Bay.

Spotted Seatrout

The seasonal trammel net catch rates of spotted seatrout were generally highest during the fall in Galveston, Matagorda and San Antonio Bay and generally highest during the spring in Aransas Bay and the upper and lower Laguna Madre (Table 50). The highest seasonal catch (7.35 fish/ha) occurred in spring 1981 in the lower Laguna Madre; the lowest seasonal catch (0.20 fish/ha) occurred in spring 1979 in Galveston Bay. Seasonal mean total lengths varied among seasons and among bay systems and ranged from 398 to 578 mm (Table 51).

The highest monthly mean trammel net catch rate of spotted seatrout (9.33 fish/ha) occurred in May in the lower Laguna Madre; the lowest monthly mean catch (0.05 fish/ha) occurred in December in Galveston Bay (Tables 59-65). Monthly mean total lengths ranged from 356 mm in November in San Antonio Bay to 669 mm in December in Galveston Bay.

Black Drum

Fall trammel net catch rates of black drum were generally higher than spring catch rates in all bay systems except in Aransas and Corpus Christi Bays (Table 50). The highest seasonal catch rate (9.46 fish/ha) occurred in fall 1978 in Matagorda Bay; the lowest seasonal catch rate (0.12 fish/ha) occurred in spring 1979 in San Antonio and Corpus Christi Bays. Seasonal mean total lengths ranged from 226 to 388 mm with no apparent difference among seasons or bay systems (Table 51).

The highest monthly mean trammel net catch rate of black drum (11.83 fish/ha) occurred in December in Aransas Bay; the lowest monthly mean catch rate (0.05 fish/ha) occurred in March in Corpus Christi Bay (Tables 66-72). Mean monthly total lengths ranged from 207 mm in December in Galveston Bay to 534 mm in March in Corpus Christi Bay.

Sheepshead

Spring 1981 catch rates of sheepshead in each bay system except the upper and lower Laguna Madre exceeded the catch rates of the previous years within the same season (Table 50). The highest seasonal catch rate (9.67 fish/ha) occurred in spring 1981 in Matagorda Bay; the lowest seasonal catch rate (0.05 fish/ha) occurred in fall 1979 in the upper Laguna Madre. Seasonal mean total lengths varied among seasons and among bay system and ranged from 238 to 422 mm (Table 51).

The highest monthly mean trammel net catch rates of sheepshead occurred in October or November in each bay system except Galveston Bay (Tables 73-79). The highest monthly mean catch rate (5.29 fish/ha) occurred in October in the lower Laguna Madre; the lowest catch rate (0.00 fish/ha) occurred in May in the upper Laguna Madre. Monthly mean length ranged from 181 mm in December in Aransas Bay to 436 mm in October in the upper Laguna Madre.

Southern Flounder

Seasonal mean trammel net catch rates of southern flounder varied among seasons and among bay systems (Table 50). The highest seasonal catch rate (1.40 fish/ha) occurred in spring 1980 in Corpus Christi Bay; the lowest seasonal catch rate (0.00 fish/ha) occurred in fall 1979 in the upper Laguna Madre. Seasonal mean total lengths ranged from 202 to 399 mm generally with slightly larger fish in the fall than in the spring (Table 51).

Monthly mean trammel net catch rates of southern flounder varied among months and among bay systems (Table 80-86). The highest catch rate (1.40 fish/ha) occurred in October in Galveston Bay. The lowest catch rates (0.00 fish/ha) occurred in December in Galveston Bay and in December and March in the upper Laguna Madre. The smallest southern flounder (212 mm total length) occurred in November in Galveston Bay and in March in San Antonio Bay; the largest southern flounder (589 mm) occurred in December in the lower Laguna Madre.

Atlantic Croaker

Seasonal mean trammel net catch rates of Atlantic croaker in Matagorda, San Antonio and Aransas Bays were substantially lower than those in the other bay systems (Table 50). The highest seasonal catch rate of Atlantic croaker (11.36 fish/ha) occurred in spring 1978 in the lower Laguna Madre; spring catch rates of 0.00 fish/ha occurred in 1979 and 1980 in San Antonio Bay and in 1980 in Aransas Bay. Spring catch rates were generally higher than the fall catch rates in Galveston Bay, Corpus Christi Bay and the upper and lower Laguna Madre. The seasonal mean total length occurred over a narrow range (244-310 mm) among seasons and bay systems (Table 51).

The monthly mean trammel net catch rates of Atlantic croaker varied among months and among bay systems (Tables 87-93). The highest monthly mean catch rate (4.79 fish/ha) occurred in October in the lower Laguna Madre. All bay systems, except the upper Laguna Madre, had at least one month during which no Atlantic croaker were caught. Monthly mean total lengths ranged from 244 mm in October in Matagorda Bay to 335 mm in November in Aransas Bay.

Bag Seines

During October 1980-September 1981, 72 bag seine samples were collected in each bay system. The annual mean catch rates (no/ha) and mean total

lengths (mm) for October-September 1977-81 are summarized in Table 94. The monthly mean catch rates and mean total lengths for October 1980-September 1981 are summarized in Tables 95-100.

Red Drum

Annual mean catch rates of red drum caught with bag seines varied among years and among bay systems (Table 94). The highest annual mean catch rate (70.09 fish/ha) occurred in 1979-80 in Galveston Bay; the lowest catch rate (0.35 fish/ha) occurred in 1980-81 in the upper Laguna Madre. Annual mean lengths ranges from 50 to 178 mm.

Bag seines yielded the highest monthly mean catches of red drum in each bay system during October 1980-April 1981 (Table 95). Peak catches ranged from 4.17 fish/ha in February in the upper Laguna Madre to 22.22 fish/ha in December in San Antonio Bay. Each bay system had at least one month during which no red drum were collected. Monthly mean total lengths ranged from 31 to 343 mm. Overall mean lengths were similar in all bay systems as were the apparent increases in size from October 1980 through September 1981.

Spotted Seatrout

Annual mean bag seine catch rates for spotted seatrout varied among years and among bay systems (Table 94). The highest annual mean catch rate (39.41 fish/ha) occurred in 1977-78 in Galveston Bay; the lowest catch rate (0.34 fish/ha) occurred in 1979-80 in the lower Laguna Madre. Annual mean lengths ranged from 41 to 132 mm.

Monthly catches of spotted seatrout were generally highest during October-November 1980 and July-September 1981 in all bay systems (Table 96). The highest catch (66.67 fish/ha) occurred in October in San Antonio Bay. No spotted seatrout were collected during January, March and May in any bay system. Monthly mean total lengths ranged from 38 to 138 mm.

Black Drum

The highest annual mean bag seine catch rate of black drum (37.04 fish/ha) occurred in 1978-79 in Galveston Bay (Table 94). No black drum were caught in the lower Laguna Madre during 1977-78. Annual mean lengths ranged from 46 to 206 mm.

Monthly bag seine catches of black drum were highest in all bay systems during May-September 1981 (Table 97). Peak catches ranged from 5.56 fish/ha in San Antonio Bay to 150.00 fish/ha in the upper Laguna Madre. No black drum were caught during December 1980-March 1981. Monthly mean total lengths ranged from 40 to 322 mm. A general increase in mean monthly total lengths was apparent in each bay system during May-September.

Sheepshead

The highest annual mean bag seine catch rate of sheepshead (15.74 fish/ha) occurred in 1978-79 in Galveston Bay (Table 94). No sheepshead were caught in the upper Laguna Madre during 1977-78, 1979-80 and 1980-81. Annual mean total lengths ranged from 40 to 368 mm.

The highest monthly mean catch rate of sheepshead (16.67 fish/ha) occurred in July in Matagorda Bay (Table 98). Each bay system had at least seven months during which no sheepshead were collected. Monthly mean total lengths ranged from 27 to 407 mm.

Southern flounder

The highest annual mean bag seine catch rate of southern flounder (10.98 fish/ha) occurred in 1980-81 in the lower Laguna Madre (Table 94). No southern flounder were caught in 1978-79 in Aransas Bay. Annual mean total lengths ranged from 36 to 300 mm.

Monthly mean bag seine catches of southern flounder were generally highest in all bay systems during February-May 1981 (Table 99). The highest monthly mean catch rate (56.67 fish/ha) occurred in March in the lower Laguna Madre. No southern flounder were collected with bag seines in any bay system during November 1980-January 1981. Monthly mean total lengths ranged from 30 to 448 mm.

Atlantic croaker

Annual mean bag seine catch rates of Atlantic croaker ranged from 0.35 fish/ha in 1980-81 in the upper Laguna Madre to 1086.92 fish/ha in 1979-80 in Galveston Bay (Table 94). Higher annual catch rates generally occurred in Galveston Bay, Matagorda Bay and the lower Laguna Madre than in other bay systems. Annual mean total lengths ranged from 40 to 104 mm.

Monthly mean bag seine catches of Atlantic croaker were generally highest in all bay systems during January-June 1981 (Table 100). The highest monthly mean catch rate (3244.45 fish/ha) occurred in March in Galveston Bay. No Atlantic croaker were collected with bag seines during October-November 1980. Monthly mean total lengths ranged from 32 to 220 mm. Generally the smallest fish were collected during the months of greatest catches, and lengths increased from January through June.

LITERATURE CITED

- Cochran, W. G. 1977. Sampling techniques. 3rd Ed. John Wiley and Sons. New York. 428 p.
- Diener, R. A. 1975. Cooperative Gulf of Mexico estuarine inventory and study-Texas: area description. NOAA tech. Reports NMFS Circ. 393. 129 p.
- Galloway, B. J. J. C. Parker and D. Moore. 1972. Key to the estuarine and marine fishes of Texas. Texas Agriculture Extension Service, Texas A&M Univ. Sea Grant, Publ. No. 72-402. 177 p.
- Gutherz, E. J. 1967. Field guide to the flatfishes of the family Bothidae in the western North Atlantic. Bur. Comm. Fish. Circ. 263. 47 p.
- Hamilton, C. L. 1981. Texas commercial harvest statistics, 1977-80. Tex. Pks. & Wildl. Dept. Coast. Fish. Branch. Mgmt. Data Ser. 29. 77 p.
- Heffernan, T. L., A. W. Green, L. W. McEachron, M. G. Weixelman, P. C. Hammerschmidt and R. A. Harrington. 1976. Survey of finfish harvest in selected Texas bays. Tex. Pks. & Wildl. Dept. Coastal Fish. Branch Proj. Rept. No. 2-231-R-1. 116 p.
- _____, and R. J. Kemp. 1980. Management of the red drum resource in Texas. Pages 71-80 in Proceedings of the colloquium on the biology and management of red drum and seatrout, Oct. 19-20, 1978, Tampa, Fla. Gulf States Mar. Fish. Comm. Oceans Springs, Miss.
- Hildebrand, S. F. and L. E. Cable. 1930. Development and life history of fourteen teleostean fishes at Beaufort, N. C. Bull. Bur. Fish. 46:383-488.
- _____, and L. E. Cable. 1940. Further notes on the development and life history of some teleosts at Beaufort, N. C. Bull. Fur. Fish. 548:504-642.
- Hoese, H. D. and R. H. Moore. 1977. Fishes of the Gulf of Mexico, Texas, Louisiana, and adjacent waters. Texas A&M Univ. Press College Station. 327 p.
- Matlock, G. C. and J. E. Weaver. 1979. Assessment and monitoring of Texas coastal finfish resources. Tex. Pks. & Wildl. Dept. Coastal Fish. Branch PWD 3000-66. 247 p.
- McEachron, L. W., A. W. Green, L. Z. Barrington, M. G. Weixelman, P. Campbell-Hostettler, R. A. Spaw, K. W. Spiller and J. P. Breuer. 1981. Survey of finfish harvest by sport fishermen in selected Texas Bays, September-August 1974-76 and 1979-80. Tex. Pks. & Wildl. Dept. Coastal Fish Branch. Mgmt. Data Ser. No. 24. 221 p.

- Pearson, J. C. 1929. Natural history and conservation of redbfish and other commercial sciaenids of the Texas coast. Bull. Bur. Fish. 44:129-214.
- Stevenson, C. H. 1893. Report on the coast fisheries of Texas. Part II. Report of the Commissioner for 1880 to 1891. U. S. Comm. Fish and Fisheries: 373-420.
- Walls, J. G. 1975. Fishes of the northern Gulf of Mexico. T. F. H. Publications, Inc. Ltd., Neptune City, N.J. 432 p.

Table 1. Seasonal mean catch rate (no/h) and mean total length (mm) of fishes caught with gill nets (all meshes combined) in Texas bays during November-March, 1975-1981.

Bay system	Year (Nov-Mar)	Number of Samples	Red drum		Spotted seatrout		Black drum		Sheepshead		Southern flounder		Atlantic croaker	
			No/h	Length	No/h	Length	No/h	Length	No/h	Length	No/h	Length	No/h	Length
Galveston	1975-1976	52	0.9	427	0.4	488	0.6	378	0.1	363	<1	363	0.1	267
	1976-1977	40	0.5	491	0.2	472	0.4	333	<1	333	<1	376	0.1	267
	1977-1978	20	0.5	466	0.3	552	0.3	369	<1	326	0.1	326	<1	291
	1978-1979	20	0.7	448	0.2	540	0.3	304	<1	308	<1	400	<1	292
	1979-1980	24	0.9	418	0.1	460	0.3	356	0.1	363	<1	295	0.1	279
1980-1981	20	0.3	445	0.2	451	1.1	387	0.1	345	<1	341	<1	268	
East Matagorda	1976-1977	14	0.2	480	0.2	457	0.5	322	0.2	277	0.1	346	<1	243
	1977-1978	20	0.3	453	0.2	499	0.2	359	0.2	344	0.1	351	<1	238
	1978-1979	20	0.4	435	0.4	426	0.5	339	0.1	318	0.1	349	<1	245
	1979-1980	20	0.3	456	0.1	459	0.2	356	<1	336	0.1	332	0.0	
	1980-1981	20	0.7	433	0.1	457	0.5	348	0.1	342	0.1	384	<1	238
Matagorda	1975-1976	30	1.3	381	0.5	444	1.3	356	0.2	345	0.1	345	<1	288
	1976-1977	27	0.6	434	0.4	431	0.7	375	0.1	270	<1	280	<1	265
	1977-1978	20	0.5	436	0.3	475	0.4	380	0.1	293	<1	296	<1	325
	1978-1979	20	1.2	433	0.6	438	1.1	388	0.1	315	<1	279	0.0	
	1979-1980	24	1.4	380	0.5	438	0.4	359	0.1	319	0.1	349	<1	280
1980-1981	20	0.4	423	0.2	431	0.4	373	0.1	254	<1	313	0.0		
San Antonio	1975-1976	30	1.0	371	0.7	438	0.6	366	0.5	312	0.1	335	<1	287
	1976-1977	27	0.8	378	0.4	421	0.4	327	0.1	301	<1	371	<1	363
	1977-1978	20	0.4	413	0.2	432	0.3	329	0.1	319	0.1	325	<1	294
	1978-1979	20	0.8	405	0.3	387	0.4	346	0.1	368	<1	324	0.0	
	1979-1980	24	1.3	389	0.2	430	0.5	305	0.3	359	<1	400	<1	347
1980-1981	20	0.5	386	0.1	451	0.4	327	0.3	314	<1	337	<1	260	
Aransas	1975-1976	30	0.8	384	0.5	488	1.4	351	0.4	312	<1	378	<1	307
	1976-1977	27	0.6	439	0.3	470	0.5	359	0.3	253	<1	333	<1	303
	1977-1978	20	0.4	471	0.2	423	0.3	386	0.2	311	0.1	338	<1	313
	1978-1979	20	1.0	402	0.2	465	0.6	330	0.3	311	0.1	366	<1	325
	1979-1980	24	0.9	410	0.2	457	0.3	377	0.4	334	0.1	383	0.1	308
1980-1981	20	0.9	391	0.2	480	0.9	326	0.3	313	0.1	354	<1	336	
Corpus Christi	1975-1976	30	0.5	373	0.4	482	0.2	376	0.2	348	0.1	394	0.1	312
	1976-1977	27	0.2	415	0.3	485	0.2	389	0.6	331	0.1	367	0.1	290
	1977-1978	20	0.3	431	0.2	492	0.1	377	0.1	345	<1	366	0.1	273
	1978-1979	20	0.3	458	0.3	495	0.1	412	0.2	352	0.1	403	0.1	268
	1979-1980	24	0.5	371	0.1	457	0.3	334	0.3	340	0.1	360	0.1	272
1980-1981	20	0.5	426	0.2	460	0.2	367	0.3	342	<1	368	<1	280	
Upper Laguna Madre	1975-1976	30	0.4	396	0.6	471	0.7	447	0.4	396	<1	444	0.1	292
	1976-1977	27	0.3	435	0.6	499	0.3	455	0.1	371	<1	468	0.1	289
	1977-1978	20	0.1	425	0.5	460	0.5	395	0.1	408	<1	383	0.1	287
	1978-1979	20	0.2	459	0.1	461	0.3	424	0.2	394	0.1	351	<1	287
	1979-1980	24	0.5	388	0.2	507	0.3	412	0.1	393	<1	381	<1	269
1980-1981	20	0.3	466	0.3	518	0.4	425	0.1	369	<1	382	<1	261	
Lower Laguna Madre	1975-1976	30	0.9	460	1.6	481	2.3	437	1.0	353	0.1	376	0.2	290
	1976-1977	27	1.0	462	1.3	468	1.3	407	0.4	344	0.1	321	0.1	290
	1977-1978	20	0.7	522	0.9	516	1.1	409	0.3	340	<1	370	0.1	307
	1978-1979	20	0.4	514	0.6	542	0.6	428	0.2	327	0.1	365	0.1	334
	1979-1980	24	0.6	435	0.7	546	0.9	422	0.6	340	<1	356	<1	296
1980-1981	20	0.5	451	0.6	540	1.0	383	0.6	323	0.1	358	0.1	283	

Table 2. Mean catch rates and mean total lengths (mm) by mesh size of red drum caught with gill nets in the Galveston Bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	0.4	370	0.2	0.1	471	0.1	0.2	565	0.3	0.0	0.0	0.0	0.7	465	0.7
Nov. 1980	(4)	0.3	378	0.2	0.1	415	0.1	0.1	575	0.2	<.1	<.1	608	<.1	436	0.4
Dec. 1980	(4)	0.4	383	0.3	0.1	476	<.1	0.1	579	0.1	<.1	<.1	664	0.1	433	0.6
Jan. 1981	(4)	0.0		0.0	<.1	536	<.1	<.1	585	<.1	0.0	0.0		0.0	560	0.1
Feb. 1981	(4)	0.0		0.0	<.1	438	<.1	0.0		0.0	0.0	0.0		0.0	438	<.1
Mar. 1981	(4)	0.3	398	0.2	0.2	444	0.2	<.1	668	0.1	0.1	0.1	631	0.2	558	0.7
Apr. 1981	(4)	0.1	392	0.1	<.1	471	<.1	0.1	542	0.2	0.0	0.0		0.0	457	0.3
May 1981	(4)	0.2	379	0.1	0.1	443	0.1	0.0		0.0	<.1	<.1	611	0.1	416	0.3

Table 3. Mean catch rates and mean total lengths (mm) by mesh size of red drum caught with gill nets in the East Matagorda Bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	0.1		<.1	<.1		<.1	<.1		0.1	0.0	0.0		0.0	0.2	0.2
Nov. 1980	(4)	0.5	362	0.3	0.3	453	0.3	0.5	584	1.1	0.2	0.2	612	0.4	480	2.0
Dec. 1980	(4)	0.6	379	0.4	0.5	406	0.3	0.2	483	0.2	0.1	0.1	364		399	1.0
Jan. 1981	(4)	0.5	372	0.3	0.2	412	0.1	<.1	644	0.1	<.1	<.1	340		395	0.4
Feb. 1981	(4)	0.0		0.0	<.1	437	0.0	0.0		0.0	0.0	0.0		0.0	437	
Mar. 1981	(4)	0.0		0.0	0.0		0.0	<.1	580	<.1	0.0	0.0		0.0	580	<.1
Apr. 1981	(4)	0.1	412	<.1	<.1	430	<.1	<.1	390		0.0	0.0		0.0	411	0.1
May 1981	(4)	<.1	402	<.1	0.2	501	0.3	0.0		0.0	0.0	0.0		0.0	481	0.4

Table 4. Mean catch rates and mean total lengths (mm) by mesh size of red drum caught with gill nets in the Matagorda Bay system (Blank = no measurement taken).

Month and Year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	0.3	358	0.1	0.2	462	0.2	0.1	0.1	546	0.1	0.1	0.1	0.6	405	0.4
Nov. 1980	(4)	0.2	361	0.1	0.2	441	0.2	0.2	565	0.4	0.1	0.1	0.7	466	0.8	
Dec. 1980	(4)	0.3	329	0.1	<.1	437	<.1	0.0	0.0	0.0	0.0	0.0	0.3	342	0.1	
Jan. 1981	(4)	0.1	345	0.1	0.1	478	0.1	<.1	450	<.1	<.1	0.1	0.2	412	0.2	
Feb. 1981	(4)	0.2	396	0.2	0.1	466	0.1	<.1	590	0.1	0.0	0.0	0.3	431	0.4	
Mar. 1981	(4)	0.2	367	0.1	0.1	479	0.2	0.2	432	0.2	<.1	0.1	0.6	421	0.5	
Apr. 1981	(4)	0.2	397	0.1	0.2	477	0.2	0.1	508	0.2	<.1	<.1	0.5	459	0.6	
May 1981	(4)	0.2	416	0.1	<.1	422	0.0	0.0	0.0	0.0	0.0	0.0	0.2	417	0.2	

Table 5. Mean catch rates and mean total lengths (mm) by mesh size of red drum caught with gill nets in the San Antonio Bay system (Blank = no measurement taken).

Month and Year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	0.5	342	0.2	0.2	435	0.1	0.5	488	0.8	<.1	<.1	1.2	426	1.2	
Nov. 1980	(4)	0.4	344	0.2	0.3	462	0.3	0.1	492	0.1	0.0	0.0	0.8	400	0.5	
Dec. 1980	(4)	0.4	349	0.2	0.3	389	0.2	0.2	374	<.1	0.1	0.1	1.0	369	0.4	
Jan. 1981	(4)	0.0		0.0	<.1	452	0.1	0.1	535	0.1	0.0	0.0	0.1	521	0.2	
Feb. 1981	(4)	0.2	337	0.1	0.1	452	0.1	0.0	314	0.0	0.0	0.0	0.2	378	0.2	
Mar. 1981	(4)	0.3	339	0.1	0.2	445	0.3	<.1	485	<.1	0.0	0.0	0.5	376	0.4	
Apr. 1981	(4)	0.4	360	0.2	<.1	404	0.1	0.1	0.0	0.2	0.0	0.0	0.5	389	0.5	
May 1981	(4)	0.6	387	0.4	<.1	414	0.0	0.0	0.0	0.0	0.0	0.0	0.6	388	0.4	

Table 6. Mean catch rates and mean total lengths (mm) by mesh size of red drum caught with gill nets in the Aransas Bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	0.7	332	0.3	0.1	410	0.1	562	0.1	0.0	0.1	0.0	0.0	0.8	368	0.5
Nov. 1980	(4)	0.7	340	0.3	0.7	420	0.6	514	0.4	<.1	293	<.1	1.8	400	1.4	
Dec. 1980	(4)	0.7	348	0.3	0.5	411	0.4	552	0.1	0.1	406	<.1	1.4	380	0.9	
Jan. 1981	(4)	0.1	362	0.1	<.1	396	<.1	494	<.1	<.1	662	0.1	0.2	423	0.2	
Feb. 1981	(4)	0.6	346	0.2	0.1	432	0.1	356	<.1	0.0	386	0.0	0.7	360	0.4	
Mar. 1981	(4)	<.1	352	<.1	0.2	432	0.2	406	0.2	<.1	539	<.1	0.5	411	0.4	
Apr. 1981	(4)	0.4	363	0.2	<.1	462	<.1	513	0.2	<.1	407	0.1	0.7	407	0.5	
May 1981	(4)	0.2	390	0.1	<.1	490	<.1	0.0	0.0	0.0	405	0.0	0.2	405	0.2	

Table 7. Mean catch rates and mean total lengths (mm) by mesh size of red drum caught with gill nets in the Corpus Christi Bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	0.7	318	0.3	0.1	461	0.1	557	0.1	<.1	601	<.1	0.8	352	0.5	
Nov. 1980	(4)	0.5	337	0.2	0.1	486	0.1	550	0.1	<.1	498	0.0	0.6	365	0.3	
Dec. 1980	(4)	0.3	327	0.1	0.1	492	0.4	566	0.4	<.1	450	<.1	0.6	450	0.5	
Jan. 1981	(4)	0.2	337	0.1	0.2	513	0.2	458	0.2	0.1	570	0.1	0.6	450	0.5	
Feb. 1981	(4)	0.1	320	<.1	0.0	404	0.0	562	<.1	<.1	588	<.1	0.2	445	0.1	
Mar. 1981	(4)	0.1	335	<.1	<.1	448	<.1	538	<.1	0.1	492	<.1	0.2	454	0.1	
Apr. 1981	(4)	0.3	359	0.1	0.1	448	0.1	561	0.1	<.1	502	<.1	0.5	418	0.3	
May 1981	(4)	0.0		0.0	<.1	422	0.1	516	0.1	0.0	493	0.0	0.1	493	0.2	

Table 8. Mean catch rates and mean total lengths (mm) by mesh size of red drum caught with gill nets in the upper Laguna Madre bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	0.2	320	0.1	0.2	497	0.3	0.2	516	0.2	<.1	598	<.1	0.6	438	0.6
Nov. 1980	(4)	0.2	331	0.1	0.1	510	0.2	0.1	396	0.1	0.1	481	0.1	0.5	411	0.4
Dec. 1980	(4)	0.1	320	<.1	<.1	418	<.1	0.1	552	0.1	0.0		0.0	0.2	432	0.2
Jan. 1981	(4)	0.0		0.0	0.1	480	0.1	0.1	519	0.2	0.0		0.0	0.2	506	0.3
Feb. 1981	(4)	0.1	388	0.1	<.1	535	<.1	0.1	555	0.2	0.0		0.0	0.2	477	0.2
Mar. 1981	(4)	0.0		0.0	0.1	466	0.1	0.2	535	0.3	0.1	580	0.0	0.4	520	0.5
Apr. 1981	(4)	0.2	372	0.1	0.1	402	0.1	0.1	568	0.1	0.0		0.0	0.4	418	0.3
May 1981	(4)	0.1	386	0.1	0.2	429	0.2	<.1	620	<.1	0.0		0.0	0.3	428	0.3

Table 9. Mean catch rates and mean total lengths (mm) by mesh size of red drum caught with gill nets in the lower Laguna Madre bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	0.3	341	0.1	0.1	472	0.2	0.1	540	0.1	<.1	486	0.1	0.5	412	0.5
Nov. 1980	(4)	0.0		0.0	<.1	399	<.1	0.1	527	0.2	0.1	533	0.1	0.2	505	0.3
Dec. 1980	(4)	0.2	371	0.1	0.4	456	0.4	<.1	554	0.1	0.0		0.0	0.6	435	0.6
Jan. 1981	(4)	<.1	342	<.1	0.1	465	0.1	0.1	543	0.2	0.1	558	0.2	0.4	506	0.5
Feb. 1981	(4)	0.4	358	0.2	0.1	373	0.1	0.3	545	0.4	<.1	534	0.4	0.9	433	0.7
Mar. 1981	(4)	0.2	381	0.1	0.2	427	0.2	0.1	506	0.1	<.1	616		0.5	438	0.4
Apr. 1981	(4)	0.5	401	0.3	0.4	441	0.7	0.2	500	0.3	<.1	395	<.1	1.5	438	1.2
May 1981	(4)	0.2	444	0.2	0.4	451	0.4	0.1	530	0.1	0.1	450	0.1	0.7	459	0.7

Table 10. Mean catch rates and mean total lengths (mm) by mesh size of spotted seatrout caught with gill nets in the Galveston Bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm		10.2-cm		12.7-cm		15.2-cm		All meshes					
		No/h	Length	No/h	Length	No/h	Length	No/h	Length	No/h	Length				
Oct. 1980	(4)	0.2	437	0.1	518	<.1	591	0.1	<.1	0.1	709	0.1	0.3	495	0.4
Nov. 1980	(4)	0.2	398	0.1	486	0.2	454	<.1	0.0	<.1	0.0	0.0	0.4	442	0.3
Dec. 1980	(4)	0.4	407	0.3	488	0.2	0.0	0.0	<.1	0.0	735	0.1	0.6	444	0.6
Jan. 1981	(4)	0.0		0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Feb. 1981	(4)	<.1	494	<.1	469	0.1	0.0	0.0	0.0	0.0		0.0	0.1	473	0.1
Mar. 1981	(4)	0.0		0.0	470	0.1	0.0	0.0	<.1	0.0	675	0.1	0.1	521	0.1
Apr. 1981	(4)	0.2	432	0.2	497	0.1	0.0	0.0	<.1	0.0	683	0.1	0.3	476	0.4
May 1981	(4)	0.2	453	0.2	551	0.3	<.1	0.1	0.0	0.1	596	0.0	0.4	516	0.5

Table 11. Mean catch rates and mean total lengths (mm) by mesh size of spotted seatrout caught with gill nets in the East Matagorda Bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm		10.2-cm		12.7-cm		15.2-cm		All meshes					
		No/h	Length	No/h	Length	No/h	Length	No/h	Length	No/h	Length				
Oct. 1980	(4)	0.1	417	0.1	0.1	<.1	400	<.1	<.1	0.1	366	0.1	0.2	411	0.1
Nov. 1980	(4)	0.1	387	<.1	465	0.1	0.0	0.0	<.1	0.1	366	.1	0.1	414	0.1
Dec. 1980	(4)	<.1	390	<.1	462	<.1	622	<.1	0.0	0.0		0.0	0.1	479	0.1
Jan. 1981	(4)	0.1	390	0.1	505	0.1	0.0	0.0	<.1	0.0	666	<.1	0.2	464	0.2
Feb. 1981	(4)	0.0		0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Mar. 1981	(4)	0.0		0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Apr. 1981	(4)	1.7	393	1.0	481	0.4	<.1	<.1	<.1	<.1	470	<.1	2.1	409	1.4
May 1981	(4)	0.4	384	0.2	503	0.2	<.1	0.1	0.0	0.0		0.0	0.6	417	0.5

Table 12. Mean catch rates and mean total lengths (mm) by mesh size of spotted seatrout caught with gill nets in the Matagorda Bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	0.2	395	0.1	441	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	408	0.2	
Nov. 1980	(4)	0.1	426	0.1	476	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	451	0.2	
Dec. 1980	(4)	0.3	407	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	407	0.2	
Jan. 1981	(4)	0.0		0.0	<.1	476	<.1	0.0	0.0	0.0	0.0	0.0	<.1	476	<.1	
Feb. 1981	(4)	0.1	428	0.1	<.1	483	<.1	0.0	0.0	0.0	0.0	0.0	0.1	437	0.1	
Mar. 1981	(4)	0.1	428	0.1	<.1	483	<.1	0.0	0.0	0.0	0.0	0.0	0.2	440	0.1	
Apr. 1981	(4)	0.4	375	0.2	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.4	375	0.2	
May 1981	(4)	0.2	403	0.2	0.1	524	0.1	0.0	0.0	0.0	0.0	0.0	0.3	435	0.3	

Table 13. Mean catch rates and mean total lengths (mm) by mesh size of spotted seatrout caught with gill nets in the San Antonio Bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	0.1	393	0.1	499	0.2	<.1	477	0.0	0.0	0.0	0.0	0.2	475	0.2	
Nov. 1980	(4)	0.1	374	0.1	421	<.1	0.0		0.0	0.0	0.0	0.0	0.2	389	0.1	
Dec. 1980	(4)	<.1	453	<.1	485	0.2	<.1	549	<.1	<.1	462	<.1	0.3	482	0.3	
Jan. 1981	(4)	0.0		0.0	<.1	430	<.1	0.0	0.0	0.0		0.0	<.1	430	<.1	
Feb. 1981	(4)	0.0		0.0	<.1	534	0.1	482	0.0	0.0		0.0	<.1	534	0.1	
Mar. 1981	(4)	0.1	396	<.1	513	<.1	<.1	616	<.1	0.0	404	0.0	0.1	444	0.1	
Apr. 1981	(4)	0.1	360	<.1	545	0.1	0.1	360	0.2	<.1		<.1	0.3	512	0.4	
May 1981	(4)	0.6	399	0.3	530	0.5	0.1	360	<.1	0.0		0.0	0.9	446	0.8	

Table 14. Mean catch rates and mean total lengths (mm) by mesh size of spotted seatrout caught with gill nets in the Arkansas Bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm		10.2-cm		12.7-cm		15.2-cm		All meshes			
		No/h	Length	No/h	Length	No/h	Length	No/h	Length	No/h	Length	Kg/h	Kg/h
Oct. 1980	(4)	<.1	395	<.1	465	<.1	492	<.1	0.0	0.0	0.1	451	0.1
Nov. 1980	(4)	0.1	385	0.1	502	0.4	548	0.1	0.0	0.0	0.6	494	0.7
Dec. 1980	(4)	0.1	445	<.1	452	<.1	435	<.1	0.0	0.0	0.1	446	0.1
Jan. 1981	(4)	0.0		0.0		0.0	635	0.1	0.0	0.0	<.1	635	0.1
Feb. 1981	(4)	0.1	410	0.1	504	0.1	618	0.1	0.0	0.0	0.2	476	0.3
Mar. 1981	(4)	0.1	420	<.1		0.0		0.0	0.0	0.0	0.1	420	0.1
Apr. 1981	(4)	0.8	414	0.6	522	0.2	<.1	<.1	690	0.1	1.0	437	0.8
May 1981	(4)	0.2	419	0.1	535	0.5	634	0.3	0.0	0.0	0.7	526	1.0

Table 15. Mean catch rates and mean total lengths (mm) by mesh size of spotted seatrout caught with gill nets in the Corpus Christi Bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm		10.2-cm		12.7-cm		15.2-cm		All meshes			
		No/h	Length	No/h	Length	No/h	Length	No/h	Length	No/h	Length	Kg/h	Kg/h
Oct. 1980	(4)	0.1	338	<.1	479	<.1	631	0.1	0.0	0.0	0.2	440	0.3
Nov. 1980	(4)	0.3	387	0.1	542	0.1	0.0	0.0	<.1	0.0	0.4	424	0.3
Dec. 1980	(4)	<.1	380	<.1	499	0.1	685	0.1	0.0	0.0	0.1	541	0.2
Jan. 1981	(4)	0.0		0.0		0.0		0.0	0.0	0.0	0.0		0.0
Feb. 1981	(4)	0.2	406	0.1	515	0.1	604	0.1	0.0	0.0	0.4	460	0.4
Mar. 1981	(4)	0.1	358	<.1	532	<.1	553	<.1	0.1	0.1	0.2	484	0.3
Apr. 1981	(4)	0.3	370	0.2	504	0.2	639	0.1	<.1	0.1	0.6	416	0.6
May 1981	(4)	0.2	377	0.1	523	0.2	603	0.2	0.0	0.0	0.4	467	0.2

Table 16. Mean catch rates and mean total lengths (mm) by mesh size of spotted seatrout caught with gill nets in the upper Laguna Madre bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	0.1	382	<.1	<.1	459	<.1	544	0.1	0.0	0.0	0.1	439	0.1	439	0.1
Nov. 1980	(4)	0.1	399	0.1	<.1	488	<.1	685	0.1	<.1	0.1	0.1	764	0.1	491	0.2
Dec. 1980	(4)	0.1	401	<.1	<.1	608	0.1	664	0.2	<.1	0.2	<.1	363	<.1	520	0.3
Jan. 1981	(4)	<.1	388	<.1	<.1	592	0.1	690	0.1	<.1	0.1	0.1	712	0.5	645	0.7
Feb. 1981	(4)	0.1	376	0.1	<.1	530	<.1	609	0.0	0.0	0.0	0.0	690	0.0	395	0.1
Mar. 1981	(4)	0.2	435	0.2	0.6	499	0.7	609	0.4	<.1	0.4	<.1	715	0.1	507	1.3
Apr. 1981	(4)	0.2	406	0.1	0.4	456	0.3	586	0.4	<.1	0.4	<.1	715	0.1	484	1.0
May 1981	(4)	0.3	422	0.2	<.1	603	<.1	630	<.1	0.0	<.1	0.0	444	0.0	444	0.3

Table 17. Mean catch rates and mean total lengths (mm) by mesh size of spotted seatrout caught with gill nets in the lower Laguna Madre bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	0.3	402	0.2	0.1	469	0.1	654	0.3	0.1	0.1	0.1	667	0.2	511	0.9
Nov. 1980	(4)	0.1	424	0.1	0.1	503	0.1	658	0.1	<.1	0.1	<.1	750	0.1	530	0.3
Dec. 1980	(4)	<.1	365	<.1	0.1	560	0.1	603	0.1	0.1	0.0	0.0	667	0.0	552	0.2
Jan. 1981	(4)	0.2	385	0.1	0.2	543	0.3	624	0.5	0.1	0.1	0.1	736	0.4	562	1.3
Feb. 1981	(4)	0.1	478	0.1	0.2	553	0.3	616	1.2	<.1	<.1	<.1	690	0.1	584	1.7
Mar. 1981	(4)	0.8	424	0.6	0.4	501	0.5	645	0.4	<.1	0.4	<.1	648	0.3	492	1.5
Apr. 1981	(4)	1.9	394	1.1	0.5	520	0.6	609	0.8	0.1	0.8	0.1	648	0.3	465	3.2
May 1981	(4)	0.5	410	0.3	0.3	554	0.4	648	0.8	0.3	0.3	0.1	564	0.2	525	1.7

Table 18. Mean catch rates and mean total lengths (mm) by mesh size of black drum caught with gill nets in the Galveston Bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	0.1	318	<.1	0.4	309	0.2	0.1	646	0.6	0.2	490	0.5	0.7	385	1.3
Nov. 1980	(4)	<.1	206	<.1	0.4	354	0.3	0.4	400	0.3	0.4	470	0.7	1.2	408	1.3
Dec. 1980	(4)	0.3	232	0.1	0.5	318	0.2	0.3	373	0.3	0.2	438	0.2	1.3	334	0.8
Jan. 1981	(4)	0.0		0.0	0.1	499	0.1	0.1	410	0.1	0.4	473	0.6	0.6	461	0.8
Feb. 1981	(4)	0.0		0.0	<.1	315		0.4	409		0.2	440		0.6	414	
Mar. 1981	(4)	0.2	233	<.1	0.5	334	0.3	0.7	392	0.5	0.8	449	1.1	2.1	384	1.1
Apr. 1981	(4)	0.3	244	0.1	0.1	317	0.1	0.2	470	0.5	0.1	442	0.1	0.7	371	0.8
May 1981	(4)	<.1	240	<.1	0.2	332	0.1	0.7	511	1.3	<.1	455	<.1	0.9	449	1.4

Table 19. Mean catch rates and mean total lengths (mm) by mesh size of black drum caught with gill nets in the East Matagorda Bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	<.1			0.6	297	0.2	0.1	366	0.1	0.1	514	0.2	0.9	330	0.5
Nov. 1980	(4)	0.1	235	<.1	0.6	293	0.3	0.4	375	0.3	0.2	477	0.2	1.2	347	0.8
Dec. 1980	(4)	0.1	254	<.1	0.3	291	0.1	0.4	377	0.3	0.2	466	0.3	0.9	359	0.7
Jan. 1981	(4)	0.0		0.0	0.3	296	0.1	0.1	372	<.1	<.1	515		0.4	328	0.2
Feb. 1981	(4)	0.0		0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0		0.0
Mar. 1981	(4)	0.0		0.0	0.1	316	0.1	0.1	388	0.1	0.0		0.0	0.1	352	0.1
Apr. 1981	(4)	0.2	256	<.1	0.2	300	0.1	<.1	370	0.0	0.0		0.0	0.5	293	0.2
May 1981	(4)	0.2	226	<.1	0.2	315	0.1	0.2	420	0.3	<.1		0.1	0.7	320	0.5

Table 20. Mean catch rates and mean total lengths (mm) by mesh size of black drum caught with gill nets in the Matagorda Bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	0.2	246	<.1	0.3	325	0.2	0.1	502	0.1	671	0.1	0.1	0.7	365	0.4
Nov. 1980	(4)	0.2	231	<.1	0.2	301	0.1	<.1	365	0.1	456	0.1	<.1	0.4	284	0.2
Dec. 1980	(4)	0.1	256	<.1	0.4	408	0.2	0.1	649	<.1	820	0.1	0.1	0.6	460	0.3
Jan. 1981	(4)	0.0		0.0	0.1	360	<.1	0.1	387	0.1	420	0.1	<.1	0.2	383	0.2
Feb. 1981	(4)	<.1	282	<.1	0.2	345	<.1	0.1	480	0.1	422	0.1	<.1	0.4	385	0.2
Mar. 1981	(4)	0.1	234	<.1	0.1	320	<.1	0.1	455	0.1	640	0.1	0.0	0.3	307	0.1
Apr. 1981	(4)	0.2	225	<.1	0.2	298	0.1	<.1	673	0.1		0.1	<.1	0.4	322	0.4
May 1981	(4)	0.1	230	<.1	0.1	312	0.1	0.0		0.0		0.0	0.0	0.2	257	<.1

Table 21. Mean catch rates and mean total lengths (mm) by mesh size of black drum caught with gill nets in the San Antonio Bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	0.5	241	0.1	1.1	316	0.4	<.1	363	0.1	460	0.1	0.1	1.7	306	0.4
Nov. 1980	(4)	0.2	246	0.1	0.8	315	0.3	0.1	341	0.1		0.1	0.0	1.1	299	0.4
Dec. 1980	(4)	0.1	250	<.1	0.5	324	0.2	0.1	376	0.1	545	0.1	0.1	0.8	348	0.4
Jan. 1981	(4)	0.0		0.0	0.0		0.0	0.0		0.0	462	0.0	<.1	<.1	462	<.1
Feb. 1981	(4)	0.0		0.0	0.0		0.0	0.0		0.0		0.0	0.0	0.0		0.0
Mar. 1981	(4)	0.0		0.0	0.1	336	<.1	0.1	370	0.1		0.1	0.0	0.2	357	0.1
Apr. 1981	(4)	0.1	274	<.1	0.2	330	0.1	0.2	413	0.4	497	0.4	0.1	0.5	376	0.5
May 1981	(4)	0.1	251	<.1	0.2	299	0.1	<.1	357	<.1		<.1	0.0	0.3	291	0.1

Table 22. Mean catch rates and mean total lengths (mm) by mesh size of black drum caught with gill nets in the Aransas Bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	0.1	242	<.1	0.6	304	0.2	0.1	733	0.6	<.1	450	<.1	0.8	354	1.0
Nov. 1980	(4)	0.5	234	0.1	0.6	304	0.2	0.3	377	0.3	0.2	527	0.8	1.6	334	1.4
Dec. 1980	(4)	1.3	240	0.3	0.8	302	0.4	0.1	467	0.3	0.1	592	0.3	2.3	306	1.8
Jan. 1981	(4)	0.0		0.0	0.0		0.0	<.1	385	<.1	<.1	427	<.1	<.1	406	<.1
Feb. 1981	(4)	0.1	251	<.1	0.1	316	0.1	0.1	436	0.1	0.0		0.0	0.3	314	0.2
Mar. 1981	(4)	<.1	238	<.1	0.2	325	0.3	<.1	542	<.1	<.1	1068	0.3	0.3	383	0.7
Apr. 1981	(4)	0.2	268	0.1	0.1	318	0.1	0.1	598	0.6	0.1	420	0.1	0.5	380	0.8
May 1981	(4)	0.3	254	0.1	0.5	347	0.6	0.2	402	0.2	0.1	744	0.3	1.1	351	1.2

Table 23. Mean catch rates and mean total lengths (mm) by mesh size of black drum caught with gill nets in the Corpus Christi Bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	0.1	246	<.1	0.1	351	0.1	0.6	380	0.5	0.2	435	0.2	1.0	371	0.8
Nov. 1980	(4)	0.0		0.0	0.1	322	<.1	0.0		0.0	<.1	417	<.1	0.1	338	0.1
Dec. 1980	(4)	<.1	215	<.1	<.1	240	<.1	<.1	471	0.1	0.0		0.0	0.1	304	0.1
Jan. 1981	(4)	<.1	226	<.1	<.1	302	<.1	0.1	372	0.1	<.1	414	<.1	0.2	327	0.1
Feb. 1981	(4)	0.0		0.0	0.1	292	<.1	0.1	398	0.1	0.1	479	0.2	0.3	406	0.3
Mar. 1981	(4)	0.0		0.0	0.1	290	<.1	0.1	382	0.1	0.2	442	0.2	0.4	381	0.4
Apr. 1981	(4)	<.1	232	<.1	<.1	268	<.1	<.1	387	<.1	0.1	448	0.1	0.2	327	0.1
May 1981	(4)	<.1	252	<.1	0.1	310	<.1	0.0		0.0	<.1	940	0.0	0.1	453	<.1

Table 24. Mean catch rates and mean total lengths (mm) by mesh size of black drum caught with gill nets in the upper Laguna Madre bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm		10.2-cm		12.7-cm		15.2-cm		All meshes	
		No/h	Length	No/h	Length	No/h	Length	No/h	Length	No/h	Length
Oct. 1980	(4)	0.3	252	0.1	353	<.1	402	0.3	463	0.1	350
Nov. 1980	(4)	0.0		0.0	316	0.1	368	0.2	428	<.1	356
Dec. 1980	(4)	0.0		0.0	415	<.1	410	0.1	481	0.1	434
Jan. 1981	(4)	<.1	255	<.1	320	<.1	447	0.1	500	0.6	474
Feb. 1981	(4)	0.0		0.0	402	0.1	410	0.3	478	0.2	430
Mar. 1981	(4)	0.0		0.0	411	0.1	422	0.4	456	0.4	435
Apr. 1981	(4)	0.0		0.0	375	<.1	389	0.3	433	<.1	393
May 1981	(4)	<.1	295	<.1	342	0.2	388	0.6	443	0.7	390

Table 25. Mean catch rates and mean total lengths (mm) by mesh size of black drum caught with gill nets in the lower Laguna Madre bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm		10.2-cm		12.7-cm		15.2-cm		All meshes	
		No/h	Length	No/h	Length	No/h	Length	No/h	Length	No/h	Length
Oct. 1980	(4)	<.1	251	<.1	341	<.1	447	0.1	467	0.0	387
Nov. 1980	(4)	<.1	221	<.1	366	0.3	396	0.6	467	0.2	392
Dec. 1980	(4)	0.1	226	<.1	311	0.1	390	0.3	468	0.4	372
Jan. 1981	(4)	0.0		0.0	299	<.1	372	0.4	476	0.2	390
Feb. 1981	(4)	0.1	262	<.1	305	0.1	371	0.2	448	0.5	374
Mar. 1981	(4)	0.1	239	<.1	312	0.1	386	0.4	517	0.4	387
Apr. 1981	(4)	0.1	272	<.1	299	0.1	383	0.2	463	0.3	374
May 1981	(4)	0.1	366	0.1	382	0.1	426	0.3	462	0.4	425

Table 26. Mean catch rates and mean total lengths (mm) by mesh size of sheephead caught with gill nets in the Galveston Bay system (Blank = no measurement taken).

Month and Year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	<.1		0.0	0.0	<.1	294	<.1	0.0	<.1	0.0	0.0	0.1	294	<.1	
Nov. 1980	(4)	<.1	150	<.1	242	<.1	356	<.1	<.1	<.1	378	<.1	0.1	301	<.1	
Dec. 1980	(4)	0.0		0.0	233	<.1	298	<.1	<.1	<.1	396	<.1	0.1	331	0.1	
Jan. 1981	(4)	0.0		0.0		0.0		0.0	0.0	0.0	428	<.1	0.1	427	<.1	
Feb. 1981	(4)	0.0		0.0		0.0		0.0	0.0	0.0	390	<.1	<.1	390	<.1	
Mar. 1981	(4)	0.0		0.0		0.0	243	<.1	<.1	<.1	383	<.1	0.1	336	<.1	
Apr. 1981	(4)	0.0		0.0		0.0	380	<.1	<.1	<.1	422	<.1	<.1	401	<.1	
May 1981	(4)	0.0		0.0	377	<.1		0.0	0.0	0.0		0.0	<.1	377	<.1	

Table 27. Mean catch rates and mean total lengths (mm) by mesh size of sheephead caught with gill nets in the East Matagorda Bay system (Blank = no measurement taken).

Month and Year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	0.0		0.0	<.1	293	<.1	244	<.1	0.0	<.1	0.0	<.1	268	<.1	
Nov. 1980	(4)	0.0		0.0	0.1	221	<.1	333	<.1	0.1	360	<.1	0.2	316	0.1	
Dec. 1980	(4)	0.0		0.0	<.1	220	<.1	336	0.1	0.1	371	<.1	0.1	335	0.1	
Jan. 1981	(4)	0.0		0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0	0.0	
Feb. 1981	(4)	0.0		0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0	0.0	
Mar. 1981	(4)	0.0		0.0	0.0		0.0	366	0.1	<.1	490	0.1	0.1	416	0.2	
Apr. 1981	(4)	0.0		0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0	0.0	
May 1981	(4)	0.0		0.0	0.1	235	<.1	347	<.1	0.1	406	0.1	0.2	320	0.1	

Table 28. Mean catch rates and mean total lengths (mm) by mesh size of sheephead caught with gill nets in the Matagorda Bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm		10.2-cm		12.7-cm		15.2-cm		All meshes				
		No/h	Kg/h	No/h	Length	No/h	Length	No/h	Length	No/h	Length	No/h	Length	Kg/h
Oct. 1980	(4)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nov. 1980	(4)	0.0	0.0	<.1	229	<.1	353	<.1	0.0	0.0	0.1	312	0.0	<.1
Dec. 1980	(4)	0.0	0.0	0.5	226	0.1	263	<.1	393	<.1	0.5	236	<.1	0.1
Jan. 1981	(4)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Feb. 1981	(4)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mar. 1981	(4)	0.0	0.0	0.0	0.0	0.0	323	0.1	0.0	0.0	0.1	323	0.0	<.1
Apr. 1981	(4)	0.0	0.0	<.1	536	0.0	0.0	0.0	0.0	0.0	<.1	536	0.0	<.1
May 1981	(4)	<.1	370	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<.1	370	0.0	<.1

Table 29. Mean catch rates and mean total lengths (mm) by mesh size of sheephead caught with gill nets in the San Antonio Bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm		10.2-cm		12.7-cm		15.2-cm		All meshes			
		No/h	Kg/h	No/h	Length	No/h	Length	No/h	Length	No/h	Length	No/h	Length
Oct. 1980	(4)	0.0	0.0	0.3	249	0.1	278	0.1	421	0.1	277	0.0	0.2
Nov. 1980	(4)	0.0	0.0	0.3	259	0.1	324	0.1	404	0.1	312	0.3	0.3
Dec. 1980	(4)	0.0	0.0	0.2	244	<.1	349	0.1	368	0.1	298	0.1	0.1
Jan. 1981	(4)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Feb. 1981	(4)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mar. 1981	(4)	0.0	0.0	0.1	224	<.1	346	0.1	375	0.1	335	0.2	0.2
Apr. 1981	(4)	0.0	0.0	0.1	236	<.1	301	0.1	394	0.1	331	0.4	0.4
May 1981	(4)	0.0	0.0	0.1	234	<.1	363	0.1	0.0	0.1	308	0.1	0.1

Table 30. Mean catch rates and mean total lengths (mm) by mesh size of sheephead caught with gill nets in the Aransas Bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm		10.2-cm		12.7-cm		15.2-cm		All meshes				
		No/h	Length	No/h	Length	No/h	Length	No/h	Length	No/h	Length			
Oct. 1980	(4)	<.1	360	<.1	0.0	0.0	0.1	270	<.1	0.1	0.1	0.1	330	0.1
Nov. 1980	(4)	<.1	222	<.1	0.3	242	0.1	293	0.3	0.6	0.5	1.4	305	0.9
Dec. 1980	(4)	0.0		0.0	<.1	227	0.1	325	<.1	0.0	0.0	0.1	292	0.1
Jan. 1981	(4)	0.0		0.0	0.0		<.1	445	<.1	0.0	0.0	<.1	445	<.1
Feb. 1981	(4)	0.0		0.0	<.1	212	<.1	322	<.1	0.1	0.1	0.1	331	0.1
Mar. 1981	(4)	0.0		0.0	<.1		<.1	430	<.1	0.1	0.1	0.1	421	0.2
Apr. 1981	(4)	<.1	224	<.1	0.0		0.1	338	0.1	0.3	0.3	0.4	378	0.4
May 1981	(4)	<.1		<.1	0.1	324	0.1	279	<.1	0.0	0.0	0.3	305	0.2

Table 31. Mean catch rates and mean total lengths (mm) by mesh size of sheephead caught with gill nets in the Corpus Christi Bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm		10.2-cm		12.7-cm		15.2-cm		All meshes				
		No/h	Length	No/h	Length	No/h	Length	No/h	Length	No/h	Length			
Oct. 1980	(4)	<.1	288	<.1	<.1	360	<.1	332	<.1	0.0	0.0	0.1	317	<.1
Nov. 1980	(4)	0.0		0.0	<.1	273	<.1	382	0.1	<.1	<.1	0.2	367	0.1
Dec. 1980	(4)	0.0		0.0	<.1	322	<.1	0.0	<.1	<.1	<.1	0.1	322	<.1
Jan. 1981	(4)	<.1	218	<.1	<.1	247	<.1	331	0.1	0.1	0.1	0.4	311	0.2
Feb. 1981	(4)	0.0		0.0	0.0		0.0	388	0.1	0.1	0.1	0.2	356	0.1
Mar. 1981	(4)	0.0		0.0	<.1	327	<.1	336	0.1	0.6	0.5	0.7	353	0.6
Apr. 1981	(4)	<.1	242	<.1	0.1	296	<.1	318	<.1	<.1	<.1	0.2	317	0.1
May 1981	(4)	0.0		0.0	<.1	273	0.0	0.0	0.0	<.1	<.1	0.1	324	0.1

Table 32. Mean catch rates and mean total lengths (mm) by mesh size of sheephead caught with gill nets in the upper Laguna Madre bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	0.0		0.0	<.1	482	<.1	0.2	361	0.2	<.1	454	0.1	0.3	382	0.3
Nov. 1980	(4)	0.0		0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0		0.0
Dec. 1980	(4)	0.0		0.0	0.0		0.0	0.0		0.0	<.1	396	<.1	<.1	396	<.1
Jan. 1981	(4)	0.0		0.0	0.0		0.1	0.1	309	<.1	0.1	374	0.1	0.2	345	0.1
Feb. 1981	(4)	0.0		0.0	<.1	364	0.0	0.0		0.0	<.1	418	<.1	0.1	400	0.1
Mar. 1981	(4)	0.0		0.0	0.0		0.1	0.1	339	0.1	0.2	390	0.2	0.3	373	0.3
Apr. 1981	(4)	0.0		0.0	<.1	302	<.1	0.0		0.0	0.1	411	0.1	0.2	384	0.2
May 1981	(4)	0.0		0.0	<.1	325	<.1	<.1	350	<.1	0.1	440	0.1	0.1	394	0.2

Table 33. Mean catch rates and mean total lengths (mm) by mesh size of sheephead caught with gill nets in the lower Laguna Madre bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	<.1	248	<.1	0.1	254	<.1	0.1	314	<.1	0.1	366	<.1	0.2	295	0.1
Nov. 1980	(4)	0.0		0.0	<.1	313	<.1	0.1	314	<.1	0.2	360	0.2	0.3	347	0.2
Dec. 1980	(4)	0.0		0.0	0.0		0.0	<.1	270	<.1	0.1	397	0.1	0.1	376	0.1
Jan. 1981	(4)	<.1	166	<.1	<.1	225	<.1	<.1	274	<.1	<.1	395	<.1	0.1	288	0.1
Feb. 1981	(4)	<.1	347	<.1	0.2	263	0.1	0.8	309	0.5	0.5	347	0.4	1.5	319	1.0
Mar. 1981	(4)	<.1	295	<.1	0.2	265	0.1	0.3	318	0.2	0.5	345	0.3	1.0	319	0.6
Apr. 1981	(4)	0.0		0.0	0.1	276	<.1	0.5	323	0.3	0.5	336	0.3	1.0	326	0.6
May 1981	(4)	0.0		0.0	<.1	253	<.1	0.0		0.0	<.1	320	<.1	0.1	298	<.1

Table 34. Mean catch rates and mean total lengths (mm) by mesh size of southern flounder caught with gill nets in the Galveston Bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	<.1		<.1	302	<.1	0.1	374	0.1	0.0	0.0	0.2	345	0.1	0.1	
Nov. 1980	(4)	<.1	393	<.1	288	<.1	<.1	426	<.1	0.0	0.0	0.1	375	0.1	0.1	
Dec. 1980	(4)	0.0		0.0		0.0	<.1	264	<.1	0.0	0.0	<.1	264	<.1	<.1	
Jan. 1981	(4)	0.0		0.0	274	<.1	<.1	346	<.1	0.0	0.0	<.1	310	<.1	<.1	
Feb. 1981	(4)	0.0		0.0		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Mar. 1981	(4)	0.0		0.0		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Apr. 1981	(4)	<.1	244	<.1	255	<.1	<.1	392	<.1	0.0	0.0	0.1	284	<.1	<.1	
May 1981	(4)	0.0		0.0		0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	

Table 35. Mean catch rates and mean total lengths (mm) by mesh size of southern flounder caught with gill nets in the East Matagorda Bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	0.0		0.0	362	0.1	0.2	360	0.1	0.2	401	0.1	0.5	373	0.3	
Nov. 1980	(4)	0.0		0.0	321	<.1	0.1	412	0.1	0.1	458	<.1	0.2	412	0.2	
Dec. 1980	(4)	<.1	355	<.1	380	<.1	0.2	391	0.1	0.1	405	0.1	0.3	392	0.2	
Jan. 1981	(4)	<.1	223	<.1	421	<.1	<.1	370	<.1	0.0		0.0	0.1	309	<.1	
Feb. 1981	(4)	0.0		0.0		0.0	0.0		0.0	0.0		0.0	0.0		0.0	
Mar. 1981	(4)	0.0		0.0		0.0	<.1	378	<.1	<.1	386	<.1	0.1	382	<.1	
Apr. 1981	(4)	0.0		0.0		0.0	<.1	360	<.1	0.0		0.0	<.1	360	<.1	
May 1981	(4)	0.0		0.0		0.0	<.1	340	<.1	0.0		0.0	<.1	340	<.1	

Table 36. Mean catch rates and mean total lengths (mm) by mesh size of southern flounder caught with gill nets in the Matagorda Bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm		10.2-cm		12.7-cm		15.2-cm		All meshes		
		No/h	Length Kg/h	No/h	Length Kg/h	No/h	Length Kg/h	No/h	Length Kg/h	No/h	Length Kg/h	
Oct. 1980	(4)	<.1	202	<.1	298	<.1	343	0.1	470	<.1	328	0.1
Nov. 1980	(4)	0.0		0.0		0.0		0.0	367	<.1	367	<.1
Dec. 1980	(4)	0.0		0.0		0.0	316	<.1		0.0	316	<.1
Jan. 1981	(4)	0.0		0.0		0.0	332	<.1		0.0	332	<.1
Feb. 1981	(4)	0.1	207	<.1	275	<.1	293	<.1		0.0	238	<.1
Mar. 1981	(4)	0.0		0.0		0.0	403	0.1	382	<.1	387	0.1
Apr. 1981	(4)	0.0		0.0	290	<.1	335	<.1		0.0	312	<.1
May 1981	(4)	0.0		0.0	251	0.0		0.0		0.0	251	<.1

Table 37. Mean catch rates and mean total lengths (mm) by mesh size of southern flounder caught with gill nets in the San Antonio Bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm		10.2-cm		12.7-cm		15.2-cm		All meshes		
		No/h	Length Kg/h	No/h	Length Kg/h	No/h	Length Kg/h	No/h	Length Kg/h	No/h	Length Kg/h	
Oct. 1980	(4)	<.1	220	<.1	285	<.1		0.0	385	<.1	312	<.1
Nov. 1980	(4)	<.1	247	<.1	336	<.1	313	<.1	412	<.1	342	<.1
Dec. 1980	(4)	0.0		0.0	338	<.1	361	0.0		0.0	346	<.1
Jan. 1981	(4)	0.0		0.0		0.0		0.0	386	<.1	386	0.0
Feb. 1981	(4)	0.0		0.0		0.0		0.0		0.0	256	<.1
Mar. 1981	(4)	0.0		0.0	256	<.1		0.0		0.0	318	0.1
Apr. 1981	(4)	<.1	306	<.1	322	<.1	325	<.1		0.0	232	<.1
May 1981	(4)	<.1	232	<.1		0.0		0.0		0.0	232	<.1

Table 38. Mean catch rates and mean total lengths (mm) by mesh size of southern flounder caught with gill nets in the Aransas Bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	<.1	245	<.1	328	<.1	<.1	<.1	<.1	0.1	419	0.1	0.1	0.1	368	0.1
Nov. 1980	(4)	<.1	235	<.1	342	<.1	0.0	0.0	0.1	484	0.1	0.1	0.2	369	0.1	0.1
Dec. 1980	(4)	0.0		0.0		0.1	361	<.1	0.1	360	<.1	0.1	0.1	361	0.1	0.1
Jan. 1981	(4)	0.0		0.0		0.0		0.0	0.0		0.0	0.0	0.0		0.0	0.0
Feb. 1981	(4)	0.0		0.0	267	0.0		0.0	0.0		0.0	0.0	<.1	267	<.1	<.1
Mar. 1981	(4)	0.0		0.0	276	<.1	366	<.1	0.0		0.0	0.0	<.1	321	<.1	<.1
Apr. 1981	(4)	0.0		0.0		0.0		0.0	<.1		0.0	<.1	<.1		<.1	<.1
May 1981	(4)	0.0		0.0		0.0	363	<.1	0.0		0.0	<.1	0.0	363	<.1	<.1

Table 39. Mean catch rates and mean total lengths (mm) by mesh size of southern flounder caught with gill nets in the Corpus Christi Bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	0.1	234	<.1	324	<.1	345	<.1	0.1	421	<.1	0.2	315	0.1	0.1	0.1
Nov. 1980	(4)	0.0		0.0		0.0	450	0.0	<.1	406	0.1	0.1	415	0.1	0.1	0.1
Dec. 1980	(4)	<.1	344	<.1		0.0		0.0	0.0		0.0	<.1	344	<.1	<.1	<.1
Jan. 1981	(4)	0.0		0.0		0.0	388	0.0	<.1	363	<.1	<.1	376	<.1	<.1	<.1
Feb. 1981	(4)	0.0		0.0		0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Mar. 1981	(4)	<.1	205	<.1	359	<.1	326	<.1	<.1	399	<.1	0.1	323	<.1	<.1	<.1
Apr. 1981	(4)	<.1	266	<.1	290	<.1	390	<.1	0.1		0.0	0.1	332	<.1	<.1	<.1
May 1981	(4)	0.0		0.0		0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0

Table 40. Mean catch rates and mean total lengths (mm) by mesh size of southern flounder caught with gill nets in the upper Laguna Madre bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	<.1	190	<.1	0.0	<.1	342	<.1	<.1	<.1	<.1	475	<.1	0.1	337	0.1
Nov. 1980	(4)	<.1	425	<.1	<.1	269	<.1	347	<.1	<.1	<.1	408	<.1	0.1	362	<.1
Dec. 1980	(4)	0.0		0.0	0.0	403	0.0	0.1	<.1	<.1	<.1	472	<.1	0.1	420	0.1
Jan. 1981	(4)	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0
Feb. 1981	(4)	0.0		0.0	<.1	355	<.1	0.0	0.0	<.1	<.1	415	<.1	<.1	385	<.1
Mar. 1981	(4)	0.0		0.0	0.0		0.0	0.1	0.0	<.1	0.0		0.0	0.1	357	<.1
Apr. 1981	(4)	0.0		0.0	<.1	322	<.1	0.1	0.1	<.1	<.1	425	<.1	0.2	374	0.1
May 1981	(4)	<.1	222	<.1	0.1	360	<.1	0.1	<.1	<.1	<.1		<.1	0.2	350	0.1

Table 41. Mean catch rates and mean total lengths (mm) by mesh size of southern flounder caught with gill nets in the lower Laguna Madre bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	<.1	224	<.1	0.0	<.1	396	<.1	<.1	<.1	<.1	403	<.1	0.1	355	<.1
Nov. 1980	(4)	<.1	220	<.1	0.0	<.1	359	0.0	0.1	0.1	0.1	404	<.1	0.2	359	0.1
Dec. 1980	(4)	<.1	232	<.1	0.1	262	<.1	0.1	0.1	<.1	0.1	471	0.1	0.2	365	0.1
Jan. 1981	(4)	<.1	204	<.1	<.1	300	<.1	0.0	0.0	0.0	<.1	466	<.1	0.1	323	<.1
Feb. 1981	(4)	0.0		0.0	<.1	282	<.1	0.0	0.0	<.1	<.1	430	<.1	<.1	356	<.1
Mar. 1981	(4)	0.0		0.0	0.0		<.1	0.1	0.1	<.1	<.1	386	<.1	<.1	371	<.1
Apr. 1981	(4)	<.1	270	<.1	<.1	278	<.1	0.1	0.1	<.1	<.1	414	<.1	0.1	355	0.1
May 1981	(4)	0.0		0.0	<.1	291	0.0	0.0	0.0	0.0	<.1	425	<.1	0.1	336	<.1

Table 42. Mean catch rates and mean total lengths (mm) by mesh size of Atlantic croaker caught with gill nets in the Galveston Bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	0.2	275	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	275	0.1	
Nov. 1980	(4)	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Dec. 1980	(4)	0.1	268	<.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	268	<.1	
Jan. 1981	(4)	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Feb. 1981	(4)	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Mar. 1981	(4)	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Apr. 1981	(4)	0.1	268	<.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<.1	262	<.1	
May 1981	(4)	0.2	259	<.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	259	<.1	

Table 43. Mean catch rates and mean total lengths (mm) by mesh size of Atlantic croaker caught with gill nets in the East Matagorda Bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	0.1	238	<.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	238	<.1	
Nov. 1980	(4)	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Dec. 1980	(4)	<.1	238	<.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<.1	238	<.1	
Jan. 1981	(4)	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Feb. 1981	(4)	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Mar. 1981	(4)	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Apr. 1981	(4)	<.1	250	<.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<.1	250	<.1	
May 1981	(4)	<.1		<.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<.1		<.1	

Table 44. Mean catch rates and mean total lengths (mm) by mesh size of Atlantic croaker caught with gill nets in the Matagorda Bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	0.4	260	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	260	0.1
Nov. 1980	(4)	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Dec. 1980	(4)	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Jan. 1981	(4)	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Feb. 1981	(4)	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Mar. 1981	(4)	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Apr. 1981	(4)	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
May 1981	(4)	<.1	276	<.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<.1	276	<.1

Table 45. Mean catch rates and mean total lengths (mm) by mesh size of Atlantic croaker caught with gill nets in the San Antonio Bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Nov. 1980	(4)	0.0		0.0	<.1	260	<.1	0.0	0.0	0.0	0.0	0.0	0.0	<.1	260	<.1
Dec. 1980	(4)	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Jan. 1981	(4)	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Feb. 1981	(4)	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Mar. 1981	(4)	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Apr. 1981	(4)	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
May 1981	(4)	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0

Table 46. Mean catch rates and mean total lengths (mm) by mesh size of Atlantic croaker caught with gill nets in the Aransas Bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	0.2	278	0.1	0.3	348	0.2	0.1	355	<.1	0.0	0.0	0.5	326	0.3	
Nov. 1980	(4)	0.0		0.0	<.1	336	<.1	0.0	0.0	0.0	0.0	0.0	<.1	336	<.1	
Dec. 1980	(4)	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Jan. 1981	(4)	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Feb. 1981	(4)	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Mar. 1981	(4)	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Apr. 1981	(4)	0.1	273	<.1	<.1	320	<.1	<.1	310	<.1	0.0	0.0	0.1	290	<.1	
May 1981	(4)	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	

Table 47. Mean catch rates and mean total lengths (mm) by mesh size of Atlantic croaker caught with gill nets in the Corpus Christi Bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm			10.2-cm			12.7-cm			15.2-cm			All meshes		
		No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h	No/h	Length	Kg/h
Oct. 1980	(4)	1.4	279	0.3	2.4	338	1.4	0.1	299	0.1	0.0	0.0	3.9	307	1.7	
Nov. 1980	(4)	0.1	262	<.1	<.1	372		0.0		0.0	0.0	0.0	0.1	281	<.1	
Dec. 1980	(4)	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Jan. 1981	(4)	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Feb. 1981	(4)	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Mar. 1981	(4)	0.1	278	<.1	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.1	278	<.1	
Apr. 1981	(4)	0.1	268	<.1	<.1	221	<.1	0.0	0.0	0.0	0.0	0.0	0.1	258	<.1	
May 1981	(4)	0.1	271	<.1	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.1	271	<.1	

Table 48. Mean catch rates and mean total lengths (mm) by mesh size of Atlantic croaker caught with gill nets in the upper Laguna Madre bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm		10.2-cm		12.7-cm		15.2-cm		All meshes			
		No/h	Length Kg/h	No/h	Length Kg/h	No/h	Length Kg/h	No/h	Length Kg/h	No/h	Length Kg/h		
Oct. 1980	(4)	0.1	270	<.1	348	<.1	270	<.1	0.0	0.0	0.2	299	0.1
Nov. 1980	(4)	0.1	248	<.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	248	<.1
Dec. 1980	(4)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Jan. 1981	(4)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Feb. 1981	(4)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mar. 1981	(4)	<.1	301	<.1	0.0	0.0	0.0	0.0	0.0	0.0	<.1	301	<.1
Apr. 1981	(4)	0.1	269	<.1	332	<.1	0.0	0.0	<.1	290	0.2	304	0.1
May 1981	(4)	0.2	289	0.1	319	0.1	<.1	<.1	0.0	0.0	0.5	303	0.2

Table 49. Mean catch rates and mean total lengths (mm) by mesh size of Atlantic croaker caught with gill nets in the lower Laguna Madre bay system (Blank = no measurement taken).

Month and year	Number of samples	7.6-cm		10.2-cm		12.7-cm		15.2-cm		All meshes		
		No/h	Length Kg/h	No/h	Length Kg/h	No/h	Length Kg/h	No/h	Length Kg/h	No/h	Length Kg/h	
Oct. 1980	(4)	0.4	273	0.1	0.0	0.0	0.0	0.0	0.0	0.4	273	0.1
Nov. 1980	(4)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dec. 1980	(4)	0.2	257	<.1	260	<.1	0.0	0.0	0.0	0.2	257	<.1
Jan. 1981	(4)	<.1	295	<.1	327	<.1	242	<.1	0.0	0.1	288	<.1
Feb. 1981	(4)	<.1	274	<.1	0.0	<.1	396	0.0	0.0	0.1	355	<.1
Mar. 1981	(4)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Apr. 1981	(4)	0.1	260	<.1	0.0	0.0	0.0	0.0	0.0	0.1	260	<.1
May 1981	(4)	0.1	291	<.1	0.0	0.0	0.0	0.0	0.0	0.1	291	<.1

Table 50. Mean abundances (no/ha) of fishes caught with trammel nets during spring (April-May) and fall (October-November) in Texas bay systems 1977-1981.

Bay system	Year	Red drum		Spotted seatrout		Black drum		Sheepshead		Southern flounder		Atlantic croaker	
		Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall
Galveston	1977		2.65	0.96		2.82	0.34		0.34		0.81		0.68
	1978	1.54	2.54	0.34	2.59	2.37	0.67	0.51	0.67	0.47	0.50	1.63	0.55
	1979	1.12	4.17	0.20	0.70	1.85	0.28	0.12	0.28	0.25	0.32	1.55	0.87
	1980	5.74	2.30	0.47	0.45	0.70	0.30	0.20	0.30	0.45	0.75	0.85	0.92
	1981	3.52		0.67				0.57		0.67		1.77	
Matagorda	1977		4.17	2.99		5.95	0.96		0.96		0.49		0.13
	1978	1.56	3.37	2.22	1.32	3.44	0.47	0.41	0.47	0.24	0.35	0.06	0.32
	1979	2.50	5.36	7.15	3.62	4.07	0.35	1.32	0.35	0.52	0.22	0.22	0.12
	1980	7.24	2.64	1.22	5.56	2.35	0.67	0.75	0.67	0.47	0.30	0.20	0.32
	1981	1.62		3.24		1.35		9.67		0.25		0.20	
San Antonio	1977		3.42	4.23		2.57	1.22		1.22		0.68		0.15
	1978	1.37	1.97	1.67	3.04	1.45	0.55	0.43	0.55	0.77	0.25	0.02	0.17
	1979	0.80	5.24	2.64	1.22	0.62	1.00	0.62	1.00	0.47	0.37	0.00	0.17
	1980	1.77	2.99	3.87	1.72	2.22	1.27	0.60	1.27	0.32	0.32	0.00	0.15
	1981	2.03		1.64		1.15		0.90		0.31		0.03	
Aransas	1977		2.80	0.60		0.68	1.03		1.03		0.30		0.24
	1978	1.07	5.26	1.57	3.04	1.15	1.07	0.60	1.07	0.11	0.17	0.04	0.32
	1979	1.25	5.36	1.12	0.80	1.40	1.32	0.57	1.32	0.15	0.15	0.05	0.25
	1980	3.09	2.72	1.60	1.47	1.77	1.22	0.35	1.22	0.25	0.20	0.00	0.60
	1981	2.72		2.05		3.02		1.12		0.35		0.07	
Corpus Christi	1977		1.90	0.53		0.17	0.47		0.47		0.34		0.88
	1978	1.65	0.67	0.96	1.07	0.30	0.10	0.41	0.10	0.21	0.15	0.71	0.42
	1979	1.12	5.46	1.57	2.62	0.30	0.27	0.40	0.27	0.05	0.65	3.37	0.72
	1980	4.17	3.04	1.90	3.09	1.00	0.62	0.57	0.62	1.40	0.37	1.02	1.95
	1981	2.92		1.85				0.60		0.22		2.02	
Upper Laguna Madre	1977		0.53	0.56		1.15	0.28		0.28		0.04		0.28
	1978	0.60	0.57	0.92	0.90	2.64	0.47	0.77	0.47	0.06	0.07	4.00	1.17
	1979	0.10	0.60	1.25	0.42	0.62	0.05	0.30	0.05	0.05	0.00	0.30	0.40
	1980	2.87	1.25	1.12	0.60	3.97	0.35	0.27	0.35	0.15	0.12	0.95	0.17
	1981	0.92		0.62		0.45		0.15		0.12		0.62	
Lower Laguna Madre	1977		1.65	2.89		2.12	0.75		0.75		0.11		1.99
	1978	2.37	0.97	4.15	1.82	0.47	0.90	1.26	0.90	0.24	0.15	11.36	0.85
	1979	1.62	3.69	2.59	3.27	2.32	2.89	2.40	2.89	0.55	0.45	0.72	0.47
	1980	5.44	3.32	3.24	3.82	3.87	3.79	2.45	3.79	0.42	0.40	3.99	2.40
	1981	3.06		7.35		0.75		1.99		0.37		0.82	

Table 51. Mean total length (mm) of fishes caught with trammel nets during spring (April-May) and fall (October-November) in Texas bay systems 1977-1981 (Blank = no measurement taken).

Bay system	Year	Red drum		Spotted seatrout		Black drum		Sheepshead		Southern flounder		Atlantic croaker	
		Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall
Galveston	1977		459	513		346		332		329		260	
	1978	468	445	472		336		352		329		251	
	1979	473	398	438		293		348		319		260	
	1980	452	431	543		263		353		308		251	
1981	502		532		288		346		291		255		
Matagorda	1977		437	419		312		286		321		263	
	1978	499	447	447		353		329		345		254	
	1979	476	363	406		306		309		279		261	
	1980	412	421	398		286		301		290		260	
	1981	461		433		287		297		320		245	
San Antonio	1977		376	424		330		350		328		302	
	1978	430	357	426		271		340		358		250	
	1979	412	350	406		304		319		281		261	
	1980	392	344	412		288		325		297		280	
	1981	379		406		308		306		246		251	
Aransas	1977		380	418		337		238		327		300	
	1978	431	381	402		289		344		359		283	
	1979	444	351	436		270		308		336		249	
	1980	361	415	431		290		329		304		275	
1981	399		423		287		336		295		294		
Corpus Christi	1977		410	464		315		298		393		296	
	1978	432	405	423		257		402		399		310	
	1979	447	349	461		271		286		308		272	
	1980	402	414	435		255		278		339		291	
1981	437		456		296		369		322		283		
Upper Laguna Madre	1977		440	481		319		422		324		261	
	1978	502	480	456		289		393		382		278	
	1979	447	346	470		244		421		202		253	
	1980	405	399	437		388		399		314		257	
1981	416		454		349		370		290		270		
Lower Laguna Madre	1977		462	442		302		331		395		278	
	1978	473	393	414		356		287		342		263	
	1979	463	377	424		279		281		277		283	
	1980	414	422	430		336		293		274		265	
1981	419		431		310		288		306		283		

Table 52. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of red drum caught with trammel nets in the Galveston Bay system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	3.09	3.04	431
Nov. 1980	(12)	1.50	1.47	431
Dec. 1980	(12)	0.60	0.72	466
Mar. 1981	(12)	2.69	3.99	482
Apr. 1981	(12)	5.29	8.32	509
May 1981	(12)	1.75	2.02	480

Table 53. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of red drum caught with trammel nets in the Matagorda Bay system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	2.99	3.12	400
Nov. 1980	(12)	2.30	3.69	450
Dec. 1980	(12)	0.80	1.01	436
Mar. 1981	(12)	2.10	3.70	425
Apr. 1981	(12)	1.05	1.38	479
May 1981	(12)	2.20	2.64	453

Table 54. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of red drum caught with trammel nets in the San Antonio Bay system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	2.15	0.62	349
Nov. 1980	(12)	3.84	1.39	341
Dec. 1980	(12)	0.65	0.39	357
Mar. 1981	(12)	0.90	0.59	358
Apr. 1981	(12)	3.34	2.82	379
May 1981	(12)	0.75	0.77	442

Table 55. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of red drum caught with trammel nets in the Aransas Bay system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	3.29	2.69	394
Nov. 1980	(12)	2.15	2.49	445
Dec. 1980	(12)	3.79	2.92	392
Mar. 1981	(12)	1.30	0.75	377
Apr. 1981	(12)	2.40	1.65	394
May 1981	(12)	3.04	2.21	403

Table 56. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of red drum caught with trammel nets in the Corpus Christi Bay system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	2.50	2.41	429
Nov. 1980	(12)	3.59	1.42	404
Dec. 1980	(12)	0.20	0.07	457
Mar. 1981	(12)	0.75	0.26	372
Apr. 1981	(12)	2.45	1.12	440
May 1981	(12)	3.04	2.22	449

Table 57. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of red drum caught with trammel nets in the upper Laguna Madre system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	1.00	0.96	420
Nov. 1980	(12)	1.50	1.01	384
Dec. 1980	(12)	1.05	0.47	341
Mar. 1981	(12)	0.60	0.46	387
Apr. 1981	(12)	0.95	0.71	405
May 1981	(12)	0.90	0.63	429

Table 58. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of red drum caught with trammel nets in the lower Laguna Madre system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	3.09	2.63	440
Nov. 1980	(12)	3.54	2.86	406
Dec. 1980	(12)	1.20	0.75	385
Mar. 1981	(12)	3.74	2.33	400
Apr. 1981	(12)	2.94	2.30	415
May 1981	(12)	3.19	2.30	423

Table 59. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of spotted seatrout caught with trammel nets in the Galveston Bay system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	0.50	0.73	505
Nov. 1980	(12)	0.40	0.79	591
Dec. 1980	(12)	0.05	0.14	669
Mar. 1981	(12)	0.60	0.97	550
Apr. 1981	(12)	0.80	1.34	549
May 1981	(12)	0.55	0.79	508

Table 60. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of spotted seatrout caught with trammel nets in the Matagorda Bay system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	4.74	2.73	390
Nov. 1980	(12)	6.39	4.19	407
Dec. 1980	(12)	1.95	1.55	443
Mar. 1981	(12)	6.59	6.58	466
Apr. 1981	(12)	2.15	1.85	447
May 1981	(12)	4.34	3.25	417

Table 61. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of spotted seatrout caught with trammel nets in the San Antonio Bay system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	2.64	1.91	428
Nov. 1980	(12)	0.80	0.36	356
Dec. 1980	(12)	0.35	0.22	404
Mar. 1981	(12)	3.84	2.41	407
Apr. 1981	(12)	1.10	0.68	420
May 1981	(12)	2.44	1.62	397

Table 62. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of spotted seatrout caught with trammel nets in the Aransas Bay system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	1.55	1.31	436
Nov. 1980	(12)	1.40	1.01	425
Dec. 1980	(12)	2.99	4.43	519
Mar. 1981	(12)	1.55	0.81	386
Apr. 1981	(12)	1.70	1.38	431
May 1981	(12)	2.40	1.76	418

Table 63. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of spotted seatrout caught with trammel nets in the Corpus Christi Bay system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	3.79	3.35	446
Nov. 1980	(12)	2.40	2.08	418
Dec. 1980	(12)	0.40	0.27	426
Mar. 1981	(12)	3.79	2.38	399
Apr. 1981	(12)	2.05	4.60	457
May 1981	(12)	1.65	1.40	454

Table 64. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of spotted seatrout caught with trammel nets in the upper Laguna Madre system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	0.55	0.37	430
Nov. 1980	(12)	0.65	0.43	442
Dec. 1980	(12)	0.30	0.24	425
Mar. 1981	(12)	1.55	1.16	429
Apr. 1981	(12)	0.95	0.71	421
May 1981	(12)	0.30	0.50	558

Table 65. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of spotted seatrout caught with trammel nets in the lower Laguna Madre system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	4.09	2.80	417
Nov. 1980	(12)	3.54	2.84	443
Dec. 1980	(12)	1.85	1.51	430
Mar. 1981	(12)	3.99	5.95	518
Apr. 1981	(12)	5.39	5.18	438
May 1981	(12)	9.33	7.27	425

Table 66. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of black drum caught with trammel nets in the Galveston Bay system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	0.60	0.12	234
Nov. 1980	(12)	0.80	0.33	285
Dec. 1980	(12)	0.10	0.01	207
Mar. 1981	(12)	2.45	0.77	264
Apr. 1981	(12)	1.15	0.50	284
May 1981	(12)	0.55	0.29	298

Table 67. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of black drum caught with trammel nets in the Matagorda Bay system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	6.54	1.82	274
Nov. 1980	(12)	2.59	0.90	309
Dec. 1980	(12)	3.69	2.65	342
Mar. 1981	(12)	0.60		410
Apr. 1981	(12)	1.20	0.41	278
May 1981	(12)	1.50	0.62	293

Table 68. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of black drum caught with trammel nets in the San Antonio Bay system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	3.59	1.43	314
Nov. 1980	(12)	1.85	0.35	236
Dec. 1980	(12)	0.20	0.06	321
Mar. 1981	(12)	0.15		353
Apr. 1981	(12)	0.80	0.43	338
May 1981	(12)	1.60	0.60	302

Table 69. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of black drum caught with trammel nets in the Aransas Bay system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	2.45	1.16	296
Nov. 1980	(12)	1.10	0.40	278
Dec. 1980	(12)	11.83	3.50	261
Mar. 1981	(12)	0.90	0.35	287
Apr. 1981	(12)	2.54	0.83	275
May 1981	(12)	3.49	1.54	296

Table 70. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of black drum caught with trammel nets in the Corpus Christi Bay system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	0.40	0.23	342
Nov. 1980	(12)	1.60	0.31	292
Dec. 1980	(12)	0.15	0.03	233
Mar. 1981	(12)	0.05	0.01	534
Apr. 1981	(12)	1.00	0.29	295
May 1981	(12)	0.80	0.32	309

Table 71. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of black drum caught with trammel nets in the upper Laguna Madre system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	2.35	0.71	256
Nov. 1980	(12)	5.59	4.23	429
Dec. 1980	(12)	1.25	0.62	314
Mar. 1981	(12)	0.35	0.30	368
Apr. 1981	(12)	0.75	0.47	344
May 1981	(12)	0.15	0.16	374

Table 72. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of black drum caught with trammel nets in the lower Laguna Madre system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	1.10	0.67	356
Nov. 1980	(12)	6.64	3.53	328
Dec. 1980	(12)	1.20	0.80	357
Mar. 1981	(12)	0.50	0.25	360
Apr. 1981	(12)	0.50	0.34	356
May 1981	(12)	1.00	0.35	299

Table 73. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of sheepshead caught with trammel nets in the Galveston Bay system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	0.40	0.37	356
Nov. 1980	(12)	0.20	0.16	349
Dec. 1980	(12)	0.10	0.02	207
Mar. 1981	(12)	0.10	0.14	417
Apr. 1981	(12)	0.20	0.05	263
May 1981	(12)	0.95	0.30	363

Table 74. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of sheepshead caught with trammel nets in the Matagorda Bay system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	1.05	0.40	269
Nov. 1980	(12)	0.30	0.26	412
Dec. 1980	(12)	0.30	0.37	395
Mar. 1981	(12)	0.20	0.05	234
Apr. 1981	(12)	0.55	0.34	308
May 1981	(12)	0.80	0.41	290

Table 75. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of sheepshead caught with trammel nets in the San Antonio Bay system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	1.40	1.35	323
Nov. 1980	(12)	1.15	0.84	329
Dec. 1980	(12)	0.25	0.05	235
Mar. 1981	(12)	0.10		394
Apr. 1981	(12)	1.10	0.65	310
May 1981	(12)	0.95	0.70	325

Table 76. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of sheepshead caught with trammel nets in the Aransas Bay system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	1.80	1.62	336
Nov. 1980	(12)	0.65	0.41	309
Dec. 1980	(12)	0.30	0.04	181
Mar. 1981	(12)	1.25	0.52	278
Apr. 1981	(12)	1.05	0.77	336
May 1981	(12)	1.20	0.95	336

Table 77. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of sheepshead caught with trammel nets in the Corpus Christi Bay system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	0.35	0.32	321
Nov. 1980	(12)	0.90	0.34	260
Dec. 1980	(12)	0.30	0.21	309
Mar. 1981	(12)	0.70	0.67	356
Apr. 1981	(12)	0.40	0.33	348
May 1981	(12)	0.80	0.85	378

Table 78. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of sheepshead caught with trammel nets in the upper Laguna Madre system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	0.10	0.14	436
Nov. 1980	(12)	0.60	0.84	393
Dec. 1980	(12)	0.10	0.14	427
Mar. 1981	(12)	0.05	0.04	335
Apr. 1981	(12)	0.30	0.28	370
May 1981	(12)	0.00	0.00	

Table 79. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of sheepshead caught with trammel nets in the lower Laguna Madre system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	5.29	2.25	281
Nov. 1980	(12)	2.30	1.45	317
Dec. 1980	(12)	1.10	0.69	311
Mar. 1981	(12)	2.79	1.38	294
Apr. 1981	(12)	1.30	0.61	289
May 1981	(12)	2.70	1.21	287

Table 80. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of southern flounder caught with trammel nets in the Galveston Bay system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	1.40	0.82	349
Nov. 1980	(12)	0.10	0.01	212
Dec. 1980	(12)	0.00	0.00	
Mar. 1981	(12)	0.05	0.02	335
Apr. 1981	(12)	0.70	0.20	281
May 1981	(12)	0.65	0.27	301

Table 81. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of southern flounder caught with trammel nets in the Matagorda Bay system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	0.55	0.20	307
Nov. 1980	(12)	0.05	0.01	242
Dec. 1980	(12)	0.10	0.02	233
Mar. 1981	(12)	0.15	0.08	358
Apr. 1981	(12)	0.10	0.01	242
May 1981	(12)	0.40	0.16	303

Table 82. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of southern flounder caught with trammel nets in the San Antonio Bay system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	0.25	0.05	391
Nov. 1980	(12)	0.40	0.06	251
Dec. 1980	(12)	0.20	0.08	332
Mar. 1981	(12)	0.05	0.01	212
Apr. 1981	(12)	0.35	0.04	236
May 1981	(12)	0.25	0.06	258

Table 83. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of southern flounder caught with trammel nets in the Aransas Bay system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	0.35	0.08	269
Nov. 1980	(12)	0.05	0.03	395
Dec. 1980	(12)	0.10	0.03	290
Mar. 1981	(12)	0.15	0.05	295
Apr. 1981	(12)	0.25	0.03	222
May 1981	(12)	0.45	0.19	300

Table 84. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of southern flounder caught with trammel nets in the Corpus Christi Bay system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	0.35	0.27	350
Nov. 1980	(12)	0.40	0.17	329
Dec. 1980	(12)	0.15	0.30	464
Mar. 1981	(12)	0.05		448
Apr. 1981	(12)	0.15	0.01	298
May 1981	(12)	0.30	0.09	334

Table 85. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of southern flounder caught with trammel nets in the upper Laguna Madre system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	0.15	0.07	355
Nov. 1980	(12)	0.10	0.10	442
Dec. 1980	(12)	0.00	0.00	
Mar. 1981	(12)	0.00	0.00	
Apr. 1981	(12)	0.10	0.07	416
May 1981	(12)	0.15	0.02	228

Table 86. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of southern flounder caught with trammel nets in the lower Laguna Madre system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	0.70	0.37	343
Nov. 1980	(12)	0.10	0.06	340
Dec. 1980	(12)	0.20	0.12	589
Mar. 1981	(12)	0.15	0.03	266
Apr. 1981	(12)	0.20	0.04	253
May 1981	(12)	0.55	0.20	326

Table 87. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of Atlantic croaker caught with trammel nets in the Galveston Bay system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	1.85	0.46	255
Nov. 1980	(12)	0.00	0.00	
Dec. 1980	(12)	0.00	0.00	
Mar. 1981	(12)	0.05	0.01	266
Apr. 1981	(12)	1.20	0.31	264
May 1981	(12)	2.35	0.59	257

Table 88. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of Atlantic croaker caught with trammel nets in the Matagorda Bay system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	0.65	0.13	244
Nov. 1980	(12)	0.00	0.00	
Dec. 1980	(12)	0.00	0.00	
Mar. 1981	(12)	0.00	0.00	
Apr. 1981	(12)	0.10	0.03	268
May 1981	(12)	0.30	0.07	266

Table 89. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of Atlantic croaker caught with trammel nets in the San Antonio Bay system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	0.30	0.09	280
Nov. 1980	(12)	0.00	0.00	
Dec. 1980	(12)	0.00	0.00	
Mar. 1981	(12)	0.00	0.00	
Apr. 1981	(12)	0.00	0.00	
May 1981	(12)	0.05	0.01	251

Table 90. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of Atlantic croaker caught with trammel nets in the Aransas Bay system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	1.15	0.42	292
Nov. 1980	(12)	0.05	0.02	335
Dec. 1980	(12)	0.00	0.00	
Mar. 1981	(12)	0.00	0.00	
Apr. 1981	(12)	0.00	0.00	
May 1981	(12)	0.15	0.04	270

Table 91. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of Atlantic croaker caught with trammel nets in the Corpus Christi Bay system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	3.44	1.31	295
Nov. 1980	(12)	0.45	0.11	270
Dec. 1980	(12)	0.00	0.00	
Mar. 1981	(12)	0.00	0.00	
Apr. 1981	(12)	1.55	0.50	284
May 1981	(12)	2.50	0.87	282

Table 92. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of Atlantic croaker caught with trammel nets in the upper Laguna Madre system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	0.30	0.07	256
Nov. 1980	(12)	0.05	0.01	260
Dec. 1980	(12)	0.35	0.07	258
Mar. 1981	(12)	0.20	0.05	260
Apr. 1981	(12)	1.20	0.31	267
May 1981	(12)	0.05	0.02	330

Table 93. Mean abundances (no/ha and kg/ha) and mean total lengths (mm) of Atlantic croaker caught with trammel nets in the lower Laguna Madre system (Blank = no measurement taken).

Month and year	Number of samples	No/ha	Kg/ha	Length
Oct. 1980	(12)	4.79	1.24	265
Nov. 1980	(12)	0.00	0.00	
Dec. 1980	(12)	1.00	0.24	258
Mar. 1981	(12)	0.20	0.06	282
Apr. 1981	(12)	0.90	0.26	276
May 1981	(12)	0.75	0.22	291

Table 94. Annual mean catch rate (no/ha) and mean total length (mm) of fishes caught with bag seines in Texas bay systems during October-September, 1977-1981 (Blank = no measurement taken).

Bay system	Year	Number of		Red drum		Spotted seatrout		Black drum		Sheepshead		Southern flounder		Atlantic croaker	
		Year	Samples	No/ha	Length	No/ha	Length	No/ha	Length	No/ha	Length	No/ha	Length	No/ha	Length
Galveston	1977-1978	70	9.85	50	39.41	61	30.54	92	1.97	368	7.39	63	298.52	64	
	1978-1979	72	6.02	111	38.89	77	37.04	77	15.74	95	2.31	240	466.20	52	
	1979-1980	72	70.09	77	13.55	71	8.88	133	2.34	124	9.81	54	1086.92	56	
1980-1981	72	8.80	78	13.89	74	9.26	102	1.85	270	6.94	119	566.20	63		
Matagorda	1977-1978	70	3.57	102	14.52	82	10.24	126	1.43	237	0.71	143	225.00	57	
	1978-1979	72	10.65	104	4.86	89	10.88	106	1.16	183	0.46	272	107.87	73	
	1979-1980	72	5.32	131	1.85	74	9.95	145	1.62	187	0.93	99	84.26	59	
	1980-1981	72	9.51	122	5.10	110	13.46	117	2.32	123	8.82	103	27.61	98	
San Antonio	1977-1978	70	29.52	55	24.76	70	22.38	161	0.48	68	3.33	36	9.05	104	
	1978-1979	72	17.13	69	5.09	76	3.70	82	6.02	60	2.31	86	52.78	48	
	1979-1980	72	8.33	178	18.98	70	1.85	131	1.85	127	2.31	56	16.67	89	
	1980-1981	72	29.17	47	11.11	72	0.93	132	0.93	213	2.78	112	22.68	86	
Aransas	1977-1978	70	5.97	72	4.78	41	4.78	206	1.49	120	0.60	228	36.42	73	
	1978-1979	72	4.84	115	4.56	62	1.71	106	4.56	188	0.00	86	6.84	75	
	1979-1980	72	5.93	81	14.97	74	2.54	102	2.54	165	0.85	300	16.67	61	
	1980-1981	72	4.91	121	5.78	71	4.05	128	1.16	227	2.31	84	6.94	85	
Corpus Christi	1977-1978	70	1.44	99	6.32	67	1.44	123	0.86	59	0.57	44	3.74	49	
	1978-1979	72	16.09	95	10.06	48	7.76	87	12.36	40	0.57	100	25.86	71	
	1979-1980	72	13.03	83	4.86	96	2.83	83	0.28	84	3.68	106	24.08	48	
	1980-1981	72	11.42	56	20.06	65	1.24	57	1.54	166	1.24	115	20.68	75	
Upper Laguna Madre	1977-1978	70	4.03	87	12.82	90	4.03	105	0.00		0.37	127	11.36	87	
	1978-1979	72	27.43	69	15.62	81	5.56	140	0.69	122	2.78	106	2.78	92	
	1979-1980	72	10.42	55	3.82	89	3.47	130	0.00		1.74	82	0.69	40	
	1980-1981	72	0.35	97	5.90	63	13.19	46	0.00		1.39	66	0.35	70	
Lower Laguna Madre	1977-1978	70	1.46	66	3.65	65	0.00		1.46	61	1.09	45	10.58	50	
	1978-1979	72	23.76	75	1.97	132	17.70	99	0.98	109	1.31	38	239.02	49	
	1979-1980	72	23.21	61	0.34	60	0.68	142	1.02	62	4.78	38	197.61	42	
	1980-1981	72	4.05	113	3.47	96	6.36	128	2.02	152	10.98	70	28.61	57	

Table 95. Mean abundances (no/ha) and mean total length (mm) of red drum caught with bag seines in Texas bay systems (Blank = no measurement taken).

Month and year (number of samples)	Galveston		Matagorda		San Antonio		Aransas		Corpus Christi		Upper Laguna Madre		Lower Laguna Madre	
	No/ha	Length	No/ha	Length	No/ha	Length	No/ha	Length	No/ha	Length	No/ha	Length	No/ha	Length
Oct. 1980 (6)	38.89	31	2.78	308	0.00	0.00	0.00	0.00	10.00	34	0.00	0.00	0.00	0.00
Nov. 1980 (6)	0.00		5.56	34	77.78	35	0.00	0.00	30.00	46	0.00	0.00	0.00	0.00
Dec. 1980 (6)	0.00		38.89	46	222.22	41	17.24	50	50.00	47	0.00	0.00	0.00	0.00
Jan. 1981 (6)	11.11	50	2.78	84	0.00	0.00	0.00	0.00	0.00		0.00	0.00	12.50	50
Feb. 1981 (6)	5.56	69	8.33	66	33.33	58	20.69	65	17.24	72	4.17	97	0.00	0.00
Mar. 1981 (6)	5.56	78	0.00		5.56	53	0.00	0.00	16.67	85	0.00	0.00	16.67	98
Apr. 1981 (6)	22.22	90	22.22	119	5.56	85	3.33	152	3.33	105	0.00	0.00	16.67	156
May 1981 (6)	11.11		0.00		0.00		10.34	260	0.00		0.00	0.00	0.00	0.00
June 1981 (6)	5.56	183	19.44	164	0.00		3.57	248	0.00		0.00	0.00	0.00	0.00
July 1981 (6)	0.00		5.56	274	5.56	238	0.00		0.00		0.00	0.00	0.00	0.00
Aug. 1981 (6)	0.00		8.33	257	0.00		3.57	237	0.00		0.00	0.00	0.00	0.00
Sept. 1981 (6)	5.56	343	5.56	305	0.00		0.00		0.00		0.00	0.00	0.00	0.00

Table 96. Mean abundances (no/ha) and mean total length (mm) of spotted seatrout caught with bag seines in Texas bay systems (Blank = no measurement taken).

Month and year (number of samples)	Galveston		Matagorda		San Antonio		Aransas		Corpus Christi		Upper Laguna Madre		Lower Laguna Madre	
	No/ha	Length	No/ha	Length	No/ha	Length	No/ha	Length	No/ha	Length	No/ha	Length	No/ha	Length
Oct. 1980 (6)	66.67	84	19.44	103	66.67	74	10.34	75	20.00	58	25.00	44	0.00	0.00
Nov. 1980 (6)	16.67	70	2.78	73	38.89	72	3.33	60	73.33	72	8.33	92	0.00	0.00
Dec. 1980 (6)	0.00		0.00		22.22	72	13.79	61	7.14	77	0.00		0.00	0.00
Jan. 1981 (6)	0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00
Feb. 1981 (6)	0.00		0.00		5.55	67	0.00		0.00		0.00		0.00	0.00
Mar. 1981 (6)	0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00
Apr. 1981 (6)	0.00		0.00		0.00		0.00		3.33	91	0.00		0.00	0.00
May 1981 (6)	0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00
June 1981 (6)	0.00		0.00		0.00		0.00		10.00	56	8.33	70	0.00	0.00
July 1981 (6)	0.00		11.11	88	0.00		37.93	76	24.14	90	4.17	57	8.57	48
Aug. 1981 (6)	11.11	38	16.67	120	0.00		0.00		56.67	48	0.00		18.52	137
Sept. 1981 (6)	72.22	70	11.11	138	0.00		3.33	53	24.14	59	25.00	70	11.76	82

Table 97. Mean abundances (no/ha) and mean total length (mm) of black drum caught with bag seines in Texas bay systems (blank = no measurement taken).

Month and year (number of samples)	Galveston		Matagorda		San Antonio		Aransas		Corpus Christi		Upper Laguna Madre		Lower Laguna Madre	
	No/ha	Length	No/ha	Length	No/ha	Length	No/ha	Length	No/ha	Length	No/ha	Length	No/ha	Length
Oct. 1980 (6)	0.00		5.56	82	0.00		0.00		0.00		0.00		0.00	
Nov. 1980 (6)	5.56	160	2.78	219	0.00		0.00		0.00		0.00		0.00	
Dec. 1980 (6)	0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Jan. 1981 (6)	0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Feb. 1981 (6)	0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Mar. 1981 (6)	0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Apr. 1981 (6)	0.00		2.78	322	0.00		0.00		0.00		0.00		0.00	
May 1981 (6)	0.00		0.00		0.00		0.00		0.00		0.00		0.00	
June 1981 (6)	66.67	84	77.78	104	5.56	90	3.57	81	10.00	43	150.00	40	14.71	74
July 1981 (6)	5.56	98	8.33	66	0.00		31.04	116	0.00		4.17	104	8.82	148
Aug. 1981 (6)	11.11	116	50.00	129	5.56	174	7.14	124	0.00		4.17	127	11.43	123
Sept. 1981 (6)	22.22	134	8.33	146	0.00		6.67	208	0.00		0.00		3.70	132
													29.41	142

Table 98. Mean abundances (no/ha) and mean total length (mm) of sheepshhead caught with bag seines in Texas bay systems (Blank = no measurement taken).

Month and year (number of samples)	Galveston		Matagorda		San Antonio		Aransas		Corpus Christi		Upper Laguna Madre		Lower Laguna Madre	
	No/ha	Length	No/ha	Length	No/ha	Length	No/ha	Length	No/ha	Length	No/ha	Length	No/ha	Length
Oct. 1980 (6)	0.00		0.00		5.56	79	0.00		0.00		0.00		0.00	
Nov. 1980 (6)	0.00		0.00		0.00		0.00		3.33	361	0.00		0.00	
Dec. 1980 (6)	0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Jan. 1981 (6)	0.00		0.00		0.00		0.00		0.00		0.00		4.17	63
Feb. 1981 (6)	0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Mar. 1981 (6)	0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Apr. 1981 (6)	0.00		0.00		0.00		0.00		0.00		0.00		0.00	
May 1981 (6)	0.00		2.78	270	5.56	347	0.00		0.00		0.00		2.78	125
June 1981 (6)	11.11	166	5.56	232	0.00		0.00		0.00		0.00		0.00	
July 1981 (6)	5.56	339	16.67	46	0.00		10.34	230	0.00		0.00		8.57	232
Aug. 1981 (6)	5.56	407	2.78	220	0.00		3.57	218	6.67	206	0.00		0.00	
Sept. 1981 (6)	0.00		0.00		0.00		0.00		0.00		0.00		2.94	69

Table 99. Mean abundances (no/ha) and mean total length (mm) of southern flounder caught with bag seines in Texas bay systems (Blank = no measurement taken).

Month and year (number of samples)	Galveston		Matagorda		San Antonio		Aransas		Corpus Christi		Upper Laguna Madre		Lower Laguna Madre	
	No/ha	Length	No/ha	Length	No/ha	Length	No/ha	Length	No/ha	Length	No/ha	Length	No/ha	Length
Oct. 1980 (6)	0.00		5.56	309	0.00		0.00		0.00		0.00		0.00	
Nov. 1980 (6)	0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Dec. 1980 (6)	0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Jan. 1981 (6)	0.00		0.00		0.00		0.00		0.00		0.00		0.00	
Feb. 1981 (6)	0.00		0.00		11.11	34	3.45	35	3.45	32	0.00		0.00	25.00
Mar. 1981 (6)	33.33	30	2.86	48	0.00		14.29	60	0.00		4.17	60	56.67	58
Apr. 1981 (6)	16.67	51	38.89	75	0.00		3.33	57	6.67	85	4.17	68	27.78	44
May 1981 (6)	11.11	448	36.11	86	16.67	65	3.45	74	0.00		8.33	68	5.88	152
June 1981 (6)	0.00		11.11	152	0.00		0.00		0.00		0.00		2.94	150
July 1981 (6)	16.67	136	8.33	120	0.00		3.45	270	0.00		0.00		0.00	
Aug. 1981 (6)	0.00		2.78	112	0.00		0.00		0.00		0.00		0.00	107
Sept. 1981 (6)	5.56	154	0.00		5.56	412	0.00		3.45	258	0.00		2.94	437

Table 100. Mean abundances (no/ha) and mean total length (mm) of Atlantic croaker caught with bag seines in Texas bay systems (Blank = no measurement taken).

Month and year (number of samples)	Galveston		Matagorda		San Antonio		Aransas		Upper		Lower	
	No/ha	Length	No/ha	Length	No/ha	Length	No/ha	Length	Corpus Christi No/ha	Length	Laguna Madre No/ha	Length
Oct. 1980 (6)	0.00		0.00		0.00		0.00		0.00		0.00	
Nov. 1980 (6)	0.00		0.00		0.00		0.00		0.00		0.00	
Dec. 1980 (6)	0.00		8.33	36	0.00		0.00		0.00		0.00	
Jan. 1981 (6)	450.00	35	16.67	47	0.00		0.00		3.57	37	0.00	145.83
Feb. 1981 (6)	1144.45	39	75.00	50	0.00		3.45	46	44.83	40	0.00	8.33
Mar. 1981 (6)	3244.45	50	20.00	54	0.00		0.00		0.00		4.17	74
Apr. 1981 (6)	1650.00	83	27.78	70	188.89	78	20.00	72	100.00	70	0.00	0.00
May 1981 (6)	116.67	90	27.78	113	33.33	93	48.28	86	36.67	82	4.17	67
June 1981 (6)	88.89	108	133.33	133	50.00	109	10.71		40.00	117	0.00	0.00
July 1981 (6)	0.00		2.78	45	0.00		0.00		0.00		0.00	0.00
Aug. 1981 (6)	61.11	149	13.89	192	0.00		0.00		0.00		0.00	0.00
Sept. 1981 (6)	38.89	169	5.56	165	0.00		0.00		0.00		0.00	5.88
												220

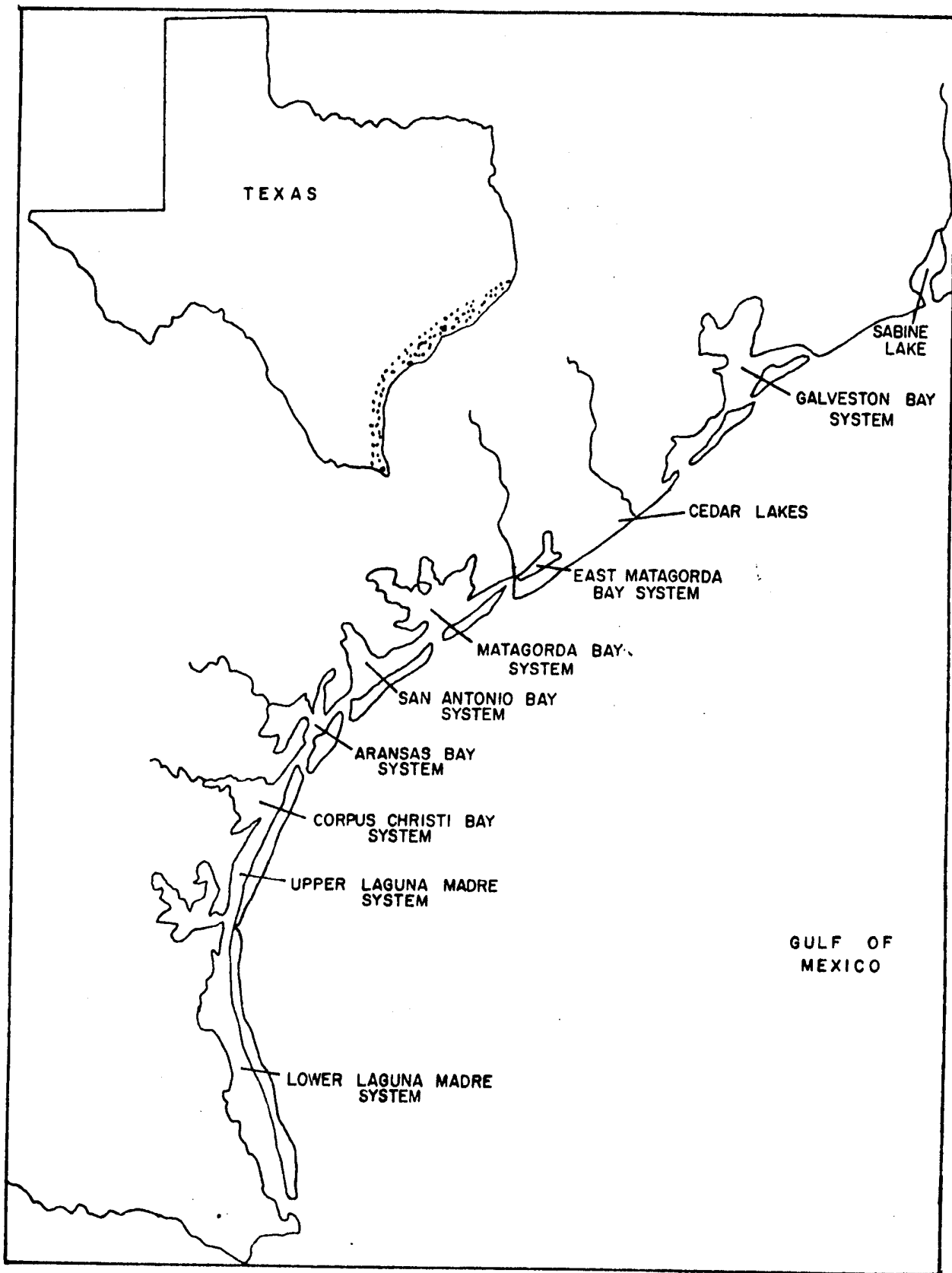


Figure 1. Texas bay systems.

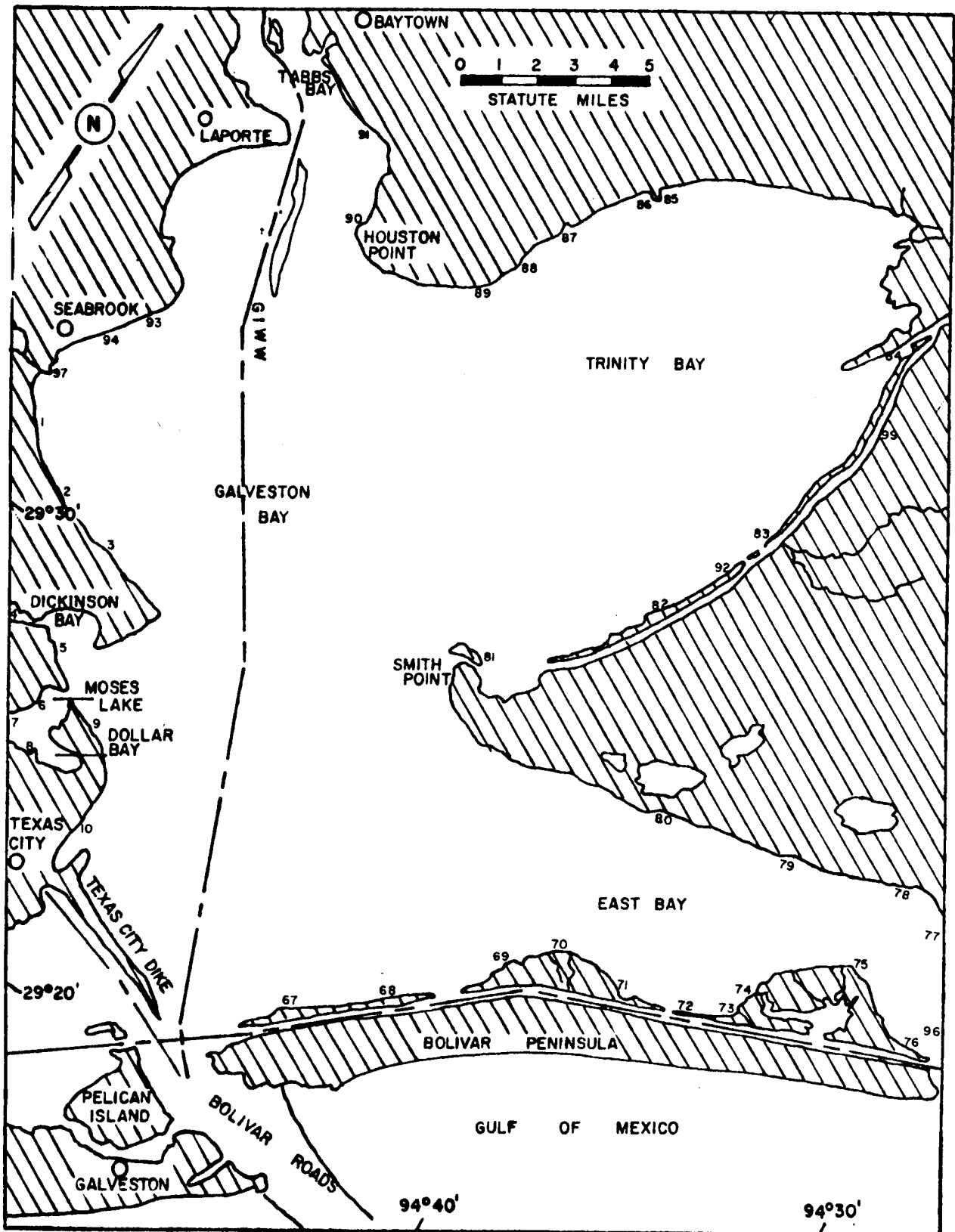


Figure 2. Gill net sample sites in the Galveston Bay system, October 1980-September 1981.

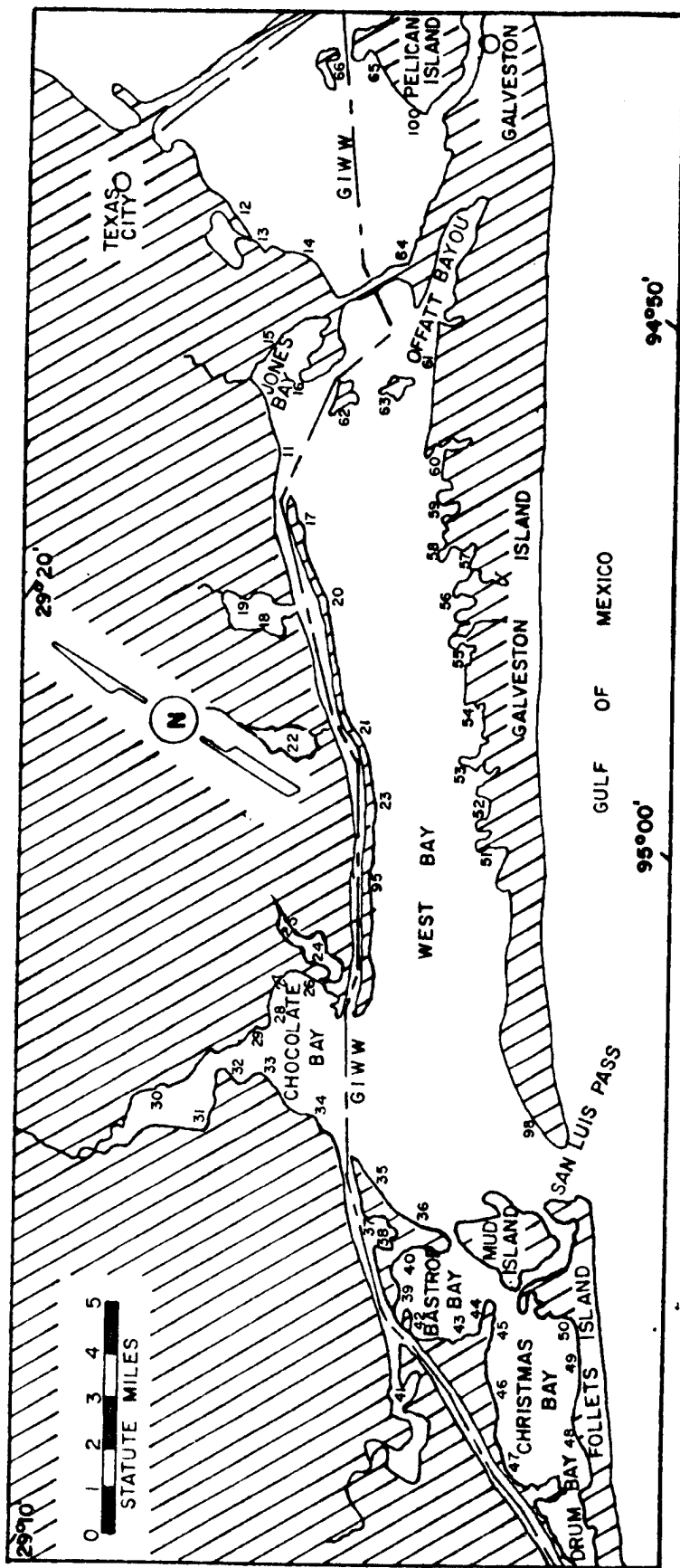


Figure 3. Gill net sample sites in the Galveston Bay system, October 1980-September 1981.

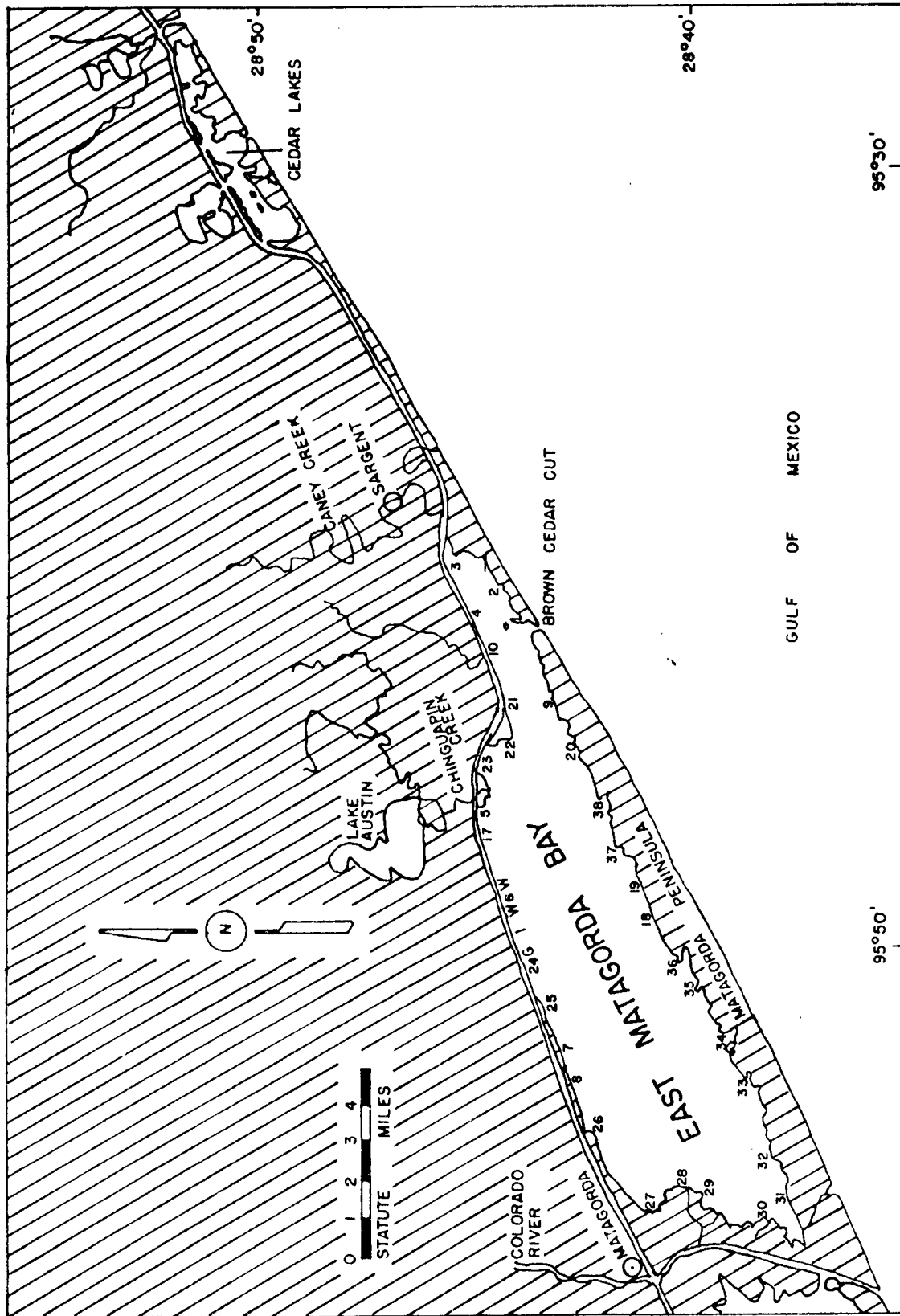


Figure 4. Gill net sample sites in the East Matagorda Bay system, October 1980-September 1981.

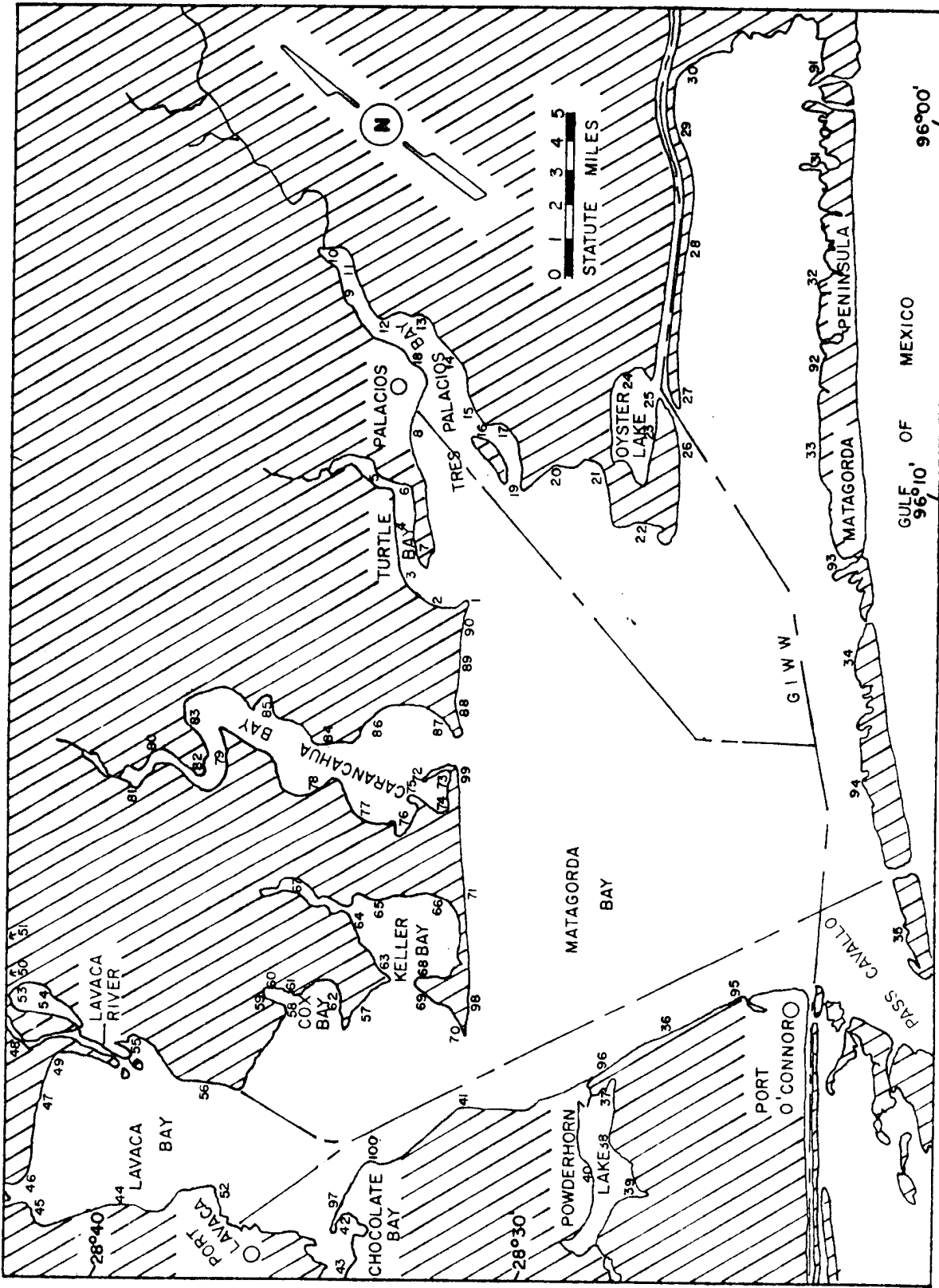


Figure 5. Gill net sample sites in the Matagorda Bay system, October 1980-September 1981.

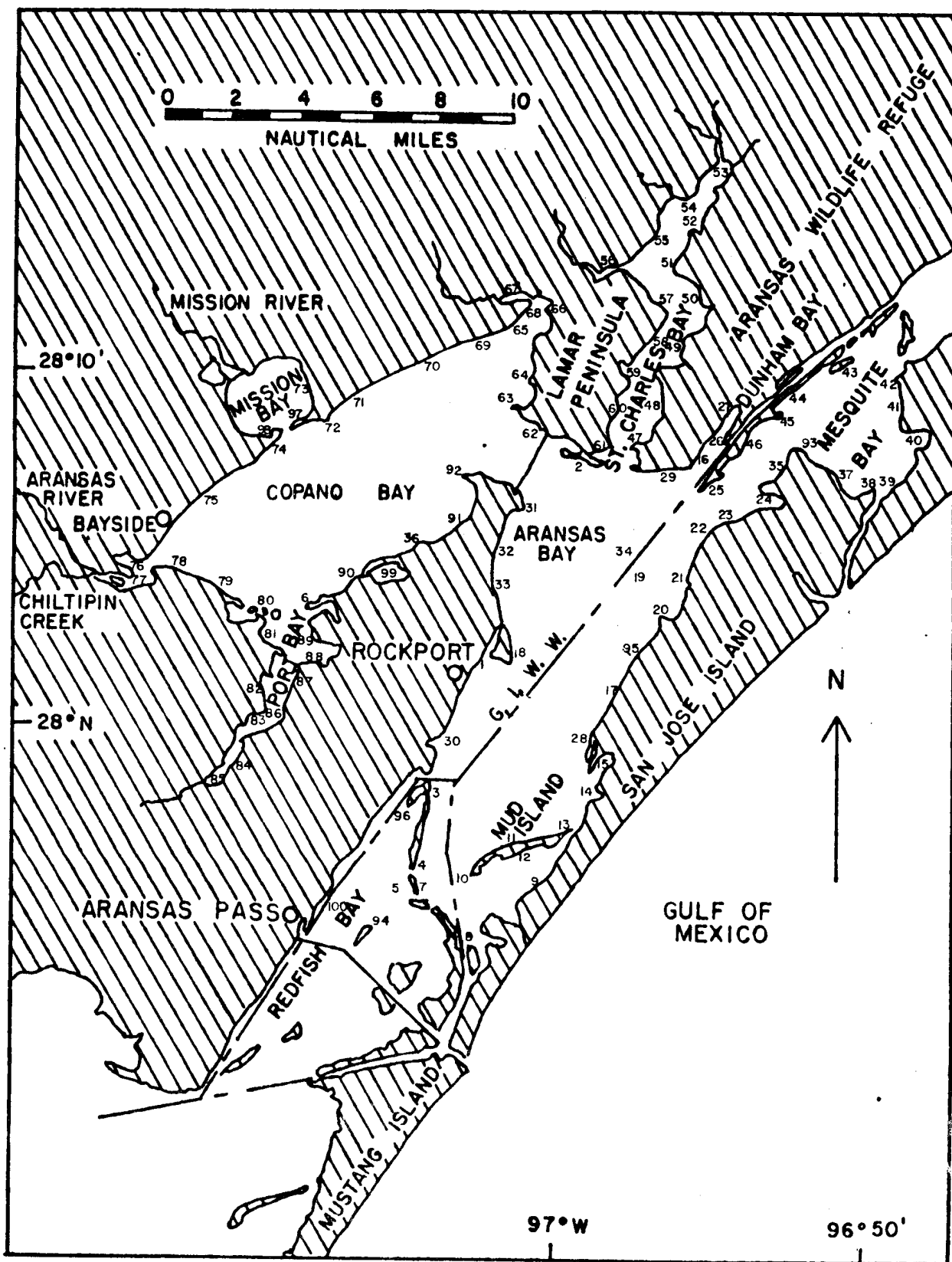


Figure 7. Gill net sample sites in the Aransas Bay system, October 1980–September 1981.

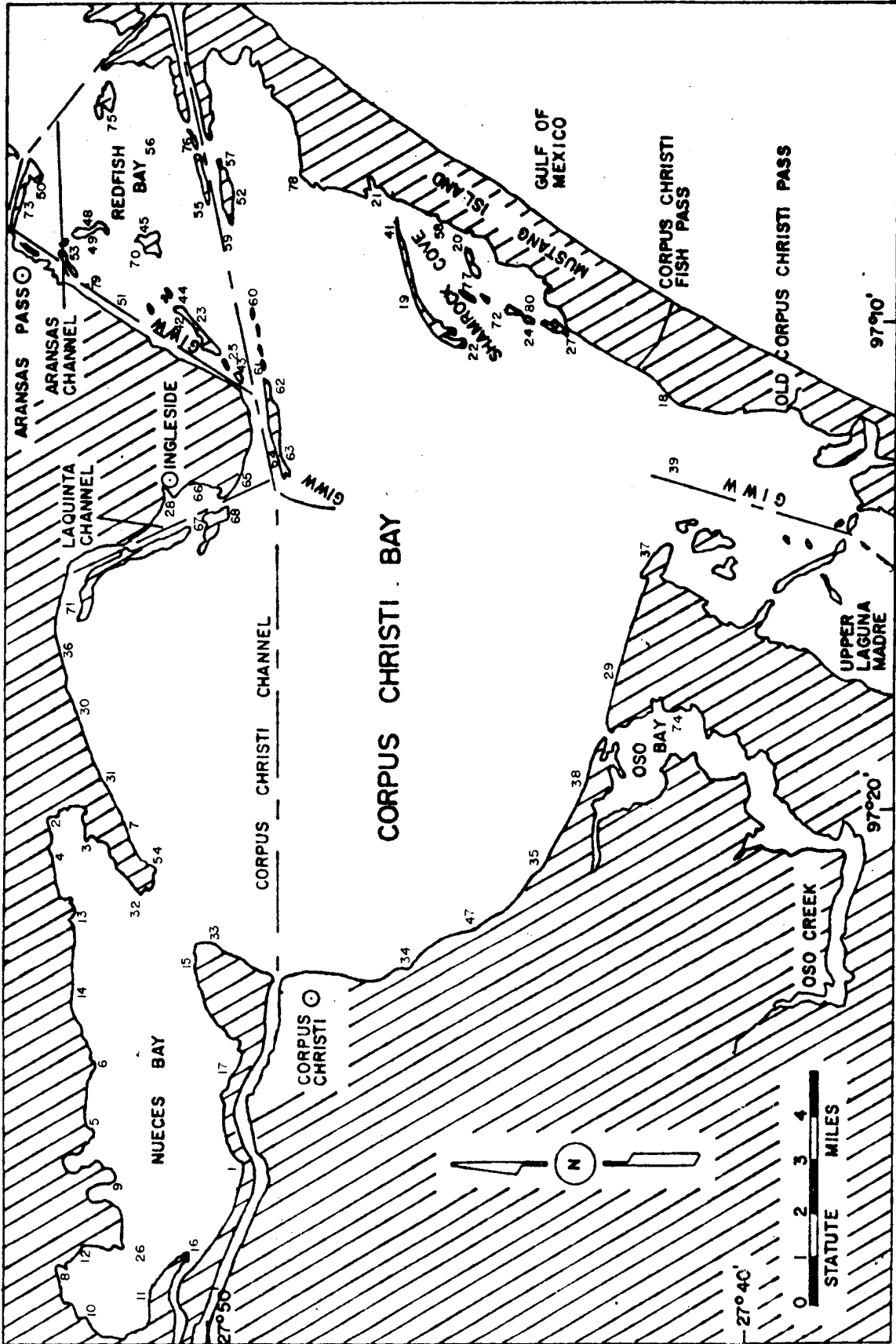


Figure 8. Gill net sample sites in the Corpus Christi Bay system, October 1980-September 1981.

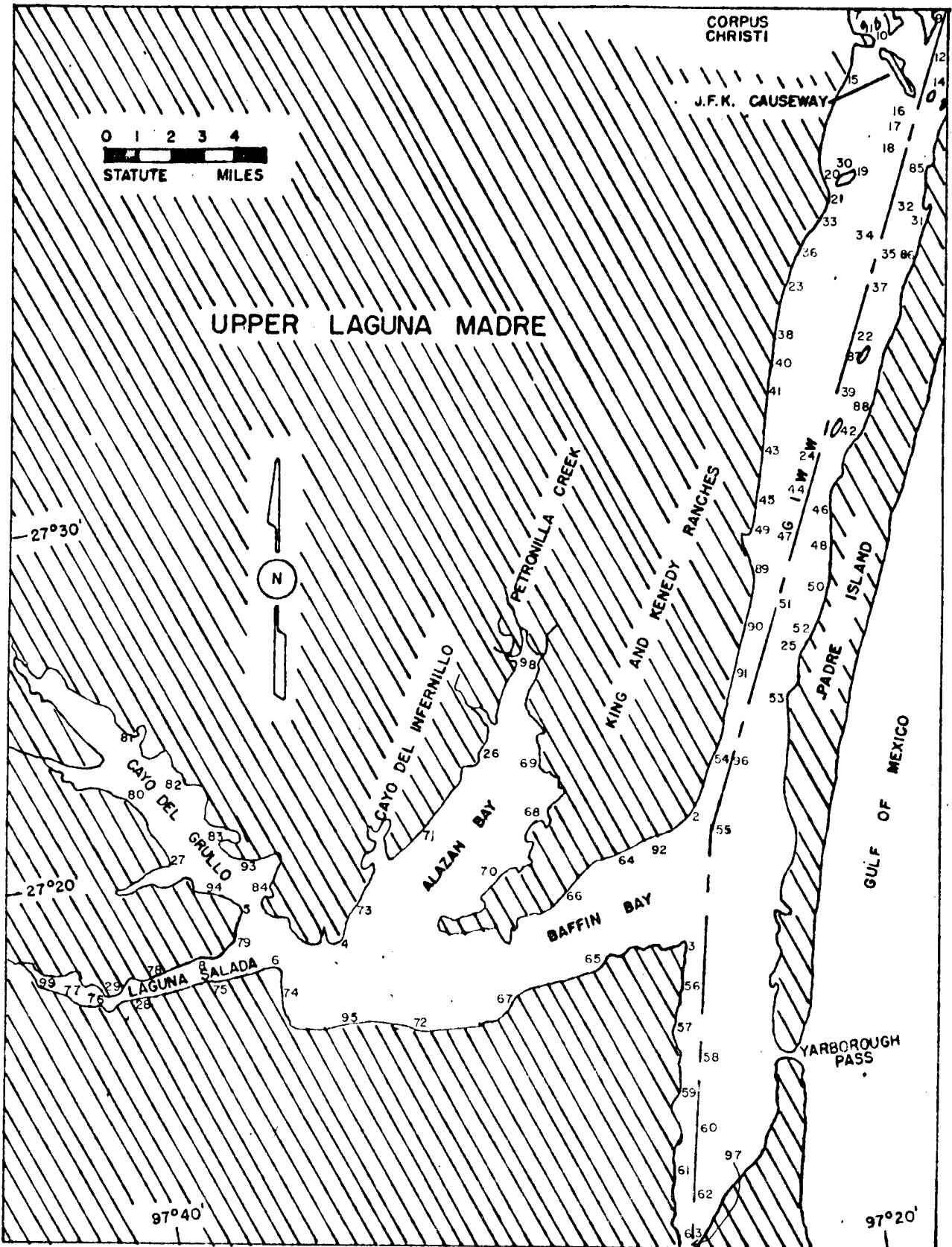


Figure 9. Gill net sample sites in the upper Laguna Madre Bay system, October 1980-September 1981.

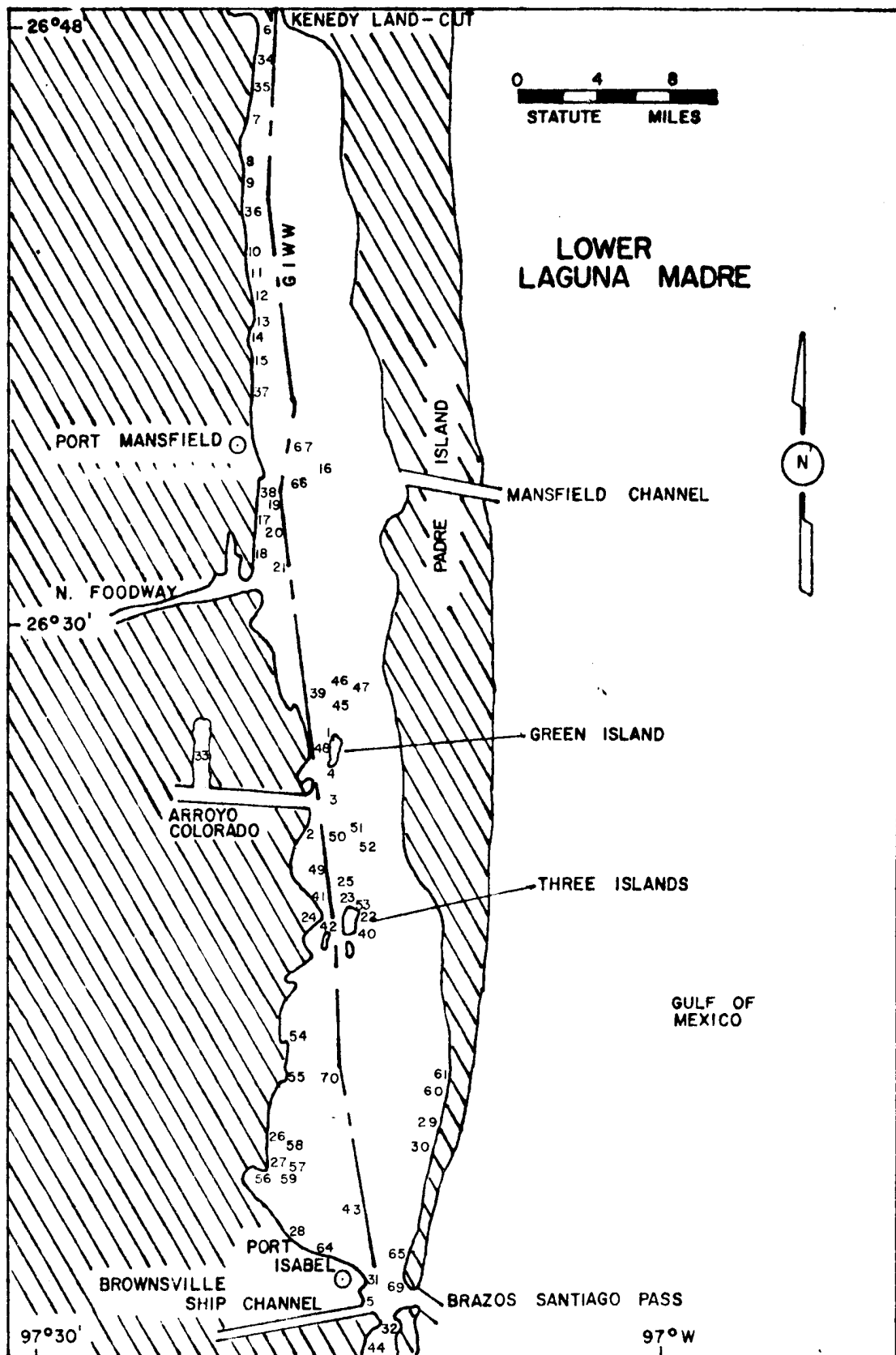


Figure 10. Gill net sample sites in the lower Laguna Madre system, October 1980-September 1981.

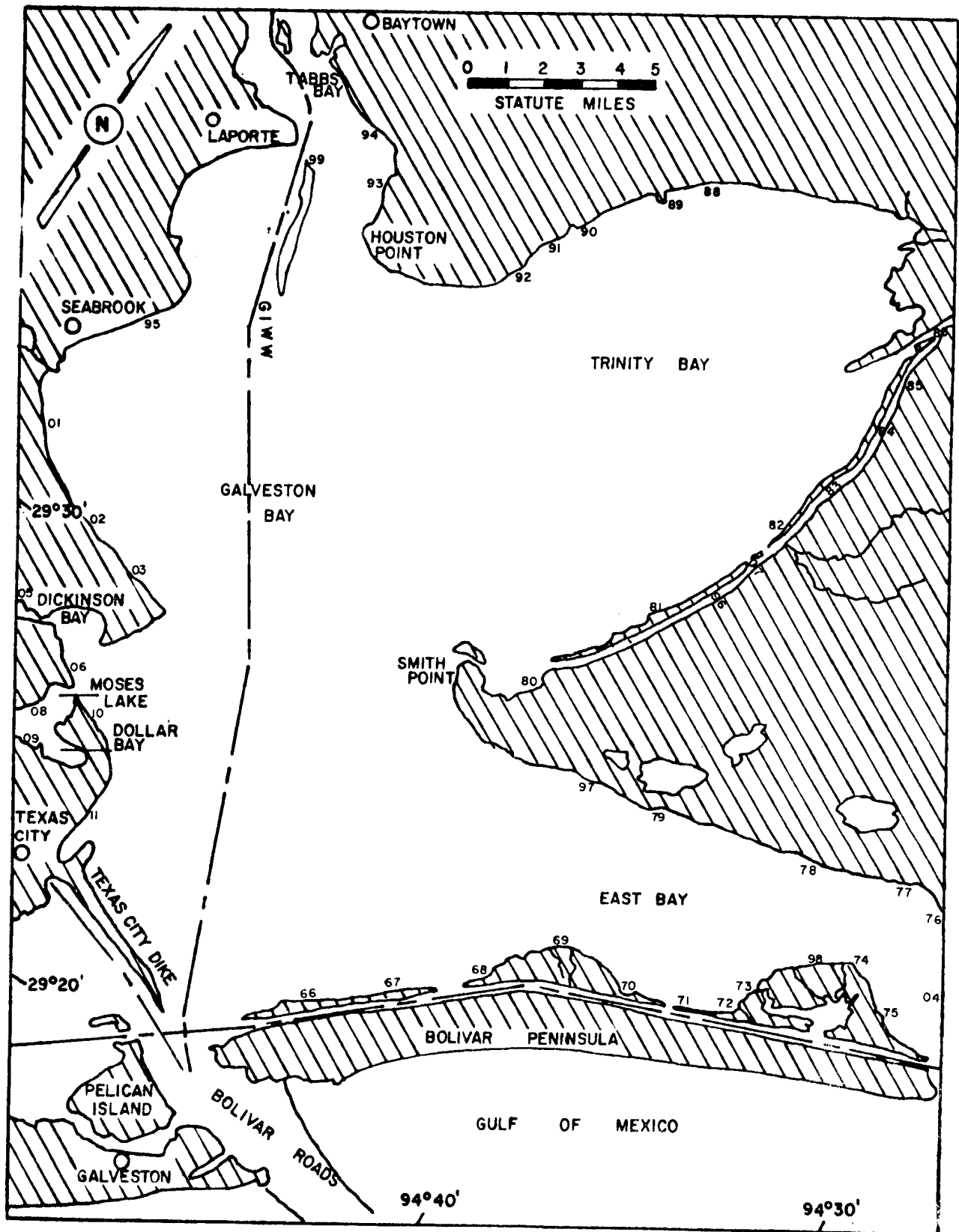


Figure 11. Trammel net sample sites in the Galveston Bay system, October 1980-September 1981 (Each station number should be preceded by the digit 1).

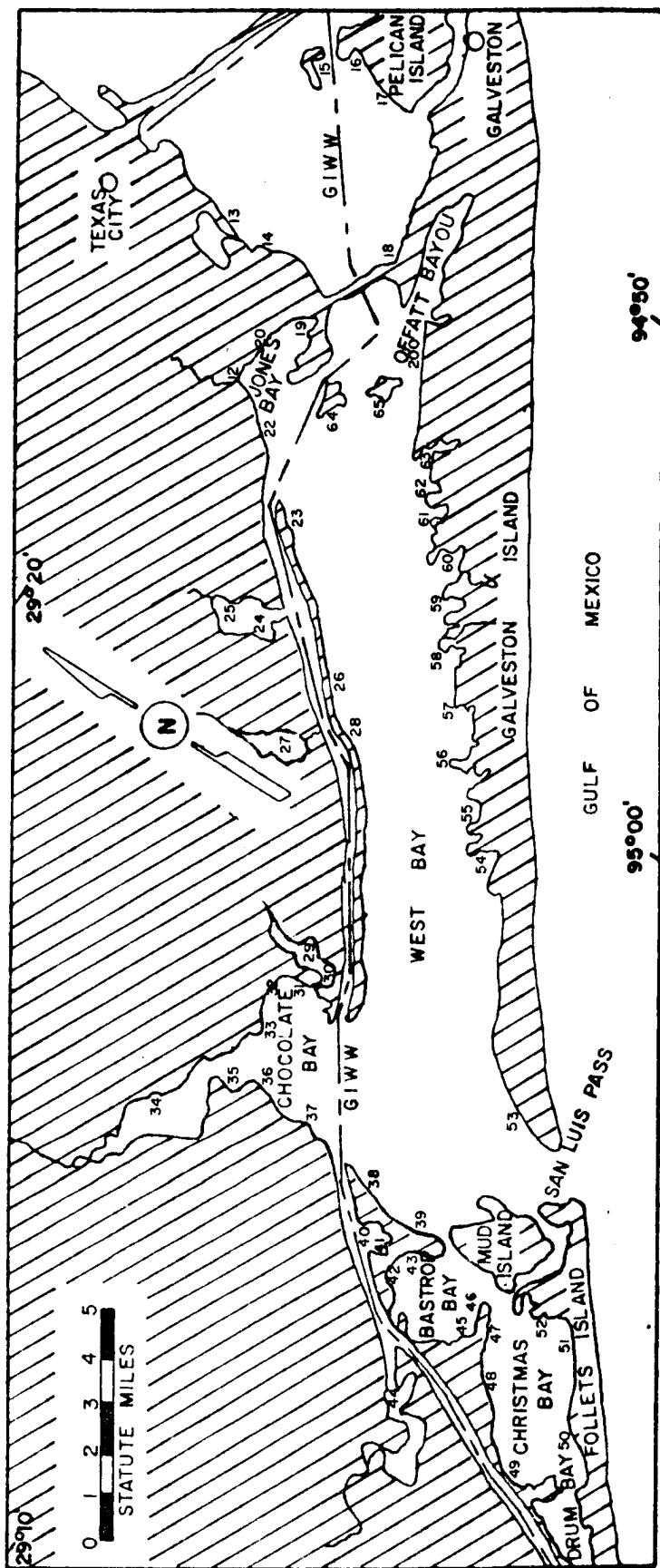


Figure 12. Trammel net sample sites in the Galveston Bay system, October 1980-September 1981 (Each station number should be preceded by the digit 1).

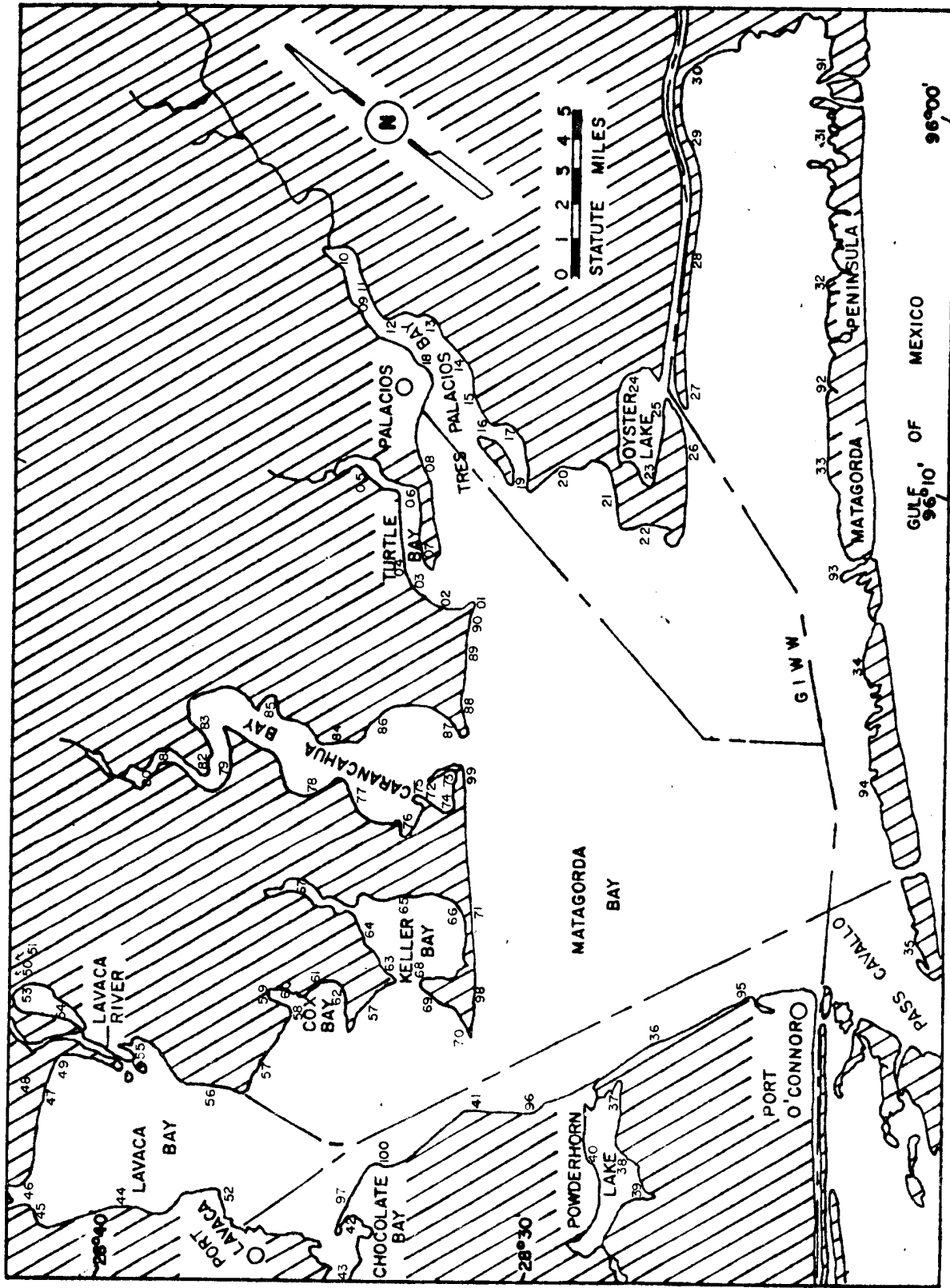


Figure 13. Trammel net sample sites in the Matagorda Bay system, October 1980-September 1981 (Each station number should be preceded by the digit 1).

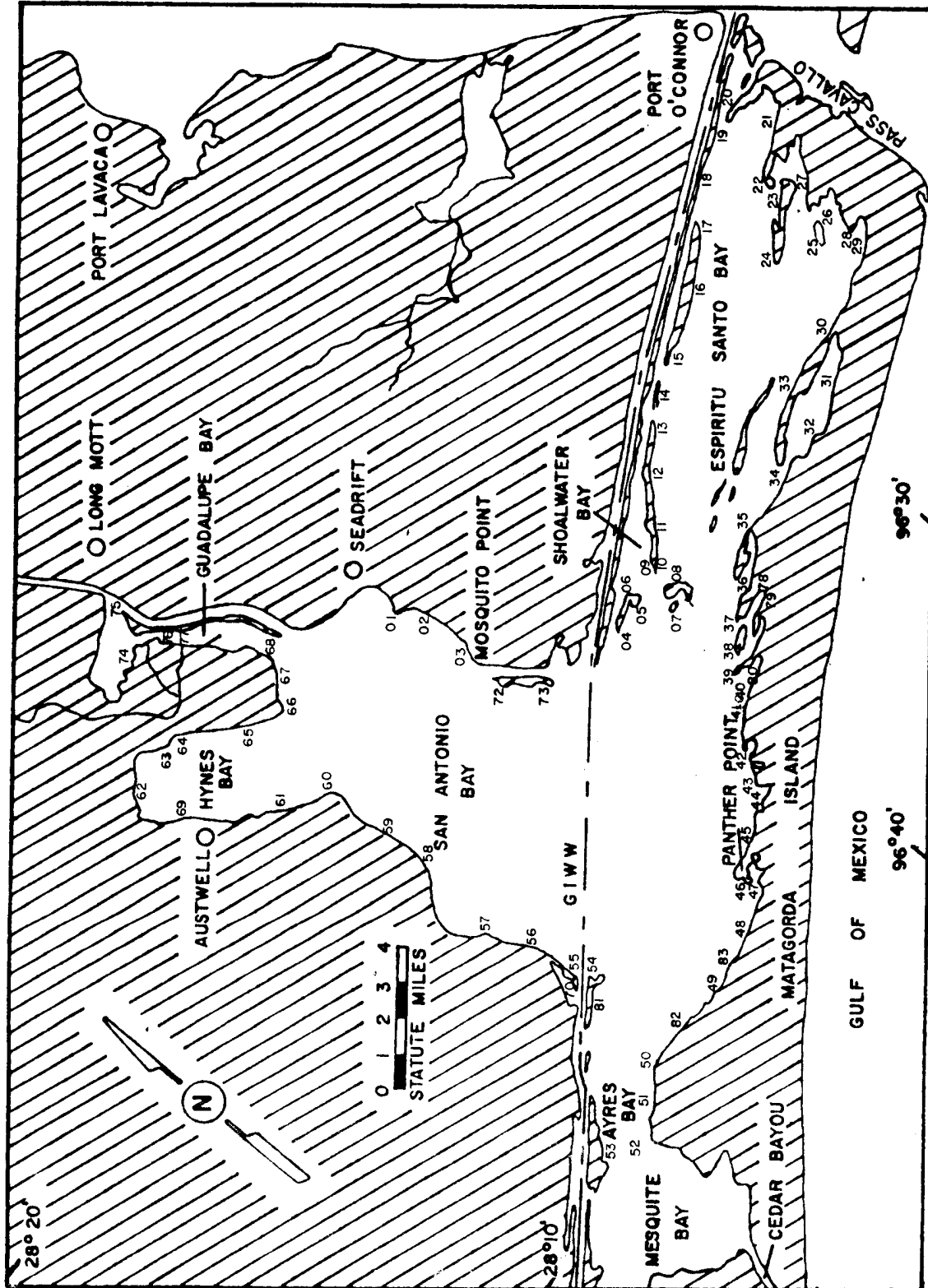


Figure 14. Trammel net sample sites in the San Antonio Bay system, October 1980-September 1981 (Each station number should be preceded by the digit 1).

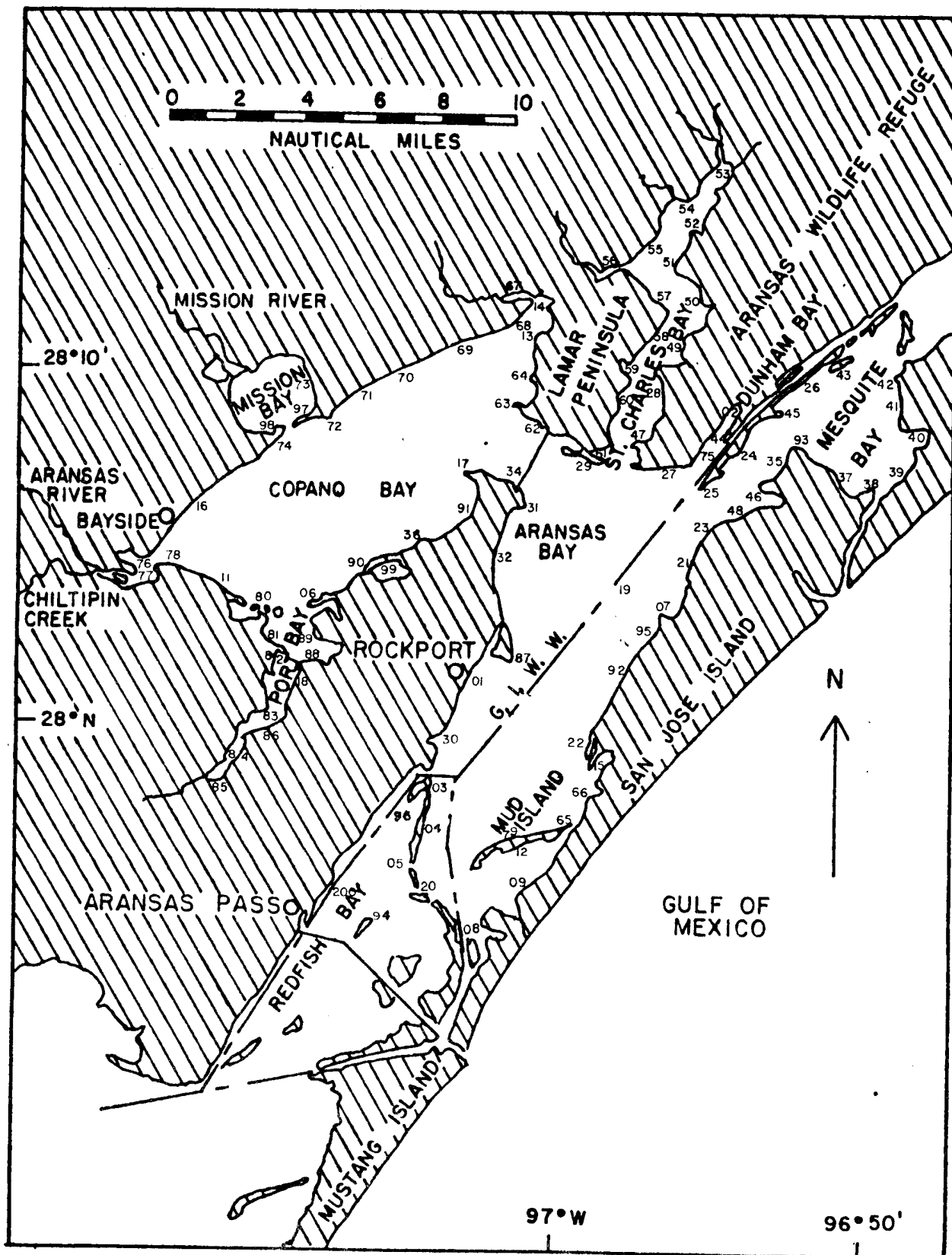


Figure 15. Trammel net sample sites in the Aransas Bay system, October 1980-September 1981 (Each station number should be preceded by the digit 1).

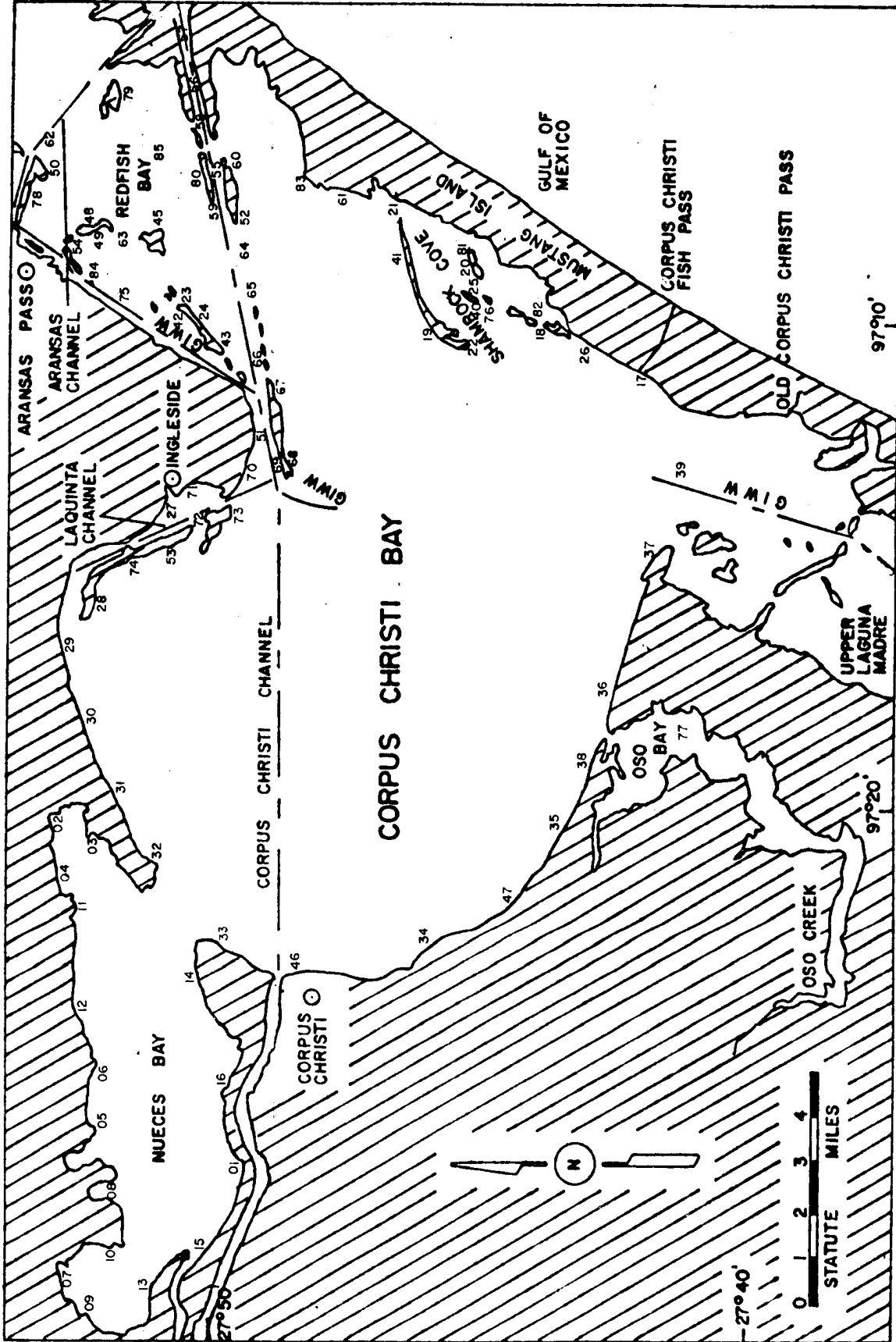


Figure 16. Trammel net sample sites in the Corpus Christi Bay system, October 1980-September 1981 (Each station number should be preceded by the digit 1).

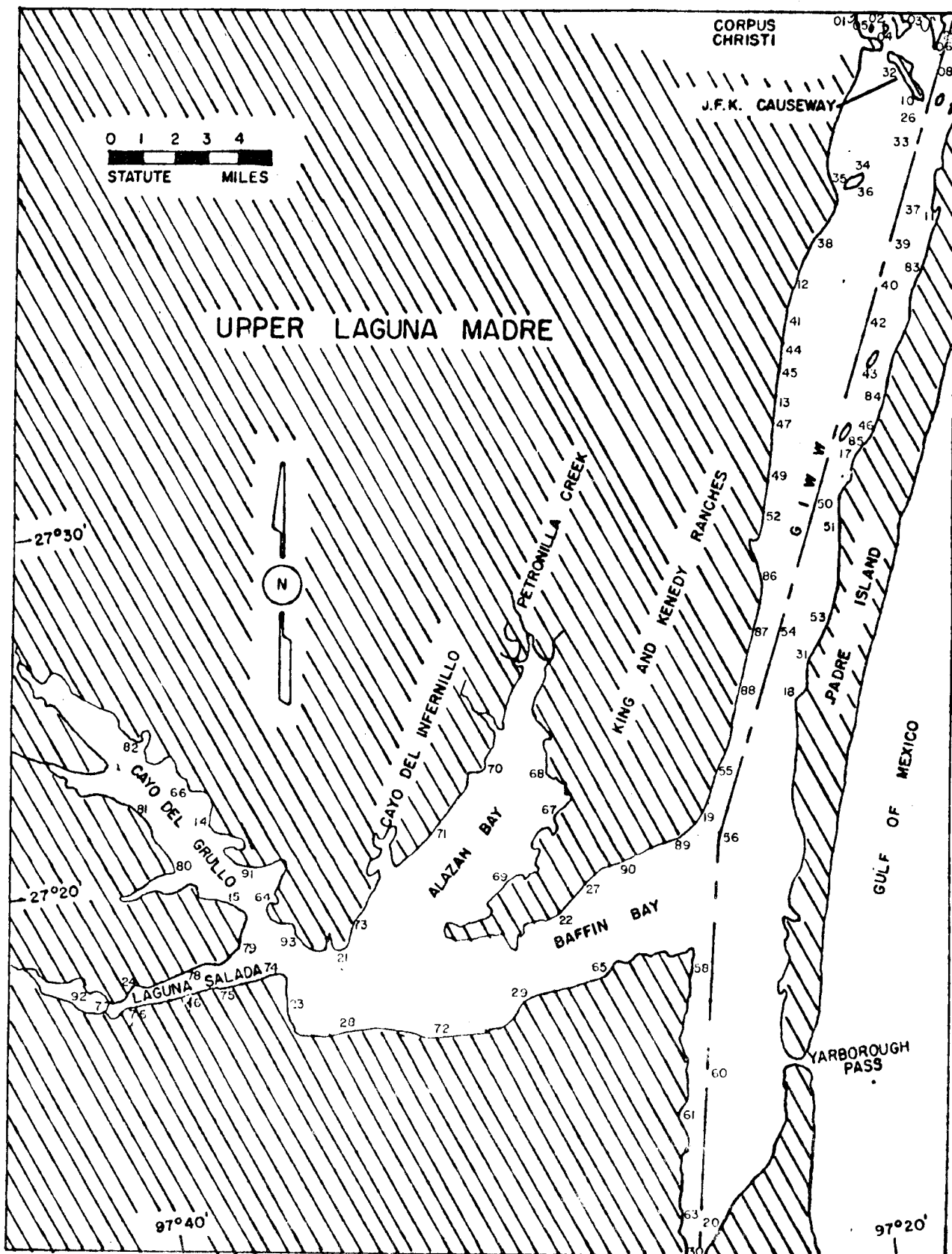


Figure 17. Trammel net sample sites in the upper Laguna Madre Bay system, October 1980-September 1981 (Each station number should be preceded by the digit 1).

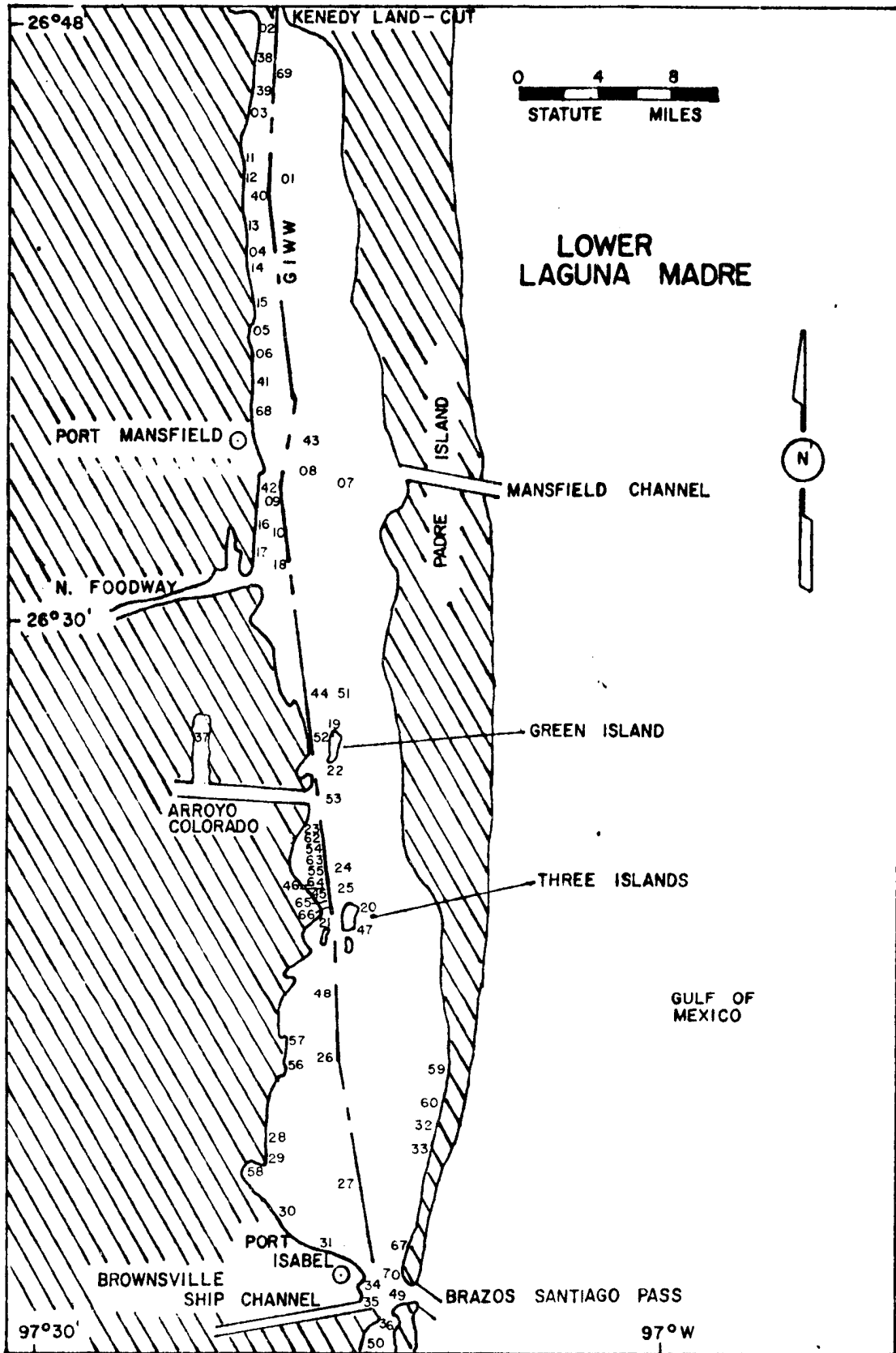


Figure 18. Trammel net sample sites in the lower Laguna Madre system, October 1980–September 1981 (Each station number should be preceded by the digit 1).

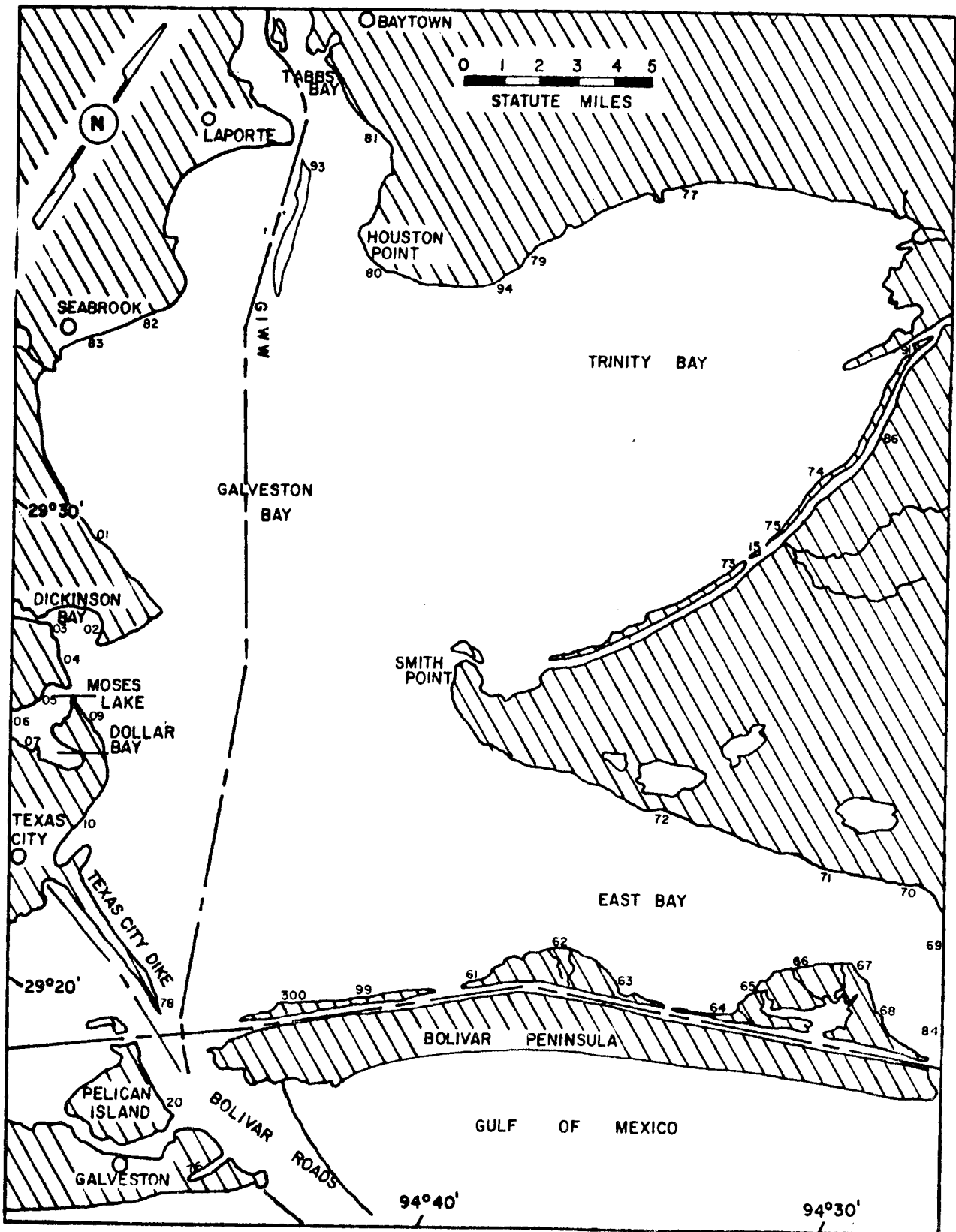


Figure 19. Bag seine sample sites in the Galveston Bay system, October 1980-September 1981 (Each station number should be preceded by the digit 2).

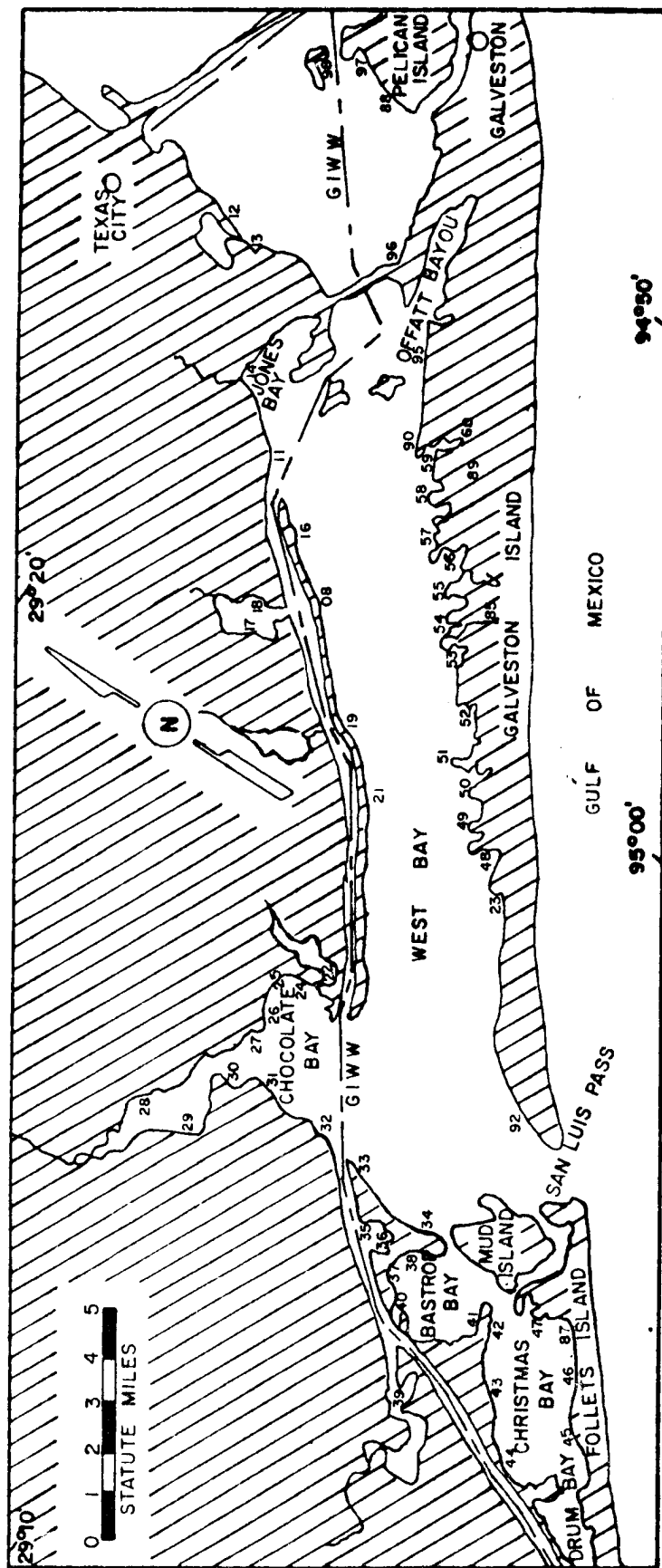


Figure 20. Bag seine sample sites in the Galveston Bay system, October 1980-September 1981 (Each station number should be preceded by the digit 2).

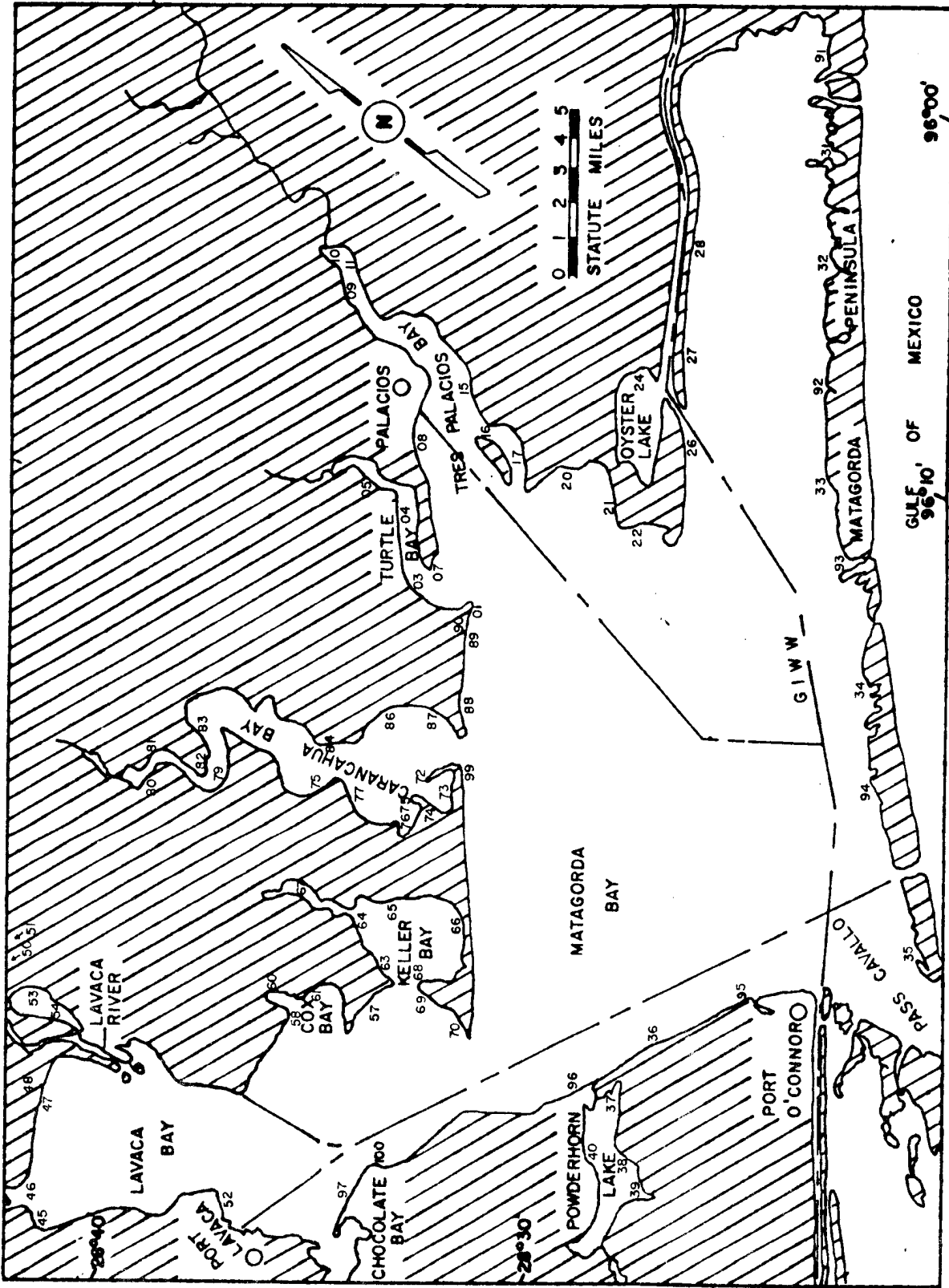


Figure 21. Bag seine sample sites in the Matagorda Bay system, October 1980-September 1981 (Each station number should be preceded by the digit 2).

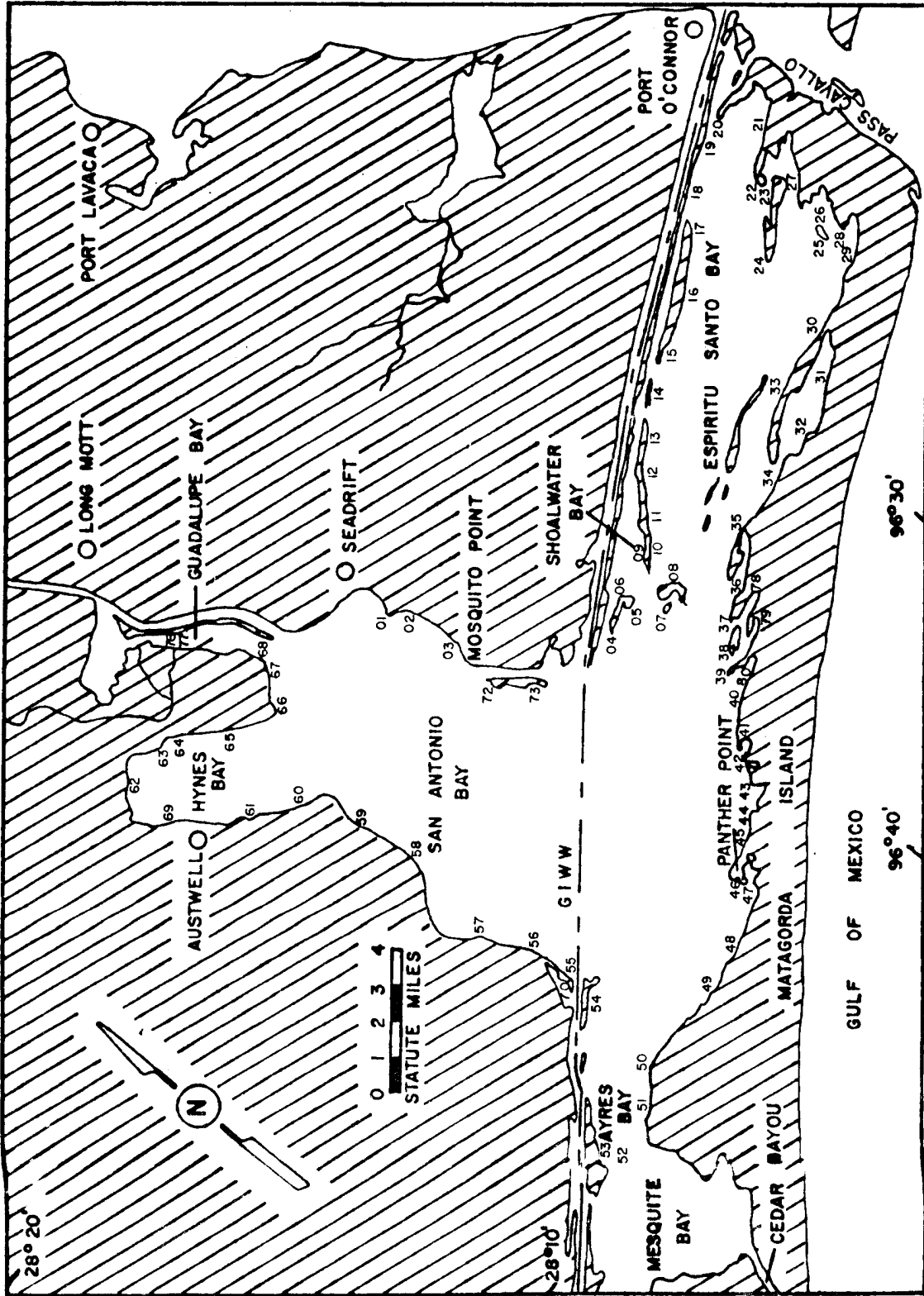


Figure 22. Bag-seine sample sites in the San Antonio Bay system, October 1980-September 1981 (Each station number should be preceded by the digit 2).

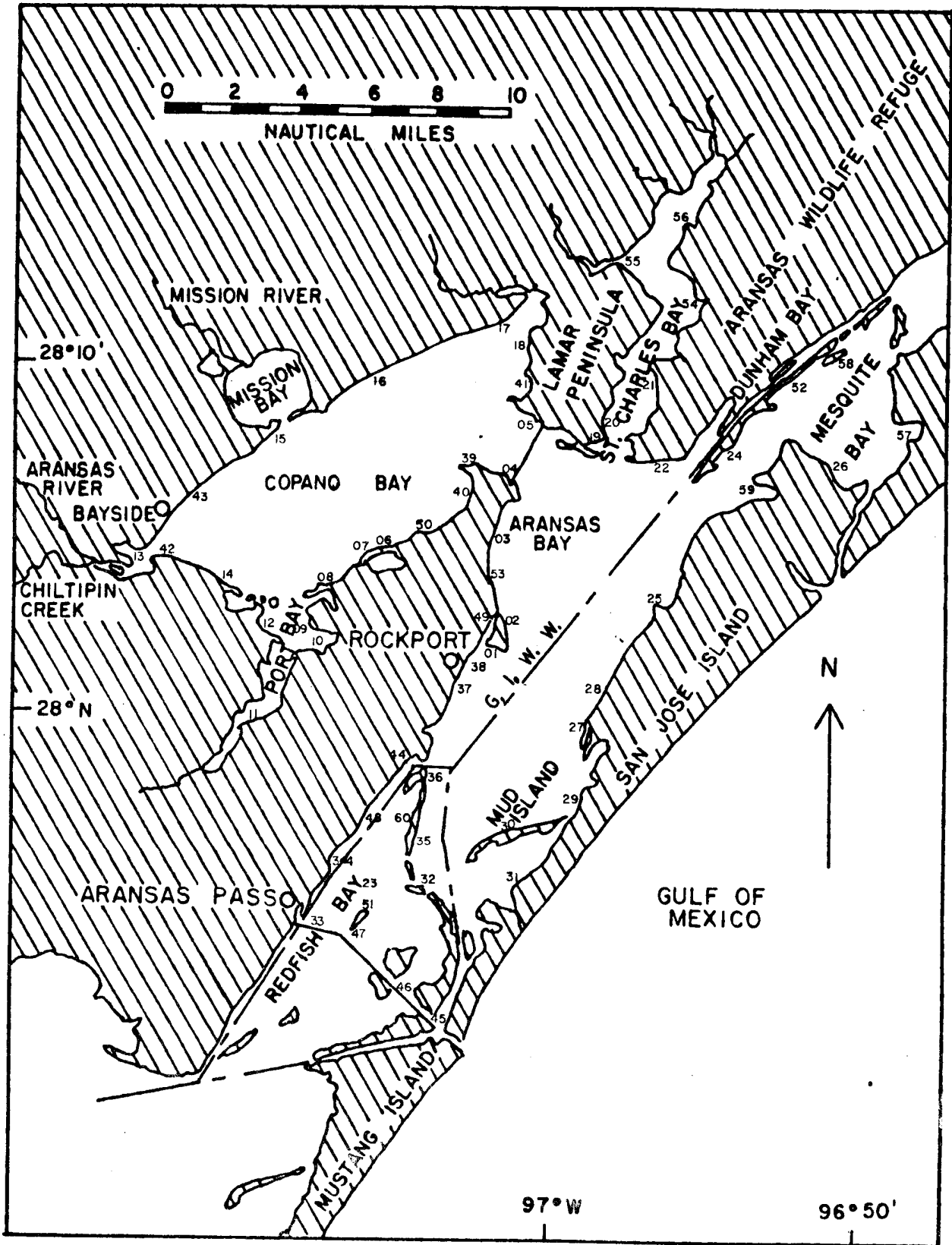


Figure 23, Bag seine sample sites in the Aransas Bay system, October 1980-September 1981 (Each station number should be preceded by the digit 2).

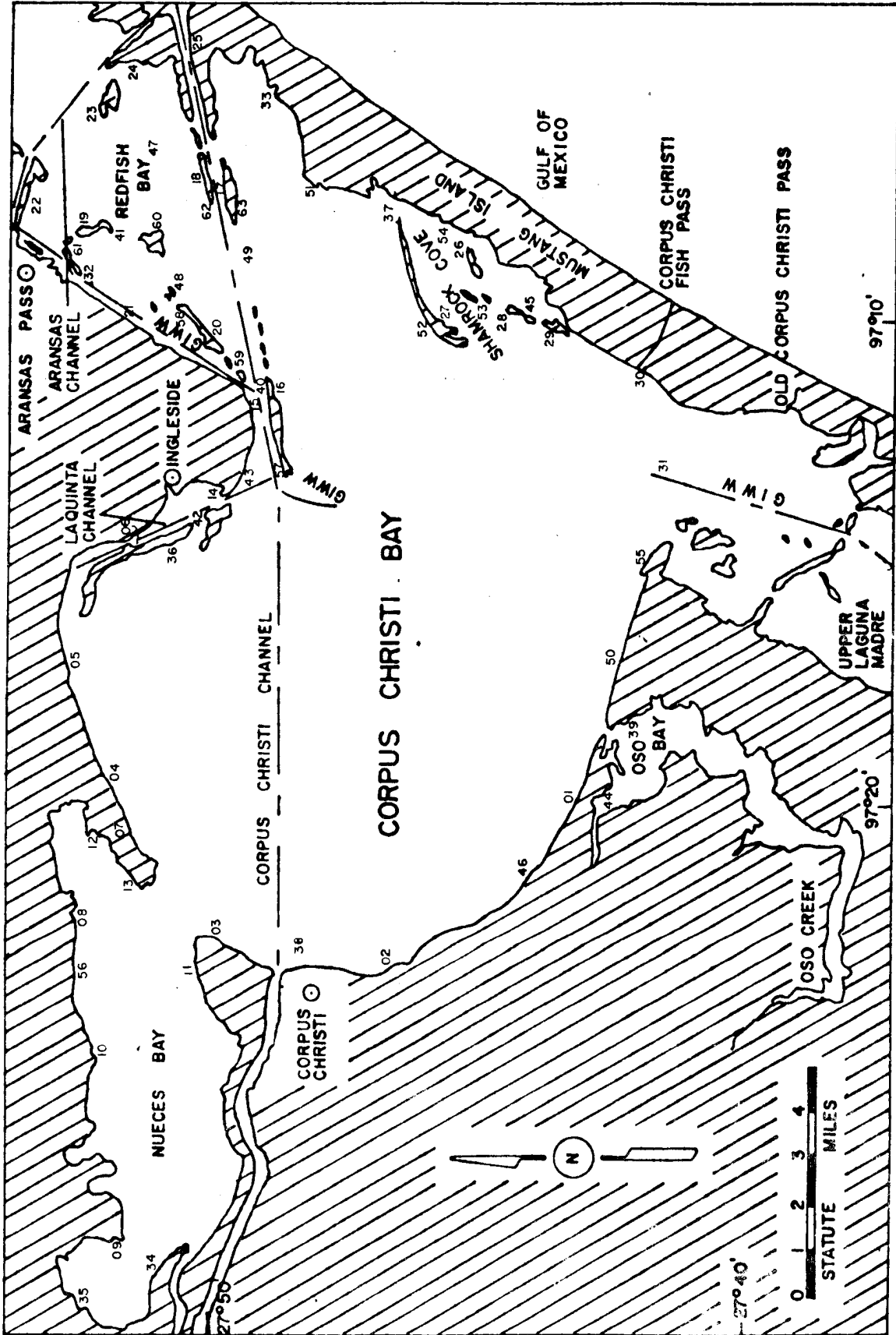


Figure 24. Bag seine sample sites in the Corpus Christi Bay system, October 1980-September 1981 (Each station number should be preceded by the digit 2).

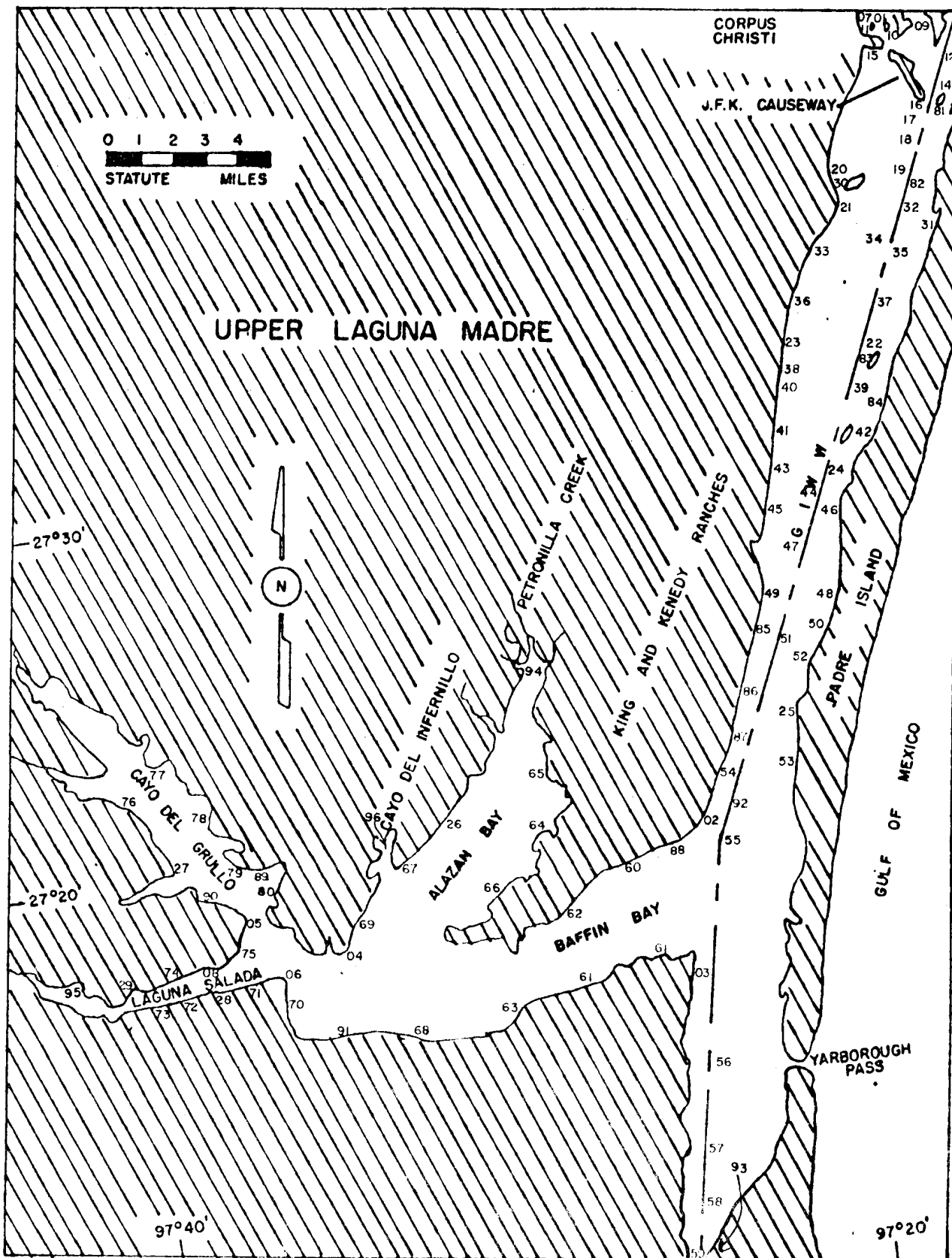


Figure 25. Bag seine sample sites in the upper Laguna Madre Bay system, October 1980-September 1981 (Each station number should be preceded by the digit 2).

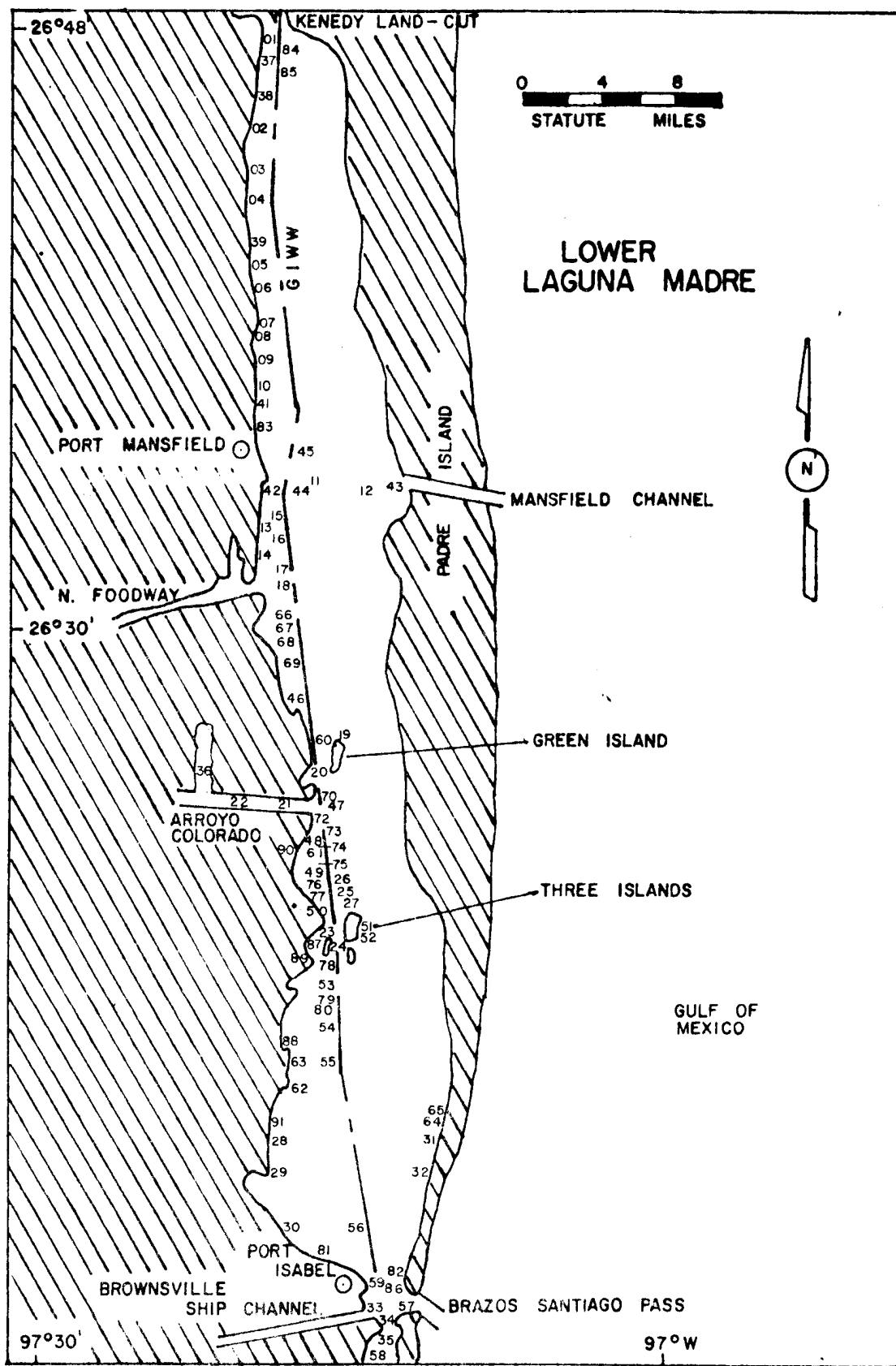


Figure 26. Bag seine sample sites in the lower Laguna Madre system, October 1980-September 1981 (Each station number should be preceded by the digit 2).

Appendix A Bay Systems Area Descriptions

AREA DESCRIPTIONS

Descriptions of each bay system except the East Matagorda Bay system were reproduced from Matlock et al. (1978).

Galveston Bay

The Galveston Bay system, which includes 353,768 acres, is the largest estuary on the Texas coast (Fisher et al. 1972) and consists of Galveston,

Trinity, East, West, Dickinson, Chocolate, Christmas, Bastrop, Dollar, Drum and Tabbs Bays and Clear, Moses and Jones Lakes (Fig. 1a-b).

The estuary is separated from the Gulf of Mexico by Bolivar Peninsula, Galveston Island and Follets Island. Two natural passes, Bolivar Roads and San Luis Pass, and one man-made pass, Rollover Pass, connect the estuary with the Gulf.

Bay depths average 6.9 ft or less except in dredged channels. Bolivar Roads, Houston, Texas City, Galveston and Bayport Ship Channels are dredged to 40 ft. The Intracoastal Waterway is dredged to 12.1 ft through East, lower Galveston, and West Bays (Diener 1975).

Bay substrates include mud, shell and clay; barrier island shorelines are predominately sand. Approximately 7,527 acres of oyster reefs lie in Galveston, Trinity, East, West and Dickinson Bays (Benefield and Hofstetter 1976). Numerous spoil "islands" occur along most dredged channels.

Shoreline marshes are present along portions of East, West, Trinity, Christmas, Bastrop, Drum and Chocolate Bays. Diener (1975) listed 231,342 acres of emergent vegetation--smooth cordgrass (Spartina alterniflora), salt meadow cordgrass (S. patens), bulrush (Scirpus olney), shoregrass (Monothochloe littoralis), rush (Juncus roemerianus), seashore saltgrass (Distichlis spicata) and saltwort (Batis maritima)--and 18,095 acres of submergent seagrasses--widgeon grass (Ruppia maritima) and Holodule beaudettei--in Galveston Bay. McEachron, Shaw and Moffett (1977) reported Halophilla engelmanni and turtle grass (Thalassia testudinum) in Christmas and Bastrop Bays.

The bay receives an average 2642 billion gal of fresh water annually, 90% of which comes from the Trinity and San Jacinto Rivers (Environmental Protection Agency 1971). Diener (1975) reported salinities ranging from 5-15 o/oo in Trinity and upper Galveston Bays to 20-30 o/oo in the lower portions of Galveston Bay near the Gulf. From November 1975 through March 1976 bay salinities at gill net stations ranged from 2.2 to 28.9 o/oo, dissolved oxygen varied from 5 to 18 ppm and water temperatures ranged from 40.1 to 76.1 F (Texas Parks & Wildlife Dept., Seabrook, Texas).

The Galveston Bay complex is adjacent to the most populated and industrialized area of Texas. A population of 2,424,800 people reside in the eight counties bordering the bay (1974 Census Data, Houston--Galveston Area Council, personal communication). The highest concentrations of people and industrial complexes are on the western shores of Galveston Bay and the eastern shores of West Bay. From 1967 to 1969 the daily average flow of domestic wastewater into the Galveston Bay complex was at least 16.7 million gal and the industrial wastewater inflow at least 300 million gal (Diener 1975).

Sport fishermen caught an estimated 2,774,297 lb of fish in the bay from September 1974 through August 1975 (Heffernan et al. 1977). The commercial fishing industry harvested over 45.1 million lb of shrimp worth \$38,000,000, 15.4 million lb of blue crabs worth \$1,700,000, 6.6 million lb of finfish worth \$1,200,000, 21.4 million lb of shelled oysters worth \$11,700,000 and 9.3 million lb of small bait shrimp worth \$11,100,000 (O. B. Lynam, Texas Parks & Wildlife Dept., Seabrook, Texas, Unpublished data).

East Matagorda Bay

East Matagorda Bay (Fig. 2) is a relatively shallow (3.4 ft average depth), medium to high salinity (15-30 o/oo), turbid bay with a surface area of 37,810 acres at mean low water (MLW) (Diener 1975).

The bay's only connection with the Gulf of Mexico has historically been Brown Cedar Cut at the east end. Caney Creek and the Colorado River delta mark the northeast and southwest boundaries, respectively. The Matagorda Peninsula forms the southern boundary while the Intracoastal Waterway borders the northern shoreline of East Matagorda Bay.

Extensive stands of emergent cordgrass (*Spartina* sp.) occur along both the southern and northern boundaries with rush found on the northern shoreline. Submergent grasses include widgeon grass and *Halodule beaudettei*.

Oyster reefs are located throughout the system but no estimate of the acreage was available.

East Matagorda Bay receives fresh water from rainfall and runoff entering the Intracoastal Waterway from Caney Creek, the Colorado River and Peyton Creek (via Lake Austin and Live Oak Bayou). No estimates of the amount of annual fresh water inflow were available.

Population centers are located at each end of the bay in Matagorda (population 700) and in Sargent (population unknown). Fishing comprises the major activity of residents in both towns; however, information concerning commercial and recreational landings has been combined with data from the Matagorda Bay system.

Matagorda Bay

The Matagorda Bay system (Fig. 3) encompasses an area of 244,430 acres and has an average depth of about 6.9 ft at MLW (Diener 1975). It includes Tres Palacios, Turtle, Carancahua, Lavaca, Cox, Keller and Chocolate Bays and Oyster, Redfish, Salt and Powderhorn Lakes.

Matagorda Bay is a large primary bay of 167,529 acres and 7.9 ft mean depth (Diener 1975). The southern boundary is the long, narrow Matagorda Peninsula with sand shoreline and extensive areas of submergent and emergent grasses; the eastern confine is the Colorado River delta and the western boundary is a shallow sand shoreline with limited submergent and emergent vegetation. The community of Port O'Connor (population 1,400) is in the southwest corner. Several secondary and tertiary bays associated with major and minor drainages into Matagorda Bay indent the northern perimeter.

Oyster Lake is a shallow muddy tertiary system of 2335 acres and 2.6 ft mean depth (Diener 1975) located along the northwestern shoreline of Matagorda Bay. Numerous oyster reefs are located throughout the system and the periphery is surrounded by emergent vegetation. Tres Palacios Bay is a secondary system of 9436 acres and 3.9 ft mean depth (Diener 1975) with oyster reefs and scattered shell throughout. The community of Palacios (3,500 people) is located on the northern shoreline. Turtle Bay, with 1280 acres and 2.6 ft mean depth (Diener 1975), is a muddy system with a moderate number of oyster reefs. The

shoreline is primarily clay bluffs with scattered emergent vegetation communities.

Carancahua Bay, along the north central shoreline of Matagorda Bay, covers 13,076 acres and has a 3.9-ft mean depth (Diener 1975). Several resort communities (Port Alto, Schicke Point and Cape Carancahua) are located along the bay. This bay has little marsh except in the southern portion where the tertiary systems of Redfish and Salt Lakes are located. Steep banks and sandy clay constitute the majority of the shore areas.

Lavaca Bay is a large secondary bay in the northwest corner of Matagorda Bay with 44,729 acres and 4.3-ft mean depth (Diener 1975). The shoreline is primarily clay bluffs. On the southeastern shoreline of Lavaca Bay are two smaller secondary areas: Cox Bay and Keller Bay. Cox Bay is a shallow muddy system with a clay bluff periphery and scattered oyster reefs throughout. Keller Bay is a deeper system and the southern perimeter has the largest submerged grass beds found in the Lavaca Bay complex. The community of Olivia (240 people) is located at the head of Keller Bay. On the western shoreline of Lavaca Bay is Chocolate Bay, a small, muddy bay of 699 acres and 2.6-ft mean depth with clay bank shoreline (Diener 1975). North of Chocolate Bay is the city of Port Lavaca (12,000 people). The area of central Lavaca Bay is the most heavily industrialized in the Matagorda Bay system.

South of Lavaca Bay, on the western shoreline of Matagorda Bay, is Powderhorn Lake. This is a moderately saline, shallow body of water of 2889 acres and 2.3-ft mean depth (Diener 1975). This "lake" connects with Matagorda Bay through Powderhorn Bayou on which the community of Indianola (200 people) is located. The periphery of this bay is surrounded by large emergent grass communities.

There are two direct exchanges with the Gulf of Mexico, Pass Cavallo and the Matagorda Ship Channel, both located in the southwest corner of Matagorda Bay, and one indirect connection, the Colorado River, on the eastern boundary. The western portion of Matagorda Bay and the southern two-thirds of Lavaca Bay are transected by the Matagorda Ship Channel, 35.4 ft deep (Diener 1975), with associated spoil banks. The channel originates at the ALCOA (Aluminum Company of America) plant on the eastern shoreline of Lavaca Bay and terminates at the Gulf of Mexico through the Matagorda jetties. Small channels branch off in Lavaca Bay to the Refuge Harbor at Port Lavaca and to the Lavaca River. The Intracoastal Waterway, dredged to 12.1 ft (Diener 1975), intersects the Matagorda Ship Channel near Port O'Connor. The Palacios Ship Channel branches from the Intracoastal Waterway in south central Matagorda Bay.

Diener (1975) listed 119,970 acres of emergent vegetation--smooth cordgrass, salt meadow cordgrass, saltwort, shoregrass and coastal dropseed (Sporobolus virginicus)--and 7037 acres of submergent vegetation (widgeon grass and Halodule beaudettei) in the Matagorda Bay system.

Between 1957 and 1968 Matagorda Bay received an average 713 billion gal of freshwater discharge annually (Diener 1975), mainly through the Tres Palacios, Carancahua, Lavaca and Navidad Rivers with partial flow entering the bay from the Colorado River. From November 1975 through March 1976, bay water salinities at gill net stations ranged from 10.0 to 28.0 o/oo, dissolved oxygen varied from 6.0 to 13.0 ppm and water temperatures ranged from 44.6 to 78.8 F (Texas Parks & Wildlife Dept., Palacios).

Sport fishermen caught an estimated 844,600 fish weighing 968,832 lb in Matagorda Bay from September 1975 through August 1976; during the same period commercial fishermen landed 176,370 lb of fish (Breuer et al. 1977).

San Antonio Bay

The San Antonio Bay system consists of the primary bays San Antonio and Espiritu Santo and the secondary bays Hynes, Guadalupe and Shoalwater (Fig. 4). Several large natural saltwater lakes occur along Matagorda Island and connect with the primary bays via sloughs and small passes. Two major passes, Cedar Bayou Pass to the west and Pass Cavallo to the east, provide circulation routes between the Gulf of Mexico and the bay system.

San Antonio, Hynes and Guadalupe Bays cover approximately 84,012 acres and Espiritu Santo Bay covers 34,099 acres for a total bay system area of 118,111 acres (Collier and Hedgpeth 1950). The average depths of the unaltered bay system are 3.9 ft in San Antonio Bay (maximum of 7.6 ft) and 4.9 ft in Espiritu Santo Bay (maximum of 7.9 ft) (Collier and Hedgpeth 1950).

Bottom substrates are generally silty clay and sand in the upper bay region which gradually change to sand clay and sand in the lower bay and Espiritu Santo bay regions (Texas Parks & Wildlife 1975). Approximately 3015 acres of spoil islands and 2001 acres of oyster reefs occur in the bay system (Burg 1974). One of the major oyster reefs is Panther Reef which extends from Panther Point north toward Mosquito Point.

The Guadalupe and San Antonio Rivers are the major sources of fresh water for the San Antonio Bay system, providing an average annual inflow of 449 billion gal from a drainage area of 6,559,920 acres (Childress et al. 1975). The amount of fresh water entering the system generally depends upon rainfall in the upland drainage rather than on local drainage. Local rainy periods usually occur during early summer and fall. The average annual rainfall for the area is 33.9 inches (Texas Parks & Wildlife 1975).

Salinity values for the bay system generally increase as the distance from the rivers increases. Out-flowing fresh water moves along the west shore of San Antonio Bay while incoming Gulf water moves along the east shore (Childress et al. 1975). Average surface salinities range from 0.0 o/oo in Guadalupe Bay to about 8.0 o/oo in lower San Antonio Bay and from 14.0 to 21.0 o/oo in Espiritu Santo Bay (Childress et al. 1975). No seasonal turbidity patterns are noted within the bay system; however, turbidities tend to increase toward the upper bay and river-influenced areas, as well as in areas disturbed by mud-shell and channel dredging operations (Childress et al. 1975). Dissolved oxygen concentrations increase during cold months and decrease during warm months. Between May 1972 and August 1973, average dissolved oxygen concentrations ranged from 7.0 to 12.4 ppm (Childress et al. 1975).

About 24,993 acres of emergent and 16,345 acres of submergent vegetation are found in the San Antonio Bay system (Diener 1975). Smooth cordgrass is the dominant emergent plant in all areas of the bay system except in upper San Antonio Bay where common reed, *Phragmites communis*, is dominant (Childress et al. 1975). Other species of emergent vegetation include saltwort, saltgrass, shoregrass and salt meadow cordgrass (Diener 1975). The dominant submergent vegetation of the San Antonio Bay system is shoal grass, *Diplanthera wrightii*.

This plant is located primarily in the low turbidity areas of lower San Antonio Bay and Espiritu Santo Bay and in the shallow lakes and sloughs found along the northern margin of Matagorda Island. Other species of submergent vegetation found in the bay system include widgeon grass, and the algae Polysiphona gorgoniae, Spyridia filamentosa, Gracilaria folifera, Ulva lactuca and U. fasciata (Childress et al. 1975). The algae are usually found attached to submerged solid objects such as oyster shells or pilings. However, some algae can be found in calm areas attached to mud or sand substrates.

Four small towns occur on the shoreline of the San Antonio Bay system: Austwell, Long Mott, Seadrift and Port O'Connor. Less than 4,000 inhabitants live in these four communities combined (1970 census). The primary businesses found in this area are farming, ranching and fishing, including shrimping and oystering. The majority of the bay shoreline as well as the San Antonio-Guadalupe River drainage occurs on or near ranchland and farmland. Two major industries exist on the San Antonio Bay system; Union Carbide Corporation at Long Mott and DuPont de Nemours E.I. & Company at Bloomington, a town on the Guadalupe River approximately 20 miles from the bay.

The tourist industry is not very extensive, but a few fishing centers at Seadrift and Port O'Connor furnish tackle, guides and access to the bay system. Most of the sport fishing occurs in Espiritu Santo Bay. Between September 1974 and August 1975, sport fishermen harvested an estimated 416,453 lb of fish from the entire bay system; commercial fishermen harvested an estimated 482,592 lb of fish (Heffernan et al. 1977). In addition, approximately 883,172 lb of shrimp, 1,125,239 lb of blue crabs and 196,873 lb of oysters were harvested commercially during the 1974 calendar year (O. B. Lynam, Texas Parks & Wildlife Dept., Seabrook Field Station, personal communication).

Aransas Bay

The Aransas Bay complex consists of primary, secondary and tertiary bays. The system extends from Aransas Pass, Texas, northeastward to Mesquite Bay, and from its eastern boundary of San Jose Island, westward across Copano Bay to the small community of Bayside, Texas (Fig. 5).

Aransas Bay is the primary bay with a surface area at MLW of 56,207 acres and an average depth of 7.9 ft (Diener 1975). A direct water circulation and marine life migration route from the Gulf of Mexico to the bay is provided by a deep water (45.0-46.9 ft) pass, 600 to 712 ft in width, between San Jose Island and Mustang Island at Port Aransas, Texas (Anonymous 1971). This accounts for the higher than average salinities in the southern region of the bay (approximately 30 o/oo). The middle of the bay is the deepest part with a maximum value of 13.1 ft at MLW (U. S. Dept. Commerce 1976a). Six major oyster (Crassostrea virginica) reefs ranging in area from 25 to 257 acres are concentrated in the northern portion of Aransas Bay, along with scattered smaller reefs (Heffernan 1961). There are no private oyster leases in the Aransas Bay system (Diener 1975).

Copano, St. Charles, Redfish and Dunham Bays are considerably shallower, secondary areas, supporting extensive growths of algae and "grasses", which provide valuable nursery grounds for juvenile fish and crustaceans (Heffernan 1972a). Nutrient circulation in these bays is generally affected by fresh-water runoff as well as by tidal fluctuations.

Copano Bay is the largest secondary bay with 41,730 acres of surface water and an average depth of 3.6 ft with a maximum depth of 8.9 ft (Diener 1975). The Mission and Aransas Rivers flow into the bay with respective discharges of 733.3 and 65.0 gal/s (Diener 1975).

Copano Bay has five large oyster reefs, ranging in size from 22 to 42 acres, plus a compliment of smaller reefs (Heffernan 1961). The transverse position of a few of the reefs near the mouth of Copano Bay dampen tidal action in much of the bay (Collier and Hedgpeth (1950).

The narrow St. Charles Bay, extending between Lamar Peninsula and the Aransas National Wildlife Refuge, has a surface area of 8408 acres with a 3.6-ft average depth (Diener 1975). Freshwater flow from five creeks enters the bay along its northern reaches. Nearly the entire bay is considered prime nursery ground (Heffernan 1972a).

Redfish and Dunham Bays, at the southern and northern ends, respectively, of Aransas Bay, are also very shallow nursery areas but these bays do not receive direct freshwater flow. Redfish Bay is densely vegetated while Dunham Bay is a muddy, sparsely vegetated area.

Tertiary nursery grounds are located principally in the lower regions of creeks and streams which enter the secondary bays. Port Bay with 1651 acres extends southward from Copano Bay and receives freshwater from creek drainage at its southern tip (Diener 1975).

Mission Bay and lower Mission River with nearly 3939 acres and located off the northwest shore of Copano Bay are the most valuable nursery grounds of the tertiary areas (Heffernan 1972b).

Copano Creek harbors a small portion of nursery grounds in the northwest corner of Copano Bay (Heffernan 1972a).

Tertiary regions of Chiltipin Creek and the Aransas River system are located along the western shore of Copano Bay (Heffernan 1972a).

The Aransas Bay system contains 137,514 acres of water (Heffernan 1972a) of which 44,989 acres are occupied by eight major species of emergent vegetation--saltwort, shoregrass, glassworts (Salicornia sp.), smooth cordgrass, salt meadow cordgrass, coastal dropseed, sea purselane (Sesurium portulacastrum) and seashore saltgrass--and 4,124 acres by three major species of submerged vegetation--(Halodule beaudettei), widgeon grass and turtle grass (Diener 1975; W. E. Mercer, TPWD, Personal Communication).

The climate of this area varies from semi-arid to dry sub-humid. Southeast winds are dominant most of the year but from December through February northerly winds associated with advancing cold fronts are common (Whitehouse and Williams 1953). Winters in the Aransas Bay system produce the lowest average monthly water temperatures (59.2 F) and rainfall (0.8 inch). Water temperatures increase through the spring (70.9 F), reach the highest values in the summer (83.7 F) and decline through the fall (73.6 F). Rainfall is greatest in the fall (6.4 inches). The amounts of rainfall in spring and summer average about 2.6 inches. Salinity values are inversely related to rainfall with the lowest salinity (14.1 o/oo) occurring in the fall. The highest salinity occurs in spring (26.8 o/oo). Dissolved oxygen, pH and

turbidity remain relatively constant throughout the year with average values of about 7.0 ppm, 8 and 50 Jackson Turbidity Units (JTU), respectively (Martinez 1970, 1971).

Water movement in the bay system is strongly influenced by wind action. Generally, however, the surface waters take a serpentine course, flowing during a falling tide from Copano Strait south toward Mud Island where there is a clockwise eddy which tends to return the bay water northward along the face of the more saline water from below Mud Island. On a strong rising tide this water is pushed east so that the eddy constricts into an ellipse (Collier and Hedgpeth 1950). The average tidal range for Aransas Bay is 0.49 ft (Diener 1975).

Mud is the predominant bottom sediment of the Aransas Bay system except along the sandy western shore of San Jose Island (Diener 1975).

The average total weight of finfish caught per year by commercial fishermen in the Aransas Bay system during the period 1969-1971 was 573,612 lb (Martinez 1970, 1971). The annual average harvest of commercially caught shrimp and crabs during the same period was 816,991 lb and 420,827 lb respectively.

Along the 230 miles of shoreline of the Aransas Bay system, the only communities of notable size are Lamar, Bayside, Fulton, Rockport and, the largest, Aransas Pass which has a population of about 6,000.

There are three domestic but no industrial waste outfalls in the bay system. Previous high discharges of toxic oilfield brine into Chiltipin Creek and the Mission River were ordered ceased in 1973 by the Texas Railroad Commission (Heffernan 1972b). A total of 14,796 acres in the Aransas Bay system are now closed to shellfishing by the Texas Board of Health (Diener 1975) because of domestic sewage problems.

Corpus Christi Bay

The Corpus Christi Bay system, composed of Corpus Christi, Nueces, lower Redfish and Oso Bays, is located on the lower third of the Texas Gulf coast between longitude $97^{\circ} 02'$ and $97^{\circ} 32'$ W and latitude $27^{\circ} 41'$ and $27^{\circ} 55'$ N (Fig. 6). It is bordered on the northeast by upper Redfish Bay, on the east by Mustang Island and on the south by the upper Laguna Madre. The city of Corpus Christi forms the western boundary of Corpus Christi Bay. Nueces Bay, the former coastal lagoon for the Nueces River basin, is positioned on an east-west axis, entering Corpus Christi Bay at the northwest corner, just north of Corpus Christi. The southern half of Redfish Bay separates Aransas from Corpus Christi Bay and enters Corpus Christi Bay in the northeast quadrant. Oso Bay, the semi-enclosed drainage area for Oso Creek, joins Corpus Christi Bay in the southwest quadrant.

The entire Corpus Christi Bay system has an area of 124,796 acres with 127 miles of shoreline. Corpus Christi Bay is the largest of the four bays in the system, having a total surface area of 95,997 acres. Nueces Bay has an area of 19,518 acres, Oso Bay covers approximately 17,095 acres and lower Redfish Bay covers approximately 5258 acres. The average depth of Corpus Christi Bay is 11.2 ft; Nueces, Oso and lower Redfish Bays average 2.0 ft in depth (Collier and Hedgpeth 1950, Hood 1953, Stevens 1959).

Sediment composition in Corpus Christi Bay ranges from fine sand to black mud. A mixture of gray clay and black mud is the dominant bottom type for the area. Brown silt occurs in areas of channelization while hard sand and fine shell can be found adjacent to Mustang Island.

Submergent vegetation is sparse in Corpus Christi Bay, except along its eastern shore where shoal grass and widgeon grass dominate. Emergent vegetation, found throughout the bay complex, consists primarily of saltwort, glassworts, shoregrass, smooth cordgrass, coastal dropseed, seablite, Suaeda linearis, sea oats, Uniola paniculata and saltmarsh bullrush, Scirpus maritimus. In Corpus Christi Bay, 19 oyster reefs total 563 acres and are confined primarily to the western and northern portions. Oysters occur throughout Nueces Bay (Stevens 1959, 1960; Diener 1975). The primary sources of freshwater inflow into the Corpus Christi Bay system are Oso Creek and the Nueces River. Prior to the construction of Wesley Seale Dam at Mathis, Texas, in 1958, the Nueces River averaged 20 billion gal of discharge per year. The reservoir furnishes the industrial and municipal freshwater needs for the city of Corpus Christi and surrounding towns. Freshwater inflow to Nueces and Corpus Christi Bays is now limited to periods of dam overflow and heavy land runoffs (Stevens 1959).

Prior to 1972, the primary source for water exchange between Corpus Christi Bay and the Gulf of Mexico was the Corpus Christi Channel. This ship channel extends approximately 18 miles from the Port of Corpus Christi to its intersection with the Aransas Ship Channel, which continues for approximately 1 mile to the Gulf of Mexico. The two channels are maintained at an average depth of 40.0 ft (U. S. Dept. Commerce 1974). Since its completion in 1972, the Corpus Christi Fish Pass has provided intermittent water exchange through the upper Laguna Madre, but in recent years this has only occurred in association with hurricane winds and tides. Water exchange for Corpus Christi Bay with lower Redfish Bay and the upper Laguna Madre takes place primarily through the Intracoastal Waterway and on a limited basis across the shallow flats during high tides.

The climate for the area is intermediate between the semi-arid regions to the west and southwest and the humid subtropical region to the northeast. For the period 1936-1975 the mean annual air temperature was 71.2 F and the mean annual rainfall was 28.5 inches (NOAA 1975).

The general water circulation pattern for the Corpus Christi Bay system is a counterclockwise movement along the shoreline (Stevens 1959). The predominant winds, generally from the southeast year-round with occasional "northers" in the winter, and the irregular lunar tides, have the greatest overall influence on the bay water movement. For the period 1968-1972, the mean salinity and the mean water temperature for the entire Corpus Christi Bay system was 26.1 o/oo and 73.4 F, respectively (Martinez 1968, 1969, 1970, 1971 and 1972). The mean turbidity for the same period was 43 JTU, although the mean for Nueces Bay during 1971 and 1972 was 107 JTU.

The entire system lies within Nueces County, Texas. The county, with an area of 536,301 acres, had a population of 237,544 persons as of the 1970 census. The City of Corpus Christi had a population estimate of 204,525 (Diener 1975). Extensive oil and gas exploration has resulted in numerous well platforms and submerged pipelines throughout Nueces and lower Redfish Bays and along the western shore of Corpus Christi Bay. Heavy industrialization

has occurred along the south shore of Nueces Bay and the north shore of Corpus Christi Bay in the area of La Quinta Channel.

Upper Laguna Madre

Located on the lower Texas coast between latitudes $27^{\circ} 10'$ and $27^{\circ} 41'$ the upper Laguna Madre system consists of the upper Laguna Madre and the Baffin Bay system (Fig. 7). The upper Laguna Madre is a long (approximately 41 miles), narrow (9.8 miles) and shallow (average depth 3.3 ft) lagoon extending from the Kenedy Land Cut to Corpus Christi Bay (Simmons 1957; Diener 1975; U. S. Dept. Commerce 1976b). Bordered on the east by Padre Island and on the west by the city of Corpus Christi and the King and Kenedy Ranches, the upper Laguna Madre covers approximately 47,228 acres at MLW (Diener 1975).

This long, narrow coastal lagoon is bisected imperfectly by the Intra-coastal Waterway, which is 124.7 ft wide and 12.1 ft deep. Spoil banks from this canal form a dike 13 miles long effectively dividing the northern part of the bay. Beyond this point, spoil banks are staggered and the division is less effective (Simmons 1957). The northern end of the lagoon is restricted by a land fill causeway which has three openings totaling about 899 ft in width at MLW. The southern end is restricted by a land fill through which the Intra-coastal Waterway extends.

The upper Laguna Madre is joined in the southern portion by the equally large Baffin Bay system--consisting of Baffin Bay, Alazan Bay, Laguna Salada, Cayo del Grullo and Cayo del Infernillo--which covers an estimated 54,117 acres. Baffin Bay, the central and largest bay of the group, is a narrow body of water, 19 miles long and 5 miles wide, bisected laterally by the demarcation line of Kleberg-Kenedy Counties (Breuer 1957). The average depth in Baffin Bay is 7.9 ft at MLW, with a maximum depth (MLW) of 12.1 ft near the entrance to the Laguna Madre (Breuer 1957, Diener 1975). There are approximately 31,861 acres of surface area (MLW) in Baffin Bay.

Alazan Bay, entirely within Kleberg County and the King Ranch, extends approximately 15 miles northeasterly to the mouth of Petronilla Creek (Breuer 1957, Diener 1975). The average water depth (MLW) in Alazan Bay is approximately 3.0 ft. The surface area of Alazan Bay is approximately 13,867 acres.

Cayo del Infernillo is a shallow slough (0.7 ft) extending westward from the west shore of Alazan Bay whose water surface at MLW covers 699 acres (Breuer 1957, Diener 1975).

Baffin Bay is joined by two small tertiary bays--Laguna Salada entering from the west and Cayo del Grullo from the northwest. Both bays have an average water depth (MLW) of 3.0 ft. Laguna Salada covers approximately 3227 acres and Cayo del Grullo about 4470 acres.

The upper Laguna Madre, with restricted openings at either end, no constant openings into the Gulf of Mexico and limited freshwater inflow, has been characterized as a hyperhaline estuary (Simmons 1957, Breuer 1962a), with salinities of 50-60 o/oo common. The Intracoastal Waterway provides for limited water exchange at both ends of the lagoon. Since the dredging of the Intracoastal Waterway salinity "has neither risen above 80 o/oo in the lagoon nor in Baffin Bay (where 100 o/oo was formerly not uncommon), nor have waters of very low salinity remained in the area any length of time" (Simmons 1957).

The only substantial source of freshwater is runoff from the Kenedy, Kleberg, Jim Wells and Nueces County watersheds into the Baffin Bay system (Breuer 1957). The dry sand on Padre Island absorbs rain very rapidly and the very gradual slope of the lagoon's western shore makes these areas poor watersheds (Simmons 1957).

The upper Laguna Madre system lies in two climatic zones--north of Baffin Bay is sub-humid; south of that point is semi-arid (Simmons 1957). Rainfall in the area is highly variable but averages 27.0-29.1 inches annually (NOAA, Env. Data Svs., Natl. Climatological Center, Ashville, N. C. 1976). Annual average surface water temperatures for the period 1969-1972 ranged from 73.6 to 76.3 F in the upper lagoon (Martinez 1969, 1970, 1971 and 1972). No data concerning water temperature from Baffin Bay is available. Southeast or south-southeast winds are prevalent during most of the year and are directly responsible for the water circulation in the system (Simmons 1957). Water in the upper lagoon is generally clear (annual average turbidity during 1969-1972 ranged from 36.8 to 45.6 JTU) (Martinez 1969, 1970, 1971 and 1972); while water in Baffin Bay is often turbid and at times becomes a dark brown (Breuer 1957).

The bottom in the upper lagoon consists primarily of quartzose sand, silt and shell with some calcareous sand or mud in isolated areas (Simmons 1957). In the Baffin Bay system bottom types of soft mud, soft and hard clay, sand and concentrated shell (mostly Mulinia lateralis) can be found. Also, in Baffin Bay and near the junction of Baffin Bay and the upper Laguna Madre are extensive rock formations consisting of serpulid worm tubes, calcareous and quartzose material.

Simmons (1957) and Breuer (1957) reported dense vegetation--shoalgrass and widgeon grass--restricted to the northern one-third of the lagoon. They indicated that the remainder of the system has only sparse to moderate vegetation, with the exception of the area near the entrance to Baffin Bay and areas around spoil islands.

The only substantially populated center adjacent to the upper Laguna Madre is Corpus Christi, Texas, with a population of 204,525 (U. S. Dept. Commerce 1970a). An additional 33,166 people in Kleberg County (U. S. Dept. Commerce 1970b) are located near the Baffin Bay system.

Industrialization in the area has been held to a minimum because of limited access to the surrounding land. The only major industry in the system is a public utility (Central Power and Light Co.) which displaces approximately 3.3 million gal of water/min from the upper Laguna to Oso Bay (Mr. M. L. Sheperd, Central Power and Light Co., June 1976, Personal Communication). Most of the area surrounding Baffin Bay is private ranchland and consequently there is little urban development. There is considerable oil and gas development on these ranches, resulting in large quantities of oilfield brine production. In most cases the brine has been discharged into the bay or a creek which leads to the bay. Mackin (1971) reported that approximately 2,728,897 gal of oilfield brine is discharged each day into Petronilla Creek and thence into Alazan and Baffin Bays.

Lower Laguna Madre

The lower Laguna Madre is a long shallow bay that extends 55 miles northward from Port Isabel to the Kenedy Land Cut (Fig. 8). It varies from 3 miles

to 7.8 miles wide and is imperfectly bisected by the Intracoastal Waterway. The bay is bounded on the west by the Texas mainland and on the east by Padre Island and contains approximately 182,809 acres (Stokes 1974). Passes to the Gulf of Mexico are located near Port Isabel and east of Port Mansfield. Limited amounts of fresh water (average of 818.9 gal/s) enter lower Laguna Madre from the Arroyo Colorado and North Floodway (Bryan 1971).

Except for the Intracoastal Waterway with an average depth of 12.0 ft, the deepest areas are found in the northern and southern portions of the bay (Breuer 1962a). In the northern section, which extends from Port Mansfield to the Kenedy Land Cut, water depth is as much as 7.9 ft. From Port Mansfield south to Three Islands the water is shallow with most locations being < 3.0 ft deep. South of Three Islands the maximum water depth is 5.9 ft and water depths of 3.9-4.9 ft are prevalent.

Bottom types consist of sand, silty sand or a combination of sand, silt and clay (Shepard and Rusnak 1957). Shell is not commonly found in lower Laguna Madre. In general, sediments are coarser along the eastern or Padre Island side of the bay than along the western or mainland side of the bay.

Shoalgrass is the most common type of vegetation found in lower Laguna Madre (Stokes 1974). Dense stands of shoalgrass can be found in shallow water along most of the shoreline as well as in the entire middle portion (Port Mansfield to Three Island) of the bay. Light to dense stands of manatee grass (Cymodocea filiforme), turtle grass, widgeon grass, Halophila engelmannii and Acetabularia crenulata can be found scattered throughout the bay.

Hydrological parameters have been described by Stokes (1974). Average monthly salinities range from 16.0 to 41.0 o/oo. Excluding the Arroyo Colorado and North Floodway, salinities as low as 10.5 o/oo and as high as 44.9 o/oo are sometimes encountered. Average monthly bottom water temperatures range from 62.6 F during some winter months to 81.5 F in August. Turbidity values are generally highest from Port Mansfield to Three Islands (the shallowest portion of the bay). The average annual turbidity value in this region is 45 JTU. North of Port Mansfield the average turbidity is 28 JTU and south of Three Islands the average is 32 JTU.

The total population for the counties bordering lower Laguna Madre is 162,608 (Harlingen Chamber of Commerce). In 1973, 1,278,000 out-of-state residents visited the lower Rio Grande Valley. Although there are no figures available, it is probable that many of these people visited this area because of water related activities in lower Laguna Madre. Farming and ranching are the main industries along the bay. The only area of heavy industry is the Brownsville Ship Channel where several shrimp processing plants, a Union Carbide plant, a grain elevator, three ship dismantling plants, two oil loading docks and an oil rig construction company are located.

Appendix B Gill Net Station Locations

Table 1 . Gill net station locations in each bay system, October 1980-September 1981.

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Galveston	Galveston	1	29° 32' 05"	95° 00' 35"	1.0 mile SE of Clear Creek entrance channel
	Galveston	2	29° 30' 50"	95° 59' 00"	0.3 mile W of surfaced ramp in Bacliff, Texas
	Galveston	3	29° 30' 20"	94° 57' 05"	0.3 mile E of HL & P Company's P. H. Roberson Generation Station's discharge canal
	Dickinson	4	29° 28' 00"	94° 57' 30"	N shoreline of Dickinson Bayou
	Dickinson	5	29° 27' 45"	94° 56' 40"	0.5 mile SE of junction of Dickinson Bayou and Bay
	Moses Lake	6	29° 26' 10"	94° 56' 10"	NW shore of Moses Lake
	Moses Lake	7	29° 25' 40"	95° 57' 05"	NW of Mouth of Moses Bayou
	Moses Lake	8	29° 25' 20"	94° 56' 20"	S shore of Moses Lake
	Galveston	9	29° 26' 25"	95° 54' 10"	1.0 mile W of Dollar Point
	Galveston	10	29° 24' 15"	95° 54' 15"	0.8 mile N of Texas City Dike
	West	11	29° 18' 00"	94° 56' 50"	0.2 mile NE of Brasford Bayou
	Galveston	12	29° 20' 35"	94° 53' 40"	0.5 mile N of Campbell Bayou
	Galveston	13	29° 20' 00"	94° 53' 50"	SE of Campbell Bayou
	Galveston	14	29° 19' 20"	94° 53' 35"	0.8 mile SE of Campbell Bayou
	Jones Lake	15	29° 18' 45"	94° 55' 45"	0.6 mile E of Highland Bayou
	Jones Lake	16	29° 17' 25"	94° 56' 05"	N shore of Spoil Island, ICNW Marker 54
	West	17	29° 16' 40"	94° 58' 35"	SE shore of spoil bank, 0.9 mile NE of Greens Cut
	Greens Lake	18	29° 15' 45"	94° 59' 55"	SW shore of Greens Lake, 0.3 mile W of mouth
	Greens Lake	19	29° 16' 35"	94° 59' 35"	Greens Lake, NE of mouth
	West	20	29° 16' 05"	94° 59' 05"	SE shore of spoil bank W of Greens Cut
	West	21	29° 14' 15"	95° 00' 55"	0.2 mile SW of Carancahua Cut
	Carancahua Lake	22	29° 14' 20"	95° 01' 35"	S shore of Carancahua Lake
	West	23	29° 13' 10"	95° 01' 45"	Carancahua Point

Table 1 . (Cont'd).

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Galveston	Halls Lake	24	29°10'45"	95°06'20"	0.2 mile SE of The Narrows
	Halls Lake	25	29°11'15"	95°05'45"	E shore of Halls Lake
	Chocolate	26	29°11'15"	95°06'35"	0.3 mile NW of The Narrows
	Chocolate	27	29°11'45"	95°07'10"	0.2 mile E of Amerada Cut
	Chocolate	28	29°11'40"	95°07'40"	0.1 mile SW of New Bayou
	Chocolate	29	29°11'40"	95°08'25"	0.5 mile E of Shell Point
	Chocolate	30	29°12'25"	95°10'25"	0.2 mile N of Grassy Point
	Chocolate	31	29°11'35"	95°11'00"	1.5 mile W of Horse Grove Point
	Chocolate	32	29°11'15"	95°09'25"	0.5 mile S of Horse Grove Point
	Chocolate	33	29°10'30"	95°09'00"	Just S of Wharton Camp Bayou
	Chocolate	34	29°09'35"	95°09'10"	1.0 mile S of Wharton Camp Bayou
	West	35	29°09'15"	95°09'35"	2.1 mile N of Guyton Cut
	West	36	29°06'30"	95°09'40"	0.5 mile N of Guyton Cut
	Oyster Lake	37	29°07'45"	95°10'20"	N shore of Oyster Lake
	Oyster Lake	38	29°07'05"	95°10'55"	SW shore of Oyster Lake
	Bastrop	39	29°06'35"	95°11'15"	0.1 mile W of mouth of Oyster Lake Bayou
	Bastrop	40	29°06'20"	95°10'15"	0.7 mile NW of Guyton Cut
	Lost Lake	41	29°04'55"	95°12'40"	SW shore of Lost Lake
	Bastrop	42	29°05'50"	95°11'50"	0.5 mile NE of dredge cut between West Bastrop Bay and ICWW
	Bastrop	43	29°05'00"	95°11'40"	1.3 mile W of Christmas Point
	Bastrop	44	29°04'45"	95°10'50"	0.3 mile W of Christmas Point
	Christmas	45	29°04'25"	95°11'05"	0.8 mile SW of Christmas Point
	Christmas	46	29°03'45"	95°12'10"	2.0 mile SW of Christmas Point
	Christmas	47	29°02'50"	95°13'15"	1.3 mile NW of Rattlesnake Point
	Christmas	48	29°01'55"	95°11'45"	0.1 mile NE of mouth of Cedar Cut

Table 1 . (Cont'd).

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Galveston	Christmas	49	29°02'20"	95°10'55"	1.1 mile NE of mouth of Cedar Cut
	Christmas	50	29°03'15"	95°09'40"	0.2 mile S of mouth of Church-hill Bayou, SE Christmas Bay
	West	51	29°09'40"	95°01'45"	E side Snake Island Cove
	West	52	29°10'20"	95°01'20"	0.4 mile E of Maggies Point
	West	53	29°11'00"	95°00'40"	SW shore Shell Island Point
	West	54	29°11'20"	94°59'45"	Jumbile Cove
	West	55	29°12'30"	94°58'40"	Carancahua Cove
	West	56	29°12'45"	94°57'20"	W of mouth of Oak Bayou
	West	57	29°12'40"	94°57'50"	S shore of Dana Cove
	West	58	29°13'40"	94°57'05"	N shore of Hoeckers Cove
	West	59	29°14'05"	94°56'25"	SW shore of Starvation Cove
	West	60	29°14'45"	94°55'50"	NW of Melager Cove
	West	61	29°16'15"	94°53'20"	0.6 mile SW of Teichman Point
	West	62	29°17'00"	94°55'40"	SE shore of North Deer Island
	West	63	29°16'15"	94°54'55"	E shore of South Deer Island
	Galveston	64	29°17'25"	94°52'05"	0.1 mile E of SE end of Galveston Causeway
	Galveston	65	29°20'20"	94°49'20"	W shore of Pelican Island, 0.4 mile from ICWW
	Galveston	66	28°21'05"	94°49'35"	NW Pelican Island, S shore of Cove formed by ICWW
	Galveston	67	29°23'45"	94°45'45"	Baffle Point
	Galveston	68	29°25'35"	94°43'25"	0.7 mile SW of Sievers Cove
	East	69	29°27'40"	94°41'35"	1.8 mile SW of house on Elm-grove Point
	East	70	29°28'30"	94°40'30"	0.6 mile W of house on Elm-grove Point
	East	71	29°28'35"	94°38'55"	0.5 mile NW of Bob's Cut
	East	72	29°28'50"	94°37'15"	0.8 mile W of Stringree Cut
	East	73	29°29'30"	94°35'55"	0.6 mile NE of Stringree Cut

Table 1 . (Cont'd).

Bay system	Bay	Station number	Latitude	Longitude	Station Identification	
Galveston	East	74	29°30'20"	94°35'40"	Big Pasture Bayou, N shore	
	East	75	29°31'50"	94°33'50"	Marsh Point	
	East	76	29°31'15"	94°32'25"	1.4 mile SE of Marsh Point	
	East	77	29°33'20"	94°31'50"	1.0 mile N of Frozen Point	
	East	78	29°34'15"	94°34'20"	Robinson Bayou, 0.1 mile W of mouth	
	East	79	29°33'30"	94°36'25"	Second windmill W of Robinson Bayou (2.2 mile W of mouth)	
	East	80	29°32'15"	94°41'10"	Stephenson Point	
	Trinity	81	29°33'30"	94°46'50"	Vingt-et-un Island, N shore	
	Trinity	82	29°36'45"	94°43'10"	0.1 mile S of cut in spoil bank opposite Lone Oak Bayou	
	Trinity	83	29°39'35"	94°42'00"	0.7 mile N of cut in spoil bank opposite Double Bayou	
	Trinity	84	29°44'15"	94°41'55"	Bay side of spoil bank opposite Round Point	
	Trinity	85	29°45'50"	94°47'45"	1.2 mile NE of Houston Lighting and Power Company's Cedar Bayou Generating Station's discharge canal	
	Trinity	86	29°44'45"	94°49'30"	0.6 mile SW of Houston Lighting and Power Company's Cedar Bayou Generating Station's discharge canal	
	Trinity	87	29°43'35"	94°50'45"	0.7 mile SW of Point Barrow	
	Trinity	88	29°42'15"	94°51'30"	Midway between Point Barrow and Umbrella Point	
	Trinity	89	29°40'20"	94°52'10"	Umbrella Point	
	Galveston		90	29°39'35"	94°55'50"	Mesquite Knoll
	Galveston		91	29°41'50"	94°57'20"	0.5 mile W of Houston Lighting and Power Company's Cedar Bayou Generating Station's intake canal

Table 1 . (Cont'd).

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Galveston	Trinity	92	29°37'15"	94°42'45"	0.4 mile N of cut in spoil bank opposite Lone Oak Bayou
	Galveston	93	29°35'20"	94°59'35"	0.8 mile SW of Red Bluff
	Galveston	94	29°34'55"	95°00'00"	1.5 mile SW of Red Bluff
	West	95	29°12'35"	95°02'35"	1.6 mile NE of Cow Bayou
	East	96	29°32'40"	94°30'00"	1.3 mile E of Frozen Point
	Galveston	97	29°33'20"	95°01'05"	NE shore of island adjacent to Clear Creek Channel
	West	98	29°06'30"	95°06'15"	1.5 mile NE of San Luis Pass
	West	99	29°41'50"	94°41'20"	Inside spoil bank 0.3 mile S of Ash Point
	Galveston	100	29°19'30"	94°49'25"	Middle of W side of Pelican Island

Table 1. (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification	
East Matagorda	East Matagorda	1	28°45'45"	95°39'35"	Caney Creek Cutoff	
	East Matagorda	2	28°44'15"	95°40'55"	1.0 mile NE of Brown Cedar Cut	
	East Matagorda	3	28°45'25"	95°40'28"	1.0 mile W of Caney Creek Cutoff	
	East Matagorda	4	28°45'00"	95°41'25"	2.0 mile W of Caney Creek Cutoff	
	East Matagorda	5	28°44'45"	95°46'10"	Mouth of Live Oak Bayou	
	East Matagorda	6	28°44'10"	95°49'20"	Boggy Bayou	
	East Matagorda	7	28°43'00"	95°52'40"	S of Micro Tower	
	East Matagorda	8	28°42'40"	95°53'30"	W of Little Boggy Bayou Cut	
	East Matagorda	9	28°43'10"	95°43'45"	2.0 mile W of Brown Cedar Cut	
	East Matagorda	10	28°44'36"	95°42'37"	S of Mouth of Boggy Bayou	
	East Matagorda	17	28°44'53"	95°47'13"	S of Pelton Lake	
	East Matagorda	18	28°40'52"	95°49'36"	0.5 mile NE of Kain Cove	
	East Matagorda	19	28°41'17"	95°48'36"	1.0 mile SW of Eidelbach Flat	
	East Matagorda	20	28°42'39"	95°44'47"	Desert Catchall Basin	
	East Matagorda	21	28°44'10"	95°43'40"	1.5 mile SW of mouth of Boggy Bayou	
	East Matagorda Live Oak	East Matagorda	22	28°44'17"	95°44'35"	E end of Live Oak Bay
		Live Oak	23	28°44'50"	95°45'20"	N shore of Live Oak Bay
		East Matagorda	24	28°43'42"	95°50'45"	1.5 mile W of Boggy Bayou
		East Matagorda	25	28°43'20"	95°51'35"	1.0 mile E of Micro Tower
		East Matagorda	26	28°42'15"	95°54'43"	Mouth of Little Boggy Bayou
		East Matagorda	27	28°40'55"	95°56'38"	NE of Egret Island
East Matagorda		28	28°40'20"	95°56'05"	St. Mary's Bayou #1	
East Matagorda		29	28°39'40"	95°56'33"	St. Mary's Bayou #2	
East Matagorda		30	28°38'31"	95°57'10"	Bayou El	
East Matagorda		31	28°37'50"	95°56'10"	Spring Bayou Cove	
East Matagorda		32	28°38'15"	95°55'12"	Burkhart Cove	
East Matagorda		33	28°38'35"	95°53'45"	Boiler Bayou	
East Matagorda		34	28°39'10"	95°52'35"	Hog Island	

Table 1. (Cont'd)

Bay system	Bay	Station		Longitude	Station identification
		number	Latitude		
East Matagorda	East Matagorda	35	28°39'50"	95°51'07"	Cleveland Bayou
	East Matagorda	36	28°40'15"	95°50'20"	Kain Cove
	East Matagorda	37	28°41'15"	95°47'25"	Eidelbach Flat
	East Matagorda	38	28°41'53"	95°46'30"	Oyster Farm Drain

Table 1 . (Cont'd).

Bay system	Bay	Station number	Latitude	Longitude	Station Identification	
Matagorda	Matagorda	1	28°38'40"	96°18'17"	Wells Point	
	Turtle	2	28°39'43"	96°18'16"	Silver Creek	
	Turtle	3	28°40'35"	96°17'52"	Shell Beach	
	Turtle	4	28°41'08"	96°17'00"	Buttermilk Slough	
	Turtle	5	28°41'40"	96°15'45"	Jensen Point	
	Turtle	6	28°41'20"	96°15'32"	Incinerator	
	Turtle	7	28°40'20"	96°16'55"	Turtle Point	
	Matagorda		8	28°41'35"	96°14'10"	Settergest Marsh
	Tres Palacios		9	28°44'47"	96°11'10"	Slaughter Flats
	Tres Palacios		10	28°45'15"	96°10'10"	Tres Palacios River, East
	Tres Palacios		11	28°44'10"	96°10'51"	Pepper Hill
	Tres Palacios		12	28°43'30"	96°11'20"	Collegeport Piling
	Tres Palacios		13	28°42'37"	96°10'54"	Pilkington Bayou
	Tres Palacios		14	28°41'40"	96°11'30"	Fence Post Reef
	Tres Palacios		15	28°41'30"	96°12'21"	Redfish Lake
	Tres Palacios		16	28°39'53"	96°12'56"	Coon Island Point
	Coon Island		17	28°39'35"	96°12'40"	Coon Island Bayou
	Tres Palacios		18	28°43'55"	96°12'00"	1 mile N of Grassy Pt.
	Coon Island		19	28°38'35"	96°14'00"	Oliver Point
	Matagorda		20	28°37'53"	96°13'22"	Pipeline Crossing
	Matagorda		21	28°37'00"	96°12'45"	Palacios Bayou Flats
	Matagorda		22	28°35'25"	96°13'50"	Boat Harbor
	Oyster Lake		23	28°36'14"	96°12'05"	Rattlesnake Island
	Oyster Lake		24	28°37'41"	96°10'40"	N Corner, Oyster Lake
	Oyster Lake		25	28°37'24"	96°10'47"	SE Shoreline, Oyster Lake
	Matagorda		26	28°35'44"	96°11'00"	ICNW, Southwest
	Matagorda		27	28°35'53"	96°10'16"	ICNW, Northeast
	Matagorda		28	28°37'20"	96°06'26"	Mad Island
	Matagorda		29	28°39'15"	96°01'45"	Shell Oil Cut
	Matagorda		30	28°39'15"	96°59'25"	Northeast Pocket
	Matagorda		31	28°35'22"	96°02'43"	Tide Gauge
	Matagorda		32	28°33'07"	96°07'15"	Watermelon Mott
	Matagorda		33	28°31'17"	96°11'25"	Oil Well Cut

Table 1 . (Cont'd).

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Matagorda	Matagorda	34	28°29'05"	96°15'00"	Poco Agua
	Matagorda	35	28°25'00"	96°21'35"	Decro Point
	Matagorda	36	28°27'10"	96°29'30"	La Salle Bayou
	Powderhorn Lake	37	28°30'00"	96°29'05"	Corner Powderhorn Lake
	Powderhorn Lake	38	28°29'00"	96°30'42"	Powderhorn Ranch Marsh
	Powderhorn Lake	39	28°28'37"	96°31'39"	Powderhorn, West
	Powderhorn Lake	40	28°30'10"	96°31'00"	Powderhorn, North Shore
	Lavaca	41	28°33'25"	96°31'30"	Indian Point
	Chocolate Bay	42	28°34'55"	96°35'36"	Cedar Point
	Chocolate Bay	43	28°34'16"	96°38'08"	Tanner Launch
	Lavaca	44	28°40'19"	96°38'10"	Maxwell Ditch
	Lavaca	45	28°41'46"	96°39'45"	Six Mile Creek
	Lavaca	46	28°42'38"	96°38'31"	Garcitas Cove
	Lavaca	47	28°43'05"	96°37'11"	Venado West
	Venado Lake	48	28°44'35"	96°36'45"	Venado Lake #2
	Lavaca	49	28°43'10"	96°35'00"	Venado East
	Redfish Lake	50	28°47'41"	96°34'27"	Redfish Lake, Northwest
	Redfish Lake	51	28°46'41"	96°33'43"	Redfish Lake, Southeast
	Lavaca	52	28°38'07"	96°36'50"	Noble Point
	Swan Lake	53	28°45'00"	96°34'09"	Swan Lake, North
	Swan Lake	54	28°43'55"	96°33'41"	Swan Lake, East
	Lavaca	55	28°41'47"	96°33'47"	Catfish Cove
	Lavaca	56	28°39'24"	96°34'25"	Alcoa
	Lavaca	57	28°36'52"	96°30'00"	Rhodes Point
	Cox	58	28°38'24"	96°31'05"	Cox Point
	Cox	59	28°39'03"	96°31'05"	Cox Creek, West
	Cox	60	28°38'34"	96°30'35"	Huisache Cove
	Cox	61	28°38'07"	96°30'00"	Cox Cove, North
	Cox	62	28°37'24"	96°30'00"	Cox Cove, Southeast
	Keller	63	28°36'33"	96°28'55"	Mud Point
	Keller	64	28°37'49"	96°28'00"	Olivia
	Keller	65	28°37'39"	96°27'02"	Smith Ranch House

Table 1 . (Cont'd).

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Matagorda	Keller	66	28° 35' 35"	96° 26' 20"	Smith's Slough
	Keller	67	28° 35' 10"	96° 27' 35"	Keller Bay, SW corner
	Keller	68	28° 35' 48"	96° 28' 30"	Smith's Point
	Lavaca	69	28° 35' 00"	96° 29' 00"	Humble Oil Dock
	Lavaca	70	28° 34' 15"	96° 29' 18"	Sand Point Lavaca
	Matagorda	71	28° 35' 25"	96° 26' 20"	Smith's Cedars
	Redfish Lake	72	28° 37' 43"	96° 23' 07"	Redfish Lake, N Pocket
	Redfish Lake	73	28° 37' 15"	96° 22' 55"	Redfish Lake, E Shore
	Redfish Lake	74	28° 37' 15"	96° 23' 55"	Redfish Lake, SW Shore
	Salt Lake	75	28° 37' 50"	96° 23' 53"	Salt Lake, Pocket
	Salt Lake	76	28° 37' 55"	96° 25' 00"	Salt Lake, W Pocket
	Carancahua	77	28° 38' 26"	96° 25' 00"	Port Alto, South
	Carancahua	78	28° 41' 33"	96° 24' 42"	Port Alto, North
	Carancahua	79	28° 42' 31"	96° 25' 55"	Wolf Point Flats
	Carancahua	80	28° 44' 19"	96° 26' 18"	Carancahua Bay, North
	Carancahua	81	28° 44' 32"	96° 25' 51"	Carancahua Bay, East
	Carancahua	82	28° 43' 03"	96° 25' 48"	Cape Carancahua
	Carancahua	83	28° 44' 05"	96° 25' 20"	Crescent V, West
	Carancahua	84	28° 43' 57"	96° 23' 40"	Crescent V, East
	Carancahua	85	28° 42' 29"	96° 23' 15"	Five Mile Draw
	Carancahua	86	28° 39' 43"	96° 22' 16"	Houston Point
	Carancahua	87	28° 37' 57"	96° 21' 34"	Schicke Point, Inside
	Matagorda	88	28° 37' 30"	96° 21' 34"	Schicke Point, Outside
	Matagorda	89	28° 38' 20"	96° 20' 00"	Piper Lake
	Matagorda	90	28° 38' 30"	96° 19' 11"	MFRS
	Matagorda	91	28° 36' 28"	95° 59' 05"	SE Pocket
	Matagorda	92	28° 32' 10"	96° 09' 54"	Trout Bayou
Matagorda	93	28° 30' 30"	96° 12' 35"	Cotton Bayou	
Matagorda	94	28° 27' 25"	96° 18' 15"	Tom Cherry	
Matagorda	95	28° 28' 24"	96° 25' 24"	Broad Bayou	
Matagorda	96	28° 30' 32"	96° 28' 47"	Powderhorn Bayou	
Lavaca	97	28° 35' 00"	96° 35' 00"	Alamo Beach	

Table 1 . (Cont'd).

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Matagorda	Matagorda	98	28° 34' 12"	96° 28' 49"	Sand Point, South
	Matagorda	99	28° 37' 00"	96° 22' 55"	Carancahua Pass, West
	Lavaca	100	28° 33' 50"	96° 32' 50"	1 mile NW of Magnolia Beach boat launch

Table 1. (Cont'd)

Bay system	Bay	Station		Station	
		number	Latitude	Longitude	identification
San Antonio	San Antonio	1	28°23'22"	96°42'35"	Swan Point
	San Antonio	2	28°22'45"	96°41'50"	Mosquito Cove, 1 mile S of Swan Point
	San Antonio	3	28°21'55"	96°42'00"	Mosquito Cove, 1.25 miles N of Mosquito Point
	San Antonio	4	28°19'00"	96°39'15"	W point of Grass Island
	San Antonio	5	28°19'05"	96°37'55"	E point of Grass Island
	Shoalwater	6	28°19'25"	96°38'00"	N point of Grass Island
	San Antonio	7	28°18'15"	96°37'35"	Small island just W of Steamboat Island
	Espiritu Santo	8	28°18'36"	96°37'05"	Middle of E side of Steamboat Island
	Shoalwater	9	28°19'30"	96°36'55"	1 mile from W point of Long Island in Shoalwater Bay
	Espiritu Santo	10	28°19'25"	96°37'35"	1.25 mile from W point of Long Island in Espiritu Santo Bay
	Espiritu Santo	11	28°20'20"	96°35'47"	2.50 miles from W point of Long Island in Espiritu Santo Bay
	Espiritu Santo	12	28°21'10"	96°34'52"	Long Island 0.5 mile W of Lane
	Espiritu Santo	13	28°21'45"	96°33'52"	Long Island 0.5 mile E of Lane
	Espiritu Santo	14	28°22'10"	96°32'55"	Long Island 1.5 miles E of Lane
	Espiritu Santo	15	28°22'47"	96°31'07"	0.5 mile from W point of Dewberry Island
	Espiritu Santo	16	28°23'15"	96°30'10"	1.5 miles from W point of Dewberry Island
	Espiritu Santo	17	28°23'50"	96°29'12"	Dewberry Island 0.5 mile W of Army channel
	Espiritu Santo	18	28°24'13"	96°28'18"	Blackberry Island 0.75 mile E of Army channel
	Espiritu Santo	19	28°24'48"	96°27'12"	Blackberry Island 1.75 miles E of Army channel
	Espiritu Santo	20	28°25'18"	96°26'06"	Blackberry Island at mouth of Barroom Bay

Table 1. (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification	
San Antonio	Espiritu Santo	21	28°23'49"	96°26'12"	1.25 miles E of Bayoucouc Point	
	Espiritu Santo	22	28°23'00"	96°27'09"	Bayoucouc Point	
	Espiritu Santo	23	28°22'40"	96°27'20"	N side of Grass Island 0.5 mile from E point	
	Espiritu Santo	24	28°22'15"	96°28'10"	N side of Grass Island 0.5 mile from W point	
	Espiritu Santo	25	28°21'35"	96°27'25"	W point of Farwell Island	
	Espiritu Santo	26	28°21'50"	96°26'53"	E point of Farwell Island	
	Espiritu Santo	27	28°21'15"	96°26'25"	0.5 mile S of second oil well off Saluria Bayou	
	Espiritu Santo	28	28°21'00"	96°26'22"	Big Pocket	
	Espiritu Santo	29	28°20'33"	96°26'33"	Lighthouse Cove W of derelict boat on shore	
	Espiritu Santo	30	28°19'51"	96°28'48"	0.25 mile W of Army hole on Vanderveer Island	
	Pringle Lake	Pringle Lake	31	28°18'51"	96°30'22"	S shore Pringle Lake 2 miles E of Rahal Bayou
	Pringle Lake	Pringle Lake	32	28°18'22"	96°31'25"	S shore Pringle Lake 1 mile E of Rahal Bayou
	Espiritu Santo	Espiritu Santo	33	28°19'25"	96°31'21"	Pringle Cut in center of Vanderveer Island
	Espiritu Santo	Espiritu Santo	34	28°18'07"	96°33'10"	Rahal Bayou
	Espiritu Santo	Espiritu Santo	35	28°18'05"	96°34'30"	South Pass Lake, E cut
	San Antonio	San Antonio	36	28°17'10"	96°35'53"	South Pass Lake, W cut
	San Antonio	San Antonio	37	28°16'50"	96°36'45"	Long Lake mouth on N shore
	San Antonio	San Antonio	38	28°16'35"	96°37'06"	Island N of Corey Cove
	San Antonio	San Antonio	39	28°16'05"	96°37'50"	Corey Cove point
	San Antonio	San Antonio	40	28°15'35"	96°37'50"	Pat's Bay mouth on S shore
	San Antonio	San Antonio	41	28°15'12"	96°39'06"	1 mile S Pat's Bay between two guts
	San Antonio	San Antonio	42	28°14'25"	96°39'15"	Mouth of Twin Lakes
	San Antonio	San Antonio	43	28°13'54"	96°39'54"	Cedar Point

Table 1 . (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
San Antonio	San Antonio	44	28°13'35"	96°40'00"	Mouth of Cedar Lake on S shore
	San Antonio	45	28°13'15"	96°41'00"	1 mile S of Cedar Lake
	San Antonio	46	28°12'30"	96°42'06"	0.5 mile S of Panther Point
	San Antonio	47	28°12'05"	96°41'55"	Panther Point Lake, just inside mouth on S shore
	San Antonio	48	28°11'45"	96°42'55"	1 mile S of Panther Point Lake mouth
	San Antonio	49	28°11'20"	96°45'05"	Mouth of Cottonwood Bayou
	San Antonio	50	28°11'21"	96°47'24"	Ayres Point
	Ayres	51	28°10'30"	96°48'55"	Point S of Ayres Point
	Ayres	52	28°10'05"	96°49'10"	Ayres Dugout
	Ayres	53	28°11'20"	96°50'00"	Rattlesnake Island
	Mustang Lake	54	28°13'50"	96°47'30"	Mouth of Mustang Lake E shore
	San Antonio	55	28°14'43"	96°46'35"	Point of land N of Marker 35
	San Antonio	56	28°15'20"	96°47'15"	Live Oak Point
	San Antonio	57	28°16'27"	96°47'47"	Dagger Point
	San Antonio	58	28°19'17"	96°47'45"	Webb Point
	San Antonio	59	28°20'21"	96°47'33"	0.5 mile S of Hopper Landing
	Hynes	60	28°21'48"	96°47'51"	McDowell Point
	Hynes	61	28°22'22"	96°49'00"	1 mile N of McDowell Point
	Hynes	62	28°25'20"	96°50'51"	Point of land in center head of Hynes Bay
	Hynes	63	28°25'40"	96°49'40"	1 mile S of Townsend Bayou
	Hynes	64	28°25'10"	96°48'45"	Opposite steel gate in marsh
	Hynes	65	28°24'33"	96°47'50"	Swan Lake Bayou N of mouth
	Hynes	66	28°23'54"	96°46'37"	Grassey Point
	San Antonio	67	28°24'25"	96°47'20"	Midway between Grassey Point and Marsh Point
	Guadalupe	68	28°25'25"	96°45'50"	Foster Point
	Hynes	69	28°24'15"	96°51'00"	Opposite tall cylindrical tower
	San Antonio	70	28°14'00"	96°47'50"	Mouth of Mustang Lake W shore
	San Antonio	72	28°20'18"	96°42'01"	Opposite Channel Marker 13

Table 1 . (Cont'd).

Bay system	Bay	Station number	Latitude	Longitude	Station identification
San Antonio	San Antonio	73	28°19'30"	96°41'30"	Opposite Channel Marker 11
	Long Lake	78	28°17'00"	96°35'50"	N shore of Long Lake
	Long Lake	79	28°16'35"	96°35'45"	S shore of Long Lake
	Pats	80	28°15'55"	96°37'05"	N shore of Pats Bay
	San Antonio	81	28°13'40"	96°47'05"	1 mile S of False Live Oak Pt.
	San Antonio	82	28°11'25"	96°46'45"	1 mile E of Ayres Point
	San Antonio	83	28°11'25"	96°44'00"	2 mile S of Panther Point Lake mouth

Table 1. (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Aransas	Aransas	1	28°01'50"	97°02'00"	Off of bulkhead at NE end of Rockport beach
	Aransas	2	28°07'28"	96°59'00"	Off S side of Goose Island near restrooms
	Aransas	3	27°59'05"	97°04'00"	Halfway between Turtle Bayou and ICWV Marker 7
	Aransas	4	27°57'15"	97°04'15"	Just N of oil channel halfway between Big Bayou and Trout Bayou
	Redfish	5	27°56'00"	97°05'15"	Off second island NW of Big Bayou in Redfish Bay
	Copano	6	28°03'22"	97°08'10"	Off SW tip of Rattlesnake Point
	Aransas	7	27°55'13"	97°04'22"	Just N of mouth of Corpus Christi Bayou
	Aransas	8	27°53'40"	97°02'42"	Off NE tip of Lydia Ann Island
	Aransas	9	27°55'17"	97°01'03"	1.0 mile SW of tanks on San Jose Island behind Mud Island
	Aransas	10	27°55'43"	97°02'38"	On SW tip of Mud Island
	Aransas	11	27°56'42"	97°01'28"	Middle of Mud Island N side
	Aransas	12	27°56'18"	97°01'22"	Middle of Mud Island S side
	Aransas	13	27°57'05"	96°59'35"	On NE tip of Mud Island
	Aransas	14	27°58'06"	96°58'27"	1.0 mile N of San Jose Ranch house
	Aransas	15	27°59'00"	96°58'07"	2.0 miles N of San Jose Ranch house within Allyn's Bight
	Aransas	16	28°07'37"	96°55'42"	On Blackjack Peninsula at Dunham Point
	Aransas	17	28°01'14"	96°58'00"	On San Jose Island, 1.5 miles NE of Allyn's Lake
	Aransas	18	28°01'55"	97°01'29"	Off SE tip of Key Allegro Isle
	Aransas	19	28°04'00"	96°57'40"	Off Deadman Island NW of Long Reef
	Aransas	20	28°03'12"	96°56'44"	On Big Island at SE end of Long Reef
	Aransas	21	28°04'18"	96°55'55"	Midway between Long Reef and Jay Bird Reef

Table 1. (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Aransas	Aransas	22	28°05'10"	96°55'33"	On San Jose Island near Jay Bird Reef marker
	Aransas	23	28°06'03"	96°54'22"	S of Spalding Reef near TPWD post marker
	Aransas	24	28°06'40"	96°53'25"	SE end of Shell Reef at mouth of Spalding Bight
	Aransas	25	28°06'48"	96°55'26"	On SE side of SW tip of Dunham Island
	Dunham	26	28°07'57"	96°55'05"	On Grass Island at mouth of Dunham Bay
	Dunham	27	28°08'53"	96°54'22"	In NE most end of Dunham Bay
	Aransas	28	28°59'52"	96°58'47"	At the break between Allyn's Lake and the bay 200 yds N of duck blind
	Aransas	29	28°07'20"	96°56'45"	Midway between Dunham and Blackjack Point
	Aransas	30	28°00'00"	97°03'31"	Just S of Perry Bass docking facilities
	Aransas	31	28°06'15"	97°01'07"	On NE tip of Live Oak Point near reef marker
	Aransas	32	28°05'21"	97°02'00"	Off Fulton beach about 1.0 mile S of Racquet Club in front of Dr. Foster's residence
	Aransas	33	28°04'16"	97°02'07"	Along bulkhead shoreline just S of Sandollar Motel
	Aransas	34	28°04'38"	96°57'53"	On island at end of Halfmoon Reef near ICWV Marker.22
	Carlos Copano	35	28°07'05"	96°53'07"	In SE corner of Carlos Bay
		36	28°05'05"	97°04'34"	Approximately 1.0 mile SW of airport
	Mesquite	37	28°07'09"	96°51'08"	1.5 miles W of mouth of Cedar Bayou
	Mesquite	38	28°06'58"	96°49'55"	At mouth of Cedar Bayou, W side
	Mesquite	39	28°07'18"	96°48'50"	In SE Mesquite Bay about 1.0 mile NE of mouth of Cedar bayou

Table 1. (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Aransas	Mesquite	40	28°08'21"	96°48'07"	At end of Bray Cove
	Mesquite	41	28°08'55"	96°49'04"	Matagorda Island, 1.5 miles S of Ayres Dugout
	Mesquite	42	28°10'01"	96°49'55"	At Ayres Dugout on the Mesquite Bay side
	Mesquite	43	28°10'23"	96°51'07"	Off Roddy Island in N part of Mesquite Bay
	Mesquite	44	28°09'55"	96°52'32"	1.0 mile SW of Sundown-Mesquite Bay Pass
	Carlos	45	28°08'52"	96°53'08"	S side of Cedar Point
	Carlos	46	28°07'50"	96°54'15"	On NE side of Cape Carlos by first refuge marker
	St. Charles	47	28°08'03"	96°57'38"	Off Bird Point inside St. Charles Bay
	St. Charles	48	28°09'57"	96°56'53"	Just S of Egg Point near clump of trees and refuge marker
	St. Charles	49	28°10'35"	96°56'18"	Point of land just N of Bill Mott Bayou
	St. Charles	50	28°12'05"	96°55'43"	Between Little Devil Bayou and Big Devil Bayou
	St. Charles	51	28°13'00"	96°56'33"	At Meile Dietrich Point
	St. Charles	52	28°14'32"	96°55'34"	Just N of McHugh Bayou
	St. Charles	53	28°16'10"	96°54'55"	At mouth of Twin Creek
	St. Charles	54	28°15'00"	96°56'30"	At mouth of Salt Creek outside cove
	St. Charles	55	28°13'41"	96°57'26"	1.5 miles SW of mouth of Salt Creek
	St. Charles	56	28°13'04"	96°58'47"	Inside Cavasso Creek close to Highway 35
	St. Charles	57	28°11'55"	96°56'50"	0.5 mile NW of Big Sharps Point
	St. Charles	58	28°10'53"	96°57'16"	0.5 mile SW of Little Sharps Point
St. Charles	59	28°10'00"	96°58'00"	On S side of Cow Chip Slough	

Table 1. (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Aransas	St. Charles	60	28°08'53"	96°58'20"	Just N of the Big Tree
	St. Charles	61	28°07'57"	96°58'28"	On SE tip of Hail Point
	Copano	62	28°08'10"	97°00'37"	On Lamar Peninsula on W side at N end of Copano Causeway
	Copano	63	28°09'01"	97°01'42"	On W tip of Newcomb Point
	Copano	64	28°09'43"	97°01'08"	Just S of Holiday Beach channel; Palmetto Point
	Copano	65	28°11'00"	97°01'05"	At W end of Shell Point near duck blind
	Copano	66	28°11'52"	97°00'42"	On a point of land 1.0 mile E of Turtle Pen Point
	Copano	67	28°12'07"	97°02'07"	On N side of the mouth of Copano Creek
	Copano	68	28°11'54"	97°01'14"	On S side of Turtle Pen Point
	Copano	69	28°11'18"	97°02'21"	1.5 miles SW of Turtle Pen Point
Aransas	Copano	70	28°10'41"	97°04'00"	About 3.0 miles SW of Turtle Pen Point
	Copano	71	28°10'00"	97°05'27"	About 4.5 miles SW of Turtle Pen Point
	Copano	72	28°08'57"	97°07'22"	Just to the NW of Copano Reef
	Mission	73	28°10'00"	97°08'27"	About 1.5 miles N of mouth of Mission Bay
	Copano	74	28°07'57"	97°09'27"	Between the mouth of Mission Bay and Shellbank Reef
	Copano	75	28°06'41"	97°11'15"	Approximately 1.5 miles NE of Bayside
	Copano	76	28°05'32"	97°13'28"	0.2 mile W of bridge at Black Point
	Copano	77	28°03'45"	97°13'22"	On S side of the mouth of the Aransas River
	Copano	78	28°04'18"	97°12'39"	0.5 mile E of the S end of Bayside bridge on Egery Island
	Copano	79	28°03'39"	97°11'05"	2.0 miles SE of the S end of Bayside Bridge; Rincon de la Cera

Table 1. (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Aransas	Copano	80	28°03'09"	97°09'07"	On N side at the E most island forming Swan Lake
	Port	81	28°01'57"	97°08'53"	On NW end of the old bridge ruins across Port Bay
	Port	82	28°01'15"	97°09'14"	1.0 mile SW of Port Bay Bait Stand, on E tip of land forming horseshoe
	Port	83	28°00'17"	97°09'23"	On point of land 0.8 mile NE of Highway 881 bridge on W side of bay
	Port	84	27°59'29"	97°10'15"	On E shore just S of Highway 881 bridge
	Port	85	27°58'53"	97°10'40"	On W shore 1.0 mile SW of Highway 881 bridge
	Port	86	27°59'54"	97°08'56"	0.8 mile due S of Port Bay ranch house near slough
	Port	87	28°01'05"	97°08'31"	0.5 mile S of E side of old bridge ruins
	Port	88	28°01'45"	97°07'47"	0.5 mile E of Port Bay Bait Stand
	Port	89	28°02'19"	97°07'48"	At point of land forming NW boundary of Italian Bend
	Copano	90	28,04'38"	97°06'03"	Hannibal Point
	Copano	91	28°05'50"	97°03'04"	The third T-head NE of Copano Village; close to airport
	Copano	92	28°07'03"	97°03'12"	On W tip of Redfish Point near old barge
	Mesquite	93	28°08'13"	96°53'21"	In Mesquite Bay 2.5 miles NW from mouth of Cedar Bayou
	Redfish	94	27°54'10"	97°05'47"	On S side of NE tip of Hog Island
	Aransas	95	28°02'27"	96°57'02"	0.5 mile SW of Pauls Mott reef marker
	Redfish	96	27°58'22"	97°04'50"	Off IGVW spoil near oil well inside Estes Cove
	Mission	97	28°08'37"	97°08'20"	Just inside Mission Bay mouth on E side

Table 1. (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Aransas	Mission	98	28°08'05"	97°10'10"	In Mission Bay on W shore due S of river entrance
	Copano Redfish	99	28°04'07"	97°05'45"	Inside Salt Lake off well pads
		100	27°54'47"	97°07'42"	1.0 mile N of Aransas Pass Harbor, W of ICWW Marker 35

Table 1. (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Corpus Christi	Nueces	1	27°49'12"	97°27'45"	2 miles W of westerly powerlines on S shore
	Nueces	2	27°52'52"	97°20'11"	2 miles NE of clay pits
	Nueces	3	27°52'09"	97°20'30"	0.2 mile NW of old Ramada Inn
	Nueces	4	27°52'50"	97°21'28"	1 mile E of clay pits
	Nueces	5	27°52'15"	97°26'27"	1 mile W of westerly powerlines on N shore
	Nueces	6	27°52'12"	97°25'05"	0.5 mile E of westerly powerlines on N shore
	Corpus Christi	7	27°51'24"	97°20'42"	0.8 mile N of Indian Point pier
	Nueces	8	27°53'00"	97°29'39"	0.5 mile NW of shallow cove on N shore
	Nueces	9	27°51'47"	97°27'52"	On E shore of first cove to the E of White Point
	Nueces	10	27°52'30"	97°30'40"	3 miles W and N of river cut
	Nueces	11	27°51'10"	97°30'00"	0.5 mile W of river cut on S shore
	Nueces	12	27°52'00"	97°29'00"	On W shore of White Point
	Nueces	13	27°52'28"	97°22'38"	Just W of clay pits
	Nueces	14	27°52'29"	97°23'38"	0.2 mile W of easterly powerlines on N shore
	Nueces	15	27°50'14"	97°23'15"	Just SW of the W.R.I.P. canal
	Nueces	16	27°50'15"	97°29'23"	Due S of island at Nueces River mouth
	Nueces	17	27°49'36"	97°25'38"	0.5 mile W of westerly powerlines on S shore
	Corpus Christi	18	27°41'34"	97°11'26"	0.2 mile S of water exchange pass (W.E.P.)
	Corpus Christi	19	27°46'00"	97°09'53"	Just S of tanks on NE end at Shamrock Island
	Corpus Christi	20	27°45'05"	97°08'49"	0.2 mile S of sportsmen club cabin
	Corpus Christi	21	27°46'35"	97°07'54"	0.2 mile NE of Sinclair Cut
	Corpus Christi	22	27°45'11"	97°10'20"	Extreme southern tip of Shamrock Island

Table 1. (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Corpus Christi	Corpus Christi	23	27°50'28"	97°09'41"	0.2 mile S of Dagger Point on S shore
	Corpus Christi	24	27°43'27"	97°10'05"	0.5 mile S of boat cove by Tenneco pumping station
	Corpus Christi	25	27°49'53"	97°10'26"	0.2 mile N of southern tip of Dagger Island on S shore
	Nueces	26	27°51'15"	97°29'05"	Off N side of spoil island, 0.5 mile N of river cut
	Corpus Christi	27	27°42'40"	97°10'32"	1 mile N of W.E.P.
	Corpus Christi	28	27°50'51"	97°14'09"	Welder Point, just NW of house on bluff
	Corpus Christi	29	27°42'22"	97°17'26"	0.5 mile NW of N.A.S. bulkheads
	Corpus Christi	30	27°52'29"	97°18'14"	2 miles W of jetties on La Quinta shore
	Corpus Christi	31	27°51'58"	97°19'37"	2 miles NE of Indian Point Pier
	Nueces	32	27°51'30"	97°21'45"	On spoil area, 0.5 mile NE of Nueces Bay causeway
	Corpus Christi	33	27°49'50"	97°22'48"	On the beach just SW of Rincon Point
	Corpus Christi	34	27°45'54"	97°22'56"	1 mile SE of Holiday Inn on Ocean Drive
	Corpus Christi	35	27°43'28"	97°20'40"	0.8 mile NW of Oso Fishing Pier
	Corpus Christi	36	27°52'48"	97°16'45"	0.8 mile W of jetties on La Quinta shore
	Corpus Christi	37	27°41'42"	97°14'51"	On N shore of Demit Island
	Corpus Christi	38	27°42'51"	97°19'09"	0.8 mile SE of Oso Fishing Pier
	Corpus Christi	39	27°41'18"	97°13'17"	N shore of spoil area near ICGW Marker 3
	Corpus Christi	40	27°45'14"	97°09'29"	0.2 mile N of Glenn Cove
	Corpus Christi	41	27°46'22"	97°08'49"	0.5 mile SW at Sinclair Cut, N of tanks
	Redfish	42	27°50'12"	97°10'11"	Middle of N shore at Dagger Point
	Corpus Christi	43	27°49'40"	97°10'46"	On S shore of spoil area just SW of Dagger Island

Table 1. (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Corpus Christi	Corpus Christi	44	27°50'46"	97°09'22"	On S shore of spoil area, 0.2 mile NE of Dagger Island
	Redfish	45	27°51'03"	97°08'08"	On SE shore of S. Ransom Island
	Corpus Christi	47	27°44'28"	97°22'06"	2.25 miles NW of Oso Fishing Pier
	Redfish	48	27°52'15"	97°08'04"	In the middle of E shore of N Ransom Island
	Redfish	49	27°52'11"	97°08'07"	In the middle of W shore of N Ransom Island
	Redfish	50	27°53'15"	97°07'01"	On W shore of Stedman Island
	Redfish	51	27°51'25"	97°09'46"	0.25 mile E of ICWV Marker 52 on NE side of spoil
	Corpus Christi	52	27°49'26"	97°07'55"	On SW shore of Point of Mustang
	Redfish	53	27°52'41"	97°08'20"	On SW shore of long spoil area just N of N Ransom Island
	Corpus Christi	54	27°51'01"	97°21'34"	0.25 mile SW of Indian Point Pier
	Corpus Christi	55	27°50'08"	97°07'14"	0.3 mile NE of CCSC Marker 14
	Redfish	56	27°50'51"	97°07'21"	0.8 mile E of S Ransom Island on spill area
	Corpus Christi	57	27°49'30"	97°07'10"	1 mile E of Pt. of Mustang on S shore
	Corpus Christi	58	27°45'21"	97°08'21"	0.5 mile SE of green cabin in Shamrock Cove
	Corpus Christi	59	27°49'20"	97°08'56"	0.2 mile SSW of CCSC Marker 19 on N side of spoil area
	Corpus Christi	60	27°49'18"	97°09'43"	0.3 mile E of CCSC Marker 25 on N side of spoil area just W of tanks
	Corpus Christi	61	27°48'56"	97°11'15"	On N side of spoil area just S of CCSC Marker 31
	Corpus Christi	62	27°48'45"	97°11'41"	On S shore, 1.5 miles NE of W tip of chain of CCSC spoil areas



Table 1. (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Corpus Christi	Corpus Christi	63	27°48'26"	97°13'05"	0.2 mile SE of W tip of chain of CCSC spoil area
	Corpus Christi	64	27°48'47"	97°12'29"	0.2 mile SE of CCSC Marker 36
	Corpus Christi	65	27°49'28"	97°13'10"	Just N of La Quinta Channel Marker 6 in front of houses Just SW of Ingleside Cove public ramp
	Corpus Christi	66	27°50'05"	97°13'21"	
	Corpus Christi	67	27°49'59"	97°13'38"	On N side of island just S of La Quinta Channel Marker 8
	Corpus Christi	68	27°48'38"	97°14'07"	0.8 mile SE of Ingleside Point
	Redfish	70	27°51'22"	97°08'48"	Off SW tip of island that is 0.5 mile SW of N Ransom Island
	Corpus Christi	71	27°52'22"	97°15'42"	Just SW of La Quinta Channel Marker 19
	Corpus Christi	72	27°44'36"	97°09'38"	Just SW of Arco plant at bay end of Wilson's Cut
	Redfish	73	27°53'33"	97°07'32"	0.5 mile SE of Conn Brown Harbor Bridge on S shore of spoil area
	Oso	74	27°42'25"	97°18'30"	On spoil just S of Oso Bridge
	Redfish	75	27°52'14"	97°05'59"	At S end of oil well cut, 1.25 miles SE of Fin and Feather Marina
	Corpus Christi	76	27°50'24"	97°06'06"	On N side of spoil area, 0.2 mile N of CCSC Marker 8
	Corpus Christi	77	27°45'34"	97°08'57"	Pink Shack Cove
	Corpus Christi	78	27°49'00"	97°07'30"	East Flats
	Redfish	79	27°52'31"	97°08'48"	0.2 mile SE of ICWV Marker 44 on S shore of spoil area
	Corpus Christi	80	27°44'04"	97°09'39"	Boat cove

Table 1. (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Laguna Madre	Upper Laguna Madre	1	27°40'40"	97°15'03"	1.0 miles SSW of E tip of Demit Island
	Upper Laguna Madre	2	27°19'40"	97°24'24"	1.2 miles NNW of ICWW Flasher 103
	Upper Laguna Madre	3	27°14'58"	97°25'32"	0.4 mile ESE of ICWW Flasher 133
	Baffin	4	27°17'02"	97°36'45"	3.2 miles E of Riviera Beach
	Baffin	5	27°18'11"	97°39'15"	1.3 miles NNE of Riviera Beach
	Laguna Salada	6	27°16'33"	97°38'57"	1.2 miles SE of Riviera Beach
	Upper Laguna Madre	7	27°41'30"	97°15'01"	0.5 mile ENE of Naval Air Station Corpus Christi Marina
	Laguna Salada	8	27°17'00"	97°40'18"	0.7 mile WSW of Riviera Beach
	Upper Laguna Madre	9	27°40'50"	97°14'06"	0.8 mile ESE of Demit Island
	Upper Laguna Madre	10	27°40'25"	97°15'20"	1.3 miles SW of Demit Island
	Upper Laguna Madre	11	27°40'20"	97°15'57"	1.7 miles SW of Demit Island
	Upper Laguna Madre	12	27°39'20"	97°13'40"	2.0 miles WNW of Corpus Christi Pass
	Upper Laguna Madre	14	27°38'28"	97°13'45"	2.0 miles WSW of Corpus Christi Pass
	Upper Laguna Madre	15	27°39'30"	97°16'25"	2.8 miles SW of Demit Island
	Upper Laguna Madre	16	27°38'25"	97°15'25"	3.0 miles NE of Pita Island
	Upper Laguna Madre	17	27°37'47"	97°15'45"	2.3 miles NE of Pita Island
	Upper Laguna Madre	18	27°37'20"	97°16'20"	1.4 miles NE of Pita Island
	Upper Laguna Madre	19	27°36'00"	97°16'00"	0.3 mile ESE of Pita Island
	Upper Laguna Madre	20	27°36'30"	97°17'55"	0.6 mile NW of Pita Island
	Upper Laguna Madre	21	27°35'40"	97°17'40"	0.6 mile SW of Pita Island
	Upper Laguna Madre	22	27°32'08"	97°17'10"	0.9 mile NNE of North Bird Island
	Upper Laguna Madre	23	27°33'10"	97°19'35"	3.0 miles NW of North Bird Island
	Upper Laguna Madre	24	27°27'10"	97°19'55"	2.5 miles SSE of South Bird Island
	Upper Laguna Madre	25	27°22'08"	97°21'30"	8.6 miles SSW of South Bird Island
	Alazan	26	27°20'25"	97°31'52"	3.5 miles NNE of Starvation Point

Table 1. (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Laguna Madre	Cayo del Grullo	27	27°19'32"	97°41'00"	0.7 mile SE of Loyola Beach
	Laguna Salada	28	27°16'10"	97°41'20"	1.4 miles ESE of Williamson's Boat Dock
	Laguna Salada	29	27°16'31"	97°17'35"	0.2 mile ESE of Williamson's Boat Dock
	Upper Laguna Madre	30	27°36'08"	97°17'35"	SW shore of Pita Island
	Upper Laguna Madre	31	27°34'20"	97°15'36"	2.4 miles W of Bob Hall Pier on Padre Island
	Upper Laguna Madre	32	27°34'33"	97°15'55"	2.2 miles SE of Pita Island
	Upper Laguna Madre	33	27°35'03"	97°18'15"	1.5 miles SW of Pita Island
	Upper Laguna Madre	34	27°34'02"	97°16'40"	2.3 miles SSE of Pita Island
	Upper Laguna Madre	35	27°35'58"	97°16'15"	3.1 miles NNE of North Bird Island
	Upper Laguna Madre	36	27°34'24"	97°19'10"	2.5 miles SW of Pita Island
	Upper Laguna Madre	37	27°33'25"	97°16'38"	2.3 miles NNE of North Bird Island
	Upper Laguna Madre	38	27°31'55"	97°20'10"	2.8 miles WNW of North Bird Island
	Upper Laguna Madre	39	27°30'30"	97°18'00"	0.8 mile SW of North Bird Island
	Upper Laguna Madre	40	27°31'00"	97°20'35"	3.2 miles W of North Bird Island
	Upper Laguna Madre	41	27°29'50"	97°20'48"	2.5 miles W of South Bird Island
	Upper Laguna Madre	42	27°29'00"	97°18'25"	0.7 mile S of South Bird Island
	Upper Laguna Madre	43	27°28'10"	97°21'28"	3.3 miles WSW of South Bird Island
	Upper Laguna Madre	44	27°26'42"	97°20'40"	3.7 miles SW of South Bird Island
	Upper Laguna Madre	45	27°27'57"	97°21'48"	1.6 miles WNW of ICWV Flasher 69
	Upper Laguna Madre	46	27°26'00"	97°19'50"	1.9 miles S of ICWV Flasher 63
	Upper Laguna Madre	47	27°25'35"	97°20'41"	0.9 mile SSW of ICWV Flasher 69
	Upper Laguna Madre	48	27°25'10"	97°19'49"	3.0 miles S of ICWV Flasher 63
	Upper Laguna Madre	49	27°25'50"	97°22'06"	1.8 miles WSW of ICWV Flasher 69
	Upper Laguna Madre	50	27°23'48"	97°20'27"	1.5 miles SE of ICWV Flasher 75
	Upper Laguna Madre	51	27°23'32"	97°21'45"	0.8 mile NE of ICWV Flasher 83
	Upper Laguna Madre	52	27°22'56"	97°21'04"	1.3 miles E of ICWV Flasher 83
	Upper Laguna Madre	53	27°21'19"	97°21'45"	1.2 miles ESE of ICWV Flasher 89
	Upper Laguna Madre	54	27°20'31"	97°24'00"	0.7 mile WNW of ICWV Flasher 95

Table 1. (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification	
Laguna Madre	Upper Laguna Madre	55	27°18'40"	97°23'51"	0.2 mile SE of ICWW Flasher 103	
	Upper Laguna Madre	56	27°14'00"	97°25'40"	0.8 mile SW of ICWW Flasher 139	
	Upper Laguna Madre	57	27°12'42"	97°25'49"	0.6 mile WSW of ICWW Flasher 151	
	Upper Laguna Madre	58	27°12'20"	97°25'36"	0.6 mile S of ICWW Flasher 151	
	Upper Laguna Madre	59	27°11'49"	97°26'08"	0.6 mile NW of ICWW Flasher 163	
	Upper Laguna Madre	60	27°10'39"	97°25'45"	0.7 mile NNE of ICWW Flasher 175	
	Upper Laguna Madre	61	27°10'07"	97°26'30"	0.5 mile WNW of ICWW Flasher 175	
	Upper Laguna Madre	62	27°09'56"	97°25'54"	0.1 mile SE of ICWW Flasher 175	
	Upper Laguna Madre	63	27°08'26"	97°26'19"	0.1 mile S of ICWW Flasher 187	
	Baffin		64	27°18'27"	97°27'49"	3.7 miles WNW of ICWW Flasher 115
	Baffin		65	27°15'07"	97°28'17"	3.5 miles WNW of ICWW Flasher 139
	Baffin		66	27°17'37"	97°29'13"	1.8 miles NE of E Kleberg Point
	Baffin		67	27°14'25"	97°30'15"	2.4 miles S of E Kleberg Point
	Alazan		68	27°18'45"	97°29'48"	3.3 miles ENE of Starvation Point
	Alazan		69	27°19'40"	97°30'22"	3.3 miles NE of Starvation Point
	Alazan		70	27°18'20"	97°31'04"	2.2 miles NNW of E Kleberg Point
	Alazan		71	27°19'53"	97°32'43"	2.8 miles N of Starvation Point
	Baffin		72	27°13'43"	97°32'41"	4.0 miles S of Starvation Point
	Alazan		73	27°17'30"	97°36'03"	0.9 mile NE of Kleberg Point
	Baffin		74	27°15'47"	97°38'27"	0.8 mile SSE of Pie de Gallo
	Laguna Salada		75	27°16'20"	97°40'00"	1.0 mile S of Riviera Beach
	Laguna Salada		76	27°15'55"	97°42'45"	0.8 mile SSW of Williamson's Boat Dock
	Laguna Salada		77	27°15'45"	97°43'30"	1.5 miles SW of Williamson's Boat Dock
	Laguna Salada		78	27°16'55"	97°41'18"	1.5 miles WSW of Riviera Beach
	Baffin		79	27°17'20"	97°39'40"	Baffin Bay shore immediately E of Riviera Beach
	Cayo del Grullo		80	27°21'15"	97°41'45"	1.3 mile N of Loyola Beach
Cayo del Grullo		81	27°21'56"	97°40'34"	2.5 miles NNE of Loyola Beach	
Laguna Madre		82	27°20'35"	97°40'00"	1.7 miles ENE of Loyola Beach	
Cayo del Grullo		83	27°19'43"	97°39'30"	ENE of Kleberg County Kaufer Park	
Cayo del Grullo		84	27°18'09"	97°39'00"	2.0 miles NE of Riviera Beach	

Table 1. (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Laguna Madre	Upper Laguna Madre	85	27°35'16"	97°15'50"	1.8 mile SE of Pita Island
	Upper Laguna Madre	86	27°33'28"	97°15'50"	3.3 mile SSE of Pita Island
	Upper Laguna Madre	87	27°31'11"	97°17'30"	On W shore of N Bird Island
	Upper Laguna Madre	88	27°29'40"	97°17'45"	0.5 mile E of S Bird Island
	Upper Laguna Madre	89	27°24'20"	97°22'10"	1.2 mile WSW of Marker 151 (Old Marker 77)
	Upper Laguna Madre	90	27°23'07"	97°22'55"	0.8 mile W of Marker 83
	Upper Laguna Madre	91	27°21'47"	97°23'30"	0.7 mile W of Marker 89
	Baffin	92	27°19'04"	97°25'12"	1.2 mile WNW of Marker 103
	Cayo del Grullo	93	27°19'32"	97°38'32"	1.7 mile N of Sandy Hook
	Cayo del Grullo	94	27°18'35"	97°40'09"	1.0 mile WNW of Neubauer Point
	Baffin	95	27°14'30"	97°35'00"	2.0 miles SSE of Kleyberg Point
	Upper Laguna Madre	96	27°20'50"	97°23'00"	1.5 mile NE of Point of Rocks
	Upper Laguna Madre	97	27°08'40"	97°26'10"	0.2 mile E of old Marker 185
	Alazan	98	27°23'20"	97°29'10"	0.5 mile SSW of Alazan Mott
	Laguna Salada	99	27°16'10"	97°43'47"	0.8 mile SW of Williamson's Boat Dock

Table 1 . (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Laguna Madre	Lower Laguna Madre	1	26°23'40"	97°19'35"	NW tip of Green Island
	Lower Laguna Madre	2	26°21'10"	97°19'30"	W side of dump W of ICWW Marker 2
	Lower Laguna Madre	3	26°22'00"	97°19'20"	Dump off mouth of Arroyo Colorado
	Lower Laguna Madre	4	26°23'15"	97°19'20"	SW tip of Green Island
	Lower Laguna Madre	5	26°03'10"	97°11'50"	S end of Long Island at Port Isabel
	Lower Laguna Madre	6	26°48'00"	97°28'20"	W of ICWW Marker 223A
	Lower Laguna Madre	7	26°45'15"	97°28'10"	W of ICWW Marker 237
	Lower Laguna Madre	8	26°44'00"	97°28'10"	W of ICWW Marker 241
	Lower Laguna Madre	9	26°42'30"	97°28'00"	W of ICWW Marker 245
	Lower Laguna Madre	10	26°40'40"	97°27'30"	W of ICWW Marker 253
	Lower Laguna Madre	11	26°39'40"	97°27'15"	W of ICWW Marker 259
	Lower Laguna Madre	12	26°39'10"	97°27'10"	W of ICWW Marker 261A
	Lower Laguna Madre	13	26°38'15"	97°26'45"	W of ICWW Marker 265
	Lower Laguna Madre	14	26°36'55"	97°26'50"	W of ICWW Marker 269
	Lower Laguna Madre	15	26°35'50"	97°20'15"	W of ICWW Marker 273A
	Lower Laguna Madre	16	26°33'30"	97°22'25"	S side of dump between Mansfield channel Markers 34 and 36
	Lower Laguna Madre	17	26°31'40"	97°25'11"	W of ICWW Marker 289
	Lower Laguna Madre	18	26°30'15"	97°24'20"	W of ICWW Marker 293A
	Lower Laguna Madre	19	26°31'48"	97°24'20"	W side of dump at ICWW Marker 289
	Lower Laguna Madre	20	26°30'50"	97°23'50"	W side of dump at ICWW Marker 293
	Lower Laguna Madre	21	26°29'50"	97°23'30"	W side of dump by ICWW Marker 297A
	Lower Laguna Madre	22	26°17'35"	97°17'20"	E first dump of Three Islands
	Lower Laguna Madre	23	26°18'05"	97°17'35"	Dump just E of ICWW Marker 31
	Lower Laguna Madre	24	26°17'50"	97°18'00"	Three Islands W of ICWW Marker 31
	Lower Laguna Madre	25	26°18'20"	97°17'45"	Dump just E of ICWW Marker 29
	Lower Laguna Madre	26	26°07'50"	97°17'15"	NW end of Loma de la Grulla
	Lower Laguna Madre	27	26°07'10"	97°17'00"	S end of Loma de la Grulla
	Lower Laguna Madre	28	26°05'35"	97°16'50"	0.5 mile SE of Laguna Vista tower

Table 1. (Cont'd)

Bay	Station number	Latitude	Longitude	Station identification
Laguna Madre	29	26°09'20"	97°10'50"	1.5 miles N of Padre Island water tower
Lower Laguna Madre	30	26°08'50"	97°10'40"	0.25 mile N of Padre Island water tower
Lower Laguna Madre	31	26°04'00"	97°11'50"	N end of Long Island at Port Isabel
South Bay	32	26°01'50"	97°10'20"	E shore of South Bay, E of shipwreck
Arroyo Colorado	33	26°21'00"	97°26'00"	Near inlet of ditch in Old Arroyo channel
Lower Laguna Madre	34	26°47'10"	97°28'20"	W of ICWV Marker 229
Lower Laguna Madre	35	26°46'10"	97°28'15"	W of ICWV Marker 234
Lower Laguna Madre	36	26°41'40"	97°27'50"	W of ICWV Marker 249A
Lower Laguna Madre	37	26°34'48"	97°25'50"	W of ICWV Marker 277A
Lower Laguna Madre	38	26°32'50"	97°25'05"	W of ICWV Marker 285
Lower Laguna Madre	39	26°24'45"	97°20'30"	Dump E of ICWV Marker 317
Lower Laguna Madre	40	26°17'00"	97°17'05"	E side of island E of ICWV Marker 39
Lower Laguna Madre	41	26°18'15"	97°18'00"	Dump W of ICWV Marker 29
Lower Laguna Madre	42	26°17'50"	97°17'20"	Joe Brewer's cabin
Lower Laguna Madre	43	26°06'40"	97°13'00"	Dump W of ICWV Marker 117
South Bay	44	26°01'12"	97°11'13"	S shore at projection SSW of shipwreck
Lower Laguna Madre	45	26°24'35"	97°20'15"	Second dump east of ICWV Marker 317
Lower Laguna Madre	46	26°24'55"	97°20'10"	Third dump east of ICWV Marker 317
Lower Laguna Madre	47	26°24'55"	97°20'05"	Fifth dump east of ICWV Marker 317
Lower Laguna Madre	48	26°23'30"	97°20'10"	East of ICWV Marker 321 on east side of land strip
Lower Laguna Madre	49	26°19'20"	97°18'25"	Dump west of ICWV Marker 19
Lower Laguna Madre	50	26°21'25"	97°18'55"	First dump east of ICWV Marker 2

Table 1. (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Laguna Madre	Lower Laguna Madre	51	26° 31' 30"	97° 18' 45"	Second dump east of ICWW Marker 2
	Lower Laguna Madre	52	26° 21' 28"	97° 18' 30"	Third dump east of ICWW Marker 2
	Lower Laguna Madre	53	26° 17' 48"	97° 17' 28"	Breuer's cabin dump
	Lower Laguna Madre	54	26° 11' 00"	97° 17' 50"	Mainland shore west of ICWW Marker 89
	Lower Laguna Madre	55	26° 09' 20"	97° 17' 45"	Moranco Blanco
	Lower Laguna Madre	56	26° 06' 50"	97° 17' 25"	Mouth of Laguna Vista Cove
	Lower Laguna Madre	57	26° 07' 00"	97° 16' 25"	First east dump on Laguna Vista diagonal channel
	Lower Laguna Madre	58	26° 07' 40"	97° 16' 30"	Dump east of Loma de la Grulla wellhead
	Lower Laguna Madre	59	26° 06' 50"	97° 16' 40"	First west dump on Laguna Vista diagonal channel
	Lower Laguna Madre	60	26° 12' 15"	97° 11' 15"	2.5 miles N of South Padre Island water tower
	Lower Laguna Madre	61	26° 12' 50"	97° 11' 30"	3.5 miles N of South Padre Island water tower
	Lower Laguna Madre	64	26° 04' 50"	97° 14' 30"	1.0 mile E of Laguna Heights Pier
	Lower Laguna Madre	65	26° 05' 20"	97° 10' 00"	Just S of new causeway
	Lower Laguna Madre	66	26° 33' 20"	97° 24' 08"	E side of dump on S side of Mansfield channel Marker 24
	Lower Laguna Madre	67	26° 33' 50"	97° 24' 50"	Dump N of Mansfield channel Marker 26
	Lower Laguna Madre	69	26° 04' 10"	97° 09' 50"	0.25 mile E of South Padre Island Coast Guard Station
	Lower Laguna Madre	70	26° 12' 10"	97° 15' 45"	ICWW Marker 79, spoil dump

Appendix C Trammel Net Station Locations

Table 1 . Trammel net station locations in each bay system, October 1980-September 1981.

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Galveston	Galveston	101	29°32'05"	95°00'30"	0.9 mile S of entrance of Clear Lake Channel
	Galveston	102	29°31'00"	94°59'20"	0.6 mile W of surfaced ramp at Bacliff
	Galveston	103	29°30'20"	94°57'05"	0.2 mile E of Houston Lighting and Power Company's P. H. Robinson Generating Station's discharge canal
	East	104	29°32'45"	94°29'50"	1.5 mile E of Frozen Point
	Dickinson	105	29°28'00"	94°57'50"	Dickinson Bayou, 0.5 mile N of bridge Hiway 146
	Dickinson	106	29°27'40"	94°56'30"	0.2 mile W of Marker 21 in Dickinson Bayou
	Trinity	107	29°38'45"	94°42'00"	0.3 mile S of Double Bayou
	Moses Lake	108	29°25'40"	94°57'05"	Mouth of Moses Bayou, NE side
	Moses Lake	109	29°25'20"	94°56'40"	0.8 mile E of mouth of bayou
	Galveston	110	29°26'30"	95°54'10"	0.9 mile E of entrance to Moses Lake
	Galveston	111	29°24'10"	94°53'10"	0.5 mile N of Texas City Dike
	Jones Lake	112	29°18'40"	94°56'30"	Highland Bayou
	Galveston	113	29°20'40"	94°53'35"	0.6 mile N of Campbell Bayou
	Galveston	114	29°20'00"	94°53'50"	0.1 mile SE of mouth of Campbell Bayou
Galveston	Galveston	115	29°21'05"	94°49'35"	North tip of Pelican Island
	Galveston	116	29°20'35"	94°49'20"	On Pelican Island, 0.2 mile S of ICWW
	Galveston	117	29°19'45"	94°49'25"	Middle of W side of Pelican Island
	Galveston	118	29°17'25"	94°52'05"	0.2 mile E of SE end of railroad bridge
Jones Lake	Jones Lake	119	29°18'35"	94°54'45"	E corner of Jones Lake
	Jones Lake	120	29°18'45"	94°55'45"	Highland Bayou, W end of Jones Lake

Table 1 . (Cont'd).

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Galveston	Jones Lake	122	29° 17' 50"	94° 56' 50"	Basford Bayou
	West	123	29° 16' 35"	94° 58' 30"	0.9 mile NE of Greens Cut
	Greens Lake	124	29° 15' 50"	94° 59' 55"	S shore of Greens Lake
	Greens Lake	125	29° 16' 35"	94° 59' 30"	N shore of Greens Lake
	West	126	29° 14' 15"	95° 00' 55"	0.2 mile SW of Carancahua Cut
	Carancahua Lake	127	29° 14' 20"	95° 01' 30"	S shore of Carancahua Lake
	West	128	29° 13' 00"	95° 01' 45"	Carancahua Point, 1.5 mile SW of Carancahua Cut
	Halls Lake	129	29° 11' 15"	95° 05' 45"	E shore of Halls Lake
	Halls Lake	130	29° 10' 45"	95° 06' 20"	0.2 mile S of The Narrows
	Chocolate	131	29° 11' 10"	95° 06' 30"	0.2 mile NW of The Narrows
	Chocolate	132	29° 11' 50"	95° 07' 15"	Amerada Cut, 0.1 mile E
	Chocolate	133	29° 11' 30"	95° 07' 55"	Nymph Point, 0.3 mile NE
	Chocolate	134	29° 12' 25"	95° 10' 25"	Grassy Point, 0.2 mile N
	Chocolate	135	29° 11' 15"	95° 09' 25"	Horse Grove Point, 0.5 mile S
	Chocolate	136	29° 10' 30"	95° 09' 00"	Wharton Camp Bayou, 0.1 mile S
	Chocolate	137	29° 09' 35"	95° 09' 15"	0.5 mile NW of ICWW Marker 10
	West	138	29° 08' 15"	95° 09' 35"	0.4 mile S of ICWW Marker 11
	West	139	29° 06' 35"	95° 09' 40"	Guyton Cut, 0.5 mile NW of the mouth
	Galveston	Oyster Lake	140	29° 07' 45"	95° 10' 20"
Oyster Lake		141	29° 07' 00"	95° 10' 50"	S shore of Oyster Lake
Bastrop		142	29° 06' 40"	95° 11' 00"	Oyster Lake Bayou, E edge
Bastrop		143	29° 06' 20"	95° 10' 15"	0.7 mile N of Guyton Cut
Lost Lake		144	29° 04' 55"	95° 12' 40"	S shore of Lost Lake
Bastrop		145	29° 05' 00"	95° 11' 40"	1.3 mile W of Christmas Point
Bastrop		146	29° 04' 45"	95° 10' 50"	Christmas Point, 0.5 mile W
Christmas		147	29° 04' 25"	95° 11' 05"	Christmas Point, 0.9 mile SW
Christmas		148	29° 03' 40"	95° 12' 10"	2.1 mile SW of Christmas Point
Christmas		149	29° 02' 50"	95° 13' 15"	1.3 mile NW of Rattlesnake Point

Table 1 . (Cont'd).

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Galveston	Christmas	150	29° 02' 00"	95° 11' 45"	Cedar Cut, NE edge of mouth
	Christmas	151	29° 02' 20"	95° 10' 50"	1.0 mile NE of mouth of Cedar Cut
	Christmas	152	29° 03' 10"	95° 09' 45"	0.3 mile S of mouth of Church-hill Bayou
	West	153	29° 06' 20"	95° 06' 10"	1.2 mile NE of San Luis Pass
	West	154	29° 09' 45"	95° 01' 50"	NE shore of Snake Island Cove
	West	155	29° 10' 20"	95° 01' 25"	0.4 mile NE of Maggies Point
	West	156	29° 11' 00"	95° 00' 40"	0.1 mile E of Shell Island Point
	West	157	29° 11' 20"	94° 59' 45"	SE shore of Jumbile Cove
	West	158	29° 12' 30"	94° 58' 35"	NE shore of Carancahua Cove
	West	159	29° 12' 40"	94° 57' 50"	SW shore of Dana Cove
	West	160	29° 13' 30"	94° 56' 45"	NE shore of Hoeckers Cove
	West	161	29° 13' 55"	94° 56' 05"	S shore of Starvation Cove
	West	162	29° 14' 15"	94° 56' 05"	SW shore of Mentzell Bayou
	West	163	29° 14' 50"	94° 55' 30"	SW shore of mouth of Auzston Bayou
	West	164	29° 17' 00"	94° 55' 45"	North Deer Island, W shore
	West	165	29° 16' 15"	94° 54' 55"	South Deer Island, W shore
	Galveston	Galveston	166	29° 23' 40"	94° 45' 40"
Galveston	Galveston	167	29° 25' 30"	94° 43' 30"	0.7 mile SW of Sievers Cove
East	East	168	29° 27' 40"	94° 41' 40"	1.6 mile SW of Elmgrove Point
East	East	169	29° 28' 30"	94° 40' 30"	0.3 mile W of Elmgrove Point
East	East	170	29° 28' 35"	94° 39' 00"	0.4 mile NW of Bob's Cut
East	East	171	29° 28' 50"	94° 37' 20"	2.5 mile E of Elmgrove Point
East	East	172	29° 29' 30"	94° 35' 50"	S of Yates Bayou
East	East	173	29° 30' 30"	94° 35' 45"	N of Big Pasture Bayou
East	East	174	29° 31' 50"	94° 33' 50"	Marsh Point
East	East	175	29° 31' 10"	94° 32' 20"	1.5 mile SE of Marsh Point
East	East	176	29° 33' 20"	94° 31' 50"	0.9 mile NW of Frozen Point
East	East	177	29° 34' 10"	94° 34' 20"	0.2 mile SW of Robinson Bayou

Table 1 . (Cont'd).

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Galveston	East	178	29°33'20"	94°36'30"	Second windmill W of Robinson Bayou
	East	179	29°32'10"	94°41'10"	Stephenson Point
	Trinity	180	29°33'30"	94°45'20"	1.3 mile E of Vingt-et-un Island
	Trinity	181	29°36'40"	94°43'10"	On NW side of spoil island near mouth of Lone Oak Bayou
	Trinity	182	29°39'40"	94°42'00"	0.8 mile N of Double Bayou on spoil island
	Trinity	183	29°41'00"	94°41'40"	Northern edge Black Point
	Trinity	184	29°41'55"	94°41'30"	0.3 mile S of Ash Point
	Trinity	185	29°43'40"	94°41'35"	0.5 mile S of Round Point
	Trinity	186	29°44'30"	94°41'30"	0.5 mile N of Round Point in Anahuac Channel
	Trinity	188	29°46'00"	94°47'35"	1.3 mile NE of Houston Lighting and Power Company's Cedar Bayou Generating Station's discharge canal
	Trinity	189	29°44'50"	94°49'30"	0.5 mile SW of Houston Lighting and Power Company's Cedar Bayou Generating Station's discharge canal
	Trinity	190	29°43'30"	94°50'40"	0.8 mile SW of Point Barrow
	Trinity	191	29°42'20"	94°51'30"	2.5 mile SW of Point Barrow
	Trinity	192	29°39'45"	94°53'20"	N side of Crawley's Bait Camp
	Galveston	193	29°41'30"	94°56'10"	0.5 mile N of Ash Lake (Rose-land Bayou)
	Galveston	194	29°41'55"	94°57'25"	0.6 mile W of Houston Lighting and Power Company's Cedar Bayou Generating Station's intake canal
	Galveston Trinity	195 196	29°34'55" 29°37'05"	95°00'00" 94°42'40"	0.5 mile SW of Surf Oaks Bayou 0.3 mile N of Lone Oak Bayou

Table 1 . (Cont'd).

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Galveston	East	197	29°31'45"	94°43'50"	2.3 mile W of Stephenson Point
	East	198	29°31'40"	94°34'35"	0.2 mile W of channel through Long Point
	Galveston	199	29°40'35"	94°57'50"	E shore of Atkinson Island,
	West	200	29°16'15"	94°16'15"	0.6 mile SE of Barbours Cut 0.3 mile SW of mouth of Offats Bayou

Table 1 .

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Matagorda	Matagorda	101	28°38'40"	96°18'17"	Wells Point
	Turtle	102	28°39'43"	96°18'16"	Silver Creek
	Turtle	103	28°40'35"	96°17'52"	Shell Beach
	Turtle	104	28°41'08"	96°17'00"	Buttermilk Slough
	Turtle	105	28°41'40"	96°15'45"	Jensen Point
	Turtle	106	28°41'20"	96°15'32"	Incinerator
	Turtle	107	28°40'20"	96°16'55"	Turtle Point
	Matagorda	108	28°41'35"	96°14'10"	Settergest Marsh
	Tres Palacios	109	28°44'47"	96°11'10"	Slaughter Flats
	Tres Palacios	110	28°45'15"	96°10'10"	Tres Palacios River, East
	Tres Palacios	111	28°44'10"	96°10'51"	Pepper Hill
	Tres Palacios	112	28°43'30"	96°11'20"	Collegeport Piling
	Tres Palacios	113	28°42'37"	96°10'54"	Pilkington Bayou
Tres Palacios	114	28°41'40"	96°11'30"	Fence Post Reef	
Tres Palacios	115	28°41'30"	96°12'21"	Redfish Lake	
Tres Palacios	116	28°39'53"	96°12'56"	Coon Island Point	
Coon Island	117	28°39'35"	96°12'40"	Coon Island Bayou	
Tres Palacios	118	28°43'55"	96°12'00"	1 mile N of Grassy Pt.	
Coon Island	119	28°38'35"	96°14'00"	Oliver Point	
Matagorda	120	28°37'53"	96°13'22"	Pipeline Crossing	
Matagorda	122	28°35'25"	96°13'50"	Boat Harbor	
Oyster Lake	123	28°36'14"	96°12'05"	Rattlesnake Island	
Oyster Lake	124	28°37'41"	96°10'40"	N Corner, Oyster Lake	
Oyster Lake	125	28°37'24"	96°10'47"	SE Shoreline, Oyster Lake	
Matagorda	126	28°35'44"	96°11'00"	ICMW, Southwest	
Matagorda	127	28°35'53"	96°10'16"	ICMW, Northeast	
Matagorda	128	28°37'20"	96°06'26"	Mad Island	
Matagorda	129	28°39'15"	96°01'45"	Shell Oil Cut	
Matagorda	130	28°39'15"	96°59'25"	Northeast Pocket	
Matagorda	131	28°35'22"	96°02'43"	Tide Gauge	
Matagorda	132	28°33'07"	96°07'15"	Watermelon Mott	
Matagorda	133	28°31'17"	96°11'25"	Oil Well Cut	

Table 1 .

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Matagorda	Matagorda	134	28°29'05"	96°15'00"	Poco Agua
	Matagorda	135	28°25'00"	96°21'35"	Decro Point
	Matagorda	136	28°28'10"	96°29'30"	La Salle Bayou
	Powderhorn Lake	137	28°30'00"	96°29'05"	Corner Powderhorn Lake
	Powderhorn Lake	138	28°29'00"	96°30'42"	Powderhorn Ranch Marsh
	Powderhorn Lake	139	28°28'37"	96°31'39"	Powderhorn, West
	Powderhorn Lake	140	28°30'10"	96°31'00"	Powderhorn, North Shore
	Lavaca	141	28°33'25"	96°31'30"	Indian Point
	Chocolate Bay	142	28°34'55"	96°35'36"	Cedar Point
	Chocolate Bay	143	28°34'16"	96°38'08"	Tanner Launch
	Lavaca	144	28°40'19"	96°38'10"	Maxwell Ditch
	Lavaca	145	28°41'46"	96°39'45"	Six Mile Creek
	Lavaca	146	28°42'36"	96°38'31"	Garcitas Cove
	Lavaca	147	28°43'05"	96°37'11"	Venado West
	Venado Lake	148	28°44'35"	96°36'45"	Venado Lake #2
	Lavaca	149	28°43'10"	96°35'00"	Venado East
Redfish Lake	150	28°47'41"	96°34'27"	Redfish Lake, Northwest	
Redfish Lake	151	28°46'41"	96°33'43"	Redfish Lake, Southeast	
Lavaca	152	28°38'07"	96°36'50"	Noble Point	
Swan Lake	153	28°45'00"	96°34'09"	Swan Lake, North	
Swan Lake	154	28°43'55"	96°33'51"	Swan Lake, East	
Lavaca	155	28°41'47"	96°33'47"	Catfish Cove	
Lavaca	156	28°39'24"	96°34'25"	Alcoa	
Lavaca	157	28°36'52"	96°31'00"	Rhodes Point	
Cox	158	28°38'24"	96°31'05"	Cox Point	
Cox	159	28°39'03"	96°31'05"	Cox Creek, West	
Cox	160	28°38'34"	96°30'35"	Huisache Cove	
Cox	161	28°38'07"	96°30'00"	Cox Cove, North	
Cox	162	28°37'24"	96°30'00"	Cox Cove, Southeast	
Keller	163	28°36'33"	96°28'55"	Mud Point	
Keller	164	28°37'49"	96°28'00"	Olivia	

Table 1

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Matagorda	Keller	165	28°37'39"	96°27'02"	Smith Ranch House
	Keller	166	28°35'55"	96°26'20"	Smith's Slough
	Keller	167	28°35'10"	96°27'35"	Keller Bay, SW corner
	Keller	168	28°35'48"	96°28'30"	Smith's Point
	Lavaca	169	28°35'00"	96°29'00"	Humble Oil Dock
	Lavaca	170	28°34'15"	96°29'18"	Sand Point Lavaca
	Matagorda	171	28°35'25"	96°26'20"	Smith's Cedars
	Redfish Lake	172	28°37'43"	96°23'07"	Redfish Lake, N Pocker
	Redfish Lake	173	28°37'15"	96°22'55"	Redfish Lake, E Shore
	Redfish Lake	174	28°37'15"	96°23'55"	Redfish Lake, SW Shore
	Salt Lake	175	28°37'50"	96°23'53"	Salt Lake, E Pocket
	Salt Lake	176	28°37'55"	96°25'00"	Salt Lake, W Pocket
	Carancahua	177	28°38'26"	96°25'00"	Port Alto, South
	Carancahua	178	28°41'33"	96°24'42"	Port Alto, North
	Carancahua	179	28°42'31"	28°25'55"	Wolf Point Flats
	Carancahua	180	28°44'19"	96°26'18"	Carancahua Bay, North
	Carancahua	181	28°44'32"	96°25'51"	Carancahua Bay, East
	Carancahua	182	28°43'03"	96°25'48"	Cape Carancahua
	Carancahua	183	28°44'05"	96°25'20"	Crescent V, West
	Carancahua	184	28°43'57"	96°23'40"	Crescent V, East
Carancahua	185	28°42'29"	96°23'15"	Five Mile Draw	
Carancahua	186	28°39'43"	96°22'16"	Houston Point	
Carancahua	187	28°37'57"	96°21'34"	Schicke Point, Inside	
Matagorda	188	28°37'30"	96°21'34"	Schicke Point, Outside	
Matagorda	189	28°38'20"	96°20'00"	Piper Lake	
Matagorda	190	28°38'30"	96°19'11"	MFRS	
Matagorda	191	28°36'28"	96°59'05"	S E Pocket	
Matagorda	192	28°32'10"	96°09'54"	Trout Bayou	
Matagorda	193	28°30'30"	96°12'35"	Cotton Bayou	
Matagorda	194	28°27'25"	96°18'15"	Tom Cherry	
Matagorda	195	28°28'24"	96°25'24"	Broad Bayou	
Matagorda	196	28°30'32"	96°28'47"	Powderhorn Bayou	

Table 1.

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Matagorda	Lavaca	197	28° 35' 00"	96° 35' 00"	Alamo Beach
	Matagorda	198	28° 34' 12"	96° 28' 49"	Sand Point, South
	Matagorda	199	28° 37' 00"	96° 22' 55"	Carancahua Pass, West
	Lavaca	200	28° 33' 50"	96° 32' 50"	1 mile NW of Magnolia Beach boat launch

Table 1 . (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
San Antonio	San Antonio	101	28°23'22"	96°42'35"	Swan Point
	San Antonio	102	28°22'45"	96°41'50"	Mosquito Cove, 1 mile S of Swan Point
	San Antonio	103	28°21'55"	96°42'00"	Mosquito Cove, 1.25 miles N of Mosquito Point
	San Antonio	104	28°19'00"	96°39'15"	W point of Grass Island
	San Antonio	105	28°19'05"	96°37'55"	E point of Grass Island
	Soalwater	106	28°19'25"	96°38'00"	N point of Grass Island
	San Antonio	107	28°18'15"	96°37'35"	Small island just W of Steamboat Island
	Espiritu Santo	108	28°18'36"	96°37'05"	Middle of E side of Steamboat Island
	Shoalwater	109	28°19'30"	96°36'55"	1 mile from W point of Long Island in Shoalwater Bay
	Espiritu Santo	110	28°19'25"	96°37'35"	1.25 mile from W point of Long Island in Espiritu Santo Bay
	Espiritu Santo	111	28°20'20"	96°35'47"	2.5 miles from W point of Long Island in Espiritu Santo Bay
	Espiritu Santo	112	28°21'10"	96°34'52"	Long Island 0.5 mile W of Lane
	Espiritu Santo	113	28°21'45"	96°33'52"	Long Island 0.5 mile E of Lane
	Espiritu Santo	114	28°22'10"	96°32'55"	Long Island 1.5 miles E of Lane
	Espiritu Santo	115	28°22'47"	96°31'07"	0.5 mile from W point of Dewberry Island
	Espiritu Santo	116	28°23'15"	96°30'10"	1.5 miles from W point of Dewberry Island
	Espiritu Santo	117	28°23'50"	96°29'12"	Dewberry Island 0.5 mile W of Army channel
	Espiritu Santo	118	28°24'13"	96°28'18"	Blackberry Island 0.75 mile E of Army channel
	Espiritu Santo	119	28°24'48"	96°27'12"	Blackberry Island 1.75 miles E of Army channel
	Espiritu Santo	120	28°15'18"	96°26'06"	Blackberry Island at mouth of Barroom Bay

Table 1 . (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station Identification
San Antonio	Espiritu Santo	121	28°23'49"	96°26'12"	1.25 miles E of Bayoucou Point
	Espiritu Santo	122	28°23'00"	96°27'09"	Bayoucou Point
	Espiritu Santo	123	28°22'40"	96°27'20"	N side of Grass Island 0.5 mile from E point
	Espiritu Santo	124	28°22'15"	96°28'10"	N side of Grass Island 0.5 mile from W point
	Espiritu Santo	125	28°21'35"	96°27'25"	W point of Farwell Island
	Espiritu Santo	126	28°21'50"	96°26'53"	E point of Farwell Island
	Espiritu Santo	127	28°21'15"	96°26'25"	0.5 mile S of second oil well off Saluria Bayou
	Espiritu Santo	128	28°21'00"	96°26'22"	Big Pocket
	Espiritu Santo	129	28°20'33"	96°26'33"	Lighthouse Cove W of derelict boat on shore
	Espiritu Santo	130	28°19'51"	96°28'48"	0.25 mile W of Army hole on Vanderveer Island
	Pringle Lake	131	28°18'51"	96°30'22"	S shore Pringle Lake 2 miles E of Rahal Bayou
	Pringle Lake	132	28°18'22"	96°31'25"	S shore Pringle Lake 1 mile E of Rahal Bayou
	Espiritu Santo	133	28°19'25"	96°31'21"	Pringle Cut in center of Vanderveer Island
	Espiritu Santo	134	28°18'07"	96°33'10"	Rahal Bayou
	Espiritu Santo	135	28°18'05"	96°34'30"	South Pass Lake, E cut
	San Antonio	136	28°17'10"	96°35'53"	South Pass Lake, W cut
	San Antonio	137	28°16'50"	96°36'45"	Long Lake mouth on N shore
	San Antonio	138	28°16'35"	96°37'06"	Island N of Corey Cove
	San Antonio	139	28°16'05"	96°37'50"	Corey Cove Point
	San Antonio	140	28°15'35"	96°37'50"	Pat's Bay mouth on S shore
	San Antonio	141	28°15'12"	96°39'06"	1 mile S Pat's Bay between two Guts
	San Antonio	142	28°14'25"	96°39'30"	Mouth of Twin Lakes
	San Antonio	143	28°13'54"	96°39'54"	Cedar Point

Table 1. (Cont'd).

Bay system	Bay	Station number	Latitude	Longitude	Station identification
San Antonio	San Antonio	144	28°13'35"	96°40'00"	Mouth of Cedar Lake on S shore
	San Antonio	145	28°13'15"	96°41'00"	1 mile S of Cedar Lake
	San Antonio	146	28°12'30"	96°42'06"	0.5 mile S of Panther Point
	San Antonio	147	28°12'05"	96°41'55"	Panther Point Lake, just inside mouth on S shore
	San Antonio	148	28°11'45"	96°42'55"	1 mile S of Panther Point Lake mouth
	San Antonio	149	28°11'20"	96°45'05"	Mouth of Cottonwood Bayou
	San Antonio	150	28°11'21"	96°47'24"	Ayres Point
	Ayres	151	28°10'30"	96°48'55"	Point S of Ayres Point
	Ayres	152	28°10'05"	96°49'10"	Ayres Dugout
	Ayres	153	28°11'20"	96°50'00"	Rattlesnake Island
	Mustang Lake	154	28°13'50"	96°47'30"	Mouth of Mustang Lake E shore
	San Antonio	155	28°14'43"	96°46'35"	Point of land N of Marker 35
	San Antonio	156	28°15'20"	96°47'15"	Live Oak Point
	San Antonio	157	28°16'27"	96°47'47"	Dagger Point
	San Antonio	158	28°19'17"	96°47'45"	Webb Point
	San Antonio	159	28°20'21"	96°47'33"	0.5 mile S of Hopper Landing
	Hynes	160	28°21'48"	96°47'51"	McDowell Point
Hynes	161	28°22'22"	96°49'00"	1 mile N of McDowell Point	
Hynes	162	28°25'20"	96°50'51"	Point of land in center head of Hynes Bay	
Hynes	163	28°25'40"	96°49'40"	1 mile S of Townsend Bayou	
Hynes	164	28°25'10"	96°48'45"	Opposite steel gate in marsh	
Hynes	165	28°24'33"	96°47'50"	Swan Lake Bayou N of mouth	
Hynes	166	28°23'54"	96°46'37"	Grassey Point	
San Antonio	167	28°24'25"	96°47'20"	Midway between Grassey Point	
Guadalupe	168	28°25'25"	96°45'50"	Foster Point	
Hynes	169	28°24'15"	96°51'00"	Opposite tall cylindrical tower	
San Antonio	170	28°15'00"	96°47'50"	Mouth of Mustand Lake W shore	
San Antonio	172	28°20'18"	96°42'01"	Opposite Channel Marker 13	
San Antonio	173	28°19'30"	96°41'30"	Opposite Channel Marker 11	

Table 1. (Cont'd).

Bay system	Bay	Station number	Latitude	Longitude	Station identification
San Antonio	Mission Lake	174	28°27'45"	96°48'10"	0.5 mile W of North Guadalupe River
	Mission Lake	175	28°28'15"	96°47'30"	Goff Bayou
	Guadalupe	176	28°27'15"	96°47'25"	South Guadalupe River
	Guadalupe	177	28°27'05"	96°46'40"	E of South Guadalupe River
	Long Lake	178	28°17'00"	96°35'50"	N shore of Long Lake
	Long Lake	179	28°16'35"	96°35'45"	S shore of Long Lake
	Pats	180	28°15'55"	96°37'05"	N shore of Pats Bay
	San Antonio	181	28°13'40"	96°47'05"	1 mile S of Flase Live Oak Pt.
	San Antonio	182	28°11'25"	96°46'45"	1 mile E of Ayres Point
	San Antonio	183	28°11'25"	96°44'00"	2 mile S of Panther Pt. Lake mouth

Table 1. (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Aransas	Aransas	101	28°01'50"	97°02'00"	Just W of S channel entrance to Little Bay
	Dunham	102	28°08'53"	96°54'22"	NE corner of Dunham Bay
	Aransas	103	27°59'05"	97°04'00"	Halfway between Turtle Bayou and ICWW Marker 7
	Aransas	104	27°57'15"	97°04'15"	Oil well channel between Big and Trout bayous
	Redfish	105	27°56'00"	97°05'15"	Off second island NW of Big Bayou in Redfish Bay
	Copano	106	28°03'22"	97°08'10"	Rattlesnake Point
	Aransas	107	28°03'12"	96°56'44"	Long Reef
	Aransas	108	27°54'40"	97°02'42"	Lydia Ann Island
	Aransas	109	27°55'17"	97°01'03"	Oil tanks on St. Jose Island behind Mud Island
	Aransas	110	27°55'43"	97°02'38"	SW tip of Mud Island
	Copano	111	28°03'39"	97°11'05"	Rincon de la Cera
	Aransas	112	27°56'18"	97°01'22"	S side of middle of Mud Island
	Copano	113	28°11'00"	97°01'05"	Shell Point
	Copano	114	28°11'52"	97°00'42"	E of Turtle Pen Point
	Aransas	115	27°59'00"	96°58'07"	NE end of Allyn's Bight
	Copano	116	28°06'41"	97°11'15"	1.5 miles NE of Bayside
	Copano	117	28°07'03"	97°03'12"	Redfish Point
	Port	118	28°01'05"	97°08'31"	0.5 mile S of old bridge pilings
	Aransas	119	28°04'00"	96°57'40"	Deadman Island
	Aransas	120	27°55'13"	97°04'22"	Corpus Christi Bayou
	Aransas	121	28°04'18"	96°55'55"	Halfway between Long and Jay Bird reefs
	Aransas	122	27°59'52"	96°58'47"	Junction of Allyn's Lake and Aransas Bay
	Aransas	123	28°05'10"	96°55'33"	Jay Bird Reef
	Carlos	124	28°07'50"	96°54'15"	NE side of Cape Carlos
	Aransas	125	28°06'48"	96°55'26"	SW tip of Dunham Island

Table 1. (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Aransas	Mesquite	126	28°09'55"	96°52'32"	1 mile SW of area of Sundown and Mesquite bays junction
	Aransas	127	28°07'20"	96°56'45"	Halfway between Dunham and Blackjack points
	St. Charles	128	28°09'57"	96°56'53"	Egg Point
	Aransas	129	28°07'28"	96°59'00"	Goose Island (near restrooms)
	Aransas	130	28°00'00"	97°03'31"	Just S of Perry Bass docking facilities
	Aransas	131	28°06'15"	97°01'07"	Live Oak Point
	Aransas	132	28°05'21"	97°02'00"	1 mile S of Racquet Club
	Aransas	133	28°04'16"	97°02'07"	Just S of Sandollar Motel
	Aransas	134	28°06'48"	97°01'51"	S end of Copano Causeway, near boat ramp
	Carlos	135	28°07'05"	96°53'07"	SE corner of Carlos Bay
	Copano	136	28°05'05"	97°04'34"	1 mile SW of Aransas County airport
	Mesquite	137	28°07'09"	96°51'08"	1.5 mile W of mouth of Cedar Bayou
	St. Charles	Mesquite	138	28°06'58"	96°49'55"
Mesquite		139	28°07'18"	96°48'50"	SE part of Mesquite Bay
Mesquite		140	28°08'21"	96°48'07"	Bray Cove
Mesquite		141	28°08'55"	96°49'04"	1.5 mile S of Ayres Dugout
Mesquite		142	28°10'01"	96°49'55"	Ayres Dugout
Mesquite		143	28°10'23"	96°51'07"	Roddy Island
Dunham		144	28°07'57"	96°55'05"	Grass Island
Carlos		145	28°08'52"	96°53'08"	S side of Cedar Point
Aransas		146	28°06'40"	96°53'25"	Mouth of Spalding Bight
St. Charles		147	28°08'03"	96°57'38"	Bird Point
Aransas		148	28°06'03"	96°54'22"	S of Spalding Reef
St. Charles		149	28°10'35"	96°56'18"	Bill Mott Bayou
St. Charles		150	28°12'05"	96°55'43"	Indian Head Point
St. Charles		151	28°13'00"	96°56'33"	Meile Dietrich Point
St. Charles		152	28°14'32"	96°53'34"	McHugh Bayou
St. Charles		153	28°16'10"	96°54'55"	Twin Creek

Table 1. (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification	
Aransas	St. Charles	154	28°15'00"	96°56'30"	Salt Creek	
	St. Charles	155	28°13'41"	96°57'26"	1.5 miles SW of mouth of Salt Creek	
	St. Charles	156	28°13'04"	96°58'47"	Cavasso Creek, near Highway 35	
	St. Charles	157	28°11'55"	96°56'50"	Big Sharps Point	
	St. Charles	158	28°10'53"	96°57'16"	Little Sharps Point	
	St. Charles	159	28°10'00"	96°58'00"	S side of Cow Chip Slough	
	St. Charles	160	28°08'53"	96°58'20"	Just N of Big Tree	
	St. Charles	161	28°07'57"	96°58'28"	Hail Point	
	Copano	162	28°08'10"	97°00'37"	N end of Copano Causeway, west side	
	Copano	163	28°09'01"	97°01'42"	Newcomb Point	
	Copano	164	28°09'43"	97°01'08"	Holiday Beach channel	
	Aransas	165	27°57'05"	96°59'35"	NE tip of Mud Island	
Aransas	166	27°58'06"	96°58'27"	1 mile N of ranch house on San Jose Island		
Copano	167	28°12'07"	97°02'07"	Copano Creek		
Copano	168	28°11'54"	97°01'14"	Turtle Pen Point		
Copano	169	28°11'18"	97°02'21"	1.5 miles SW of Turtle Pen Point		
Copano	170	28°10'41"	97°04'00"	3.0 miles SW of Turtle Pen Point		
Copano	171	28°10'00"	97°05'27"	4.5 miles SW of Turtle Pen Point		
Copano	172	28°08'57"	97°07'22"	Just NW of Copano Reef		
Mission	173	28°10'00"	97°08'27"	1.5 miles N of mouth of Mission Bay		
Copano	174	28°07'57"	97°09'27"	Between mouth of Mission Bay and Shellbank Reef		
Dunham	175	28°07'37"	96°55'42"	Dunham Point		
Copano	176	28°04'32"	97°13'28"	0.2 mile W of bridge at Black Point		
Copano	177	28°03'45"	97°13'22"	On S side of mouth of Aransas River		
Copano	178	28°04'18"	97°12'39"	W end of Egery Island		

Table 1. (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Aransas	Aransas	179	27°56'42"	97°01'28"	N side of middle of Mud Island
	Copano	180	28°03'09"	97°09'07"	Mouth of Swan Lake
	Port	181	28°01'57"	97°08'53"	NW end of old bridge pilings
	Port	182	28°01'15"	97°09'14"	1 mile SW of Port Bay Bait Stand
	Port	183	28°00'17"	97°09'23"	0.8 mile NE of Highway 881
	Port	184	27°59'29"	97°10'15"	Just S of Highway 881
	Port	185	27°58'53"	97°10'40"	1 mile SW of Highway 881
	Port	186	27°59'54"	97°08'56"	0.8 mile S of Port Bay ranch house
	Aransas	187	28°01'55"	97°00'29"	SE tip of Key Allegro Isle
	Port	188	28°01'45"	97°07'47"	0.5 mile E of Port Bay Bait Stand
Port	Port	189	28°02'19"	97°07'48"	Mouth of Italian Bend, NW shore
	Copano	190	28°04'38"	97°06'03"	Hannibal Point
	Copano	191	28°05'50"	97°03'04"	Third T-head NE of Coapno Village
	Aransas	192	28°01'14"	96°58'00"	1.5 miles NE of Allyns Lake
	Mesquite	193	28°08'13"	96°52'21"	2.5 miles NW of mouth of Cedar Bayou
Redfish	Redfish	194	27°54'10"	97°05'47"	NE tip of Hog Island
	Aransas	195	28°02'27"	96°57'02"	0.5 mile SW of Pauls Mott Reef
	Redfish	196	27°58'22"	97°04'50"	Estes Cove
	Mission	197	28°08'37"	97°08'25"	Mouth of Mission Bay on E side
	Mission	198	28°08'05"	97°10'10"	S of mouth of Mission River
	Copano	199	28°04'07"	97°05'45"	Salt Lake
	Redfish	200	27°54'47"	97°07'42"	W of ICWV Marker 35

Table 1. (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Corpus Christi	Nueces	101	27°49'12"	97°27'45"	2 miles W of westerly powerlines on S shore
	Nueces	102	27°52'52"	97°20'11"	2 miles NE of Clay pits
	Nueces	103	27°52'09"	97°20'30"	0.25 mile NW of old Ramada Inn
	Nueces	104	27°52'50"	97°21'28"	1 mile E of clay pits
	Nueces	105	27°52'15"	97°26'27"	1 mile W of westerly powerlines on N shore
	Nueces	106	27°52'12"	97°25'05"	0.5 mile E of westerly powerlines on N shore
	Nueces	107	27°53'00"	97°29'39"	0.5 mile NW of shallow cove on N shore
	Nueces	108	27°51'47"	97°27'52"	On E shore of first cove to the E of White Point
	Nueces	109	27°52'30"	97°30'40"	3 miles W and N of Nueces River cut
	Nueces	110	27°52'00"	97°28'00"	On W shore of White Point
	Nueces	111	27°52'28"	97°22'38"	Just W of clay pits
	Nueces	112	27°52'29"	97°23'38"	0.25 mile W of easterly powerlines on N shore
	Nueces	113	27°51'10"	97°30'00"	0.5 mile W of Nueces River cut on S shore
	Nueces	114	27°50'14"	97°23'15"	Just SW of the Rincon Industrial Park canal
	Nueces	115	27°50'15"	97°29'23"	S of island at Nueces River mouth
	Nueces	116	27°49'36"	97°25'38"	0.5 mile W of westerly powerlines on S shore
	Corpus Christi	117	27°41'34"	97°11'26"	0.25 mile S of Water Exchange Pass
	Corpus Christi	118	27°43'27"	97°10'05"	0.5 mile S of Boat Cove by Tenneco pumping station
	Corpus Christi	119	27°46'00"	97°09'53"	Just S of storage tanks on NE end of Shamrock Island
	Corpus Christi	120	27°45'05"	97°08'49"	0.25 mile S of sportsmen's club cabin

Table 1. (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Corpus Christi	Corpus Christi	121	27°46'35"	97°07'54"	0.25 mile NE of Sinclair Cut
	Corpus Christi	122	27°45'11"	97°10'20"	Extreme southern tip of Shamrock Island
	Corpus Christi	123	27°50'28"	97°09'41"	0.25 mile S of Dagger Point on S shore
	Corpus Christi	124	27°49'53"	97°10'26"	0.25 mile N of southern tip of Dagger Island on S shore
	Corpus Christi	125	27°45'34"	97°08'57"	In Pink Shack Cove
	Corpus Christi	126	27°42'40"	97°10'32"	1 mile N of Water Exchange Pass
	Corpus Christi	127	27°50'51"	97°14'09"	Welder Point just NW of house on bluff
	Corpus Christi	128	27°52'00"	97°15'51"	On S shore 0.25 mile SE of tanks at N end of La Quinta channel shore
	Corpus Christi	129	27°52'48"	97°16'45"	0.75 mile W of jetties on La Quinta channel shore
	Corpus Christi	130	27°52'29"	97°18'14"	2 miles W of jetties on La Quinta channel shore
	Corpus Christi	131	27°51'58"	97°19'37"	2 miles NE of Indian Point Pier
	Corpus Christi	132	27°51'24"	97°20'42"	1/2 mile NE of Indian Point Pier
	Corpus Christi	133	27°49'50"	97°22'48"	On beach just SW of Rincon Point
	Corpus Christi	134	27°45'54"	97°22'56"	1 mile SE of Holiday Inn on Ocean Drive
	Corpus Christi	135	27°43'28"	97°20'40"	0.75 mile NW of Oso Fishing Pier
	Corpus Christi	136	27°42'22"	97°17'26"	0.5 mile NW of Naval Air Station bulkheads
	Corpus Christi	137	27°41'42"	97°14'51"	On N shore of Demit Island
	Corpus Christi	138	27°42'51"	97°19'09"	0.75 mile SE of Oso Fishing Pier
	Corpus Christi	139	27°41'18"	97°13'17"	N shore of spoil area near ICW Marker 3
	Corpus Christi	140	27°45'14"	97°09'29"	0.25 mile N of Glenn Cove
	Corpus Christi	141	27°46'22"	97°08'49"	0.5 mile SW of Sinclair Cut, N of tanks

Table 1. (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Corpus Christi	Redfish	142	27°50'12"	97°10'11"	Middle of N shore of Dagger Island
	Corpus Christi	143	27°49'40"	97°10'46"	On S shore of spoil area just SW of Dagger Island
	Corpus Christi	144	27°50'46"	97°09'22"	On S shore of spoil area 0.25 mile NE of Dagger Island
	Redfish	145	27°51'03"	97°08'08"	On SE shore of South Ransom Island
	Corpus Christi	146	27°48'24"	97°23'16"	On spoil area, 0.25 mile S of Corpus Christi Ship Channel Marker 85
	Corpus Christi	147	27°44'28"	97°22'06"	2.25 miles NW of Oso Fishing Pier
	Redfish	148	27°52'15"	97°08'04"	In middle of E shore of North Ransom Island
	Redfish	149	27°52'11"	97°08'07"	In middle of W shore of North Ransom Island
	Redfish	150	27°53'15"	97°07'01"	On W shore of Stedman Island
	Corpus Christi	151	27°49'14"	97°12'09"	Just W of Sun Oil Company Dock Number 1 near Ingleside
	Corpus Christi	152	27°49'26"	97°07'55"	On SW shore of Point of Mustang
	Corpus Christi	153	27°50'35"	97°14'47"	On SW shore of La Quinta channel spoil, 0.25 mile NW of Ingleside Cove cut
	Redfish	154	27°52'41"	97°08'20"	On SW shore of long spoil area just N of North Ransom Island
	Corpus Christi	155	27°49'47"	97°07'12"	On N shore of Point of Mustang, 0.25 mile SE of Corpus Christi Ship Channel Marker 13
	Corpus Christi	156	27°50'04"	97°05'55"	0.25 mile SE of Corpus Christi Ship Channel Marker 7
	Corpus Christi	157	27°50'17"	97°04'47"	Just SE of Corpus Christi Ship Channel Marker 1
	Corpus Christi	158	27°50'27"	97°05'30"	N of Corpus Christi Ship Channel Markers 2 and 8

Table 1. (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Corpus Christi	Corpus Christi	159	27°50'08"	97°07'14"	0.3 mile NE of Corpus Christi Ship Channel Marker 14
	Corpus Christi	160	27°49'30"	97°07'10"	1 mile E of Point of Mustang on S shore
	Corpus Christi	161	27°47'34"	97°07'23"	1½ mile N of Sinclair Cut
	Redfish	162	27°53'08"	97°06'27"	0.25 mile SE of Fin and Feather Marina
	Redfish	163	27°51'36"	97°08'39"	0.5 mile SW of southern tip of North Ransom Island
	Corpus Christi	164	27°49'20"	97°08'56"	0.25 mile SSW of Corpus Christi Ship Channel Marker 19 on N side of spoil area
	Corpus Christi	165	27°49'18"	97°09'43"	0.3 mile E of Corpus Christi Ship Channel Marker 25 on N side of spoil area just W of tanks
	Corpus Christi	166	27°48'56"	97°11'15"	On N side of spoil area just S of Corpus Christi Ship Channel Marker 31
	Corpus Christi	167	27°48'45"	97°11'41"	On S shore 1.5 miles NE of W tip of chain of Corpus Christi Ship Channel spoil areas
	Corpus Christi	168	27°48'26"	97°13'05"	0.25 mile SE of W tip of chain of Corpus Christi Ship Channel spoil areas
	Corpus Christi	169	27°48'47"	97°12'29"	0.25 mile SE of Corpus Christi Ship Channel Marker 36
	Corpus Christi	170	27°49'28"	97°13'10"	Just N of LaQuinta Channel Marker 6 in front of houses
	Corpus Christi	171	27°50'05"	97°13'21"	Just SW of Ingleside Cove public boat ramp
	Corpus Christi	172	27°50'05"	97°14'00"	0.25 mile NE of LaQuinta Channel Marker 7

Table 1. (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Corpus Christi	Corpus Christi	173	27°49'38"	97°14'07"	0.75 mile SE of Ingleside Point
	Corpus Christi	174	27°51'37"	97°14'50"	1½ NW of Ingleside Cove Cut on SW shore
Redfish	Redfish	175	27°51'25"	97°09'46"	0.25 mile E of ICW Marker 52
	Corpus Christi	176	27°44'36"	97°09'38"	Just SW of Arco Plant at bay end of Wilson's Cut
Oso	Oso	177	27°42'30"	97°19'00"	Oso Bay
	Redfish	178	27°53'33"	97°07'32"	0.5 mile SE of Conn Brown Harbor
Redfish	Redfish	179	27°52'14"	97°05'59"	Bridge on S shore of spoil area
	Corpus Christi	180	27°50'24"	97°06'06"	At S end of oil well cut
Corpus Christi	Corpus Christi	181	27°45'21"	97°08'21"	On N side of spoil area 0.25 mile N of Corpus Christi Ship Channel Marker 8
	Corpus Christi	182	27°44'04"	97°09'39"	0.5 mile SE of green cabin
	Corpus Christi	183	27°47'00"	97°07'00"	Inside the boat cove, on N shore
	Redfish	184	27°52'31"	97°08'48"	East Flats
Redfish	185	27°50'51"	97°07'21"	0.25 mile SE of ICW Marker 44 on S shore of spoil area	
					0.75 mile E of South Ransom Island

Table 1. (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Laguna Madre	Upper Laguna Madre	101	27°41'30"	97°15'01"	0.5 mile ENE of Naval Air Station Corpus Christi Marina
	Upper Laguna Madre	102	27°40'40"	97°15'03"	1 mile SSW of E tip of Demit Island
	Upper Laguna Madre	104	27°40'25"	97°15'20"	1.3 miles SW of Demit Island
	Upper Laguna Madre	105	27°40'20"	97°15'57"	1.7 miles SW of Demit Island
	Upper Laguna Madre	106	27°39'20"	97°13'40"	2 miles WNW of Corpus Christi Pass
	Upper Laguna Madre	107	27°37'54"	97°13'00"	1.7 mile SW of Corpus Christi Pass
	Upper Laguna Madre	108	27°38'28"	97°13'45"	2 miles SWS of Corpus Christi Pass
	Upper Laguna Madre	110	27°38'25"	97°15'25"	3 miles NE of Pita Island
	Upper Laguna Madre	111	27°34'20"	97°15'36"	2.4 miles W of Bob Hall Pier
	Upper Laguna Madre	112	27°34'05"	97°19'04"	2.8 miles SW of Pita Island
	Upper Laguna Madre	113	27°29'50"	97°20'48"	2.5 miles W of South Bird Island
	Cayo del Grullo	114	27°19'42"	97°39'30"	1.6 miles ENE of Kleberg County Kaufer Park
	Cayo del Grullo	115	27°18'20"	97°39'26"	1.3 miles NNE of Riviera Beach
	Laguna Salada	116	27°16'10"	97°41'20"	1.4 miles ESE of Williamson's Boat Dock
	Upper Laguna Madre	117	27°26'27"	97°19'40"	3.8 miles SSW of South Bird Island
	Upper Laguna Madre	118	27°21'45"	97°21'50"	1.2 miles E of ICW Flasher 89
	Upper Laguna Madre	119	27°19'45"	97°24'22"	Point of Rocks
	Upper Laguna Madre	120	27°10'08"	97°25'52"	0.1 mile E of ICW Flasher 175
	Baffin	121	27°17'05"	97°37'00"	Kleberg Point
	Baffin	122	27°17'40"	97°29'10"	1.2 miles NE of East Kleberg Point
	Baffin	123	27°15'50"	97°38'27"	2.2 miles SW of Kleberg Point
	Laguna Salada	124	27°16'27"	97°43'00"	0.5 mile WSW of Williamson's Boat Dock

Table 1 . (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Laguna Madre	Upper Laguna Madre	125	27°40'15"	97°13'30"	2.2 mile NW of Corpus Christi Pass Bridge on Mustang Island
	Upper Laguna Madre	126	27°38'00"	97°15'40"	2.5 miles NE of Pita Island
	Baffin	127	27°18'27"	97°28'00"	4 miles NW of Penascal Point
	Baffin	128	27°14'30"	97°35'00"	3.5 miles SSE of Kleberg Point
	Baffin	129	27°14'20"	97°30'30"	2.5 miles S of East Kleberg Point
	Upper Laguna Madre	130	27°08'30"	97°26'35"	0.1 mile E of ICWV Flasher 187
	Upper Laguna Madre	131	27°22'56"	97°21'04"	1.3 miles ESE of ICWV Flasher 83
	Upper Laguna Madre	132	27°38'20"	97°15'50"	3.7 miles SSW of Demit Island
	Upper Laguna Madre	133	27°37'20"	97°16'20"	1.4 miles NE of Pita Island
	Upper Laguna Madre	134	27°36'30"	97°17'55"	0.6 mile NW of Pita Island
	Upper Laguna Madre	135	27°36'08"	97°17'35"	SW shore of Pita Island
	Upper Laguna Madre	136	27°35'40"	97°17'40"	0.6 miles SW of Pita Island
	Upper Laguna Madre	137	27°34'33"	97°15'55"	2.2 miles SE of Pita Island
	Upper Laguna Madre	138	27°34'55"	97°18'15"	1.5 miles SW of Pita Island
	Upper Laguna Madre	139	27°33'58"	97°16'15"	3.1 miles NNE of North Bird Island
	Upper Laguna Madre	140	27°33'25"	97°16'38"	2.3 miles NNE of North Bird Island
	Upper Laguna Madre	141	27°33'10"	97°19'35"	3 miles NW of North Bird Island
	Upper Laguna Madre	142	27°32'08"	97°17'10"	0.9 mile NNE of North Bird Island
	Upper Laguna Madre	143	27°31'15"	97°17'30"	W shore of North Bird Island
	Upper Laguna Madre	144	27°31'55"	97°20'10"	2.8 miles WNW of North Bird Island
	Upper Laguna Madre	145	27°31'00"	97°20'35"	3.2 miles W of North Bird Island
	Upper Laguna Madre	146	27°29'00"	97°18'25"	0.7 mile S of South Bird Island
	Upper Laguna Madre	147	27°28'10"	97°21'28"	3.3 miles WSW of South Bird Island
	Upper Laguna Madre	149	27°27'57"	97°21'48"	1.6 miles WNW of ICWV Flasher 69
	Upper Laguna Madre	150	27°25'35"	97°20'41"	0.9 mile SSW of ICWV Flasher 69
	Upper Laguna Madre	151	27°25'10"	97°19'49"	3 miles S of ICWV Flasher 63
	Upper Laguna Madre	152	27°25'50"	97°22'06"	1.8 miles WSW of ICWV Flasher 69
	Upper Laguna Madre	153	27°23'48"	97°20'27"	1.5 miles SE of ICWV Flasher 75
	Upper Laguna Madre	154	27°23'32"	97°21'45"	0.8 mile NE of ICWV Flasher 83
Upper Laguna Madre	155	27°20'31"	97°24'00"	0.7 mile WNW of ICWV Flasher 95	

Table 1 . (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Laguna Madre	Upper Laguna Madre	156	27°18'40"	97°23'51"	0.2 mile SE of ICWV Flasher 103
	Upper Laguna Madre	158	27°14'50"	97°25'00"	1.0 mile SE of Pt. Penascal
	Upper Laguna Madre	160	27°12'20"	97°25'25"	0.6 mile SSW of ICWV Flasher 151
	Upper Laguna Madre	161	27°11'49"	97°26'08"	0.6 mile NW of ICWV Flasher 163
	Upper Laguna Madre	163	27°10'07"	97°26'30"	0.5 mile WNW of ICWV Flasher 175
	Cayo del Grullo	164	27°18'09"	97°38'00"	2 miles NE of Riviera Beach
	Baffin	165	27°15'07"	97°28'17"	3.5 miles WNW of ICWV Flasher 139
	Cayo del Grullo	166	27°30'35"	97°40'00"	1.7 miles ENE of Loyola Beach
	Alazan	167	27°18'45"	97°29'48"	3.3 miles ENE of Starvation Point
	Alazan	168	27°19'40"	97°30'22"	3.5 miles NE of Starvation Point
	Alazan	169	27°18'20"	97°31'04"	2.2 miles NNW of East Kleberg Point
	Alazan	170	27°20'30"	97°31'52"	3.5 miles NNE of Starvation Point
	Alazan	171	27°19'53"	97°32'43"	2.8 miles N of Starvation Point
	Baffin	172	27°13'43"	97°32'41"	4 miles S of Starvation Point
	Alazan	173	27°17'30"	97°36'03"	0.9 mile NE of Kleberg Point
	Laguna Salada	174	27°16'33"	97°38'57"	1.2 miles SE of Riviera Beach
	Laguna Salada	175	27°16'20"	97°40'00"	1 mile S of Riviera Beach
	Laguna Salada	176	27°15'55"	97°42'45"	0.8 mile SSW of Williamson's Boat Dock

Table 1. (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Laguna Madre	Laguna Salada	177	27° 15' 45"	97° 43' 30"	1.5 miles SW of Williamson's Boat Dock
	Laguna Salada	178	27° 16' 55"	97° 41' 18"	1.5 miles WSW of Riviera Beach
	Baffin	179	27° 17' 20"	97° 39' 35"	Baffin Bay shore immediately E of Riviera Beach
	Cayo del Grullo	180	27° 19' 32"	97° 41' 00"	0.7 mile SE of Loyola Beach
	Cayo del Grullo	181	27° 21' 15"	97° 41' 45"	1.3 mile N of Loyola Beach
	Cayo del Grullo	182	27° 21' 56"	97° 40' 34"	2.5 miles NNE of Loyola Beach
	Upper Laguna Madre	183	27° 33' 25"	97° 15' 57"	2.7 miles NE of N Bird Island
	Upper Laguna Madre	184	27° 29' 55"	97° 17' 40"	0.7 mile ENE of S Bird Island
	Upper Laguna Madre	185	27° 27' 30"	97° 19' 08"	2.2 mile SSW of S Bird Island
	Upper Laguna Madre	186	27° 24' 20"	97° 22' 10"	1.2 mile WSW of ICWW Marker 151 (Old Marker 77)
	Upper Laguna Madre	187	27° 23' 07"	97° 22' 55"	0.8 mile W of ICWW Marker 83
	Upper Laguna Madre	188	27° 21' 47"	97° 23' 30"	0.7 mile W of ICWW Marker 89
	Baffin	189	27° 19' 04"	97° 25' 12"	1.2 mile WNW of ICWW Marker 103
	Baffin	190	27° 18' 40"	97° 26' 20"	2.2 mile W of ICWW Marker 103
	Cayo del Grullo	191	27° 19' 28"	97° 37' 30"	3.1 mile ESE of Loyola Beach
	Laguna Salada	192	27° 16' 02"	97° 43' 40"	1.4 mile SW of Williamson's Dock
	Baffin	193	27° 17' 12"	97° 37' 42"	1.8 mile ESE of Neubauer Point

Table 1 . (Cont'd)

Bay system	Bay	Station		Station		Station identification
		number	Latitude	Longitude	identification	
Laguna Madre	Lower Laguna Madre	101	26°42'50"	97°26'30"		Spoil dump 0.5 mile E of ICWW Marker 246
	Lower Laguha Madre	102	26°48'00"	97°28'20"		W of ICWW Marker 223A
	Lower Laguna Madre	103	26°45'15"	97°28'10"		W of ICWW Marker 237
	Lower Laguna Madre	104	26°39'40"	97°27'15"		W of ICWW Marker 259
	Lower Laguna Madre	105	26°36'55"	97°26'50"		W of ICWW Marker 269
	Lower Laguna Madre	106	26°35'50"	97°20'15"		W of ICWW Marker 273A
	Lower Laguna Madre	107	26°33'30"	97°22'25"		S side of spoil dump between Mansfield Channel Markers 34 and 36.
	Lower Laguna Madre	108	26°33'20"	97°24'08"		E side of spoil dump S side of Mansfield Channel Marker 24
	Lower Laguna Madre	109	26°31'48"	97°24'20"		W of ICWW Marker 289 W side of dump
	Lower Laguna Madre	110	26°30'50"	97°23'50"		W of ICWW Marker 293 W side of dump
	Lower Laguna Madre	111	26°44'00"	97°28'10"		W of ICWW Marker 241
	Lower Laguna Madre	112	26°42'30"	97°28'00"		W of ICWW Marker 245
	Lower Laguna Madre	113	26°40'40"	97°27'30"		W of ICWW Marker 253
	Lower Laguna Madre	114	26°39'10"	97°27'10"		W of ICWW Marker 261A
	Lower Laguna Madre	115	26°38'15"	97°26'45"		W of ICWW Marker 265
	Lower Laguna Madre	116	26°31'40"	97°25'11"		W of ICWW Marker 289
	Lower Laguna Madre	117	26°30'15"	97°24'20"		W of ICWW Marker 293A
	Lower Laguna Madre	118	26°29'50"	97°23'30"		W side of spoil dump at ICWW Marker 297A
	Lower Laguna Madre	119	26°23'40"	97°19'35"		NW tip of Green Island
	Lower Laguna Madre	120	26°17'35"	97°17'20"		First dump of Three Islands
	Lower Laguna Madre	121	26°17'50"	97°18'00"		Three Islands W of ICWW Marker 31
	Lower Laguna Madre	122	26°23'15"	97°19'20"		SW tip of Green Island
	Lower Laguna Madre	123	26°21'10"	97°19'30"		W side of spoil dump W of ICWW Marker 2
	Lower Laguna Madre	124	26°18'20"	97°17'45"		E of ICWW Marker 29
	Lower Laguna Madre	125	26°18'05"	97°17'35"		E of ICWW Marker 31
	Lower Laguna Madre	126	26°12'10"	97°15'45"		NW of ICWW Marker 79 on E side of spoil dump

Table 1 . (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification	
Laguna Madre	Lower Laguna Madre	127	26°06'40"	97°13'00"	W of ICWV Marker 117	
	Lower Laguna Madre	128	26°07'50"	97°17'15"	NW end of Loma de la Grulla	
	Lower Laguna Madre	129	26°07'10"	97°17'00"	S end of Loma de la Grulla	
	Lower Laguna Madre	130	26°05'35"	97°16'50"	0.5 mile SE of Laguna Vista tower	
	Lower Laguna Madre	131	26°04'50"	97°14'30"	1.0 mile E of Laguna Heights pier	
	Lower Laguna Madre	132	26°09'20"	97°10'50"	1.5 miles N of Padre Island water tower	
	Lower Laguna Madre	133	26°08'50"	97°10'40"	0.25 mile N of Padre Island water tower	
	Lower Laguna Madre	134	26°03'45"	97°11'50"	N end of Long Island at Port Isabel	
	Lower Laguna Madre	135	26°03'10"	97°11'50"	S end of Long Island at Port Isabel	
	South Bay		136	26°01'50"	97°10'20"	E of shipwreck
	Arroyo Colorado		137	26°21'00"	97°26'00"	Near ditch in Old Arroyo channel
	Lower Laguna Madre		138	26°47'10"	97°28'20"	W of ICWV Marker 229
	Lower Laguna Madre		139	26°46'10"	97°28'15"	W of ICWV Marker 234
	Lower Laguna Madre		140	26°41'40"	97°27'50"	W of ICWV Marker 249A
	Lower Laguna Madre		141	26°34'48"	97°25'50"	W of ICWV Marker 277A
Lower Laguna Madre		142	26°32'50"	97°25'05"	W of ICWV Marker 285	
Lower Laguna Madre		143	26°33'50"	97°24'05"	N of Mansfield Channel Marker 26	
Lower Laguna Madre		144	26°24'45"	97°20'30"	E of ICWV Marker 317	
Lower Laguna Madre		145	26°19'20"	97°18'25"	W of ICWV Marker 19	
Lower Laguna Madre		146	26°18'15"	97°18'00"	W of ICWV Marker 29	
Lower Laguna Madre		147	26°17'00"	97°17'05"	Island E of ICWV Marker 39	
Lower Laguna Madre		148	26°13'10"	97°16'05"	W of ICWV Marker 69	
Lower Laguna Madre		149	26°03'45"	97°10'10"	S side of Brownsville Ship Channel between Markers 5 and 9	
South Bay		150	26°01'12"	97°11'13"	SSW of shipwreck at S shore projection	

Table 1 . (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Laguna Madre	Lower Laguna Madre	151	26°24'55"	97°20'10"	Third dump east of ICWW Marker 137
	Lower Laguna Madre	152	26°23'30"	97°20'10"	East of ICWW Marker 321 on east side of land strip
	Lower Laguna Madre	153	26°22'00"	97°19'20"	Dump off mouth of Arroyo Colorado
	Lower Laguna Madre	154	26°20'30"	97°19'10"	Dump west of ICWW Marker 9
	Lower Laguna Madre	155	26°19'50"	97°18'50"	Dump west of ICWW Marker 15
	Lower Laguna Madre	156	26°09'20"	97°17'45"	Moranco Blanco
	Lower Laguna Madre	157	26°11'00"	97°17'50"	Mainland shore west of ICWW Marker 89
	Lower Laguna Madre	158	26°06'50"	97°17'25"	Southeast lip of Laguna Vista Cove
	Lower Laguna Madre	159	26°12'50"	97°11'30"	3.5 mile N of South Padre water tower
	Lower Laguna Madre	160	26°12'15"	97°11'15"	2.5 mile N of South Padre water tower
	Lower Laguna Madre	162	26°20'45"	97°19'15"	Dump west of ICWW Marker 7
	Lower Laguna Madre	163	26°20'15"	97°18'58"	Dump west of ICWW Marker 11
	Lower Laguna Madre	164	26°19'28"	97°18'35"	Dump west of ICWW Marker 17
	Lower Laguna Madre	165	26°19'00"	97°18'30"	Dump west of ICWW Marker 21
	Lower Laguna Madre	166	26°18'35"	97°18'15"	Dump west of ICWW Marker 25
	Lower Laguna Madre	167	26°05'20"	97°10'00"	Just S of new causeway
	Lower Laguna Madre	168	26°34'05"	97°25'40"	End of N dirt road Port Mansfield
	Lower Laguna Madre	169	26°46'50"	97°27'45"	Dump E of ICWW Marker 229A
	Lower Laguna Madre	170	26°04'10"	97°09'50"	0.25 mile E of South Padre Island Coast Guard Station

Appendix D Bag Seine Station Locations

Table 1 . Bag seine station locations in each bay system, October 1980-September 1981.

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Galveston	Galveston	201	29°30'20"	94°57'05"	0.2 mile E of Houston Lighting and Power Company's P. H. Robinson Generating Station's discharge canal
	Dickinson	202	29°28'40"	94°55'40"	0.4 mile N of April Fool Point
	Dickinson	203	29°28'20"	94°57'10"	Inside Dickinson Bay
	Dickinson	204	29°27'40"	94°56'30"	0.3 mile W of Marker 21 in Dickinson Bay Channel
	Moses Lake	205	29°26'05"	94°56'05"	1.2 mile SW of tide gate on entrance of Moses Lake
	Moses Lake	206	29°25'40"	94°57'05"	NE side of mouth of Moses Bayou
	Moses Lake	207	29°25'20"	94°56'20"	S shore of Moses Lake, 0.8 mile E of mouth
	West Galveston	208	29°16'05"	94°59'10"	0.1 mile NE of Greens Cut
	Galveston	209	29°26'30"	95°54'10"	0.9 mile E of tide gate of entrance of Moses Lake
	Galveston	210	29°24'10"	94°53'10"	1.0 mile N of Texas City Dike
	West Galveston	211	29°18'00"	94°56'50"	0.2 mile NE of Brasford Bayou
	Galveston	212	29°20'40"	94°53'40"	0.7 mile N of Campbell Bayou
	Galveston	213	29°20'00"	94°53'50"	0.2 mile S of Campbell Bayou
	Jones Lake	214	29°18'45"	94°55'45"	1.2 mile W of ramp of E end of Jones Lake
	Trinity West	215	29°37'10"	94°42'40"	0.5 mile N of Lone Oak Bayou
	Greens Lake	216	29°16'35"	94°58'30"	0.6 mile SW of IOTW Marker 6 SW shore of Greens Lake
	Greens Lake	217	29°15'45"	94°59'55"	N shore of Greens Lake
	West Galveston	218	29°16'35"	94°59'30"	0.2 mile SW of Carancahua Cut
	Galveston	219	29°14'15"	95°00'55"	Sea Wolf Park
	West Galveston	220	29°20'10"	94°46'45"	1.4 mile SW of mouth of Carancahua Cut
	Halls Lake	221	29°13'10"	95°01'45"	
			222	29°10'45"	95°06'20"

Table 1 . (Cont'd).

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Galveston	West	223	29° 09' 00"	95° 02' 40"	Sea Isle
	Chocolate	224	29° 11' 10"	95° 06' 30"	0.3 mile NW of The Narrows
	Chocolate	225	29° 11' 50"	95° 07' 15"	0.1 mile E of Amerada Cut
	Chocolate	226	29° 11' 40"	95° 07' 40"	0.6 mile NE of Nymph Point
	Chocolate	227	29° 11' 25"	95° 08' 15"	N edge Nymph Point
	Chocolate	228	29° 12' 25"	95° 10' 25"	0.2 mile N of Grassy Point
	Chocolate	229	29° 11' 30"	95° 11' 00"	1.4 mile W of Horse Grove Point
	Chocolate	230	29° 11' 15"	95° 09' 25"	0.5 mile S of Horse Grove Point
	Chocolate	231	29° 10' 30"	95° 09' 05"	0.5 mile S of Wharton Camp Bayou
	Chocolate	232	29° 09' 30"	95° 09' 15"	0.6 mile NW ICWW Marker 10
West	233	29° 08' 15"	95° 09' 35"	0.4 mile S of ICWW Marker 11	
West	234	29° 06' 30"	95° 09' 40"	0.3 mile NW Guyton Cut	
Oyster Lake	235	29° 07' 45"	95° 10' 20"	N shore of Oyster Lake	
Oyster Lake	236	29° 07' 05"	95° 10' 50"	SW shore of Oyster Lake, 0.2 mile NW of mouth	
Bastrop	237	29° 06' 40"	95° 11' 05"	0.1 mile E of Oyster Lake Bayou	
Bastrop	238	29° 06' 30"	95° 10' 15"	0.8 mile NW of Guyton Cut	
Lost Lake	239	29° 04' 55"	95° 12' 40"	S shore of Lost Lake	
Bastrop Bay	240	29° 05' 55"	95° 11' 55"	0.4 mile NE of dredged channel that connects W side of Bastrop Bay with ICWW	
Bastrop Bay	241	29° 04' 40"	95° 11' 10"	0.8 mile W of Christmas Point	
Christmas	242	29° 04' 25"	95° 11' 15"	0.9 mile SW of Christmas Point	
Christmas	243	29° 03' 40"	95° 12' 10"	1.9 mile SW of Christmas Point	
Christmas	244	29° 02' 50"	95° 13' 15"	1.3 mile NW of Rattlesnake Point	
Christmas	245	29° 01' 55"	95° 11' 45"	0.1 mile NE of Cedar Cut	
Christmas	246	29° 02' 20"	95° 10' 55"	1.0 mile NE of Cedar Cut	
Christmas	247	29° 03' 20"	95° 09' 40"	0.2 mile S of Churchill Bayou	
West	248	29° 09' 45"	95° 01' 50"	NE shore of Snake Island Cove	
West	249	29° 10' 20"	95° 01' 20"	0.2 mile NE of Maggie's Point	
West	250	29° 10' 35"	95° 01' 10"	McAllis Point	

Table 1 . (Cont'd).

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Galveston	West	251	29° 11' 00"	95° 00' 40"	S edge of Shell Island Point
	West	252	29° 11' 20"	94° 59' 45"	SE shore of Jumbile Cove
	West	253	29° 12' 30"	94° 58' 35"	NE shore of Carancahua Cove
	West	254	29° 12' 40"	94° 57' 50"	SW shore of Dana Cove
	West	255	29° 13' 05"	94° 57' 40"	Point between Dana Cove and Hoeckers Cove
	West	256	29° 13' 40"	94° 57' 05"	SE edge of Hoeckers Point
	West	257	29° 13' 55"	94° 56' 55"	0.1 mile NE of Tucker Bayou
	West	258	29° 14' 05"	94° 56' 20"	SW shore of Starvation Cove
	West	259	29° 14' 10"	94° 56' 05"	SW edge of Mentzell Bayou
	West	260	29° 14' 45"	94° 55' 40"	0.4 mile SW of Auzston Bayou
	East	261	29° 27' 40"	94° 41' 40"	1.6 mile SW of Elmgrove Point
	East	262	29° 28' 30"	94° 40' 30"	0.3 mile W of Elmgrove Point
	East	263	29° 28' 30"	94° 39' 00"	0.4 mile NW of Bob's Cut
	East	264	29° 29' 30"	94° 35' 50"	S edge of Yates Bayou
	East	265	29° 30' 20"	94° 35' 45"	N edge Big Pasture Bayou
	East	266	29° 31' 30"	94° 34' 40"	0.4 mile SW of canal through Long Point
	East	267	29° 31' 50"	94° 33' 50"	0.5 mile NE of canal through Long Point
	East	268	29° 31' 20"	94° 32' 25"	1.7 mile E of canal through Long Point
	East	269	29° 33' 20"	94° 31' 50"	1.0 mile NW of Frozen Point
	East	270	29° 34' 10"	94° 34' 20"	0.2 mile SW of Robinson Bayou
	East	271	29° 33' 20"	94° 36' 30"	Second windmill W of Robinson Bayou
	East	272	29° 32' 10"	94° 41' 10"	Stephenson Point
	Trinity	273	29° 36' 40"	94° 43' 10"	NW side of spoil island off Lone Oak Bayou
	Trinity	274	29° 40' 30"	94° 42' 00"	NW side of spoil island 0.2 mile S at Black Point
	Trinity	275	29° 39' 40"	94° 42' 00"	0.8 mile N of Double Bayou, on NW side of spoil island

Table 1 . (Cont'd).

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Galveston	Galveston	276	29° 19' 20"	94° 45' 30"	East Lagoon
	Trinity	277	29° 44' 50"	94° 49' 30"	0.5 mile SW of Houston Lighting and Power Company's Cedar Bayou Generating Station's discharge canal
	Galveston	278	29° 22' 00"	94° 48' 55"	Texas City Dike
	Trinity	279	29° 42' 20"	94° 51' 30"	2.4 mile SW of Point Barrow
	Galveston	280	29° 39' 30"	94° 55' 50"	Mesquite Knoll
	Galveston	281	29° 41' 55"	94° 57' 10"	0.3 mile W of Houston Lighting and Power Company's Cedar Bayou Generating Station's intake canal
	Galveston	282	29° 35' 20"	94° 59' 30"	N edge of Surf Oaks
	Galveston	283	29° 34' 55"	95° 00' 00"	0.7 mile SW of Surf Oaks
	East	284	29° 32' 35"	94° 30' 00"	1.3 mile E of Frozen Point
	West	285	29° 12' 15"	94° 57' 25"	NE shore of Oak Bayou, 0.9 mile E of mouth
	Trinity	286	29° 42' 25"	94° 41' 25"	Ash Point
	Christmas	287	29° 02' 50"	95° 10' 05"	0.7 mile S of mouth of Churchhill Bayou
	Galveston	288	29° 19' 30"	94° 49' 25"	W Pelican Island
	West	289	29° 13' 20"	94° 56' 00"	NE side of Tucker Bayou, 1.1 mile SE of mouth
	West	290	29° 15' 20"	94° 55' 10"	W end of Anderson Ways Road
	Trinity	291	29° 44' 10"	94° 42' 00"	W shore of Spoil Island at Round Point
	West	292	29° 06' 30"	95° 06' 10"	1.4 mile NE of E side of San Luis Pass
	Galveston	293	29° 41' 05"	94° 58' 15"	E shore of Atkinson Island, 0.3 mile SE of Barbours Cut
	Trinity	294	29° 40' 20"	94° 52' 10"	Umbrella Point
	West	295	29° 16' 15"	94° 53' 20"	0.6 mile SW of Teichman Point

Table 1 . (Cont'd).

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Galveston	Galveston	296	29°17'25"	94°52'05"	SE end of railroad bridge
	Galveston	297	29°20'20"	94°49'20"	W side of Pelican Island, 0.3 mile south ICWW Galveston- Freeport cut off
	Galveston	298	29°21'05"	94°49'35"	N tip of Pelican Island, 0.4 mile NW of ICWW
	Galveston	299	29°25'30"	94°43'30"	0.8 mile SW of Sievers Cut
	Galveston	300	29°23'40"	94°45'40"	Baffle Point

Table 1 . (Cont'd).

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Matagorda	Matagorda	201	28° 38' 40"	96° 18' 17"	Wells Point
	Turtle	203	28° 40' 35"	96° 17' 52"	Shell Beach
	Turtle	204	28° 41' 08"	96° 17' 00"	Buttermilk Slough
	Turtle	205	28° 41' 40"	96° 15' 45"	Jensen Point
	Turtle	207	28° 40' 20"	96° 16' 55"	Turtle Point
	Matagorda	208	28° 41' 35"	96° 14' 10"	Settergest Marsh
	Tres Palacios	209	28° 44' 47"	96° 11' 10"	Slaughter Flats
	Tres Palacios	210	28° 45' 15"	96° 10' 10"	Tres Palacios River, East
	Tres Palacios	211	28° 44' 10"	96° 10' 51"	Pepper Hill
	Tres Palacios	215	28° 41' 30"	96° 12' 21"	Redfish Lake
	Tres Palacios	216	28° 39' 53"	96° 12' 56"	Coon Island Point
	Coon Island	217	28° 39' 35"	96° 12' 40"	Coon Island Bayou
	Matagorda	220	28° 37' 53"	96° 13' 22"	Pipeline Crossing
	Matagorda	221	28° 37' 00"	96° 12' 45"	Palacios Bayou Flats
	Matagorda	222	28° 35' 25"	96° 13' 50"	Boat Harbor
	Oyster Lake	224	28° 37' 41"	96° 10' 40"	N Corner, Oyster Lake
	Matagorda	226	28° 35' 44"	96° 11' 00"	ICWW, Southwest
	Matagorda	227	28° 35' 53"	96° 10' 16"	ICWW, Northeast
	Matagorda	228	28° 37' 20"	96° 06' 26"	Mad Island
	Matagorda	231	28° 35' 22"	96° 02' 43"	Tide Gauge
	Matagorda	232	28° 33' 07"	96° 07' 15"	Watermelon Mott
	Matagorda	233	28° 31' 17"	96° 11' 25"	Oil Well Cut
	Matagorda	234	28° 29' 05"	96° 15' 00"	Poco Aqua
	Matagorda	235	28° 25' 00"	96° 21' 35"	Decro Point
	Matagorda	236	28° 27' 10"	96° 29' 30"	La Salle Bayou
	Powderhorn Lake	237	28° 30' 00"	96° 29' 05"	East Corner Powderhorn Lake
	Powderhorn Lake	238	28° 29' 00"	96° 30' 42"	Powderhorn Ranch Marsh
	Powderhorn Lake	239	28° 28' 37"	96° 31' 39"	Powderhorn Lake, West
	Powderhorn Lake	240	28° 30' 10"	96° 31' 00"	Powderhorn N Central Shore
	Lavaca	245	28° 41' 46"	96° 39' 45"	Six Mile Creek
	Lavaca	246	28° 42' 38"	96° 38' 31"	Garcitas Cove
	Lavaca	247	28° 43' 05"	96° 37' 11"	Venado West

Table 1 . (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Matagorda	Venado Lake	248	28°44'35"	96°36'45"	Venado Lake #2
	Redfish Lake	250	28°47'41"	96°34'27"	Redfish Lake, Northwest
	Redfish Lake	251	28°46'41"	96°33'43"	Redfish Lake, Southeast
	Lavaca	252	28°38'07"	96°36'50"	Noble Point
	Swan Lake	253	28°45'00"	96°34'09"	Swan Lake, North
	Swan Lake	254	28°43'55"	96°33'41"	Swan Lake, East
	Lavaca	257	28°36'52"	96°30'00"	Rhodes Point
	Cox	258	28°38'24"	96°31'05"	Cox Point
	Cox	260	28°38'34"	96°30'35"	Huisache Cove
	Cox	261	28°38'07"	96°30'00"	Cox Cove, North
	Keller	263	28°36'33"	96°28'55"	Mud Point
	Keller	264	28°37'49"	96°28'00"	Olivia
	Keller	265	28°37'39"	96°27'02"	Smith Ranch House
	Keller	266	28°35'55"	96°26'20"	Smith's Slough
	Keller	267	28°35'10"	96°27'35"	Keller Bay, SW Corner
	Keller	268	28°35'48"	96°28'30"	Smith's Point
	Lavaca	269	28°35'00"	96°29'00"	Humble Oil Dock
	Lavaca	270	28°35'15"	96°29'18"	Sand Point Lavaca
	Matagorda		271	28°35'25"	Smith's Cedars
	Redfish Lake		272	28°37'43"	Redfish Lake, N Pocket
	Redfish Lake		273	28°37'15"	Redfish Lake, E Shore
	Redfish Lake		274	28°37'15"	Redfish Lake, SW Shore
	Salt Lake		275	28°37'50"	Salt Lake, E Pocket
	Salt Lake		276	28°37'55"	Salt Lake, W Pocket
	Carancahua		277	28°38'26"	Port Alto, South
	Carancahua		278	28°41'33"	Port Alto, North
	Carancahua		279	28°42'31"	Wolf Point Flats
	Carancahua		280	28°44'19"	Carancahua Bay, North
Carancahua		281	28°44'32"	Carancahua Bay, East	
Carancahua		282	28°43'03"	Cape Carancahua	
Carancahua		283	28°44'05"	Crescent V, West	
Carancahua		284	28°43'57"	Crescent V, East	

Table 1 . (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Matagorda	Carancahua	286	28°39'43"	96°22'16"	Houston Point
	Carancahua	287	28°37'57"	96°21'34"	Schicke Point, Inside
	Matagorda	288	28°37'30"	96°21'34"	Schicke Point, Outside
	Matagorda	289	28°38'20"	96°20'00"	Piper Lake
	Matagorda	290	28°38'30"	96°19'11"	MFRS
	Matagorda	291	28°36'28"	96°59'05"	S E Pocket
	Matagorda	292	28°32'10"	96°09'54"	Trout Bayou
	Matagorda	293	28°30'30"	96°12'35"	Cotton Bayou
	Matagorda	294	28°27'25"	96°18'15"	Tom Cherry
	Matagorda	295	28°28'24"	96°25'24"	Broad Bayou
	Matagorda	296	28°30'32"	96°28'47"	Powderhorn Bayou
	Lavaca	297	28°35'00"	96°35'00"	Alamo Beach
	Matagorda	298	28°34'12"	96°28'49"	Sand Point, South
	Matagorda	299	28°37'00"	96°22'55"	Carancahua Pass, West
	Lavaca	300	28°33'50"	96°32'50"	1 mile NW of Magnolia Beach boat launch

Table 1 . (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
San Antonio	San Antonio	201	28°23'22"	96°42'35"	Swan Point
	San Antonio	202	28°22'45"	96°41'50"	Mosquito Cove, 1 mile S of Swan Point
	San Antonio	203	28°21'55"	96°42'00"	Mosquito Cove, 1.25 miles N of Mosquito Point
	San Antonio	204	28°19'00"	96°39'15"	W point of Grass Island
	San Antonio	205	28°19'05"	96°37'55"	E point of Grass Island
	Shoalwater	206	28°19'25"	96°38'00"	N point of Grass Island
	San Antonio	207	28°18'15"	96°37'35"	Small island just W of Steamboat Island
	Espiritu Santo	208	28°18'36"	96°37'05"	Middle of E side of Steamboat Island
	Shoalwater	209	28°19'30"	96°36'55"	1 mile from W point of Long Island in Shoalwater Bay
	Espiritu Santo	210	28°19'25"	96°37'35"	1.25 mile from W point of Long Island in Espiritu Santo Bay
	Espiritu Santo	211	28°20'20"	96°35'47"	2.50 miles from W point of Long Island in Espiritu Santo Bay
	Espiritu Santo	212	28°21'10"	96°34'52"	Long Island 0.5 mile W of Lane
	Espiritu Santo	213	28°21'45"	96°33'52"	Long Island 0.5 mile E of Lane
	Espiritu Santo	214	28°22'10"	96°32'55"	Long Island 1.5 miles E of Lane
	Espiritu Santo	215	28°22'47"	96°31'07"	0.5 mile from W point of Dewberry Island
	Espiritu Santo	216	28°23'15"	96°30'10"	1.5 miles from W point of Dewberry Island
	Espiritu Santo	217	28°23'50"	96°29'12"	Dewberry Island 0.5 mile W of Army channel
	Espiritu Santo	218	28°24'13"	96°28'18"	Blackberry Island 0.75 mile E of Army channel
	Espiritu Santo	219	28°24'48"	96°27'12"	Blackberry Island 1.75 miles E of Army channel
	Espiritu Santo	220	28°15'18"	96°26'06"	Blackberry Island at mouth of Barroom Bay

Table 1 . (Cont'd)

Bay system	Station		Latitude	Longitude	Station identification
	Bay	number			
San Antonio	Espiritu Santo	221	28°23'49"	96°26'12"	1.25 miles E of Bayoucouc Point
	Espiritu Santo	222	28°23'00"	96°27'09"	Bayoucouc Point
	Espiritu Santo	223	28°22'40"	96°27'20"	N side of Grass Island 0.5 mile from E point
	Espiritu Santo	224	28°22'15"	96°28'10"	N side of Grass Island 0.5 mile from W point
	Espiritu Santo	225	28°21'35"	96°27'25"	W point of Farwell Island
	Espiritu Santo	226	28°21'50"	96°26'53"	E point of Farwell Island
	Espiritu Santo	227	28°21'15"	96°26'25"	0.5 mile S of second oil well off Saluria Bayou
	Espiritu Santo	228	28°21'00"	96°26'22"	Big Pocket
	Espiritu Santo	229	28°20'33"	96°26'33"	Lighthouse Cove W of derelict boat on shore
	Espiritu Santo	230	28°19'51"	96°28'48"	0.25 mile W of Army hole on Vanderveer Island
	Pringle Lake	231	28°18'51"	96°30'22"	S shore Pringle Lake 2 miles E of Rahal Bayou
	Pringle Lake	232	28°18'22"	96°31'25"	S shore Pringle Lake 1 mile E of Rahal Bayou
	Espiritu Santo	233	28°19'25"	96°31'21"	Pringle Cut in center of Vanderveer Island
	Espiritu Santo	234	28°18'07"	96°33'10"	Rahal Bayou
	Espiritu Santo	235	28°18'05"	96°34'30"	South Pass Lake, E cut
	San Antonio	236	28°17'10"	96°35'53"	South Pass Lake, W cut
	San Antonio	237	28°16'50"	96°36'45"	Long Lake mouth on N shore
	San Antonio	238	28°16'35"	96°37'06"	Island N of Corey Cove
	San Antonio	239	28°16'05"	96°37'50"	Corey Cove point
	San Antonio	240	28°15'35"	96°37'50"	Pats Bay mouth on S shore
	San Antonio	241	28°15'12"	96°39'06"	1 mile S Pats Bay between two guts
	San Antonio	242	28°14'25"	96°39'15"	Mouth of Twin Lakes
	San Antonio	243	28°13'54"	96°39'54"	Cedar Point

Table 1 . (Cont'd).

Bay system	Bay	Station number	Latitude	Longitude	Station identification
San Antonio	San Antonio	244	28°13'35"	96°40'00"	Mouth of Cedar Lake on S shore
	San Antonio	245	28°13'15"	96°41'00"	1 mile S of Cedar Lake
	San Antonio	246	28°12'30"	96°42'06"	0.5 mile S of Panther Point
	San Antonio	247	28°12'05"	96°41'55"	Panther Point Lake, just inside mouth on S shore
	San Antonio	248	28°11'45"	96°42'55"	1 mile S of Panther Point Lake mouth
	San Antonio	249	28°11'20"	96°45'05"	Mouth of Cottonwood Bayou
	San Antonio	250	28°11'21"	96°47'24"	Ayres Point
	Ayres	251	28°10'30"	96°48'55"	Point S of Ayres Point
	Ayres	252	28°10'05"	96°49'10"	Ayres Dugout
	Ayres	253	28°11'20"	96°50'00"	Rattlesnake Island
	Mustang Lake	254	28°13'50"	96°47'30"	Mouth of Mustang Lake E shore
	San Antonio	255	28°14'43"	96°46'35"	Point of land N of Marker 35
	San Antonio	256	28°15'20"	96°47'15"	Live Oak Point
	San Antonio	257	28°16'27"	96°47'47"	Dagger Point
	San Antonio	258	28°19'17"	96°47'45"	Webb Point
	San Antonio	259	28°20'21"	96°47'33"	0.5 mile S of Hopper Landing
	Hynes	260	28°21'48"	96°47'51"	McDowell Point
	Hynes	261	28°22'22"	96°49'00"	1 mile N of McDowell Point
	Hynes	262	28°25'20"	96°50'51"	Point of land in center head of Hynes Bay
	Hynes	263	28°25'40"	96°49'40"	1 mile S of Townsend Bayou
	Hynes	264	28°25'10"	96°48'45"	Opposite steel gate in marsh
	Hynes	265	28°24'33"	96°47'50"	Swan Lake Bayou N of mouth
	Hynes	266	28°23'54"	96°46'37"	Grassey Point
	San Antonio	267	28°24'25"	96°47'20"	Midway between Grassey Point and Marsh Point
Guadalupe	268	28°25'25"	96°45'50"	Foster Point	
Hynes	269	28°24'15"	96°51'00"	Opposite tall cylindrical tower	
San Antonio	270	28°14'00"	96°47'50"	Mouth of Mustang Lake W shore	
San Antonio	272	28°20'18"	96°42'01"	Opposite Channel Marker 13	
San Antonio	273	28°19'30"	96°41'30"	Opposite Channel Marker 11	

Table 1 . (Cont'd).

Bay system	Bay	Station number	Latitude	Longitude	Station identification
San Antonio	Guadalupe	276	28°27'15"	96°47'25"	South Guadalupe River
	Guadalupe	277	28°27'05"	96°46'40"	E of South Guadalupe River
	Long Lake	278	28°17'00"	96°35'50"	N shore of Long Lake
	Long Lake	279	28°16'35"	96°35'45"	S shore of Long Lake
	Pats	280	28°15'55"	96°37'05"	N shore of Pats Bay
	San Antonio	281	28°13'40"	96°47'05"	1 mile S of False Live Oak Pt.
	San Antonio	282	28°11'25"	96°46'45"	1 mile E of Ayres Pt.
	San Antonio	283	28°11'25"	96°44'00"	2 mile S of Panther Pt. Lake mouth

Table 1 . (Cont'd).

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Aransas	Little	201	28°01'40"	97°02'45"	SE corner of Little Bay
	Aransas	202	28°03'17"	97°02'00"	0.25 miles S of Fulton Mansion off Fulton Beach Road
Copano	Aransas	203	28°05'21"	97°02'00"	1 mile S of Racquet Club
	Copano	204	28°06'45"	97°01'35"	S end of Copano Causeway
	Copano	205	28°08'35"	97°01'00"	N end of Copano Causeway
	Copano	206	28°04'45"	97°05'25"	0.5 miles E Hannibal Point near tanks
Copano	207	28°04'13"	97°06'26"	Junction of Salt Lake and Copano Bay	
Copano	Copano	208	28°03'35"	97°07'50"	E of Rattlesnake Point
	Copano	209	28°02'19"	97°07'48"	Mouth of Italian Bend, N shore
	Copano	210	28°01'38"	97°08'20"	E end of old bridge ruins
	Port	211	27°59'38"	97°10'02"	Redfish Camp
	Copano	212	28°01'57"	97°08'53"	Hey Camp Bend
	Copano	213	28°04'32"	97°13'28"	Black Point, SW side
	Copano	214	28°03'39"	97°11'05"	Rincon de la Cera
	Copano	215	28°07'57"	97°09'27"	Mouth of Mission Bay, W shore
	Copano	216	28°10'00"	97°05'27"	3.5 miles NE of mouth of Mission Bay
	Copano	217	28°11'18"	97°02'21"	1.5 mile SW of Turtle Pen Point
St. Charles	Copano	218	28°10'30"	97°01'02"	Holiday Beach
	St. Charles	219	28°07'57"	96°58'28"	Hail Point
	St. Charles	220	28°08'53"	96°58'20"	Just N of Big Tree
	St. Charles	221	28°09'57"	96°56'53"	Egg Point
	Aransas	222	28°07'20"	96°56'45"	Halfway between Blackjack and Dunham points
	Redfish	223	27°56'00"	97°56'00"	Second island NW of Big Bayou in Redfish Bay
	Carlos	224	28°07'50"	96°54'15"	NE side of Cape Carlos
	Aransas	225	28°03'12"	96°56'44"	Long Reef
	Mesquite	226	28°07'09"	96°51'08"	1.5 mile W of mouth of Cedar Bayou
	Aransas	227	27°59'52"	96°58'47"	Junction of Allyns Lake and Aransas Bay

Table 1. (Cont'd).

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Aransas	Aransas	228	28°01'14"	96°58'00"	1.5 mile NE of Allyns Lake
	Aransas	229	27°58'00"	96°58'48"	1.0 mile NE of St. Joseph Island Ranch House
	Aransas	230	27°56'42"	97°01'28"	N shore in middle of Mud Island
	Aransas	231	27°55'17"	97°01'03"	1.0 mile SW of oil tanks on San Jose Island
	Aransas	232	27°55'13"	97°04'22"	Corpus Christi Bayou
	Aransas	233	27°53'55"	97°08'08"	At entrance to Conn Brown Harbor
	Aransas	234	27°55'15"	97°07'22"	ICWW Marker 34
	Aransas	235	27°57'15"	97°04'15"	Oil well channel between Big and Trout bayous
	Aransas	236	27°59'05"	97°04'00"	Between Turtle Bayou and ICWW Marker 7
	Aransas	237	28°00'52"	97°03'09"	Hunts Courts
	Aransas	238	28°01'37"	97°02'35"	Rockport Beach, across from the big shell
	Copano	239	28°07'05"	97°02'22"	0.75 miles E of Redfish Point
	Copano	240	28°05'50"	97°03'04"	Third T-head N of Copano Village
	Copano	241	28°09'43"	97°01'08"	Palmetto Point
	Copano	242	28°04'18"	97°12'39"	N end of Egery Island
	Copano	243	28°06'07"	97°12'00"	Bayside
	Aransas	244	28°59'30"	97°04'10"	Just N of Cove Harbor between ICWW Marker 10 and 12
	Redfish	245	27°51'07"	97°04'00"	Harbor Island, near Fina loading Dock
	Redfish	246	27°51'55"	97°04'54"	Most easterly bridge between Aransas Pass and Port Aransas
	Redfish	247	27°53'25"	97°06'35"	Fin and Feather Bait Stand
	Redfish	248	27°57'20"	97°05'53"	City by the Sea
	Little	249	28°02'45"	97°02'00"	Bridge in Little Bay
	Copano	250	28°05'10"	97°04'15"	1.0 mile SW of Aransas County Airport

Table 1. (Cont'd).

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Aransas	Redfish	251	27°54'10"	97°05'47"	NE tip of Hog Island
	Mesquite	252	28°09'55"	96°52'32"	1.0 mile W of area of junction of Sundown and Mesquite bays
	Aransas	253	28°04'16"	97°02'07"	Sandollar Motel
	St. Charles	254	28°12'05"	96°55'43"	Indian Head Point
	St. Charles	255	28°12'55"	96°57'53"	Mouth of Cavasso Creek
	St. Charles	256	28°14'32"	96°55'34"	McHugh Bayou
	Mesquite	257	28°08'00"	96°48'37"	Bray Cove
	Mesquite	258	28°10'23"	96°51'07"	Roddy Island
	Aransas	259	28°06'40"	96°53'25"	N shore of Spaldings Bight
	Redfish	260	27°58'22"	97°04'50"	Estes Flats

Table 1. (Cont'd).

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Corpus Christi	Corpus Christi	201	27°42'51"	97°19'09"	0.75 mile SE of Oso Fishing Pier
	Corpus Christi	202	27°46'25"	97°23'21"	Holiday Inn on Ocean Drive
	Corpus Christi	203	27°49'50"	97°22'48"	Rincon Point
	Corpus Christi	204	27°51'58"	97°19'37"	2.0 miles NE of Indian Point Pier
	Corpus Christi	205	27°52'48"	97°16'45"	0.75 mile W of jetties in La Quinta Channel
	Corpus Christi	206	27°51'37"	97°14'45"	0.25 mile W of La Quinta Channel Marker 14
	Sunset Lake	207	27°51'38"	97°20'36"	S end of Sunset Lake
	Nueces	208	27°52'28"	97°22'38"	Just W of clay pits
	Nueces	209	27°51'40"	97°28'30"	White Point
	Nueces	210	27°52'12"	97°25'05"	0.5 mile E of westerly power-lines on N shore
	Nueces	211	27°50'14"	97°23'15"	Mouth of Rincon Industrial Park canal
	Nueces	212	27°51'52"	97°20'37"	Ramada Inn Motel
	Nueces	213	27°51'14"	97°21'31"	Gunderland's
	Corpus Christi	214	27°50'06"	97°13'21"	Public boat ramp in Ingleside Cove
	Corpus Christi	215	27°49'14"	97°12'09"	Sun Oil Dock 1 at Port Ingleside
	Corpus Christi	216	27°48'45"	97°11'41"	ICWV Marker 31
	Corpus Christi	217	27°49'47"	97°07'12"	N shore of Point of Mustang near Corpus Christi Channel Marker 13
	Corpus Christi	218	27°50'24"	97°06'06"	Corpus Christi Channel Marker 8
	Redfish	219	27°52'15"	97°08'04"	Middle of E shore of North Ransom Island
	Corpus Christi	220	27°49'53"	97°10'26"	S tip of Dagger Island
	Redfish	221	27°51'28"	97°10'05"	ICWV Marker 51
	Redfish	222	27°53'33"	97°07'32"	0.5 mile SE of Conn Brown Harbor on S shore

Table 1. (Cont'd).

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Corpus Christi	Redfish	223	27°52'08"	97°05'55"	1.0 mile SE of Fin and Feather Marina
	Redfish	224	27°51'35"	97°04'56"	Most easterly bridge on causeway between Aransas Pass and Port Aransas
	Corpus Christi	225	27°50'21"	97°04'18"	Port Aransas side of ferry landing
	Corpus Christi	226	27°45'05"	97°08'49"	0.25 mile S of sportsmen club cabin
	Corpus Christi	227	27°45'38"	97°10'00"	Middle of Shamrock Island on SE shore
	Corpus Christi	228	27°44'36"	97°09'38"	Long Cove
	Corpus Christi	229	27°43'27"	97°10'05"	Boat Cove
	Corpus Christi	230	27°41'58"	97°10'55"	Water Exchange Channel
	Corpus Christi	231	27°41'18"	97°13'17"	ICMW Marker 3
	Redfish	232	27°52'56"	97°08'41"	Junction of Ransom Drive and ICMW
	Corpus Christi	233	27°48'30"	97°05'44"	Mustang Beach
	Nueces	234	27°51'10"	97°30'00"	Just W of Nueces River Cut on shore
	Nueces	235	27°52'30"	97°30'40"	3.0 miles NW of mouth of Nueces River
	Corpus Christi	236	27°50'35"	97°14'47"	0.25 mile NW of Ingleside on La Quinta Channel spoil
	Corpus Christi	237	27°46'35"	97°07'54"	Mouth of Sinclair Cut
	Corpus Christi	238	27°48'24"	97°23'16"	Corpus Christi Channel Marker 85
	Oso	239	27°40'48"	97°18'27"	Mouth of Oso Bay
	Corpus Christi	240	27°48'56"	97°11'15"	Corpus Christi Channel Marker 31
	Redfish	241	27°51'36"	97°08'39"	S tip of North Ransom Island
	Corpus Christi	242	27°50'05"	97°14'00"	La Quinta Channel Marker 7
	Corpus Christi	243	27°49'28"	97°13'10"	McGloin Bluff

Table 1. (Cont'd).

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Corpus Christi	Oso	244	27°42'35"	97°18'33"	Mouth of Oso Bay
	Corpus Christi	245	27°44'04"	97°09'39"	Boat Cove
	Corpus Christi	246	27°43'28"	97°20'40"	0.75 mile NW of Oso Fishing Pier
	Redfish	247	27°50'51"	97°07'21"	0.75 mile E of South Ransom Island
	Corpus Christi	248	27°50'46"	97°09'22"	0.25 mile NE of Dagger Island
	Corpus Christi	249	27°49'18"	97°09'43"	Corpus Christi Channel Marker 25
	Corpus Christi	250	27°42'22"	97°17'26"	0.5 mile NW of Naval Air Station bulkheads
	Corpus Christi	251	27°48'34"	97°07'06"	East flats
	Corpus Christi	252	27°46'00"	97°09'53"	N side of Shamrock Island
	Corpus Christi	253	27°45'14"	97°09'29"	Glenn Cove
	Corpus Christi	254	27°45'21"	97°08'21"	SE of Green cabin in Shamrock Cove
	Corpus Christi	255	27°41'42"	97°14'51"	N shore of Demit Island
	Nueces	256	27°52'29"	97°23'38"	E powerlines on N shore
	Corpus Christi	257	27°48'47"	97°12'29"	SE of CCSC Marker 36
	Redfish	258	27°50'12"	97°10'11"	N shore of Dagger Island
	Corpus Christi	259	27°49'40"	97°10'46"	SW of Dagger Island
	Redfish	260	27°51'03"	97°08'08"	SE shore of S Ransom Island
	Redfish	261	27°52'41"	97°08'20"	N of N Ransom Island
	Corpus Christi	262	27°50'08"	97°07'14"	NE of CCSC Marker 14
	Corpus Christi	263	27°49'26"	97°07'55"	Point of Mustang

Table 1. (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Laguna Madre	Upper Laguna Madre	201	27°40'40"	97°15'03"	1.0 mile SSW of E tip of Demit Island
	Upper Laguna Madre	202	27°19'40"	97°24'25"	Point of Rocks
	Upper Laguna Madre	203	27°14'58"	97°25'32"	0.8 mile NW of ICWW Marker 139
	Baffin	204	27°17'02"	97°36'45"	3.2 miles E of Riviera Beach
	Baffin	205	27°18'11"	97°39'15"	1.3 miles NNW of Riviera Beach
	Laguna Salada	206	27°16'33"	97°38'57"	1.2 miles SE of Riviera Beach
	Upper Laguna Madre	207	27°41'30"	97°15'01"	S shore of Demit Island
	Laguna Salada	208	27°17'00"	97°40'18"	0.7 mile SW of Riviera Beach
	Upper Laguna Madre	209	27°40'50"	97°14'06"	0.8 mile ESE of Demit Island
	Upper Laguna Madre	210	27°40'25"	97°15'20"	1.3 miles SW of Demit Island
	Upper Laguna Madre	211	27°40'20"	97°15'57"	1.7 miles SW of Demit Island
	Upper Laguna Madre	212	27°39'20"	97°13'40"	2.0 miles WNW of Corpus Christi Pass
	Upper Laguna Madre	214	27°38'28"	97°13'45"	2.0 miles WSW of Corpus Christi Pass
	Upper Laguna Madre	215	27°38'50"	97°16'40"	1.0 miles S of Kennedy Causeway
	Upper Laguna Madre	216	27°38'25"	97°15'25"	3.0 miles NE of Pita Island
	Upper Laguna Madre	217	27°37'47"	97°15'45"	2.3 miles NE of Pita Island
	Upper Laguna Madre	218	27°37'20"	97°16'20"	1.4 miles NE of Pita Island
	Upper Laguna Madre	219	27°36'00"	97°16'00"	0.3 mile ESE of Pita Island
	Upper Laguna Madre	220	27°36'30"	97°17'55"	0.6 mile NW of Pita Island
	Upper Laguna Madre	221	27°35'40"	97°17'40"	0.6 mile SW of Pita Island
	Upper Laguna Madre	222	27°32'08"	97°17'10"	0.9 mile NNE of North Bird Island
	Upper Laguna Madre	223	27°33'10"	97°19'35"	3.0 miles NW of North Bird Island
	Upper Laguna Madre	224	27°27'10"	97°19'55"	2.5 miles SSE of South Bird Island
	Upper Laguna Madre	225	27°22'08"	97°21'30"	8.6 miles SSW of South Bird Island
	Alazan	226	27°20'25"	97°31'52"	3.5 miles NNE of Starvation Point

Table 1. (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Laguna Madre	Cayo del Grullo	227	27°19'32"	97°41'00"	0.7 mile SE of Loyola Beach
	Laguna Salada	228	27°16'10"	97°41'20"	1.4 miles ESE of Williamson's Boat Dock
	Laguna Saláda	229	27°16'31"	97°42'20"	0.2 mile ESE of Williamson's Boat Dock
	Upper Laguna Madre	230	27°36'08"	97°17'35"	SW shore of Pita Island
	Upper Laguna Madre	231	27°34'20"	97°15'36"	2.4 miles W of Bob Hall Pier
	Upper Laguna Madre	232	27°34'30"	97°15'55"	2.2 miles SE of Pita Island
	Upper Laguna Madre	233	27°35'03"	97°18'15"	1.5 miles SW of Pita Island
	Upper Laguna Madre	234	27°34'02"	97°16'40"	2.3 miles SSE of Pita Island
	Upper Laguna Madre	235	27°35'58"	97°16'15"	3.1 miles NNE of North Bird Island
	Upper Laguna Madre	236	27°34'24"	97°19'10"	2.5 miles SW of Pita Island
	Upper Laguna Madre	237	27°33'25"	97°16'38"	2.3 miles NNE of North Bird Island
	Upper Laguna Madre	238	27°31'55"	97°20'10"	2.8 miles MNW of North Bird Island
	Upper Laguna Madre	239	27°30'30"	97°18'00"	0.8 mile SW of North Bird Island
	Upper Laguna Madre	240	27°31'00"	97°20'35"	3.2 miles W of North Bird Island
	Upper Laguna Madre	241	27°29'50"	97°20'48"	2.5 miles W of South Bird Island
	Upper Laguna Madre	242	27°29'00"	97°18'25"	0.7 mile S of South Bird Island
	Upper Laguna Madre	243	27°28'10"	97°21'28"	3.3 miles WSW of South Bird Island
	Upper Laguna Madre	244	27°26'42"	97°20'40"	3.7 miles SW of South Bird Island
	Upper Laguna Madre	245	27°27'57"	97°21'48"	1.6 miles WNW of ICWV Marker 69
	Upper Laguna Madre	246	27°06'00"	97°19'50"	1.9 miles S of ICWV Marker 63
	Upper Laguna Madre	247	27°25'35"	97°20'41"	0.9 mile SSW of ICWV Marker 69
	Upper Laguna Madre	248	27°25'10"	97°19'49"	3.0 miles S of ICWV Marker 63
Upper Laguna Madre	249	27°25'50"	97°22'06"	1.8 miles WSW of ICWV Marker 69	
Upper Laguna Madre	250	27°23'48"	97°20'27"	1.5 miles SE of ICWV Marker 75	
Upper Laguna Madre	251	27°23'32"	97°21'45"	0.8 mile NE of ICWV Marker 83	
Upper Laguna Madre	252	27°22'56"	97°21'04"	1.3 miles E of ICWV Marker 83	

Table 1. (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station Identification	
Laguna Madre	Upper Laguna Madre	253	27°22'56"	97°21'04"	1.3 miles E of ICWW Marker 89	
	Upper Laguna Madre	254	27°20'31"	97°24'00"	0.7 mile WNW of ICWW Marker 95	
	Upper Laguna Madre	255	27°18'40"	97°23'51"	0.2 mile SE of ICWW Marker 103	
	Upper Laguna Madre	256	27°12'20"	97°25'25"	0.6 mile S of ICWW Marker 151	
	Upper Laguna Madre	257	27°10'39"	97°25'45"	0.7 mile NNE of ICWW Marker 175	
	Upper Laguna Madre	258	27°09'56"	97°25'54"	0.1 mile SE of ICWW Marker 175	
	Upper Laguna Madre	259	27°08'30"	97°26'35"	0.1 mile E of ICWW Marker 187	
	Baffin	Upper Laguna Madre	260	27°18'27"	97°27'49"	3.7 miles WNW of ICWW Marker 115
	Baffin	Baffin	261	27°15'50"	97°26'30"	1.0 mile W of Pt. Penascal
	Baffin	Baffin	262	27°17'37"	97°29'13"	1.8 miles NE of East Kleberg Point
	Baffin	Baffin	263	27°14'25"	97°30'15"	2.4 miles S of East Kleberg Point
	Alazan	Alazan	264	27°18'45"	97°29'48"	3.3 miles ENE of Starvation Point
	Alazan	Alazan	265	27°19'40"	97°30'22"	3.5 miles NE of Starvation Point
	Alazan	Alazan	266	27°18'20"	97°31'04"	2.2 miles NNE of East Kleberg Point
	Alazan	Alazan	267	27°19'53"	97°32'43"	2.8 miles N of Starvation Point
	Baffin	Baffin	268	27°13'43"	97°32'41"	4.0 miles S of Starvation Point
	Alazan	Alazan	269	27°17'30"	97°36'03"	0.9 miles NE of Kleberg Point
	Baffin	Baffin	270	27°15'47"	97°38'27"	0.8 mile SSE of Pie de Gallo
	Laguna Salada	Laguna Salada	271	27°16'20"	97°40'00"	1.0 mile S of Riviera Beach
	Laguna Salada	Laguna Salada	272	27°15'55"	97°42'45"	0.8 mile SSW of Williamson's Boat Dock
	Laguna Salada	Laguna Salada	273	27°15'45"	97°43'30"	1.5 miles SW of Williamson's Boat Dock
	Laguna Salada	Laguna Salada	274	27°16'55"	97°41'18"	1.5 miles WSW of Riviera Beach
	Baffin	Baffin	275	27°17'20"	97°39'35"	E of Riviera Beach on Baffin Bay shore
	Cayo del Grullo	Cayo del Grullo	276	27°21'15"	97°45'13"	1.3 mile N of Loyola Beach
	Cayo del Grullo	Cayo del Grullo	277	27°21'56"	97°40'34"	2.5 miles NNE of Loyola Beach
	Cayo del Grullo	Cayo del Grullo	278	27°20'35"	97°40'00"	1.7 miles ENE of Loyola Beach
Cayo del Grullo	Cayo del Grullo	279	27°19'43"	97°39'30"	1.5 miles ENE of Kleberg County Kauffer Park	
Cayo del Grullo	Cayo del Grullo	280	27°18'09"	97°38'00"	2.0 miles NE of Riviera Beach	

Table 1. (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Laguna Madre	Upper Laguna Madre	281	27°37'52"	97°13'12"	1.3 mile E of ICWV Bridge on Kennedy Causeway (Packery Channel)
	Upper Laguna Madre	282	27°35'16"	97°15'50"	1.8 mile SE of Pita Island
	Upper Laguna Madre	283	27°31'11"	97°17'30"	On W shore of N Bird Island
	Upper Laguna Madre	284	27°29'40"	97°17'45"	0.5 mile E of S Bird Island
	Upper Laguna Madre	285	27°24'20"	97°22'10"	1.2 mile SWS of ICWV Marker 151 (Old Marker 77)
	Upper Laguna Madre	286	27°23'07"	97°22'55"	0.8 mile W of ICWV Marker 83
	Upper Laguna Madre	287	27°21'47"	97°23'30"	0.7 mile W of ICWV Marker 89
	Baffin	288	27°19'04"	97°25'12"	1.2 mile WNW of ICWV Marker 103
	Cayo del Grullo	289	27°19'32"	97°38'32"	1.7 mile N of Sandy Hook
	Cayo del Grullo	290	27°18'35"	97°40'09"	1.0 mile WNW of Neubauer Point
	Baffin	291	27°14'30"	97°35'00"	2.0 mile SSE of Kleyberg Point
	Upper Laguna Madre	292	27°20'50"	97°23'00"	1.5 mile NE of Point of Rocks
	Upper Laguna Madre	293	27°08'40"	97°26'10"	0.2 mile E of old Marker 185
	Alazan	294	27°23'20"	97°29'10"	0.5 mile SSW of Alazan Mott
	Laguna Salada	295	27°16'10"	97°43'47"	0.8 mile SW of Williamson's Boat Dock
	Alazan	296	27°19'00"	97°34'25"	Inside mouth of Cayo del Infermillo

Table 1 . (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification	
Laguna Madre	Lower Laguna Madre	201	26°48'00"	97°28'20"	Shore W of ICWV Marker 223A	
	Lower Laguna Madre	202	26°45'15"	97°28'10"	Shore W of ICWV Marker 237	
	Lower Laguna Madre	203	26°44'00"	97°28'10"	Shore W of ICWV Marker 241	
	Lower Laguna Madre	204	26°42'30"	97°28'00"	Shore W of ICWV Marker 245	
	Lower Laguna Madre	205	26°40'40"	97°27'30"	Shore W of ICWV Marker 253	
	Lower Laguna Madre	206	26°39'40"	97°27'15"	Shore W of ICWV Marker 259	
	Lower Laguna Madre	207	26°39'10"	97°27'10"	Shore W of ICWV Marker 261A	
	Lower Laguna Madre	208	26°38'15"	97°26'45"	Shore W of ICWV Marker 265	
	Lower Laguna Madre	209	26°36'55"	97°26'50"	Shore W of ICWV Marker 269	
	Lower Laguna Madre	210	26°35'50"	97°20'15"	Shore W of ICWV Marker 273A	
	Lower Laguna Madre	211	26°33'25"	97°22'45"	N side of Drump at Mansfield Channel Marker 37	
	Lower Laguna Madre	212	26°33'30"	97°22'25"	S side of Dump between Mansfield Channel Markers 34 and 36	
	Lower Laguna Madre	213	26°31'40"	97°25'11"	Shore W of ICWV Marker 289	
	Lower Laguna Madre	214	26°30'15"	97°24'20"	Shore W of ICWV Marker 293A	
	Lower Laguna Madre	215	26°31'48"	97°24'20"	W side of Dump at ICWV Marker 289	
	Lower Laguna Madre	216	26°30'50"	97°23'50"	W side of Dump at ICWV Marker 293	
	Lower Laguna Madre	217	26°29'50"	97°23'30"	W side of Dump by ICWV Marker 297A	
	Lower Laguna Madre	218	26°29'25"	97°23'15"	W side of Dump at ICWV Marker 299	
	Lower Laguna Madre	219	26°23'40"	97°19'35"	NW tip of Green Island	
	Lower Laguna Madre	220	26°22'50"	97°20'05"	E side of Dump at ICWV Marker 220	
	Arroyo Colorado	Arroyo Colorado	221	26°21'30"	97°20'25"	Mouth of Slough 0.5 mile from mouth of Arroyo Colorado
	Arroyo Colorado	Arroyo Colorado	222	26°21'15"	97°21'50"	Mouth of Parker Lake
	Lower Laguna Madre	Lower Laguna Madre	223	26°17'50"	97°18'00"	Three Islands W of ICWV Marker 31

Table 1 . (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Laguna Madre	Lower Laguna Madre	224	26°17'25"	97°17'30"	W side of Dump E of ICWW Marker 35
	Lower Laguna Madre	225	26°18'05"	97°17'35"	Dump just E of ICWW Marker 31
	Lower Laguna Madre	226	26°18'20"	97°17'45"	Dump just E of ICWW Marker 29
	Lower Laguna Madre	227	26°17'50"	97°17'20"	Joe Breuer's cabin
	Lower Laguna Madre	228	26°07'50"	97°17'15"	NW end of Loma de la Grulla
	Lower Laguna Madre	229	26°07'10"	97°17'00"	S end of Loma de la Grulla
	Lower Laguna Madre	230	26°05'35"	97°16'50"	0.5 mile SE of Laguna Vista water tower
	Lower Laguna Madre	231	26°09'20"	97°10'50"	1.5 miles N of Padre Island water tower at indentation in bar
	Lower Laguna Madre	232	26°08'50"	97°10'40"	0.25 mile N of Padre Island water tower
	Lower Laguna Madre	233	26°03'10"	97°11'50"	S end of Long Island at Port Isabel
	Lower Laguna Madre	234	26°03'20"	97°10'50"	Shore S of Brownsville Ship Channel Marker 16
	South Bay	235	26°01'50"	97°10'20"	E shore of South Bay, E of shipwreck
	Arroyo Colorado	236	26°21'00"	97°26'00"	Near ditch inlet in Old Arroyo channel
	Lower Laguna Madre	237	26°47'10"	97°28'20"	Shore W of ICWW Marker 229
	Lower Laguna Madre	238	26°46'10"	97°28'15"	Shore W of ICWW Marker 234
	Lower Laguna Madre	239	26°41'40"	97°27'50"	Shore W of ICWW Marker 249A
	Lower Laguna Madre	241	26°34'48"	97°25'50"	Shore W of ICWW Marker 277A
	Lower Laguna Madre	242	26°32'50"	97°25'05"	Shore W of ICWW Marker 285
	Lower Laguna Madre	243	26°35'50"	97°21'45"	Dump S of Mansfield Channel Marker 32
	Lower Laguna Madre	244	26°33'20"	97°24'08"	E side of dump on S side of Mansfield Channel Marker 24
	Lower Laguna Madre	245	26°33'50"	97°24'05"	Dump N of Mansfield Channel Marker 26

Table 1 . (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Laguna Madre	Lower Laguna Madre	246	26°24'50"	97°20'50"	Dump W of Marker 315A
	Lower Laguna Madre	247	26°22'00"	97°19'20"	Dump off Mouth of Arroyo Colorado
	Lower Laguna Madre	248	26°20'35"	97°19'10"	Dump W of ICWV Marker 9
	Lower Laguna Madre	249	26°19'20"	97°18'25"	Dump W of ICWV Marker 19
	Lower Laguna Madre	250	26°18'15"	97°18'00"	Dump W of ICWV Marker 29
	Lower Laguna Madre	251	26°17'35"	97°17'20"	E side of Three Islands
	Lower Laguna Madre	252	26°17'00"	97°17'05"	E side of Island, E of ICWV Marker 39
	Lower Laguna Madre	253	26°15'45"	97°17'00"	Dump W of ICWV Marker 49
	Lower Laguna Madre	254	26°13'10"	97°16'05"	Dump W of ICWV Marker 69
	Lower Laguna Madre	255	26°12'10"	97°15'45"	Dump just NW of ICWV Marker 79
	Lower Laguna Madre	256	26°06'40"	97°13'00"	Dump W of ICWV Marker 117
	Lower Laguna Madre	257	26°03'45"	97°10'10"	Shore on S side of Brownsville Ship Channel between Markers 5 and 9
	South Bay	258	26°01'12"	97°11'13"	S shore at projection SSW of ship wreck
	Lower Laguna Madre	259	26°03'45"	97°11'50"	N end of Long Island at Port Isabel
	Lower Laguna Madre	260	26°23'30"	97°20'10"	East of ICWV Marker 321 on east side of land strip
	Lower Laguna Madre	261	26°19'50"	97°18'50"	Dump west of ICWV Marker 15
	Lower Laguna Madre	262	26°09'20"	97°17'45"	Moranco Blanco
	Lower Laguna Madre	263	26°11'00"	97°17'50"	Mainland shore west of ICWV Marker 89
	Lower Laguna Madre	264	26°12'15"	97°11'15"	2.5 miles N of South Padre Island water tower
	Lower Laguna Madre	265	26°12'50"	97°11'30"	3.5 miles N of South Padre Island water tower
	Lower Laguna Madre	266	26°28'35"	97°22'45"	Dump west of ICWV Marker 301A
	Lower Laguna Madre	267	26°27'50"	97°22'15"	Dump west of ICWV Marker 305
	Lower Laguna Madre	268	26°27'00"	97°21'50"	Dump west of ICWV Marker 307A
	Lower Laguna Madre	269	26°26'12"	97°21'40"	Dump west of ICWV Marker 311

Table 1 . (Cont'd)

Bay system	Bay	Station number	Latitude	Longitude	Station identification
Laguna Madre	Lower Laguna Madre	270	26°22'05"	97°19'50"	Dump west of ICWW Marker 325A
	Lower Laguna Madre	272	26°21'12"	97°19'25"	Dump west of ICWW Marker 2
	Lower Laguna Madre	273	26°20'45"	97°19'15"	Dump west of ICWW Marker 7
	Lower Laguna Madre	274	26°20'15"	97°18'58"	Dump west of ICWW Marker 11
	Lower Laguna Madre	275	26°19'28"	97°18'35"	Dump west of ICWW Marker 17
	Lower Laguna Madre	276	26°19'00"	97°18'30"	Dump west of ICWW Marker 21
	Lower Laguna Madre	277	26°18'35"	97°18'15"	Dump west of ICWW Marker 25
	Lower Laguna Madre	278	26°16'48"	97°17'25"	Dump southwest of ICWW Marker 39
	Lower Laguna Madre	279	26°14'50"	97°16'48"	Dump west of ICWW Marker 55
	Lower Laguna Madre	280	26°13'48"	97°16'30"	Dump west of ICWW Marker 63
	Lower Laguna Madre	281	26°04'50"	97°14'30"	1.0 mile E of Laguna Heights pier
	Lower Laguna Madre	282	26°05'20"	97°10'00"	Just S of new causeway
	Lower Laguna Madre	283	26°34'05"	97°25'40"	End of N dirt road Port Mansfield
	Lower Laguna Madre	284	26°48'05"	97°28'00"	Dump W of ICWW Marker 223A
	Lower Laguna Madre	285	26°46'50"	97°27'45"	Dump W of ICWW Marker 229A
	Lower Laguna Madre	286	26°04'10"	97°09'50"	0.25 mile E of South Padre Island Coast Guard Station
	Lower Laguna Madre	287	26°16'22"	97°18'44"	Townsite Point
	Lower Laguna Madre	288	26°13'00"	97°18'45"	North of Stover Point
	Lower Laguna Madre	289	26°15'35"	97°17'35"	East end of El Realito Peninsula
	Lower Laguna Madre	290	26°19'55"	97°20'02"	South end of Horse Island
	Lower Laguna Madre	291	26°08'20"	97°17'30"	North end of Holly Beach

Appendix E. Hydrological Data Summary

Table 1. Monthly mean^a surface salinity (o/oo) at sampled gill net, trammel net and bag seine stations in each Texas bay system during October 1980-September 1981 (Blank = no measurement taken).

Month and year	East			San Antonio	Aransas	Corpus Christi	Upper		Lower
	Galveston	Matagorda ^b	Matagorda				Laguna Madre	Laguna Madre	
Oct. 1980	22.6	26.5	27.7	20.1	19.6	27.6	23.9	31.8	
Nov. 1980	22.5	24.1	23.4	18.8	21.1	29.8	25.2	32.7	
Dec. 1980	23.6	26.4	24.8	18.2	20.9	28.8	25.0	28.3	
Jan. 1981	21.7	27.1	31.4	31.6	19.7	30.4	29.3	26.9	
Feb. 1981	22.2	28.5	26.2	20.2	19.1	27.4	27.1	28.9	
Mar. 1981	24.1	30.0	29.8	24.4	20.2	31.2	28.6	24.6	
Apr. 1981	29.0	30.5	27.7	21.6	22.5	32.2	30.8	30.8	
May 1981	25.6	29.2	14.8	20.3	14.4	28.0	28.9	30.4	
June 1981	5.2		9.0	7.6	6.5	22.2	24.0	30.0	
July 1981	19.8		9.3	7.2	5.0	19.7	24.4	19.5	
Aug. 1981	7.7		20.7	9.0	9.7	25.0	22.1	37.0	
Sept. 1981	9.3		15.4	5.9	5.8	24.0	24.4	30.9	

^a Data collected at both the time of gill net set and retrieval are included.

^b Only gill net stations were sampled.

Table 2. Monthly mean^a surface water temperature (C) at sampled gill net, trammel net and bag seine stations in each Texas bay system during October 1980-September 1981. (Blank = no measurement taken).

Month and year	East		Matagorda	San Antonio	Aransas	Corpus Christi		Upper		Lower	
	Galveston	Matagorda ^b				Laguna Madre	Laguna Madre	Laguna Madre	Laguna Madre		
Oct. 1980	22.9	28.9	25.6	21.5	21.4	22.8	24.1	19.9			
Nov. 1980	17.1	22.0	16.9	20.2	17.4	17.9	18.0	18.5			
Dec. 1980	16.2	17.4	16.2	17.1	17.1	17.7	17.6	17.4			
Jan. 1981	13.6	11.9	13.5	21.1	13.3	12.4	15.1	17.0			
Feb. 1981	14.4	13.3	14.4	14.1	17.0	16.1	17.4	19.2			
Mar. 1981	18.1	17.1	22.0	16.8	17.4	17.8	18.7	25.1			
April 1981	23.8	23.3	22.9	24.8	25.6	25.3	25.6	24.6			
May 1981	25.2	25.2	24.9	26.0	25.9	26.0	27.1	26.7			
June 1981	29.6		29.2	29.7	28.3	29.5	30.8	28.9			
July 1981	32.0		29.0	30.8	29.8	29.5	32.0	29.2			
Aug. 1981	31.6		30.8	27.3	29.6	30.9	33.2	30.5			
Sept. 1981	27.4		25.8	29.9	27.5	26.6	28.6	28.5			

^a Data collected at both the time of gill net set and retrieval are included.

^b Only gill net stations were sampled.

Table 3. Monthly mean^a surface turbidity^b (JTU) at sampled gill net, trammel net and bag seine stations in each Texas bay system during October 1980-September 1980. (Blank = no measurement taken).

Month and year	East		San Antonio	Aransas	Corpus Christi	Upper		Lower
	Galveston	Matagorda ^c				Matagorda	Laguna Madre	
Oct. 1980	55	61	43	41	28	82	82	164
Nov. 1980	48	41	24	36	30	61	61	42
Dec. 1980	42	24	24	28	26	89	89	57
Jan. 1981	54	30	24	26	27	50	50	57
Feb. 1981	62	24	24	35	40	68	68	40
Mar. 1981	38	50	42	45	57	152	152	118
April 1981	55	31	58	60	46	121	121	159
May 1981	59	72	60	58	48	61	61	105
June 1981	171		102	56	53	80	80	81
July 1981	99		64	59	58	48	48	57
Aug. 1981	126		99	71	25	122	122	26
Sept. 1981	57		50	47	48	52	52	666

^a Data collected at both the time of gill net set and retrieval are included.

^b Any measurement < 25 JTU was assigned a value of 24 JTU.

^c Only gill net stations were sampled.

Table 4. Monthly mean^a surface dissolved oxygen (ppm) at sampled gill net, trammel net and bag seine stations in each Texas bay system during October 1980-September 1981. (Blank = no measurement taken).

Month and year	Galveston		East Matagorda ^b		Matagorda		San Antonio		Aransas		Corpus Christi		Upper Laguna Madre		Lower Laguna Madre	
Oct. 1980	10	5	9	5	8	7	8	9	7	7	9	7	7	9		
Nov. 1980	8	6	8	8	9	6	9	8	9	6	8	6	8	9		
Dec. 1980	9	8	9	7	9	7	9	7	9	7	9	7	9	10		
Jan. 1981	9	9	10	6	11	8	11	6	11	8	8	8	8	9		
Feb. 1981	13	9	10	5	9	8	9	5	9	9	6	8	6	8		
Mar. 1981	10	9	10	7	9	6	9	7	9	9	6	9	9	9		
April 1981	8	9	10	11	8	7	8	11	8	8	7	7	7	7		
May 1981	9	7	9	7	8	7	8	7	8	7	7	7	7	8		
June 1981	8		10	7	8	7	8	7	8	7	7	7	6	8		
July 1981	11		10	6	7	11	7	6	7	7	11	11	8	9		
Aug. 1981	12		10	5	7	9	5	5	7	7	9	9	10	6		
Sept. 1981	9		10	6	8	7	6	6	8	8	7	7	6	7		

^a Data collected at both the time of gill net set and retrieval are included.

^b Only gill net stations were sampled.

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