

TRENDS IN FINFISH LANDINGS BY  
SPORT-BOAT FISHERMEN  
IN TEXAS MARINE WATERS,  
MAY 1974-MAY 1988

by

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## ABSTRACT

Since May 1974, private-boat fishermen have been routinely interviewed at boat access sites. Party and bay headboat fishermen have been routinely monitored since May 1983 by on-site and on-board surveys, respectively. The estimated sport-boat fishing pressure and landings of finfish in 1987-88 exceeded 8.0 million man-h and 3.1 million fish, respectively. Pressure and landings increased 10% from 1986-87 to 1987-88. Sport-boat fishing in bays and passes accounted for 91% of the pressure and 95% of the landings in 1987-88. The high-use season (15 May-20 November 1987) accounted for 76% of the pressure and 80% of the landings.

Thirty-five percent of the 9-year mean annual coastwide private-boat bay and pass fishing pressure and 39% of the landings occurred in the Galveston Bay system. Spotted seatrout (Cynoscion nebulosus) comprised 37% of the 9-year mean annual coastwide private-boat bay and pass landings. Catch rates for spotted seatrout caught by private-boat fishermen declined from 0.20 fish/man-h in 1983-84 to 0.08 fish/man-h in 1984-85 but increased to 0.14 fish/man-h in 1987-88. The routine sport-boat fishery monitoring program detected a reduction in most finfish landings following the coastwide fish kill in December 1983 and January 1984. A resurgence of some landings occurred during 1985-86 and continued in 1986-87, however, not all species continued to show a resurgence in 1987-88.

Party-boat fishermen bay and pass landings ( $\pm 1$  SE) for 1987-88 (120,800  $\pm$  19,700 fish), although greater than the low of 67,600  $\pm$  15,000 fish (1984-85), remain well below the 261,800  $\pm$  61,100 fish estimated for 1983-84. Thirty-nine percent of the pressure and 40% of the landings occurred in the lower Laguna Madre system compared to only 5% of the coastwide pressure and landings in Galveston Bay system. Spotted seatrout accounted for over 70% of all landings for party-boat fishermen in the bays. Forty-four percent of all spotted seatrout and 43% of all red drum (Sciaenops ocellatus) landed by party-boats in the bays and passes were from the lower Laguna Madre system. Red drum landings coastwide in 1987-88 for party-boats were 24,000  $\pm$  5,200.

Landings for bay and pass headboat fishermen increased from 96,500  $\pm$  13,900 fish in 1986-87 to 132,000  $\pm$  25,600 in 1987-88. Eighty-five percent of the pressure and 94% of the landings occurred during the high-use season. Galveston Bay system accounted for 46% of the pressure and 61% of the landings. Sand seatrout (Cynoscion arenarius) comprised 68% of the landings of headboat fishermen; Atlantic croaker (Micropogonias undulatus) was the next most common species (15%).

Private-boat fishing pressure in the Texas Territorial Sea (TTS) for 1987-88 was 285,900  $\pm$  48,600 man-h, while fishermen landed an estimated 46,700  $\pm$  7,500 fish. During the 1982-87 interval, the high-use season accounted for 92% of the annual coastwide pressure and 84% of the landings. Sand seatrout accounted for 43% of all fishes landed; king mackerel (Scomberomorus cavalla) and red snapper (Lutjanus campechanus) accounted for 17% and 11%, respectively.

Pressure estimates for party-boat fishermen in the TTS ranged from 7,600  $\pm$  6,000 man-h in 1986-87 to 46,500  $\pm$  20,900 man-h in 1983-84. Ninety-five percent of the annual pressure and landings occurred during the high-use season. Corpus Christi and lower Laguna Madre areas combined accounted for 94% of the coastwide pressure and 91% of the landings. King mackerel represented 50% of the fish landed from the TTS.

Pressure in the Exclusive Economic Zone (EEZ) by private-boat fishermen increased from 189,000  $\pm$  37,300 man-h in 1986-87 to 203,500  $\pm$  42,100 man-h in 1987-88. From 1982 through 1987 the high-use season accounted for 92% of the annual pressure and 72% of landings. EEZ pressure (40%) was greatest off the Corpus Christi area. Red snapper were the most often landed fish, accounting for 40% of the annual landings by private-boat fishermen in the EEZ. Sand seatrout were the second most often landed fish (16%) followed by king mackerel (15%).

Annual party-boat pressure in the EEZ increased to 140,800  $\pm$  114,800 man-h in 1987-88 which represents the highest level of those years surveyed. High-use weekdays accounted for 97% of the pressure and landings. Eighty-four percent of the pressure and 71% of the landings (1983-84 to 1987-88) in the EEZ occurred off the Corpus Christi and Galveston areas. King mackerel accounted for 29% of the landings in the EEZ.

## INTRODUCTION

The Texas saltwater sport-boat fishery is an economically and biologically important segment of the total Texas coastal fishery. There were nearly one million resident saltwater sport fishermen in Texas during 1978-79 (Green et al. 1982). Direct expenditures by these fishermen translate into over one billion dollars of economic value annually to the State of Texas (Texas Parks and Wildlife Department 1985, Grubb 1973).

Landings data from sport-boat fishermen are required to assess the needs for and the impact of saltwater fishing regulations. Economic and sociologic information can also be inferred from landings data to allow for management based on optimum sustainable yield (Radovich 1975).

The Texas Parks and Wildlife Department (TPWD) has conducted surveys of sport fishermen in Texas marine waters since 1974 (Heffernan et al. 1976; Breuer et al. 1977; Green et al. 1978; McEachron 1980a, 1980b, 1983, 1984; McEachron and Green 1981, 1982, 1983, 1984a; McEachron et al. 1981, 1984a; Osburn and Ferguson 1985a, 1985b, 1986, 1987; Osburn et al. 1988). These surveys monitored the species composition, size, number and landings per unit of effort of economically important species landed by sport-boat fishermen on a yearly basis in the Galveston, Matagorda, San Antonio, Aransas, Corpus Christi and the upper and lower Laguna Madre bay systems, and in the Gulf of Mexico off Texas. The Sabine Lake system was added to the survey in 1987.

This report includes high-use and low-use season estimates for private-boat and party-boat fishing in Texas bays and passes, the Texas Territorial Sea and the U. S. Exclusive Economic Zone for all years for which data are available (1974-1988). The report also includes high-use and low-use season bay and pass headboat landings for May 1983 to May 1988. Routine monitoring of offshore headboats was terminated 10 September 1984. Previous headboat estimates are published in Osburn and Ferguson (1986).

## MATERIALS AND METHODS

Each year was divided into high-use (15 May-20 November) and low-use (21 November-14 May) seasons based on analyses of fishing pressure, landings and catch rates of private-boat fishermen completing a fishing trip (McEachron et al. 1983). Seasons were partitioned by day type (weekend and weekday). Six holidays (New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day) were classified as weekend days.

Areas fished were defined as:

1. Bay: That area shoreward of the barrier islands and pass entrances;
2. Pass: One of the openings connecting the bays and the Gulf of Mexico specified in Appendix A;

3. Texas Territorial Sea (TTS): The Gulf of Mexico from the surf line to 16.7 km offshore, excluding the 1.6 km area around a pass; and
4. U. S. Exclusive Economic Zone (EEZ): The Gulf of Mexico beyond 16.7 km offshore.

Private-boat fishing was defined as fishing from a privately owned or rental boat without a guide and includes tournament fishing if not guide was hired. Party-boat fishing was defined as fishing from a boat, operated by a guide, that carried  $\leq 10$  people for a fee. Headboat fishing was defined as fishing from a boat, operated by a guide and crew, that carried  $>10$  people for a fee. No known commercial fish landings estimates are included in this report. Sport-boat fishing was defined as the sum of private-boat, party-boat and bay and pass headboat fishing. Landings represent numbers of fish and all estimates are presented as mean  $\pm$  1 standard error.

Differences in the estimates in this report compared with previously published estimates for the same item are due to updating of the data base and the most recent report should be considered the most accurate.

#### Private-boat Fishing

Bay fishermen were interviewed in all survey years. Beginning September 1977, all fishing parties (bay, pass and Gulf) were interviewed although Gulf fishing was not separated into TTS and EEZ fishing until May 1982. Estimates for TTS and EEZ fishing were made for an area rather than a bay system because of travel through common passes and the use of common gulf areas by fishermen launching their boats in separate but adjacent bay systems. Gulf areas were defined as Sabine Lake, Galveston (Galveston Bay/Freeport area), Matagorda (Matagorda Bay/San Antonio Bay), Corpus Christi (Aransas Bay/Corpus Christi Bay/upper Laguna Madre) and the lower Laguna Madre.

The sampling design for weekend private-boat fishermen was described in Heffernan et al. (1976) and was modified by Green et al. (1978). A person traveled through each bay system at a constant rate on randomly selected weekend and weekday days and counted boat trailers at identified boat ramps. Beginning May 1983, empty wet-slips and mooring spaces at marinas and boat houses were also counted. Relative fishing pressure estimates (percent of total bay system activity per site per day) were obtained by adjusting trailer and wet-slip boat counts with activity data collected from interviews at surveyed sites and the number of rented wet-slips obtained from marina and boat-house operators. Boat-access sites are listed in Appendix B, Figures B.1-B.12, Table B.1.

Department personnel were stationed at randomly selected boat-access sites on randomly selected weekend and weekday days to collect landings data by interviewing fishing parties that had completed a trip. Interview sites were selected randomly in proportion to relative fishing pressure estimates obtained during the previous 3 years (TPWD unpublished data). Therefore, boat-access sites with high fishing activity (i.e., mean trailer and wet-slip counts adjusted by interview data) were surveyed more often than sites with low fishing activity. Interviews were conducted from 1000 to 1800 based on diel activity data obtained during the first 2 years of the survey (Heffernan

et al. 1976, Breuer et al. 1977) which indicated the amount of data collected per unit of sampling effort could be maximized (McEachron et al. 1983). Additional efficiency was achieved beginning 21 November 1984 through termination of weekend samples at 1400 and beginning 21 November 1986 through termination of weekday samples at 1600 if no fishing interviews were conducted up to that time (Weixelman and Green 1984). Beginning 21 November 1985, low-use season weekend and weekday samples were not conducted when environmental conditions reached a critical "bad" level based on nomographs relating air temperature, wind speed and precipitation to the number of interviews conducted (Spiller et al. 1988). Those samples were counted as zero interview (zero pressure) samples in the estimation procedure. Estimates have been adjusted by the percent of missed angler interviews occurring during daylight hours but prior to 1000 and after 1800 (unpublished TPWD data).

Interviewers recorded species (Galloway et al. 1972, Hoese and Moore 1977, Robins et al. 1980) and number of all fish brought to shore (landings) by fishing parties as well as number of persons in the party, geographic origin of residence, fishing location, gear and bait used and trip length. Until May 1983, only weight (kg) of fishes was recorded. Beginning May 1983, fish were measured to the nearest mm (total length). Mean total lengths prior to May 1983 were back calculated using weight-length regressions of the mean for each bay system, species, season and day type (Harrington et al. 1979; TPWD unpublished data). Coastwide mean weights and total lengths were weighted by the estimated number of fish landed in each bay system.

Geographic origin of residence was classified as:

1. Coastal adjacent: Counties surrounding a bay system within 80 km of the surfline;
2. Coastal non-adjacent: Counties having a border within 80 km of the surfline but not adjacent to the bay system where the interview occurred;
3. Non-coastal: All Texas counties further than 80 km from the shoreline; and
4. Out-of-state: States other than Texas or foreign countries.

From May 1974 to May 1983, the boat owner's residence was recorded for the entire party. Beginning May 1983, the origin of residence was recorded for individual party members.

In earlier years, the private-boat landings were estimated as the product of the mean catch (landings) rate and the fishing pressure in trip man-h (Heffernan et al. 1976). Since interview sites were selected at random and in proportion to total fishing pressure, this technique depended upon a roving clerk traveling through the fishery obtaining fishing pressure at all sites at any given time during the survey period. In the fall of 1979, gas shortages and irregular operating hours by gas stations made it impossible to strictly comply with these procedures. Since the potential for similar problems existed in the future (1979 was the second gas shortage within a 4-year period), and alternate method of estimating landings and pressure that depended much less on the use of an automobile was developed. Data collected



since 1974 were used to estimate a set of probabilities that described the patterns of fishing pressure within a day and at each inventoried access sites (TPWD unpublished data). A roving clerk is still required to inventory boat-access sites, however the objective is no longer to estimate the total pressure occurring at each site but to estimate what proportion of the total pressure is occurring at each site. This can be accomplished with fewer roves during a short time period (0800-1230) when there is little change in boating activity. This reduces the use of the automobile by 16% to 33% from previous requirements depending on the actual rove schedule adopted. A comparison of estimates made from selecting survey sites as strictly random samples and by selecting survey sites in proportion to the activity that occurs at each site was made by McEachron and Green (1984a).

The following equations were used to estimate landings ( $\hat{H}$ ) separately for each area (bay, pass, TTS and EEZ):

$$\hat{H} = \sum_{i=1}^4 D_i \cdot \bar{h}_i$$

where,  $D_i$  = the total number of days that occurred in the  $i$ th stratum (season and day type), and

$\bar{h}_i$  = the mean number of fish landed per day during daylight hours in the  $i$ th stratum calculated as

$$\bar{h}_i = \frac{1}{n} \cdot \sum_{j=1}^n h_{ij} \cdot P_j / e_j$$

where  $n$  = the total number of days sampled,

$h_{ij}$  = the total number of fish observed at site  $j$  in the  $i$ th stratum,

$P_j$  = the adjustment for parties missed by interviewers at site  $j$  (total number of parties seen divided by the total number of parties interviewed),

$e_j$  = the estimated proportion of total fishing activity in the bay system that occurred at site  $j$  calculated as:

$$e_j = \frac{FH_j}{\sum_{j=1}^k FH}$$

where,  $FH_j$  = the total number of trailers and/or empty wet-slips observed at site  $j$  during the previous 3 years, and

$k$  = the total number of sites.

Pressures ( $\hat{P}$ ) was estimated separately for each area (bay, pass, TTS and EEZ) using:

$$\hat{P} = \sum_{i=1}^4 D_i \cdot \bar{m}_i$$

where,  $D_i$  = the total number of days that occurred in the  $i$ th stratum (season and day type), and

$\bar{m}_i$  = the mean number of fishing trip man-hours per day during daylight hours in the  $i$ th stratum calculated as:

$$\bar{m}_i = \frac{1}{n} \cdot \sum_{j=1}^n m_{ij} \cdot p_j / e_j$$

where,  $n$  = the total number of days sampled,

$m_{ij}$  = the total number of fishing trip man-hours observed at site  $j$  in the  $i$ th stratum,

$p_j$  = the adjustment for parties missed by interviewers at site  $j$  (total number of parties seen divided by the total number of parties interviewed), and

$e_j$  = the estimated proportion of total fishing activity in the bay system that occurred at site  $j$  calculated as:

$$e_j = FH_j / \sum_{j=1}^k FH$$

where,  $FH_j$  = the total number of trailers and/or empty wet slips observed at site  $j$  during the previous 3 years, and

$k$  = the total number of sites.

This technique is described by Kish (1965) and is used to make estimates from samples selected from clusters which are proportional. Variances were calculated using ratio estimation for the ratios of landings per day, fishing trip man-hours per day, the estimated proportion of fishing activity per site, and the proportion of parties missed by interviewers (Mendenhall et al. 1971).

The estimation of the proportion ( $e_j$ ) of total pass and Gulf fishing activity at site  $j$  used an average of weekend and weekday activity due to a scarcity of data for individual day types. The amount of activity at each site with a history of pass or Gulf fishing was computed by averaging this weekend and weekday mean pass and Gulf trip man-h from all previous years since May 1979. When weekend or weekday data were not available the amount of activity was estimated as:

$$X_1 = 3X_2/2$$

when weekend data were not available, and as:

$$\bar{X}_2 = (X_1/2 + X_1)/2$$

when weekday data were not available,

where,  $X_1$  = weekend trip man-h, and  
 $X_2$  = weekday trip man-h.

The amount of activity at sites which had pass or Gulf activity in the year being estimated but no prior history was set equal to sites with historical data that had similar total pressure. The relative percent activity of boat ramps with pass or Gulf history were computed from a total of 95% of all activity. All other boat ramps without historical pass or Gulf activity were assigned equal percents summing to 5% of the total activity.

For years when no weekday surveys were conducted (1976-1977 to 1978-1979), landings and pressure estimates for weekdays were calculated by multiplying weekend landings and pressure by an adjustment factor. Adjustment factors were calculated from the percent of total weekend and weekday landings and pressure comprised by weekend landings and pressure from May 1979 to May 1984 (Appendix C). Nine-year means (1979-1980 to 1987-1988) were used for figures showing percent distributions since methods were consistent and weekday landings were available.

Estimates made from this survey, on an annual basis, are comparable to previous survey estimates. However, one assumption must be made when comparing landings estimates from year to year. The mean catch rate and mean fish size for parties returning during daylight hours but before or after the interview period (1000 to 1800) must be the same as those for parties returning during the interview period.

For the purpose of making annual coastwide landings and fishing pressure comparisons, the data of 1974-1975 and 1975-1976 have been combined and are referred to as 1974-1976. Four of the Texas bay systems were surveyed in 1974-1975 (Galveston, San Antonio, Aransas and the upper Laguna Madre) and three were surveyed in 1975-1976 (Matagorda, Corpus Christi and the lower Laguna Madre). Thereafter, all bay systems were surveyed each year.

### Party-boat Fishing

From May 1983 to May 1988, party-boat fishermen were interviewed whenever they were encountered during the routine private sport-boat fishing survey. The inclusion of marinas and boat-houses in the surveyed boat access site inventory provided for interception of party-boats which were previously surveyed in special studies (McEachron 1983, 1984; McEachron and Matlock 1983; McEachron et al. 1984a). Interview and estimation procedures for May 1983-May 1988 were identical to those described for private-boat fishing.

Estimates of party-boat landings and pressure in this report may not be directly comparable to survey estimates for years prior to May 1983. Time periods, sample site selection and estimation procedures were different from previous methods. Estimates in this report were made on a high- and low-use season basis. During June-August of 1979, 1981 and 1982, party-boat storage and launching areas were randomly selected on 8 days per month in each area, except in the Matagorda area where only 4 days per month were surveyed. Trips

were estimated on an annual basis but landings were estimated for June-August only. Beginning May 1983, boat-access areas were sampled in proportion to all fishing activity rather than just bay private-boat fishing activity (Osburn and Ferguson 1985b). Prior to May 1984-May 1985 surveys, the historical fishing activity data used did not include party-boats. If party-boat pressure is distributed in a different pattern by site than private-boat fishing, then the precision of the party-boat estimates in this report will be biased. Estimation of landings and pressure in this report relied on calculation of a mean daily landings rate adjusted by the relative proportion of activity at a site. Earlier estimates multiplied landings rates in man-h by total trips, mean trip time and mean people per trip.

### Headboat Fishing

Bay and pass headboats were inventoried using the TPWD Fish Guide License list and by personally contacting marinas, bait stands and commercial guide services in each area of fishing activity (Appendix B, Table B.2).

From May 1983 to May 1988, bay and pass headboats were randomly selected on 14 weekday days and 7 weekend days during both the high- and low-use seasons in each of the Galveston (Galveston Bay), Corpus Christi (Aransas Bay/Corpus Christi Bay/upper Laguna Madre) and lower Laguna Madre areas.

Headboat surveys were conducted aboard the vessel. All fish retained were counted and identified (Gallaway et al. 1972, Hoese and Moore 1977, Robins et al. 1980). On each trip, total lengths of up to 100 individuals of each species were measured to the nearest mm. The number of sport fishermen and fishing time (nearest 0.5 h) were also recorded. The total number of trips made on each survey day was determined by contacting all inventoried headboat operators by phone or in person.

The following equations were used to estimate landings ( $\hat{H}$ ):

$$\hat{H} = \sum_{i=1}^4 D_i \cdot \bar{h}_i$$

where,  $D_i$  = the total number of days that occurred in the  $i$ th stratum (season and day type), and

$\bar{h}_i$  = the mean number of fish landed per day in the  $i$ th stratum

calculated as:

$$\bar{h}_i = \frac{1}{n} \cdot \sum_{j=1}^n h_{ij} \cdot t_i/e_{ij}$$

where,  $n$  = the total number of days sampled,

$h_{ij}$  = the total number of fish landed during a trip on headboat  $j$ ,

$t_i$  = the mean number of trips made per day by all boats in the  $i$ th stratum, and

$e_{ij}$  = the estimated proportion of total fishing activity occurring on headboat  $j$  calculated as:

$$e_{ij} = T_{ij} \cdot P_{ij} / \sum_{j=1}^k (T_{ij} \cdot P_{ij})$$

where,  $T_{ij}$  = the number of trips made by headboat  $j$  on all surveyed days in the  $i$ th stratum,

$P_{ij}$  = the mean number of people per trip fishing on headboat  $j$ , and

$k$  = the total number of headboats.

Linear regression analysis found a positive correlation between fish landed and mean number of people per trip for all strata except bay headboats during the low-use season (Osburn and Ferguson 1985a). When no data on mean number of people per trip were available the number was estimated by adjusting that boat's legal passenger capacity by the ratio of number of people per trip to passenger capacity of all surveyed headboats in the  $i$ th stratum. Linear regression analysis showed a positive correlation between mean number of people per trip and passenger capacity for all strata except bay headboats (Osburn and Ferguson 1985a).

The use of  $e_{ij}$  to adjust trip catch (landings) rates is valid for proportional sampling (Kish 1965). Although headboats were to be selected randomly, when a boat was contacted but was not making a trip on the survey day, surveyors continued contacting all headboats until one making a trip was found. Thus more active headboats were surveyed more often, resulting in defacto proportional sampling. Variances were calculated using ratio estimation (Mendenhall et al. 1971).

Procedures for calculating mean total lengths and weights were similar to those described for private-boat fishermen.

Origin of residence information was classified according to the description given under private-boat fishing.

Headboat estimates in this report are comparable to previously reported estimates although some difference in seasons does exist. Equations used in the present survey were based on mean daily catch rates. Previous reports based estimates on trip catch rates extended by the number of people per trip and mean number of trips per day (McEachron 1984). The total number of trips made during a specified time period in these earlier reports was determined by a telephone census of headboat operators.

## RESULTS

The 1987-88 estimated sport-boat fishing pressure was the highest since surveys began in 1974. Pressure was nearly 8.0 million man-h and landings were over 3.1 million fish (Figure 1). These estimates represent an increase of 10% in pressure and landings from 1986-87 (Table 1). Fishing in the bays and passes accounted for most of the increase. Private-boat pressure and landings in the bays and passes were estimated from 154,000 fishermen interviews since 1974 (Appendix D, Table D.15). Nearly 3,700 party and 13,700 headboat fishermen in the bays and passes were also interviewed (Appendix F, Table F.16; Appendix G, Table G.16). In the Texas Territorial Sea, nearly 7,400 private-boat and 260 party-boat fishermen were interviewed (Appendix H, Table H.15; Appendix I, Table I.16). Private-boat fishermen interviews (N=6,800) outnumbered party-boat fishermen interviews (N=450) from the Exclusive Economic Zone (Appendix J, Table J.15; Appendix K, Table K.13).

### Bays and Passes

#### Private-boat Fishing

Annual private-boat fishing pressure has generally increased since 1976-77; landings decreased through 1984-85 but have increased since then (Appendix D, Tables D.1, D.14). One notable exception was a marked decrease in pressure and landings following a major fish kill during the freeze of 1983-84 (Figure 2). Coastwide annual landings declined from a high of 5,506,600 fish in 1974-76 to a low of 1,462,300 fish in 1984-85 (Appendix D, Table D.1). Landings increased from 1986-87 to 1987-88 by almost 12%. High-use seasons accounted for almost 71% of total pressure and one-third of the landings during the past 9 years (Figure 3) (Appendix D, Tables D.2-D.3).

The Galveston Bay system has accounted for a greater proportion of pressure and landings than any of the other bay systems along the Texas coast for the past 9 years. Thirty-five percent of the mean annual coastwide pressure and 39% of the landings occurred there (Figure 4). The San Antonio Bay system accounted for only 4% of the coastwide pressure and landings.

Annual pressure in the Galveston Bay system has remained constant whereas landings have generally decreased (Figure 5). Estimated pressure was about 2.2 million man-h in 1987-88. Although landings have generally decreased since 1974-76, mean annual landings in the Galveston Bay system increased to 1.2 million fish in 1986-87 and decreased slightly in 1987-88. The San Antonio Bay system showed the greatest increase in pressure (48%), an increase from 249,700 man-h in 1986-87 to 483,200 man-h in 1987-88 (Figure 7). Pressure in all other bays remained near 1986-87 levels (Figures 6 and 8-11). Landings decreased or remained near the same levels in most bay systems.

Texas bays yielded an assortment of fishes to private-boat fishermen. Spotted seatrout (Cynoscion nebulosus) comprised 37% of all fish landed in bay systems (Figure 12). Sand seatrout (C. arenarius), Atlantic croaker (Micropogonias undulatus), southern flounder (Paralichthys lethostigma), and red drum (Sciaenops ocellatus) accounted for an additional 45% of the landings. The Galveston Bay system had the highest percentage of annual coastwide landings of Atlantic croaker, black drum (Pogonias cromis), gafftopsail catfish (Bagre marinus), red drum, sand seatrout, sheepshead

(Archosargus probatocephalus), southern flounder, and spotted seatrout (Figures 13-14). Red drum were landed in similar proportions in all bay systems except Sabine Lake system. Species classified as "other" accounted for less than 10% of the fishes landed (Appendix D, Table D.13).

Spotted seatrout was the species most often landed by private-boat bay fishermen during the past 9 years. Landings in 1987-88 of  $954,400 \pm 58,800$  fish were over 200% higher than the 1984-85 landings, which was the lowest estimate from 1974-1988 (Figure 15). Catch per unit of effort (CPUE) has also increased since 1984-85 to a mean of 0.14 fish/man-h but remains well below 0.47 fish/man-h reported in 1976-77. Mean fish length and weight have increased steadily since 1974-76.

Sand seatrout landings, CPUE, mean length, and mean weight have generally declined since 1974-76. Landings of  $401,200 \pm 81,400$  in 1987-88 are near those reported since 1984-85 (Figure 16). Mean length ( $283 \pm 3$  mm) in 1987-88 was similar to that reported for 1986-87.

Atlantic croaker has been the third most landed fish over the past 9 years. During that time, landings and CPUE generally decreased until 1981-82 and have since remained fairly constant near 300,000 fish landed at 0.05 fish/man-h (Figure 17) (Appendix D, Tables D.1, D.10-D.12). Mean length and weight of fish declined after 1983-84 but appear to be increasing, although not to former levels. Mean length and weight of Atlantic croaker in 1987-88 landings were  $246 \pm 4$  mm and  $0.20 \pm 0.01$  kg, respectively (Appendix D, Tables D.4-D.9).

Southern flounder 1986-87 landings appear similar to those in 1974-76. With the exception of 1979-80, southern flounder landings and CPUE have remained fairly constant (Figure 18). Mean length ( $360 \pm 8$  mm) and weight ( $0.60 \pm 0.04$  kg) of southern flounder landed in 1987-88 appear to have exceeded 1985-86 estimates, but have still shown a downward trend since 1974-76.

The greatest change in red drum landed by private-boat fishermen in the bays has been in mean fish length and weight (Figure 19). Mean length ( $567 \pm 4$  mm) and weight ( $2.07 \pm 0.05$  kg) in 1987-88 were at the highest levels for the 13-year reporting period. Landings in 1987-88 were  $241,700 \pm 16,700$  fish and CPUE was  $0.04 \pm <.01$  fish/man-h.

Sheepshead 1987-88 landings appear similar to those in 1974-76. Although landings of sheepshead have increased from  $48,200 \pm 7,100$  in 1985-86 to  $98,600 \pm 22,500$  in 1987-88, mean fish length and weight declined (Figure 20).

A notable decline in landings and CPUE of black drum occurred in 1983-84 (Figure 21). The estimate of 86,300 fish landed in 1987-88 was higher than the three previous years but CPUE (0.01 fish/man-h) remained the same as the previous 4 years. There appeared to be little difference in mean length and weight among years.

There was no clear pattern in gafftopsail catfish landings or CPUE (Figure 22). Landings for 1987-88 were  $19,900 \pm 5,800$  fish. However, mean fish length and weight have generally declined until 1987-88 when there was an

increase to  $497 \pm 10$  mm and  $1.27 \pm 0.07$  kg, respectively.

Fishermen origin, mean fishing party size, and mean trip length have remained constant from year to year, except for fishermen origin in 1983-84, the year of the freeze. The majority (56-64%) of private-boat fishing trips were made by fishermen who lived in coastal counties adjacent to the bay system fished, except in 1983-84 when 49% of the trips were made by fishermen from adjacent coastal counties (Appendix D, Table D.17). The annual coastwide mean fishing party size and mean trip length ranged from 2.4-2.7 people and from 5.3-7.2 h, respectively (Appendix D, Table D.16).

Increases in fishing license sales and boat registration suggested increased fishing and recreational activities in Texas waters. Since 1956, the number of fishing licenses sold in Texas has increased from approximately 458,400 to over 1.9 million annually (Figure 23) (Appendix E, Table E.1). The number of recreational boats registered statewide has increased 25% since 1976 (Appendix E, Table E.2).

#### Party-boat Fishing

Party-boat fishermen have been routinely monitored since May 1983. Mean annual coastwide pressure for this group has remained between 200,000-250,000 man-h, except for 1984-85 (Figure 24) (Appendix F, Table F.15). Landings for 1987-88 ( $120,800 \pm 17,000$  fish), although greater than the low of  $67,600 \pm 15,000$  (1984-85), remain below the  $261,800 \pm 61,000$  man-h estimated for 1983-84 (Appendix F, Table F.1). Over 72% of the mean annual coastwide pressure and 79% of the landings occurred during the high-use season (Figure 25) (Appendix F, Tables F.2-F.3).

Unlike private-boat pressure and landings which were greatest in the Galveston Bay system, party-boat pressure and landings were greatest in the lower Laguna Madre system (Figure 26). Thirty-nine percent of the pressure and 40% of the landings occurred in the lower Laguna Madre system compared to only 5% of coastwide pressure and landings in the Galveston Bay system. Annual pressure and landings have remained below 21,000 man-h and 21,000 fish in the Sabine Lake, Galveston, Matagorda, and San Antonio Bay systems from 1983-88. Pressure and landings estimates for the Aransas and Corpus Christi Bay systems often exceeded 25,000 man-h and 25,000 fish landed. In the upper Laguna Madre system, pressure increased since 1984-85 although landings are still less than 12,000 fish. In the lower Laguna Madre system pressure estimates in 1987-88 of  $67,600 \pm 12,000$  man-h are comparable to previous years. However, landings for 1987-88 of  $31,700 \pm 5,400$  are below those reported in 1986-87 and still remain below the estimated high of  $86,900 \pm 15,100$  in 1983-84.

Red drum and spotted seatrout were the most often landed species by party-boat bay fishermen (Figure 27). Spotted seatrout accounted for over 70% of all landings. When examined by bay system, 44% of all spotted seatrout and 43% of all red drum landed by party-boats in the bays and passes were from the lower Laguna Madre system (Figure 28). Only 1% of the red drum and 6% of the spotted seatrout landed came from the Galveston Bay system. Fishes classified as "other" accounted for only 1% of the landings (Appendix F, Table F.14).

Landings of red drum appear to be increasing whereas spotted seatrout



landings are decreasing. Red drum landings coastwide in 1987-88 were  $24,000 \pm 5,200$ , up from  $12,100 \pm 3,000$  estimated for 1983-84 (Figure 29). CPUE was 0.11 fish/man-h, similar to estimates for 1984-85 and 1985-86 (Appendix F, Tables F.10-F.13). Since 1984-85, mean fish length and weight have fluctuated little although mean fish length and weight increased in 1987-88 to  $610 \pm 6$  mm and  $2.54 \pm 0.07$  kg, respectively (Appendix F, Tables F.4-F.9). Although landings of spotted seatrout dropped drastically from 1983-84 to 1984-85, they have increased somewhat through 1987-88 to  $83,400 \pm 13,200$  (Figure 30). The highest catch rates ( $0.77 \pm 0.24$  fish/man-h) were in 1983-84 whereas those in 1984-85 through 1987-88 ranged from 0.30-0.44 fish/man-h. Mean length and weight for spotted seatrout increased to  $441 \pm 3$  mm and  $0.88 \pm 0.02$  kg, respectively, in 1987-88.

Most party-boat fishing trips were made by fishermen from non-coastal counties. Fishermen from non-coastal counties represented 40-47% of all the party-boat fishing trips in the bays (Appendix F, Table F.18). Mean fishing party size in 1987-88 of  $3.5 \pm 0.1$  people was within the range (3.4-3.6 people) reported for previous years. Mean trip length of 7.5 h was the longest recorded from 1983-84 to 1987-88 (Appendix F, Table F.17).

#### Headboat Fishing

Pressure and landings estimates for headboat fishermen in bays and passes increased from 1986-87 to 1987-88 (Figure 31). Pressure in 1986-87 was the lowest ( $108,900 \pm 10,800$  man-h) of any year during the monitoring period (Appendix G, Table G.15). Landings increased from  $96,500 \pm 13,900$  in 1986-87 to  $132,000 \pm 25,600$  in 1987-88 (Appendix G, Table G.1). Eighty-five percent of the pressure and 94% of the landings occurred during the high-use season (Figure 32) (Appendix G, Table G.2). The low-use season has accounted for only 15% of the total pressure and 6% of the fish landed since 1983-84 (Appendix G, Table G.3).

The Galveston Bay system accounted for most of the pressure (46%) and landings (61%) during the last 9 years (Figure 33). The lower Laguna Madre system accounted for the least amount of pressure (18%) and landings (17%). Although there appeared to be differences in pressure and landings among years for the other bay systems, no clear trend was evident.

Sand seatrout and Atlantic croaker were the fishes most commonly landed by headboat fishermen. Sand seatrout comprised 68% of the landings and Atlantic croaker comprised 15% of the landings (Figure 34). "Other" species accounted for 16% of the landings (Appendix G, Table G.14). Almost all of the Atlantic croaker landed (96%) came from the Galveston Bay system (Figure 35). Sand seatrout, although most prevalent in the Galveston Bay system (57%), was also common in the Corpus Christi Bay system (26%) and the lower Laguna Madre system (17%).

Atlantic croaker landings decreased from a high of  $32,200 \pm 8,600$  in 1986-87 to  $9,900 \pm 2,700$  in 1987-88 (Figure 36). CPUE also decreased in 1987-88 to a low of  $0.05 \pm 0.02$  fish/man-h (Appendix G, Tables G.10-G.13). Fish length and weight appear to have increased the last 2 years (Appendix G, Tables G.4-G.9).

Landings of sand seatrout ranged from a high in 1985-86 of  $177,800 \pm 51,800$  down to  $45,800 \pm 9,900$  in 1986-87 (Figure 37). CPUE ranged from a low of  $0.36 \pm 0.10$  in 1984-85 to  $0.85 \pm 0.29$  in 1985-86. Landings and CPUE in 1987-88 were  $103,200 \pm 22,700$  fish and  $0.57 \pm 0.15$  fish/man-h, respectively.

The majority (75%) of the headboat fishing trips were made by fishermen from adjacent coastal and non-coastal counties in all years (Appendix G, Table G.18). The coastwide mean fishing party size was highest during the high-use season (Appendix G, Table G.17). The annual coastwide mean fishing time ranged from 2.4-3.0 h.

### Texas Territorial Sea

#### Private-boat Fishing

Annual coastwide pressure and landings have varied from year to year in the Texas Territorial Sea (TTS). Mean annual pressure in 1987-88 was the second highest reported for the six-year period, 1982-1988 (Figure 38). Pressure for 1987-88 was  $285,900 \pm 48,600$  man-h while fishermen landed an estimated  $46,700 \pm 7,500$  fish (Appendix H, Table H.1-H.3). The high-use season accounted for 92% of the annual coastwide pressure and 82% of the landings (Figure 3).

Only in the Corpus Christi area did 1987-88 landings from the TTS appear to have increased above 1985-86 levels. From 1982 through 1988, the Corpus Christi area had the most TTS pressure (54%) but only 23% of the landings (Figure 39). The Matagorda area had most of the landings (49%); the smallest proportion of pressure (5%) and landings (1%) were in the lower Laguna Madre and Sabine Lake, respectively. Two of the five TTS areas had decreases in pressure during 1987-88. The Corpus Christi area had the largest increase in pressure, from  $125,000 \pm 52,300$  man-h in 1986-87 to  $202,600 \pm 4,600$  man-h in 1987-88 (Appendix H, Table H.14).

The most commonly landed fishes from 1982-83 through 1987-88 in the TTS by private-boat fishermen were king mackerel (*Scomberomorus cavalla*), red snapper (*Lutjanus campechanus*), and sand seatrout (Figure 40). Sand seatrout comprised 42% of all fishes landed, followed by king mackerel (17%) and red snapper (11%). "Other" species listed in Appendix H, Table H.13 made up 22% of all fishes landed in 1987-88. Over the 6-year interval, the Corpus Christi area had the greatest share of king mackerel landings from the TTS (63%) (Figure 41). Sand seatrout were most prevalent in the Matagorda area.

Estimated landings and catch rates of king mackerel steadily decreased from 1982-83 and then increased in 1987-88 (Figure 42). Landings increased from  $3,100 \pm 800$  in 1986-87 to  $12,200 \pm 3,700$  in 1987-88. Generally, CPUE has followed a similar pattern, decreasing to a low of  $0.01 \pm <.01$  fish/man-h in 1986-87 (Appendix H, Tables H.10-H.12). Mean length and weight has remained constant from 1984-85 to 1987-88 (Appendix H, Tables H.4-H.9).

Generally, red snapper landings and CPUE have varied little since 1983-84 (Figure 43). Annual landings have remained less than 7,000 fish and CPUE has remained at or below 0.03 fish/man-h. Although red snapper mean length and weight appeared to have increased slightly from 1982-83 through 1986-87, there appears to have been a decrease in 1987-88.

Landings and CPUE for sand seatrout are at their lowest level for the six-year period (Figure 44). Sand seatrout landings and CPUE during 1987-88 were estimated at  $2,600 \pm 1,300$  and  $0.01 \pm 0.01$  fish/man-h, respectively. Mean fish length and weight has generally decreased and are  $294 \pm 18$  mm and  $0.28 \pm 0.06$  kg, respectively for 1987-88.

Most private-boat fishing trips in the TTS were made by fishermen from adjacent coastal (44%) and non-coastal (38%) counties (Appendix H, Table H.17). The annual coastwide mean fishing party size (2.9-3.1 people) and mean trip length (5.9-6.4 h) have remained constant through 1987-88 (Appendix H, Table H.16).

#### Party-boat

Landings have mirrored pressure for party-boats in the TTS (Figure 45). Pressure estimates for party-boat fishermen in the TTS have ranged from  $7,600 \pm 6,000$  man-h in 1986-87 to  $46,500 \pm 20,900$  man-h in 1983-84 (Appendix I, Table I.15). Approximately 95% of the annual pressure and landings occurred during the high-use season (Figure 25). The Corpus Christi and lower Laguna Madre areas combined accounted for 94% of the coastwide pressure and 91% of the landings (Figure 46). Pressure and landings in the Sabine Lake, Galveston and Matagorda areas generally were zero (Appendix I, Tables I.1-I.3).

Most landings of king mackerel from the TTS by party-boats occurred in the Corpus Christi area. King mackerel represented 50% of the fish landed from the TTS (Figure 27). The Corpus Christi area accounted for 38% of the king mackerel landings from the TTS (Figure 47). The lower Laguna Madre area accounted for the only red snapper landing estimates from the TTS and 83% of all red snapper landed from the TTS and EEZ combined. "Other" species accounted for 12% of the TTS landings (Appendix I, Table I.14). King mackerel landings in 1987-88 of  $4,200 \pm 2,600$  was the highest since 1984-85 (Figure 48). CPUE has ranged between 0.08 and 0.21 fish/man-h (Appendix I, Tables I.10-I.13). There was no apparent upward or downward trend in mean length or weight (Appendix I, Tables I.4-I.9). No red snapper were landed in boat access site surveys in 1987-88 (Figure 49).

Non-coastal counties were the residential origin of the highest percentage of party-boat fishing trips each year (Appendix I, Table I.18). Generally from 1983-84 to 1987-88, 43% to 64% of party-boat fishing trips were made by residents from non-coastal counties; however, in 1986-87 this percentage increased to 76%. The annual coastwide mean fishing party size has ranged from 2.9-4.5 people in all years whereas mean trip length was the longest recorded (7.5 h) (Appendix I, Table I.17).

### Exclusive Economic Zone

#### Private-boat

Fishing pressure by private-boat fishermen in the Exclusive Economic Zone (EEZ) in 1987-88 was at the highest level reported (Figure 50). Pressure increased from 1986-87 ( $188,700 \pm 37,300$  man-h) to  $203,500 \pm 42,100$  man-h in 1987-88 (Appendix J, Table J.14). Landings by private-boat fishermen from the EEZ have averaged near 60,000 fish from 1984-85 to 1986-87 but increased to

73,500  $\pm$  23,400 fish in 1987-88 (Appendix J, Table J.1). Over the 6-year interval, the high-use season accounted for 92% of the annual pressure and 72% of the landings (Figure 3). Although fishermen during the low-use season represented only 8% of the annual coastwide pressure, they landed 28% of the fishes (Appendix J, Tables J.2-J.3).

Most pressure in the EEZ was offshore from the Galveston and Corpus Christi Bay systems. EEZ pressure and landings were greatest off the Galveston area accounting for 32% and 39%, respectively (Figure 51). Pressure in the EEZ for the Galveston area declined from 1982-83 to 1984-85, increased in 1985-86 and then decreased through 1987-88 to 41,700  $\pm$  19,700 man-h. Landings followed a similar pattern, decreasing from 1982-83 to 1984-85, increasing in 1985-86 and decreasing through 1987-88 to 11,100  $\pm$  4,400 fish. Pressure in the Matagorda area during 1987-88 was at the highest level since 1982-83. Pressure and landings in the Corpus Christi area were similar from 1982-83 to 1985-86, however, pressure decreased to 39,400  $\pm$  15,100 man-h and landings declined to 5,000  $\pm$  3,100 in 1986-87. Pressure and landings in the lower Laguna Madre area showed a decrease since 1984-85.

Most red snapper and king mackerel landed from the EEZ were from off the Galveston and Corpus Christi areas, respectively. Red snapper was the most often landed fish, accounting for 38% of the annual landings by private-boat fishermen in the EEZ (Figure 40). Sand seatrout were the second most often landed fish (15%) followed by king mackerel (14%). "Other" fishes represented 23% of the landings (Appendix J, Table J.13). The EEZ off the Corpus Christi area (21%) reported the most king mackerel landed (Figure 41). Twenty-eight percent of the red snapper landed came from the EEZ off the Galveston area. Sand seatrout landings were divided fairly evenly among all areas.

Although landings and CPUE for king mackerel have varied, mean length and weight were similar during all years (Figure 52). CPUE in 1987-88 of only 0.04 fish/man-h was well below 0.05 fish/man-h in 1985-86 and 1986-87 and 0.06 fish/man-h in 1982-83 and 1984-85 (Appendix J, Tables J.10-J.12). Except for an increase in mean weight in 1983-84, mean length and weight have varied little (Appendix J, Tables J.4-J.9). Landings of red snapper have increased from 16,900  $\pm$  6,200 in 1986-87 to 37,900  $\pm$  20,300 fish in 1987-88 (Figure 53). CPUE has declined from a high of 0.24  $\pm$  0.10 fish/man-h in 1983-84 to 0.19  $\pm$  0.10 fish/man-h in 1987-88. Mean length and weight of red snapper appear to have remained constant from 1982-83.

Estimated mean annual landings and CPUE of sand seatrout have remained stable since decreases from 1982-83 (Figure 54). Landings have remained below 6,000 fish from 1984-85 to 1987-88 since a high of 53,600  $\pm$  36,300 in 1982-83. The trend for CPUE was similar to that for landings with only 1982-83 being above 0.03 fish/man-h. Mean lengths and weights remained the same from 1982-83 to 1987-88.

Fishermen origin, mean fishing party size, and mean trip length have remained constant. The majority (75-87%) of private-boat fishing trips were made by fishermen from adjacent coastal or non-coastal counties in all years (Appendix J, Table J.17). The annual coastwide mean fishing party size (3.1-3.3 people) has also remained constant (Appendix J, Table J.16). Mean trip length in 1987-88 was the longest (8.8 h) of any year reported.

## Party-boats

Pressure by party-boat fishermen in the EEZ increased in 1987-88 to the highest levels recorded (Figure 55). Annual pressure decreased from  $117,100 \pm 46,400$  man-h in 1983-84 to a low of  $18,000 \pm 6,000$  man-h in 1985-86 (Appendix K, Table K.12). Pressure increased in 1987-88 to  $140,800 \pm 114,800$  man-h. After a drop in landings from  $33,500 \pm 14,800$  in 1983-84 to  $6,600 \pm 2,600$  in 1984-85, landings increased to  $27,300 \pm 15,300$  in 1987-88 (Appendix K, Table K.1-K.3). High-use season accounted for 97% of the annual pressure and landings (Figure 25).

Most of the coastwide party-boat pressure and landings from the EEZ were reported from two gulf areas. Eighty-four percent of the pressure and 71% of the landings (1983-84 to 1987-88) in the EEZ occurred off the Corpus Christi and Galveston areas (Figure 56). Slightly more than 2% of the EEZ pressure and 1% of the landings occurred in the Matagorda area.

Although more king mackerel were landed by party-boat fishermen in the EEZ than the TTS, they represented a smaller percentage of the landed fishes. King mackerel accounted for 29% of the landings in the EEZ whereas 59% were fishes classified as "other" (Figure 27) (Appendix K, Table K.11).

Landings and CPUE of king mackerel have increased slightly above estimates for 1985-86, which were the lowest for the reporting period (Figure 57). After a decrease in landings of king mackerel from  $13,500 \pm 7,400$  in 1983-84 to a low of  $800 \pm 500$  in 1985-86, landings rebounded to  $4,100 \pm 2,600$  in 1987-88. CPUE estimates ( $0.03 \pm 0.03$  fish/man-h) for 1987-88 were the lowest reported in the five-year period (Appendix K, Tables K.8-K.10).

As with king mackerel caught by private-boat fishermen, red snapper mean length and weight varied little (Appendix K, Tables K.4-K.7). Mean length was  $378 \pm 28$  mm and mean weight was  $0.85 \pm 0.26$  kg in 1987-88 (Figure 58). Landings estimates in 1984-85 ( $200 \pm 200$  fish) and CPUE in 1984-85 and 1987-88 ( $0.01 \pm 0.01$ ) were lowest for the reported periods.

Similar to party-boat fishermen in the TTS, fishermen origin, mean party size, and mean trip length for party-boat fishermen in the EEZ has varied little. Forty-nine percent of party-boat fishing trips originated from non-coastal residents in 1987-88 (Appendix K, Table K.15). The mean fishing party size has ranged from 3.9-5.0 people and mean trip length from 7.0-8.7 h from 1983-84 to 1987-88 (Appendix K, Table K.4).

## DISCUSSION

As participation in the saltwater fishery has increased over the past 13 years, landings have decreased. The apparently large decline in the Texas private-boat landings and catch rates from 1974-76 to later survey years may have been caused by a decline in fish availability as well as more restrictive size and bag limits on selected species. A decline in fish abundance was documented by TPWD fisheries-independent monitoring programs that have been conducted since fall 1975 (McEachron and Green 1984b, 1986, Rice et al. 1988). A coastwide decline in sampling gear catch rates was reported for spotted seatrout from 1976 to 1979. By 1984 gill net catch rates for spotted seatrout had declined to the lowest level recorded. Red drum gill net catch rates also declined (from 1976 to 1978 and since 1980) but increased in 1986 to one of the highest levels recorded. These two species together comprise nearly half of the private-boat fishermen landings in Texas bays and passes.

To curb the decline in finfish availability, the Texas Legislature and the Texas Parks and Wildlife Commission enacted possession and size limit regulations designed to restrict the harvest of spotted seatrout and red drum (Texas Parks and Wildlife Department 1979, 1981, 1983, 1985). The stabilization of mean catch rates for red drum since 1979-80, except for 1984-85, and the increase in mean sizes for these two species since 1979-80 offers encouragement that these regulations are accomplishing their intended purpose.

The Texas coast experienced a severe fish kill due to cold temperatures during late December 1983 and early January 1984 (McEachron et al. 1984b). Preliminary estimates revealed that a minimum of over 15 million marine organisms were killed. Of these, approximately 567,000 were spotted seatrout, 285,000 were black drum, 183,000 were sheepshead, 160,000 were Atlantic croaker and 90,000 were red drum. The negative effects of this fish kill on the sport-boat fishery in Texas bays and passes are indicated by the results of this study. Fishing pressure declined dramatically in all bays except the lower Laguna Madre system. Recreational fishing license sales in 1984-85 were at their lowest level since 1978-79. Declines in landings and catch rates from 1983-84 to 1984-85 were particularly dramatic for spotted seatrout. These declines parallel those noted in catch rates of spotted seatrout from the TPWD fisheries-independent monitoring program (McEachron and Green 1986).

Boat fishing pressure is also apparently affected by factors other than fish populations. The declines in fishing pressure in 1976-77 and 1977-78 as compared to 1974-76 may have resulted from the combination of the decline in fishing success during those years and the increasing cost of a fishing trip. Ditton et al. (1980) reported that nearly one-half of fishing trip expenditures for bay private-boat fishermen in the Houston-Galveston area of the Texas coast were for fuel. With a 131% increase in the price of regular gasoline from 1974 through 1980 (U. S. Dept. of Energy 1977, 1980, 1981), fishermen experienced a substantial increase in the cost of an average fishing trip. More economic and sociologic information on sport-boat fishermen is needed to discern their motivations. Additional rigorous statistical analyses are needed to explain fully the reasons for trends presented in this report.

Only recently have landings and effort data for charterboat fishermen been routinely collected (McEachron and Matlock 1983). Various difficulties in surveying charterboat fishermen, such as high mobility and seasonality of

the operators and owner noncooperation, have been noted by Fraser et al. (1977) and McEachron (1984). The charter industry, however, has become a significant component of the total sport-boat fishery in Texas (Ditton et al. 1978). Catch rates of charterboat fishermen are appreciably greater than those reported for non-charter fishermen (McEachron 1984; Osburn and Ferguson 1985a, 1986, 1987; Trent 1976) principally due to the fish guides' greater knowledge of "good" fishing areas (Caillouet and Higman 1978). The demonstrated success of the charter fishery coupled with the increasing number of boats in the industry emphasizes the need to continue monitoring the landings and effort of charterboat fishermen.

This study presents pressure and landings estimates, as well as the variances associated with those estimates, for all strata of sport-boat fishermen in Texas marine waters. These estimates, however, should be considered minimum estimates since they do not include night-time private- and party-boat fishing. There are also sites where boats can dock, but TPWD has no access to conduct surveys (e.g., condominiums and private residences). Ferguson and Green (1987) estimated that from 25-30 percent of all saltwater sport-boat fishing trips originated from unsurveyed launch sites. There is also a lack of adequate data to monitor the fishing pressure and landings of shore-based fishermen in Texas (e.g., wade/bank, piers, jetties). McEachron et al. (1981) found that these shore-based strata accounted for 33-36% of the coastwide sport-fishing landings. Resolutions of these limitations in the sport-boat monitoring program are currently being pursued, as well as methods to improve survey efficiency.

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Table 1. Annual and seasonal sport-boat fishing pressure (man-h x 1,000) and finfish landings (No. x 1,000) by year, area fished and strata (1983-1988).

Year	Area	High-use		Low-use		Annual <sup>a</sup>	
		Pressure	Landings	Pressure	Landings	Pressure	Landings
1983-1984							
	Bay and Pass						
	Private boat	4,472.0	2,092.6	1,176.1	392.0	5,648.7	2,484.6
	Party boat	205.7	239.6	44.3	22.2	249.9	261.8
	Headboat	159.7	124.2	29.2	7.1	188.9	131.3
	Total	4,837.4	2,456.4	1,250.2	421.3	6,087.5	2,877.7
	Territorial Sea						
	Private boat	282.6	25.0	30.9	7.7	313.6	32.7
	Party boat	46.5	20.7	0.0	0.0	46.5	20.7
	Total	329.1	45.7	30.9	7.7	360.1	53.4
	Exclusive Economic Zone						
	Private boat	174.5	73.1	23.4	8.3	197.9	81.3
	Party boat	117.1	33.5	0.0	0.0	117.1	33.5
	Total	291.6	106.6	23.4	8.3	315.0	114.8
	Grand Total <sup>a</sup>	5,458.1	2,608.7	1,315.7	437.3	6,762.6	3,045.9
1984-1985							
	Bay and Pass						
	Private boat	2,705.3	1,059.5	1,376.5	402.8	4,081.8	1,462.3
	Party boat	89.6	41.8	37.9	25.7	127.6	67.6
	Headboat	103.5	65.6	30.4	8.9	134.0	74.6
	Total	2,898.4	1,166.9	1,444.8	437.4	4,343.4	1,604.5
	Territorial Sea						
	Private boat	127.3	20.9	22.5	21.9	149.8	42.8
	Party boat	11.4	1.5	4.5	1.3	15.9	2.9
	Total	138.7	22.4	27.0	23.2	165.7	45.7
	Exclusive Economic Zone						
	Private boat	159.9	39.4	9.9	11.8	169.7	51.2
	Party boat	26.5	5.8	3.5	0.8	30.0	6.6
	Total	186.4	45.2	13.4	12.6	199.7	57.8
	Grand Total <sup>a</sup>	3,223.5	1,234.5	1,485.2	473.2	4,708.8	1,708.0

Table 1. (Cont'd.)

Year Area Stratum	High-use		Low-use		Annual <sup>a</sup>	
	Pressure	Landings	Pressure	Landings	Pressure	Landings
1985-1986						
Bay and Pass						
Private boat	3,269.9	1,212.6	2,208.1	514.8	5,477.9	1,727.4
Party boat	129.2	69.1	95.7	34.9	224.8	104.0
Headboat	179.5	218.8	30.0	13.3	209.6	232.0
Total	3,578.6	1,500.5	2,333.8	563.0	5,912.3	2,063.4
Territorial Sea						
Private boat	161.5	29.2	15.3	10.6	176.9	39.8
Party boat	18.6	5.6	0	0	18.6	5.6
Total	180.1	34.8	15.3	10.6	195.5	45.4
Exclusive Economic Zone						
Private boat	253.1	50.9	14.4	21.2	267.5	72.1
Party boat	18.0	8.8	0	0	18.0	8.8
Total	271.1	59.7	14.4	21.2	285.5	80.9
Grand Total <sup>a</sup>	4,029.8	1,595.0	2,363.5	594.8	6,393.3	2,189.7
1986-1987						
Bay and Pass						
Private boat	4,019.9	1,721.4	2,399.0	718.7	6,419.0	2,439.2
Party boat	151.2	97.5	63.5	44.9	213.7	140.3
Headboat	90.7	90.7	18.2	5.7	108.9	96.5
Total	4,261.8	1,909.6	2,480.7	769.3	6,741.6	2,676.0
Territorial Sea						
Private boat	259.1	72.7	21.9	9.2	281.1	81.9
Party boat	7.3	1.3	0.4	0.6	7.6	1.9
Total	266.4	74.0	22.3	9.8	288.7	83.8
Exclusive Economic Zone						
Private boat	171.1	36.1	17.9	16.6	189.0	52.6
Party boat	41.2	12.5	3.2	0.8	44.4	13.3
Total	212.3	48.6	21.1	17.4	233.4	65.9
Grand Total <sup>a</sup>	4,740.5	2,032.2	2,524.1	796.5	7,263.7	2,825.7

Table 1. (Cont'd.)

Year Area Stratum	High-use		Low-use		Annual <sup>a</sup>	
	Pressure	Landings	Pressure	Landings	Pressure	Landings
1987-1988						
Bay and Pass						
Private boat	5,061.2	2,144.3	1,847.9	582.7	6,909.1	2,727.0
Party boat	172.4	108.3	39.6	12.5	212.0	120.8
Headboat	164.5	126.9	17.8	5.1	182.3	132.0
Total	5,398.1	2,379.5	1,905.3	600.3	7,303.4	2,979.8
Territorial Sea						
Private boat	268.7	42.4	17.3	4.3	285.9	46.7
Party boat	20.1	6.4	0	0	20.1	6.4
Total	288.8	48.8	17.3	4.3	306.0	53.1
Exclusive Economic Zone						
Private boat	182.2	48.9	21.3	24.6	203.5	73.5
Party boat	138.6	0.2	2.2	0.7	140.8	0.2
Total	320.8	49.1	23.5	25.3	344.3	73.7
Grand Total <sup>a</sup>	6,007.7	2,477.4	1,946.1	629.9	7,953.7	3,106.6

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual totals.

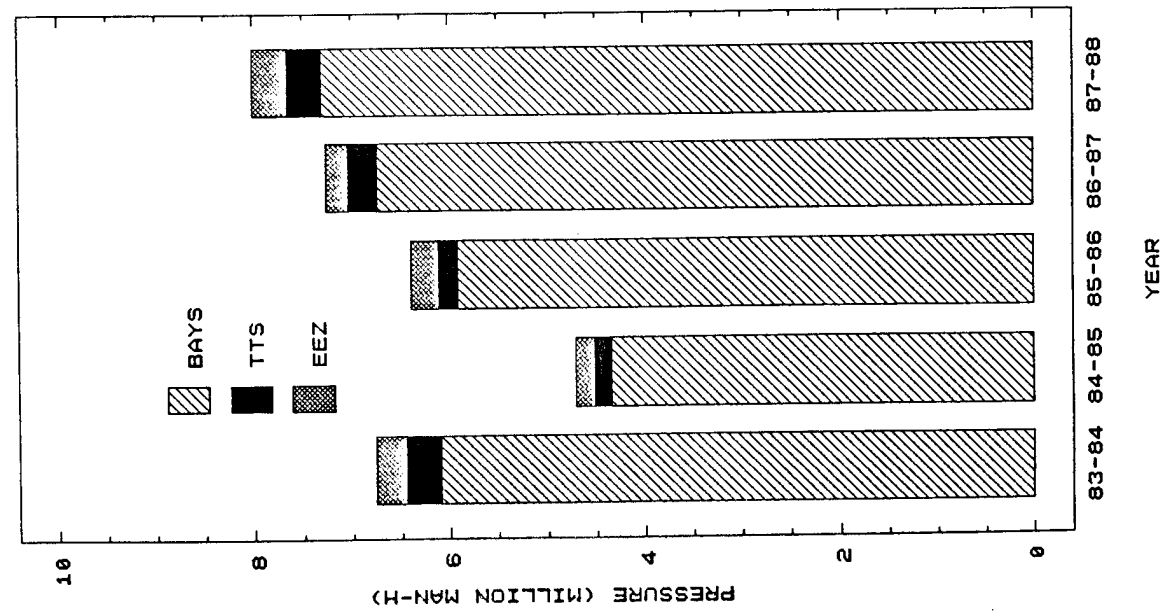
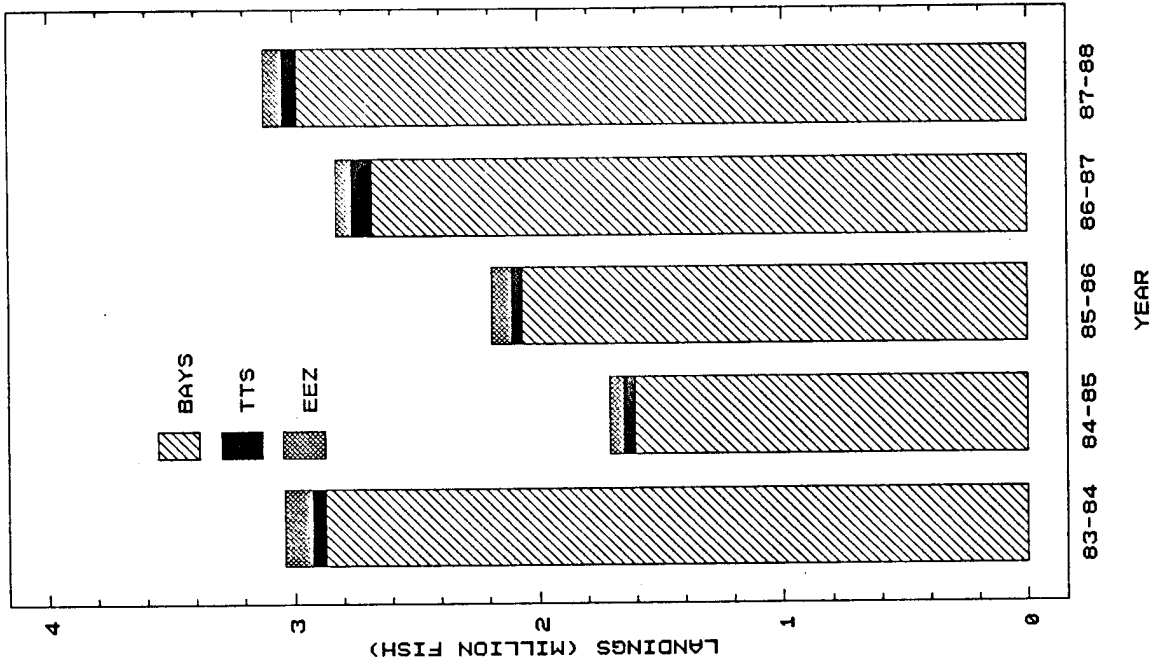


Figure 1. Coastwide annual sport-boat fishing pressure and landings in Texas bays and passes, Texas Territorial Sea (TTS) and Exclusive Economic Zone (EEZ), May 1974-May 1988.



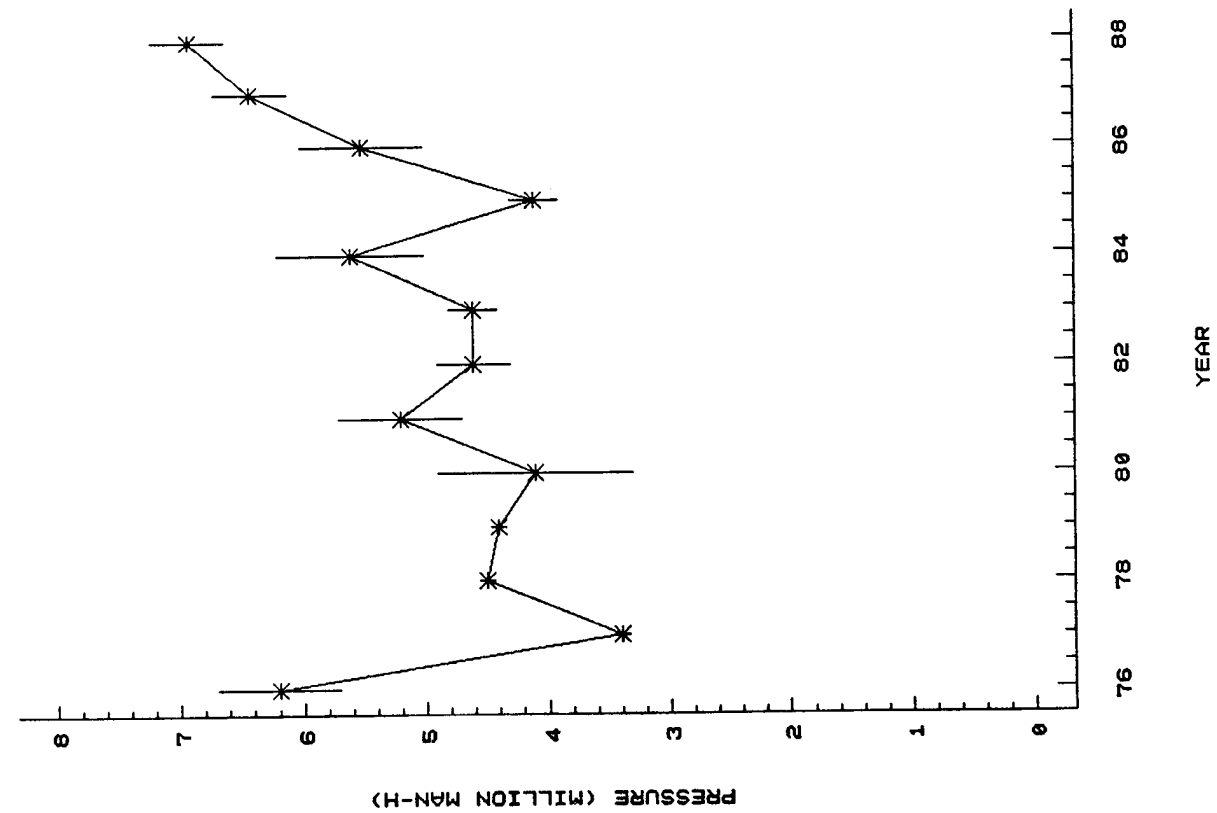
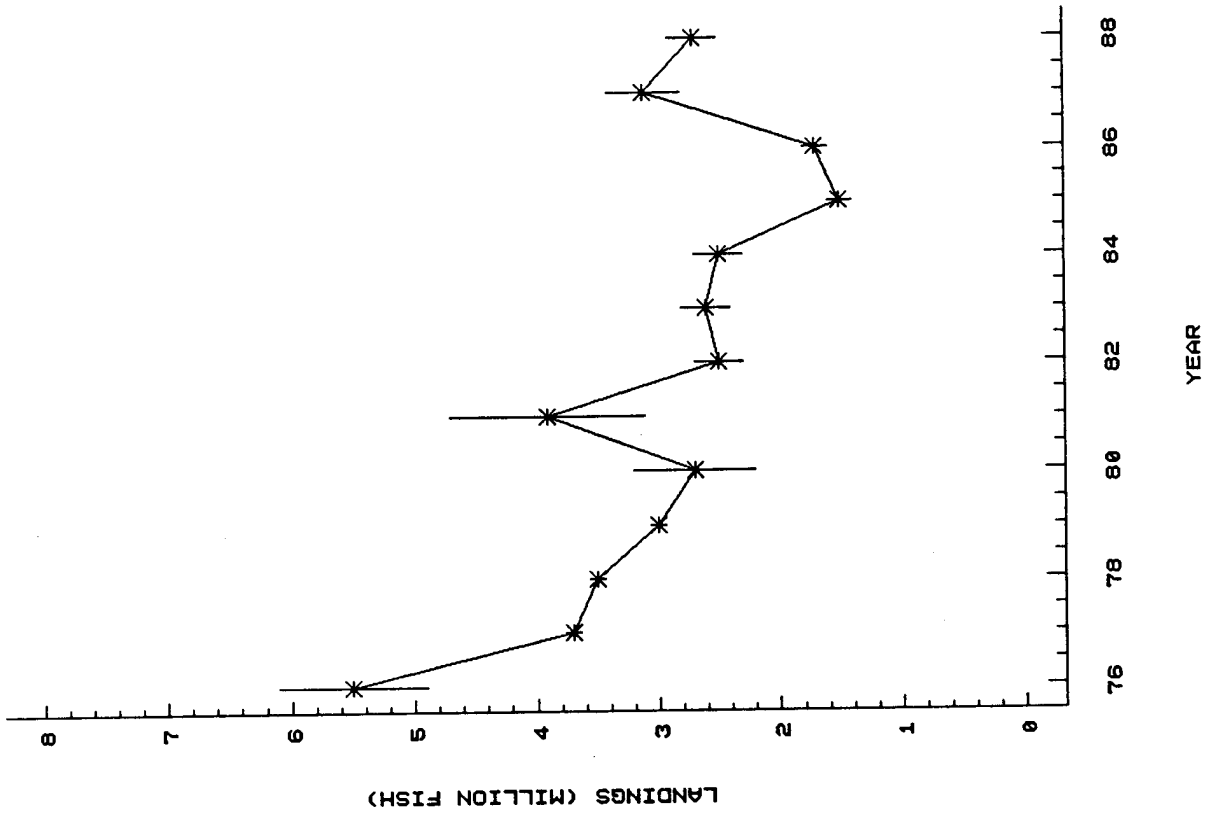


Figure 2. Coastwide annual private-boat fishing pressure ( $\pm 1$  SE) and landings ( $\pm 1$  SE) in Texas bays and passes, May 1974-May 1988.

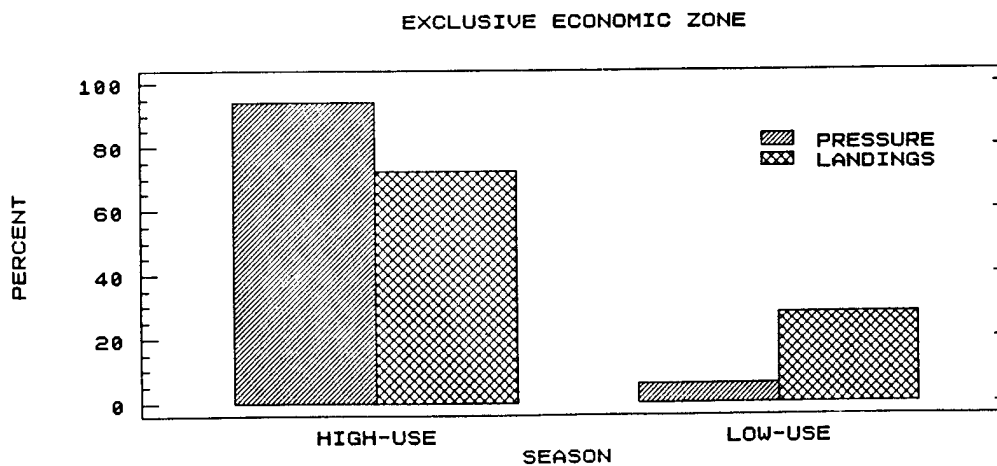
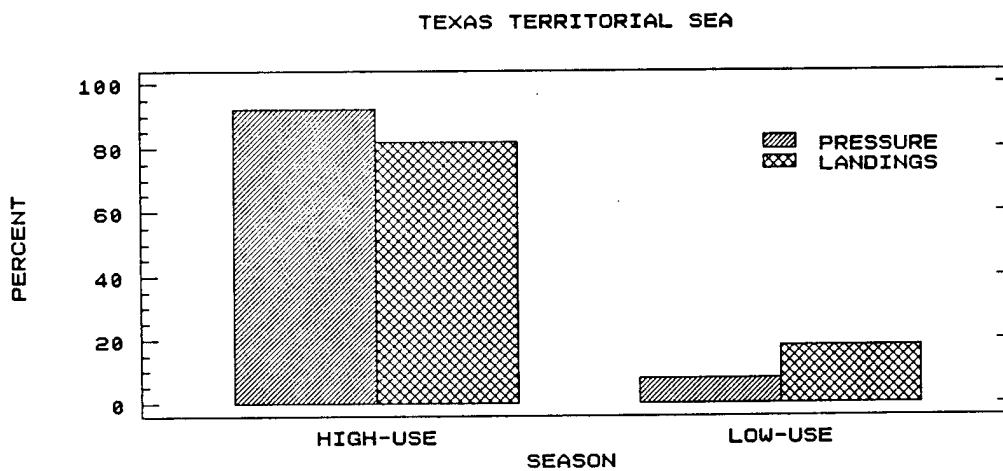
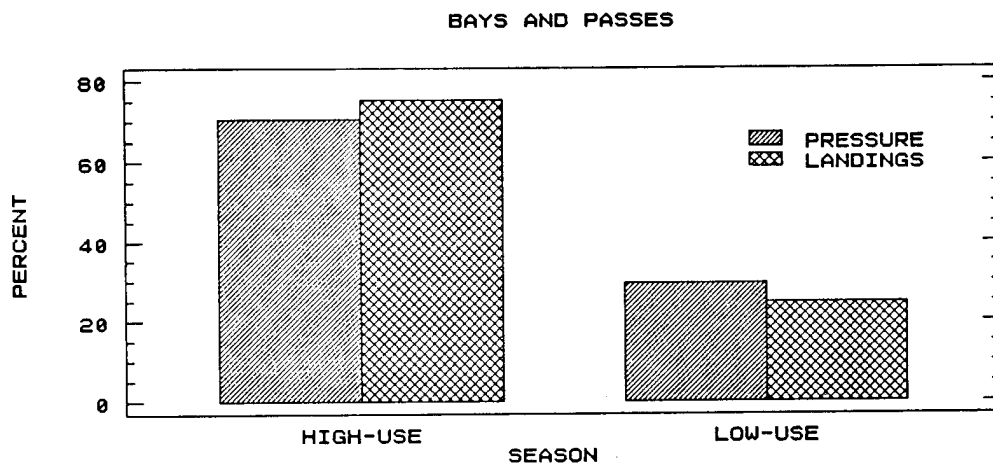


Figure 3. Percent distribution of annual coastwide bay and pass, Texas Territorial Sea, and Exclusive Economic Zone private-boat pressure and landings by season and day type, May 1979-May 1988 (9-year mean). WE=weekends.

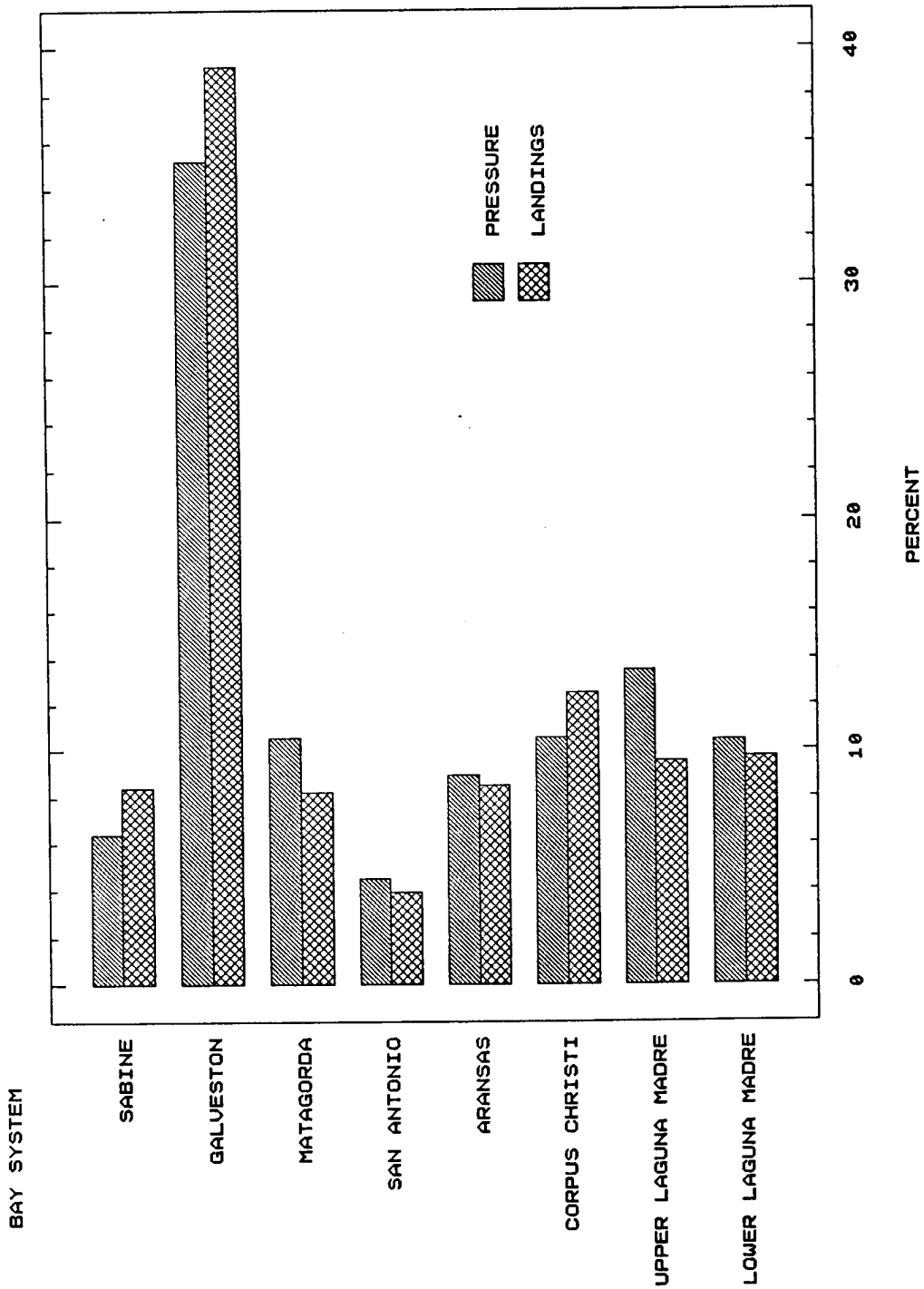


Figure 4. Percent distribution of annual bay pass private-boat fishing pressure and landings among bay systems, May 1979-May 1988 (9-year mean).

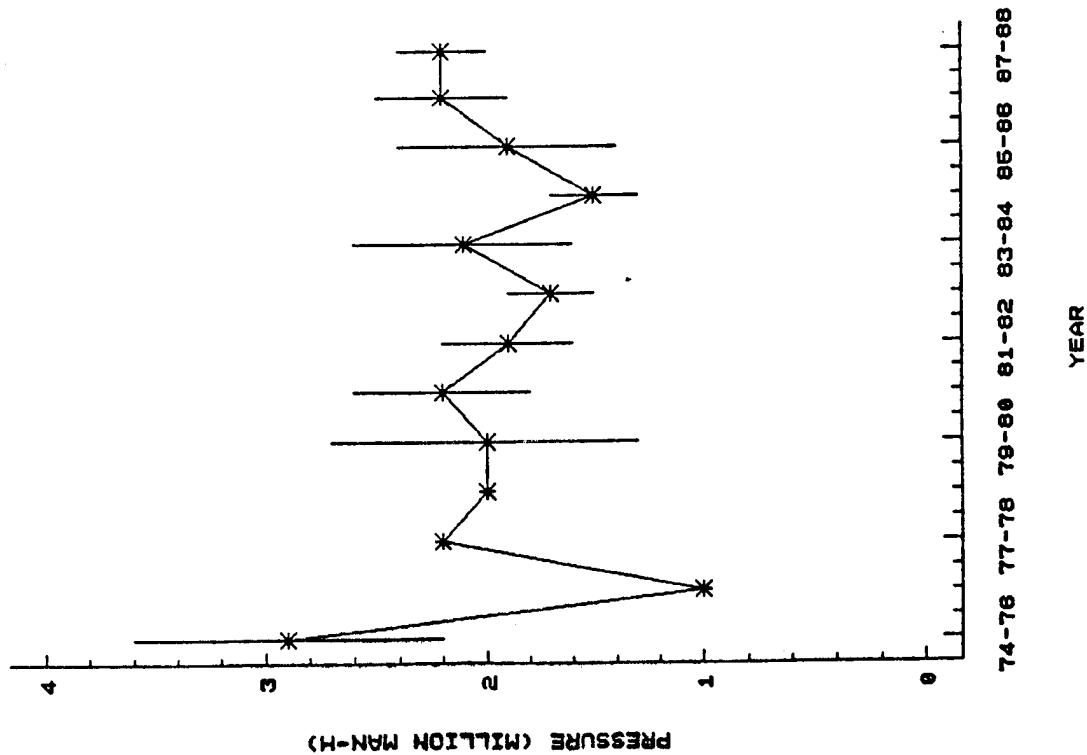
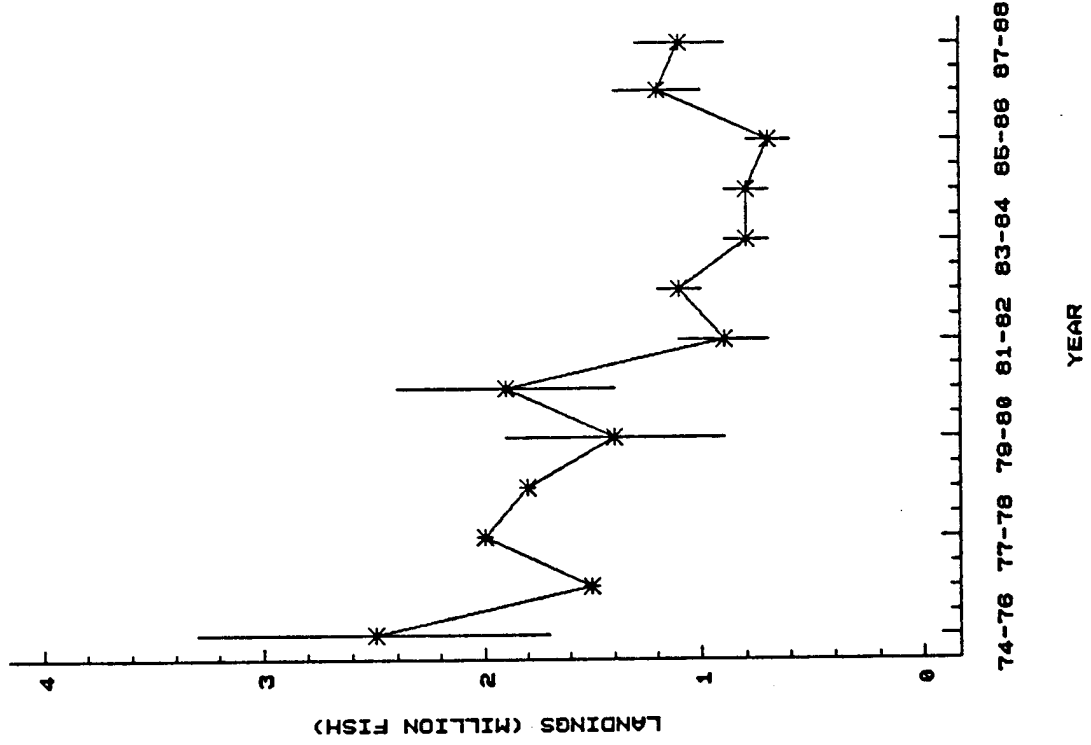


Figure 5. Annual bay and pass private-boat fishing pressure ( $\pm$  1 SE) and landings ( $\pm$  1 SE) for the Galveston Bay system, May 1974-May 1988.

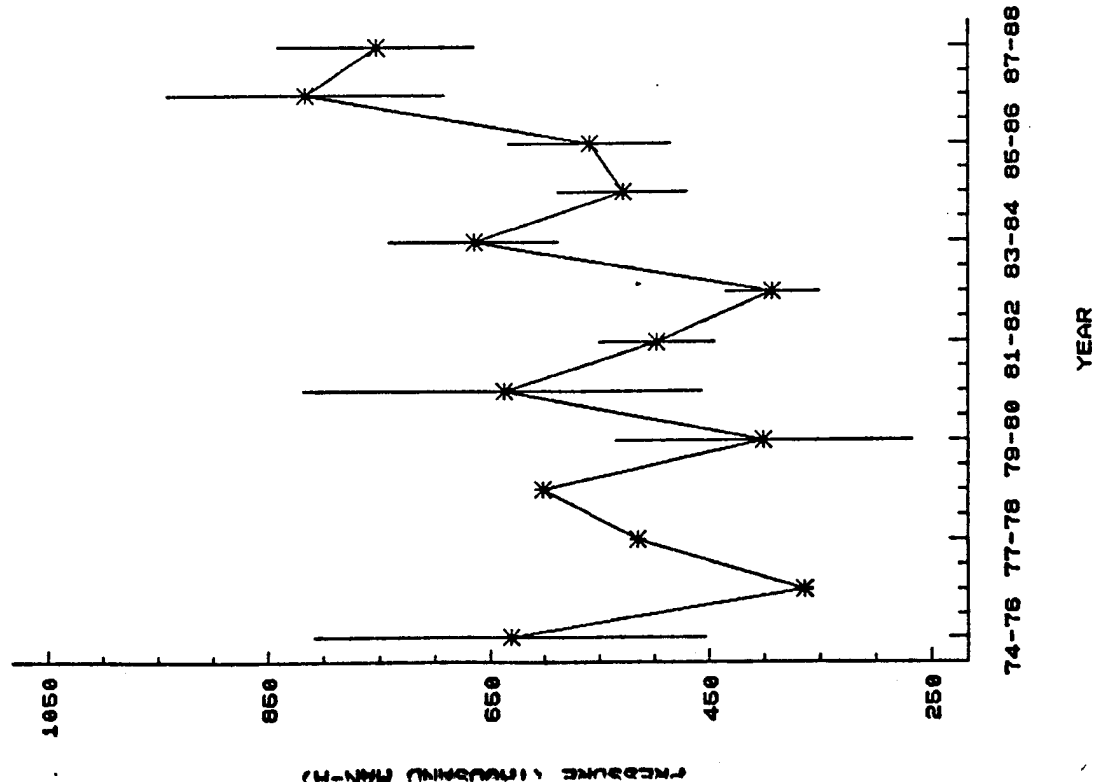
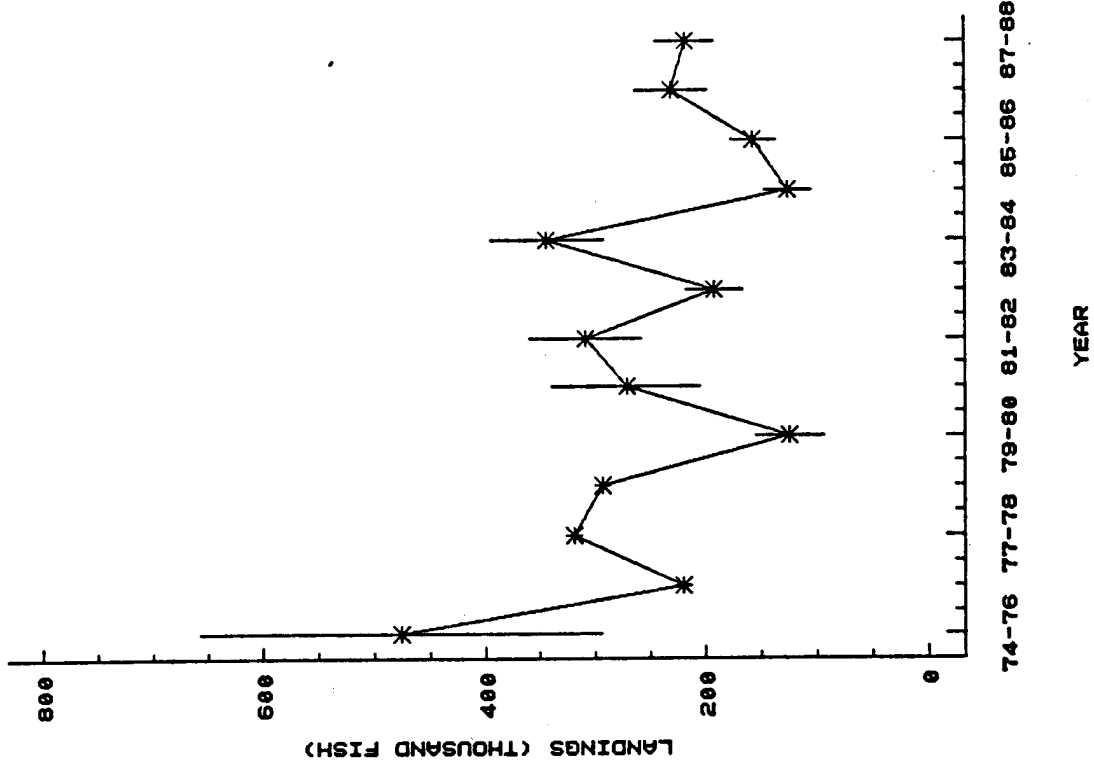


Figure 6. Annual bay and pass private-boat fishing pressure ( $\pm$  1 SE) and landings ( $\pm$  1 SE) for the Matagorda Bay system, May 1974-May 1988.

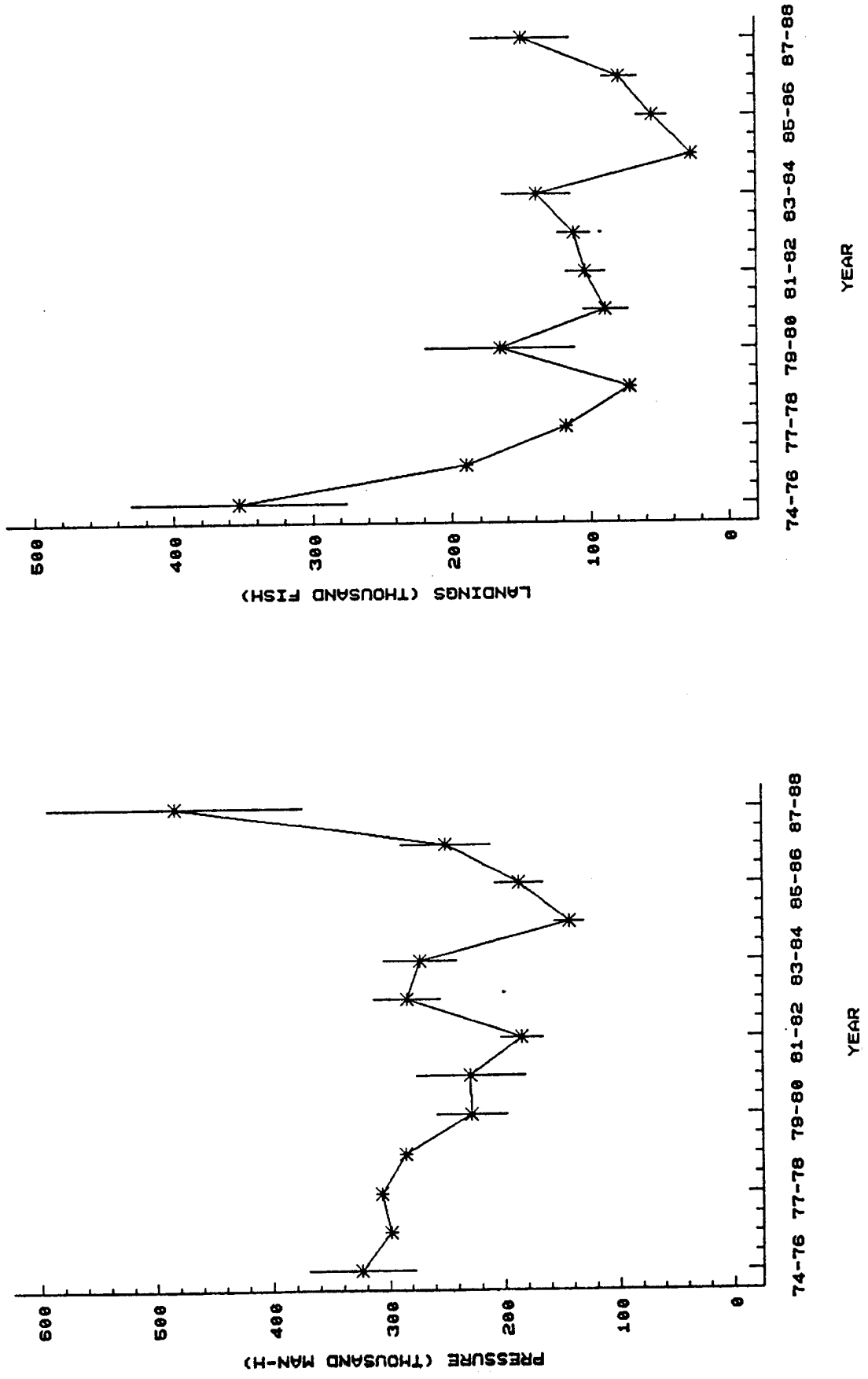


Figure 7. Annual bay and pass private-boat fishing pressure ( $\pm$  1 SE) and landings ( $\pm$  1 SE) for the San Antonio Bay system, May 1974-May 1988.

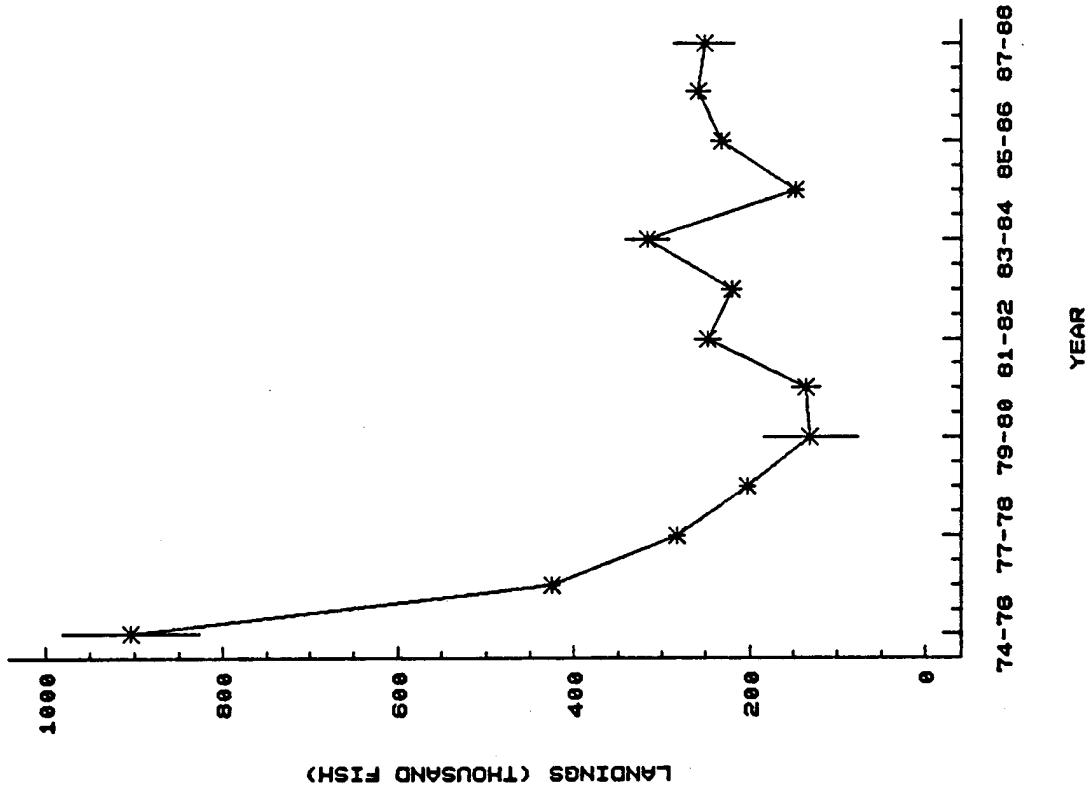


Figure 8. Annual Bay and pass private-boat fishing pressure (+ 1 SE) and landings (- 1 SE) for the Aransas Bay system, May 1974-May 1988.



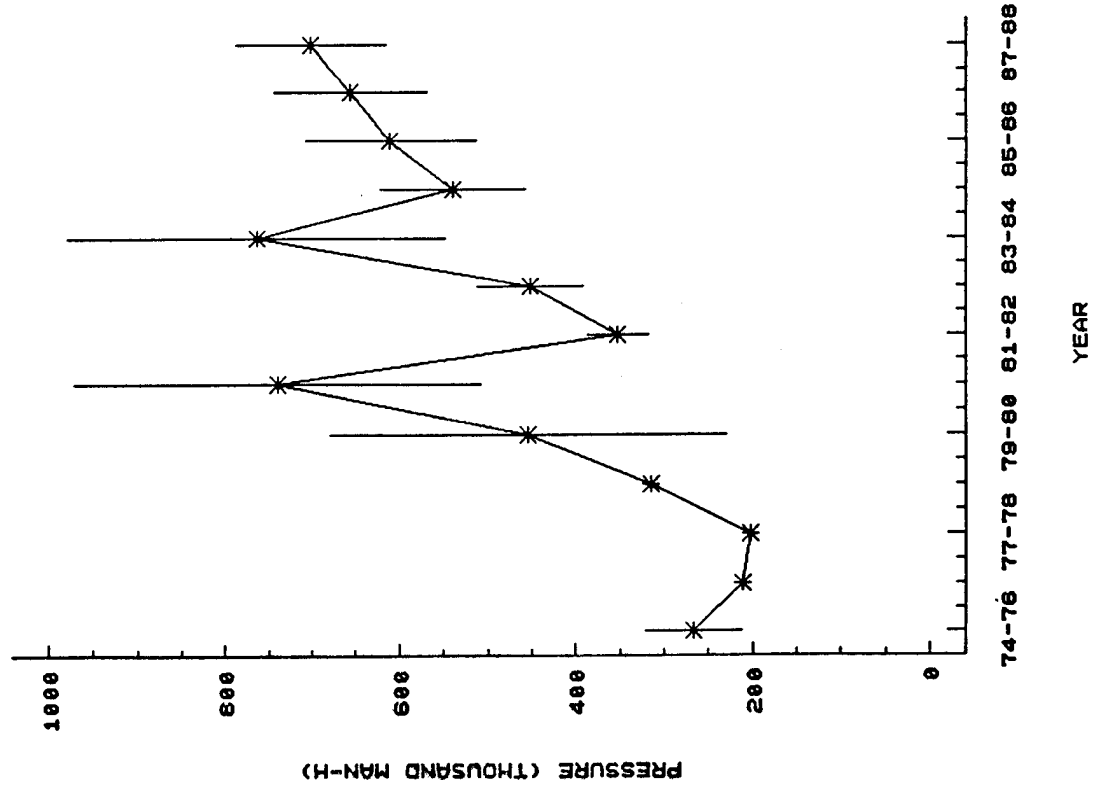
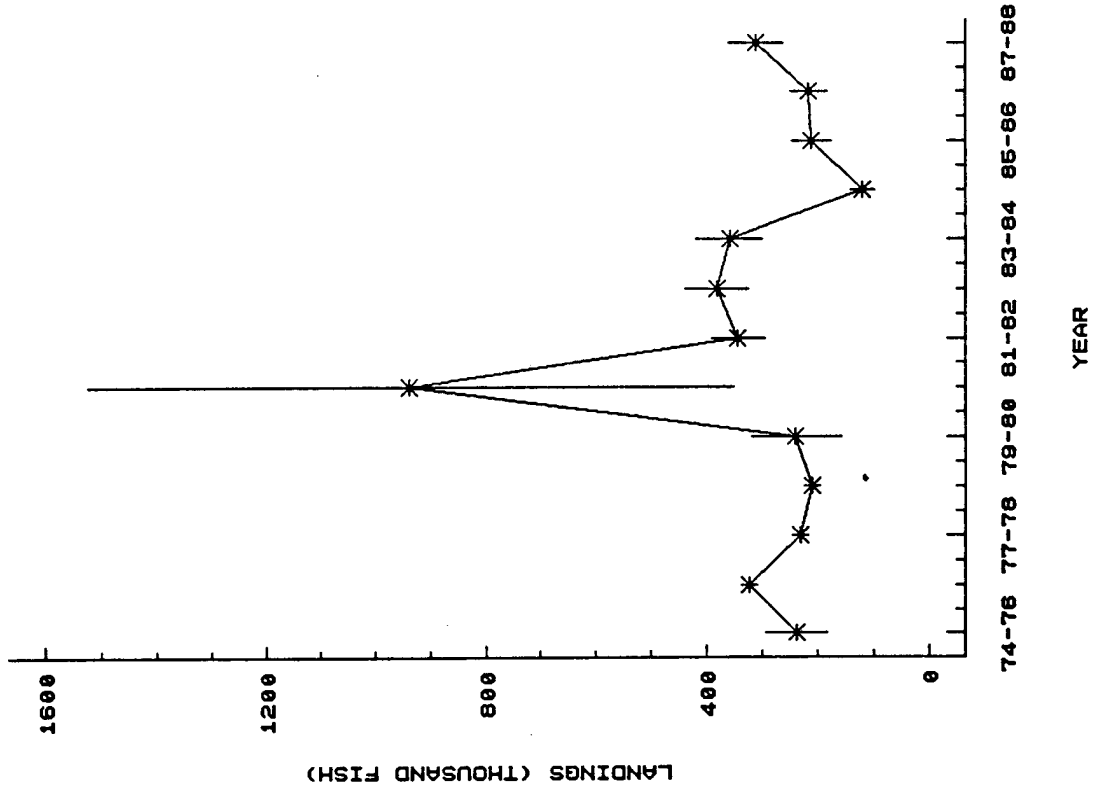


Figure 9. Annual bay and pass private-boat fishing pressure ( $\bar{x} \pm 1$  SE) and landings ( $\bar{x} \pm 1$  SE) for the Corpus Christi Bay system, May 1974-May 1988.



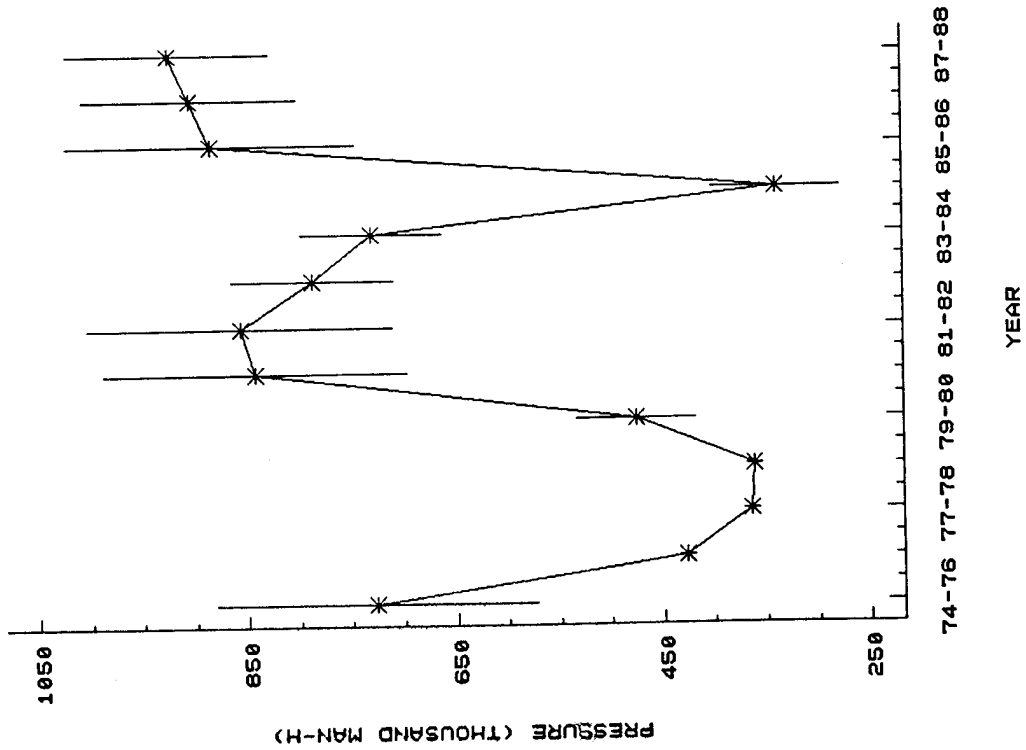
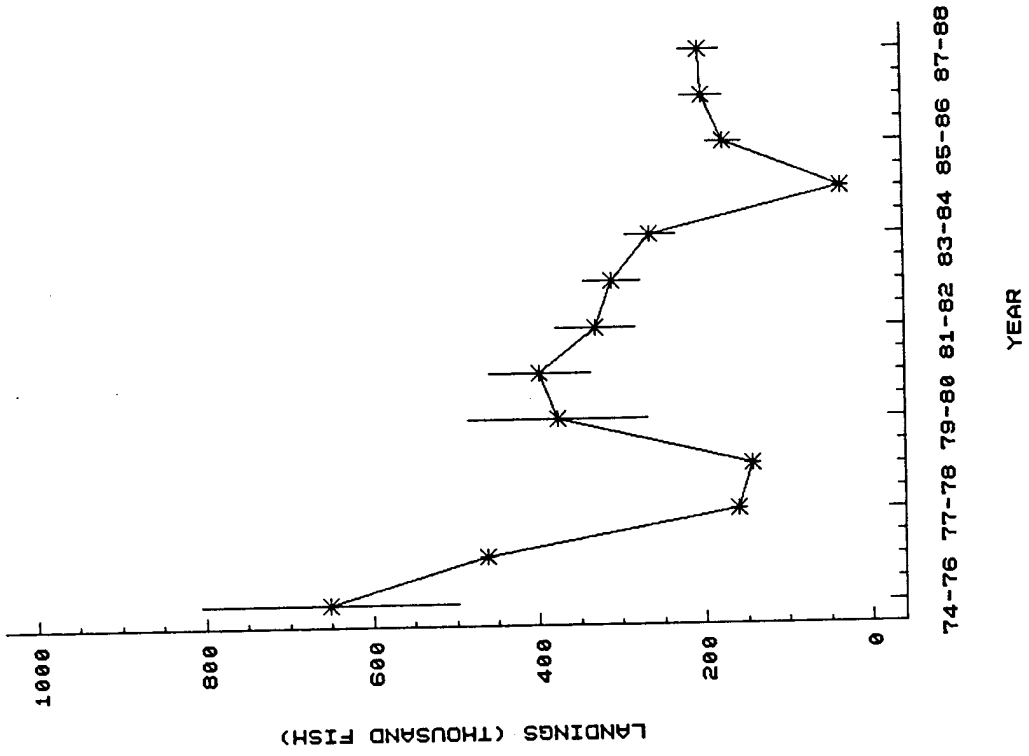


Figure 10. Annual bay and pass private-boat fishing pressure ( $\pm 1$  SE) and landings ( $\pm 1$  SE) for the upper Laguna Madre system, May 1974-May 1988.

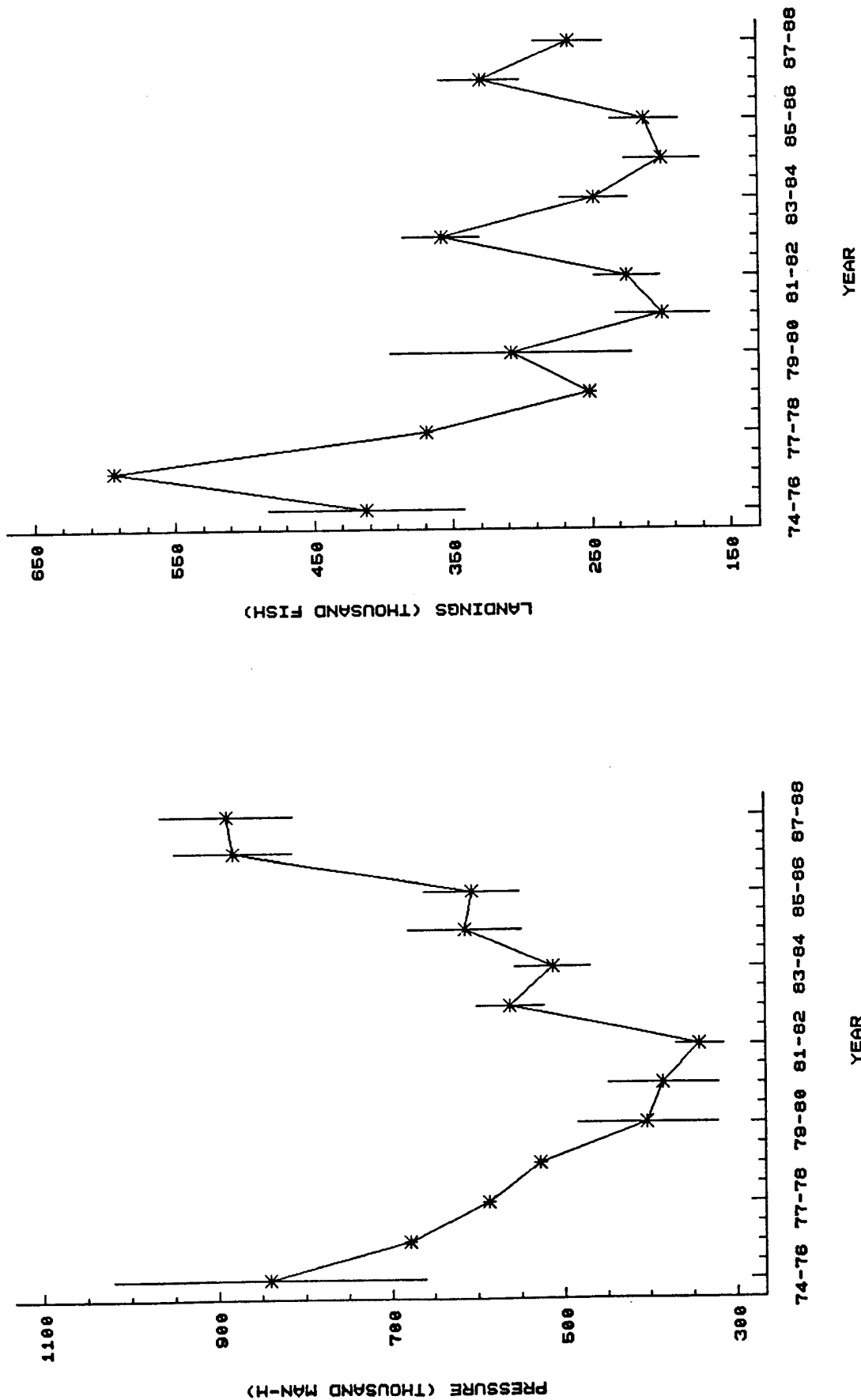


Figure 11. Annual bay and pass private-boat fishing pressure ( $\pm$  1 SE) and landings ( $\pm$  1 SE) for the lower Laguna Madre system, May 1974-May 1988.

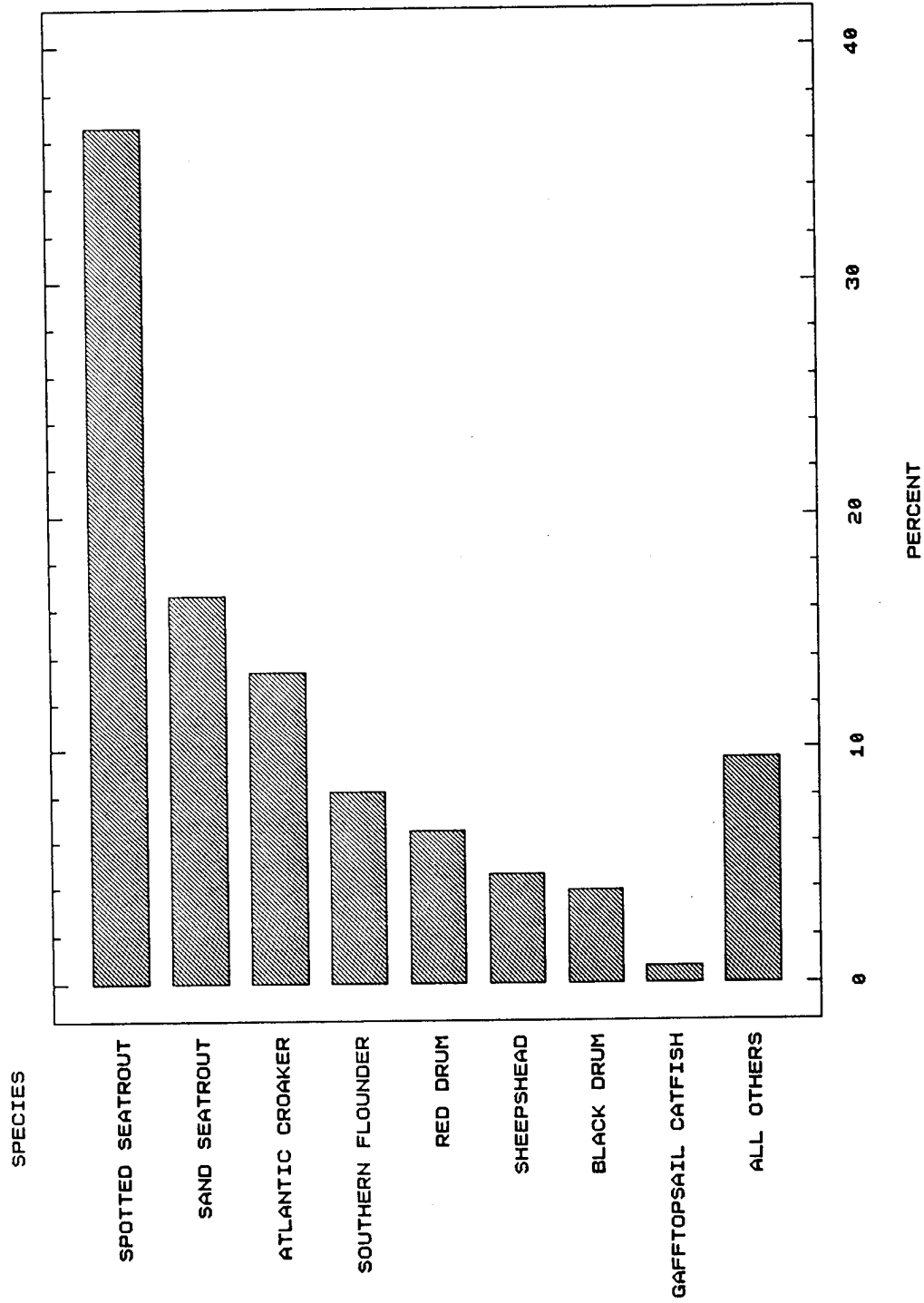


Figure 12. Species composition (%) of coastwide annual bay and pass private-boat finfish landings, May 1979-May 1988 (9 year mean).

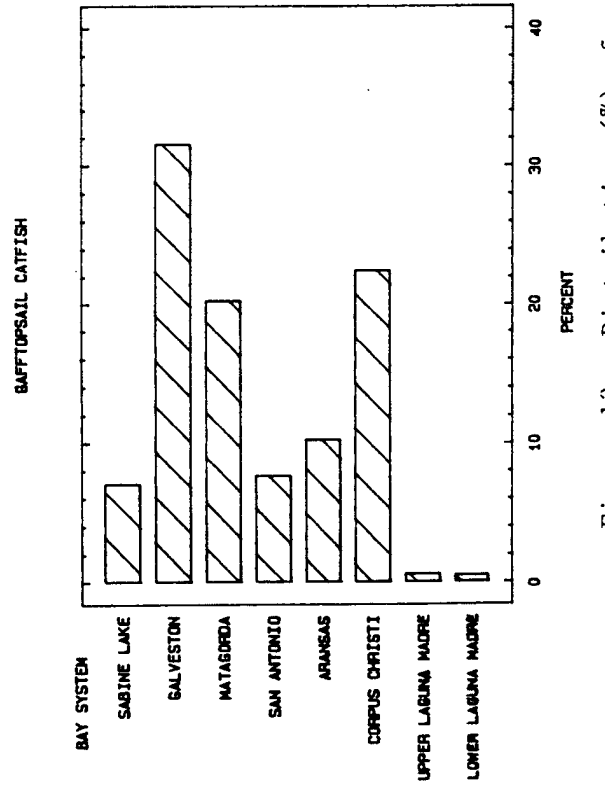
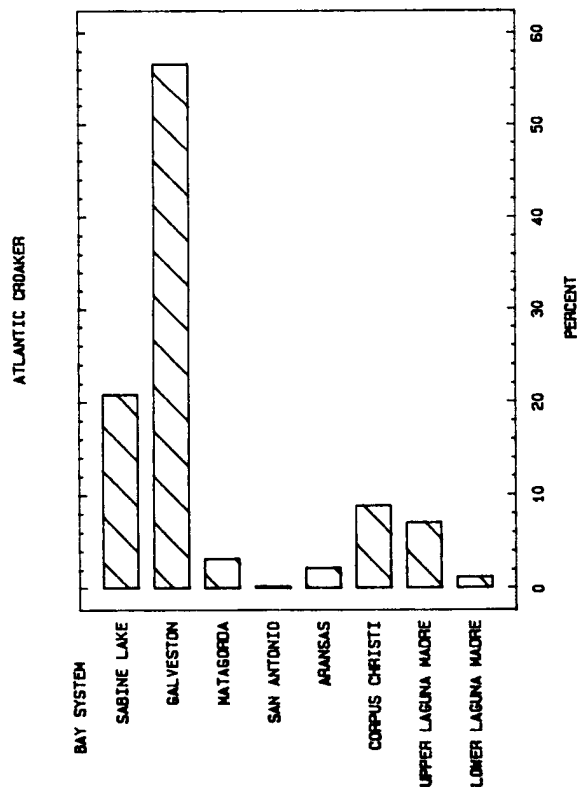
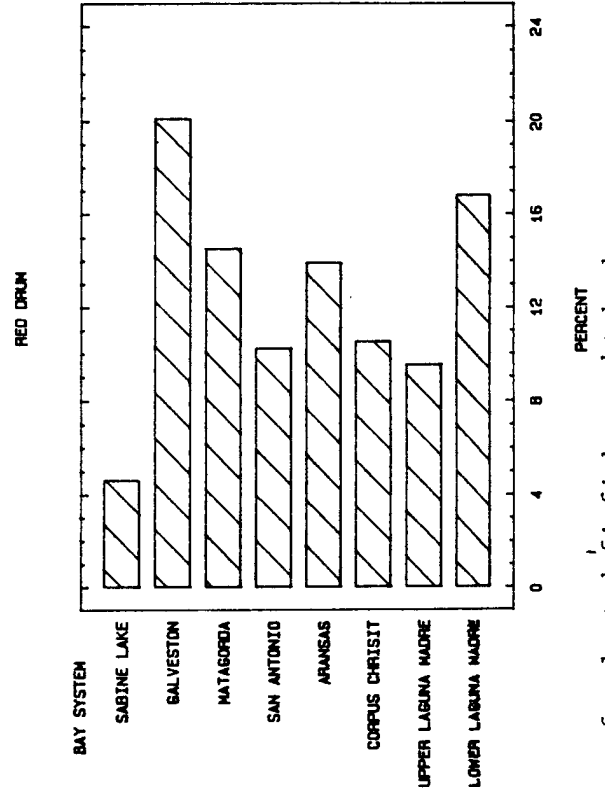
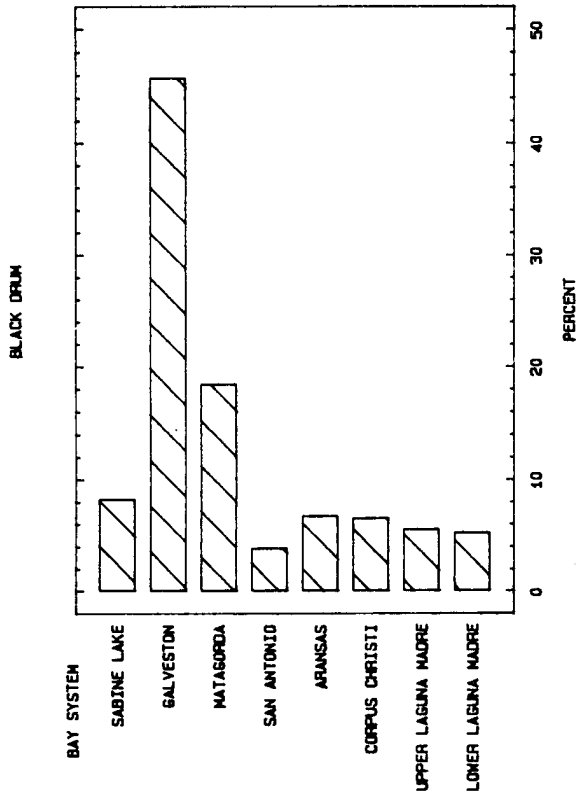
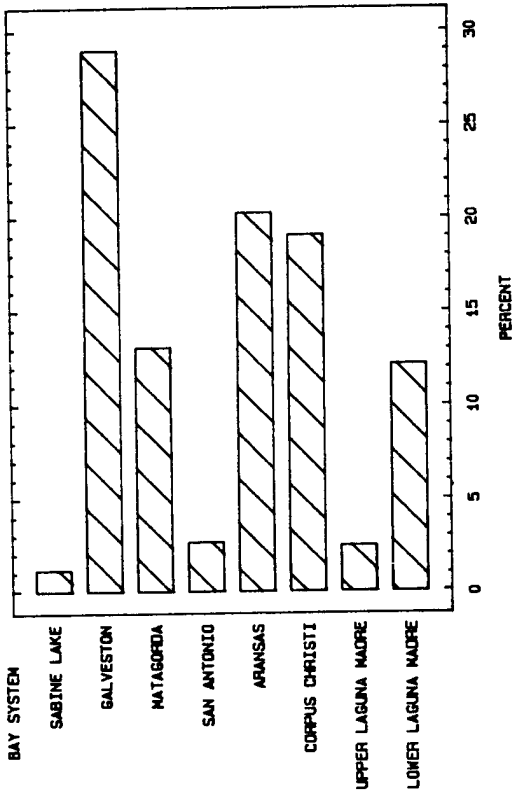
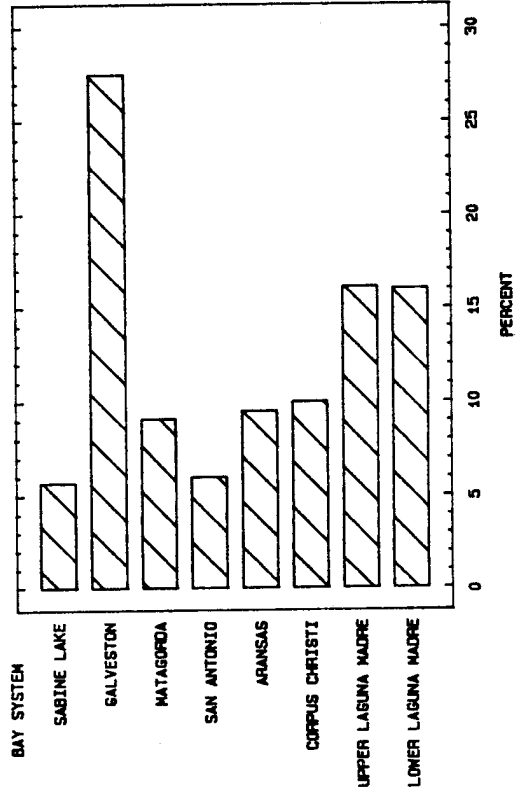


Figure 13. Distribution (%) of annual landings of selected finfish caught by bay and pass private-boat fishermen among bay systems, May 1979-May 1988 (9-year mean).

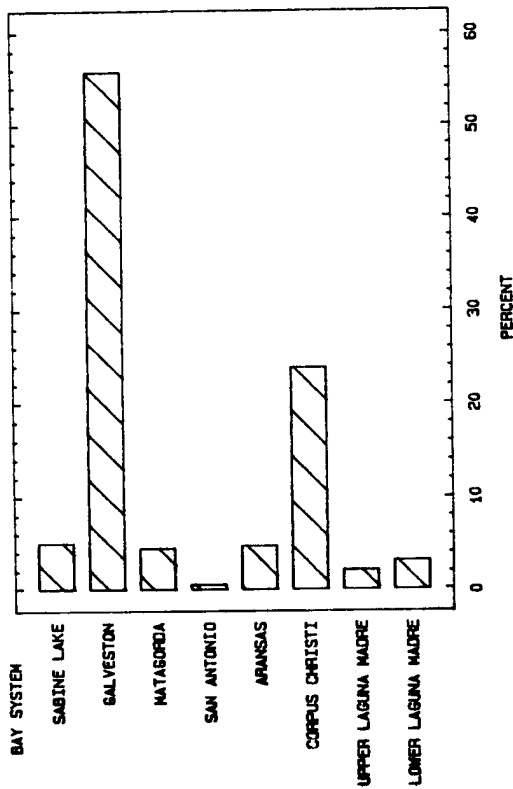
SHEEPSHEAD



SPOTTED SEATRUT



SAND SEATRUT



SOUTHERN FLOUNDER

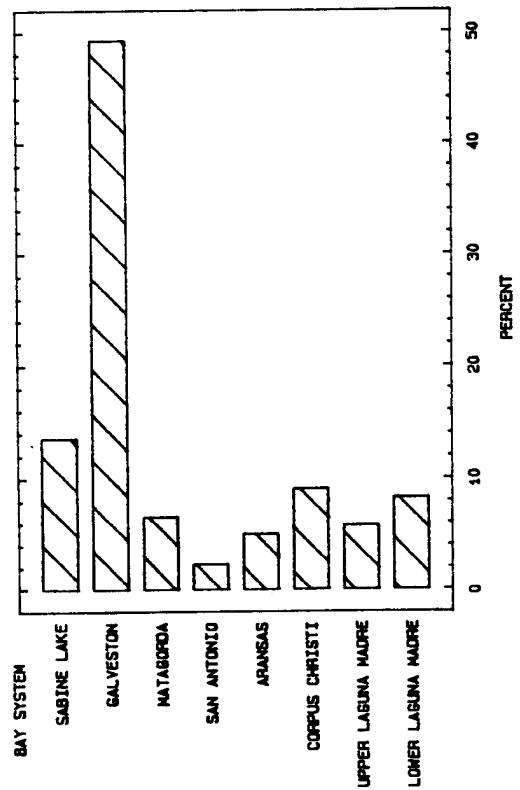


Figure 14. Distribution (%) of annual landings of selected finfish caught by bay and pass private-boat fishermen among bay systems, May 1979-May 1988 (9-year mean).

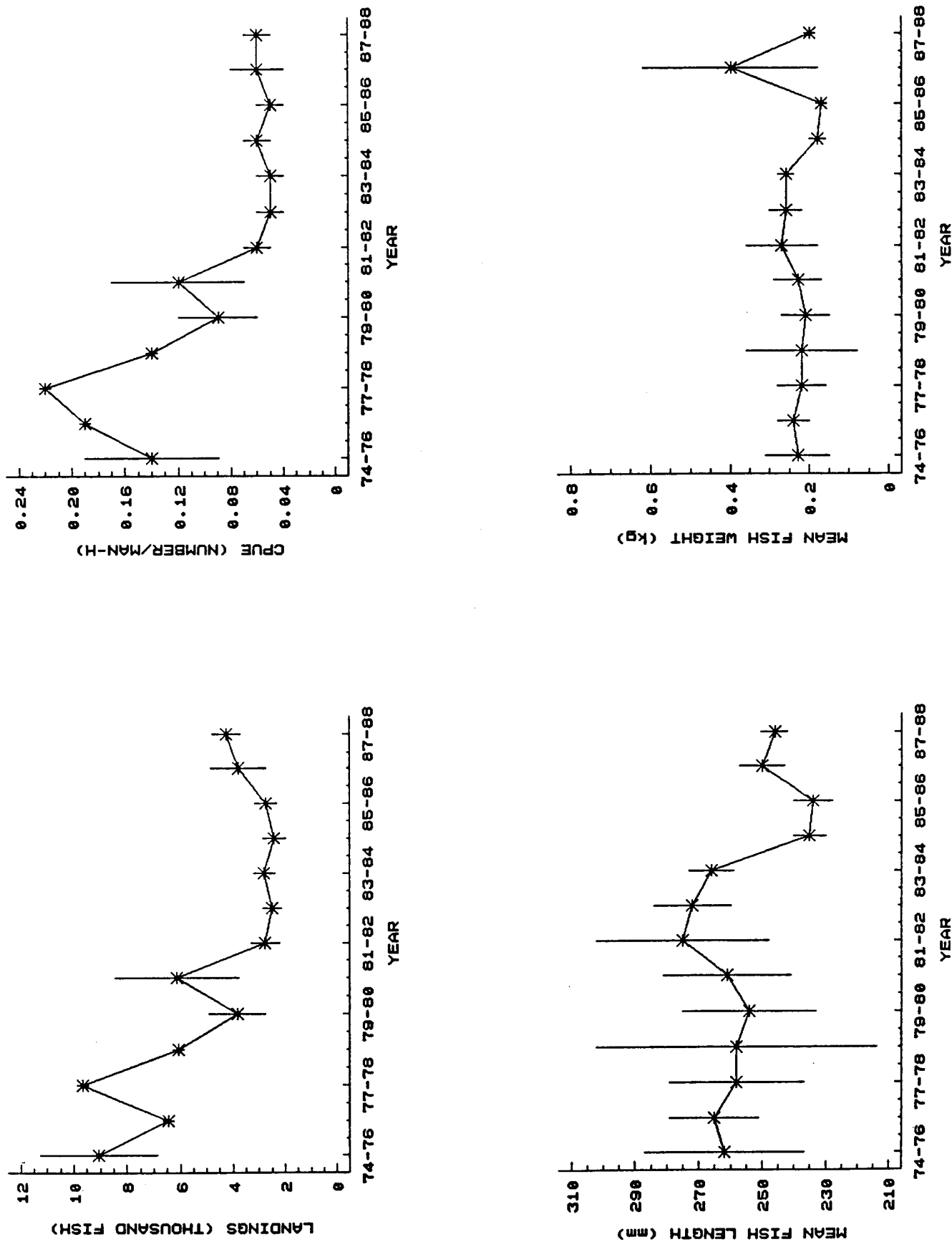


Figure 15. Coastwide annual statistics for Atlantic croaker landed from bays and passes by private-boat fishermen, May 1974-May 1988.

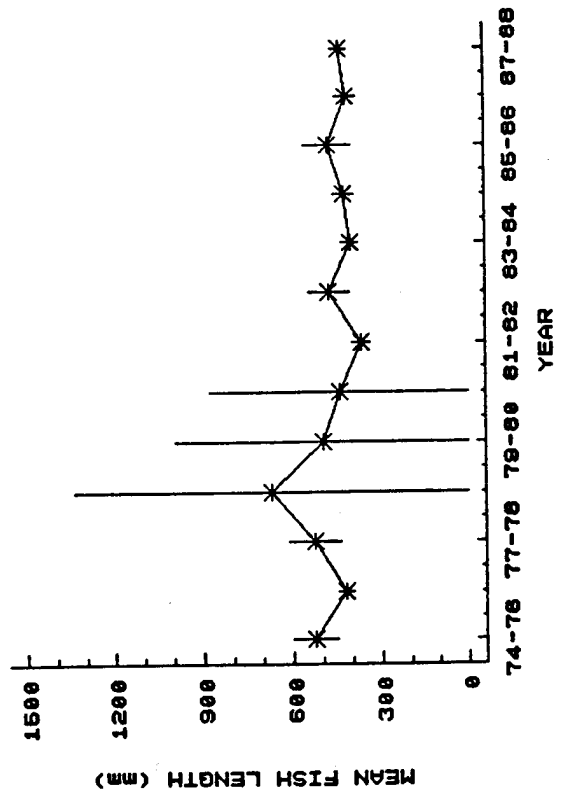
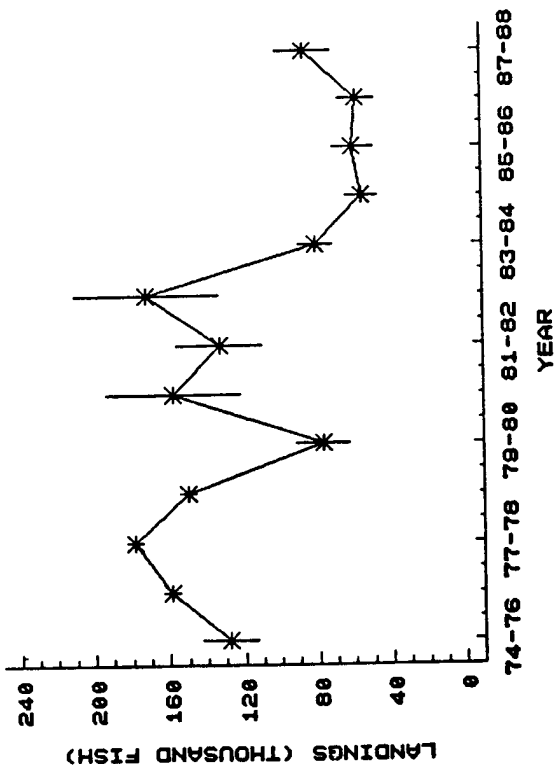
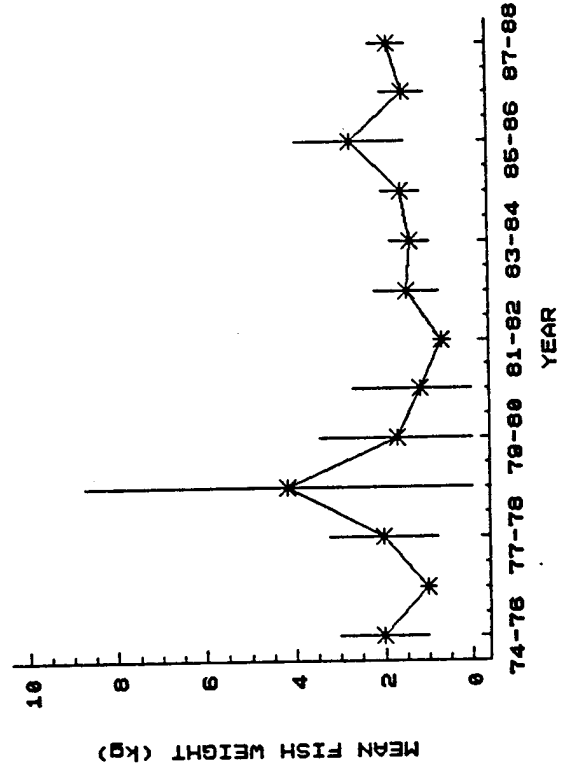
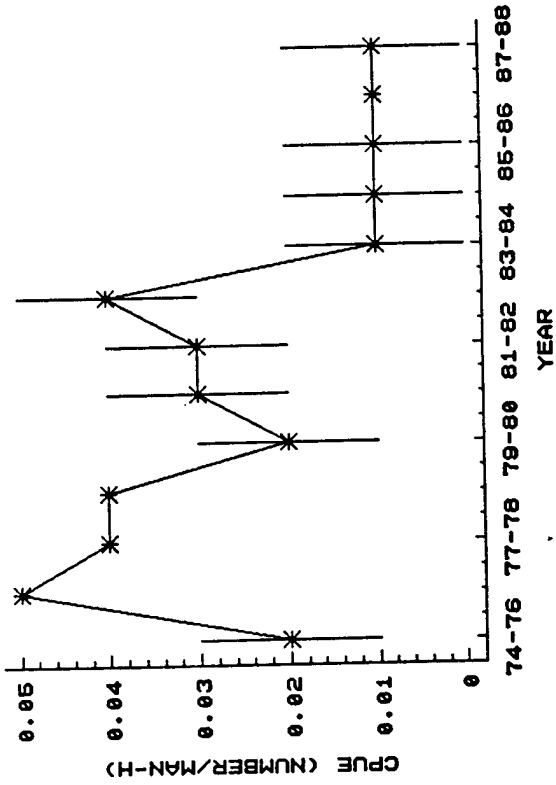


Figure 16. Coastwide annual statistics for black drum landed from bays and passes by private-boat fishermen, May 1974-May 1988.

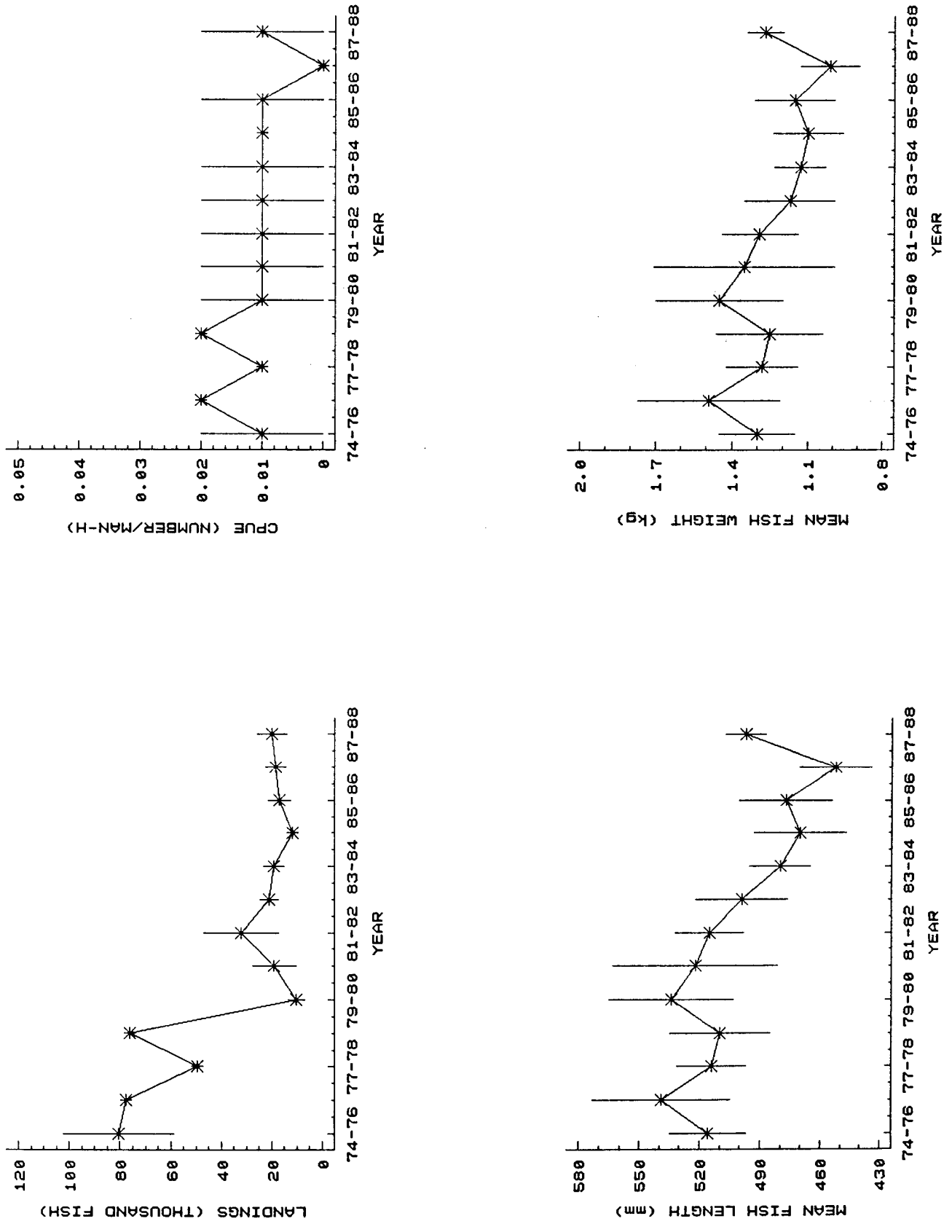


Figure 17. Coastwide annual statistics for gafftopsail catfish landed from bays and passes by private-boat fishermen, May 1974-May 1988.



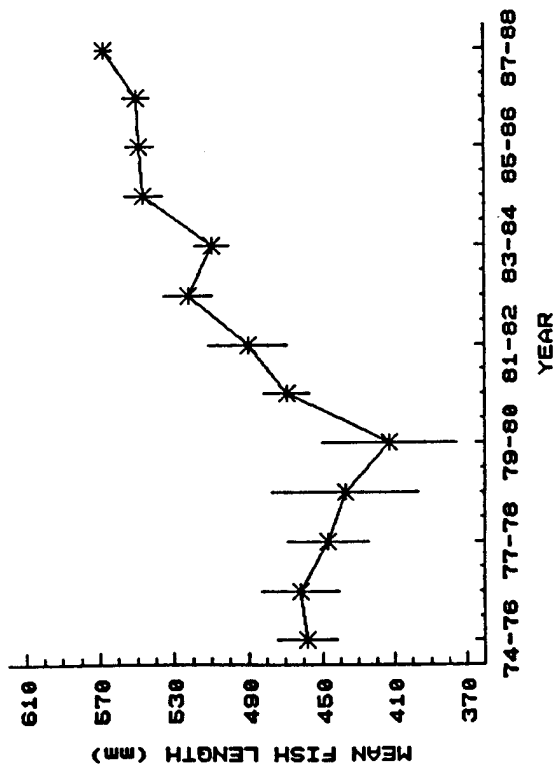
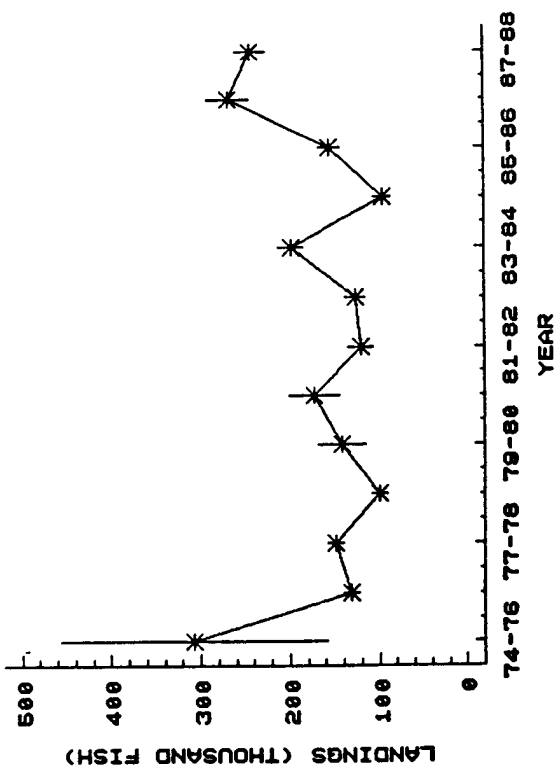
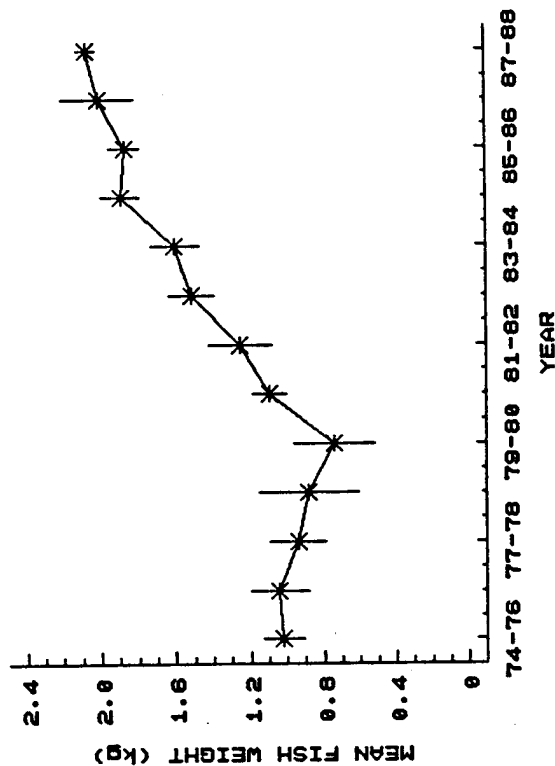
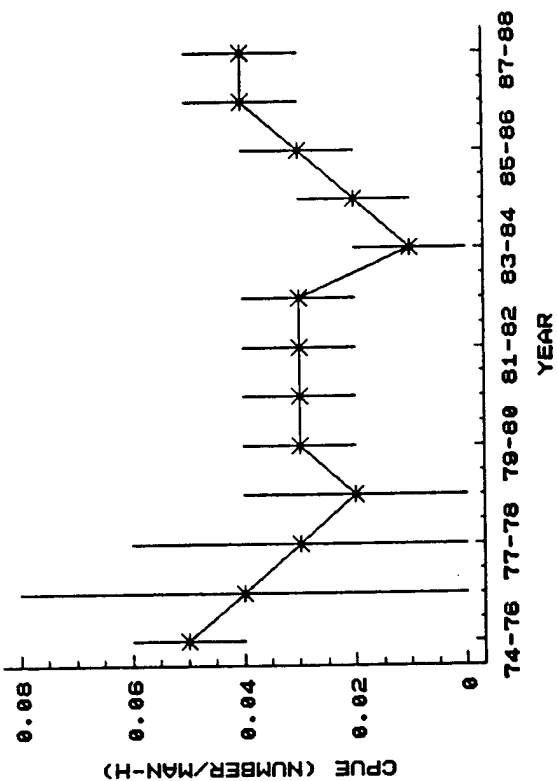


Figure 18. Coastwide annual statistics for red drum landed from bays and passes by private-boat fishermen, May 1974-May 1988.

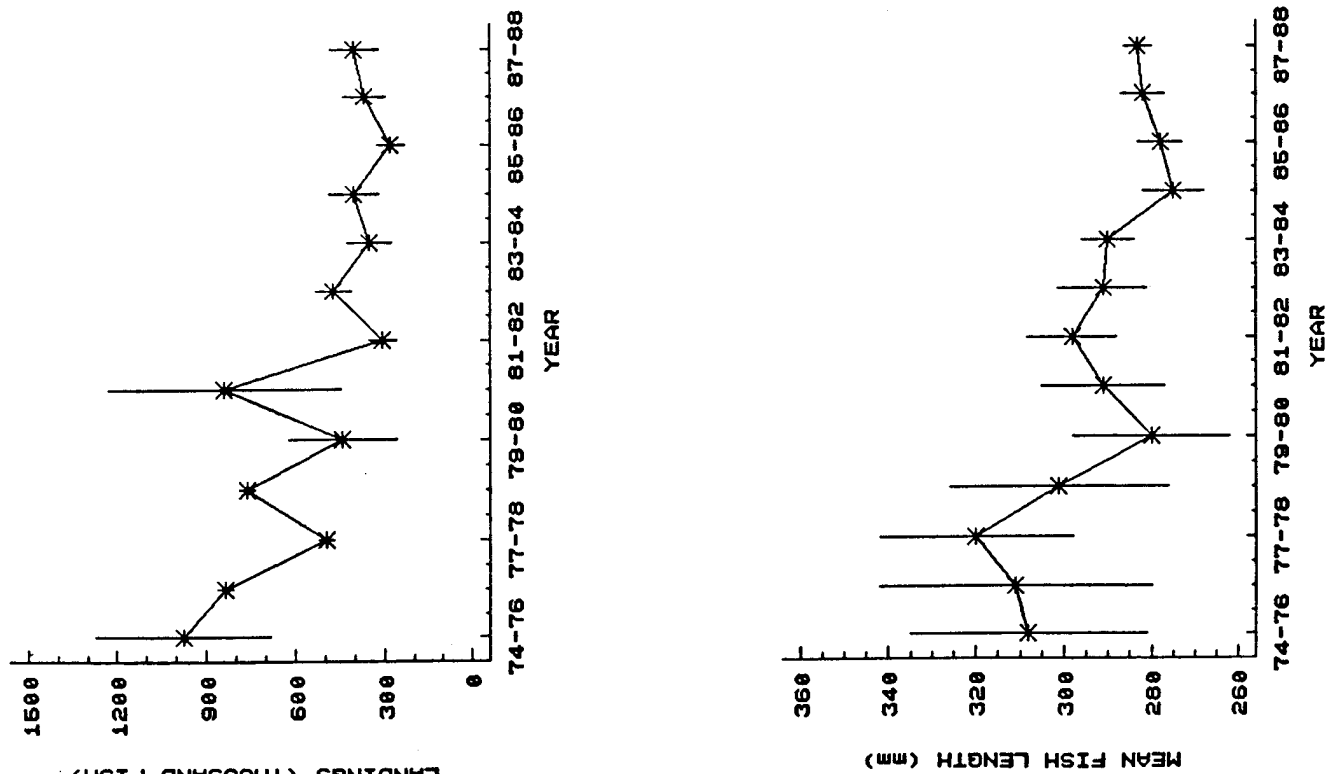
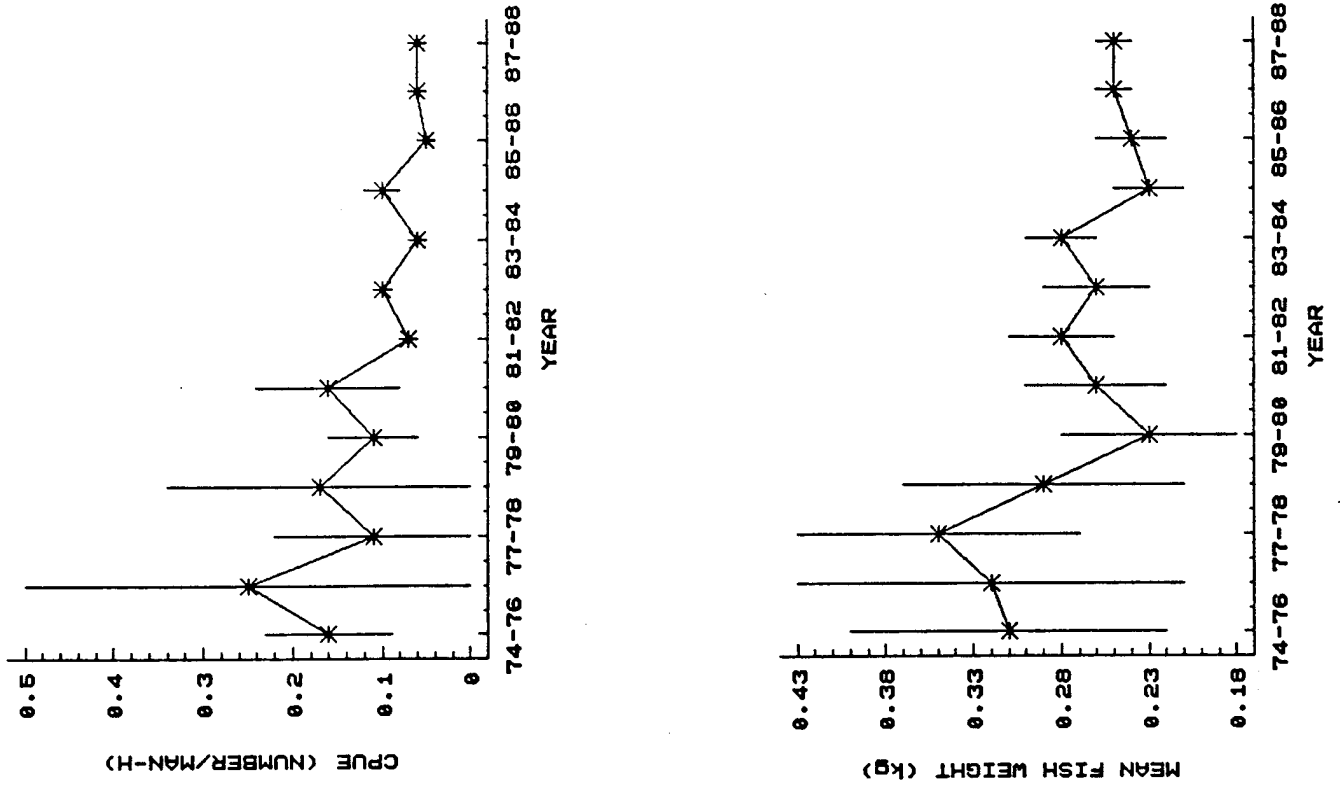


Figure 19. Coastwide annual statistics for sand seatrout landed from bays and passes by private-boat fishermen, May 1974-May 1988.

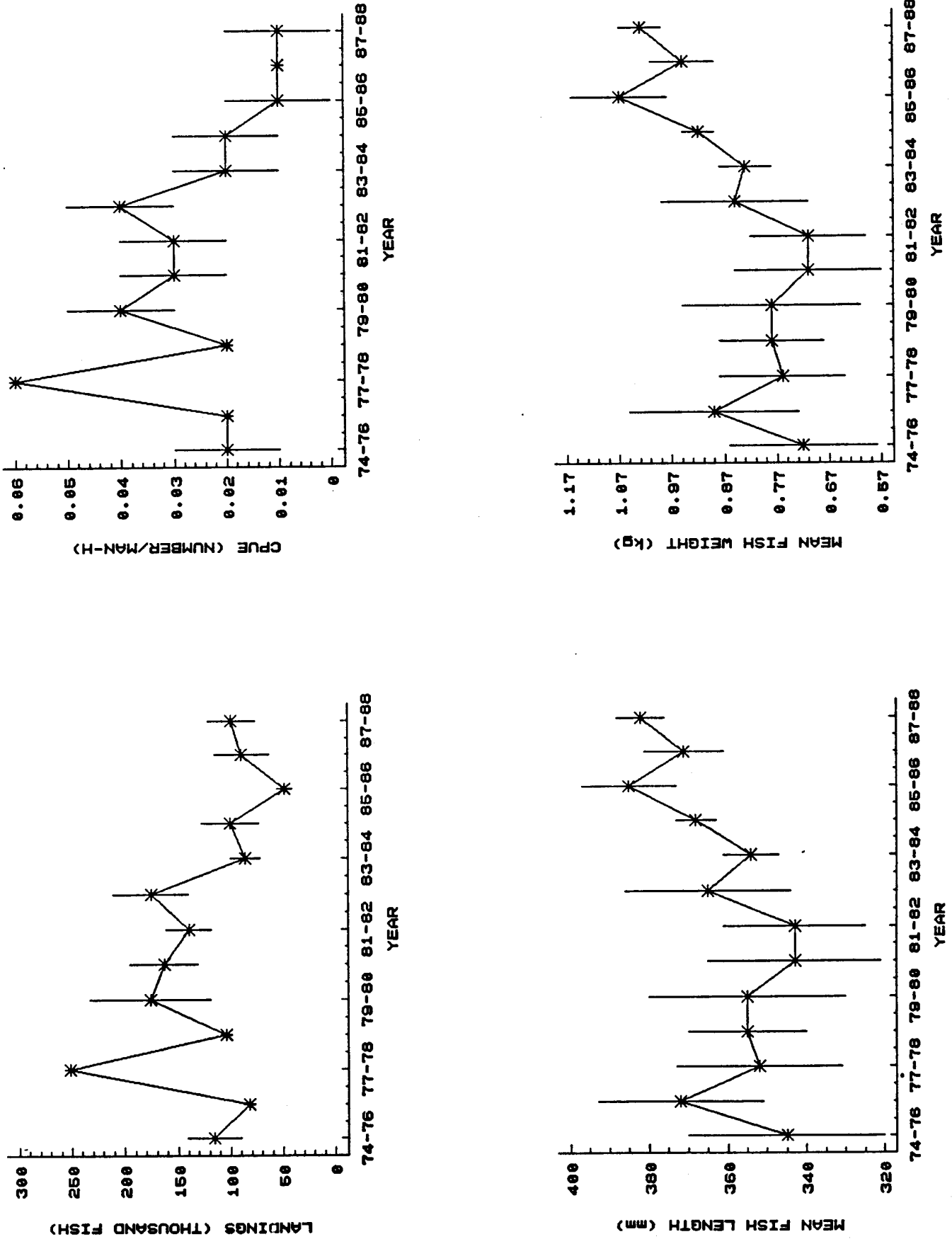


Figure 20. Coastwide annual statistics for sheephead landed from bays and passes by private-boat fishermen, May 1974-May 1988.

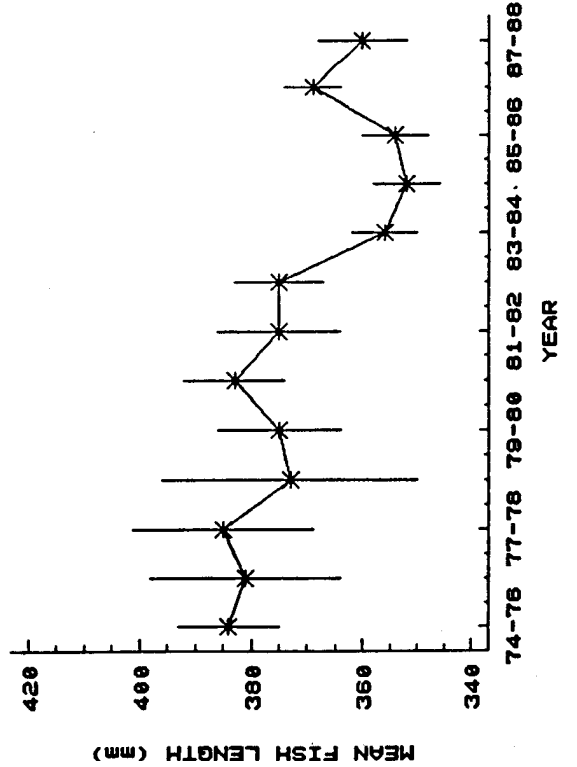
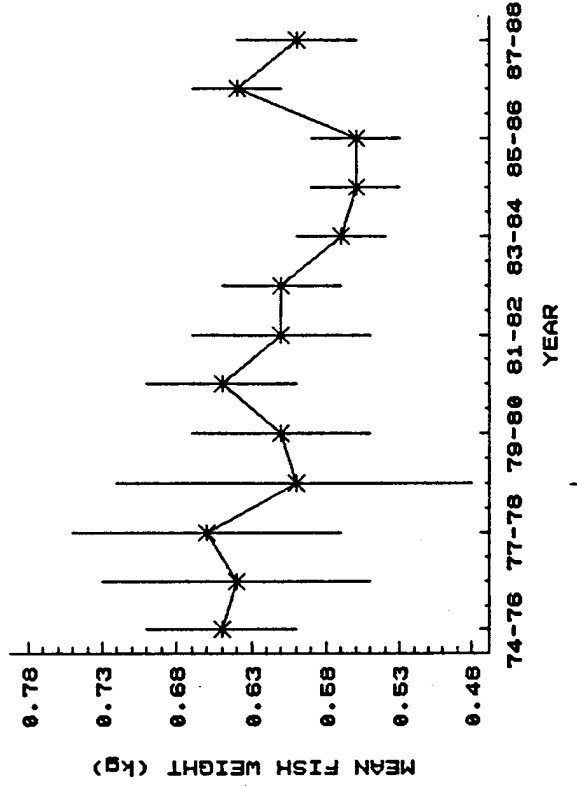
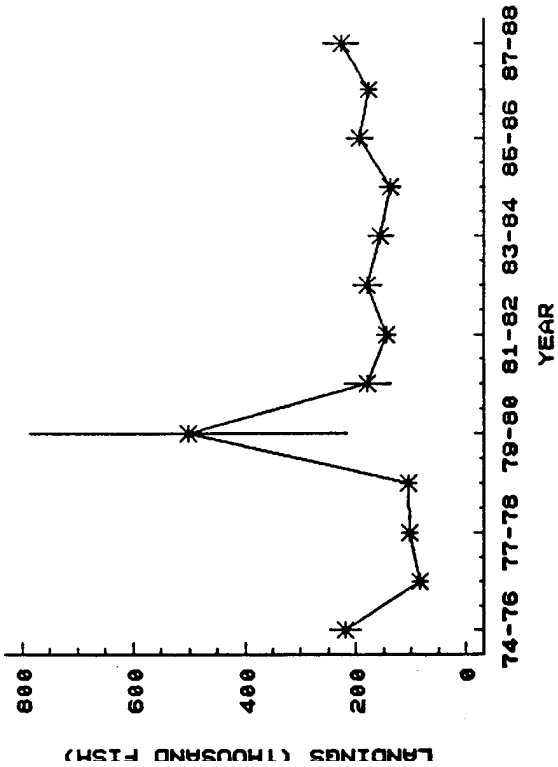
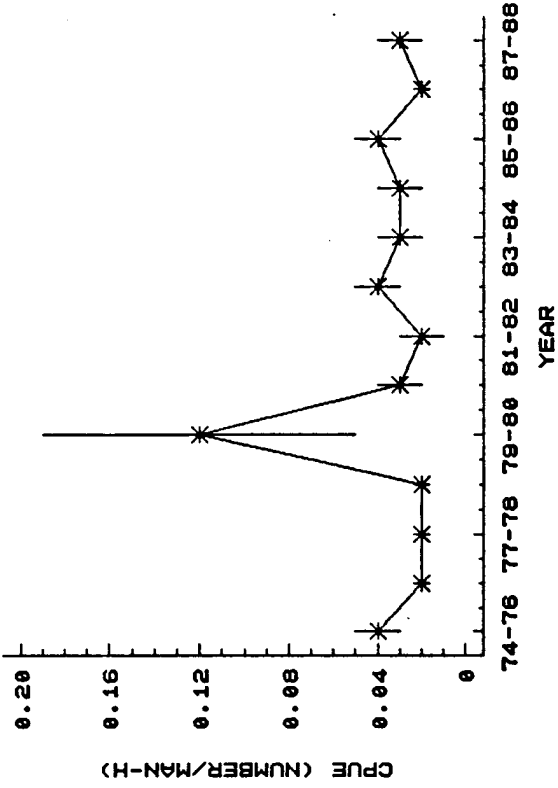


Figure 21. Coastwide annual statistics for southern flounder landed from bays and passes by private-boat fishermen, May 1974-May 1988.

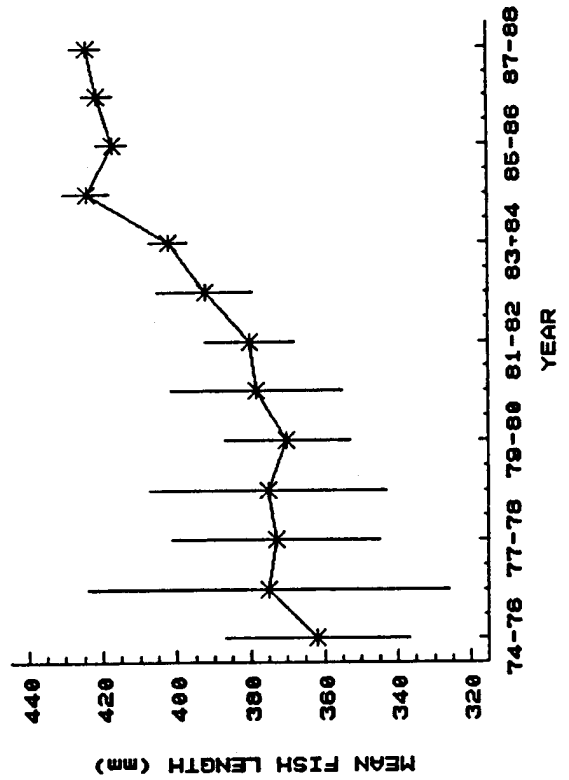
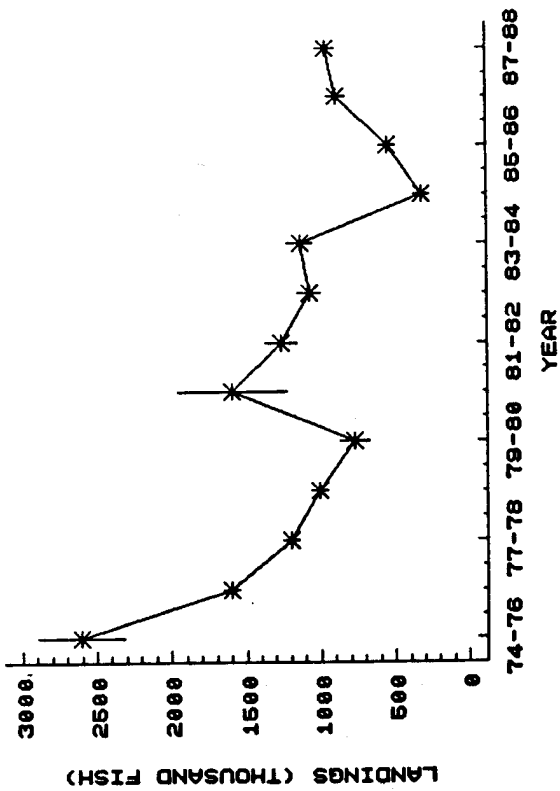
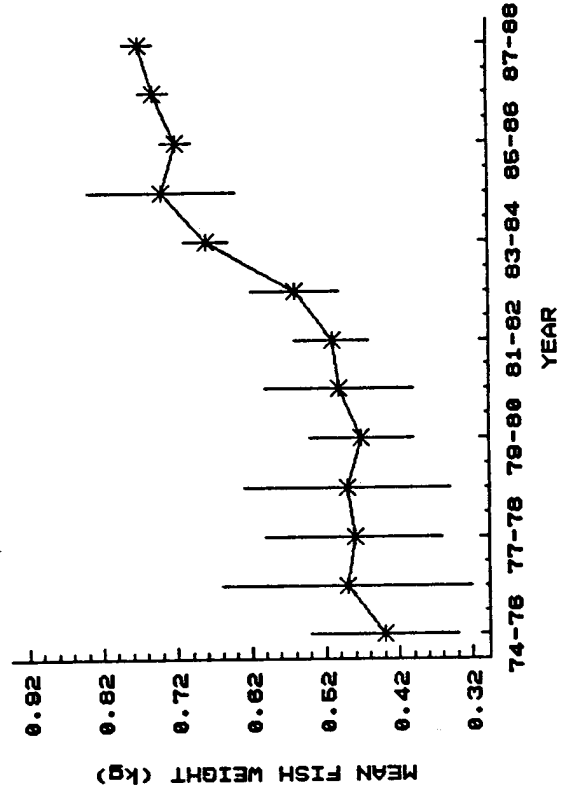
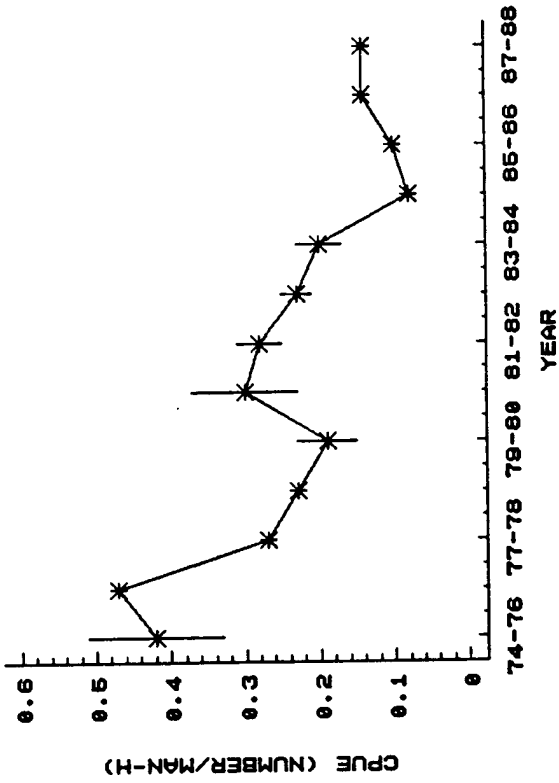


Figure 22. Coastwide annual statistics for spotted seatrout landed from bays and passes by private-boat fishermen, May 1974-May 1988.

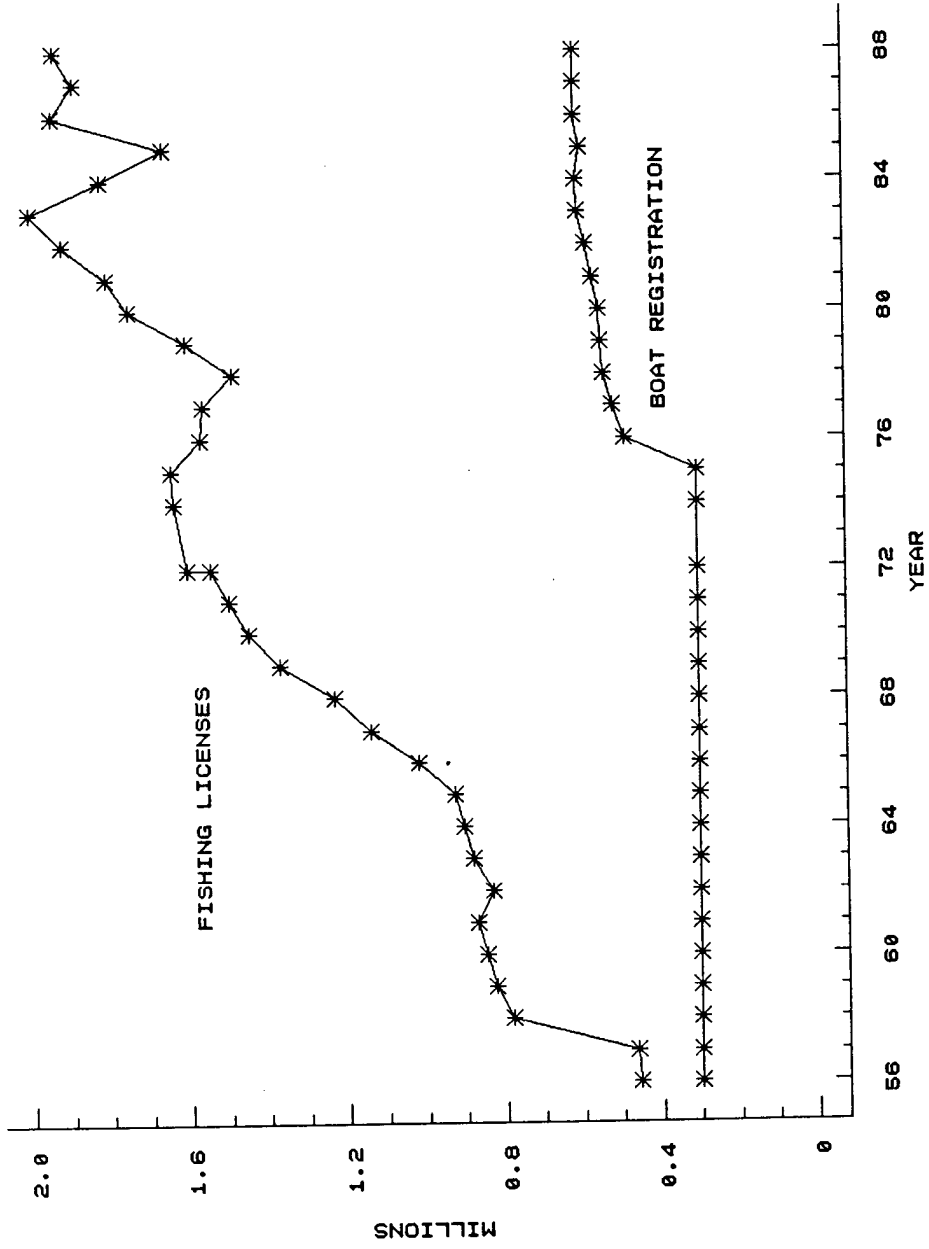


Figure 23. Number of recreational fishing licenses (1955-1988) and boat registrations (1975-1988) sold in Texas by fiscal year (1 Sep-31 Aug).

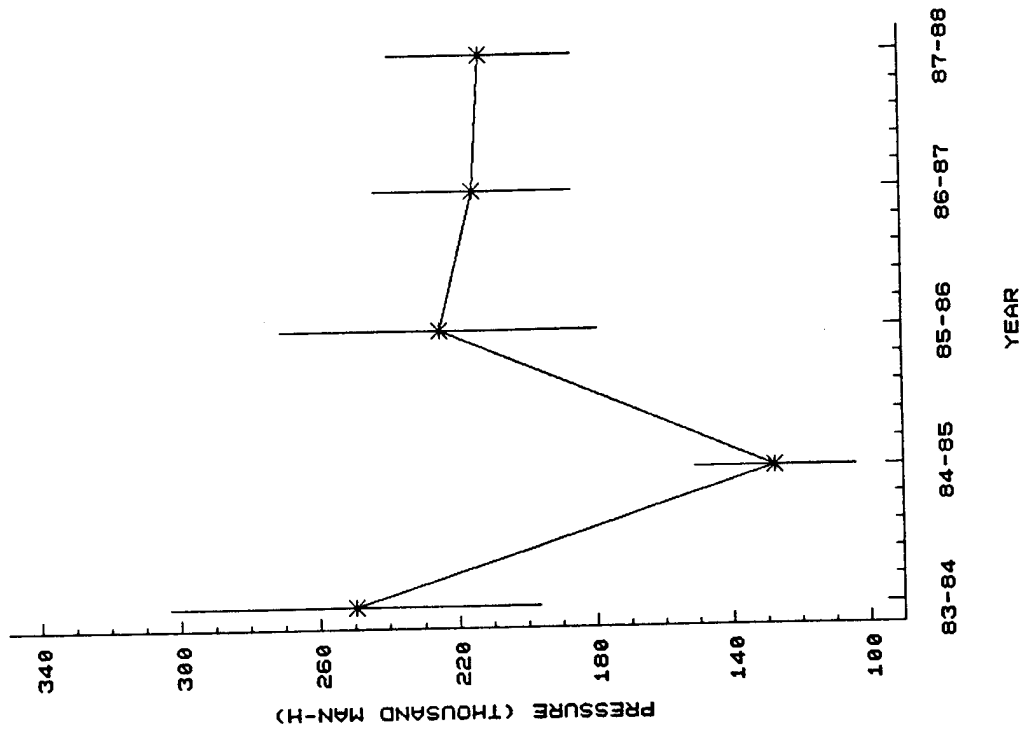
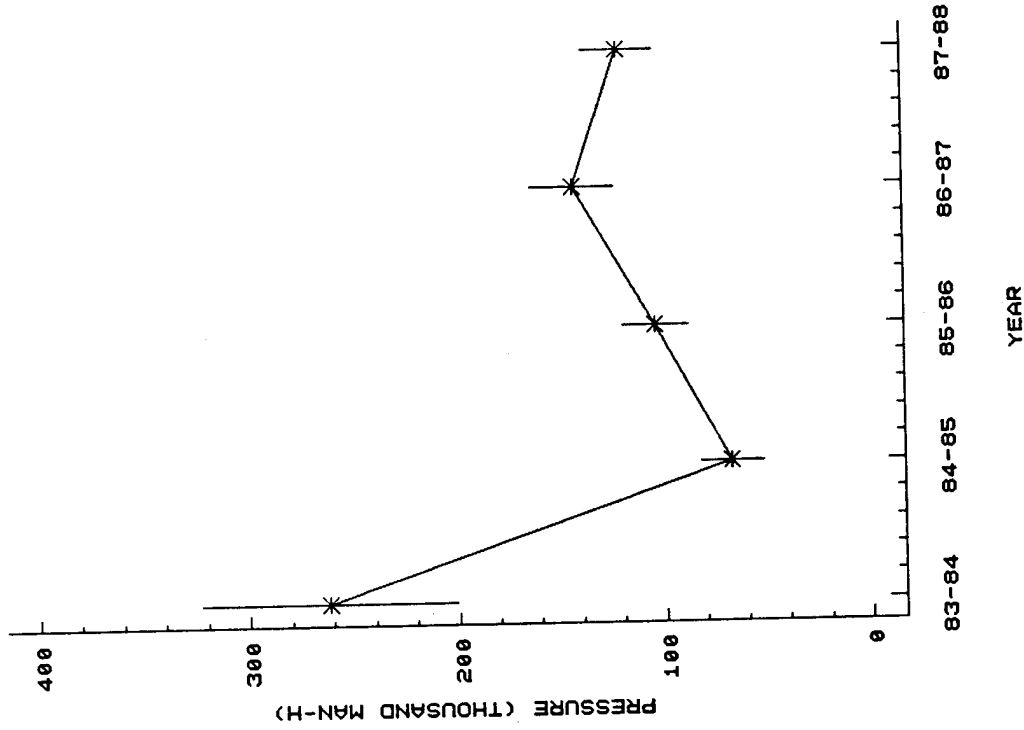


Figure 24. Coastwide annual party-boat fishing pressure ( $\pm 1$  SE) and landings ( $\pm 1$  SE) in Texas bays and passes, May 1983-May 1988.

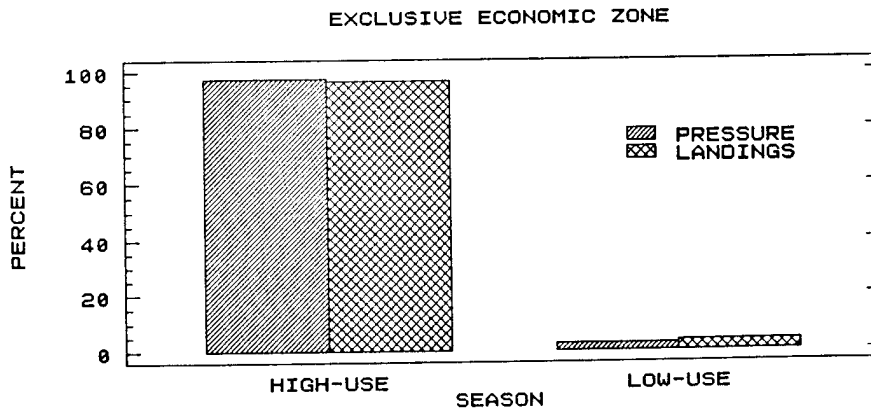
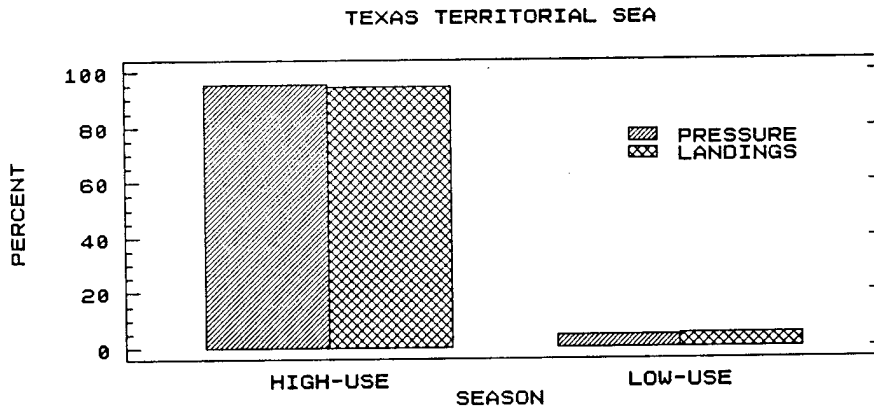
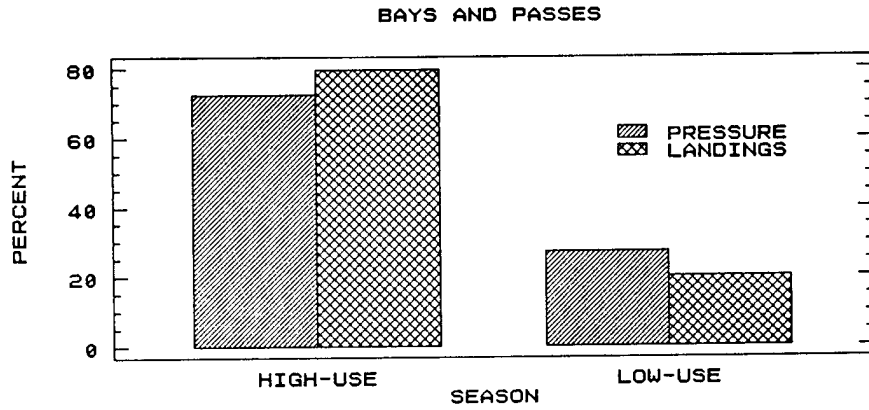


Figure 25. Percent distribution of annual coastwide bay and pass, Texas Territorial Sea, and Exclusive Economic Zone party-boat pressure and landings by season and day type, May 1983-May 1988 (5 year mean). WE=weekends, WD=weekdays.



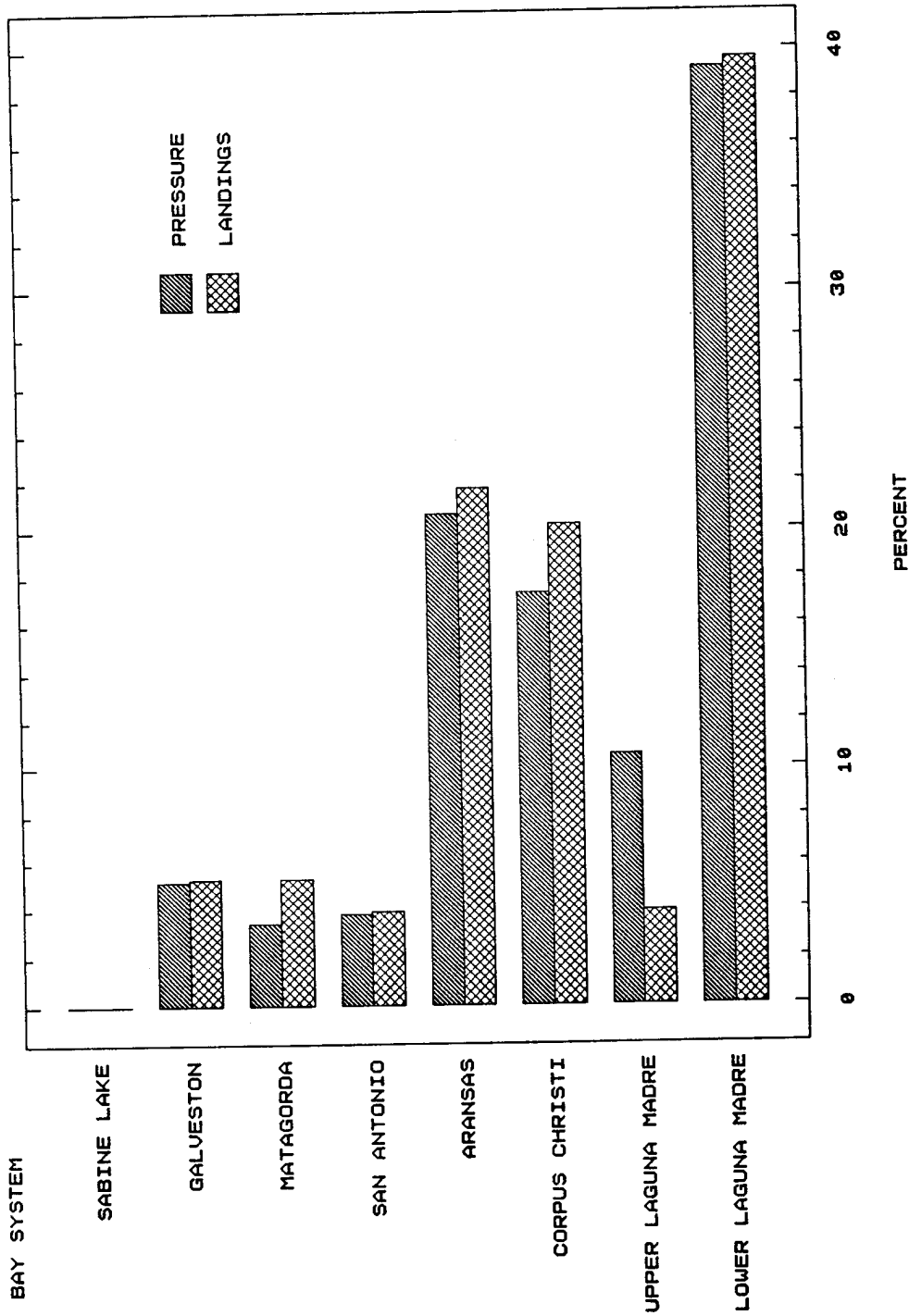


Figure 26. Percent distribution of annual bay and pass party-boat fishing pressure and landings among bay systems, May 1983-May 1988 (5 year mean).

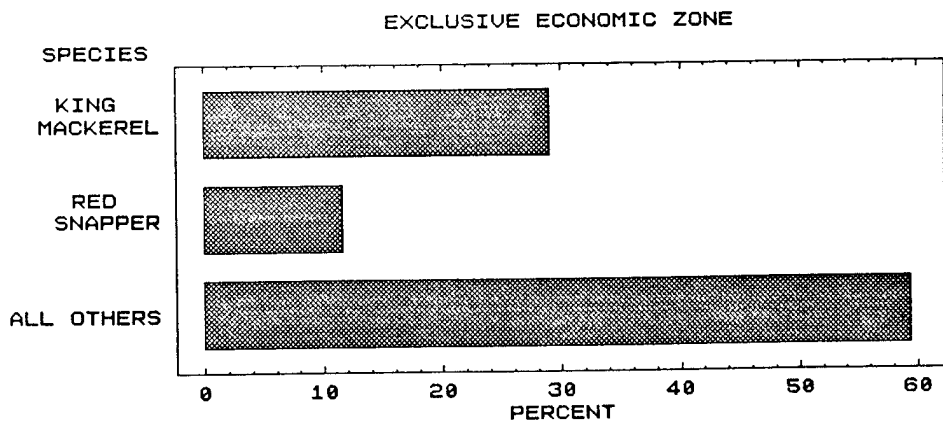
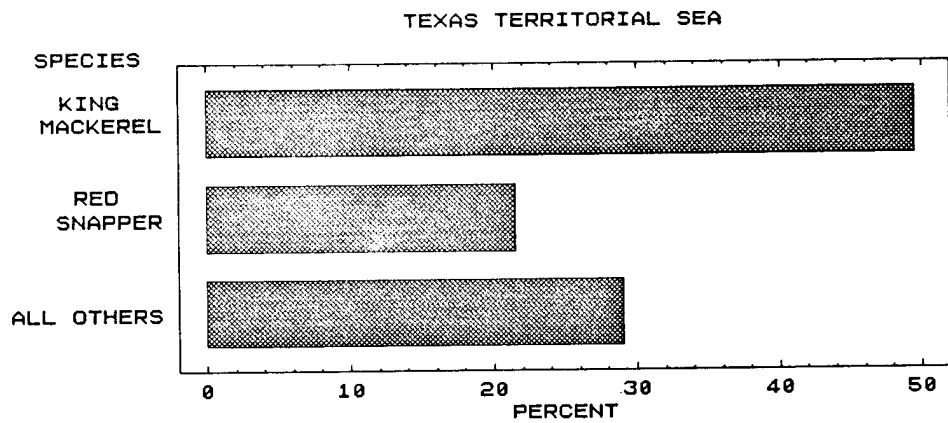
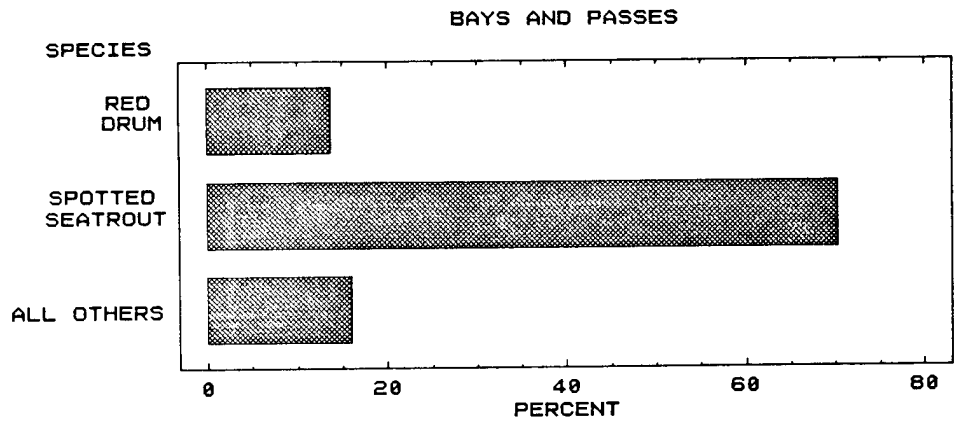
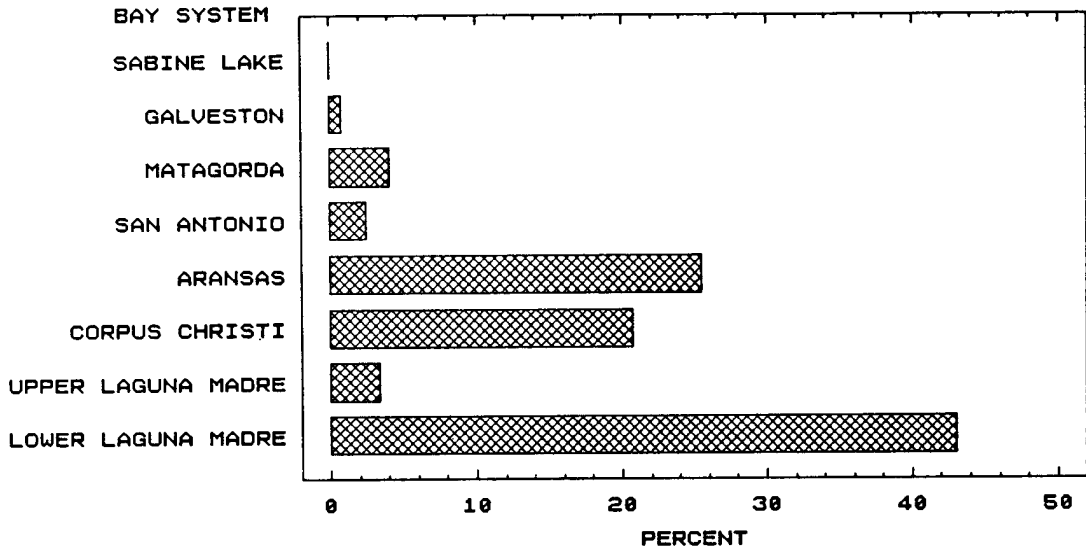


Figure 27. Species composition (%) of coastwide annual party-boat finfish landings in bays and passes (top), Texas Territorial Sea (middle), and Exclusive Economic Zone (bottom), May 1983-May 1988 (5 year mean).

RED DRUM



SPOTTED SEATROUT

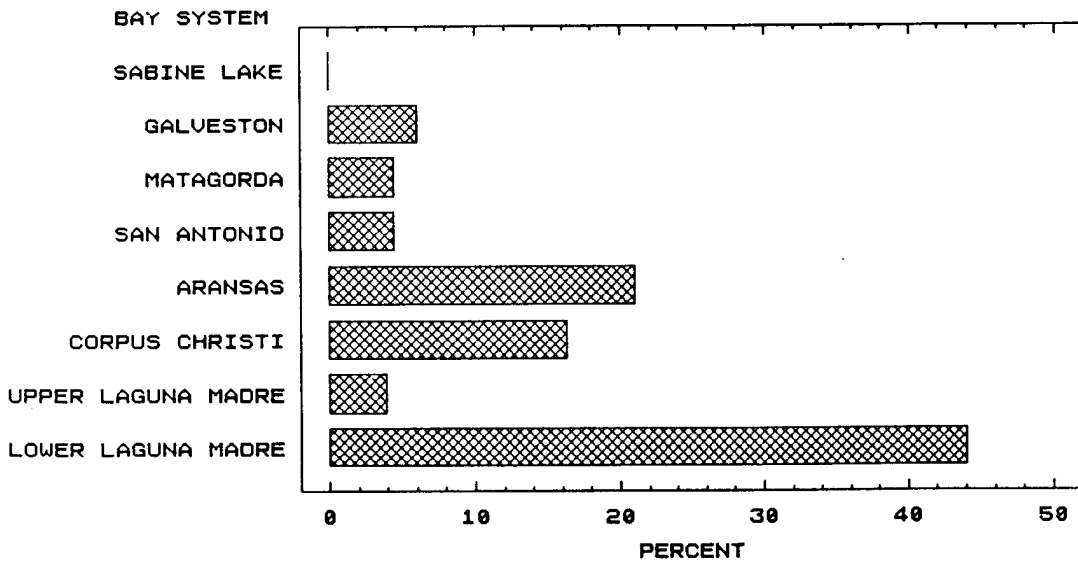


Figure 28. Distribution (%) of annual landings of red drum and spotted seatrout caught by party-boat fishermen among bay systems, May 1983-May 1988.

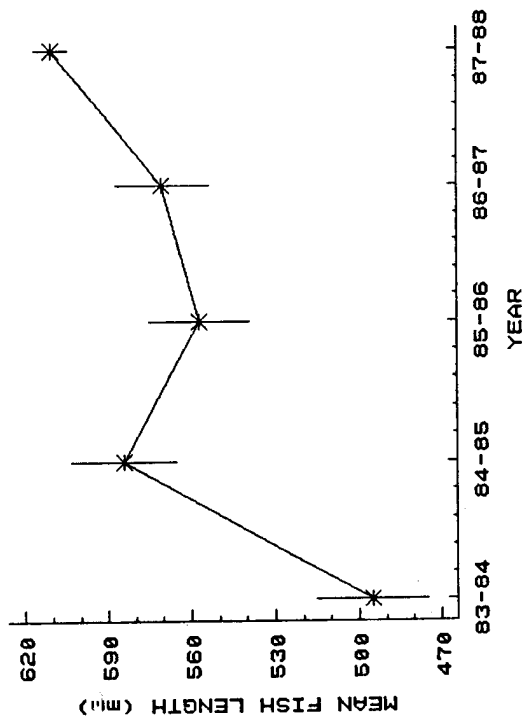
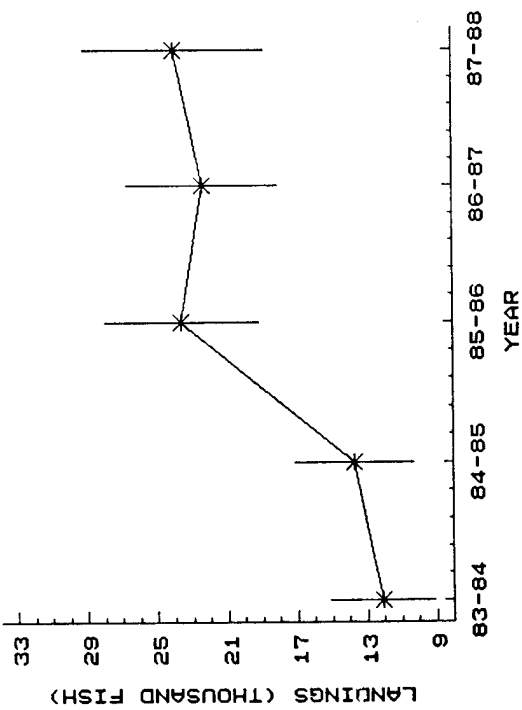
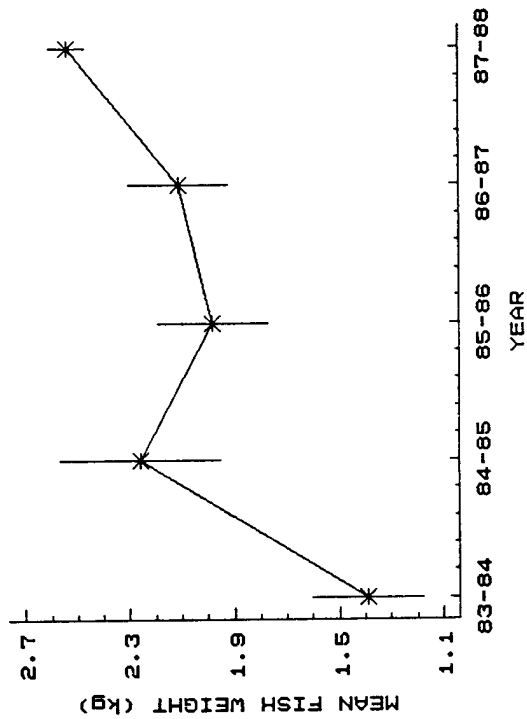
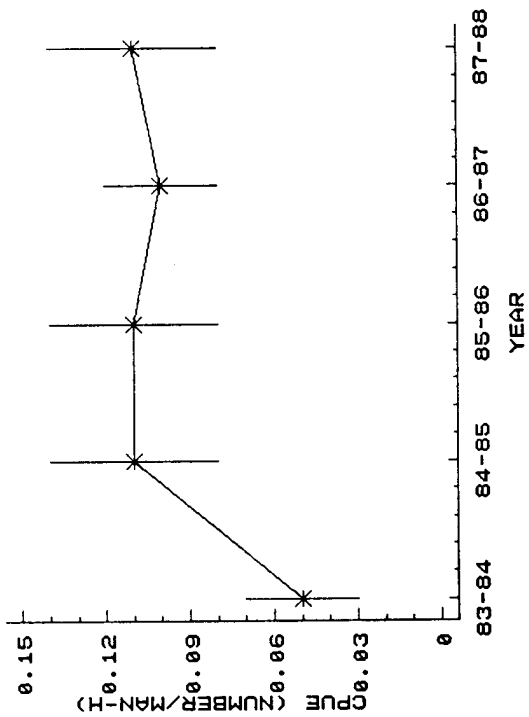


Figure 29. Coastwide annual statistics for red drum landed from bays and passes by party-boat fishermen, May 1983-May 1988.

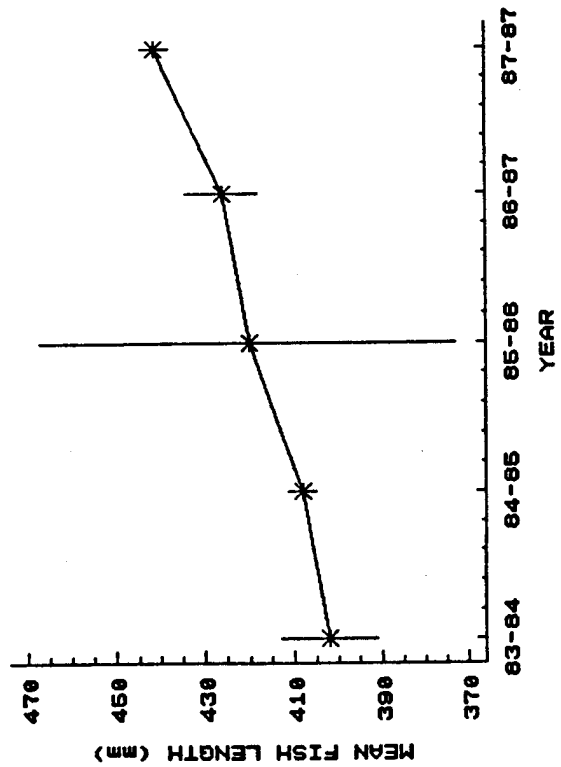
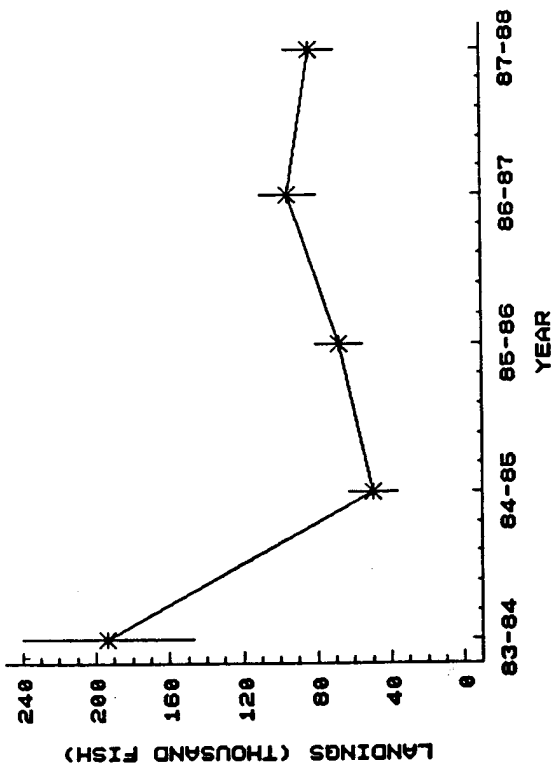
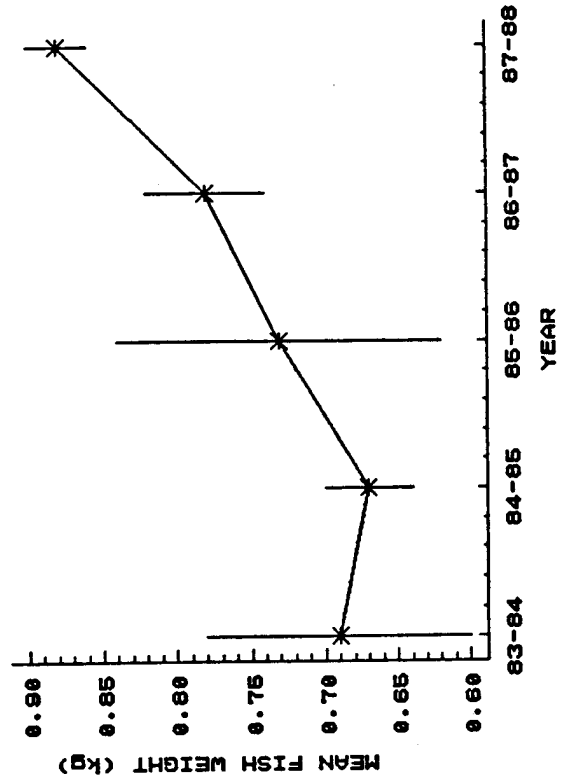
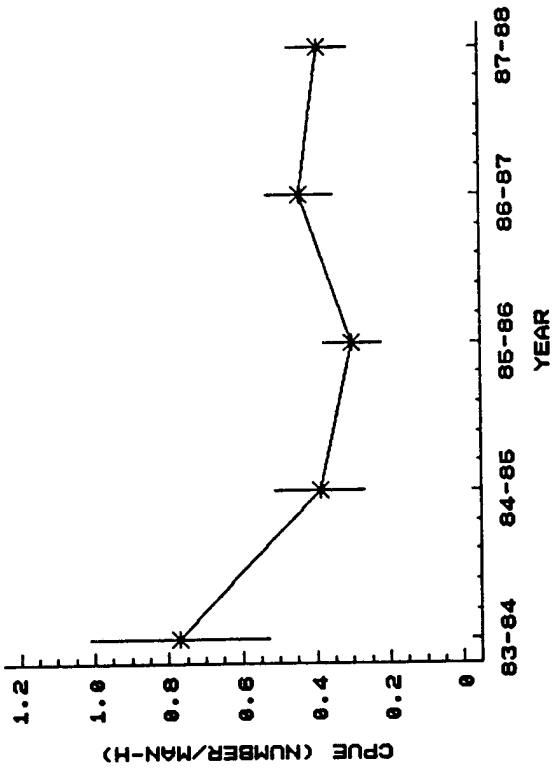


Figure 30. Coastwide annual statistics for spotted seatrout landed from bays and passes by party-boat fishermen, May 1983-May 1988.

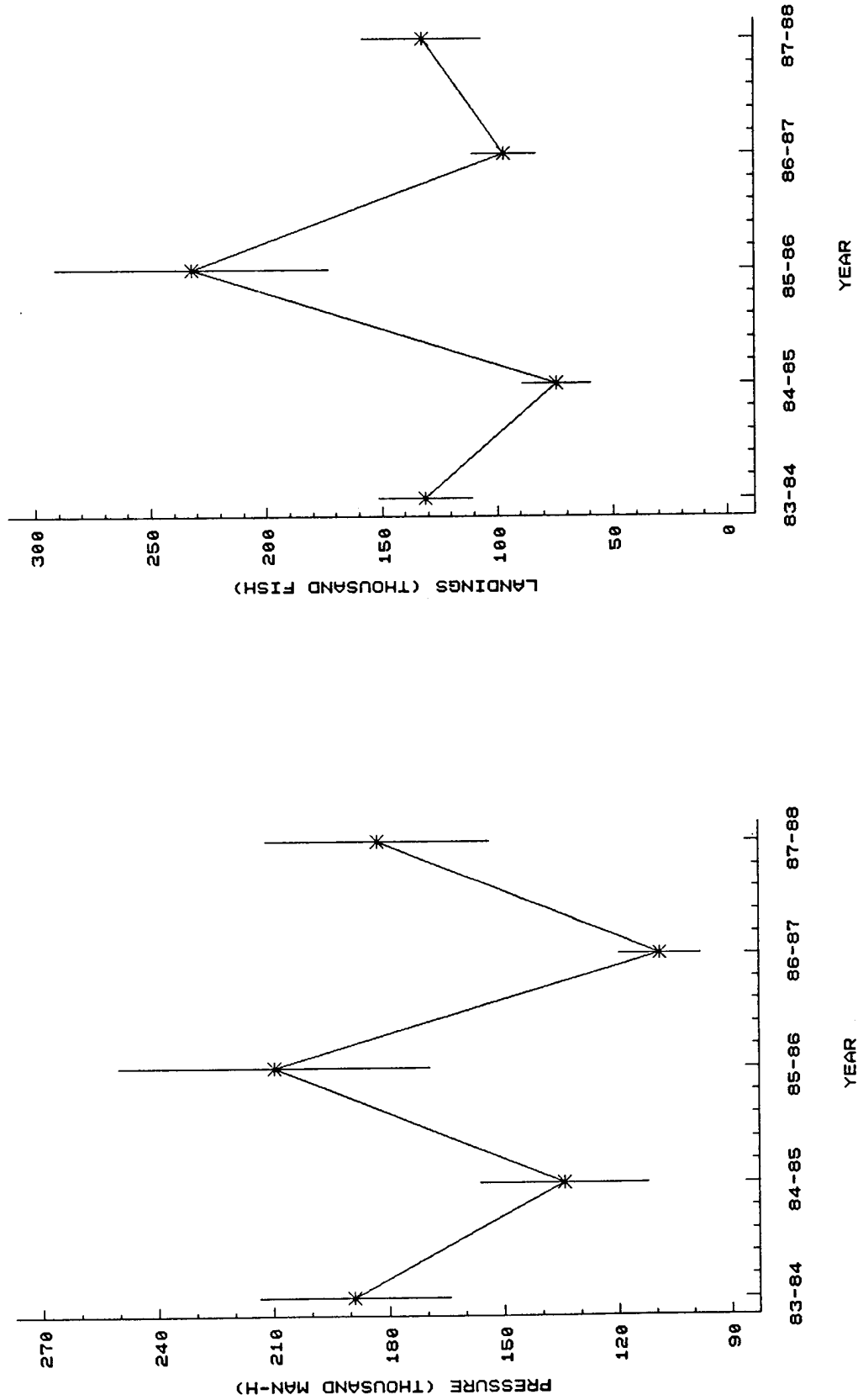


Figure 31. Coastwide annual headboat fishing pressure ( $\pm 1$  SE) and landings ( $\pm 1$  SE) in Texas bays and passes, May 1983-May 1988.

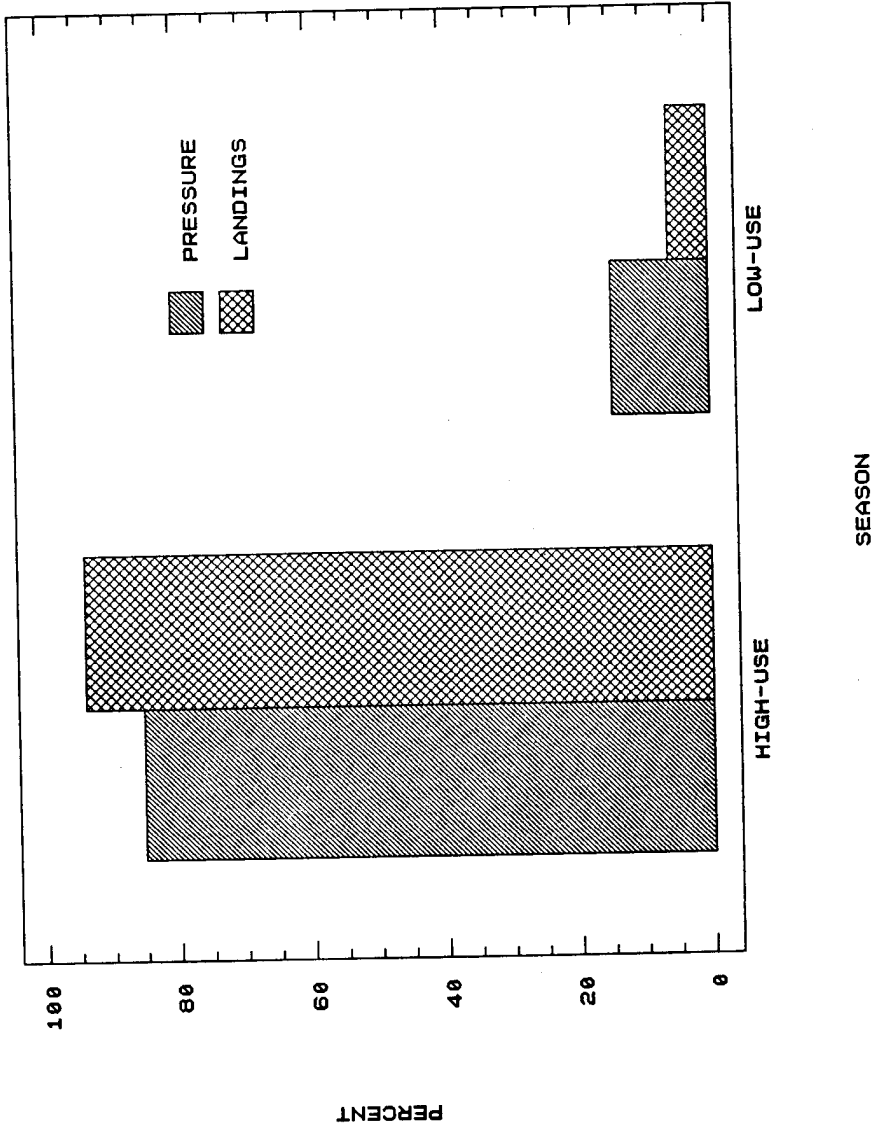


Figure 32. Percent distribution of annual bay and pass headboat pressure and landings by season and day type, May 1983-May 1988 (5-year mean). WE=weekends, WD=weekdays.

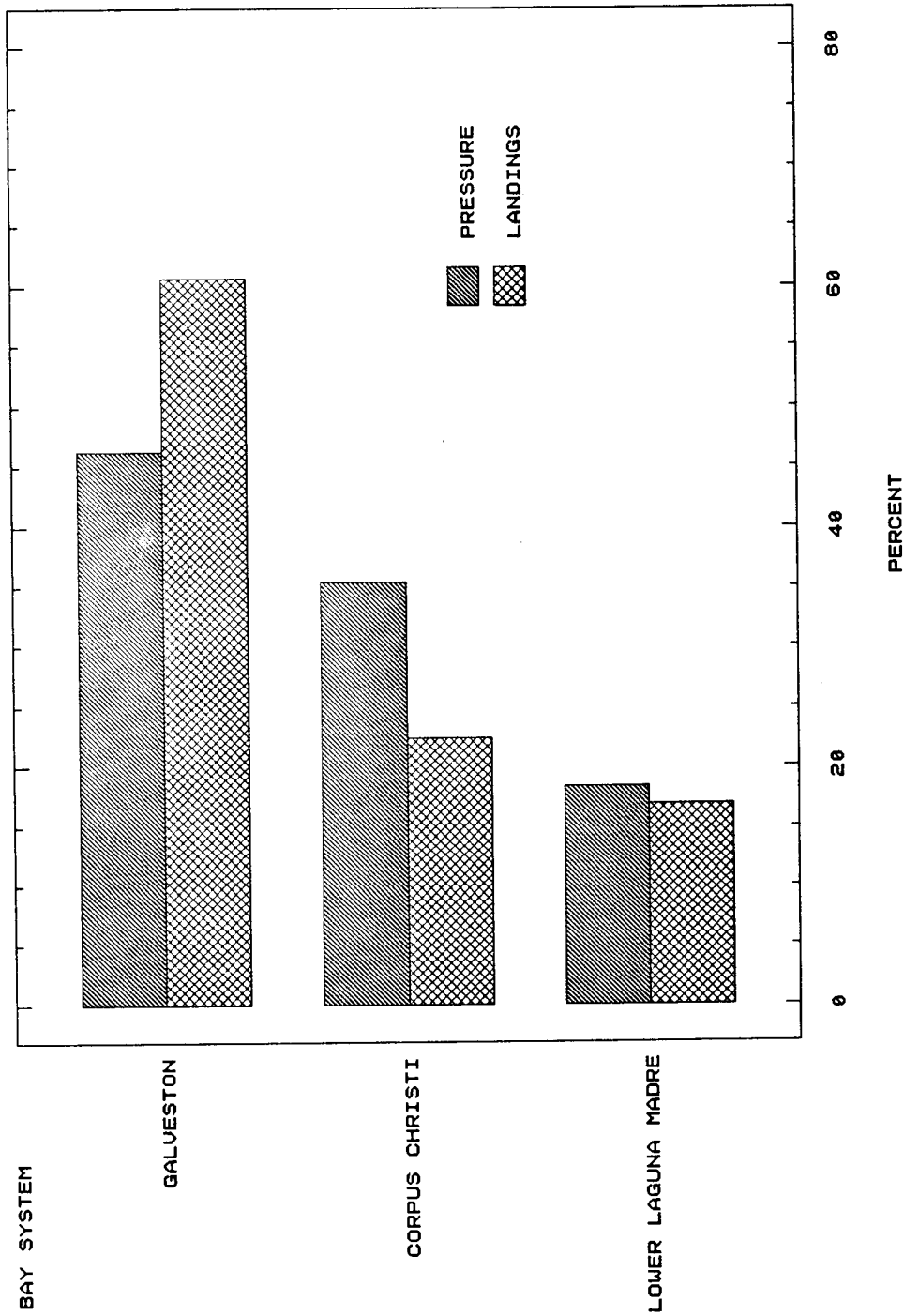


Figure 33. Percent distribution of annual bay and pass headboat fishing pressure and landings among bay systems, May 1983-May 1988 (5-year mean).



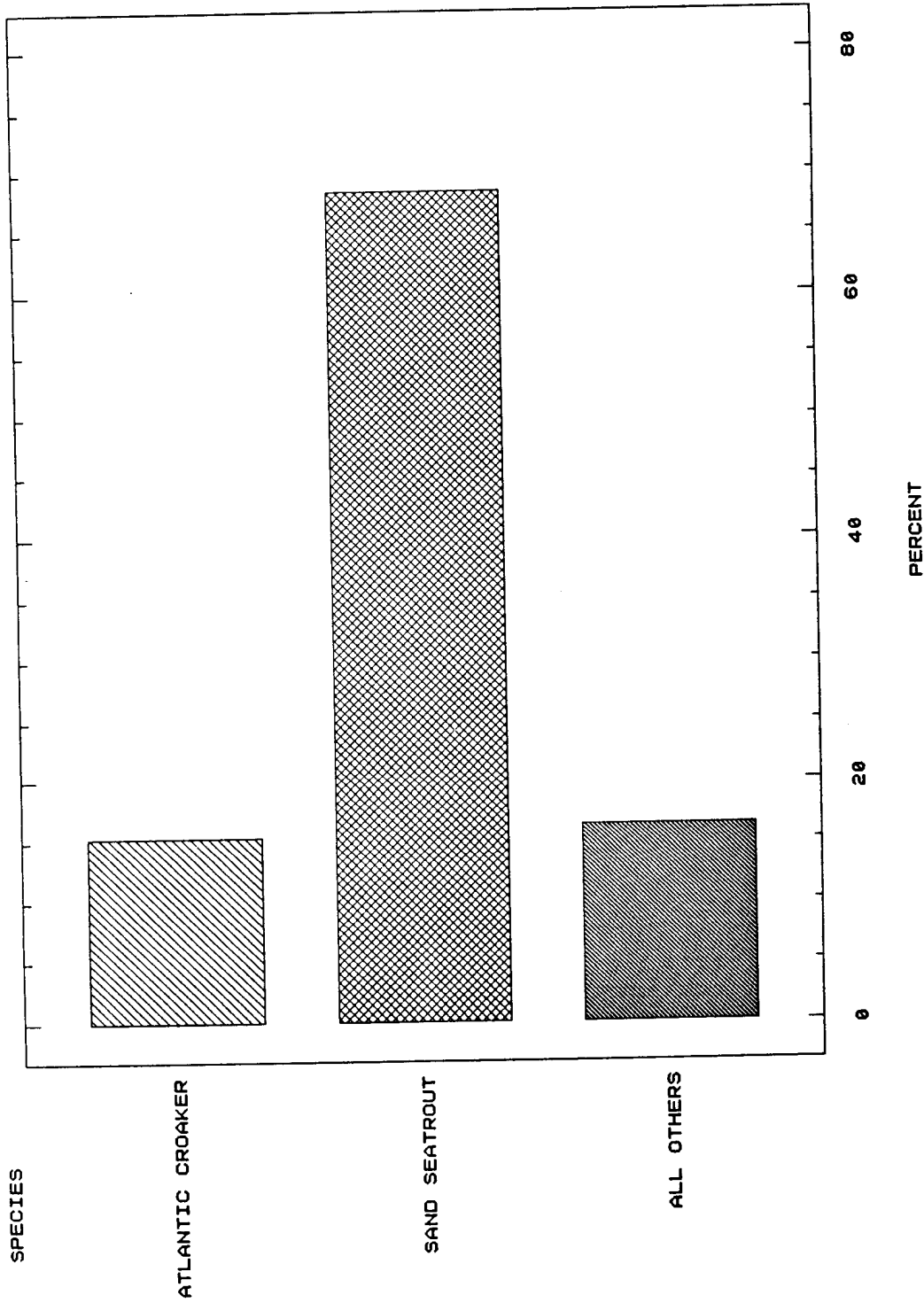


Figure 34. Species composition (%) of coastwide annual headboat finfish landings in bay and passes, May 1983-May 1988 (5-year mean).

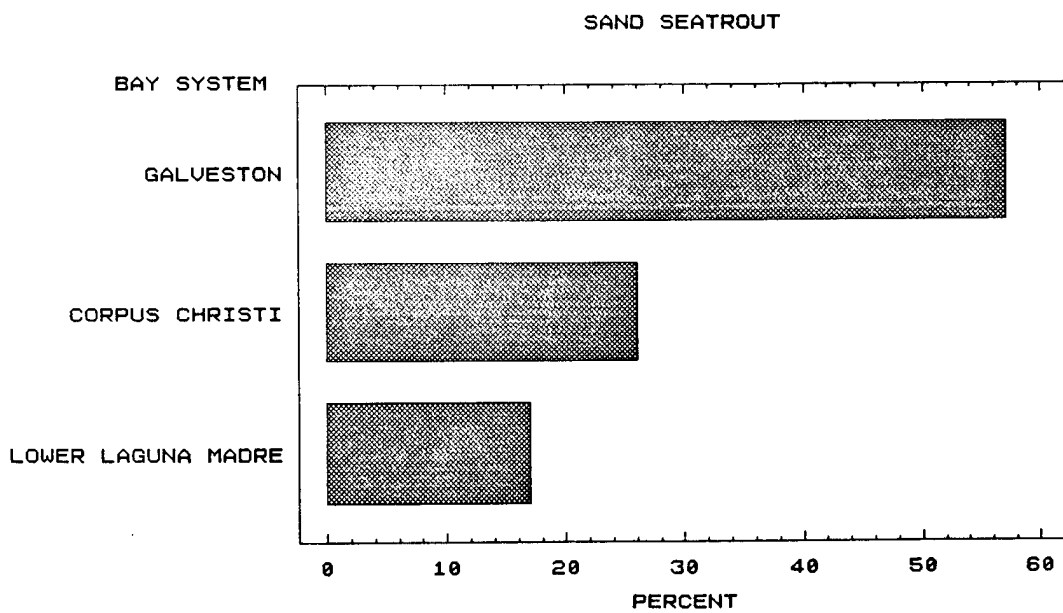
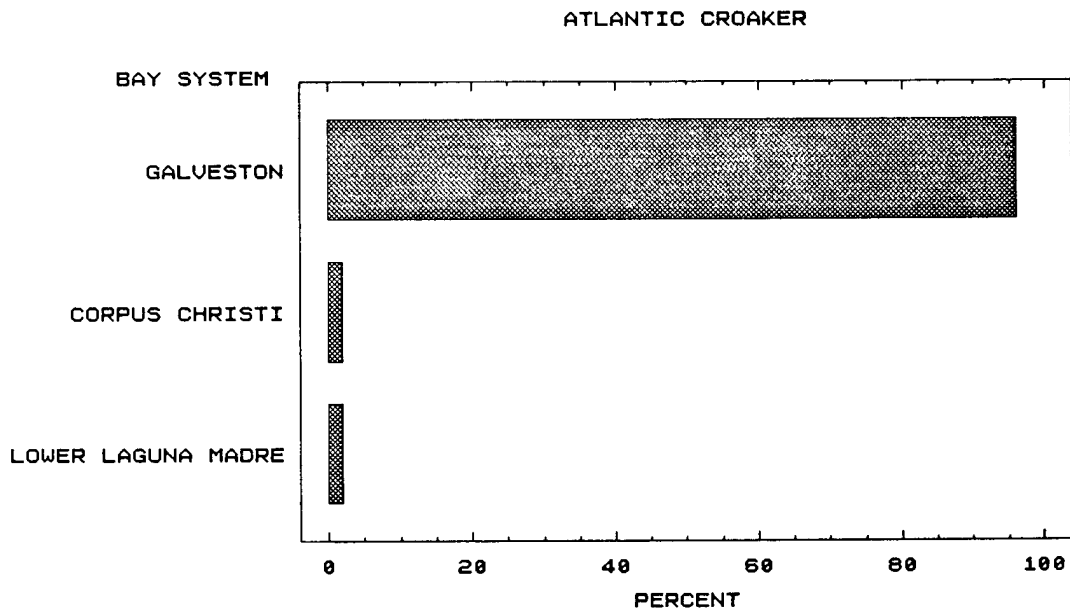


Figure 35. Distribution (%) of annual landings of Atlantic croaker and sand seatrout caught by headboat fishermen among bay systems, May 1983-May 1988.

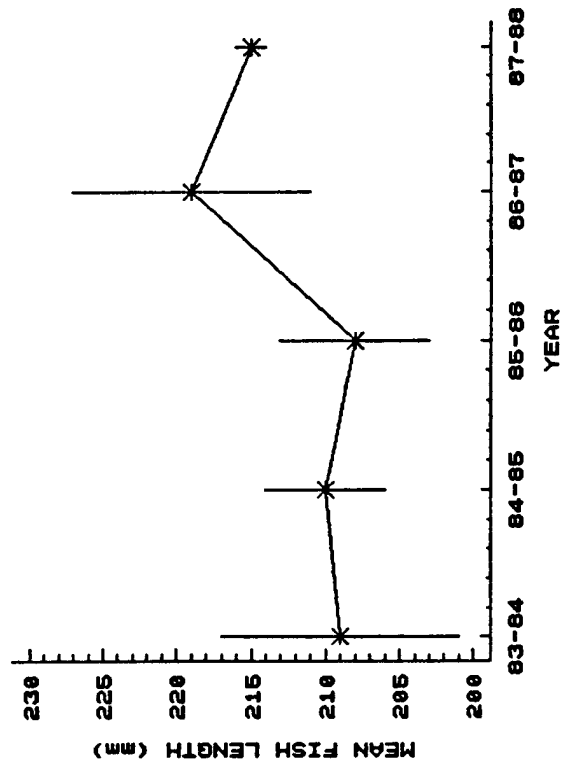
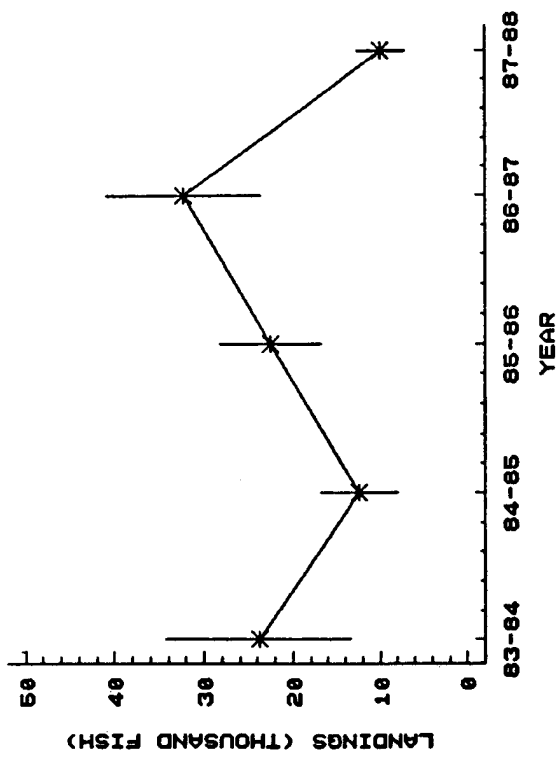
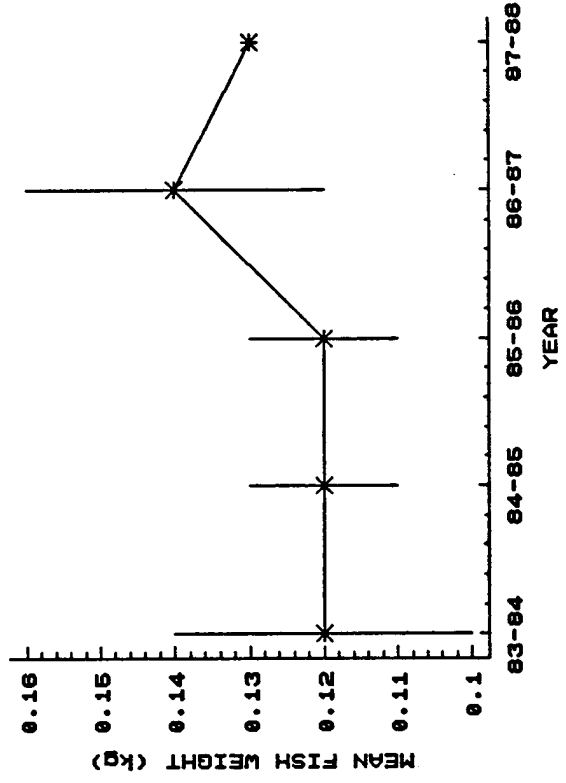
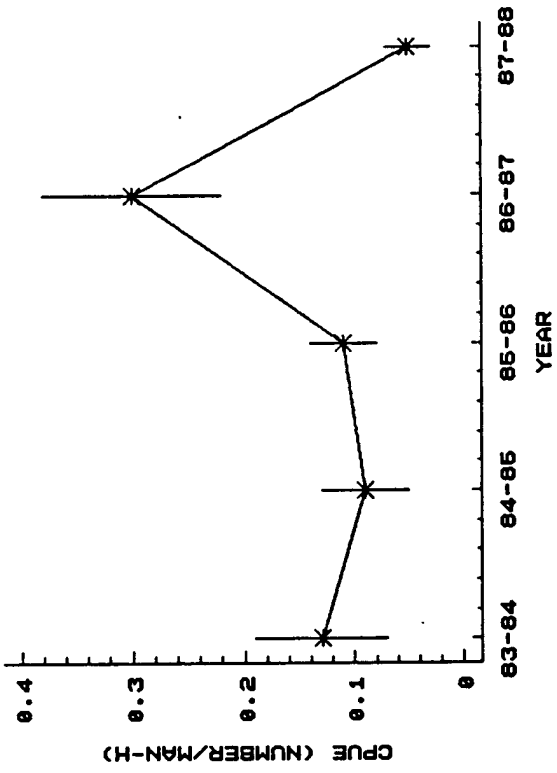


Figure 36. Coastwide annual statistics for Atlantic croaker landed from bays and passes by headboat fishermen, May 1983-May 1987.

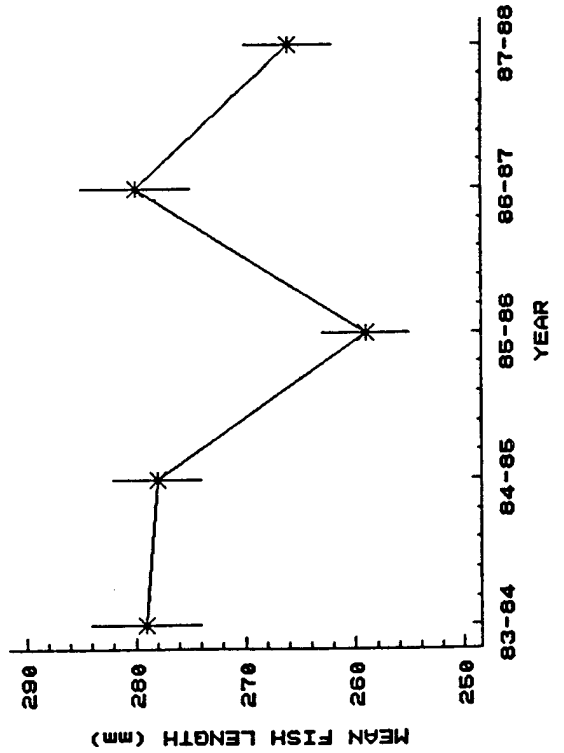
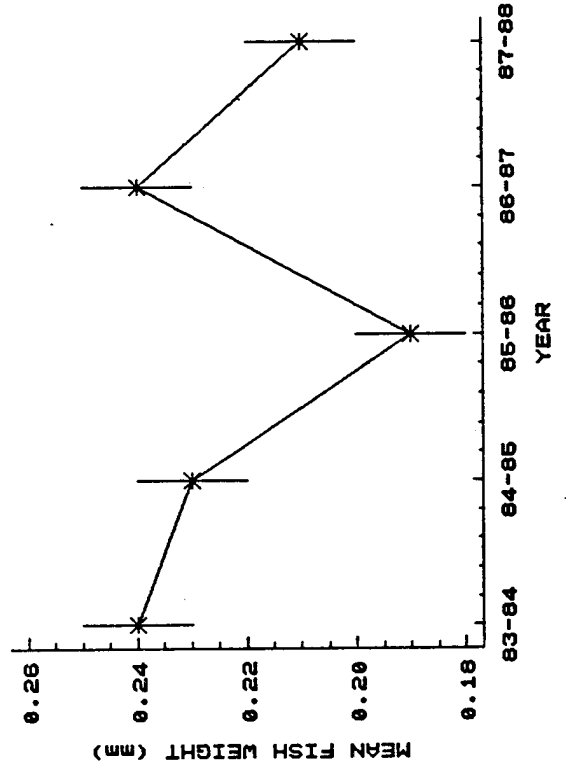
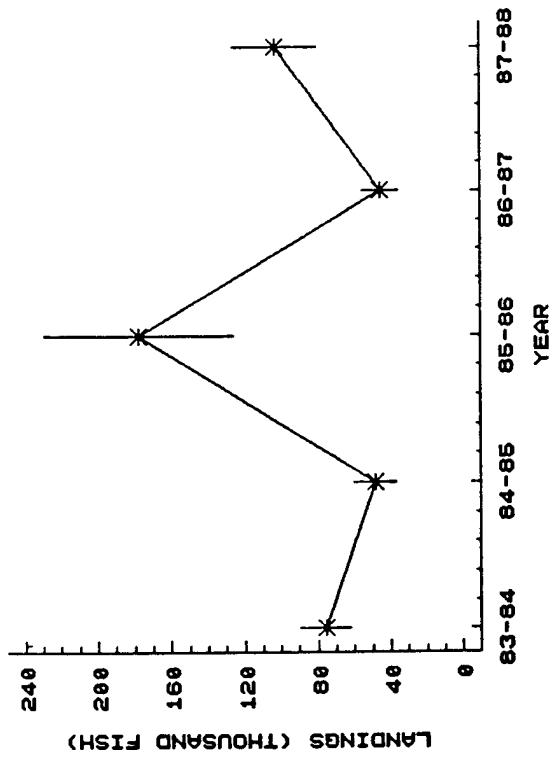
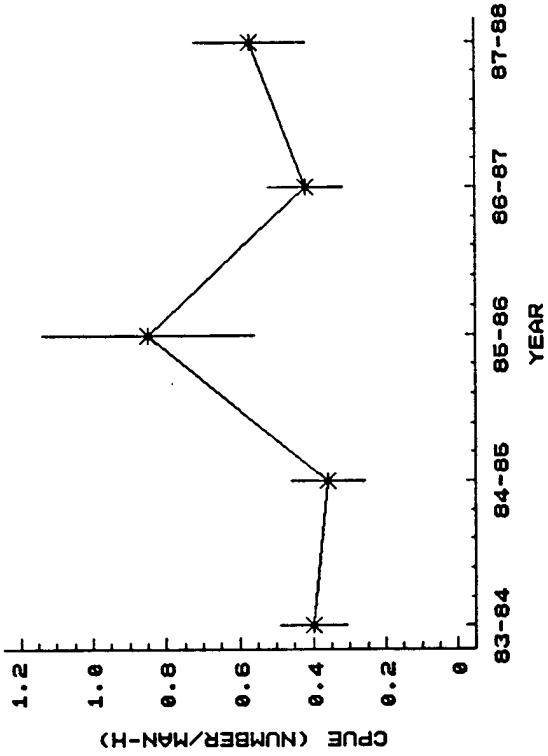


Figure 37. Coastwide annual statistics for sand seatrout landed from bays and passes by headboat fishermen, May 1983-May 1988.

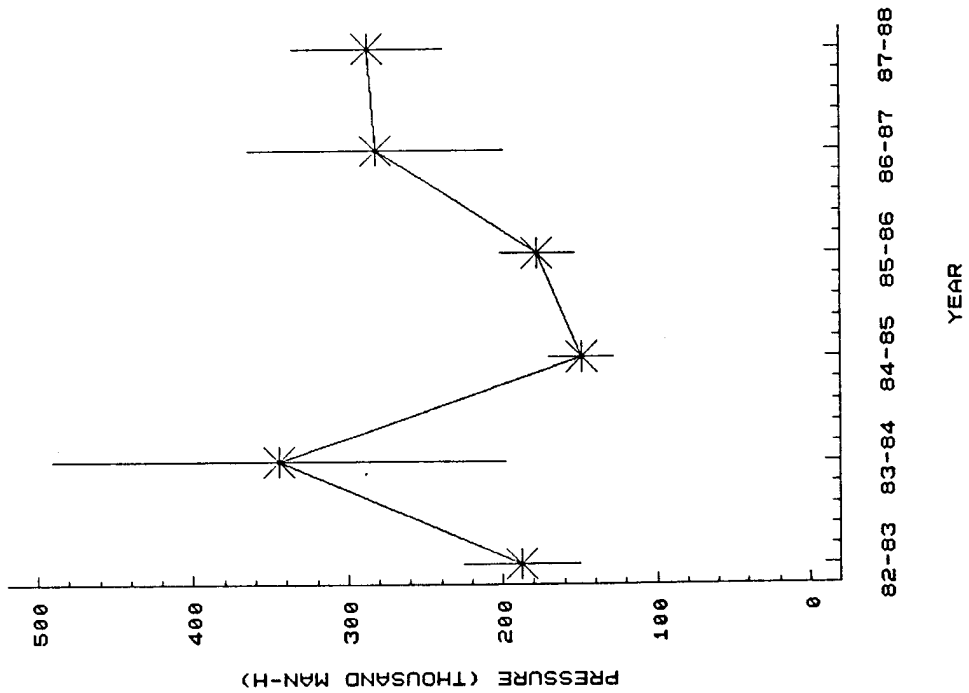
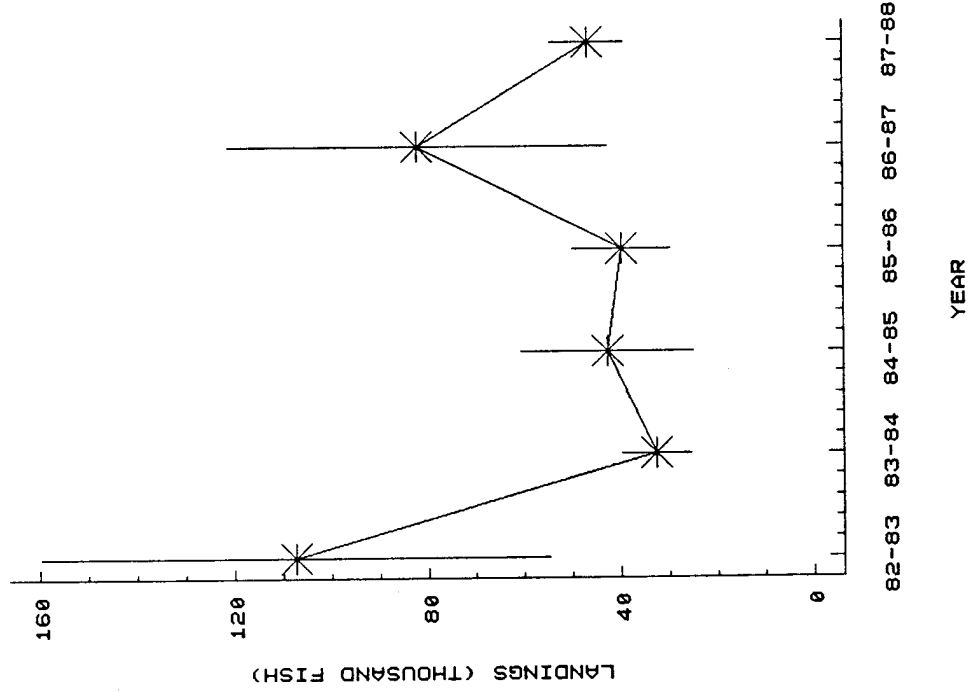


Figure 38. Coastwide annual private-boat fishing pressure ( $\pm 1$  SE) and landings ( $\pm 1$  SE) in the Texas Territorial Sea, May 1982-May 1988.

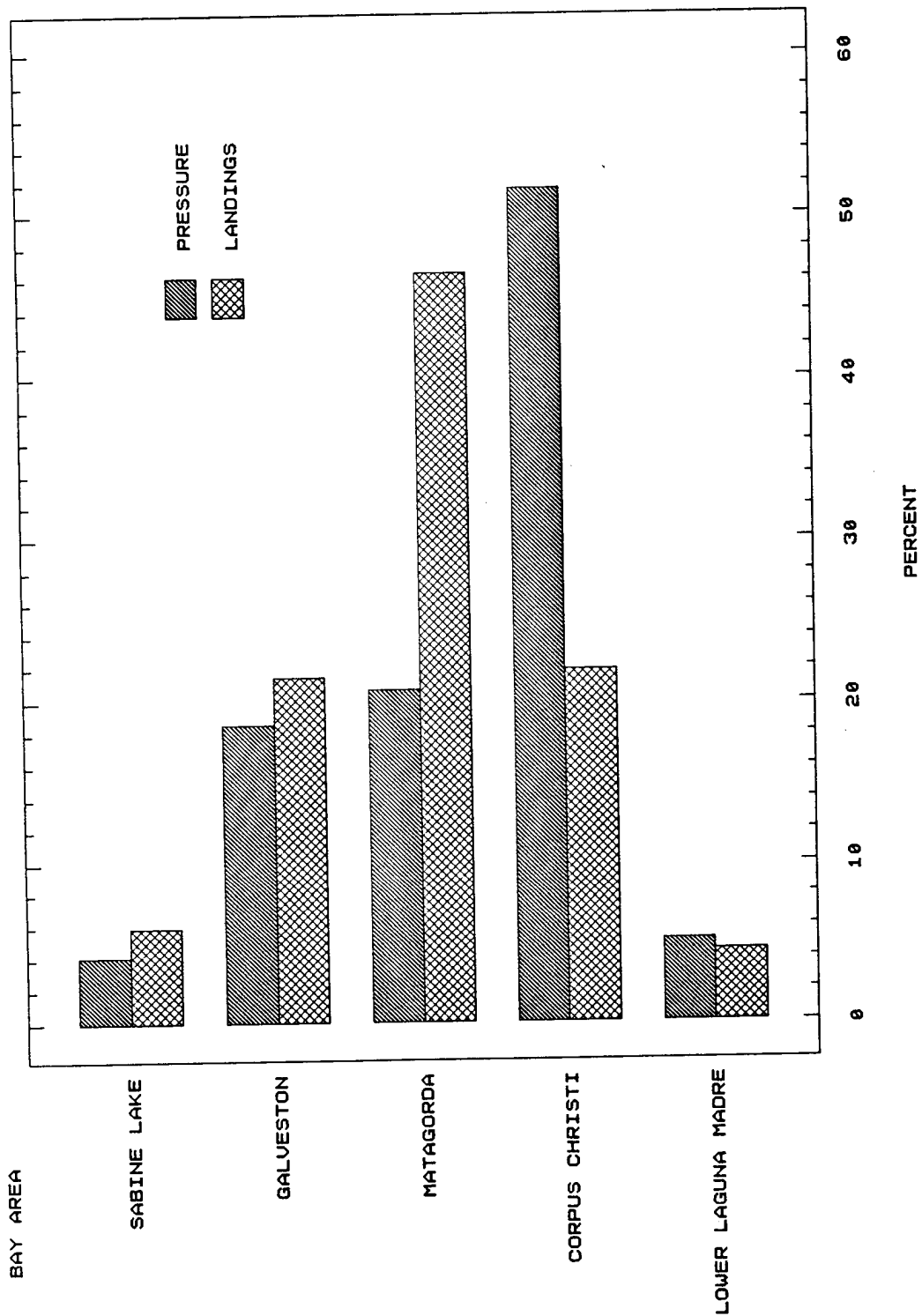


Figure 39. Percent distribution of annual Texas Territorial Sea private-boat fishing pressure and landings among by areas, May 1982-May 1988 (5-year mean).

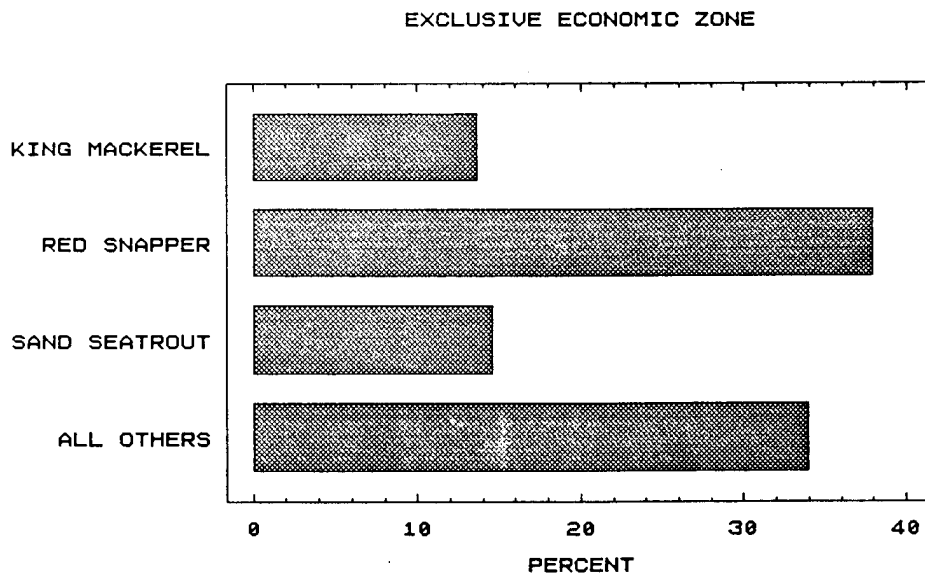
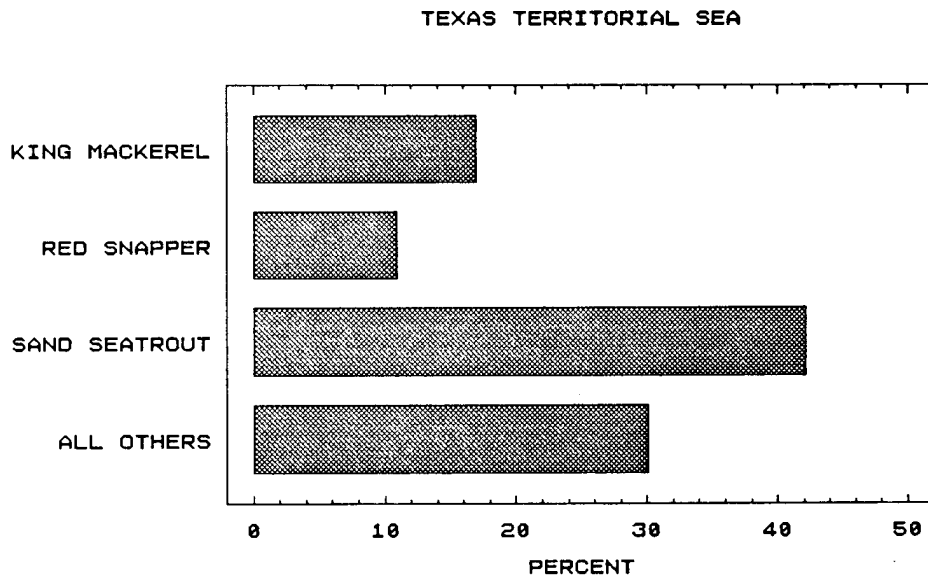


Figure 40. Species composition(%) of coastwide annual Texas Territorial Sea and Exclusive Economic Zone private-boat finfish landings, May 1982-May 1988 (6-year mean).

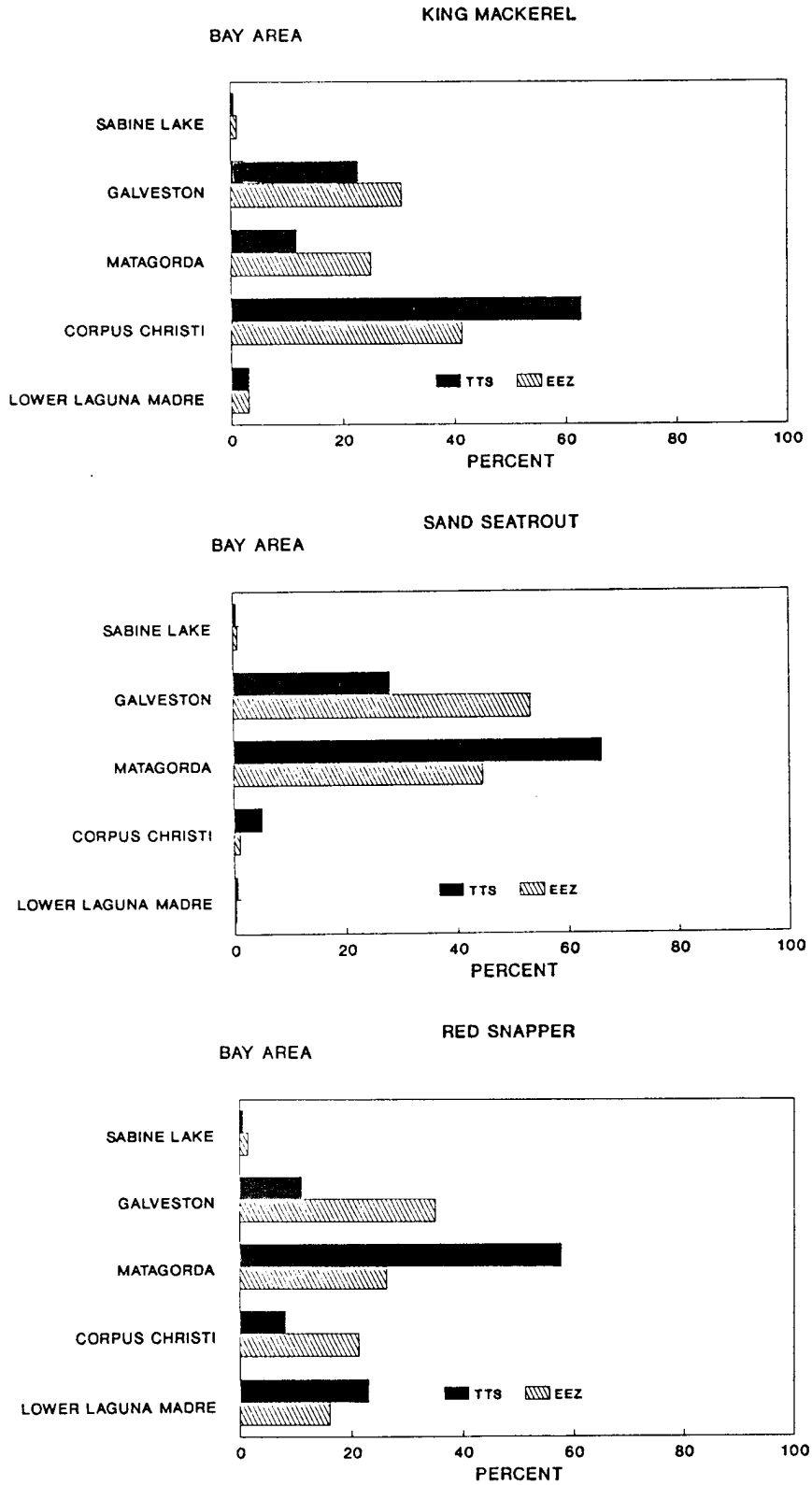


Figure 41. Distribution (%) of annual landings of selected finfish caught by Texas Territorial Sea and Exclusive Economic Zone private-boat fishermen among bay areas, May 1982-May 1988 (6-year mean).



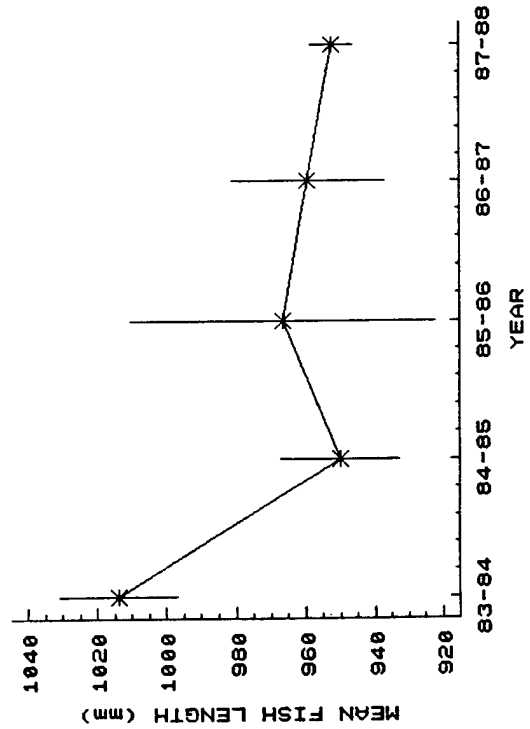
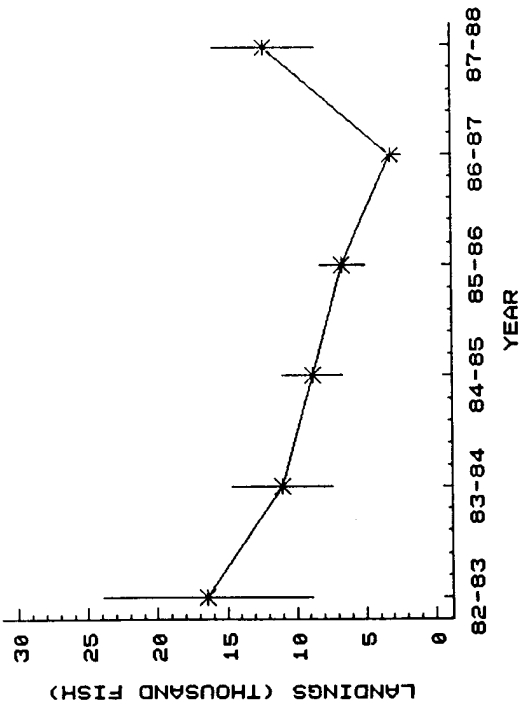
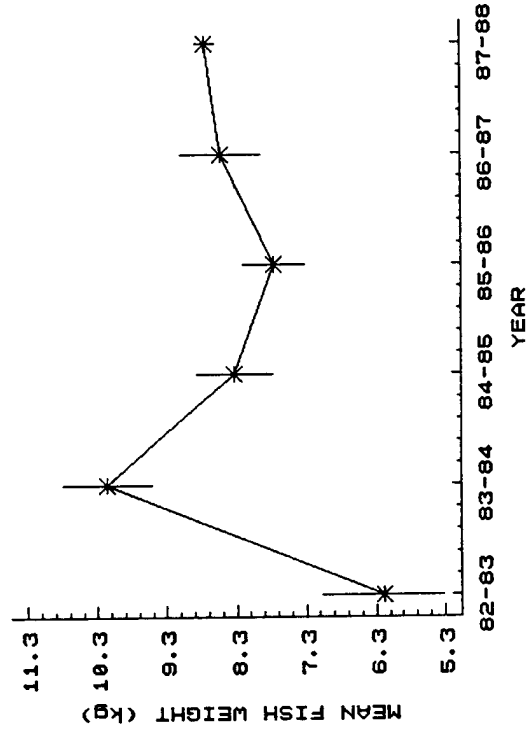
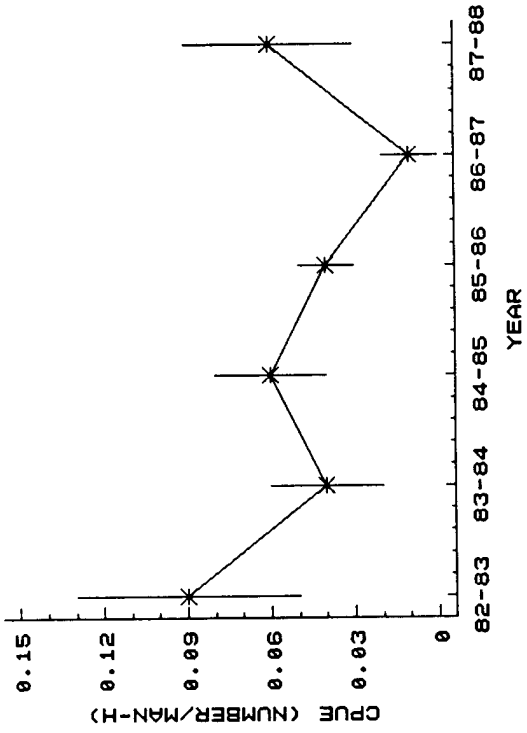


Figure 42. Coastwide annual statistics for king mackerel landed from, Texas Territorial Sea by private-boat fishermen, May 1982-May 1988.

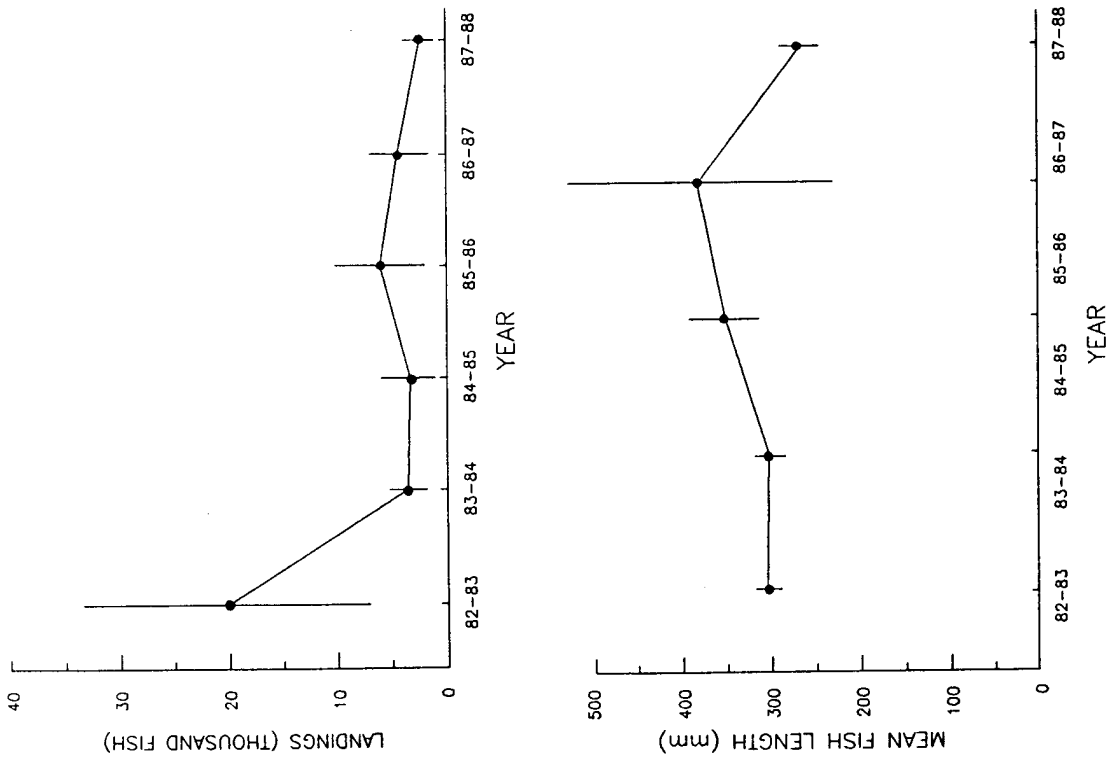
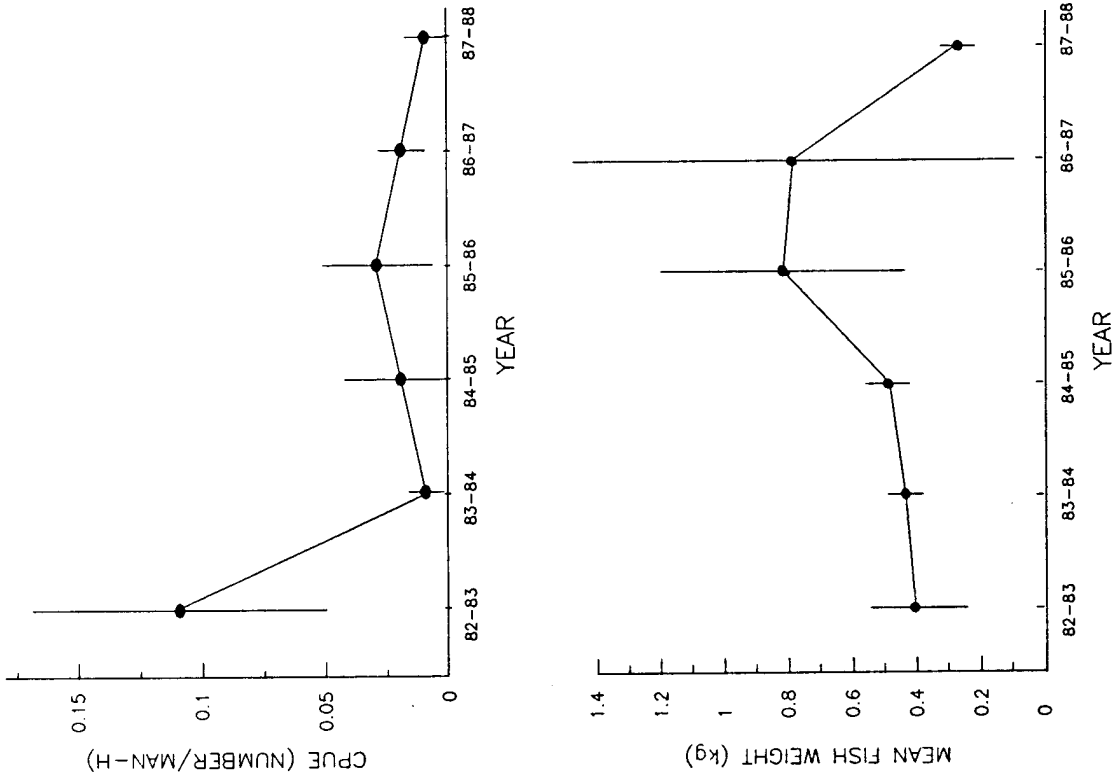


Figure 43. Coastwide annual statistics for red snapper landed from Texas Territorial Sea by private boat fishermen, May 1982-May 1988.

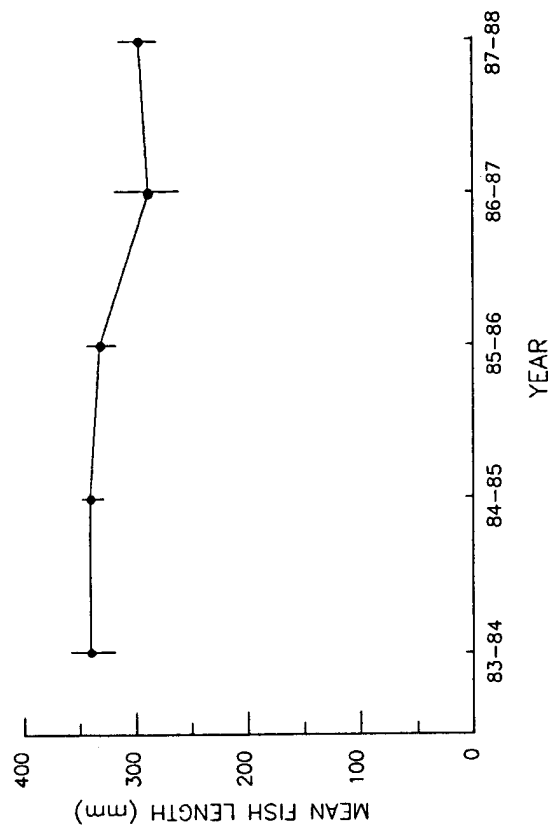
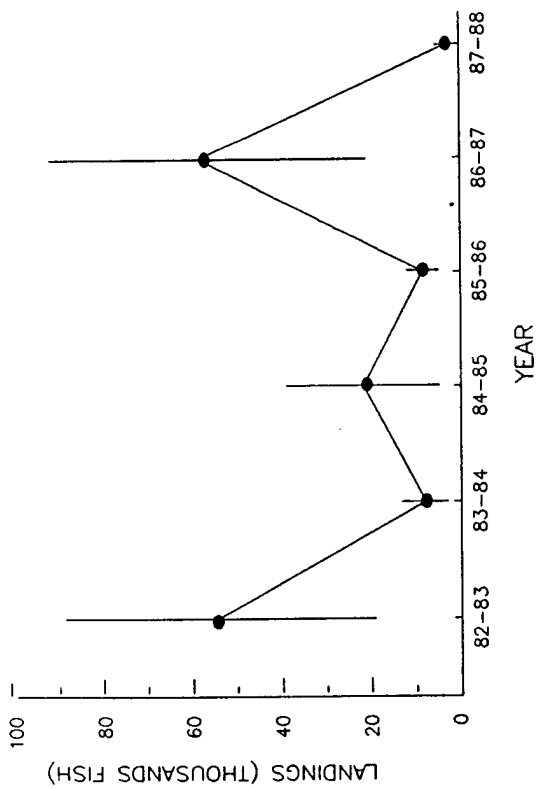
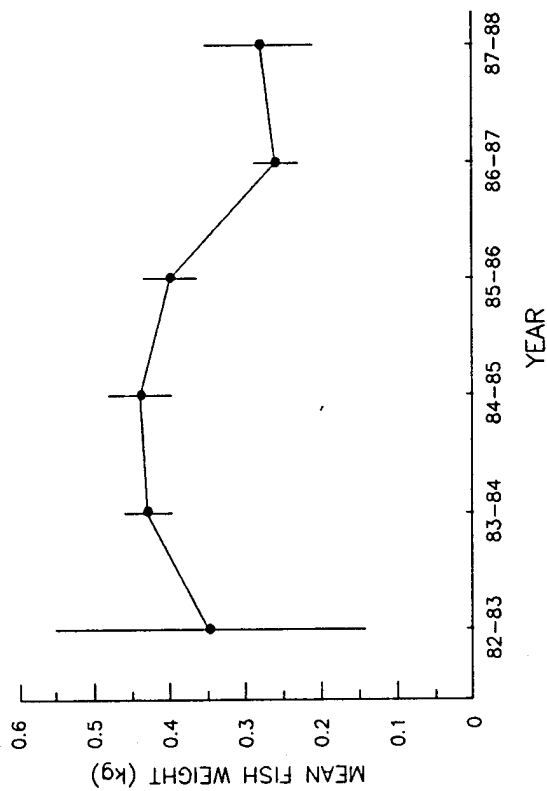
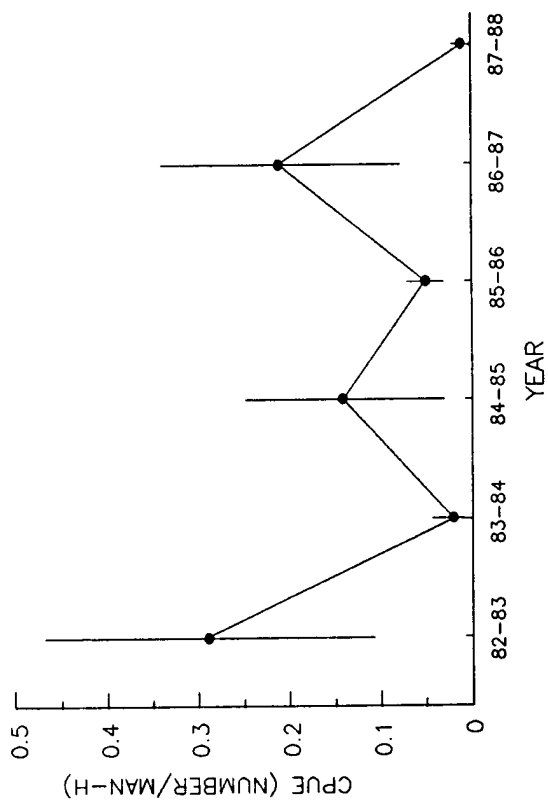


Figure 44. Coastwide annual statistics for sand seatrout landed from Texas Territorial Sea by private-boat fishermen, May 1982-May 1988.

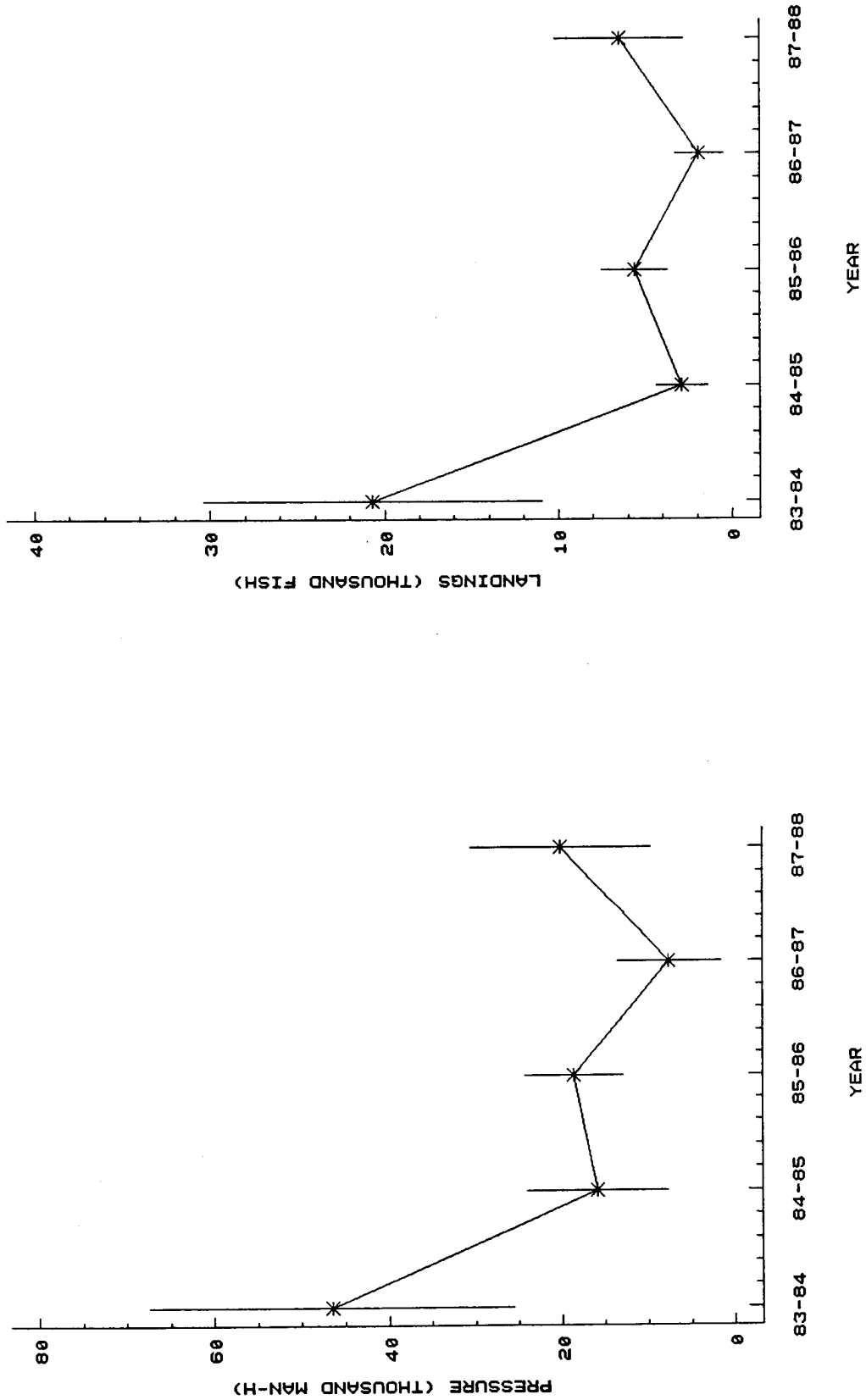


Figure 45. Coastwide annual party-boat fishing pressure ( $\pm 1$  SE) and landings ( $\pm 1$  SE) in the Texas Territorial Sea, May 1983-May 1988.

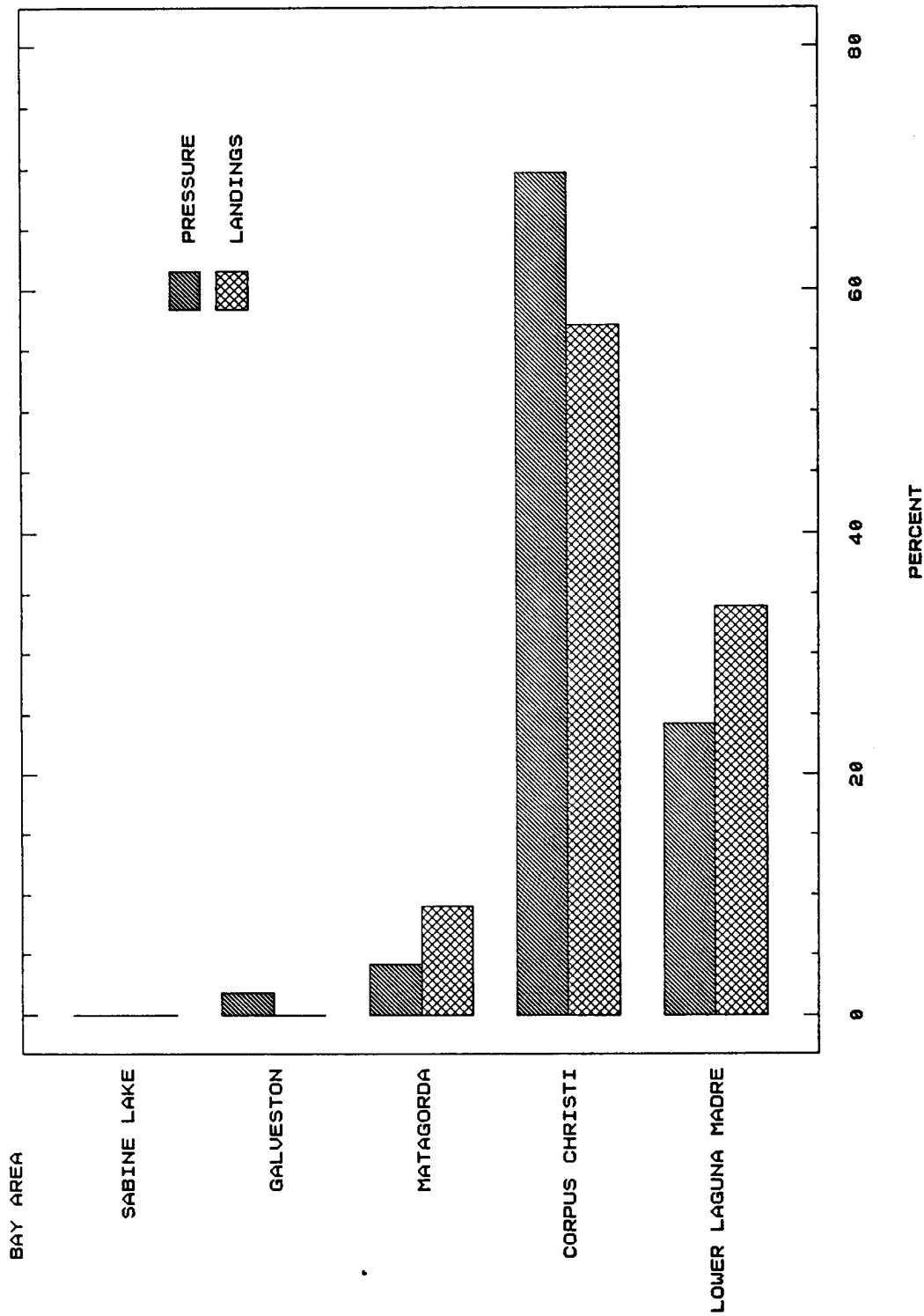
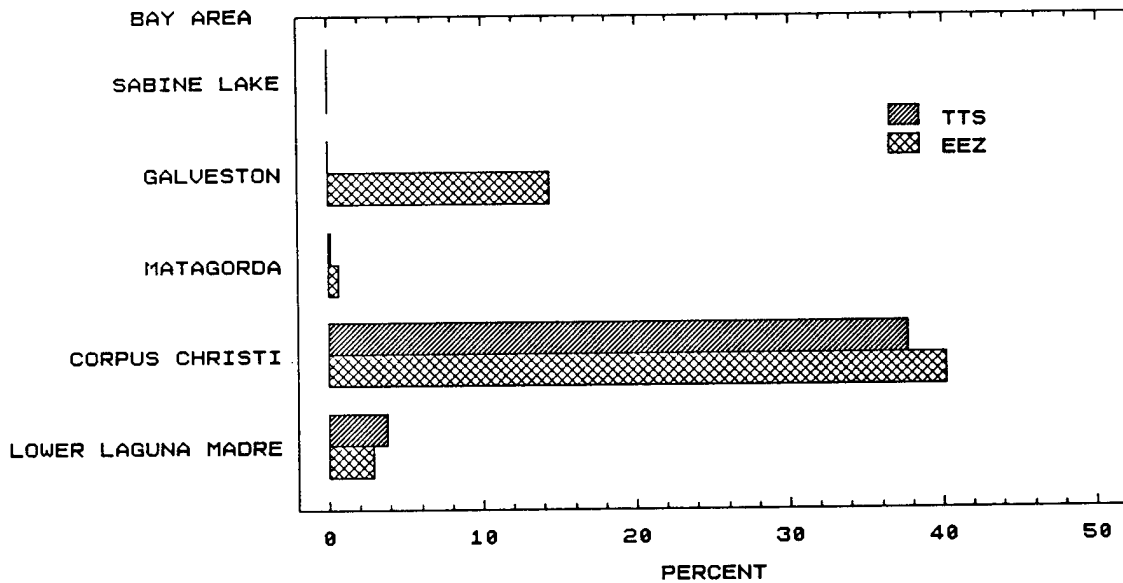


Figure 46. Percent distribution of annual Texas Territorial Sea party-boat fishing pressure and landings among bay areas, May 1983-May 1988 (5 year mean).

## KING MACKEREL



## RED SNAPPER

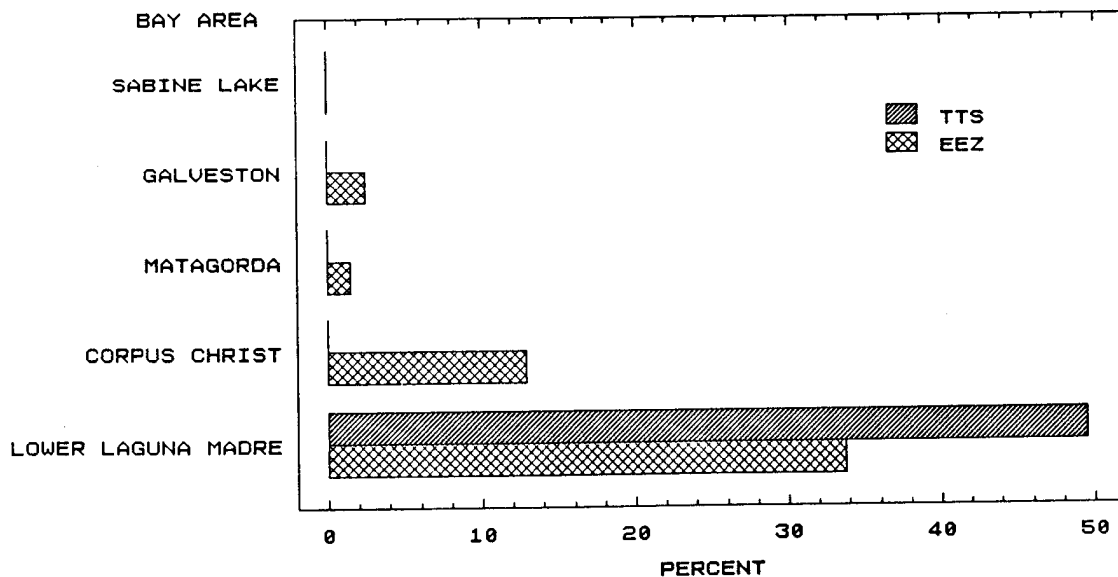


Figure 47. Distribution of annual landings of king mackerel and red snapper caught by Texas Territorial Sea and Exclusive Economic Zone party-boat fishermen among bay areas, May 1983-May 1988 (5 year mean).

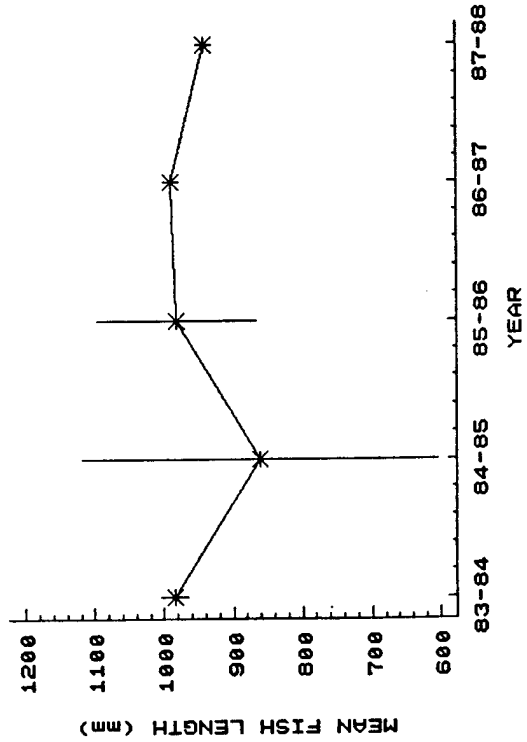
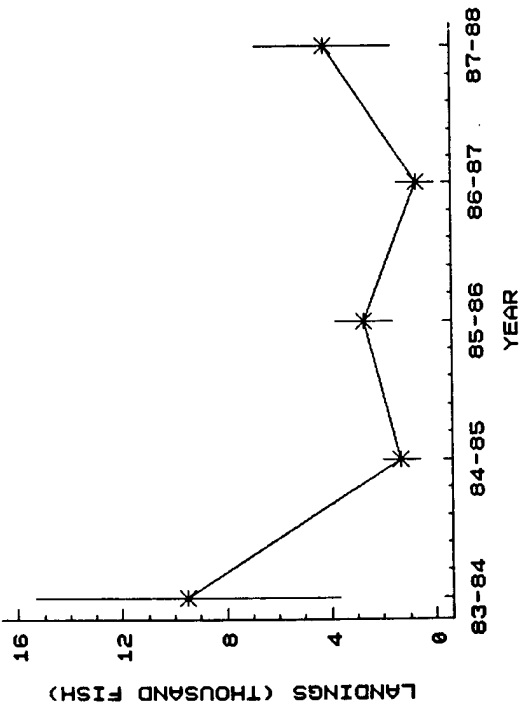
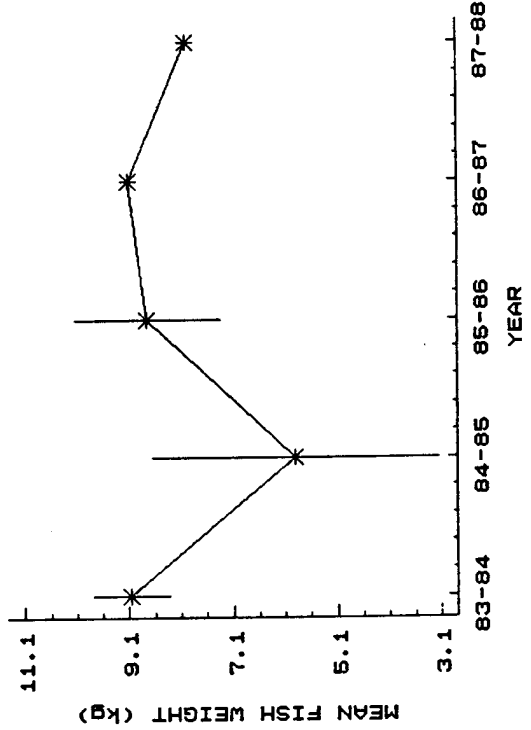
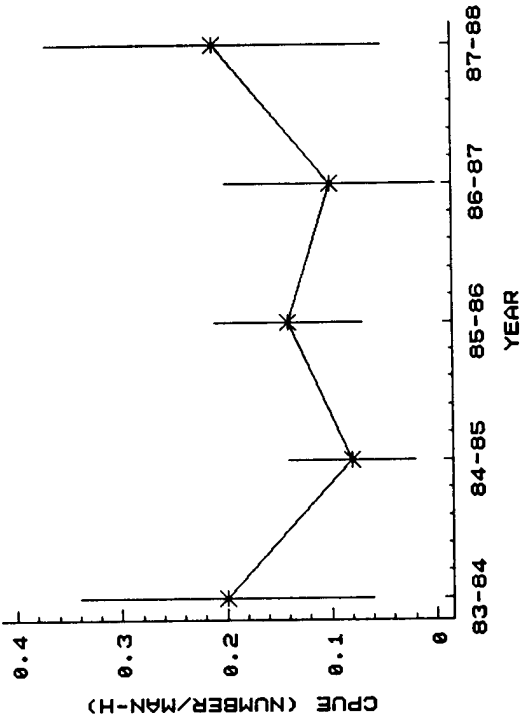


Figure 48. Coastwide annual statistics for king mackerel landed from Texas Territorial Sea by party-boat fishermen, May 1983-May 1988.

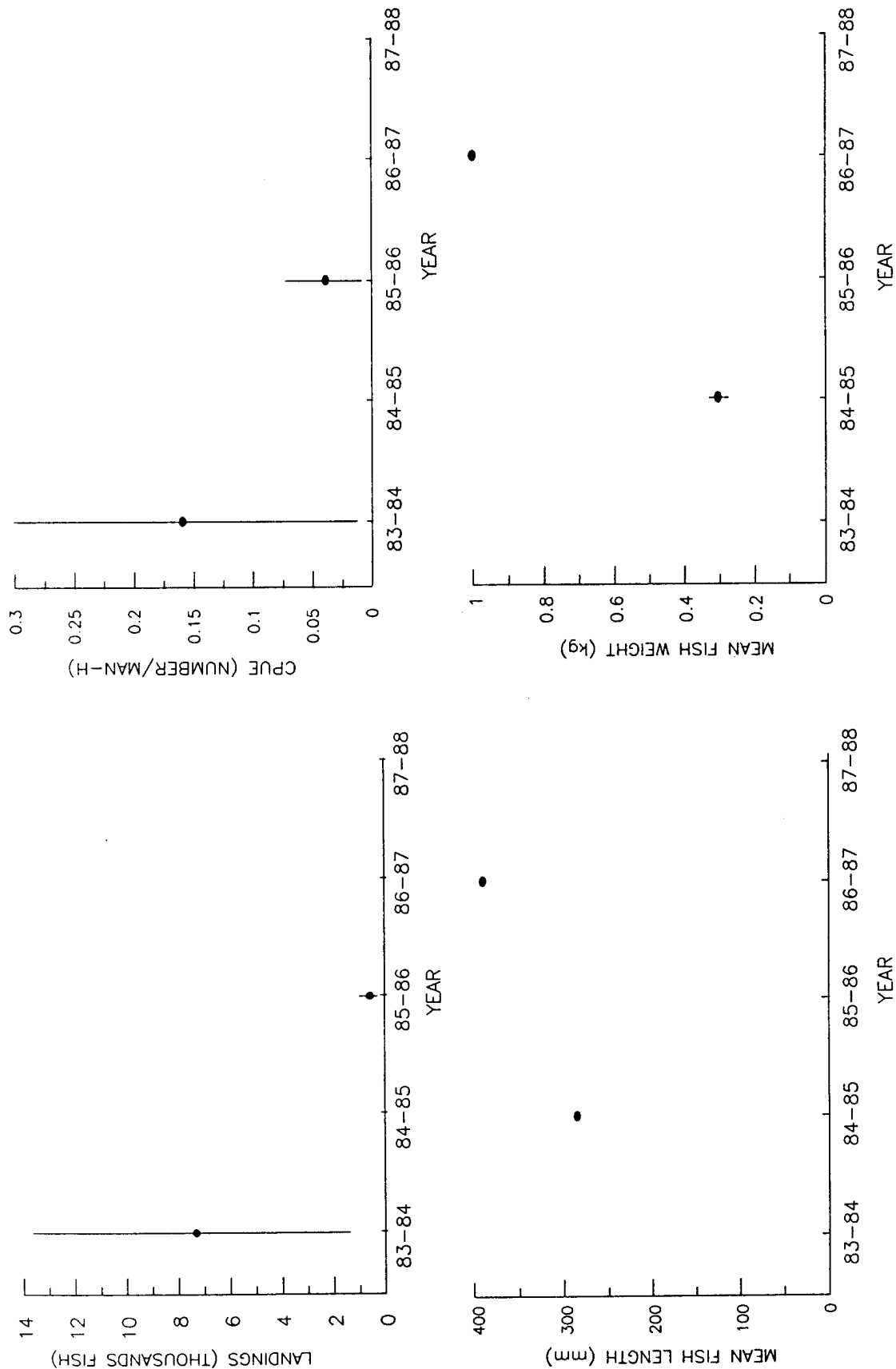


Figure 49. Coastwide annual statistics for red snapper landed from Texas Territorial Sea by party-boat fishermen, May 1983-May 1988.



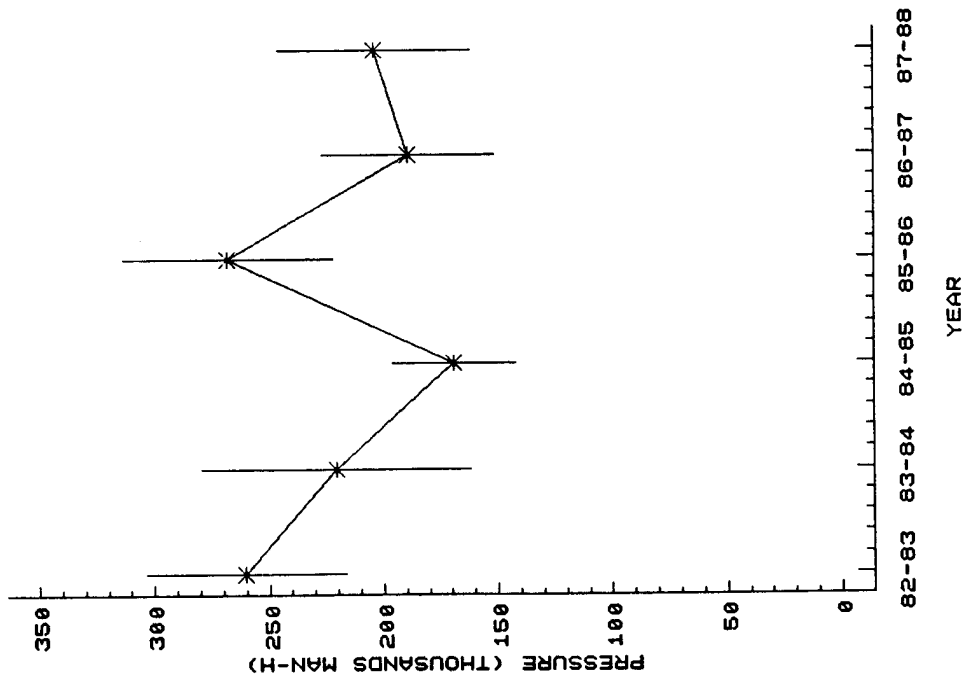
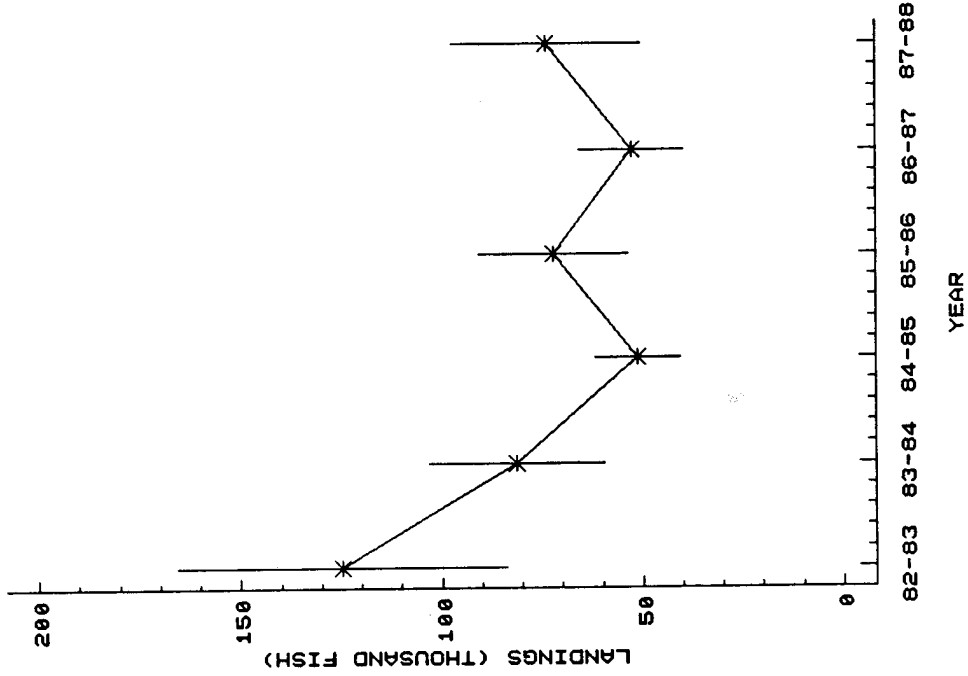


Figure 50. Coastwide annual private-boat fishing pressure ( $\pm 1$  SE) and landings ( $\pm 1$  SE) in the Exclusive Economic Zone, May 1982-May 1988.

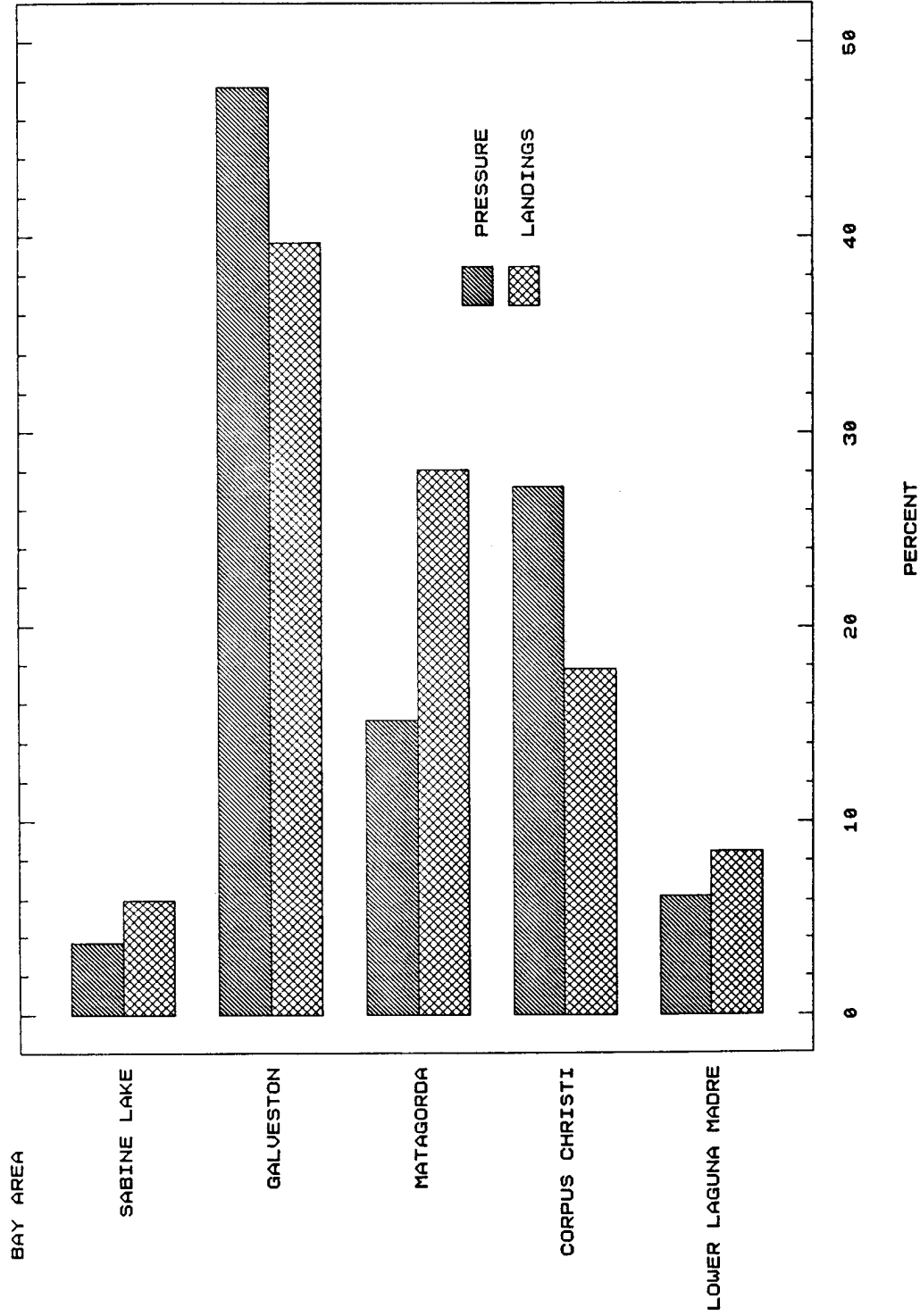


Figure 51. Percent distribution of annual Exclusive Economic Zone private-boat fishing pressure and landings among bay areas, May 1982-May 1988 (6-year mean).

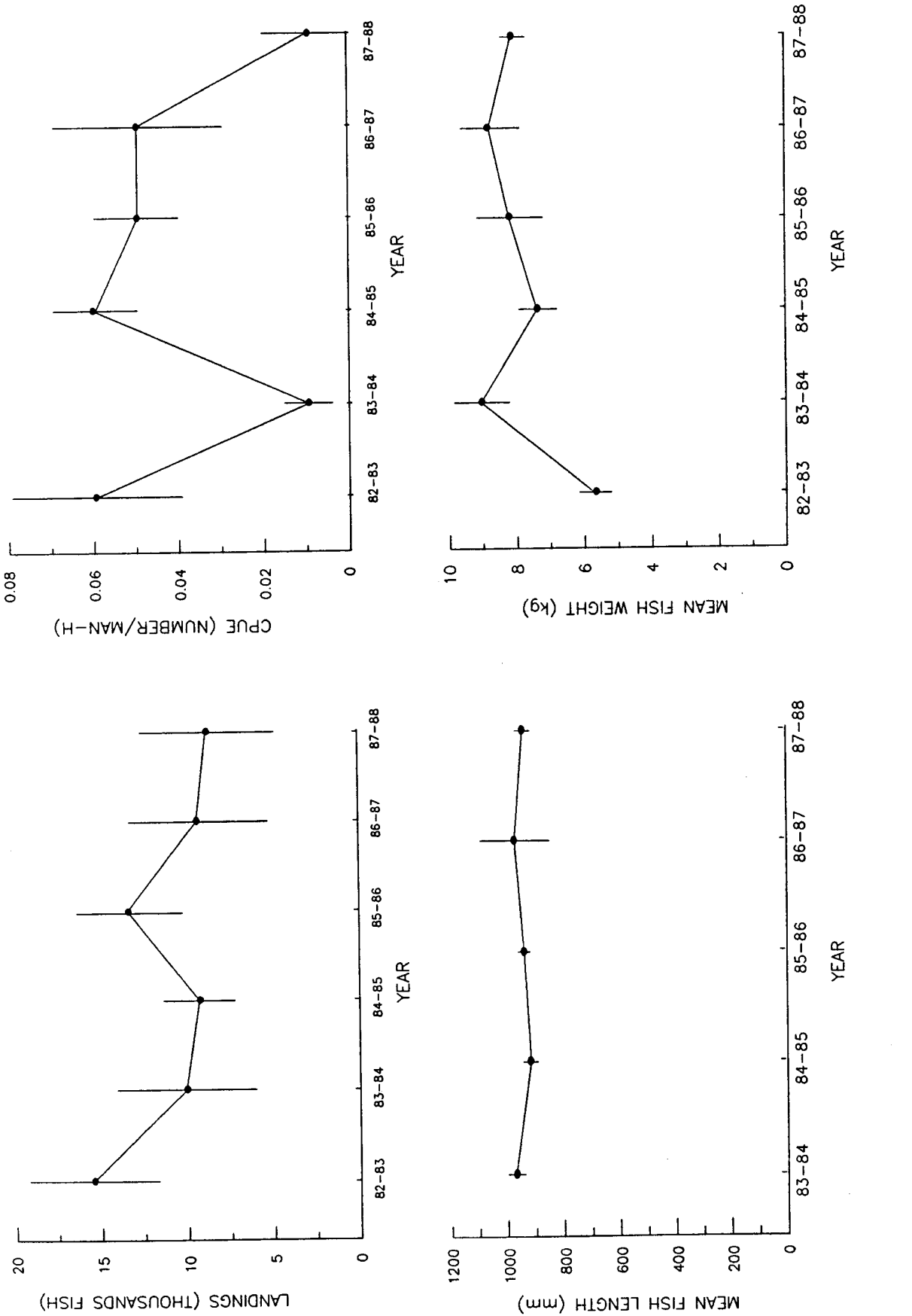


Figure 52. Coastwide annual statistics for king mackerel landed from Exclusive Economic Zone by private-boat fishermen, May 1982-May 1988.

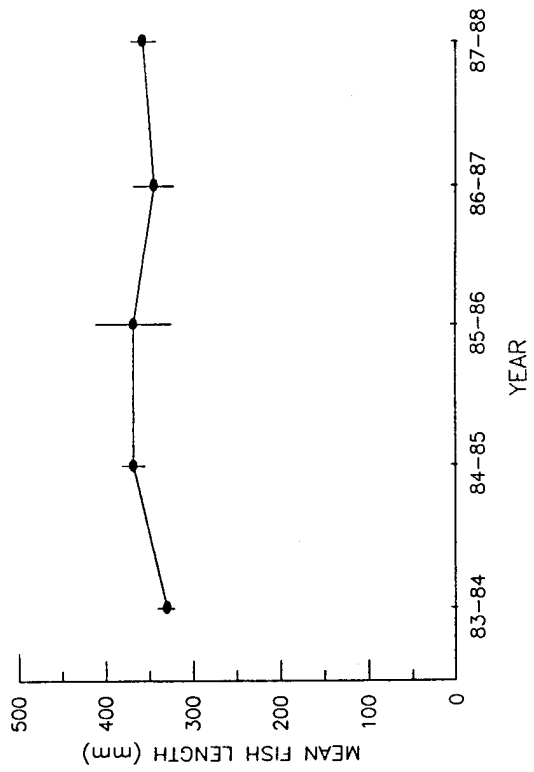
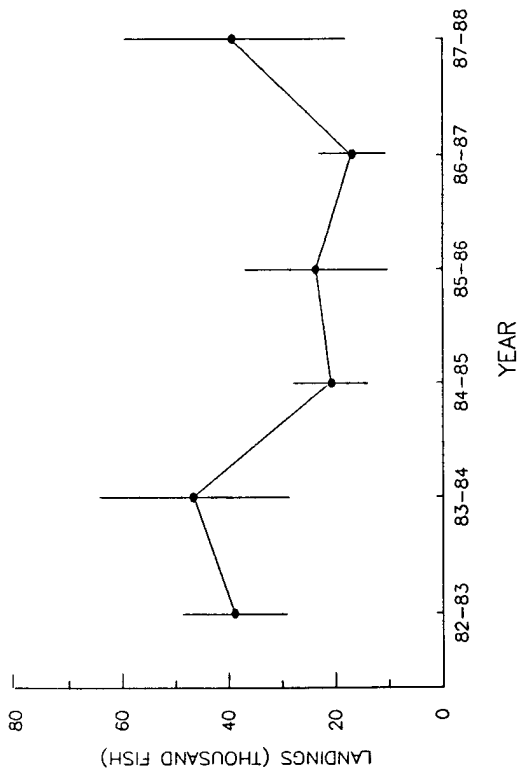
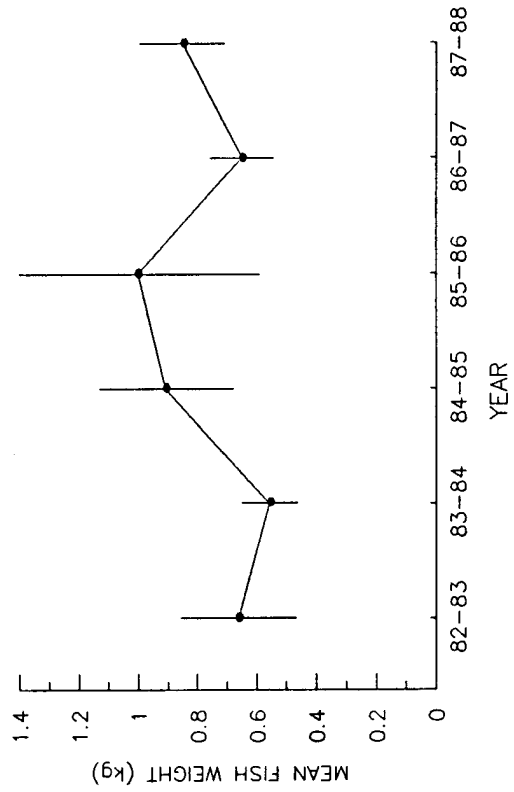
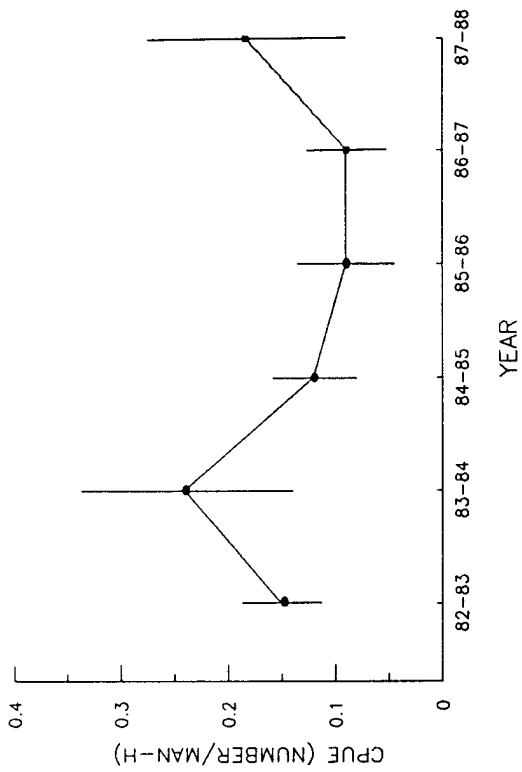


Figure 53. Coastwide annual statistics for red snapper landed from Exclusive Economic Zone by private-boat fishermen, May 1982-May 1988.

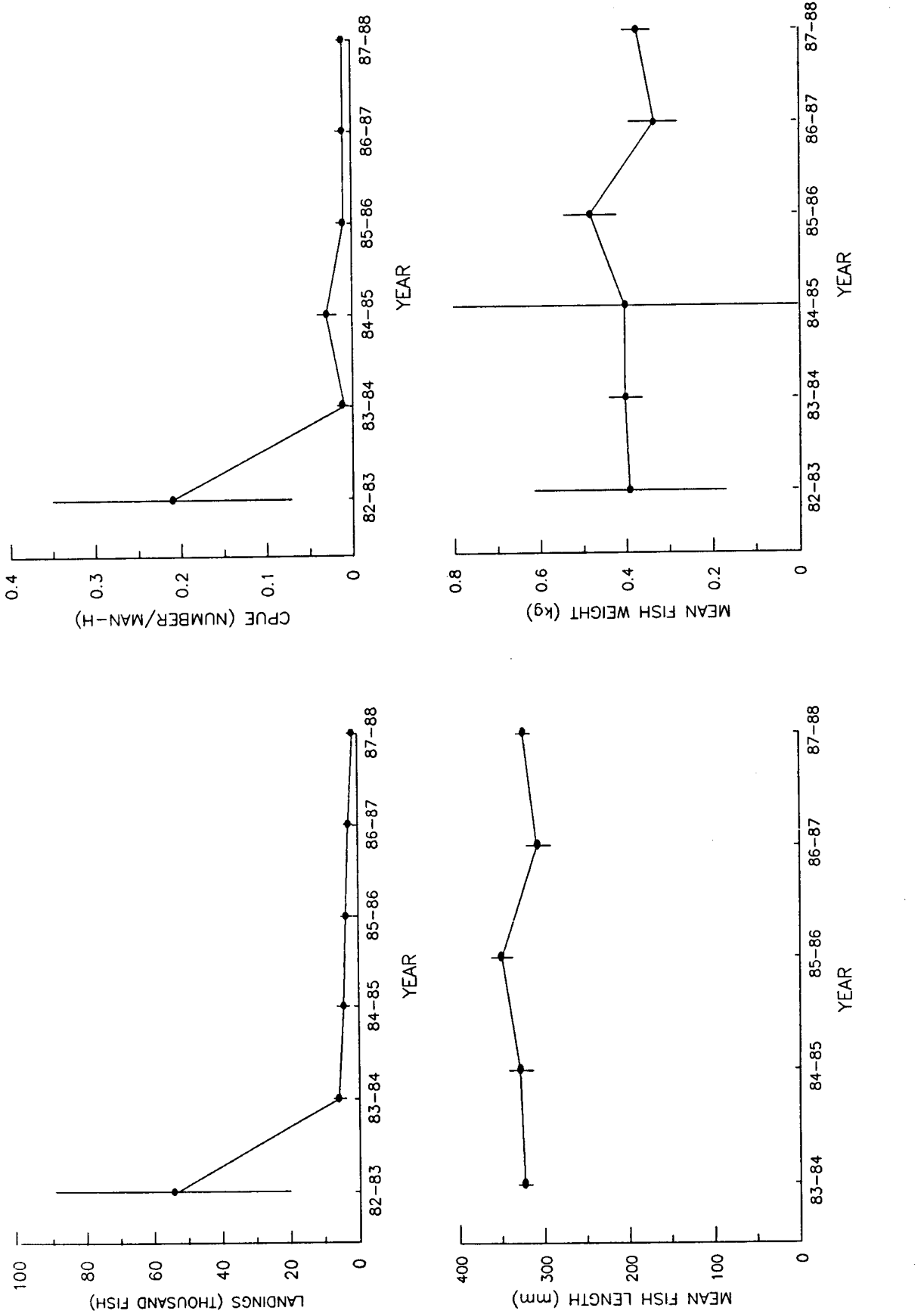


Figure 54. Coastwide annual statistics for sand seatrout landed from Exclusive Economic Zone by private-boat fishermen, May 1982-May 1988.

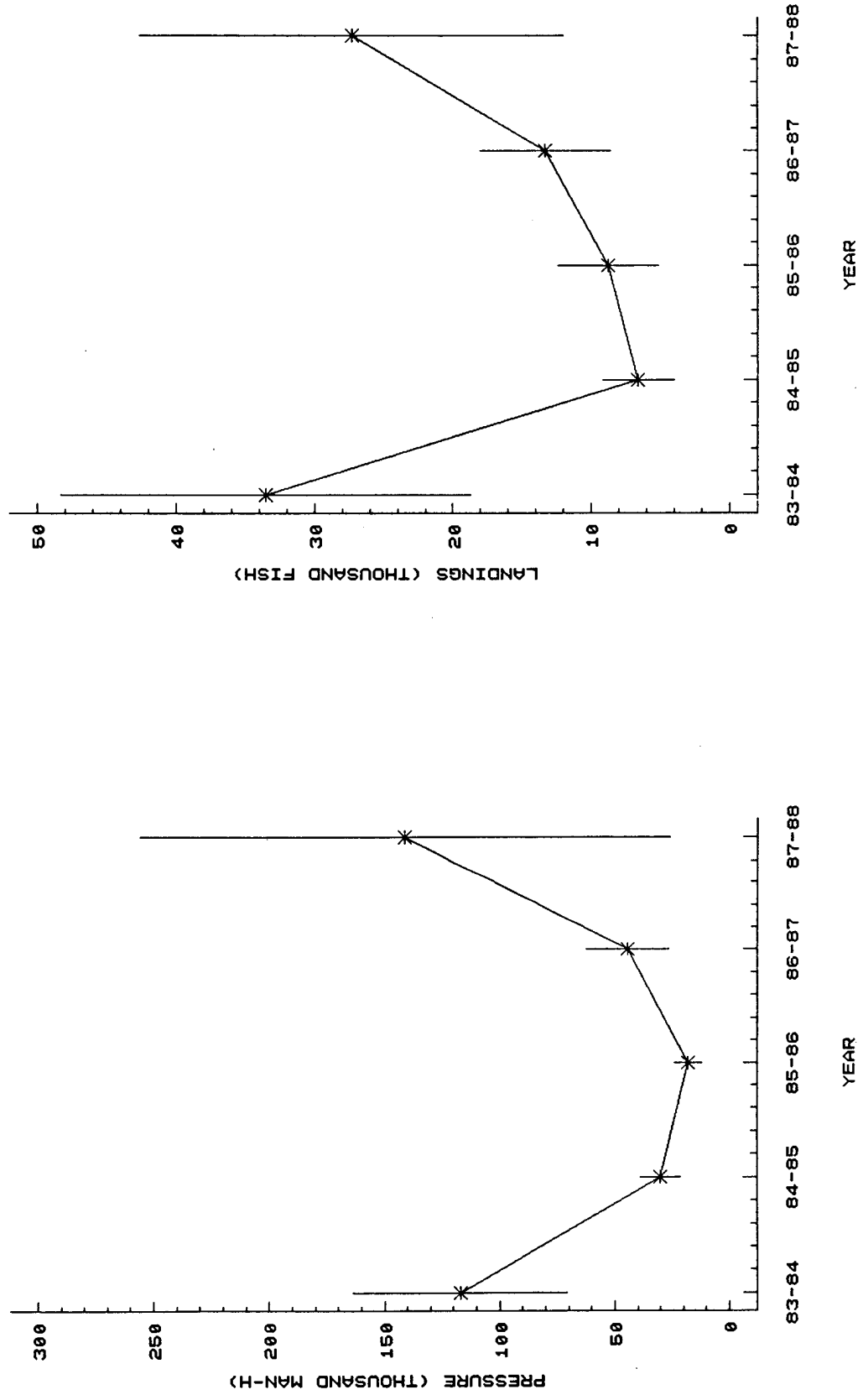


Figure 55. Coastwide annual party-boat fishing pressure ( $\pm 1$  SE) and landings ( $\pm 1$  SE) in the Exclusive Economic Zone, May 1983-May 1988.

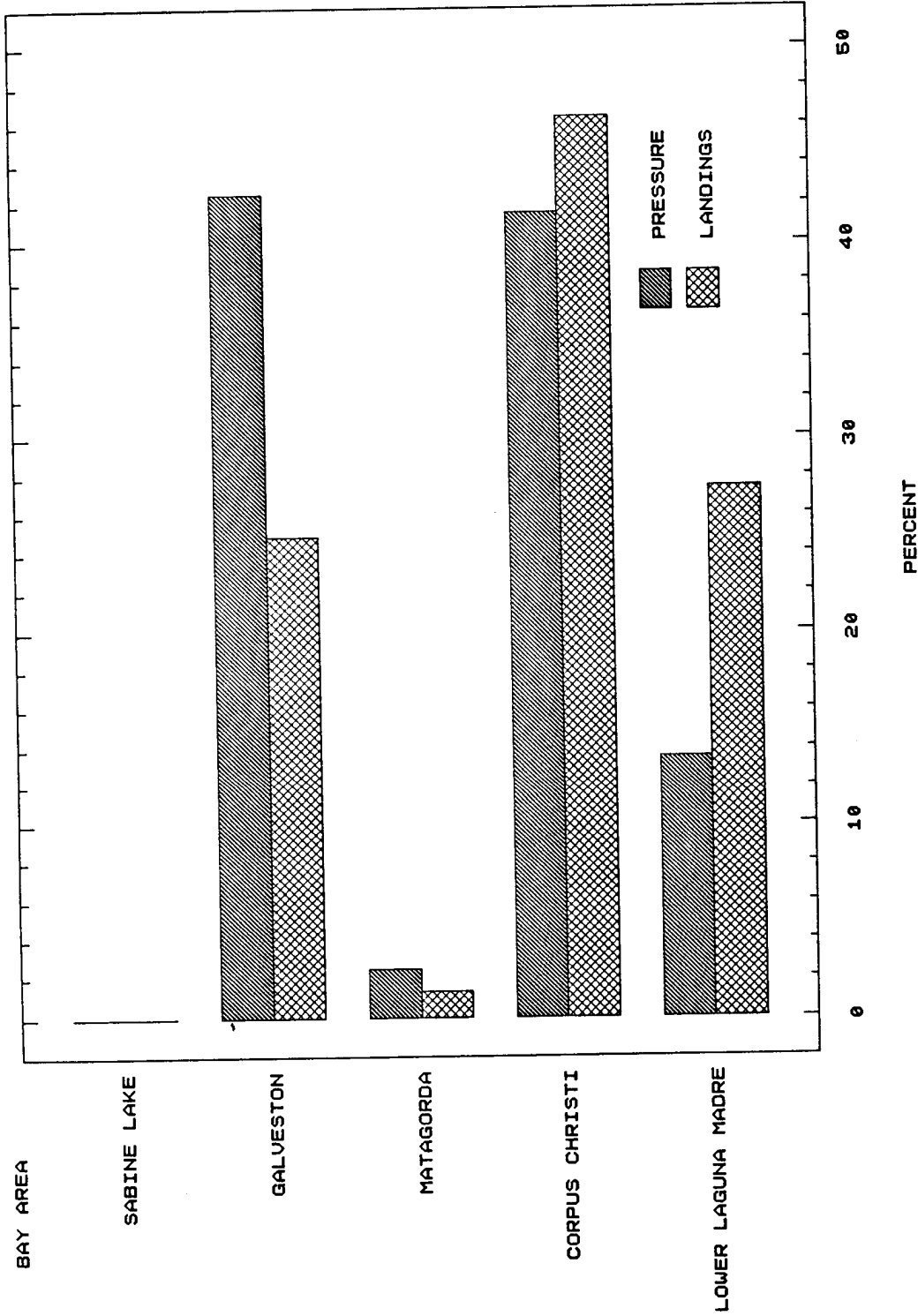


Figure 56. Percent distribution of annual Exclusive Economic Zone party-boat fishing pressure and landings among bay areas, May 1983-May 1988 (5 year mean).

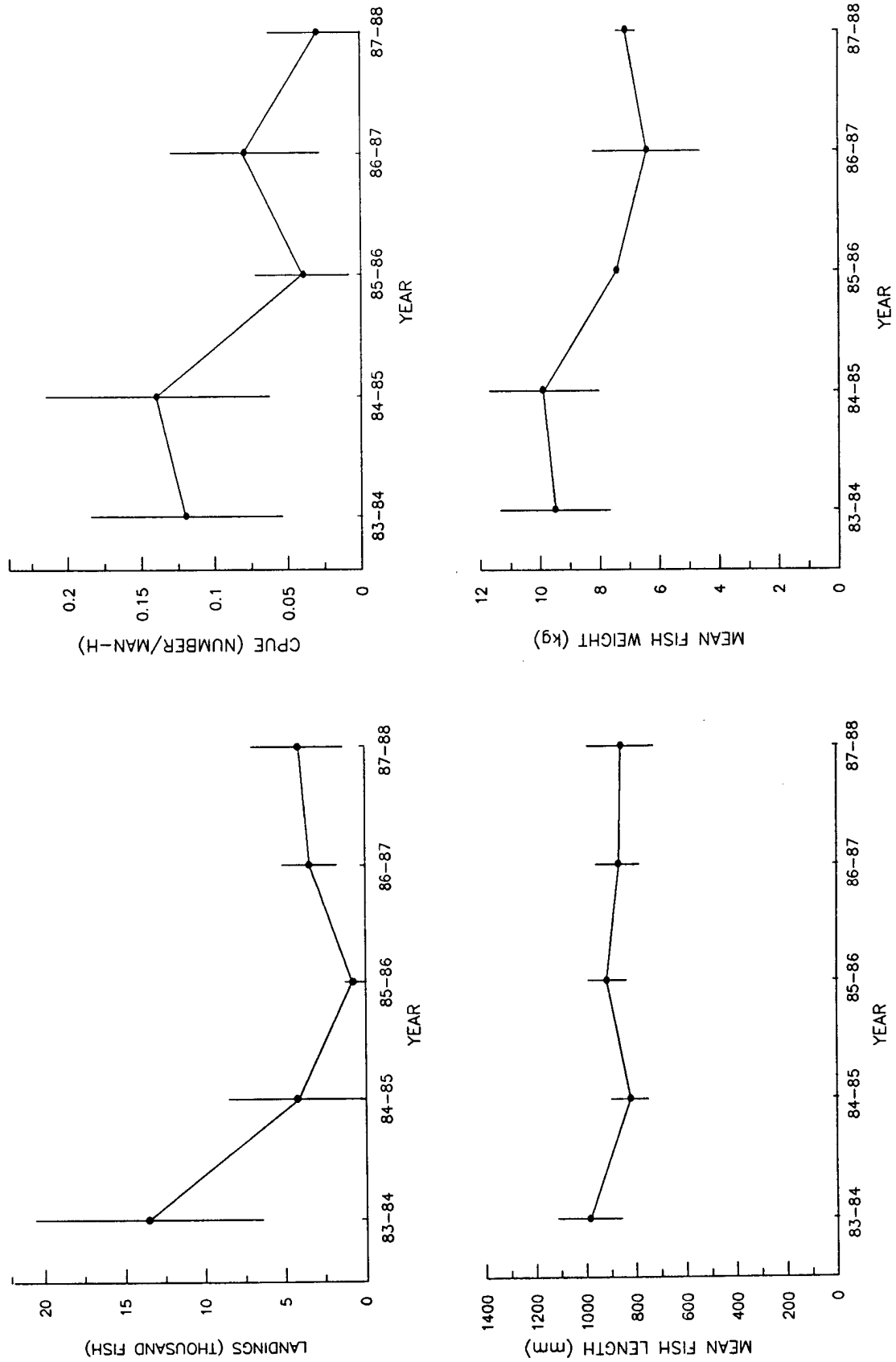


Figure 57. Coastwide annual statistics for king mackerel landed from Exclusive Economic Zone by party-boat fishermen, May 1983-May 1988.



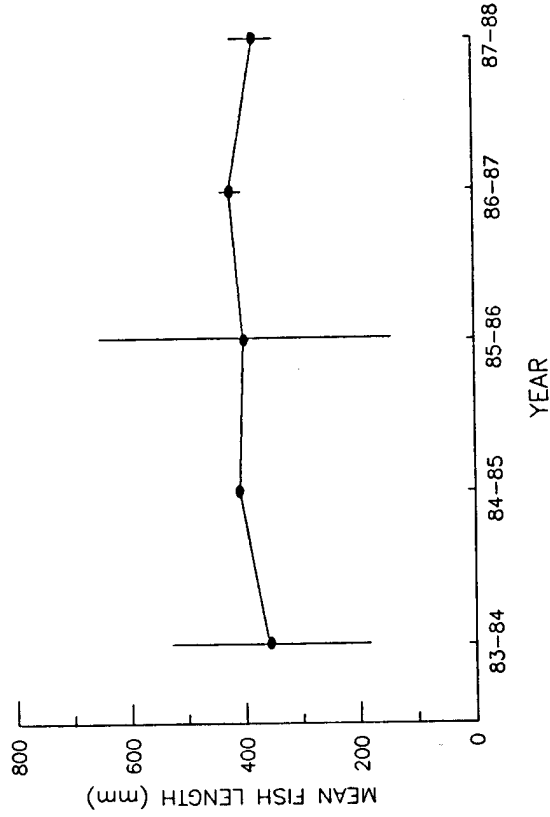
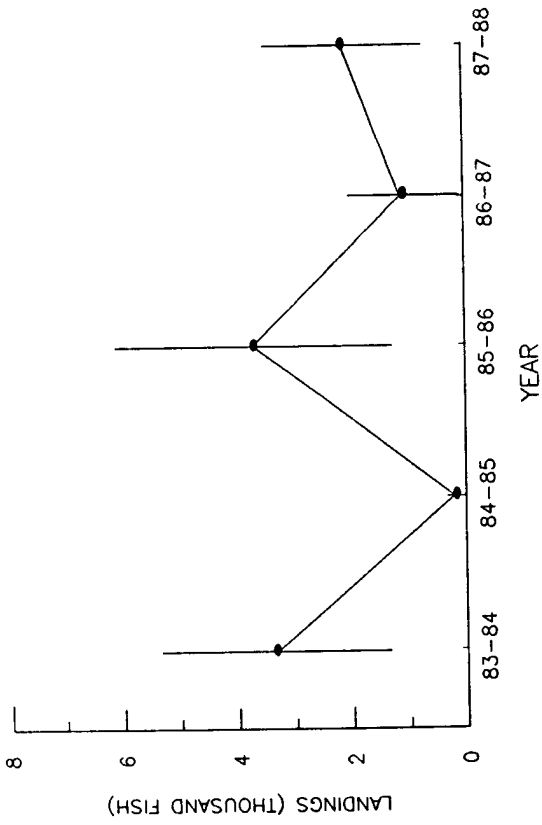
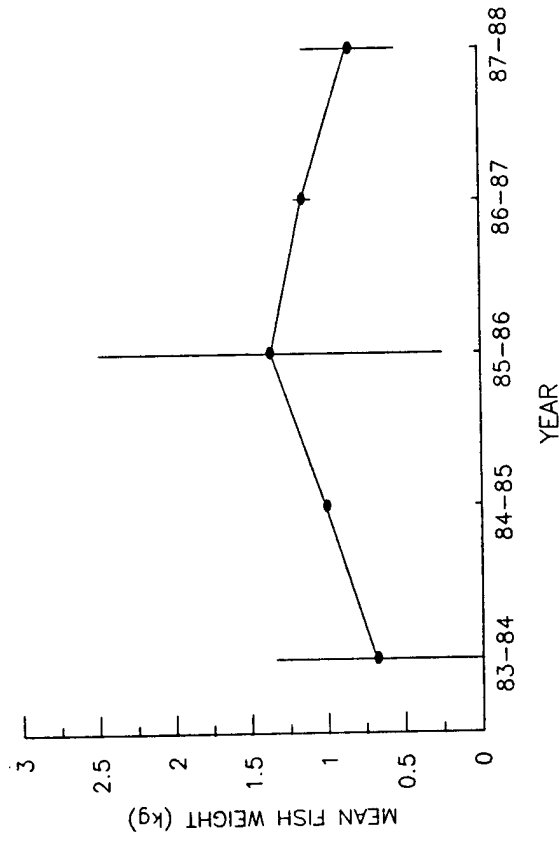
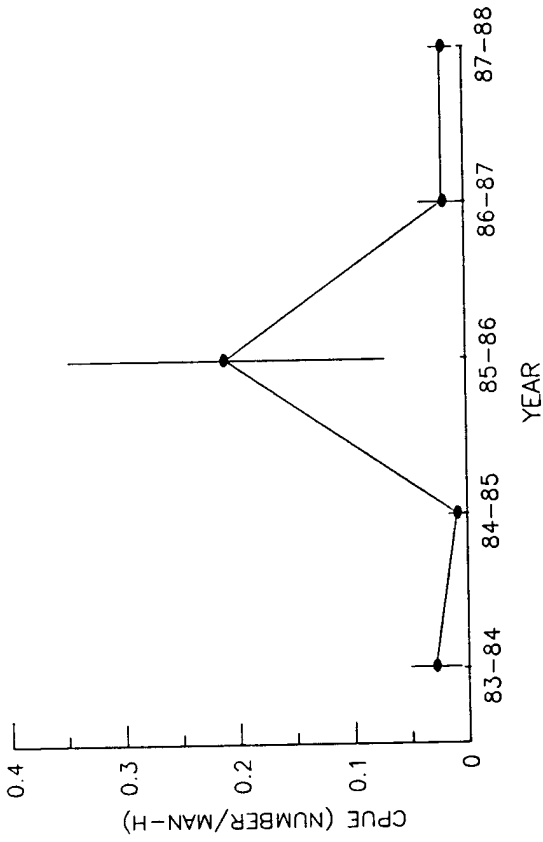


Figure 58. Coastwide annual statistics for red snapper landed from Exclusive Economic Zone by party-boat fishermen, May 1983-May 1988.

**Appendix A: Pass descriptions.**

## PASS DESCRIPTIONS

Prior to May 1983, pass fishing was defined as having fished gulfward of the surfline but within 1.6 km of an "open" pass. Gulf fishing included fishing in the TTS and the EEZ. Beginning May 1983, passes were specifically defined as follows:

## Sabine Lake

Sabine Pass is the area between the bridge on Highway 82 to 1.6 km gulfward of the end of the jetties.

## Galveston Bay

Rollover Pass is the area between the junction with Rollover Bay, extending 1.6 km gulfward of the surf line.

Bolivar Roads is the area east of a line between the ferry landings in Port Bolivar to a range marker at the Coast Guard Station at Fort Point and 1.6 km gulfward of the end of the jetties.

San Luis Pass is the area 0.8 km bayward and 1.6 km gulfward off the Vacek Bridge.

Quintana Channel is the area between the Intracoastal Waterway southeast to 1.6 km gulfward of the end of the jetties.

## Matagorda Bay

Brown Cedar Cut is the area between the mainland and Matagorda Peninsula, extending southeast 1.6 km gulfward of the surf line.

Matagorda Ship Channel is the area from Marker 13 southeast to 1.6 km gulfward of the end of the jetties.

Pass Cavallo is the area south of a line between Decros Point and Saluria Bayou to 1.6 km gulfward of a line between Marker 13 and the Matagorda Lighthouse on Matagorda Island.

## Aransas/Corpus Christi Bay Area

Cedar Bayou is the area between a line from Cedar Point southeast to the point of land on Matagorda Island out to 1.6 km gulfward of the surf line, including Vincent's Slough.

Aransas Pass is the area between a line from the range marker on San Jose Island to the Radio Beacon Tower out to 1.6 km gulfward of the end of the jetties.

Water Exchange Channel (Corpus Christi Fish Pass) is the area through Mustang Island between the junction of Corpus Christi Bay and 1.6 km gulfward of the surf line.

#### Upper Laguna Madre

Old Corpus Christi Pass is the area through Mustang Island between the junction with the upper Laguna Madre 1.6 km gulfward of the surf line.

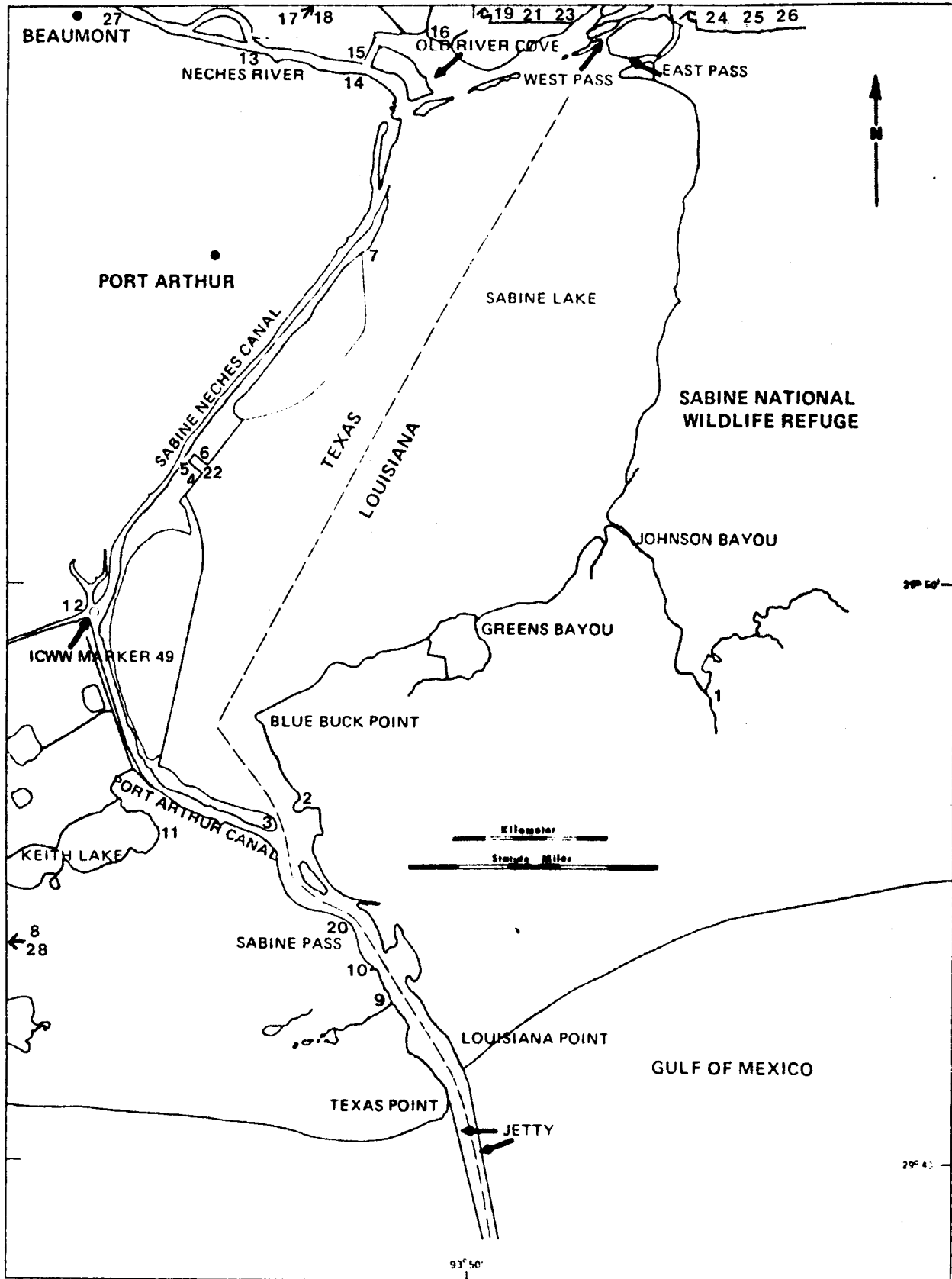
#### Lower Laguna Madre

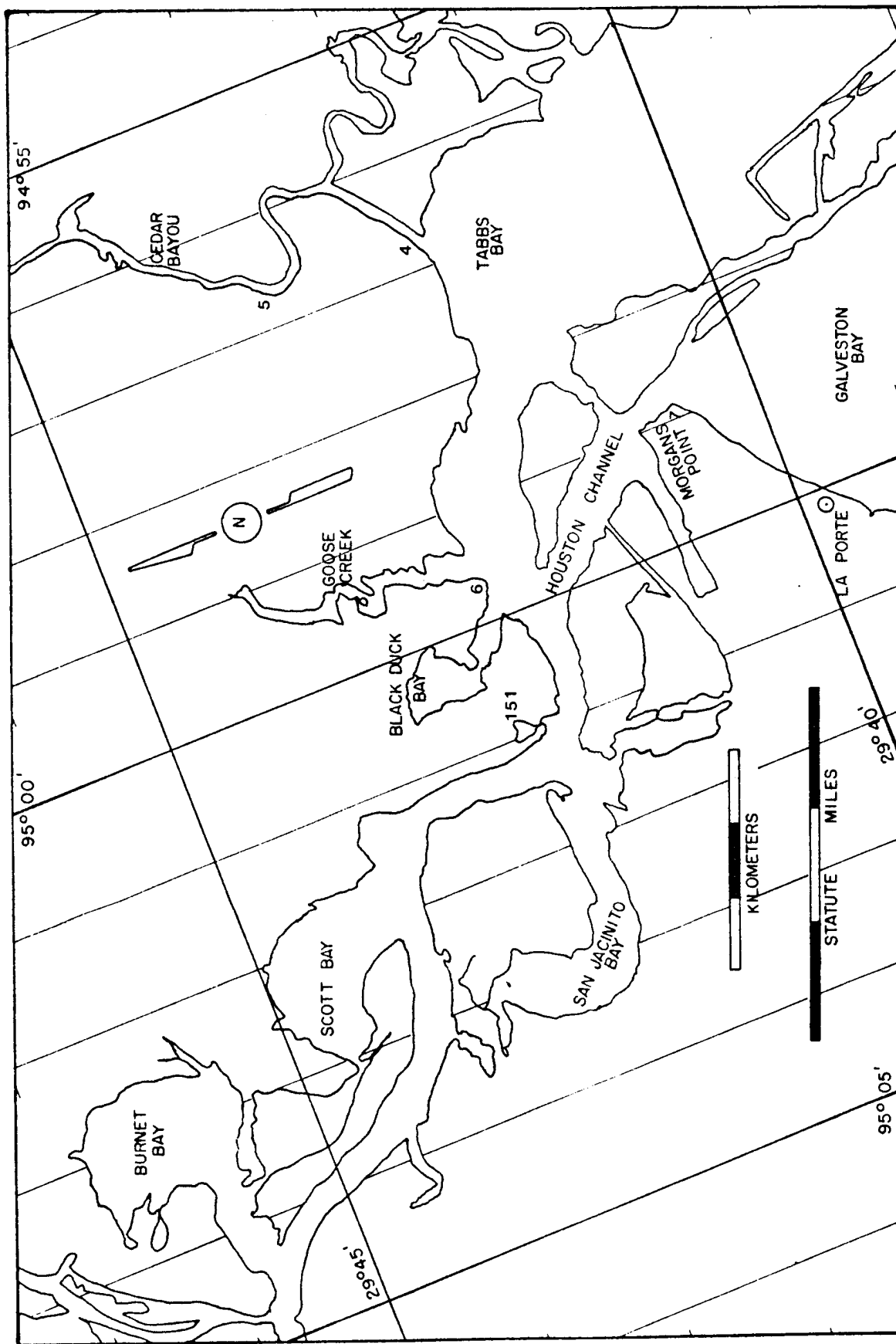
Mansfield Pass is the area extending from Marker 12 to 1.6 km gulfward of the end of the jetties.

Brazos Santiago Pass is the area between a line from the Radio Beacon area south to Brazos Island out to 1.6 km gulfward of the end of the jetties.

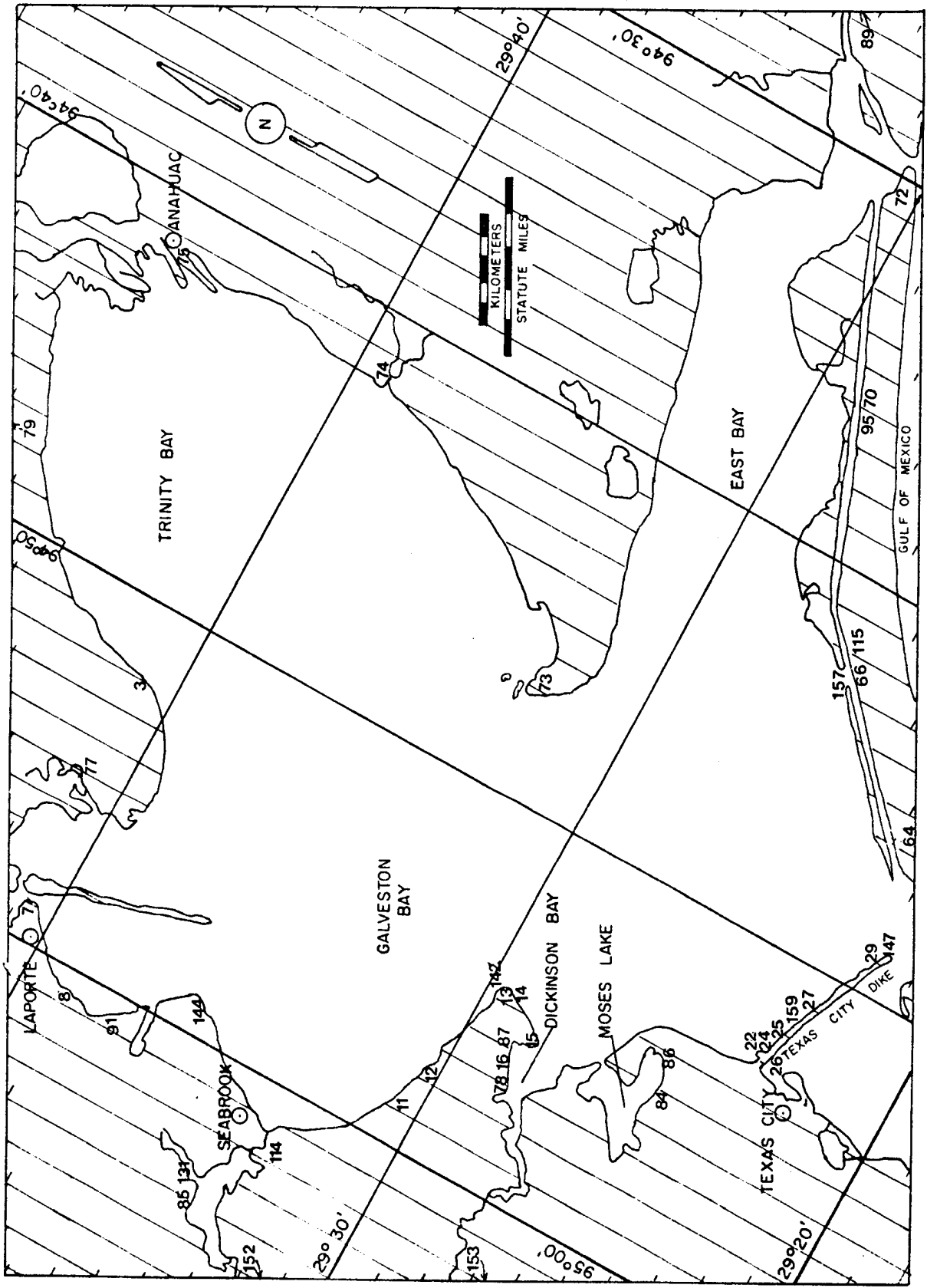
Appendix B: Survey site inventory.

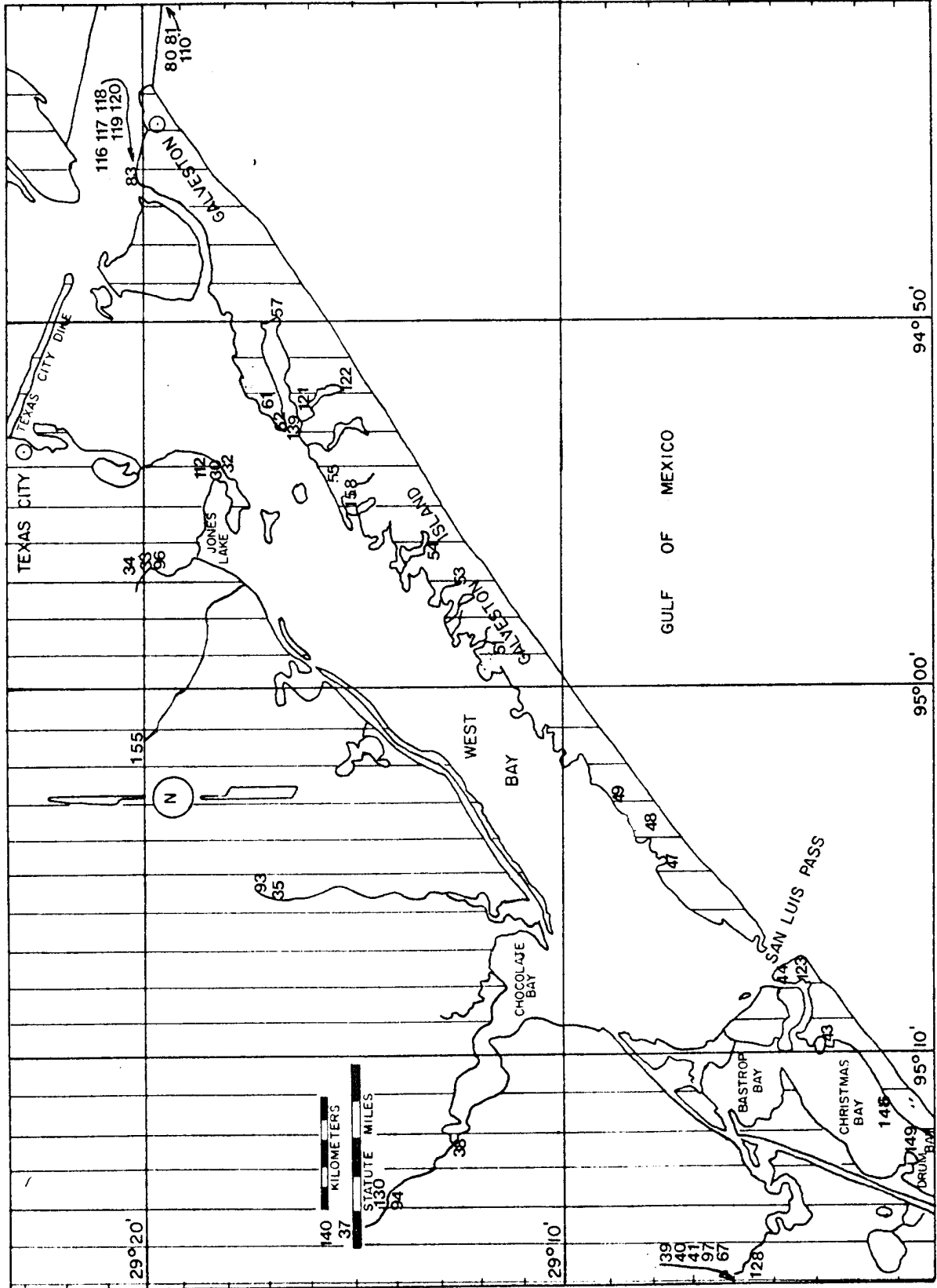
- Figure B.1. Boat access sites in the Sabine Lake system (May 1987-May 1988).
- Figure B.2. Boat access sites in the Galveston Bay system (May 1974- May 1988).
- Figure B.3. Boat access sites in the Galveston Bay system (May 1974-May 1988).
- Figure B.4. Boat access sites in the Galveston Bay system (May 1974-May 1988).
- Figure B.5. Boat access sites in the Galveston Bay system (May 1974-May 1988).
- Figure B.6. Boat access sites in the Matagorda Bay system (May 1974-May 1988).
- Figure B.7. Boat access sites in the Matagorda Bay system (May 1974-May 1988).
- Figure B.8. Boat access sites in the San Antonio Bay system (May 1974-May 1988).
- Figure B.9. Boat access sites in the Aransas Bay system (May 1974-May 1988).
- Figure B.10. Boat access sites in the Corpus Christi Bay system (May 1974-May 1988).
- Figure B.11. Boat access sites in the upper Laguna Madre system (May 1974-May 1988).
- Figure B.12. Boat access sites in the lower Laguna Madre system (May 1974-May 1988).
- Figure B.13. Boat access sites in the lower Laguna Madre system (May 1974-May 1988).

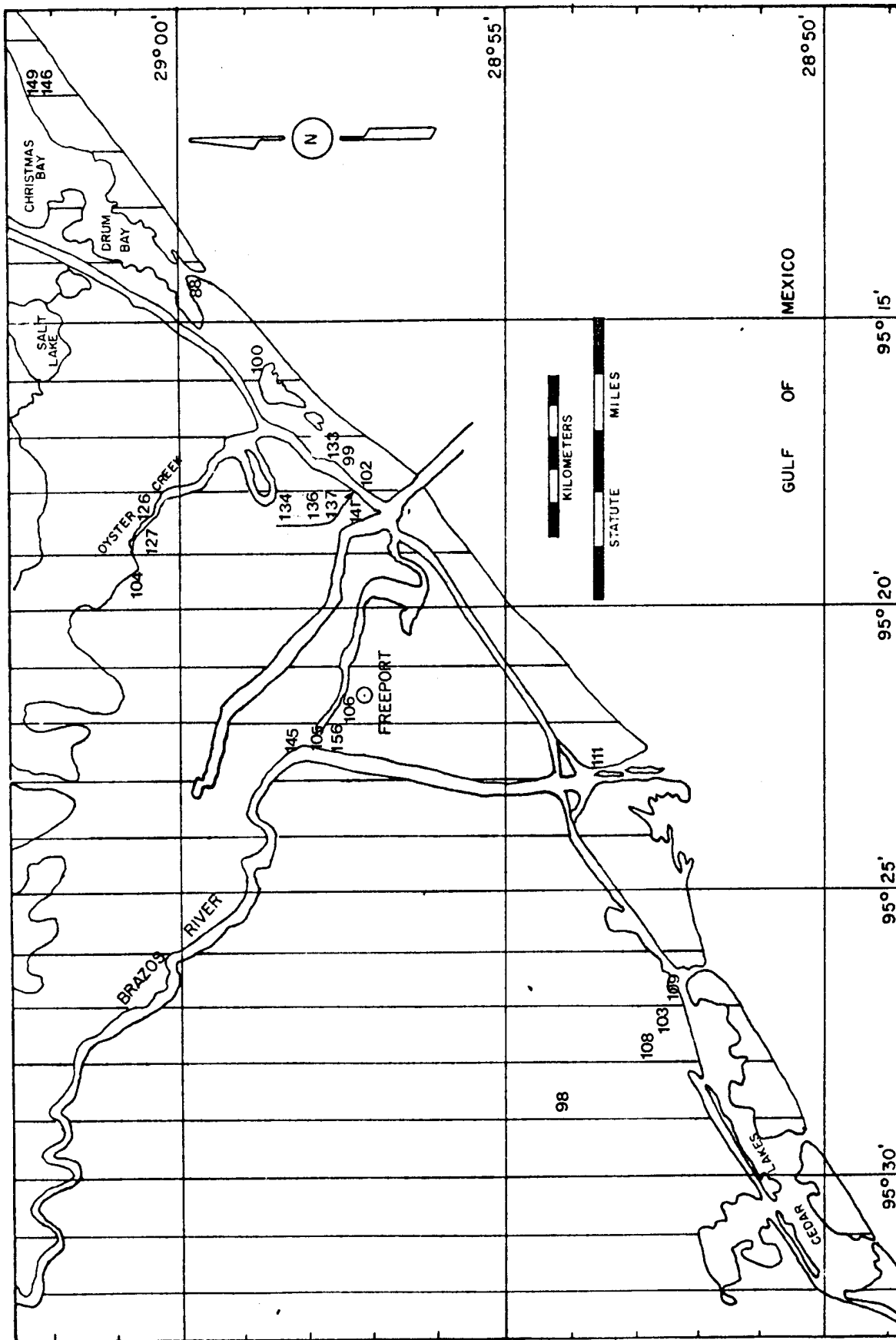


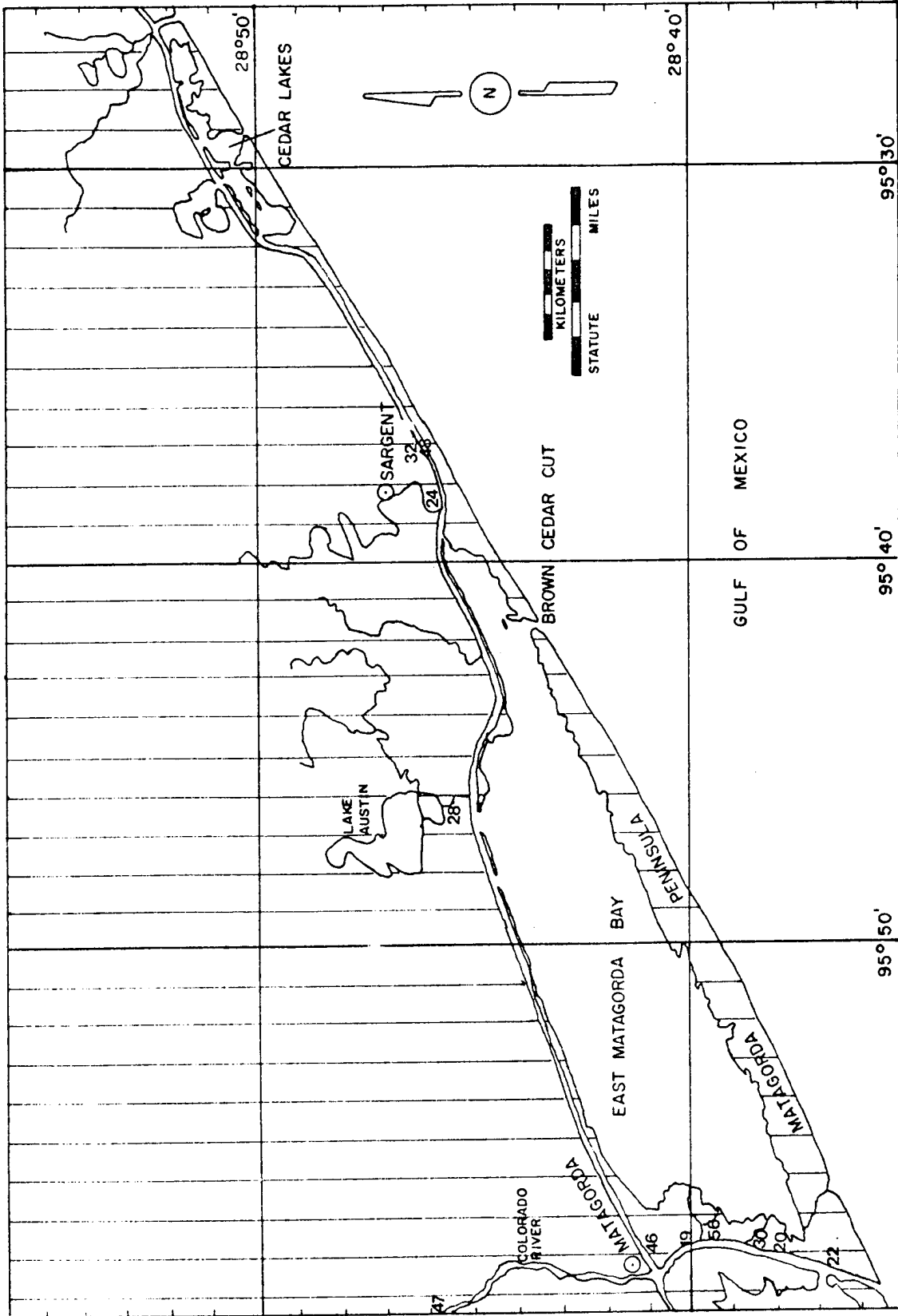


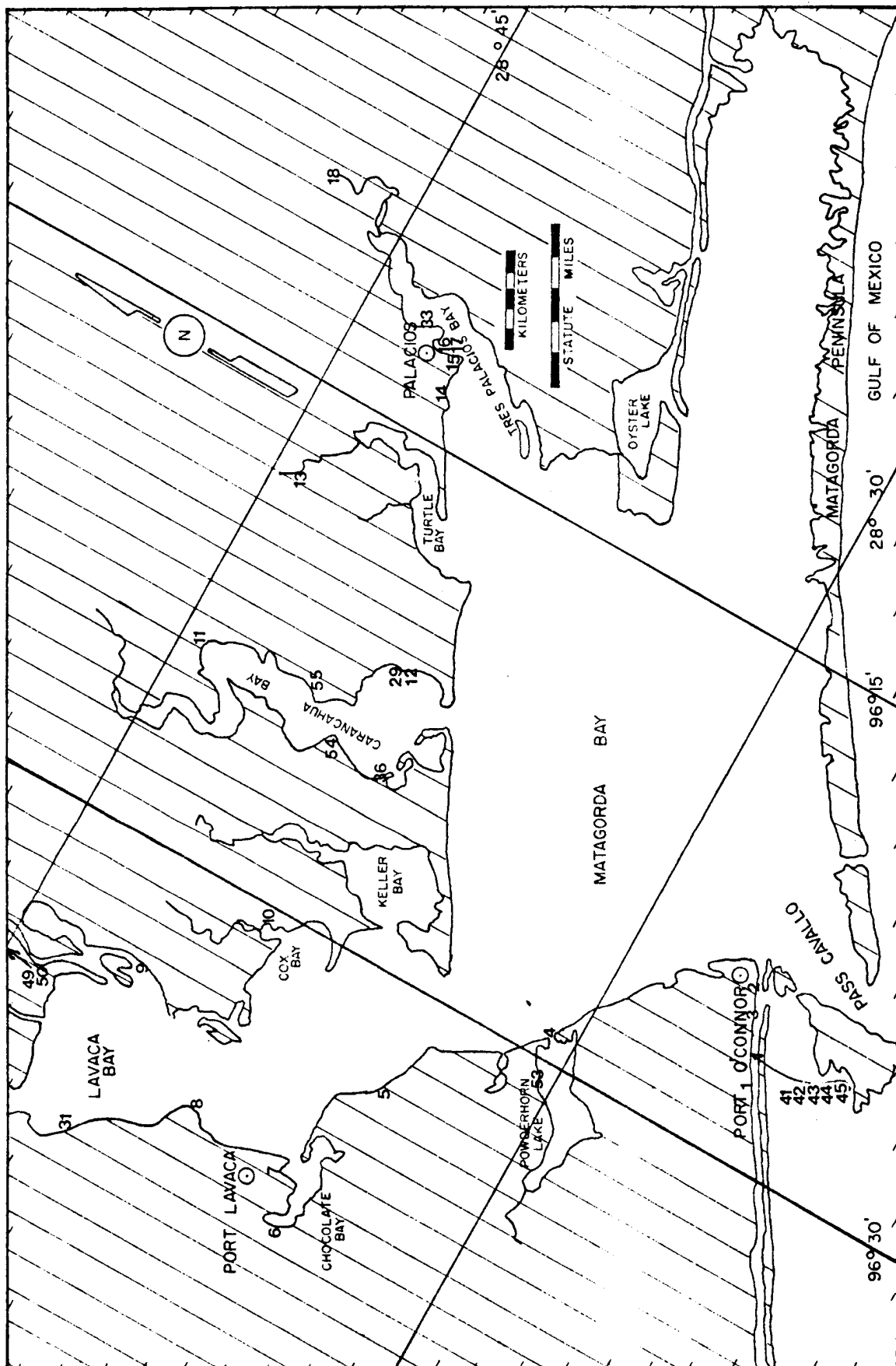


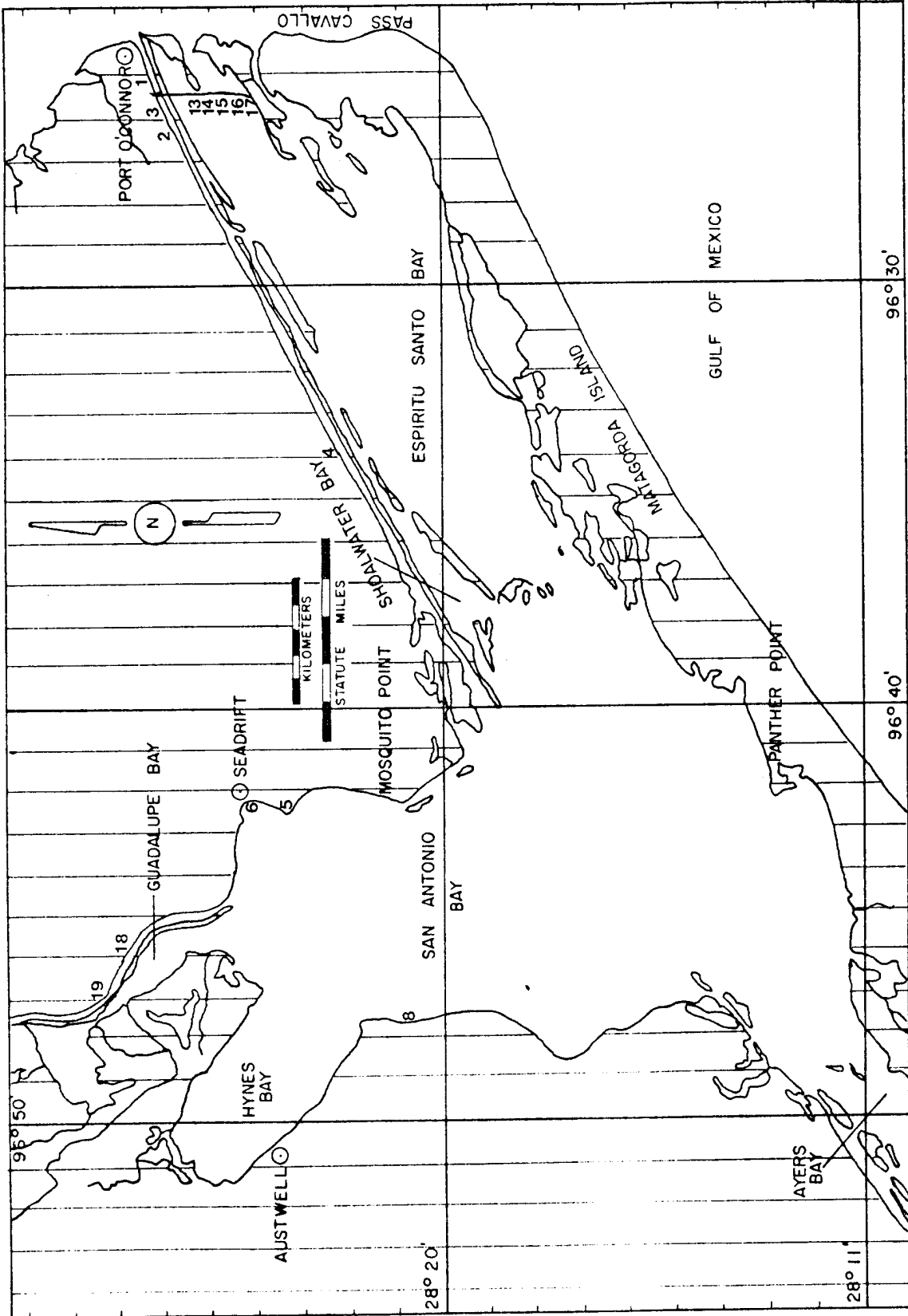


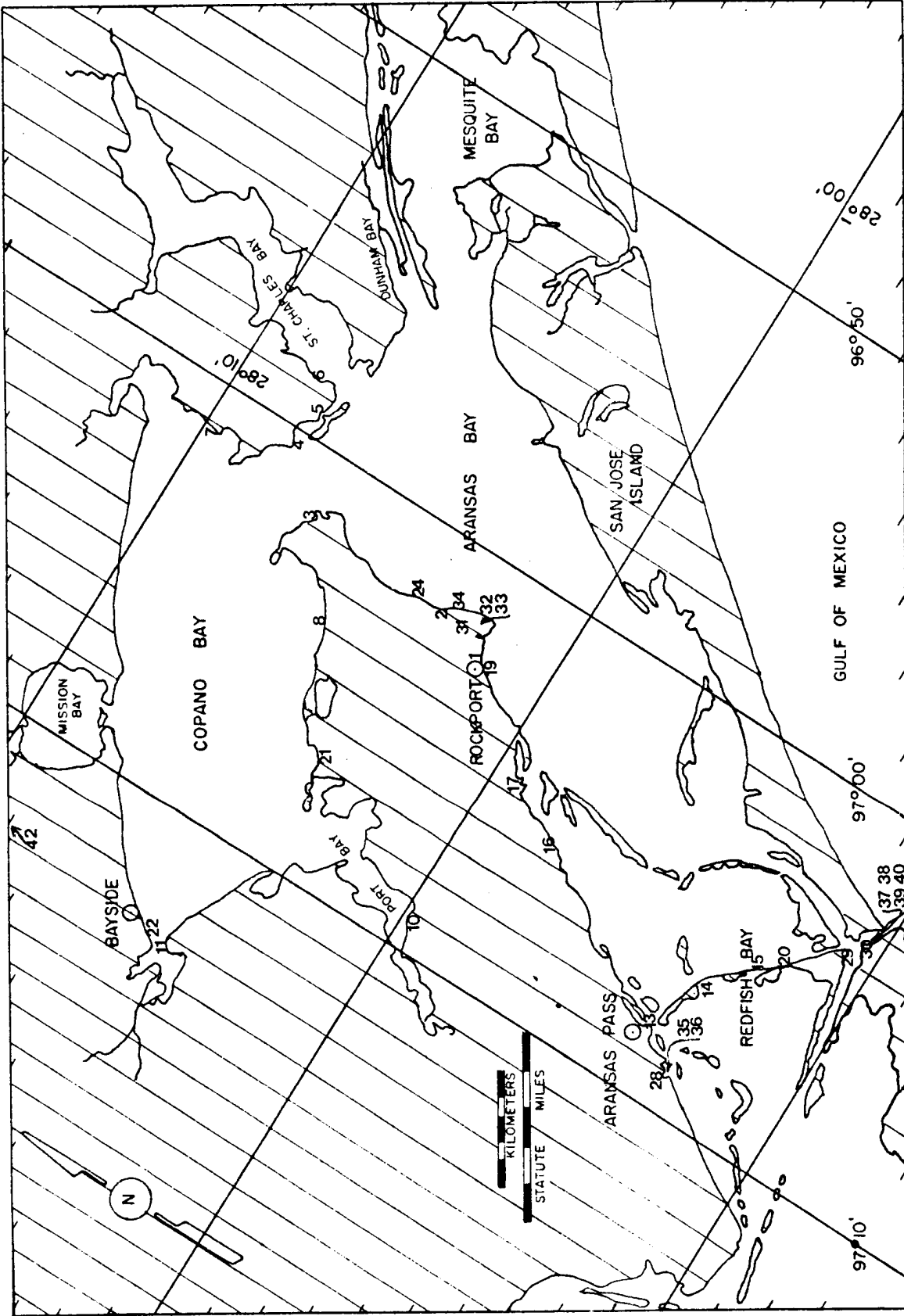


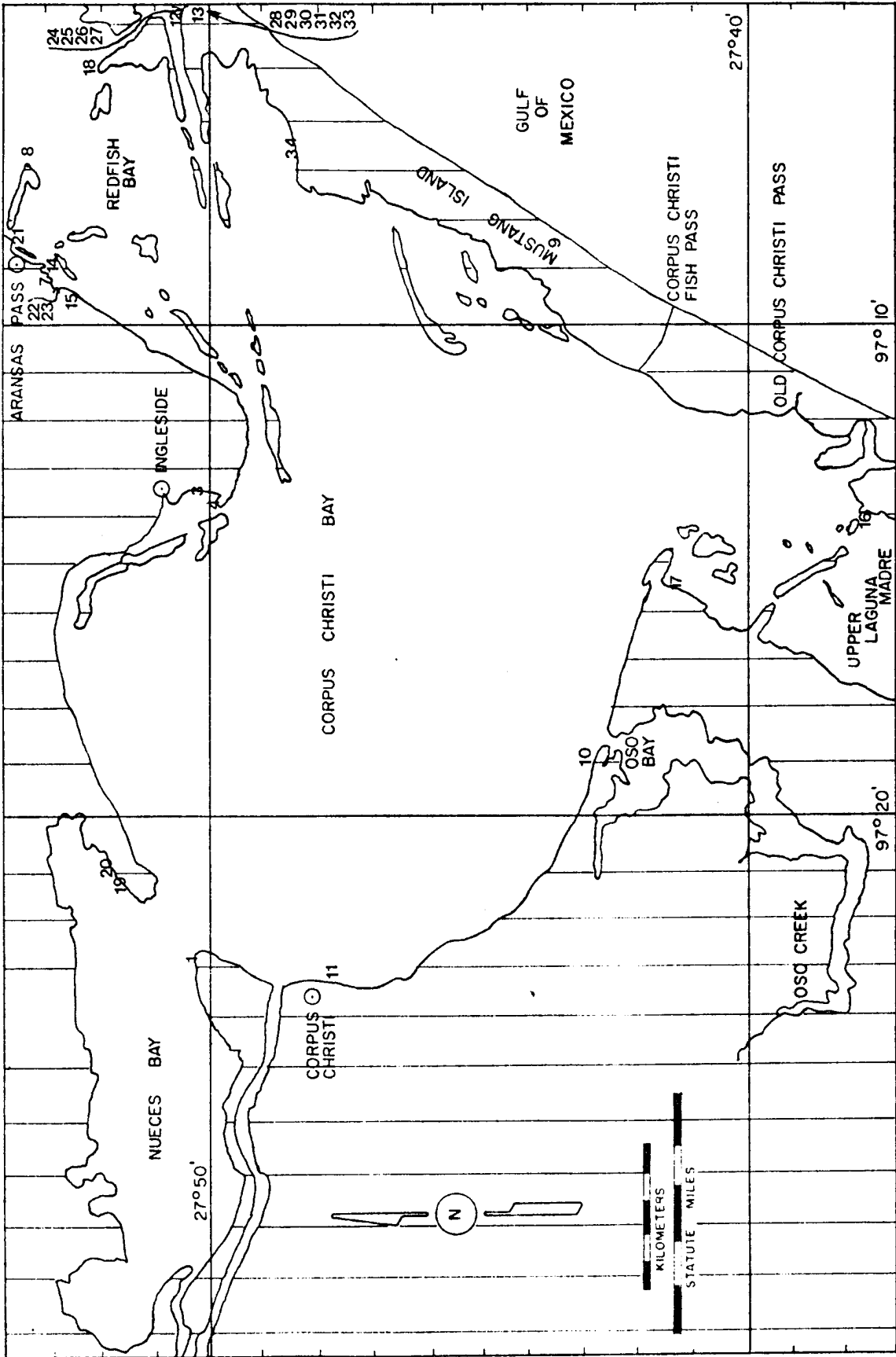




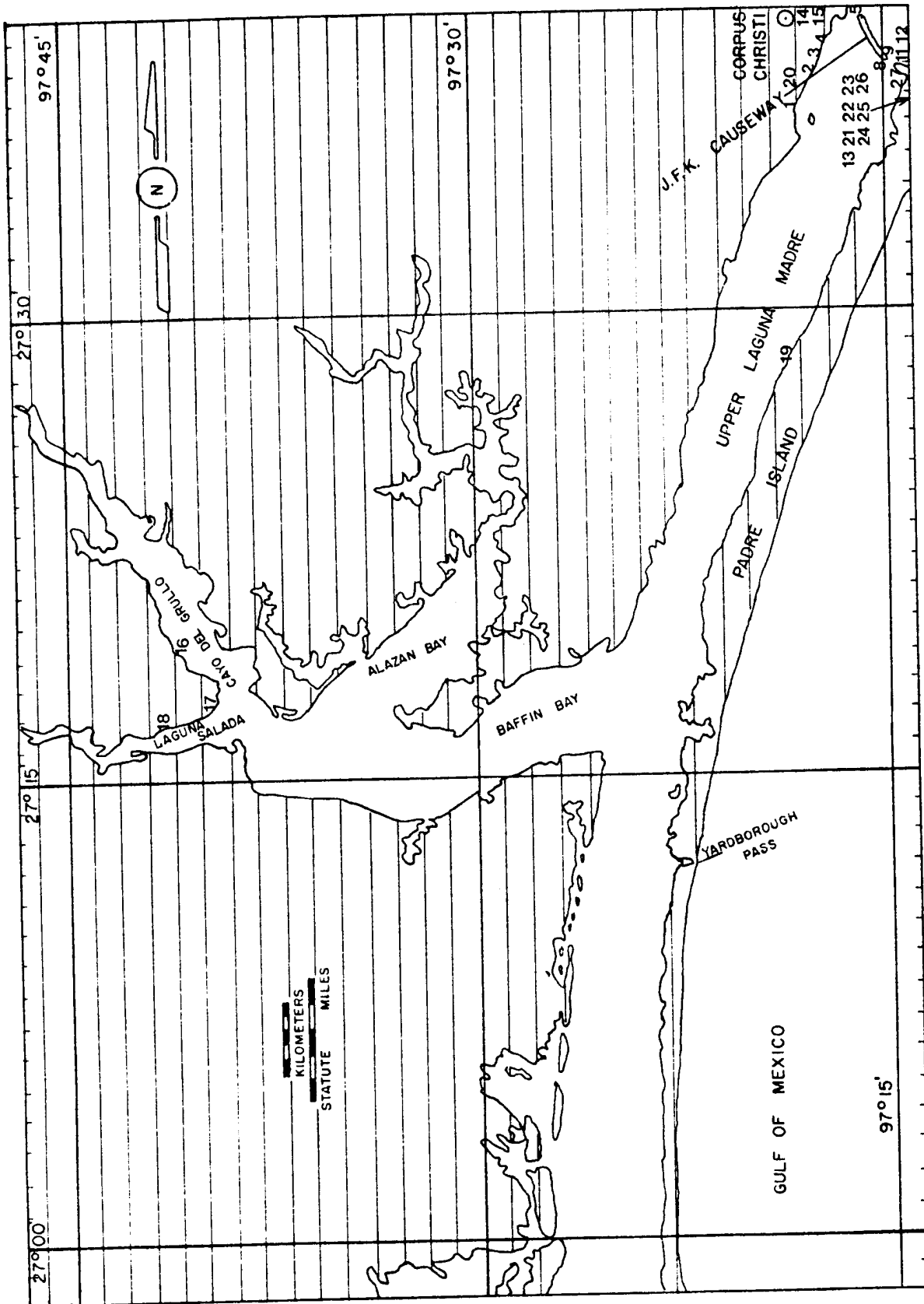


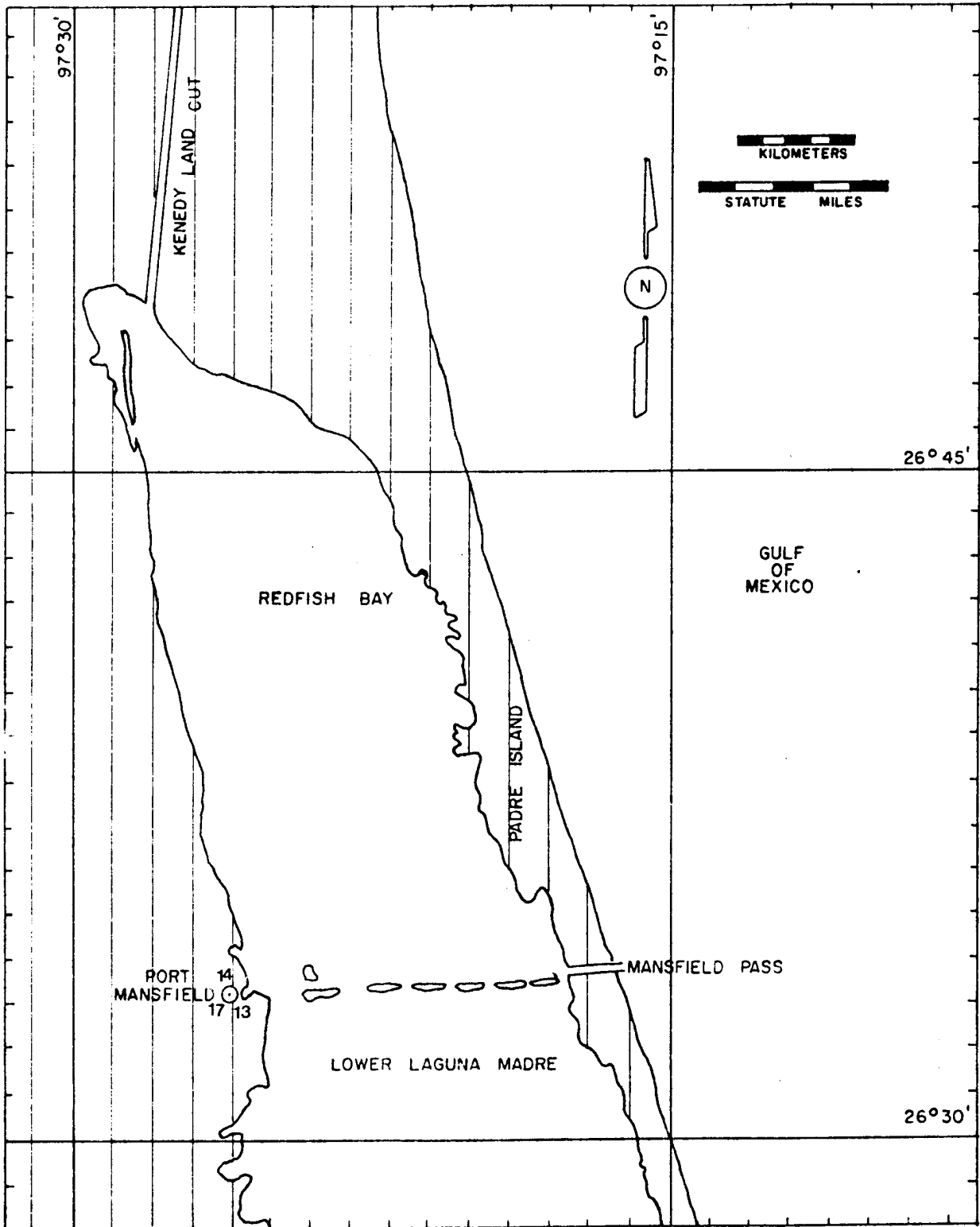












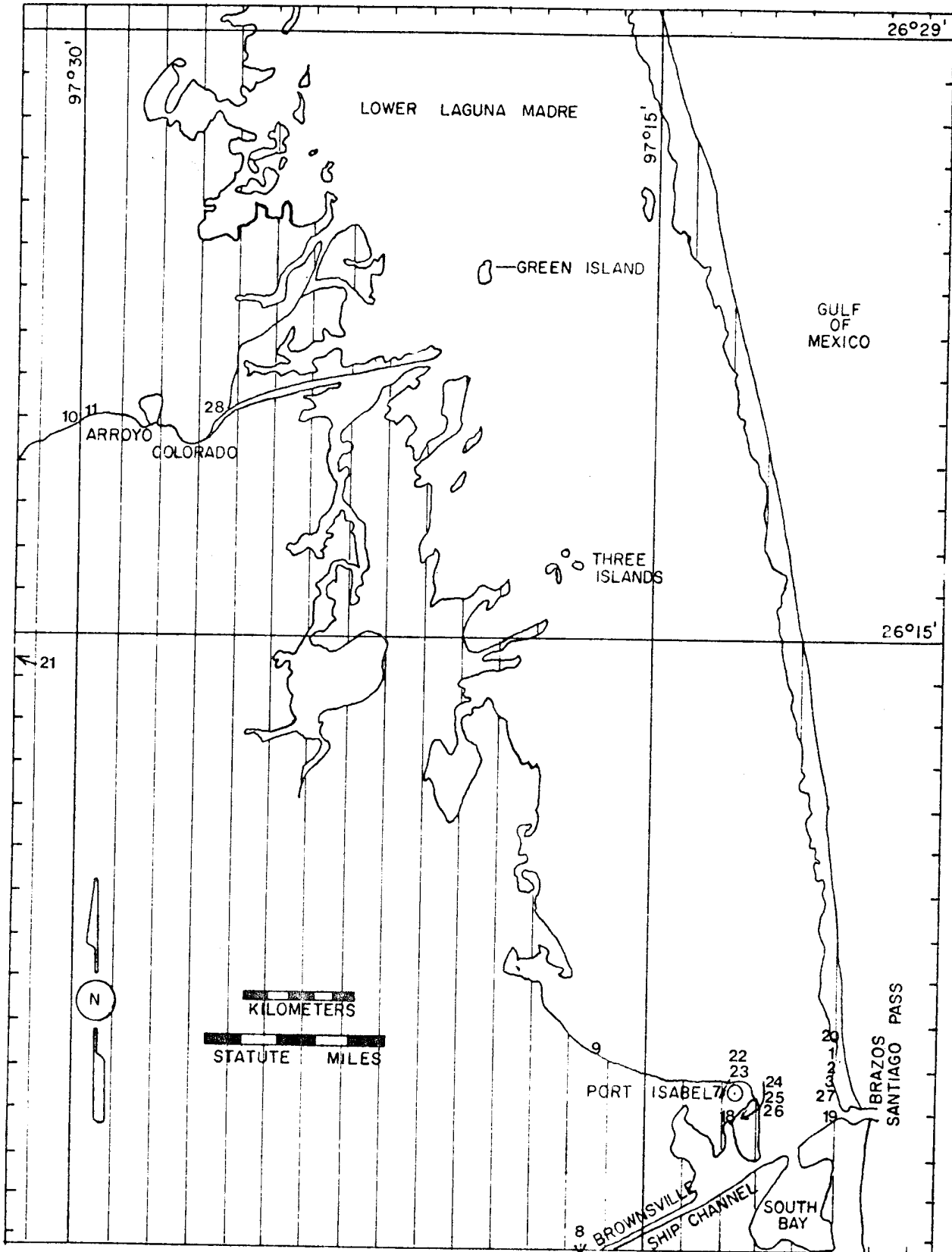


Table B.1. Boat-access sites in Texas bay systems (May 1974-May 1988). Bold type designates sites with wet slips or dry storage.

Bay system	Minor bay	Site number		Latitude	Longitude	Site identification
		In use	Deleted			
Sabine Lake	700	1		29°48'02"	93°45'11"	Johnson's Landing
	700	2		29°46'01"	93°53'35"	Lake Sabine Causeway Ramp B (Louisiana side)
	700	3		29°45'53"	93°53'58"	Lake Sabine Causeway Ramp A (Texas side)
	700	4		29°51'59"	93°55'33"	Pleasure Island Marina (Dock F&G) (includes 88 wet slips)
	700	5		29°51'59"	93°55'33"	Pleasure Island Marina (Dock A) (includes 59 wet slips)
	700	6		29°52'02"	93°55'19"	Pleasure Island Public Ramp
	700	7		29°55'31"	93°52'17"	North Levy Ramp
	714	8		29°41'14"	94°02'16"	Searim Park
	714	9		29°42'36"	93°51'36"	George's Landing
	714	10		29°43'59"	93°52'20"	Battleground Ramp
	701	11		29°45'35"	93°56'12"	Keith Lake
	714	12		29°49'29"	93°57'53"	Public Ramp
	700	13		29°59'48"	93°57'07"	Port Neches Park
	700	14		29°58'42"	93°52'20"	Carpel's Ramp
	700	15		29°59'45"	93°52'07"	Rainbow Bridge
	700	16		29°59'02"	93°50'23"	Bailey's Fish Camp
	700	17		30°02'17"	93°47'35"	LeBlanc's
	700	18		30°03'52"	93°44'55"	Orange Yacht club (includes 7 wet slips)
	700	19		30°03'48"	93°44'55"	River Road Marina (includes 4 wet slips)
	700	20		29°44'21"	93°53'22"	Broadway Public Ramp
	700	21		30°03'56"	93°44'51"	Lottie's Landing
	700	22		29°51'59"	93°55'33"	Pleasure Island Marina Ramp
	700	23		30°02'42"	93°49'16"	Toups Marina
	700	24		30°02'14"	93°47'43"	Firestone Club
					<b>Boat trailers at non-designated ramps</b>	
Galveston						(Cedar Bayou Outflow - Deleted 12/1/77)
			(1)			(Woodall's - Deleted 7/26/81)
			(2)			Crawleys Ramp - Members only
	330	3		29°41'00"	94°52'00"	Thompson's Ramp
	312	4		29°40'56"	94°56'09"	Roseland Park Ramp
	312	5		29°43'20"	94°56'35"	Tabb's Bay Ramp
	312	6		29°42'38"	95°00'24"	Morgan's Point Ramp
	180	7		29°41'09"	94°59'03"	Sylvan Beach Ramp
	180	8		29°38'55"	95°00'42"	(Oddo's - Deleted 9/1/80)
			(9)			(State Boat Ramp Clear Creek Channel - Deleted 5/15/84)
			(10)			Galveston County Park Ramp (Bacliff)
	180	11		29°30'44"	94°58'39"	HL&P Galveston County Park Ramp
	180	12		29°30'23"	94°57'26"	San Leon Marina Ramp and lift
	180	13		29°29'47"	94°54'58"	

Table B.1. (Cont'd.)

Bay system	Minor bay	Site number		Latitude	Longitude	Site identification
		In use	Deleted			
Galveston (Cont.)	180	14		29°29'46"	94°54'36"	Eagle Point Camp Ramp and lift (includes 11 wet slips)
	180	15		29°28'19"	94°55'32"	April Fool Point lift (includes 24 wet slips)
	141	16		29°28'51"	94°56'10"	Marge's Bait Camp Ramp (Fiesta Marina-Deleted 11/20/82)
	180	22		29°23'28"	94°53'12"	(Lakeway Ramp and Simpson's Ramp - Deleted 5/15/84)
	180	24		29°23'20"	94°53'03"	(White Heron Resorts - Deleted 8/31/75)
	180	25		29°23'20"	94°53'10"	(Moses Lake Bait Camp - Deleted 11/21/82)
	180	26		29°23'09"	94°52'21"	(Mowles Camp Ramp - Deleted 5/15/84)
	180	27		29°22'41"	94°50'53"	50/50 Camp Ramp
	180	29		29°22'00"	94°48'59"	(Dollar Pt. Public Ramp - Deleted 8/31/75)
	201	30		29°18'23"	94°54'22"	Rilat's Ramp
	180	32		29°18'10"	94°53'58"	Dub's Ramp
	201	33		29°19'50"	94°56'39"	Curl's Ramp
	201	34		29°19'54"	94°56'47"	Public Ramp (Texas City Dike)
	191	35		29°17'06"	95°07'41"	Public Ramp (Texas City Dike) - Deleted 5/15/84
	100	37		29°15'11"	95°13'58"	(Public Ramp (Texas City Dike) - Deleted 5/15/84)
	100	38		29°13'43"	95°12'31"	Texas City Dike Marina Ramps
	50	39		29°05'24"	95°16'39"	Jones Lake State Boat Ramp
	50	40		29°05'37"	95°17'00"	(Intracoastal Inn - Deleted 9/1/78)
	50	41		29°04'53"	95°17'13"	Charlie's Landing Ramp
	110	43		29°02'52"	95°09'56"	Kelly's Ramp (includes rent boats)
	530	44		29°04'54"	95°08'00"	Louis' Ramp (includes rent boats)
	350	47		29°07'45"	95°04'22"	Hall's Bayou Camp Ramp & Lift
	350	48		29°07'55"	95°03'49"	(Snug Harbor Marina - Deleted 12/1/78)
	350	49		29°08'42"	95°02'48"	LuTe's Marina Boat Lift
						Chocolate Bay State Boat Ramp
						Marlin Marina Ramp and Lift
						State Ramp - Bastrop Bayou - (under bridge)
						Jack Booth's Ramp Bastrop Marina (includes 5 wet slips)
						(Shell Ramp (Christmas Bay) - Deleted 12/1/78)
						Sy's Bait Camp Ramp
						Galveston-Freeport Campground Ramp
						(Public Launching - Shoreline - Deleted 9/1/80)
						(San Luis Pass Bait Camp - Deleted 5/15/82)
						Bay Harbor Ramps
						Terramar Beach Ramp
						Sea Isle Ramps and West Bay Marine (includes wet slips)
						(Jamaica Beach Marina Ramp - Deleted 11/21/85)

Table B.1. (Cont'd.)

Bay system	Minor bay	Site number		Latitude	Longitude	Site identification
		In use	Deleted			
Galveston (Cont.)	350	51		29°11'37"	94°58'56"	Jamaica Beach Boat Ramp
		52				<b>Boat Trailers at non-designated ramps</b>
	350	53		29°12'31"	94°56'57"	Pirate's Beach Marina Ramp
	350	54		29°13'04"	94°56'34"	Pirate's Beach Boat Ramp
	350	55	(56)	29°15'38"	94°54'20"	8-Mile Road Bait Camp Ramp (73rd Street County Park - Deleted 7/28/81)
		57	(58)	29°17'03"	94°50'09"	61st Street County Park Ramp (Bayou Bay Marina - Deleted 9/1/79)
			(59)			(Newell Marina Ramp - Deleted 5/15/84)
			(60)			(M&M Camp - Deleted 9/1/79)
		61		29°17'14"	94°52'19"	Payco Marina Ramp (includes Docks AA and B; 51 wet slips)
	350	62	(63)	29°17'18"	94°52'23"	Pleasure Island Ramp (Jim Reid's Ramp - Deleted 11/21/85)
	180	64	(65)	29°23'04"	94°46'05"	Shirley's Cafeteria Ramp (Johnson Road - Deleted 3/20/78)
	150	66		29°25'48"	94°42'37"	Bolivar Bait Camp Ramp (wet slips)
	50	67	(68)	29°05'10"	95°16'44"	2-J's Harbor (Demi-John) (B&P Camp - Deleted 7/15/81)
		70	(69)			(Bob's Camp - Deleted 9/6/79)
150	72	(71)	29°28'50"	94°36'16"	Stingaree Marina Ramp (Chocolate Bayou Marina - Deleted 8/31/75)	
286	73		29°30'51"	94°30'45"	Charles W. Lauderdale Public County Boat Ramp	
330	74		29°32'09"	94°46'54"	Smith Point Ramp (Van-to-Un and Robbin's Park)	
330	75	(76)	29°39'11"	94°41'35"	Oak Island County Ramp Fort Anahuac Park Ramp - Deleted 12/1/78)	
	77		29°45'19"	94°41'29"	(Anahuac State Ramp - Deleted 12/1/78)	
180	78		29°40'46"	94°55'34"	Will's	
141	79		29°28'24"	94°57'17"	Dickinson Bayou Public Ramp	
63	80		29°48'17"	94°48'35"	Cotton Lake Ramp	
91	81		29°20'03"	94°44'58"	Colonel's Lady Boat Ramp	
91	82	(82)	29°20'02"	94°41'52"	Waddell's Ramp and Wilson's Ramp (North Galveston Jetty Ramp - Deleted 5/15/84)	
180	83		29°19'02"	94°46'32"	Galveston Yacht Basin Ramp	
241	84		29°25'08"	94°55'34"	The Fish Spot Ramp	
111	85		29°33'51"	95°04'03"	Clear Lake Ramp	
142	86		29°25'19"	94°53'29"	Dollar Bay Ramp	
141	87		29°29'08"	94°55'58"	Cotton's Bait Camp Ramp	
144	88		28°59'53"	95°13'57"	Brazoria County Ramp 57 A (Third Street)	

Table B.1. (Cont'd.)

Bay system	Minor bay	Site number		Latitude	Longitude	Site identification
		In use	Deleted			
Galveston (Cont.)	150	89	(90)	29°35'41"	94°23'24"	High Island State Boat Ramp (San Jacinto Bay Bridge - Deleted 10/3/81)
	180	91	(92)	29°37'25"	95°00'34"	Shoreacres Ramp (Tiger Marina - Deleted 10/3/81)
	191	93		29°17'14"	95°08'01"	Hall's Bayou Bridge Ramp
	100	94		29°14'38"	95°13'59"	Horseshoe Bend Marina Ramp
	150	95		29°28'45"	94°36'16"	Charpiot Ramp
	201	96		29°19'49"	94°56'12"	Omega Bay Ramp
	50	97		29°04'56"	95°17'11"	Bastrop Bayou Private Ramp
	560	98		28°53'57"	95°29'33"	Ernie's Acres Ramp (Freeport)
	172	99		28°57'22"	95°17'12"	Dolphin Street Ramp (Freeport)
	172	100		28°58'47"	95°16'05"	Brazoria County Ramp 57A (Bay Street, Freeport) (Bridge Harbor Marina Ramp (Freeport) - Deleted 5/15/84)
	172	102	(101)	28°57'22"	95°17'32"	State Ramp (Freeport - under ICWW bridge)
	560	103		28°52'30"	95°27'19"	Ducroz Ramp (Freeport)
	265	104		29°00'36"	95°19'34"	Oyster Creek Ramp (Freeport)
	570	105		28°57'42"	95°22'13"	City Ramp (in Freeport Municipal Park-Freeport)
	266	106	(107)	28°57'21"	95°21'41"	City Ramp (by Community center/Tennis courts-Freeport) (Turtle Cove Ramp (Freeport) - Deleted 11/21/87)
	560	108		29°00'07"	95°18'26"	Bennet's Motel Ramp
	560	109		28°52'35"	95°27'34"	Public Ramp (Freeport)
	91	110		28°52'11"	95°26'46"	Fishing Fever Bait Camp Ramp (Freeport)
	570	111		29°20'02"	94°41'47"	New Brazos River Ramp (at end of dike in Freeport)
	350	112		28°53'59"	95°23'03"	Harbor Cove Ramp
	241	113		29°18'09"	94°53'58"	Ray Marine and Bait Camp Ramp
	111	114		29°25'15"	94°55'34"	Clear Lake Shores Ramp
	150	115		29°33'00"	95°01'45"	Boyt Road Boat Ramp
	180	116		29°25'43"	94°42'07"	Galveston Yacht Basin Boat Barn (party boats)
	180	117		29°19'02"	94°46'32"	Galveston Yacht Basin Dock A (50 wet slips; party boats)
	180	118		29°19'02"	94°46'32"	Galveston Yacht Basin Dock B (110 wet slips; party boats)
	180	119		29°19'02"	94°46'32"	Galveston Yacht Basin Dock C (116 wet slips; party boats)
	180	120		29°19'02"	94°46'32"	Galveston Yacht Basin Dock D (92 wet slips; party boats)
	350	121		29°16'38"	94°50'48"	Turtle Lake Apts. Ramp
	350	122		29°15'47"	94°50'29"	Havre Lafitte Ramp
530	123	(124) (125)	29°04'33"	95°07'50"	Treasure Island Ramp (Turtle Cove North Shore Boat Shed - Deleted 5/15/84) (Turtle Cove South Shore Boat Shed-Deleted 5/15/84)	

Table B.1. (Cont'd.)

Bay system	Minor bay	Site number		Latitude	Longitude	Site identification
		In use	Deleted			
Galveston	265	127		29°00'28"	95°18'57"	Kirby Marina (72 wet slips)
	50	128		29°05'48"	95°16'59"	B&H Bait Camp Ramp
			(129)			(Marlin Marina Boat Shed (wet slips) - Deleted 11/21/85)
	100	130		29°14'38"	95°13'59"	Horseshoe Bend Camp Boat Shed (wet slips)
	321	131		29°34'27"	95°03'05"	Timber Cove Subdivision Ramp (Taylor Lake)
			(132)			(Bridge Harbor Canal Front Slips (30 slips; party boats) - Deleted 5/15/84)
			(133)			(Bridge Harbor Canal Dock A)
	172	134		28°57'46"	95°17'34"	Bridge Harbor Canal Dock B and Dock C (70 wet slips)
			(135)			(Bridge Harbor Canal Dock C (32 slips; party boats) - Deleted 5/15/85)
	172	136		28°57'46"	95°17'34"	Bridge Harbor Canal Dock D and Dock E (76 wet slips)
	172	137		28°57'46"	95°17'34"	Bridge Harbor Canal Dock F and H (56 wet slips)
			(138)			(Harbor Cove Wet Slips (50 wet slips) - Deleted 5/15/84)
	350	139		29°17'14"	94°52'19"	Payco Marina Docks C and CC (24 wet slips)
	100	140		29°15'11"	95°13'58"	Lutes Marina Ramp and Boat House (40 wet slips; party boats)
	172	141		28°57'31"	95°18'16"	Beach, Bait and Tackle Ramp
180	142		29°29'47"	94°54'58"	San Leon Marina Boat Sheds (2 boat sheds; 46 wet slips)	
180	143		29°17'39"	94°51'23"	Bonno's Bait Camp Ramp	
180	144		29°35'51"	94°59'10"	El Jardin Ramp	
570	145		29°01'50"	95°11'51"	Freeport City Ramp (on New Brazos across from Municipal Park)	
110	146		29°22'00"	94°48'59"	Key Largo	
180	147		29°01'50"	95°11'52"	Texas City Dike Marina Lift	
		(148)			(Public Ramp (just East of Cedar Cut) - Deleted 5/15/85)	
		(150)			(Public Ramp (just West of Cedar Cut))	
110	149		29°01'50"	95°11'52"	(Bridge Harbor Pool Side Dock (26 slips across from fuel docks) - Deleted 5/15/86)	
312	151		29°42'37"	95°00'11"	The Galley Ramp	
111	152		29°30'52"	95°06'12"	Walter Hall County Park Ramp (League City)	
141	153		29°27'21"	95°02'50"	Dickinson Bayou County Ramp (Hwy 3)	
		(154)			(Payco Marina Dock D (14 slips) - Deleted 11/21/85)	
201	155		29°20'00"	95°01'30"	Hitchcock Public Boat Ramp	
570	156		28°57'30"	95°22'38"	Freeport Public Boat Ramp (Under S.H. 36)	
150	157		29°25'56"	94°42'32"	Shirley's Blue Beacon Bait Camp Ramp	
350	158		29°15'30"	94°54'52"	Sportsman Road Ramp	
180	159		29°23'04"	94°52'14"	Dan's Ramp	



Table B.1. (Cont'd.)

Bay system	Minor bay	Site number		Latitude	Longitude	Site identification
		In use	Deleted			
Matagorda	360	1		28°25'55"	96°26'04"	Doc's Dock Ramp
	360	2		28°26'23"	96°24'52"	Fishing Center Ramp
	360	3		28°26'12"	96°25'26"	Bobbie's Ramp (includes wet slips and La Pesca party boats)
	271	4		28°30'41"	96°29'20"	Indianola Fishing Center Ramp (includes wet slips)
	220	5		28°33'40"	96°32'21"	Magnolia Ramp
	112	6		28°34'41"	96°39'00"	Chocolate Bayou Ramp
	220	7		28°35'43"	96°37'09"	Harbor Refuge Ramp
	220	8		28°38'20"	96°36'44"	Lavaca Causeway Ramp (includes wet slips)
	220	9		28°40'53"	96°33'45"	Point Comfort Ramp
	210	10		28°38'24"	96°27'30"	Florence's Boat Camp (includes wet slips)
	60	11		28°44'17"	96°24'05"	Crescent V Ramp
	60	12		28°38'08"	96°21'22"	At Last Marina
	340	13		28°43'13"	96°16'24"	Turtle Bridge Ramp
	320	14		28°41'48"	96°13'47"	Turning Basin Ramp
	320	15		28°41'47"	96°13'11"	Palacios Bait Camp
	320	16		28°42'20"	96°12'32"	East Bay Ramp
	320	17		28°42'52"	96°12'00"	Grassy Point Bait Camp
	320	18		28°47'08"	96°09'00"	Palacios River Ramp
	590	19		28°40'14"	95°57'52"	River Bend Ramp
	590	20		28°38'22"	95°58'02"	Al's Ramp
	590	22	(21)	28°37'47"	95°58'11"	(Gilmer's - Deleted 8/17/79; Reopened 5/15/81; Deleted 6/15/82) Rawlings Ramp
	160	24	(23)	28°46'20"	95°38'04"	(UFO Ramp - Deleted 5/15/84) Caney Creek Marina (includes boats in wet slips)
			(25)			(Hanna's Marina Ramp - Deleted 5/15/87)
			(26)			(Cherry's Ramp - Deleted 5/15/84)
			(27)			(Bulkhead Marina - Deleted 5/15/80)
	160	28		28°45'28"	95°46'23"	Chinquapin Ramp
	60	29		28°38'16"	96°21'20"	The Wharf Ramp
	160	30		28°38'37"	95°57'52"	St. Mary's Bayou Ramp
	220	31		28°41'38"	96°39'50"	Six Mile Ramp
	160	32		28°46'21"	95°36'55"	Don Juan Marina
	320	33		28°42'33"	96°12'35"	Brookings Boat Shed (34 wet slips)
			(34)			(Collegeport Ramp - Deleted 11/21/85)
			(35)			(Jensen's Point Ramp - Deleted 11/21/86)
60	36		28°39'30"	96°24'54"	Port Alto Boat Shed (107 wet slips in 2 sheds)	
		(37)			(East End of Port Lavaca Causeway - Deleted 11/21/86)	

Table B.1. (Cont'd.)

Bay system	Minor bay	Site number		Latitude	Longitude	Site identification
		In use	Deleted			
Matagorda (Cont.)			(38)			(Coloma Creek Bridge (launching from shore) - Deleted 11/21/86)
			(39)			(Fishing Center Boat Sheds (2 boat sheds with 26 wet slips; party boats included) - Deleted 5/15/84)
			(40)			Not previously assigned
		360	41	28°26'16"	96°24'57"	McKinney Boat Sheds (12 wet slips)
		360	42	28°26'17"	96°25'00"	Power's Boat Sheds (58 wet slips)
		360	43	28°26'12"	96°25'17"	Alligator Head East Boat Sheds (19 wet slips)
		360	44	28°26'11"	96°25'18"	Alligator Head West Boat Sheds (49 wet slips)
		360	45	28°26'00"	96°25'48"	Weathersby's Boat Sheds (40 wet slips; 1 party boat)
		160	46	28°41'17"	95°57'56"	Cand R Bait Camp
		590	47	28°45'56"	96°00'04"	Selkirk Island Ramp
		160	48	28°46'26"	95°37'15"	"Lillie's" Ramp
		220	49	28°50'00"	96°34'20"	Lolita Ramp
		220	50	28°49'20"	96°34'25"	Frell's Landing
			(51)			(Holiday Harbor Marina - Deleted 11/21/87)
			52			<b>Boat trailers at non-designated ramps</b>
		271	53	28°30'35"	96°30'18"	S and S Marina
		60	54	28°40'01"	96°24'30"	Jackson County Ramp
		60	55	28°40'07"	96°23'30"	Boco Chico Ramp
		590	56	28°39'15"	95°57'45"	Allen's Landing
	San Antonio		1			
		2				Doc's Dock Ramp
		3				Bobbie's Ramp (includes wet slips and La Pesca party boats)
		4		28°26'23"	96°24'52"	Fulghum's Ramp (includes wet slips)
		5		28°25'55"	96°26'04"	Swan Point Ramp
		6		28°26'12"	96°25'26"	Seadrift Ramp
			(7)			(Austwell - Deleted 8/17/79)
			(8)			Hopper's Landing Ramp (includes wet slips)
			(9)			(Pete's Bait Camp - Deleted 8/17/79)
			(10)			(Morgan's Bait Camp - Deleted 8/17/79)
			(11)			(Fishing Center Boat Sheds (2 boat sheds with 26 wet slips; party boats included) - Deleted 5/15/84)
			(12)			Not previously assigned
	170	13	28°26'16"	96°24'57"	McKinney Boat Sheds (12 wet slips)	
	170	14	28°26'17"	96°25'00"	Power's Boat Sheds (58 wet slips)	

Table B.1. (Cont'd.)

Bay system	Minor bay	Site number		Latitude	Longitude	Site identification		
		In use	Deleted					
San Antonio	170	15		28°26'12"	96°25'17"	Alligator Head East Boat Sheds (19 wet slips)		
	170	16		28°26'11"	96°25'18"	Alligator Head West Boat Sheds (49 wet slips)		
	170	17		28°26'00"	96°25'48"	Weathersby's Boat Sheds (40 wet slips; 1 party boat)		
	190	18		28°26'50"	96°45'55"	Louie Walker's Ramp		
	190	52				<b>Boat trailers at non-designated ramps</b>		
	190	19		28°29'10"	96°46'35"	Carbide Ramp		
	Aransas	227	1		28°01'50"	97°02'19"	Little Bay Ramp	
		20	2		28°03'36"	97°02'00"	Fulton Harbor Ramp (includes Fulton Boat House)	
		120	3		28°06'49"	97°01'32"	South Copano Causeway Ramp	
		20	4		28°08'13"	97°00'22"	Sea Gun Marina Ramp (includes 42 wet slips; party boats)	
		310	5		28°07'43"	96°59'07"	Goose Island State Park Ramp	
		310	6		28°08'24"	96°58'39"	St. Charles Marina Ramp (includes 21 wet slips)	
		120	7		28°09'48"	97°00'35"	Holiday Beach Ramp	
		120	8		28°05'07"	97°04'11"	Joe's Ramp (includes 29 wet slips)	
		270	10	(9)	27°59'35"	97°09'07"	(Klein's Rattlesnake Point Ramp - Deleted 5/15/84)	
		120	11		28°04'14"	97°13'08"	Redfish Camp Ramp	
								Glenn's Marina-Bayside Ramp
								(Conn Brown Harbor - Deleted 11/21/85)
								Louie's Bait Hut Ramp
Fin & Feather Marina (includes 34 wet slips)								
Redfish Bay Marina Ramp (includes rent boats and wet slips)								
Palm Harbor Ramp (includes 50 wet slips)								
Cove Harbor Ramp								
(Port Bay - Deleted 11/21/82)								
Rockport Turning Basin Ramp (includes 8 wet slips)								
Bait Hut Ramp								
						Pouzee's Ramp		
						Bayside Public Ramp - (Deleted 12/1/80; Reopened 11/20/82)		
						(Hogan's Ramp - Deleted 5/15/84)		
						Sand Dollar Ramp (includes 40 wet slips; party boats)		
						(Key Allegro Marina - Deleted 5/15/82)		
						(Key Allegro North Ramp - Deleted 12/1/80)		
						(Racquet Club - Deleted 5/15/82)		
						Aransas Pass Airport Ramp		
						Port Aransas Public Ramp		
						Woody's Ramp		
284	28		27°53'22"	97°08'53"	Harbor Oaks Ramp			
96	29		27°50'19"	97°04'00"				
96	30		27°50'18"	97°03'44"				
227	31		28°03'07"	97°02'07"				
20	24	(23)	28°04'23"	97°02'07"				
285	20	(25)	28°01'28"	97°02'57"				
120	21	(26)	27°52'09"	97°05'51"				
120	22	(27)	28°03'48"	97°06'40"				
20	24	(23)	28°04'34"	97°13'10"				

Table B.1. (Cont'd.)

Bay system	Minor bay	Site number		Latitude	Longitude	Site identification	
		In use	Deleted				
Aransas	227	32		28°02'30"	97°01'51"	Key Allegro Boat Shed (39 wet slips; party boats)	
	227	33		28°02'33"	97°01'49"	Key Allegro Boat Shed and T-Head (107 wet slips; party boats)	
	20	34		28°03'31"	97°02'00"	Sea Foam Motel Ramp (includes 6 wet slips)	
	284	35		27°53'22"	97°08'48"	Harbor East Docks (1 dock and 2 bulkheads with 74 wet slips and Hampton's Landing (1 dock and 1 bulkhead with 32 wet slips)	
	284	36		27°53'22"	97°08'59"	Harbor West (4 bulkheads with 65 wet slips)	
	96	37		27°50'18"	97°03'42"	Woody's West Docks (3 docks with 47 wet slips; party boats)	
	96	38		27°50'18"	97°03'40"	Woody's East Dock (2 docks and 1 bulkhead with 57 wet slips; party boats)	
	96	39		27°50'19"	97°03'37"	Sportsman Center South (1 dock with 40 wet slips; party boats)	
	96	40		27°50'21"	97°03'37"	Sportsman Center North (1 dock with 26 wet slips; party boats)	
	240	42	(41)	27°10'55"	97°13'00"	(Kellers Marina Boat Ramp - Deleted 11/21/85) Mission River Ramp	
		52				<b>Boat trailers at non-designated ramps</b>	
	Corpus Christi	260	1		27°50'16"	97°22'52"	South Nueces Causeway Public Ramp (North Nueces Causeway - Deleted 10/27/80)
		130	3	(2)	27°50'16"	97°13'15"	Ingleside Cove Public Ramp
130		4		27°49'52"	97°13'29"	Bahia Marina Ramp (includes 46 wet slips) (Channel View Ramp - Deleted 5/15/86) (Warrens - Deleted 5/15/79)	
284		7		27°53'22"	97°08'53"	Aransas Airport Ramp	
284		8		27°53'18"	97°06'42"	Fin & Feather Marina Ramp (includes 34 wet slips)	
130		9		27°44'14"	97°08'13"	Wilson's Cut Ramp	
130		10		27°42'39"	97°18'35"	Oso Bridge Public Ramp	
130		11	(5)	27°47'24"	97°23'22"	L-Head Public Ramp	
96		12	(6)	27°50'19"	97°04'00"	Port Aransas Public Ramp	
96		13		27°50'18"	97°03'44"	Woody's Ramp	
284		14		27°53'19"	97°08'44"	Causeway Ramp (includes 6 wet slips)	
284		15		27°51'26"	97°10'07"	Sun Oil Co. Ramp	
370		16		27°38'02"	97°14'09"	Billing's Public Ramp	
370		17		27°41'10"	97°15'31"	Naval Ramp (includes boats in boat houses and in wet slips)	
285		18		27°52'55"	97°05'57"	Redfish Bay Marina Ramp (includes rent boat and boats in wet slips)	
260		19		27°51'14"	97°21'30"	Gunderland Marine Ramp	
260		20		27°51'31"	97°21'04"	Portland Shell Bank Ramp	
280		21		27°53'58"	97°08'14"	South Conn Brown Harbor Public Ramp	

Table B.1. (Cont'd.)

Bay system	Minor bay	Site number		Latitude	Longitude	Site identification
		In use	Deleted			
Corpus Christi (Cont.)	284	22		27°53'22"	97°08'48"	Harbor East Docks (1 dock and 2 bulkheads with 74 wet slips) and Hampton's Landing (1 dock and 1 bulkhead with 13 wet slips)
	284	23		27°53'22"	97°08'59"	Harbor West Docks (bulkhead with 65 wet slips)
	96	24		27°50'21"	97°03'53"	West City Docks (2 docks and 1 bulkhead with 79 wet slips; party boats)
	96	25		27°50'22"	97°03'50"	East City Docks (2 docks and 1 bulkhead with 70 wet slips; party boats)
	96	26		27°50'15"	97°03'59"	Deep Sea Headquarters Dock (10 party boat wet slips)
	96	27		27°50'17"	97°03'54"	Dolphin Docks (4 party boat wet slips)
	96	28		27°50'18"	97°03'42"	Woody's West Docks (docks with 47 wet slips; party boats)
	96	29		27°50'18"	97°03'40"	Woody's East Docks (2 docks and 1 bulkhead with 57 wet slips; party boats)
	96	30		27°50'19"	97°03'37"	Sports Center South Dock (1 dock with 40 wet slips; party boats)
	96	31		27°50'21"	97°03'37"	Sports Center North Dock (1 dock with 26 wet slips; party boats)
	96	32		27°50'22"	97°03'33"	Fisherman's Wharf Dock (4 party boat wet slips)
	93	33		27°50'15"	97°03'11"	U.T. Boat Basin Dock (1 dock and bulkhead with 56 wet slips)
	130	52				<b>Boat trailers at non-designated ramps</b>
		34		27°48'28"	97°05'13"	Island Moorings Marina (floating docks with 280 wet slips)
Upper Laguna Madre	370	1		27°36'42"	97°17'40"	Bluff Landing Ramp (includes wet slips)
	370	2		27°36'57"	97°17'40"	Jerry's Ramp (includes rent boats and wet slips)
	370	3		27°37'44"	97°17'21"	Coburn's Ramp and Tropic Isles Ramp
	370	4		27°37'53"	97°17'21"	Laguna Marine Ramp (includes wet slips)
	370	5		27°39'44"	97°16'12"	Toll Gate Ramp
		(6)				(Whitt's - Deleted 5/15/82)
	370	8	(7)	27°38'03"	97°14'21"	(Fisherman's Folly - Deleted 5/15/81)
	370	9		27°38'06"	97°14'21"	Water Works Ramp (rent boats and wet slips)
			(10)			B.G.'s Ramp (includes wet slips)
						(Rainbow Ramp - Deleted 11/21/85)
	370	11		27°38'04"	97°14'16"	Clem's Ramp (includes wet slips)
	370	12		27°38'02"	97°14'09"	Billing's Ramp
	370	13		27°37'25"	97°13'31"	Padre Isle Investment (P.I.I.) Ramp 1
	370	14		27°40'20"	97°16'09"	Boat Hole Ramp
	370	15		27°41'10"	97°15'31"	Naval Ramp (includes wet slips)
	80	16		27°19'08"	97°40'56"	Kaufers Ramp
	40	17		27°17'18"	97°39'41"	Kratz's Ramp
	211	18		27°16'38"	97°42'29"	Williamson's Ramp (includes wet slips)

Table B.1. (Cont'd.)

Bay system	Minor bay	Site number		Latitude	Longitude	Site identification
		In use	Deleted			
Upper Laguna Madre (Cont.)	370	19	(20)	27°28'22"	97°18'131"	Bird Island Basin Ramp (Whiteleys Basin Ramp - Deleted 5/15/85)
	370	21		27°36'51"	97°18'04"	Padre Isle Investment Ramp II (White Cap and Caravel)
	370	22		27°36'08"	97°14'28"	Padre Isle Investment Ramp III (End of Cobo de Caba)
	370	23		27°36'42"	97°14'22"	Padre Isle Investment Ramp IV (Gypsy and Bounty Avenue)
	370	24		27°35'57"	97°13'45"	Padre Isle Investment Ramp V (Fortuna Bay and Monte Pelle)
	370	25		27°35'43"	97°13'51"	Padre Isle Investment Ramp VI (Encatada and Cruiser)
	370	26		27°35'21"	97°13'35"	Padre Isle Investment Ramp VII (Cartagena Street)
	370	52		27°35'00"	97°14'29"	<b>Boat trailers at non-designated ramps</b>
	370	27		27°37'55"	97°14'22"	Marker 37 (ramp and 40 wet slips)
Lower Laguna Madre	230	1		26°06'09"	97°10'08"	Fisherman's Wharf (includes boats in wet slips; party boats)
	230	2		26°06'06"	97°10'08"	Jim's Ramp (includes boats in wet slips)
	230	3		26°04'34"	97°09'54"	Sea Ranch Ramp (includes party boats between boat ramp and headboat)
	230	7	(4)	26°04'25"	97°12'51"	(Jetties - Deleted 5/15/80)
	294	8	(5)	26°00'07"	97°17'55"	(Marchant's - Deleted 9/1/78)
	230	9	(6)	26°06'12"	97°17'23"	(Port Isabel - Deleted 9/1/76)
	262	10		26°19'40"	97°27'23"	White Sands Ramp (includes boats in wet slips)
	262	11		26°20'10"	97°26'10"	San Martin Ramp
	230	13	(12)	26°33'12"	97°25'40"	Laguna Vista Ramp (includes boats in wet slips)
	282	14	(15)	26°33'22"	97°25'44"	Arroyo Colorado Ramp Sanchez Ramp (Al's Place - Deleted 3/27/82)
	230	17	(16)	26°33'05"	97°25'43"	Willacy Navigation District Ramp Port Mansfield State Ramp (Redfish Motel Ramp (includes boats in wet slips - Deleted 5/15/84)) (South Padre Marina - Deleted 3/27/82)
	230	18		26°04'22"	97°12'47"	Port Mansfield Boat Basin (includes boats in wet slips; party boats)
	230	19		26°04'33"	97°09'54"	Port Isabel Channel East Side (includes 45 wet slips in boat shed)
	230	20		26°05'51"	97°10'06"	Sea Ranch Motel (includes boat shed and wet slips)
	262	21		26°14'20"	97°35'05"	Palm Bay Pier Ramp (includes 15 wet slips)
	230	22		26°04'30"	97°12'55"	Rio Hondo Public Ramp
	230	23		26°04'25"	07°12'54"	Port Isabel City Ramp
	230	24		26°03'57"	97°12'28"	Travelers Trailer Park Ramp Southpoint Marina Ramp

Table B.1. (Cont'd.)

Bay system	Minor bay	Site number		Latitude	Longitude	Site identification
		In use	Deleted			
Lower Laguna Madre (Cont.)	230	25		26°03'59"	97°12'28"	Southpoint Wet Slips (30 wet slips)
	230	26		26°04'32"	97°12'55"	Anchor Harbor Ramp (includes 22 wet slips)
	230	52				<b>Boat trailers at non-designated ramps</b>
	262	27		26°04'45"	97°10'08"	South Padre Island State Ramp
		28		26°19'55"	97°26'29"	Arroyo City Resort (2 ramps and 60 wet slips)

Table B.2. Headboat sites in Texas bay systems (May 1978-May 1988).

Bay system	Passenger capacity	Site number		Minor bay	Headboat identification
		In use	Deleted		
Galveston	67		(81)		Kemah Clipper (Deleted 3-24-84)
	70	83		180	Sundowner (Added 6-12-86)
	90	85			Old Buccaneer (Added 5-15-84)
	76	86			Lafitte (Added 9-1-82)
	80	95			Judy Beth (Added 12-3-81)
Corpus Christi/Aransas	50		(81)		Whooping Crane (Deleted 9-25-86)
			(82)		Mary Lou (Deleted 9-28-83)
	100	89		130	Capt. Clark
	89	91		130	Star Trek
	30	94		20	Pisces (Added 5-15-84)
	45	97		20	Lucky Day (Added 10-8-84)
Lower Laguna Madre	75	81		230	Laguna Queen
	30		(83)	230	Albatross (Deleted 5-15-87)
	48	84		230	Danny B
	74		(88)		Majestic (Deleted 5-15-84)



Appendix C: Estimation of Weekday Pressure and Landings for Private-Boat Fishermen.

Estimation of Weekday Pressure and Landings  
for Private-Boat Fishermen

The Texas Parks and Wildlife Department has conducted surveys of weekend private-boat fishing in seven bay systems since 1974 (Heffernan et al. 1976; Breuer et al. 1977; Green et al. 1978; McEachron 1980a, 1980b; McEachron and Green 1981, 1982, 1983, 1984; Osburn and Ferguson 1985a, 1986). Weekdays were monitored except from September 1976 to May 1979. Total annual and weekend bay and pass pressure (man-h) and finfish landings from May 1979 to May 1984 were used to develop a method for estimating weekday pressure and landings for years when weekdays were not surveyed.

The percent that weekend pressure and landings comprised of the total annual estimates were calculated for each bay system, season, year and by species for landings (Tables C.1., C.2.). These percents were transformed using arcsine  $\sqrt{\text{percent}}$  to assure a more normal distribution and equality of variances. Three-way analyses of variance were used to test for differences among bay systems and years. Data were pooled when no significant differences were found ( $P=0.05$ ). Separate adjustment factors were calculated when differences were found for bay systems or seasons.

No difference was found for pressure. Total annual weekend and weekday pressure ( $\hat{P}$  for May 1976-May 1979) was then estimated for each bay system and a coastwide basis using:

$$\hat{P} = \frac{\text{WEP}}{0.5469}$$

where WEP was the weekend pressure. Weekday pressure was obtained by subtracting weekend pressure from the estimated total annual pressure.

No differences among bay systems, seasons or years were found for sheepshead or southern flounder (Table C.3). Season was a significant factor for gafftopsail catfish only. Bay systems were significantly different for red drum, spotted seatrout and "other" species. Similar bay systems were grouped for each species (Table C.3.).

Years were significantly different for Atlantic croaker, black drum, gafftopsail catfish, sand seatrout and spotted seatrout. In all cases where differences were found the year 1979-80 and/or 1980-81 were different from later years. Adjustment factors were then calculated using pooled data from the later years. It was felt that 1979-80 and 1980-81 were not representative years due to the oil crisis that began in 1979. Gas was not available on Sundays in most areas. Gas prices also increased greatly. On weekends fishermen who do not live on the coast are most likely to visit the coast to go saltwater fishing. The lack of gas availability and high prices may have affected their visitation by restricting weekend travel in those years. Weekday fishermen generally live adjacent to the coast and their fishing frequency probably stayed the same. This shift in visitation would cause a change in the distribution of landings among weekends and weekdays.

Total weekend and weekday landings ( $\hat{L}_i$ ) were calculated for each species using:

$$\hat{L}_i = \frac{WEL_i}{P_i}$$

where WEL was the weekend landings and P was the adjustment factor for each pooled group of data i.

Table C.1. Weekend pressure (man-h) as a percent of total weekend and weekday pressure by bay system, season and year (May 1979-May 1984).

Bay system Year	Season	
	High-use	Low-use
Galveston		
1979-80	49	36
1980-81	28	62
1981-82	54	67
1982-83	56	40
1983-84	61	41
Matagorda		
1979-80	57	73
1980-81	56	57
1981-82	53	63
1982-83	58	44
1983-84	59	76
San Antonio		
1979-80	55	68
1980-81	60	95
1981-82	55	60
1982-83	65	31
1983-84	56	73
Aransas		
1979-80	90	50
1980-81	62	71
1981-82	52	39
1982-83	41	43
1983-84	69	28
Corpus Christi		
1979-80	24	67
1980-81	14	45
1981-82	47	36
1982-83	61	65
1983-84	56	39
Upper Laguna Madre		
1979-80	48	58
1980-81	74	53
1981-82	59	56
1982-83	67	57
1983-84	61	67
Lower Laguna Madre		
1979-80	51	61
1980-81	57	56
1981-82	60	40
1982-83	54	48
1983-84	54	40

Table C.2. Weekend landings of selected finfish as a percent of total weekend and weekday landings by bay system and season (1979-1984). Blank = none landed on weekends or weekdays.

Species Season	Year	Bay system													
		Galveston		Matagorda		San Antonio		Aransas		Corpus Christi		Upper Laguna Madre		Lower Laguna Madre	
Atlantic croaker High Use	1979-80	98	100	87	100	87	100	64	6	100	6	100			
	1980-81	29	28	27	47	9	52	34							
	1981-82	50	63	50	71	64	76	69							
	1982-83	46	55	82	76	27	87	61							
	1983-84	47	55	61	44	46	79	53							
Low Use	1979-80	71	63	83	0	86	100	100							
	1980-81	33	37	71	16	73	80								
	1981-82	26	100	33	0	83	80								
	1982-83	43	64	100	0	2	48								
	1983-84	45		100	100	0	0								
Black drum High Use	1979-80	98	41	86	100	100	100	7							
	1980-81	37	75	64	6	48	47	70							
	1981-82	12	57	13	15	23	78	69							
	1982-83	53	41	57	18	67	78	27							
	1983-84	27	50	78	77	58	65	47							
Low Use	1979-80	19	83	61	0	100	14	100							
	1980-81	65	43	93	100	67	55	55							
	1981-82	5	57	33	20	21	66	37							
	1982-83	7	8	17	8	61	38	49							
	1983-84	93	64	63	17	24	18	53							
Gafftopsail catfish High Use	1979-80	100	100	100	100	100	100	100							
	1980-81	85	100	33	100	100	100	100							
	1981-82	52	53	50	60	45	0	55							
	1982-83	18	69	54	47	38	64	55							
	1983-84	74	84	45	56	40	85	0							

Table C.2. (Cont'd.)

Species Season	Year	Bay system									
		Galveston	Matagorda	San Antonio	Aransas	Christi	Upper Laguna Madre	Lower Laguna Madre			
Gafftopsail catfish Low Use	1979-80	0		63		22	0				
	1980-81	0	45	100	100	42					
	1981-82	0	10		18	0	67				
	1982-83	0	0	33		58					
	1983-84	100	10	100	0	100					
Red drum High Use	1979-80	24	100	51	100	100	24			6	
	1980-81	10	69	45	51	31	70			47	
	1981-82	44	41	35	39	36	41			45	
	1982-83	60	49	58	30	69	50			50	
	1983-84	34	55	53	63	52	59			48	
Low Use	1979-80	18	88	62	38	80	61			73	
	1980-81	78	57	100	100	41	63			70	
	1981-82	10	94	79	66	33	67			43	
	1982-83	36	71	46	63	29	65			27	
	1983-84	40	52	90	30	3	19			53	
Sand seatrout High Use	1979-80	41	100	51	100	17	7			8	
	1980-81	22	9	33	92	5	37			56	
	1981-82	20	48	80	20	54	36			67	
	1982-83	57	46	68	37	49	47			74	
	1983-84	39	68	64	28	48	72			70	
Low Use	1979-80	81	100			42	86			100	
	1980-81	6				73	99			60	
	1981-82	0	45		80	28	14			34	
	1982-83	0	0	5	19	14	50			3	
	1983-84	99	5	100	80	0	4			4	

Table C.2. (Cont'd.)

Species Season	Year	Bay system							
		Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	
Sheepshead High Use	1979-80	42	42	34	100	100	100	100	9
	1980-81	28	74	45	51	3	79	39	39
	1981-82	25	47	55	34	25	36	57	57
	1982-83	47	20	42	39	55	59	30	30
	1983-84	44	51	59	43	34	60	40	40
Low Use	1979-80	1	100	25	0	61	10	43	43
	1980-81	22	89	100	1	34	39	48	48
	1981-82	22	71	76	73	5	69	5	5
	1982-83	84	5	17	5	38	63	14	14
	1983-84	51	59	67	3	7	0	11	11
Southern flounder High Use	1979-80	6	100	19	100	100	17	42	42
	1980-81	19	38	70	49	2	75	57	57
	1981-82	41	15	46	37	10	50	42	42
	1982-83	57	35	72	57	41	73	45	45
	1983-84	51	74	68	68	34	55	47	47
Low Use	1979-80	1	67	90	100	59	60	73	73
	1980-81	93	100	100	97	4	32	73	73
	1981-82	62	53	13	40	57	84	50	50
	1982-83	83	44	4	36	55	40	51	51
	1983-84	10	20	75	8	33	0	41	41
Spotted seatrout High Use	1979-80	78	59	28	78	65	61	38	38
	1980-81	5	42	59	41	22	71	51	51
	1981-82	21	47	45	34	45	56	59	59
	1982-83	49	32	51	31	37	58	45	45
	1983-84	44	44	44	59	49	59	42	42

Table C.2. (Cont'd.)

Species Season	Year	Bay system							
		Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	
Spotted seatrout Low Use	1979-80	67	75	34	75	65	50	53	
	1980-81	6	54	79	56	37	51	37	
	1981-82	34	75	61	31	25	40	41	
	1982-83	14	21	22	18	43	41	38	
	1983-84	19	85	88	5	1	69	21	
Other High Use	1979-80	68	100	31	100	25	1	14	
	1980-81	55	39	61	83	12	84	40	
	1981-82	43	47	44	29	41	72	82	
	1982-83	50	60	70	37	46	85	68	
	1983-84	30	75	70	37	61	68	59	
Low Use	1979-80	100	100	100		4	71	31	
	1980-81	31	96	100	100	49	89	39	
	1981-82	84	25	50	77	24	83	20	
	1982-83	18		27	21	64	79	3	
	1983-84	31	90	100	80	29	97	11	



Table C.3. Adjustment factors (%) for calculating total annual weekend and weekday landings from weekend landings for selected species.

Species	Adjustment factor (%)	Bay systems <sup>a</sup>	Seasons <sup>b</sup>	Years used for % <sup>c</sup>
Atlantic croaker	0.5000	all	all	1980-81 to 1983-84
Black drum	0.4212	all	all	1981-82 to 1983-84
Gafftopsail catfish	0.4945	all	high use	1981-82 to 1983-84
	0.3973	all	low use	1981-82 to 1983-84
Red drum	0.4523	2,6,7,8	all	all
	0.6250	3,4,5	all	all
Sand seatrout	0.4243	all	all	1980-81 to 1983-84
Sheepshead	0.4237	all	all	all
Southern flounder	0.5029	all	all	all
Spotted seatrout	0.3025	2,5,6	all	1980-81 to 1983-84
	0.5392	3,4,7	all	1980-81 to 1983-84
	0.4175	8	all	1980-81 to 1983-84
Other	0.4107	2,6,8	all	all
	0.6784	3,4,5,7	all	all

<sup>a</sup>2=Galveston, 3=Matagorda, 4=San Antonio, 5=Aransas, 6=Corpus Christi, 7=upper Laguna Madre, 8=lower Laguna Madre, all=all bay systems were pooled.

<sup>b</sup>All means both the high and low use seasons were pooled.

<sup>c</sup>All means that all years (1979-80 to 1983-84) were pooled.

Appendix D: Estimates for private-boat fishing in Texas bays and passes.

Table D.1. Annual estimated landings of fishes (No. x 1000) ± 1 SE caught by private-boat fishermen in Texas bays and passes by species and bay system (1974-1988).

Species Year	Bay system										
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi		Upper Laguna Madre		Lower Laguna Madre	Coastwide <sup>a</sup>
						Christi	Laguna Madre	Laguna Madre	Coastwide <sup>a</sup>		
<b>Atlantic croaker</b>											
1974-76	699.1 ± 308.9	19.7 ± 9.5	6.0 ± 2.1	3.8 ± 2.2	12.5 ± 5.5	152.4 ± 86.5	11.9 ± 5.8	905.4 ± 220.2			
1976-77	536.0	26.6	1.2	6.4	21.2	33.9	17.5	642.8			
1977-78	875.2	24.1	1.0	4.1	16.2	34.9	11.3	966.8			
1978-79	481.8	25.0	2.8	1.2	16.8	67.8	9.0	604.4			
1979-80	250.5 ± 89.9	8.3 ± 3.1	2.0 ± 1.0	1.5 ± 0.8	11.8 ± 4.5	106.8 ± 57.6	2.3 ± 0.6	383.2 ± 106.9			
1980-81	372.2 ± 197.9	48.3 ± 24.2	1.6 ± 0.7	1.5 ± 0.5	149.1 ± 118.3	30.6 ± 8.1	7.4 ± 3.0	610.7 ± 232.0			
1981-82	192.8 ± 48.1	6.6 ± 2.2	0.6 ± 0.3	1.3 ± 0.5	41.9 ± 22.1	29.3 ± 8.7	3.0 ± 0.7	275.6 ± 53.8			
1982-83	179.5 ± 32.4	7.8 ± 2.2	1.2 ± 0.4	6.9 ± 3.9	20.2 ± 5.6	25.6 ± 13.5	8.0 ± 1.6	249.2 ± 35.8			
1983-84	159.4 ± 36.1	11.3 ± 3.8	1.3 ± 0.5	37.4 ± 13.6	38.3 ± 13.2	26.7 ± 5.2	4.6 ± 0.8	278.9 ± 41.3			
1984-85	213.8 ± 42.0	7.0 ± 2.0	0.3 ± 0.2	4.7 ± 1.8	8.1 ± 2.7	2.6 ± 0.9	4.1 ± 1.5	240.7 ± 42.2			
1985-86	214.5 ± 42.0	12.1 ± 4.1	0.2 ± 0.1	12.9 ± 4.5	10.9 ± 4.0	17.0 ± 3.7	6.4 ± 1.3	274.4 ± 42.8			
1986-87	330.7 ± 104.3	10.3 ± 4.6	0.1 ± <.1	5.5 ± 2.5	10.9 ± 3.1	14.4 ± 3.9	6.6 ± 1.7	378.5 ± 104.6			
1987-88	252.0 ± 46.4	8.8 ± 2.5	0.9 ± 0.4	12.3 ± 4.0	44.6 ± 12.2	15.0 ± 3.7	3.1 ± 0.8	423.1 ± 52.7			
<b>Black drum</b>											
1974-76	35.2 ± 11.4	20.5 ± 12.2	2.9 ± 0.9	18.2 ± 14.7	13.9 ± 5.4	12.5 ± 6.2	25.1 ± 13.5	128.3 ± 14.7			
1976-77	67.0	15.6	37.0	7.2	5.9	16.3	9.9	159.0			
1977-78	111.9	26.2	8.1	5.2	5.6	8.3	12.8	178.1			
1978-79	94.8	20.4	5.6	1.8	2.8	6.2	18.0	149.6			
1979-80	37.2 ± 10.1	13.4 ± 6.3	2.0 ± 0.7	9.8 ± 5.8	3.6 ± 1.4	7.1 ± 5.7	4.3 ± 1.8	77.4 ± 14.6			
1980-81	87.1 ± 31.7	44.7 ± 15.5	2.5 ± 0.8	1.7 ± 0.8	8.3 ± 2.7	7.0 ± 2.5	6.4 ± 2.6	157.7 ± 35.6			
1981-82	59.9 ± 20.7	24.8 ± 4.9	9.0 ± 4.4	15.6 ± 5.0	8.6 ± 3.0	9.2 ± 3.7	5.5 ± 1.7	132.6 ± 22.9			
1982-83	105.8 ± 37.5	24.6 ± 5.7	4.2 ± 1.3	8.2 ± 3.0	11.5 ± 2.9	9.0 ± 2.1	7.9 ± 1.7	171.2 ± 38.3			
1983-84	26.7 ± 5.8	22.2 ± 4.9	3.5 ± 1.2	11.2 ± 3.1	8.0 ± 2.1	3.0 ± 1.0	6.2 ± 2.1	80.7 ± 8.9			
1984-85	24.3 ± 4.9	13.6 ± 3.5	1.5 ± 0.6	5.4 ± 4.9	3.8 ± 1.5	0.7 ± 0.4	5.1 ± 2.5	55.5 ± 8.4			
1985-86	27.1 ± 7.0	8.4 ± 3.5	1.0 ± 0.6	2.6 ± 1.2	13.1 ± 6.6	8.0 ± 2.9	4.7 ± 1.5	60.0 ± 10.8			
1986-87	26.2 ± 7.9	13.0 ± 3.4	1.6 ± 0.7	5.2 ± 2.1	1.6 ± 0.4	4.5 ± 1.8	5.8 ± 2.4	57.9 ± 9.4			
1987-88	40.8 ± 12.0	10.6 ± 3.4	10.6 ± 7.0	4.0 ± 1.7	3.8 ± 1.2	3.9 ± 1.0	4.0 ± 1.6	86.3 ± 14.8			
<b>Gafftopsail catfish</b>											
1974-76	42.8 ± 30.1	17.6 ± 10.3	4.2 ± 1.5	12.7 ± 8.4	3.3 ± 3.0	0.0	0.0	80.6 ± 21.7			
1976-77	17.6	43.0	6.2	3.8	6.9	0.0	<.1	77.6			
1977-78	7.2	32.3	6.3	2.2	1.4	0.0	0.0	49.4			
1978-79	31.0	28.0	3.8	5.8	6.9	<.1	0.4	76.0			
1979-80	3.1 ± 2.0	1.4 ± 0.7	1.1 ± 0.4	0.1 ± 0.1	4.1 ± 2.7	0.2 ± 0.2	0.0	10.2 ± 3.4			
1980-81	14.5 ± 8.6	1.5 ± 0.8	0.6 ± 0.3	0.6 ± 0.3	1.9 ± 0.9	<.1 ± <.1	0.1 ± 0.1	19.1 ± 8.7			

Table D.1. (Cont'd.)

Species Year	Bay system										Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Christi	Upper Laguna Madre	Lower Laguna Madre			
<b>Gafftopsail catfish (cont'd.)</b>											
1981-82		4.2 ± 2.1	7.0 ± 3.0	0.9 ± 0.5	3.3 ± 1.8	16.5 ± 14.1	0.3 ± 0.2	<.1 ± <.1			32.2 ± 14.7
1982-83		5.2 ± 2.4	3.8 ± 1.2	3.1 ± 0.9	1.8 ± 0.7	6.9 ± 2.2	<.1 ± <.1	0.1 ± 0.1			21.0 ± 3.7
1983-84		3.3 ± 1.6	4.9 ± 2.2	1.9 ± 0.7	2.3 ± 0.7	6.5 ± 3.0	0.2 ± 0.1	0.1 ± 0.1			19.1 ± 4.1
1984-85		2.3 ± 0.9	4.3 ± 1.2	2.2 ± 0.9	1.8 ± 0.6	0.8 ± 0.3	0.2 ± 0.2	0.1 ± 0.1			11.6 ± 1.9
1985-86		8.4 ± 4.2	3.4 ± 0.8	0.6 ± 0.2	3.3 ± 1.0	1.2 ± 0.5	0.1 ± 0.1	0.0			17.0 ± 4.4
1986-87		7.0 ± 3.5	5.6 ± 1.7	1.8 ± 0.8	2.3 ± 1.0	1.5 ± 0.4	0.0	0.1 ± 0.1			18.3 ± 4.1
1987-88	1.4 ± 0.7	8.7 ± 5.2	4.4 ± 1.3	1.4 ± 0.8	2.9 ± 1.8	0.8 ± 0.4	0.0	0.3 ± 0.2			19.9 ± 5.8
<b>Red drum</b>											
1974-76		120.0 ± 68.3	37.9 ± 13.0	38.7 ± 7.7	23.1 ± 6.6	17.0 ± 7.6	20.5 ± 4.7	50.3 ± 17.8			307.5 ± 148.0
1976-77		22.8	17.9	29.7	17.6	11.8	9.0	22.2			131.1
1977-78		69.2	11.4	17.1	22.9	4.9	4.6	18.6			148.7
1978-79		29.0	23.0	25.3	4.4	5.6	3.5	8.4			99.2
1979-80		41.1 ± 19.6	20.2 ± 7.7	20.0 ± 6.3	9.7 ± 5.0	8.0 ± 3.1	13.1 ± 4.0	29.9 ± 12.4			142.0 ± 26.2
1980-81		69.9 ± 25.1	29.9 ± 8.2	12.4 ± 2.9	8.5 ± 2.8	14.5 ± 4.1	25.7 ± 4.6	11.7 ± 2.8			172.7 ± 27.5
1981-82		34.2 ± 9.7	20.5 ± 6.3	16.1 ± 4.6	13.9 ± 3.5	9.5 ± 1.6	17.5 ± 3.6	8.5 ± 1.9			120.4 ± 13.7
1982-83		27.1 ± 6.0	14.7 ± 3.4	14.4 ± 1.6	25.4 ± 7.0	20.5 ± 2.2	14.3 ± 2.0	21.7 ± 2.9			126.2 ± 10.8
1983-84		25.3 ± 5.4	46.6 ± 8.8	29.4 ± 5.3	33.9 ± 6.1	8.0 ± 4.6	13.3 ± 1.5	28.8 ± 3.7			197.6 ± 14.4
1984-85		20.8 ± 5.2	8.9 ± 2.6	7.5 ± 3.0	16.9 ± 4.1	15.2 ± 4.0	3.8 ± 0.9	22.4 ± 3.9			95.6 ± 9.6
1985-86		19.3 ± 8.6	16.8 ± 5.3	7.3 ± 2.2	37.1 ± 5.7	24.3 ± 5.4	18.5 ± 2.7	31.3 ± 4.3			154.8 ± 11.5
1986-87		47.9 ± 14.9	43.1 ± 7.3	16.4 ± 3.5	51.2 ± 12.4	31.3 ± 5.3	20.2 ± 3.1	56.8 ± 6.3			266.8 ± 22.7
1987-88	8.0 ± 2.1	32.5 ± 5.6	29.1 ± 5.2	37.1 ± 9.9	22.4 ± 3.3	34.0 ± 7.5	23.9 ± 3.4	54.7 ± 6.2			241.7 ± 16.7
<b>Sand seatrout</b>											
1974-76		722.5 ± 428.9	68.5 ± 45.4	7.7 ± 4.2	15.9 ± 10.0	90.1 ± 26.7	52.9 ± 44.2	19.5 ± 11.1			977.1 ± 296.5
1976-77		589.5	31.6	0.2	58.2	111.7	22.6	23.5			837.3
1977-78		337.4	33.0	3.0	14.2	49.5	5.7	53.7			496.4
1978-79		677.4	25.5	<.1	10.3	35.2	4.3	6.5			759.3
1979-80		307.1 ± 170.4	8.7 ± 4.1	3.9 ± 2.1	0.5 ± 0.2	85.5 ± 53.2	22.7 ± 15.5	12.2 ± 9.2			440.6 ± 179.4
1980-81		339.1 ± 99.2	26.4 ± 13.5	0.9 ± 0.5	9.1 ± 3.4	447.8 ± 377.0	6.7 ± 2.5	8.9 ± 2.7			838.8 ± 390.1
1981-82		153.1 ± 40.2	43.0 ± 18.3	2.0 ± 1.2	11.5 ± 5.4	61.9 ± 14.8	13.8 ± 7.0	20.0 ± 5.2			305.4 ± 47.7
1982-83		279.2 ± 53.9	21.5 ± 6.4	6.7 ± 1.9	21.6 ± 5.9	118.5 ± 24.9	8.5 ± 2.9	15.4 ± 3.6			471.2 ± 60.2
1983-84		164.4 ± 67.7	34.8 ± 12.4	3.6 ± 0.9	29.0 ± 9.4	96.1 ± 24.4	12.0 ± 3.4	9.6 ± 2.7			349.4 ± 73.8
1984-85		303.3 ± 81.5	13.8 ± 7.8	2.6 ± 1.1	23.7 ± 8.9	24.0 ± 7.6	10.6 ± 4.0	24.7 ± 9.8			402.6 ± 83.4
1985-86		138.4 ± 36.7	22.9 ± 6.9	3.5 ± 0.7	44.9 ± 17.0	47.4 ± 18.2	8.1 ± 2.4	14.7 ± 3.1			280.0 ± 45.0
1986-87		290.0 ± 104.3	6.0 ± 2.5	0.2 ± 0.1	20.9 ± 7.3	32.0 ± 10.0	4.2 ± 2.2	15.3 ± 4.4			368.6 ± 69.4
1987-88	22.7 ± 12.2	278.1 ± 74.9	2.9 ± 1.0	1.5 ± 0.7	34.3 ± 10.2	51.6 ± 27.5	1.9 ± 0.8	8.2 ± 3.8			401.2 ± 81.4

Table D.1. (Cont'd.)

Species Year	Bay system									
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide <sup>a</sup>	
<b>Sheepshead</b>										
1974-76	27.8 ± 10.7	15.3 ± 8.9	4.2 ± 1.2	48.7 ± 34.3	5.4 ± 2.3	11.5 ± 5.2	2.7 ± 1.0	115.6 ± 25.1		
1976-77	23.5	22.7	2.4	12.5	6.7	4.0	10.7	82.5		
1977-78	184.5	24.8	7.6	12.8	4.0	5.0	12.7	251.5		
1978-79	39.9	31.0	2.2	5.5	8.0	3.4	15.0	104.5		
1979-80	87.1 ± 51.6	9.9 ± 4.5	4.0 ± 2.0	16.9 ± 14.6	7.4 ± 2.6	4.4 ± 2.4	45.8 ± 17.4	175.5 ± 56.7		
1980-81	39.5 ± 12.4	16.2 ± 8.2	1.6 ± 0.4	18.0 ± 10.0	67.2 ± 25.8	8.8 ± 3.5	11.6 ± 4.4	163.0 ± 31.9		
1981-82	38.1 ± 10.1	29.2 ± 10.3	5.1 ± 1.9	24.9 ± 10.0	19.9 ± 8.1	4.0 ± 1.0	18.1 ± 9.3	139.4 ± 21.5		
1982-83	43.9 ± 8.7	19.0 ± 9.2	6.9 ± 1.7	18.0 ± 10.7	65.4 ± 30.4	5.8 ± 1.3	16.2 ± 6.7	175.2 ± 35.3		
1983-84	29.3 ± 6.3	20.2 ± 9.4	3.5 ± 0.8	15.0 ± 6.5	3.9 ± 1.0	2.2 ± 0.4	12.0 ± 5.0	86.1 ± 14.1		
1984-85	27.4 ± 7.6	15.6 ± 5.5	1.4 ± 0.5	37.1 ± 24.9	3.0 ± 1.4	0.4 ± 0.2	15.1 ± 6.0	100.0 ± 27.3		
1985-86	13.5 ± 3.0	6.1 ± 2.0	4.0 ± 2.2	18.5 ± 5.4	3.2 ± 1.1	0.7 ± 0.3	2.2 ± 1.3	48.2 ± 7.1		
1986-87	15.7 ± 3.7	12.6 ± 5.8	1.5 ± 0.4	51.4 ± 24.4	6.0 ± 3.2	0.2 ± 0.1	1.6 ± 0.6	89.1 ± 25.6		
1987-88	20.5 ± 6.0	13.1 ± 4.4	1.0 ± 0.3	20.3 ± 9.9	31.7 ± 18.1	0.3 ± 0.2	10.3 ± 5.2	98.6 ± 22.5		
	1.5 ± 0.5									
<b>Southern flounder</b>										
1974-76	85.0 ± 30.2	36.0 ± 16.4	10.9 ± 2.7	24.7 ± 11.2	3.8 ± 1.4	55.9 ± 22.8	3.9 ± 1.2	220.2 ± 27.6		
1976-77	31.6	19.9	9.6	8.2	7.5	2.5	5.8	85.0		
1977-78	42.0	19.3	9.4	12.3	4.2	4.6	10.4	102.2		
1978-79	38.4	25.5	4.4	7.9	16.7	3.0	9.9	105.8		
1979-80	440.7 ± 284.0	12.1 ± 5.0	8.0 ± 2.8	1.9 ± 0.9	8.1 ± 3.9	15.9 ± 4.4	14.0 ± 5.1	500.7 ± 284.2		
1980-81	54.6 ± 15.0	14.6 ± 7.1	7.5 ± 3.0	10.5 ± 4.7	71.2 ± 37.0	13.6 ± 3.9	8.1 ± 2.5	180.2 ± 41.2		
1981-82	35.0 ± 8.1	14.6 ± 8.4	3.5 ± 0.9	9.9 ± 2.8	21.8 ± 10.0	10.7 ± 2.5	9.9 ± 1.9	145.4 ± 15.9		
1982-83	98.6 ± 24.3	9.1 ± 2.3	5.7 ± 1.5	15.7 ± 6.8	7.2 ± 1.3	17.7 ± 3.3	26.9 ± 3.7	180.9 ± 25.9		
1983-84	70.4 ± 18.1	23.6 ± 4.3	3.7 ± 0.8	19.6 ± 10.1	20.0 ± 7.5	8.3 ± 1.2	10.4 ± 2.0	155.9 ± 22.6		
1984-85	75.1 ± 18.2	14.4 ± 2.8	2.7 ± 0.8	11.4 ± 3.1	21.3 ± 5.0	4.0 ± 1.1	9.2 ± 2.7	138.2 ± 19.5		
1985-86	68.1 ± 14.6	16.0 ± 3.9	4.2 ± 1.3	20.8 ± 4.2	18.3 ± 4.4	18.4 ± 2.8	48.6 ± 16.9	194.4 ± 23.7		
1986-87	75.2 ± 12.0	17.0 ± 3.9	7.1 ± 2.8	8.9 ± 2.3	14.2 ± 2.6	24.0 ± 4.1	31.6 ± 3.9	178.1 ± 14.5		
1987-88	125.2 ± 29.5	19.3 ± 4.5	6.6 ± 2.3	7.0 ± 1.6	10.4 ± 2.9	10.2 ± 2.1	16.4 ± 3.2	227.3 ± 30.9		
<b>Spotted seatrout</b>										
1974-76	638.6 ± 216.6	252.1 ± 105.4	271.9 ± 70.2	750.0 ± 340.1	78.4 ± 24.8	335.4 ± 79.4	275.1 ± 64.7	2601.5 ± 288.8		
1976-77	166.9	36.3	98.8	306.8	143.1	371.1	479.5	1601.8		
1977-78	326.2	132.7	61.0	205.6	139.6	92.3	243.8	1201.2		
1978-79	369.6	103.8	25.3	163.3	104.8	54.9	182.0	1003.7		
1979-80	120.0 ± 34.2	44.0 ± 16.2	121.0 ± 53.9	89.3 ± 30.0	49.9 ± 14.4	155.3 ± 38.4	191.9 ± 53.7	771.4 ± 99.0		
1980-81	829.2 ± 354.9	78.5 ± 18.4	59.1 ± 14.7	83.3 ± 17.7	110.7 ± 22.3	290.3 ± 50.4	140.0 ± 27.6	1591.2 ± 361.4		

Table D.1. (Cont'd.)

Species Year	Bay system										Coastwide <sup>a</sup>	
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi		Upper Laguna Madre		Lower Laguna Madre		Coastwide <sup>a</sup>
						Christi	Christi	Laguna Madre	Laguna Madre	Laguna Madre	Laguna Madre	
<b>Spotted seatrout (Cont'd.)</b>												
1981-82	344.7 ± 76.8	153.0 ± 29.1	63.2 ± 8.9	159.2 ± 29.7	145.5 ± 25.8	239.2 ± 43.6	155.5 ± 16.5	1260.3 ± 102.7				
1982-83	243.2 ± 60.1	83.7 ± 13.4	63.9 ± 9.9	112.4 ± 18.8	98.8 ± 16.5	217.5 ± 22.6	252.7 ± 21.4	1072.3 ± 74.0				
1983-84	261.8 ± 50.5	161.6 ± 39.0	81.7 ± 17.8	127.6 ± 26.7	141.6 ± 31.4	190.3 ± 26.9	168.2 ± 18.0	1132.9 ± 84.4				
1984-85	95.9 ± 16.0	35.5 ± 13.5	4.7 ± 0.9	37.0 ± 20.2	36.8 ± 12.3	9.6 ± 3.4	97.1 ± 15.9	316.6 ± 35.6				
1985-86	116.9 ± 22.8	52.3 ± 10.0	25.5 ± 5.6	81.4 ± 17.6	83.5 ± 19.3	87.5 ± 13.7	98.0 ± 10.5	545.2 ± 40.3				
1986-87	245.6 ± 43.2	105.3 ± 25.2	44.1 ± 7.3	78.8 ± 17.3	109.6 ± 24.0	119.4 ± 17.4	181.0 ± 18.6	883.9 ± 63.9				
1987-88	211.0 ± 34.9	106.6 ± 13.6	78.1 ± 19.2	86.0 ± 13.7	122.8 ± 24.9	138.9 ± 19.6	154.5 ± 16.4	954.4 ± 58.8				
<b>Other species</b>												
1974-76	99.5 ± 51.5	8.3 ± 5.6	6.6 ± 2.1	6.7 ± 2.1	14.2 ± 5.4	10.9 ± 6.6	24.2 ± 18.9	170.4 ± 36.3				
1976-77	32.8	6.1	5.5	4.4	9.4	3.2	25.1	86.5				
1977-78	71.4	15.2	4.6	3.5	4.6	4.4	6.1	109.8				
1978-79	75.1	11.8	2.1	2.9	12.4	0.3	2.6	106.9				
1979-80	70.9 ± 25.9	6.8 ± 2.8	3.0 ± 1.6	0.9 ± 0.6	60.9 ± 45.9	50.7 ± 46.5	7.6 ± 4.3	200.8 ± 70.5				
1980-81	98.2 ± 21.3	11.4 ± 5.9	2.7 ± 1.0	2.4 ± 1.4	65.8 ± 38.0	14.7 ± 9.5	4.9 ± 2.4	200.1 ± 45.1				
1981-82	86.0 ± 27.3	9.7 ± 2.8	2.6 ± 1.1	7.6 ± 2.5	18.5 ± 3.3	5.4 ± 1.4	3.8 ± 0.8	133.7 ± 27.8				
1982-83	89.5 ± 15.8	8.3 ± 1.9	5.1 ± 1.2	10.6 ± 2.6	44.9 ± 11.9	11.1 ± 6.0	8.9 ± 1.9	178.4 ± 21.0				
1983-84	68.2	18.2	9.7	41.0	25.0	7.2	8.1	176.5				
1984-85	46.2	13.2	3.3	8.6	8.3	2.1	21.0	102.7				
1985-86	73.7	18.6	8.3	10.8	11.3	11.0	5.3	141.8				
1986-87	90.5	17.5	4.7	33.2	10.4	11.2	30.3	197.8				
1987-88	125.0	20.1	1.9	62.1	13.0	7.2	14.3	259.3				
<b>All species combined<sup>a</sup></b>												
1974-76	2470.6 ± 763.4	475.7 ± 181.0	353.2 ± 77.6	903.8 ± 346.2	238.7 ± 55.1	652.0 ± 154.1	412.6 ± 70.5	5506.6 ± 590.7				
1976-77	1487.6	220.4	190.3	425.1	324.3	462.6	594.2	3698.9				
1977-78	2025.0	319.1	118.1	282.8	230.0	159.7	369.3	3504.0				
1978-79	1837.1	293.8	71.7	202.8	209.2	143.3	252.0	3009.9				
1979-80	1357.8 ± 507.6	124.7 ± 30.1	165.0 ± 53.3	130.6 ± 38.1	239.5 ± 80.4	376.3 ± 107.4	307.9 ± 86.6	2701.8 ± 537.0				
1980-81	1904.4 ± 499.7	271.7 ± 67.0	88.7 ± 16.4	135.7 ± 24.0	936.5 ± 585.5	397.4 ± 60.7	199.0 ± 34.4	3933.5 ± 776.3				
1981-82	947.9 ± 155.9	308.6 ± 49.7	103.2 ± 14.1	247.4 ± 35.7	344.1 ± 47.8	329.4 ± 47.6	224.2 ± 24.0	2504.8 ± 182.7				
1982-83	1071.9 ± 129.3	192.5 ± 25.5	111.2 ± 11.6	220.7 ± 31.8	381.9 ± 55.1	309.6 ± 34.1	357.8 ± 27.3	2645.7 ± 153.2				
1983-84	808.7 ± 114.0	343.3 ± 50.8	138.4 ± 24.8	316.2 ± 51.7	359.7 ± 29.4	263.0 ± 30.2	248.0 ± 24.3	2477.3 ± 154.6				
1984-85	809.2 ± 119.9	126.2 ± 21.1	26.3 ± 3.9	146.8 ± 40.9	121.3 ± 20.4	33.9 ± 6.7	198.7 ± 27.4	1462.3 ± 133.1				
1985-86	685.2 ± 88.5	157.1 ± 20.3	54.8 ± 10.9	232.3 ± 30.4	213.2 ± 34.9	173.5 ± 20.3	211.4 ± 24.9	1727.4 ± 107.4				

Table D.1. (Cont'd.)

Species Year	Bay system								Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	
All species combined <sup>a</sup> (Cont'd.)									
1986-87	1128.9 ± 185.9	230.3 ± 32.5	77.7 ± 12.9	257.3 ± 62.6	217.5 ± 31.9	198.2 ± 24.6	329.3 ± 28.9	2439.2 ± 205.3	
1987-88	235.2 ± 38.5	1093.8 ± 155.1	218.3 ± 26.3	148.8 ± 35.3	251.1 ± 33.9	312.8 ± 49.5	201.3 ± 24.1	265.7 ± 24.9	2727.0 ± 179.7

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual species totals.

Table D.2. Estimated landings of fishes (No. x 1000) ± 1 SE caught by private-boat fishermen in Texas bays and passes during the high-use season by species and bay system (1974-1987).

Species Year	Bay system								
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi		Lower Coastwide <sup>a</sup>	
						Laguna Madre	Laguna Madre	Upper Laguna Madre	Laguna Madre
Atlantic croaker									
1974-76		551.0 ± 299.3	16.8 ± 9.0	5.7 ± 2.1	3.7 ± 2.2	5.6 ± 3.0	66.2 ± 19.5	10.1 ± 5.7	659.1 ± 41.4
1976		530.4	18.8	0.6	6.4	16.6	32.2	12.8	617.8
1977		868.6	22.8	1.0	4.2	15.0	32.2	10.4	924.2
1978		776.6	25.0	2.8	1.2	16.8	67.8	8.6	598.4
1979		235.8 ± 89.0	4.2 ± 2.2	1.5 ± 0.9	1.3 ± 0.8	6.1 ± 2.7	106.5 ± 57.6	2.0 ± 0.6	357.3 ± 106.1
1980		371.3 ± 197.9	47.5 ± 24.2	1.6 ± 0.7	1.5 ± 0.5	148.5 ± 118.3	29.2 ± 8.1	4.1 ± 1.3	603.6 ± 232.0
1981		190.8 ± 48.1	6.4 ± 2.1	0.6 ± 0.4	1.3 ± 0.5	40.9 ± 22.1	24.6 ± 8.4	2.6 ± 0.6	267.3 ± 53.7
1982		176.6 ± 32.3	6.4 ± 2.0	1.1 ± 0.5	4.6 ± 3.2	15.7 ± 5.0	24.5 ± 13.5	5.7 ± 1.4	234.5 ± 35.6
1983		156.5 ± 36.0	11.3 ± 3.8	1.3 ± 0.5	25.5 ± 6.5	38.3 ± 13.2	26.6 ± 5.2	4.5 ± 0.8	264.0 ± 39.5
1984		201.2 ± 41.3	5.6 ± 1.7	0.3 ± 0.2	4.5 ± 1.8	7.1 ± 2.6	2.0 ± 0.7	2.2 ± 0.8	222.9 ± 41.4
1985		210.8 ± 41.9	9.5 ± 3.0	0.2 ± 0.1	10.6 ± 4.2	10.8 ± 4.0	16.3 ± 3.7	6.1 ± 1.2	264.3 ± 42.6
1986		329.6 ± 104.3	10.0 ± 4.6	0.1 ± 0.1	3.3 ± 1.6	10.7 ± 3.1	11.8 ± 3.6	6.4 ± 1.6	371.9 ± 104.5
1987		274.2 ± 46.3	7.2 ± 2.2	0.9 ± 0.4	10.9 ± 3.9	34.4 ± 10.6	14.7 ± 3.7	2.9 ± 0.8	399.8 ± 52.1
86.7 ± 20.5									
Black drum									
1974-76		12.2 ± 7.9	16.6 ± 11.8	1.8 ± 0.7	16.0 ± 14.7	10.1 ± 5.0	4.7 ± 2.7	17.0 ± 12.7	78.4 ± 2.8
1976		65.8	8.9	33.9	5.5	3.3	14.7	3.5	136.7
1977		99.2	22.6	2.4	2.8	2.8	2.6	3.3	136.0
1978		49.4	19.9	3.3	0.9	1.9	1.9	14.7	91.9
1979		33.6 ± 9.9	7.1 ± 4.4	0.7 ± 0.5	9.6 ± 5.8	1.0 ± 0.5	0.5 ± 0.5	1.5 ± 1.0	54.0 ± 12.4
1980		38.5 ± 10.8	31.1 ± 13.3	1.1 ± 0.4	1.6 ± 0.8	6.4 ± 2.5	6.1 ± 2.4	5.3 ± 2.6	90.1 ± 17.7
1981		36.6 ± 10.0	19.8 ± 4.5	4.7 ± 3.6	7.2 ± 2.7	6.2 ± 2.7	0.9 ± 0.3	1.4 ± 0.7	76.7 ± 12.2
1982		62.0 ± 13.9	16.8 ± 4.0	0.7 ± 0.2	4.5 ± 2.3	7.3 ± 2.4	6.4 ± 2.0	2.6 ± 0.8	100.5 ± 15.0
1983		18.9 ± 3.7	17.1 ± 4.2	2.6 ± 1.0	8.4 ± 2.5	5.0 ± 1.3	1.7 ± 0.4	1.6 ± 0.5	55.4 ± 12.0
1984		20.7 ± 4.3	7.6 ± 2.5	0.3 ± 0.1	0.3 ± 0.2	1.9 ± 0.6	0.2 ± 0.1	1.1 ± 0.3	32.1 ± 5.0
1985		16.3 ± 6.2	5.2 ± 3.2	0.4 ± 0.2	2.2 ± 1.2	5.3 ± 3.1	5.1 ± 1.9	1.3 ± 0.5	35.6 ± 8.0
1986		23.4 ± 7.8	11.0 ± 3.2	0.9 ± 0.6	0.8 ± 0.3	1.1 ± 0.3	1.6 ± 0.6	1.9 ± 1.2	40.7 ± 11.9
1987		27.2 ± 8.5	6.2 ± 1.5	1.0 ± 0.4	3.2 ± 1.7	1.5 ± 0.5	3.2 ± 0.9	1.6 ± 0.5	47.7 ± 8.9
3.8 ± 0.9									
Gafftopsail catfish									
1974-76		41.3 ± 30.1	4.2 ± 3.1	2.7 ± 1.2	7.2 ± 6.3	0.0	0.0	0.0	55.4 ± 6.6
1976		13.3	33.0	2.0	3.2	3.3	0.0	0.1	54.8
1977		4.7	27.5	5.3	0.4	1.2	0.0	0.0	39.0
1978		7.1	27.5	3.0	2.0	4.4	<.1	0.4	44.7
1979		3.1 ± 2.0	1.4 ± 0.7	0.3 ± 0.1	0.1 ± 0.1	0.9 ± 0.6	0.1 ± 0.1	0.0	5.9 ± 2.2
1980		5.3 ± 4.1	0.4 ± 0.3	0.3 ± 0.2	0.4 ± 0.2	0.7 ± 0.3	<.1 ± 0.1	0.1 ± 0.1	7.2 ± 4.1
1981		4.2 ± 2.1	4.9 ± 2.3	0.9 ± 0.5	1.1 ± 0.3	2.0 ± 0.8	0.1 ± 0.1	<.1 ± 0.1	13.2 ± 3.3



Table D.2. (Cont'd.)

Species Year	Bay system									
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide <sup>a</sup>	
Gafftopsail catfish (Cont'd.)										
1982	5.0 ± 2.4	2.4	3.2 ± 1.1	1.3 ± 0.4	1.7 ± 0.7	2.6 ± 0.7	<.1 ± <.1	0.1 ± 0.1	14.0 ± 2.9	
1983	2.2 ± 1.2	1.2	4.5 ± 2.1	1.3 ± 0.5	1.8 ± 0.6	6.4 ± 3.0	0.2 ± 0.1	0.1 ± 0.1	16.6 ± 3.9	
1984	1.7 ± 0.7	0.7	3.4 ± 1.0	2.0 ± 0.9	1.6 ± 0.6	0.4 ± 0.2	0.2 ± 0.2	<.1 ± <.1	9.3 ± 1.6	
1985	5.4 ± 3.7	3.7	2.4 ± 0.6	0.6 ± 0.2	3.1 ± 1.0	0.9 ± 0.4	0.0	0.0	12.4 ± 3.9	
1986	5.7 ± 3.4	3.4	4.8 ± 1.7	1.0 ± 0.4	1.3 ± 0.5	1.1 ± 0.3	0.0	0.1 ± 0.1	13.9 ± 3.8	
1987	0.7 ± 0.4	0.7	4.1 ± 1.2	0.6 ± 0.2	2.8 ± 1.8	0.8 ± 0.4	0.0	0.3 ± 0.2	11.3 ± 2.3	
Red drum										
1974-76	88.5 ± 67.1	67.1	21.7 ± 10.1	25.9 ± 6.7	13.5 ± 4.9	10.9 ± 6.9	11.6 ± 3.8	40.6 ± 17.5	212.1 ± 9.6	
1976	21.0		11.9	28.3	15.2	10.5	5.5	16.1	108.5	
1977	64.8		7.2	6.4	14.9	4.2	3.1	12.4	113.1	
1978	27.0		16.8	3.5	1.8	4.9	3.1	6.4	63.6	
1979	37.2 ± 19.3	19.3	12.4 ± 6.2	10.6 ± 4.1	2.7 ± 1.8	2.0 ± 0.7	2.4 ± 1.9	21.7 ± 11.9	89.0 ± 24.1	
1980	63.1 ± 24.8	24.8	27.2 ± 8.1	7.7 ± 1.3	7.7 ± 2.8	11.1 ± 3.7	20.6 ± 4.1	9.8 ± 2.7	147.3 ± 27.0 <sup>1</sup>	
1981	26.3 ± 8.6	8.6	14.2 ± 3.3	8.1 ± 2.5	6.6 ± 1.4	7.8 ± 1.5	12.6 ± 3.4	3.9 ± 0.7	79.3 ± 10.3 <sup>2</sup>	
1982	25.0 ± 5.9	5.9	12.6 ± 3.3	11.8 ± 1.4	17.0 ± 4.7	7.8 ± 2.2	12.0 ± 1.9	13.5 ± 1.4	99.7 ± 8.9	
1983	19.8 ± 4.9	4.9	36.2 ± 7.1	23.2 ± 3.3	30.2 ± 5.6	16.8 ± 3.9	12.8 ± 1.5	22.9 ± 2.9	161.8 ± 12.0	
1984	11.4 ± 1.9	1.9	3.50 ± 0.8	1.7 ± 0.4	12.9 ± 3.8	8.9 ± 2.1	2.5 ± 0.7	15.2 ± 2.6	56.0 ± 5.5	
1985	18.0 ± 3.6	3.6	13.3 ± 5.1	5.8 ± 2.1	30.2 ± 5.3	16.9 ± 4.6	15.9 ± 2.5	22.3 ± 3.2	122.4 ± 10.4	
1986	27.8 ± 5.9	5.9	35.7 ± 6.0	14.8 ± 3.4	24.4 ± 4.6	19.8 ± 3.8	12.3 ± 2.0	39.9 ± 4.5	174.7 ± 11.9	
1987	29.1 ± 5.2	5.2	24.8 ± 4.9	17.8 ± 5.0	19.8 ± 3.1	20.0 ± 3.6	17.3 ± 2.4	40.8 ± 4.5	176.7 ± 11.4	
Sand seatrout										
1974-76	449.4 ± 372.7	372.7	66.3 ± 45.4	3.7 ± 2.5	6.7 ± 5.6	75.5 ± 26.1	49.3 ± 44.2	17.1 ± 11.1	668.0 ± 52.2	
1976	587.1		30.7	0.2	82.9	60.6	22.6	19.4	778.8	
1977	305.7		27.3	2.1	13.0	45.7	4.5	50.2	448.3	
1978	541.6		25.5	<.1	3.1	32.8	2.1	5.4	610.4	
1979	288.2 ± 170.1	170.1	8.6 ± 4.1	3.9 ± 2.1	0.4 ± 0.2	78.8 ± 53.0	21.3 ± 15.4	10.9 ± 9.2	412.0 ± 179.1	
1980	334.2 ± 99.2	99.2	26.4 ± 13.5	0.9 ± 0.5	9.1 ± 3.4	433.6 ± 377.0	6.6 ± 2.5	7.9 ± 2.6	818.6 ± 390.1	
1981	149.7 ± 40.1	40.1	40.2 ± 18.2	1.9 ± 1.2	6.0 ± 2.9	47.1 ± 12.8	13.1 ± 7.0	15.9 ± 4.8	273.9 ± 46.7	
1982	278.5 ± 53.9	53.9	21.4 ± 6.4	5.4 ± 1.8	15.8 ± 4.1	74.9 ± 18.7	8.0 ± 2.9	13.0 ± 3.3	417.0 ± 57.8	
1983	132.2 ± 59.5	59.5	33.7 ± 12.4	3.5 ± 0.9	27.6 ± 9.3	95.1 ± 24.4	12.0 ± 3.4	9.0 ± 2.7	313.1 ± 66.3	
1984	289.3 ± 81.0	81.0	12.7 ± 7.7	2.0 ± 0.9	23.7 ± 8.9	23.8 ± 7.6	5.9 ± 2.6	11.7 ± 3.0	369.0 ± 82.3	
1985	130.3 ± 36.2	36.2	22.5 ± 6.9	3.2 ± 0.6	19.7 ± 6.3	20.3 ± 7.1	3.9 ± 0.8	11.8 ± 2.4	211.7 ± 38.1	
1986	269.0 ± 66.6	66.6	5.9 ± 2.5	0.2 ± 0.1	15.0 ± 6.3	32.0 ± 10.0	3.9 ± 2.2	14.1 ± 4.4	340.0 ± 67.8	
1987	275.8 ± 74.8	74.8	2.3 ± 0.9	1.5 ± 0.7	32.2 ± 10.1	24.6 ± 13.5	1.1 ± 0.7	8.1 ± 3.8	368.2 ± 77.8	

Table D.2. (Cont'd.)

Species Year	Bay system										Coastwide <sup>a</sup>		
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi		Upper Laguna Madre		Lower Laguna Madre			
						Christi		Laguna Madre					
Sheepshead													
1974-76	9.4 ± 20.8	6.1 ± 20.7	12.7 ± 20.3	1.9 ± 2.4	0.9 ± 7.7	0.9 ± 0.9	1.6 ± 7.7	2.7 ± 4.6	1.3 ± 2.8	0.6 ± 7.6	3.4 ± 3.4	0.4 ± 0.4	33.3 ± 68.2
1976	172.8		19.8	3.8	5.7		5.7	3.3	1.9	2.6			209.6
1977	32.1		22.9	0.7	1.7		1.7	5.4	0.2	2.6			65.8
1978	33.7 ± 28.2	20.7 ± 9.5	7.1 ± 7.0	3.6 ± 1.1	2.0 ± 0.3	1.3 ± 2.1	2.3 ± 4.1	1.7 ± 16.6	0.9 ± 8.1	17.0 ± 6.2	0.1 ± 2.9	0.9 ± 3.8	65.7 ± 67.9
1979	34.5 ± 39.3	7.9 ± 6.0	13.6 ± 13.0	2.7 ± 1.2	0.8 ± 0.3	4.1 ± 1.1	11.0 ± 3.1	5.2 ± 4.0	1.2 ± 1.2	0.7 ± 3.7	0.1 ± 0.6	0.1 ± 1.6	68.7 ± 67.5
1980	25.6 ± 27.0	7.6 ± 2.5	5.9 ± 11.6	2.9 ± 0.9	0.7 ± 0.3	0.9 ± 0.3	4.0 ± 0.9	3.2 ± 1.8	1.2 ± 0.9	2.6 ± 2.6	0.4 ± 0.4	0.8 ± 0.8	67.5 ± 46.2
1981	10.9 ± 11.9	2.5 ± 3.2	2.7 ± 4.2	0.9 ± 2.4	0.3 ± 2.0	0.5 ± 1.7	0.9 ± 1.7	1.8 ± 1.3	0.5 ± 0.5	2.1 ± 0.5	< 0.1	0.2 ± 0.2	44.3 ± 19.8
1982	19.3 ± 19.3	5.9 ± 5.9	9.2 ± 4.0	0.7 ± 0.7	0.2 ± 0.2	0.3 ± 0.3	0.5 ± 0.7	0.8 ± 0.8	0.2 ± 0.2	0.8 ± 0.8	0.1 ± 0.1	0.3 ± 0.3	32.0 ± 32.0
1983													
1984													
1985													
1986													
1987	0.4 ± 0.1												
Southern flounder													
1974-76	44.3 ± 29.8	24.9 ± 29.8	15.9 ± 6.9	8.4 ± 8.6	2.6 ± 7.0	10.8 ± 10.8	17.6 ± 7.0	0.6 ± 6.2	0.3 ± 2.4	2.6 ± 4.8	21.8 ± 2.4	1.1 ± 1.1	121.8 ± 65.7
1976	35.2		13.7	7.8	11.1		11.1	3.4	3.2	7.6			81.9
1977	33.4 ± 247.1	209.8 ± 50.2	9.1 ± 13.6	4.7 ± 7.1	2.7 ± 3.0	0.8 ± 3.6	1.4 ± 7.2	4.7 ± 61.1	3.7 ± 35.9	10.7 ± 6.7	4.4 ± 2.1	5.0 ± 2.4	293.8 ± 153.8
1978	50.2 ± 24.0	14.5 ± 5.4	13.1 ± 8.4	2.8 ± 2.8	0.8 ± 0.8	2.7 ± 2.7	7.9 ± 7.9	20.4 ± 20.4	10.0 ± 10.0	7.1 ± 7.1	2.1 ± 2.1	2.4 ± 1.7	82.8 ± 82.8
1979	87.1 ± 63.6	22.4 ± 17.8	7.5 ± 20.9	5.0 ± 3.3	1.4 ± 0.8	6.7 ± 10.1	13.5 ± 18.4	5.4 ± 19.8	1.1 ± 7.5	13.9 ± 7.5	3.2 ± 1.1	3.5 ± 2.0	154.1 ± 143.7
1980	45.7 ± 49.1	7.4 ± 13.8	11.7 ± 12.1	2.3 ± 2.4	0.8 ± 0.5	2.6 ± 3.7	8.2 ± 15.0	16.3 ± 8.1	4.5 ± 1.7	2.1 ± 9.9	0.7 ± 1.6	0.4 ± 3.7	87.9 ± 128.1
1981	59.8 ± 59.8	10.7 ± 10.7	14.2 ± 17.4	6.7 ± 5.0	2.8 ± 2.1	2.2 ± 1.5	6.7 ± 5.7	8.9 ± 5.7	1.6 ± 1.8	17.9 ± 7.1	3.8 ± 1.8	3.1 ± 1.5	135.9 ± 188.6
1982													
1983													
1984													
1985													
1986													
1987	18.2 ± 3.3												
Spotted seatrout													
1974-76	509.2 ± 126.9	206.0 ± 318.7	211.8 ± 24.3	168.1 ± 97.2	60.9 ± 276.4	335.8 ± 335.8	626.2 ± 276.4	44.2 ± 127.3	22.6 ± 351.4	168.9 ± 250.3	54.6 ± 54.6	53.4 ± 53.4	1879.9 ± 1253.7
1976	318.7		116.3	51.9	184.8		184.8	126.0	58.4	205.7			1061.8
1977	355.7		75.5	23.4	135.9		135.9	95.9	34.3	162.2			882.8
1978	89.9 ± 740.2	26.3 ± 348.9	30.0 ± 72.1	111.0 ± 49.2	53.7 ± 14.3	29.2 ± 16.1	79.9 ± 67.9	31.9 ± 84.2	12.1 ± 20.0	124.7 ± 110.1	47.3 ± 24.4	47.3 ± 24.4	528.5 ± 1292.3
1979													
1980													

Table D.2. (Cont'd.)

Species Year	Bay system								Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	
<b>Spotted seatrout (Cont'd.)</b>									
1981	314.0 ± 74.6	74.6	132.6 ± 26.2	51.6 ± 6.6	114.5 ± 25.5	99.3 ± 15.9	144.7 ± 25.0	110.8 ± 13.0	967.5 ± 89.4
1982	235.6 ± 59.9	59.9	75.0 ± 12.5	57.1 ± 9.7	88.5 ± 16.5	76.0 ± 14.9	165.2 ± 18.6	194.6 ± 16.7	892.0 ± 70.4
1983	190.8 ± 39.1	39.1	120.4 ± 22.9	75.1 ± 17.3	118.2 ± 25.8	134.6 ± 31.0	185.8 ± 26.7	143.9 ± 16.3	968.7 ± 70.4
1984	79.1 ± 12.0	12.0	11.9 ± 2.4	3.2 ± 0.7	8.3 ± 2.3	11.5 ± 4.4	3.6 ± 2.1	49.0 ± 7.6	166.6 ± 15.4
1985	107.3 ± 21.8	21.8	33.5 ± 6.5	16.1 ± 4.3	33.0 ± 5.7	37.0 ± 7.1	41.1 ± 7.4	61.9 ± 5.9	329.9 ± 26.7
1986	173.0 ± 31.4	31.4	65.2 ± 10.9	29.7 ± 5.9	29.5 ± 5.8	56.6 ± 11.7	55.2 ± 9.1	104.4 ± 10.0	513.6 ± 38.6
1987	198.9 ± 34.1	34.1	85.2 ± 11.6	55.8 ± 9.8	65.9 ± 11.9	71.5 ± 18.5	78.4 ± 9.2	101.5 ± 9.0	698.5 ± 47.2
<b>Other Species</b>									
<b>1974-76</b>									
1976	17.4 ± 32.6	7.5	5.7 ± 4.0	5.4 ± 4.0	5.6 ± 4.3	10.7 ± 7.6	9.6 ± 3.2	21.6 ± 7.5	76.0 ± 63.0
1977	22.2		13.9	2.7	2.2	2.9	4.4	3.7	52.0
1978	58.4		11.5	1.8	1.3	2.4	0.3	2.4	78.2
1979	66.9 ± 25.6	25.6	4.0 ± 1.6	2.6 ± 1.6	1.0 ± 0.6	14.4 ± 11.0	50.0 ± 46.6	5.6 ± 4.1	144.4 ± 54.5
1980	72.0 ± 16.6	16.6	11.0 ± 5.9	1.8 ± 0.7	1.2 ± 0.7	60.0 ± 37.9	13.1 ± 9.4	0.5 ± 0.2	159.6 ± 42.9
1981	46.8 ± 12.8	12.8	8.6 ± 2.6	2.5 ± 1.1	3.7 ± 1.3	13.1 ± 2.6	4.5 ± 1.3	2.8 ± 0.7	82.0 ± 13.5
1982	72.2 ± 14.0	14.0	8.3 ± 1.9	3.7 ± 1.0	8.7 ± 2.4	18.6 ± 3.4	9.7 ± 6.0	5.7 ± 1.1	126.9 ± 16.0
1983	29.8		13.7	8.8	32.1	24.4	5.9	5.9	120.0
1984	42.8		5.9	3.0	7.7	5.1	1.2	5.7	71.4
1985	38.1		11.6	1.8	8.9	7.6	4.9	3.7	76.6
1986	64.3		15.7	3.5	3.6	7.5	2.6	13.3	110.4
1987	117.4		12.0	1.7	54.2	9.4	5.4	10.7	209.3
<b>All species combined<sup>a</sup></b>									
<b>1974-76</b>									
1976	1722.6 ± 1427.7	697.4	371.7 ± 158.7	223.6 ± 176.8	698.0 ± 86.2	160.2 ± 240.8	329.6 ± 434.8	278.6 ± 322.0	3784.3 ± 3147.0
1977	1891.9		271.1	83.5	239.0	204.5	110.3	295.9	3096.2
1978	1581.3		242.6	42.9	151.9	179.6	110.7	211.0	2519.9
1979	1035.4 ± 448.5	448.5	83.8 ± 26.7	141.0 ± 52.6	94.8 ± 52.6	141.4 ± 66.1	260.1 ± 103.4	194.1 ± 77.5	1950.6 ± 476.1
1980	1703.1 ± 492.3	492.3	236.3 ± 64.5	70.9 ± 15.7	100.8 ± 19.8	822.1 ± 584.6	256.6 ± 32.4	150.6 ± 30.9	3340.4 ± 768.7
1981	826.9 ± 144.9	144.9	253.3 ± 46.1	75.7 ± 10.0	159.3 ± 29.7	241.9 ± 40.1	209.2 ± 29.9	145.0 ± 16.2	1911.3 ± 163.9
1982	981.3 ± 123.2	123.2	164.3 ± 23.4	87.3 ± 10.8	157.4 ± 25.2	212.3 ± 29.5	242.9 ± 30.5	260.7 ± 21.4	2106.3 ± 136.9
1983	639.4 ± 100.1	100.1	263.6 ± 35.3	122.1 ± 23.2	266.2 ± 44.6	343.8 ± 58.8	253.9 ± 29.7	200.5 ± 20.5	2089.4 ± 136.2
1984	718.8 ± 114.7	114.7	74.0 ± 12.8	15.5 ± 2.3	68.1 ± 14.4	76.8 ± 14.2	17.7 ± 4.2	88.6 ± 11.1	1059.5 ± 117.8
1985	606.3 ± 84.2	84.2	112.8 ± 16.8	33.1 ± 5.4	124.4 ± 14.3	108.2 ± 18.1	98.7 ± 13.1	129.2 ± 11.0	1212.6 ± 90.7

Table D.2. (Cont'd.)

Species Year	Bay system									
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide <sup>a</sup>	
All species combined <sup>a</sup> (Cont'd.)										
1986		964.4 ± 178.8	491.0 ± 54.2	57.8 ± 11.8	85.1 ± 11.1	138.1 ± 19.0	105.4 ± 13.6	203.0 ± 16.4	1720.4 ± 183.0	
1987	255.9 ± 37.9	1036.0 ± 153.6	168.5 ± 22.3	85.0 ± 15.6	195.3 ± 3.5	168.7 ± 30.3	127.4 ± 13.2	177.1 ± 14.8	2144.4 ± 167.1	

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual species totals.

Table D.3. Estimated landings of fishes (No. x 1000) ± 1 SE caught by private-boat fishermen in Texas bays and passes during the low-use season by species and bay system (1974-1988).

Species Year	Bay system																
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi		Upper Laguna Madre		Lower Laguna Madre	Coastwide <sup>a</sup>						
						Christi	Christi	Laguna Madre	Laguna Madre								
<b>Atlantic croaker</b>																	
1974-76		148.1 ± 5.6	76.6	2.9 ± 5.6	2.9 ± 0.6	0.3 ± 0.1	0.2	0.1	0.1	6.9 ± 1.8	4.7	86.2 ± 1.6	84.2	1.8 ± 2.0	1.1	246.3 ± 17.4	15.4
1976-77		5.6		5.6	0.6	0.0	0.0	0.0	0.0	1.8		1.6		0.8		12.6	
1977-78		6.6		1.4	<.1	0.0	0.0	0.0	0.0	1.2		2.6		0.4		5.6	
1978-79		5.2		0.0	0.0	0.0	0.0	0.0	0.0	0.0		<.1		0.4			
1979-80		14.7 ± 0.9	12.7	4.1 ± 0.8	0.5 ± 0.0	0.4	0.2	0.2	0.2	5.8 ± 0.6	3.6	0.4 ± 1.5	0.2	0.3 ± 3.3	0.2	25.9 ± 7.1	13.3
1980-81		0.9 ± 1.9	0.5	0.8 ± 0.3	0.0	0.0	0.0	0.0	0.0	0.6 ± 0.9	0.4	1.5 ± 4.7	0.6	3.3 ± 0.4	2.7	7.1 ± 8.2	2.9
1981-82		1.9 ± 3.0	1.0	0.3 ± 1.4	0.0	0.0	0.0	0.0	0.0	0.9 ± 4.5	0.4	4.7 ± 1.2	2.4	0.4 ± 2.3	0.2	8.2 ± 14.8	2.6
1982-83		3.0 ± 2.9	1.6	1.4 ± 1.9	<.1	<.1	2.3 ± 2.2	2.2	2.2	4.5 ± 0.0	2.6	1.2 ± <.1	0.6	2.3 ± <.1	0.9	14.8 ± 14.9	4.0
1983-84		2.9 ± 12.7	1.9	0.0	0.0	0.0	25.5 ± 0.3	6.5	6.5	0.0	0.8	<.1 ± 0.6	0.6	<.1 ± 1.8	<.1	14.9 ± 17.7	12.0
1984-85		12.7 ± 3.6	7.6	1.3 ± 3.0	0.0	0.0	0.3 ± 2.3	0.3	0.3	1.0 ± 0.1	0.8	0.6 ± 0.7	0.6	1.8 ± 0.3	1.3	17.7 ± 10.0	7.9
1985-86		3.6 ± 1.1	3.5	3.0 ± 0.3	0.0	0.0	2.3 ± 2.2	1.5	1.5	0.1 ± 0.2	0.1	0.7 ± 2.6	0.3	0.3 ± 0.2	0.3	10.0 ± 6.5	4.7
1986-87		1.1 ± 4.8	0.6	0.3 ± 5.1	0.0	0.0	2.2 ± 1.4	1.9	1.9	0.2 ± 10.1	0.1	2.6 ± 0.3	1.3	0.2 ± 0.2	0.1	6.5 ± 25.2	2.4
1987-88	6.9 ± 4.2	4.8 ± 2.7	2.7	5.1 ± 3.0	0.0	0.0	1.4 ± 3.8	1.0	1.0	10.1 ± 3.7	5.9	0.3 ± 7.8	0.3	0.2 ± 8.1	0.2	25.2 ± 49.7	7.9 <sup>13</sup>
<b>Black drum</b>																	
1974-76		23.0 ± 1.2	8.2	3.8 ± 5.5	1.1 ± 3.1	0.6	2.2 ± 1.7	0.9	0.9	3.7 ± 1.4	2.1	7.8 ± 1.7	5.6	8.1 ± 5.9	4.7	49.7 ± 20.4	6.1
1976-77		12.6		3.6	5.7	2.4	2.4	2.4	2.4	2.8		5.7		9.5		42.3	
1977-78		45.5		0.5	2.4	0.9	0.9	0.9	0.9	0.9		4.3		3.3		57.7	
1979-80		3.6 ± 48.6	2.0	6.3 ± 13.6	1.3 ± 1.4	0.5	0.2 ± 0.1	0.2	0.2	2.6 ± 1.8	1.3	6.5 ± 0.9	5.7	2.8 ± 1.1	1.5	23.5 ± 67.5	7.8
1980-81		23.3 ± 43.7	29.8	5.1 ± 7.7	4.3 ± 3.6	2.5	8.4 ± 3.7	4.2	4.2	2.4 ± 4.2	1.3	8.3 ± 2.6	3.7	4.2 ± 5.3	1.6	55.9 ± 70.8	19.4
1981-82		7.8 ± 3.6	4.5	5.1 ± 6.1	0.9 ± 1.2	1.3	3.7 ± 5.1	2.0	2.0	4.2 ± 2.9	1.6	2.6 ± 1.2	0.8	5.3 ± 4.7	0.5	35.2	
1983-84		3.6 ± 5.8	2.4	6.1 ± 3.2	1.2 ± 0.6	0.6	5.1 ± 0.5	4.9	4.9	1.9 ± 7.8	1.4	0.5 ± 2.9	0.4	4.0 ± 3.4	2.5	25.3 ± 22.4	6.2
1984-85		5.8 ± 2.8	3.1	3.2 ± 2.0	0.6 ± 0.7	0.6	0.5 ± 4.3	0.2	0.2	7.8 ± 0.5	5.9	2.9 ± 3.0	2.2	3.4 ± 4.0	1.4	24.4 ± 92.1	7.2
1985-86		2.8 ± 13.6	1.4	4.4 ± 8.4	0.7 ± 9.6	0.4	4.3 ± 0.8	2.1	2.1	0.5 ± 2.3	0.3	0.6 ± 1.1	1.8	4.0 ± 2.5	2.0	38.6 ± 25.0	11.8
1987-88	4.9 ± 2.7	8.4	8.4	4.4 ± 3.0	9.6 ± 1.5	7.0	0.8 ± 5.6	0.5	0.5	2.3 ± 3.3	1.1	0.6 ± 0.0	0.3	2.5 ± 0.0	1.5	38.6 ± 25.0	11.8
<b>Gafftopsail catfish</b>																	
1974-76		1.6 ± 4.3	0.9	13.3 ± 1.3	1.5 ± 4.3	0.8	5.6 ± 0.5	5.6	5.6	3.3 ± 2.8	3.0	0.0	0.0	0.0	0.0	25.0 ± 13.2	1.4
1976-77		2.5		4.8	1.0	1.8	1.8	1.8	1.8	0.2		0.0		0.0		10.3	
1977-78		23.9		0.5	0.8	3.8	3.8	3.8	3.8	2.5		0.0		0.0		31.5	
1978-79		0.0		0.0	0.9 ± 0.4	0.4	<.1 ± <.1	<.1	<.1	3.2 ± 1.2	2.6	0.2 ± 0.0	0.2	0.0	0.0	4.3 ± 11.9	2.6
1979-80		9.2 ± 0.0	7.6	1.1 ± 2.1	0.3 ± 0.0	0.2	0.2 ± 2.2	0.2	0.2	1.2 ± 14.5	0.8	0.0	0.0	0.0	0.0	19.0 ± 19.3	7.7
1980-81		0.0		1.9	0.0	1.8	2.2 ± 1.8	1.8	1.8	14.5 ± 14.1	14.1	0.2 ± 0.2	0.2	0.2 ± 0.2	0.2	19.0 ± 14.3	14.3
1981-82		0.0		2.1 ± 1.9	0.0	0.0	2.2 ± 1.8	1.8	1.8	0.2 ± 0.2	0.2	0.2 ± 0.2	0.2	0.2 ± 0.2	0.2	19.0 ± 14.3	14.3

Table D.3. (Cont'd.)

Species Year	Bay system										Lower	
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Christi	Upper Laguna Madre	Laguna Madre	Coastwide <sup>a</sup>			
Gafftopsail catfish (Cont'd.)												
1982-83	0.1 ± 0.1	0.6 ± 0.5	0.6 ± 0.5	1.8 ± 0.8	0.1 ± 0.1	4.4 ± 2.1	0.0	0.0	0.0	0.0	0.0	6.9 ± 2.3
1983-84	1.1 ± 1.1	0.4 ± 0.4	0.4 ± 0.4	0.6 ± 0.6	0.4 ± 0.2	<.1 ± <.1	0.0	0.0	0.0	0.0	0.0	2.6 ± 1.3
1984-85	0.6 ± 0.6	0.8 ± 0.6	0.8 ± 0.6	0.2 ± 0.2	0.2 ± 0.2	0.3 ± 0.3	0.0	0.0	0.0	0.1 ± 0.1	0.1	2.3 ± 0.9
1985-86	3.0 ± 1.9	1.0 ± 0.6	1.0 ± 0.6	0.0	0.2 ± 0.1	0.3 ± 0.3	0.1 ± 0.1	0.1	0.0	0.0	0.0	4.6 ± 2.0
1986-87	1.3 ± 0.9	0.8 ± 0.5	0.8 ± 0.5	0.9 ± 0.7	1.0 ± 0.9	0.4 ± 0.3	0.0	0.0	0.0	0.0	0.0	4.4 ± 1.6
1987-88	6.7 ± 5.2	0.3 ± 0.3	0.3 ± 0.3	0.8 ± 0.8	0.1 ± 0.1	0.1 ± 0.1	0.0	0.0	0.0	0.0	0.0	8.7 ± 5.3
Red drum												
1974-76	31.5 ± 13.0	16.2 ± 8.2	16.2 ± 8.2	12.9 ± 3.7	9.7 ± 4.3	6.1 ± 3.2	8.8 ± 2.7	8.8 ± 2.7	9.6 ± 3.5	9.6 ± 3.5	9.6 ± 3.5	94.8 ± 2.3
1976-77	1.8	3.0	3.0	1.4	2.4	0.4	3.5	3.5	4.4	4.4	4.4	16.9
1977-78	4.4	4.3	4.3	10.7	8.0	0.7	1.5	1.5	6.2	6.2	6.2	35.6
1978-79	2.0	6.2	6.2	21.8	2.6	0.7	0.4	0.4	2.0	2.0	2.0	35.7
1979-80	3.9 ± 3.2	7.8 ± 4.6	7.8 ± 4.6	9.4 ± 4.7	7.1 ± 4.6	6.0 ± 3.0	10.7 ± 3.5	10.7 ± 3.5	8.1 ± 3.5	8.1 ± 3.5	8.1 ± 3.5	53.0 ± 10.4
1980-81	6.8 ± 3.5	2.7 ± 1.2	2.7 ± 1.2	4.7 ± 2.6	0.7 ± 0.4	3.4 ± 1.9	5.1 ± 2.1	5.1 ± 2.1	1.9 ± 1.0	1.9 ± 1.0	1.9 ± 1.0	25.4 ± 5.5
1981-82	7.9 ± 4.5	6.4 ± 5.4	6.4 ± 5.4	8.1 ± 3.9	7.4 ± 3.2	1.8 ± 0.6	4.9 ± 1.2	4.9 ± 1.2	4.6 ± 1.8	4.6 ± 1.8	4.6 ± 1.8	41.1 ± 8.9
1982-83	2.2 ± 1.5	2.0 ± 1.0	2.0 ± 1.0	2.6 ± 0.8	8.4 ± 5.1	0.7 ± 0.2	2.3 ± 0.8	2.3 ± 0.8	8.2 ± 2.5	8.2 ± 2.5	8.2 ± 2.5	26.5 ± 6.0
1983-84	5.5 ± 2.1	10.4 ± 5.2	10.4 ± 5.2	6.2 ± 4.2	3.7 ± 2.1	3.5 ± 2.4	0.5 ± 0.3	0.5 ± 0.3	5.9 ± 2.2	5.9 ± 2.2	5.9 ± 2.2	35.8 ± 8.0
1984-85	9.5 ± 4.8	5.4 ± 2.5	5.4 ± 2.5	5.8 ± 2.9	4.1 ± 1.6	6.4 ± 3.4	1.3 ± 0.7	1.3 ± 0.7	7.2 ± 2.9	7.2 ± 2.9	7.2 ± 2.9	39.6 ± 7.8
1985-86	1.3 ± 0.7	3.6 ± 1.4	3.6 ± 1.4	1.5 ± 0.6	6.9 ± 1.8	7.4 ± 2.9	2.6 ± 1.1	2.6 ± 1.1	9.1 ± 2.9	9.1 ± 2.9	9.1 ± 2.9	32.4 ± 4.9
1986-87	20.1 ± 13.6	7.3 ± 4.1	7.3 ± 4.1	1.6 ± 0.8	26.7 ± 11.5	11.5 ± 3.7	7.9 ± 2.4	7.9 ± 2.4	16.9 ± 4.4	16.9 ± 4.4	16.9 ± 4.4	92.1 ± 19.3
1987-88	3.4 ± 1.9	4.3 ± 1.6	4.3 ± 1.6	19.3 ± 8.5	2.6 ± 1.1	14.0 ± 6.6	6.6 ± 2.3	6.6 ± 2.3	13.9 ± 4.3	13.9 ± 4.3	13.9 ± 4.3	65.0 ± 12.2
Sand seatrout												
1974-76	273.2 ± 212.2	2.2 ± 1.9	2.2 ± 1.9	4.0 ± 3.4	9.2 ± 8.3	14.6 ± 5.3	3.6 ± 2.0	3.6 ± 2.0	2.4 ± 1.8	2.4 ± 1.8	2.4 ± 1.8	309.2 ± 27.9
1976-77	2.4	<.1	<.1	0.0	0.0	40.8	0.0	0.0	0.9	0.9	0.9	44.2
1977-78	31.6	5.7	5.7	0.9	1.2	3.8	1.2	1.2	3.5	3.5	3.5	47.9
1978-79	135.8	0.0	0.0	0.0	7.1	2.4	2.1	2.1	1.2	1.2	1.2	148.7
1979-80	19.0 ± 9.3	0.1 ± 0.1	0.1 ± 0.1	0.0	<.1 ± <.1	7.9 ± 4.3	1.4 ± 0.8	1.4 ± 0.8	1.3 ± 0.6	1.3 ± 0.6	1.3 ± 0.6	28.6 ± 10.3
1980-81	4.9 ± 2.6	0.0	0.0	0.0	0.0	14.2 ± 7.8	0.1 ± 0.1	0.1 ± 0.1	1.0 ± 0.7	1.0 ± 0.7	1.0 ± 0.7	20.2 ± 8.3
1981-82	3.5 ± 2.7	2.8 ± 2.0	2.8 ± 2.0	<.1	4.6	7.4	0.7 ± 0.4	0.7 ± 0.4	4.1 ± 1.9	4.1 ± 1.9	4.1 ± 1.9	31.5 ± 9.5
1982-83	0.7 ± 0.7	<.1 ± <.1	<.1 ± <.1	1.3 ± 0.7	5.8 ± 4.3	43.5 ± 16.4	0.4 ± 0.2	0.4 ± 0.2	2.4 ± 1.4	2.4 ± 1.4	2.4 ± 1.4	54.2 ± 17.1
1983-84	32.2 ± 32.2	1.1 ± 1.0	1.1 ± 1.0	<.1 ± <.1	1.4 ± 1.2	1.0 ± 1.0	0.0	0.0	0.6 ± 0.3	0.6 ± 0.3	0.6 ± 0.3	36.4 ± 32.3
1984-85	14.0 ± 9.5	1.1 ± 1.0	1.1 ± 1.0	0.6 ± 0.6	0.0	0.2 ± 0.1	4.7 ± 3.1	4.7 ± 3.1	13.0 ± 9.3	13.0 ± 9.3	13.0 ± 9.3	33.6 ± 13.7
1985-86	8.1 ± 5.9	0.4 ± 0.3	0.4 ± 0.3	0.3 ± 0.3	25.1 ± 15.8	27.1 ± 16.7	4.2 ± 2.3	4.2 ± 2.3	2.9 ± 2.0	2.9 ± 2.0	2.9 ± 2.0	68.3 ± 24.0
1986-87	21.2 ± 13.9	0.1 ± 0.1	0.1 ± 0.1	0.0	5.9 ± 3.7	0.0	0.3 ± 0.2	0.3 ± 0.2	1.3 ± 0.7	1.3 ± 0.7	1.3 ± 0.7	28.7 ± 14.4
1987-88	2.3 ± 2.2	0.5 ± 0.5	0.5 ± 0.5	0.0	2.1 ± 1.4	27.0 ± 24.0	0.8 ± 0.5	0.8 ± 0.5	0.1 ± 0.1	0.1 ± 0.1	0.1 ± 0.1	33.0 ± 24.1



Table D.3. (Cont'd.)

Species Year	Bay system										Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi		Upper Laguna Madre		Lower Laguna Madre	
						Christi	Laguna Madre	Laguna Madre	Laguna Madre		
<b>Spotted seatrout (Cont'd.)</b>											
1981-82	30.6 ± 18.5	20.4 ± 12.6	11.6 ± 6.0	44.7 ± 15.2	46.2 ± 20.3	94.5 ± 35.8	44.7 ± 10.2	292.8 ± 50.6			
1982-83	7.6 ± 4.5	8.8 ± 5.0	6.7 ± 1.9	23.9 ± 9.9	22.9 ± 7.2	52.3 ± 12.9	58.1 ± 13.3	180.3 ± 22.8			
1983-84	71.1 ± 31.9	41.2 ± 31.5	6.6 ± 4.1	9.5 ± 6.7	7.0 ± 5.3	4.6 ± 3.3	24.4 ± 7.7	164.2 ± 46.6			
1984-85	16.8 ± 10.6	23.6 ± 13.3	1.6 ± 0.6	20.1 ± 28.7	25.3 ± 11.5	6.0 ± 2.6	48.1 ± 14.0	150.1 ± 32.1			
1985-86	9.7 ± 6.5	18.8 ± 7.1	9.4 ± 3.5	48.4 ± 16.7	46.5 ± 17.9	46.4 ± 11.6	36.1 ± 8.7	215.3 ± 30.2			
1986-87	72.6 ± 29.7	40.1 ± 22.7	14.4 ± 4.4	49.3 ± 16.3	53.1 ± 20.9	64.2 ± 14.8	76.6 ± 15.7	370.3 ± 50.9			
1987-88	15.2 ± 6.0	21.5 ± 7.1	22.2 ± 16.5	20.1 ± 6.8	51.2 ± 16.7	60.5 ± 17.3	53.0 ± 13.8	255.9 ± 35.0			
<b>Other species</b>											
1974-76	82.2 ± 51.0	2.6 ± 2.0	1.3 ± 0.5	1.0 ± 0.9	3.5 ± 2.6	1.3 ± 1.3	2.6 ± 2.1	94.5 ± 6.7			
1976-77	0.2	1.9	1.5	0.1	1.7	0.0	16.1	21.4			
1977-78	49.2	1.3	1.9	1.3	1.7	0.0	2.4	57.8			
1978-79	16.6	<.1	0.3	1.6	10.0	0.0	0.2	28.7			
1979-80	4.0 ± 4.0	2.8 ± 2.3	0.4 ± 0.2	0.0	46.5 ± 44.6	0.7 ± 0.3	1.9 ± 1.4	56.4 ± 44.8			
1980-81	26.2 ± 13.3	0.4 ± 0.3	0.9 ± 0.7	1.2 ± 1.2	5.8 ± 2.5	1.6 ± 1.3	4.4 ± 2.4	40.5 ± 13.9			
1981-82	39.2 ± 24.1	1.1 ± 0.9	0.2 ± 0.1	3.9 ± 2.1	5.4 ± 2.0	0.9 ± 0.4	1.0 ± 0.4	51.7 ± 24.3			
1982-83	17.2 ± 7.3	0.0	1.5 ± 0.5	1.9 ± 0.8	26.3 ± 11.4	1.4 ± 0.6	3.2 ± 1.5	51.4 ± 13.7			
1983-84	38.3	4.6	0.9 ± 0.6	0.3	0.6	1.8	2.2	56.5			
1984-85	3.4	7.3	0.3	0.9	3.2	0.8	15.3	31.3			
1985-86	35.6	7.1	6.6	1.9	3.7	8.8	1.6 ± 0.7	65.2			
1986-87	26.2	1.8	1.3 ± 0.8	29.7	2.9	8.6	17.0	87.5			
1987-88	7.6	8.2	0.2	7.8	3.6	1.8 ± 0.8	3.6	37.8			
<b>All species combined<sup>a</sup></b>											
1974-76	748.0 ± 310.4	104.1 ± 46.6	129.7 ± 38.0	205.8 ± 64.1	78.4 ± 19.6	322.4 ± 120.5	134.1 ± 37.9	1722.5 ± 46.0			
1976-77	59.9	39.1	13.5	39.0	60.6	27.8	215.6	455.5			
1977-78	133.1	48.1	34.7	43.8	25.5	49.4	73.4	407.9			
1978-79	255.8	51.3	28.8	50.9	29.6	32.6	40.9	490.0			
1979-80	322.3 ± 237.7	40.9 ± 14.0	24.0 ± 8.3	35.8 ± 21.4	98.0 ± 45.8	116.2 ± 29.1	113.8 ± 38.7	751.2 ± 248.3			
1980-81	201.3 ± 85.6	35.4 ± 18.1	17.8 ± 4.7	34.9 ± 13.4	114.4 ± 32.8	140.9 ± 51.4	48.4 ± 15.0	593.1 ± 108.6			
1981-82	121.0 ± 57.6	55.4 ± 18.6	27.4 ± 10.0	88.0 ± 19.8	102.2 ± 26.0	120.2 ± 37.1	79.2 ± 17.7	593.5 ± 80.7			
1982-83	90.6 ± 39.1	28.2 ± 10.0	23.9 ± 4.1	63.3 ± 19.4	169.6 ± 46.6	66.7 ± 15.2	97.2 ± 17.0	539.4 ± 68.7			
1983-84	169.3 ± 54.6	79.7 ± 36.5	16.3 ± 8.9	50.0 ± 26.0	15.9 ± 9.2	9.1 ± 4.5	47.5 ± 13.1	387.9 ± 73.2			
1984-85	90.4 ± 34.8	52.2 ± 16.8	10.8 ± 3.2	78.7 ± 38.3	44.5 ± 14.6	16.2 ± 5.3	110.1 ± 25.0	402.8 ± 62.0			
1985-86	78.8 ± 27.1	44.3 ± 11.4	21.8 ± 9.5	107.9 ± 26.8	105.0 ± 29.8	74.8 ± 15.5	82.2 ± 22.4	514.8 ± 57.5			



Table D.3. (Cont'd.)

Species Year	Bay system								
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide <sup>a</sup>
All species combined <sup>a</sup> (Cont'd.)									
1986-87	164.5 ±	50.8	322.1 ± 112.8	19.9 ± 5.4	172.2 ± 61.6	79.4 ± 25.6	92.8 ± 20.5	126.3 ± 23.8	718.7 ± 93.1
1987-88	100.2 ± 21.4	57.8 ± 21.7	49.9 ± 13.9	63.8 ± 31.6	55.8 ± 14.8	144.1 ± 39.2	73.9 ± 20.2	88.6 ± 20.0	582.7 ± 66.1

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual species totals.

Table D.4. Annual mean total lengths of fishes (mm/fish)  $\pm$  1 SE caught by private-boat fishermen in Texas bays and passes by species and bay system (1983-1988). Blank = no fish measured. No standard error = only 1 fish measured.

Species Year	Bay system											
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi		Upper Laguna Madre		Lower Laguna Madre		Coastwide
						Christi	Laguna Madre	Laguna Madre	Laguna Madre			
<b>Atlantic croaker</b>												
1983-84	254 $\pm$ 9	234 $\pm$ 4	231 $\pm$ 6	295 $\pm$ 6	281 $\pm$ 5	289 $\pm$ 3	265 $\pm$ 6	266 $\pm$ 7				
1984-85	235 $\pm$ 5	216 $\pm$ 7	219 $\pm$ 16	258 $\pm$ 8	249 $\pm$ 7	242 $\pm$ 15	235 $\pm$ 6	235 $\pm$ 5				
1985-86	230 $\pm$ 6	227 $\pm$ 6	252 $\pm$ 18	260 $\pm$ 5	238 $\pm$ 3	261 $\pm$ 3	228 $\pm$ 4	234 $\pm$ 6				
1986-87	249 $\pm$ 6	220 $\pm$ 11	211 $\pm$ 16	279 $\pm$ 4	376 $\pm$ 10	269 $\pm$ 3	252 $\pm$ 8	250 $\pm$ 7				
1987-88	229 $\pm$ 2	247 $\pm$ 5	228 $\pm$ 3	270 $\pm$ 11	258 $\pm$ 5	279 $\pm$ 6	251 $\pm$ 6	246 $\pm$ 4				
<b>Black drum</b>												
1983-84	454 $\pm$ 53	362 $\pm$ 18	378 $\pm$ 8	382 $\pm$ 13	383 $\pm$ 12	408 $\pm$ 17	365 $\pm$ 32	400 $\pm$ 29				
1984-85	459 $\pm$ 27	430 $\pm$ 57	295 $\pm$ 19	354 $\pm$ 18	372 $\pm$ 12	353 $\pm$ 20	370 $\pm$ 50	422 $\pm$ 35				
1985-86	544 $\pm$ 108	503 $\pm$ 112	345 $\pm$ 56	380 $\pm$ 12	473 $\pm$ 77	369 $\pm$ 11	336 $\pm$ 35	473 $\pm$ 78				
1986-87	443 $\pm$ 38	389 $\pm$ 37	385 $\pm$ 26	394 $\pm$ 28	360 $\pm$ 16	411 $\pm$ 22	362 $\pm$ 40	412 $\pm$ 35				
1987-88	408 $\pm$ 18	356 $\pm$ 18	414 $\pm$ 29	440 $\pm$ 38	383 $\pm$ 28	374 $\pm$ 15	451 $\pm$ 41	435 $\pm$ 24				
<b>Gafftopsail catfish</b>												
1983-84	416 $\pm$ 23	471 $\pm$ 18	499 $\pm$ 17	472 $\pm$ 15	517 $\pm$ 9	488 $\pm$ 23	439 $\pm$ 19	480 $\pm$ 15				
1984-85	455 $\pm$ 18	491 $\pm$ 15	480 $\pm$ 26	434 $\pm$ 46	521 $\pm$ 17	338 $\pm$ 5	247 $\pm$ 33	470 $\pm$ 23				
1985-86	456 $\pm$ 22	319 $\pm$ 3	443 $\pm$ 13	533 $\pm$ 19	450 $\pm$ 36	530	312 $\pm$ 33	477 $\pm$ 23				
1986-87	419 $\pm$ 23	459 $\pm$ 10	473 $\pm$ 14	519 $\pm$ 21	459 $\pm$ 18		306 $\pm$ 32	452 $\pm$ 18				
1987-88	498 $\pm$ 30	489 $\pm$ 9	472 $\pm$ 13	542 $\pm$ 13	556 $\pm$ 13		405 $\pm$ 45	497 $\pm$ 10				
<b>Red drum</b>												
1983-84	536 $\pm$ 22	513 $\pm$ 7	501 $\pm$ 7	497 $\pm$ 7	490 $\pm$ 9	516 $\pm$ 7	510 $\pm$ 7	509 $\pm$ 9				
1984-85	555 $\pm$ 13	572 $\pm$ 10	533 $\pm$ 11	528 $\pm$ 11	524 $\pm$ 10	537 $\pm$ 13	563 $\pm$ 6	546 $\pm$ 10				
1985-86	567 $\pm$ 19	562 $\pm$ 9	543 $\pm$ 6	544 $\pm$ 5	531 $\pm$ 6	537 $\pm$ 3	553 $\pm$ 5	548 $\pm$ 7				
1986-87	561 $\pm$ 12	524 $\pm$ 5	517 $\pm$ 6	565 $\pm$ 8	551 $\pm$ 7	536 $\pm$ 7	561 $\pm$ 4	550 $\pm$ 7				
1987-88	582 $\pm$ 16	563 $\pm$ 7	554 $\pm$ 5	581 $\pm$ 8	560 $\pm$ 7	560 $\pm$ 4	573 $\pm$ 2	567 $\pm$ 4				
<b>Sand seatrout</b>												
1983-84	281 $\pm$ 4	287 $\pm$ 10	291 $\pm$ 11	287 $\pm$ 8	304 $\pm$ 7	317 $\pm$ 4	298 $\pm$ 6	290 $\pm$ 6				
1984-85	272 $\pm$ 8	284 $\pm$ 5	296 $\pm$ 13	281 $\pm$ 4	276 $\pm$ 5	292 $\pm$ 5	288 $\pm$ 4	275 $\pm$ 7				
1985-86	276 $\pm$ 4	266 $\pm$ 5	280 $\pm$ 6	283 $\pm$ 9	249 $\pm$ 5	298 $\pm$ 7	286 $\pm$ 4	278 $\pm$ 5				
1986-87	283 $\pm$ 4	285 $\pm$ 11	281 $\pm$ 9	280 $\pm$ 6	278 $\pm$ 3	297 $\pm$ 12	281 $\pm$ 4	282 $\pm$ 5				
1987-88	286 $\pm$ 2	274 $\pm$ 4	273 $\pm$ 4	275 $\pm$ 7	268 $\pm$ 4	319 $\pm$ 19	296 $\pm$ 6	283 $\pm$ 3				

Table D.4. (Cont'd.)

Species Year	Bay system									
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide	
<b>Sheepshead</b>										
1983-84		346 ± 4	344 ± 9	384 ± 6	378 ± 12	356 ± 10	391 ± 7	343 ± 6	354 ± 7	
1984-85		354 ± 4	357 ± 5	390 ± 7	387 ± 4	390 ± 8	411 ± 14	348 ± 8	368 ± 5	
1985-86		380 ± 7	367 ± 11	376 ± 30	396 ± 12	397 ± 11	471 ± 9	353 ± 14	385 ± 12	
1986-87		373 ± 7	353 ± 9	366 ± 15	374 ± 10	378 ± 9	435 ± 35	363 ± 15	371 ± 10	
1987-88	352 ± 15	389 ± 5	375 ± 10	391 ± 12	380 ± 8	394 ± 3	442 ± 29	344 ± 8	382 ± 6	
<b>Southern flounder</b>										
1983-84		350 ± 5	364 ± 8	372 ± 8	345 ± 6	350 ± 5	387 ± 6	385 ± 6	356 ± 6	
1984-85		356 ± 5	360 ± 6	373 ± 6	341 ± 6	348 ± 7	361 ± 17	326 ± 10	352 ± 6	
1985-86		352 ± 7	340 ± 6	377 ± 19	357 ± 5	342 ± 7	364 ± 2	361 ± 4	354 ± 6	
1986-87		352 ± 4	366 ± 6	383 ± 10	372 ± 9	368 ± 5	386 ± 5	397 ± 3	369 ± 5	
1987-88	317 ± 3	364 ± 12	362 ± 7	367 ± 7	339 ± 8	341 ± 5	412 ± 3	400 ± 4	360 ± 8	
<b>Spotted seatrout</b>										
1983-84		435 ± 8	397 ± 6	388 ± 4	369 ± 4	390 ± 5	399 ± 3	401 ± 4	402 ± 5	
1984-85		449 ± 6	418 ± 7	417 ± 6	432 ± 11	418 ± 8	399 ± 3	405 ± 3	424 ± 6	
1985-86		437 ± 8	416 ± 4	408 ± 4	404 ± 3	408 ± 3	405 ± 3	422 ± 3	417 ± 4	
1986-87		430 ± 6	407 ± 3	405 ± 2	412 ± 3	423 ± 4	416 ± 3	425 ± 4	421 ± 4	
1987-88	410 ± 8	438 ± 4	411 ± 3	411 ± 3	416 ± 3	422 ± 8	430 ± 3	429 ± 2	424 ± 4	
<b>All species combined<sup>a</sup></b>										
1983-84		370 ± 8	400 ± 6	411 ± 5	350 ± 8	348 ± 8	391 ± 4	407 ± 5	377 ± 7	
1984-85		316 ± 10	406 ± 10	428 ± 12	362 ± 13	370 ± 9	354 ± 13	409 ± 7	349 ± 10	
1985-86		342 ± 15	395 ± 11	408 ± 6	391 ± 7	372 ± 12	394 ± 7	417 ± 5	374 ± 11	
1986-87		336 ± 8	427 ± 5	434 ± 4	411 ± 9	404 ± 9	414 ± 5	434 ± 4	381 ± 25	
1987-88	307 ± 8	361 ± 10	432 ± 6	435 ± 5	414 ± 13	386 ± 11	437 ± 5	452 ± 5	388 ± 17	

<sup>a</sup>Includes "other" species.

Table D.5. Mean total length of fishes (mm/fish)  $\pm$  1 SE caught by private-boat fishermen in Texas bays and passes during the high-use season by species and bay system (1983-1987). Blank = no fish measured. No standard error = only 1 fish measured.

Species Year	Bay system										Coastwide	
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi		Upper Laguna Madre		Lower Laguna Madre		
						Christi	Christi	Laguna Madre	Laguna Madre			
<b>Atlantic croaker</b>												
1983	254 $\pm$ 9	383 $\pm$ 19	234 $\pm$ 4	231 $\pm$ 5	296 $\pm$ 6	281 $\pm$ 5	289 $\pm$ 3	265 $\pm$ 7	265 $\pm$ 3	265 $\pm$ 7	265 $\pm$ 7	265 $\pm$ 7
1984	235 $\pm$ 5	429 $\pm$ 22	217 $\pm$ 8	219 $\pm$ 16	258 $\pm$ 8	249 $\pm$ 7	242 $\pm$ 16	233 $\pm$ 8	233 $\pm$ 8	233 $\pm$ 8	236 $\pm$ 5	236 $\pm$ 5
1985	230 $\pm$ 7	323 $\pm$ 12	227 $\pm$ 6	252 $\pm$ 18	264 $\pm$ 5	237 $\pm$ 3	262 $\pm$ 4	228 $\pm$ 4	228 $\pm$ 4	228 $\pm$ 4	234 $\pm$ 6	234 $\pm$ 6
1986	250 $\pm$ 6	413 $\pm$ 31	245 $\pm$ 34	211 $\pm$ 16	279 $\pm$ 4	236 $\pm$ 10	267 $\pm$ 3	252 $\pm$ 9	252 $\pm$ 9	252 $\pm$ 9	250 $\pm$ 1	250 $\pm$ 1
1987	229 $\pm$ 2	354 $\pm$ 16	230 $\pm$ 5	228 $\pm$ 3	269 $\pm$ 12	260 $\pm$ 6	279 $\pm$ 6	252 $\pm$ 6	252 $\pm$ 6	252 $\pm$ 6	246 $\pm$ 4	246 $\pm$ 4
<b>Black drum</b>												
1983		383 $\pm$ 19	343 $\pm$ 12	379 $\pm$ 9	377 $\pm$ 14	369 $\pm$ 13	394 $\pm$ 14	417 $\pm$ 25	417 $\pm$ 25	417 $\pm$ 25	369 $\pm$ 15	369 $\pm$ 15
1984		429 $\pm$ 22	340 $\pm$ 13	362 $\pm$ 19	404 $\pm$ 20	370 $\pm$ 15	341 $\pm$ 32	383 $\pm$ 41	383 $\pm$ 41	383 $\pm$ 41	402 $\pm$ 20	402 $\pm$ 20
1985		323 $\pm$ 12	351 $\pm$ 14	428 $\pm$ 51	372 $\pm$ 12	361 $\pm$ 13	360 $\pm$ 11	306 $\pm$ 51	306 $\pm$ 51	306 $\pm$ 51	342 $\pm$ 14	342 $\pm$ 14
1986		413 $\pm$ 31	326 $\pm$ 13	403 $\pm$ 15	429 $\pm$ 58	346 $\pm$ 15	374 $\pm$ 9	366 $\pm$ 17	366 $\pm$ 17	366 $\pm$ 17	384 $\pm$ 25	384 $\pm$ 25
1987	429 $\pm$ 23	354 $\pm$ 16	361 $\pm$ 22	419 $\pm$ 20	419 $\pm$ 49	350 $\pm$ 18	360 $\pm$ 10	451 $\pm$ 51	451 $\pm$ 51	451 $\pm$ 51	370 $\pm$ 12	370 $\pm$ 12
<b>Gafftopsail catfish</b>												
1983		403 $\pm$ 29	462 $\pm$ 15	480 $\pm$ 13	473 $\pm$ 18	517 $\pm$ 9	488 $\pm$ 23	439 $\pm$ 19	439 $\pm$ 19	439 $\pm$ 19	478 $\pm$ 15	478 $\pm$ 15
1984		461 $\pm$ 19	495 $\pm$ 16	482 $\pm$ 27	431 $\pm$ 47	535 $\pm$ 14	338 $\pm$ 5	279	279	279	473 $\pm$ 24	473 $\pm$ 24
1985		475 $\pm$ 32	468 $\pm$ 11	443 $\pm$ 13	534 $\pm$ 20	428 $\pm$ 29	535 $\pm$ 3	306 $\pm$ 32	306 $\pm$ 32	306 $\pm$ 32	483 $\pm$ 24	483 $\pm$ 24
1986		418 $\pm$ 28	450 $\pm$ 10	453 $\pm$ 13	501 $\pm$ 26	446 $\pm$ 18	531 $\pm$ 8	405 $\pm$ 45	405 $\pm$ 45	405 $\pm$ 45	440 $\pm$ 12	440 $\pm$ 12
1987	438 $\pm$ 29	423 $\pm$ 16	489 $\pm$ 9	465 $\pm$ 12	536 $\pm$ 15	557 $\pm$ 14	555 $\pm$ 3	405 $\pm$ 45	405 $\pm$ 45	405 $\pm$ 45	487 $\pm$ 19	487 $\pm$ 19
<b>Red drum</b>												
1983		536 $\pm$ 24	502 $\pm$ 8	494 $\pm$ 6	494 $\pm$ 7	484 $\pm$ 10	515 $\pm$ 7	510 $\pm$ 7	510 $\pm$ 7	510 $\pm$ 7	504 $\pm$ 9	504 $\pm$ 9
1984		554 $\pm$ 14	584 $\pm$ 7	569 $\pm$ 10	522 $\pm$ 12	533 $\pm$ 9	546 $\pm$ 14	569 $\pm$ 6	569 $\pm$ 6	569 $\pm$ 6	550 $\pm$ 10	550 $\pm$ 10
1985		570 $\pm$ 19	561 $\pm$ 10	540 $\pm$ 6	539 $\pm$ 5	527 $\pm$ 6	535 $\pm$ 3	547 $\pm$ 5	547 $\pm$ 5	547 $\pm$ 5	545 $\pm$ 8	545 $\pm$ 8
1986		564 $\pm$ 13	519 $\pm$ 5	516 $\pm$ 6	566 $\pm$ 11	547 $\pm$ 9	531 $\pm$ 8	557 $\pm$ 4	557 $\pm$ 4	557 $\pm$ 4	545 $\pm$ 8	545 $\pm$ 8
1987	544 $\pm$ 11	578 $\pm$ 17	561 $\pm$ 7	547 $\pm$ 5	580 $\pm$ 9	552 $\pm$ 8	555 $\pm$ 3	568 $\pm$ 2	568 $\pm$ 2	568 $\pm$ 2	564 $\pm$ 4	564 $\pm$ 4
<b>Sand seatrout</b>												
1983		281 $\pm$ 4	285 $\pm$ 10	291 $\pm$ 11	286 $\pm$ 8	304 $\pm$ 7	317 $\pm$ 4	297 $\pm$ 6	297 $\pm$ 6	297 $\pm$ 6	291 $\pm$ 6	291 $\pm$ 6
1984		271 $\pm$ 8	282 $\pm$ 5	283 $\pm$ 7	281 $\pm$ 4	275 $\pm$ 5	285 $\pm$ 5	288 $\pm$ 5	288 $\pm$ 5	288 $\pm$ 5	273 $\pm$ 8	273 $\pm$ 8
1985		276 $\pm$ 5	266 $\pm$ 5	277 $\pm$ 5	267 $\pm$ 6	278 $\pm$ 6	294 $\pm$ 10	285 $\pm$ 5	285 $\pm$ 5	285 $\pm$ 5	275 $\pm$ 5	275 $\pm$ 5
1986		282 $\pm$ 5	283 $\pm$ 11	281 $\pm$ 9	274 $\pm$ 5	278 $\pm$ 3	293 $\pm$ 12	281 $\pm$ 4	281 $\pm$ 4	281 $\pm$ 4	281 $\pm$ 1	281 $\pm$ 1
1987	283 $\pm$ 6	287 $\pm$ 2	276 $\pm$ 4	273 $\pm$ 4	273 $\pm$ 7	273 $\pm$ 3	305 $\pm$ 17	296 $\pm$ 6	296 $\pm$ 6	296 $\pm$ 6	285 $\pm$ 2	285 $\pm$ 2

Table D.5. (Cont'd.)

Species Year	Bay system									
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Upper		Lower		Coastwide
						Laguna Madre	Laguna Madre	Laguna Madre	Laguna Madre	
						Corpus Christi				
Sheepshead										
1983		345 ± 4	351 ± 7	387 ± 6	356 ± 7	355 ± 10	390 ± 7	353 ± 7	353 ± 7	353 ± 6
1984		354 ± 84	353 ± 7	382 ± 6	347 ± 9	369 ± 12	440 ± 14	360 ± 8	360 ± 8	356 ± 5
1985		376 ± 8	359 ± 15	416 ± 16	374 ± 15	402 ± 12	452 ± 11	375 ± 18	375 ± 18	381 ± 11
1986		379 ± 7	361 ± 6	367 ± 16	360 ± 23	393 ± 31	447 ± 36	364 ± 17	364 ± 17	373 ± 5
1987	359 ± 19	389 ± 5	361 ± 12	387 ± 14	374 ± 16	378 ± 13	424 ± 25	362 ± 23	362 ± 23	379 ± 9
Southern flounder										
1983		350 ± 6	366 ± 8	373 ± 9	347 ± 6	351 ± 5	386 ± 6	385 ± 6	385 ± 6	357 ± 6
1984		357 ± 5	362 ± 6	379 ± 5	343 ± 6	347 ± 8	376 ± 22	352 ± 13	352 ± 13	356 ± 7
1985		354 ± 7	343 ± 7	383 ± 24	358 ± 5	344 ± 6	359 ± 2	360 ± 4	360 ± 4	355 ± 6
1986		354 ± 5	369 ± 7	384 ± 10	376 ± 10	370 ± 6	386 ± 6	398 ± 6	398 ± 6	371 ± 9
1987	314 ± 4	365 ± 12	362 ± 7	366 ± 8	340 ± 9	342 ± 6	411 ± 4	404 ± 4	404 ± 4	362 ± 6
Spotted seatrout										
1983		432 ± 8	396 ± 6	389 ± 4	370 ± 4	388 ± 5	399 ± 3	400 ± 4	400 ± 4	399 ± 5
1984		449 ± 6	411 ± 9	412 ± 7	437 ± 22	426 ± 11	402 ± 8	402 ± 3	402 ± 3	428 ± 7
1985		434 ± 9	416 ± 4	410 ± 4	404 ± 3	407 ± 4	402 ± 2	421 ± 3	421 ± 3	418 ± 5
1986		432 ± 6	407 ± 4	407 ± 2	416 ± 4	418 ± 4	413 ± 3	424 ± 2	424 ± 2	421 ± 5
1987	398 ± 7	438 ± 4	410 ± 3	411 ± 3	417 ± 4	423 ± 10	427 ± 3	428 ± 3	428 ± 3	424 ± 5
All species combined <sup>a</sup>										
1983		363 ± 8	395 ± 6	408 ± 5	349 ± 8	344 ± 7	391 ± 4	408 ± 5	408 ± 5	372 ± 7
1984		312 ± 9	401 ± 11	429 ± 15	342 ± 13	367 ± 10	348 ± 16	417 ± 7	417 ± 7	335 ± 10
1985		327 ± 13	390 ± 11	415 ± 5	391 ± 9	366 ± 13	394 ± 8	416 ± 5	416 ± 5	360 ± 11
1986		330 ± 8	424 ± 5	439 ± 5	417 ± 13	396 ± 10	410 ± 5	434 ± 4	434 ± 4	370 ± 26
1987	301 ± 7	354 ± 8	431 ± 7	430 ± 5	421 ± 15	384 ± 14	432 ± 6	452 ± 4	452 ± 4	380 ± 18

<sup>a</sup>includes "other" species.

Table D.6. Mean total lengths of fishes (mm/fish)  $\pm$  1 SE caught by private-boat fishermen in Texas bays and passes during the low-use season by species and bay system (1983-1988). Blank = no fish measured. No standard error = only 1 fish measured.

Species Year	Bay system									
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi		Lower Laguna Madre		Coastwide
						Upper Laguna Madre	Lower Laguna Madre			
<b>Atlantic croaker</b>										
1983-84	188 $\pm$ 9		208 $\pm$ 7		285		260	288	288	266 $\pm$ 231
1984-85	218 $\pm$ 1		225 $\pm$ 4		294		282 $\pm$ 52	235 $\pm$ 11	238 $\pm$ 4	224 $\pm$ 21
1985-86	240 $\pm$ 1		235	272 $\pm$ 12	242 $\pm$ 10		299 $\pm$ 8	248 $\pm$ 9	241	237 $\pm$ 13
1986-87	226 $\pm$ 5		222 $\pm$ 6		261 $\pm$ 16		230 $\pm$ 21	243 $\pm$ 71	272 $\pm$ 15	
1987-88	245 $\pm$ 9	226 $\pm$ 10			275 $\pm$ 3			299	218	236 $\pm$ 5
<b>Black drum</b>										
1983-84	682 $\pm$ 115		403 $\pm$ 61	372 $\pm$ 10	407 $\pm$ 28		417 $\pm$ 21	497 $\pm$ 5	325 $\pm$ 27	480 $\pm$ 60
1984-85	659 $\pm$ 41		502 $\pm$ 94	294 $\pm$ 18	340 $\pm$ 12		377 $\pm$ 18	361 $\pm$ 25	359 $\pm$ 84	439 $\pm$ 53
1985-86	793 $\pm$ 16		693 $\pm$ 147	309 $\pm$ 64	417 $\pm$ 25		684 $\pm$ 132	396 $\pm$ 11	370 $\pm$ 38	618 $\pm$ 75
1986-87	663 $\pm$ 152		682 $\pm$ 94	353 $\pm$ 67	381 $\pm$ 31		441 $\pm$ 38	525 $\pm$ 64	358 $\pm$ 84	482 $\pm$ 59
1987-88	375 $\pm$ 25	747 $\pm$ 51	338 $\pm$ 20	408 $\pm$ 62	511 $\pm$ 48		437 $\pm$ 51	589 $\pm$ 112	449 $\pm$ 74	525 $\pm$ 95
<b>Gafftopsail catfish</b>										
1983-84	490 $\pm$ 1		561 $\pm$ 24	541 $\pm$ 6	468 $\pm$ 5		533			511 $\pm$ 17
1984-85	388		449 $\pm$ 28	450	575		455 $\pm$ 1		214	440 $\pm$ 217
1985-86	439 $\pm$ 15		527		528 $\pm$ 50		551	530		471 $\pm$ 169
1986-87	430		520 $\pm$ 15	505 $\pm$ 24	559		555 $\pm$ 9			503 $\pm$ 29
1987-88	344 $\pm$ 95	536 $\pm$ 6	520	571	602		530			525 $\pm$ 19
<b>Red drum</b>										
1983-84	539 $\pm$ 28		553 $\pm$ 8	546 $\pm$ 18	538 $\pm$ 8		540 $\pm$ 15	576 $\pm$ 27	514 $\pm$ 16	541 $\pm$ 15
1984-85	556 $\pm$ 33		545 $\pm$ 20	498 $\pm$ 12	555 $\pm$ 19		476 $\pm$ 32	494 $\pm$ 13	512 $\pm$ 16	523 $\pm$ 23
1985-86	520 $\pm$ 37		575 $\pm$ 15	575 $\pm$ 24	583 $\pm$ 10		557 $\pm$ 15	577 $\pm$ 10	596 $\pm$ 8	576 $\pm$ 13
1986-87	548 $\pm$ 23		600 $\pm$ 34	551 $\pm$ 12	564 $\pm$ 5		568 $\pm$ 8	557 $\pm$ 12	586 $\pm$ 8	567 $\pm$ 7
1987-88	617 $\pm$ 63		576 $\pm$ 14	575 $\pm$ 5	602 $\pm$ 21		596 $\pm$ 7	598 $\pm$ 19	618 $\pm$ 10	594 $\pm$ 8
<b>Sand seatrout</b>										
1983-84	283 $\pm$ 58		328 $\pm$ 13	327	327 $\pm$ 33		360		317 $\pm$ 10	289 $\pm$ 64
1984-85	307 $\pm$ 15		318 $\pm$ 13	338 $\pm$ 3	317 $\pm$ 2		369 $\pm$ 28	336 $\pm$ 6	289 $\pm$ 1	305 $\pm$ 8
1985-86	289 $\pm$ 1		325 $\pm$ 0	355	308 $\pm$ 14		271 $\pm$ 6	306 $\pm$ 6	308 $\pm$ 3	294 $\pm$ 5
1986-87	301 $\pm$ 12		325		341 $\pm$ 39		258 $\pm$ 2	359 $\pm$ 9	292 $\pm$ 8	303 $\pm$ 2
1987-88	244 $\pm$ 1		259 $\pm$ 9					355 $\pm$ 17	313	265 $\pm$ 9

Table D.6. (Cont'd.)

Species Year	Bay system									
	Sabine Lake	Galveston	Matagorda	San Antonio	Aranzas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide	
Sheepshead										
1983-84	370 ± 4	370 ± 4	334 ± 18	370 ± 15	399 ± 4	361 ± 44	446 ± 26	334 ± 10	357 ± 11	
1984-85	376 ± 32	376 ± 32	363 ± 9	416 ± 5	389 ± 4	392 ± 15	390 ± 4	338 ± 11	375 ± 6	
1985-86	391 ± 9	391 ± 9	378 ± 14	345 ± 43	400 ± 15	387 ± 23	488 ± 8	333 ± 2	390 ± 16	
1986-87	340 ± 15	340 ± 15	343 ± 17	362 ± 38	375 ± 10	376 ± 10	429 ± 53	360 ± 31	369 ± 6	
1987-88	348 ± 19	376 ± 15	393 ± 8	441 ± 23	380 ± 8	395 ± 3	477 ± 86	337 ± 7	382 ± 9	
Southern flounder										
1983-84	357 ± 17	357 ± 17	343 ± 18	358 ± 9	317 ± 5	309 ± 23	427 ± 28	380 ± 8	354 ± 16	
1984-85	345 ± 8	345 ± 8	331 ± 18	329 ± 16	330 ± 7	348 ± 8	327 ± 9	308 ± 7	337 ± 9	
1985-86	325 ± 7	325 ± 7	311 ± 17	357 ± 3	351 ± 7	340 ± 15	380 ± 3	362 ± 11	352 ± 10	
1986-87	327 ± 17	327 ± 17	325 ± 7	346 ± 29	343 ± 13	358 ± 15	387 ± 7	395 ± 9	356 ± 16	
1987-88	329 ± 6	338 ± 28	361 ± 14	376 ± 17	327 ± 11	336 ± 9	415 ± 17	372 ± 14	348 ± 11	
Spotted seatrout										
1983-84	450 ± 26	450 ± 26	412 ± 10	394 ± 9	363 ± 2	409 ± 9	421 ± 4	412 ± 16	425 ± 17	
1984-85	443 ± 7	443 ± 7	437 ± 7	435 ± 13	428 ± 12	404 ± 4	398 ± 2	416 ± 6	422 ± 7	
1985-86	518 ± 11	518 ± 11	414 ± 8	402 ± 14	405 ± 6	409 ± 5	410 ± 6	431 ± 5	417 ± 6	
1986-87	420 ± 13	420 ± 13	409 ± 5	394 ± 4	406 ± 3	437 ± 9	424 ± 4	427 ± 7	420 ± 4	
1987-88	444 ± 11	436 ± 13	419 ± 6	415 ± 12	411 ± 5	419 ± 11	442 ± 7	431 ± 6	428 ± 5	
All species combined <sup>a</sup>										
1983-84	426 ± 28	426 ± 28	423 ± 18	449 ± 11	374 ± 16	432 ± 16	432 ± 14	400 ± 18	417 ± 22	
1984-85	420 ± 40	420 ± 40	425 ± 24	429 ± 13	408 ± 5	389 ± 15	371 ± 13	386 ± 15	404 ± 20	
1985-86	453 ± 32	453 ± 32	426 ± 34	390 ± 13	388 ± 11	389 ± 30	395 ± 14	423 ± 11	408 ± 21	
1986-87	399 ± 14	399 ± 14	443 ± 18	419 ± 9	402 ± 10	448 ± 7	428 ± 7	434 ± 13	419 ± 9	
1987-88	534 ± 79	534 ± 79	440 ± 17	464 ± 31	377 ± 16	394 ± 16	458 ± 8	449 ± 11	431 ± 18	

<sup>a</sup>Includes "other" species.

Table D.7. Annual mean weights of fishes (kg/fish) ± 1 SE caught by private-boat fishermen in Texas bays and passes by species and bay system (1974-1988). Blank = no fish weighed. No standard error = only 1 fish weighed.

Species Year	Bay system										Coastwide			
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi		Upper Laguna Madre		Lower Laguna Madre				
						Christi	Laguna Madre	Laguna Madre	Laguna Madre					
<b>Atlantic croaker</b>														
1974-76		0.18 ± 0.07	0.24 ± 0.18	0.24 ± 0.11	0.15 ± 0.02	0.27 ± 0.10	0.33 ± 0.11	0.30 ± 0.09	0.23 ± 0.08	0.23 ± 0.08				
1976-77		0.23 ± 0.08	0.14 ± 0.03	0.26 ± 0.03	0.22 ± 0.07	0.26 ± 0.08	0.24 ± 0.10	0.48 ± 0.16	0.24 ± 0.16	0.24 ± 0.04				
1977-78		0.22 ± 0.09	0.14 ± 0.10	0.37 ± 0.12	0.27 ± 0.14	0.21 ± 0.11	0.29 ± 0.06	0.23 ± 0.04	0.23 ± 0.04	0.22 ± 0.06				
1978-79		0.18 ± 0.14	0.18 ± 0.14	0.23 ± 0.03	0.12 ± 0.03	0.26 ± 0.10	0.35 ± 0.18	0.25 ± 0.09	0.22 ± 0.14	0.22 ± 0.14				
1979-80		0.20 ± 0.12	0.18 ± 0.11	0.30 ± 0.07	0.13 ± 0.08	0.20 ± 0.06	0.25 ± 0.06	0.22 ± 0.06	0.21 ± 0.06	0.21 ± 0.06				
1980-81		0.21 ± 0.09	0.16 ± 0.03	0.24 ± 0.12	0.29 ± 0.07	0.30 ± 0.08	0.27 ± 0.09	0.21 ± 0.05	0.23 ± 0.06	0.23 ± 0.06				
1981-82		0.18 ± 0.04	0.16 ± 0.02	0.14 ± 0.11	0.26 ± 0.02	0.32 ± 0.18	0.27 ± 0.09	0.28 ± 0.04	0.27 ± 0.09	0.27 ± 0.09				
1982-83		0.21 ± 0.04	0.16 ± 0.02	0.22 ± 0.05	0.27 ± 0.07	0.34 ± 0.09	0.30 ± 0.06	0.27 ± 0.09	0.26 ± 0.04	0.26 ± 0.04				
1983-84		0.22 ± 0.03	0.17 ± 0.01	0.17 ± 0.01	0.36 ± 0.02	0.31 ± 0.02	0.33 ± 0.01	0.26 ± 0.02	0.26 ± 0.02	0.26 ± 0.02				
1984-85		0.18 ± 0.02	0.14 ± 0.01	0.15 ± 0.03	0.23 ± 0.02	0.21 ± 0.02	0.21 ± 0.04	0.17 ± 0.01	0.18 ± 0.02	0.18 ± 0.02				
1985-86		0.16 ± 0.01	0.15 ± 0.01	0.23 ± 0.05	0.24 ± 0.01	0.18 ± 0.01	0.24 ± 0.01	0.16 ± 0.01	0.17 ± 0.01	0.17 ± 0.01				
1986-87		0.21 ± 0.02	0.14 ± 0.04	0.14 ± 0.04	0.29 ± 0.01	0.18 ± 0.02	0.27 ± 0.01	0.22 ± 0.02	0.21 ± 0.01	0.21 ± 0.01				
1987-88	0.16 ± 0.00	0.21 ± 0.01	0.16 ± 0.01	0.15 ± 0.00	0.27 ± 0.03	0.24 ± 0.02	0.30 ± 0.02	0.21 ± 0.02	0.20 ± 0.01	0.20 ± 0.01				
<b>Black drum</b>														
1974-76		2.19 ± 3.20	0.91 ± 0.33	1.16 ± 0.89	0.70 ± 0.30	6.64 ± 7.16	2.28 ± 2.15	2.56 ± 2.73	2.02 ± 1.00	2.02 ± 1.00				
1976-77		0.83 ± 0.55	0.43 ± 0.11	6.18 ± 12.18	0.94 ± 0.40	2.57 ± 2.78	1.43 ± 1.50	4.30 ± 5.07	1.04 ± 0.16	1.04 ± 0.16				
1977-78		1.25 ± 1.06	0.99 ± 1.43	1.10 ± 0.79	0.59 ± 0.42	3.66 ± 4.76	1.30 ± 0.78	4.88 ± 5.02	2.03 ± 1.22	2.03 ± 1.22				
1978-79		4.22 ± 10.20	1.65 ± 1.30	5.94 ± 5.92	0.44 ± 0.16	1.77 ± 1.14	2.50 ± 1.71	7.24 ± 8.50	4.18 ± 4.56	4.18 ± 4.56				
1979-80		0.42 ± 0.10	0.48 ± 0.30	3.55 ± 5.08	0.50 ± 0.12	4.58 ± 6.39	1.37 ± 0.89	0.51 ± 0.55	1.71 ± 1.72	1.71 ± 1.72				
1980-81		2.63 ± 5.16	0.38 ± 0.22	0.92 ± 1.04	0.50 ± 0.08	0.70 ± 0.36	0.70 ± 0.18	0.51 ± 0.27	1.17 ± 1.51	1.17 ± 1.51				
1981-82		0.53 ± 0.22	0.51 ± 0.18	0.48 ± 0.29	0.63 ± 0.34	0.60 ± 0.20	0.91 ± 0.26	1.29 ± 0.85	0.67 ± 0.18	0.67 ± 0.18				
1982-83		1.63 ± 1.67	0.42 ± 0.16	3.57	0.46 ± 0.14	0.81 ± 2.28	1.05 ± 0.37	0.99 ± 0.51	1.47 ± 0.72	1.47 ± 0.72				
1983-84		2.18 ± 0.95	1.05 ± 0.27	0.84 ± 0.05	0.92 ± 0.10	0.92 ± 0.10	1.11 ± 0.14	0.98 ± 0.25	1.38 ± 0.44	1.38 ± 0.44				
1984-85		1.82 ± 0.32	1.99 ± 0.88	0.46 ± 0.10	0.69 ± 0.10	0.84 ± 0.07	0.69 ± 0.11	1.51 ± 0.65	1.59 ± 0.44	1.59 ± 0.44				
1985-86		3.81 ± 1.54	3.56 ± 2.08	0.88 ± 0.45	0.85 ± 0.10	2.71 ± 1.54	0.79 ± 0.09	0.72 ± 0.17	2.71 ± 1.23	2.71 ± 1.23				
1986-87		1.79 ± 0.57	1.59 ± 0.58	1.09 ± 0.28	1.27 ± 0.37	0.74 ± 0.10	1.25 ± 0.34	0.99 ± 0.38	1.53 ± 0.50	1.53 ± 0.50				
1987-88	1.30 ± 0.18	2.57 ± 1.37	0.84 ± 0.13	1.31 ± 0.28	1.52 ± 0.37	1.03 ± 0.22	0.95 ± 0.19	1.65 ± 0.31	1.84 ± 0.41	1.84 ± 0.41				
<b>Gafftopsail catfish</b>														
1974-76		1.37 ± 0.30	1.55 ± 0.61	1.26 ± 0.20	1.30 ± 0.37	1.26 ± 0.34			1.30 ± 0.15	1.30 ± 0.15				
1976-77		1.90 ± 0.64	1.55 ± 0.32	1.38 ± 0.20	1.47 ± 0.27	1.30 ± 0.43			1.49 ± 0.28	1.49 ± 0.28				
1977-78		1.10 ± 0.19	1.32 ± 0.29	1.42 ± 0.14	0.91 ± 0.60	1.34 ± 0.19			1.28 ± 0.14	1.28 ± 0.14				
1978-79		1.26 ± 0.38	1.45 ± 0.49	0.87 ± 0.37	1.33 ± 0.45	1.25 ± 0.32	2.42 ± 0.87	0.83 ± 0.71	1.25 ± 0.21	1.25 ± 0.21				
1979-80		0.72 ± 0.23	1.24 ± 0.52	1.38 ± 0.44	2.13 ± <.01	1.66 ± 0.12	1.02 ± <.01		1.45 ± 0.25	1.45 ± 0.25				
1980-81		1.52 ± 0.60	1.20 ± 0.30	0.90 ± 0.16	1.58 ± 0.35	1.18 ± 0.35	0.35 ± <.01		1.35 ± 0.36	1.35 ± 0.36				
1981-82		0.92 ± 0.30	1.24 ± 0.34	1.53 ± 0.30	1.32 ± 0.31	1.35 ± 0.24	0.18 ± 0.02	0.23 ± <.01	1.29 ± 0.15	1.29 ± 0.15				



Table D.7. (Cont'd.)

Species Year	Bay system										Coastwide
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre			
Gafftopsail catfish (Cont'd.)											
1982-83	1.41 ± 0.40	1.37 ± 0.64	1.04 ± 0.14	0.91 ± 0.19	1.17 ± 0.36	0.20 ± 0.03	1.13 ± 0.64	1.13 ± 0.64	1.17 ± 0.18		
1983-84	0.72 ± 0.10	1.06 ± 0.12	1.24 ± 0.13	1.06 ± 0.09	1.39 ± 0.07	1.16 ± 0.17	0.78 ± 0.11	0.78 ± 0.11	1.13 ± 0.10		
1984-85	0.98 ± 0.12	1.22 ± 0.12	1.11 ± 0.17	0.97 ± 0.22	1.41 ± 0.14	0.36 ± 0.02	0.13 ± 0.05	0.13 ± 0.05	1.10 ± 0.14		
1985-86	1.03 ± 0.16	1.17 ± 0.11	0.86 ± 0.09	1.58 ± 0.15	0.94 ± 0.24	1.41			1.15 ± 0.16		
1986-87	0.89 ± 0.16	0.98 ± 0.07	1.06 ± 0.10	1.46 ± 0.13	1.00 ± 0.12		0.27 ± 0.10	0.27 ± 0.10	1.01 ± 0.12		
1987-88	1.29 ± 0.21	1.18 ± 0.06	1.05 ± 0.09	1.60 ± 0.10	1.73 ± 0.11	0.00	0.72 ± 0.32	0.72 ± 0.32	1.27 ± 0.07		
Red drum											
1974-76	0.79 ± 0.13	0.75 ± 0.16	1.11 ± 0.19	0.94 ± 0.25	0.89 ± 0.42	1.13 ± 0.19	0.99 ± 0.42	0.99 ± 0.42	1.02 ± 0.11		
1976-77	1.31 ± 0.19	0.90 ± 0.35	1.21 ± 0.28	0.99 ± 0.33	0.96 ± 0.29	1.16 ± 0.36	0.92 ± 0.36	0.92 ± 0.36	1.04 ± 0.16		
1977-78	1.07 ± 0.32	1.14 ± 0.30	0.76 ± 0.16	1.00 ± 0.50	1.08 ± 0.26	1.18 ± 0.19	1.07 ± 0.37	1.07 ± 0.37	0.94 ± 0.15		
1978-79	1.72 ± 0.71	0.93 ± 0.29	0.72 ± 0.21	0.76 ± 0.21	1.26 ± 0.59	1.10 ± 0.29	1.36 ± 0.32	1.36 ± 0.32	0.88 ± 0.27		
1979-80	0.59 ± 0.15	0.81 ± 0.45	0.76 ± 0.66	0.67 ± 0.20	0.85 ± 0.46	0.76 ± 0.10	0.61 ± 0.18	0.61 ± 0.18	0.74 ± 0.22		
1980-81	1.18 ± 0.31	1.33 ± 0.28	1.18 ± 0.23	1.01 ± 0.21	1.03 ± 0.21	0.92 ± 0.13	0.91 ± 0.18	0.91 ± 0.18	1.09 ± 0.09		
1981-82	1.62 ± 0.40	1.56 ± 0.36	1.15 ± 0.26	1.08 ± 0.14	1.12 ± 0.17	1.14 ± 0.12	1.55 ± 0.78	1.55 ± 0.78	1.25 ± 0.17		
1982-83	1.34 ± 0.42	1.59 ± 0.24	1.67 ± 0.27	1.54 ± 0.25	1.46 ± 0.15	1.50 ± 0.19	1.31 ± 0.29	1.31 ± 0.29	1.51 ± 0.12		
1983-84	1.90 ± 0.24	1.59 ± 0.07	1.45 ± 0.06	1.73 ± 0.33	1.35 ± 0.08	1.62 ± 0.06	1.57 ± 0.06	1.57 ± 0.06	1.60 ± 0.13		
1984-85	2.02 ± 0.14	2.16 ± 0.10	1.73 ± 0.11	1.70 ± 0.09	1.64 ± 0.09	1.77 ± 0.13	2.06 ± 0.07	2.06 ± 0.07	1.89 ± 0.10		
1985-86	2.16 ± 0.21	2.04 ± 0.11	1.79 ± 0.06	1.82 ± 0.05	1.67 ± 0.06	1.70 ± 0.03	1.93 ± 0.05	1.93 ± 0.05	1.87 ± 0.08		
1986-87	2.08 ± 0.14	1.61 ± 0.05	1.52 ± 0.05	2.04 ± 0.09	1.89 ± 0.08	1.76 ± 0.11	2.00 ± 0.04	2.00 ± 0.04	1.90 ± 0.08		
1987-88	2.32 ± 0.19	2.03 ± 0.08	1.89 ± 0.05	2.24 ± 0.09	1.99 ± 0.08	1.98 ± 0.05	2.11 ± 0.03	2.11 ± 0.03	2.07 ± 0.05		
Sand seatrout											
1974-76	0.30 ± 0.21	0.25 ± 0.02	0.32 ± 0.08	0.26 ± 0.04	0.29 ± 0.07	0.37 ± 0.13	0.31 ± 0.16	0.31 ± 0.16	0.31 ± 0.09		
1976-77	0.36 ± 0.12	0.24 ± 0.05	0.22 ± 0.01	0.21 ± 0.01	0.33 ± 0.14	0.25 ± 0.06	0.31 ± 0.08	0.31 ± 0.08	0.32 ± 0.11		
1977-78	0.36 ± 0.11	0.25 ± 0.05	0.24 ± 0.06	0.25 ± 0.21	0.42 ± 0.26	0.54 ± 0.32	0.30 ± 0.10	0.30 ± 0.10	0.35 ± 0.08		
1978-79	0.30 ± 0.16	0.27 ± 0.12	0.22 ± 0.11	0.29 ± 0.10	0.30 ± 0.14	0.41 ± 0.08	0.20 ± 0.03	0.20 ± 0.03	0.29 ± 0.08		
1979-80	0.20 ± 0.07	0.22 ± 0.06	0.22 ± 0.06	0.28 ± 0.04	0.29 ± 0.04	0.36 ± 0.09	0.32 ± 0.08	0.32 ± 0.08	0.23 ± 0.05		
1980-81	0.24 ± 0.09	0.22 ± 0.04	0.30 ± 0.03	0.22 ± 0.03	0.29 ± 0.09	0.30 ± 0.06	0.28 ± 0.08	0.28 ± 0.08	0.26 ± 0.04		
1981-82	0.27 ± 0.08	0.23 ± 0.13	0.26 ± 0.03	0.25 ± 0.03	0.29 ± 0.06	0.32 ± 0.04	0.31 ± 0.05	0.31 ± 0.05	0.28 ± 0.03		
1982-83	0.25 ± 0.05	0.21 ± 0.05	0.28 ± 0.06	0.24 ± 0.05	0.27 ± 0.07	0.33 ± 0.03	0.33 ± 0.06	0.33 ± 0.06	0.26 ± 0.03		
1983-84	0.25 ± 0.10	0.27 ± 0.03	0.28 ± 0.03	0.27 ± 0.02	0.32 ± 0.02	0.35 ± 0.01	0.29 ± 0.02	0.29 ± 0.02	0.28 ± 0.02		
1984-85	0.23 ± 0.02	0.26 ± 0.02	0.30 ± 0.04	0.24 ± 0.01	0.23 ± 0.01	0.27 ± 0.02	0.26 ± 0.01	0.26 ± 0.01	0.23 ± 0.02		
1985-86	0.25 ± 0.02	0.21 ± 0.01	0.25 ± 0.02	0.25 ± 0.02	0.23 ± 0.01	0.31 ± 0.02	0.26 ± 0.01	0.26 ± 0.01	0.24 ± 0.02		
1986-87	0.25 ± 0.01	0.26 ± 0.03	0.24 ± 0.02	0.24 ± 0.02	0.24 ± 0.01	0.30 ± 0.03	0.25 ± 0.01	0.25 ± 0.01	0.25 ± 0.01		
1987-88	0.26 ± 0.01	0.22 ± 0.01	0.22 ± 0.01	0.23 ± 0.02	0.21 ± 0.01	0.37 ± 0.07	0.29 ± 0.02	0.29 ± 0.02	0.25 ± 0.01		

Table D.7. (Cont'd.)

Species Year	Bay system									
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide	
<b>Sheepshead</b>										
1974-76	0.68 ± 0.13	0.41 ± 0.18	0.75 ± 0.16	0.56 ± 0.31	0.72 ± 0.34	1.33 ± 0.29	1.14 ± 0.22	0.72 ± 0.14	0.72 ± 0.14	
1976-77	0.91 ± 0.25	1.02 ± 0.68	1.04 ± 0.45	0.58 ± 0.09	0.88 ± 0.13	0.76 ± 0.19	0.95 ± 0.12	0.89 ± 0.16	0.89 ± 0.16	
1977-78	0.88 ± 0.20	0.58 ± 0.35	0.70 ± 0.35	0.58 ± 0.21	0.65 ± 0.12	0.97 ± 0.19	0.74 ± 0.26	0.76 ± 0.12	0.76 ± 0.12	
1978-79	0.79 ± 0.14	0.69 ± 0.39	0.79 ± 0.35	0.59 ± 0.24	0.83 ± 0.24	1.02 ± 0.20	0.81 ± 0.34	0.78 ± 0.10	0.78 ± 0.10	
1979-80	0.91 ± 0.11	0.73 ± 0.15	0.96 ± 0.16	0.58 ± 0.14	1.00 ± 0.17	1.11 ± 0.22	0.64 ± 0.42	0.78 ± 0.17	0.78 ± 0.17	
1980-81	0.73 ± 0.40	0.29 ± 0.16	0.59 ± 0.11	0.63 ± 0.17	0.78 ± 0.21	1.07 ± 0.16	0.90 ± 0.28	0.71 ± 0.14	0.71 ± 0.14	
1981-82	0.87 ± 0.11	0.44 ± 0.29	0.78 ± 0.22	0.79 ± 0.20	0.68 ± 0.17	1.17 ± 0.14	0.70 ± 0.16	0.71 ± 0.11	0.71 ± 0.11	
1982-83	0.89 ± 0.17	0.51 ± 0.21	0.88 ± 0.17	0.86 ± 0.12	0.96 ± 0.16	1.22 ± 0.07	0.63 ± 0.23	0.85 ± 0.14	0.85 ± 0.14	
1983-84	0.77 ± 0.03	0.77 ± 0.06	1.03 ± 0.04	0.99 ± 0.08	0.85 ± 0.07	1.07 ± 0.05	0.76 ± 0.04	0.83 ± 0.05	0.83 ± 0.05	
1984-85	0.82 ± 0.03	0.85 ± 0.04	1.08 ± 0.06	1.04 ± 0.02	1.06 ± 0.07	1.21 ± 0.12	0.79 ± 0.06	0.92 ± 0.03	0.92 ± 0.03	
1985-86	1.01 ± 0.05	0.97 ± 0.09	1.01 ± 0.21	1.17 ± 0.11	1.14 ± 0.08	1.78 ± 0.09	0.80 ± 0.10	1.07 ± 0.09	1.07 ± 0.09	
1986-87	0.95 ± 0.05	0.84 ± 0.06	0.94 ± 0.01	0.97 ± 0.06	1.01 ± 0.07	1.52 ± 0.28	0.94 ± 0.13	0.95 ± 0.06	0.95 ± 0.06	
1987-88	1.07 ± 0.03	0.98 ± 0.06	1.11 ± 0.09	1.02 ± 0.07	1.11 ± 0.02	1.61 ± 0.31	0.79 ± 0.06	1.03 ± 0.04	1.03 ± 0.04	
	0.82 ± 0.10									149
<b>Southern flounder</b>										
1974-76	0.62 ± 0.08	0.78 ± 0.30	0.64 ± 0.07	0.52 ± 0.09	0.38 ± 0.08	0.77 ± 0.09	0.77 ± 0.17	0.65 ± 0.05	0.65 ± 0.05	
1976-77	0.66 ± 0.15	0.52 ± 0.10	0.68 ± 0.18	0.45 ± 0.10	0.69 ± 0.32	0.59 ± 0.12	0.77 ± 0.12	0.64 ± 0.09	0.64 ± 0.09	
1977-78	0.64 ± 0.13	0.51 ± 0.12	0.63 ± 0.10	0.52 ± 0.21	0.67 ± 0.12	0.73 ± 0.08	0.87 ± 0.26	0.66 ± 0.09	0.66 ± 0.09	
1978-79	0.66 ± 0.24	0.43 ± 0.29	0.59 ± 0.22	0.78 ± 0.30	0.57 ± 0.17	0.76 ± 0.10	0.52 ± 0.07	0.60 ± 0.12	0.60 ± 0.12	
1979-80	0.54 ± 0.08	0.54 ± 0.19	0.67 ± 0.19	0.51 ± 0.05	0.61 ± 0.15	0.72 ± 0.12	0.62 ± 0.12	0.61 ± 0.06	0.61 ± 0.06	
1980-81	0.62 ± 0.12	0.55 ± 0.11	0.67 ± 0.09	0.69 ± 0.17	0.62 ± 0.14	0.59 ± 0.08	0.68 ± 0.13	0.65 ± 0.05	0.65 ± 0.05	
1981-82	0.59 ± 0.11	0.47 ± 0.04	0.71 ± 0.05	0.51 ± 0.06	0.56 ± 0.15	0.72 ± 0.09	0.74 ± 0.09	0.61 ± 0.06	0.61 ± 0.06	
1982-83	0.60 ± 0.11	0.54 ± 0.07	0.67 ± 0.14	0.46 ± 0.07	0.51 ± 0.07	0.69 ± 0.05	0.65 ± 0.06	0.61 ± 0.04	0.61 ± 0.04	
1983-84	0.53 ± 0.03	0.61 ± 0.05	0.65 ± 0.04	0.53 ± 0.03	0.56 ± 0.03	0.75 ± 0.04	0.71 ± 0.04	0.57 ± 0.03	0.57 ± 0.03	
1984-85	0.57 ± 0.02	0.59 ± 0.03	0.63 ± 0.04	0.50 ± 0.03	0.54 ± 0.03	0.63 ± 0.09	0.44 ± 0.05	0.56 ± 0.03	0.56 ± 0.03	
1985-86	0.56 ± 0.03	0.50 ± 0.02	0.71 ± 0.12	0.57 ± 0.02	0.50 ± 0.03	0.59 ± 0.01	0.57 ± 0.02	0.56 ± 0.03	0.56 ± 0.03	
1986-87	0.56 ± 0.02	0.61 ± 0.03	0.71 ± 0.06	0.64 ± 0.05	0.63 ± 0.03	0.74 ± 0.03	0.78 ± 0.02	0.64 ± 0.03	0.64 ± 0.03	
1987-88	0.61 ± 0.07	0.59 ± 0.03	0.63 ± 0.03	0.50 ± 0.03	0.50 ± 0.03	0.91 ± 0.02	0.81 ± 0.03	0.60 ± 0.04	0.60 ± 0.04	
	0.40 ± 0.01									
<b>Spotted seatrout</b>										
1974-76	0.66 ± 0.28	0.41 ± 0.36	0.42 ± 0.14	0.32 ± 0.14	0.38 ± 0.17	0.54 ± 0.13	0.54 ± 0.22	0.44 ± 0.10	0.44 ± 0.10	
1976-77	0.60 ± 0.22	0.24 ± 0.05	0.49 ± 0.13	0.34 ± 0.22	0.49 ± 0.33	0.56 ± 0.38	0.48 ± 0.16	0.49 ± 0.17	0.49 ± 0.17	
1977-78	0.36 ± 0.11	0.25 ± 0.05	0.46 ± 0.20	0.32 ± 0.17	0.44 ± 0.23	0.45 ± 0.12	0.54 ± 0.18	0.48 ± 0.12	0.48 ± 0.12	
1978-79	0.71 ± 0.31	0.42 ± 0.18	0.40 ± 0.15	0.33 ± 0.26	0.45 ± 0.15	0.56 ± 0.20	0.48 ± 0.47	0.49 ± 0.14	0.49 ± 0.14	
1979-80	0.45 ± 0.13	0.46 ± 0.41	0.45 ± 0.10	0.38 ± 0.10	0.52 ± 0.15	0.51 ± 0.17	0.45 ± 0.18	0.47 ± 0.07	0.47 ± 0.07	
1980-81	0.66 ± 0.29	0.43 ± 0.08	0.47 ± 0.14	0.41 ± 0.06	0.51 ± 0.25	0.44 ± 0.11	0.49 ± 0.16	0.50 ± 0.10	0.50 ± 0.10	
1981-82	0.62 ± 0.20	0.45 ± 0.09	0.51 ± 0.07	0.41 ± 0.07	0.55 ± 0.14	0.46 ± 0.06	0.31 ± 0.05	0.51 ± 0.05	0.51 ± 0.05	

Table D.7. (Cont'd.)

Species Year	Bay system										Coastwide
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi		Lower Laguna Madre		Upper Laguna Madre	
						Christi	Upper Laguna Madre				
Spotted seatrout (Cont'd.)											
1982-83	0.76 ± 0.28	0.52 ± 0.12	0.55 ± 0.10	0.48 ± 0.14	0.54 ± 0.08	0.50 ± 0.11	0.61 ± 0.12	0.56 ± 0.06			
1983-84	0.84 ± 0.05	0.66 ± 0.03	0.59 ± 0.02	0.51 ± 0.02	0.61 ± 0.03	0.67 ± 0.02	0.68 ± 0.02	0.68 ± 0.03			
1984-85	0.92 ± 0.04	0.74 ± 0.05	0.72 ± 0.04	0.76 ± 0.58	0.73 ± 0.05	0.62 ± 0.02	0.67 ± 0.02	0.74 ± 0.10			
1985-86	0.85 ± 0.05	0.72 ± 0.02	0.67 ± 0.02	0.65 ± 0.02	0.67 ± 0.02	0.65 ± 0.01	0.76 ± 0.02	0.72 ± 0.02			
1986-87	0.80 ± 0.03	0.67 ± 0.02	0.65 ± 0.01	0.69 ± 0.02	0.76 ± 0.02	0.73 ± 0.02	0.78 ± 0.01	0.75 ± 0.02			
1987-88	0.84 ± 0.03	0.68 ± 0.01	0.68 ± 0.01	0.72 ± 0.02	0.77 ± 0.06	0.82 ± 0.02	0.80 ± 0.02	0.77 ± 0.02			
All species combined <sup>a</sup>											
1974-76	0.41 ± 0.52	0.47 ± 0.40	0.53 ± 0.33	0.40 ± 0.22	0.52 ± 0.59	0.60 ± 0.30	0.68 ± 0.63	0.51 ± 0.18			
1976-77	0.46 ± 0.56	0.54 ± 0.43	1.28 ± 3.50	0.39 ± 0.29	0.50 ± 0.46	0.56 ± 0.55	0.62 ± 1.03	0.57 ± 0.38			
1977-78	0.43 ± 0.72	0.62 ± 0.65	0.62 ± 0.36	0.44 ± 0.43	0.56 ± 1.04	0.50 ± 0.24	0.77 ± 1.34	0.54 ± 0.40			
1978-79	0.76 ± 4.54	0.58 ± 0.39	0.72 ± 0.89	0.42 ± 0.38	0.49 ± 0.27	0.59 ± 0.43	0.81 ± 2.63	0.68 ± 1.35			
1979-80	0.28 ± 0.17	0.54 ± 0.36	0.64 ± 0.65	0.44 ± 0.14	0.77 ± 1.36	0.53 ± 0.20	0.51 ± 0.32	0.52 ± 0.28			
1980-81	0.61 ± 1.46	0.50 ± 0.40	0.61 ± 0.25	0.50 ± 0.16	0.52 ± 0.22	0.46 ± 0.15	0.54 ± 0.19	0.55 ± 0.27			
1981-82	0.51 ± 0.25	0.50 ± 0.18	0.62 ± 0.27	0.49 ± 0.13	0.51 ± 0.20	0.49 ± 0.12	0.64 ± 0.25	0.54 ± 0.09			
1982-83	0.58 ± 0.45	0.55 ± 0.20	0.86 ± 0.57	0.58 ± 0.18	0.52 ± 0.43	0.56 ± 0.17	0.67 ± 0.16	0.61 ± 0.14			
1983-84	0.72 ± 0.06	0.80 ± 0.05	0.80 ± 0.03	0.57 ± 0.05	0.53 ± 0.04	0.69 ± 0.02	0.79 ± 0.04	0.70 ± 0.05			
1984-85	0.50 ± 0.05	0.99 ± 0.10	0.88 ± 0.05	0.88 ± 0.19	0.66 ± 0.05	0.59 ± 0.07	1.14 ± 0.29	0.84 ± 0.13			
1985-86	0.66 ± 0.14	0.88 ± 0.12	0.79 ± 0.04	0.80 ± 0.04	0.69 ± 0.08	0.74 ± 0.03	0.86 ± 0.03	0.74 ± 0.09			
1986-87	0.55 ± 0.05	1.06 ± 0.11	0.88 ± 0.03	0.92 ± 0.05	0.80 ± 0.05	0.81 ± 0.10	0.98 ± 0.03	0.75 ± 0.11			
1987-88	0.69 ± 0.09	0.91 ± 0.05	0.93 ± 0.05	0.93 ± 0.09	0.77 ± 0.06	0.94 ± 0.03	1.08 ± 0.03	0.78 ± 0.07			

<sup>a</sup>Includes "other" species.

Table D.8. Mean weights of fishes (kg/fish) ± 1 SE caught by private-boat fishermen in Texas bays and passes during the high-use season by species and bay system (1974-1987). Blank = no fish weighed. No standard error = only 1 fish weighed.

Species Year	Bay system											
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi		Upper Laguna Madre		Lower Laguna Madre	Coastwide	
						Christi	Laguna Madre					
<b>Atlantic croaker</b>												
1974-75			0.24 ± 0.18	0.24 ± 0.12	0.15 ± 0.02	0.35 ± 0.17	0.35 ± 0.17	0.35 ± 0.12	0.35 ± 0.15	0.33 ± 0.15	0.26 ± 0.10	
1976	0.20 ± 0.07	0.23 ± 0.08	0.14 ± 0.03	0.24 ± 0.06	0.22 ± 0.07	0.26 ± 0.09	0.26 ± 0.09	0.25 ± 0.12	0.25 ± 0.10	0.29 ± 0.10	0.24 ± 0.04	
1977	0.22 ± 0.10	0.13 ± 0.07	0.18 ± 0.14	0.39 ± 0.14	0.27 ± 0.14	0.21 ± 0.11	0.21 ± 0.11	0.28 ± 0.06	0.28 ± 0.05	0.23 ± 0.05	0.28 ± 0.03	
1978	0.18 ± 0.16	0.18 ± 0.14	0.28 ± 0.12	0.23 ± 0.03	0.12 ± 0.03	0.26 ± 0.10	0.26 ± 0.10	0.35 ± 0.19	0.35 ± 0.10	0.25 ± 0.10	0.22 ± 0.15	
1979	0.21 ± 0.12	0.28 ± 0.12	0.16 ± 0.02	0.30 ± 0.07	0.10 ± 0.08	0.22 ± 0.09	0.22 ± 0.09	0.25 ± 0.06	0.25 ± 0.06	0.22 ± 0.06	0.22 ± 0.06	
1980	0.21 ± 0.10	0.16 ± 0.02	0.16 ± 0.02	0.24 ± 0.12	0.29 ± 0.07	0.30 ± 0.10	0.30 ± 0.10	0.28 ± 0.10	0.28 ± 0.06	0.21 ± 0.06	0.23 ± 0.06	
1981	0.18 ± 0.05	0.16 ± 0.02	0.16 ± 0.02	0.14 ± 0.11	0.26 ± 0.02	0.32 ± 0.20	0.32 ± 0.20	0.27 ± 0.07	0.27 ± 0.04	0.27 ± 0.04	0.27 ± 0.10	
1982	0.21 ± 0.06	0.16 ± 0.02	0.16 ± 0.02	0.20 ± 0.04	0.27 ± 0.09	0.34 ± 0.09	0.34 ± 0.09	0.30 ± 0.07	0.30 ± 0.09	0.29 ± 0.09	0.26 ± 0.05	
1983	0.22 ± 0.03	0.17 ± 0.01	0.17 ± 0.01	0.17 ± 0.01	0.36 ± 0.02	0.31 ± 0.02	0.31 ± 0.02	0.33 ± 0.01	0.33 ± 0.01	0.26 ± 0.02	0.26 ± 0.02	
1984	0.18 ± 0.02	0.14 ± 0.02	0.14 ± 0.02	0.15 ± 0.03	0.23 ± 0.02	0.21 ± 0.02	0.21 ± 0.02	0.21 ± 0.04	0.21 ± 0.04	0.17 ± 0.02	0.18 ± 0.02	
1985	0.16 ± 0.01	0.15 ± 0.01	0.15 ± 0.01	0.23 ± 0.05	0.25 ± 0.01	0.18 ± 0.01	0.18 ± 0.01	0.24 ± 0.01	0.24 ± 0.01	0.16 ± 0.01	0.17 ± 0.01	
1986	0.21 ± 0.02	0.14 ± 0.04	0.14 ± 0.04	0.14 ± 0.04	0.29 ± 0.01	0.18 ± 0.02	0.18 ± 0.02	0.26 ± 0.01	0.26 ± 0.01	0.22 ± 0.02	0.39 ± 0.26	
1987	0.21 ± 0.01	0.16 ± 0.01	0.16 ± 0.01	0.15 ± <.01	0.27 ± 0.04	0.25 ± 0.02	0.25 ± 0.02	0.30 ± 0.02	0.30 ± 0.02	0.21 ± 0.02	0.20 ± 0.01	
<b>Black drum</b>												
1974-75			0.98 ± 0.51	1.10 ± 0.38	0.50 ± 0.02	0.80 ± 0.86	0.80 ± 0.86	2.74 ± 2.10	2.74 ± 2.10	1.06 ± 0.50	1.08 ± 0.18	
1976	1.26 ± 0.90	0.78 ± 0.61	0.42 ± 0.14	0.54 ± 0.45	0.74 ± 0.19	0.75 ± 0.11	0.75 ± 0.11	0.77 ± 0.33	0.77 ± 0.33	0.88 ± 0.41	0.73 ± 0.16	
1977	0.91 ± 0.48	0.47 ± 0.16	0.67 ± 1.37	0.79 ± 0.18	0.34 ± 0.18	0.77 ± 0.44	0.77 ± 0.44	1.22 ± 0.51	1.22 ± 0.51	0.79 ± 0.40	0.81 ± 0.23	
1978	1.22 ± 0.63	1.67 ± 1.37	0.45 ± 0.45	1.03 ± 0.40	0.22 ± 0.08	1.26 ± 0.88	1.26 ± 0.88	2.88 ± 2.25	2.88 ± 2.25	1.27 ± 0.50	1.35 ± 0.38	
1979	0.40 ± 0.10	0.45 ± 0.45	0.42 ± 0.26	0.41 ± 0.06	0.50 ± 0.12	0.65 ± 0.28	0.65 ± 0.28	0.52 ± 0.30	0.52 ± 0.30	0.80 ± 0.43	0.46 ± 0.09	
1980	0.51 ± 0.28	0.46 ± 0.19	0.46 ± 0.19	0.66 ± 0.31	0.49 ± 0.08	0.66 ± 0.48	0.66 ± 0.48	0.71 ± 0.22	0.71 ± 0.22	0.51 ± 0.39	0.55 ± 0.15	
1981	0.56 ± 0.20	0.38 ± 0.09	0.38 ± 0.09	0.90 ± 0.15	0.48 ± 0.06	0.62 ± 0.24	0.62 ± 0.24	0.75 ± 0.16	0.75 ± 0.16	2.22 ± 0.67	0.68 ± 0.24	
1982	1.14 ± 1.19	0.66 ± 0.08	0.66 ± 0.08	0.85 ± 0.06	0.53 ± 0.10	0.51 ± 0.18	0.51 ± 0.18	0.78 ± 0.20	0.78 ± 0.20	1.07 ± 0.80	0.80 ± 0.36	
1983	0.96 ± 0.16	0.63 ± 0.09	0.63 ± 0.09	0.85 ± 0.11	0.86 ± 0.10	0.77 ± 0.08	0.77 ± 0.08	1.00 ± 0.13	1.00 ± 0.13	1.29 ± 0.22	0.84 ± 0.11	
1984	1.42 ± 0.20	0.77 ± 0.11	0.77 ± 0.11	1.32 ± 0.45	0.95 ± 0.14	0.81 ± 0.09	0.81 ± 0.09	0.60 ± 0.17	0.60 ± 0.17	1.11 ± 0.25	1.18 ± 0.16	
1985	0.56 ± 0.08	0.58 ± 0.07	0.58 ± 0.07	1.06 ± 0.23	0.79 ± 0.10	0.73 ± 0.08	0.73 ± 0.08	0.74 ± 0.11	0.74 ± 0.11	0.55 ± 0.23	0.66 ± 0.10	
1986	1.25 ± 0.24	0.89 ± 0.16	0.89 ± 0.16	1.06 ± 0.23	1.85 ± 1.07	0.64 ± 0.09	0.64 ± 0.09	0.78 ± 0.05	0.78 ± 0.05	0.83 ± 0.17	1.02 ± 0.19	
1987	0.79 ± 0.12			1.15 ± 0.15	1.33 ± 0.47	0.75 ± 0.09	0.75 ± 0.09	0.73 ± 0.06	0.73 ± 0.06	1.64 ± 0.39	0.93 ± 0.11	
<b>Gafftopsail catfish</b>												
1974-75			0.59 ± <.01	1.39 ± 0.08	0.92 ± 0.40	1.51 ± 0.27	1.51 ± 0.27			0.22 ± <.01	1.28 ± 0.18	
1976	1.37 ± 0.45	2.06 ± 0.77	1.24 ± 0.09	1.08 ± 0.16	1.52 ± 0.37	1.27 ± 0.30	1.27 ± 0.30			0.00	1.61 ± 0.39	
1977	0.88 ± 0.15	1.28 ± 0.49	1.39 ± 0.24	1.43 ± 0.13	1.19 ± 1.05	1.24 ± 0.34	1.24 ± 0.34	2.42 ± 0.87	2.42 ± 0.87	0.83 ± 0.71	1.33 ± 0.16	
1978	1.28 ± 0.49	0.72 ± 0.23	1.45 ± 0.53	0.88 ± 0.47	1.51 ± 0.82	1.62 ± 0.08	1.62 ± 0.08	1.02 ± <.01	1.02 ± <.01	0.00	1.27 ± 0.27	
1979	0.72 ± 0.23	1.22 ± 0.20	1.21 ± 0.52	1.51 ± 0.32	0.00	1.17 ± 0.75	1.17 ± 0.75	0.35 ± <.01	0.35 ± <.01	0.00	1.32 ± 0.28	
1980	1.22 ± 0.20	4.92 ± 0.30	1.28 ± 0.45	0.72 ± 0.16	1.37 ± 0.27	1.17 ± 0.75	1.17 ± 0.75	0.19 ± <.01	0.19 ± <.01	0.00	1.17 ± 0.20	
1981			1.28 ± 0.37	1.53 ± 0.30	0.95 ± 0.22	1.38 ± 0.24	1.38 ± 0.24			0.23 ± <.01	1.28 ± 0.17	

Table D.8. (Cont'd.)

Species Year	Bay system								Coastwide
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Christi	Upper Laguna Madre	Lower Laguna Madre	
<b>Gafftopsail catfish (Cont'd.)</b>									
1982		1.39 ± 0.45	1.00 ± 0.20	1.21 ± 0.20	0.92 ± 0.19	0.97 ± 0.30	0.20 ± 0.03	1.13 ± 0.64	1.05 ± 0.17
1983		0.66 ± 0.12	1.00 ± 0.10	1.09 ± 0.09	1.07 ± 0.11	1.39 ± 0.07	1.16 ± 0.17	0.78 ± 0.11	1.12 ± 0.09
1984		1.03 ± 0.12	1.25 ± 0.12	1.12 ± 0.18	0.95 ± 0.23	1.52 ± 0.12	0.36 ± 0.02	0.18	1.12 ± 0.15
1985		1.17 ± 0.22	1.01 ± 0.06	0.86 ± 0.09	1.57 ± 0.17	0.79 ± 0.19			1.20 ± 0.17
1986		0.90 ± 0.18	0.92 ± 0.06	0.92 ± 0.08	1.36 ± 0.17	0.91 ± 0.11		0.27 ± 0.10	0.94 ± 0.05
1987	0.89 ± 0.18	0.76 ± 0.08	1.18 ± 0.06	0.99 ± 0.08	1.55 ± 0.11	1.75 ± 0.11		0.72 ± 0.32	1.19 ± 0.14
<b>Red drum</b>									
1974-75									
1976		0.59 ± 0.25	0.86 ± 0.30	1.15 ± 0.29	1.23 ± 0.22	1.22 ± 0.94	1.21 ± 0.27	1.15 ± 0.79	1.14 ± 0.20
1977		1.27 ± 0.24	1.04 ± 0.34	1.18 ± 0.37	0.95 ± 0.52	0.97 ± 0.34	1.10 ± 0.24	0.89 ± 0.44	1.03 ± 0.20
1978		1.07 ± 0.39	1.23 ± 0.22	0.82 ± 0.32	1.14 ± 0.57	1.16 ± 0.33	1.24 ± 0.16	1.33 ± 0.43	1.06 ± 0.22
1979		1.76 ± 0.78	0.97 ± 0.37	1.23 ± 0.33	0.82 ± 0.42	1.32 ± 0.67	1.14 ± 0.39	1.51 ± 0.46	1.52 ± 0.26
1980		0.57 ± 0.17	1.00 ± 0.85	1.17 ± 1.13	0.77 ± 0.32	1.35 ± 0.50	1.10 ± 0.40	0.69 ± 0.33	1.01 ± 0.38
1981		1.20 ± 0.36	1.05 ± 0.16	1.20 ± 0.20	1.02 ± 0.23	1.01 ± 0.26	0.96 ± 0.14	0.96 ± 0.21	1.12 ± 0.10
1982		1.72 ± 0.41	1.52 ± 0.38	1.42 ± 0.20	1.19 ± 0.16	1.10 ± 0.19	1.17 ± 0.15	1.40 ± 0.18	1.33 ± 0.11
1983		1.36 ± 0.44	1.59 ± 0.27	1.67 ± 0.33	1.43 ± 0.21	1.45 ± 0.17	1.56 ± 0.20	1.56 ± 0.22	1.56 ± 0.12
1984		1.89 ± 0.27	1.50 ± 0.08	1.38 ± 0.05	1.39 ± 0.06	1.30 ± 0.08	1.61 ± 0.06	1.57 ± 0.07	1.51 ± 0.09
1985		2.03 ± 0.15	2.26 ± 0.08	2.09 ± 0.11	1.66 ± 0.11	1.71 ± 0.09	1.85 ± 0.14	2.10 ± 0.07	1.92 ± 0.10
1986		2.19 ± 0.22	2.02 ± 0.13	1.75 ± 0.06	1.77 ± 0.05	1.63 ± 0.06	1.68 ± 0.03	1.88 ± 0.05	1.85 ± 0.08
1987	1.82 ± 0.10	2.26 ± 0.20	1.56 ± 0.05	1.50 ± 0.06	2.06 ± 0.12	1.86 ± 0.10	3.60 ± 2.04	1.96 ± 0.04	1.98 ± 0.16
			2.01 ± 0.08	1.83 ± 0.05	2.23 ± 0.10	1.90 ± 0.09	1.92 ± 0.04	2.06 ± 0.02	2.04 ± 0.06
<b>Sand seatrout</b>									
1974-75									
1976		0.36 ± 0.13	0.25 ± 0.02	0.28 ± 0.02	0.26 ± 0.04	0.29 ± 0.10	0.33 ± 0.10	0.27 ± 0.02	0.32 ± 0.08
1977		0.36 ± 0.13	0.24 ± 0.05	0.22 ± 0.01	0.21 ± 0.01	0.31 ± 0.13	0.25 ± 0.06	0.30 ± 0.09	0.30 ± 0.14
1978		0.37 ± 0.91	0.26 ± 0.06	0.24 ± 0.06	0.25 ± 0.28	0.38 ± 0.21	0.40 ± 0.12	0.30 ± 0.12	0.35 ± 0.08
1979		0.29 ± 0.20	0.27 ± 0.12	0.22 ± 0.11	0.37 ± 0.19	0.29 ± 0.14	0.44 ± 0.10	0.20 ± 0.02	0.29 ± 0.11
1980		0.20 ± 0.08	0.22 ± 0.08	0.22 ± 0.06	0.26 ± 0.04	0.29 ± 0.05	0.35 ± 0.12	0.32 ± 0.10	0.23 ± 0.06
1981		0.24 ± 0.10	0.22 ± 0.04	0.30 ± 0.03	0.22 ± 0.03	0.28 ± 0.10	0.30 ± 0.06	0.29 ± 0.08	0.26 ± 0.04
1982		0.27 ± 0.08	0.23 ± 0.14	0.26 ± 0.03	0.24 ± 0.03	0.29 ± 0.07	0.32 ± 0.04	0.30 ± 0.06	0.28 ± 0.04
1983		0.24 ± 0.05	0.21 ± 0.05	0.30 ± 0.06	0.24 ± 0.05	0.27 ± 0.09	0.33 ± 0.03	0.33 ± 0.07	0.26 ± 0.04
1984		0.25 ± 0.01	0.26 ± 0.03	0.28 ± 0.03	0.27 ± 0.02	0.31 ± 0.02	0.35 ± 0.01	0.29 ± 0.02	0.28 ± 0.02
1985		0.22 ± 0.02	0.25 ± 0.02	0.25 ± 0.02	0.24 ± 0.01	0.23 ± 0.01	0.25 ± 0.01	0.26 ± 0.02	0.23 ± 0.02
1986		0.25 ± 0.02	0.21 ± 0.01	0.23 ± 0.01	0.21 ± 0.02	0.24 ± 0.02	0.29 ± 0.03	0.25 ± 0.01	0.24 ± 0.02
1987	0.25 ± 0.02	0.25 ± 0.01	0.26 ± 0.03	0.24 ± 0.02	0.22 ± 0.01	0.24 ± 0.01	0.28 ± 0.03	0.24 ± 0.01	0.25 ± 0.01
			0.23 ± 0.01	0.22 ± 0.01	0.23 ± 0.02	0.22 ± 0.01	0.32 ± 0.06	0.29 ± 0.02	0.25 ± 0.01

Table D.8. (Cont'd.)

Species Year	Bay system								Coastwide	
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre		
<b>Sheepshead</b>										
1974-75			0.40 ± 0.35	0.86 ± 0.22	0.65 ± 0.40	0.92 ± 0.24	1.00 ± 0.54	0.87 ± 0.53	0.73 ± 0.16	
1976	0.77 ± 0.18		1.02 ± 0.81	1.04 ± 0.45	0.59 ± 0.10	0.86 ± 0.12	0.65 ± 0.15	0.96 ± 0.11	0.88 ± 0.21	
1977	0.86 ± 0.27		0.67 ± 0.28	0.92 ± 0.71	0.68 ± 0.32	0.61 ± 0.07	1.02 ± 0.23	0.70 ± 0.50	0.80 ± 0.14	
1978	0.79 ± 0.18		0.55 ± 0.20	0.86 ± 0.21	0.60 ± 0.21	0.76 ± 0.38	1.24 ± 0.15	0.83 ± 0.22	0.74 ± 0.11	
1979	0.91 ± 0.14		0.70 ± 0.18	1.00 ± 0.19	0.66 ± 0.19	1.01 ± 0.37	1.00 ± 0.13	0.70 ± 0.15	0.85 ± 0.10	
1980	0.65 ± 0.41		0.32 ± 0.07	0.67 ± 0.10	0.68 ± 0.33	0.80 ± 0.30	0.99 ± 0.22	0.75 ± 0.11	0.69 ± 0.16	
1981	0.85 ± 0.12		0.50 ± 0.08	0.91 ± 0.15	0.68 ± 0.15	0.77 ± 0.16	1.06 ± 0.11	0.74 ± 0.13	0.76 ± 0.08	
1982	0.89 ± 0.18		0.51 ± 0.26	0.95 ± 0.11	0.90 ± 0.12	0.90 ± 0.13	1.20 ± 0.10	0.71 ± 0.17	0.82 ± 0.16	
1983	0.76 ± 0.03		0.82 ± 0.04	1.05 ± 0.05	0.83 ± 0.05	0.84 ± 0.07	1.06 ± 0.05	0.82 ± 0.04	0.82 ± 0.04	
1984	0.81 ± 0.03		0.83 ± 0.04	1.02 ± 0.05	0.77 ± 0.06	1.05 ± 0.09	1.46 ± 0.13	0.87 ± 0.05	0.83 ± 0.04	
1985	0.98 ± 0.06		0.95 ± 0.13	1.29 ± 0.11	1.00 ± 0.12	1.15 ± 0.10	1.58 ± 0.11	0.95 ± 0.12	1.03 ± 0.08	
1986	0.99 ± 0.05		0.88 ± 0.04	0.95 ± 0.11	0.88 ± 0.15	1.17 ± 0.28	1.57 ± 0.37	0.93 ± 0.15	0.96 ± 0.03	
1987	1.08 ± 0.03		0.89 ± 0.08	1.07 ± 0.10	0.95 ± 0.11	0.98 ± 0.10	1.59 ± 0.24	0.96 ± 0.17	1.01 ± 0.06	
<b>Southern flounder</b>										
1974-75			0.92 ± 0.24	0.61 ± 0.06	0.65 ± 0.17	0.81 ± 0.32	0.72 ± 0.11	0.92 ± 0.40	0.67 ± 0.06	
1976	0.46 ± 0.11		0.43 ± 0.07	0.69 ± 0.25	0.42 ± 0.09	0.74 ± 0.36	0.59 ± 0.12	0.77 ± 0.13	0.67 ± 0.11	
1977	0.68 ± 0.20		0.56 ± 0.25	0.63 ± 0.13	0.51 ± 0.27	0.74 ± 0.08	0.78 ± 0.11	0.88 ± 0.21	0.67 ± 0.10	
1978	0.68 ± 0.29		0.54 ± 0.19	0.59 ± 0.27	0.43 ± 0.12	0.55 ± 0.22	0.81 ± 0.15	0.52 ± 0.10	0.60 ± 0.11	
1979	0.55 ± 0.10		0.60 ± 0.21	0.68 ± 0.21	0.49 ± 0.05	0.74 ± 0.11	0.76 ± 0.18	0.72 ± 0.09	0.66 ± 0.07	
1980	0.62 ± 0.14		0.56 ± 0.12	0.67 ± 0.10	0.71 ± 0.17	0.62 ± 0.18	0.56 ± 0.08	0.73 ± 0.14	0.65 ± 0.06	
1981	0.57 ± 0.13		0.47 ± 0.04	0.73 ± 0.06	0.52 ± 0.09	0.55 ± 0.17	0.78 ± 0.09	0.79 ± 0.08	0.62 ± 0.07	
1982	0.61 ± 0.11		0.55 ± 0.08	0.64 ± 0.12	0.45 ± 0.08	0.51 ± 0.08	0.70 ± 0.06	0.65 ± 0.06	0.61 ± 0.04	
1983	0.53 ± 0.03		0.61 ± 0.05	0.65 ± 0.04	0.54 ± 0.03	0.56 ± 0.03	0.74 ± 0.04	0.71 ± 0.04	0.57 ± 0.03	
1984	0.58 ± 0.02		0.60 ± 0.03	0.66 ± 0.03	0.51 ± 0.03	0.54 ± 0.04	0.73 ± 0.11	0.57 ± 0.07	0.57 ± 0.03	
1985	0.57 ± 0.04		0.51 ± 0.02	0.74 ± 0.15	0.57 ± 0.02	0.51 ± 0.02	0.57 ± 0.01	0.57 ± 0.02	0.56 ± 0.03	
1986	0.57 ± 0.02		0.62 ± 0.03	0.71 ± 0.06	0.66 ± 0.05	0.65 ± 0.05	0.74 ± 0.03	0.78 ± 0.02	0.65 ± 0.05	
1987	0.62 ± 0.07		0.59 ± 0.04	0.63 ± 0.03	0.50 ± 0.04	0.51 ± 0.03	0.90 ± 0.02	0.84 ± 0.03	0.61 ± 0.03	
<b>Spotted seatrout</b>										
1974-75			0.34 ± 0.16	0.42 ± 0.21	0.28 ± 0.15	0.42 ± 0.25	0.54 ± 0.20	0.51 ± 0.29	0.43 ± 0.14	
1976	0.62 ± 0.33		0.39 ± 0.04	0.47 ± 0.17	0.33 ± 0.33	0.48 ± 0.40	0.56 ± 0.51	0.47 ± 0.14	0.48 ± 0.23	
1977	0.56 ± 0.24		0.45 ± 0.30	0.46 ± 0.27	0.30 ± 0.12	0.43 ± 0.27	0.44 ± 0.17	0.55 ± 0.28	0.47 ± 0.16	
1978	0.68 ± 0.50		0.42 ± 0.21	0.38 ± 0.14	0.28 ± 0.24	0.44 ± 0.14	0.59 ± 0.28	0.44 ± 0.45	0.47 ± 0.17	
1979	0.70 ± 0.33		0.42 ± 0.21	0.44 ± 0.10	0.37 ± 0.05	0.52 ± 0.21	0.52 ± 0.18	0.48 ± 0.23	0.45 ± 0.08	
1980	0.43 ± 0.11		0.35 ± 0.34	0.44 ± 0.10	0.42 ± 0.07	0.46 ± 0.17	0.43 ± 0.13	0.48 ± 0.19	0.48 ± 0.11	

Table D.8. (Cont'd.)

Species Year	Bay system									
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide	
Spotted seatrout (Cont'd.)										
1981	0.61 ± 0.22	0.43 ± 0.07	0.50 ± 0.08	0.39 ± 0.06	0.55 ± 0.17	0.46 ± 0.08	0.51 ± 0.10	0.51 ± 0.06	0.51 ± 0.06	
1982	0.76 ± 0.30	0.51 ± 0.13	0.53 ± 0.10	0.46 ± 0.10	0.53 ± 0.09	0.49 ± 0.11	0.60 ± 0.13	0.60 ± 0.13	0.55 ± 0.06	
1983	0.83 ± 0.04	0.65 ± 0.03	0.59 ± 0.02	0.51 ± 0.02	0.60 ± 0.03	0.67 ± 0.02	0.67 ± 0.02	0.67 ± 0.02	0.66 ± 0.03	
1984	0.92 ± 0.04	0.71 ± 0.06	0.70 ± 0.04	0.64 ± 0.02	0.79 ± 0.06	0.64 ± 0.04	0.66 ± 0.02	0.66 ± 0.02	0.97 ± 0.22	
1985	0.83 ± 0.05	0.72 ± 0.02	0.68 ± 0.02	0.64 ± 0.02	0.67 ± 0.02	0.64 ± 0.01	0.75 ± 0.02	0.75 ± 0.02	0.74 ± 0.03	
1986	0.81 ± 0.04	0.67 ± 0.02	0.66 ± 0.01	0.72 ± 0.03	0.73 ± 0.02	0.71 ± 0.02	0.78 ± 0.01	0.78 ± 0.01	0.75 ± 0.03	
1987	0.84 ± 0.03	0.68 ± 0.02	0.68 ± 0.01	0.73 ± 0.02	0.78 ± 0.07	0.80 ± 0.02	0.80 ± 0.02	0.80 ± 0.02	0.77 ± 0.03	
All species combined <sup>a</sup>										
1974-75										
1976	0.42 ± 0.46	0.40 ± 0.42	0.55 ± 0.38	0.34 ± 0.30	0.42 ± 0.53	0.55 ± 0.26	0.55 ± 0.26	0.55 ± 0.26	0.49 ± 0.19	
1977	0.40 ± 0.52	0.53 ± 0.59	0.66 ± 0.50	0.36 ± 0.35	0.46 ± 0.24	0.52 ± 0.95	0.51 ± 0.28	0.51 ± 0.28	0.47 ± 0.23	
1978	0.39 ± 0.76	0.54 ± 0.46	0.59 ± 0.52	0.40 ± 0.47	0.43 ± 0.44	0.46 ± 0.25	0.54 ± 0.29	0.54 ± 0.29	0.45 ± 0.35	
1979	0.44 ± 0.80	0.59 ± 0.49	0.49 ± 0.36	0.33 ± 0.37	0.46 ± 0.25	0.53 ± 0.35	0.48 ± 0.48	0.48 ± 0.48	0.47 ± 0.30	
1980	0.28 ± 0.18	0.52 ± 0.47	0.54 ± 0.37	0.40 ± 0.11	0.53 ± 0.25	0.49 ± 0.24	0.50 ± 0.21	0.50 ± 0.21	0.44 ± 0.19	
1981	0.45 ± 0.51	0.49 ± 0.43	0.59 ± 0.25	0.51 ± 0.20	0.47 ± 0.24	0.44 ± 0.18	0.54 ± 0.23	0.54 ± 0.23	0.50 ± 0.13	
1982	0.50 ± 0.29	0.48 ± 0.18	0.59 ± 0.18	0.44 ± 0.09	0.51 ± 0.25	0.47 ± 0.15	0.59 ± 0.24	0.59 ± 0.24	0.52 ± 0.09	
1983	0.54 ± 0.35	0.53 ± 0.22	0.75 ± 0.30	0.53 ± 0.16	0.43 ± 0.20	0.54 ± 0.19	0.67 ± 0.19	0.67 ± 0.19	0.56 ± 0.11	
1984	0.67 ± 0.05	0.74 ± 0.05	0.91 ± 0.15	0.53 ± 0.03	0.51 ± 0.03	0.68 ± 0.02	0.75 ± 0.02	0.75 ± 0.02	0.66 ± 0.05	
1985	0.46 ± 0.05	0.93 ± 0.11	0.87 ± 0.06	0.80 ± 0.29	0.65 ± 0.06	0.61 ± 0.09	0.89 ± 0.05	0.89 ± 0.05	0.57 ± 0.07	
1986	0.48 ± 0.06	0.77 ± 0.06	0.78 ± 0.04	0.81 ± 0.04	0.62 ± 0.06	0.75 ± 0.04	0.85 ± 0.03	0.85 ± 0.03	0.62 ± 0.05	
1987	0.50 ± 0.04	1.05 ± 0.20	0.89 ± 0.04	0.94 ± 0.08	0.75 ± 0.05	1.01 ± 0.25	0.98 ± 0.02	0.98 ± 0.02	0.70 ± 0.13	
	0.37 ± 0.04	0.88 ± 0.04	0.89 ± 0.04	0.95 ± 0.11	0.71 ± 0.07	0.92 ± 0.03	1.08 ± 0.03	1.08 ± 0.03	0.71 ± 0.08	

<sup>a</sup>Includes "other" species.

Table D.9. Mean weights of fishes (kg/fish)  $\pm$  1 SE caught by private-boat fishermen in Texas bays and passes during the low-use season by species and bay systems (1974-1988). Blank = no fish weighed. No standard error = only 1 fish weighed.

Species Year	Bay system								Coastwide			
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi		Upper Laguna Madre		Lower Laguna Madre		
						Christi	Upper Laguna Madre	Laguna Madre	Coastwide			
Atlantic croaker												
1974-76	0.17 $\pm$ 0.10	0.17 $\pm$ 0.10	0.11 $\pm$ <.01	0.32 $\pm$ 0.02	0.14 $\pm$ <.01	0.26 $\pm$ 0.07	0.25 $\pm$ 0.05	0.24 $\pm$ 0.09	0.18 $\pm$ 0.08	0.24 $\pm$ 0.09	0.24 $\pm$ 0.09	0.18 $\pm$ 0.08
1976-77	0.26 $\pm$ 0.12	0.26 $\pm$ 0.12	0.26 $\pm$ <.01	0.28 $\pm$ 0.03		0.22 $\pm$ 0.02	0.18 $\pm$ 0.01	0.30 $\pm$ 0.11	0.24 $\pm$ 0.11	0.30 $\pm$ 0.11	0.30 $\pm$ 0.11	0.24 $\pm$ 0.06
1977-78	0.25 $\pm$ 0.02	0.25 $\pm$ 0.02	0.26 $\pm$ 0.03	0.22 $\pm$ <.01		0.28 $\pm$ 0.05	0.34 $\pm$ 0.14	0.26 $\pm$ 0.08	0.28 $\pm$ 0.08	0.26 $\pm$ 0.08	0.26 $\pm$ 0.08	0.28 $\pm$ 0.03
1978-79	0.15 $\pm$ 0.07	0.15 $\pm$ 0.07					0.22 $\pm$ <.01	0.19 $\pm$ 0.09	0.16 $\pm$ 0.05	0.19 $\pm$ 0.09	0.19 $\pm$ 0.09	0.16 $\pm$ 0.05
1979-80	0.10 $\pm$ <.01	0.10 $\pm$ <.01	0.13 $\pm$ 0.01		0.28 $\pm$ 0.17	0.18 $\pm$ 0.01	0.29 $\pm$ 0.03	0.21 $\pm$ <.01	0.15 $\pm$ 0.07	0.21 $\pm$ <.01	0.21 $\pm$ <.01	0.15 $\pm$ 0.07
1980-81	0.33 $\pm$ 0.20	0.33 $\pm$ 0.20	0.07 $\pm$ <.01			0.27 $\pm$ 0.04	0.20 $\pm$ 0.10	0.20 $\pm$ 0.03	0.22 $\pm$ 0.06	0.20 $\pm$ 0.10	0.20 $\pm$ 0.03	0.22 $\pm$ 0.06
1981-82	0.25 $\pm$ 0.06	0.25 $\pm$ 0.06	0.14 $\pm$ <.01			0.18 $\pm$ 0.07	0.28 $\pm$ 0.03	0.36 $\pm$ 0.09	0.26 $\pm$ 0.04	0.28 $\pm$ 0.03	0.36 $\pm$ 0.09	0.26 $\pm$ 0.04
1982-83	0.23 $\pm$ 0.08	0.23 $\pm$ 0.08	0.17 $\pm$ 0.08	0.50 $\pm$ 0.00	0.27 $\pm$ 0.02	0.24 $\pm$ 0.06	0.30 $\pm$ 0.05	0.17 $\pm$ 0.09	0.23 $\pm$ 0.04	0.30 $\pm$ 0.05	0.17 $\pm$ 0.09	0.23 $\pm$ 0.04
1983-84	0.09 $\pm$ 0.02	0.09 $\pm$ 0.02			0.31		0.31	0.29	0.27 $\pm$ 0.25	0.31	0.29	0.27 $\pm$ 0.25
1984-85	0.13 $\pm$ 0.00	0.13 $\pm$ 0.00	0.11 $\pm$ 0.01		0.33	0.23	0.75 $\pm$ 0.14	0.18 $\pm$ 0.01	0.14 $\pm$ 0.02	0.75 $\pm$ 0.14	0.18 $\pm$ 0.01	0.14 $\pm$ 0.02
1985-86	0.18 $\pm$ 0.00	0.18 $\pm$ 0.00	0.15 $\pm$ 0.01		0.18 $\pm$ 0.03	0.32 $\pm$ 0.17	0.20 $\pm$ 0.02	0.18	0.18 $\pm$ 0.02	0.20 $\pm$ 0.02	0.18	0.18 $\pm$ 0.02
1986-87	0.17 $\pm$ 0.02	0.17 $\pm$ 0.02	0.16 $\pm$ 1.00		0.26 $\pm$ 0.03	0.23 $\pm$ 0.04	0.36 $\pm$ 0.03	0.25 $\pm$ 0.22	0.28 $\pm$ 0.04	0.36 $\pm$ 0.03	0.25 $\pm$ 0.22	0.28 $\pm$ 0.04
1987-88	0.20 $\pm$ 0.02	0.15 $\pm$ 0.02	0.14 $\pm$ 0.01		0.27 $\pm$ 0.01	0.17 $\pm$ 0.05	0.36	0.13	0.18 $\pm$ 0.01	0.36	0.13	0.18 $\pm$ 0.01
Black drum												
1974-76	2.24 $\pm$ 3.67	2.24 $\pm$ 3.67	0.59 $\pm$ 0.26	1.20 $\pm$ 1.72	1.04 $\pm$ 0.23	5.32 $\pm$ 5.81	2.16 $\pm$ 3.72	3.61 $\pm$ 4.18	2.65 $\pm$ 1.41	2.16 $\pm$ 3.72	3.61 $\pm$ 4.18	2.65 $\pm$ 1.41
1976-77	1.59 $\pm$ 0.90	1.59 $\pm$ 0.90	0.43 $\pm$ 0.17	14.65 $\pm$ 6.49	1.39 $\pm$ 0.87	9.84 $\pm$ 1.96	4.68 $\pm$ 1.91	5.60 $\pm$ 7.97	6.29 $\pm$ 4.01	4.68 $\pm$ 1.91	5.60 $\pm$ 7.97	6.29 $\pm$ 4.01
1977-78	1.98 $\pm$ 3.32	1.98 $\pm$ 3.32	1.95 $\pm$ 5.38	1.26 $\pm$ 1.40	0.84 $\pm$ 0.65	6.98 $\pm$ 2.87	1.33 $\pm$ 1.35	5.95 $\pm$ 6.65	3.27 $\pm$ 2.45	1.33 $\pm$ 1.35	5.95 $\pm$ 6.65	3.27 $\pm$ 2.45
1978-79	6.84 $\pm$ 14.25	6.84 $\pm$ 14.25	0.45 $\pm$ <.01	7.32 $\pm$ 7.74	0.54 $\pm$ 0.01	3.48 $\pm$ 4.00	2.32 $\pm$ 2.68	9.67 $\pm$ 10.55	6.54 $\pm$ 5.54	2.32 $\pm$ 2.68	9.67 $\pm$ 10.55	6.54 $\pm$ 5.54
1979-80	0.60 $\pm$ 0.51	0.60 $\pm$ 0.51	0.51 $\pm$ 0.42	3.88 $\pm$ 6.75		5.86 $\pm$ 9.71	1.66 $\pm$ 0.53	0.49 $\pm$ 0.73	2.98 $\pm$ 3.48	1.66 $\pm$ 0.53	0.49 $\pm$ 0.73	2.98 $\pm$ 3.48
1980-81	6.05 $\pm$ 6.81	6.05 $\pm$ 6.81	0.34 $\pm$ 0.42	1.26 $\pm$ 2.62	0.66 $\pm$ <.01	0.90 $\pm$ 0.15	0.48 $\pm$ 0.13	0.51 $\pm$ 0.11	2.54 $\pm$ 4.34	0.48 $\pm$ 0.13	0.51 $\pm$ 0.11	2.54 $\pm$ 4.34
1981-82	0.48 $\pm$ 0.69	0.48 $\pm$ 0.69	0.73 $\pm$ 0.24	0.43 $\pm$ 0.50	0.83 $\pm$ 1.04	0.53 $\pm$ 0.24	0.96 $\pm$ 0.50	0.88 $\pm$ 0.52	0.65 $\pm$ 0.28	0.96 $\pm$ 0.50	0.88 $\pm$ 0.52	0.65 $\pm$ 0.28
1982-83	4.94 $\pm$ 7.67	4.94 $\pm$ 7.67	0.56 $\pm$ 0.89	4.46 $\pm$ 6.25	0.62 $\pm$ 0.21	5.38 $\pm$ 3.71	2.06 $\pm$ 1.45	0.93 $\pm$ 0.63	2.94 $\pm$ 2.05	2.06 $\pm$ 1.45	0.93 $\pm$ 0.63	2.94 $\pm$ 2.05
1983-84	6.06 $\pm$ 2.36	6.06 $\pm$ 2.36	1.87 $\pm$ 1.01	0.78 $\pm$ 0.07	1.22 $\pm$ 0.36	1.27 $\pm$ 0.27	1.76 $\pm$ 0.05	0.73 $\pm$ 0.31	2.76 $\pm$ 1.06	1.76 $\pm$ 0.05	0.73 $\pm$ 0.31	2.76 $\pm$ 1.06
1984-85	4.48 $\pm$ 0.88	4.48 $\pm$ 0.88	3.09 $\pm$ 1.46	0.40 $\pm$ 0.10	0.62 $\pm$ 0.08	0.95 $\pm$ 0.06	0.60 $\pm$ 0.17	1.86 $\pm$ 1.39	2.15 $\pm$ 0.82	0.60 $\pm$ 0.17	1.86 $\pm$ 1.39	2.15 $\pm$ 0.82
1985-86	7.48 $\pm$ 2.43	7.48 $\pm$ 2.43	7.02 $\pm$ 2.75	0.70 $\pm$ 0.65	1.12 $\pm$ 0.16	6.49 $\pm$ 3.05	0.93 $\pm$ 0.06	0.92 $\pm$ 0.24	5.09 $\pm$ 1.45	0.93 $\pm$ 0.06	0.92 $\pm$ 0.24	5.09 $\pm$ 1.45
1986-87	5.80 $\pm$ 2.43	5.80 $\pm$ 2.43	6.36 $\pm$ 1.74	1.14 $\pm$ 0.78	1.07 $\pm$ 0.31	1.37 $\pm$ 0.29	2.69 $\pm$ 1.36	1.17 $\pm$ 0.83	2.76 $\pm$ 0.93	2.69 $\pm$ 1.36	1.17 $\pm$ 0.83	2.76 $\pm$ 0.93
1987-88	6.54 $\pm$ 0.71	6.54 $\pm$ 0.71	0.65 $\pm$ 0.11	1.51 $\pm$ 0.66	2.18 $\pm$ 0.55	1.52 $\pm$ 0.42	4.41 $\pm$ 2.28	1.67 $\pm$ 0.56	3.16 $\pm$ 1.42	4.41 $\pm$ 2.28	1.67 $\pm$ 0.56	3.16 $\pm$ 1.42
Gafftopsail catfish												
1974-76	1.42 $\pm$ 0.67	1.42 $\pm$ 0.67	1.79 $\pm$ <.01	1.20 $\pm$ 0.25	1.41 $\pm$ <.01	1.26 $\pm$ 0.34			1.29 $\pm$ 0.28			1.29 $\pm$ 0.28
1976-77	1.73 $\pm$ 0.15	1.73 $\pm$ 0.15	1.67 $\pm$ <.01	1.41 $\pm$ 0.29	1.35 $\pm$ 0.25	0.97 $\pm$ 0.77			1.41 $\pm$ 0.36			1.41 $\pm$ 0.36
1977-78	1.31 $\pm$ 0.71	1.31 $\pm$ 0.71	1.26 $\pm$ 0.36	1.21 $\pm$ <.01	0.83 $\pm$ 1.03	1.50 $\pm$ 0.18			1.22 $\pm$ 0.16			1.22 $\pm$ 0.16
1978-79	1.25 $\pm$ 0.71	1.25 $\pm$ 0.71	1.56 $\pm$ <.01	0.85 $\pm$ 0.21	1.22 $\pm$ 0.27	1.28 $\pm$ 1.06			1.22 $\pm$ 0.33			1.22 $\pm$ 0.33
1979-80	1.67 $\pm$ 1.02	1.67 $\pm$ 1.02	1.18 $\pm$ 0.55	1.34 $\pm$ 0.72	2.13 $\pm$ <.01	1.68 $\pm$ 0.16			1.54 $\pm$ 0.46			1.54 $\pm$ 0.46
1980-81			1.08 $\pm$ 0.34	1.08 $\pm$ 0.34	2.21 $\pm$ <.01	1.19 $\pm$ 0.22			1.43 $\pm$ 0.63			1.43 $\pm$ 0.63
1981-82			1.09 $\pm$ <.01	1.08 $\pm$ 0.34	1.65 $\pm$ 0.15	1.18 $\pm$ 0.87			1.34 $\pm$ 0.38			1.34 $\pm$ 0.38



Table D.9. (Cont'd.)

Species Year	Bay system									
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide	
Spotted seatrout (Cont'd.)										
1982-83	0.71 ± 0.20	0.63 ± 0.23	0.68 ± 0.27	0.54 ± 0.27	0.61 ± 0.20	0.57 ± 0.32	0.66 ± 0.29	0.63 ± 0.12		
1983-84	0.94 ± 0.15	0.72 ± 0.06	0.61 ± 0.05	0.46 ± 0.01	0.67 ± 0.06	0.77 ± 0.03	0.73 ± 0.11	0.80 ± 0.10		
1984-85	0.98 ± 0.06	0.81 ± 0.04	0.80 ± 0.07	0.79 ± 0.08	0.64 ± 0.03	0.61 ± 0.01	0.71 ± 0.03	0.76 ± 0.04		
1985-86	1.41 ± 0.10	0.72 ± 0.05	0.63 ± 0.06	0.65 ± 0.03	0.67 ± 0.03	0.69 ± 0.03	0.83 ± 0.04	0.73 ± 0.04		
1986-87	0.75 ± 0.07	0.68 ± 0.04	0.59 ± 0.02	0.66 ± 0.02	0.86 ± 0.06	0.77 ± 0.03	0.80 ± 0.04	0.75 ± 0.03		
1987-88	0.84 ± 0.08	0.73 ± 0.04	0.71 ± 0.07	0.69 ± 0.03	0.74 ± 0.07	0.89 ± 0.05	0.81 ± 0.04	0.80 ± 0.03		
All species combined <sup>a</sup>										
1974-76	0.41 ± 0.79	0.65 ± 0.24	0.50 ± 0.50	0.44 ± 0.24	0.60 ± 0.91	0.65 ± 0.48	0.85 ± 1.05	0.53 ± 0.30		
1976-77	0.84 ± 1.02	0.60 ± 0.40	3.49 ± 7.78	0.56 ± 0.42	0.61 ± 1.67	0.82 ± 1.04	1.06 ± 3.92	0.97 ± 1.35		
1977-78	0.67 ± 1.34	0.82 ± 1.98	0.66 ± 0.44	0.62 ± 0.12	1.39 ± 4.32	0.59 ± 0.39	1.28 ± 3.41	0.85 ± 0.86		
1978-79	2.02 ± 23.58	0.51 ± 0.53	0.97 ± 2.02	0.56 ± 0.31	0.82 ± 0.68	0.78 ± 1.02	1.90 ± 8.05	1.36 ± 4.38		
1979-80	0.38 ± 0.70	0.58 ± 0.57	0.84 ± 1.83	0.54 ± 0.09	0.99 ± 2.92	0.55 ± 0.33	0.53 ± 0.74	0.68 ± 0.63		
1980-81	2.20 ± 5.94	0.56 ± 1.05	0.70 ± 0.77	0.46 ± 0.20	0.67 ± 0.42	0.50 ± 0.22	0.58 ± 0.27	0.81 ± 1.08		158
1981-82	0.59 ± 0.26	0.80 ± 0.60	0.70 ± 0.74	0.64 ± 0.30	0.53 ± 0.22	0.56 ± 0.19	0.78 ± 0.59	0.64 ± 0.21		
1982-83	2.68 ± 5.11	0.67 ± 0.53	1.22 ± 2.13	0.74 ± 0.48	0.79 ± 1.26	0.68 ± 0.35	0.67 ± 0.34	0.84 ± 0.53		
1983-84	1.06 ± 0.39	1.04 ± 0.18	1.15 ± 0.09	1.17 ± 0.48	1.14 ± 0.23	0.97 ± 0.09	1.15 ± 0.41	1.08 ± 0.33		
1984-85	1.42 ± 0.44	1.23 ± 0.29	0.92 ± 0.07	0.97 ± 0.07	0.72 ± 0.05	0.56 ± 0.07	1.87 ± 1.07	1.30 ± 0.45		
1985-86	2.00 ± 0.78	1.57 ± 0.57	0.81 ± 0.09	0.79 ± 0.07	0.88 ± 0.27	0.70 ± 0.05	0.94 ± 0.07	1.07 ± 0.26		
1986-87	1.09 ± 0.25	1.60 ± 0.29	0.80 ± 0.06	0.89 ± 0.05	1.05 ± 0.05	0.88 ± 0.06	0.99 ± 0.10	1.03 ± 0.07		
1987-88	2.93 ± 0.95	1.13 ± 0.16	1.19 ± 0.24	0.85 ± 0.07	0.92 ± 0.08	1.07 ± 0.08	1.10 ± 0.08	1.18 ± 0.21		

<sup>a</sup> Includes "other" species.

Table D.10. Annual mean catch rates of fishes (No./man-h)  $\pm$  1 SE caught by private-boat fishermen in Texas bays and passes by species and bay system (1974-1988).

Species Year	Bay system								Coastwide
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Christi	Upper Laguna Madre	Lower Laguna Madre	
<b>Atlantic croaker</b>									
1974-76	0.24 $\pm$ 0.12	0.03 $\pm$ 0.02	0.02 $\pm$ 0.01	0.01 $\pm$ <0.01	0.01 $\pm$ <0.01	0.05 $\pm$ 0.02	0.21 $\pm$ 0.12	0.01 $\pm$ 0.01	0.14 $\pm$ 0.05
1976-77	0.52	0.07	<0.01	0.02	0.01	0.10	0.08	0.03	0.19
1977-78	0.40	0.05	<0.01	0.01	0.01	0.08	0.10	0.02	0.22
1978-79	0.24	0.04	0.01	<0.01	<0.01	0.05	0.19	0.02	0.14
1979-80	0.13 $\pm$ 0.06	0.02 $\pm$ 0.01	0.01 $\pm$ 0.01	0.01 $\pm$ 0.01	0.01 $\pm$ 0.01	0.03 $\pm$ 0.02	0.22 $\pm$ 0.12	0.01 $\pm$ <0.01	0.09 $\pm$ 0.03
1980-81	0.17 $\pm$ 0.10	0.08 $\pm$ 0.04	0.01 $\pm$ <0.01	0.01 $\pm$ <0.01	0.01 $\pm$ <0.01	0.20 $\pm$ 0.17	0.04 $\pm$ 0.01	0.02 $\pm$ 0.01	0.12 $\pm$ 0.05
1981-82	0.10 $\pm$ 0.03	0.01 $\pm$ 0.01	<0.01 $\pm$ <0.01	<0.01 $\pm$ <0.01	<0.01 $\pm$ <0.01	0.12 $\pm$ 0.06	0.03 $\pm$ 0.01	0.01 $\pm$ <0.01	0.06 $\pm$ 0.01
1982-83	0.12 $\pm$ 0.02	0.02 $\pm$ 0.01	<0.01 $\pm$ <0.01	<0.01 $\pm$ <0.01	0.02 $\pm$ 0.01	0.04 $\pm$ 0.01	0.03 $\pm$ 0.02	0.01 $\pm$ <0.01	0.05 $\pm$ 0.01
1983-84	0.08 $\pm$ 0.02	0.02 $\pm$ 0.01	<0.01 $\pm$ <0.01	0.06 $\pm$ 0.03	0.01 $\pm$ <0.01	0.05 $\pm$ 0.02	0.04 $\pm$ 0.01	0.01 $\pm$ <0.01	0.05 $\pm$ 0.01
1984-85	0.14 $\pm$ 0.03	0.01 $\pm$ <0.01	<0.01 $\pm$ <0.01	0.01 $\pm$ <0.01	0.01 $\pm$ <0.01	0.02 $\pm$ <0.01	0.01 $\pm$ <0.01	0.01 $\pm$ <0.01	0.06 $\pm$ 0.01
1985-86	0.11 $\pm$ 0.04	0.02 $\pm$ 0.01	<0.01 $\pm$ <0.01	0.02 $\pm$ <0.01	0.02 $\pm$ <0.01	0.02 $\pm$ <0.01	0.02 $\pm$ <0.01	0.01 $\pm$ <0.01	0.05 $\pm$ 0.01
1986-87	0.15 $\pm$ 0.05	0.01 $\pm$ <0.01	<0.01 $\pm$ <0.01	0.01 $\pm$ <0.01	0.01 $\pm$ <0.01	0.02 $\pm$ <0.01	0.02 $\pm$ <0.01	0.01 $\pm$ <0.01	0.06 $\pm$ 0.02
1987-88	0.12 $\pm$ 0.02	0.01 $\pm$ <0.01	<0.01 $\pm$ <0.01	0.02 $\pm$ 0.01	0.02 $\pm$ 0.01	0.06 $\pm$ 0.02	0.02 $\pm$ <0.01	<0.01 $\pm$ <0.01	0.05 $\pm$ 0.01
<b>Black drum</b>									
1974-76	0.01 $\pm$ <0.01	0.03 $\pm$ 0.02	0.01 $\pm$ <0.01	0.01 $\pm$ <0.01	0.03 $\pm$ 0.03	0.05 $\pm$ 0.02	0.02 $\pm$ 0.01	0.03 $\pm$ 0.02	0.02 $\pm$ <0.01
1976-77	0.07	0.04	0.12	0.02	0.02	0.03	0.04	0.02	0.05
1977-78	0.05	0.05	0.03	0.02	0.02	0.03	0.02	0.02	0.04
1978-79	0.05	0.03	0.02	0.01	0.01	0.01	0.02	0.04	0.04
1979-80	0.02 $\pm$ 0.01	0.03 $\pm$ 0.02	0.01 $\pm$ <0.01	0.05 $\pm$ 0.03	0.01 $\pm$ 0.01	0.01 $\pm$ 0.01	0.01 $\pm$ 0.01	0.01 $\pm$ 0.01	0.02 $\pm$ 0.01
1980-81	0.04 $\pm$ 0.02	0.07 $\pm$ 0.03	0.01 $\pm$ <0.01	0.01 $\pm$ <0.01	0.01 $\pm$ <0.01	0.01 $\pm$ 0.01	0.01 $\pm$ <0.01	0.02 $\pm$ 0.01	0.03 $\pm$ 0.01
1981-82	0.03 $\pm$ 0.01	0.05 $\pm$ 0.01	0.05 $\pm$ 0.01	0.04 $\pm$ 0.01	0.04 $\pm$ 0.01	0.02 $\pm$ 0.01	0.01 $\pm$ 0.01	0.02 $\pm$ 0.01	0.03 $\pm$ 0.01
1982-83	0.06 $\pm$ 0.02	0.06 $\pm$ 0.02	0.01 $\pm$ <0.01	0.02 $\pm$ 0.01	0.02 $\pm$ 0.01	0.02 $\pm$ 0.01	0.01 $\pm$ <0.01	0.01 $\pm$ <0.01	0.04 $\pm$ 0.01
1983-84	0.01 $\pm$ <0.01	0.03 $\pm$ 0.01	0.01 $\pm$ <0.01	0.02 $\pm$ 0.01	0.01 $\pm$ <0.01	0.01 $\pm$ <0.01	<0.01 $\pm$ <0.01	0.01 $\pm$ <0.01	0.01 $\pm$ <0.01
1984-85	0.02 $\pm$ <0.01	0.03 $\pm$ 0.01	0.01 $\pm$ <0.01	0.01 $\pm$ <0.01	0.01 $\pm$ <0.01	0.01 $\pm$ <0.01	<0.01 $\pm$ <0.01	0.01 $\pm$ <0.01	0.01 $\pm$ <0.01
1985-86	0.01 $\pm$ <0.01	0.02 $\pm$ 0.01	<0.01 $\pm$ <0.01	<0.01 $\pm$ <0.01	<0.01 $\pm$ <0.01	0.02 $\pm$ 0.01	0.01 $\pm$ <0.01	0.01 $\pm$ <0.01	0.01 $\pm$ <0.01
1986-87	0.01 $\pm$ <0.01	0.02 $\pm$ <0.01	<0.01 $\pm$ <0.01	0.01 $\pm$ <0.01	0.01 $\pm$ <0.01	<0.01 $\pm$ <0.01	<0.01 $\pm$ <0.01	0.01 $\pm$ <0.01	0.01 $\pm$ <0.01
1987-88	0.02 $\pm$ 0.01	0.01 $\pm$ 0.01	0.02 $\pm$ 0.02	0.01 $\pm$ <0.01	0.01 $\pm$ <0.01	0.01 $\pm$ <0.01	<0.01 $\pm$ <0.01	0.01 $\pm$ <0.01	0.01 $\pm$ <0.01
<b>Gafftopsail catfish</b>									
1974-76	0.01 $\pm$ 0.01	0.03 $\pm$ 0.02	0.01 $\pm$ <0.05	0.01 $\pm$ <0.05	0.02 $\pm$ 0.02	0.01 $\pm$ 0.01	0.00	0.00	0.01 $\pm$ <0.01
1976-77	0.02	0.12	0.02	0.02	0.01	0.03	0.00	<0.01	0.02
1977-78	<0.01	0.06	0.01	0.01	0.01	0.01	0.00	0.00	0.01
1978-79	0.02	0.05	0.01	0.02	0.02	0.02	<0.01	<0.01	0.02
1979-80	<0.01 $\pm$ <0.01	<0.01 $\pm$ <0.01	0.01 $\pm$ <0.01	<0.01 $\pm$ <0.01	<0.01 $\pm$ <0.01	0.01 $\pm$ 0.01	<0.01 $\pm$ <0.01	0.00	<0.01 $\pm$ <0.01
1980-81	0.01 $\pm$ <0.01	<0.01 $\pm$ <0.01	<0.01 $\pm$ <0.01	<0.01 $\pm$ <0.01	<0.01 $\pm$ <0.01	<0.01 $\pm$ <0.01	0.00	0.00	<0.01 $\pm$ <0.01
1981-82	<0.01 $\pm$ <0.01	0.01 $\pm$ 0.01	0.01 $\pm$ <0.01	0.01 $\pm$ <0.01	0.01 $\pm$ 0.01	0.05 $\pm$ 0.04	0.00	0.00	0.01 $\pm$ <0.01

Table D.10. (Cont'd.)

Species Year	Bay system							Coastwide	
	Sabine Lake	Galveston	Matagorda	San Antonio	Arkansas	Corpus Christi	Upper Laguna Madre		Lower Laguna Madre
<b>Gafftopsail caffish (Cont'd.)</b>									
1982-83	<.01 ± <.01	<.01 ± <.01	0.01 ± <.01	<.01 ± <.01	0.01 ± <.01	0.00	0.00	0.00	<.01 ± <.01
1983-84	<.01 ± <.01	0.01 ± <.01	0.01 ± <.01	0.01 ± <.01	<.01 ± <.01	0.01 ± <.01	0.00	0.00	<.01 ± <.01
1984-85	<.01 ± <.01	0.01 ± <.01	0.01 ± <.01	0.02 ± 0.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.00	<.01 ± <.01
1985-86	<.01 ± <.01	0.01 ± <.01	0.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1986-87	<.01 ± <.01	0.01 ± <.01	0.01 ± <.01	0.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1987-88	<.01 ± <.01	<.01 ± <.01	0.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.00	0.00	<.01 ± <.01
<b>Red drum</b>									
1974-76	0.04 ± 0.02	0.04 ± 0.02	0.06 ± 0.03	0.12 ± 0.03	0.04 ± 0.01	0.06 ± 0.03	0.03 ± 0.01	0.06 ± 0.02	0.05 ± 0.01
1976-77	0.03	0.03	0.05	0.10	0.04	0.06	0.02	0.03	0.04
1977-78	0.03	0.02	0.02	0.06	0.07	0.02	0.01	0.03	0.03
1978-79	0.02	0.04	0.04	0.09	0.01	0.02	0.01	0.02	0.02
1979-80	0.02 ± 0.01	0.05 ± 0.03	0.05 ± 0.03	0.09 ± 0.03	0.05 ± 0.03	0.02 ± 0.01	0.03 ± 0.01	0.07 ± 0.03	0.03 ± 0.01
1980-81	0.03 ± 0.01	0.05 ± 0.02	0.05 ± 0.02	0.05 ± 0.02	0.03 ± 0.01	0.02 ± 0.01	0.03 ± 0.01	0.03 ± 0.01	0.03 ± 0.01
1981-82	0.02 ± 0.01	0.04 ± 0.01	0.04 ± 0.01	0.09 ± 0.03	0.03 ± 0.01	0.03 ± 0.01	0.02 ± 0.01	0.02 ± 0.01	0.03 ± <.01
1982-83	0.02 ± <.01	0.04 ± 0.01	0.04 ± 0.01	0.05 ± 0.01	0.06 ± 0.02	0.02 ± <.01	0.02 ± <.01	0.04 ± 0.01	0.03 ± <.01
1983-84	0.01 ± <.01	0.07 ± 0.02	0.07 ± 0.02	0.11 ± 0.02	0.06 ± 0.02	0.03 ± 0.01	0.02 ± <.01	0.06 ± 0.01	0.01 ± <.01
1984-85	0.01 ± <.01	0.02 ± 0.01	0.02 ± 0.01	0.05 ± 0.02	0.04 ± 0.01	0.03 ± 0.01	0.01 ± <.01	0.04 ± <.01	0.02 ± <.01
1985-86	0.01 ± <.01	0.03 ± 0.01	0.03 ± 0.01	0.04 ± 0.01	0.05 ± 0.01	0.04 ± 0.01	0.02 ± <.01	0.05 ± 0.01	0.03 ± <.01
1986-87	0.02 ± <.01	0.05 ± 0.01	0.05 ± 0.01	0.07 ± 0.02	0.01 ± <.01	0.05 ± 0.01	0.02 ± <.01	0.06 ± 0.01	0.04 ± <.01
1987-88	0.02 ± <.01	0.04 ± 0.01	0.04 ± 0.01	0.08 ± 0.03	0.03 ± 0.01	0.05 ± 0.01	0.03 ± 0.01	0.06 ± 0.01	0.03 ± <.01
<b>Sand seatrout</b>									
1974-76	0.25 ± 0.16	0.11 ± 0.08	0.11 ± 0.08	0.02 ± 0.01	0.03 ± 0.02	0.34 ± 0.12	0.07 ± 0.06	0.02 ± 0.01	0.16 ± 0.07
1976-77	0.58	0.09	0.09	0.01	0.14	0.53	0.05	0.04	0.25
1977-78	0.16	0.06	0.06	0.01	0.04	0.24	0.02	0.09	0.11
1978-79	0.34	0.04	0.04	<.01	0.03	0.11	0.01	0.01	0.17
1979-80	0.15 ± 0.10	0.02 ± 0.01	0.02 ± 0.01	0.02 ± 0.01	<.01 ± <.01	0.19 ± 0.14	0.05 ± 0.03	0.03 ± 0.02	0.11 ± 0.05
1980-81	0.16 ± 0.05	0.04 ± 0.02	0.04 ± 0.02	<.01 ± <.01	0.04 ± 0.01	0.61 ± 0.52	0.01 ± <.01	0.02 ± 0.01	0.16 ± 0.08
1981-82	0.08 ± 0.02	0.09 ± 0.04	0.09 ± 0.04	0.01 ± 0.01	0.03 ± 0.01	0.18 ± 0.04	0.02 ± 0.01	0.06 ± 0.02	0.07 ± 0.01
1982-83	0.17 ± 0.05	0.05 ± 0.02	0.05 ± 0.02	0.02 ± 0.01	0.05 ± 0.01	0.26 ± 0.06	0.01 ± <.01	0.03 ± 0.01	0.10 ± 0.01
1983-84	0.08 ± 0.04	0.05 ± 0.02	0.05 ± 0.02	0.01 ± <.01	0.05 ± 0.02	0.13 ± 0.05	0.02 ± <.01	0.02 ± <.01	0.06 ± 0.01
1984-85	0.20 ± 0.06	0.03 ± 0.02	0.03 ± 0.02	0.02 ± 0.01	0.06 ± 0.02	0.04 ± 0.02	0.03 ± 0.01	0.04 ± 0.02	0.10 ± 0.02
1985-86	0.07 ± 0.03	0.04 ± 0.01	0.04 ± 0.01	0.02 ± <.01	0.06 ± 0.02	0.08 ± 0.03	0.01 ± <.01	0.02 ± 0.01	0.05 ± 0.01
1986-87	0.13 ± 0.04	0.01 ± <.01	0.01 ± <.01	<.01 ± <.01	0.03 ± 0.01	0.05 ± 0.02	<.01 ± <.01	0.02 ± <.01	0.06 ± 0.01
1987-88	0.13 ± 0.04	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.05 ± 0.02	0.07 ± 0.04	<.01 ± <.01	0.01 ± <.01	0.05 ± 0.01

Table D.10. (Cont'd.)

Species Year	Bay system								
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide
Sheepshead									
1974-76	0.01 ± <.01	0.02 ± 0.01	0.02 ± 0.01	0.01 ± <.01	0.09 ± 0.07	0.02 ± 0.01	0.02 ± 0.01	<.01 ± <.01	0.02 ± 0.01
1976-77	0.02	0.06	0.03	0.01	0.03	0.03	0.01	0.02	0.02
1977-78	0.08	0.05	0.04	0.02	0.04	0.02	0.01	0.02	0.06
1978-79	0.02	0.05	0.02	0.01	0.02	0.03	0.01	0.03	0.02
1979-80	0.04 ± 0.03	0.03 ± 0.01	0.03 ± 0.01	0.02 ± 0.01	0.09 ± 0.08	0.02 ± 0.01	0.01 ± 0.01	0.11 ± 0.05	0.04 ± 0.01
1980-81	0.02 ± 0.01	0.03 ± 0.01	0.03 ± 0.01	0.01 ± <.01	0.07 ± 0.04	0.09 ± 0.04	0.01 ± 0.01	0.03 ± 0.01	0.03 ± 0.01
1981-82	0.02 ± 0.01	0.06 ± 0.02	0.06 ± 0.02	0.03 ± 0.01	0.06 ± 0.02	0.06 ± 0.02	0.01 ± <.01	0.05 ± 0.03	0.03 ± 0.01
1982-83	0.03 ± 0.01	0.05 ± 0.02	0.05 ± 0.02	0.02 ± 0.01	0.04 ± 0.02	0.15 ± 0.07	0.01 ± <.01	0.03 ± 0.01	0.04 ± 0.01
1983-84	0.01 ± <.01	0.03 ± 0.02	0.03 ± 0.02	0.01 ± <.01	0.03 ± 0.01	0.01 ± <.01	0.01 ± <.01	0.02 ± 0.01	0.02 ± 0.01
1984-85	0.02 ± <.01	0.03 ± 0.01	0.03 ± 0.01	0.01 ± <.01	0.10 ± 0.07	0.01 ± <.01	0.01 ± <.01	0.02 ± 0.01	0.02 ± 0.01
1985-86	0.01 ± <.01	0.01 ± <.01	0.01 ± <.01	0.02 ± 0.01	0.03 ± 0.01	0.01 ± 0.01	0.01 ± 0.01	<.01 ± <.01	0.01 ± <.01
1986-87	0.01 ± <.01	0.02 ± 0.01	0.02 ± 0.01	0.01 ± <.01	0.07 ± 0.04	0.01 ± <.01	0.00	<.01 ± <.01	0.01 ± <.01
1987-88	0.01 ± <.01	0.02 ± 0.01	0.02 ± 0.01	0.01 ± <.01	0.03 ± 0.02	0.04 ± 0.03	0.00	0.01 ± 0.01	0.01 ± <.01
Southern flounder									
1974-76	0.03 ± 0.01	0.06 ± 0.03	0.06 ± 0.03	0.03 ± 0.01	0.05 ± 0.02	0.01 ± 0.01	0.08 ± 0.03	<.01 ± <.01	0.04 ± 0.01
1976-77	0.03	0.06	0.06	0.03	0.02	0.04	0.01	0.01	0.02
1977-78	0.02	0.04	0.04	0.03	0.04	0.02	0.01	0.02	0.02
1978-79	0.02	0.04	0.04	0.02	0.02	0.05	0.01	0.02	0.02
1979-80	0.22 ± 0.15	0.03 ± 0.01	0.03 ± 0.01	0.03 ± 0.01	0.01 ± 0.01	0.02 ± 0.01	0.03 ± 0.01	0.03 ± 0.01	0.12 ± 0.07
1980-81	0.03 ± 0.01	0.02 ± 0.01	0.02 ± 0.01	0.03 ± 0.01	0.04 ± 0.02	0.10 ± 0.06	0.02 ± 0.01	0.02 ± 0.01	0.03 ± 0.01
1981-82	0.02 ± 0.01	0.03 ± 0.02	0.03 ± 0.02	0.02 ± 0.01	0.02 ± 0.01	0.06 ± 0.03	0.01 ± <.01	0.03 ± 0.01	0.02 ± <.01
1982-83	0.06 ± 0.02	0.02 ± 0.01	0.02 ± 0.01	0.02 ± 0.01	0.04 ± 0.02	0.02 ± <.01	0.02 ± <.01	0.05 ± 0.01	0.04 ± 0.01
1983-84	0.03 ± 0.01	0.04 ± 0.01	0.04 ± 0.01	0.01 ± <.01	0.03 ± 0.02	0.03 ± 0.01	0.01 ± <.01	0.02 ± <.01	0.03 ± 0.01
1984-85	0.05 ± 0.01	0.03 ± 0.01	0.03 ± 0.01	0.02 ± 0.01	0.02 ± 0.01	0.04 ± 0.01	0.01 ± <.01	0.02 ± <.01	0.04 ± 0.01
1985-86	0.04 ± 0.01	0.03 ± 0.01	0.03 ± 0.01	0.02 ± 0.01	0.03 ± 0.01	0.03 ± 0.01	0.02 ± <.01	0.08 ± 0.03	0.04 ± 0.01
1986-87	0.03 ± <.01	0.02 ± 0.01	0.02 ± 0.01	0.03 ± 0.01	0.01 ± <.01	0.02 ± <.01	0.03 ± <.01	0.04 ± <.01	0.03 ± <.01
1987-88	0.06 ± 0.02	0.03 ± 0.01	0.03 ± 0.01	0.01 ± 0.01	0.01 ± <.01	0.02 ± <.01	0.01 ± <.01	0.02 ± <.01	0.03 ± <.01
Spotted seatrout									
1974-76	0.22 ± 0.09	0.40 ± 0.20	0.40 ± 0.20	0.84 ± 0.24	1.41 ± 0.68	0.29 ± 0.11	0.46 ± 0.14	0.33 ± 0.10	0.42 ± 0.09
1976-77	0.16	0.10	0.10	0.33	0.76	0.68	0.87	0.71	0.47
1977-78	0.15	0.26	0.26	0.20	0.62	0.69	0.25	0.42	0.27
1978-79	0.20	0.17	0.17	0.09	0.52	0.33	0.15	0.34	0.23
1979-80	0.06 ± 0.03	0.11 ± 0.05	0.11 ± 0.05	0.53 ± 0.24	0.49 ± 0.19	0.11 ± 0.06	0.33 ± 0.09	0.48 ± 0.16	0.19 ± 0.04
1980-81	0.38 ± 0.18	0.12 ± 0.05	0.12 ± 0.05	0.26 ± 0.08	0.33 ± 0.09	0.15 ± 0.05	0.34 ± 0.08	0.36 ± 0.09	0.30 ± 0.07
1981-82	0.18 ± 0.05	0.31 ± 0.07	0.31 ± 0.07	0.34 ± 0.06	0.37 ± 0.08	0.41 ± 0.08	0.28 ± 0.07	0.45 ± 0.06	0.28 ± 0.03

Table D.10. (Cont'd.)

Species Year	Bay system								Coastwide
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	
<b>Spotted seatrout (Cont'd.)</b>									
1982-83		0.15 ± 0.04	0.21 ± 0.04	0.22 ± 0.04	0.26 ± 0.05	0.22 ± 0.05	0.28 ± 0.04	0.45 ± 0.05	0.23 ± 0.02
1983-84		0.12 ± 0.04	0.24 ± 0.06	0.30 ± 0.08	0.21 ± 0.06	0.19 ± 0.07	0.26 ± 0.04	0.33 ± 0.04	0.20 ± 0.03
1984-85		0.06 ± 0.01	0.07 ± 0.03	0.03 ± 0.01	0.09 ± 0.05	0.07 ± 0.02	0.03 ± 0.01	0.16 ± 0.03	0.08 ± 0.01
1985-86		0.06 ± 0.02	0.09 ± 0.02	0.14 ± 0.03	0.11 ± 0.03	0.14 ± 0.04	0.10 ± 0.02	0.16 ± 0.02	0.10 ± 0.01
1986-87		0.11 ± 0.02	0.13 ± 0.04	0.18 ± 0.04	0.11 ± 0.03	0.17 ± 0.04	0.13 ± 0.02	0.21 ± 0.03	0.14 ± 0.01
1987-88	0.16 ± 0.04	0.10 ± 0.02	0.14 ± 0.02	0.16 ± 0.05	0.13 ± 0.02	0.18 ± 0.04	0.15 ± 0.03	0.17 ± 0.02	0.12 ± 0.01
<b>Other species</b>									
1974-76		0.03 ± 0.02	0.01 ± 0.01	0.02 ± 0.01	0.01 ± 0.01	0.05 ± 0.02	0.01 ± 0.01	0.03 ± 0.02	0.03 ± 0.01
1976-77		0.03	0.02	0.02	0.01	0.04	0.01	0.04	0.03
1977-78		0.03	0.03	0.02	0.01	0.02	0.01	0.01	0.02
1978-79		0.04	0.02	0.01	0.01	0.04	<.01	<.01	0.02
1979-80		0.03 ± 0.02	0.02 ± 0.01	0.01 ± 0.01	0.01 ± 0.01	0.13 ± 0.11	0.11 ± 0.10	0.02 ± 0.01	0.05 ± 0.02
1980-81		0.05 ± 0.01	0.02 ± 0.01	0.01 ± 0.01	0.01 ± 0.01	0.09 ± 0.06	0.02 ± 0.01	0.01 ± 0.01	0.04 ± 0.01
1981-82		0.05 ± 0.02	0.02 ± 0.01	0.01 ± 0.01	0.02 ± 0.01	0.05 ± 0.01	0.01 ± 0.01	0.01 ± 0.01	0.03 ± 0.01
1982-83		0.05 ± 0.01	0.02 ± 0.01	0.02 ± 0.01	0.05 ± 0.01	0.10 ± 0.03	0.01 ± 0.01	0.02 ± 0.01	0.04 ± 0.01
1983-84		0.03	0.03	0.04	0.06	0.03	0.01	0.02	0.03
1984-85		0.03	0.03	0.02	0.02	0.02	0.01	0.03	0.02
1985-86		0.04	0.03	0.04	0.01	0.02	0.02	0.01	0.02
1986-87		0.04 ± 0.01	0.02	0.02 ± 0.01	0.04	0.01	0.01	0.03	0.03
1987-88	0.04	0.06	0.03	<.01	0.09	0.02	0.01	0.02	0.05
<b>All species combined<sup>a</sup></b>									
1974-76		0.86 ± 0.34	0.75 ± 0.35	1.09 ± 0.28	1.69 ± 0.71	0.89 ± 0.27	0.90 ± 0.28	0.49 ± 0.13	0.88 ± 0.18
1976-77		1.44	0.60	0.64	1.06	1.53	1.08	0.88	1.08
1977-78		0.93	0.62	0.39	0.85	1.14	0.44	0.63	0.78
1978-79		0.93	0.49	0.25	0.64	0.67	0.40	0.48	0.69
1979-80		0.68 ± 0.33	0.31 ± 0.13	0.72 ± 0.25	0.72 ± 0.25	0.53 ± 0.30	0.79 ± 0.24	0.76 ± 0.26	0.65 ± 0.17
1980-81		0.88 ± 0.28	0.43 ± 0.16	0.39 ± 0.11	0.54 ± 0.13	1.27 ± 0.85	0.47 ± 0.11	0.52 ± 0.12	0.75 ± 0.17
1981-82		0.50 ± 0.11	0.62 ± 0.12	0.56 ± 0.09	0.57 ± 0.10	0.98 ± 0.17	0.38 ± 0.09	0.65 ± 0.09	0.55 ± 0.06
1982-83		0.64 ± 0.10	0.49 ± 0.08	0.39 ± 0.06	0.50 ± 0.10	0.84 ± 0.16	0.39 ± 0.06	0.64 ± 0.07	0.58 ± 0.04
1983-84		0.39 ± 0.11	0.52 ± 0.10	0.51 ± 0.11	0.52 ± 0.14	0.47 ± 0.15	0.36 ± 0.05	0.48 ± 0.06	0.44 ± 0.05
1984-85		0.54 ± 0.10	0.24 ± 0.05	0.19 ± 0.03	0.36 ± 0.12	0.23 ± 0.05	0.10 ± 0.03	0.32 ± 0.06	0.36 ± 0.04
1985-86		0.40 ± 0.10	0.28 ± 0.05	0.29 ± 0.07	0.33 ± 0.05	0.35 ± 0.08	0.20 ± 0.04	0.35 ± 0.05	0.32 ± 0.04

Table D.10. (Cont'd.)

Species Year	Bay system								
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide
All species combined <sup>a</sup> (Cont'd.)									
1986-87		0.52 ± 0.11	0.28 ± 0.06	0.32 ± 0.07	0.36 ± 0.10	0.33 ± 0.07	0.22 ± 0.04	0.38 ± 0.04	0.38 ± 0.04
1987-88	0.66 ± 0.13	0.51 ± 0.09	0.29 ± 0.05	0.31 ± 0.10	0.38 ± 0.06	0.45 ± 0.09	0.22 ± 0.04	0.30 ± 0.04	0.37 ± 0.03

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual species totals.

Table D.11. Mean catch rates of fishes (No./man-h)  $\pm$  1 SE caught by private-boat fishermen in Texas bays and passes during the high-use season by species and bay system (1974-1987).

Species Year	Bay system									
	Upper					Lower				
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Laguna Madre	Laguna Madre	Coastwide	
Atlantic croaker										
1974-76	0.29 $\pm$ 0.18	0.04 $\pm$ 0.02	0.03 $\pm$ 0.01	0.01 $\pm$ 0.01	0.01 $\pm$ 0.01	0.04 $\pm$ 0.02	0.20 $\pm$ 0.07	0.02 $\pm$ 0.01	0.10 $\pm$ 0.28	
1976	0.60	0.07	<.01	<.01	0.02	0.12	0.10	0.03	0.24	
1977	0.47	0.06	<.01	0.02	0.02	0.10	0.18	0.03	0.27	
1978	0.48	0.05	0.01	<.01	<.01	0.08	0.28	0.02	0.17	
1979	0.17 $\pm$ 0.10	0.01 $\pm$ 0.01	0.01 $\pm$ 0.01	0.01 $\pm$ 0.01	0.01 $\pm$ 0.01	0.02 $\pm$ 0.01	0.37 $\pm$ 0.20	0.01 $\pm$ <.01	0.13 $\pm$ 0.05	
1980	0.22 $\pm$ 0.12	0.09 $\pm$ 0.05	0.01 $\pm$ <.01	0.01 $\pm$ <.01	0.01 $\pm$ <.01	0.26 $\pm$ 0.21	0.06 $\pm$ 0.02	0.02 $\pm$ 0.01	0.16 $\pm$ 0.06	
1981	0.13 $\pm$ 0.04	0.02 $\pm$ 0.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.17 $\pm$ 0.10	0.04 $\pm$ 0.02	0.01 $\pm$ <.01	0.08 $\pm$ 0.02	
1982	0.12 $\pm$ 0.02	0.02 $\pm$ 0.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.01 $\pm$ 0.01	0.07 $\pm$ 0.02	0.04 $\pm$ 0.02	0.01 $\pm$ <.01	0.07 $\pm$ 0.01	
1983	0.11 $\pm$ 0.04	0.02 $\pm$ 0.01	0.01 $\pm$ <.01	0.01 $\pm$ <.01	0.05 $\pm$ 0.02	0.06 $\pm$ 0.02	0.04 $\pm$ 0.01	0.01 $\pm$ <.01	0.06 $\pm$ 0.01	
1984	0.17 $\pm$ 0.04	0.02 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.02 $\pm$ 0.01	0.02 $\pm$ 0.01	0.01 $\pm$ <.01	0.01 $\pm$ <.01	0.08 $\pm$ 0.02	
1985	0.19 $\pm$ 0.04	0.02 $\pm$ 0.01	<.01 $\pm$ 0.01	<.01 $\pm$ 0.01	0.02 $\pm$ 0.01	0.03 $\pm$ 0.01	0.03 $\pm$ <.01	0.02 $\pm$ <.01	0.08 $\pm$ 0.01	
1986	0.22 $\pm$ 0.08	0.02 $\pm$ 0.01	<.01	<.01	0.01 $\pm$ <.01	0.03 $\pm$ 0.01	0.02 $\pm$ 0.01	0.01 $\pm$ <.01	0.09 $\pm$ 0.03	
1987	0.14 $\pm$ 0.03	0.01 $\pm$ <.01	<.01 $\pm$ <.01	0.02 $\pm$ 0.01	0.02 $\pm$ 0.01	0.09 $\pm$ 0.03	0.02 $\pm$ 0.01	<.01 $\pm$ <.01	0.08 $\pm$ 0.01	
Black drum										
1974-76	0.01 $\pm$ <.01	0.04 $\pm$ 0.03	0.01 $\pm$ <.01	0.01 $\pm$ <.01	0.05 $\pm$ 0.05	0.07 $\pm$ 0.04	0.01 $\pm$ 0.01	0.03 $\pm$ 0.03	0.02 $\pm$ 0.01	
1976	0.07	0.03	0.15	0.02	0.02	0.02	0.05	0.01	0.05	
1977	0.05	0.06	0.01	0.01	0.01	0.02	0.01	0.01	0.04	
1978	0.03	0.04	0.01	<.01	<.01	0.01	0.01	0.03	0.03	
1979	0.02 $\pm$ 0.01	0.02 $\pm$ 0.02	<.01 $\pm$ <.01	0.07 $\pm$ 0.04	0.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.01 $\pm$ <.01	0.02 $\pm$ 0.01	
1980	0.02 $\pm$ 0.01	0.06 $\pm$ 0.03	0.01 $\pm$ <.01	0.01 $\pm$ <.01	0.01 $\pm$ <.01	0.01 $\pm$ 0.01	0.01 $\pm$ <.01	0.02 $\pm$ 0.01	0.02 $\pm$ <.01	
1981	0.02 $\pm$ 0.01	0.05 $\pm$ 0.01	0.03 $\pm$ 0.03	0.02 $\pm$ 0.01	0.02 $\pm$ 0.01	0.03 $\pm$ 0.01	<.01 $\pm$ <.01	0.01 $\pm$ <.01	0.02 $\pm$ <.01	
1982	0.04 $\pm$ 0.01	0.05 $\pm$ 0.01	<.01 $\pm$ <.01	0.01 $\pm$ 0.01	0.01 $\pm$ 0.01	0.03 $\pm$ 0.01	0.01 $\pm$ <.01	0.01 $\pm$ <.01	0.03 $\pm$ <.01	
1983	0.01 $\pm$ <.01	0.03 $\pm$ 0.01	0.01 $\pm$ <.01	0.02 $\pm$ 0.01	0.02 $\pm$ 0.01	0.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.01 $\pm$ <.01	
1984	0.02 $\pm$ <.01	0.02 $\pm$ 0.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.01 $\pm$ <.01	<.01 $\pm$ 0.01	<.01 $\pm$ <.01	0.01 $\pm$ <.01	
1985	0.01 $\pm$ 0.01	0.01 $\pm$ 0.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.02 $\pm$ 0.01	0.01 $\pm$ <.01	<.01 $\pm$ <.01	0.01 $\pm$ <.01	
1986	0.02 $\pm$ 0.01	0.02 $\pm$ 0.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.01 $\pm$ <.01	
1987	0.02 $\pm$ <.01	0.01 $\pm$ <.01	<.01 $\pm$ <.01	0.01 $\pm$ <.01	0.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.01 $\pm$ <.01	
Gafftopsail catfish										
1974-76	0.02 $\pm$ 0.02	0.01 $\pm$ 0.01	0.01 $\pm$ 0.01	0.02 $\pm$ 0.02	0.02 $\pm$ 0.02	0.00	0.00	0.00	0.03 $\pm$ <.01	
1976	0.02	0.12	0.01	0.01	0.02	0.02	0.00	<.01	0.02	
1977	<.01	0.07	0.02	<.01	<.01	0.01	0.00	0.00	0.01	
1978	<.01	0.06	0.01	0.01	0.01	0.02	<.01	<.01	0.01	
1979	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.00	0.00	<.01 $\pm$ <.01	
1980	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.00	0.00	<.01 $\pm$ <.01	
1981	<.01 $\pm$ <.01	0.01 $\pm$ 0.01	0.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.01 $\pm$ <.01	0.00	0.00	<.01 $\pm$ <.01	

Table D.11. (Cont'd.)

Species Year	Bay system											
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi		Upper Laguna Madre		Lower Laguna Madre		Coastwide
						Christi	Christi	Laguna Madre	Laguna Madre	Laguna Madre	Laguna Madre	
<b>Gafftopsail catfish (Cont'd.)</b>												
1982	<.01 ± <.01	<.01 ± <.01	0.01 ± <.01	0.01 ± <.01	<.01 ± <.01	0.01 ± <.01	0.01 ± <.01	0.00	0.00	0.00	<.01 ± <.01	<.01 ± <.01
1983	<.01 ± <.01	<.01 ± <.01	0.01 ± <.01	0.01 ± <.01	<.01 ± <.01	0.01 ± <.01	0.01 ± <.01	0.00	0.00	0.00	<.01 ± <.01	<.01 ± <.01
1984	<.01 ± <.01	<.01 ± <.01	0.02 ± 0.01	0.02 ± 0.01	0.01 ± <.01	0.01 ± <.01	0.01 ± <.01	<.01 ± <.01	0.00	0.00	<.01 ± <.01	<.01 ± <.01
1985	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.01 ± <.01	0.01 ± <.01	0.01 ± <.01	0.00	0.00	0.00	<.01 ± <.01	<.01 ± <.01
1986	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.00	0.00	<.01	<.01 ± <.01	<.01 ± <.01
1987	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.01 ± <.01	0.01 ± <.01	0.01 ± <.01	0.00	0.00	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01
<b>Red drum</b>												
1974-76	0.05 ± 0.04	0.05 ± 0.04	0.04 ± 0.02	0.12 ± 0.04	0.04 ± 0.02	0.08 ± 0.05	0.08 ± 0.05	0.04 ± 0.01	0.04 ± 0.01	0.08 ± 0.04	0.07 ± 0.01	0.07 ± 0.01
1976	0.02	0.04	0.04	0.13	0.05	0.07	0.07	0.02	0.02	0.04	0.04	0.04
1977	0.03	0.02	0.02	0.03	0.06	0.03	0.03	0.02	0.02	0.03	0.03	0.03
1978	0.02	0.04	0.04	0.02	0.01	0.02	0.02	0.01	0.01	0.01	0.02	0.02
1979	0.03 ± 0.02	0.04 ± 0.03	0.04 ± 0.03	0.07 ± 0.03	0.02 ± 0.01	0.01 ± <.01	0.01 ± <.01	0.01 ± 0.01	0.01 ± 0.01	0.10 ± 0.06	0.03 ± 0.01	0.03 ± 0.01
1980	0.04 ± 0.02	0.05 ± 0.02	0.05 ± 0.02	0.06 ± 0.01	0.04 ± 0.02	0.02 ± 0.01	0.02 ± 0.01	0.04 ± 0.01	0.04 ± 0.01	0.04 ± 0.01	0.04 ± 0.01	0.04 ± 0.01
1981	0.02 ± 0.01	0.04 ± 0.01	0.04 ± 0.01	0.06 ± 0.02	0.02 ± <.01	0.03 ± 0.01	0.03 ± 0.01	0.02 ± 0.01	0.02 ± 0.01	0.02 ± <.01	0.02 ± <.01	0.02 ± <.01
1982	0.02 ± <.01	0.04 ± 0.01	0.04 ± 0.01	0.05 ± 0.01	0.05 ± 0.02	0.03 ± 0.01	0.03 ± 0.01	0.02 ± <.01	0.02 ± <.01	0.03 ± <.01	0.03 ± <.01	0.03 ± <.01
1983	0.01 ± <.01	0.07 ± 0.02	0.07 ± 0.02	0.10 ± 0.07	0.05 ± 0.02	0.02 ± 0.01	0.02 ± 0.01	0.02 ± <.01	0.02 ± <.01	0.01 ± 0.01	0.04 ± <.01	0.04 ± <.01
1984	0.01 ± <.01	0.01 ± <.01	0.01 ± <.01	0.02 ± <.01	0.05 ± 0.02	0.02 ± 0.01	0.02 ± 0.01	0.01 ± <.01	0.01 ± <.01	0.05 ± 0.01	0.02 ± <.01	0.02 ± <.01
1985	0.02 ± <.01	0.03 ± 0.01	0.03 ± 0.01	0.04 ± 0.02	0.07 ± 0.01	0.05 ± 0.02	0.05 ± 0.02	0.03 ± 0.01	0.03 ± 0.01	0.06 ± 0.01	0.04 ± <.01	0.04 ± <.01
1986	0.02 ± <.01	0.07 ± 0.02	0.07 ± 0.02	0.08 ± 0.02	0.06 ± 0.01	0.05 ± 0.01	0.05 ± 0.01	0.02 ± 6.01	0.02 ± 6.01	0.08 ± 0.01	0.04 ± <.01	0.04 ± <.01
1987	0.02 ± <.01	0.04 ± 0.01	0.04 ± 0.01	0.06 ± 0.02	0.04 ± 0.01	0.05 ± 0.01	0.05 ± 0.01	0.03 ± <.01	0.03 ± <.01	0.07 ± 0.01	0.04 ± <.01	0.04 ± <.01
	0.03 ± 0.01											
<b>Sand seatrout</b>												
1974-76	0.24 ± 0.20	0.14 ± 0.10	0.14 ± 0.10	0.02 ± 0.01	0.02 ± 0.02	0.53 ± 0.24	0.53 ± 0.24	0.15 ± 0.14	0.15 ± 0.14	0.03 ± 0.02	0.13 ± 0.03	0.13 ± 0.03
1976	0.67	0.11	0.11	<.01	0.28	0.42	0.42	0.07	0.07	0.05	0.31	0.31
1977	0.16	0.07	0.07	0.01	0.06	0.30	0.30	0.02	0.02	0.13	0.13	0.13
1978	0.33	0.05	0.05	<.01	0.01	0.16	0.16	0.01	0.01	0.01	0.18	0.18
1979	0.21 ± 0.15	0.03 ± 0.02	0.03 ± 0.02	0.03 ± 0.01	<.01 ± <.01	0.24 ± 0.20	0.24 ± 0.20	0.07 ± 0.05	0.07 ± 0.05	0.05 ± 0.04	0.15 ± 0.07	0.15 ± 0.07
1980	0.20 ± 0.07	0.05 ± 0.03	0.05 ± 0.03	0.01 ± <.01	0.05 ± 0.02	0.75 ± 0.67	0.75 ± 0.67	0.01 ± <.01	0.01 ± <.01	0.03 ± 0.01	0.21 ± 0.10	0.21 ± 0.10
1981	0.10 ± 0.03	0.10 ± 0.05	0.10 ± 0.05	0.01 ± 0.01	0.02 ± 0.01	0.20 ± 0.06	0.20 ± 0.06	0.02 ± 0.01	0.02 ± 0.01	0.07 ± 0.06	0.08 ± 0.02	0.08 ± 0.02
1982	0.19 ± 0.04	0.06 ± 0.02	0.06 ± 0.02	0.02 ± 0.01	0.05 ± 0.02	0.31 ± 0.08	0.31 ± 0.08	0.01 ± <.01	0.01 ± <.01	0.03 ± 0.01	0.12 ± 0.02	0.12 ± 0.02
1983	0.09 ± 0.05	0.06 ± 0.02	0.06 ± 0.02	0.02 ± <.01	0.05 ± 0.02	0.14 ± 0.05	0.14 ± 0.05	0.02 ± <.01	0.02 ± <.01	0.02 ± 0.01	0.07 ± 0.02	0.07 ± 0.02
1984	0.24 ± 0.07	0.04 ± 0.02	0.04 ± 0.02	0.02 ± 0.01	0.09 ± 0.04	0.08 ± 0.03	0.08 ± 0.03	0.03 ± 0.02	0.03 ± 0.02	0.04 ± 0.01	0.14 ± 0.03	0.14 ± 0.03
1985	0.12 ± 0.04	0.06 ± 0.02	0.06 ± 0.02	0.02 ± <.01	0.04 ± 0.02	0.06 ± 0.02	0.06 ± 0.02	0.01 ± <.01	0.01 ± <.01	0.03 ± 0.01	0.06 ± 0.01	0.06 ± 0.01
1986	0.18 ± 0.05	0.01 ± <.01	0.01 ± <.01	<.01 ± <.01	0.04 ± 0.02	0.08 ± 0.03	0.08 ± 0.03	0.01 ± <.01	0.01 ± <.01	0.03 ± 0.01	0.08 ± 0.01	0.08 ± 0.01
1987	0.15 ± 0.04	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.07 ± 0.02	0.06 ± 0.03	0.06 ± 0.03	<.01 ± <.01	<.01 ± <.01	0.01 ± 0.01	0.08 ± 0.02	0.08 ± 0.02



Table D.11. (Cont'd.)

Species Year	Bay system							Coastwide
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	
<b>Sheepshead</b>								
1974-76								
1976	<.01 ± <.01	0.03 ± 0.02	0.03 ± 0.08	0.01 ± <.01	<.01 ± <.01	0.02 ± 0.03	0.01 ± 0.01	<.01 ± <.01
1977	0.02	0.05	0.05	0.01	0.03	0.03	0.01	0.02
1978	0.09	0.05	0.05	0.02	0.02	0.02	0.01	0.01
1979	0.02	0.02	0.02	<.01	0.01	0.03	<.01	0.01
1980	0.02 ± 0.02	0.02 ± 0.02	0.02 ± 0.02	0.02 ± 0.01	0.02 ± 0.01	<.01 ± <.01	0.01 ± <.01	0.07 ± 0.05
1981	0.02 ± 0.01	0.01 ± 0.01	0.01 ± 0.01	0.01 ± <.01	0.02 ± 0.01	0.30 ± 0.02	<.01 ± <.01	0.03 ± 0.02
1982	0.02 ± 0.01	0.03 ± 0.01	0.03 ± 0.01	0.02 ± 0.01	0.04 ± 0.01	0.02 ± 0.01	<.01 ± <.01	0.02 ± <.01
1983	0.03 ± 0.01	0.04 ± 0.03	0.04 ± 0.03	<.01 ± <.01	0.01 ± <.01	0.02 ± <.01	<.01 ± <.01	0.02 ± <.01
1984	0.02 ± 0.01	0.01 ± <.01	0.01 ± <.01	0.01 ± <.01	0.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.01 ± <.01
1985	0.02 ± 0.01	0.04 ± 0.02	0.04 ± 0.02	0.01 ± <.01	<.01 ± <.01	0.01 ± <.01	0.00	0.01 ± <.01
1986	0.01 ± <.01	0.01 ± <.01	0.01 ± <.01	0.02 ± 0.01	<.01 ± <.01	<.01 ± <.01	0.00	<.01 ± <.01
1987	0.01 ± <.01	0.01 ± <.01	0.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.00	<.01 ± <.01
	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.00	<.01 ± <.01
<b>Southern flounder</b>								
1974-75								
1976	0.02 ± 0.02	0.02 ± 0.02	0.03 ± 0.03	0.04 ± 0.01	0.06 ± 0.04	<.01 ± <.01	0.10 ± 0.07	<.01 ± <.01
1977	0.03	0.03	0.04	0.04	0.02	0.04	0.01	0.01
1978	0.02	0.04	0.04	0.04	0.05	0.02	0.02	0.02
1979	0.02	0.04	0.04	0.02	<.01	0.07	<.01	0.02
1980	0.18 ± 0.16	0.03 ± 0.02	0.03 ± 0.02	0.05 ± 0.02	0.01 ± 0.01	0.01 ± 0.01	0.05 ± 0.02	0.05 ± 0.02
1981	0.03 ± 0.01	0.03 ± 0.02	0.03 ± 0.02	0.05 ± 0.02	0.04 ± 0.02	0.10 ± 0.07	0.01 ± <.01	0.03 ± 0.01
1982	0.02 ± <.01	0.03 ± 0.02	0.03 ± 0.02	0.02 ± 0.01	0.03 ± 0.01	0.09 ± 0.04	0.01 ± <.01	0.03 ± 0.01
1983	0.06 ± 0.02	0.02 ± 0.01	0.02 ± 0.01	0.02 ± 0.01	0.04 ± 0.02	0.02 ± <.01	0.02 ± 0.01	0.06 ± 0.01
1984	0.04 ± 0.02	0.04 ± 0.01	0.04 ± 0.01	0.02 ± <.01	0.03 ± 0.01	0.03 ± 0.01	0.01 ± <.01	0.03 ± 0.01
1985	0.04 ± 0.01	0.04 ± 0.01	0.04 ± 0.01	0.02 ± 0.01	0.03 ± 0.01	0.06 ± 0.02	0.01 ± <.01	<.01 ± <.01
1986	0.05 ± 0.01	0.03 ± 0.01	0.03 ± 0.01	0.02 ± <.01	0.03 ± 0.01	0.02 ± 0.01	0.02 ± <.01	0.06 ± 0.01
1987	0.04 ± 0.01	0.03 ± 0.01	0.03 ± 0.01	0.04 ± 0.02	0.02 ± 0.01	0.02 ± <.01	0.03 ± 0.01	0.04 ± 0.01
1988	0.07 ± 0.02	0.03 ± 0.01	0.03 ± 0.01	0.02 ± 0.01	0.01 ± <.01	0.01 ± <.01	0.01 ± <.01	0.02 ± <.01
<b>Spotted seatrout</b>								
1974-76								
1976	0.27 ± 0.14	0.44 ± 0.25	0.44 ± 0.09	0.76 ± 0.31	1.95 ± 1.15	0.31 ± 0.18	0.46 ± 0.19	0.34 ± 0.14
1977	0.14	0.09	0.31	0.44	0.94	0.89	1.12	0.60
1978	0.17	0.31	0.16	0.24	0.80	0.82	0.33	0.54
1979	0.22	0.16	0.11	0.11	0.56	0.46	0.14	0.37
1980	0.06 ± 0.04	0.10 ± 0.06	0.14 ± 0.06	0.74 ± 0.37	0.54 ± 0.23	0.10 ± 0.07	0.22 ± 0.10	0.55 ± 0.25
	0.44 ± 0.22	0.14 ± 0.06	0.14 ± 0.06	0.36 ± 0.11	0.35 ± 0.11	0.14 ± 0.06	0.32 ± 0.06	0.47 ± 0.15

Table D.11. (Cont'd.)

Species Year	Bay system										Coastwide	
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi		Upper		Lower		
						Laguna Madre	Laguna Madre	Laguna Madre	Laguna Madre			
<b>Spotted seatrout (Cont'd.)</b>												
1981	0.21 ± 0.06	0.33 ± 0.08	0.36 ± 0.06	0.38 ± 0.10	0.42 ± 0.09	0.23 ± 0.06	0.50 ± 0.07	0.28 ± 0.04	0.25 ± 0.02	0.28 ± 0.04	0.28 ± 0.04	
1982	0.16 ± 0.04	0.22 ± 0.05	0.26 ± 0.05	0.27 ± 0.07	0.32 ± 0.07	0.28 ± 0.04	0.49 ± 0.06	0.28 ± 0.04	0.25 ± 0.02	0.49 ± 0.06	0.25 ± 0.02	
1983	0.13 ± 0.05	0.23 ± 0.05	0.34 ± 0.09	0.21 ± 0.07	0.19 ± 0.07	0.28 ± 0.05	0.38 ± 0.05	0.38 ± 0.05	0.22 ± 0.03	0.38 ± 0.05	0.22 ± 0.03	
1984	0.07 ± 0.01	0.04 ± 0.01	0.03 ± 0.01	0.03 ± 0.01	0.04 ± 0.02	0.02 ± 0.01	0.15 ± 0.03	0.02 ± 0.01	0.06 ± 0.01	0.15 ± 0.03	0.06 ± 0.01	
1985	0.10 ± 0.02	0.09 ± 0.02	0.11 ± 0.03	0.08 ± 0.02	0.11 ± 0.03	0.08 ± 0.02	0.17 ± 0.02	0.17 ± 0.02	0.10 ± 0.01	0.17 ± 0.02	0.10 ± 0.01	
1986	0.12 ± 0.03	0.13 ± 0.03	0.16 ± 0.04	0.07 ± 0.02	0.15 ± 0.04	0.10 ± 0.02	0.20 ± 0.02	0.20 ± 0.02	0.13 ± 0.01	0.20 ± 0.02	0.13 ± 0.01	
1987	0.11 ± 0.02	0.15 ± 0.03	0.19 ± 0.05	0.14 ± 0.03	0.18 ± 0.05	0.12 ± 0.02	0.17 ± 0.02	0.17 ± 0.02	0.14 ± 0.01	0.17 ± 0.02	0.14 ± 0.01	
<b>Other species</b>												
<b>1974-76</b>												
1976	0.01 ± <0.01	0.01 ± 0.01	0.02 ± 0.01	0.02 ± 0.01	0.08 ± 0.04	0.03 ± 0.01	0.04 ± 0.04	0.04 ± 0.04	0.02 ± 0.01	0.04 ± 0.04	0.02 ± 0.01	
1977	0.04	0.01	0.02	0.01	0.05	0.01	0.02	0.02	0.02	0.02	0.02	
1978	0.04	0.02	0.01	<0.01	0.02	<0.01	0.01	<0.01	0.02	0.01	0.02	
1979	0.05 ± 0.03	0.01 ± 0.01	0.02 ± 0.01	0.01 ± <0.01	0.04 ± 0.04	0.17 ± 0.16	0.02 ± 0.02	0.02 ± 0.02	0.05 ± 0.02	0.02 ± 0.02	0.05 ± 0.02	
1980	0.04 ± 0.01	0.02 ± 0.01	0.01 ± <0.01	0.01 ± <0.01	0.10 ± 0.07	0.02 ± 0.02	<0.01	<0.01	0.04 ± 0.01	<0.01	0.04 ± 0.01	
1981	0.03 ± 0.01	0.02 ± 0.01	0.02 ± 0.01	0.01 ± <0.01	0.06 ± 0.01	0.01 ± <0.01	0.01 ± <0.01	0.01 ± <0.01	0.02 ± <0.01	0.01 ± <0.01	0.02 ± <0.01	
1982	0.05 ± 0.01	0.02 ± 0.01	0.02 ± <0.01	0.03 ± 0.01	0.08 ± 0.02	0.02 ± 0.01	0.02 ± <0.01	0.02 ± <0.01	0.04 ± 0.01	0.02 ± <0.01	0.04 ± 0.01	
1983	0.02	0.03	0.04	0.06	0.04	0.01	0.02	0.02	0.03	0.02	0.03	
1984	0.04	0.02	0.03	0.03	0.02	0.01	0.02	0.01	0.02	0.02	0.02	
1985	0.03	0.03	0.01	0.02	0.02	<0.01	0.02	<0.01	0.03	0.02	0.03	
1986	0.04	0.03	0.01	0.01	0.02	0.01	0.02	0.01	0.03	0.02	0.03	
1987	0.06	0.02	0.01	0.12	0.02	0.01	0.02	0.01	0.04	0.02	0.04	
<b>All species combined<sup>a</sup></b>												
<b>1974-75</b>												
1976	0.91 ± 0.47	0.77 ± 0.43	1.01 ± 0.36	2.18 ± 1.19	1.12 ± 0.49	1.00 ± 0.36	0.56 ± 0.19	1.00 ± 0.36	1.11 ± 0.22	0.56 ± 0.19	1.11 ± 0.22	
1977	1.62	0.59	0.81	1.31	1.68	1.38	0.77	1.38	1.24	0.77	1.24	
1978	1.02	0.72	0.39	1.03	1.33	0.61	0.78	0.61	0.91	0.78	0.91	
1979	0.97	0.52	0.19	0.63	0.87	0.46	0.48	0.46	0.73	0.48	0.73	
1980	0.75 ± 0.45	0.29 ± 0.15	0.94 ± 0.37	0.68 ± 0.26	0.42 ± 0.32	0.90 ± 0.38	0.85 ± 0.40	0.90 ± 0.38	0.70 ± 0.24	0.85 ± 0.40	0.70 ± 0.24	
1981	1.02 ± 0.36	0.45 ± 0.09	0.51 ± 0.13	0.52 ± 0.14	1.42 ± 1.08	0.48 ± 0.08	0.64 ± 0.19	0.48 ± 0.08	0.86 ± 0.22	0.64 ± 0.19	0.86 ± 0.22	
1982	0.55 ± 0.13	0.63 ± 0.14	0.54 ± 0.09	0.53 ± 0.12	1.03 ± 0.21	0.33 ± 0.08	0.65 ± 0.09	0.33 ± 0.08	0.56 ± 0.07	0.65 ± 0.09	0.56 ± 0.07	
1983	0.67 ± 0.11	0.49 ± 0.09	0.39 ± 0.07	0.49 ± 0.11	0.89 ± 0.16	0.40 ± 0.07	0.66 ± 0.08	0.40 ± 0.07	0.59 ± 0.05	0.66 ± 0.08	0.59 ± 0.05	
1984	0.44 ± 0.14	0.51 ± 0.09	0.55 ± 0.12	0.48 ± 0.14	0.50 ± 0.17	0.39 ± 0.06	0.54 ± 0.07	0.39 ± 0.06	0.47 ± 0.06	0.54 ± 0.07	0.47 ± 0.06	
1985	0.60 ± 0.20	0.22 ± 0.04	0.15 ± 0.02	0.26 ± 0.06	0.27 ± 0.06	0.10 ± 0.03	0.27 ± 0.05	0.10 ± 0.03	0.39 ± 0.05	0.27 ± 0.05	0.39 ± 0.05	
1986	0.54 ± 0.10	0.29 ± 0.06	0.23 ± 0.05	0.28 ± 0.04	0.33 ± 0.08	0.20 ± 0.04	0.36 ± 0.04	0.20 ± 0.04	0.37 ± 0.04	0.36 ± 0.04	0.37 ± 0.04	

Table D.11. (Cont'd.)

Species Year	Bay system								
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide
All species combined <sup>a</sup> (Cont'd.)									
1986	0.64 ± 0.14	0.34 ± 0.06	0.30 ± 0.08	0.30 ± 0.08	0.21 ± 0.04	0.36 ± 0.07	0.20 ± 0.04	0.39 ± 0.04	0.43 ± 0.05
1987	0.73 ± 0.18	0.57 ± 0.10	0.30 ± 0.06	0.30 ± 0.08	0.41 ± 0.08	0.42 ± 0.09	0.20 ± 0.03	0.29 ± 0.03	0.42 ± 0.04

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual species totals.

Table D.12. Mean catch rates of fishes (No./man-h) ± 1 SE caught by private-boat fishermen in Texas bays and passes during the low-use season by species and bay system (1974-1988).

Species Year	Bay system							Coastwide
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Upper		
						Laguna Madre	Laguna Madre	
						Lower		
						Christi		
Atlantic croaker						0.06 ± 0.04		
1974-76	0.15 ± 0.08	<.01 ± <.01	0.02 ± 0.02	<.01 ± <.01	<.01 ± <.01	0.06 ± 0.04	<.01 ± <.01	
1976-77	0.04	0.01	0.06	0.00	0.00	0.03	0.01	
1977-78	0.02	<.01	0.01	<.01	0.00	0.02	<.01	
1978-79	0.02	0.00	0.00	0.00	0.00	0.00	<.01	
1979-80	0.02 ± 0.02	0.01 ± 0.01	0.04 ± 0.02	<.01 ± <.01	<.01 ± <.01	0.05 ± 0.03	<.01 ± <.01	
1980-81	<.01 ± <.01	0.00	0.01 ± 0.01	0.00	0.00	<.01 ± <.01	0.02 ± 0.02	
1981-82	<.01 ± <.01	0.00	<.01 ± <.01	0.00	0.00	0.01 ± <.01	0.01 ± <.01	
1982-83	0.02 ± 0.01	<.01 ± <.01	0.02 ± 0.02	<.01 ± <.01	0.02 ± 0.02	0.02 ± 0.01	0.02 ± <.01	
1983-84	<.01 ± <.01	0.00	0.00	0.00	0.18 ± 0.18	0.00	0.01 ± 0.01	
1984-85	0.04 ± 0.03	0.00	0.01 ± 0.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.01 ± 0.01	
1985-86	<.01 ± <.01	0.00	0.02 ± 0.02	0.00	<.01 ± <.01	0.00	<.01 ± <.01	
1986-87	<.01 ± <.01	0.00	<.01 ± <.01	0.00	0.01 ± 0.01	<.01 ± <.01	<.01 ± <.01	
1987-88	0.01 ± 0.01	0.00	0.01 ± 0.01	0.00	0.01 ± 0.01	0.03 ± 0.02	0.01 ± <.01	
0.07 ± 0.04								
Black drum								
1974-76	0.02 ± 0.01	0.01 ± 0.01	0.03 ± 0.02	0.01 ± 0.01	0.01 ± <.01	0.03 ± 0.02	0.02 ± 0.02	
1976-77	0.01	0.04	0.06	0.02	0.02	0.02	0.02	
1977-78	0.04	0.06	0.03	0.02	0.02	0.06	0.04	
1978-79	0.13	0.04	<.01	0.03	0.03	0.01	0.04	
1979-80	0.01 ± <.01	0.02 ± 0.01	0.06 ± 0.04	<.01 ± <.01	<.01 ± <.01	0.02 ± 0.01	0.02 ± 0.01	
1980-81	0.10 ± 0.07	0.02 ± 0.01	0.12 ± 0.08	<.01 ± <.01	<.01 ± <.01	0.01 ± 0.01	0.01 ± <.01	
1981-82	0.06 ± 0.05	0.10 ± 0.06	0.05 ± 0.02	0.06 ± 0.04	0.06 ± 0.04	0.02 ± 0.01	0.04 ± 0.01	
1982-83	0.21 ± 0.18	0.06 ± 0.02	0.13 ± 0.07	0.03 ± 0.02	0.03 ± 0.02	0.02 ± 0.01	0.04 ± 0.01	
1983-84	0.01 ± 0.01	0.02 ± 0.01	0.04 ± 0.02	0.03 ± 0.02	0.04 ± 0.03	0.04 ± 0.03	0.03 ± 0.02	
1984-85	0.01 ± 0.01	0.03 ± 0.02	0.03 ± 0.02	0.03 ± 0.03	0.03 ± 0.03	0.01 ± 0.01	0.01 ± 0.01	
1985-86	0.01 ± <.01	0.02 ± 0.01	0.02 ± 0.01	0.01 ± <.01	0.01 ± <.01	0.03 ± 0.02	0.01 ± 0.01	
1986-87	<.01 ± <.01	0.01 ± 0.01	0.01 ± <.01	0.01 ± 0.01	0.01 ± 0.01	<.01 ± <.01	0.01 ± 0.01	
1987-88	0.04 ± 0.03	0.05 ± 0.04	0.02 ± 0.02	0.05 ± 0.04	<.01 ± <.01	0.01 ± <.01	0.01 ± 0.01	
0.05 ± 0.03								
Gafftopsail catfish								
1974-76	<.01 ± <.01	0.02 ± 0.01	0.09 ± 0.07	0.02 ± 0.01	0.03 ± 0.02	0.03 ± 0.02	0.00	
1976-77	0.03	0.05	0.01	0.05	<.01	0.04	0.00	
1977-78	0.01	0.01	0.03	0.01	0.02	<.01	0.00	
1978-79	0.07	0.01	<.01	0.01	0.05	0.02	0.00	
1979-80	0.00	0.01 ± 0.01	0.00	0.01 ± 0.01	<.01 ± <.01	0.03 ± 0.02	0.00	
1980-81	0.02 ± 0.02	<.01 ± <.01	0.01 ± 0.01	<.01 ± <.01	<.01 ± <.01	0.01 ± 0.01	0.00	
1981-82	0.00	0.00	0.02 ± 0.02	0.00	0.02 ± 0.01	0.12 ± 0.12	0.00	
0.20 ± 0.02								

Table D.12. (Cont'd.)

Species	Bay system							Coastwide	
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Christi	Upper Laguna Madre		Lower Laguna Madre
<b>Gafftopsail catfish (Cont'd.)</b>									
1982-83	<.01 ± <.01	<.01 ± <.01	0.01 ± 0.01	0.03 ± 0.02	0.00	0.02 ± 0.01	0.00	0.00	0.01 ± <.01
1983-84	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.01 ± 0.01	0.01 ± <.01	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1984-85	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.00	<.01 ± <.01	<.01 ± <.01	<.01	0.00	<.01 ± <.01
1985-86	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.02 ± 0.01	<.01 ± <.01	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1986-87	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1987-88	0.01 ± 0.01	0.02 ± 0.02	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.00	0.00	0.00	<.01 ± <.01
<b>Red drum</b>									
1974-76	0.03 ± 0.02	0.03 ± 0.02	0.11 ± 0.07	0.12 ± 0.04	0.05 ± 0.02	0.05 ± 0.03	0.02 ± 0.01	0.03 ± 0.01	0.06 ± 0.01
1976-77	0.01	0.01	0.03	0.02	0.02	0.01	0.03	0.02	0.02
1977-78	0.01	0.01	0.03	0.11	0.08	0.01	0.01	0.03	0.03
1978-79	0.01	0.01	0.05	0.33	0.03	0.01	<.01	0.02	0.04
1979-80	0.01 ± <.01	0.01 ± <.01	0.07 ± 0.04	0.12 ± 0.07	0.18 ± 0.12	0.05 ± 0.03	0.06 ± 0.02	0.05 ± 0.02	0.04 ± 0.01
1980-81	0.01 ± 0.01	0.01 ± 0.01	0.02 ± 0.01	0.05 ± 0.04	0.01 ± 0.01	0.02 ± 0.01	0.02 ± 0.01	0.01 ± 0.01	0.02 ± <.01
1981-82	0.02 ± 0.01	0.02 ± 0.01	0.07 ± 0.06	0.18 ± 0.09	0.06 ± 0.03	0.02 ± <.01	0.02 ± 0.01	0.04 ± 0.02	0.04 ± 0.01
1982-83	0.01 ± 0.01	0.01 ± 0.01	0.03 ± 0.02	0.04 ± 0.02	0.07 ± 0.05	<.01 ± <.01	0.01 ± <.01	0.05 ± 0.02	0.03 ± 0.01
1983-84	0.01 ± <.01	0.01 ± <.01	0.07 ± 0.04	0.13 ± 0.09	0.06 ± 0.04	0.05 ± 0.04	0.01 ± <.01	0.04 ± 0.02	0.03 ± 0.01
1984-85	0.03 ± 0.02	0.03 ± 0.02	0.03 ± 0.02	0.16 ± 0.09	0.03 ± 0.01	0.02 ± 0.02	0.01 ± <.01	0.03 ± 0.01	0.03 ± 0.01
1985-86	<.01 ± <.01	<.01 ± <.01	0.02 ± 0.01	0.04 ± 0.02	0.02 ± 0.01	0.03 ± 0.01	0.01 ± <.01	0.04 ± 0.01	0.02 ± <.01
1986-87	0.03 ± 0.02	0.03 ± 0.02	0.02 ± 0.01	0.03 ± 0.02	0.08 ± 0.04	0.04 ± 0.02	0.02 ± 0.01	0.05 ± 0.02	0.04 ± 0.01
1987-88	0.01 ± 0.01	0.01 ± 0.01	0.02 ± 0.01	0.10 ± 0.06	0.01 ± 0.01	0.05 ± 0.02	0.02 ± 0.01	0.05 ± 0.02	0.04 ± 0.01
<b>Sand seatrout</b>									
1974-76	0.28 ± 0.22	0.02 ± 0.01	0.02 ± 0.01	0.04 ± 0.03	0.04 ± 0.04	0.12 ± 0.05	0.01 ± 0.01	0.01 ± 0.01	0.07 ± 0.03
1976-77	0.02	<.01	<.01	0.00	0.00	0.60	0.00	<.01	0.05
1977-78	0.10	0.04	0.04	0.01	0.01	0.08	0.01	0.02	0.04
1978-79	0.40	0.00	0.00	0.00	0.09	0.02	0.02	0.01	0.16
1979-80	0.03 ± 0.02	<.01 ± <.01	<.01 ± <.01	0.00	<.01 ± <.01	0.06 ± 0.04	0.01 ± <.01	0.01 ± <.01	0.02 ± 0.01
1980-81	0.01 ± 0.01	0.00	0.00	0.00	0.00	0.09 ± 0.05	<.01 ± <.01	0.01 ± <.01	0.02 ± 0.01
1981-82	0.01 ± 0.01	0.03 ± 0.02	0.03 ± 0.02	<.01 ± <.01	0.04 ± 0.04	0.13 ± 0.06	<.01 ± <.01	0.03 ± 0.02	0.03 ± 0.01
1982-83	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.02 ± 0.01	0.05 ± 0.04	0.20 ± 0.09	<.01 ± <.01	0.01 ± 0.01	0.05 ± 0.02
1983-84	0.05 ± 0.05	0.01 ± 0.01	0.01 ± 0.01	<.01 ± <.01	0.02 ± 0.02	0.02 ± 0.02	0.00	<.01 ± <.01	0.07 ± 0.02
1984-85	0.05 ± 0.03	0.05 ± 0.03	0.01 ± <.01	0.02 ± 0.02	0.00	<.01 ± 0.01	0.03 ± 0.02	0.05 ± 0.03	0.02 ± 0.01
1985-86	0.01 ± 0.01	0.01 ± 0.01	<.01 ± <.01	0.01 ± 0.01	0.09 ± 0.06	0.10 ± 0.06	0.01 ± 0.01	0.01 ± 0.01	0.03 ± 0.01
1986-87	0.03 ± 0.02	0.03 ± 0.02	<.01 ± <.01	0.00	0.02 ± 0.01	0.00	<.01 ± <.01	<.01 ± <.01	0.01 ± 0.01
1987-88	0.01 ± 0.01	0.01 ± 0.01	<.01 ± <.01	0.00	0.01 ± 0.01	0.09 ± 0.08	<.01 ± <.01	<.01 ± <.01	0.02 ± 0.01

Table D.12. (Cont'd.)

Species Year	Bay system								
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide
<b>Sheepshead</b>									
1974-76	0.02 ± 0.01	0.02 ± 0.01	0.02 ± 0.01	0.02 ± 0.01	0.22 ± 0.16	0.02 ± 0.02	0.02 ± 0.01	0.01 ± <.01	0.05 ± 0.22
1976-77	0.02	0.02	0.02	<.01	0.02	0.03	0.01	0.01	0.01
1977-78	0.04	0.04	0.04	0.04	0.07	0.01	0.02	0.05	0.04
1978-79	0.02	0.02	0.06	0.02	0.05	0.02	0.03	0.14	0.04
1979-80	0.08 ± 0.08	0.02 ± 0.08	0.02 ± 0.01	0.01 ± <.01	0.36 ± 0.36	0.05 ± 0.02	0.02 ± 0.01	0.16 ± 0.09	0.08 ± 0.04
1980-81	0.02 ± 0.02	0.02 ± 0.02	0.08 ± 0.07	0.01 ± <.01	0.24 ± 0.17	0.32 ± 0.17	0.01 ± 0.01	0.04 ± 0.02	0.07 ± 0.02
1981-82	0.01 ± <.01	0.01 ± <.01	0.17 ± 0.10	0.06 ± 0.04	0.11 ± 0.07	0.13 ± 0.07	0.01 ± 0.01	0.14 ± 0.08	0.06 ± 0.02
1982-83	0.02 ± 0.02	0.02 ± 0.02	0.10 ± 0.06	0.10 ± 0.03	0.13 ± 0.10	0.29 ± 0.16	0.01 ± 0.01	0.08 ± 0.04	0.11 ± 0.04
1983-84	0.01 ± <.01	0.01 ± <.01	0.10 ± 0.07	0.01 ± 0.01	0.16 ± 0.11	0.01 ± 0.01	<.01 ± <.01	0.07 ± 0.04	0.03 ± 0.01
1984-85	<.01 ± <.01	<.01 ± <.01	0.02 ± 0.01	0.02 ± 0.01	0.24 ± 0.17	<.01 ± <.01	<.01 ± <.01	0.05 ± 0.02	0.04 ± 0.02
1985-86	<.01 ± <.01	<.01 ± <.01	0.02 ± 0.01	0.04 ± 0.02	0.06 ± 0.02	0.01 ± <.01	<.01 ± <.01	0.01 ± 0.01	0.01 ± <.01
1986-87	0.01 ± <.01	0.01 ± <.01	0.03 ± 0.02	0.01 ± <.01	0.16 ± 0.08	0.02 ± 0.01	0.00	<.01 ± <.01	0.03 ± 0.01
1987-88	<.01 ± <.01	<.01 ± <.01	0.02 ± 0.01	<.01 ± <.01	0.11 ± 0.06	0.10 ± 0.06	<.01 ± <.01	0.03 ± 0.02	0.04 ± 0.01
<b>Southern flounder</b>									
1974-76	0.04 ± 0.02	0.04 ± 0.02	0.14 ± 0.10	0.02 ± 0.01	0.03 ± 0.02	0.03 ± 0.01	0.06 ± 0.02	<.01 ± <.01	0.04 ± 0.01
1976-77	0.01	0.01	0.13	0.01	0.01	0.01	<.01	<.01	0.02
1977-78	0.02	0.02	0.04	0.02	0.01	0.02	0.01	0.01	0.02
1978-79	0.01	0.01	0.06	<.01	0.05	0.01	0.02	0.02	0.02
1979-80	0.31 ± 0.31	0.03 ± 0.02	0.03 ± 0.02	0.01 ± 0.01	0.01 ± 0.01	0.03 ± 0.01	0.01 ± <.01	0.02 ± 0.01	0.15 ± 0.14
1980-81	0.01 ± 0.01	0.01 ± 0.01	0.01 ± 0.01	<.01 ± <.01	0.06 ± 0.05	0.06 ± 0.06	0.02 ± 0.01	0.01 ± <.01	0.02 ± 0.01
1981-82	0.03 ± 0.02	0.02 ± 0.01	0.02 ± 0.01	0.02 ± 0.01	0.02 ± 0.01	0.01 ± <.01	0.01 ± 0.01	0.02 ± 0.01	0.02 ± 0.01
1982-83	0.06 ± 0.05	0.03 ± 0.01	0.03 ± 0.01	0.01 ± 0.01	0.02 ± 0.01	0.01 ± <.01	0.02 ± 0.01	0.03 ± 0.01	0.03 ± 0.01
1983-84	0.01 ± 0.01	0.02 ± 0.01	0.02 ± 0.01	0.01 ± <.01	0.02 ± 0.01	<.01 ± <.01	0.01 ± 0.01	<.01 ± <.01	0.01 ± <.01
1984-85	0.10 ± 0.06	0.01 ± 0.01	0.01 ± 0.01	0.01 ± 0.01	0.02 ± 0.01	0.02 ± 0.01	0.01 ± 0.01	0.03 ± 0.01	0.04 ± 0.01
1985-86	0.01 ± 0.01	0.02 ± 0.01	0.02 ± 0.01	0.04 ± 0.03	0.02 ± 0.01	0.04 ± 0.02	0.02 ± 0.01	0.11 ± 0.07	0.03 ± 0.01
1986-87	0.02 ± 0.01	0.01 ± 0.01	0.01 ± 0.01	0.01 ± 0.01	0.01 ± <.01	0.02 ± 0.01	0.02 ± <.01	0.03 ± 0.01	0.02 ± <.01
1987-88	0.02 ± 0.01	0.02 ± 0.01	0.01 ± 0.01	0.01 ± 0.01	0.01 ± <.01	0.02 ± 0.01	0.01 ± <.01	0.02 ± 0.01	0.02 ± <.01
<b>Spotted seatrout</b>									
1974-76	0.13 ± 0.08	0.13 ± 0.08	0.27 ± 0.19	1.01 ± 0.37	0.58 ± 0.28	0.28 ± 0.10	0.46 ± 0.21	0.31 ± 0.15	0.50 ± 0.10
1976-77	0.27	0.08	0.08	0.02	0.28	0.13	0.17	0.70	0.33
1977-78	0.03	0.12	0.12	0.10	0.21	0.27	0.18	0.18	0.13
1978-79	0.04	0.21	0.21	0.03	0.36	0.08	0.17	0.23	0.13
1979-80	0.05 ± 0.04	0.13 ± 0.08	0.13 ± 0.08	0.12 ± 0.06	0.33 ± 0.20	0.15 ± 0.07	0.48 ± 0.17	0.38 ± 0.18	0.18 ± 0.05
1980-81	0.18 ± 0.14	0.06 ± 0.04	0.06 ± 0.04	0.11 ± 0.06	0.26 ± 0.13	0.17 ± 0.08	0.39 ± 0.21	0.20 ± 0.10	0.22 ± 0.07

Table D.12. (Cont'd.)

Species Year	Bay system							Coastwide
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	
<b>Spotted seatrout (Cont'd.)</b>								
1981-82	0.08 ± 0.05	0.22 ± 0.14	0.26 ± 0.14	0.34 ± 0.14	0.40 ± 0.18	0.42 ± 0.20	0.38 ± 0.10	0.26 ± 0.05
1982-83	0.04 ± 0.02	0.15 ± 0.09	0.11 ± 0.04	0.21 ± 0.09	0.17 ± 0.07	0.28 ± 0.09	0.35 ± 0.09	0.18 ± 0.03
1983-84	0.11 ± 0.07	0.28 ± 0.22	0.13 ± 0.09	0.14 ± 0.11	0.10 ± 0.08	0.07 ± 0.05	0.18 ± 0.07	0.14 ± 0.05
1984-85	0.06 ± 0.04	0.13 ± 0.08	0.04 ± 0.02	0.19 ± 0.14	0.10 ± 0.05	0.04 ± 0.02	0.17 ± 0.06	0.11 ± 0.03
1985-86	0.01 ± 0.01	0.11 ± 0.05	0.21 ± 0.10	0.18 ± 0.07	0.16 ± 0.08	0.12 ± 0.05	0.15 ± 0.04	0.10 ± 0.03
1986-87	0.11 ± 0.05	0.12 ± 0.08	0.26 ± 0.10	0.15 ± 0.06	0.19 ± 0.09	0.18 ± 0.06	0.22 ± 0.06	0.16 ± 0.03
1987-88	0.04 ± 0.02	0.12 ± 0.05	0.11 ± 0.09	0.11 ± 0.04	0.17 ± 0.07	0.23 ± 0.08	0.19 ± 0.06	0.14 ± 0.02
<b>Other species</b>								
1974-76	0.08 ± 0.06	0.02 ± 0.01	0.01 ± 0.01	<.01 ± <.01	0.03 ± 0.02	<.01 ± <.01	0.01 ± 0.01	0.02 ± 0.01
1976-77	<.01	0.02	0.02	<.01	0.02	0.00	0.06	0.02
1977-78	0.16	0.01	0.02	0.01	0.03	0.00	0.01	0.05
1978-79	0.05	<.01	<.01	0.02	0.09	0.00	<.01	0.03
1979-80	0.01 ± 0.01	0.02 ± 0.02	<.01 ± <.01	0.00	0.39 ± 0.38	<.01 ± <.01	0.01 ± 0.01	0.04 ± 0.03
1980-81	0.05 ± 0.03	<.01 ± <.01	0.01 ± 0.01	0.02 ± 0.02	0.04 ± 0.02	<.01 ± <.01	0.03 ± 0.02	0.03 ± 0.01
1981-82	0.10 ± 0.06	0.01 ± 0.01	<.01 ± <.01	0.03 ± 0.02	0.05 ± 0.02	<.01 ± <.01	0.01 ± <.01	0.05 ± 0.02
1982-83	0.08 ± 0.04	0.00	0.02 ± 0.01	0.02 ± 0.01	0.12 ± 0.06	0.01 ± <.01	0.02 ± 0.01	0.05 ± 0.02
1983-84	0.08	0.03	0.02 ± 0.01	0.12	0.08	0.03	0.02 ± 0.01	0.05
1984-85	0.01	0.04	0.01	0.01	0.01	<.01	0.05	0.02
1985-86	0.04	0.04	0.15	0.06	0.01	0.02	0.01 ± <.01	0.03
1986-87	0.04	0.01	0.02 ± 0.02	0.09	0.01 ± <.01	0.02	0.05	0.04
1987-88	0.02	0.04	<.01	0.04	0.01	0.01 ± <.01	0.01	0.02
<b>All species combined<sup>a</sup></b>								
1974-76	0.77 ± 0.36	0.70 ± 0.44	1.26 ± 0.41	0.97 ± 0.36	0.63 ± 0.22	0.81 ± 0.40	0.40 ± 0.17	0.85 ± 0.14
1976-77	0.40	0.41	0.17	0.36	0.89	0.24	0.82	0.52
1977-78	0.42	0.35	0.37	0.44	0.51	0.27	0.36	0.38
1978-79	0.76	0.39	0.44	0.66	0.28	0.27	0.46	0.53
1979-80	0.51 ± 0.41	0.37 ± 0.17	0.30 ± 0.13	0.89 ± 0.59	0.82 ± 0.32	0.62 ± 0.19	0.65 ± 0.28	0.56 ± 0.22
1980-81	0.42 ± 0.21	0.32 ± 0.19	0.20 ± 0.10	0.59 ± 0.25	0.71 ± 0.28	0.45 ± 0.24	0.32 ± 0.12	0.43 ± 0.10
1981-82	0.32 ± 0.16	0.59 ± 0.24	0.62 ± 0.25	0.68 ± 0.21	0.88 ± 0.25	0.53 ± 0.23	0.66 ± 0.18	0.53 ± 0.09
1982-83	0.44 ± 0.23	0.47 ± 0.19	0.40 ± 0.10	0.55 ± 0.21	0.80 ± 0.29	0.36 ± 0.11	0.59 ± 0.13	0.54 ± 0.09
1983-84	0.26 ± 0.14	0.55 ± 0.30	0.33 ± 0.20	0.75 ± 0.44	0.23 ± 0.14	0.13 ± 0.07	0.34 ± 0.12	0.33 ± 0.10
1984-85	0.29 ± 0.15	0.28 ± 0.11	0.30 ± 0.11	0.52 ± 0.29	0.18 ± 0.07	0.10 ± 0.05	0.39 ± 0.11	0.29 ± 0.06
1985-86	0.10 ± 0.06	0.29 ± 0.09	0.49 ± 0.25	0.39 ± 0.12	0.37 ± 0.15	0.19 ± 0.07	0.34 ± 0.11	0.23 ± 0.06

<sup>a</sup>All species combined

Table D.12. (Cont'd.)

Species Year	Bay system								
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide
All species combined <sup>a</sup> (Cont'd.)									
1986-87		0.24 ± 0.10	0.20 ± 0.10	0.36 ± 0.13	0.54 ± 0.22	0.29 ± 0.12	0.26 ± 0.08	0.36 ± 0.09	0.31 ± 0.05
1987-88	0.49 ± 0.16	0.17 ± 0.08	0.27 ± 0.10	0.32 ± 0.21	0.31 ± 0.10	0.48 ± 0.17	0.28 ± 0.10	0.31 ± 0.10	0.32 ± 0.05

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual species totals.



Table D.13. Percent composition of "other" species caught by private-boat fishermen in Texas bays and passes by bay system and season (1983-1988).

Year Season	Common name	Scientific name	Bay system										Coastwide					
			Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre								
1983-84																		
High use	African pompano	<u>Alectis alaiis</u>		0.03														0.03
	Alligator gar	<u>Lepisosteus spatula</u>											0.96					0.96
	Atlantic cutlassfish	<u>Trichiurus lepturus</u>								0.27		0.03						0.30
	Atlantic needlefish	<u>Strongylura marina</u>						0.03				0.03						0.06
	Atlantic sharpnose shark	<u>Rhizoprionodon terraenovae</u>		0.09			0.30			0.09		0.03						0.51
	Atlantic spadefish	<u>Chaetodipterus faber</u>		0.54									0.03					0.57
	Atlantic stingray	<u>Dasyatis sabina</u>		0.21														0.27
	Banded drum	<u>Larimus fasciatus</u>					0.03						0.03					0.03
	Bandtail puffer	<u>Sphoeroides spengleri</u>					0.03											0.03
	Barrud grunt	<u>Conodon nobilis</u>					0.03			0.03								0.06
	Bighead searobin	<u>Prionotus tribulus</u>													0.03			0.06
	Black margate	<u>Anisotremus surinamensis</u>					1.96			0.27								0.03
	Blacktip shark	<u>Carcharhinus limbatus</u>		0.27	0.45		1.81			0.09								2.86
	Blue catfish	<u>Ictalurus furcatus</u>		1.08	0.03		0.21			0.03								2.23
	Bluefish	<u>Pomatomus saltatrix</u>					0.06			0.06								1.57
	Blue runner	<u>Caranx crysos</u>																0.15
	Bluntnose jack	<u>Hemicaranx amblyrhachus</u>																0.03
	Bonnethead	<u>Sphyrna tiburo</u>			0.09		1.02			0.09								1.20
	Bull shark	<u>Carcharhinus leucas</u>			0.09		0.09											0.18
	Bony fishes sp.	<u>Class Osteichthyes</u>					0.03											0.03
	Channel catfish	<u>Ictalurus punctatus</u>					0.09											0.09
	Cobia	<u>Rachycentrum canadum</u>					0.03			0.03								0.06
	Common carp	<u>Cyprinus carpio</u>																0.06
	Crevalle Jack	<u>Caranx hippos</u>		0.15	0.06		0.54			0.09				0.03				1.14
	Dog snapper	<u>Lutjanus jocu</u>																0.03
	Finescale menhaden	<u>Brevoortia gunteri</u>			0.12													0.12
	Finetooth shark	<u>Carcharhinus isodon</u>					0.09											0.12
	Florida pompano	<u>Trachinotus carolinus</u>		0.12			0.39			0.03				0.03				0.72
	Gray snapper	<u>Lutjanus griseus</u>												0.03				0.36
	Gray triggerfish	<u>Balistes capriscus</u>			0.06		0.18			0.15								0.51
	Greater amberjack	<u>Seriola dumerilli</u>					0.03											0.03
	Gulf flounder	<u>Paralichthys albigutta</u>					0.03											5.39
	Gulf kingfish	<u>Menticirrhus littoralis</u>		0.78	0.54		2.20			0.18				2.35				3.97
	Gulf toadfish	<u>Opsanus beta</u>		0.03						0.03				0.03				0.06
	Hardhead catfish	<u>Arius felis</u>		1.84	0.03		1.11			1.32				1.17				6.11
	Inshore lizardfish	<u>Synodus foetens</u>								0.09				0.06				0.09





Table D.13. (Cont'd.)

Year	Season	Common name	Scientific name	Bay system										Coastwide	
				Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre				
		Gray triggerfish	<u>Balistes capricus</u>			0.57	0.21	0.05	1.03						1.90
		Great hammerhead	<u>Sphyrna mokarran</u>	0.05											0.05
		Gulf flounder	<u>Paralichthys albigutta</u>	0.05			0.15	0.98	0.98	0.31				0.51	2.93
		Gulf kingfish	<u>Menticirchus littoralis</u>	0.21		0.05	0.98	0.36	0.05				0.31	0.31	1.90
		Gulf menhaden	<u>Brevoortia patronus</u>												0.05
		Gulf toadfish	<u>Opsanus beta</u>												0.26
		Hardhead catfish	<u>Aruis felis</u>	8.59		0.31	0.98	0.98	1.18	0.93			8.53	21.49	
		Jewfish	<u>Epinephelus itajara</u>			0.05	0.21							0.21	
		King mackerel	<u>Scomberomorus cavalla</u>					0.05	0.05					0.15	
		Ladyfish	<u>Elops saurus</u>	0.46		0.67	0.82	0.05	0.31	0.21			0.51	3.03	
		Lane snapper	<u>Lutjanus synagris</u>			0.05	0.05							0.05	
		Leatherjacket	<u>Oligoplites saurus</u>											0.05	
		Ocellated flounder	<u>Ancylopsetta quadrocellata</u>	0.05										0.05	
		Pigfish	<u>Orthopristis chrysoptera</u>	6.02		0.31	0.10	0.87	1.65	0.41			0.21	9.56	
		Pinfish	<u>Lagodon rhomboides</u>	2.93		0.10	0.26	2.67	0.21	0.41				6.58	
		Pompano dolphin	<u>Coryphaena equisetis</u>				0.05							0.05	
		Red snapper	<u>Lutjanus campechanus</u>	0.05		0.51	0.05	0.62	0.21				0.10	1.54	
		Requiem sharks	Family <u>Carcharhinidae</u>				0.05							0.05	
		Rock sea bass	<u>Centropristis philadelphica</u>				0.05	0.10						0.15	
		Sandbar shark	<u>Carcharhinus plumbeus</u>			0.05	0.05							0.10	
		Scalloped hammerhead	<u>Sphyrna lewini</u>				0.05							0.10	
		Sea basses sp.	Family <u>Serranidae</u>											0.10	
		Silver perch	<u>Bairdiella chrysoura</u>	3.75		0.15	0.10	0.26	0.26	0.10			0.26	4.88	
		Silver seatrout	<u>Cynoscion nothus</u>	0.15										0.15	
		Small eye hammerhead	<u>Sphyrna tudes</u>				0.05							0.05	
		Smallmouth buffalo	<u>Ictiobus bubalus</u>											0.41	
		Smooth puffer	<u>Lagocephalus laevigatus</u>											0.05	
		Southern kingfish	<u>Menticirchus americanus</u>											18.25	
		Southern stingray	<u>Dasyatis americana</u>	2.67		4.52	6.84	0.36	1.49	0.31			0.05	0.15	
		Spanish mackerel	<u>Scomberomorus maculatus</u>			0.15	0.41	0.72	0.31				0.05	2.06	
		Spinner shark	<u>Carcharhinus brevipinna</u>	0.31		0.26	0.41	0.72	0.31				0.05	2.06	
		Spot	<u>Leiostomus xanthurus</u>			0.15	0.36							0.51	
		Stingrays sp.	Family <u>Dasyatidae</u>	0.05										0.41	
		Striped burrfish	<u>Chilomycterus schoepfi</u>	0.05										0.05	
		Striped mullet	<u>Mugil cephalus</u>	0.05			1.29	0.15	0.10					1.59	

Table D.13. (Cont'd.)

Year	Season	Common name	Scientific name	Bay system							Coastwide			
				Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre		Lower Laguna Madre		
		Tarpon	<u>Megalops atlanticus</u>			0.15								0.21
		Tripletail	<u>Lobotes surinamensis</u>			0.15			0.05					0.21
		Vermilion snapper	<u>Rhomboplites aurorubens</u>						0.05					0.05
Low use		Alligator gar	<u>Lepisosteus spatula</u>									0.40		0.40
		Atlantic cutlassfish	<u>Trichiurus lepturus</u>					0.20						0.20
		Atlantic sharpnose shark	<u>Rhizoprionodon terryanovae</u>			0.20								0.20
		Atlantic spadefish	<u>Chaetodipterus faber</u>			0.20								0.20
		Atlantic stingray	<u>Dasyatis sabina</u>					0.20						0.20
		Bighead searobin	<u>Prionotus tribulus</u>									0.20		0.20
		Blue catfish	<u>Ictalurus furcatus</u>											0.20
		Bonnethead	<u>Sphyrna tiburo</u>		6.97	0.60								7.57
		Comb grouper	<u>Mycteroperca rubra</u>				2.59			0.40				3.19
		Crevalle jack	<u>Caranx hippos</u>				0.20							0.40
		Florida pompano	<u>Trachinotus carolinus</u>											0.20
		Gag	<u>Mycteroperca microlepis</u>			0.60								0.20
		Gray triggerfish	<u>Balistes capriciscus</u>			0.20								0.20
		Greater amberjack	<u>Seriola dumerili</u>											0.60
		Gulf flounder	<u>Paralichthys albigutta</u>					0.20						0.20
		Gulf kingfish	<u>Menticirrhus littoralis</u>			0.60								0.60
		Hardhead catfish	<u>Arius felis</u>		0.40			1.00						2.79
		Molly miller	<u>Scartella cristata</u>			1.39								9.16
		Pigfish	<u>Orthopristis chrysoptera</u>			0.80				1.00				1.20
		Pinfish	<u>Lagodon rhomboides</u>											2.39
		Red snapper	<u>Lutjanus campechanus</u>			7.57								0.20
		Requiem sharks	Family Carcharhinidae											7.77
		Searobins sp.	Family Triglidae											2.59
		Silver perch	<u>Bairdiella chrysoura</u>		0.20									0.20
		Smallmouth buffalo	<u>Ictiobus bubalus</u>			9.96				0.20				10.36
		Spanish mackerel	<u>Scomberomorus maculatus</u>			0.20								0.20
		Southern hake	<u>Urophycis floridanus</u>									0.20		0.20
		Southern kingfish	<u>Menticirrhus americanus</u>			0.20		0.60						40.04
		Southern stingray	<u>Dasyatis americana</u>				0.60							0.20
		Spot	<u>Leiostomus xanthurus</u>										37.85	7.97



Table D.13. (Cont'd.)

Year	Season	Common name	Scientific name	Bay system										Coastwide
				Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre			
		Ladyfish	<i>Elops saurus</i>	0.73	2.19	0.64	0.09	0.78	0.41	0.32	5.16			
		Lane snapper	<i>Lutjanus synagris</i>	0.09	0.05						0.14			
		Largemouth bass	<i>Micropterus salmoides</i>	0.14							0.14			
		Lemon shark	<i>Negaprion brevirostris</i>	0.27							0.09			
		Little tunny	<i>Euthynnus alletteratus</i>					0.05			0.27			
		Lookdown	<i>Selene vomer</i>								0.05			
		Mackerels sp.	Family Scombridae	0.09							0.09			
		Pigfish	<i>Orthopristis chrysoptera</i>	1.28		0.68	0.36	1.78	4.06	0.18	8.35			
		Pinfish	<i>Lagodon rhomboides</i>	2.05	0.27	1.19	0.64	1.96	5.93	0.55	12.59			
		Red snapper	<i>Lutjanus campechanus</i>	2.51	0.46	0.32		0.23			3.51			
		Requiem sharks	Family Carcharhinidae		0.18	1.32		0.05			1.55			
		Rock hind	<i>Epinephalus adscensionis</i>							0.05	0.05			
		Sand perch	<i>Dipetrum formosum</i>			0.05					0.05			
		Scalloped hammerhead	<i>Sphyrna lewini</i>			0.05					0.05			
		Silver perch	<i>Bairdiella chrysoura</i>	0.55	0.32	0.18	0.23	0.59	0.50	0.68	3.06			
		Silver seatrout	<i>Cynoscion nothus</i>	0.09	0.05		2.83				2.92			
		Smalleye hammerhead	<i>Sphyrna tudes</i>								0.05			
		Smallmouth buffalo	<i>Ictiobus bubalus</i>				0.32				0.32			
		Smooth dogfish	<i>Mustelus canis</i>	0.46							0.46			
		Smooth puffer	<i>Lagocephalus laevigatus</i>	0.05					0.05		0.23			
		Snappers sp.	Family Lutjanidae		0.05	0.09					0.18			
		Snowy grouper	<i>Epinephalus niveatus</i>			0.14					0.05			
		Southern kingfish	<i>Menticirrhus americanus</i>	1.96	3.38	2.60	1.51	1.46	0.50	4.52	15.92			
		Southern stingray	<i>Dasyatis americana</i>	0.05							0.05			
		Spanish mackerel	<i>Scomberomorus maculatus</i>	1.82	0.36	0.41	1.64	0.36			4.61			
		Spot	<i>Leiostomus xanthurus</i>	0.05				0.36		0.05	0.46			
		Star drum	<i>Stellifer lanceolatus</i>			0.05					0.05			
		Striped mullet	<i>Mugil cephalus</i>	0.32				3.83			4.15			
		Sunfishes sp.	Family Centrarchidae	0.05							0.05			
		Tripletail	<i>Lobotes surinamensis</i>	0.05	0.27	0.23		0.05			0.59			
		Warsaw grouper	<i>Epinephalus nigritus</i>		0.05	0.05	0.09	0.14		0.05	0.36			
		White mullet	<i>Mugil curema</i>	0.05							0.05			
Low use		Alligator gar	<i>Lepisosteus spatula</i>	0.15						0.15	0.29			
		Bearded brotula	<i>Brotula barbata</i>					0.15			0.15			
		Blue catfish	<i>Ictalurus furcatus</i>	32.40	0.59						32.99			

Table D.13. (Cont'd.)

Year	Season	Common name	Scientific name	Bay system										Coastwide	
				Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre				
		Bonnethead	<u>Sphyrna tiburo</u>							0.15					0.15
		Channel catfish	<u>Ictalurus punctatus</u>	0.29											0.29
		Cownose ray	<u>Rhinoptera bonasus</u>							0.15					0.15
		Diamond killifish	<u>Adinia xenica</u>	0.44							1.77				1.77
		Freshwater drum	<u>Aplodinotus grunniens</u>												0.44
		Gray triggerfish	<u>Balistes capricus</u>												0.59
		Gulf flounder	<u>Paralichthys albigutta</u>							1.03					2.50
		Hardhead catfish	<u>Arius felis</u>	5.45		2.95				0.15					10.16
		Inshore lizardfish	<u>Synodus foetens</u>												0.15
		Ladyfish	<u>Elops saurus</u>	0.44											0.15
		Largemouth bass	<u>Micropterus salmoides</u>	1.18						1.33					12.81
		Pigfish	<u>Orthopristis chrysoptera</u>	1.47						0.44					2.50
		Pinfish	<u>Lagodon rhomboides</u>	6.63						0.59					8.10
		Red snapper	<u>Lutjanus campechanus</u>							0.15					4.12
		Silver perch	<u>Bairdiella chrysoura</u>												22.09
		Southern kingfish	<u>Menticirrhus americanus</u>	2.65		6.33				8.10				3.39	0.15
		Warsaw grouper	<u>Epinephelus nigritus</u>							0.15					0.15
1986-87		Atlantic cutlassfish	<u>Trichiurus lepturus</u>												1.69
	High-Use	Atlantic sharpnose shark	<u>Rhizoprionodon terraenovae</u>	0.41		0.05				0.69					3.52
		Atlanta spadefish	<u>Chaetodipterus faber</u>	0.37						0.05					0.46
		Atlantic stingray	<u>Dasyatis sabina</u>							0.05					0.18
		Banded drum	<u>Larimus fasciatus</u>												0.18
		Barred grunt	<u>Conodon nobilis</u>	0.05											0.05
		Blacktip shark	<u>Carcharhinus limbatus</u>	0.09						0.05					2.75
		Blue catfish	<u>Ictalurus furcatus</u>	1.83											2.61
		Blue runner	<u>Caranx crysos</u>	0.05											0.09
		Bluefish	<u>Pomatomus saltatrix</u>	0.18											0.50
		Bonnethead	<u>Sphyrna tiburo</u>	0.37		1.19				3.62					5.26
		Bony fishes	Class Osteichthyes												0.78
		Bull shark	<u>Carcharhinus leucas</u>	0.05						0.05					0.23
		Channel catfish	<u>Ictalurus punctatus</u>	0.14											0.14
		Cobia	<u>Rachycentron canadum</u>												0.05
		Cownose ray	<u>Rhinoptera bonasus</u>												0.05
		Crevalle jack	<u>Caranx hippos</u>	0.05		0.05				0.23					0.55



Table D.13. (Cont'd.)

Year	Season	Common name	Scientific name	Bay system										Coastwide			
				Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre						
		Finetooth shark	<u>Carcharhinus isodon</u>														0.05
		Florida pompano	<u>Trachinotus carolinus</u>														0.92
		Freshwater drum	<u>Aplodinotus grunniens</u>	0.23		0.09				0.14	0.05	0.23					0.23
		Gray snapper	<u>Lutjanus griseus</u>														0.46
		Gray triggerfish	<u>Balistes capriscaus</u>			0.18					0.05						0.32
		Great hammerhead	<u>Sphyrna mokarran</u>			0.23											0.27
		Gulf flounder	<u>Paralichthys albigutta</u>	0.05						0.27	0.92	0.46					3.11
		Gulf kingfish	<u>Menticirrhus littoralis</u>					4.62			0.14						5.86
		Gulf menhaden	<u>Brevoortia patronus</u>							0.05	0.05						0.09
		Gulf toadfish	<u>Opsanus beta</u>														0.05
		Hardhead catfish	<u>Arius felis</u>														11.35
		Inshore lizardfish	<u>Synodus foetens</u>	5.49		0.87		0.23		0.82	1.37	0.69					0.05
		Jacks sp.	<u>Family Carangidae</u>	0.05													0.05
		King mackerel	<u>Scomberomorus cavalla</u>							0.14							0.27
		Ladyfish	<u>Elops saurus</u>							0.27	1.10	0.14					0.05
		Leatherjacket	<u>Oligoplites saurus</u>	0.69		0.09		0.59									3.94
		Lemon shark	<u>Negaprion brevirostris</u>					0.05									0.05
		Little tunny	<u>Euthynnus alletteratus</u>					0.05									0.05
		Lookdown	<u>Selene vomer</u>	0.05													0.05
		Mullet sp.	<u>Family Mugilidae</u>							1.14							0.05
		Ocellated flounder	<u>Ancyloperca quadracellata</u>														1.14
		Pigfish	<u>Orthopristis chrysoptera</u>							0.27	3.62	0.59					7.78
		Pinfish	<u>Lagodon rhomboides</u>	2.47		0.14		0.14		0.18	0.59	1.60					4.94
		Pompano dolphin	<u>Coryphaena equisetis</u>	1.97				0.32									0.14
		Red snapper	<u>Lutjanus campechanus</u>					0.14									0.09
		Requiem sharks	<u>Family Carcharhinidae</u>	0.05				0.87									0.09
		Rock sea bass	<u>Centropristis philidelphica</u>														0.92
		Scalloped hammerhead	<u>Sphyrna lewini</u>								0.05						0.05
		Scamp	<u>Mycteroperca phenax</u>								0.27						0.27
		Spinner shark	<u>Carcharhinus brevipinna</u>								0.05						0.05
		Silver perch	<u>Bairdella chrysoura</u>	1.37		0.05		0.05									0.05
		Silver seatrout	<u>Cynoscion nothus</u>	0.55				0.50				0.09					4.44
		Vermilion snapper	<u>Rhomboplites aurorubens</u>	0.05													0.55
		Southern kingfish	<u>Menticirrhus americanus</u>	9.43		3.89		3.25		0.41	1.05	0.41					27.96
		Southern stingray	<u>Dasyatis americana</u>	0.09		0.09											0.14
		Spot	<u>Leiostomus xanthurus</u>	0.09							0.05						0.14

Table D.13. (Cont'd.)

Year	Season	Common name	Scientific name	Bay system										
				Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide		
		Spanish mackerel	<u>Scomberomorus maculatus</u>		0.37	0.14	0.27	0.05	0.05	0.05	0.05	0.05	0.05	0.96
		Spotted seatrout	<u>Cynoscion nebulosus</u>				0.23							0.23
		Striped bass	<u>Morone saxatilis</u>		0.09									0.09
		Striped mullet	<u>Mugil cephalus</u>		0.05			0.18						0.27
		Striped burrfish	<u>Chilomycterus schoepfi</u>											0.05
		Sunfishes sp.	Family Centrarchidae				0.09		0.09					0.05
		Warsaw grouper	<u>Epinephelus nigritus</u>					0.05						0.59
		Wenchman	<u>Pristipomoides aquilonaris</u>					1.83						1.83
		White mullet	<u>Mugil curema</u>				0.05							0.05
		White perch	<u>Morone americana</u>						0.05					0.05
		Yellowedge grouper	<u>Epinephelus flavolimbatus</u>											0.05
		Low-use												
		Alligator gar	<u>Lepisosteus spatula</u>											0.19
		Atlantic needlefish	<u>Strongylura marina</u>							0.19				0.19
		Atlantic stingray	<u>Dasyatis sabina</u>		0.19		0.19		0.19					0.97
		Blue catfish	<u>Ictalurus furcatus</u>		21.90									21.90
		Bluntnose stingray	<u>Dasyatis sayi</u>		0.19		0.19							0.19
		Bonnethead	<u>Sphyrna tiburo</u>		0.19					0.97				0.97
		Bony fishes sp.	Class Osteichthyes		6.20		0.58							6.78
		Channel catfish	<u>Ictalurus punctatus</u>				0.19							0.19
		Cownose ray	<u>Rhinoptera bonasus</u>		0.19		0.19							0.39
		Crevalle Jack	<u>Caranx hippos</u>		0.39									0.39
		Flathead catfish	<u>Pylodictus olivaris</u>											0.39
		Golden topminnow	<u>Fundulus chrysofotus</u>											0.39
		Gulf flounder	<u>Paralichthys albigutta</u>							3.10				8.53
		Gulf kingfish	<u>Menticirrhus littoralis</u>				9.11							9.11
		Hardhead catfish	<u>Arius felis</u>		1.74	1.36								3.10
		Ocellated flounder	<u>Ancylosetta quadrocellata</u>											0.39
		Pigfish	<u>Orthopristis chrysoptera</u>											3.49
		Pinfish	<u>Lagodon rhomboides</u>				0.19							1.74
		Red snapper	<u>Lutjanus campechanus</u>											0.19
		Silver perch	<u>Bairdiella chrysoura</u>											13.18
		Southern kingfish	<u>Menticirrhus americanus</u>		4.26	1.94	0.19							21.51
		Striped mullet	<u>Mugil cephalus</u>		0.19									1.55

Table D.13. (Cont'd.)

Year	Common name	Scientific name	Bay system																
			Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide								
1987-88																			
High Use	Alligator gar	<u>Lepisosteus spatula</u>	0.06		0.03														0.12
	Atlantic cutlassfish	<u>Trichiurus lepturus</u>										0.03							0.33
	Atlantic needlefish	<u>Strongylura marina</u>		0.03															0.03
	Atlantic sharpnose shark	<u>Rhizoprionodon terraenovae</u>																	4.41
	Atlantic spadefish	<u>Chaetodipterus faber</u>																	0.65
	Atlantic stingray	<u>Dasyatis sabina</u>	0.03																0.44
	Barred grunt	<u>Conodon nobilis</u>		0.03															0.41
	Bighead searobin	<u>Prionotus tribulus</u>																	0.09
	Black margate	<u>Anisotremus surinamensis</u>																	0.03
	Blacktip shark	<u>Carcharhinus limbatus</u>																	1.98
	Blue catfish	<u>Ictalurus furcatus</u>		0.18	1.60														1.15
	Blue runner	<u>Ictalurus furcatus</u>		0.71	0.41														0.03
	Bluefin tuna	<u>Caranx crysos</u>																	0.18
	Bluefish	<u>Thunnus thynnus</u>																	0.03
	Bluntnose stingray	<u>Pomatomus saltatrix</u>	0.03																0.03
	Bonnethead	<u>Dasyatis sayi</u>																	0.59
	Bony fishes sp.	<u>Sphyrna tiburo</u>																	0.06
	Brown bullhead	<u>Class Osteichthys</u>																	2.28
	Bull shark	<u>Ictalurus nebulosus</u>																	0.59
	Channel catfish	<u>Carcharhinus leucas</u>																	0.03
	Cobia	<u>Ictalurus punctatus</u>	0.06																0.12
	Common carp	<u>Rachycentron canadum</u>																	0.06
	Crevalle jack	<u>Cyprinus carpio</u>		0.12															0.06
	Dolphin	<u>Caranx hippos</u>	0.03	0.21															0.12
	Florida pompano	<u>Coryphaena hippurus</u>																	1.18
	Fringed sole	<u>Trachinotus carolinus</u>																	0.03
	Gray triggerfish	<u>Gymnachirus texae</u>																	0.35
	Gray snapper	<u>Balistes capriscus</u>																	0.03
	Great hammerhead	<u>Lutjanus griseus</u>																	0.65
	Gulf flounder	<u>Sphyrna mokarran</u>																	0.71
	Gulf kingfish	<u>Paralichthys albigutta</u>																	0.06
	Gulf menhaden	<u>Menticirrhus littoralis</u>																	4.73
	Gulf toadfish	<u>Brevoortia patronus</u>																	0.92
	Hardhead catfish	<u>Opsanus beta</u>																	0.12
	Inshore lizardfish	<u>Arius felis</u>	6.42	4.41															0.03
		<u>Synodus foetens</u>																	15.68
																			0.06





Table D.14. Bay and pass private-boat fishing pressure estimates (man-h x 1000)  $\pm$  1 SE by season and bay system, 15 May 1974-14 May 1988.

Bay system Year	Annual <sup>a</sup>		
	High-use season	Low-use season	
Sabine Lake 1987-88	275.9 $\pm$ 38.2	101.3 $\pm$ 21.4	377.2 $\pm$ 43.8
Galveston			
1974-76	1895.0 $\pm$ 678.3	970.5 $\pm$ 239.6	2865.6 $\pm$ 719.4
1976-77	881.0	150.8	1031.8
1977-78	1863.6	313.2	2176.8
1978-79	1634.1	337.9	1972.0
1979-80	1374.1 $\pm$ 634.5	627.9 $\pm$ 285.6	2002.0 $\pm$ 695.8
1980-81	1674.5 $\pm$ 357.9	485.4 $\pm$ 147.7	2159.9 $\pm$ 387.2
1981-82	1501.2 $\pm$ 249.3	382.8 $\pm$ 82.8	1884.1 $\pm$ 262.7
1982-83	1459.6 $\pm$ 145.0	205.0 $\pm$ 66.0	1664.5 $\pm$ 159.3
1983-84	1446.6 $\pm$ 417.6	641.3 $\pm$ 296.5	2087.9 $\pm$ 512.2
1984-85	1205.9 $\pm$ 118.2	307.7 $\pm$ 114.2	1513.6 $\pm$ 164.3
1985-86	1123.4 $\pm$ 142.0	798.9 $\pm$ 477.7	1922.4 $\pm$ 498.4
1986-87	1498.3 $\pm$ 195.6	680.2 $\pm$ 180.3	2178.6 $\pm$ 266.0
1987-88	2328.7 $\pm$ 489.6	341.6 $\pm$ 106.4	2670.3 $\pm$ 501.1
Matagorda			
1974-76	481.5 $\pm$ 160.7	149.3 $\pm$ 75.3	630.8 $\pm$ 177.4
1976-77	268.5	95.8	364.3
1977-78	377.8	138.0	515.8
1978-79	470.8	131.4	602.3
1979-80	290.5 $\pm$ 130.3	110.9 $\pm$ 32.0	401.4 $\pm$ 134.2
1980-81	526.9 $\pm$ 176.2	110.3 $\pm$ 37.2	637.2 $\pm$ 180.1
1981-82	404.8 $\pm$ 47.8	93.3 $\pm$ 22.2	498.2 $\pm$ 52.7
1982-83	333.0 $\pm$ 40.2	60.0 $\pm$ 12.0	393.0 $\pm$ 41.9
1983-84	516.9 $\pm$ 57.1	145.7 $\pm$ 49.9	662.6 $\pm$ 75.8
1984-85	331.9 $\pm$ 35.0	185.4 $\pm$ 45.3	517.0 $\pm$ 57.2
1985-86	386.6 $\pm$ 60.9	172.1 $\pm$ 41.7	558.7 $\pm$ 73.8
1986-87	491.0 $\pm$ 54.2	322.1 $\pm$ 112.8	813.1 $\pm$ 125.2
1987-88	569.1 $\pm$ 77.3	181.8 $\pm$ 42.0	750.9 $\pm$ 88.0
San Antonio			
1974-76	221.2 $\pm$ 43.0	102.7 $\pm$ 15.4	323.9 $\pm$ 45.7
1976-77	219.1	79.7	298.8
1977-78	212.8	93.4	306.2
1978-79	220.5	65.5	286.0
1979-80	149.7 $\pm$ 19.0	79.6 $\pm$ 23.5	228.8 $\pm$ 30.2

Table D.14. (Cont'd.)

Bay system Year	High-use season <sup>a</sup>		Low-use season		Annual
	High-use season <sup>a</sup>	Low-use season	High-use season <sup>a</sup>	Low-use season	
<b>San Antonio (Cont.)</b>					
1980-81	138.1 ± 18.4	91.2 ± 43.2	229.4 ± 47.0		
1981-82	141.2 ± 16.3	44.1 ± 8.1	185.3 ± 18.2		
1982-83	223.4 ± 26.6	60.3 ± 11.4	283.7 ± 28.9		
1983-84	221.8 ± 27.8	49.5 ± 14.3	271.3 ± 31.2		
1984-85	106.6 ± 9.3	36.2 ± 8.5	142.8 ± 12.6		
1985-86	142.8 ± 17.3	44.1 ± 12.1	186.9 ± 21.2		
1986-87	190.3 ± 35.6	55.3 ± 13.0	245.7 ± 37.9		
1987-88	287.1 ± 58.0	196.1 ± 93.6	483.2 ± 110.1		
<b>Aransas</b>					
1974-76	320.8 ± 91.0	212.4 ± 46.6	533.3 ± 102.2		
1976-77	295.1	107.1	402.2		
1977-78	232.2	100.0	332.2		
1978-79	240.3	77.0	317.3		
1979-80	140.5 ± 29.8	40.2 ± 14.3	180.6 ± 33.1		
1980-81	193.1 ± 36.9	59.1 ± 12.1	252.3 ± 38.8		
1981-82	302.0 ± 36.3	130.3 ± 28.3	432.3 ± 46.1		
1982-83	324.0 ± 49.7	115.1 ± 27.4	439.0 ± 56.8		
1983-84	556.4 ± 130.3	66.9 ± 22.1	623.3 ± 132.2		
1984-85	264.7 ± 36.7	150.9 ± 44.6	415.6 ± 57.8		
1985-86	436.9 ± 47.4	275.9 ± 50.9	712.8 ± 69.5		
1986-87	399.0 ± 47.8	319.1 ± 67.6	718.2 ± 82.7		
1987-88	479.1 ± 46.5	180.0 ± 37.1	659.1 ± 59.5		
<b>Corpus Christi</b>					
1974-76	142.7 ± 44.1	120.0 ± 29.0	266.7 ± 53.3		
1976-77	143.4	68.4	211.8		
1977-78	153.2	49.6	202.8		
1978-79	206.6	107.5	314.1		
1979-80	335.4 ± 222.6	119.0 ± 25.2	454.5 ± 224.1		
1980-81	579.1 ± 227.1	160.3 ± 46.5	739.4 ± 231.8		
1981-82	235.5 ± 30.3	116.7 ± 16.2	352.2 ± 34.3		
1982-83	239.7 ± 27.2	212.1 ± 53.1	451.8 ± 59.7		
1983-84	693.4 ± 214.8	69.5 ± 20.0	762.4 ± 215.7		
1984-85	286.9 ± 40.8	253.5 ± 68.8	540.4 ± 80.0		
1985-86	326.8 ± 53.7	282.5 ± 79.7	609.2 ± 96.1		
1986-87	378.3 ± 47.4	274.2 ± 73.3	652.5 ± 87.3		
1987-88	398.3 ± 43.6	301.9 ± 73.3	700.2 ± 85.3		

Table D.14. (Cont'd.)

Bay system Year	Low-use season <sup>a</sup>		Annual
	High-use season <sup>a</sup>	Low-use season <sup>a</sup>	
Upper Laguna Madre			
1974-76	329.9 ± 73.3	397.3 ± 135.0	727.1 ± 153.6
1976-77	314.1	113.9	428.0
1977-78	179.5	185.0	364.5
1978-79	242.3	120.5	362.8
1979-80	288.9 ± 46.0	187.2 ± 34.4	476.0 ± 57.4
1980-81	530.0 ± 63.8	312.0 ± 130.3	841.9 ± 145.1
1981-82	629.6 ± 126.1	226.0 ± 74.1	855.7 ± 146.2
1982-83	601.3 ± 65.7	185.5 ± 41.5	786.8 ± 77.6
1983-84	657.2 ± 65.3	68.3 ± 16.6	725.5 ± 67.3
1984-85	177.3 ± 26.4	162.9 ± 56.0	340.2 ± 61.9
1985-86	489.9 ± 67.2	392.5 ± 120.4	882.4 ± 137.9
1986-87	540.3 ± 70.6	351.5 ± 70.7	891.7 ± 100.0
1987-88	654.8 ± 71.9	267.3 ± 64.7	922.1 ± 96.7
Lower Laguna Madre			
1974-76	500.7 ± 137.5	339.4 ± 114.6	840.1 ± 179.0
1976-77	417.1	261.5	678.6
1977-78	381.1	206.3	587.4
1978-79	440.5	88.3	528.8
1979-80	227.9 ± 63.7	175.6 ± 50.3	403.5 ± 81.2
1980-81	235.5 ± 53.1	149.4 ± 36.0	384.9 ± 64.1
1981-82	222.6 ± 19.6	120.2 ± 18.2	342.8 ± 26.9
1982-83	395.9 ± 31.6	165.7 ± 23.2	561.6 ± 39.2
1983-84	373.3 ± 28.6	139.1 ± 32.6	512.5 ± 43.4
1984-85	331.6 ± 40.8	281.5 ± 50.5	613.1 ± 64.9
1985-86	363.5 ± 30.6	242.1 ± 45.5	605.6 ± 54.8
1986-87	522.7 ± 36.8	348.4 ± 55.0	871.1 ± 66.2
1987-88	605.5 ± 45.1	281.7 ± 61.8	887.2 ± 76.5
Coastwide <sup>b</sup>			
1974-76	3891.8 ± 97.7	2295.7 ± 54.3	6187.5 ± 516.9
1976-77	2538.2	877.5	3415.7
1977-78	3400.6	1085.4	4486.0
1978-79	3455.1	928.1	4383.2
1979-80	2806.5 ± 690.3	1340.3 ± 296.1	4146.8 ± 751.1
1980-81	3877.3 ± 468.3	1367.8 ± 213.7	5245.0 ± 514.7
1981-82	3437.1 ± 288.5	1113.4 ± 119.6	4550.5 ± 312.3



Table D.14. (Cont'd.)

Bay system Year	High-use season <sup>a</sup>	Low-use season <sup>a</sup>	Annual
Coastwide (Cont.)			
1982-83	3576.8 ± 178.5	1003.6 ± 102.3	4580.4 ± 205.7
1983-84	4465.7 ± 496.6	1180.3 ± 304.7	5646.0 ± 582.7
1984-85	2705.0 ± 143.7	1378.1 ± 166.0	4083.1 ± 219.6
1985-86	3269.9 ± 186.4	2208.1 ± 505.6	5477.9 ± 538.8
1986-87	4020.0 ± 230.9	2350.8 ± 251.7	6370.8 ± 341.6
1987-88	5061.2 ± 240.3	1847.9 ± 192.5	6909.1 ± 307.9

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual totals.

Table D.15. Number of days surveyed and number of private-boat fishermen interviewed ( ) in Texas bays and passes by season and bay system (1974-88).  
 ND = no data.

Year Season	Bay system															
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi		Upper Laguna Madre		Lower Laguna Madre		Coastwide				
						Christi	Laguna Madre	Laguna Madre	Laguna Madre							
1974-76																
High use	15	(933)	9	(124)	31	(1428)	15	(280)	9	(146)	21	(521)	9	(235)	109	(3667)
Low use	19	(424)	16	(140)	34	(616)	20	(290)	19	(298)	20	(397)	18	(294)	146	(2459)
Annual	34	(1357)	25	(264)	65	(2044)	35	(570)	28	(444)	41	(918)	27	(529)	255	(6126)
1976-77																
High use	15	(541)	17	(264)	8	(344)	8	(306)	15	(492)	8	(290)	17	(732)	88	(2969)
Low use	29	(235)	17	(109)	13	(184)	14	(168)	16	(305)	15	(147)	15	(373)	119	(1521)
Annual	44	(776)	34	(373)	21	(528)	22	(474)	31	(797)	23	(437)	32	(1105)	207	(4490)
1977-78																
High use	34	(1285)	16	(471)	18	(826)	17	(481)	16	(429)	16	(299)	16	(706)	133	(4497)
Low use	31	(486)	15	(231)	14	(435)	16	(178)	15	(223)	15	(323)	16	(601)	122	(2477)
Annual	65	(1771)	31	(702)	32	(1261)	33	(659)	31	(652)	31	(622)	32	(1307)	255	(6974)
1978-79																
High use	32	(1817)	17	(596)	18	(962)	16	(380)	18	(500)	17	(596)	17	(700)	135	(5551)
Low use	32	(532)	15	(106)	15	(448)	16	(164)	14	(183)	16	(338)	15	(311)	123	(2082)
Annual	64	(2349)	32	(702)	33	(1410)	32	(544)	32	(683)	33	(934)	32	(1011)	258	(7633)
1979-80																
High use	33	(945)	22	(439)	28	(1138)	20	(316)	25	(507)	18	(490)	21	(720)	167	(4555)
Low use	22	(204)	20	(295)	37	(776)	22	(135)	23	(571)	23	(534)	22	(510)	169	(3025)
Annual	55	(1149)	42	(734)	65	(1914)	42	(451)	48	(1078)	41	(1024)	43	(1230)	336	(7580)
1980-81																
High use	41	(1346)	42	(630)	50	(1527)	43	(528)	42	(1027)	44	(1278)	42	(945)	304	(7281)
Low use	24	(292)	21	(117)	24	(264)	23	(155)	21	(374)	21	(359)	22	(443)	156	(2004)
Annual	65	(1638)	63	(747)	74	(1791)	66	(683)	63	(1401)	65	(1637)	64	(1388)	460	(9285)
1981-82																
High use	88	(1536)	88	(944)	78	(1549)	88	(1105)	87	(2396)	88	(1836)	78	(2048)	595	(11414)
Low use	36	(274)	36	(176)	36	(463)	36	(281)	36	(411)	36	(464)	36	(775)	252	(2844)
Annual	124	(1810)	124	(1120)	114	(2012)	124	(1386)	123	(2807)	124	(2300)	114	(2823)	847	(14258)

Table D.15. (Cont'd.)

Year Season	Bay system										Coastwide					
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre								
1982-83																
High use	97	(2480)	88	(1118)	88	(1750)	88	(861)	88	(1842)	88	(2713)	78	(2814)	609	(13578)
Low use	36	(247)	36	(157)	36	(592)	36	(226)	36	(603)	36	(525)	36	(1265)	252	(3615)
Annual	133	(2727)	124	(1275)	118	(2342)	124	(1087)	124	(2445)	124	(3238)	114	(4079)	861	(17193)
1983-84																
High use	95	(1386)	93	(1651)	71	(2228)	95	(1718)	95	(1934)	97	(4046)	97	(3097)	643	(15977)
Low use	36	(240)	36	(233)	33	(304)	32	(138)	36	(278)	36	(187)	36	(423)	245	(1803)
Annual	131	(1543)	129	(1884)	104	(2532)	127	(1856)	131	(2212)	133	(4233)	133	(3520)	888	(17780)
1984-85																
High use	96	(2637)	96	(2058)	71	(1441)	96	(1406)	97	(1390)	97	(1055)	97	(2641)	650	(12627)
Low use	36	(270)	35	(570)	34	(332)	34	(333)	35	(415)	36	(398)	36	(633)	248	(2951)
Annual	132	(2907)	131	(2628)	124	(1773)	130	(1739)	132	(1805)	133	(1453)	133	(3274)	898	(15573)
1985-86																
High use	97	(1880)	97	(2044)	72	(1630)	97	(2094)	97	(1631)	97	(2726)	97	(2737)	654	(14741)
Low use	36	(539)	36	(412)	36	(251)	36	(645)	36	(569)	36	(783)	36	(617)	252	(3816)
Annual	133	(2419)	133	(2456)	108	(1881)	133	(2739)	133	(2200)	133	(3509)	133	(3354)	906	(18557)
1986-87																
High use	97	(2094)	162	(2309)	72	(1683)	192	(1702)	97	(1839)	97	(2875)	97	(2980)	814	(15481)
Low use	36	(608)	71	(483)	36	(292)	72	(621)	36	(510)	36	(982)	36	(867)	323	(4363)
Annual	133	(2702)	233	(2792)	108	(1975)	264	(2322)	133	(2349)	133	(3857)	133	(3847)	1137	(19843)
1987-88																
High use	72	(1750)	106	(2621)	70	(2223)	99	(2110)	97	(1941)	97	(3621)	97	(3192)	749	(19885)
Low use	36	(384)	40	(376)	34	(300)	41	(414)	36	(568)	36	(701)	36	(552)	310	(3563)
Annual	108	(2135)	146	(2997)	104	(2523)	140	(2524)	133	(2509)	133	(4322)	133	(3743)	1059	(23448)

Table D.16. Mean fishing-party size (No. of fishermen) and mean trip length (h) for private-boat fishermen in Texas bays and passes by bay system and season (1974-1988).

Bay system Year	Mean fishing-party size			Mean trip length		
	High-use season	Low-use season	Annual	High-use season	Low-use season	Annual
Sabine Lake 1987-88	2.2	2.1	2.2	5.0	4.4	4.9
Galveston						
1974-76	2.7	2.5	2.5	3.9	5.1	4.8
1976-77	2.5	2.3	2.5	4.8	4.3	4.7
1977-78	2.6	2.7	2.6	5.5	5.5	5.5
1978-79	2.6	2.7	2.6	6.4	5.2	6.1
1979-80	2.7	2.7	2.7	6.0	5.9	6.0
1980-81	2.5	2.2	2.4	6.0	5.6	5.9
1981-82	2.5	2.3	2.4	7.0	5.4	6.7
1982-83	2.6	2.1	2.6	5.8	4.6	5.7
1983-84	2.5	2.2	2.4	6.1	4.8	5.8
1984-85	2.6	2.4	2.5	5.7	4.7	5.6
1985-86	2.5	2.5	2.5	5.5	5.9	5.6
1986-87	2.6	2.4	2.5	5.4	5.5	5.4
1987-88	2.4	2.4	2.4	6.0	5.9	6.0
Matagorda						
1974-76	2.4	2.5	2.4	5.7	4.7	5.5
1976-77	2.9	2.6	2.8	4.9	3.8	4.6
1977-78	2.7	2.7	2.7	5.8	6.9	6.3
1978-79	3.0	2.8	3.0	7.2	5.5	6.9
1979-80	2.9	2.6	2.8	7.3	5.8	6.8
1980-81	2.6	2.4	2.6	8.3	5.4	7.9
1981-82	2.5	2.4	2.5	6.0	6.2	6.0
1982-83	2.6	2.5	2.6	7.2	5.1	6.9
1983-84	2.6	2.5	2.6	6.7	6.9	6.7
1984-85	2.8	2.6	2.7	7.5	5.4	7.0
1985-86	2.5	2.3	2.5	7.5	6.0	7.3
1986-87	2.6	2.5	2.6	6.5	6.1	6.4
1987-88	2.6	2.4	2.5	8.1	5.4	7.7
San Antonio						
1974-76	2.5	2.4	2.5	5.5	5.1	5.3
1976-77	2.7	2.5	2.6	5.4	6.6	5.9
1977-78	2.7	2.8	2.7	6.6	6.4	6.5

Table D.16. (Cont'd.)

Bay system Year	Mean fishing-party size			Mean trip length		
	High-use season	Low-use season	Annual	High-use season	Low-use season	Annual
<b>San Antonio (Cont'd.)</b>						
1978-79	2.8	2.7	2.8	7.8	5.1	6.9
1979-80	2.7	2.8	2.7	6.3	6.2	6.2
1980-81	2.7	2.6	2.7	7.7	7.2	7.6
1981-82	2.6	2.4	2.5	7.1	6.6	7.0
1982-83	2.6	2.5	2.6	8.2	5.9	7.8
1983-84	2.6	2.4	2.5	6.6	5.8	6.5
1984-85	2.6	2.5	2.6	6.4	4.8	6.1
1985-86	2.5	1.9	2.4	6.8	6.4	6.8
1986-87	2.5	2.3	2.5	7.2	5.2	6.8
1987-88	2.5	2.2	2.4	6.7	7.1	6.8
<b>Aransas</b>						
1974-76	3.0	2.4	2.7	4.8	3.7	4.1
1976-77	2.7	2.8	2.7	5.6	4.7	5.4
1977-78	2.8	2.6	2.7	6.0	6.6	6.2
1978-79	2.9	2.6	2.8	5.4	5.7	5.5
1979-80	2.8	2.6	2.7	6.0	6.7	6.2
1980-81	2.5	2.2	2.4	5.0	4.4	4.9
1981-82	2.5	2.2	2.5	5.3	4.7	5.2
1982-83	2.6	2.4	2.5	5.7	4.4	5.4
1983-84	2.7	2.4	2.7	5.3	4.1	5.2
1984-85	2.5	2.3	2.5	4.7	4.3	4.6
1985-86	2.6	1.9	2.4	5.1	5.0	5.1
1986-87	2.4	2.2	2.4	5.3	4.4	5.0
1987-88	2.5	2.3	2.5	5.2	4.8	5.1
<b>Corpus Christi</b>						
1974-76	2.4	2.4	2.4	3.9	3.8	3.8
1976-77	2.7	2.6	2.7	4.3	4.4	4.3
1977-78	2.4	2.6	2.5	5.4	5.0	5.3
1978-79	2.6	2.5	2.6	4.9	4.8	4.8
1979-80	2.7	2.6	2.7	4.6	4.3	4.4
1980-81	2.4	2.5	2.5	4.6	4.1	4.5
1981-82	2.4	2.4	2.4	4.6	4.1	4.5
1982-83	2.6	2.4	2.5	4.8	4.2	4.7
1983-84	2.6	2.5	2.6	4.7	3.6	4.6

Table D.16. (Cont'd.)

Bay system Year	Mean fishing-party size			Mean trip length		
	High-use season	Low-use season	Annual	High-use season	Low-use season	Annual
<b>Corpus Christi (Cont.)</b>						
1984-85	2.5	2.6	2.5	4.5	4.5	5.0
1985-86	2.5	2.0	2.3	4.9	5.1	5.0
1986-87	2.4	2.3	2.4	5.0	5.0	5.0
1987-88	2.4	2.3	2.4	5.2	5.1	5.2
<b>Upper Laguna Madre</b>						
1974-76	2.4	2.5	2.5	4.0	3.7	7.1
1976-77	2.6	2.4	2.6	7.1	10.4	8.2
1977-78	2.5	2.6	2.6	6.7	8.4	7.6
1978-79	2.7	2.8	2.7	8.7	5.8	7.7
1979-80	2.7	2.4	2.6	6.7	6.7	6.7
1980-81	2.8	2.6	2.7	12.8	10.8	12.3
1981-82	2.7	2.6	2.7	11.9	8.0	11.1
1982-83	2.7	2.4	2.6	10.7	7.4	10.1
1983-84	2.6	2.5	2.6	11.0	7.7	10.9
1984-85	2.6	2.7	2.7	8.9	6.1	8.1
1985-86	2.6	2.3	2.5	10.3	8.9	10.0
1986-87	2.5	2.4	2.5	11.4	7.9	10.5
1987-88	2.5	2.3	2.5	12.6	7.1	11.6
<b>Lower Laguna Madre</b>						
1974-76	2.4	2.6	2.6	6.7	5.1	5.8
1976-77	2.6	2.4	2.5	5.9	4.2	5.4
1977-78	2.5	2.6	2.6	6.7	8.4	7.6
1978-79	2.6	2.7	2.6	7.0	5.8	6.6
1979-80	2.6	2.6	2.6	5.4	5.4	5.4
1980-81	2.6	2.8	2.6	6.4	4.9	6.0
1981-82	2.6	2.5	2.6	5.9	5.6	5.8
1982-83	2.6	2.4	2.5	6.9	5.3	6.4
1983-84	2.5	2.2	2.5	6.8	5.0	6.5
1984-85	2.6	2.5	2.6	5.8	5.2	5.6
1985-86	2.5	2.4	2.5	6.4	5.3	6.2
1986-87	2.5	2.4	2.4	7.1	6.0	6.8
1987-88	2.5	2.3	2.4	7.3	6.0	7.1

Table D.16. (Cont'd.)

Bay system Year	Mean fishing-party size			Mean trip length		
	High-use season	Low-use season	Annual	High-use season	Low-use season	Annual
Coastwide						
1974-76	2.6	4.3	2.5	5.1	5.5	5.3
1976-77	2.7	2.5	2.6	5.4	5.2	5.4
1977-78	2.6	2.7	2.6	6.2	6.7	6.4
1978-79	2.8	2.7	2.7	6.9	5.4	6.5
1979-80	2.7	2.6	2.7	6.1	5.7	6.0
1980-81	2.6	2.5	2.6	7.3	6.0	7.1
1981-82	2.5	2.4	2.5	6.7	5.7	6.5
1982-83	2.6	2.4	2.6	7.1	5.3	6.7
1983-84	2.6	2.4	2.5	7.3	5.4	7.0
1984-85	2.6	2.5	2.6	6.1	5.1	5.9
1985-86	2.5	2.2	2.4	6.8	6.1	6.7
1986-87	2.5	2.4	2.5	7.1	5.9	6.8
1987-88	2.4	2.3	2.4	7.5	5.8	7.2

Table D.17. Percent composition of the residential origin of private-boat fishermen-trips in Texas bays and passes by bay system and season (1974-88).

Bay system Year Season	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Sabine Lake				
1987-88				
High use	94	3	2	1
Low use	96	2	0	2
Annual	94	3	2	1
Galveston				
1974-76				
High use	77	14	8	1
Low use	97	0	2	1
Annual	85	9	4	2
1976-77				
High use	89	8	3	0
Low use	96	2	2	0
Annual	91	6	3	0
1977-78				
High use	95	5	1	0
Low use	95	3	2	0
Annual	95	4	1	0
1978-79				
High use	97	0	2	0
Low use	95	0	2	1
Annual	96	0	2	0
1979-80				
High use	95	2	3	0
Low use	99	0	1	0
Annual	96	1	3	0
1980-81				
High use	97	1	2	0
Low use	99	0	1	0
Annual	98	1	1	0



Table D.17. (Cont'd.)

Bay system Year <sup>a</sup>	Adjacent coastal countries	Non-adjacent coastal countries	Non-coastal countries	Other states and countries
Galveston (Cont'd.)				
1981-82				
High use	91	6	3	0
Low use	92	1	8	0
Annual	91	5	4	0
1982-83				
High use	93	3	3	0
Low use	99	0	1	0
Annual	94	3	3	30
1983-84				
High use	92	4	3	0
Low use	100	0	0	0
Annual	94	3	3	0
1984-85				
High use	91	4	5	0
Low use	96	0	3	1
Annual	92	3	5	1
1985-86				
High use	91	4	4	1
Low use	98	0	1	1
Annual	92	4	3	1
1986-87				
High use	87	8	4	1
Low use	96	1	2	0
Annual	89	7	3	1
1987-88				
High use	93	3	3	1
Low use	95	0	3	2
Annual	93	3	3	1

Table D.17. (Cont'd.)

Bay system Year <sup>a</sup> Season	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Matagorda				
1974-76				
High use	48	49	3	0
Low use	39	48	12	0
Annual	41	45	14	0
1976-77				
High use	49	38	12	1
Low use	48	38	15	0
Annual	49	38	13	1
1977-78				
High use	46	29	23	1
Low use	44	35	22	0
Annual	45	32	22	1
1978-79				
High use	52	29	18	0
Low use	45	22	30	1
Annual	50	27	21	0
1979-80				
High use	47	25	28	0
Low use	59	23	18	0
Annual	51	24	25	0
1980-81				
High use	49	26	24	0
Low use	59	18	23	0
Annual	51	25	24	0
1981-82				
High use	61	23	16	1
Low use	57	20	23	0
Annual	60	22	17	0

Table D.17. (Cont'd.)

Bay system Year <sup>a</sup> Season	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
<b>Matagorda (Cont'd.)</b>				
1982-83				
High use	53	27	19	1
Low use	65	14	21	1
Annual	55	25	19	1
1983-84				
High use	52	27	21	1
Low use	58	24	17	1
Annual	53	26	20	1
1984-85				
High use	45	25	29	1
Low use	54	28	17	1
Annual	47	25	26	1
1985-86				
High use	53	26	21	1
Low use	51	25	22	2
Annual	52	25	21	1
1986-87				
High use	51	25	23	1
Low use	51	27	21	2
Annual	51	25	23	1
1987-88				
High use	49	28	22	1
Low use	49	32	19	1
Annual	49	29	21	1
<b>San Antonio</b>				
1974-76				
High use	52	20	28	0
Low use	43	32	25	0
Annual	45	25	29	1

Table D.17. (Cont'd.)

Bay system Year <sup>a</sup> Season	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
San Antonio (Cont'd.)				
1976-77				
High use	49	32	19	0
Low use	39	31	29	1
Annual	46	32	22	0
1977-78				
High use	45	28	27	0
Low use	33	30	36	1
Annual	40	29	31	1
1978-79				
High use	31	38	30	0
Low use	42	29	28	0
Annual	34	35	29	0
1979-80				
High use	42	27	31	0
Low use	36	22	42	0
Annual	40	25	35	0
1980-81				
High use	42	29	29	1
Low use	45	29	26	0
Annual	42	29	28	1
1981-82				
High use	44	27	28	1
Low use	46	26	26	2
Annual	45	27	28	1
1982-83				
High use	44	32	22	1
Low use	49	27	24	0
Annual	45	31	23	1

Table D.17. (Cont'd.)

Bay system Year <sup>a</sup> Season	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
<b>San Antonio (Cont'd.)</b>				
1983-84				
High use	39	35	24	2
Low use	53	23	24	0
Annual	41	34	24	2
1984-85				
High use	37	32	30	1
Low use	58	24	17	0
Annual	41	30	28	1
1985-86				
High use	44	29	27	0
Low use	55	25	20	0
Annual	45	28	26	0
1986-87				
High use	49	25	26	1
Low use	59	29	12	0
Annual	51	25	23	1
1987-88				
High use	48	27	24	1
Low use	60	20	18	2
Annual	49	26	23	1
<b>Arkansas</b>				
1974-76				
High use	23	15	62	0
Low use	25	7	35	33
Annual	26	9	47	18
1976-77				
High use	19	14	64	3
Low use	23	14	55	8
Annual	20	14	61	5

Table D.17. (Cont'd.)

Bay system Year <sup>a</sup> Season	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Arkansas (Cont'd.)				
1977-78				
High use	15	20	59	6
Low use	36	22	36	7
Annual	22	21	52	6
1978-79				
High use	26	22	49	1
Low use	27	5	60	7
Annual	27	16	52	3
1979-80				
High use	37	16	46	1
Low use	41	16	34	9
Annual	39	16	42	3
1980-81				
High use	32	12	52	5
Low use	33	5	28	35
Annual	32	10	46	13
1981-82				
High use	22	17	50	12
Low use	39	6	23	32
Annual	25	14	45	16
1982-83				
High use	26	17	51	6
Low use	22	13	29	36
Annual	25	16	46	13
1983-84				
High use	21	16	53	10
Low use	39	6	35	19
Annual	23	15	51	11

Table D.17. (Cont'd.)

Bay system Year <sup>a</sup> Season	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
<b>Arkansas (Cont'd.)</b>				
<b>1984-85</b>				
High use	18	24	48	10
Low use	17	14	33	36
Annual	18	22	45	15
<b>1985-86</b>				
High use	25	19	48	8
Low use	32	15	32	22
Annual	27	18	44	11
<b>1986-87</b>				
High use	21	21	52	6
Low use	24	15	30	31
Annual	22	19	46	13
<b>1987-88</b>				
High use	21	21	50	8
Low use	23	15	37	24
Annual	21	20	48	10
<b>Corpus Christi</b>				
<b>1974-76</b>				
High use	89	1	8	1
Low use	67	3	14	15
Annual	76	2	14	8
<b>1976-77</b>				
High use	70	4	24	1
Low use	60	1	20	18
Annual	66	3	23	8
<b>1977-78</b>				
High use	74	3	20	2
Low use	55	5	31	9
Annual	67	4	25	5

Table D.17. (Cont'd.)

Bay system Year <sup>a</sup> Season	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Corpus Christi (Cont'd.)				
1978-79				
High use	68	2	23	4
Low use	52	5	22	19
Annual	63	3	23	9
1979-80				
High use	54	5	36	5
Low use	66	3	23	8
Annual	60	4	30	6
1980-81				
High use	42	3	36	18
Low use	73	1	12	14
Annual	50	2	30	17
1981-82				
High use	60	2	29	8
Low use	60	4	19	17
Annual	60	3	28	10
1982-83				
High use	49	4	40	6
Low use	64	1	21	14
Annual	53	4	36	8
1983-84				
High use	54	5	32	9
Low use	64	3	23	9
Annual	55	5	31	9
1984-85				
High use	50	7	34	9
Low use	67	3	21	9
Annual	54	6	31	9



Table D.17. (Cont'd.)

Bay system Year <sup>a</sup> Season	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
<b>Corpus Christi (Cont'd.)</b>				
1985-86				
High use	44	7	45	4
Low use	66	3	23	7
Annual	50	6	39	5
1986-87				
High use	56	4	36	3
Low use	63	3	23	11
Annual	58	4	33	5
1987-88				
High use	56	6	33	5
Low use	56	5	18	22
Annual	56	5	30	9
<b>Upper Laguna Madre</b>				
1974-76				
High use	78	1	27	0
Low use	76	4	18	1
Annual	74	2	20	4
1976-77				
High use	65	7	28	0
Low use	72	8	17	3
Annual	67	8	24	1
1977-78				
High use	75	6	18	1
Low use	68	5	24	3
Annual	71	6	21	2
1978-79				
High use	56	8	35	0
Low use	67	4	26	1
Annual	60	7	32	0

Table D.17. (Cont'd.)

Bay system Year <sup>a</sup> Season	Adjacent coastal countries	Non-adjacent coastal countries	Non-coastal countries	Other states and countries
Upper Laguna Madre (Cont'd.)				
1979-80				
High use	61	9	29	2
Low use	76	4	17	3
Annual	69	6	23	3
1980-81				
High use	60	10	29	1
Low use	75	4	19	3
Annual	63	8	27	1
1981-82				
High use	68	10	21	1
Low use	73	9	11	7
Annual	69	10	19	3
1982-83				
High use	72	8	19	0
Low use	63	10	21	6
Annual	71	8	20	1
1983-84				
High use	69	10	19	2
Low use	74	6	16	4
Annual	69	10	19	2
1984-85				
High use	69	7	22	2
Low use	76	5	13	6
Annual	71	7	19	3
1985-86				
High use	70	8	20	2
Low use	79	7	10	4
Annual	72	8	17	3

Table D.17. (Cont'd.)

Bay system Year <sup>a</sup> Season	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Upper Laguna Madre (Cont'd.)				
1986-87				
High use	68	10	20	2
Low use	76	5	15	4
Annual	70	8	19	2
1987-88				
High use	64	11	23	2
Low use	76	11	11	2
Annual	66	11	21	2
Lower Laguna Madre				
1974-76				
High use	90	3	7	0
Low use	89	3	4	4
Annual	80	6	10	4
1976-77				
High use	85	5	8	3
Low use	80	3	5	12
Annual	83	4	7	5
1977-78				
High use	78	8	12	2
Low use	79	2	14	5
Annual	79	5	13	3
1978-79				
High use	76	7	14	1
Low use	88	1	7	2
Annual	79	5	12	2
1979-80				
High use	85	2	12	1
Low use	88	0	4	8
Annual	87	1	8	4

Table D.17. (Cont'd.)

Bay system Year <sup>a</sup> Season	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Lower Laguna Madre (Cont'd.)				
1980-81				
High use	84	4	10	2
Low use	70	4	6	20
Annual	80	4	9	8
1981-82				
High use	80	7	12	1
Low use	76	1	9	14
Annual	79	5	11	5
1982-83				
High use	76	8	13	2
Low use	73	2	7	18
Annual	75	6	11	7
1983-84				
High use	73	10	14	3
Low use	72	4	10	14
Annual	73	9	13	5
1984-85				
High use	67	11	18	4
Low use	70	6	9	16
Annual	68	10	16	6
1985-86				
High use	72	11	14	4
Low use	70	5	8	18
Annual	71	10	13	6
1986-87				
High use	70	12	15	3
Low use	71	4	9	16
Annual	70	10	14	6

Table D.17. (Cont'd.)

Bay system Year <sup>a</sup> Season	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Lower Laguna Madre (Cont'd.)				
1987-88				
High use	71	11	15	2
Low use	71	8	11	10
Annual	71	10	15	4
Coastwide				
1974-76				
High use	63	14	22	2
Low use	62	14	18	6
Annual	60	14	22	5
1976-77				
High use	67	13	19	1
Low use	64	10	18	8
Annual	66	12	19	3
1977-78				
High use	66	14	19	1
Low use	61	15	22	3
Annual	64	14	20	2
1978-79				
High use	63	16	19	0
Low use	63	11	21	3
Annual	63	14	20	1
1979-80				
High use	63	13	23	1
Low use	63	11	23	3
Annual	63	12	23	2
1980-81				
High use	59	14	24	3
Low use	68	7	15	10
Annual	61	12	22	5

Table D.17. (Cont'd.)

Bay system Year <sup>a</sup> Season	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
<b>Coastwide (Cont'd.)</b>				
1981-82				
High use	61	12	23	4
Low use	63	9	17	11
Annual	62	11	22	5
1982-83				
High use	62	14	22	2
Low use	62	9	17	12
Annual	62	13	21	4
1983-84				
High use	59	15	22	3
Low use	68	10	16	6
Annual	60	14	22	4
1984-85				
High use	58	15	24	3
Low use	62	12	16	10
Annual	59	14	22	5
1985-86				
High use	58	14	24	3
Low use	66	10	16	9
Annual	60	13	23	4
1986-87				
High use	60	14	23	2
Low use	65	10	16	10
Annual	61	13	22	4
1987-88				
High use	62	14	21	2
Low use	65	11	15	9
Annual	63	14	20	3

<sup>a</sup>Prior to May 1983 all fishermen in a fishing party were assigned to the boat owner's residence.

Appendix E: Total number of recreational licenses sold in Texas.

Table E.1. Total number of recreational fishing licenses sold in Texas by fiscal year (1956-1988). FY 1958 was the first year a fishing license was required to fish in salt water in Texas.

Fiscal year (1 Sept 31 Aug)	Type of license					Total
	Fishing <sup>a</sup>	Resident combination hunting and fishing	3-day saltwater sport fishing	Fishing exempt for under 17 or over 64 years of age	Fishing exempt for blind or disabled vet (60%)	
1956	458,404					458,404
1957	465,168					465,168
1958	782,402					782,402
1959	825,729					825,729
1960	846,632					846,632
1961	872,236					872,236
1962	832,913					832,913
1963	882,111					882,111
1964	902,671					902,671
1965	927,210					927,210
1966	1,017,336					1,017,336
1967	1,139,969					1,139,969
1968	1,231,134					1,231,134
1969	1,369,646					1,369,646
1970	1,447,167					1,447,167
1971	1,494,707					1,494,707
1972	1,541,693					1,541,693
1973	1,599,905					1,599,905
1974	1,195,306				52	1,633,278
1975	1,142,088	414,850	23,070		67	1,639,552
1976	1,088,687	467,342	30,055		106	1,563,598
1977	1,090,807	442,197	32,608		152	1,556,829
1978	978,976	430,186	35,684		1,101	1,482,821
1979	1,011,530	447,567	55,177		2,087	1,602,044
1980	1,100,281	518,403	70,024		2,600	1,745,119
1981	1,101,346	569,165	73,073		3,261	1,799,447
1982	1,217,728	612,959	81,881		3,329	1,910,906
1983	1,271,334	671,581	18,268		3,771	1,994,791
1984	1,130,546	719,630	56		3,697	1,814,973
1985	980,494	680,730			3,462	1,652,893
		668,937				



Table E.1. (Cont'd.)

Fiscal year (1 Sept 31 Aug)	Type of license				Total	
	Fishing <sup>a</sup>	Resident combination hunting and fishing	3-day saltwater sport fishing	Fishing exempt for under 17 or over 64 years of age		Fishing exempt for blind or disabled vet (60%)
1986	1,259,832	670,786			4,190	1,934,808
1987	1,198,157	675,512			4,227	1,877,896
1988	1,205,555	684,627		30,763	6,316	1,927,261

<sup>a</sup>Resident, nonresident and temporary licenses included in total.

Table E.2. Total number of sport oyster dredge licenses, sport shrimp trawl licenses, fish guide and boat registrations sold in Texas by fiscal year (1959-1988).

Fiscal year (1 Sep-31 Aug)	Sport oyster dredge license	Sport shrimp trawl license	Fish guide license	Boat registration	Saltwater sportfishing stamp
1959	60				
1960	17	8,837			
1961	58	7,399			
1962	39	6,249			
1963	45	7,003			
1964	52	6,367			
1965	80	7,034			
1966	66	7,144			
1967	42	7,324	340		
1968	44	7,508	380		
1969	35	8,553	515		
1970	38	9,662	606		
1971	35	9,947	692		
1972	28	9,296	702		
1973	25	9,537	728		
1974	24	10,521	522		
1975	31	9,281	516		
1976	48	8,866	486	485,977	
1977	68	9,707	488	515,476	
1978	91	9,982	517	536,712	
1979	136	10,349	562	542,368	
1980	178	8,926	581	546,040	
1981	235	8,729	628	561,657	
1982	218	7,433	773	580,055	
1983	402	6,110	1,058	598,900	
1984	323	5,339	931	603,761	
1985	265	4,547	612	593,174	251,897 <sup>a</sup>
1986	243	4,147	1,014	607,119	542,606
1987	201	3,597	838	607,204	562,622
1988	163	2,945	1,017	606,969	

<sup>a</sup>The saltwater sportfishing stamp was first offered for sale on 1 January 1986.

Appendix F: Estimates for party-boat fishing in Texas bays and passes.

Table F.1. Annual estimated landings of fishes (No. X 1000) ± 1 SE caught by party-boat fishermen in Texas bays and passes by species and bay system (1983-1988).

Species Year	Bay system												
	Upper					Lower							
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Christi	Laguna Madre	Laguna Madre	Coastwide <sup>a</sup>	Coastwide <sup>a</sup>			
<b>Atlantic croaker</b>													
1983-84	0.1 ±	0.1	0.0	0.0	6.9 ±	6.9	11.6 ±	10.9	0.0	0.2 ±	0.1	18.8 ±	12.9
1984-85	<.1 ±	<.1	0.0	0.0	0.0	0.0	0.1 ±	0.1	0.0	0.1 ±	0.1	0.2 ±	0.1
1985-86	0.0	0.0	0.2 ±	0.0	<.1 ±	<.1	0.0	0.0	0.0	0.0	0.0	0.2 ±	0.2
1986-87	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<.1 ±	<.1	0.0	<.1 ±	<.1
1987-88	0.0	0.4 ±	0.0	0.0	0.0	0.0	0.0	0.0	0.1 ±	<.1	0.0	0.4 ±	0.4
<b>Black drum</b>													
1983-84	<.1 ±	<.1	0.0	0.0	0.1 ±	0.1	2.5 ±	1.8	0.0	2.5 ±	1.5	5.1 ±	2.4
1984-85	<.1 ±	<.1	<.1 ±	<.1	0.1 ±	0.1	0.2 ±	0.2	0.0	0.5 ±	0.4	0.8 ±	0.5
1985-86	0.0	0.0	0.5 ±	0.0	0.3 ±	0.2	0.0	0.0	<.1 ±	<.1	0.2 ±	1.0 ±	0.5
1986-87	<.1 ±	<.1	<.1 ±	0.0	0.1 ±	0.1	3.6 ±	3.4	0.1 ±	0.1	1.2 ±	5.1 ±	3.5
1987-88	0.0	0.0	0.4 ±	0.2 ±	<.1 ±	<.1	0.1 ±	<.1	0.1 ±	0.3 ±	0.2	0.9 ±	0.4
<b>Gafftopsail catfish</b>													
1983-84	0.0	0.0	0.3 ±	0.3	0.0	0.0	2.5 ±	2.3	0.0	<.1 ±	<.1	2.9 ±	2.3
1984-85	0.0	0.0	0.0	0.0	0.1 ±	0.1	<.1 ±	<.1	0.0	0.0	0.0	0.1 ±	0.1
1985-86	0.0	0.0	0.0	0.0	0.0	0.0	0.1 ±	0.1	0.0	0.0	0.0	0.1 ±	0.1
1986-87	0.0	0.0	0.1 ±	0.1	0.2 ±	0.2	0.0	0.0	0.0	0.0	0.0	0.7 ±	0.3
1987-88	0.0	0.0	0.1 ±	0.1	0.0	0.0	0.1 ±	0.1	<.1 ±	<.1	0.0	0.2 ±	0.1
<b>Red drum</b>													
1983-84	0.2 ±	0.2	2.5 ±	0.3	1.4 ±	1.0	1.8 ±	1.5	0.0	5.6 ±	1.5	12.1 ±	3.0
1984-85	0.3 ±	0.2	0.2 ±	0.1	4.8 ±	2.7	2.6 ±	1.3	0.0	5.9 ±	1.6	13.7 ±	3.4
1985-86	<.1 ±	<.1	0.2 ±	0.1	8.5 ±	2.5	4.9 ±	2.9	0.3 ±	8.8 ±	2.0	23.6 ±	4.4
1986-87	<.1 ±	<.1	0.6 ±	0.3	8.7 ±	3.2	3.3 ±	1.9	0.9 ±	8.0 ±	1.9	22.4 ±	4.3
1987-88	0.0	0.0	0.1 ±	0.1	7.2 ±	2.3	5.5 ±	4.1	1.8 ±	9.3 ±	2.1	24.0 ±	5.2
<b>Sand seatrout</b>													
1983-84	<.1 ±	<.1	6.8 ±	0.1	3.1 ±	1.9	9.5 ±	7.6	0.0	0.1 ±	0.1	19.6 ±	10.4
1984-85	<.1 ±	<.1	<.1 ±	0.5	0.0	0.0	0.4 ±	0.4	0.0	0.0	0.0	1.0 ±	0.6
1985-86	2.5 ±	2.5	0.0	0.0	0.0	0.0	0.0	0.0	<.1 ±	1.3 ±	0.8	3.9 ±	2.7
1986-87	0.4 ±	0.3	<.1 ±	0.3	0.1 ±	0.1	0.7 ±	0.7	0.2 ±	0.0	0.0	1.8 ±	0.8
1987-88	0.0	0.0	0.0	0.0	0.3 ±	0.3	1.3 ±	1.1	0.0	<.1 ±	<.1	1.6 ±	1.1

Table F.1. (Cont'd.)

Species Year	Bay system									
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide <sup>a</sup>	
<b>Sheepshead</b>										
1983-84	0.0	0.2 ± 0.1	0.0	0.0	0.4 ± 0.4	1.8 ± 1.3	0.0	0.6 ± 0.3	2.8 ± 1.3	
1984-85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3 ± 0.2	0.3 ± 0.2	
1985-86	0.0	0.0	0.0	0.0	<.1 ± <.1	0.0	0.0	<.1 ± <.1	0.1 ± 0.1	
1986-87	0.0	0.0	0.9 ± 0.5	0.4 ± 0.4	4.0 ± 4.0	0.1 ± 0.1	<.1 ± <.1	0.0	5.4 ± 4.0	
1987-88	0.0	0.0	0.0	0.0	0.4 ± 0.2	0.1 ± 0.1	0.0	0.0	0.5 ± 0.2	
<b>Southern flounder</b>										
1983-84	0.2 ± 0.1	0.1	0.2 ± 0.1	0.1 ± 0.1	0.3 ± 0.2	1.0 ± 0.9	0.0	2.5 ± 0.8	4.2 ± 1.2	
1984-85	0.0	0.0	0.0	0.0	0.2 ± 0.2	0.3 ± 0.2	<.1 ± <.1	0.6 ± 0.3	1.2 ± 0.4	
1985-86	0.7 ± 0.6	0.6	0.1 ± 0.1	0.2 ± 0.2	0.1 ± <.1	<.1 ± <.1	0.9 ± 0.6	2.1 ± 0.7	6.6 ± 1.6	
1986-87	0.2 ± 0.2	0.2	<.1 ± <.1	<.1 ± <.1	0.6 ± 0.2	0.1 ± 0.1	2.4 ± 0.8	2.9 ± 1.1	6.3 ± 1.4	
1987-88	0.0	0.0	0.0	0.0	0.5 ± 0.3	0.0	0.5 ± 0.2	0.7 ± 0.3	1.8 ± 0.5	
<b>Spotted seatrout</b>										
1983-84	13.6 ± 6.8	6.8	10.5 ± 5.2	8.4 ± 7.3	45.1 ± 20.8	41.0 ± 37.4	0.0	74.9 ± 13.8	193.5 ± 46.4 <sup>21</sup>	
1984-85	4.0 ± 2.6	2.6	<.1 ± <.1	0.4 ± 0.4	0.7 ± 0.4	2.6 ± 1.3	0.0	42.2 ± 12.9	50.0 ± 13.2	
1985-86	5.2 ± 4.2	4.2	6.4 ± 6.2	0.4 ± 0.3	15.9 ± 6.0	9.9 ± 4.3	2.2 ± 1.2	28.1 ± 6.6	68.0 ± 12.5	
1986-87	2.6 ± 1.7	1.7	2.2 ± 1.7	11.7 ± 7.5	24.2 ± 7.0	4.1 ± 2.2	7.7 ± 2.4	42.4 ± 10.2	94.9 ± 15.0	
1987-88	2.9 ± 2.1	2.1	1.6 ± 0.8	0.0	29.4 ± 9.0	19.9 ± 8.2	8.5 ± 2.4	21.2 ± 4.0	83.4 ± 13.2	
<b>Other species</b>										
1983-84	0.0	0.0	0.3	<.1	0.8	1.0	0.0	0.6	2.8	
1984-85	0.1	0.1	0.0	<.1	0.0	0.0	0.0	<.1	0.2	
1985-86	0.0	0.0	0.0	0.0	0.0	0.3	0.1	0.3	0.7	
1986-87	0.0	0.0	1.1	1.0	0.0	1.4	<.1 ± <.1	0.9	3.7	
1987-88	0.0	0.0	0.2 ± 0.2	0.0	5.7	1.9 ± 1.8	<.1	0.2 ± 0.1	8.1	
<b>All species combined<sup>a</sup></b>										
1983-84	14.2 ± 7.0	7.0	20.6 ± 10.6	9.1 ± 7.3	58.1 ± 23.3	72.9 ± 52.3	0.0	86.9 ± 15.1	261.8 ± 61.0	
1984-85	4.6 ± 2.8	2.8	0.2 ± 0.1	1.0 ± 1.0	5.9 ± 2.9	6.2 ± 2.8	<.1 ± <.1	49.6 ± 14.1	67.6 ± 15.0	
1985-86	10.7 ± 9.0	9.0	7.4 ± 6.8	1.3 ± 0.9	27.0 ± 7.4	15.3 ± 6.2	3.6 ± 1.9	40.9 ± 8.3	104.0 ± 15.8	
1986-87	3.3 ± 2.0	2.0	4.2 ± 2.4	14.8 ± 9.3	37.9 ± 9.1	13.3 ± 7.6	11.5 ± 3.5	55.4 ± 11.7	140.3 ± 19.7	
1987-88	3.2 ± 2.3	2.3	2.3 ± 1.2	0.3 ± 0.2	43.5 ± 11.7	28.6 ± 10.4	11.0 ± 2.9	31.7 ± 5.4	120.8 ± 17.0	

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual species totals.

Table F.2. Estimated landings of fishes (No. X 1000)  $\pm$  1 SE caught by party-boat fishermen in Texas bays and passes during the high-use season by species and bay system (1983-1987).

Species Year	Bay system											
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi		Upper Laguna Madre		Lower Laguna Madre		Coastwide <sup>a</sup>
						Christi	Laguna Madre	Laguna Madre	Coastwide			
Atlantic croaker												
1983	0.1 $\pm$ 0.1	0.0	0.0	0.0	6.9 $\pm$ 6.9	11.6 $\pm$ 10.9	0.0	0.0	0.2 $\pm$ 0.1	18.8 $\pm$ 12.9		
1984	<.1 $\pm$ <.1	0.0	0.0	0.0	0.0	0.1 $\pm$ 0.1	0.0	0.0	<.1 $\pm$ <.1	0.2 $\pm$ 0.1		
1985	0.0	0.0	0.0	0.0	<.1 $\pm$ <.1	0.0	0.0	0.0	0.0	0.1 $\pm$ 0.1		
1986	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<.1 $\pm$ <.1		
1987	0.0	0.4 $\pm$ 0.4	0.0	0.0	0.0	0.0	0.0	0.1 $\pm$ <.1	0.0	0.4 $\pm$ 0.4		
Black drum												
1983	<.1 $\pm$ <.1	<.1	0.0	0.0	0.1 $\pm$ 0.1	2.5 $\pm$ 1.8	0.0	0.0	0.3 $\pm$ 0.2	3.0 $\pm$ 1.8		
1984	<.1 $\pm$ <.1	<.1	<.1	<.1	0.1 $\pm$ 0.1	0.2 $\pm$ 0.2	0.0	0.0	0.5 $\pm$ 0.4	0.8 $\pm$ 0.5		
1985	0.0	0.5 $\pm$ 0.5	0.0	0.0	0.1 $\pm$ 0.1	0.0	0.0	<.1 $\pm$ <.1	0.2 $\pm$ 0.2	0.7 $\pm$ 0.5		
1986	0.1 $\pm$ 0.1	<.1 $\pm$ <.1	0.0	0.0	0.1 $\pm$ 0.1	0.3 $\pm$ 0.3	0.0	0.1 $\pm$ 0.1	1.2 $\pm$ 1.1	1.7 $\pm$ 1.2		
1987	0.0	0.4 $\pm$ 0.4	0.0	0.0	<.1 $\pm$ <.1	<.1 $\pm$ <.1	0.0	0.0	0.3 $\pm$ 0.2	0.7 $\pm$ 0.4		
Gafftopsail catfish												
1983	0.0	0.0	0.3 $\pm$ 0.3	0.0	0.0	2.2 $\pm$ 2.2	0.0	0.0	<.1 $\pm$ <.1	2.6 $\pm$ 2.3		
1984	0.0	0.0	0.0	0.0	0.1 $\pm$ 0.1	<.1 $\pm$ <.1	0.0	0.0	0.0	0.1 $\pm$ 0.1		
1985	0.0	0.0	0.0	0.0	0.0	0.1 $\pm$ 0.1	0.0	0.0	0.0	0.1 $\pm$ 0.1		
1986	0.0	0.0	0.1 $\pm$ 0.1	0.4 $\pm$ 0.3	0.2 $\pm$ 0.2	0.0	0.0	0.0	0.0	0.7 $\pm$ 0.3		
1987	0.0	0.1 $\pm$ 0.1	0.1 $\pm$ 0.1	<.1 $\pm$ <.1	0.0	0.1 $\pm$ 0.1	0.0	<.1 $\pm$ <.1	0.0	0.2 $\pm$ 0.1		
Red drum												
1983	0.2 $\pm$ 0.2	0.2	2.6 $\pm$ 1.8	0.5 $\pm$ 0.3	1.5 $\pm$ 1.0	1.8 $\pm$ 1.5	0.0	0.0	4.6 $\pm$ 1.2	11.1 $\pm$ 2.8		
1984	0.3 $\pm$ 0.2	0.2	0.2 $\pm$ 0.1	0.0	2.7 $\pm$ 1.8	2.6 $\pm$ 1.3	0.0	0.0	3.8 $\pm$ 1.2	9.5 $\pm$ 2.5		
1985	0.1 $\pm$ 0.1	0.1	0.1 $\pm$ 0.1	0.1 $\pm$ 0.1	8.2 $\pm$ 2.5	1.6 $\pm$ 0.7	0.3 $\pm$ 0.2	0.2	6.0 $\pm$ 1.6	16.4 $\pm$ 3.1		
1986	0.1 $\pm$ 0.1	0.1	0.5 $\pm$ 0.3	0.8 $\pm$ 0.7	7.3 $\pm$ 2.9	1.9 $\pm$ 1.2	0.4 $\pm$ 0.2	0.2	6.8 $\pm$ 1.8	17.9 $\pm$ 3.8		
1987	0.0	0.1 $\pm$ 0.1	0.1 $\pm$ 0.1	<.1 $\pm$ <.1	6.7 $\pm$ 2.2	5.4 $\pm$ 4.1	0.8 $\pm$ 0.3	0.3	8.4 $\pm$ 2.0	21.6 $\pm$ 5.1		
Sand seatrout												
1983	<.1 $\pm$ <.1	<.1	6.8 $\pm$ 6.8	0.1 $\pm$ 0.1	3.1 $\pm$ 1.9	9.5 $\pm$ 7.7	0.0	0.0	0.1 $\pm$ 0.1	19.6 $\pm$ 10.4		
1984	<.1 $\pm$ <.1	<.1	<.1 $\pm$ <.1	0.5 $\pm$ 0.5	0.0	0.4 $\pm$ 0.4	0.0	0.0	0.0	1.0 $\pm$ 0.6		
1985	2.5 $\pm$ 2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3 $\pm$ 0.8	3.9 $\pm$ 2.7		
1986	0.4 $\pm$ 0.4	0.4	<.1 $\pm$ <.1	0.4 $\pm$ 0.3	0.1 $\pm$ 0.1	0.7 $\pm$ 0.7	0.2 $\pm$ 0.2	0.2	0.0	1.8 $\pm$ 0.8		
1987	0.0	0.0	0.0	0.0	0.3 $\pm$ 0.3	1.3 $\pm$ 1.1	0.0	0.0	<.1 $\pm$ <.1	1.6 $\pm$ 1.1		

Table F.2. (Cont'd.)

Species Year	Bay system										Coastwide <sup>a</sup>	
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi		Upper Laguna Madre		Lower Laguna Madre		
						Christi	Upper					
<b>Sheepshead</b>												
1983	0.0	0.0	0.0	0.0	0.4 ± 0.4	1.8 ± 1.3	0.0	0.0	0.5 ± 0.2	2.7 ± 1.4		
1984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2 ± 0.1	0.2 ± 0.1		
1985	0.0	0.0	0.0	0.0	<.1 ± <.1	0.0	0.0	0.0	<.1 ± <.1	0.1 ± 0.1		
1986	0.0	0.0	0.4 ± 0.3	0.4 ± 0.4	<.1 ± <.1	0.0	<.1 ± <.1	0.0	0.0	0.8 ± 0.5		
1987	0.0	0.0	0.0	0.0	0.4 ± 0.2	0.0	0.0	0.0	0.0	0.4 ± 0.2		
<b>Southern flounder</b>												
1983	0.2 ± 0.1	0.2 ± 0.1	0.2 ± 0.1	0.1 ± 0.1	0.3 ± 0.2	1.0 ± 0.9	0.0	0.0	2.5 ± 0.8	4.2 ± 1.2		
1984	0.0	0.0	0.0	0.0	0.2 ± 0.2	0.3 ± 0.2	<.1 ± <.1	<.1 ± <.1	0.3 ± 0.2	0.9 ± 0.3		
1985	0.7 ± 0.6	0.6	<.1 ± <.1	0.2 ± 0.2	1.3 ± 0.9	0.2 ± 0.2	0.4 ± 0.3	0.4 ± 0.3	1.9 ± 0.7	4.5 ± 1.3		
1986	0.2 ± 0.2	0.2	<.1 ± <.1	0.0	0.5 ± 0.2	1.6 ± 0.7	2.4 ± 0.9	2.4 ± 0.9	4.8 ± 1.2			
1987	0.0	0.0	0.0	0.0	0.5 ± 0.3	0.0	0.4 ± 0.2	0.4 ± 0.2	0.6 ± 0.2	1.6 ± 0.4		
<b>Spotted seatrout</b>												
1983	13.6 ± 6.8	6.8	10.4 ± 5.1	8.4 ± 7.3	45.1 ± 20.8	41.0 ± 37.4	1.3 ± 1.3	1.3	56.7 ± 10.2	176.5 ± 45.4 <sup>20</sup>		
1984	4.0 ± 2.6	2.6	<.1 ± <.1	0.4 ± 0.4	0.7 ± 0.4	2.6 ± 1.3	0.0	0.0	21.1 ± 6.5	28.9 ± 7.1		
1985	5.2 ± 4.2	4.2	6.2 ± 6.2	0.3 ± 0.3	5.7 ± 1.9	7.7 ± 4.1	1.0 ± 0.4	0.4	16.5 ± 3.7	42.6 ± 9.5		
1986	2.6 ± 1.7	1.7	2.1 ± 1.7	11.6 ± 7.5	20.0 ± 5.9	3.4 ± 2.1	5.6 ± 2.0	2.0	22.1 ± 5.4	67.5 ± 11.6		
1987	2.9 ± 2.1	2.1	1.6 ± 0.8	0.0	28.1 ± 8.9	18.3 ± 8.2	5.3 ± 1.3	1.3	17.8 ± 3.5	73.9 ± 12.9		
<b>Other species</b>												
1983	0.0	0.0	0.3 ± 0.2	<.1 ± <.1	0.8 ± 0.6	1.0	0.0	0.0	0.2 ± 0.2	2.4		
1984	0.1 ± 0.1	0.1	0.0	<.1 ± <.1	0.0	0.0	0.0	0.0	0.0	0.2 ± 0.1		
1985	0.0	0.0	0.0	0.0	0.0	0.3 ± 0.2	0.1 ± 0.1	0.1	0.3 ± 0.2	0.7 ± 0.3		
1986	0.0	0.0	0.3	1.0	0.0	<.1 ± <.1	<.1 ± <.1	<.1	0.7	2.1		
1987	0.0	0.0	0.2 ± 0.2	0.0	5.7	1.9 ± 1.8	<.1	<.1	0.1 ± 0.1	7.9		
<b>All species combined<sup>a</sup></b>												
1983	14.2 ± 7.0	7.0	20.5 ± 10.6	9.0 ± 7.3	58.1 ± 23.3	72.6 ± 52.3	1.3 ± 1.3	1.3	65.0 ± 11.2	240.7 ± 60.1		
1984	4.6 ± 2.8	2.8	0.2 ± 0.2	1.0 ± 1.0	3.9 ± 2.1	6.2 ± 2.8	<.1 ± <.1	<.1	25.9 ± 7.3	41.8 ± 8.6		
1985	8.5 ± 6.0	6.0	6.8 ± 6.8	0.6 ± 0.4	15.4 ± 4.5	9.8 ± 4.7	1.8 ± 0.7	0.7	26.2 ± 5.6	69.1 ± 12.5		
1986	3.3 ± 2.0	2.0	3.6 ± 2.4	14.6 ± 9.3	28.3 ± 6.9	6.3 ± 2.9	8.0 ± 2.8	2.8	33.2 ± 7.2	97.5 ± 14.6		
1987	3.2 ± 2.3	2.3	2.3 ± 1.2	0.1 ± 0.1	41.8 ± 11.7	27.0 ± 10.4	6.6 ± 1.6	1.6	27.3 ± 4.9	108.3 ± 16.6		

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual species totals.

Table F.3. Estimated landings of fishes (No. X 1000)  $\pm$  1 SE caught by party-boat fishermen in Texas bays and passes during the low-use season by species and bay system (1983-1988).

Species Year	Bay system										Coastwide <sup>a</sup>	
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi		Upper Laguna Madre		Lower Laguna Madre		
						Christi	Upper					
Atlantic croaker												
1983-84	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1984-85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1 $\pm$	0.1	0.1 $\pm$
1985-86	0.0	0.0	0.2 $\pm$ 0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2 $\pm$	0.2 $\pm$
1986-87	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Black drum												
1983-84	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2 $\pm$	1.5	2.2 $\pm$
1984-85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1985-86	0.0	0.0	0.0	0.0	0.2 $\pm$ 0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2 $\pm$
1986-87	0.0	0.0	<.1 $\pm$	0.0	0.0	3.4 $\pm$	3.4	0.0	0.0	0.0	0.0	3.4 $\pm$
1987-88	0.0	0.0	0.0	0.2 $\pm$ 0.2	0.0	0.0	0.0	0.1 $\pm$	<.1	0.0	0.0	0.2 $\pm$
Gafftopsail catfish												
1983-84	0.0	0.0	0.0	0.0	0.0	0.3 $\pm$	0.3	0.0	0.0	0.0	0.0	0.3 $\pm$
1984-85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1985-86	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1986-87	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red drum												
1983-84	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0 $\pm$	0.9	1.0 $\pm$
1984-85	0.0	0.0	0.0	0.0	1.9 $\pm$ 1.9	0.0	0.0	0.0	0.0	2.1 $\pm$	1.1	4.0 $\pm$
1985-86	0.0	0.0	0.1 $\pm$ 0.1	0.7 $\pm$ 0.7	0.3 $\pm$ 0.2	3.4 $\pm$	2.8	0.0	0.0	2.8 $\pm$	1.2	7.2 $\pm$
1986-87	0.0	0.0	<.1 $\pm$	0.0	1.3 $\pm$ 1.2	1.4 $\pm$	1.4	0.5 $\pm$	0.5	1.2 $\pm$	0.6	4.5 $\pm$
1987-88	0.0	0.0	0.0	0.1 $\pm$ 0.1	0.4 $\pm$ 0.4	0.1 $\pm$	0.1	1.0 $\pm$	0.6	0.8 $\pm$	0.6	2.4 $\pm$
Sand seatrout												
1983-84	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1984-85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1985-86	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<.1 $\pm$	<.1	0.0	0.0	<.1
1986-87	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1987-88	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 F.3. (Cont'd.)

Species Year	Bay system										
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi		Upper Laguna Madre		Lower Laguna Madre	Coastwide <sup>a</sup>
						Christi	Upper				
<b>Sheepshead</b>											
1983-84	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1 ± 0.1	0.1 ± 0.1	0.1 ± 0.1
1984-85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1 ± 0.1	0.1 ± 0.1	0.1 ± 0.1
1985-86	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1986-87	0.0	0.0	0.5 ± 0.4	0.0	4.0 ± 4.0	0.1 ± 0.1	0.1 ± 0.1	0.0	0.0	0.0	4.5 ± 4.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.1 ± 0.1	0.1 ± 0.1	0.0	0.0	0.0	0.1 ± 0.1
<b>Southern flounder</b>											
1983-84	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1984-85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3 ± 0.3	0.3 ± 0.3	0.3 ± 0.3
1985-86	0.0	0.0	0.1 ± 0.1	0.0	1.0 ± 0.6	0.0	0.0	0.5 ± 0.5	0.2 ± 0.1	0.1	1.8 ± 0.8
1986-87	0.0	0.0	0.0	<.1	0.1 ± 0.1	0.0	0.0	0.8 ± 0.5	0.5 ± 0.5	0.5	1.5 ± 0.7
1987-88	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1 ± 0.1	0.1 ± 0.1	0.1	0.2 ± 0.2
<b>Spotted seatrout</b>											
1983-84	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.2 ± 9.3	9.3	18.2 ± 9.3
1984-85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0 ± 11.1	11.1	21.0 ± 11.1
1985-86	0.0	0.0	0.2 ± 0.2	0.1 ± 0.1	10.2 ± 5.7	2.2 ± 1.5	1.5	1.2 ± 1.2	11.6 ± 5.5	5.5	25.4 ± 8.1
1986-87	0.0	0.0	<.1	0.1 ± 0.1	4.2 ± 3.7	0.7 ± 0.7	0.7	2.1 ± 1.2	20.3 ± 8.6	8.6	27.4 ± 9.5
1987-88	0.0	0.0	0.0	0.0	1.3 ± 0.9	1.6 ± 1.2	1.2	3.2 ± 1.9	3.3 ± 1.8	1.8	9.5 ± 3.1
<b>Other species</b>											
1983-84	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4 ± 0.3	0.3	0.4 ± 0.3
1984-85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<.1 ± <.1	<.1	<.1 ± <.1
1985-86	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1986-87	0.0	0.0	<.1	0.0	0.0	1.4 ± 1.4	1.4	0.0	0.1 ± 0.1	0.1	1.5 ± 0.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<.1 ± <.1	0.1 ± 0.1	0.1	0.1 ± 0.1
<b>All species combined<sup>a</sup></b>											
1983-84	0.0	0.0	0.0	0.0	0.0	0.3 ± 0.3	0.3	0.0	21.9 ± 10.2	10.2	22.2 ± 10.2
1984-85	0.0	0.0	0.0	0.0	1.9 ± 1.9	0.0	0.0	0.0	23.7 ± 12.1	12.1	25.6 ± 12.2
1985-86	0.0	0.0	0.5 ± 0.4	0.8 ± 0.8	11.7 ± 5.9	5.5 ± 4.1	4.1	1.7 ± 1.7	14.7 ± 6.2	6.2	34.9 ± 9.7
1986-87	0.0	0.0	0.5 ± 0.4	0.1 ± 0.1	9.6 ± 6.0	7.0 ± 7.0	7.0	3.4 ± 2.1	22.2 ± 9.3	9.3	42.8 ± 13.2
1987-88	0.0	0.0	0.0	0.2 ± 0.2	1.8 ± 1.0	1.7 ± 1.2	1.2	4.4 ± 2.4	4.4 ± 2.3	2.3	12.5 ± 3.7

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual species totals.

Table F.4. Annual mean total lengths of fishes (mm/fish)  $\pm$  1 SE caught by party-boat fishermen in Texas bays and passes by species and bay system (1983-1988). Blank = no fish measured. No standard error = only 1 fish measured.

Species Year	Bay system								
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide
<b>Atlantic croaker</b>									
1983-84		265			326 $\pm$ 1	281 $\pm$ 7		310 $\pm$ 8	298 $\pm$ 20
1984-85		226				287		315 $\pm$ 20	289 $\pm$ 102
1985-86					250				250
1986-87							324		324
1987-88		257					312 $\pm$ 30		265 $\pm$ 13
<b>Black drum</b>									
1983-84		442			419	375		516 $\pm$ 23	445 $\pm$ 137
1984-85		565	425	429	430	503		511 $\pm$ 1	499 $\pm$ 139
1985-86			354		370		408	602 $\pm$ 7	404 $\pm$ 299
1986-87		429	471 $\pm$ 74		319 $\pm$ 47	453 $\pm$ 13	383 $\pm$ 29	377 $\pm$ 6	431 $\pm$ 22
1987-88			364	392	419	440	882 $\pm$ 31	508 $\pm$ 21	444 $\pm$ 50
<b>Gafftopsail catfish</b>									
1983-84			424			566 $\pm$ 1		710	551 $\pm$ 50
1984-85					430	420			429 $\pm$ 376
1985-86						395			395
1986-87			500	470 $\pm$ 100	441 $\pm$ 41				468 $\pm$ 12
1987-88			492	431		414	550		463 $\pm$ 33
<b>Red drum</b>									
1983-84		430	502 $\pm$ 16	520 $\pm$ 25	486 $\pm$ 18	476 $\pm$ 70		501 $\pm$ 13	495 $\pm$ 20
1984-85		647 $\pm$ 19	581 $\pm$ 26		583 $\pm$ 51	609 $\pm$ 27		570 $\pm$ 8	584 $\pm$ 19
1985-86		526	536 $\pm$ 64	476 $\pm$ 20	543 $\pm$ 11	561 $\pm$ 26	552 $\pm$ 17	576 $\pm$ 16	557 $\pm$ 18
1986-87		510	543 $\pm$ 44	517 $\pm$ 47	559 $\pm$ 6	626 $\pm$ 27	521 $\pm$ 12	572 $\pm$ 17	570 $\pm$ 11
1987-88			656 $\pm$ 17	539 $\pm$ 41	620 $\pm$ 16	617 $\pm$ 11	603 $\pm$ 20	598 $\pm$ 14	610 $\pm$ 6
<b>Sand seatrout</b>									
1983-84		352	293	290	278 $\pm$ 6	315 $\pm$ 4		281	301 $\pm$ 107
1984-85		281	336			309 $\pm$ 9			308 $\pm$ 22
1985-86		296					361	290 $\pm$ 15	294 $\pm$ 202
1986-87		276 $\pm$ 17	300	287 $\pm$ 40	310 $\pm$ 13		317 $\pm$ 23		291 $\pm$ 8
1987-88					401	273 $\pm$ 10		333	296 $\pm$ 30

Table F.4. (Cont'd.)

Species Year	Bay system							Coastwide	
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre		Lower Laguna Madre
<b>Sheepshead</b>									
1983-84					337	376 ± 20		325 ± 14	359 ± 52
1984-85					385			374 ± 26	374 ± 26
1985-86					543	308	385	341	365
1986-87			425 ± 26		312 ± 5	362			517 ± 31
1987-88									318 ± 11
<b>Southern flounder</b>									
1983-84		336 ± 40			300 ± 35	361 ± 13		390 ± 8	375 ± 8
1984-85					374 ± 16	506		363 ± 16	404 ± 97
1985-86		288 ± 4	352	364	362 ± 7	265	363 ± 15	346 ± 18	348 ± 28
1986-87		442	355	328	408 ± 24	441 ± 12	397 ± 8	393 ± 5	397 ± 3
1987-88					350 ± 36		376 ± 10	405 ± 14	381 ± 17
<b>Spotted seatrout</b>									
1983-84		474 ± 24	364 ± 4	362 ± 11	359 ± 8	410 ± 34		421 ± 11	402 ± 11
1984-85		450 ± 4	499		412 ± 14	451 ± 26		401 ± 4	408 ± 3
1985-86		392 ± 6	424	373 ± 5	413 ± 7	412 ± 6	401 ± 7	432 ± 8	420 ± 47
1986-87		407 ± 9	416 ± 3	414 ± 14	419 ± 8	431 ± 16	422 ± 5	436 ± 6	426 ± 5
1987-88		460 ± 41	425 ± 5		435 ± 8	440 ± 15	456 ± 11	442 ± 7	441 ± 3
<b>All species combined<sup>a</sup></b>									
1983-84		454 ± 19	435 ± 44	378 ± 19	363 ± 13	367 ± 27		420 ± 9	394 ± 14
1984-85		478 ± 31	510 ± 30	368	532 ± 55	497 ± 31		434 ± 9	450 ± 12
1985-86		353 ± 15	415	455 ± 16	461 ± 12	449 ± 9	416 ± 14	468 ± 12	448 ± 11
1986-87		382 ± 20	442 ± 13	424 ± 19	470 ± 15	484 ± 23	428 ± 6	460 ± 9	456 ± 7
1987-88		429 ± 72	468 ± 24	470 ± 17	480 ± 17	454 ± 31	474 ± 11	490 ± 8	474 ± 7

<sup>a</sup> Includes "other" species

Table F.5. Mean total lengths of fishes (mm/fish)  $\pm$  1 SE caught by party-boat fishermen in Texas bays and passes during the high-use season by species and bay system (1983-1987). Blank = no fish measured. No standard error = only 1 fish measured.

Species Year	Bay system							Lower Laguna Madre	Coastwide
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre		
<b>Atlantic croaker</b>									
1983		265 $\pm$ 265			326 $\pm$ 1	281 $\pm$ 7	310 $\pm$ 8	298 $\pm$ 6	
1984		226				287	295	271 $\pm$ 271	
1985					250			250	
1986							324	324	
1987	257						312 $\pm$ 30	265 $\pm$ 13	
<b>Black drum</b>									
1983		442 $\pm$ 442			419 $\pm$ 419	375	448 $\pm$ 72	384 $\pm$ 343	
1984		565	425	429	430	503	511 $\pm$ 0	499 $\pm$ 216	
1985			354		370		602 $\pm$ 7	414 $\pm$ 277	
1986		429	330		319 $\pm$ 47	366	383 $\pm$ 29	374 $\pm$ 5	
1987			364		419	440	508 $\pm$ 21	424 $\pm$ 51	
<b>Gafftopsail catfish</b>									
1983						565	710	548 $\pm$ 548	225
1984			424 $\pm$ 424		430	420		429 $\pm$ 429	
1985						395		395	
1986			500	470 $\pm$ 100	441 $\pm$ 41			468 $\pm$ 12	
1987			492	431		414	550	463 $\pm$ 33	
<b>Red drum</b>									
1983		430 $\pm$ 430	502 $\pm$ 16	520 $\pm$ 25	486 $\pm$ 18	476 $\pm$ 70	500 $\pm$ 14	494 $\pm$ 31	
1984		647 $\pm$ 19	581 $\pm$ 26		530 $\pm$ 35	609 $\pm$ 27	574 $\pm$ 6	574 $\pm$ 21	
1985		526	536 $\pm$ 64	531	543 $\pm$ 11	563 $\pm$ 33	552 $\pm$ 17	556 $\pm$ 22	
1986		510	521 $\pm$ 41	517 $\pm$ 47	557 $\pm$ 7	647 $\pm$ 17	510 $\pm$ 16	568 $\pm$ 11	
1987			656 $\pm$ 17	511	621 $\pm$ 16	618 $\pm$ 11	568 $\pm$ 8	609 $\pm$ 7	
<b>Sand seatrout</b>									
1983		352 $\pm$ 352	293 $\pm$ 293	290 $\pm$ 290	278 $\pm$ 6	315 $\pm$ 4	281	301 $\pm$ 107	
1984		281	336			309 $\pm$ 9		307 $\pm$ 41	
1985		296					290 $\pm$ 15	294 $\pm$ 200	
1986		276 $\pm$ 17	300	287 $\pm$ 40	310 $\pm$ 13		317 $\pm$ 23	291 $\pm$ 8	
1987					401	273 $\pm$ 10	333	296 $\pm$ 30	

Table F.5. (Cont'd.)

Species Year	Bay system							Coastwide	
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre		Lower Laguna Madre
Sheepshead									
1983					337 ± 337	376 ± 20		330 ± 16	361 ± 65
1984								382 ± 32	381 ± 32
1985					385			341	365 ± 365
1986					543				379 ± 29
1987			360 ± 20		312 ± 5		385		312
Southern flounder									
1983		336 ± 40			300 ± 35	361 ± 13		390 ± 8	374 ± 13
1984					374 ± 16	506		364 ± 18	420 ± 200
1985		288 ± 4		364	364 ± 9	265	347 ± 6	344 ± 19	342 ± 28
1986		442	352		408 ± 26	441 ± 12	388 ± 10	393 ± 5	396 ± 4
1987			355		350 ± 36		380 ± 12	404 ± 14	380 ± 17
Spotted seatrout									
1983		474 ± 24	364 ± 4	362 ± 11	359 ± 8	410 ± 34		418 ± 12	399 ± 19
1984		450 ± 4	499		412 ± 14	451 ± 26	404	395 ± 5	409 ± 7
1985		392 ± 6	424	370	414 ± 10	411 ± 7		427 ± 7	417 ± 71
1986		407 ± 9	416 ± 4	414 ± 15	420 ± 9	437 ± 18	406 ± 9	438 ± 7	425 ± 5
1987		460 ± 41	425 ± 5		436 ± 9	441 ± 16	451 ± 15	442 ± 7	440 ± 2
All species combined <sup>a</sup>									
1983	454 ± 19		435 ± 44	378 ± 19	363 ± 13	367 ± 28		415 ± 10	390 ± 22
1984	478 ± 31		444 ± 6	368	475 ± 32	497 ± 31	404	435 ± 10	452 ± 26
1985	353 ± 15		415	457 ± 34	468 ± 14	450 ± 8		458 ± 13	441 ± 12
1986	382 ± 20		431 ± 12	426 ± 20	470 ± 16	514 ± 16	427 ± 16	463 ± 10	456 ± 9
1987	429 ± 72		468 ± 24	488	481 ± 17	456 ± 33	462 ± 13	490 ± 9	474 ± 7

<sup>a</sup>Includes "other" species

Table F.6. Mean total lengths of fishes (mm/fish)  $\pm$  1 SE caught by party-boat fishermen in Texas bays and passes during the low-use season by species and bay system (1983-1988). Blank = no fish measured. No standard error = only 1 fish measured.

Species Year	Bay system							Coastwide
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	
<b>Atlantic croaker</b>								
1983-84								
1984-85					335		335	
1985-86								
1986-87								
1987-88								
<b>Black drum</b>								
1983-84							530 $\pm$ 14	530 $\pm$ 14
1984-85								
1985-86						460		461 $\pm$ 1
1986-87			541 $\pm$ 41	392		882 $\pm$ 31		505 $\pm$ 174
1987-88								
<b>Gafftopsail catfish</b>								
1983-84						569		569
1984-85								
1985-86								
1986-87								
1987-88								
<b>Red drum</b>								
1983-84							520 $\pm$ 20	520 $\pm$ 20
1984-85					636		543 $\pm$ 47	587 $\pm$ 325
1985-86				464	570	555	583 $\pm$ 15	558 $\pm$ 333
1986-87			646 $\pm$ 10	611	575 $\pm$ 8	568	574 $\pm$ 19	569 $\pm$ 5
1987-88					590 $\pm$ 19	571	656 $\pm$ 21	636 $\pm$ 14
<b>Sand seatrout</b>								
1983-84								
1984-85								
1985-86								
1986-87								
1987-88								

Table F.6. (Cont'd.)

Species	Bay system								Coastwide	
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre		
Sheepshead										
1983-84								290	290	
1984-85								346 ± 77	345 ± 76	
1985-86										
1986-87										
1987-88			455 ± 7			308			427 ± 45	
						362			362	
Southern flounder										
1983-84										
1984-85										
1985-86					350		394	353	370 ± 324	353
1986-87				328	400		418 ± 5	388	403 ± 12	
1987-88							348 ± 14	423	384 ± 38	
Spotted seatrout										
1983-84										228
1984-85										
1985-86				392	413 ± 7		418 ± 3	453 ± 16	453 ± 16	
1986-87				398	412		402	418 ± 7	418 ± 7	
1987-88			391		419 ± 6		423 ± 54	453 ± 28	431 ± 35	
								425 ± 12	422 ± 3	
								452 ± 31	449 ± 11	
All species combined <sup>a</sup>										
1983-84										
1984-85					636		569	463 ± 10	464 ± 17	
1985-86				454	415 ± 13		449 ± 41	429 ± 16	444 ± 61	
1986-87			472 ± 12	375	462 ± 61		449	508 ± 22	460 ± 50	
1987-88				454	462 ± 43		425 ± 53	434 ± 13	443 ± 7	
								483 ± 35	481 ± 14	

<sup>a</sup> Includes "other" species

Table F.7. Annual mean weights of fishes (kg/fish)  $\pm$  1 SE caught by party-boat fishermen in Texas bays and passes by species and bay system (1983-1988). Blank = no fish weighed. No standard error = only 1 fish weighed.

Species Year	Bay system								
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide
<b>Atlantic croaker</b>									
1983-84		0.24			0.46 $\pm$ <0.01	0.30 $\pm$ 0.02		0.40 $\pm$ 0.02	0.36 $\pm$ 0.01
1984-85		0.14				0.31		0.42 $\pm$ 0.08	0.33 $\pm$ 0.17
1985-86					0.20				0.20
1986-87							0.45		0.45
1987-88		0.22					0.44 $\pm$ 0.14		0.25 $\pm$ 0.05
<b>Black drum</b>									
1983-84		1.21			1.03	0.80		2.05 $\pm$ 0.21	1.41 $\pm$ 0.52
1984-85		2.53	1.07	1.11	1.11	1.79		2.01 $\pm$ 0.03	1.84 $\pm$ 0.74
1985-86			0.64		0.72		0.95	3.06 $\pm$ 0.10	1.10 $\pm$ 0.57
1986-87		1.11	1.67 $\pm$ 0.65		0.48 $\pm$ 0.20	1.36 $\pm$ 0.09	0.84 $\pm$ 0.21	0.80 $\pm$ 0.04	1.20 $\pm$ 0.16
1987-88			0.69	0.95	1.03	1.19	9.64 $\pm$ 1.00	1.93 $\pm$ 0.23	1.63 $\pm$ 0.68
<b>Gafftopsail catfish</b>									
1983-84			0.70			1.76 $\pm$ 0.01		3.60	1.65 $\pm$ 0.09
1984-85					0.72	0.67			0.72
1985-86						0.55			0.55
1986-87			1.18	1.13 $\pm$ 0.68	0.84 $\pm$ 0.21				1.06 $\pm$ 0.10
1987-88			1.12	0.73		0.64	1.59		0.96 $\pm$ 0.22
<b>Red drum</b>									
1983-84		0.84	1.44 $\pm$ 0.19	1.59 $\pm$ 0.22	1.31 $\pm$ 0.18	1.22 $\pm$ 0.51		1.44 $\pm$ 0.12	1.39 $\pm$ 0.21
1984-85		2.99 $\pm$ 0.30	2.17 $\pm$ 0.27		2.24 $\pm$ 0.57	2.52 $\pm$ 0.31		2.12 $\pm$ 0.09	2.26 $\pm$ 0.31
1985-86		1.55	1.71 $\pm$ 0.60	1.17 $\pm$ 0.16	1.80 $\pm$ 0.12	2.05 $\pm$ 0.34	1.85 $\pm$ 0.10	2.22 $\pm$ 0.20	1.98 $\pm$ 0.21
1986-87		1.41	1.86 $\pm$ 0.47	1.56 $\pm$ 0.50	2.00 $\pm$ 0.09	2.72 $\pm$ 0.34	1.57 $\pm$ 0.11	2.14 $\pm$ 0.19	2.11 $\pm$ 0.11
1987-88			3.18 $\pm$ 0.23	1.72 $\pm$ 0.41	2.68 $\pm$ 0.20	2.57 $\pm$ 0.12	2.48 $\pm$ 0.25	2.42 $\pm$ 0.17	2.54 $\pm$ 0.07
<b>Sand seatrout</b>									
1983-84		0.47	0.27	0.26	0.23 $\pm$ 0.02	0.34 $\pm$ 0.01		0.23	0.30 $\pm$ 0.10
1984-85		0.23	0.41			0.32 $\pm$ 0.03			0.31 $\pm$ 0.06
1985-86		0.28					0.51	0.27 $\pm$ 0.05	0.28 $\pm$ 0.20
1986-87		0.23 $\pm$ 0.05	0.28	0.27 $\pm$ 0.12	0.32 $\pm$ 0.04		0.34 $\pm$ 0.08		0.27 $\pm$ 0.02
1987-88					0.70	0.22 $\pm$ 0.04		0.39	0.30 $\pm$ 0.11



Table F.7. (Cont'd.)

## Bay system

Species Year	Bay system								
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	Lower Laguna Madre	Coastwide
Sheepshead									
1983-84					0.68	0.96 ± 0.17		0.62 ± 0.08	0.85 ± 0.22
1984-85					0.98			0.97 ± 0.20	0.97 ± 0.20
1985-86					2.64	0.52		0.69	0.85
1986-87					0.55 ± 0.02	0.82			2.38 ± 0.31
1987-88			1.42 ± 0.20				0.98		0.58 ± 0.06
Southern flounder									
1983-84		0.45 ± 0.16			0.32 ± 0.10	0.55 ± 0.06		0.72 ± 0.05	0.64 ± 0.06
1984-85					0.62 ± 0.08	1.55		0.57 ± 0.08	0.84 ± 0.47
1985-86		0.27 ± 0.01	0.50	0.56	0.58 ± 0.03	0.20		0.52 ± 0.07	0.52 ± 0.07
1986-87		1.22	0.51	0.40	0.88 ± 0.17	1.01 ± 0.08		0.75 ± 0.03	0.79 ± 0.03
1987-88					0.53 ± 0.16			0.84 ± 0.09	0.70 ± 0.09
Spotted seatrout									
1983-84		1.06 ± 0.18	0.45 ± 0.02	0.45 ± 0.04	0.45 ± 0.03	0.75 ± 0.20		0.79 ± 0.07	0.69 ± 0.09
1984-85		0.92 ± 0.01	1.19		0.66 ± 0.07	0.91 ± 0.16		0.63 ± 0.03	0.67 ± 0.03
1985-86		0.57 ± 0.03	0.73	0.48 ± 0.02	1.70 ± 0.04	0.69 ± 0.04		0.81 ± 0.05	0.73 ± 0.11
1986-87		0.65 ± 0.05	0.70 ± 0.02	0.70 ± 0.06	0.73 ± 0.05	0.78 ± 0.09		0.84 ± 0.04	0.78 ± 0.04
1987-88		1.00 ± 0.28	0.74 ± 0.03		0.83 ± 0.06	0.86 ± 0.11		0.89 ± 0.05	0.88 ± 0.02
All species combined <sup>a</sup>									
1983-84		0.93 ± 0.16	0.45 ± 0.08	0.47 ± 0.14	0.48 ± 0.08	0.60 ± 0.12		0.78 ± 0.06	0.63 ± 0.09
1984-85		1.27 ± 0.27	1.52 ± 0.21	1.10	1.76 ± 0.55	1.42 ± 0.23		0.90 ± 0.09	1.05 ± 0.17
1985-86		0.43 ± 0.09	0.80 ± 0.00	0.99 ± 0.13	1.10 ± 0.10	0.94 ± 0.10		1.19 ± 0.15	1.02 ± 0.10
1986-87		0.57 ± 0.07	1.19 ± 0.13	0.98 ± 0.30	1.16 ± 0.14	1.43 ± 0.19		1.07 ± 0.08	1.09 ± 0.05
1987-88		0.85 ± 0.39	1.07 ± 0.24	1.25 ± 0.05	1.26 ± 0.16	1.04 ± 0.24		1.34 ± 0.08	1.21 ± 0.06

<sup>a</sup>Includes "other" species

Table F.8. Mean weights of fishes (kg/fish)  $\pm$  1 SE caught by party-boat fishermen in Texas bays and passes during the high-use season by species and bay system (1983-1987). Blank = no fish weighed. No standard error = only 1 fish weighed.

Species Year	Bay system							
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre Lower Laguna Madre	Coastwide
<b>Atlantic croaker</b>								
1983		0.24 $\pm$ 0.24			0.46 $\pm$ 0.00	0.30 $\pm$ 0.02	0.40 $\pm$ 0.02	0.36 $\pm$ 0.01
1984		0.14			0.20	0.31	0.33	0.27 $\pm$ 0.27
1985								0.20
1986								0.45
1987		0.22					0.44 $\pm$ 0.14	0.25 $\pm$ 0.05
<b>Black drum</b>								
1983		1.21 $\pm$ 1.21			1.03 $\pm$ 1.03	0.80	1.53 $\pm$ 0.53	0.89 $\pm$ 0.78
1984		2.53		1.11	1.11	1.79	2.01 $\pm$ 0.03	1.84 $\pm$ 0.74
1985					0.72		3.06 $\pm$ 0.10	1.21 $\pm$ 0.53
1986		1.11			0.48 $\pm$ 0.20	0.74	0.80 $\pm$ 0.04	0.78 $\pm$ 0.03
1987					1.03	1.19	1.93 $\pm$ 0.23	1.19 $\pm$ 0.44
<b>Gafftopsail catfish</b>								
1983						1.75	3.60	1.63 $\pm$ 1.63
1984					0.72	0.67		0.72 $\pm$ 0.72
1985						0.55		0.55
1986				1.13 $\pm$ 0.68	0.84 $\pm$ 0.21	0.64		1.06 $\pm$ 0.10
1987				0.73			1.59	0.96 $\pm$ 0.22
<b>Red drum</b>								
1983		0.84 $\pm$ 0.84		1.59 $\pm$ 0.22	1.31 $\pm$ 0.18	1.22 $\pm$ 0.51	1.43 $\pm$ 0.13	1.38 $\pm$ 0.23
1984		2.99 $\pm$ 0.30			1.66 $\pm$ 0.43	2.52 $\pm$ 0.31	2.16 $\pm$ 0.07	2.14 $\pm$ 0.25
1985		1.55		1.60	1.79 $\pm$ 0.12	2.11 $\pm$ 0.42	1.85 $\pm$ 0.18	1.98 $\pm$ 0.22
1986		1.41		1.56 $\pm$ 0.50	1.99 $\pm$ 0.10	2.99 $\pm$ 0.19	1.48 $\pm$ 0.16	2.11 $\pm$ 0.12
1987				1.43	2.69 $\pm$ 0.21	2.58 $\pm$ 0.12	2.05 $\pm$ 0.09	2.53 $\pm$ 0.08
<b>Sand seatrout</b>								
1983		0.47 $\pm$ 0.47		0.26 $\pm$ 0.26	0.23 $\pm$ 0.02	0.34 $\pm$ 0.01	0.23	0.30 $\pm$ 0.10
1984		0.23				0.32 $\pm$ 0.03		0.31 $\pm$ 0.06
1985		0.28					0.27 $\pm$ 0.05	0.27 $\pm$ 0.20
1986		0.23 $\pm$ 0.05		0.27 $\pm$ 0.12	0.32 $\pm$ 0.04		0.34 $\pm$ 0.08	0.27 $\pm$ 0.02
1987					0.70	0.22 $\pm$ 0.04	0.39	0.30 $\pm$ 0.11

Table F.8. (Cont'd.)

Species Year	Bay system							
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre Lower Laguna Madre Coastwide	
Sheepshead								
1983					0.68 ± 0.68	0.96 ± 0.17	0.65 ± 0.09	0.86 ± 0.23
1984					0.98		1.01 ± 0.25	1.01 ± 0.25
1985					2.64		0.69	0.85 ± 0.85
1986					0.55 ± 0.02			1.11 ± 0.27
1987								0.55
Southern flounder								
1983		0.45 ± 0.16			0.32 ± 0.10	0.55 ± 0.06	0.72 ± 0.05	0.64 ± 0.06
1984					0.62 ± 0.08	1.55	0.57 ± 0.08	0.95 ± 0.63
1985		0.27 ± 0.01		0.56	0.59 ± 0.04	0.20	0.50 ± 0.08	0.49 ± 0.07
1986		1.22	0.50		0.89 ± 0.19	1.01 ± 0.08	0.73 ± 0.05	0.78 ± 0.04
1987			0.51		0.53 ± 0.16		0.69 ± 0.06	0.70 ± 0.10
Spotted seatrout								
1983		1.06 ± 0.18			0.45 ± 0.03	0.75 ± 0.20	0.76 ± 0.07	0.67 ± 0.10
1984		0.92 ± 0.01	0.45 ± 0.02	0.45 ± 0.04	0.66 ± 0.07	0.91 ± 0.16	0.61 ± 0.03	0.68 ± 0.04
1985		0.57 ± 0.03	1.19		0.70 ± 0.05	0.69 ± 0.05	0.78 ± 0.04	0.71 ± 0.15
1986		0.65 ± 0.05	0.73	0.47	0.70 ± 0.05	0.81 ± 0.10	0.65 ± 0.05	0.77 ± 0.03
1987		1.00 ± 0.28	0.70 ± 0.02	0.70 ± 0.06	0.84 ± 0.06	0.87 ± 0.11	0.77 ± 0.04	0.87 ± 0.02
			0.74 ± 0.03				0.98 ± 0.11	
All species combined <sup>a</sup>								
1983		0.93 ± 0.16	0.45 ± 0.08	0.47 ± 0.14	0.48 ± 0.08	0.59 ± 0.12	0.74 ± 0.06	0.61 ± 0.10
1984		1.27 ± 0.27	1.52 ± 0.21	1.1	1.18 ± 0.25	1.42 ± 0.23	0.93 ± 0.10	1.07 ± 0.18
1985		0.43 ± 0.09	0.80 ± 0.00	1.07 ± 0.21	1.17 ± 0.12	0.94 ± 0.11	1.13 ± 0.13	0.98 ± 0.11
1986		0.57 ± 0.07	1.02 ± 0.06	1.00 ± 0.33	1.17 ± 0.14	1.64 ± 0.20	1.10 ± 0.09	1.10 ± 0.06
1987		0.85 ± 0.39	1.07 ± 0.24	1.20	1.27 ± 0.16	1.06 ± 0.25	1.34 ± 0.09	1.21 ± 0.06

<sup>a</sup>Includes "other" species.



Table F.9. (Cont'd.)

Species Year	Bay system							Coastwide			
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Upper			Lower		
						Corpus Christi	Laguna Madre		Laguna Madre	Coastwide	
Sheepshead											
1983-84								0.44	0.44		0.44
1984-85								0.82 ± 0.46	0.82 ± 0.46		0.82 ± 0.46
1985-86											1.43 ± 0.35
1986-87			1.64 ± 0.06								0.82
1987-88											
Southern flounder											
1983-84									0.50		0.50
1984-85					0.50		0.74		0.78 ± 0.31		0.61 ± 0.55
1985-86				0.40	0.74				0.70		0.82 ± 0.09
1986-87									0.88		0.68 ± 0.19
1987-88											
Spotted seatrout											
1983-84									0.98 ± 0.11		0.98 ± 0.11
1984-85									0.72 ± 0.05		0.72 ± 0.05
1985-86				0.56	0.71 ± 0.06		0.58		0.95 ± 0.19		0.81 ± 0.14
1986-87			0.56	0.59	0.66				0.79 ± 0.07		0.76 ± 0.03
1987-88					0.72 ± 0.04		1.10 ± 0.04		0.99 ± 0.25		0.95 ± 0.08
All species combined <sup>a</sup>											
1983-84								1.70	1.09 ± 0.09		1.10 ± 0.11
1984-85					2.80				0.80 ± 0.13		0.95 ± 0.33
1985-86				0.90	0.70 ± 0.09		0.60		1.44 ± 0.17		1.06 ± 0.21
1986-87			1.69 ± 0.07	0.50	1.06 ± 0.54				0.86 ± 0.09		0.97 ± 0.08
1987-88				1.30	1.06 ± 0.41				1.29 ± 0.25		1.28 ± 0.14

<sup>a</sup> Includes "other" species.

Table F.10. Annual mean catch rates of fishes (No./man-h)  $\pm$  1 SE caught by party-boat fishermen in Texas bays and passes by species and bay system (1983-1988). Blank = no fishermen interviewed.

Species Year	Bay system							Coastwide	
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre		Lower Laguna Madre
<b>Atlantic croaker</b>									
1983-84		0.01 $\pm$ 0.01	0.00	0.00	0.18 $\pm$ 0.18	0.19 $\pm$ 0.18	0.00	<.01 $\pm$ <.01	0.07 $\pm$ 0.05
1984-85		<.01 $\pm$ <.01	0.00	0.00	0.00	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01	<.01 $\pm$ <.01
1985-86		0.00	0.03 $\pm$ 0.03	0.00	<.01 $\pm$ <.01	0.00	0.00	0.00	<.01 $\pm$ <.01
1986-87		0.00	0.00	0.00	0.00	0.00	<.01 $\pm$ <.01	0.00	0.00
1987-88		0.10 $\pm$ 0.10	0.00	0.00	0.00	0.00	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01
<b>Black drum</b>									
1983-84		<.01 $\pm$ <.01	0.00	0.00	<.01 $\pm$ <.01	0.04 $\pm$ 0.03	0.00	0.03 $\pm$ 0.02	0.02 $\pm$ 0.01
1984-85		<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.01 $\pm$ 0.01	0.01 $\pm$ 0.01	0.01 $\pm$ 0.01	0.00	0.01 $\pm$ <.01	0.01 $\pm$ <.01
1985-86		0.00	0.09 $\pm$ 0.09	0.00	0.01 $\pm$ <.01	0.00	0.00	<.01 $\pm$ <.01	<.01 $\pm$ <.01
1986-87		<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01	0.20 $\pm$ 0.19	<.01 $\pm$ <.01	0.02 $\pm$ 0.01	0.02 $\pm$ 0.02
1987-88		0.00	0.12 $\pm$ 0.12	0.19 $\pm$ 0.19	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01
<b>Gafftopsail catfish</b>									
1983-84		0.00	0.01 $\pm$ 0.01	0.00	0.00	0.04 $\pm$ 0.04	0.00	0.00	0.01 $\pm$ 0.01
1984-85		0.00	0.00	0.00	0.01 $\pm$ 0.01	<.01 $\pm$ <.01	0.00	0.00	<.01 $\pm$ <.01
1985-86		0.00	0.00	0.00	0.00	<.01 $\pm$ <.01	0.00	0.00	<.01 $\pm$ <.01
1986-87		0.00	0.03 $\pm$ 0.03	0.02 $\pm$ 0.01	<.01 $\pm$ <.01	0.00	0.00	0.00	<.01 $\pm$ <.01
1987-88		0.00	0.02 $\pm$ 0.02	0.02 $\pm$ 0.02	0.00	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01
<b>Red drum</b>									
1983-84		0.01 $\pm$ 0.01	0.12 $\pm$ 0.09	0.06 $\pm$ 0.04	0.04 $\pm$ 0.03	0.03 $\pm$ 0.03	0.00	0.06 $\pm$ 0.02	0.05 $\pm$ 0.02
1984-85		0.03 $\pm$ 0.03	0.19 $\pm$ 0.17	0.00	0.27 $\pm$ 0.18	0.12 $\pm$ 0.07	0.00	0.08 $\pm$ 0.03	0.11 $\pm$ 0.03
1985-86		<.01 $\pm$ <.01	0.04 $\pm$ 0.04	0.12 $\pm$ 0.11	0.18 $\pm$ 0.07	0.15 $\pm$ 0.10	<.01 $\pm$ <.01	0.11 $\pm$ 0.03	0.11 $\pm$ 0.03
1986-87		<.01 $\pm$ <.01	0.11 $\pm$ 0.07	0.04 $\pm$ 0.03	0.16 $\pm$ 0.07	0.18 $\pm$ 0.12	0.03 $\pm$ 0.02	0.10 $\pm$ 0.03	0.10 $\pm$ 0.02
1987-88		0.00	0.05 $\pm$ 0.04	0.12 $\pm$ 0.10	0.12 $\pm$ 0.05	0.13 $\pm$ 0.10	0.05 $\pm$ 0.02	0.14 $\pm$ 0.04	0.11 $\pm$ 0.03
<b>Sand seatrout</b>									
1983-84		<.01 $\pm$ <.01	0.33 $\pm$ 0.33	0.01 $\pm$ 0.01	0.08 $\pm$ 0.05	0.15 $\pm$ 0.14	0.00	<.01 $\pm$ <.01	0.08 $\pm$ 0.04
1984-85		<.01 $\pm$ <.01	0.01 $\pm$ 0.01	0.82 $\pm$ 0.82	0.00	0.02 $\pm$ 0.02	0.00	0.00	0.01 $\pm$ <.01
1985-86		0.24 $\pm$ 0.24	0.00	0.00	0.00	0.00	<.01 $\pm$ <.01	0.02 $\pm$ 0.01	0.02 $\pm$ 0.01
1986-87		0.05 $\pm$ 0.05	<.01 $\pm$ <.01	0.02 $\pm$ 0.02	<.01 $\pm$ <.01	0.04 $\pm$ 0.04	0.01 $\pm$ <.01	0.00	0.01 $\pm$ <.01
1987-88		0.00	0.00	0.00	<.01 $\pm$ <.01	0.03 $\pm$ 0.03	0.00	<.01 $\pm$ <.01	0.01 $\pm$ <.01

Table F.10. (Cont'd.)

Species Year	Bay system							Coastwide	
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre		Lower Laguna Madre
<b>Sheepshead</b>									
1983-84	0.00	0.00	0.00	0.00	0.01 ± 0.01	0.03 ± 0.02	0.00	0.01 ± 0.01	0.01 ± 0.01
1984-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<0.01 ± 0.01	<0.01 ± 0.01
1985-86	0.00	0.00	0.00	0.00	<0.01 ± 0.01	0.00	0.00	0.00	<0.01 ± 0.01
1986-87	0.00	0.00	0.17 ± 0.11	0.02 ± 0.02	0.08 ± 0.08	0.01 ± 0.01	0.00	0.00	0.02 ± 0.02
1987-88	0.00	0.00	0.00	0.00	0.01 ± 0.01	<0.01 ± 0.01	0.00	0.00	<0.01 ± 0.01
<b>Southern flounder</b>									
1983-84	0.01 ± 0.01	0.01 ± 0.01	0.01 ± 0.01	0.01 ± 0.01	0.01 ± 0.01	0.02 ± 0.01	0.00	0.02 ± 0.01	0.02 ± 0.01
1984-85	0.00	0.00	0.00	0.00	0.01 ± 0.01	0.01 ± 0.01	0.06 ± 0.06	0.01 ± 0.01	0.01 ± 0.01
1985-86	0.07 ± 0.07	0.07 ± 0.07	0.02 ± 0.02	0.03 ± 0.03	0.05 ± 0.03	0.00	0.02 ± 0.02	0.03 ± 0.01	0.03 ± 0.01
1986-87	0.03 ± 0.03	0.03 ± 0.03	<0.01 ± 0.01	<0.01 ± 0.01	0.01 ± 0.01	0.01 ± 0.01	0.09 ± 0.04	0.04 ± 0.02	0.03 ± 0.01
1987-88	0.00	0.00	0.00	0.00	0.01 ± 0.01	0.00	0.02 ± 0.01	0.01 ± 0.01	0.01 ± 0.01
<b>Spotted seatrout</b>									
1983-84	0.62 ± 0.41	0.39 ± 0.30	0.50 ± 0.31	0.98 ± 0.90	1.17 ± 0.64	0.66 ± 0.63	0.00	0.77 ± 0.23	0.77 ± 0.24
1984-85	0.48 ± 0.46	0.48 ± 0.46	0.20 ± 0.03	0.71 ± 0.71	0.04 ± 0.03	0.12 ± 0.08	0.00	0.56 ± 0.21	0.39 ± 0.12
1985-86	0.37 ± 0.28	0.42 ± 0.35	1.20 ± 1.18	0.06 ± 0.05	0.35 ± 0.15	0.31 ± 0.18	0.05 ± 0.05	0.35 ± 0.10	0.30 ± 0.08
1986-87	0.76 ± 0.66	0.42 ± 0.35	0.42 ± 0.35	0.52 ± 0.42	0.46 ± 0.16	0.23 ± 0.14	0.28 ± 0.12	0.53 ± 0.17	0.44 ± 0.09
1987-88	0.76 ± 0.66	0.53 ± 0.36	0.53 ± 0.36	0.00	0.51 ± 0.19	0.46 ± 0.25	0.23 ± 0.09	0.31 ± 0.08	0.39 ± 0.08
<b>Other species</b>									
1983-84	0.00	0.00	0.01	<0.01	0.02	0.02	0.00	0.01	0.01
1984-85	0.01	0.00	0.00	0.07	0.00	0.00	0.00	0.00	<0.01
1985-86	0.00	0.00	0.00	0.00	0.00	0.01	<0.01	<0.01	<0.01
1986-87	0.00	0.00	0.19	0.05	0.00	0.08	<0.01 ± 0.01	0.04	0.03
1987-88	0.00	0.00	0.07 ± 0.06	0.00	0.10	0.04 ± 0.04	<0.01 ± 0.01	<0.01 ± 0.01	0.04
<b>All species combined<sup>a</sup></b>									
1983-84	0.65 ± 0.42	0.44 ± 0.34	0.99 ± 0.62	1.06 ± 0.93	1.51 ± 0.76	1.17 ± 1.02	0.00	0.89 ± 0.26	1.05 ± 0.33
1984-85	0.44 ± 0.34	0.80 ± 0.74	0.24 ± 0.21	1.61 ± 1.60	0.34 ± 0.21	0.28 ± 0.17	0.06 ± 0.06	0.66 ± 0.24	0.53 ± 0.15
1985-86	0.47 ± 0.34	0.47 ± 0.34	1.38 ± 1.33	0.20 ± 0.15	0.59 ± 0.21	0.47 ± 0.27	0.08 ± 0.08	0.50 ± 0.13	0.46 ± 0.12
1986-87	0.85 ± 0.74	0.47 ± 0.34	0.81 ± 0.54	0.65 ± 0.52	0.72 ± 0.22	0.74 ± 0.48	0.41 ± 0.19	0.69 ± 0.21	0.66 ± 0.13
1987-88	0.85 ± 0.74	0.85 ± 0.74	0.80 ± 0.55	0.32 ± 0.30	0.76 ± 0.27	0.66 ± 0.33	0.30 ± 0.12	0.47 ± 0.11	0.57 ± 0.11

<sup>a</sup>Due to rounding of numbers these totals may not exactly equal individual totals.

Table F.11. Mean catch rates of fishes (No./man-h)  $\pm$  1 SE caught by party-boat fishermen in Texas bays and passes during the high-use season by species and bay system (1983-1987). Blank = no fishermen interviewed.

Species Year	Bay system								Coastwide	
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi		Lower Laguna Madre		
						Upper Laguna Madre	Lower Laguna Madre			
<b>Atlantic croaker</b>										
1983	0.01 $\pm$ 0.01		0.00	0.00	0.18 $\pm$ 0.18	0.20 $\pm$ 0.20	0.00	0.00	<.01 $\pm$ <.01	0.09 $\pm$ 0.06
1984	<.01 $\pm$ <.01		0.00	0.00	0.00	<.01 $\pm$ <.01	0.00	0.00	<.01 $\pm$ <.01	<.01 $\pm$ <.01
1985	0.00		0.00	0.00	<.01 $\pm$ <.01	0.00	0.00	0.00	0.00	0.00
1986	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1987	0.10 $\pm$ 0.10		0.00	0.00	0.00	0.00	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01
<b>Black drum</b>										
1983	<.01 $\pm$ <.01		0.00	0.00	<.01 $\pm$ <.01	0.04 $\pm$ 0.04	0.00	0.00	<.01 $\pm$ <.01	0.01 $\pm$ 0.01
1984	<.01 $\pm$ <.01		<.01 $\pm$ <.01	0.01 $\pm$ 0.01	0.01 $\pm$ 0.01	0.01 $\pm$ 0.01	0.00	0.00	0.01 $\pm$ 0.01	0.01 $\pm$ 0.01
1985	0.00		0.12 $\pm$ 0.12	0.00	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.01 $\pm$ <.01
1986	0.01 $\pm$ 0.01		<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01	0.02 $\pm$ 0.02	0.01 $\pm$ 0.01	0.01 $\pm$ 0.01	0.03 $\pm$ 0.03	0.01 $\pm$ 0.01
1987	0.00		0.12 $\pm$ 0.12	0.00	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.00	0.00	<.01 $\pm$ <.01	<.01 $\pm$ <.01
<b>Gafftopsail catfish</b>										
1983	0.00		<.01 $\pm$ <.01	0.00	0.00	0.04 $\pm$ 0.04	0.00	0.00	0.00	0.01 $\pm$ 0.01
1984	0.00		0.00	0.00	0.01 $\pm$ 0.01	<.01 $\pm$ <.01	0.00	0.00	0.00	<.01 $\pm$ <.01
1985	0.00		0.00	0.00	0.00	0.01 $\pm$ 0.01	0.00	0.00	0.00	<.01 $\pm$ <.01
1986	0.00		0.04 $\pm$ 0.04	0.02 $\pm$ 0.01	<.01 $\pm$ <.01	0.00	0.00	0.00	0.00	<.01 $\pm$ <.01
1987	0.00		0.02 $\pm$ 0.02	0.07 $\pm$ 0.07	0.00	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.00	0.00	<.01 $\pm$ <.01
<b>Red drum</b>										
1983	0.01 $\pm$ 0.01		0.12 $\pm$ 0.09	0.05 $\pm$ 0.04	0.04 $\pm$ 0.03	0.03 $\pm$ 0.03	0.00	0.00	0.08 $\pm$ 0.02	0.05 $\pm$ 0.02
1984	0.03 $\pm$ 0.03		0.19 $\pm$ 0.17	0.00	0.22 $\pm$ 0.17	0.12 $\pm$ 0.08	0.00	0.00	0.09 $\pm$ 0.04	0.11 $\pm$ 0.04
1985	0.01 $\pm$ 0.01		0.03 $\pm$ 0.03	0.02 $\pm$ 0.02	0.29 $\pm$ 0.11	0.10 $\pm$ 0.06	0.11 $\pm$ 0.07	0.10 $\pm$ 0.03	0.10 $\pm$ 0.03	0.13 $\pm$ 0.03
1986	0.01 $\pm$ 0.01		0.13 $\pm$ 0.09	0.04 $\pm$ 0.04	0.18 $\pm$ 0.08	0.14 $\pm$ 0.10	0.02 $\pm$ 0.01	0.15 $\pm$ 0.05	0.15 $\pm$ 0.05	0.12 $\pm$ 0.03
1987	0.00		0.05 $\pm$ 0.04	0.18 $\pm$ 0.18	0.13 $\pm$ 0.06	0.15 $\pm$ 0.12	0.03 $\pm$ 0.01	0.16 $\pm$ 0.05	0.16 $\pm$ 0.05	0.12 $\pm$ 0.03
<b>Sand seatrout</b>										
1983	<.01 $\pm$ <.01		0.33 $\pm$ 0.33	0.01 $\pm$ 0.01	0.08 $\pm$ 0.06	0.17 $\pm$ 0.16	0.00	0.00	<.01 $\pm$ <.01	0.10 $\pm$ 0.05
1984	<.01 $\pm$ <.01		0.01 $\pm$ 0.01	0.82 $\pm$ 0.82	0.00	0.02 $\pm$ 0.02	0.00	0.00	0.00	0.01 $\pm$ 0.01
1985	0.24 $\pm$ 0.24		0.00	0.00	0.00	0.00	0.00	0.00	0.02 $\pm$ 0.01	0.03 $\pm$ 0.02
1986	0.05 $\pm$ 0.04		0.01 $\pm$ 0.01	0.02 $\pm$ 0.02	<.01 $\pm$ <.01	0.05 $\pm$ 0.05	0.01 $\pm$ 0.01	0.00	0.00	0.01 $\pm$ 0.01
1987	0.00		0.00	0.00	<.01 $\pm$ <.01	0.04 $\pm$ 0.03	0.00	0.00	<.01 $\pm$ <.01	0.01 $\pm$ 0.01



Table F.11. (Cont'd.)

Species Year	Bay system							Coastwide	
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre		Lower Laguna Madre
<b>Sheepshead</b>									
1983		0.00	0.00	0.00	0.01 ± 0.01	0.03 ± 0.03	0.00	0.01 ± <0.01	0.01 ± 0.01
1984		0.00	0.00	0.00	0.00	0.00	0.00	0.01 ± <0.01	<0.01 ± <0.01
1985		0.00	0.00	0.00	<0.01 ± <0.01	0.00	0.00	<0.01 ± <0.01	<0.01
1986		0.00	0.00	0.02 ± 0.02	<0.01 ± <0.01	0.00	<0.01 ± <0.01	0.00	0.01 ± <0.01
1987		0.00	0.00	0.00	0.01 ± <0.01	0.00	0.00	0.00	<0.01 ± <0.01
<b>Southern flounder</b>									
1983		0.01 ± 0.01	0.01 ± 0.01	0.01 ± 0.01	0.01 ± 0.01	0.02 ± 0.02	0.00	0.04 ± 0.02	0.02 ± 0.01
1984		0.00	0.00	0.00	0.02 ± 0.02	0.01 ± 0.01	0.06 ± 0.06	0.01 ± <0.01	0.01 ± <0.01
1985		0.07 ± 0.07	0.04 ± 0.04	0.04 ± 0.03	0.04 ± 0.03	<0.01 ± <0.01	0.16 ± 0.11	0.03 ± 0.01	0.04 ± 0.01
1986		0.03 ± 0.03	0.00	0.00	0.01 ± 0.01	0.01 ± 0.01	0.08 ± 0.05	0.06 ± 0.02	0.03 ± 0.01
1987		0.00	0.00	0.00	0.01 ± 0.01	0.00	0.02 ± 0.01	0.01 ± <0.01	0.01 ± <0.01
<b>Spotted seatrout</b>									
1983		0.62 ± 0.41	0.62 ± 0.41	0.97 ± 0.89	1.18 ± 0.64	0.72 ± 0.70	1.00 ± 1.00	0.96 ± 0.25	0.85 ± 0.30
1984		0.39 ± 0.30	0.39 ± 0.30	0.71 ± 0.71	0.06 ± 0.04	0.12 ± 0.08	0.00	0.49 ± 0.20	0.32 ± 0.10
1985		0.48 ± 0.46	0.48 ± 0.46	0.07 ± 0.07	0.20 ± 0.08	0.46 ± 0.30	0.38 ± 0.21	0.27 ± 0.08	0.33 ± 0.09
1986		0.37 ± 0.28	0.37 ± 0.28	0.52 ± 0.43	0.48 ± 0.17	0.26 ± 0.18	0.30 ± 0.15	0.50 ± 0.15	0.45 ± 0.10
1987		0.76 ± 0.66	0.76 ± 0.66	0.00	0.56 ± 0.22	0.50 ± 0.29	0.20 ± 0.08	0.34 ± 0.09	0.43 ± 0.10
<b>Other species</b>									
1983		0.00	0.00	<0.01 ± <0.01	0.02 ± 0.02	0.02	0.00	<0.01 ± <0.01	0.01
1984		0.01 ± 0.01	0.01 ± 0.01	0.07 ± 0.06	0.00	0.00	0.00	0.00	<0.01 ± <0.01
1985		0.00	0.00	0.00	0.00	0.02 ± 0.02	0.04 ± 0.02	<0.01 ± <0.01	0.01 ± <0.01
1986		0.00	0.00	0.05	0.00	<0.01 ± <0.01	<0.01 ± <0.01	0.02	0.01
1987		0.00	0.00	0.00	0.11	0.05 ± 0.05	0.00	<0.01 ± <0.01	0.05
<b>All species combined<sup>a</sup></b>									
1983		0.65 ± 0.42	0.65 ± 0.42	1.04 ± 0.92	1.52 ± 0.76	1.28 ± 1.15	1.00 ± 1.00	1.10 ± 0.28	1.16 ± 0.40
1984		0.44 ± 0.34	0.44 ± 0.34	1.62 ± 1.61	0.31 ± 0.22	0.28 ± 0.17	0.06 ± 0.06	0.60 ± 0.23	0.47 ± 0.13
1985		0.80 ± 0.74	0.80 ± 0.74	0.13 ± 0.11	0.54 ± 0.21	0.59 ± 0.36	0.70 ± 0.37	0.42 ± 0.12	0.54 ± 0.12
1986		0.47 ± 0.34	0.47 ± 0.34	0.66 ± 0.53	0.68 ± 0.22	0.48 ± 0.28	0.42 ± 0.21	0.75 ± 0.22	0.64 ± 0.13
1987		0.85 ± 0.74	0.85 ± 0.74	0.25 ± 0.25	0.83 ± 0.31	0.74 ± 0.40	0.25 ± 0.10	0.53 ± 0.13	0.63 ± 0.13

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual totals.

Table F.12. Mean catch rates of fishes (No./man-h)  $\pm$  1 SE caught by party-boat fishermen in Texas bays and passes during the low-use season by species and bay system (1983-1988). Blank = no fishermen interviewed.

Species Year	Bay system									
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Upper		Lower		
						Christi	Laguna Madre	Laguna Madre	Coastwide	
<b>Atlantic croaker</b>										
1983-84					0.00	0.00	0.00	0.00	0.00	0.00
1984-85					0.00			<.01 $\pm$ <.01		<.01 $\pm$ <.01
1985-86			0.12 $\pm$ 0.12	0.00	0.00	0.00	0.00	0.00	0.00	<.01 $\pm$ <.01
1986-87			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1987-88				0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Black drum</b>										
1983-84					0.00	0.00	0.00	0.06 $\pm$ 0.04	0.00	0.05 $\pm$ 0.04
1984-85				0.00	0.01 $\pm$ 0.01	0.00	0.00	0.00	0.00	0.00
1985-86			0.00	0.00	0.00	0.00	0.00	0.00	0.00	<.01 $\pm$ <.01
1986-87			0.02 $\pm$ 0.02	0.00	0.00	0.69 $\pm$ 0.69	0.00	0.00	0.00	0.05 $\pm$ 0.05
1987-88				0.27 $\pm$ 0.27	0.00	0.00	<.01 $\pm$ <.01	0.00	0.00	0.01 $\pm$ <.01
<b>Gafftopsail catfish</b>										
1983-84						0.05 $\pm$ 0.05	0.00	0.00	0.00	0.01 $\pm$ 0.01
1984-85					0.00			0.00	0.00	0.00
1985-86			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1986-87			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1987-88				0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Red drum</b>										
1983-84					0.39 $\pm$ 0.39	0.00	0.00	0.03 $\pm$ 0.02	0.00	0.02 $\pm$ 0.02
1984-85					0.02 $\pm$ 0.01	0.21 $\pm$ 0.20	0.00	0.06 $\pm$ 0.04	0.06 $\pm$ 0.04	0.11 $\pm$ 0.07
1985-86			0.07 $\pm$ 0.01	0.32 $\pm$ 0.32	0.12 $\pm$ 0.12	0.30 $\pm$ 0.30	0.06 $\pm$ 0.06	0.15 $\pm$ 0.08	0.03 $\pm$ 0.02	0.08 $\pm$ 0.04
1986-87			0.03 $\pm$ 0.03	0.00	0.09 $\pm$ 0.09	0.01 $\pm$ 0.01	0.10 $\pm$ 0.08	0.03 $\pm$ 0.02	0.03 $\pm$ 0.02	0.07 $\pm$ 0.04
1987-88					0.06 $\pm$ 0.06			0.05 $\pm$ 0.04	0.05 $\pm$ 0.04	0.06 $\pm$ 0.03
<b>Sand seatrout</b>										
1983-84					0.00	0.00	0.00	0.00	0.00	0.00
1984-85					0.00			0.00	0.00	0.00
1985-86			0.00	0.00	0.00	0.00	<.01 $\pm$ <.01	0.00	0.00	0.00
1986-87			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1987-88				0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table F.12. (Cont'd.)

Species Year	Bay system							Coastwide
	Sabine Lake	Galveston	Matagorda	San Antonio	Aransas	Corpus Christi	Upper Laguna Madre	
<b>Sheepshead</b>								
1983-84						0.00	0.00	<0.01 ± <0.01
1984-85					0.00	0.00	0.00	<0.01 ± <0.01
1985-86			0.00	0.00	0.00	0.00	0.00	0.00
1986-87			0.42 ± 0.35	0.00	0.36 ± 0.36	0.02 ± 0.02	0.00	0.07 ± 0.06
1987-88				0.00	0.00	0.01 ± 0.01	0.00	<0.01 ± <0.01
<b>Southern flounder</b>								
1983-84						0.00	0.00	0.00
1984-85					0.00	0.00	0.01 ± 0.01	0.01 ± 0.01
1985-86			0.06 ± 0.06	0.00	0.06 ± 0.04	0.00	0.01 ± 0.01	0.02 ± 0.01
1986-87			0.00	0.11 ± 0.11	0.01 ± 0.01	0.00	0.10 ± 0.08	0.02 ± 0.01
1987-88				0.00	0.00	0.00	0.01 ± 0.01	<0.01 ± <0.01
<b>Spotted seatrout</b>								
1983-84						0.00	0.00	0.48 ± 0.32
1984-85					0.00	0.00	0.00	0.64 ± 0.42
1985-86			0.14 ± 0.13	0.04 ± 0.04	0.60 ± 0.40	0.14 ± 0.12	0.03 ± 0.03	0.60 ± 0.35
1986-87			0.02 ± 0.02	0.22 ± 0.22	0.38 ± 0.36	0.14 ± 0.14	0.24 ± 0.20	0.56 ± 0.32
1987-88				0.00	0.19 ± 0.15	0.23 ± 0.21	0.34 ± 0.26	0.21 ± 0.15
<b>Other species</b>								
1983-84						0.00	0.00	0.01 ± 0.01
1984-85					0.00	0.00	0.00	<0.01 ± <0.01
1985-86				0.00	0.00	0.00	0.00	0.00
1986-87			0.01 ± 0.01	0.00	0.00	0.29 ± 0.29	0.00	<0.01 ± <0.01
1987-88				0.00	0.00	0.00	<0.01 ± <0.01	0.01 ± 0.01
<b>All species combined<sup>a</sup></b>								
1983-84						0.05 ± 0.05	0.00	0.57 ± 0.37
1984-85					0.39 ± 0.39	0.35 ± 0.31	0.04 ± 0.04	0.72 ± 0.46
1985-86			0.39 ± 0.36	0.35 ± 0.35	0.68 ± 0.43	1.44 ± 1.44	0.39 ± 0.33	0.76 ± 0.41
1986-87			0.50 ± 0.39	0.33 ± 0.33	0.88 ± 0.68	0.25 ± 0.22	0.46 ± 0.34	0.61 ± 0.35
1987-88				0.36 ± 0.36	0.25 ± 0.19	0.05 ± 0.05	0.00	0.28 ± 0.20

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual totals.

Table F.13. Mean catch rates of fishes (No./man-h) caught by party-boat fishermen in Texas bays and passes during June-August by species and bay system (1979-1987)<sup>a</sup>. ND = no data. Number in parenthesis indicates number of interviews.

Bay system	Spotted seatrout			Total
	Year	Other	Total	
Sabine Lake				
1987 ( 0 )	ND	ND	ND	
Galveston				
1979 ( 2 )	0.88 ± 0.01	0.19 ± 0.19	1.07 ± 0.18	
1981 (13)	1.14 ± 0.26	0.15 ± 0.07	1.29 ± 0.24	
1982 ( 8 )	1.49 ± 0.37	0.35 ± 0.31	1.83 ± 0.42	
1983 ( 3 )	0.99 ± 0.88	0.00	0.99 ± 0.88	
1984 ( 5 )	0.36 ± 0.31	0.06	0.42 ± 0.35	
1985 ( 3 )	0.46 ± 0.46	0.08	0.54 ± 0.54	
1986 ( 3 )	0.52 ± 0.41	0.10	0.62 ± 0.49	
1987 ( 1 )	0.85 ± 0.85	0.00	0.85 ± 0.85	
Matagorda <sup>b</sup>				
1979 ( 0 )	ND	ND	ND	
1981 ( 0 )	ND	ND	ND	
1982 (13)	1.16 ± 0.41	0.25 ± 0.10	1.43 ± 0.48	
1983 ( 6 )	0.40 ± 0.29	0.74	1.14 ± 0.92	
1984 ( 3 )	0.03 ± 0.03	0.21	0.24 ± 0.21	
1985 ( 1 )	0.00	0.00	0.00	
1986 ( 5 )	0.18 ± 0.15	0.34	0.52 ± 0.40	
1987 ( 2 )	0.68 ± 0.60	0.20	0.88 ± 0.77	
San Antonio <sup>b</sup>				
1979 ( 0 )	ND	ND	ND	
1981 ( 0 )	ND	ND	ND	
1982 (13)	1.16 ± 0.41	0.25 ± 0.10	1.43 ± 0.48	
1983 ( 2 )	0.23 ± 0.22	0.07	0.30 ± 0.29	
1984 ( 2 )	0.84 ± 0.84	1.03	1.87 ± 1.87	
1985 ( 5 )	0.06 ± 0.06	0.06	0.12 ± 0.10	
1986 ( 5 )	0.63 ± 0.58	0.15	0.78 ± 0.70	
1987 ( 1 )	0.00	0.25 ± 0.25	0.25 ± 0.25	
Aransas <sup>c</sup>				
1979 ( 6 )	1.03 ± 0.37	0.13 ± 0.08	1.17 ± 0.38	
1981 (30)	2.07 ± 0.23	0.10 ± 0.04	2.17 ± 0.22	
1982 (35)	1.49 ± 0.20	0.37 ± 0.13	1.86 ± 0.21	
1983 (15)	1.49 ± 0.98	0.17	1.66 ± 1.06	

Table F.13. (Cont'd.)

Bay system Year	Spotted seatrout	Other	Total
<b>Arkansas (Cont.)</b>			
1984 ( 1)	0.00	11.11	11.11 ± 1.11
1985 (23)	0.22 ± 0.11	0.28	0.50 ± 0.24
1986 (21)	0.52 ± 0.22	0.23	0.75 ± 0.28
1987 (24)	0.67 ± 0.31	0.14	0.80 ± 0.36
<b>Corpus Christi<sup>C</sup></b>			
1979 ( 6)	1.03 ± 0.37	0.13 ± 0.08	1.17 ± 0.38
1981 (30)	2.07 ± 0.23	0.10 ± 0.04	2.17 ± 0.22
1982 (35)	1.49 ± 0.20	0.37 ± 0.13	1.86 ± 0.21
1983 ( 4)	0.86 ± 0.85	0.30	1.16 ± 1.15
1984 ( 7)	0.13 ± 0.10	0.11	0.24 ± 0.19
1985 (14)	0.41 ± 0.31	0.14	0.55 ± 0.39
1986 (10)	0.30 ± 0.23	0.23	0.53 ± 0.35
1987 (11)	0.49 ± 0.31	0.26	0.75 ± 0.44
<b>Upper Laguna Madre<sup>C</sup></b>			
1979 ( 6)	1.03 ± 0.37	0.13 ± 0.08	1.17 ± 0.38
1981 (30)	2.07 ± 0.23	0.10 ± 0.04	2.17 ± 0.22
1982 (35)	1.49 ± 0.20	0.37 ± 0.13	1.86 ± 0.21
1983 ( 1)	0.00	0.00	0.00
1984 ( 1)	0.00	0.06	0.06 ± 0.06
1985 ( 4)	0.30 ± 0.24	0.28	0.58 ± 0.43
1986 (14)	0.24 ± 0.17	0.15	0.39 ± 0.27
1987 (18)	0.13 ± 0.72	0.04	0.17 ± 0.09
<b>Lower Laguna Madre</b>			
1979 (10)	1.26 ± 0.29	0.04 ± 0.02	1.31 ± 0.28
1981 (24)	1.78 ± 0.23	0.05 ± 0.01	1.83 ± 0.22
1982 (39)	2.04 ± 0.23	0.11 ± 0.04	2.14 ± 0.23
1983 (48)	0.76 ± 0.32	0.12	0.88 ± 0.35
1984 (46)	0.61 ± 0.31	0.08	0.68 ± 0.34
1985 (48)	0.26 ± 0.10	0.18	0.44 ± 0.16
1986 (58)	0.49 ± 0.19	0.24	0.73 ± 0.27
1987 (35)	0.33 ± 0.11	0.11	0.44 ± 0.14

Table F.13. (Cont'd.)

Bay system Year	Spotted seatrout	Other	Total
Coastwide <sup>d</sup>			
1979 ( 18)	1.14 ± 0.31	0.09 ± 0.08	1.24 ± 0.31
1981 ( 67)	1.79 ± 0.24	0.09 ± 0.04	1.88 ± 0.23
1982 ( 95)	1.67 ± 0.27	0.24 ± 0.13	1.91 ± 0.29
1983 ( 79)	0.91 ± 0.49	0.24	1.15 ± 0.63
1984 ( 65)	0.46 ± 0.19	0.12	0.58 ± 0.22
1985 ( 98)	0.29 ± 0.09	0.18	0.47 ± 0.13
1986 (116)	0.46 ± 0.12	0.21	0.67 ± 0.15
1987 ( 92)	0.45 ± 0.13	0.15	0.59 ± 0.16

<sup>a</sup> 1979-1982 data from McEachron (1984).

<sup>b</sup> Matagorda and San Antonio data were combined during 1979-1982.

<sup>c</sup> Aransas, Corpus Christi, and Upper Laguna Madre data were combined during 1979-1982.

<sup>d</sup> For 1979-1982 coastwide means, Matagorda/San Antonio and Aransas/ Corpus Christi/Upper Laguna Madre means are used as means for one combined area mean.

Table F.14. Percent composition of "other" species caught by party-boat fishermen in Texas bays and passes by bay system and season (1983-1988).

Year	Season	Common name	Scientific name	Bay system							Coastwide				
				Sabine Lake	Galveston	Matagorda	San Antonio	Aransas Christi	Upper Laguna Madre	Lower Laguna Madre					
1983-84	High use	Blacktip shark	<u>Carcharhinus limbatus</u>				3.57						3.57		
		Bluntnose jack	<u>Hemicarax amblyrhynchus</u>				3.57						7.14	7.14	
		Crevaille jack	<u>Caranx hippos</u>										7.14	3.57	
		Gray triggerfish	<u>Balistes capricus</u>										3.57	3.57	
		Gulf flounder	<u>Paralichthys albigutta</u>										7.14	7.14	
		Ladyfish	<u>Elops saurus</u>										3.57	3.57	
		Lane snapper	<u>Lutjanus synagris</u>				3.57							3.57	
		Southern kingfish	<u>Menticirrhus americanus</u>			3.57						35.71		46.43	
		Spot	<u>Leiostomus xanthurus</u>											3.57	
		Tripletail	<u>Lobotes surinamensis</u>		14.29									14.29	
		Warsaw grouper	<u>Epinephelus nigritus</u>				3.57							3.57	
		Low use	Ladyfish		<u>Elops saurus</u>								100.00		100.00
		1984-85	High use	Crevaille jack	<u>Caranx hippos</u>		25.00								25.00
Southern kingfish	<u>Menticirrhus americanus</u>										75.00		75.00		
Low use	Pigfish		<u>Orthopristis chrysoptera</u>								100.00		100.00		
1985-86	High use	Atlantic cutlass fish	<u>Trichiurus lepturus</u>							4.76		7.14	11.90		
		Atlantic stingray	<u>Dasyatis sabina</u>							2.38			2.38		
		Bonnethead	<u>Sphyrna tiburo</u>							2.38			2.38		
		Crevaille jack	<u>Caranx hippos</u>						2.38				4.76		
		Florida pompano	<u>Trachinotus carolinus</u>								4.76		4.76		
		Gray snapper	<u>Lutjanus griseus</u>								2.38		2.38		
		Gray triggerfish	<u>Balistes capricus</u>								2.38		2.38		
		Greater barracuda	<u>Sphyaena barracuda</u>										26.19	26.19	
		Ladyfish	<u>Elops saurus</u>										2.38	2.38	
		Sea basses sp.	Family Serranidae										9.52	28.57	
		Southern kingfish	<u>Menticirrhus americanus</u>										7.14	2.38	
		Toadfishes sp.	Family Batrachoididae										4.76	7.14	
														4.76	





Table F.15. Pressure estimates (man-h X 1000)  $\pm$  1 SE for party-boat fishermen in Texas bays and passes by season and bay system (1983-1988).

Bay system Year	High-use season		Low-use season		Annual <sup>a</sup>
<b>Sabine Lake</b>					
1983-84					
1984-85					
1985-86					
1986-87					
1987-88	0.0		0.0		0.0
<b>Galveston</b>					
1983-84	21.8 $\pm$ 10.4		0.0		21.8 $\pm$ 10.4
1984-85	10.4 $\pm$ 6.2		0.0		10.4 $\pm$ 6.2
1985-86	10.7 $\pm$ 9.0		0.0		10.7 $\pm$ 9.0
1986-87	7.1 $\pm$ 3.6		0.0		7.1 $\pm$ 3.6
1987-88	3.8 $\pm$ 2.7		0.0		3.8 $\pm$ 2.7
<b>Matagorda</b>					
1983-84	20.8 $\pm$ 8.5		0.0		20.9 $\pm$ 8.6
1984-85	0.9 $\pm$ 0.7		0.0		0.9 $\pm$ 0.7
1985-86	4.0 $\pm$ 3.5		1.4 $\pm$ 1.1		5.3 $\pm$ 3.7
1986-87	4.1 $\pm$ 2.1		1.1 $\pm$ 0.6		5.2 $\pm$ 2.1
1987-88	2.9 $\pm$ 1.5		0.0		2.9 $\pm$ 1.5
<b>San Antonio</b>					
1983-84	8.7 $\pm$ 5.1		0.0		8.6 $\pm$ 5.1
1984-85	0.6 $\pm$ 0.5		0.0		0.6 $\pm$ 0.5
1985-86	4.4 $\pm$ 2.6		2.2 $\pm$ 2.2		6.5 $\pm$ 3.4
1986-87	22.2 $\pm$ 14.5		0.4 $\pm$ 0.4		22.7 $\pm$ 14.5
1987-88	0.3 $\pm$ 0.3		0.7 $\pm$ 0.7		0.9 $\pm$ 0.7
<b>Aransas</b>					
1983-84	38.4 $\pm$ 12.8		0.0		38.4 $\pm$ 12.8
1984-85	12.5 $\pm$ 6.9		4.8 $\pm$ 4.0		17.7 $\pm$ 8.2
1985-86	28.7 $\pm$ 7.7		17.1 $\pm$ 7.5		45.7 $\pm$ 10.7
1986-87	41.6 $\pm$ 8.6		10.9 $\pm$ 6.3		52.5 $\pm$ 10.6
1987-88	50.2 $\pm$ 12.7		7.0 $\pm$ 4.0		57.3 $\pm$ 13.3

Table F.15. (Cont'd.)

Bay system Year	High-use season	Low-use season	Annual <sup>a</sup>
Corpus Christi			
1983-84	56.7 ± 43.8	5.8 ± 5.8	62.4 ± 44.2
1984-85	22.0 ± 10.2	0.0	22.0 ± 10.2
1985-86	16.6 ± 7.3	15.8 ± 11.9	32.4 ± 13.9
1986-87	13.3 ± 5.2	4.8 ± 4.8	18.1 ± 7.1
1987-88	36.5 ± 15.2	6.7 ± 4.8	43.2 ± 16.0
Upper Laguna Madre			
1983-84	1.3 ± 1.2	0.3 ± 0.3	0.4 ± 0.3
1984-85	0.4 ± 0.4	0.0	0.4 ± 0.4
1985-86	2.6 ± 1.0	40.0 ± 38.2	42.7 ± 38.3
1986-87	18.9 ± 7.2	8.7 ± 6.2	27.7 ± 9.5
1987-88	26.8 ± 9.2	9.6 ± 5.9	36.4 ± 10.9
Lower Laguna Madre			
1983-84	59.2 ± 11.6	38.2 ± 19.5	97.4 ± 22.7
1984-85	42.8 ± 11.2	32.7 ± 14.8	75.6 ± 18.6
1985-86	62.2 ± 12.1	19.2 ± 7.2	81.4 ± 14.1
1986-87	44.1 ± 8.5	36.4 ± 15.8	80.5 ± 17.9
1987-88	51.9 ± 8.5	15.7 ± 8.4	67.6 ± 12.0
Coastwide <sup>a</sup>			
1983-84	206.8 ± 49.2	44.3 ± 20.3	249.9 ± 53.3
1984-85	89.7 ± 17.8	37.5 ± 15.4	127.6 ± 23.6
1985-86	129.2 ± 18.9	95.7 ± 41.5	224.8 ± 45.6
1986-87	151.3 ± 21.2	62.4 ± 18.8	213.7 ± 28.4
1987-88	172.4 ± 23.6	39.6 ± 12.1	212.0 ± 26.5

<sup>a</sup>Due to rounding of numbers these totals may not exactly equal individual totals.

Table F.16. Number of days surveyed and number of party-boat fishermen interviewed ( ) in Texas bays and passes by season and bay system (1983-1988).

Species Year	Bay system																		
	Sabine Lake		Galveston		Matagorda		San Antonio		Aransas		Corpus Christi		Upper Laguna Madre		Lower Laguna Madre		Coastwide		
1983-84																			
High use	95	(27)	94	(42)	71	(18)	97	(100)	95	(30)	97	(4)	97	(340)	646	(561)			
Low use	36	(0)	36	(0)	36	(0)	36	(0)	36	(5)	36	(2)	36	(54)	252	(44)			
Annual	131	(27)	130	(42)	107	(18)	133	(100)	131	(35)	133	(6)	133	(394)	898	(622)			
1984-85																			
High use	96	(23)	96	(9)	72	(10)	96	(23)	97	(44)	97	(2)	97	(263)	651	(374)			
Low use	36	(0)	36	(0)	36	(0)	36	(9)	36	(0)	36	(0)	36	(71)	252	(80)			
Annual	132	(23)	132	(9)	108	(10)	132	(32)	133	(44)	133	(2)	133	(334)	903	(454)			
1985-86																			
High use	97	(16)	97	(12)	72	(18)	97	(112)	97	(58)	97	(22)	97	(307)	654	(545)			
Low use	36	(0)	36	(7)	36	(3)	36	(22)	36	(14)	36	(27)	36	(37)	252	(110)			
Annual	133	(16)	133	(19)	108	(21)	133	(134)	133	(72)	133	(49)	133	(344)	906	(655)			
1986-87																			
High use	97	(12)	129	(29)	72	(52)	151	(119)	97	(51)	97	(86)	97	(285)	740	(634)			
Low use	36	(0)	36	(18)	36	(2)	62	(22)	36	(13)	36	(22)	36	(46)	278	(123)			
Annual	133	(12)	165	(47)	108	(54)	213	(141)	133	(64)	133	(108)	133	(331)	1018	(757)			
1987-88																			
High use	72	(0)	119	(18)	72	(4)	121	(133)	97	(59)	98	(130)	97	(263)	773	(613)			
Low use	36	(0)	53	(0)	34	(3)	53	(16)	36	(13)	36	(46)	36	(21)	318	(99)			
Annual	108	(0)	172	(18)	106	(7)	174	(149)	133	(72)	134	(176)	133	(284)	1091	(712)			

Table F.17. Mean fishing-party size (No. of fishermen) and mean trip length (h) for party-boat fishermen in Texas bays and passes by bay system and season (1983-1988). Blank = no fishermen interviewed.

Bay system Year	Mean fishing-party size			Mean trip length		
	High-use season	Low-use season	Annual	High-use season	Low-use season	Annual
<b>Sabine Lake</b>						
1983-84			3.4	7.1		7.1
1984-85	3.8		3.8	7.4		7.4
1985-86	4.0		4.0	9.0		9.0
1986-87	3.0		3.0	9.0		9.0
1987-88	3.0		3.0	8.0		8.0
<b>Galveston</b>						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
<b>Matagorda</b>						
1983-84	4.1		4.2	5.4		5.2
1984-85	3.0		3.0	6.2		6.2
1985-86	4.0	3.5	3.8	5.7	4.5	5.2
1986-87	3.6	4.9	4.1	5.9	5.9	5.9
1987-88	4.2		4.2	6.5		6.5
<b>San Antonio</b>						
1983-84	3.3		3.6	6.8		8.1
1984-85	3.3		3.3	4.5		4.5
1985-86	3.6	3.0	3.5	5.2	9.5	5.9
1986-87	4.0	4.0	4.0	6.3	9.0	6.4
1987-88	4.0	3.0	3.5	7.0	7.5	7.2
<b>Aransas</b>						
1983-84	3.9		3.9	4.9		4.9
1984-85	3.2	3.0	3.2	5.6	5.0	5.4
1985-86	3.2	2.0	2.9	6.3	7.8	6.7
1986-87	3.5	3.1	3.4	7.0	5.3	6.7
1987-88	3.3	3.2	3.3	6.5	5.5	6.4

Table F.17. (Cont'd.)

Bay system Year	Mean fishing-party size			Mean trip length		
	High-use season	Low-use season	Annual	High-use season	Low-use season	Annual
<b>Corpus Christi</b>						
1983-84	3.0	5.0	3.2	7.0	4.0	6.7
1984-85	3.7		3.7	6.2		6.2
1985-86	3.2	2.3	3.0	6.3	6.8	6.5
1986-87	3.9	4.3	4.0	6.8	7.2	6.8
1987-88	3.8	4.3	3.9	6.9	7.8	7.0
<b>Upper Laguna Madre</b>						
1983-84	3.5	2.0	3.0	5.0	2.0	2.0
1984-85	2.0		2.0	8.0		8.0
1985-86	2.8	5.9	3.9	7.9	12.0	9.4
1986-87	3.4	3.7	3.5	12.9	13.8	13.1
1987-88	3.8	3.5	3.7	14.1	8.3	12.5
<b>Lower Laguna Madre</b>						
1983-84	3.3	3.0	3.2	6.6	4.4	6.2
1984-85	3.6	3.6	3.6	5.6	5.2	5.5
1985-86	3.7	2.5	3.6	5.5	6.3	5.6
1986-87	3.3	3.5	3.3	5.8	5.4	5.8
1987-88	3.2	3.5	3.3	6.2	6.2	6.2
<b>Coastwide</b>						
1983-84	3.4	3.0	3.4	6.3	4.3	6.1
1984-85	3.6	3.5	3.6	5.8	5.2	5.7
1985-86	3.5	2.8	3.4	6.0	7.4	6.3
1986-87	3.4	3.7	3.5	7.2	7.2	7.2
1987-88	3.4	3.5	3.5	7.9	7.3	7.8

Table F.18. Percent composition of the residential origin of party-boat fishermen-trips in Texas bays and passes by bay system and season (1983-88). Blank = no fishermen interviewed.

Bay system Year <sup>a</sup>	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Sabine Lake 1987-88				
High use				
Low use				
Annual				
Galveston 1983-84	89	0	11	0
High use				
Low use				
Annual	85	0	15	0
1984-85				
High use	100	0	0	0
Low use				
Annual	100	0	0	0
1985-86				
High use	100	0	0	0
Low use				
Annual	100	0	0	0
1986-87				
High use	100	0	0	0
Low use				
Annual	100	0	0	0
1987-88				
High use	83	0	0	17
Low use				
Annual	83	0	0	17
Matagorda 1983-84				
High use	36	49	16	0
Low use				
Annual	31	48	21	0

Table F.18. (Cont'd.)

Bay system Year <sup>a</sup>	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
<b>Matagorda (Cont'd.)</b>				
1984-85				
High use	11	44	0	44
Low use				
Annual	11	44	0	44
1985-86				
High use	83	0	17	0
Low use	29	29	43	0
Annual	63	11	26	0
1986-87				
High use	31	10	59	0
Low use	15	0	85	0
Annual	27	6	67	0
1987-88				
High use	22	13	54	11
Low use				
Annual	22	13	54	11
<b>San Antonio</b>				
1983-84				
High use	22	57	22	0
Low use				
Annual	28	44	28	0
1984-85				
High use	0	70	30	0
Low use				
Annual	0	70	30	0
1985-86				
High use	33	28	39	0
Low use	33	0	67	0
Annual	33	24	43	0

Table F.18. (Cont'd.)

Bay system Year <sup>a</sup>	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
San Antonio (Cont'd.)				
1986-87				
High use	27	21	52	0
Low use	25	0	75	0
Annual	27	20	53	0
1987-88				
High use	25	0	75	0
Low use	33	67	0	0
Annual	29	29	43	0
Aransas				
1983-84				
High use	14	35	48	3
Low use				
Annual	10	28	60	3
1984-85				
High use	13	26	48	13
Low use	33	0	67	0
Annual	19	19	53	9
1985-86				
High use	20	12	68	1
Low use	18	9	60	14
Annual	19	11	66	3
1986-87				
High use	13	20	64	3
Low use	23	14	64	0
Annual	14	19	64	3
1987-88				
High use	27	24	44	5
Low use	31	12	31	25
Annual	28	23	43	7



Table F.18. (Cont'd.)

Bay system Year <sup>a</sup>	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
<b>Corpus Christi</b>				
1983-84				
High use	7	10	83	0
Low use	60	0	40	0
Annual	14	9	77	0
1984-85				
High use	18	0	82	0
Low use				
Annual	18	0	82	0
1985-86				
High use	22	22	55	0
Low use	64	21	14	0
Annual	31	22	47	0
1986-87				
High use	25	10	63	2
Low use	8	0	92	0
Annual	22	8	69	1
1987-88				
High use	31	5	62	2
Low use	31	8	62	0
Annual	31	6	62	1
<b>Upper Laguna Madre</b>				
1983-84				
High use	43	0	57	0
Low use	0	0	100	0
Annual	33	0	67	0
1984-85				
High use	50	0	0	50
Low use				
Annual	50	0	0	50

Table F.18. (Cont'd.)

Bay system Year <sup>a</sup>	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal countries	Other states and countries
<b>Upper Laguna Madre (Cont'd.)</b>				
1985-86				
High use	77	5	18	0
Low use	11	11	70	8
Annual	41	8	46	4
1986-87				
High use	50	23	15	12
Low use	64	9	23	5
Annual	53	20	17	10
1987-88				
High use	37	18	43	2
Low use	43	7	39	11
Annual	39	15	42	5
<b>Lower Laguna Madre</b>				
1983-84				
High use	23	27	44	6
Low use	28	7	30	35
Annual	22	22	46	10
1984-85				
High use	33	23	35	9
Low use	32	15	42	10
Annual	32	21	37	9
1985-86				
High use	31	25	40	4
Low use	32	11	35	22
Annual	31	24	40	6
1986-87				
High use	40	19	39	3
Low use	40	22	18	20
Annual	39	20	36	5

Table F.18. (Cont'd.)

Bay system Year <sup>a</sup>	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Lower Laguna Madre (Cont'd.)				
1987-88				
High use	37	16	42	6
Low use	33	29	24	14
Annual	37	17	40	6
Coastwide				
1983-84				
High use	25	29	42	4
Low use	30	7	33	31
Annual	23	23	47	7
1984-85				
High use	33	21	38	9
Low use	32	14	45	9
Annual	32	19	40	9
1985-86				
High use	33	20	45	2
Low use	28	13	47	12
Annual	32	19	45	4
1986-87				
High use	35	18	44	4
Low use	34	12	45	8
Annual	34	18	44	4
1987-88				
High use	34	17	45	5
Low use	37	14	36	12
Annual	35	16	43	6

Appendix G: Estimates for headboat fishing in Texas bays and passes.

Table G.1. Annual estimated landings of fishes (No. x 1000) ± 1 SE caught by headboat fishermen in Texas bays and passes by species and area (1983-1988).

Species Year	Area				Coastwide <sup>a</sup>
	Galveston	Corpus Christi	Lower Laguna Madre		
<b>Atlantic croaker</b>					
1983-84	22.3 ± 10.4	0.6 ± 0.3	0.9 ± 0.4	23.8 ± 10.4	
1984-85	12.2 ± 4.4	<.1 ± <.1	0.2 ± 0.1	12.4 ± 4.4	
1985-86	20.7 ± 5.7	1.1 ± 0.5	0.7 ± 0.4	22.5 ± 5.7	
1986-87	31.9 ± 8.6	0.1 ± <.1	0.2 ± 0.1	32.2 ± 8.6	
1987-88	9.3 ± 2.6	0.4 ± 0.2	0.2 ± 0.1	10.0 ± 2.6	
<b>Black drum</b>					
1983-84	2.6 ± 0.8	0.3 ± 0.2	<.1 ± <.1	2.9 ± 0.8	
1984-85	1.3 ± 0.5	0.1 ± <.1	0.0	1.3 ± 0.5	
1985-86	1.2 ± 0.4	0.2 ± 0.1	0.0	1.4 ± 0.4	
1986-87	0.9 ± 0.3	0.0	<.1 ± <.1	0.9 ± 0.3	
1987-88	0.3 ± 0.1	<.1 ± <.1	<.1 ± <.1	0.3 ± 0.1	
<b>Gafftopsail catfish</b>					
1983-84	0.7 ± 0.5	0.9 ± 0.3	0.0	1.6 ± 0.6	
1984-85	0.2 ± 0.1	0.9 ± 0.4	0.0	1.1 ± 0.4	
1985-86	1.5 ± 0.8	0.4 ± 0.1	0.0	1.9 ± 0.8	
1986-87	0.4 ± 0.2	0.7 ± 0.3	0.0	1.1 ± 0.3	
1987-88	1.0 ± 0.3	0.4 ± 0.2	<.1 ± <.1	1.4 ± 0.4	
<b>Red drum</b>					
1983-84	<.1 ± <.1	0.0	<.1 ± <.1	<.1 ± <.1	
1984-85	<.1 ± <.1	0.0	0.0	<.1 ± <.1	
1985-86	<.1 ± <.1	0.0	<.1 ± <.1	<.1 ± <.1	
1986-87	<.1 ± <.1	0.0	<.1 ± <.1	<.1 ± <.1	
1987-88	0.1 ± 0.1	0.0	0.0	0.1 ± 0.1	
<b>Sand seatrout</b>					
1983-84	26.7 ± 10.6	40.4 ± 8.5	8.8 ± 2.4	75.9 ± 13.8	
1984-85	23.7 ± 10.5	6.0 ± 2.0	19.1 ± 4.6	48.8 ± 11.6	
1985-86	118.5 ± 50.6	37.6 ± 9.8	21.7 ± 5.1	177.8 ± 51.8	
1986-87	25.8 ± 8.5	7.7 ± 2.5	12.3 ± 4.4	45.8 ± 9.9	
1987-88	64.3 ± 19.6	24.8 ± 10.7	14.0 ± 4.3	103.2 ± 23.0	

Table G.1. (Cont'd.)

Species Year	Area				Coastwide <sup>a</sup>
	Galveston	Corpus Christi	Laguna Madre	Lower	
<b>Sheepshead</b>					
1983-84	0.1 ± <.1	0.0	0.3 ± 0.1	0.3 ± 0.1	0.3 ± 0.1
1984-85	<.1 ± <.1	0.0	1.0 ± 0.9	1.1 ± 0.9	1.1 ± 0.9
1985-86	0.0	<.1 ± <.1	0.0	<.1 ± <.1	<.1 ± <.1
1986-87	0.0	0.0	<.1 ± <.1	<.1 ± <.1	<.1 ± <.1
1987-88	<.1 ± <.1	0.4 ± 0.4	0.0	0.4 ± 0.4	0.4 ± 0.4
<b>Southern flounder</b>					
1983-84	0.1 ± <.1	<.1 ± <.1	0.0	0.1 ± <.1	0.1 ± <.1
1984-85	<.1 ± <.1	<.1 ± <.1	<.1 ± <.1	<.1 ± <.1	0.1 ± <.1
1985-86	0.2 ± <.1	0.6 ± 0.4	<.1 ± <.1	0.9 ± 0.4	0.9 ± 0.4
1986-87	0.2 ± 0.1	0.4 ± 0.3	0.1 ± <.1	0.7 ± 0.3	0.7 ± 0.3
1987-88	<.1 ± <.1	<.1 ± <.1	<.1 ± <.1	0.2 ± 0.1	0.2 ± 0.1
<b>Spotted seatrout</b>					
1983-84	0.0	4.5 ± 3.6	0.2 ± 0.1	4.7 ± 3.6	4.7 ± 3.6
1984-85	0.0	0.2 ± 0.2	0.3 ± 0.1	0.4 ± 0.2	0.4 ± 0.2
1985-86	<.1 ± <.1	1.5 ± 0.9	0.6 ± 0.5	2.2 ± 1.1	2.2 ± 1.1
1986-87	<.1 ± <.1	1.0 ± 0.6	<.1 ± <.1	1.1 ± 0.6	1.1 ± 0.6
1987-88	<.1 ± <.1	0.6 ± 0.4	<.1 ± <.1	0.6 ± 0.4	0.6 ± 0.4
<b>Other species</b>					
1983-84	12.1	3.4	6.5	22.0	22.0
1984-85	3.1	1.5	4.7	9.3	9.3
1985-86	3.8	3.6	7.0	18.9	18.9
1986-87	4.1	2.5	7.6	14.6	14.6
1987-88	8.3	1.6	5.9	15.8	15.8
<b>All species combined<sup>a</sup></b>					
1983-84	64.6 ± 17.9	50.2 ± 8.9	16.6 ± 3.8	131.3 ± 20.4	131.3 ± 20.4
1984-85	40.6 ± 13.6	8.7 ± 2.1	25.3 ± 5.4	74.6 ± 14.7	74.6 ± 14.7
1985-86	152.5 ± 57.6	49.4 ± 11.5	30.1 ± 6.3	232.0 ± 59.0	232.0 ± 59.0
1986-87	63.7 ± 11.7	12.5 ± 2.3	20.3 ± 6.9	96.5 ± 13.9	96.5 ± 13.9
1987-88	83.4 ± 22.6	28.3 ± 11.0	20.3 ± 5.1	132.0 ± 25.6	132.0 ± 25.6

<sup>a</sup> Due to rounding of numbers, these totals may not exactly equal individual totals.

Table G.2. Estimated landings of fishes (No. x 1000) ± 1 SE caught by headboat fishermen in Texas bays and passes during the high-use season by species and area (1983-1987).

Species Year	Area				Coastwide <sup>a</sup>
	Galveston	Corpus Christi	Laguna Madre	Lower	
<b>Atlantic croaker</b>					
1983	21.1 ± 10.4	0.6 ± 0.2	0.6 ± 0.3	0.6 ± 0.3	22.3 ± 10.4
1984	11.8 ± 4.4	<.1 ± <.1	<.1 ± 0.1	0.2 ± 0.1	12.0 ± 4.4
1985	19.0 ± 5.4	1.1 ± 0.5	0.7 ± 0.4	0.7 ± 0.4	20.8 ± 5.4
1986	31.9 ± 8.6	0.1 ± <.1	0.2 ± 0.1	0.2 ± 0.1	32.2 ± 8.6
1987	9.1 ± 2.6	0.4 ± 0.2	0.2 ± 0.1	0.2 ± 0.1	9.7 ± 2.7
<b>Black drum</b>					
1983	2.3 ± 0.8	<.1 ± <.1	<.1 ± <.1	<.1 ± <.1	2.4 ± 0.8
1984	0.7 ± 0.4	0.0	0.0	0.0	0.7 ± 0.4
1985	0.7 ± 0.3	<.1 ± <.1	0.0	0.0	0.8 ± 0.3
1986	0.7 ± 0.2	0.0	0.0	0.0	0.7 ± 0.2
1987	0.1 ± <.1	0.0	0.0	0.0	0.1 ± <.1
<b>Gafftopsail catfish</b>					
1983	0.4 ± 0.4	0.7 ± 0.3	0.0	0.0	1.2 ± 0.5
1984	0.1 ± <.1	0.5 ± 0.3	0.0	0.0	0.6 ± 0.3
1985	1.4 ± 0.8	0.4 ± 0.1	0.0	0.0	1.8 ± 0.8
1986	0.3 ± 0.2	0.7 ± 0.2	0.0	0.0	1.0 ± 0.3
1987	0.8 ± 0.3	0.4 ± 0.2	<.1 ± <.1	<.1 ± <.1	1.3 ± 0.4
<b>Red drum</b>					
1983	<.1 ± <.1	0.0	0.0	0.0	<.1 ± <.1
1984	0.0	0.0	0.0	0.0	0.0
1985	<.1 ± <.1	0.0	<.1 ± <.1	<.1 ± <.1	<.1 ± <.1
1986	<.1 ± <.1	0.0	0.0	0.0	<.1 ± <.1
1987	0.1 ± 0.1	0.0	0.0	0.0	0.1 ± 0.1
<b>Sand seatrout</b>					
1983	25.2 ± 9.2	37.6 ± 8.2	7.5 ± 2.2	70.2 ± 12.6	
1984	23.6 ± 10.5	5.3 ± 1.9	16.4 ± 4.3	45.3 ± 11.5	
1985	118.0 ± 51.0	35.6 ± 9.7	11.8 ± 4.9	171.7 ± 51.8	
1986	25.4 ± 8.4	0.1 ± 2.2	11.8 ± 4.4	43.4 ± 9.8	
1987	63.6 ± 19.6	24.0 ± 10.7	13.0 ± 4.3	100.6 ± 22.7	

Table G.2. (Cont'd.)

Species Year	Area				Coastwide <sup>a</sup>
	Galveston	Corpus Christi	Lower Laguna Madre		
<b>Sheepshead</b>					
1983	<.1 ±	<.1	0.1 ±	0.1	0.2 ± 0.1
1984	0.0	0.0	0.0	0.0	0.0
1985	0.0	0.1 ± 0.1	0.0	0.0	0.1 ± 0.1
1986	0.0	0.0	0.0	0.0	0.0
1987	0.0	0.4 ± 0.4	0.0	0.0	0.4 ± 0.4
<b>Southern flounder</b>					
1983	<.1 ±	<.1	<.1 ±	0.0	0.1 ± <.1
1984	<.1 ±	<.1	<.1 ±	0.0	<.1 ± <.1
1985	0.2 ±	0.1	0.6 ± 0.4	<.1 ±	0.8 ± 0.4
1986	0.2 ±	0.1	0.4 ± 0.3	0.1 ±	0.7 ± 0.3
1987	<.1 ±	<.1	0.1 ± 0.1	0.1 ±	0.2 ± 0.1
<b>Spotted seatrout</b>					
1983	0.0	4.2 ± 3.4	0.1 ±	0.1	4.3 ± 3.4
1984	0.0	0.4 ± 0.3	0.2 ±	0.1	0.6 ± 0.3
1985	<.1 ±	1.2 ± 0.8	0.6 ±	0.5	1.8 ± 1.0
1986	<.1 ±	1.0 ± 0.6	<.1 ±	<.1	1.0 ± 0.6
1987	<.1 ±	0.6 ± 0.4	<.1 ±	<.1	0.6 ± 0.4
<b>Other species</b>					
1983	10.5	3.0	14.8	28.3	
1984	3.0	1.1	2.2	6.4	
1985	7.6	3.4	4.0	15.1	
1986	3.0	1.8	6.8	11.6	
1987	7.9	1.3	4.8	13.9	
<b>All species combined<sup>a</sup></b>					
1983	59.6 ± 16.4	46.0 ± 8.7	23.2 ± 9.8	129.1 ± 21.0	
1984	39.3 ± 13.6	7.4 ± 2.0	19.0 ± 4.6	66.0 ± 14.4	
1985	148.7 ± 57.5	47.0 ± 11.4	23.5 ± 5.9	218.8 ± 58.9	
1986	61.7 ± 11.7	10.1 ± 2.4	18.9 ± 6.9	90.7 ± 13.8	
1987	81.7 ± 22.6	27.1 ± 10.9	18.1 ± 5.0	126.9 ± 25.5	

<sup>a</sup> Due to rounding of numbers, these totals may not exactly equal individual totals.



Table G.3. Estimated landings of fishes (No. x 1000)  $\pm$  1 SE caught by headboat fishermen in Texas bays and passes during the low-use season by species and area (1983-1988).

Species Year	Area				Coastwide <sup>a</sup>
	Galveston	Corpus Christi	Lower Laguna Madre		
<b>Atlantic croaker</b>					
1983-84	1.7 $\pm$ 0.9	0.0	<.1 $\pm$ <.1	1.8 $\pm$ 0.9	
1984-85	0.4 $\pm$ 0.3	<.1 $\pm$ <.1	<.1 $\pm$ <.1	0.5 $\pm$ 0.3	
1985-86	1.6 $\pm$ 1.6	<.1 $\pm$ <.1	0.0	1.7 $\pm$ 1.6	
1986-87	<.1 $\pm$ <.1	<.1 $\pm$ <.1	0.0	<.1 $\pm$ <.1	
1987-88	0.2 $\pm$ 0.2	<.1 $\pm$ <.1	0.0	0.2 $\pm$ 0.2	
<b>Black drum</b>					
1983-84	0.2 $\pm$ 0.1	0.2 $\pm$ 0.1	0.0	0.4 $\pm$ 0.1	
1984-85	0.5 $\pm$ 0.3	0.1 $\pm$ <.1	0.0	0.6 $\pm$ 0.3	
1985-86	0.5 $\pm$ 0.3	0.2 $\pm$ 0.1	0.0	0.7 $\pm$ 0.3	
1986-87	0.2 $\pm$ 0.1	0.0	<.1 $\pm$ <.1	0.2 $\pm$ 0.1	
1987-88	0.2 $\pm$ 0.1	<.1 $\pm$ <.1	<.1 $\pm$ <.1	0.3 $\pm$ 0.1	
<b>Gafftopsail catfish</b>					
1983-84	0.2 $\pm$ 0.1	0.1 $\pm$ 0.1	0.0	0.3 $\pm$ 0.1	
1984-85	0.3 $\pm$ 0.2	0.3 $\pm$ 0.3	0.0	0.6 $\pm$ 0.3	
1985-86	0.1 $\pm$ <.1	<.1 $\pm$ <.1	0.0	0.1 $\pm$ <.1	
1986-87	<.1 $\pm$ <.1	<.1 $\pm$ <.1	0.0	0.1 $\pm$ <.1	
1987-88	0.1 $\pm$ 0.1	<.1 $\pm$ <.1	0.0	0.1 $\pm$ 0.1	
<b>Red drum</b>					
1983-84	0.0	0.0	0.0	0.0	
1984-85	<.1 $\pm$ <.1	0.0	0.0	<.1 $\pm$ <.1	
1985-86	0.0	0.0	0.0	0.0	
1986-87	0.0	0.0	0.0	0.0	
1987-88	0.0	0.0	0.0	0.0	
<b>Sand seatrout</b>					
1983-84	0.9 $\pm$ 0.9	2.0 $\pm$ 1.7	0.7 $\pm$ 0.4	3.6 $\pm$ 2.0	
1984-85	0.5 $\pm$ 0.4	0.5 $\pm$ 0.4	2.7 $\pm$ 1.8	3.7 $\pm$ 1.9	
1985-86	0.6 $\pm$ 0.3	1.9 $\pm$ 1.5	3.6 $\pm$ 1.4	6.1 $\pm$ 2.1	
1986-87	0.4 $\pm$ 0.2	1.6 $\pm$ 1.1	0.5 $\pm$ 0.2	2.4 $\pm$ 1.2	
1987-88	0.7 $\pm$ 0.6	0.8 $\pm$ 0.5	1.0 $\pm$ 0.5	2.5 $\pm$ 0.9	

Table G.3. (Cont'd.)

Species Year	Area				Coastwide <sup>a</sup>
	Galveston	Corpus Christi	Lower Laguna Madre		
Sheepshead					
1983-84	<.1 ± <.1	0.0	0.1 ± 0.1	0.1 ± 0.1	0.1 ± 0.1
1984-85	<.1 ± <.1	0.0	1.0 ± 0.9	1.1 ± 0.9	1.1 ± 0.9
1985-86	0.0	0.0	0.0	0.0	0.0
1986-87	0.0	0.0	<.1 ± <.1	<.1 ± <.1	<.1 ± <.1
1987-88	<.1 ± <.1	0.0	0.0	<.1 ± <.1	<.1 ± <.1
Southern flounder					
1983-84	<.1 ± <.1	0.0	0.0	<.1 ± <.1	<.1 ± <.1
1984-85	0.0	<.1 ± <.1	<.1 ± <.1	<.1 ± <.1	<.1 ± <.1
1985-86	0.0	<.1 ± <.1	0.1 ± <.1	0.1 ± <.1	0.1 ± <.1
1986-87	0.0	<.1 ± <.1	0.0	<.1 ± <.1	<.1 ± <.1
1987-88	0.0	<.1 ± <.1	0.0	<.1 ± <.1	<.1 ± <.1
Spotted seatrout					
1983-84	0.0	0.0	0.0	0.0	0.0
1984-85	0.0	0.0	<.1 ± <.1	<.1 ± <.1	<.1 ± <.1
1985-86	0.0	0.4 ± 0.3	<.1 ± <.1	0.4 ± 0.3	0.4 ± 0.3
1986-87	0.0	<.1 ± <.1	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.0	0.0
Other species					
1983-84	0.2	0.4	0.7	1.3	1.3
1984-85	0.1	0.4	2.5	3.0	3.0
1985-86	1.0	0.2	3.0	4.2	4.2
1986-87	1.3	0.8	0.9	3.0	3.0
1987-88	0.5	0.3	1.2	1.9	1.9
All species combined <sup>a</sup>					
1983-84	3.3 ± 1.4	2.6 ± 1.8	1.7 ± 0.5	7.6 ± 2.4	7.6 ± 2.4
1984-85	2.0 ± 0.9	1.3 ± 0.7	6.3 ± 2.8	9.6 ± 3.0	9.6 ± 3.0
1985	3.8 ± 2.1	2.8 ± 1.5	6.6 ± 2.2	13.3 ± 3.7	13.3 ± 3.7
1986-87	2.0 ± 0.8	2.4 ± 1.4	1.4 ± 0.5	5.7 ± 1.7	5.7 ± 1.7
1987-88	1.6 ± 0.8	1.2 ± 0.7	2.2 ± 1.0	5.1 ± 1.4	5.1 ± 1.4

<sup>a</sup> Due to rounding of numbers, these totals may not exactly equal individual totals.

Table G.4. Annual mean total lengths of fishes (mm/fish)  $\pm$  1 SE caught by headboat fishermen in Texas bays and passes by species and area (1983-1988). Blank = no fish measured. No standard error = only 1 fish measured.

Species Year	Area			Coastwide
	Galveston	Corpus Christi	Lower Laguna Madre	
<b>Atlantic croaker</b>				
1983-84	206 $\pm$ 7	238 $\pm$ 22	266 $\pm$ 18	209 $\pm$ 8
1984-85	208 $\pm$ 4	213 $\pm$ 41	224 $\pm$ 12	210 $\pm$ 4
1985-86	208 $\pm$ 4	205 $\pm$ 17	210 $\pm$ 10	208 $\pm$ 5
1986-87	219 $\pm$ 8	222 $\pm$ 10	224 $\pm$ 21	219 $\pm$ 8
1987-88	216 $\pm$ 4	207 $\pm$ 12	213 $\pm$ 8	215 $\pm$ 1
<b>Black drum</b>				
1983-84	479 $\pm$ 74	783 $\pm$ 88	320	507 $\pm$ 77
1984-85	587 $\pm$ 45	910 $\pm$ 29		610 $\pm$ 42
1985-86	714 $\pm$ 50	837 $\pm$ 31	894 $\pm$ 7	732 $\pm$ 47
1986-87	664 $\pm$ 62		1018	668 $\pm$ 62
1987-88	760 $\pm$ 32	898 $\pm$ 12		775 $\pm$ 21
<b>Gafftopsail catfish</b>				
1983-84	400 $\pm$ 53	514 $\pm$ 25		464 $\pm$ 24
1984-85	446 $\pm$ 36	398 $\pm$ 33		407 $\pm$ 18
1985-86	402 $\pm$ 21	405 $\pm$ 36		402 $\pm$ 24
1986-87	391 $\pm$ 39	374 $\pm$ 24		381 $\pm$ 29
1987-88	436 $\pm$ 15	489 $\pm$ 25	309	475 $\pm$ 45
<b>Red drum</b>				
1983-84	408			408
1984-85	704			704
1985-86	425		473	442
1986-87	315			315
1987-88	656 $\pm$ 12			656
<b>Sand seatrout</b>				
1983-84	275 $\pm$ 5	280 $\pm$ 5	291 $\pm$ 8	279 $\pm$ 5
1984-85	278 $\pm$ 6	276 $\pm$ 5	279 $\pm$ 3	278 $\pm$ 4
1985-86	254 $\pm$ 4	265 $\pm$ 3	278 $\pm$ 3	259 $\pm$ 4
1986-87	280 $\pm$ 4	265 $\pm$ 10	290 $\pm$ 2	280 $\pm$ 5
1987-88	262 $\pm$ 5	272 $\pm$ 5	273 $\pm$ 3	266 $\pm$ 4

Table G.4. (Cont'd.)

Species Year	Area				Coastwide
	Galveston	Corpus Christi	Lower Laguna Madre		
Sheepshead					
1983-84	405 ± 17		312 ± 6	335 ± 5	
1984-85	366		328 ± 2	330 ± 4	
1985-86		345		345	
1986-87			354	354	
1987-88	493	301		305 ± 8	
Southern flounder					
1983-84	330 ± 42	365		342 ± 98	
1984-85	330 ± 17	304 ± 76	336	323 ± 89	
1985-86	324 ± 18	325 ± 21	311 ± 25	324 ± 21	
1986-87	367 ± 9	348 ± 26	348 ± 19	354 ± 19	
1987-88		345 ± 48	316 ± 10	332 ± 11	
Spotted seatrout					
1983-84		331 ± 8	351 ± 17	332 ± 8	
1984-85		318	349 ± 6	337 ± 82	
1985-86	393 ± 43	395 ± 4	295 ± 20	366 ± 9	
1986-87	345	398 ± 9	345	395 ± 23	
1987-88	568	419 ± 22	361	425 ± 12	
All species combined <sup>a</sup>					
1983-84	278 ± 12	288 ± 5	289 ± 4	283 ± 8	
1984-85	288 ± 13	304 ± 13	283 ± 3	288 ± 7	
1985-86	265 ± 10	276 ± 6	280 ± 3	269 ± 8	
1986-87	268 ± 10	276 ± 9	290 ± 3	274 ± 8	
1987-88	292 ± 13	282 ± 6	281 ± 4	288 ± 4	

<sup>a</sup>Includes "other" species.

Table G.5. Mean total lengths of fishes (mm/fish)  $\pm$  1 SE caught by headboat fishermen in Texas bays and passes during the high-use season by species and area (1983-1987). Blank = no fish measured. No standard error = only 1 fish measured.

Species Year	Area				Coastwide
	Galveston	Corpus Christi	Lower Laguna Madre		
<b>Atlantic croaker</b>					
1983	209 $\pm$ 8	237 $\pm$ 22	266 $\pm$ 20	211 $\pm$ 8	
1984	209 $\pm$ 4	253	229 $\pm$ 11	210 $\pm$ 5	
1985	209 $\pm$ 5	204 $\pm$ 19	210 $\pm$ 10	209 $\pm$ 5	
1986	219 $\pm$ 8	227 $\pm$ 11	224 $\pm$ 21	219 $\pm$ 0	
1987	214 $\pm$ 4	208 $\pm$ 13	213 $\pm$ 8	214 $\pm$ 0	
<b>Black drum</b>					
1983	355 $\pm$ 17	488	320	359 $\pm$ 36	
1984	478 $\pm$ 24			478 $\pm$ 24	
1985	489 $\pm$ 40	497		489 $\pm$ 65	
1986	390 $\pm$ 37			390 $\pm$ 0	
1987	692 $\pm$ 95			692 $\pm$ 0	
<b>Gafftopsail catfish</b>					
1983	321 $\pm$ 9	482 $\pm$ 40		422 $\pm$ 28	
1984	500 $\pm$ 45	392 $\pm$ 26		405 $\pm$ 29	
1985	365 $\pm$ 10	393 $\pm$ 37		372 $\pm$ 16	
1986	300 $\pm$ 13	373 $\pm$ 25		349 $\pm$ 33	
1987	407 $\pm$ 11	488 $\pm$ 27	309	459 $\pm$ 55	
<b>Red drum</b>					
1983	408			408	
1984				442	
1985	425		473	315 $\pm$ 0	
1986	315			656 $\pm$ 0	
1987	656 $\pm$ 12				
<b>Sand seatrout</b>					
1983	274 $\pm$ 5	278 $\pm$ 5	287 $\pm$ 6	278 $\pm$ 5	
1984	277 $\pm$ 7	273 $\pm$ 5	280 $\pm$ 4	278 $\pm$ 5	
1985	253 $\pm$ 4	262 $\pm$ 3	271 $\pm$ 3	257 $\pm$ 4	
1986	280 $\pm$ 4	256 $\pm$ 10	287 $\pm$ 2	278 $\pm$ 5	
1987	260 $\pm$ 5	270 $\pm$ 5	271 $\pm$ 3	264 $\pm$ 4	

Table G.5. (Cont'd.)

Species Year	Area				Coastwide
	Galveston	Corpus Christi	Lower Laguna Madre		
Sheepshead					
1983	390 ± 14		331 ± 15		346 ± 14
1984					
1985		345			345
1986					
1987		301			301 ± 0
Southern flounder					
1983	365 ± 8	365			365 ± 98
1984	330 ± 17	417			351 ± 113
1985	324 ± 18	303 ± 25	258		306 ± 29
1986	367 ± 9	338 ± 27	348 ± 19		350 ± 10
1987	320	344 ± 84	316 ± 10		331 ± 10
Spotted seatrout					
1983		331 ± 8	351 ± 17		332
1984		369 ± 51	354 ± 3		363 ± 32
1985	393 ± 43	392 ± 9	293 ± 20		358 ± 14
1986	345	398 ± 9	345		395 ± 3
1987	568	419 ± 22	361		425 ± 12
All species combined <sup>a</sup>					
1983	266 ± 8	282 ± 4	297 ± 7		278 ± 6
1984	271 ± 13	288 ± 8	281 ± 3		275 ± 10
1985	249 ± 5	266 ± 4	273 ± 3		255 ± 5
1986	253 ± 7	275 ± 13	285 ± 2		262 ± 10
1987	280 ± 13	277 ± 5	277 ± 5		279 ± 1

<sup>a</sup>Includes "other" species.

Table G.6. Mean total lengths of fishes (mm/fish)  $\pm$  1 SE caught by headboat fishermen in Texas bays and passes during the low-use season by species and area (1983-1988). Blank = no fish measured. No standard error = only 1 fish measured.

Species Year	Area			Coastwide
	Galveston	Corpus Christi	Lower Laguna Madre	
<b>Atlantic croaker</b>				
1983-84	189 $\pm$ 1		261	192 $\pm$ 10
1984-85	192 $\pm$ 6	172	190	192 $\pm$ 13
1985-86	188 $\pm$ 7	213 $\pm$ 1		188 $\pm$ 7
1986-87	204	198		202 $\pm$ 3
1987-88	229 $\pm$ 6	177		228 $\pm$ 2
<b>Black drum</b>				
1983-84	723 $\pm$ 39	848 $\pm$ 53		777 $\pm$ 45
1984-85	660 $\pm$ 62	910 $\pm$ 29		692 $\pm$ 58
1985-86	796 $\pm$ 18	860 $\pm$ 8		812 $\pm$ 16
1986-87	782 $\pm$ 14		894 $\pm$ 7	788 $\pm$ 12
1987-88	766 $\pm$ 33	898 $\pm$ 12	1018	785 $\pm$ 26
<b>Gafftopsail catfish</b>				
1983-84	455 $\pm$ 23	576 $\pm$ 16		493 $\pm$ 21
1984-85	421 $\pm$ 21	407 $\pm$ 80		413 $\pm$ 52
1985-86	461 $\pm$ 29	479 $\pm$ 147		467 $\pm$ 66
1986-87	463 $\pm$ 53	408		455 $\pm$ 14
1987-88	516 $\pm$ 21	502		515 $\pm$ 1
<b>Red drum</b>				
1983-84				704
1984-85				
1985-86				
1986-87				
1987-88				
<b>Sand seatrout</b>				
1983-84	279	305 $\pm$ 4	304 $\pm$ 16	298 $\pm$ 77
1984-85	267 $\pm$ 22	292 $\pm$ 11	278 $\pm$ 7	279 $\pm$ 10
1985-86	268 $\pm$ 15	277 $\pm$ 2	296 $\pm$ 3	288 $\pm$ 3
1986-87	282 $\pm$ 6	284 $\pm$ 3	310 $\pm$ 7	289 $\pm$ 6
1987-88	289 $\pm$ 1	282 $\pm$ 12	281 $\pm$ 10	284 $\pm$ 2

Table G.6. (Cont'd.)

Species Year	Area				Coastwide
	Galveston	Corpus Christi	Lower Laguna Madre		
Sheepshead					
1983-84	436		307 ± 3		327 ± 68
1984-85	366		328 ± 2		329 ± 9
1985-86					
1986-87			354		354 ± 0
1987-88	493				493 ± 0
Southern flounder					
1983-84	224				224
1984-85		247	336		292
1985-86		383 ± 24	322 ± 23		343 ± 24
1986-87		415			347 ± 19
1987-88		349			349 ± 0
Spotted seatrout					
1983-84				298	298
1984-85				356	
1985-86		397 ± 2			395 ± 16
1986-87					
1987-88					
All species combined <sup>a</sup>					
1983-84	368 ± 79	346 ± 38	295 ± 11		345 ± 50
1984-85	447 ± 63	374 ± 64	287 ± 6		332 ± 25
1985-86	389 ± 62	316 ± 35	296 ± 2		327 ± 26
1986-87	365 ± 48	277 ± 8	308 ± 7		315 ± 28
1987-88	418 ± 81	304 ± 22	289 ± 5		335 ± 42

<sup>a</sup>Includes "other" species.



Table G.7. Annual mean weights of fishes (kg/fish)  $\pm$  1 SE caught by headboat fishermen in Texas bays and passes by species and area (1983-1988). Blank = no fish weighed. No standard error = only 1 fish weighed.

Species Year	Area				Coastwide
	Galveston	Corpus Christi	Lower Laguna Madre		
<b>Atlantic croaker</b>					
1983-84	0.12 $\pm$ 0.01	0.20 $\pm$ 0.05	0.26 $\pm$ 0.05		0.12 $\pm$ 0.02
1984-85	0.12 $\pm$ 0.01	0.13 $\pm$ 0.07	0.14 $\pm$ 0.02		0.12 $\pm$ 0.01
1985-86	0.12 $\pm$ 0.01	0.12 $\pm$ 0.03	0.12 $\pm$ 0.02		0.12 $\pm$ 0.01
1986-87	0.14 $\pm$ 0.02	0.14 $\pm$ 0.02	0.16 $\pm$ 0.06		0.14 $\pm$ 0.02
1987-88	0.13 $\pm$ 0.01	0.12 $\pm$ 0.02	0.12 $\pm$ 0.02		0.13 $\pm$ 0.00
<b>Black drum</b>					
1983-84	2.54 $\pm$ 0.99	7.66 $\pm$ 2.01	0.46		2.99 $\pm$ 1.08
1984-85	3.52 $\pm$ 0.83	11.01 $\pm$ 1.34			3.96 $\pm$ 0.86
1985-86	5.81 $\pm$ 0.92	8.62 $\pm$ 0.69			6.22 $\pm$ 0.89
1986-87	5.08 $\pm$ 0.89		10.03 $\pm$ 0.25		5.15 $\pm$ 0.88
1987-88	6.50 $\pm$ 0.71	10.26 $\pm$ 0.43	14.80		6.92 $\pm$ 0.59
<b>Gafftopsail catfish</b>					
1983-84	0.76 $\pm$ 0.30	1.44 $\pm$ 0.20			1.14 $\pm$ 0.24
1984-85	0.94 $\pm$ 0.25	0.75 $\pm$ 0.19			0.78 $\pm$ 0.20
1985-86	0.68 $\pm$ 0.13	0.81 $\pm$ 0.21			0.71 $\pm$ 0.15
1986-87	0.75 $\pm$ 0.22	0.55 $\pm$ 0.10		0.98	0.62 $\pm$ 0.14
1987-88	0.89 $\pm$ 0.10	1.23 $\pm$ 0.19			1.02 $\pm$ 0.14
<b>Red drum</b>					
1983-84					0.71
1984-85					3.83
1985-86				1.12	0.92
1986-87					0.32
1987-88	3.10 $\pm$ 0.19				3.10
<b>Sand seatrout</b>					
1983-84	0.23 $\pm$ 0.01	0.24 $\pm$ 0.01	0.27 $\pm$ 0.02		0.24 $\pm$ 0.01
1984-85	0.23 $\pm$ 0.01	0.23 $\pm$ 0.01	0.23 $\pm$ 0.01		0.23 $\pm$ 0.01
1985-86	0.18 $\pm$ 0.01	0.20 $\pm$ 0.01	0.23 $\pm$ 0.01		0.19 $\pm$ 0.01
1986-87	0.24 $\pm$ 0.01	0.20 $\pm$ 0.02	0.26 $\pm$ 0.01		0.24 $\pm$ 0.01
1987-88	0.20 $\pm$ 0.01	0.22 $\pm$ 0.01	0.22 $\pm$ 0.01		0.21 $\pm$ 0.01

Table G.7. (Cont'd.)

Species Year	Area				Coastwide
	Galveston	Corpus Christi	Lower Laguna Madre		
Sheepshead					
1983-84	1.15 ± 0.14		0.55 ± 0.03	0.67 ± 0.06	
1984-85	0.85		0.63 ± 0.02	0.64 ± 0.03	
1985-86		0.72		0.72	
1986-87			0.77	0.77	
1987-88	2.00	0.50		0.54 ± 0.06	
Southern flounder					
1983-84	0.50 ± 0.16	0.56		0.51 ± 0.26	
1984-85	0.41 ± 0.07	0.39 ± 0.30	0.43	0.41 ± 0.23	
1985-86	0.41 ± 0.07	0.43 ± 0.08	0.36 ± 0.09	0.42 ± 0.08	
1986-87	0.60 ± 0.02	0.53 ± 0.13	0.49 ± 0.08	0.54 ± 0.08	
1987-88	0.37	0.53 ± 0.21	0.36 ± 0.03	0.45 ± 0.06	
Spotted seatrout					
1983-84		0.34 ± 0.03	0.41 ± 0.06	0.34 ± 0.03	
1984-85		0.29	0.39 ± 0.02	0.35 ± 0.13	
1985-86	0.58 ± 0.20	0.59 ± 0.02	0.25 ± 0.06	0.49 ± 0.04	
1986-87	0.38	0.60 ± 0.04	0.38	0.59 ± 0.06	
1987-88	1.74	0.70 ± 0.11	0.43	0.75 ± 0.09	
All species combined <sup>a</sup>					
1983-84	0.55 ± 0.14	0.36 ± 0.04	0.32 ± 0.02	0.45 ± 0.09	
1984-85	0.40 ± 0.10	0.51 ± 0.18	0.21 ± 0.01	0.35 ± 0.08	
1985-86	0.34 ± 0.12	0.27 ± 0.08	0.18 ± 0.01	0.30 ± 0.10	
1986-87	0.34 ± 0.10	0.19 ± 0.03	0.25 ± 0.03	0.30 ± 0.07	
1987-88	0.35 ± 0.10	0.26 ± 0.06	0.90 ± 0.69	0.41 ± 0.11	

<sup>a</sup>Includes "other" species.

Table G.8. Mean weights of fishes (kg/fish)  $\pm$  1 SE caught by headboat fishermen in Texas bays and passes during the high-use season by species and area (1983-1987). Blank = no fish weighed. No standard error = only 1 fish weighed.

Species Year	Area				Coastwide
	Galveston	Corpus Christi	Lower Laguna Madre		
<b>Atlantic croaker</b>					
1983	0.12 $\pm$ 0.01	0.20 $\pm$ 0.05	0.26 $\pm$ 0.05	0.13 $\pm$ 0.02	
1984	0.12 $\pm$ 0.01	0.20	0.15 $\pm$ 0.02	0.12 $\pm$ 0.01	
1985	0.12 $\pm$ 0.01	0.12 $\pm$ 0.04	0.12 $\pm$ 0.02	0.12 $\pm$ 0.01	
1986	0.14 $\pm$ 0.02	0.15 $\pm$ 0.03	0.16 $\pm$ 0.06	0.14	
1987	0.13 $\pm$ 0.01	0.12 $\pm$ 0.03	0.12 $\pm$ 0.02	0.13	
<b>Black drum</b>					
1983	0.84 $\pm$ 0.17	1.63	0.46	0.86 $\pm$ 0.22	
1984	1.89 $\pm$ 0.28	1.72		1.89 $\pm$ 0.28	
1985	1.90 $\pm$ 0.42			1.95 $\pm$ 0.49	
1986	1.01 $\pm$ 0.34			1.01	
1987	5.29 $\pm$ 2.40			5.29	
<b>Gafftopsail catfish</b>					
1983	0.31 $\pm$ 0.03	1.22 $\pm$ 0.28		0.88 $\pm$ 0.19	
1984	1.27 $\pm$ 0.32	0.65 $\pm$ 0.18		0.72 $\pm$ 0.19	
1985	0.48 $\pm$ 0.04	0.73 $\pm$ 0.20		0.53 $\pm$ 0.08	
1986	0.25 $\pm$ 0.04	0.54 $\pm$ 0.10		0.44 $\pm$ 0.13	
1987	0.70 $\pm$ 0.05	1.23 $\pm$ 0.20	0.98	0.95 $\pm$ 0.12	
<b>Red drum</b>					
1983	0.71			0.71	
1984					
1985	0.81			0.92	
1986	0.32			0.32	
1987	3.10 $\pm$ 0.19		1.12	3.10	
<b>Sand seatrout</b>					
1983	0.23 $\pm$ 0.01	0.24 $\pm$ 0.01	0.25 $\pm$ 0.02	0.24 $\pm$ 0.01	
1984	0.23 $\pm$ 0.02	0.22 $\pm$ 0.01	0.23 $\pm$ 0.01	0.23 $\pm$ 0.01	
1985	0.18 $\pm$ 0.01	0.20 $\pm$ 0.01	0.22 $\pm$ 0.01	0.19 $\pm$ 0.01	
1986	0.24 $\pm$ 0.01	0.18 $\pm$ 0.02	0.25 $\pm$ 0.01	0.23 $\pm$ 0.01	
1987	0.19 $\pm$ 0.01	0.22 $\pm$ 0.02	0.21 $\pm$ 0.01	0.20 $\pm$ 0.01	

Table G.8. (Cont'd.)

Species Year	Area				Coastwide
	Galveston	Corpus Christi	Laguna Madre	Lower	
Sheepshead					
1983	1.03 ± 0.11		0.65 ± 0.08		0.13 ± 0.02
1984					0.72
1985		0.72			
1986					0.50
1987		0.50			
Southern flounder					
1983	0.62 ± 0.08	0.56			0.61 ± 0.20
1984	0.41 ± 0.07	0.85			0.52 ± 0.25
1985	0.41 ± 0.07	0.34 ± 0.08	0.19		0.35 ± 0.08
1986	0.60 ± 0.02	0.48 ± 0.13	0.49 ± 0.08		0.52 ± 0.04
1987	0.37	0.55 ± 0.36	0.36 ± 0.03		0.46 ± 0.07
Spotted seatrout					
1983		0.34 ± 0.03	0.41 ± 0.06		0.34 ± 0.03
1984		0.49 ± 0.20	0.41 ± 0.01		0.46 ± 0.12
1985	0.58 ± 0.19	0.56 ± 0.04	0.25 ± 0.06		0.46 ± 0.05
1986	0.38	0.60 ± 0.04	0.38		0.59 ± 0.01
1987	1.74	0.70 ± 0.11	0.43		0.75 ± 0.09
All species combined <sup>a</sup>					
1983	0.40 ± 0.10	0.30 ± 0.02	0.40 ± 0.05		0.36 ± 0.06
1984	0.22 ± 0.03	0.20 ± 0.01	0.20		0.21 ± 0.02
1985	0.14 ± 0.02	0.17 ± 0.03	0.16 ± 0.01		0.15 ± 0.02
1986	0.15 ± 0.02	0.18 ± 0.03	0.20		0.17 ± 0.01
1987	0.17 ± 0.02	0.20 ± 0.02	1.10 ± 0.98		0.31 ± 0.18

<sup>a</sup> Includes "other" species.

Table G.9. Mean weights of fishes (kg/fish)  $\pm$  1 SE caught by headboat fishermen in Texas bays and passes during the low-use season by species and area (1983-1988). Blank = no fish weighed. No standard error = only 1 fish weighed.

Species Year	Area			Coastwide
	Galveston	Corpus Christi	Lower Laguna Madre	
<b>Atlantic croaker</b>				
1983-84	0.08		0.23	0.09 $\pm$ 0.01
1984-85	0.09 $\pm$ 0.01	0.06 $\pm$ 0.06	0.08	0.09 $\pm$ 0.01
1985-86	0.09 $\pm$ 0.01	0.12		0.09 $\pm$ 0.01
1986-87	0.10	0.09		0.10
1987-88	0.15 $\pm$ 0.01	0.07		0.15
<b>Black drum</b>				
1983-84	5.83 $\pm$ 0.69	9.00 $\pm$ 1.47	0.00 $\pm$ 0.00	7.20 $\pm$ 1.03
1984-85	4.60 $\pm$ 1.21	11.01 $\pm$ 1.34	0.00 $\pm$ 0.00	5.43 $\pm$ 1.23
1985-86	7.21 $\pm$ 0.47	9.08 $\pm$ 0.33		7.68 $\pm$ 0.43
1986-87	6.82 $\pm$ 0.34		10.03 $\pm$ 0.25	7.01 $\pm$ 0.35
1987-88	6.60 $\pm$ 0.73	10.26 $\pm$ 0.43	14.80	7.15 $\pm$ 0.73
<b>Gafftopsail catfish</b>				
1983-84	1.05 $\pm$ 0.15	1.90 $\pm$ 0.20	0.00 $\pm$ 0.00	1.32 $\pm$ 0.17
1984-85	0.75 $\pm$ 0.15	0.90 $\pm$ 0.38	0.00 $\pm$ 0.00	0.83 $\pm$ 0.27
1985-86	1.02 $\pm$ 0.20	1.36 $\pm$ 1.04		1.13 $\pm$ 0.47
1986-87	1.14 $\pm$ 0.31	0.61		1.06 $\pm$ 0.14
1987-88	1.40 $\pm$ 0.17	1.19		1.39 $\pm$ 0.02
<b>Red drum</b>				
1983-84		0.00 $\pm$ 0.00	0.00 $\pm$ 0.00	
1984-85		0.00 $\pm$ 0.00	0.00 $\pm$ 0.00	
1985-86	3.83			3.83
1986-87				
1987-88				
<b>Sand seatrout</b>				
1983-84	0.23	0.31 $\pm$ 0.01	0.31 $\pm$ 0.05	0.29 $\pm$ 0.08
1984-85	0.22 $\pm$ 0.06	0.28 $\pm$ 0.03	0.23 $\pm$ 0.02	0.24 $\pm$ 0.02
1985-86	0.22 $\pm$ 0.04	0.23 $\pm$ 0.01	0.28 $\pm$ 0.01	0.26 $\pm$ 0.01
1986-87	0.24 $\pm$ 0.02	0.25 $\pm$ 0.01	0.31 $\pm$ 0.02	0.26 $\pm$ 0.01
1987-88	0.26	0.26 $\pm$ 0.03	0.24 $\pm$ 0.03	0.25 $\pm$ 0.01

Table G.9. (Cont'd.)

Species Year	Area			
	Galveston	Corpus Christi	Lower Laguna Madre	Coastwide
<b>Sheepshead</b>				
1983-84	1.41	0.00 ± 0.00	0.52 ± 0.02	0.66 ± 0.22
1984-85	0.85	0.00 ± 0.00	0.63 ± 0.02	0.64 ± 0.03
1985-86				
1986-87				0.77
1987-88	2.00			2.00
<b>Southern flounder</b>				
1983-84	0.12		0.00 ± 0.00	0.12
1984-85	0.00 ± 0.00	0.17	0.43	0.30
1985-86		0.66 ± 0.13	0.39 ± 0.08	0.49 ± 0.10
1986-87		0.83		0.83
1987-88		0.48		0.48
<b>Spotted seatrout</b>				
1983-84	0.00 ± 0.00	0.00 ± 0.00		0.00 ± 0.00
1984-85	0.00 ± 0.00	0.00 ± 0.00	0.24	0.24
1985-86		0.61 ± 0.01		0.60 ± 0.03
1986-87				
1987-88				
<b>All species combined<sup>a</sup></b>				
1983-84	1.65 ± 0.82	0.97 ± 0.55	0.33 ± 0.05	1.13 ± 0.56
1984-85	1.99 ± 0.77	1.82 ± 1.15	0.24 ± 0.05	0.82 ± 0.35
1985-86	1.91 ± 0.97	0.70 ± 0.50	0.22 ± 0.01	0.81 ± 0.39
1986-87	1.43 ± 0.68	0.22 ± 0.02	0.41 ± 0.09	0.68 ± 0.40
1987-88	2.23 ± 1.07	0.51 ± 0.34	0.38 ± 0.24	1.01 ± 0.61

<sup>a</sup>Includes "other" species.

Table G.10. Annual mean catch rates of fishes (No./man-h)  $\pm$  1 SE caught by headboat fishermen in Texas bays and passes by species and area (1983-1988). Blank = no fishermen interviewed.

Species Year	Area			
	Galveston	Corpus Christi	Lower Laguna Madre	Coastwide
<b>Atlantic croaker</b>				
1983-84	0.30 $\pm$ 0.15	<.01 $\pm$ <.01	0.02 $\pm$ 0.01	0.13 $\pm$ 0.06
1984-85	0.20 $\pm$ 0.09	<.01 $\pm$ <.01	0.01 $\pm$ <.01	0.09 $\pm$ 0.34
1985-86	0.19 $\pm$ 0.08	0.02 $\pm$ 0.01	0.02 $\pm$ 0.01	0.11 $\pm$ 0.03
1986-87	0.62 $\pm$ 0.19	<.01 $\pm$ <.01	0.01 $\pm$ <.01	0.30 $\pm$ 0.01
1987-88	0.10 $\pm$ 0.04	0.01 $\pm$ <.01	0.01 $\pm$ <.01	0.05 $\pm$ 0.02
<b>Black drum</b>				
1983-84	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.01 $\pm$ <.01
1984-85	0.02 $\pm$ 0.01	<.01 $\pm$ <.01	0.00	0.01 $\pm$ <.01
1985-86	0.01 $\pm$ 0.01	<.01 $\pm$ <.01	0.00	0.01 $\pm$ <.01
1986-87	0.02 $\pm$ 0.01	0.00	<.01 $\pm$ <.01	0.01 $\pm$ <.01
1987-88	<.01 $\pm$ <.01	0.00	0.00	<.01 $\pm$ <.01
<b>Gafftopsail catfish</b>				
1983-84	<.01 $\pm$ <.01	0.01 $\pm$ <.01	0.00	0.01 $\pm$ <.01
1984-85	<.01 $\pm$ <.01	0.02 $\pm$ 0.01	0.00	0.01 $\pm$ <.01
1985-86	0.01 $\pm$ 0.01	<.01 $\pm$ <.01	0.00	0.01 $\pm$ <.01
1986-87	0.01 $\pm$ <.01	0.02 $\pm$ 0.01	0.00	0.01 $\pm$ <.01
1987-88	0.01 $\pm$ <.01	0.01 $\pm$ <.01	0.00	0.01 $\pm$ <.01
<b>Red drum</b>				
1983-84	0.00	0.00	0.00	0.00
1984-85	0.00	0.00	0.00	0.00
1985-86	0.00	0.00	<.01 $\pm$ <.01	0.00
1986-87	<.01 $\pm$ <.01	0.00	0.00	0.00
1987-88	<.01 $\pm$ <.01	0.00	0.00	<.01 $\pm$ <.01
<b>Sand seatrout</b>				
1983-84	0.34 $\pm$ 0.14	0.50 $\pm$ 0.14	0.24 $\pm$ 0.08	0.40 $\pm$ 0.08
1984-85	0.39 $\pm$ 0.20	0.12 $\pm$ 0.04	0.66 $\pm$ 0.19	0.35 $\pm$ 0.10
1985-86	1.11 $\pm$ 0.59	0.57 $\pm$ 0.18	0.59 $\pm$ 0.17	0.85 $\pm$ 0.29
1986-87	0.50 $\pm$ 0.18	0.23 $\pm$ 0.08	0.51 $\pm$ 0.21	0.42 $\pm$ 0.10
1987-88	0.73 $\pm$ 0.25	0.37 $\pm$ 0.20	0.53 $\pm$ 0.19	0.57 $\pm$ 0.15

Table G.10. (Cont'd.)

Species Year	Area				Coastwide
	Galveston	Corpus Christi	Lower Laguna Madre		
Sheepshead					
1983-84	0.00	0.00	0.01 ± <.01	<.01 ± <.01	<.01 ± <.01
1984-85	0.00	0.00	0.04 ± 0.03	0.01 ± 0.01	0.01 ± 0.01
1985-86	0.00	<.01 ± <.01	0.00	0.00	0.00
1986-87	0.00	0.00	0.00	0.00	0.00
1987-88	0.00	<.01 ± <.01	0.00	0.00	<.01 ± <.01
Southern flounder					
1983-84	<.01	0.00	0.00	0.00	0.00
1984-85	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01
1985-86	<.01 ± <.01	0.01 ± 0.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01
1986-87	<.01 ± <.01	0.01 ± 0.01	<.01 ± <.01	<.01 ± <.01	0.01 ± <.01
1987-88	0.00	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01
Spotted seatrout					
1983-84	0.00	0.05 ± 0.04	<.01 ± <.01	<.01 ± <.01	0.02 ± 0.02
1984-85	0.00	<.01 ± <.01	0.01 ± <.01	0.01 ± <.01	<.01 ± <.01
1985-86	0.00	0.02 ± 0.01	0.02 ± 0.01	0.02 ± 0.01	0.01 ± <.01
1986-87	<.01 ± <.01	0.03 ± 0.02	0.02 ± 0.01	0.02 ± 0.01	0.01 ± 0.01
1987-88	0.00	0.01 ± 0.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01
Other species					
1983-84	0.14	0.04	0.46	0.16	0.16
1984-85	0.05	0.03	0.16	0.07	0.07
1985-86	0.07	0.06	0.19	0.09	0.09
1986-87	0.09	0.08	0.32	0.13	0.13
1987-88	0.09	0.02 ± 0.01	0.23	0.09	0.09
All species combined <sup>a</sup>					
1983-84	0.83 ± 0.30	0.60 ± 0.15	0.74 ± 0.31	0.72 ± 0.14	0.72 ± 0.14
1984-85	0.66 ± 0.30	0.20 ± 0.05	0.87 ± 0.22	0.56 ± 0.14	0.56 ± 0.14
1985-86	1.42 ± 0.72	0.76 ± 0.22	0.82 ± 0.22	1.11 ± 0.35	1.11 ± 0.35
1986-87	1.24 ± 0.29	0.37 ± 0.10	0.84 ± 0.33	0.89 ± 0.15	0.89 ± 0.15
1987-88	0.94 ± 0.30	0.42 ± 0.21	0.77 ± 0.24	0.72 ± 0.18	0.72 ± 0.18

<sup>a</sup> Due to rounding of numbers, these totals may not exactly equal individual totals.



Table G.11. Mean catch rates of fishes (No./man-h)  $\pm$  1 SE caught by headboat fishermen in Texas bays and passes during the high-use season by species and area (1983-1987). Blank = no fishermen interviewed.

Species Year	Area			Coastwide
	Galveston	Corpus Christi	Lower Laguna Madre	
<b>Atlantic croaker</b>				
1983	0.32 $\pm$ 0.17	<.01 $\pm$ <.01	.02 $\pm$ 0.01	0.14 $\pm$ 0.07
1984	0.23 $\pm$ 0.12	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.09 $\pm$ 0.03
1985	0.20 $\pm$ 0.10	0.02 $\pm$ <.01	<.01 $\pm$ <.01	0.12 $\pm$ 0.04
1986	0.71 $\pm$ 0.22	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.36 $\pm$ 0.10
1987	0.12 $\pm$ 0.04	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.06 $\pm$ 0.02
<b>Black drum</b>				
1983	0.04 $\pm$ 0.02	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01
1984	0.01 $\pm$ <.01	0.00	0.00	0.01 $\pm$ <.01
1985	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01
1986	0.02 $\pm$ <.01	0.00	0.00	<.01 $\pm$ <.01
1987	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01	<.01
<b>Gafftopsail catfish</b>				
1983	<.01 $\pm$ <.01	0.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01
1984	<.01 $\pm$ <.01	0.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01
1985	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01
1986	<.01 $\pm$ <.01	0.03 $\pm$ 0.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01
1987	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01
<b>Red drum</b>				
1983	0.00	0.00	0.00	0.00
1984	0.00	0.00	0.00	0.00
1985	0.00	0.00	<.01 $\pm$ <.01	0.00
1986	<.01 $\pm$ <.01	0.00	0.00	0.00
1987	<.01 $\pm$ <.01	0.00	0.00	<.01 $\pm$ <.01
<b>Sand seatrout</b>				
1983	0.38 $\pm$ 0.17	0.55 $\pm$ 0.17	0.27 $\pm$ 0.09	0.43 $\pm$ 0.10
1984	0.46 $\pm$ 0.26	0.14 $\pm$ 0.06	0.84 $\pm$ 0.26	0.42 $\pm$ 0.13
1985	1.24 $\pm$ 0.70	0.64 $\pm$ 0.21	0.64 $\pm$ 0.21	0.96 $\pm$ 0.35
1986	0.57 $\pm$ 0.21	0.23 $\pm$ 0.10	0.60 $\pm$ 0.26	0.48 $\pm$ 0.12
1987	1.00 $\pm$ 0.29	0.37 $\pm$ 0.21	0.61 $\pm$ 0.24	0.61 $\pm$ 0.17

Table G. 11. (Cont'd.)

Species Year	Area			
	Galveston	Corpus Christi	Lower Laguna Madre	Coastwide
<b>Sheepshead</b>				
1983	<.01	0.00	<.01 ± <.01	<.01 ± <.01
1984	0.00	0.00	0.00	0.00
1985	0.00	<.01 ± <.01	0.00	<.01 ± <.01
1986	0.00	0.00	0.00	0.00
1987	0.00	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01
<b>Southern flounder</b>				
1983	<.01 ± <.01	0.00	0.00	0.00
1984	<.01 ± <.01	0.00	0.00	0.00
1985	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01
1986	<.01 ± <.01	0.01 ± 0.01	0.00	<.01 ± <.01
1987	0.00	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01
<b>Spotted seatrout</b>				
1983	0.00	0.06 ± 0.05	0.00	0.03 ± 0.02
1984	0.00	0.01 ± <.01	0.01 ± <.01	<.01 ± <.01
1985	0.00	<.01 ± <.01	0.02 ± 0.02	<.01 ± <.01
1986	<.01 ± <.01	<.01 ± <.01	0.00	<.01 ± <.01
1987	0.00	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01
<b>Other species</b>				
1983	0.16	0.04	0.53	0.17
1984	0.06	0.03	0.11	0.06
1985	0.08	0.06	0.14	0.08
1986	0.07	0.07	0.34	0.13
1987	0.10	0.02	0.22	0.08
<b>All species combined<sup>a</sup></b>				
1983	0.90 ± 0.35	0.68 ± 0.19	0.83 ± 0.38	0.80 ± 0.18
1984	0.76 ± 0.38	0.20 ± 0.07	0.98 ± 0.29	0.61 ± 0.18
1985	1.56 ± 0.84	0.83 ± 0.26	0.82 ± 0.26	1.22 ± 0.42
1986	1.39 ± 0.34	0.38 ± 0.12	0.96 ± 0.41	1.00 ± 0.19
1987	1.04 ± 0.35	0.42 ± 0.22	0.84 ± 0.30	0.77 ± 0.20

<sup>a</sup> Due to rounding of numbers, these totals may not exactly equal individual totals.

Table G.12. Mean catch rates of fishes (No./man-h)  $\pm$  1 SE caught by headboat fishermen in Texas bays and passes during the low-use season by species and area (1983-1988). Blank = no fishermen interviewed.

Species Year	Area			Coastwide
	Galveston	Corpus Christi	Lower Laguna Madre	
<b>Atlantic croaker</b>				
1983-84	0.17 $\pm$ 0.10	0.00	0.01 $\pm$ 0.01	0.06 $\pm$ 0.03
1984-85	0.04 $\pm$ 0.03	0.00	<.01 $\pm$ <.01	0.02 $\pm$ 0.01
1985-86	0.14 $\pm$ 0.13	<.01 $\pm$ <.01	0.00	0.06 $\pm$ 0.05
1986-87	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01
1987-88	0.02 $\pm$ 0.02	<.01 $\pm$ <.01	0.00	0.01 $\pm$ 0.01
<b>Black drum</b>				
1983-84	0.02 $\pm$ 0.01	0.01 $\pm$ 0.01	0.00	0.01 $\pm$ <.01
1984-85	0.05 $\pm$ 0.03	0.01 $\pm$ <.01	0.00	0.02 $\pm$ 0.01
1985-86	0.04 $\pm$ 0.02	0.02 $\pm$ 0.01	0.00	0.02 $\pm$ 0.01
1986-87	0.03 $\pm$ 0.02	0.00	<.01 $\pm$ <.01	0.01 $\pm$ 0.01
1987-88	0.02 $\pm$ 0.01	0.01 $\pm$ 0.01	<.01 $\pm$ <.01	0.02 $\pm$ 0.01
<b>Gafftopsail catfish</b>				
1983-84	0.02 $\pm$ 0.12	0.01 $\pm$ 0.01	0.00	0.01 $\pm$ <.01
1984-85	0.03 $\pm$ 0.02	0.03 $\pm$ 0.03	0.00	0.02 $\pm$ 0.01
1985-86	0.01 $\pm$ <.01	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01
1986-87	0.01 $\pm$ <.01	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01
1987-88	0.01 $\pm$ 0.01	<.01 $\pm$ <.01	0.00	0.01 $\pm$ <.01
<b>Red drum</b>				
1983-84	0.00	0.00	0.00	0.00
1984-85	<.01 $\pm$ <.01	0.00	0.00	<.01 $\pm$ <.01
1985-86	0.00	0.00	0.00	0.00
1986-87	0.00	0.00	0.00	0.00
1987-88	0.00	0.00	0.00	0.00
<b>Sand seatrout</b>				
1983-84	0.09 $\pm$ 0.09	0.15 $\pm$ 0.13	0.13 $\pm$ 0.08	0.13 $\pm$ 0.07
1984-85	0.05 $\pm$ 0.04	0.04 $\pm$ 0.04	0.29 $\pm$ 0.19	0.12 $\pm$ 0.06
1985-86	0.05 $\pm$ 0.03	0.20 $\pm$ 0.16	0.43 $\pm$ 0.19	0.20 $\pm$ 0.08
1986-87	0.06 $\pm$ 0.04	0.22 $\pm$ 0.16	0.11 $\pm$ 0.06	0.13 $\pm$ 0.07
1987-88	0.07 $\pm$ 0.06	0.27 $\pm$ 0.17	0.21 $\pm$ 0.12	0.14 $\pm$ 0.06

Table G.12. (Cont'd.)

Species Year	Area				Coastwide
	Galveston	Corpus Christi	Lower Laguna Madre		
Sheepshead					
1983-84	$<0.01 \pm <0.01$	0.00	$0.02 \pm 0.02$	$<0.01 \pm <0.01$	$<0.01 \pm <0.01$
1984-85	$<0.01 \pm <0.01$	0.00	$0.11 \pm 0.10$	$0.03 \pm 0.03$	$0.03 \pm 0.03$
1985-86	0.00	0.00	0.00	0.00	0.00
1986-87	0.00	0.00	$<0.01 \pm <0.01$	0.00	0.00
1987-88	$<0.01 \pm <0.01$	0.00	0.00	0.00	0.00
Southern flounder					
1983-84	0.00	0.00	0.00	0.00	0.00
1984-85	0.00	$<0.01 \pm <0.01$	$<0.01 \pm <0.01$	$<0.01 \pm <0.01$	$<0.01 \pm <0.01$
1985-86	0.00	$<0.01 \pm <0.01$	$<0.01 \pm <0.01$	$<0.01 \pm <0.01$	$<0.01 \pm <0.01$
1986-87	0.00	$<0.01 \pm <0.01$	0.00	0.00	0.00
1987-88	0.00	$<0.01 \pm <0.01$	0.00	0.00	0.00
Spotted seatrout					
1983-84	0.00	0.00	0.00	0.00	0.00
1984-85	0.00	0.00	$<0.01 \pm <0.01$	0.00	0.00
1985-86	0.00	$0.04 \pm 0.04$	$<0.01 \pm <0.01$	$<0.01 \pm <0.01$	$0.01 \pm 0.01$
1986-87	0.00	0.00	0.00	0.00	0.00
1987-88	0.00	$<0.01 \pm <0.01$	0.00	0.00	0.00
Other species					
1983-84	0.02	0.03	$0.13 \pm <0.05$	0.05	0.05
1984-85	0.01	0.03	$0.26 \pm 0.12$	0.10	0.10
1985-86	0.08	$0.03 \pm 0.01$	$0.35 \pm 0.14$	0.14	0.14
1986-87	0.19	0.11	0.20	0.16	0.16
1987-88	0.04	0.16	$0.23 \pm 0.13$	0.11	0.11
All species combined <sup>a</sup>					
1983-84	$0.34 \pm 0.16$	$0.20 \pm 0.14$	$0.29 \pm 0.12$	$0.26 \pm 0.09$	$0.26 \pm 0.09$
1984-85	$0.18 \pm 0.09$	$0.12 \pm 0.07$	$0.66 \pm 0.33$	$0.31 \pm 0.10$	$0.31 \pm 0.10$
1985-86	$0.32 \pm 0.19$	$0.30 \pm 0.17$	$0.79 \pm 0.31$	$0.44 \pm 0.13$	$0.44 \pm 0.13$
1986-87	$0.29 \pm 0.15$	$0.34 \pm 0.20$	$0.31 \pm 0.15$	$0.32 \pm 0.10$	$0.32 \pm 0.10$
1987-88	$0.17 \pm 0.10$	$0.40 \pm 0.23$	$0.44 \pm 0.22$	$0.29 \pm 0.10$	$0.29 \pm 0.10$

<sup>a</sup> Due to rounding of numbers, these totals may not exactly equal individual totals.

Table G.13. Mean catch rates of fishes (No./man-h)  $\pm$  1 SE caught by headboat fishermen in Texas bays and passes by species, season and area (1978-1988)<sup>a</sup>. Number in parenthesis indicates number of surveys.

Area Year Season	Sand seatrout	Atlantic croaker	Other	All species combined
Galveston				
1978-79				
High use (12)	1.85 $\pm$ 0.66	0.59 $\pm$ 0.25	0.16	2.59 $\pm$ 0.71
Low use (8)	0.00	0.00	0.14	0.14 $\pm$ 0.08
1981-82				
High use (15)	0.52 $\pm$ 0.23	0.52 $\pm$ 0.16	0.32	1.35 $\pm$ 0.28
Low use (3)	0.00	0.02 $\pm$ 0.02	0.08	0.09 $\pm$ 0.04
1983-84				
High use (16)	0.40 $\pm$ 0.20	0.34 $\pm$ 0.19	0.24	0.98 $\pm$ 0.39
Low use (10)	0.11 $\pm$ 0.11	0.10 $\pm$ 0.07	0.06	0.27 $\pm$ 0.16
1984-85				
High use (19)	0.46 $\pm$ 0.26	0.23 $\pm$ 0.12	0.07	0.76 $\pm$ 0.38
Low use (15)	0.02 $\pm$ 0.01	0.04 $\pm$ 0.03	0.08	0.13 $\pm$ 0.06
1985-86				
High use (21)	1.24 $\pm$ 0.70	0.20 $\pm$ 0.10	0.10	1.56 $\pm$ 0.84
Low use (21)	0.05 $\pm$ 0.03	0.14 $\pm$ 0.13	0.13	0.32 $\pm$ 0.19
1986-87				
High use (21)	0.57 $\pm$ 0.21	0.72 $\pm$ 0.22	0.10	1.40 $\pm$ 0.34
Low use (21)	0.06 $\pm$ 0.04	<.01 $\pm$ <.01	0.20	0.29 $\pm$ 0.15
1987-88				
High use (21)	0.81 $\pm$ 0.29	0.12 $\pm$ 0.04	0.11	1.04 $\pm$ 0.35
Low use (21)	0.07 $\pm$ 0.06	0.02 $\pm$ 0.02	0.08	0.17 $\pm$ 0.10
Corpus Christi				
1978-79				
High use (19)	1.32 $\pm$ 0.33	0.02 $\pm$ 0.01	0.25	1.58 $\pm$ 0.33
Low use (5)	0.12 $\pm$ 0.10	0.00	0.16	0.29 $\pm$ 0.19
1981-82				
High use (13)	1.10 $\pm$ 0.40	0.04 $\pm$ 0.01	0.11	1.25 $\pm$ 0.40
Low use (6)	0.11 $\pm$ 0.05	0.00	0.15	0.25 $\pm$ 0.07

Table G.13. (Cont'd.)

Area	Year	Sand seatrout	Atlantic croaker	Other	All species combined
Corpus Christi (Cont'd.)					
1983-84					
	High use (19)	0.56 ± 0.17	0.01 ± 0.01	0.12	0.70 ± 0.20
	Low use (15)	0.15 ± 0.13	0.00	0.05	0.20 ± 0.14
1984-85					
	High use (19)	0.17 ± 0.07	<.01 ± <.01	0.06	0.22 ± 0.08
	Low use (13)	0.04 ± 0.04	0.00	0.08	0.12 ± 0.07
1985-86					
	High use (20)	0.64 ± 0.21	0.02 ± 0.01	0.10	0.83 ± 0.26
	Low use (21)	0.20 ± 0.16	<.01 ± <.01	0.08	0.30 ± 0.17
1986-87					
	High use (21)	0.23 ± 0.10	<.01 ± <.01	0.14	0.38 ± 0.12
	Low use (21)	0.22 ± 0.16	<.01 ± <.01	0.11	0.34 ± 0.20
1987-88					
	High use (21)	0.37 ± 0.21	0.01 ± <.01	0.04	0.42 ± 0.22
	Low use (21)	0.27 ± 0.17	<.01 ± <.01	0.13	0.40 ± 0.23
Lower Laguna Madre					
1978-79					
	High use (14)	0.52 ± 0.19	0.01 ± 0.01	0.19	0.71 ± 0.20
	Low use (5)	0.08 ± 0.08	<.01	0.08	0.16 ± 0.07
1981-82					
	High use (10)	0.60 ± 0.20	0.01 ± 0.01	0.22	0.90 ± 0.19
	Low use (6)	0.13 ± 0.11	0.00	0.33	0.46 ± 0.17
1983-84					
	High use (18)	0.28 ± 0.10	0.03 ± 0.01	0.21	0.52 ± 0.16
	Low use (14)	0.13 ± 0.08	0.01 ± 0.01	0.15	0.29 ± 0.12
1984-85					
	High use (20)	0.84 ± 0.26	0.01 ± <.01	0.12	0.98 ± 0.29
	Low use (16)	0.29 ± 0.19	<.01 ± <.01	0.37	0.66 ± 0.33

Table G.13. (Cont'd.)

Area Year Season	Sand seatrout	Atlantic croaker	Other	All species combined
Lower Laguna Madre (Cont'd.)				
1985-86				
High use (21)	0.64 ± 0.21	0.02 ± 0.01	0.16	0.82 ± 0.26
Low use (20)	0.43 ± 0.19	0.00	0.36	0.79 ± 0.31
1986-87				
High use (21)	0.60 ± 0.26	0.01 ± 0.01	0.35	0.96 ± 0.41
Low use (21)	0.11 ± 0.06	0.00	0.20	0.31 ± 0.15
1987-88				
High use (21)	0.61 ± 0.24	0.01 ± 0.01	0.23	0.84 ± 0.30
Low use (21)	0.21 ± 0.12	0.00	0.23	0.44 ± 0.22
Coastwide Total				
1978-79				
High use (45)	1.21 ± 0.24	0.34 ± 0.08	0.19	2.02 ± 0.22
Low use (18)	0.06 ± 0.03	<.01	0.12	0.19 ± 0.04
1981-82				
High use (38)	0.73 ± 0.17	0.26 ± 0.05	0.22	1.25 ± 0.12
Low use (15)	0.10 ± 0.05	0.01 ± 0.01	0.11	0.27 ± 0.04
1983-84				
High use (53)	0.45 ± 0.11	0.14 ± 0.07	0.18	0.78 ± 0.17
Low use (39)	0.13 ± 0.07	0.04 ± 0.02	0.07	0.24 ± 0.09
1984-85				
High use (58)	0.44 ± 0.14	0.12 ± 0.05	0.08	0.63 ± 0.19
Low use (44)	0.11 ± 0.06	0.01 ± 0.01	0.17	0.29 ± 0.01
1985-86				
High use (62)	0.96 ± 0.35	0.12 ± 0.04	0.11	1.22 ± 0.42
Low use (63)	0.20 ± 0.08	0.09 ± 0.09	0.18	0.44 ± 0.13
1986-87				
High use (63)	0.48 ± 0.12	0.36 ± 0.10	0.17	1.00 ± 0.19
Low use (63)	0.13 ± 0.07	<.01 ± 0.01	0.18	0.32 ± 0.10

Table G.13. (Cont'd.)

Area Year Season	Sand seatrout	Atlantic croaker	Other	All species combined
Coastwide Total (Cont'd.)				
1987-88				
High use (63)	0.61 ± 0.17	0.06 ± 0.02	0.10	0.77 ± 0.20
Low use (63)	0.14 ± 0.06	0.01 ± 0.01	0.13	0.29 ± 0.10

<sup>a</sup>1978-1982 data from McEachron (1984).



Table G.14. Percent composition of "other" species caught by headboat fishermen in Texas bays and passes by area and season (1983-1988).

Year Season	Common name	Scientific name	Area				Coastwide
			Galveston	Corpus Christi	Lower Laguna Madre		
1983-84							
High use	Atlantic sharpnose shark	<u>Rhizoprionodon terraenovae</u>		0.10	0.00	1.84	
	Atlantic spadefish	<u>Chaetodipterus faber</u>	0.10	0.00	0.00	0.10	
	Bay whiff	<u>Citharichthys spilopterus</u>	0.10	0.00	0.00	0.10	
	Blacktip shark	<u>Carcharhinus limbatus</u>	0.10	0.00	0.20	0.31	
	Bluefish	<u>Pomatomus saltatrix</u>	0.10	0.00	0.00	0.10	
	Bonnethead	<u>Sphyrna tiburo</u>	0.00	0.10	0.00	0.10	
	Crevalle jack	<u>Caranx hippos</u>	0.10	0.00	0.00	0.20	
	Florida pompano	<u>Trachinotus carolinus</u>	0.10	0.00	0.00	0.10	
	Gulf flounder	<u>Paralichthys albigutta</u>	0.00	0.00	0.31	0.31	
	Hammerhead sp.	<u>Family Sphyrnidae</u>	0.10	0.00	0.00	0.10	
	Hardhead catfish	<u>Arius felis</u>	1.64	0.51	0.10	2.25	
	King mackerel	<u>Scomberomorus cavalla</u>	0.00	0.00	0.10	0.10	
	Ladyfish	<u>Elops saurus</u>	0.10	0.00	0.00	0.20	
	Pigfish	<u>Orthopristis chrysoptera</u>	0.41	0.51	0.51	0.10	
	Pinfish	<u>Lagodon rhomboides</u>	0.61	0.10	0.10	0.82	
	Red snapper	<u>Lutjanus campechanus</u>	0.00	0.00	35.04	35.04	
	Requiem sharks	<u>Family Carcharhinidae</u>	0.00	0.10	0.00	0.10	
	Scalloped hammerhead	<u>Sphyrna lewini</u>	0.00	0.10	0.00	0.10	
	Silver perch	<u>Bairdiella chrysoura</u>	4.20	0.00	0.00	4.20	
	Silver seatrout	<u>Cynoscion nothus</u>	0.20	0.00	0.00	0.20	
	Southern kingfish	<u>Menticirrhus americanus</u>	27.56	9.94	14.55	52.05	
	Spot	<u>Leiostomus xanthurus</u>	0.10	0.00	0.00	0.10	
Low use	Bonnethead	<u>Sphyrna tiburo</u>	1.41	0.00	0.00	1.41	
	Florida pompano	<u>Trachinotus carolinus</u>	0.00	4.23	0.70	4.93	
	Gulf kingfish	<u>Menticirrhus littoralis</u>	0.00	0.70	0.00	0.70	
	Hardhead catfish	<u>Arius felis</u>	12.68	0.00	0.00	12.68	
	Pigfish	<u>Orthopristis chrysoptera</u>	0.70	0.70	0.70	2.11	
	Pinfish	<u>Lagodon rhomboides</u>	0.00	1.41	0.00	1.41	
	Silver perch	<u>Bairdiella chrysoura</u>	0.70	0.00	0.00	0.70	
	Southern hake	<u>Urophycis floridanus</u>	0.70	0.00	0.00	0.70	
	Southern kingfish	<u>Menticirrhus americanus</u>	4.93	7.04	63.38	75.35	

Table G.14. (Cont'd.)

Year Season	Common name	Scientific name	Area				Coastwide
			Galveston	Christi	Lower Laguna Madre		
1984-85							
High use	Atlantic cutlassfish	<u>Trichiurus lepturus</u>	0.35	0.00	1.39	1.74	1.74
	Atlantic sharpnose shark	<u>Rhizoprionodon terraenovae</u>	5.56	0.00	0.00	5.56	5.56
	Blacktip shark	<u>Carcharhinus limbatus</u>	21.88	0.35	0.00	22.22	22.22
	Bonnethead	<u>Sphyrna tiburo</u>	0.35	1.39	0.00	1.74	1.74
	Finetooth shark	<u>Carcharhinus isodon</u>	0.00	0.35	0.00	0.35	0.35
	Gulf flounder	<u>Paralichthys albigutta</u>	0.00	0.00	0.35	0.35	0.35
	Gulf kingfish	<u>Menticirrhus littoralis</u>	3.47	0.00	1.04	4.51	4.51
	Hardhead catfish	<u>Arius felis</u>	0.69	0.35	1.74	2.78	2.78
	Pigfish	<u>Orthopristis chrysoptera</u>	4.51	0.69	0.35	5.56	5.56
	Pinfish	<u>Lagodon rhomboides</u>	0.35	0.00	0.00	0.35	0.35
	Silver perch	<u>Bairdiella chrysoura</u>	0.69	0.00	0.00	0.69	0.69
	Southern kingfish	<u>Menticirrhus americanus</u>	12.15	9.73	33.33	55.21	55.21
	Spot	<u>Leiostomus xanthurus</u>	0.35	0.00	0.00	0.35	0.35
Low use	Atlantic cutlassfish	<u>Trichiurus lepturus</u>	0.55	0.00	.00	0.55	0.55
	Atlantic sharpnose shark	<u>Rhizoprionodon terraenovae</u>	3.83	0.00	0.00	3.83	3.83
	Bonnethead	<u>Sphyrna tiburo</u>	0.00	0.55	0.00	0.55	0.55
	Crevalle jack	<u>Caranx hippos</u>	0.55	0.00	0.00	0.55	0.55
	Gulf flounder	<u>Paralichthys albigutta</u>	0.00	0.00	1.09	1.09	1.09
	Gulf kingfish	<u>Menticirrhus littoralis</u>	0.55	0.00	0.00	0.55	0.55
	Hardhead catfish	<u>Arius felis</u>	0.55	0.00	0.00	0.55	0.55
	Pigfish	<u>Orthopristis chrysoptera</u>	0.00	1.09	0.00	1.09	1.09
	Pinfish	<u>Lagodon rhomboides</u>	0.00	1.09	0.00	1.09	1.09
	Southern hake	<u>Urophycis floridanus</u>	0.55	0.00	0.00	0.55	0.55
	Southern kingfish	<u>Menticirrhus americanus</u>	2.73	6.01	80.87	89.62	89.62
1985-86							
High use	Atlantic cutlassfish	<u>Trichiurus lepturus</u>	0.20	0.00	0.20	0.40	0.40
	Atlantic sharpnose shark	<u>Rhizoprionodon terraenovae</u>	0.40	0.00	0.20	0.61	0.61
	Atlantic spadefish	<u>Chaetodipterus faber</u>	0.40	0.00	0.00	0.40	0.40
	Blacktip shark	<u>Carcharhinus limbatus</u>	1.21	0.20	0.00	1.41	1.41
	Bonnethead	<u>Sphyrna tiburo</u>	0.00	0.40	0.20	0.61	0.61
	Bluefish	<u>Pomatomus saltatrix</u>	0.00	0.40	0.00	0.40	0.40
	Crevalle jack	<u>Caranx hippos</u>	0.40	0.20	0.00	0.61	0.61
	Dusky shark	<u>Carcharhinus obscurus</u>	0.20	0.00	0.00	0.20	0.20
	Florida pompano	<u>Trachinotus carolinus</u>	0.00	0.20	0.20	0.40	0.40

Table G.14. (Cont'd.)

Year Season	Common name	Scientific name	Area				Coastwide
			Galveston	Corpus Christi	Lower Laguna Madre		
	Gulf flounder	<u>Paralichthys albigutta</u>	0.00	0.00	0.20	0.20	
	Gulf kingfish	<u>Menticirrhus littoralis</u>	1.01	0.00	0.81	1.82	
	Hardhead catfish	<u>Arius felis</u>	2.42	0.81	0.00	3.23	
	Hammerhead sharks	Family Sphyrnidae	0.20	0.00	0.00	0.20	
	Ladyfish	<u>Elops saurus</u>	0.00	0.00	0.20	0.20	
	Pigfish	<u>Orthopristis chrysoptera</u>	0.61	0.20	2.22	3.03	
	Pinfish	<u>Lagodon rhomboides</u>	1.41	0.20	0.00	1.62	
	Sandbar shark	<u>Carcharhinus plumbeus</u>	0.00	0.00	0.20	0.20	
	Silver seatrout	<u>Cynoscion nothus</u>	12.53	0.00	0.00	12.53	
	Smooth dogfish	<u>Mustelus canis</u>	11.11	0.00	0.00	11.11	
	Southern kingfish	<u>Menticirrhus americanus</u>	13.54	15.55	30.71	59.80	
	Spanish mackerel	<u>Scomberomorus maculatus</u>	0.61	0.00	0.00	0.61	
	Spot	<u>Leiostomus xanthurus</u>	0.20	0.00	0.20	0.40	
	Atlantic cutlassfish	<u>Trichiurus lepturus</u>	0.25	0.00	0.00	0.25	
	Atlantic sharpnose shark	<u>Rhizoprionodon terraenovae</u>	1.74	0.00	0.00	1.74	
	Atlantic stingray	<u>Dasyatis sabina</u>	0.00	0.00	0.25	0.25	
	Blacktip shark	<u>Carcharhinus limbatus</u>	1.00	0.00	0.00	1.00	
	Bonnethead	<u>Sphyrna tiburo</u>	0.75	0.00	0.00	0.75	
	Blackwing searobin	<u>Prionotus salmonicolor</u>	0.00	0.00	0.25	0.25	
	Bluefish	<u>Pomatomus saltatrix</u>	0.00	0.25	0.00	0.25	
	Cownose ray	<u>Rhinopterus bonasus</u>	0.25	0.00	0.00	0.25	
	Florida pompano	<u>Trachinotus carolinus</u>	0.00	0.00	0.25	0.25	
	Gulf kingfish	<u>Menticirrhus littoralis</u>	0.25	0.00	0.00	0.25	
	Hardhead catfish	<u>Arius felis</u>	0.25	0.00	0.00	0.25	
	Little tunny	<u>Euthynnus alletteratus</u>	0.25	0.00	0.00	0.25	
	Pigfish	<u>Orthopristis chrysoptera</u>	1.24	0.00	0.00	1.24	
	Southern kingfish	<u>Menticirrhus americanus</u>	32.09	4.23	56.47	92.79	
1986-87							
High use	Atlantic cutlassfish	<u>Trichiurus lepturus</u>	1.00	0.00	0.00	1.00	
	Atlantic sharpnose shark	<u>Rhizoprionodon terraenovae</u>	2.80	0.40	0.00	3.20	
	Atlantic stingray	<u>Dasyatis sabina</u>	0.00	0.00	0.20	0.20	
	Blacktip shark	<u>Carcharhinus limbatus</u>	2.20	0.00	0.00	2.20	
	Gray triggerfish	<u>Balistes capricornus</u>	0.00	0.00	0.20	0.20	
	Gulf flounder	<u>Paralichthys albigutta</u>	0.00	0.20	0.40	0.60	
	Hardhead catfish	<u>Arius felis</u>	0.80	2.40	0.00	3.20	

Table G.14. (Cont'd.)

Year Season	Common name	Scientific name	Area				Coastwide
			Galveston	Corpus Christi	Lower Laguna Madre		
	Ladyfish	<u>Elops saurus</u>	0.00	0.80	0.00	0.80	
	Ocellated flounder	<u>Ancylosetta quadrocellata</u>	0.00	0.20	0.00	0.20	
	Pigfish	<u>Orthopristis chrysoptera</u>	1.40	0.00	1.20	2.60	
	Pinfish	<u>Lagodon rhomboides</u>	0.60	0.00	0.00	0.60	
	Red snapper	<u>Lutjanus campechanus</u>	0.00	0.40	0.40	0.40	
	Scalloped hammerhead	<u>Sphyrna lewini</u>	0.00	0.20	0.00	0.20	
	Silver perch	<u>Bairdiella chrysoura</u>	0.20	0.00	0.00	0.20	
	Silver seatrout	<u>Cynoscion nothus</u>	3.20	0.00	0.00	3.20	
	Southern kingfish	<u>Menticirrhus americanus</u>	13.20	7.00	61.00	81.20	
	Atlantic sharpnose shark	<u>Rhizoprionodon terraenovae</u>	3.25	0.00	0.00	3.25	
	Atlantic stingray	<u>Dasyatis sabina</u>	0.00	0.20	0.00	0.20	
	Bonnethead	<u>Sphyrna tiburo</u>	1.22	0.00	0.00	1.22	
	Crevalle Jack	<u>Caranx hippos</u>	0.20	0.00	0.00	0.20	
	Gulf flounder	<u>Paralichthys albigutta</u>	0.00	0.00	1.01	1.01	
	Hardhead catfish	<u>Arius felis</u>	0.00	0.00	0.20	0.20	
	Pigfish	<u>Orthopristis chrysoptera</u>	15.01	0.20	3.65	18.86	
	Pinfish	<u>Lagodon rhomboides</u>	0.81	2.43	0.00	3.25	
	Scalloped hammerhead	<u>Sphyrna lewini</u>	0.00	0.20	0.00	0.20	
	Silver perch	<u>Bairdiella chrysoura</u>	0.20	0.00	0.00	0.20	
	Smooth dogfish	<u>Mustelus canis</u>	0.41	0.00	0.00	0.41	
	Southern kingfish	<u>Menticirrhus americanus</u>	33.06	9.13	28.80	70.99	
1987-88	Atlantic cutlassfish	<u>Trichiurus lepturus</u>	0.89	0.00	0.00	0.89	
High use	Atlantic sharpnose shark	<u>Rhizoprionodon terraenovae</u>	8.16	0.18	0.00	8.33	
	Blacktip shark	<u>Carcharhinus limbatus</u>	0.53	0.00	0.00	0.53	
	Bonnethead	<u>Sphyrna tiburo</u>	3.19	0.00	0.00	3.19	
	Gulf flounder	<u>Paralichthys albigutta</u>	0.00	0.18	1.24	1.42	
	Gulf kingfish	<u>Menticirrhus littoralis</u>	0.35	0.00	0.00	0.35	
	Hardhead catfish	<u>Arius felis</u>	0.35	0.00	1.06	1.42	
	Pigfish	<u>Orthopristis chrysoptera</u>	0.89	0.18	0.35	1.42	
	Red snapper	<u>Lutjanus campechanus</u>	0.00	0.00	0.71	0.71	
	Scalloped hammerhead	<u>Sphyrna lewini</u>	0.00	0.18	0.00	0.18	
	Sharks sp.	Family Carcharidae	5.32	0.00	0.00	5.32	
	Smooth dogfish	<u>Mustelus canis</u>	1.06	0.00	0.00	1.06	
	Southern kingfish	<u>Menticirrhus americanus</u>	27.30	9.58	36.52	73.40	
	Silver perch	<u>Bairdiella chrysoura</u>	0.53	0.00	0.00	0.53	

Table G.14. (Cont'd.)

Year Season	Common name	Scientific name	Area				Coastwide
			Galveston	Corpus Christi	Lower Laguna Madre		
	Spot	<u>Leiostomus xanthurus</u>	0.89	0.00	0.00	0.89	
	Stingray sp.	Family <u>Dasyatidae</u>	0.18	0.00	0.00	0.18	
	Warsaw grouper	<u>Epinephelus nigritus</u>	0.00	0.00	0.18	0.18	
Low use	Atlantic sharpnose shark	<u>Rhizoprionodon terraenovae</u>	7.58	0.00	0.00	7.58	
	Barred grunt	<u>Conodon nobilis</u>	0.00	0.00	0.61	0.61	
	Gulf flounder	<u>Paralichthys albigutta</u>	0.00	0.00	0.30	0.30	
	Gulf kingfish	<u>Menticirrhus littoralis</u>	3.03	0.61	0.00	3.64	
	Gulf toadfish	<u>Opsanus beta</u>	0.30	0.00	0.00	0.30	
	Hardhead catfish	<u>Arius felis</u>	0.00	0.00	0.61	0.61	
	Pigfish	<u>Orthopristis chrysoptera</u>	0.91	0.00	6.06	6.97	
	Pinfish	<u>Lagodon rhomboides</u>	0.00	0.61	0.00	0.61	
	Southern kingfish	<u>Menticirrhus americanus</u>	7.88	15.15	56.36	79.39	

Table G.15. Pressure estimates (man-h x 1000)  $\pm$  1 SE for headboat fishermen in Texas bays and passes by season and area (1983-1988).

Bay system	Year		
	High-use season	Low-use season	Annual
Galveston			
1983-84	66.2 $\pm$ 18.5	9.9 $\pm$ 2.8	73.4 $\pm$ 18.9
1984-85	51.3 $\pm$ 20.0	10.8 $\pm$ 2.6	61.3 $\pm$ 20.2
1985-86	95.1 $\pm$ 38.2	12.1 $\pm$ 3.3	107.1 $\pm$ 38.3
1986-87	44.4 $\pm$ 7.2	6.8 $\pm$ 2.2	51.2 $\pm$ 7.6
1987-88	78.8 $\pm$ 15.6	9.7 $\pm$ 3.0	88.5 $\pm$ 15.9
Corpus Christi			
1983-84	67.8 $\pm$ 14.7	13.0 $\pm$ 1.8	81.2 $\pm$ 15.2
1984-85	37.3 $\pm$ 7.7	10.9 $\pm$ 3.1	43.7 $\pm$ 7.3
1985-86	55.9 $\pm$ 11.2	9.6 $\pm$ 2.3	65.5 $\pm$ 11.5
1986-87	26.6 $\pm$ 5.9	7.0 $\pm$ 0.8	33.7 $\pm$ 6.0
1987-88	64.2 $\pm$ 23.8	3.1 $\pm$ 6.9	67.3 $\pm$ 23.8
Lower Laguna Madre			
1983-84	28.1 $\pm$ 5.3	5.7 $\pm$ 1.4	34.3 $\pm$ 5.6
1984-85	19.5 $\pm$ 3.5	9.6 $\pm$ 2.4	29.0 $\pm$ 4.3
1985-86	28.5 $\pm$ 5.9	8.4 $\pm$ 1.9	36.9 $\pm$ 6.2
1986-87	19.7 $\pm$ 4.6	4.4 $\pm$ 1.6	24.1 $\pm$ 4.9
1987-88	21.5 $\pm$ 5.0	5.0 $\pm$ 4.1	26.5 $\pm$ 5.1
Coastwide <sup>a</sup>			
1983-84	162.1 $\pm$ 24.1	28.6 $\pm$ 3.6	188.9 $\pm$ 24.9
1984-85	108.1 $\pm$ 21.7	31.2 $\pm$ 4.7	134.0 $\pm$ 21.9
1985-86	179.5 $\pm$ 40.2	30.0 $\pm$ 4.5	209.6 $\pm$ 40.5
1986-87	90.7 $\pm$ 10.4	18.2 $\pm$ 2.8	108.9 $\pm$ 10.8
1987-88	164.5 $\pm$ 28.9	17.8 $\pm$ 3.4	182.3 $\pm$ 29.1

<sup>a</sup> Due to rounding of numbers, these totals may not exactly equal individual totals.

Table G.16. Number of days surveyed and number of headboat fishermen interviewed ( ) in Texas bays and passes by season and area (1983-1988).

Year Season	Area			Coastwide
	Galveston	Corpus Christi	Lower Laguna Madre	
1983-84				
High use	201 (858)	21 (56*0)	24 (355)	65 (1781)
Low use	24 (338)	22 (315)	21 (241)	67 (894)
Annual	44 (1196)	42 (883)	45 (596)	132 (2675)
1984-85				
High use	21 (824)	21 (432)	21 (366)	63 (1622)
Low use	21 (607)	21 (333)	21 (233)	63 (1173)
Annual	42 (1431)	42 (765)	42 (599)	126 (2975)
1985-86				
High use	21 (862)	20 (420)	21 (521)	62 (1803)
Low use	21 (648)	21 (276)	21 (244)	63 (1168)
Annual	42 (1510)	41 (696)	42 (765)	125 (2971)
1986-87				
High use	21 (841)	21 (293)	21 (436)	63 (1570)
Low use	21 (485)	21 (220)	21 (291)	63 (996)
Annual	42 (1326)	42 (513)	42 (727)	126 (2566)
1987-88				
High use	21 (1116)	21 (465)	21 (371)	63 (1952)
Low use	21 (555)	21 (168)	21 (260)	63 (983)
Annual	42 (1671)	42 (633)	72 (631)	126 (2935)

Table G.17. Mean fishing-party size (No. of fishermen) and mean fishing time (h) for headboat fishermen in Texas bays and passes by area and season (1983-1988).

Bay system Year	Mean fishing-party size			Mean fishing time		
	High-use season	Low-use season	Annual	High-use season	Low-use season	Annual
Galveston						
1983-84	47.7	30.7	41.2	2.5	2.4	2.4
1984-85	43.4	37.9	40.9	2.4	2.3	2.4
1985-86	45.4	40.5	43.1	2.5	2.5	2.5
1986-87	42.0	32.3	37.9	2.1	2.3	2.2
1987-88	53.1	42.7	49.1	2.4	2.1	2.3
Corpus Christi						
1983-84	28.4	19.7	24.5	2.6	2.6	2.6
1984-85	21.6	25.6	23.2	2.8	2.6	2.7
1985-86	21.0	17.2	19.3	2.7	2.5	2.6
1986-87	17.2	13.8	15.5	2.6	2.6	2.6
1987-88	23.2	15.3	20.4	3.8	2.5	3.4
Lower Laguna Madre						
1983-84	18.7	17.2	18.1	2.6	2.4	2.5
1984-85	18.3	14.6	16.6	2.4	2.2	2.3
1985-86	30.6	15.2	23.2	2.4	2.5	2.7
1986-87	24.2	18.2	21.4	2.4	2.4	2.4
1987-88	20.6	18.6	19.7	2.4	2.4	2.4
Coastwide						
1983-84	31.2	21.8	27.3	2.6	2.5	2.5
1984-85	27.5	26.1	26.8	2.5	2.4	2.5
1985-86	32.2	24.3	28.6	2.5	2.5	2.5
1986-87	28.5	21.2	25.2	2.4	2.4	2.4
1987-88	33.1	25.9	30.2	2.9	2.3	2.7



Table G.18. Percent composition of the residential origin of headboat fishermen-trips in Texas bays and passes by area and season (1983-1988).

Area	Year	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Galveston	1983-84				
	High use	55	0	29	14
	Low use	76	0	6	16
	Annual	59	0	25	16
1984-85	High use	65	0	16	16
	Low use	62	1	18	17
	Annual	64	1	17	17
1985-86	High use	19	12	47	19
	Low use	9	9	25	55
	Annual	68	1	19	12
1986-87	High use	21	13	41	23
	Low use	21	3	23	51
	Annual	68	0	19	14
1987-88	High use	66	1	21	10
	Low use	75	0	14	9
	Annual	69	0	19	10
Corpus Christi	1983-84				
	High use	19	9	60	10
	Low use	21	6	47	23
	Annual	20	6	58	15
1984-85	High use	14	9	63	12
	Low use	23	8	50	18
	Annual	19	9	57	15

Table G.18. (Cont'd.)

Area	Year Season	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Corpus Christi (Cont'd.)	1985-86				
	High use	11	12	62	15
	Low use	25	12	44	19
	Annual	17	12	55	17
1986-87	High use	21	14	41	24
	Low use	22	3	24	51
	Annual	17	8	60	15
1987-88	High use	19	7	65	8
	Low use	21	13	49	17
	Annual	20	9	61	10
Lower Laguna Madre	1983-84				
	High use	13	15	43	28
	Low use	31	5	25	38
	Annual	10	10	48	33
1984-85	High use	18	10	50	21
	Low use	17	4	24	54
	Annual	18	8	40	34
1985-86	High use	20	13	48	19
	Low use	10	9	26	55
	Annual	17	12	41	31
1986-87	High use	14	11	55	19
	Low use	14	4	27	55
	Annual	21	10	34	35

Table G.18. (Cont'd.)

Area Year Season	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Lower Laguna Madre (Cont'd.)				
1987-88				
High use	14	11	55	19
Low use	14	4	27	55
Annual	14	8	43	34
Coastwide				
1983-84				
High use	13	15	43	28
Low use	31	5	25	38
Annual	34	4	42	20
1984-85				
High use	41	5	37	16
Low use	42	4	28	25
Annual	42	5	33	20
1985-86				
High use	43	7	37	12
Low use	42	5	26	26
Annual	43	6	33	18
1986-87				
High use	46	6	34	14
Low use	42	2	27	28
Annual	44	4	31	20
1987-88				
High use	45	4	39	12
Low use	50	3	24	23
Annual	47	4	33	15

Appendix H: Estimates for private-boat fishing in the Texas Territorial Sea (TTS).

Table H.1. Annual estimated landings of fishes (No. x 1000) ± 1 SE caught by private-boat fishermen in the TTS by species and area (1982-1988).

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide <sup>a</sup>
<b>Atlantic croaker</b>						
1982-83		0.3 ± 0.2	0.3 ± 0.1	0.1 ± <.1	0.3 ± 0.3	1.1 ± 0.4
1983-84		0.1 ± 0.1	0.1 ± 0.1	0.0	0.0	0.1 ± 0.1
1984-85		<.1 ± <.1	0.2 ± 0.1	<.1 ± <.1	0.0	0.2 ± 0.1
1985-86		0.1 ± 0.1	0.8 ± 0.7	0.0	0.0	0.8 ± 0.7
1986-87		0.3 ± 0.3	0.3 ± 0.3	0.0	0.0	0.6 ± 0.4
1987-88	0.4 ± 0.2	0.0	<.1 ± <.1	0.2 ± 0.2	0.0	0.7 ± 0.3
<b>Atlantic sharpnose shark</b>						
1982-83 <sup>b</sup>			<.1 ± <.1	0.5 ± 0.4	0.0	0.5 ± 0.4
1983-84		0.0	<.1 ± <.1	0.2 ± 0.2	0.0	0.3 ± 0.2
1984-85		0.0	<.1 ± <.1	1.5 ± 0.5	0.0	1.8 ± 0.5
1985-86		<.1 ± <.1	0.2 ± 0.1	0.8 ± 0.4	0.0	2.0 ± 0.9
1986-87		0.1 ± 0.1	1.1 ± 0.8	0.8 ± 0.4	0.0	2.4 ± 1.3
1987-88	<.1 ± <.1	0.1 ± 0.1	0.3 ± 0.1	2.1 ± 1.3	0.0	
<b>Cobia</b>						
1982-83		0.6 ± 0.6	0.2 ± <.1	0.1 ± <.1	<.1 ± <.1	0.9 ± 0.6
1983-84		0.0	<.1 ± <.1	<.1 ± <.1	<.1 ± <.1	0.1 ± <.1
1984-85		0.0	<.1 ± <.1	0.1 ± 0.1	<.1 ± <.1	0.1 ± 0.1
1985-86		<.1 ± <.1	<.1 ± <.1	<.1 ± <.1	<.1 ± <.1	0.1 ± <.1
1986-87		0.0	<.1 ± <.1	<.1 ± <.1	<.1 ± <.1	0.1 ± <.1
1987-88	0.0	0.0	<.1 ± <.1	<.1 ± <.1	0.0	0.1 ± <.1
<b>King mackerel</b>						
1982-83		8.2 ± 7.3	2.5 ± 0.5	5.2 ± 0.8	0.4 ± 0.2	16.4 ± 7.5
1983-84		0.0	1.1 ± 0.5	9.4 ± 3.5	0.5 ± 0.3	11.0 ± 3.6
1984-85		0.0	0.7 ± 0.2	7.4 ± 2.2	0.7 ± 0.4	8.8 ± 2.2
1985-86		0.4 ± 0.3	1.6 ± 0.5	4.6 ± 1.5	0.1 ± <.1	6.6 ± 1.6
1986-87		0.4 ± 0.2	0.3 ± 0.1	2.3 ± 0.8	0.1 ± 0.1	3.1 ± 0.8
1987-88	0.0	3.9 ± 3.0	0.6 ± 0.2	7.5 ± 2.3	0.0	12.2 ± 3.7

Table H.1. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Red drum</b>						
1982-83		0.0	0.2 ± <.1	<.1 ± <.1	0.0	0.2 ± 0.1
1983-84		0.0	0.4 ± 0.2	<.1 ± <.1	<.1 ± <.1	0.4 ± 0.2
1984-85		0.0	0.2 ± 0.1	0.3 ± 0.3	<.1 ± <.1	0.5 ± 0.3
1985-86		0.0	0.2 ± 0.1	0.0	0.0	0.2 ± 0.1
1986-87		0.0	0.6 ± 0.3	<.1 ± <.1	0.0	0.6 ± 0.3
1987-88	0.1 ± <.1	0.0	0.6 ± 0.3	0.0	0.0	0.7 ± 0.3
<b>Red snapper</b>						
1982-83		0.7 ± 0.7	15.8 ± 7.0	1.2 ± 0.5	2.4 ± 1.1	20.1 ± 13.5
1983-84		<.1 ± <.1	1.1 ± 0.6	0.8 ± 0.5	1.6 ± 0.7	3.5 ± 1.1
1984-85		0.0	3.1 ± 2.6	0.1 ± <.1	0.1 ± 0.1	3.3 ± 2.6
1985-86		0.0	0.8 ± 0.3	0.6 ± 0.4	4.6 ± 4.1	6.0 ± 4.1
1986-87		3.5 ± 3.5	0.4 ± 0.2	0.1 ± 0.1	0.3 ± 0.3	4.4 ± 3.5
1987-88	<.1 ± <.1	0.1 ± 0.1	1.4 ± 0.8	0.3 ± 0.2	<.1 ± <.1	1.9 ± 0.8
<b>Sand seatrout</b>						
1982-83		0.2 ± 0.2	47.7 ± 18.5	5.7 ± 1.6	0.7 ± 0.4	54.3 ± 35.6
1983-84		0.2 ± 0.2	7.4 ± 4.2	<.1 ± <.1	0.0	7.7 ± 4.2
1984-85		1.6 ± 1.6	19.3 ± 16.6	0.6 ± 0.4	0.0	21.5 ± 16.7
1985-86		0.2 ± 0.1	7.7 ± 3.5	0.4 ± 0.2	0.0	8.2 ± 3.5
1986-87		40.6 ± 35.1	17.4 ± 11.7	0.0	0.0	58.0 ± 37.0
1987-88	0.7 ± 0.4	0.0	0.6 ± 0.4	1.2 ± 1.1	0.0	2.5 ± 1.3
<b>Spanish mackerel</b>						
1982-83		1.2 ± 1.1	1.4 ± 0.6	0.5 ± 0.1	0.0	3.0 ± 1.7
1983-84		0.0	0.5 ± 0.4	0.4 ± 0.2	0.3 ± 0.3	1.2 ± 0.6
1984-85		0.0	0.1 ± <.1	<.1 ± <.1	2.6 ± 2.6	2.7 ± 2.6
1985-86		0.1 ± 0.1	0.3 ± 0.2	0.2 ± 0.1	<.1 ± <.1	0.5 ± 0.2
1986-87		1.1 ± 1.0	<.1 ± <.1	<.1 ± <.1	<.1 ± <.1	1.1 ± 1.0
1987-88	0.1 ± <.1	<.1 ± <.1	0.3 ± 0.1	4.5 ± 1.8	<.1 ± <.1	4.9 ± 1.8

Table H.1. (Cont'd.)

Species Year	Area						Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre		
<b>Spotted seatrout</b>							
1982-83		1.3 ± 1.1	1.5 ± 0.3	0.3 ± 0.1	0.2 ± 0.2	3.4 ± 1.3	
1983-84		0.0	3.1 ± 1.8	<.1 ± <.1	0.1 ± 0.1	3.1 ± 1.9	
1984-85		0.3 ± 0.3	0.9 ± 0.4	<.1 ± <.1	0.2 ± 0.2	1.4 ± 0.5	
1985-86		0.0	0.7 ± 0.3	0.1 ± 0.1	0.0	1.0 ± 0.3	
1986-87		0.9 ± 0.8	2.3 ± 1.4	0.1 ± 0.1	0.0	3.4 ± 1.7	
1987-88	1.4 ± 0.5	4.1 ± 2.6	4.2 ± 2.9	<.1 ± <.1	0.0	9.8 ± 3.9	
<b>Vermilion snapper</b>							
1982-83 <sup>b</sup>			0.0	0.0	0.0	0.0	
1983-84		0.0	0.0	0.0	0.0	0.0	
1984-85		0.0	0.0	0.0	0.0	0.0	
1985-86		0.0	0.0	0.0	0.0	0.0	
1986-87		0.0	0.0	0.0	0.0	0.0	
1987-88	0.0	0.0	0.0	0.0	0.0	0.0	
<b>Other species</b>							
1982-83		2.1 ± 1.3	2.3 ± 0.7	3.3 ± 0.1	0.3 ± 0.1	8.0 ± 2.1	
1983-84		0.1 ± 0.1	2.0	2.8	0.1	5.1	
1984-85		<.1	3.2	2.1	0.3 ± 0.2	5.8	
1985-86		0.2 ± 0.2	4.1	9.8	0.4 ± 0.4	14.6	
1986-87		0.4 ± 0.3	2.3	3.9 ± 3.2	0.1 ± 0.1	8.6	
1987-88	0.5 ± 0.2	2.4 ± 1.3	3.9 ± 1.6	3.4 ± 1.4	<.1 ± <.1	10.2 ± 2.6	
<b>All species combined<sup>a</sup></b>							
1982-83		14.5 ± 9.8	71.9 ± 26.6	16.5 ± 2.6	4.3 ± 1.7	107.3 ± 52.4	
1983-84		0.5 ± 0.3	15.7 ± 5.4	13.9 ± 4.4	2.7 ± 0.9	32.7 ± 7.0	
1984-85		1.9 ± 1.9	27.1 ± 17.2	9.9 ± 2.7	4.0 ± 2.8	42.8 ± 17.8	
1985-86		1.0 ± 0.6	16.5 ± 4.6	17.2 ± 7.8	5.1 ± 4.1	39.8 ± 9.9	
1986-87		47.7 ± 35.3	29.4 ± 17.0	4.2 ± 1.1	0.5 ± 0.4	81.9 ± 39.2	
1987-88	3.5 ± 1.0	11.1 ± 4.8	12.5 ± 3.9	19.4 ± 4.0	0.1 ± 0.1	46.7 ± 7.5	

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual totals.<sup>b</sup>This species is included in other species in this year.

Table H.2. Estimated landings of fishes (No. x 1000)  $\pm$  1 SE caught by private-boat fishermen in the TTS during the high-use season by species and area (1982-1987).

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Atlantic croaker</b>						
1982		0.3 $\pm$ 0.2	0.2 $\pm$ 0.1	0.1 $\pm$ <.1	0.3 $\pm$ 0.3	1.0 $\pm$ 0.3
1983		0.1 $\pm$ 0.1	0.1 $\pm$ 0.1	0.0	0.0	0.1 $\pm$ 0.1
1984		<.1 $\pm$ <.1	0.2 $\pm$ 0.1	<.1 $\pm$ <.1	0.0	0.2 $\pm$ 0.1
1985		<.1 $\pm$ <.1	0.8 $\pm$ 0.7	0.0	0.0	0.8 $\pm$ 0.7
1986		0.3 $\pm$ 0.3	0.3 $\pm$ 0.3	0.0	0.0	0.6 $\pm$ 0.4
1987	0.5 $\pm$ 0.2	0.0	<.1 $\pm$ <.1	0.2 $\pm$ 0.2	0.0	0.7 $\pm$ 0.3
<b>Atlantic sharpnose shark</b>						
1982 <sup>b</sup>			<.1 $\pm$ <.1	0.7 $\pm$ 0.6	0.0	0.7 $\pm$ 0.6
1983		0.0	<.1 $\pm$ <.1	0.2 $\pm$ 0.2	0.0	0.2 $\pm$ 0.2
1984		0.0	0.2 $\pm$ 0.1	1.5 $\pm$ 0.5	0.0	1.8 $\pm$ 0.5
1985		<.1 $\pm$ <.1	1.1 $\pm$ 0.8	0.8 $\pm$ 0.4	0.0	2.0 $\pm$ 0.9
1986		0.1 $\pm$ 0.1	0.3 $\pm$ 0.1	0.8 $\pm$ 0.3	0.0	1.2 $\pm$ 0.3
1987	<.1 $\pm$ <.1	0.1 $\pm$ 0.1				
<b>Dobia</b>						
1982		0.6 $\pm$ 0.6	0.2 $\pm$ <.1	0.1 $\pm$ <.1	<.1 $\pm$ <.1	0.9 $\pm$ 0.6
1983		0.0	<.1 $\pm$ <.1	<.1 $\pm$ <.1	<.1 $\pm$ <.1	0.1 $\pm$ <.1
1984		0.0	<.1 $\pm$ <.1	0.1 $\pm$ 0.1	<.1 $\pm$ <.1	0.1 $\pm$ 0.1
1985		<.1 $\pm$ <.1	<.1 $\pm$ <.1	<.1 $\pm$ <.1	<.1 $\pm$ <.1	0.1 $\pm$ <.1
1986		0.0	<.1 $\pm$ <.1	<.1 $\pm$ <.1	<.1 $\pm$ <.1	0.1 $\pm$ <.1
1987	0.0	0.0	<.1 $\pm$ <.1	<.1 $\pm$ <.1	<.1 $\pm$ <.1	<.1 $\pm$ <.1
<b>King mackerel</b>						
1982		8.2 $\pm$ 7.3	2.5 $\pm$ 0.5	5.2 $\pm$ 0.8	0.4 $\pm$ 0.2	16.4 $\pm$ 7.5
1983		0.0	1.2 $\pm$ 0.6	11.6 $\pm$ 4.5	0.5 $\pm$ 0.3	13.3 $\pm$ 4.5
1984		0.0	0.7 $\pm$ 0.2	7.4 $\pm$ 2.2	0.7 $\pm$ 0.4	8.8 $\pm$ 2.2
1985		0.4 $\pm$ 0.3	1.6 $\pm$ 0.5	4.6 $\pm$ 1.5	0.1 $\pm$ <.1	6.6 $\pm$ 1.6
1986		0.4 $\pm$ 0.2	0.3 $\pm$ 0.1	2.3 $\pm$ 0.8	0.1 $\pm$ 0.1	3.1 $\pm$ 0.8
1987	0.0	3.9 $\pm$ 3.0	0.7 $\pm$ 0.2	7.5 $\pm$ 2.3	0.0	12.1 $\pm$ 3.7



Table H.2. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Red drum</b>						
1982		0.0	0.1 ± <.1	<.1 ± <.1	0.0	0.1 ± 0.1
1983		0.0	0.4 ± 0.2	<.1 ± <.1	0.0	0.4 ± 0.2
1984		0.0	0.2 ± 0.1	0.3 ± 0.3	<.1 ± <.1	0.5 ± 0.3
1985		0.0	0.1 ± 0.1	0.0	0.0	0.1 ± 0.1
1986		0.0	0.1 ± <.1	<.1 ± <.1	0.0	0.1 ± <.1
1987	0.1 ± <.1	0.0	0.6 ± 0.3	0.0	0.0	0.7 ± 0.3
<b>Red snapper</b>						
1982		0.7 ± 0.7	14.4 ± 6.2	1.2 ± 0.5	2.3 ± 0.9	18.7 ± 13.4
1983		<.1 ± <.1	1.0 ± 0.7	1.0 ± 0.6	1.6 ± 0.7	3.7 ± 3.2
1984		0.0	0.2 ± 0.1	<.1 ± <.1	0.1 ± 0.1	0.3 ± 0.1
1985		0.0	0.3 ± 0.2	0.6 ± 0.4	0.5 ± 0.4	1.4 ± 0.6
1986		3.5 ± 3.5	0.2 ± 0.1	0.1 ± 0.1	0.3 ± 0.3	4.1 ± 3.5
1987	<.1 ± <.1	0.1 ± 0.1	1.2 ± 0.8	0.3 ± 0.1	<.1 ± <.1	1.7 ± 0.8
<b>Sand seatrout</b>						
1982		0.2 ± 0.2	42.1 ± 19.0	5.7 ± 1.7	0.6 ± 0.5	48.7 ± 37.0
1983		0.2 ± 0.2	0.6 ± 0.3	<.1 ± <.1	0.0	0.8 ± 0.4
1984		1.6 ± 1.6	1.7 ± 0.6	0.6 ± 0.4	0.0	3.9 ± 1.7
1985		0.2 ± 0.1	2.4 ± 1.6	0.4 ± 0.2	0.0	2.9 ± 1.6
1986		40.5 ± 35.1	11.2 ± 11.1	0.0	0.0	51.7 ± 36.8
1987	0.7 ± 0.4	0.0	0.3 ± 0.2	1.2 ± 1.1	0.0	2.2 ± 1.2
<b>Spanish mackerel</b>						
1982		1.2 ± 1.2	1.4 ± 0.7	0.5 ± 0.2	0.0	3.1 ± 1.1
1983		0.0	0.6 ± 0.5	0.5 ± 0.3	0.3 ± 0.3	1.3 ± 0.6
1984		0.0	0.1 ± <.1	<.1 ± <.1	2.6 ± 2.6	2.7 ± 2.6
1985		0.1 ± 0.1	0.3 ± 0.2	0.2 ± 0.1	<.1 ± <.1	0.5 ± 0.2
1986		1.1 ± 1.0	<.1 ± <.1	<.1 ± <.1	<.1 ± <.1	1.1 ± 1.0
1987	0.1 ± <.1	<.1 ± <.1	0.3 ± 0.1	4.5 ± 1.8	<.1 ± <.1	4.9 ± 1.8

Table H.2. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Spotted seatrout</b>						
1982		1.3 ± 1.1	1.3 ± 0.4	0.3 ± 0.1	0.2 ± 0.2	3.2 ± 1.4
1983		0.0	3.3 ± 2.0	<.1 ± <.1	0.1 ± 0.1	3.4 ± 2.0
1984		0.3 ± 0.3	0.9 ± 0.4	0.1 ± 0.1	0.2 ± 0.2	1.4 ± 0.5
1985		0.0	0.9 ± 0.3	0.1 ± 0.1	0.0	1.0 ± 0.3
1986		0.9 ± 0.8	2.1 ± 1.4	0.1 ± 0.1	0.0	3.2 ± 1.7
1987	1.4 ± 0.5	4.1 ± 2.6	4.2 ± 2.9	<.1 ± <.1	0.0	9.8 ± 3.9
<b>Vermilion snapper</b>						
1982 <sup>b</sup>			0.0	0.0	0.0	0.0
1983		0.0	0.0	0.0	0.0	0.0
1984		0.0	0.0	0.0	0.0	0.0
1985		0.0	0.0	0.0	0.0	0.0
1986		0.0	0.0	0.0	0.0	0.0
1987	0.0	0.0	0.0	0.0	0.0	0.0
<b>Other species</b>						
1982		2.1 ± 1.3	1.8 ± 0.7	3.2 ± 0.6	0.3 ± 0.1	5.4 ± 2.1
1983		0.2	1.7	3.2	<.1 ± <.1	5.1
1984		<.1 ± <.1	2.2	2.2	0.1 ± 0.1	4.6
1985		0.3 ± 0.2	3.4	9.8	0.5 ± 0.4	13.9
1986		0.8	5.1	0.7	0.1 ± 0.1	6.8
1987	0.3 ± 0.1	2.4 ± 1.3	2.1 ± 0.9	3.3 ± 1.6	<.1 ± <.1	8.2 ± 2.3
<b>All species combined<sup>a</sup></b>						
1982		14.6 ± 9.8	64.2 ± 28.5	16.5 ± 2.7	4.2 ± 1.7	99.4 ± 57.5
1983		0.5 ± 0.3	8.9 ± 3.3	17.1 ± 5.5	2.5 ± 0.9	29.0 ± 6.4
1984		1.9 ± 1.9	6.1 ± 1.6	10.9 ± 2.7	3.7 ± 2.8	22.7 ± 4.6
1985		1.0 ± 0.6	9.9 ± 3.0	17.2 ± 7.8	1.1 ± 0.5	29.2 ± 8.4
1986		47.7 ± 35.3	20.4 ± 16.3	4.1 ± 1.1	0.5 ± 0.4	72.7 ± 38.9
1987	3.4 ± 1.0	11.1 ± 4.8	9.9 ± 3.6	18.0 ± 3.7	0.1 ± <.1	42.4 ± 7.2

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual totals.<sup>b</sup>This species is included in other species in this year.

Table H.3. Estimated landings of fishes (No. x 1000)  $\pm$  1 SE caught by private-boat fishermen in the TTS during the low-use season by species and area (1982-1988).

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Atlantic croaker</b>						
1982-83		0.0	0.1 $\pm$ <.1	0.0	0.0	0.1 $\pm$ 0.1
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.0	0.0
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	<.1 $\pm$ <.1	0.0	0.0	<.1 $\pm$ <.1
1987-88	0.0	0.0	0.0	0.0	0.0	0.0
<b>Atlantic sharpnose shark</b>						
1982-83 <sup>b</sup>						
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	<.1 $\pm$ <.1	0.0	0.0	<.1 $\pm$ <.1
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	1.3 $\pm$ 1.3	0.0	1.3 $\pm$ 1.3
<b>Cobia</b>						
1982-83		0.0	0.0	0.0	0.0	0.0
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.0	0.0
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	<.1 $\pm$ <.1	0.0	0.0	<.1 $\pm$ <.1
<b>King mackerel</b>						
1982-83		0.0	0.0	0.0	0.0	0.0
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.0	0.0
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	<.1 $\pm$ <.1	0.0	<.1 $\pm$ <.1



Table H.3. (Cont'd.)

Species Year	Area						Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre		
<b>Spotted seatrout</b>							
1982-83		0.0	0.2 ± 0.1	0.0	0.0	0.2 ± 0.1	0.0
1983-84		0.0	0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.0	0.0	0.0
1985-86		0.0	<.1 ± <.1	0.0	0.0	<.1 ± <.1	<.1 ± <.1
1986-87		0.0	0.2 ± 0.2	0.0	0.0	0.2 ± 0.2	0.2 ± 0.2
1987-88	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Vermilion snapper</b>							
1982-83 <sup>b</sup>							0.0
1983-84		0.0	0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.0	0.0	0.0
1985-86		0.0	0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Other species</b>							
1982-83		0.0	0.4 ± 0.2	0.1 ± 0.1	0.0	0.5 ± 0.4	0.5 ± 0.4
1983-84		0.0	0.3	0.0	0.1	0.5	0.5
1984-85		0.0	0.9	0.0	0.2 ± 0.2	3.1	3.1
1985-86		0.0	0.5	0.0	0.0	0.7	0.7
1986-87		0.0	1.7	0.2	0.0	1.8	1.8
1987-88	0.1 ± 0.1	0.0	1.8 ± 1.4	0.1 ± 0.1	0.0	2.1 ± 1.4	2.1 ± 1.4
<b>All species combined<sup>a</sup></b>							
1982-83		0.0	7.6 ± 2.7	0.1 ± <.1	0.1 ± 0.1	8.0 ± 5.5	8.0 ± 5.5
1983-84		0.0	7.6 ± 4.4	0.0	0.1 ± 0.1	7.7 ± 4.4	7.7 ± 4.4
1984-85		0.0	20.6 ± 16.3	<.1 ± <.1	0.2 ± 0.2	20.8 ± 16.3	20.8 ± 16.3
1985-86		0.0	6.6 ± 3.5	0.0	4.0 ± 4.0	10.6 ± 5.4	10.6 ± 5.4
1986-87		<.1 ± <.1	9.0 ± 4.6	0.2 ± 0.2	0.0	9.2 ± 4.6	9.2 ± 4.6
1987-88	0.2 ± 0.2	0.0	2.7 ± 1.6	1.4 ± 1.4	0.0	4.3 ± 2.1	4.3 ± 2.1

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual totals.<sup>b</sup>This species is included in other species in this year.

Table H.4. Annual mean total lengths of fishes (mm/fish)  $\pm$  1 SE caught by private-boat fishermen in the TTS by species and area (1983-1988). Blank = no fish measured. No standard error = only 1 fish measured.

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Atlantic croaker</b>						
1983-84		201	322			266 $\pm$ 173
1984-85		253	288 $\pm$ 14		208	281 $\pm$ 36
1985-86		234	237 $\pm$ 32			237 $\pm$ 49
1986-87		174	255 $\pm$ 45			217 $\pm$ 104
1987-88	250 $\pm$ 18		260 $\pm$ 67	278 $\pm$ 53		259 $\pm$ 10
<b>Atlantic sharpnose shark</b>						
1983-84			1010			959 $\pm$ 19
1984-85			651 $\pm$ 119		958 $\pm$ 13	516 $\pm$ 24
1985-86		893	842 $\pm$ 79		500 $\pm$ 37	903 $\pm$ 54
1986-87		919 $\pm$ 14	613 $\pm$ 108		913 $\pm$ 37	766 $\pm$ 70
1987-88	766 $\pm$ 2	954	782 $\pm$ 102	936 $\pm$ 33		919 $\pm$ 23
<b>Cobia</b>						
1983-84			1133 $\pm$ 38			1214 $\pm$ 745
1984-85			1048 $\pm$ 51		1325	1069 $\pm$ 24
1985-86		788	968 $\pm$ 32		1071 $\pm$ 44	879 $\pm$ 443
1986-87			895 $\pm$ 7		785 $\pm$ 216	888 $\pm$ 723
1987-88			873 $\pm$ 67		887	905 $\pm$ 30
					942	
<b>King mackerel</b>						
1983-84			997 $\pm$ 24			1014 $\pm$ 17
1984-85			992 $\pm$ 17			950 $\pm$ 17
1985-86		1549 $\pm$ 349	934 $\pm$ 20			966 $\pm$ 44
1986-87		1005 $\pm$ 17	993 $\pm$ 46			959 $\pm$ 22
1987-88		944 $\pm$ 19	952 $\pm$ 30			954 $\pm$ 6
					1044 $\pm$ 36	
					842 $\pm$ 14	
					915	
					993 $\pm$ 32	
					960 $\pm$ 24	
<b>Red drum</b>						
1983-84			574 $\pm$ 26			575 $\pm$ 67
1984-85			605 $\pm$ 8			610 $\pm$ 37
1985-86			540 $\pm$ 23			540 $\pm$ 23
1986-87			572 $\pm$ 15			573 $\pm$ 22
1987-88	570 $\pm$ 29		609 $\pm$ 22	680		606 $\pm$ 5
					595	
					725	

Table H.4. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Red snapper</b>						
1983-84			318 ± 3	255 ± 11	326 ± 14	305 ± 7
1984-85			308 ± 8	187 ± 20	244 ± 22	302 ± 9
1985-86			282 ± 11	282 ± 29	370 ± 50	350 ± 43
1986-87		399	281 ± 11	303 ± 1	356 ± 46	381 ± 323
1987-88	234 ± 23	321	260 ± 17	251 ± 8	444 ± 39	264 ± 7
<b>Gold seatrout</b>						
1983-84		219	343 ± 5	318		339 ± 11
1984-85		267	346 ± 7	286 ± 11		339 ± 25
1985-86		236 ± 27	333 ± 9	308 ± 11		330 ± 9
1986-87		268 ± 5	325 ± 9			286 ± 6
1987-88	284 ± 12		342 ± 16	276 ± 5		294 ± 18
<b>Spanish mackerel</b>						
1983-84			578 ± 12	612 ± 17		595 ± 10
1984-85			593 ± 53	595	432	438 ± 215
1985-86		694 ± 87	611 ± 62	580 ± 25	721	616 ± 60
1986-87		590 ± 137		564 ± 68	660	590 ± 139
1987-88	553 ± 27	585 ± 6	583 ± 51	433 ± 14	623	445 ± 16
<b>Spotted seatrout</b>						
1983-84			430 ± 19	511	513	432 ± 31
1984-85		445 ± 20	487 ± 9	469 ± 12	442	471 ± 55
1985-86			448 ± 17			448 ± 17
1986-87		456 ± 10	432 ± 22	468		440 ± 35
1987-88	422 ± 7	441 ± 53	438 ± 7	516		437 ± 3
<b>Vermilion snapper</b>						
1983-84						
1984-85						
1985-86						
1986-87						

Table H.4. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
All species combined <sup>a</sup>						
1983-84		265 ± 58	465 ± 42	749 ± 76	421 ± 55	592 ± 55
1984-85		342 ± 19	488 ± 30	733 ± 74	651 ± 71	557 ± 40
1985-86		820 ± 261	497 ± 45	709 ± 40	478 ± 74	594 ± 52
1986-87		444 ± 106	455 ± 31	783 ± 60	497 ± 102	466 ± 24
1987-88	407 ± 9	610 ± 22	551 ± 33	622 ± 80	685 ± 171	584 ± 26

<sup>a</sup>Includes "other" species.



Table H.5. Mean total lengths of fishes (mm/fish)  $\pm$  1 SE caught by private-boat fishermen in the TTS during the high-use season by species and area (1983-1987). Blank = no fish measured. No standard error = only 1 fish measured.

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Atlantic croaker</b>						
1983		201	322			266 $\pm$ 266
1984		253	288 $\pm$ 14	208		282 $\pm$ 39
1985		234	237 $\pm$ 32			237 $\pm$ 49
1986		174	210			
1987	250 $\pm$ 18		260 $\pm$ 67	278 $\pm$ 53		260 $\pm$ 10
<b>Atlantic sharpnose shark</b>						
1983			1010	958 $\pm$ 13		959 $\pm$ 37
1984			651 $\pm$ 119	500 $\pm$ 37		508 $\pm$ 42
1985		893	842 $\pm$ 79	913 $\pm$ 37		903 $\pm$ 54
1986		919 $\pm$ 14	613 $\pm$ 108			
1987	766 $\pm$ 2	954	782 $\pm$ 102	874 $\pm$ 40		858 $\pm$ 25
<b>Cobia</b>						
1983			1133 $\pm$ 38	1325	800	1218 $\pm$ 795
1984			1048 $\pm$ 51	1071 $\pm$ 44		1068 $\pm$ 45
1985		788	968 $\pm$ 32	785 $\pm$ 216	1276	879 $\pm$ 443
1986			895 $\pm$ 7			
1987			772	942	990	894 $\pm$ 62
<b>King mackerel</b>						
1983			997 $\pm$ 24	1014 $\pm$ 16	1044 $\pm$ 36	1013 $\pm$ 18
1984			992 $\pm$ 17	956 $\pm$ 19	842 $\pm$ 14	950 $\pm$ 19
1985		991 $\pm$ 1	934 $\pm$ 20	926 $\pm$ 13	915	932 $\pm$ 22
1986		1005 $\pm$ 17	993 $\pm$ 46			
1987		944 $\pm$ 19	952 $\pm$ 30	960 $\pm$ 24		954 $\pm$ 6
<b>Red drum</b>						
1983			571 $\pm$ 24			571 $\pm$ 24
1984			610 $\pm$ 11		725	615 $\pm$ 40
1985			516 $\pm$ 11			516 $\pm$ 11
1986			564 $\pm$ 24			
1987	570 $\pm$ 29		606 $\pm$ 22			603 $\pm$ 5

Table H.5. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Red snapper</b>						
1983			316 ± 2	255 ± 11	326 ± 14	304 ± 10
1984			305 ± 14	210 ± 0	244 ± 22	273 ± 14
1985			290 ± 14	282 ± 29	377 ± 61	319 ± 37
1986		399	282 ± 15			
1987	247	321	247 ± 12	251 ± 8	444 ± 39	256 ± 10
<b>Sand seatrout</b>						
1983		219	355 ± 14	318		318 ± 71
1984		267	345 ± 6	286 ± 11		304 ± 112
1985		236 ± 27	299 ± 27	308 ± 11		354 ± 18
1986		269 ± 5	322 ± 18			
1987	284 ± 12		360 ± 1	276 ± 5		289 ± 13
<b>Spanish mackerel</b>						
1983			578 ± 12	612 ± 17		595 ± 15
1984			615 ± 51	595	432	438 ± 423
1985		694 ± 87	611 ± 62	580 ± 25	724	616 ± 60
1986		590 ± 137				
1987	553 ± 27	585 ± 6	583 ± 51	433 ± 14	623	445 ± 16
<b>Spotted seatrout</b>						
1983			429 ± 17	511	513	431 ± 30
1984		445 ± 20	487 ± 9	469 ± 12	442	471 ± 62
1985			448 ± 17			448 ± 17
1986		456 ± 10	431 ± 27			
1987	422 ± 7	441 ± 53	438 ± 7	516		437 ± 3
<b>Vermilion snapper</b>						
1983						
1984						
1985						
1986						
1987						

Table H.5. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
All species combined <sup>a</sup>						
1983		265 ± 58	514 ± 43	750 ± 76	424 ± 59	642 ± 64
1984		342 ± 19	507 ± 35	745 ± 78	651 ± 72	631 ± 60
1985		642 ± 148	538 ± 59	709 ± 40	497 ± 85	641 ± 52
1986		444 ± 108	527 ± 38			
1987	409 ± 9	610 ± 22	565 ± 40	597 ± 77	685 ± 171	578 ± 20

<sup>a</sup> Includes "other" species.

Table H.6. Mean total lengths of fishes (mm/fish)  $\pm$  1 SE caught by private-boat fishermen in the TTS during the low-use season by species and area (1983-1988). Blank = no fish measured. No standard error = only 1 fish measured.

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Atlantic croaker</b>						
1983-84						
1984-85						
1985-86			299			299
1986-87						
1987-88						
<b>Atlantic sharpnose shark</b>						
1983-84						
1984-85						
1985-86						
1986-87				980		980
1987-88						
<b>Cobia</b>						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88			924			923
<b>King mackerel</b>						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
<b>Red drum</b>						
1983-84					595	595
1984-85						
1985-86						
1986-87			670 $\pm$ 7			670 $\pm$ 7
1987-88			580 $\pm$ 20			580
			685 $\pm$ 64			684

Table H.6. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Red snapper						
1983-84			332 ± 35			332 ± 35
1984-85			313 ± 2	151		310 ± 4
1985-86			267 ± 17		331	324 ± 297
1986-87			277 ± 8			277
1987-88	143		300			292 ± 15
Sand seatrout						
1983-84			341 ± 5			341 ± 5
1984-85			347 ± 13			347 ± 13
1985-86			338 ± 7			338 ± 7
1986-87		318	325 ± 10			325 ± 10
1987-88			323			323
Spanish mackerel						
1983-84						374
1984-85						374
1985-86						
1986-87						
1987-88						
Spotted seatrout						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
Vermilion snapper						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
			479			479
			433 ± 11			433

Table H.6. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
All species combined <sup>a</sup>						
1983-84			335 ± 10		343 ± 50	335 ± 11
1984-85			392 ± 24	151	670 ± 149	394 ± 25
1985-86			367 ± 21		331	353 ± 139
1986-87		318	387 ± 24	396		387 ± 1
1987-88	336		480 ± 44	984		642 ± 188

<sup>a</sup>Includes "other" species.

Table H.7. Annual mean weights of fishes (kg/fish)  $\pm$  1 SE caught by private-boat fishermen in the TTS by species and area (1982-1988). Blank = no fish weighed. No standard error = only 1 fish weighed.

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Atlantic croaker</b>						
1982-83			0.47 $\pm$ 0.11			0.47 $\pm$ 0.21
1983-84		0.10	0.44			0.28 $\pm$ 0.28
1984-85		0.20	0.34 $\pm$ 0.05		0.11	0.32 $\pm$ 0.07
1985-86		0.16	0.19 $\pm$ 0.06			0.19 $\pm$ 0.07
1986-87		0.06	0.23 $\pm$ 0.12			0.15 $\pm$ 0.09
1987-88	0.21 $\pm$ 0.05		0.29 $\pm$ 0.23	0.31 $\pm$ 0.17		0.25 $\pm$ 0.04
<b>Atlantic sharpnose shark</b>						
1982-83 <sup>a</sup>			7.53			5.94 $\pm$ 0.32
1983-84			1.82 $\pm$ 1.23	5.89 $\pm$ 0.10		1.54 $\pm$ 0.21
1984-85			4.85 $\pm$ 1.09	5.70 $\pm$ 0.48		5.58 $\pm$ 0.62
1985-86		4.79	3.19 $\pm$ 0.63	6.37 $\pm$ 0.57		4.56 $\pm$ 0.59
1986-87		5.34 $\pm$ 0.29	4.36 $\pm$ 1.80	6.26 $\pm$ 0.45		5.94 $\pm$ 0.40
1987-88	2.79 $\pm$ 0.04	6.08				
<b>Cobia</b>						
1982-83			10.78 $\pm$ 3.13	9.01 $\pm$ 1.60	4.55	9.29 $\pm$ 1.56
1983-84			11.81 $\pm$ 1.32	19.16	3.92	15.00 $\pm$ 10.64
1984-85			9.30 $\pm$ 1.39	9.85 $\pm$ 1.28		9.80 $\pm$ 1.29
1985-86		3.74	7.17 $\pm$ 0.73	4.83 $\pm$ 4.06	16.8	6.17 $\pm$ 4.20
1986-87		0.00	5.68 $\pm$ 0.20	5.42	5.42	5.47 $\pm$ 4.45
1987-88			5.28 $\pm$ 1.18	6.55	7.66	5.84 $\pm$ 0.55
<b>King mackerel</b>						
1982-83			6.82 $\pm$ 1.25	6.39 $\pm$ 1.06	4.42 $\pm$ 1.61	6.19 $\pm$ 0.88
1983-84		5.63	9.70 $\pm$ 0.72	10.14 $\pm$ 0.61	11.28 $\pm$ 1.15	10.15 $\pm$ 0.64
1984-85			9.62 $\pm$ 0.61	8.42 $\pm$ 0.53	5.95 $\pm$ 0.56	8.32 $\pm$ 0.54
1985-86		9.16 $\pm$ 0.04	7.82 $\pm$ 0.54	7.61 $\pm$ 0.34	7.53	7.76 $\pm$ 0.44
1986-87		9.61 $\pm$ 0.49	9.66 $\pm$ 1.28	8.18 $\pm$ 0.46	9.01 $\pm$ 0.85	8.51 $\pm$ 0.57
1987-88		8.58 $\pm$ 0.21	8.42 $\pm$ 0.94	8.90 $\pm$ 0.61		8.73 $\pm$ 0.14

Table H.7. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Red drum</b>						
1982-83			1.38 ± 0.15	1.20		1.36 ± 0.14
1983-84			2.26 ± 0.27		2.25	2.26 ± 0.44
1984-85			2.45 ± 0.09		4.10	2.52 ± 0.26
1985-86			1.77 ± 0.26			1.77 ± 0.26
1986-87		0.00	2.12 ± 0.17	3.38		2.14 ± 0.21
1987-88	2.11 ± 0.31		2.56 ± 0.26			2.53 ± 0.06
<b>Red snapper</b>						
1982-83			0.35 ± 0.06	0.33 ± 0.19	0.64 ± 0.50	0.40 ± 0.15
1983-84			0.45 ± 0.03	0.27 ± 0.08	0.48 ± 0.07	0.43 ± 0.06
1984-85			0.50 ± 0.07	0.09 ± 0.03	0.22 ± 0.07	0.48 ± 0.07
1985-86			0.35 ± 0.07	0.35 ± 0.09	0.94 ± 0.43	0.81 ± 0.35
1986-87		0.87	0.31 ± 0.03	0.37 ± 0.01	0.68 ± 0.21	0.78 ± 0.71
1987-88	0.17 ± 0.03	0.47	0.25 ± 0.05	0.22 ± 0.03	1.30 ± 0.41	0.27 ± 0.03
<b>Sand seatrout</b>						
1982-83		0.45	0.38 ± 0.33	0.26 ± 0.05	0.40	0.35 ± 0.21
1983-84		0.11	0.44 ± 0.02	0.34		0.43 ± 0.03
1984-85		0.20	0.46 ± 0.02	0.26 ± 0.04		0.44 ± 0.04
1985-86		0.15 ± 0.07	0.41 ± 0.03	0.35 ± 0.04		0.40 ± 0.03
1986-87		0.21 ± 0.01	0.38 ± 0.03			0.26 ± 0.02
1987-88	0.26 ± 0.03		0.44 ± 0.06	0.23 ± 0.01		0.28 ± 0.06
<b>Spanish mackerel</b>						
1982-83		1.05	0.67 ± 0.35	0.81 ± 0.07		0.67 ± 0.18
1983-84			1.02 ± 0.06	1.20 ± 0.09		1.10 ± 0.07
1984-85			1.23 ± 0.27	1.07	0.44	0.47 ± 0.44
1985-86		1.91 ± 0.75	1.32 ± 0.32	1.03 ± 0.13	1.90	1.33 ± 0.35
1986-87		1.77 ± 1.19	0.00	0.96 ± 0.32	1.45	1.76 ± 1.18
1987-88	0.96 ± 0.17	1.09 ± 0.02	1.09 ± 0.26	0.45 ± 0.04	1.23	0.50 ± 0.07



Table H.7. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Spotted seatrout</b>						
1982-83		0.76	0.69 ± 0.39	0.80 ± 0.52	0.59	0.69 ± 0.29
1983-84			0.82 ± 0.12	1.26	1.38	0.83 ± 0.15
1984-85		0.84 ± 0.11	1.15 ± 0.07	0.99 ± 0.06	0.81	1.03 ± 0.16
1985-86			0.91 ± 0.08			0.91 ± 0.08
1986-87		0.93 ± 0.05	0.82 ± 0.14	1.00		0.86 ± 0.15
1987-88	0.74 ± 0.04	0.92 ± 0.38	0.81 ± 0.04	1.35		0.85 ± 0.04
<b>Vermilion snapper</b>						
1982-83 <sup>a</sup>						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
<b>All species combined<sup>b</sup></b>						
1982-83		2.00 ± 7.90	0.79 ± 1.77	2.77 ± 2.28	1.40 ± 1.10	1.50 ± 1.47
1983-84		0.10 ± 0.10	1.82 ± 0.51	6.83 ± 1.19	1.54 ± 0.82	3.90 ± 0.82
1984-85		0.46 ± 0.09	2.41 ± 0.54	6.23 ± 0.87	4.14 ± 1.01	3.43 ± 0.65
1985-86		4.51 ± 2.03	2.47 ± 0.57	5.67 ± 0.39	2.02 ± 0.95	3.85 ± 0.58
1986-87		2.06 ± 1.20	1.93 ± 0.54	5.82 ± 0.69	2.21 ± 1.37	2.21 ± 0.26
1987-88	0.68 ± 0.07	6.09 ± 1.12	2.36 ± 0.46	4.41 ± 1.06	2.15 ± 0.50	4.08 ± 0.87

<sup>a</sup>Mean weights are not available for this species for this year.<sup>b</sup>Includes "other" species.

Table H.8. Mean weights of fishes (kg/fish)  $\pm$  1 SE caught by private-boat fishermen in the TTS during the high-use season by species and area (1982-1987). Blank = no fish weighed. No standard error = only 1 fish weighed.

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Atlantic croaker</b>						
1982			0.54 $\pm$ 0.14			0.54 $\pm$ 0.14
1983		0.10	0.44			0.28 $\pm$ 0.28
1984		0.20	0.34 $\pm$ 0.05		0.11	0.32 $\pm$ 0.07
1985		0.16	0.19 $\pm$ 0.06			0.19 $\pm$ 0.07
1986		0.06	0.11			0.09 $\pm$ 0.03
1987	0.21 $\pm$ 0.05		0.29 $\pm$ 0.23	0.31 $\pm$ 0.17		0.25 $\pm$ 0.04
<b>Atlantic sharpnose shark</b>						
1982 <sup>a</sup>						
1983			7.53	5.89 $\pm$ 0.10		5.93 $\pm$ 0.28
1984			1.82 $\pm$ 1.23	1.51 $\pm$ 0.09		1.52 $\pm$ 0.16
1985		4.79	4.85 $\pm$ 1.09	5.70 $\pm$ 0.48		5.58 $\pm$ 0.62
1986		5.34 $\pm$ 0.29	3.19 $\pm$ 0.63	6.37 $\pm$ 0.57		4.66 $\pm$ 1.27
1987	2.79 $\pm$ 0.04	6.08	4.36 $\pm$ 1.80	4.84 $\pm$ 0.64		4.80 $\pm$ 0.17
<b>Cobia</b>						
1982			15.18 $\pm$ 3.81	9.01 $\pm$ 1.60	4.55	12.05 $\pm$ 2.64
1983			11.81 $\pm$ 1.32	19.16	3.92	15.36 $\pm$ 11.31
1984			930 $\pm$ 1.39	9.85 $\pm$ 1.28		9.80 $\pm$ 1.29
1985		3.74	7.17 $\pm$ 0.73	4.83 $\pm$ 4.06	16.80	6.17 $\pm$ 4.20
1986			5.68 $\pm$ 0.20	5.42	5.42	5.47 $\pm$ 0.06
1987			3.50	6.55	7.66	5.47 $\pm$ 1.23
<b>King mackerel</b>						
1982			6.94 $\pm$ 0.78	6.09 $\pm$ 0.35	4.68 $\pm$ 1.09	5.99 $\pm$ 0.28
1983		5.63	9.70 $\pm$ 0.72	10.14 $\pm$ 0.61	11.28 $\pm$ 1.15	10.15 $\pm$ 0.64
1984			9.62 $\pm$ 0.61	8.42 $\pm$ 0.53	5.95 $\pm$ 0.56	8.32 $\pm$ 0.54
1985		9.16 $\pm$ 0.04	7.82 $\pm$ 0.54	7.61 $\pm$ 0.34	7.53	7.76 $\pm$ 0.44
1986		9.61 $\pm$ 0.49	9.66 $\pm$ 1.28	8.18 $\pm$ 0.46	9.01 $\pm$ 0.85	8.51 $\pm$ 0.34
1987		8.58 $\pm$ 0.21	8.42 $\pm$ 0.94	8.90 $\pm$ 0.61		8.73 $\pm$ 0.14

Table H.8. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Red drum</b>						
1982			1.36 ± 0.10	1.20		1.35 ± 0.01
1983			2.23 ± 0.25			2.23 ± 0.25
1984			2.52 ± 0.12		4.10	2.58 ± 0.29
1985			1.49 ± 0.10			1.49 ± 0.10
1986			2.09 ± 0.28	3.38		2.18 ± 0.18
1987	2.11 ± 0.31		2.52 ± 0.26		1.30 ± 0.41	2.49 ± 0.06
<b>Red snapper</b>						
1982			0.31 ± 0.03	0.27 ± 0.02	0.53 ± 0.00	0.41 ± 0.09
1983			0.43 ± 0.01	0.27 ± 0.08	0.48 ± 0.07	0.41 ± 0.06
1984			0.57 ± 0.12	0.12 ± 0.00	0.22 ± 0.07	0.40 ± 0.08
1985			0.39 ± 0.10	0.35 ± 0.09	1.03 ± 0.52	0.61 ± 0.25
1986		0.87	0.33 ± 0.05	0.37 ± 0.01	0.68 ± 0.21	0.82 ± 0.05
1987	0.19	0.47	0.21 ± 0.04	0.22 ± 0.03		0.25 ± 0.04
<b>Sand seatrout</b>						
1982			0.33 ± 0.01	0.28 ± 0.02	0.40	0.33 ± 0.01
1983		0.45	0.50 ± 0.06	0.34		0.39 ± 0.07
1984		0.11	0.46 ± 0.02	0.26 ± 0.04		0.32 ± 0.10
1985		0.20	0.32 ± 0.10	0.35 ± 0.04		0.32 ± 0.09
1986		0.15 ± 0.07	0.37 ± 0.06			0.24 ± 0.06
1987		0.21 ± 0.01	0.50 ± 0.00	0.23 ± 0.01		0.27 ± 0.05
<b>Spanish mackerel</b>						
1982		1.05	0.86 ± 0.28	0.65 ± 0.23		0.84 ± 0.14
1983			1.02 ± 0.06	1.20 ± 0.09		1.11 ± 0.07
1984			1.32 ± 0.27	1.07	0.44	0.47 ± 0.44
1985			1.32 ± 0.32	1.03 ± 0.13	1.90	1.33 ± 0.35
1986		1.77 ± 1.19		0.96 ± 0.32	1.45	1.76 ± 0.02
1987	0.96 ± 0.17	1.09 ± 0.02	1.09 ± 0.26	0.45 ± 0.04	1.23	0.50 ± 0.07

Table H.8. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Spotted seatrout</b>						
1982		0.76	0.79 ± 0.10	0.69 ± 0.13	0.59	0.76 ± 0.02
1983			0.81 ± 0.10	1.26	1.38	0.82 ± 0.14
1984		0.84 ± 0.11	1.15 ± 0.07	0.99 ± 0.06	0.81	1.03 ± 0.17
1985			0.91 ± 0.08			0.91 ± 0.08
1986		0.93 ± 0.05	0.82 ± 0.17	1.00		0.86 ± 0.04
1987	0.75 ± 0.04	0.92 ± 0.38	0.81 ± 0.04	1.35		0.85 ± 0.04
<b>Vermilion snapper</b>						
1982 <sup>a</sup>						
1983						
1984						
1985						
1986						
1987						
<b>All species combined<sup>b</sup></b>						
1982		2.13 ± 1.95	2.06 ± 0.83	2.38 ± 0.75	2.71 ± 1.64	2.20 ± 0.12
1983		0.10	2.50 ± 0.78	6.83 ± 1.19	1.54 ± 0.86	5.70 ± 1.61
1984		0.46 ± 0.09	2.73 ± 0.64	6.29 ± 0.89	4.14 ± 1.01	4.48 ± 0.77
1985		4.51 ± 2.03	3.02 ± 0.74	5.67 ± 0.39	2.24 ± 1.13	4.60 ± 0.59
1986		2.06 ± 1.21	3.00 ± 0.88	5.94 ± 0.70	2.21 ± 1.37	2.55 ± 0.44
1987	0.69 ± 0.08	6.09 ± 1.12	2.70 ± 0.51	4.10 ± 1.10	2.15 ± 0.50	4.17 ± 0.80

<sup>a</sup>Mean weights are not available for this species in this year.<sup>b</sup>Includes "other" species.

Table H.9. Mean weights of fishes (kg/fish)  $\pm$  1 SE caught by private-boat fishermen in the TTS during the low-use season by species and area (1982-1988). Blank = no fish weighed. No standard error = only 1 fish weighed.

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Atlantic croaker						
1982-83			0.27			0.27
1983-84						
1984-85						
1985-86			0.35			0.35
1986-87						
1987-88						
Atlantic sharpnose shark						
1982-83 <sup>a</sup>						
1983-84						
1984-85						
1985-86						
1986-87				6.75		6.75
1987-88						
Cobia						
1982-83						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88			6.17			6.17
King mackerel						
1982-83						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						

Table H.9. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Red drum</b>						
1982-83			1.44 ± 0.21		2.25	1.44 2.25
1983-84						
1984-85			3.28 ± 0.15			3.28 ± 0.15
1985-86			2.16 ± 0.23			2.16
1986-87			3.54 ± 0.97			3.54 ± 0.97
1987-88						
<b>Red snapper</b>						
1982-83			0.40 ± 0.01		1.33	0.47 ± 0.12
1983-84			0.75 ± 0.28			0.75 ± 0.28
1984-85			0.42 ± 0.00	0.04		0.42 ± 0.00
1985-86			0.28 ± 0.07		0.50	0.48 ± 0.46
1986-87			0.29 ± 0.02			0.29
1987-88	0.03		0.36			0.34 0.03
<b>Sand seatrout</b>						
1982-83			0.43 ± 0.08			0.43
1983-84			0.43 ± 0.02			0.43 ± 0.02
1984-85			0.47 ± 0.04			0.47 ± 0.04
1985-86			0.42 ± 0.03			0.42 ± 0.03
1986-87			0.38 ± 0.03			0.42 ± <0.01
1987-88			0.36			0.36
<b>Spanish mackerel</b>						
1982-83			0.30			0.30
1983-84						
1984-85			0.28			0.28
1985-86						
1986-87						
1987-88						

Table H.9. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Spotted seatrout						
1982-83			1.01 ± 0.22			1.01
1983-84						
1984-85			1.03			1.03
1985-86			0.83 ± 0.07			0.83
1986-87						
1987-88						
Vermilion snapper						
1982-83 <sup>a</sup>						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
All species combined <sup>b</sup>						
1982-83			0.39 ± 0.07	2.60	1.30	0.40 ± 0.03
1983-84			0.53 ± 0.05		1.48 ± 0.14	0.55 ± 0.05
1984-85			0.86 ± 0.26		0.50	0.86 ± 0.26
1985-86			0.76 ± 0.18			0.66 ± 0.30
1986-87		0.34	0.91 ± 0.23	1.00		0.91 ± 0.01
1987-88	0.40		1.31 ± 0.01	6.70		2.17 ± 1.25

<sup>a</sup>Mean weights are not available for this species in this year.<sup>b</sup>Includes "other" species.

Table H.10. Annual mean catch rates of fishes (No./man-h)  $\pm$  1 SE caught by private-boat fishermen in the TTS by species and area (1982-1988).

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Atlantic croaker</b>						
1982-83		0.01 $\pm$ 0.01	0.01 $\pm$ <.01	<.01 $\pm$ <.01	0.02 $\pm$ 0.02	0.01 $\pm$ <.01
1983-84		<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.00	0.00	<.01 $\pm$ <.01
1984-85		<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01
1985-86		<.01 $\pm$ <.01	0.02 $\pm$ 0.02	0.00	0.00	<.01 $\pm$ <.01
1986-87		0.01 $\pm$ 0.01	<.01 $\pm$ <.01	0.00	0.00	<.01 $\pm$ <.01
1987-88	0.04 $\pm$ 0.03	0.00	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01
<b>Atlantic sharpnose shark</b>						
1982-83 <sup>b</sup>						
1983-84		0.00	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01
1984-85		0.00	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01
1985-86		<.01 $\pm$ <.01	0.01 $\pm$ <.01	0.02 $\pm$ 0.01	0.00	0.01 $\pm$ <.01
1986-87		<.01 $\pm$ <.01	0.01 $\pm$ 0.01	0.01 $\pm$ <.01	0.00	0.01 $\pm$ <.01
1987-88	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.01 $\pm$ <.01	0.01 $\pm$ <.01	0.00	0.01 $\pm$ <.01
<b>Cobia</b>						
1982-83		0.01 $\pm$ 0.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01
1983-84		0.00	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01
1984-85		0.00	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01
1985-86		<.01 $\pm$ <.01	0.00	0.00	0.00	<.01 $\pm$ <.01
1986-87		0.00	0.00	0.00	0.01 $\pm$ 0.01	<.01 $\pm$ <.01
1987-88	0.00	0.00	<.01 $\pm$ <.01	0.00	0.01 $\pm$ 0.01	<.01 $\pm$ <.01
<b>King mackerel</b>						
1982-83		0.20 $\pm$ 0.19	0.05 $\pm$ 0.02	0.06 $\pm$ 0.02	0.03 $\pm$ 0.02	0.09 $\pm$ 0.04
1983-84		0.00	0.05 $\pm$ 0.03	0.06 $\pm$ 0.03	0.06 $\pm$ 0.04	0.04 $\pm$ 0.02
1984-85		0.00	0.02 $\pm$ 0.01	0.09 $\pm$ 0.03	0.03 $\pm$ 0.02	0.06 $\pm$ 0.02
1985-86		0.03 $\pm$ 0.02	0.04 $\pm$ 0.02	0.05 $\pm$ 0.02	<.01 $\pm$ <.01	0.04 $\pm$ 0.01
1986-87		0.01 $\pm$ 0.01	<.01 $\pm$ <.01	0.02 $\pm$ 0.01	0.02 $\pm$ 0.01	0.01 $\pm$ <.01
1987-88	0.00	0.20 $\pm$ 0.18	0.02 $\pm$ 0.01	0.04 $\pm$ 0.02	0.00	0.06 $\pm$ 0.03



Table H.10. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Red drum</b>						
1982-83		0.00	<.01 ± <.01	<.01 ± <.01	0.00	<.01 ± <.01
1983-84		0.00	0.02 ± 0.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01
1984-85		0.00	<.01 ± <.01	<.01 ± <.01	0.00	<.01 ± <.01
1985-86		0.00	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1986-87		0.00	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1987-88	<.01 ± <.01	0.00	0.02 ± 0.01	0.00	0.00	<.01 ± <.01
<b>Red snapper</b>						
1982-83		0.02 ± 0.02	0.33 ± 0.23	0.01 ± 0.01	0.20 ± 0.10	0.11 ± 0.07
1983-84		<.01 ± <.01	0.05 ± 0.03	<.01 ± <.01	0.18 ± 0.09	0.01 ± 0.01
1984-85		0.00	0.08 ± 0.07	<.01 ± <.01	<.01 ± <.01	0.02 ± 0.02
1985-86		0.00	0.02 ± 0.01	0.01 ± 0.01	0.18 ± 0.16	0.03 ± 0.02
1986-87		0.11 ± 0.11	<.01 ± <.01	<.01 ± <.01	0.06 ± 0.06	0.02 ± 0.01
1987-88	<.01 ± <.01	<.01 ± <.01	0.04 ± 0.02	<.01 ± <.01	0.03 ± 0.03	0.01 ± <.01
<b>Sand seatrout</b>						
1982-83		<.01 ± <.01	1.00 ± 0.64	0.07 ± 0.04	0.06 ± 0.04	0.29 ± 0.19
1983-84		<.01 ± <.01	0.36 ± 0.22	<.01 ± <.01	0.00	0.02 ± 0.02
1984-85		0.20 ± 0.20	0.49 ± 0.43	<.01 ± <.01	0.00	0.14 ± 0.11
1985-86		0.01 ± 0.01	0.22 ± 0.10	<.01 ± <.01	0.00	0.05 ± 0.02
1986-87		1.28 ± 1.17	0.15 ± 0.11	0.00	0.00	0.21 ± 0.14
1987-88	0.08 ± 0.04	0.00	0.01 ± 0.01	0.01 ± 0.01	0.00	0.01 ± <.01
<b>Spanish mackerel</b>						
1982-83		0.03 ± 0.03	0.03 ± 0.02	0.01 ± <.01	0.00	0.02 ± 0.01
1983-84		0.00	0.02 ± 0.02	<.01 ± <.01	0.03 ± 0.03	<.01 ± <.01
1984-85		0.00	<.01 ± <.01	<.01 ± <.01	0.12 ± 0.12	0.02 ± 0.02
1985-86		0.01 ± <.01	0.01 ± <.01	<.01 ± <.01	0.00	<.01 ± <.01
1986-87		0.04 ± 0.03	0.00	0.00	<.01 ± <.01	<.01 ± <.01
1987-88	<.01 ± <.01	<.01 ± <.01	0.01 ± <.01	0.02 ± 0.01	0.01 ± 0.01	0.02 ± 0.01

Table H.10. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Spotted seatrout</b>						
1982-83		0.03 ± 0.03	0.03 ± 0.02	<.01 ± <.01	0.02 ± 0.02	0.02 ± 0.01
1983-84		0.00	0.15 ± 0.10	<.01 ± <.01	0.01 ± 0.01	0.01 ± 0.01
1984-85		<.01 ± <.01	0.02 ± 0.01	<.01 ± <.01	0.01 ± 0.01	0.01 ± <.01
1985-86		0.00	0.02 ± 0.01	<.01 ± <.01	0.00	0.01 ± <.01
1986-87		0.03 ± 0.03	0.02 ± 0.02	<.01 ± <.01	0.00	0.01 ± 0.01
1987-88	0.14 ± 0.06	0.09 ± 0.07	0.10 ± 0.07	0.00	0.00	0.03 ± 0.01
<b>Vermilion snapper</b>						
1982-83 <sup>b</sup>						
1983-84		0.00	0.00	0.00	0.00	0.00
1984-85		0.00	0.00	0.00	0.00	0.00
1985-86		0.00	0.00	0.00	0.00	0.00
1986-87		0.00	0.00	0.00	0.00	0.00
1987-88	0.00	0.00	0.00	0.00	0.00	0.00
<b>Other species</b>						
1982-83		0.05 ± 0.04	0.05 ± 0.02	0.04 ± 0.01	0.03 ± 0.01	0.04 ± 0.01
1983-84		<.01 ± <.01	0.10	0.02 ± 0.01	0.02	0.02
1984-85		<.01 ± <.01	0.08	0.03	0.02 ± 0.01	0.04
1985-86		0.02 ± 0.01	0.12	0.01	0.02 ± 0.01	0.08
1986-87		0.01 ± 0.01	0.06	0.01 ± <.01	0.01 ± 0.01	0.03
1987-88	0.08	0.06	0.10	0.02	0.03	0.04
<b>All species combined<sup>a</sup></b>						
1982-83		0.35 ± 0.30	1.51 ± 0.92	0.19 ± 0.06	0.36 ± 0.17	0.57 ± 0.30
1983-84		<.01 ± <.01	0.77 ± 0.32	0.10 ± 0.04	0.29 ± 0.12	0.10 ± 0.05
1984-85		0.24 ± 0.24	0.70 ± 0.46	0.14 ± 0.04	0.18 ± 0.14	0.30 ± 0.13
1985-86		0.00	0.47 ± 0.15	0.17 ± 0.08	0.20 ± 0.17	0.22 ± 0.06
1986-87		1.51 ± 1.26	0.25 ± 0.18	0.03 ± 0.02	0.10 ± 0.08	0.29 ± 0.16
1987-88	0.36 ± 0.15	0.36 ± 0.24	0.33 ± 0.12	0.09 ± 0.03	0.07 ± 0.06	0.17 ± 0.04

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual totals.

<sup>b</sup>This species is included in other species in this year.

Table H.11. Mean catch rates of fishes (No./man-h)  $\pm$  1 SE caught by private-boat fishermen in the TTS during the high-use season by species and area (1982-1987).

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Atlantic croaker</b>						
1982		0.01 $\pm$ 0.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.01 $\pm$ <.01
1983		<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01
1984		<.01 $\pm$ <.01	0.01 $\pm$ <.01	0.00	0.00	<.01 $\pm$ <.01
1985		<.01 $\pm$ <.01	0.03 $\pm$ 0.02	0.00	0.00	<.01 $\pm$ <.01
1986		0.10 $\pm$ 0.10	<.01 $\pm$ <.01	0.00	0.00	<.01 $\pm$ <.01
1987	0.05 $\pm$ 0.04	0.00	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01
<b>Atlantic sharpnose shark</b>						
1982 <sup>b</sup>			<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01
1983		0.00	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01
1984		0.00	<.01 $\pm$ <.01	0.02 $\pm$ 0.01	0.00	<.01 $\pm$ <.01
1985		<.01 $\pm$ <.01	0.01 $\pm$ <.01	0.01 $\pm$ <.01	0.00	0.01 $\pm$ <.01
1986		<.01 $\pm$ <.01	0.01 $\pm$ <.01	0.01 $\pm$ <.01	0.00	0.01 $\pm$ <.01
1987	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.01 $\pm$ <.01	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01
<b>Cobia</b>						
1982		0.01 $\pm$ 0.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01
1983		0.00	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01	0.00
1984		0.00	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01
1985		<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01	0.00
1986		0.00	0.00	0.00	0.01 $\pm$ 0.01	0.00
1987	0.00	0.00	<.01 $\pm$ <.01	0.00	0.01 $\pm$ 0.01	0.00
<b>King mackerel</b>						
1982		0.19 $\pm$ 0.17	0.06 $\pm$ 0.02	0.06 $\pm$ 0.02	0.05 $\pm$ 0.04	0.08 $\pm$ 0.03
1983		0.00	0.06 $\pm$ 0.03	0.08 $\pm$ 0.04	0.06 $\pm$ 0.04	0.04 $\pm$ 0.02
1984		0.00	0.03 $\pm$ 0.01	0.09 $\pm$ 0.03	0.04 $\pm$ 0.02	0.07 $\pm$ 0.02
1985		0.03 $\pm$ 0.02	0.05 $\pm$ 0.02	0.05 $\pm$ 0.02	<.01 $\pm$ <.01	0.04 $\pm$ 0.01
1986		0.01 $\pm$ 0.01	<.01 $\pm$ <.01	0.02 $\pm$ 0.01	0.02 $\pm$ 0.01	0.01 $\pm$ <.01
1987	0.00	0.20 $\pm$ 0.20	0.02 $\pm$ 0.01	0.04 $\pm$ 0.02	0.00	0.06 $\pm$ 0.03

Table H.11. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Red drum</b>						
1982		0.00	0.01 ± <.01	0.00	0.00	<.01 ± <.01
1983		0.00	0.02 ± 0.01	0.00	0.00	<.01 ± <.01
1984		0.00	0.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01
1985		0.00	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1986		0.00	<.01 ± <.01	0.00	0.00	0.00
1987	0.01 ± <.01	0.00	0.02 ± 0.01	0.00	0.00	<.01 ± <.01
<b>Red snapper</b>						
1982		0.02 ± 0.02	0.10 ± 0.08	0.01 ± <.01	0.21 ± 0.12	0.05 ± 0.02
1983		<.01 ± <.01	0.05 ± 0.04	0.01 ± <.01	0.20 ± 0.10	0.01 ± 0.01
1984		0.00	0.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01
1985		0.00	0.01 ± 0.01	0.01 ± <.01	0.03 ± 0.02	0.01 ± <.01
1986		0.12 ± 0.12	<.01 ± <.01	<.01 ± <.01	0.06 ± 0.06	0.02 ± 0.01
1987	<.01 ± <.01	<.01 ± <.01	0.04 ± 0.03	<.01 ± <.01	0.03 ± 0.03	0.01 ± <.01
<b>Sand seatrout</b>						
1982		<.01 ± <.01	0.70 ± 0.48	0.05 ± 0.03	0.06 ± 0.04	0.20 ± 0.12
1983		<.01 ± <.01	0.03 ± 0.02	0.00	0.00	<.01 ± <.01
1984		0.20 ± 0.20	0.08 ± 0.03	0.01 ± <.01	0.00	0.03 ± 0.01
1985		0.01 ± 0.01	0.08 ± 0.06	<.01 ± <.01	0.00	0.02 ± 0.01
1986		1.37 ± 1.25	0.10 ± 0.10	0.00	0.00	0.20 ± 0.15
1987	0.08 ± 0.05	0.00	0.01 ± 0.01	<.01 ± <.01	0.00	0.01 ± <.01
<b>Spanish mackerele</b>						
1982		0.03 ± 0.02	0.01 ± 0.01	0.01 ± 0.01	0.00	0.01 ± <.01
1983		0.00	0.03 ± 0.02	<.01 ± <.01	0.03 ± 0.03	<.01 ± <.01
1984		0.00	<.01 ± <.01	<.01 ± <.01	0.14 ± 0.14	0.02 ± 0.02
1985		0.01 ± <.01	0.01 ± 0.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01
1986		0.04 ± 0.04	0.00	0.00	<.01 ± <.01	<.01 ± <.01
1987	0.01 ± <.01	<.01 ± <.01	0.01 ± 0.01	0.02 ± 0.01	0.01 ± 0.01	0.02 ± 0.01

Table H.11. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Spotted seatrout</b>						
1982		0.04 ± 0.04	0.07 ± 0.04	<0.01 ± <0.01	0.01 ± 0.01	0.03 ± 0.01
1983		0.00	0.17 ± 0.11	0.00	0.01 ± 0.01	0.01 ± 0.01
1984		0.01 ± 0.01	0.04 ± 0.02	<0.01 ± <0.01	0.01 ± 0.01	0.01 ± <0.01
1985		0.00	0.03 ± 0.01	<0.01 ± <0.01	0.00	0.01 ± <0.01
1986		0.03 ± 0.03	0.02 ± 0.02	<0.01 ± <0.01	0.00	0.01 ± 0.01
1987	0.16 ± 0.07	0.10 ± 0.10	0.13 ± 0.10	0.00	0.00	0.03 ± 0.01
<b>Vermilion snapper</b>						
1982 <sup>b</sup>			0.00	0.00	0.00	0.00
1983		0.00	0.00	0.00	0.00	0.00
1984		0.00	0.00	0.00	0.00	0.00
1985		0.00	0.00	0.00	0.00	0.00
1986		0.00	0.00	0.00	0.00	0.00
1987	0.00	0.00	0.00	0.00	0.00	0.00
<b>Other species</b>						
1982		0.05 ± 0.04	0.02 ± 0.01	0.04 ± 0.01	0.03 ± 0.01	0.04 ± 0.01
1983		<0.01 ± <0.01	0.09	0.02 ± 0.01	<0.01 ± <0.01	0.02
1984		<0.01	0.10	0.03	0.01 ± <0.01	0.04
1985		0.02 ± 0.01	0.12	0.10	0.02 ± 0.02	0.09
1986		0.03	0.04	0.01 ± <0.01	0.01 ± 0.01	0.02
1987	0.07	0.06	0.07	0.02	0.02	0.03
<b>All species combined<sup>a</sup></b>						
1982		0.35 ± 0.28	0.98 ± 0.54	0.17 ± 0.06	0.39 ± 0.20	0.42 ± 0.15
1983		<0.01 ± <0.01	0.45 ± 0.20	0.12 ± 0.05	0.30 ± 0.14	0.09 ± 0.05
1984		0.24 ± 0.24	0.28 ± 0.09	0.14 ± 0.04	0.21 ± 0.16	0.18 ± 0.04
1985		0.08 ± 0.05	0.34 ± 0.12	0.17 ± 0.08	0.06 ± 0.04	0.18 ± 0.06
1986		1.16 ± 1.35	0.18 ± 0.16	0.04 ± 0.02	0.10 ± 0.08	0.28 ± 0.17
1987	0.38 ± 0.16	0.36 ± 0.24	0.31 ± 0.13	0.09 ± 0.03	0.07 ± 0.06	0.16 ± 0.04

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual totals.<sup>b</sup>This species is included in other species in this year.

Table H.12. Mean catch rates of fishes (No./man-h)  $\pm$  1 SE caught by private-boat fishermen in the TTS during the low-use season by species and area (1982-1988). Blank = no fishermen interviewed.

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Atlantic croaker						
1982-83			0.02 $\pm$ 0.02	0.00	0.00	0.02 $\pm$ 0.02
1983-84			0.00	0.00	0.00	0.00
1984-85			0.00	0.00	0.00	0.00
1985-86		0.00	0.00	0.00	0.00	0.00
1986-87		0.00	<.01 $\pm$ <.01	0.00	0.00	<.01 $\pm$ <.01
1987-88	0.00	0.00	0.00	0.00	0.00	0.00
Atlantic sharpnose shark						
1982-83 <sup>b</sup>						
1983-84			0.00	0.00	0.00	0.00
1984-85			<.01 $\pm$ <.01	0.00	0.00	<.01 $\pm$ <.01
1985-86		0.00	0.00	0.00	0.00	0.00
1986-87		0.00	0.00	0.00	0.00	0.00
1987-88	0.00	0.00	0.00	0.12 $\pm$ 0.12	0.00	0.04 $\pm$ 0.04
Cobia						
1982-83			0.00	0.00	0.00	0.00
1983-84			0.00	0.00	0.00	0.00
1984-85			0.00	0.00	0.00	0.00
1985-86		0.00	0.00	0.00	0.00	0.00
1986-87		0.00	0.00	0.00	0.00	0.00
1987-88	0.00	0.00	<.01 $\pm$ <.01	0.00	0.00	<.01 $\pm$ <.01
King mackerel						
1982-83			0.00	0.00	0.00	0.00
1983-84			0.00	0.00	0.00	0.00
1984-85			0.00	0.00	0.00	0.00
1985-86		0.00	0.00	0.00	0.00	0.00
1986-87		0.00	0.00	0.00	0.00	0.00
1987-88	0.00	0.00	0.00	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01



Table H.12. (Cont'd.)

Species Year	Area						Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre		
<b>Spotted seatrout</b>							
1982-83			0.09 ± 0.08	0.00	0.00	0.00	0.07 ± 0.06
1983-84			0.00		0.00	0.00	0.00
1984-85			0.00		0.00	0.00	0.00
1985-86		0.00	<.01 ± <.01	0.00	0.00	0.00	<.01 ± <.01
1986-87		0.00	0.03 ± 0.03	0.00	0.00	0.00	0.01 ± 0.01
1987-88	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Vermilion snapper</b>							
1982-83 <sup>b</sup>			0.00	0.00	0.00	0.00	0.00
1983-84			0.00	0.00	0.00	0.00	0.00
1984-85			0.00	0.00	0.00	0.00	0.00
1985-86		0.00	0.00	0.00	0.00	0.00	0.00
1986-87		0.00	0.00	0.00	0.00	0.00	0.00
1987-88	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Other species</b>							
1982-83			0.12 ± 0.12	0.04 ± 0.04	0.00	0.00	0.10 ± 0.09
1983-84			0.15	0.00	0.10	0.10	0.02
1984-85			0.05	0.00	0.06 ± 0.05	0.05	0.05
1985-86		0.00	0.11	0.00	0.00	0.00	0.05
1986-87		0.00	0.24	0.01 ± 0.01	0.00	0.08	0.08
1987-88	0.17	0.00	0.21	0.01	0.00	0.14	0.14
<b>All species combined<sup>a</sup></b>							
1982-83			2.61 ± 1.90	0.04 ± 0.04	0.28 ± 0.28	0.28 ± 0.28	2.09 ± 1.43
1983-84			3.57 ± 2.60	0.00	0.14 ± 0.13	0.14 ± 0.13	0.24 ± 0.20
1984-85			1.24 ± 1.04	0.05 ± 0.05	0.06 ± 0.05	0.06 ± 0.05	0.96 ± 0.78
1985-86		0.00	1.04 ± 0.68	0.00	0.50 ± 0.50	0.50 ± 0.50	0.69 ± 0.48
1986-87		0.02 ± 0.02	1.30 ± 0.78	0.01 ± 0.01	0.01 ± 0.01	0.01 ± 0.01	0.42 ± 0.26
1987-88	0.18 ± 0.18	0.00	0.39 ± 0.28	0.13 ± 0.13	0.13 ± 0.13	0.13 ± 0.13	0.29 ± 0.18

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual totals.<sup>b</sup>This species is included in other species in this year.



Table H.13. Percent composition of "other" species caught by private-boat fishermen in the TTS by area and season (1983-1988).

Year Season	Common name	Scientific name	Area					Coastwide
			Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
1983-84 High use	Atlantic bonito	<u>Sarda sarda</u>			0.92	0.31		1.23
	Atlantic spadefish	<u>Chaetodipterus faber</u>			3.08	1.23		4.31
	Banded drum	<u>Larimus fasciatus</u>					0.31	0.31
	Banded rudderfish	<u>Seriola zonata</u>			1.54	1.54		1.54
	Black drum	<u>Pogonius cromis</u>				6.46	0.62	8.62
	Blackfin tuna	<u>Thunnus atlanticus</u>					0.62	0.62
	Blacknose shark	<u>Carcharhinus acronotus</u>				2.46	0.31	0.31
	Blacktip shark	<u>Carcharhinus limbatus</u>			7.38		0.31	10.15
	Bluefish	<u>Pomatomus saltatrix</u>			3.08		0.31	3.38
	Blue runner	<u>Caranx crysos</u>				0.92	0.31	1.23
	Bony fishes sp.	<u>Class Osteichthyes</u>			0.62			0.62
	Cero	<u>Scomberomorus regalis</u>			1.23			1.23
	Crevalle jack	<u>Caranx hippos</u>		0.31	3.38	6.77	0.31	10.77
	Dolphin	<u>Coryphaena hippurus</u>			0.92			2.15
	Dusky shark	<u>Carcharhinus obscurus</u>				1.23		8.92
	Finetooth shark	<u>Carcharhinus isodon</u>			0.31			0.92
	Florida pompano	<u>Trachinotus carolinus</u>			0.62			0.62
	Gag	<u>Mycteroperca microlepis</u>			0.92			0.92
	Gray triggerfish	<u>Balistes capricus</u>			2.46	0.31		2.77
	Great barracuda	<u>Sphyrnaea barracuda</u>			0.62			0.62
	Greater amberjack	<u>Seriola dumerili</u>			0.92			1.85
	Gulf kingfish	<u>Menticirrhus littoralis</u>			1.54			1.54
	Jewfish	<u>Epinephelus itijara</u>				0.31		0.31
	Ladyfish	<u>Elops saurus</u>			0.31			0.31
	Little tunny	<u>Euthynnus alletteratus</u>			0.62			3.38
	Pigfish	<u>Orthopristis chrysoptera</u>			0.62			0.62
	Requiem sharks	Family <u>Carcharhinidae</u>				0.62		0.62
	Rock hind	<u>Epinephelus adscensionis</u>				0.62		0.62
	Sailfish	<u>Istiophorus platypterus</u>				0.92		0.92
	Sandbar shark	<u>Carcharhinus plumbeus</u>				0.62		0.62
	Sea basses sp.	Family <u>Serranidae</u>				0.31		0.31
	Sharksucker	<u>Echeneis naucrates</u>				0.92		0.92
	Sheepshead	<u>Archosargus probatocephalus</u>		5.23	16.31		5.23	10.46
Silver seatrout	<u>Cynoscion nothus</u>			0.31			16.31	
Southern flounder	<u>Paralichthys lethostigma</u>				0.31		0.62	
Southern kingfish	<u>Menticirrhus americanus</u>		0.31	3.08			3.38	
Tripletail	<u>Lobotes surinamensis</u>				0.31		0.31	
Warsaw grouper	<u>Epinephelus nigritus</u>			0.31			0.92	

Table H.13. (Cont'd.)

Year Season	Common name	Scientific name	Area						Coastwide
			Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre		
Low use	Black drum	<u>Pogonius cromis</u>			19.23			5.77	25.00
	Gray snapper	<u>Lutjanus griseus</u>					9.62	9.62	
	Gray triggerfish	<u>Balistes capricus</u>			3.85			3.85	
	Gulf kingfish	<u>Menticirrhus littoralis</u>			23.08			23.08	
	Northern kingfish	<u>Menticirrhus saxatilis</u>			1.92			1.92	
	Pigfish	<u>Orthopristis chrysoptera</u>			9.62			9.62	
	Sheepshead	<u>Archosargus probatocephalus</u>				1.92		1.92	
	Striped mullet	<u>Mugil cephalus</u>			25.00			25.00	
	1984-85 High use	Atlantic bonito	<u>Sarda sarda</u>			0.14			0.14
		Atlantic spadefish	<u>Chaetodipterus faber</u>			6.29		0.57	7.44
Banded drum		<u>Larimus fasciatus</u>			21.46			21.46	
Black drum		<u>Pogonias cromis</u>			2.00			2.00	
Blacktip shark		<u>Carcharhinus limbatus</u>			0.29		1.72	2.00	
Bluefish		<u>Pomatomus saltatrix</u>			5.29		0.29	5.58	
Blue runner		<u>Caranx crysos</u>					0.29	0.57	
Bonnethead		<u>Sphyrna tiburo</u>			0.43			0.43	
Crevalle jack		<u>Caranx hippos</u>			1.00		0.14	2.43	
Dolphin		<u>Coryphaena hippurus</u>			9.30		8.73	18.17	
Finetooth shark		<u>Carcharhinus isodon</u>			0.29			0.29	
Florida pompano		<u>Trachinotus carolinus</u>			0.14			0.14	
Gafftopsail catfish		<u>Bagre marinus</u>			0.29			0.29	
Gag		<u>Mycteroperca microlepis</u>			0.14			0.14	
Gray snapper		<u>Lutjanus griseus</u>			4.86			4.86	
Gray triggerfish		<u>Balistes capricus</u>					0.72	0.72	
Great barracuda		<u>Sphyrna barracuda</u>							
Greater amberjack		<u>Seriola dumerilii</u>			0.57			0.57	
Gulf kingfish		<u>Menticirrhus littoralis</u>			0.29			1.29	
Lane snapper		<u>Lutjanus synagris</u>			1.72			1.72	
Little tunny		<u>Euthynnus alletteratus</u>					1.14	1.86	
Pigfish		<u>Orthopristis chrysoptera</u>			0.14			0.29	
Pinfish		<u>Lagodon rhomboides</u>					0.14	0.14	
Pompano dolphin		<u>Coryphaena equisetis</u>			0.14			0.14	
Rainbow runner		<u>Elagatis bipinnulata</u>			0.29			0.29	
Requiem shark		Family Carcharhinidae			0.14		0.14	0.43	

Table H.13. (Cont'd.)

Year Season	Common name	Scientific name	Area						Coastwide
			Sabine Lake	Galveston	Matagorda	Christi	Lower Laguna Madre		
	Sandbar shark	<u>Carcharhinus plumbeus</u>			0.14	0.14	0.14	0.29	
	Scalloped hammerhead	<u>Sphyrna lewini</u>			0.14	0.14	0.14	0.14	
	Sheepshead	<u>Archosargus probatocephalus</u>	0.29		0.14	0.14	0.14	0.57	
	Silver seatrout	<u>Cynoscion nothus</u>			14.31	0.14	9.01	23.32	
	Southern flounder	<u>Paralichthys lethostigma</u>			0.14	0.14	0.72	0.86	
	Southern kingfish	<u>Menticirrhus americanus</u>			0.29		0.14	0.43	
	Spinner shark	<u>Carcharhinus brevipinna</u>	0.14				0.14	0.14	
	Tarpon	<u>Megalops atlanticus</u>			0.14			0.14	
	Yellowedge grouper	<u>Epinephelus flavolimbatus</u>			0.14			0.14	
					36.92			36.92	
Low use	Black drum	<u>Pogonias cromis</u>			1.54		1.54	3.08	
	Crevalle jack	<u>Caranx hippos</u>			15.38			15.38	
	Gafftopsail catfish	<u>Bagre marinus</u>			6.15			6.15	
	Gulf kingfish	<u>Menticirrhus littoralis</u>					1.54	1.54	
	Little tunny	<u>Euthynnus alletteratus</u>			1.54			1.54	
	Rock sea bass	<u>Centropristis philadelphica</u>			29.23			29.23	
	Sheepshead	<u>Archosargus probatocephalus</u>			6.15			6.15	
	Southern kingfish	<u>Menticirrhus americanus</u>							
1985-86									
High use	Atlantic bonito	<u>Sarda sarda</u>			0.31		1.43	1.73	
	Atlantic spadefish	<u>Chaetodipterus faber</u>			4.58		3.87	8.66	
	Bighead searobin	<u>Prionotus tribulus</u>		0.20			0.10	0.10	
	Black drum	<u>Pogonius cromis</u>			1.93		1.02	2.95	
	Blackfin tuna	<u>Thunnus atlanticus</u>			0.10		0.20	0.10	
	Blacktip shark	<u>Carcharhinus limbatus</u>			0.20		0.20	0.41	
	Bluefish	<u>Pomatomus saltatrix</u>			0.92		3.67	1.12	
	Blue runner	<u>Caranx crysos</u>			0.41			4.07	
	Bonnethead	<u>Sphyrna tiburo</u>			0.10			0.10	
	Bull shark	<u>Carcharhinus leucas</u>			0.31			0.31	
	Cero	<u>Scomberomorus regalis</u>						0.10	
	Crevalle jack	<u>Caranx hippos</u>			1.83		0.61	2.95	
	Dolphins sp.	Family <u>Coryphaenidae</u>			0.20			0.20	
	Dolphin	<u>Coryphaena hippurus</u>			5.60		16.70	22.30	
	Dusky shark	<u>Carcharhinus obscurus</u>					0.20	0.20	
	Florida pompano	<u>Trachinotus carolinus</u>			1.32		0.10	1.43	

Table H.13. (Cont'd.)

Year Season	Common name	Scientific name	Area					Coastwide
			Sabine Lake	Galveston	Matagorda	Christi	Lower Laguna Madre	
	Gafftopsail catfish	<u>Bagre marinus</u>			3.46			3.46
	Gray triggerfish	<u>Balistes capriscus</u>			2.85		1.12	3.97
	Great barracuda	<u>Sphyraena barracuda</u>			0.31		0.51	0.31
	Greater amberjack	<u>Seriola dumerili</u>			2.55			3.05
	Gulf kingfish	<u>Menticirrhus littoralis</u>			0.71			0.71
	Hardhead catfish	<u>Arius felis</u>					0.20	0.20
	Jacks sp.	Family Carangidae					0.20	0.20
	Ladyfish	<u>Elops saurus</u>			0.10		0.10	0.20
	Lane snapper	<u>Lutjanus synagris</u>			0.10		0.10	0.20
	Lemon shark	<u>Negaprion brevirostris</u>					0.10	0.10
	Little tunny	<u>Euthynnus alletteratus</u>		0.71			0.41	1.53
	Pigfish	<u>Orthopristis chrysoftera</u>			0.41			0.10
	Pompano dolphin	<u>Coryphaena equisetis</u>			0.10			0.10
	Rainbow runner	<u>Elagatis bipinnulata</u>			0.41			0.41
	Remora	<u>Remora remora</u>					0.41	0.41
	Requiem sharks	Family Carcharhinidae			1.83			1.83
	Sandbar shark	<u>Carcharhinus plumbeus</u>					1.53	1.53
	Sandtiger sharks	Family Odontaspnidae		0.10				0.10
	Sea basses sp.	Family Serranidae					0.41	0.10
	Sheepshead	<u>Archosargus probatocephalus</u>					0.20	28.00
	Silver seatrout	<u>Cynoscion nothus</u>			27.80			0.10
	Skipjack tuna	<u>Euthynnus pelamis</u>						0.10
	Smooth puffer	<u>Lagocephalus laevigatus</u>		0.10				0.10
	Snappers sp.	Family Lutjanidae			0.10			0.10
	Snowy grouper	<u>Epinephalus niveatus</u>			1.02		0.10	1.02
	Southern flounder	<u>Paralichthys lethostigma</u>			2.44			2.44
	Southern kingfish	<u>Menticirrhus americanus</u>			0.41		1.32	1.73
	Tarpon	<u>Megalops atlanticus</u>					0.10	0.10
	Warsaw grouper	<u>Epinephalus nigrifus</u>		0.10			0.10	0.41
Low use	Black drum	<u>Pogonias cromis</u>			27.03			27.03
	Black grouper	<u>Mycteroperca bonaci</u>			5.41			5.41
	Pigfish	<u>Orthopristis chrysoptera</u>			2.70			2.70
	Scamp	<u>Mycteroperca phenax</u>			2.70			2.70
	Sheepshead	<u>Archosargus probatocephalus</u>			59.46			59.46
	Yellowtail snapper	<u>Ocyurus chrysurus</u>			2.70			2.70

Table H.13. (Cont'd.)

Year Season	Common name	Scientific name	Area					Coastwide
			Sabine Lake	Galveston	Matagorda	Christi Corpus	Lower Laguna Madre	
1986-87								
High use	Atlantic bonito	<u>Sarda sarda</u>	0.38					0.38
	Atlantic spadefish	<u>Chaetodipterus faber</u>	0.38		10.69	0.76		11.83
	Black drum	<u>Pogonius cromis</u>	0.38		3.05	0.38		3.82
	Blacktip shark	<u>Carcharhinus limbatus</u>			1.15	4.20		5.34
	Bluefish	<u>Pomatomus saltatrix</u>			0.76			0.76
	Bonnethead	<u>Sphyrna tiburo</u>			0.38			0.38
	Bull shark	<u>Carcharhinus leucas</u>						0.38
	Crevalle jack	<u>Caranx hippos</u>	0.38					1.15
	Dolphin	<u>Coryphaena hippurus</u>			1.15	6.11		8.02
	Gaftopsail catfish	<u>Bagre marinus</u>			1.91			3.82
	Gray triggerfish	<u>Balistes capricus</u>			3.82			3.82
	Greater amberjack	<u>Seriola dumerili</u>			0.38	0.76	0.38	1.53
	Gulf kingfish	<u>Menticirrhus littoralis</u>			15.27	9.16		9.16
	Hardhead catfish	<u>Arius felis</u>			1.15	1.53		15.27
	Jacks sp.	Family Carangidae			1.15			2.67
	Ladyfish	<u>Elops saurus</u>			0.38			1.15
	Lane snapper	<u>Lutjanus synagris</u>			0.76			0.38
	Little tunny	<u>Euthynnus alletteratus</u>	0.76		0.38			0.76
	Pigfish	<u>Orthopristis chrysoptera</u>	0.38					1.53
	Pinfish	<u>Lagodon rhomboides</u>			0.76			0.38
	Remora	<u>Remora remora</u>			0.38			0.76
	Requiem sharks	Family Carcharhinidae			3.44			4.20
	Rock hind	<u>Epinephelus adscensionis</u>			0.76		0.38	1.15
	Rock sea bass	<u>Centropristis philadelphica</u>						0.76
	Rough scad	<u>Trachurus lathami</u>			0.76			0.76
	Smalltail shark	<u>Carcharhinus porosus</u>			1.15			1.15
	Sheepshead	<u>Archosargus probatocephalus</u>			10.69	0.38		11.07
	Silver seatrout	<u>Cynoscion nothus</u>			1.91			4.20
	Southern flounder	<u>Paralichthys lethostigma</u>			1.91			1.91
	Southern kingfish	<u>Menticirrhus americanus</u>			1.91			2.29
	Warsaw grouper	<u>Epinephelus nigritus</u>			1.91			2.67
Low use	Black drum	<u>Pogonias cromis</u>			54.17			54.17
	Gulf kingfish	<u>Menticirrhus littoralis</u>			11.11			11.11
	Pigfish	<u>Orthopristis chrysoptera</u>			1.39			1.39
	Pinfish	<u>Lagodon rhomboides</u>			1.39			1.39
	Sheepshead	<u>Archosargus probatocephalus</u>			22.22	9.72		31.94

Table H.13. (Cont'd.)

Year Season	Common name	Scientific name	Area					Coastwide
			Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
1987-88								
High use	Atlantic bonito	<u>Sarda sarda</u>		0.22	0.22			0.22
	Atlantic cutlassfish	<u>Trichiurus lepturus</u>	0.22					0.22
	Atlantic spadefish	<u>Chaetodipterus faber</u>	4.04		0.45	0.22		4.72
	Black drum	<u>Pogonias cromis</u>	2.47		0.22	2.47	0.22	5.39
	Blacktip shark	<u>Carcharhinus limbatus</u>	9.21			13.03		22.47
	Blue runner	<u>Caranx crysos</u>				0.22	0.67	0.90
	Bluefish	<u>Pomatomus saltatrix</u>	1.35			0.22	0.45	2.02
	Bonnethead	<u>Sphyrna tiburo</u>			0.45	1.35		1.80
	Crevaille jack	<u>Caranx hippos</u>				1.12	1.35	2.47
	Dolphin	<u>Coryphaena hippurus</u>			15.73	1.80	5.62	23.15
	Florida pompano	<u>Trachinotus carolinus</u>				1.12	0.45	1.57
	Gafftopsail catfish	<u>Bagre marinus</u>	2.70		0.22			3.15
	Gray snapper	<u>Lutjanus griseus</u>			1.80	1.80	2.02	0.22
	Gray triggerfish	<u>Ballistes capriscus</u>					0.22	5.62
	Greater amberjack	<u>Seriola dumerilii</u>						0.22
	Gulf kingfish	<u>Menticirrhus littoralis</u>				1.12		1.12
	Gulf toadfish	<u>Opsanus beta</u>				0.22		0.22
	Hardhead catfish	<u>Arius felis</u>					1.12	1.12
	Ladyfish	<u>Elops saurus</u>			0.45	0.22		0.67
	Lane snapper	<u>Lutjanus synagris</u>					0.22	0.22
	Lemon shark	<u>Negaprion brevirostris</u>					0.22	0.22
	Little tunny	<u>Euthynnus alletteratus</u>					1.35	2.47
	Pigfish	<u>Orthopristis chrysoptera</u>	1.12		0.22	0.90		1.57
	Pinfish	<u>Lagodon rhomboides</u>				0.45		1.12
	Requiem sharks	Family <u>Carcharhinidae</u>			2.02	1.35		3.37
	Spinner shark	<u>Carcharhinus brevipinna</u>				0.22		0.22
	Sheepshead	<u>Archosargus probatocephalus</u>	1.80			1.12		2.92
	Southern flounder	<u>Paralichthys lethostigma</u>	4.27			2.25		6.52
	Southern kingfish	<u>Menticirrhus americanus</u>			0.67	1.57	0.22	2.47
	Tarpon	<u>Megalops atlanticus</u>			0.22			0.22
	Warsaw grouper	<u>Epinephelus nigritus</u>				0.45	0.90	1.35

Table H.13. (Cont'd.)

Year Season	Common name	Scientific name	Area						
			Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide	
Low use	Atlantic spadefish	<u>Chaetodipterus faber</u>		9.33			13.33		9.33
	Black drum	<u>Pogonias cromis</u>							13.33
	Blacktip shark	<u>Carcharhinus limbatus</u>		1.33				1.33	2.67
	Crevalle jack	<u>Caranx hippos</u>						2.67	2.67
	Florida pompano	<u>Trachinotus carolinus</u>		1.33			1.33		2.67
	Gafftopsail catfish	<u>Bagre marinus</u>					14.67		14.67
	Gulf kingfish	<u>Menticirrhus littoralis</u>					9.33		9.33
	Hardhead catfish	<u>Arius felis</u>		2.67					2.67
	Requiem sharks	Family <u>Carcharhinidae</u>					10.67		10.67
	Sheepshead	<u>Archosargus probatocephalus</u>					4.00		4.00
	Southern flounder	<u>Paralichthys lethostigma</u>							2.67
	Southern kingfish	<u>Menticirrhus americanus</u>		2.67			22.67		22.67

Table H.14. Pressure estimates (man-h x 1000)  $\pm$  1 SE for private-boat fishermen in the TTS by season (1982-1988).

Area	Year	High-use season	Low-use season	Annual <sup>a</sup>
Sabine Lake	1987-88	8.4 $\pm$ 2.7	1.0 $\pm$ 1.0	9.4 $\pm$ 2.8
Galveston	1982-83	41.7 $\pm$ 34.6	0.0	41.7 $\pm$ 34.6
	1983-84	137.3 $\pm$ 135.9	0.0	137.3 $\pm$ 135.9
	1984-85	7.9 $\pm$ 4.5	0.0	7.9 $\pm$ 4.5
	1985-86	13.1 $\pm$ 6.3	0.6 $\pm$ 0.6	13.7 $\pm$ 6.3
	1986-87	29.6 $\pm$ 17.8	2.0 $\pm$ 2.0	31.6 $\pm$ 17.9
	1987-88	32.8 $\pm$ 13.3	0.0	32.8 $\pm$ 13.3
Matagorda	1982-83	46.2 $\pm$ 9.8	2.4 $\pm$ 0.8	47.6 $\pm$ 8.1
	1983-84	19.7 $\pm$ 5.5	2.1 $\pm$ 1.2	21.9 $\pm$ 5.6
	1984-85	21.8 $\pm$ 4.7	16.6 $\pm$ 7.3	38.4 $\pm$ 8.7
	1985-86	29.1 $\pm$ 5.9	6.3 $\pm$ 2.7	35.4 $\pm$ 6.5
	1986-87	112.0 $\pm$ 61.4	6.9 $\pm$ 2.6	118.9 $\pm$ 61.4
	1987-88	31.2 $\pm$ 7.2	9.1 $\pm$ 4.1	40.3 $\pm$ 8.2
Corpus Christi	1982-83	87.7 $\pm$ 11.5	2.4 $\pm$ 1.2	86.0 $\pm$ 8.4
	1983-84	146.1 $\pm$ 45.8	29.5 $\pm$ 25.6	175.6 $\pm$ 52.4
	1984-85	79.2 $\pm$ 16.7	1.0 $\pm$ 0.7	80.2 $\pm$ 16.7
	1985-86	100.4 $\pm$ 19.2	0.4 $\pm$ 0.3	100.8 $\pm$ 19.2
	1986-87	112.0 $\pm$ 5.6	13.0 $\pm$ 8.8	124.9 $\pm$ 52.3
	1987-88	195.5 $\pm$ 45.7	7.1 $\pm$ 4.6	202.6 $\pm$ 46.0
Lower Laguna Madre	1982-83	11.4 $\pm$ 4.2	0.4 $\pm$ 0.4	11.9 $\pm$ 3.1
	1983-84	8.3 $\pm$ 2.5	0.9 $\pm$ 0.7	9.3 $\pm$ 2.6
	1984-85	18.1 $\pm$ 7.5	4.1 $\pm$ 2.4	22.2 $\pm$ 7.9
	1985-86	17.9 $\pm$ 8.9	8.1 $\pm$ 8.1	26.0 $\pm$ 12.0
	1986-87	5.0 $\pm$ 2.4	0.0	5.0 $\pm$ 2.4
	1987-88	0.9 $\pm$ 0.6	0.0	0.9 $\pm$ 0.6



Table H.14. (Cont'd.)

Area Year	High-use season	Low-use season	Annual <sup>a</sup>
Coastwide <sup>a</sup>			
1982-83	183.0 ± 52.6	5.2 ± 3.5	188.2 ± 37.9
1983-84	311.5 ± 143.5	32.5 ± 25.6	344.0 ± 146.0
1984-85	127.0 ± 19.4	21.6 ± 7.7	148.6 ± 20.9
1985-86	161.5 ± 22.9	15.3 ± 8.5	176.9 ± 24.4
1986-87	259.1 ± 82.2	21.9 ± 9.4	280.9 ± 82.7
1987-88	268.7 ± 48.2	17.3 ± 6.3	285.9 ± 48.6

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual totals.

Table H.15. Number of days surveyed and number of private-boat fishermen interviewed ( ) in the TTS by season and area (1982-1988).

Year Season	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
1982-83						
High use		97 (53)	170 (372)	176 (970)	78 (114)	521 (1509)
Low use		36 (0)	72 (21)	72 (4)	36 (2)	216 (27)
Annual		133 (53)	242 (393)	248 (974)	114 (116)	737 (1536)
1983-84						
High use		95 (27)	129 (287)	141 (503)	97 (87)	462 (904)
Low use		36 (0)	66 (37)	65 (7)	36 (7)	193 (51)
Annual		131 (27)	195 (324)	206 (510)	133 (94)	665 (955)
1984-85						
High use		96 (23)	127 (602)	136 (841)	97 (125)	456 (1591)
Low use		36 (0)	61 (93)	65 (13)	36 (11)	199 (117)
Annual		132 (23)	189 (695)	201 (854)	133 (136)	655 (1708)
1985-86						
High use		97 (91)	128 (593)	140 (877)	97 (68)	462 (1632)
Low use		36 (3)	62 (55)	66 (8)	36 (2)	200 (68)
Annual		133 (94)	190 (648)	206 (885)	133 (70)	662 (1700)
1986-87						
High use		97 (129)	129 (307)	151 (508)	97 (28)	474 (972)
Low use		36 (9)	63 (59)	62 (16)	36 (0)	197 (84)
Annual		133 (138)	192 (366)	213 (524)	133 (28)	671 (1056)
1987-88						
High use	72 (162)	97 (70)	119 (324)	121 (483)	97 (10)	773 (1049)
Low use	36 (12)	34 (0)	53 (56)	53 (40)	36 (0)	318 (108)
Annual	108 (173)	131 (70)	172 (380)	174 (523)	133 (10)	1091 (1156)

Table H.16. Mean fishing-party size (No. of fishermen) and mean trip length (h) for private-boat fishermen in the TTS by area, season (1982-1988). Blanks = no fishermen interviewed.

Area Year	Mean fishing-party size			Mean trip length		
	High-use season	Low-use season	Annual	High-use season	Low-use season	Annual
Sabine Lake 1987-88	2.4	3.8	2.5	6.1	7.0	6.2
Galveston 1982-83	3.2		3.2	6.8		6.8
1983-84	3.0		3.0	4.5		4.5
1984-85	3.8		3.8	5.1		5.1
1985-86	3.2	3.0	3.2	5.6	8.0	5.7
1986-87	3.2	2.2	3.1	6.4	4.8	6.3
1987-88	2.9		2.9	6.1		6.1
Matagorda 1982-83	3.1	2.7	3.0	6.4	8.8	6.5
1983-84	2.9	3.7	3.0	6.9	6.2	6.8
1984-85	3.1	3.4	3.1	7.0	6.1	6.9
1985-86	3.1	2.0	3.0	7.5	6.0	7.3
1986-87	3.0	3.0	3.0	6.3	5.8	6.3
1987-88	3.0	3.5	3.1	6.9	10.6	7.4
Corpus Christi 1982-83	3.0	2.0	3.0	5.7	5.5	5.7
1983-84	3.1	2.3	3.0	5.8	5.0	5.8
1984-85	3.0	3.2	3.0	5.3	4.4	5.3
1985-86	2.9	2.7	2.9	5.7	4.7	5.7
1986-87	2.7	2.3	2.7	5.8	4.7	5.7
1987-88	3.1	3.1	3.1	5.9	4.3	5.7
Lower Laguna Madre 1982-83	3.1	3.0	3.0	6.7	6.0	6.7
1983-84	2.9	3.5	2.9	5.8	6.5	5.8
1984-85	2.8	2.8	2.8	5.1	4.5	5.1
1985-86	2.9	2.0	2.9	7.3	7.0	7.3
1986-87	2.9		2.9	6.3		6.3
1987-88	2.5		2.5	6.2		6.2

Table H.16. (Cont'd.)

Area Year	Mean fishing-party size			Mean trip length		
	High-use season	Low-use season	Annual	High-use season	Low-use season	Annual
Coastwide						
1982-83	3.0	2.6	3.0	6.0	8.0	6.0
1983-84	3.0	3.4	3.0	6.1	6.0	6.1
1984-85	3.0	3.3	3.0	5.9	5.7	5.9
1985-86	3.0	2.1	2.9	6.5	6.0	6.4
1986-87	2.9	2.7	2.8	6.0	5.4	6.0
1987-88	2.9	3.3	3.0	6.2	7.7	6.4

Table H.17. Percent composition of the residential origin of private-boat fishermen-trips in the TTS by area and season (1982-1988).  
 Blank = no fishermen interviewed.

Area	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Sabine Lake				
1987-88				
High use	91	5	2	2
Low use	100	0	0	0
Annual	92	5	2	1
Galveston				
1982-83				
High use	91	0	9	0
Low use				
Annual	91	0	9	0
1983-84				
High use	96	0	0	4
Low use				
Annual	96	0	0	4
1984-85				
High use	61	13	26	0
Low use				
Annual	61	13	26	0
1985-86				
High use	95	0	5	0
Low use	100	0	0	0
Annual	95	0	5	0
1986-87				
High use	89	4	6	1
Low use	78	22	0	0
Annual	88	5	6	1
1987-88				
High use	92	3	3	1
Low use	95	0	3	2
Annual	93	3	3	1

Table H.17. (Cont'd.)

Area Year <sup>a</sup>	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Matagorda				
1982-83				
High use	47	25	27	2
Low use	92	0	8	0
Annual	50	23	26	1
1983-84				
High use	41	22	33	4
Low use	59	16	24	0
Annual	43	21	32	3
1984-85				
High use	51	17	32	0
Low use	80	8	11	2
Annual	55	15	30	0
1985-86				
High use	43	24	30	3
Low use	53	9	38	0
Annual	44	23	31	2
1986-87				
High use	46	15	38	1
Low use	56	15	28	0
Annual	48	15	37	1
1987-88				
High use	52	10	35	3
Low use	64	14	22	0
Annual	54	11	34	2
Corpus Christi				
1982-83				
High use	28	10	56	6
Low use	50	50	0	0
Annual	28	10	56	6

Table H.17. (Cont'd.)

Area Year <sup>a</sup>	Adjacent coastal countries	Non-adjacent coastal countries	Non-coastal countries	Other states and countries
1983-84				
High use	28	18	51	4
Low use	100	0	0	0
Annual	29	17	50	4
1984-85				
High use	23	20	53	3
Low use	0	8	85	8
Annual	23	20	54	3
1985-86				
High use	28	12	56	3
Low use	25	50	25	0
Annual	28	13	56	5
1986-87				
High use	29	16	51	5
Low use	57	0	14	29
Annual	29	16	50	5
1987-88				
High use	15	23	56	6
Low use	20	8	72	0
Annual	15	22	57	5
Lower Laguna Madre				
1982-83				
High use	73	12	15	1
Low use	0	0	0	100
Annual	71	11	14	4
1983-84				
High use	43	30	28	0
Low use	0	57	43	0
Annual	39	32	29	0

Table H.17. (Cont'd.)

Area Year <sup>a</sup>	Adjacent coastal countries	Non-adjacent coastal countries	Non-coastal countries	Other states and countries
1984-85				
High use	73	4	11	11
Low use	55	0	45	0
Annual	72	4	14	10
1985-86				
High use	67	9	15	9
Low use	0	0	100	0
Annual	65	9	17	9
1986-87				
High use	53	25	18	4
Low use				
Annual	53	25	18	4
1987-88				
High use	20	40	40	0
Low use				
Annual	20	40	40	0
Coastwide				
1982-83				
High use	38	13	44	4
Low use	77	6	6	10
Annual	39	13	43	4
1983-84				
High use	36	20	42	3
Low use	57	20	24	0
Annual	37	20	41	3
1984-85				
High use	38	18	41	3
Low use	68	7	22	3
Annual	41	17	40	3



Table H.17. (Cont'd.)

Area Year <sup>a</sup>	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
1985-86				
High use	39	16	42	3
Low use	50	13	37	0
Annual	40	16	42	3
1986-87				
High use	43	14	40	3
Low use	59	13	23	5
Annual	44	14	38	3
1987-88				
High use	43	15	38	4
Low use	52	10	38	0
Annual	44	15	38	3

<sup>a</sup> Prior to May 1983 all fishermen in a fishing party were assigned to the boat owner's residence.

Appendix I: Estimates for party-boat fishing in the Texas Territorial Sea (TTS).



Table 1.1. (Cont'd.)

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide <sup>a</sup>
Red snapper						
1983-84		0.0	0.0	0.0	7.3 ± 6.2	7.3 ± 6.2
1984-85		0.0	0.0	0.0	0.0	0.0
1985-86		0.0	0.0	0.0	0.7 ± 0.5	0.7 ± 0.5
1986-87		0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.0
Sand seatrout						
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.0	0.0
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.1 ± 0.1	0.0	0.0	0.1 ± 0.1
Spanish mackerel						
1983-84		0.0	0.0	0.4 ± 0.4	0.0	0.4 ± 0.4
1984-85		0.0	0.0	0.0	<.1 ± <.1	<.1 ± <.1
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.4 ± 0.4	0.0	0.4 ± 0.4
Spotted seatrout						
1983-84		0.0	0.9 ± 0.6	0.0	0.0	0.9 ± 0.6
1984-85		0.0	0.3 ± 0.3	0.0	0.0	0.3 ± 0.3
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.1 ± 0.1	0.0	0.0	0.1 ± 0.1
Vermilion snapper						
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.0	0.0
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.0

Table 1.1. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Other species						
1983-84		0.0	1.2	0.4 ± 0.4	0.5 ± 0.3	2.1
1984-85		0.0	0.0	0.3 ± 0.2	0.9 ± 0.8	1.1 ± 0.8
1985-86		0.0	0.0	0.8 ± 0.4	1.1 ± 0.8	1.9 ± 0.9
1986-87		0.0	0.0	0.4	0.6 ± 0.6	0.9 ± 0.6
1987-88	0.0	0.0	0.3 ± 0.2	0.5 ± 0.3	0.0	0.7 ± 0.4
All species combined <sup>a</sup>						
1983-84		0.0	2.5 ± 2.0	9.5 ± 6.4	8.7 ± 7.1	20.7 ± 9.7
1984-85		0.0	0.4 ± 0.3	1.1 ± 0.6	1.4 ± 1.3	2.9 ± 1.5
1985-86		0.0	0.0	3.6 ± 1.6	2.1 ± 1.0	5.6 ± 1.9
1986-87		0.0	0.0	1.4 ± 1.2	0.6 ± 0.6	1.9 ± 1.4
1987-88	0.0	0.0	0.5 ± 0.3	6.0 ± 3.7	0.0	6.5 ± 3.7

<sup>a</sup>Due to rounding of numbers, these tables may not exactly equal individual totals.

Table 1.2. Estimated landings of fishes (No. x 1000)  $\pm$  1 SE caught by party-boat fishermen in the TTS during the high-use season by species and area (1983-1987).

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Atlantic croaker</b>						
1983		0.0	0.0	0.0	0.0	0.0
1984		0.0	0.0	0.0	0.0	0.0
1985		0.0	0.0	0.0	0.0	0.0
1986		0.0	0.0	0.0	0.0	0.0
1987	0.0	0.0	0.0	0.0	0.0	0.0
<b>Atlantic sharpnose shark</b>						
1983		0.0	0.0	0.0	0.0	0.0
1984		0.0	0.0	0.0	0.0	0.0
1985		0.0	0.0	0.3 $\pm$ 0.2	0.0	0.3 $\pm$ 0.2
1986		0.0	0.0	0.3 $\pm$ 0.2	0.0	0.3 $\pm$ 0.2
1987	0.0	0.0	<.1 $\pm$ <.1	0.7 $\pm$ 0.6	0.0	0.7 $\pm$ 0.6
<b>Cobia</b>						
1983		0.0	0.0	<.1 $\pm$ <.1	0.0	<.1 $\pm$ <.1
1984		0.0	0.0	0.0	0.0	0.0
1985		0.0	0.0	0.0	0.0	0.0
1986		0.0	0.0	0.0	0.0	0.0
1987	0.0	0.0	0.0	0.1 $\pm$ 0.1	0.0	0.1 $\pm$ 0.1
<b>King mackerel</b>						
1983		0.0	0.0	8.6 $\pm$ 5.7	0.9 $\pm$ 0.6	9.5 $\pm$ 5.8
1984		0.0	<.1 $\pm$ <.1	0.8 $\pm$ 0.6	<.1 $\pm$ <.1	0.8 $\pm$ 0.5
1985		0.0	0.0	2.4 $\pm$ 1.1	0.3 $\pm$ 0.2	2.7 $\pm$ 1.1
1986		0.0	0.0	0.7 $\pm$ 0.7	0.0	0.7 $\pm$ 0.7
1987	0.0	0.0	0.0	4.2 $\pm$ 2.6	0.0	4.2 $\pm$ 2.6
<b>Red drum</b>						
1983		0.0	0.3 $\pm$ 0.3	0.0	0.0	0.3 $\pm$ 0.3
1984		0.0	0.0	0.0	0.0	0.0
1985		0.0	0.0	0.0	0.0	0.0
1986		0.0	0.0	0.0	0.0	0.0
1987	0.0	0.0	0.0	0.0	0.0	0.0



Table 1.2. (Cont'd.)

Species Year	Area						Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre		
<b>Other species</b>							
1983		0.0	1.2	0.4 ± 0.4	0.5 ± 0.3	2.1	0.3 ± 0.2
1984		0.0	0.0	0.3 ± 0.2	0.1 ± 0.1	0.3 ± 0.1	1.9 ± 0.9
1985		0.0	0.0	0.8 ± 0.4	1.1 ± 0.8	0.0	0.3 ± 0.3
1986		0.0	0.0	0.3 ± 0.3	0.0	0.0	0.7 ± 0.4
1987	0.0	0.0	0.3 ± 0.2	0.5 ± 0.3	0.0	0.0	
<b>All species combined<sup>a</sup></b>							
1983		0.0	2.5 ± 2.1	9.5 ± 6.4	8.7 ± 7.1	20.7 ± 9.7	1.5 ± 0.7
1984		0.0	0.3 ± 0.3	1.1 ± 0.6	0.1 ± 0.1	0.1 ± 0.1	5.7 ± 1.9
1985		0.0	0.0	3.6 ± 1.6	2.1 ± 1.0	0.0	1.4 ± 1.2
1986		0.0	0.0	1.4 ± 1.2	0.0	0.0	6.4 ± 3.7
1987	0.0	0.0	0.5 ± 0.3	6.0 ± 3.7	0.0	0.0	

<sup>a</sup>Due to rounding of numbers, these tables may not exactly equal individual totals.



Table 1.3. Estimated landings of fishes (No. x 1000)  $\pm$  1 SE caught by party-boat fishermen in the TTS during the low-use season by species and area (1983-1988).

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Atlantic croaker						
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.0	0.0
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.0
Atlantic sharpnose shark						
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.0	0.0
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.0
Cobia						
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.0	0.0
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.0
King mackerel						
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.5 $\pm$ 0.5	0.5 $\pm$ 0.5
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.0
Red drum						
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.0	0.0
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.0

Table 1.3. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Red snapper</b>						
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.0	0.0
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.0
<b>Sand seatrout</b>						
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.0	0.0
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.0
<b>Spanish mackerel</b>						
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.0	0.0
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.0
<b>Spotted seatrout</b>						
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.0	0.0
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.0
<b>Vermilion snapper</b>						
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.0	0.0
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.0

Table 1.3. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Other species						
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.8 ± 0.8	0.8 ± 0.8
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.6 ± 0.6	0.6 ± 0.6
1987-88	0.0	0.0	0.0	0.0	0.0	0.0
All species combined <sup>a</sup>						
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	1.3 ± 1.3	1.3 ± 1.3
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.6 ± 0.6	0.6 ± 0.6
1987-88	0.0	0.0	0.0	0.0	0.0	0.0

<sup>a</sup>Due to rounding of numbers, these tables may not exactly equal individual totals.

Table 1.4. Annual mean total lengths of fishes (mm/fish)  $\pm$  1 SE caught by party-boat fishermen in the TTS by species and area (1983-1988). Blank = no fish measured. No standard error = only 1 fish measured.

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
Atlantic croaker						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
Atlantic sharpnose shark						
1983-84						
1984-85				925 $\pm$ 39		925 $\pm$ 38
1985-86				936		936
1986-87			690	951 $\pm$ 30		945 $\pm$ 12
1987-88						
Cobia						
1983-84				1292		1292
1984-85						
1985-86						
1986-87						
1987-88				1090		1090
King mackerel						
1983-84				984 $\pm$ 23	990 $\pm$ 15	985 $\pm$ 22
1984-85				840 $\pm$ 11	896	862 $\pm$ 358
1985-86				973 $\pm$ 19	1045	980 $\pm$ 115
1986-87				988 $\pm$ 3		988
1987-88				940 $\pm$ 32		940
Red drum						
1983-84			651			651
1984-85						
1985-86						
1986-87						
1987-88						

Table 1.4. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Red snapper</b>						
1983-84					287 ± 4	287 ± 4
1984-85					392	392
1985-86						
1986-87						
1987-88						
<b>Sand seatrout</b>						
1983-84			320			320
1984-85						
1985-86						
1986-87			342			342
1987-88						
<b>Spanish mackerel</b>						
1983-84			580	674		673 ± 673
1984-85						
1985-86						
1986-87				586 ± 10		586
1987-88						
<b>Spotted seatrout</b>						
1983-84			464 ± 5			464 ± 5
1984-85			547			547
1985-86						
1986-87						
1987-88			451			451
<b>Vermillion snapper</b>						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						

Table 1.4. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
All species combined <sup>a</sup>						
1983-84			466 ± 9	958 ± 35	561 ± 86	732 ± 53
1984-85			547	855 ± 16	782	781 ± 466
1985-86				868 ± 73	475 ± 60	724 ± 68
1986-87				806 ± 83	754	791 ± 22
1987-88			432 ± 3	895 ± 30		862 ± 61

<sup>a</sup>Includes "other" species.

Table 1.5. Mean total lengths of fishes (mm/fish)  $\pm$  1 SE caught by party-boat fishermen in the TTS during the high-use season by species and area (1983-1987). Blank = no fish measured. No standard error = only 1 fish measured.

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
<b>Atlantic croaker</b>						
1983						
1984						
1985				925 $\pm$ 38		925 $\pm$ 38
1986				936		936
1987			690	951 $\pm$ 30		945 $\pm$ 12
<b>Atlantic sharpnose shark</b>						
1983						
1984						
1985						
1986						
1987						
<b>Cobia</b>						
1983				1292		1292
1984						
1985						
1986						
1987						
<b>King mackerel</b>						
1983			580	984 $\pm$ 23	990 $\pm$ 15	985 $\pm$ 22
1984				840 $\pm$ 11		840 $\pm$ 11
1985				973 $\pm$ 19	1045	980 $\pm$ 115
1986				988 $\pm$ 3		988
1987				940 $\pm$ 32		940
<b>Red drum</b>						
1983			651			651
1984						
1985						
1986						
1987						

Table 1.5. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Red snapper</b>						
1983					287 ± 4	287 ± 4
1984						
1985					392	392
1986						
1987						
<b>Sand seatrout</b>						
1983			320			320
1984						
1985						
1986						
1987			342			342
<b>Spanish mackerel</b>						
1983			580	674		673 ± 673
1984						
1985						
1986						
1987				586 ± 10		586
<b>Spotted seatrout</b>						
1983			464 ± 5			464 ± 5
1984			547			547
1985						
1986						
1987			451			451
<b>Vermillion snapper</b>						
1983						
1984						
1985						
1986						
1987						



Table 1.5. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
All species combined <sup>a</sup>						
1983			466 ± 9	958 ± 35	561 ± 86	732 ± 53
1984			547	855 ± 16		780 ± 146
1985				868 ± 73	475 ± 60	724 ± 68
1986				806 ± 86		806
1987			432 ± 3	895 ± 30		862 ± 61

<sup>a</sup> Includes "other" species.

Table 1.6. Mean total lengths of fishes (mm/fish)  $\pm$  1 SE caught by party-boat fishermen in the TTS during the low-use season by species and area (1983-1988). Blank = no fish measured. No standard error = only 1 fish measured.

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
<b>Atlantic croaker</b>						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
<b>Atlantic sharpnose shark</b>						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
<b>Cobia</b>						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
<b>King mackerel</b>						
1983-84					896	896
1984-85						
1985-86						
1986-87						
1987-88						
<b>Red drum</b>						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						

Table 1.6. (Cont'd.)

Species Year	Area				
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre Coastwide
<b>Red snapper</b>					
1983-84					
1984-85					
1985-86					
1986-87					
1987-88					
<b>Sand seatrout</b>					
1983-84					
1984-85					
1985-86					
1986-87					
1987-88					
<b>Spanish mackerel</b>					
1983-84					
1984-85					
1985-86					
1986-87					
1987-88					
<b>Spotted seatrout</b>					
1983-84					
1984-85					
1985-86					
1986-87					
1987-88					
<b>Vermilion snapper</b>					
1983-84					
1984-85					
1985-86					
1986-87					
1987-88					

Table 1.6. (Cont'd.)

Species Year	Area				Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	
All species combined <sup>a</sup>				Lower Laguna Madre	
1983-84				782	782
1984-85				754	754
1985-86					
1986-87					
1987-88					

<sup>a</sup>Includes "other" species.

Table 1.7. Annual mean weights of fishes (kg/fish)  $\pm$  1 SE caught by party-boat fishermen in the TTS by species and area (1983-1988). Blank = no fish weighed. No standard error = only 1 fish weighed.

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
<b>Atlantic croaker</b>						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
<b>Atlantic sharpnose shark</b>						
1983-84						
1984-85						
1985-86				5.69 $\pm$ 0.57		5.69 $\pm$ 0.57
1986-87				5.97		5.97
1987-88	1.95			6.12 $\pm$ 0.72		6.02 $\pm$ 0.19
<b>Cobia</b>						
1983-84						
1984-85				19.50		19.50
1985-86						
1986-87						
1987-88				10.37		10.37
<b>King mackerel</b>						
1983-84					9.10	9.05 $\pm$ 0.72
1984-85				9.04 $\pm$ 0.76	6.59	5.90 $\pm$ 2.75
1985-86				5.46 $\pm$ 0.28	10.49	8.73 $\pm$ 1.40
1986-87				8.55 $\pm$ 0.46		
1987-88				9.08 $\pm$ 0.13		9.08
				7.98 $\pm$ 0.89		7.98
<b>Red drum</b>						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
					2.97	2.97

Table 1.7. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Red snapper						
1983-84					0.31 ± 0.01	0.31 ± 0.01
1984-85						
1985-86					1.00	1.00
1986-87						
1987-88						
Sand seatrout						
1983-84						
1984-85						
1985-86						
1986-87			0.43			0.43
1987-88						
Spanish mackerel						
1983-84				1.55		1.55
1984-85						
1985-86						
1986-87						
1987-88				1.11 ± 0.01		1.11
Spotted seatrout						
1983-84			0.95 ± 0.03			0.95 ± 0.03
1984-85			1.56			1.56
1985-86						
1986-87						
1987-88			0.87			0.87
Vermilion snapper						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						

Table 1.7. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
All species combined <sup>a</sup>						
1983-84			1.02 ± 0.14	8.86 ± 0.93	4.21 ± 1.39	5.96 ± 1.03
1984-85			1.50	5.43 ± 0.25	6.50	5.49 ± 3.54
1985-86				7.83 ± 0.57	1.60	5.55 ± 0.94
1986-87				8.20 ± 0.01		8.20
1987-88			0.80	7.17 ± 0.74		6.71 ± 0.84

<sup>a</sup> Includes "other" species.

Table 1.8. Mean weights of fishes (kg/fish)  $\pm$  1 SE caught by party-boat fishermen in the TTS during the high-use season by species and area (1983-1987). Blank = no fish weighed. No standard error = only 1 fish weighed.

Species Year	Area				Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi Lower Laguna Madre	
<b>Atlantic croaker</b>					
1983					
1984					
1985					
1986					
1987					
<b>Atlantic sharpnose shark</b>					
1983					
1984					
1985				5.69 $\pm$ 0.57	5.69 $\pm$ 0.57
1986				5.97	5.97
1987	1.95			6.12 $\pm$ 0.72	6.02 $\pm$ 0.19
<b>Cobia</b>					
1983				19.50	19.50
1984					
1985					
1986					
1987				10.37	10.37
<b>King mackerel</b>					
1983				9.04 $\pm$ 0.76	9.05 $\pm$ 0.73
1984				5.46 $\pm$ 0.28	5.46 $\pm$ 0.28
1985				8.55 $\pm$ 0.46	8.73 $\pm$ 1.40
1986				9.08 $\pm$ 0.13	9.08
1987				7.98 $\pm$ 0.89	7.98
<b>Red drum</b>					
1983					
1984					
1985					
1986					
1987					
			2.97		2.97



Table 1.8. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Red snapper						
1983					0.31 ± 0.01	0.31 ± 0.01
1984						
1985					1.00	1.00
1986						
1987						
Sand seatrout						
1983			0.35			0.35
1984						
1985						
1986						
1987			0.43			0.43
Spanish mackerel						
1983			1.00	1.55		1.54 ± 1.54
1984						
1985						
1986						
1987				1.11 ± 0.01		1.11
Spotted seatrout						
1983			0.95 ± 0.03			0.95 ± 0.03
1984			1.56			1.56
1985						
1986						
1987			0.87			0.87
Vermilion snapper						
1983						
1984						
1985						
1986						
1987						

Table 1.8. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
All species combined <sup>a</sup>						
1983			1.01 ± 0.13	8.86 ± 0.93	4.21 ± 1.39	5.96 ± 1.03
1984			1.50	5.43 ± 0.25		4.46 ± 0.56
1985				7.83 ± 0.57	1.60	5.55 ± 0.94
1986				8.20 ± 0.01		8.20
1987			0.80	7.17 ± 0.79		6.71 ± 0.84

<sup>a</sup>Includes "other" species.

Table 1.9. Mean weights of fishes (kg/fish)  $\pm$  1 SE caught by party-boat fishermen in the TTS during the low-use season by species and area (1983-1988). Blank = no fish weighed. No standard error = only 1 fish weighed.

Species Year	Area			
	Sabine Lake	Galveston	Matagorda	Lower Laguna Madre
Atlantic croaker				
1983-84				
1984-85				
1985-86				
1986-87				
1987-88				
Atlantic sharpnose shark				
1983-84				
1984-85				
1985-86				
1986-87				
1987-88				
Cobia				
1983-84				
1984-85				
1985-86				
1986-87				
1987-88				
King mackerel				
1983-84				6.59
1984-85				
1985-86				
1986-87				
1987-88				6.59
Red drum				
1983-84				
1984-85				
1985-86				
1986-87				
1987-88				

Table 1.9. (Cont'd.)

Species Year	Area				
	Sabine Lake	Galveston	Matagorda	Corpus Christi Lower Laguna Madre	Coastwide
Red snapper					
1983-84					
1984-85					
1985-86					
1986-87					
1987-88					
Sand seatrout					
1983-84					
1984-85					
1985-86					
1986-87					
1987-88					
Spanish mackerel					
1983-84					
1984-85					
1985-86					
1986-87					
1987-88					
Spotted seatrout					
1983-84					
1984-85					
1985-86					
1986-87					
1987-88					
Vermilion snapper					
1983-84					
1984-85					
1985-86					
1986-87					
1987-88					

Table 1.9. (Cont'd.)

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
All species combined <sup>a</sup>						
1983-84						
1984-85					6.50	
1985-86						
1986-87						
1987-88						6.50

<sup>a</sup>Includes "other" species.

Table 1.10. Annual mean catch rates of fishes (No./man-h)  $\pm$  1 SE caught by party-boat fishermen in the TTS by species and area (1983-1988). Blank = no fishermen interviewed.

Species Year	Area				
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre Coastwide
<b>Atlantic croaker</b>					
1983-84	0.00		0.00	0.00	0.00
1984-85			0.00	0.00	0.00
1985-86				0.00	0.00
1986-87				0.00	0.00
1987-88			0.00	0.00	0.00
<b>Atlantic sharpnose shark</b>					
1983-84	0.00		0.00	0.00	0.00
1984-85			0.00	0.00	0.00
1985-86				0.02 $\pm$ 0.02	0.02 $\pm$ 0.01
1986-87				0.04 $\pm$ 0.03	0.03 $\pm$ 0.03
1987-88			0.03 $\pm$ 0.03	0.04 $\pm$ 0.03	0.04 $\pm$ 0.03
<b>Cobia</b>					
1983-84	0.00		0.00	<.01 $\pm$ <.01	<.01 $\pm$ <.01
1984-85			0.00	0.00	0.00
1985-86				0.00	0.00
1986-87				0.00	0.00
1987-88			0.00	<.01 $\pm$ <.01	<.01 $\pm$ <.01
<b>King mackerel</b>					
1983-84	0.00		0.00	0.34 $\pm$ 0.29	0.20 $\pm$ 0.14
1984-85			0.02 $\pm$ 0.02	0.08 $\pm$ 0.06	0.08 $\pm$ 0.06
1985-86				0.18 $\pm$ 0.10	0.14 $\pm$ 0.07
1986-87				0.10 $\pm$ 0.10	0.10 $\pm$ 0.10
1987-88			0.00	0.22 $\pm$ 0.16	0.21 $\pm$ 0.16
<b>Red drum</b>					
1983-84	0.00		0.09 $\pm$ 0.09	0.00	0.01 $\pm$ 0.01
1984-85			0.00	0.00	0.00
1985-86				0.00	0.00
1986-87				0.00	0.00
1987-88			0.00	0.00	0.00

Table 1.10. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Red snapper</b>						
1983-84		0.00	0.00	0.00	0.48 ± 0.44	0.16 ± 0.14
1984-85			0.00	0.00	0.00	0.00
1985-86				0.00	0.14 ± 0.11	0.04 ± 0.03
1986-87				0.00	0.00	0.00
1987-88			0.00	0.00	0.00	0.00
<b>Sand seatrout</b>						
1983-84		0.00	0.00	0.00	0.00	0.00
1984-85			0.00	0.00	0.00	0.00
1985-86				0.00	0.00	0.00
1986-87				0.00	0.00	0.00
1987-88			0.18 ± 0.18	0.00	0.00	<.01 ± <.01
<b>Spanish mackerel</b>						
1983-84		0.00	0.00	0.02 ± 0.02	0.00	0.01 ± 0.01
1984-85			0.00	0.00	<.01 ± <.01	<.01 ± <.01
1985-86				0.00	0.00	0.00
1986-87				0.00	0.00	0.00
1987-88			0.00	0.02 ± 0.02	0.00	0.02 ± 0.02
<b>Spotted seatrout</b>						
1983-84		0.00	0.25 ± 0.24	0.00	0.00	0.02 ± 0.01
1984-85			1.59 ± 1.59	0.00	0.00	0.02 ± 0.02
1985-86				0.00	0.00	0.00
1986-87				0.00	0.00	0.00
1987-88			0.15 ± 0.15	0.00	0.00	<.01 ± <.01
<b>Vermillion snapper</b>						
1983-84		0.00	0.00	0.00	0.00	0.00
1984-85			0.00	0.00	0.00	0.00
1985-86				0.00	0.00	0.00
1986-87				0.00	0.00	0.00
1987-88			0.00	0.00	0.00	0.00

Table 1.10. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Other species						
1983-84		0.00	0.32	0.02 ± 0.02	0.03 ± 0.03	0.05
1984-85			0.00	0.02 ± 0.02	0.16 ± 0.16	0.07 ± 0.06
1985-86				0.06 ± 0.04	0.21 ± 0.18	0.10 ± 0.06
1986-87				0.05	1.50 ± 1.50	0.12 ± 0.10
1987-88			0.43 ± 0.42	0.02 ± 0.02		0.04 ± 0.02
All species combined <sup>a</sup>						
1983-84		0.00	0.66 ± 0.64	0.38 ± 0.32	0.57 ± 0.52	0.45 ± 0.27
1984-85			1.62 ± 1.60	0.10 ± 0.08	0.27 ± 0.26	0.18 ± 0.12
1985-86				0.27 ± 0.15	0.40 ± 0.26	0.30 ± 0.14
1986-87				0.19 ± 0.18	1.50 ± 1.50	0.25 ± 0.23
1987-88			0.78 ± 0.63	0.31 ± 0.23		0.32 ± 0.23

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual totals.



Table 1.11. Mean catch rates of fishes (No./man-h)  $\pm$  1 SE caught by party-boat fishermen in the TTS during the high-use season by species and area (1983-1987). Blank = no fishermen interviewed.

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
<b>Atlantic croaker</b>						
1983		0.00	0.00	0.00	0.00	0.00
1984			0.00	0.00	0.00	0.00
1985				0.00	0.00	0.00
1986				0.00		0.00
1987			0.00	0.00		0.00
<b>Atlantic sharpnose shark</b>						
1983		0.00	0.00	0.00	0.00	0.00
1984			0.00	0.00	0.00	0.00
1985				0.02 $\pm$ 0.02	0.00	0.02 $\pm$ 0.01
1986				0.04 $\pm$ 0.03		0.04 $\pm$ 0.03
1987			0.03 $\pm$ 0.03	0.04 $\pm$ 0.03		0.04 $\pm$ 0.03
<b>Cobia</b>						
1983		0.00	0.00	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01
1984			0.00	0.00	0.00	0.00
1985				0.00	0.00	0.00
1986				0.00		0.00
1987			0.00	<.01 $\pm$ <.01		<.01 $\pm$ <.01
<b>King mackerel</b>						
1983		0.00	0.00	0.34 $\pm$ 0.29	0.06 $\pm$ 0.05	0.20 $\pm$ 0.14
1984			0.02 $\pm$ 0.02	0.08 $\pm$ 0.06	0.03 $\pm$ 0.03	0.07 $\pm$ 0.06
1985				0.18 $\pm$ 0.10	0.05 $\pm$ 0.04	0.14 $\pm$ 0.07
1986				0.10 $\pm$ 0.10		0.10 $\pm$ 0.10
1987			0.00	0.22 $\pm$ 0.16		0.21 $\pm$ 0.16
<b>Red drum</b>						
1983		0.00	0.09 $\pm$ 0.09	0.00	0.00	0.01 $\pm$ 0.01
1984			0.00	0.00	0.00	0.00
1985				0.00	0.00	0.00
1986				0.00		0.00
1987			0.00	0.00		0.00

Table 1.11. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Red snapper</b>						
1983	0.00	0.00	0.00	0.00	0.48 ± 0.44	0.16 ± 0.14
1984			0.00	0.00	0.00	0.00
1985				0.00	0.14 ± 0.11	0.04 ± 0.03
1986				0.00		0.00
1987			0.00	0.00		0.00
<b>Sand seatrout</b>						
1983	0.00	0.00	<.01 ± <.01	0.00	0.00	0.00
1984			0.00	0.00	0.00	0.00
1985				0.00	0.00	0.00
1986				0.00		0.00
1987			0.18 ± 0.18	0.00		<.01 ± <.01
<b>Spanish mackerel</b>						
1983	0.00	0.00	<.01 ± <.01	0.02 ± 0.02	0.00	0.01 ± 0.01
1984			0.00	0.00	0.03 ± 0.03	<.01 ± <.01
1985				0.00	0.00	0.00
1986				0.00		0.00
1987			0.00	0.02 ± 0.02		0.02 ± 0.02
<b>Spotted seatrout</b>						
1983	0.00	0.00	0.25 ± 0.23	0.00	0.00	0.02 ± 0.02
1984			1.59 ± 1.59	0.00	0.00	0.03 ± 0.03
1985				0.00	0.00	0.00
1986				0.00		0.00
1987			0.15 ± 0.15	0.00		<.01 ± <.01
<b>Vermilion snapper</b>						
1983	0.00	0.00	0.00	0.00	0.00	0.00
1984			0.00	0.00	0.00	0.00
1985				0.00	0.00	0.00
1986				0.00		0.00
1987			0.00	0.00		0.00

Table 1.11. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Other species</b>						
1983		0.00	0.31	0.02 ± 0.02	0.03 ± 0.03	0.05
1984			0.00	0.02 ± 0.02	0.06 ± 0.06	0.03 ± 0.02
1985				0.06 ± 0.04	0.21 ± 0.18	0.10 ± 0.06
1986				0.05		0.04 ± 0.04
1987			0.43 ± 0.42	0.02 ± 0.02		0.04 ± 0.02
<b>All species combined<sup>a</sup></b>						
1983		0.00	0.65 ± 0.63	0.38 ± 0.32	0.57 ± 0.52	0.45 ± 0.27
1984			1.62 ± 1.60	0.10 ± 0.08	0.12 ± 0.12	0.13 ± 0.09
1985				0.27 ± 0.15	0.40 ± 0.26	0.30 ± 0.14
1986				0.19 ± 0.18		0.19 ± 0.18
1987			0.78 ± 0.63	0.31 ± 0.23		0.32 ± 0.23

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual totals.

Table 1.12. Mean catch rates of fishes (No./man-h)  $\pm$  1 SE caught by party-boat fishermen in the TTS during the low-use season by species and area (1983-1988). Blank = no fishermen interviewed.

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Atlantic croaker</b>						
1983-84					0.00	0.00
1984-85						
1985-86					0.00	0.00
1986-87						
1987-88						
<b>Atlantic sharpnose shark</b>						
1983-84					0.00	0.00
1984-85						
1985-86					0.00	0.00
1986-87						
1987-88						
<b>Cobia</b>						
1983-84					0.00	0.00
1984-85						
1985-86					0.00	0.00
1986-87						
1987-88						
<b>King mackerel</b>						
1983-84					0.11 $\pm$ 0.11	0.11 $\pm$ 0.11
1984-85						
1985-86						
1986-87					0.00	0.00
1987-88						
<b>Red drum</b>						
1983-84					0.00	0.00
1984-85						
1985-86					0.00	0.00
1986-87						
1987-88						

Table 1.12. (Cont'd.)

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
<b>Red snapper</b>						
1983-84					0.00	0.00
1984-85					0.00	0.00
1985-86					0.00	0.00
1986-87					0.00	0.00
1987-88					0.00	0.00
<b>Sand seatrout</b>						
1983-84					0.00	0.00
1984-85					0.00	0.00
1985-86					0.00	0.00
1986-87					0.00	0.00
1987-88					0.00	0.00
<b>Spanish mackerel</b>						
1983-84					0.00	0.00
1984-85					0.00	0.00
1985-86					0.00	0.00
1986-87					0.00	0.00
1987-88					0.00	0.00
<b>Spotted seatrout</b>						
1983-84					0.00	0.00
1984-85					0.00	0.00
1985-86					0.00	0.00
1986-87					0.00	0.00
1987-88					0.00	0.00
<b>Vermillion snapper</b>						
1983-84					0.00	0.00
1984-85					0.00	0.00
1985-86					0.00	0.00
1986-87					0.00	0.00
1987-88					0.00	0.00

Table 1.12. (Cont'd.)

Species Year	Area				Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	
Other species					
1983-84				0.18 ± 0.18	0.18 ± 0.18
1984-85				1.50 ± 1.50	1.50 ± 1.50
1985-86					
1986-87					
1987-88					
All species combined <sup>a</sup>					
1983-84				0.30 ± 0.30	0.30 ± 0.30
1984-85				1.50 ± 1.50	1.50 ± 1.50
1985-86					
1986-87					
1987-88					

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual totals.

Table 1.13. Mean catch rates of fish (No./man-h)  $\pm$  SE caught by party-boat fishermen in the Gulf of Mexico (TTS and EEZ combined) off Texas during June-August by species and area (1979-1988)<sup>a</sup>. Number in parenthesis indicates number of interviews. ND = no data.

Area Year	Atlantic <sup>b</sup>					All species combined
	King mackerel	Red snapper	Spanish mackerel	Cobia	Atlantic sharpnose shark	
<b>Sabine Lake</b>						
1979	ND	ND	ND	ND	ND	ND
1981						
1982						
1983						
1984						
1985						
1986						
1987 (0)	ND	ND	ND	ND	ND	ND
<b>Galveston</b>						
1979 (5)	0.17 $\pm$ 0.08	0.05 $\pm$ 0.02	0.20 $\pm$ 0.14	<.01	0.00	0.04
1981 (26)	0.28 $\pm$ 0.04	0.14 $\pm$ 0.07	0.04 $\pm$ 0.04	0.02 $\pm$ 0.01	0.01 $\pm$ 0.01	0.23
1982 (21)	0.27 $\pm$ 0.06	0.25 $\pm$ 0.20	0.01 $\pm$ 0.01	0.04 $\pm$ 0.01	<.01	0.10
1983 (1)	0.32 $\pm$ 0.32	0.00	0.06 $\pm$ 0.06	0.00	0.00	0.03
1984 (0)	ND	ND	ND	ND	ND	ND
1985 (1)	0.09 $\pm$ 0.09	0.15 $\pm$ 0.15	0.02 $\pm$ 0.02	0.00	0.00	0.06
1986 (3)	0.10 $\pm$ 0.10	0.00	0.01 $\pm$ 0.01	0.00	<.01 $\pm$ <.01	0.06 $\pm$ 0.06
1987 (3)	0.02 $\pm$ 0.02	0.00	0.01 $\pm$ 0.01	0.00	0.00	0.10 $\pm$ 0.10
<b>Matagorda</b>						
1979 (0)	ND	ND	ND	ND	ND	ND
1981 (0)	ND	ND	ND	ND	ND	ND
1982 (7)	0.20 $\pm$ 0.07	0.04 $\pm$ 0.03	0.01 $\pm$ 0.01	0.01 $\pm$ 0.01	0.00	0.06
1983 (5)	0.01 $\pm$ 0.01	<.01	0.00	0.00	0.00	0.60
1984 (3)	0.04 $\pm$ 0.04	0.00	0.00	0.00	0.00	0.50
1985 (0)	ND	ND	ND	ND	ND	ND
1986 (3)	0.05 $\pm$ 0.05	0.00	0.00	0.01 $\pm$ 0.01	0.00	0.08 $\pm$ 0.08
1987 (5)	0.03 $\pm$ 0.02	0.04 $\pm$ 0.04	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01	0.03
<b>Other</b>						
						0.45 $\pm$ 0.10
						0.72 $\pm$ 0.11
						0.66 $\pm$ 0.19
						0.41 $\pm$ 0.41
						0.32 $\pm$ 0.32
						0.17 $\pm$ 0.17
						0.13 $\pm$ 0.13
						0.48 $\pm$ 0.14
						0.61 $\pm$ 0.58
						0.54 $\pm$ 0.50
						0.14 $\pm$ 0.13
						0.11 $\pm$ 0.10

Table 1.13. (Cont'd.)

Area Year	Atlantic <sup>b</sup>					All species combined	
	King mackerel	Red snapper	Spanish mackerel	Cobia	sharpnose shark		Other
<b>Corpus Christi</b>							
1979 (11)	0.29 ± 0.07	0.00	0.00	0.01 ± 0.01	<.01	0.08	0.37 ± 0.09
1981 (24)	0.41 ± 0.07	<.01	0.01 ± 0.01	0.01 ± 0.01	0.06 ± 0.03	0.05	0.56 ± 0.09
1982 (33)	0.20 ± 0.03	0.02 ± 0.02	<.01	0.01 ± 0.01	0.02 ± 0.01	0.03	0.28 ± 0.04
1983 (23)	0.18 ± 0.14	0.00	<.01	0.00	<.01	0.14	0.33 ± 0.23
1984 (24)	0.18 ± 0.10	0.00	0.00	<.01	0.00	0.04	0.22 ± 0.22
1985 (17)	0.15 ± 0.08	0.17 ± 0.15	0.00	<.01 ± <.01	0.02 ± 0.01	0.07	0.41 ± 0.22
1986 (11)	0.11 ± 0.08	0.00	0.00	0.00	0.02 ± 0.02	0.15	0.28 ± 0.21
1987 (19)	0.19 ± 0.12	0.00	0.02 ± 0.01	<.01 ± <.01	0.03 ± 0.02	0.08 ± 0.07	0.32 ± 0.20
<b>Lower Laguna Madre</b>							
1979 (0)	ND	ND	ND	ND	ND	ND	ND
1981 (10)	0.42 ± 0.15	0.28 ± 0.28	<.01	0.00	0.02 ± 0.01	0.08	0.94 ± 0.31
1982 (11)	0.38 ± 0.17	0.56 ± 0.38	0.00	0.02 ± 0.01	0.00	0.09	1.05 ± 0.36
1983 (14)	0.04 ± 0.03	0.21 ± 0.16	0.00	0.00	0.00	0.06	0.30 ± 0.21
1984 (5)	0.00	0.00	0.00	0.00	0.00	0.10	0.10 ± 0.09
1985 (14)	0.03 ± 0.02	0.08 ± 0.06	0.00	0.00	0.00	0.42	0.53 ± 0.31
1986 (12)	0.04 ± 0.04	0.07 ± 0.07	0.00	0.00	0.00	0.29 ± 0.21	0.40 ± 0.26
1987 (5)	0.17 ± 0.15	1.01 ± 0.93	0.00	0.00	0.00	0.24 ± 0.20	1.42 ± 1.16
<b>Coastwide</b>							
1979 (16) <sup>c</sup>	0.25 ± 0.06	0.02 ± 0.01	0.09 ± 0.04	0.01 ± 0.01	<.01	0.06	0.41 ± 0.05
1981 (60) <sup>d</sup>	0.37 ± 0.04	0.11 ± 0.02	0.02 ± 0.01	0.01 ± 0.01	0.03 ± 0.01	0.14	0.69 ± 0.04
1982 (72)	0.25 ± 0.03	0.18 ± 0.05	0.01 ± 0.01	0.02 ± 0.01	0.01 ± 0.01	0.07	0.53 ± 0.05
1983 (43)	0.15 ± 0.10	0.03 ± 0.02	<.01	0.00	<.01	0.14	0.34 ± 0.19
1984 (32) <sup>e</sup>	0.16 ± 0.08	0.00	0.00	<.01	0.00	0.06	0.21 ± 0.10
1985 (32)	0.11 ± 0.05	0.14 ± 0.10	<.01	<.01	0.01 ± 0.01	0.18	0.44 ± 0.17
1986 (29)	0.08 ± 0.05	0.02 ± 0.02	<.01 ± <.01	0.00	0.01 ± 0.01	0.17	0.28 ± 0.15
1987 (32)	0.05 ± 0.04	0.01 ± 0.01	0.01 ± 0.01	<.01 ± <.01	0.00	0.09 ± 0.09	0.18 ± 0.15

<sup>a</sup>1979-1982 data from McEachron (1984).

<sup>b</sup>Includes all species of shark retained during 1979-82.

<sup>c</sup>Galveston/Freeport and Aransas/Corpus Christi/upper Laguna Madre only.

<sup>d</sup>Galveston/Freeport, Aransas/Corpus Christi/upper Laguna Madre and lower Laguna Madre only.

<sup>e</sup>Matagorda/San Antonio, Aransas/Corpus Christi/upper Laguna Madre and lower Laguna Madre only.



Table 1.14. Percent composition of "other" species caught by party-boat fishermen in the TTS by area and season (1983-1988).

Year Season	Common name	Scientific name	Area						
			Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide	
1983-84 High use	Atlantic bonito	<u>Sarda sarda</u>					24.24	24.24	
	Black drum	<u>Pogonias cromis</u>			6.06			6.06	
	Blacktip shark	<u>Carcharhinus limbatus</u>			12.12			12.12	
	Blue runner	<u>Caranx crysos</u>				3.03		3.03	
	Crevalle jack	<u>Caranx hippos</u>				3.03	12.12	15.15	
	Gulf kingfish	<u>Menticirrhus littoralis</u>			24.24			24.24	
	Little tunny	<u>Euthynnus alletteratus</u>				9.09		9.09	
	Requiem sharks	Family Carcharhinidae				6.06		6.06	
	1984-85 High use	Blacktip shark	<u>Carcharhinus limbatus</u>				37.50		37.50
		Crevalle jack	<u>Caranx hippos</u>				31.25		31.25
Little tunny		<u>Euthynnus alletteratus</u>				18.75	12.50	31.25	
Crevalle jack		<u>Caranx hippos</u>				20.00		20.00	
1985-86 High use	Little tunny	<u>Euthynnus alletteratus</u>				80.00		80.00	
	Almaco jack	<u>Seriola rivirolana</u>				2.17		2.17	
1986-87 High use	Blue runner	<u>Caranx crysos</u>				10.87		10.87	
	Crevalle jack	<u>Caranx hippos</u>				17.39	2.17	19.57	
	Dolphin	<u>Coryphaena hippurus</u>				23.91	2.17	26.09	
	Little tunny	<u>Euthynnus alletteratus</u>				4.35	32.61	36.96	
	Requiem sharks	Family Carcharhinidae				2.17		2.17	
	Scamp	<u>Mycteroperca bonaci</u>				2.17		2.17	
	Atlantic bonito	<u>Sarda sarda</u>				7.14		7.14	
	Atlantic spadefish	<u>Chaetodipterus faber</u>				28.57		28.57	
Dolphin	<u>Coryphaena hippurus</u>				35.71		35.71		
Hardhead catfish	<u>Arius felis</u>				7.14		7.14		
Little tunny	<u>Euthynnus alletteratus</u>				21.43		21.43		

Table 1.14. (Cont'd.)

Year Season	Common name	Scientific name	Area					
			Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
Low use	Crevalle jack	<u>Caranx hippos</u>					20.00	20.00
	Little tunny	<u>Euthynnus alletteratus</u>					80.00	80.00
1987-88 High use	Blacktip shark	<u>Carcharhinus limbatus</u>			86.00	4.00		90.00
	Dolphin	<u>Coryphaena hippurus</u>				2.00		2.00
	Crevalle jack	<u>Caranx hippos</u>				2.00		2.00
	Gray triggerfish	<u>Balistos capricus</u>				2.00		2.00
	Lemon shark	<u>Negaprion brevirostris</u>				2.00		2.00
	Southern kingfish	<u>Menticirrhus americanus</u>			2.00			2.00

Table 1.15. Pressure estimates (man-h x 1000)  $\pm$  1 SE for party-boat fishermen in the TTS by season and area (1983-1988).

Area	Year	High-use season	Low-use season	Annual <sup>a</sup>
Sabine Lake				
	1982-83			
	1983-84			
	1984-85			
	1985-86			
	1986-87			
	1987-88	0.0	0.0	0.0
Galveston				
	1983-84	2.0 $\pm$ 2.0	0.0	2.0 $\pm$ 2.0
	1984-85	0.0	0.0	0.0
	1985-86	0.0	0.0	0.0
	1986-87	0.0	0.0	0.0
	1987-88	0.0	0.0	0.0
Matagorda				
	1983-84	3.8 $\pm$ 3.4	0.0	3.8 $\pm$ 3.5
	1984-85	0.2 $\pm$ 0.2	0.0	0.2 $\pm$ 0.2
	1985-86	0.0	0.0	0.0
	1986-87	0.0	0.0	0.0
	1987-88	0.6 $\pm$ 0.4	0.0	0.6 $\pm$ 0.4
Corpus Christi				
	1983-84	25.3 $\pm$ 17.5	0.0	25.3 $\pm$ 17.4
	1984-85	10.3 $\pm$ 6.7	0.0	10.3 $\pm$ 6.7
	1985-86	13.4 $\pm$ 5.1	0.0	13.4 $\pm$ 5.1
	1986-87	7.2 $\pm$ 6.0	0.0	7.2 $\pm$ 6.0
	1987-88	19.5 $\pm$ 10.3	0.0	19.5 $\pm$ 10.3
Lower Laguna Madre				
	1983-84	15.3 $\pm$ 10.7	0.0	15.3 $\pm$ 10.7
	1984-85	0.9 $\pm$ 0.7	4.5 $\pm$ 4.5	5.4 $\pm$ 4.5
	1985-86	5.2 $\pm$ 2.6	0.0	5.2 $\pm$ 2.6
	1986-87	0.0	0.4 $\pm$ 0.4	0.4 $\pm$ 0.4
	1987-88	0.0	0.0	0.0

Table 1.15. (Cont'd.)

Area Year	High-use season	Low-use season	Annual <sup>a</sup>
Coastwide <sup>a</sup>			
1983-84	46.5 ± 20.9	0.0	46.5 ± 20.9
1984-85	11.4 ± 6.8	4.5 ± 4.5	15.9 ± 8.1
1985-86	18.6 ± 5.7	0.0	18.6 ± 5.7
1986-87	7.2 ± 6.0	0.4 ± 0.4	7.6 ± 6.0
1987-88	20.1 ± 10.3	0.0	20.1 ± 10.3

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual totals.

Table 1.16. Number of days surveyed and number of party-boat fishermen interviewed ( ) in the TTS by season and area (1983-1988).

Year Season	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
1983-84						
High use		95 (12)	129 (13)	141 (31)	97 (26)	462 (72)
Low use		36 (10)	66 (0)	65 (0)	36 (0)	203 (0)
Annual		131 (2)	195 (13)	206 (31)	133 (26)	665 (72)
1984-85						
High use		96 (0)	127 (8)	136 (39)	97 (10)	456 (57)
Low use		36 (0)	61 (0)	65 (0)	36 (6)	199 (6)
Annual		132 (0)	189 (8)	201 (39)	133 (16)	655 (63)
1985-86						
High use		97 (0)	128 (0)	140 (51)	97 (28)	462 (79)
Low use		36 (9)	62 (0)	66 (0)	36 (0)	200 (0)
Annual		133 (0)	190 (0)	206 (51)	133 (28)	662 (79)
1986-87						
High use		97 (0)	129 (0)	151 (32)	97 (0)	474 (32)
Low use		36 (0)	63 (0)	62 (0)	36 (2)	197 (2)
Annual		133 (0)	192 (0)	213 (32)	133 (2)	671 (34)
1987-88						
High use	72 (0)	97 (0)	119 (12)	121 (32)	97 (0)	773 (44)
Low use	36 (0)	34 (0)	53 (0)	53 (0)	36 (0)	318 (0)
Annual	108 (0)	131 (0)	172 (12)	174 (32)	133 (0)	1091 (44)

Table 1.17. Mean fishing-party size (No. of fishermen) and mean trip length (h) for party-boat fishermen in the TIS by area and season (1983-1988). Blank = no fishermen interviewed.

Area Year	Mean fishing-party size			Mean trip length		
	High-use season	Low-use season	Annual	High-use season	Low-use season	Annual
<b>Sabine Lake</b>						
1983-84			2.0			7.0
1984-85						
1985-86						
1986-87						
1987-88						
<b>Galveston</b>						
1983-84	2.0		2.0			7.0
1984-85						
1985-86						
1986-87						
1987-88						
<b>Matagorda</b>						
1983-84	3.0		3.2			4.6
1984-85	4.0		4.0			3.0
1985-86						
1986-87						
1987-88	4.2		4.2			6.5
<b>Corpus Christi</b>						
1983-84	3.4		3.4			7.8
1984-85	4.3		4.3			6.7
1985-86	4.2		4.2			7.3
1986-87	4.0		4.0			7.7
1987-88	3.6		3.6			7.8
<b>Lower Laguna Madre</b>						
1983-84	3.7		3.7			6.7
1984-85	5.0	6.0	5.3		4.5	3.3
1985-86	4.0		4.0			5.9
1986-87						
1987-88		2.0	2.0		5.0	5.0

Table 1.17. (Cont'd.)

Area Year	Mean fishing-party size			Mean trip length		
	High-use season	Low-use season	Annual	High-use season	Low-use season	Annual
Coastwide						
1983-84	3.4		3.4	6.7		6.8
1984-85	4.3	6.0	4.5	5.5	4.5	5.5
1985-86	4.2		4.2	6.8		6.8
1986-87	4.0	2.0	3.8	7.7	5.0	7.4
1987-88	3.7		3.7	7.5		7.5

Table 1.18. Percent composition of the residential origin of party-boat fishermen-trips in the TTS by area (1983-88). Blank = no fishermen interviewed.

Area Year	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Sabine Lake 1987-88				
High use				
Low use				
Annual				
Galveston 1983-84	100	0	0	0
High use				
Low use				
Annual	100	0	0	0
1984-85				
High use				
Low use				
Annual				
1985-86				
High use				
Low use				
Annual				
1986-87				
High use				
Low use				
Annual				
1987-88				
High use				
Low use				
Annual				
Matagorda 1983-84	27	7	67	0
High use				
Low use				
Annual	31	0	69	0



Table I.18. (Cont'd.)

Area Year	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
1984-85				
High use	100	0	0	0
Low use				
Annual	100	0	0	0
1985-86				
High use				
Low use				
Annual				
1986-87				
High use				
Low use				
Annual				
1987-88				
High use	22	13	54	11
Low use				
Annual	22	13	54	11
Corpus Christi				
1983-84				
High use	6	0	84	10
Low use				
Annual	6	6	84	10
1984-85				
High use	8	8	56	28
Low use				
Annual	8	8	56	28
1985-86				
High use	0	20	76	4
Low use				
Annual	0	20	76	4

Table 1.18. (Cont'd.)

Area Year	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
1986-87				
High use	0	3	75	22
Low use				
Annual	0	3	75	22
1987-88				
High use	0	6	78	16
Low use				
Annual	0	6	78	16
Lower Laguna Madre				
1983-84				
High use	15	23	35	27
Low use				
Annual	15	15	42	27
1984-85				
High use	20	0	0	80
Low use	17	0	83	0
Annual	19	0	31	50
1985-86				
High use	46	4	36	14
Low use				
Annual	46	4	36	14
1986-87				
High use	0	0	100	0
Low use				
Annual	0	0	100	0
1987-88				
High use				
Low use				
Annual				

Table 1.18. (Cont'd.)

Area Year	Adjacent coastal countries	Non-adjacent coastal countries	Non-coastal countries	Other states and countries
Coastwide				
1983-84				
High use	16	9	61	14
Low use				
Annual	14	8	64	14
1984-85				
High use	23	5	39	33
Low use	17	0	83	0
Annual	22	5	43	30
1985-86				
High use	16	14	62	8
Low use				
Annual	16	14	62	8
1986-87				
High use	0	3	75	22
Low use	0	0	100	0
Annual	0	3	76	21
1987-88				
High use	5	27	57	11
Low use				
Annual	5	27	57	11

Appendix J: Estimates for private-boat fishing in the Exclusive Economic Zone (EEZ) off Texas.

Table J.1. Annual estimated landings of fishes (No. x 1000) ± 1 SE caught by private-boat fishermen in the EEZ by species and area (1982-1988).

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Atlantic croaker</b>						
1982-83		0.1 ± 0.1	0.1 ± <.1	0.3 ± 0.1	0.3 ± 0.3	0.8 ± 0.5
1983-84		0.1 ± 0.1	<.1 ± <.1	0.0	0.0	0.1 ± 0.1
1984-85		0.0	0.2 ± 0.1	<.1 ± <.1	0.0	0.2 ± 0.1
1985-86		0.0	<.1 ± <.1	0.0	0.0	<.1 ± <.1
1986-87		<.1 ± <.1	0.0	0.0	<.1 ± <.1	<.1 ± <.1
1987-88	0.1 ± 0.1	0.4 ± 0.4	<.1 ± <.1	0.0	0.0	0.5 ± 0.4
<b>Atlantic sharpnose shark</b>						
1982-83 <sup>b</sup>						
1983-84		0.2 ± 0.1	<.1 ± <.1	0.1 ± 0.1	0.0	0.3 ± 0.1
1984-85		0.5 ± 0.3	<.1 ± <.1	<.1 ± <.1	1.6 ± 1.6	2.1 ± 1.6
1985-86		0.4 ± 0.4	0.2 ± 0.1	1.2 ± 0.5	0.0	1.8 ± 0.7
1986-87		0.2 ± 0.1	0.1 ± <.1	0.1 ± <.1	0.1 ± 0.1	0.5 ± 0.2
1987-88	0.1 ± 0.1	0.1 ± 0.1	0.5 ± 0.4	0.6 ± 0.4	0.0	1.3 ± 0.6
<b>Cobia</b>						
1982-83		0.1 ± 0.1	0.8 ± 0.2	0.2 ± <.1	<.1 ± <.1	1.1 ± 0.4
1983-84		0.4 ± 0.2	<.1 ± <.1	0.1 ± 0.1	0.1 ± <.1	0.6 ± 0.3
1984-85		<.1 ± <.1	0.1 ± <.1	<.1 ± <.1	0.2 ± 0.2	0.3 ± 0.2
1985-86		0.2 ± 0.1	0.1 ± 0.1	0.3 ± 0.2	<.1 ± <.1	0.6 ± 0.2
1986-87		<.1 ± <.1	0.7 ± 0.6	0.1 ± 0.1	0.0	0.8 ± 0.6
1987-88	0.1 ± 0.1	<.1 ± <.1	0.2 ± 0.1	0.1 ± <.1	0.0	0.3 ± 0.1
<b>King mackerel</b>						
1982-83		5.2 ± 3.5	5.8 ± 0.7	3.7 ± 0.5	0.8 ± 0.4	15.5 ± 3.8
1983-84		1.2 ± 0.8	1.1 ± 0.4	7.6 ± 3.9	0.2 ± 0.1	10.1 ± 4.1
1984-85		0.9 ± 0.5	1.6 ± 0.5	6.3 ± 1.8	0.5 ± 0.2	9.3 ± 2.0
1985-86		5.0 ± 0.2	3.7 ± 2.0	4.6 ± 1.2	0.1 ± <.1	13.4 ± 3.2
1986-87		6.3 ± 3.2	1.9 ± 1.3	0.9 ± 0.5	0.3 ± 0.3	9.4 ± 3.5
1987-88	0.1 ± 0.1	1.5 ± 1.1	2.5 ± 1.0	4.1 ± 2.2	0.1 ± 0.1	8.2 ± 2.7

Table J.1. (Cont'd.)

Species Year	Area						Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre		
<b>Red drum</b>							
1982-83		0.0	<.1 ± <.1	0.0	0.0	<.1 ± <.1	
1983-84		0.0	0.1 ± <.1	0.0	0.0	0.1 ± <.1	
1984-85		0.1 ± 0.1	0.1 ± 0.1	0.0	0.0	0.2 ± 0.1	
1985-86		0.3 ± 0.3	<.1 ± <.1	0.0	0.0	0.3 ± 0.3	
1986-87		<.1 ± <.1	0.1 ± 0.1	0.0	0.0	0.2 ± 0.1	
1987-88	<.1 ± <.1	0.2 ± 0.2	0.3 ± 0.2	0.0	0.0	0.4 ± 0.3	
<b>Red snapper</b>							
1982-83		11.4 ± 4.6	15.2 ± 4.0	3.2 ± 0.6	8.9 ± 3.2	38.7 ± 9.5	
1983-84		26.7 ± 17.1	8.8 ± 3.9	2.4 ± 1.5	8.5 ± 3.9	46.4 ± 18.1	
1984-85		0.3 ± 0.2	5.8 ± 2.8	9.9 ± 5.6	4.8 ± 2.6	20.8 ± 6.7	
1985-86		17.6 ± 13.1	2.5 ± 0.9	1.4 ± 0.8	2.0 ± 1.6	23.5 ± 13.2	
1986-87		4.3 ± 3.3	5.7 ± 2.5	2.2 ± 1.5	4.7 ± 4.3	16.9 ± 6.2	
1987-88	2.8 ± 1.7	4.1 ± 2.1	10.4 ± 4.8	20.1 ± 19.5	0.4 ± 0.3	37.9 ± 20.3	
<b>Sand seatrout</b>							
1982-83		33.8 ± 33.8	18.8 ± 6.9	0.6 ± 0.2	0.3 ± 0.3	53.6 ± 36.3	
1983-84		0.3 ± 0.2	5.6 ± 2.9	0.0	<.1 ± <.1	5.9 ± 2.9	
1984-85		1.7 ± 1.3	2.6 ± 1.0	0.1 ± 0.1	0.0	4.4 ± 1.7	
1985-86		0.9 ± 0.6	2.7 ± 2.0	0.0	0.0	3.6 ± 2.1	
1986-87		0.8 ± 0.6	1.9 ± 1.2	0.0	0.0	2.7 ± 1.4	
1987-88	0.5 ± 0.3	0.5 ± 0.3	0.2 ± 0.2	0.0	0.0	1.1 ± 0.5	
<b>Spanish mackerel</b>							
1982-83		1.3 ± 0.8	0.2 ± 0.1	0.1 ± <.1	<.1 ± <.1	1.7 ± 0.9	
1983-84		0.7 ± 0.5	0.1 ± 0.1	0.4 ± 0.3	<.1 ± <.1	1.2 ± 0.5	
1984-85		0.5 ± 0.5	0.1 ± 0.1	0.1 ± 0.1	<.1 ± <.1	0.8 ± 0.5	
1985-86		1.3 ± 0.8	0.3 ± 0.2	0.1 ± <.1	0.1 ± 0.1	1.8 ± 0.9	
1986-87		2.6 ± 2.4	<.1 ± <.1	<.1 ± <.1	0.0	2.6 ± 2.4	
1987-88	0.1 ± 0.1	2.0 ± 1.2	0.1 ± 0.1	0.4 ± 0.4	0.0	2.6 ± 1.3	

Table J.1. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Spotted seatrout</b>						
1982-83		0.1 ± 0.1	0.1 ± <.1	<.1 ± <.1	0.0	0.2 ± 0.2
1983-84		0.0	<.1 ± <.1	0.0	0.0	<.1 ± <.1
1984-85		0.0	<.1 ± <.1	0.0	0.0	<.1 ± <.1
1985-86		<.1 ± <.1	0.1 ± <.1	<.1 ± <.1	0.0	0.1 ± 0.1
1986-87		1.2 ± 0.9	<.1 ± <.1	0.0	0.0	1.2 ± 0.9
1987-88	<.1 ± <.1	0.0	0.1 ± 0.1	0.0	0.0	0.1 ± 0.1
<b>Vermilion snapper</b>						
1982-83 <sup>b</sup>						
1983-84		0.0	0.0	<.1 ± <.1	0.0	<.1 ± <.1
1984-85		0.0	0.0	<.1 ± <.1	0.0	<.1 ± <.1
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		<.1 ± <.1	0.0	0.0	0.0	<.1 ± <.1
1987-88	0.0	0.0	<.1 ± <.1	0.2 ± 0.2	0.0	0.3 ± 0.2
<b>Other species</b>						
1982-83		3.7 ± 1.5	4.5 ± 0.8	4.1 ± 0.7	0.8 ± 0.3	13.1 ± 2.6
1983-84		8.6	1.7	3.7	2.7 ± 2.6	16.6
1984-85		3.4	7.0	2.9	3.0	16.2
1985-86		13.5	6.5	5.5	1.5 ± 1.1	27.0
1986-87		10.6 ± 6.4	5.0 ± 2.4	1.8 ± 1.0	0.7 ± 0.3	18.0 ± 6.9
1987-88	0.9 ± 0.4	2.3 ± 1.1	13.3 ± 4.9	3.1 ± 1.6	0.2 ± 0.2	19.9 ± 5.3
<b>All species combined<sup>a</sup></b>						
1982-83		55.7 ± 37.4	45.6 ± 8.2	12.2 ± 1.5	11.2 ± 3.7	124.8 ± 40.9
1983-84		38.2 ± 19.2	17.4 ± 5.7	14.2 ± 7.0	11.5 ± 4.8	81.3 ± 21.8
1984-85		7.3 ± 3.7	17.3 ± 5.8	16.6 ± 7.1	10.0 ± 3.8	51.2 ± 10.6
1985-86		39.2 ± 17.5	16.2 ± 4.7	13.1 ± 3.3	3.7 ± 2.4	72.1 ± 18.6
1986-87		26.0 ± 10.3	15.7 ± 5.8	5.0 ± 3.1	5.9 ± 4.4	52.6 ± 13.0
1987-88	4.9 ± 2.2	11.1 ± 4.4	28.1 ± 9.6	28.6 ± 20.8	0.8 ± 0.5	73.5 ± 23.4

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual totals.<sup>b</sup>This species is included in other species in this year.

Table J.2. Estimated landings of fishes (No. x 1000)  $\pm$  1 SE caught by private-boat fishermen in the EEZ during the high-use season by species and area (1982-1987).

Species Year	Area						Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre		
<b>Atlantic croaker</b>							
1982		0.0	0.1 $\pm$ <.1	0.3 $\pm$ 0.1	0.3 $\pm$ 0.3		0.7 $\pm$ 0.7
1983		0.1 $\pm$ 0.1	0.0	0.0	0.0	0.0	0.1 $\pm$ 0.1
1984		0.0	0.2 $\pm$ 0.1	0.0	0.0	0.0	0.2 $\pm$ 0.1
1985		0.0	0.0 $\pm$ 0.0	0.0	0.0	0.0	0.0
1986		0.0	0.0	0.0	0.0	0.0	0.0
1987	0.1 $\pm$ 0.1	0.4 $\pm$ 0.4	<.1 $\pm$ <.1	0.0	0.0	0.0	0.5 $\pm$ 0.4
<b>Atlantic sharpnose shark</b>							
1982 <sup>b</sup>			0.0	0.1 $\pm$ 0.1	0.0	0.0	0.3 $\pm$ 0.1
1983		0.2 $\pm$ 0.1	0.0	0.0	0.0	0.0	0.6 $\pm$ 0.3
1984		0.5 $\pm$ 0.3	0.0	0.0	0.0	0.0	1.8 $\pm$ 0.7
1985		0.4 $\pm$ 0.4	0.2 $\pm$ 0.1	1.2 $\pm$ 0.5	0.0	0.0	0.4 $\pm$ 0.2
1986		0.2 $\pm$ 0.1	0.1 $\pm$ <.1	<.1 $\pm$ <.1	0.1 $\pm$ 0.1	0.0	1.3 $\pm$ 0.6
1987	<.1 $\pm$ <.1	0.1 $\pm$ 0.1	0.5 $\pm$ 0.4	0.6 $\pm$ 0.4	0.0	0.0	
<b>Cobia</b>							
1982		<.1 $\pm$ <.1	0.7 $\pm$ 0.2	0.2 $\pm$ 0.1	0.1 $\pm$ 0.1	0.0	1.1 $\pm$ 0.4
1983		0.4 $\pm$ 0.2	0.0	0.2 $\pm$ 0.2	0.0	0.0	0.7 $\pm$ 0.3
1984		0.0	0.0	0.0	0.2 $\pm$ 0.2	0.0	0.3 $\pm$ 0.2
1985		0.2 $\pm$ 0.1	0.1 $\pm$ 0.1	0.3 $\pm$ 0.2	0.0	0.0	0.6 $\pm$ 0.2
1986		<.1 $\pm$ <.1	0.7 $\pm$ 0.6	<.1 $\pm$ <.1	0.0	0.0	0.8 $\pm$ 0.6
1987	0.1 $\pm$ 0.1	<.1 $\pm$ <.1	0.2 $\pm$ 0.1	0.1 $\pm$ <.1	0.0	0.0	0.3 $\pm$ 0.1
<b>King mackerel</b>							
1982		5.2 $\pm$ 4.2	5.9 $\pm$ 0.9	3.7 $\pm$ 0.7	0.8 $\pm$ 0.5	0.0	15.5 $\pm$ 5.2
1983		1.3 $\pm$ 0.8	1.2 $\pm$ 0.4	9.4 $\pm$ 5.2	0.2 $\pm$ 0.1	0.0	12.0 $\pm$ 5.3
1984		0.9 $\pm$ 0.5	1.4 $\pm$ 0.4	6.4 $\pm$ 1.8	0.5 $\pm$ 0.2	0.0	9.1 $\pm$ 2.0
1985		5.0 $\pm$ 2.1	3.7 $\pm$ 2.0	4.6 $\pm$ 1.2	0.1 $\pm$ 0.0	0.0	13.4 $\pm$ 3.2
1986		0.2 $\pm$ 3.2	1.9 $\pm$ 1.3	0.9 $\pm$ 0.5	10.3 $\pm$ 0.3	0.0	9.4 $\pm$ 3.5
1987	0.1 $\pm$ 0.1	1.4 $\pm$ 1.1	2.5 $\pm$ 1.0	4.1 $\pm$ 2.2	0.1 $\pm$ 0.1	0.0	8.2 $\pm$ 2.7



Table J.2. (Cont'd.)

Species Year	Area						Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre		
<b>Red drum</b>							
1982		0.0	0.0	0.0	0.0	0.0	0.0
1983		0.0	0.0	0.0	0.0	0.0	0.0
1984		0.0	0.1 ± 0.1	0.0	0.0	0.2 ± 0.1	0.2 ± 0.1
1985		0.0	0.0	0.0	0.0	0.0	0.0
1986		<.1 ± <.1	<.1 ± <.1	<.1 ± <.1	0.0	0.1 ± <.1	0.1 ± <.1
1987	<.1 ± <.1	0.2 ± 0.2	0.3 ± 0.2	0.0	0.0	0.4 ± 0.3	0.4 ± 0.3
<b>Red snapper</b>							
1982		8.8 ± 5.4	6.2 ± 1.6	2.5 ± 0.6	8.8 ± 4.4	26.4 ± 7.9	26.4 ± 7.9
1983		26.8 ± 17.2	6.9 ± 4.0	2.5 ± 1.6	8.5 ± 3.9	44.7 ± 18.1	44.7 ± 18.1
1984		0.3 ± 0.2	1.9 ± 0.6	9.9 ± 5.6	3.7 ± 2.3	15.8 ± 6.1	15.8 ± 6.1
1985		2.8 ± 2.0	1.9 ± 0.6	1.4 ± 0.8	0.4 ± 0.3	6.5 ± 2.2	6.5 ± 2.2
1986		1.0 ± 0.5	2.6 ± 1.6	2.2 ± 1.5	0.4 ± 0.4	6.2 ± 2.3	6.2 ± 2.3
1987	2.8 ± 1.7	3.2 ± 2.2	10.4 ± 4.8	0.6 ± 0.4	0.1 ± 0.1	17.2 ± 5.6	17.2 ± 5.6
<b>Sand seatrout</b>							
1982		0.0	15.2 ± 7.2	0.6 ± 0.2	0.3 ± 0.3	16.2 ± 13.5	16.2 ± 13.5
1983		0.3 ± 0.2	0.4 ± 0.3	0.0	0.0	0.8 ± 0.4	0.8 ± 0.4
1984		1.7 ± 1.3	2.3 ± 1.0	0.1 ± 0.1	0.0	4.0 ± 1.6	4.0 ± 1.6
1985		0.7 ± 0.6	2.2 ± 1.9	0.0	0.0	2.8 ± 2.0	2.8 ± 2.0
1986		0.6 ± 0.6	0.2 ± 0.1	0.0	0.0	0.7 ± 0.6	0.7 ± 0.6
1987	0.5 ± 0.3	0.4 ± 0.4	0.2 ± 0.2	0.0	0.0	1.1 ± 0.5	1.1 ± 0.5
<b>Spanish mackerel</b>							
1982		1.3 ± 1.2	0.2 ± 0.1	0.1 ± <.1	<.1 ± <.1	1.6 ± 1.2	1.6 ± 1.2
1983		0.7 ± 0.5	0.1 ± 0.1	0.6 ± 0.4	0.0	1.4 ± 0.6	1.4 ± 0.6
1984		0.6 ± 0.5	0.1 ± 0.1	0.1 ± 0.1	0.0	0.8 ± 0.5	0.8 ± 0.5
1985		1.3 ± 0.8	0.3 ± 0.2	0.1 ± 0.0	.01 ± 0.1	1.8 ± 0.9	1.8 ± 0.9
1986		2.6 ± 2.4	<.1 ± <.1	<.1 ± <.1	0.0	2.6 ± 2.4	2.6 ± 2.4
1987	0.1 ± 0.1	2.0 ± 1.1	0.1 ± 0.1	0.4 ± 0.4	0.0	2.6 ± 1.3	2.6 ± 1.3

Table J.2. (Cont'd.)

Species Year	Area						Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre		
<b>Spotted seatrout</b>							
1982		0.1 ± 0.1	0.1 ± <.1	<.1 ± <.1	0.0	0.0	0.3 ± 0.2
1983		0.0	0.0	0.0	0.0	0.0	0.0
1984		0.0	0.0	0.0	0.0	0.0	0.0
1985		0.0	0.0	0.0	0.0	0.0	0.1 ± 0.0
1986		1.2 ± 0.9	<.1 ± <.1	<.1 ± <.1	0.0	0.0	1.2 ± 0.9
1987	<.1 ± <.1	0.0	0.1 ± 0.1	0.0	0.0	0.0	0.1 ± 0.1
<b>Vermillion snapper</b>							
1982 <sup>b</sup>							
1983		0.0	0.0	<.1 ± <.1	0.0	0.0	<.1 ± <.1
1984		0.0	0.0	0.0	0.0	0.0	0.0
1985		0.0	0.0	0.0	0.0	0.0	0.0
1986		<.1 ± <.1	0.0	0.0	0.0	0.0	<.1 ± <.1
1987	0.0	0.0	<.1 ± <.1	0.2 ± 0.2	0.0	0.0	0.3 ± 0.2
<b>Other species</b>							
1982		3.5 ± 2.0	4.0 ± 1.1	3.7 ± 0.8	0.8 ± 0.5	12.0 ± 3.7	
1983		8.6	1.1	4.3	2.7 ± 2.6	16.7	
1984		3.4	2.4	2.9	2.8	11.4	
1985		11.2	6.4	5.5	0.9 ± 0.8	23.9	
1986		10.2 ± 6.4	1.9 ± 0.7	1.8 ± 1.0	0.6 ± 0.3	14.5 ± 6.5	
1987	1.1 ± 0.6	2.1 ± 1.1	10.9 ± 4.3	2.1 ± 1.2	0.1 ± 0.1	16.1 ± 4.7	
<b>All species combined<sup>a</sup></b>							
1982		19.0 ± 10.0	32.5 ± 8.6	11.1 ± 1.7	11.3 ± 5.1	73.8 ± 21.6	
1983		38.4 ± 19.3	9.8 ± 4.4	17.0 ± 9.2	11.5 ± 4.8	76.7 ± 22.3	
1984		7.3 ± 3.7	8.5 ± 1.9	19.5 ± 7.1	7.1 ± 3.2	42.4 ± 8.9	
1985		21.6 ± 9.0	14.8 ± 4.5	13.1 ± 3.3	1.4 ± 0.9	50.9 ± 10.6	
1986		22.1 ± 9.6	7.5 ± 2.4	5.0 ± 3.1	1.5 ± 0.6	36.1 ± 10.4	
1987	4.9 ± 2.2	9.9 ± 4.2	25.8 ± 9.3	8.0 ± 3.4	0.3 ± 0.2	48.9 ± 11.0	

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual totals.<sup>b</sup>This species is included in other species in this year.

Table J.3. Estimated landings of fishes (No. x 1000)  $\pm$  1 SE caught by private-boat fishermen in the EEZ during the low-use season by species and area (1982-1988).

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide <sup>a</sup>
<b>Atlantic croaker</b>						
1982-83		0.1 $\pm$ 0.1	<.1 $\pm$ <.1	0.0	0.0	0.1 $\pm$ 0.1
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.0	0.0
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		<.1 $\pm$ <.1	0.0	0.0	<.1 $\pm$ <.1	<.1 $\pm$ <.1
1987-88	0.0	0.0	0.0	0.0	0.0	0.0
<b>Atlantic sharpnose shark</b>						
1982-83 <sup>b</sup>						
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	1.6 $\pm$ 1.6	1.6 $\pm$ 1.6
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.0
<b>Cobia</b>						
1982-83		0.0	0.0	0.0	0.0	0.0
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.0	0.0
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.0
<b>King mackerel</b>						
1982-83		0.0	0.0	0.0	0.0	0.0
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.1 $\pm$ 0.1	0.0	0.0	0.1 $\pm$ 0.1
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	<.1 $\pm$ <.1	0.0	0.0	<.1 $\pm$ <.1
1987-88	0.0	0.0	0.0	0.0	0.0	0.0



Table J.3. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Vermillion snapper						
1982-83 <sup>b</sup>						
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.0	0.0
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.0
Other species						
1982-83		0.1 ± 0.1	0.6 ± 0.2	0.4 ± 0.2	0.0	1.1 ± 0.6
1983-84		0.0	0.7	0.0	0.0	0.7
1984-85		0.0	4.3	0.0	0.3 ± 0.3	4.6
1985-86		2.4	0.2	0.0	0.7 ± 0.7	3.2
1986-87		0.3 ± 0.3	3.3 ± 2.5	0.0	0.0	3.7 ± 2.6
1987-88	0.0	0.3 ± 0.3	2.3 ± 2.3	1.1 ± 1.1	0.2 ± 0.2	3.8 ± 2.6
All species combined <sup>a</sup>						
1982-83		36.7 ± 36.7	13.2 ± 5.1	1.1 ± 0.5	0.0	50.9 ± 44.2
1983-84		0.0	8.4 ± 4.0	0.0	0.0	8.4 ± 4.0
1984-85		0.0	8.4 ± 5.2	0.0	2.9 ± 2.0	11.4 ± 5.6
1985-86		17.6 ± 15.0	1.4 ± 1.3	0.0	2.2 ± 2.2	21.2 ± 15.2
1986-87		3.9 ± 3.6	8.2 ± 5.3	0.0	0.0	16.6 ± 7.8
1987-88	0.0	1.3 ± 1.3	2.3 ± 2.3	20.5 ± 20.5	0.5 ± 0.5	24.6 ± 20.7

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual totals.

<sup>b</sup>This species is included in other species in this year.

Table J.4. Annual mean total lengths of fishes (mm/fish)  $\pm$  1 SE caught by private-boat fishermen in the EEZ by species and area (1983-1988). Blank = no fish measured. No standard error = only 1 fish measured.

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Atlantic croaker</b>						
1983-84		236 $\pm$ 4	270			241 $\pm$ 38
1984-85			298 $\pm$ 11	343		307 $\pm$ 63
1985-86			225			225
1986-87		274			275	275
1987-88	210 $\pm$ 2	269	217			255 $\pm$ 17
<b>Atlantic sharpnose shark</b>						
1983-84		918 $\pm$ 3	940	918 $\pm$ 10		920 $\pm$ 73
1984-85		968 $\pm$ 3	788 $\pm$ 44	1025 $\pm$ 23	1017	1003 $\pm$ 434
1985-86		950	928 $\pm$ 18	943 $\pm$ 22		943 $\pm$ 216
1986-87		898 $\pm$ 2	904 $\pm$ 101	900 $\pm$ 51	1016	936 $\pm$ 341
1987-88	913 $\pm$ 20	937 $\pm$ 5	732 $\pm$ 66	965 $\pm$ 33		866 $\pm$ 83
<b>Cobia</b>						
1983-84		1175 $\pm$ 97	995 $\pm$ 104	1163 $\pm$ 62	1040	1151 $\pm$ 150
1984-85		891	1198 $\pm$ 82	820	921	963 $\pm$ 452
1985-86		1001 $\pm$ 112	1061 $\pm$ 44	954 $\pm$ 61	982	987 $\pm$ 98
1986-87		950	1071 $\pm$ 90	918 $\pm$ 14		1053 $\pm$ 87
1987-88	761 $\pm$ 82	1087	1042 $\pm$ 97	1051 $\pm$ 82		969 $\pm$ 80
<b>King mackerel</b>						
1983-84		899 $\pm$ 45	998 $\pm$ 24	979 $\pm$ 22	837 $\pm$ 69	970 $\pm$ 25
1984-85		941 $\pm$ 41	932 $\pm$ 37	909 $\pm$ 9	875 $\pm$ 41	914 $\pm$ 18
1985-86		940 $\pm$ 35	932 $\pm$ 20	933 $\pm$ 29	869 $\pm$ 93	935 $\pm$ 29
1986-87		953 $\pm$ 26	1036 $\pm$ 21	945 $\pm$ 21	903	967 $\pm$ 57
1987-88	800 $\pm$ 153	935 $\pm$ 15	971 $\pm$ 36	910 $\pm$ 35	1130	936 $\pm$ 19
<b>Red drum</b>						
1983-84			546 $\pm$ 33			546 $\pm$ 33
1984-85		675	598 $\pm$ 22			635 $\pm$ 217
1985-86		623	540 $\pm$ 55			616 $\pm$ 576
1986-87		666	626 $\pm$ 28			638 $\pm$ 218
1987-88	621	660 $\pm$ 2	621 $\pm$ 34			638 $\pm$ 16

Table J.4. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Red snapper</b>						
1983-84		312 ± 12	356 ± 28	334 ± 20	350 ± 11	329 ± 13
1984-85		288 ± 2	355 ± 18	379 ± 42	367 ± 12	368 ± 22
1985-86		373 ± 54	322 ± 7	352 ± 7	390 ± 42	368 ± 46
1986-87		306 ± 9	343 ± 17	328 ± 16	386 ± 15	344 ± 14
1987-88	324 ± 29	325 ± 7	397 ± 27	347 ± 43	342 ± 17	357 ± 15
<b>Sand seatrout</b>						
1983-84		332	333 ± 10			333 ± 5
1984-85		284 ± 14	356 ± 7	338		328 ± 14
1985-86		325 ± 18	358 ± 15			349 ± 16
1986-87		277 ± 28	321 ± 13			307 ± 18
1987-88	318 ± 12	320 ± 15	335 ± 6			323 ± 4
<b>Spanish mackerel</b>						
1983-84		656 ± 40	631 ± 15	598 ± 28	687	631 ± 47
1984-85		584 ± 4	502 ± 24	542 ± 21	494	563 ± 24
1985-86		552 ± 21	571 ± 22	581 ± 64	638 ± 59	560 ± 24
1986-87		544 ± 36	732	630		545 ± 39
1987-88	527 ± 15	536 ± 23	624 ± 12	453 ± 68		526 ± 19
<b>Spotted seatrout</b>						
1983-84			393 ± 60			393 ± 60
1984-85			566			566
1985-86		477	459 ± 37	379		449 ± 187
1986-87		501 ± 33	442 ± 4			500 ± 32
1987-88	377		378			377
<b>Vermilion snapper</b>						
1983-84				281		281
1984-85				319		319
1985-86						
1986-87		262				262
1987-88			321 ± 104	312		313 ± 2

Table J.4. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
All species combined <sup>a</sup>						
1983-84		462 ± 45	507 ± 70	707 ± 69	422 ± 29	515 ± 47
1984-85		611 ± 22	539 ± 28	644 ± 38	508 ± 45	581 ± 29
1985-86		547 ± 53	547 ± 44	665 ± 34	545 ± 75	568 ± 49
1986-87		647 ± 83	507 ± 34	541 ± 44	434 ± 62	571 ± 52
1987-88	443 ± 27	516 ± 73	572 ± 26	618 ± 68	492 ± 47	558 ± 27

<sup>a</sup>Includes "other" species.



Table J.5. Mean lengths of fishes (mm/fish)  $\pm$  1 SE caught by private-boat fishermen in the EEZ during the high-use season by species and area (1983-1987). Blank = no fish measured. No standard error = only 1 fish measured.

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Atlantic croaker</b>						
1983		236 $\pm$ 4				235 $\pm$ 4
1984			298 $\pm$ 11		343	306 $\pm$ 76
1985			225			225
1986						
1987	210 $\pm$ 2	269	260 $\pm$ 67			277 $\pm$ 17
<b>Atlantic sharpnose shark</b>						
1983		918 $\pm$ 3	940	918 $\pm$ 10		920 $\pm$ 97
1984		968 $\pm$ 3	788 $\pm$ 44	1025 $\pm$ 23		962 $\pm$ 6
1985		950	928 $\pm$ 18	943 $\pm$ 22		943 $\pm$ 216
1986		898 $\pm$ 2	904 $\pm$ 101	900 $\pm$ 51	1016	936 $\pm$ 34
1987	913 $\pm$ 20	937 $\pm$ 5	782 $\pm$ 102	965 $\pm$ 33		866 $\pm$ 83
<b>Cobia</b>						
1983		1175 $\pm$ 97	995 $\pm$ 104	1163 $\pm$ 62	1040	1151 $\pm$ 162
1984		891	1198 $\pm$ 82	820	921	962 $\pm$ 747
1985		1001 $\pm$ 112	1061 $\pm$ 44	954 $\pm$ 61	982	987 $\pm$ 98
1986		950	1071 $\pm$ 90	918 $\pm$ 14		1053 $\pm$ 27
1987	761 $\pm$ 82	1087	772	1051 $\pm$ 82		969 $\pm$ 80
<b>King mackerel</b>						
1983		899 $\pm$ 45	998 $\pm$ 24	979 $\pm$ 22	837 $\pm$ 69	970 $\pm$ 26
1984		941 $\pm$ 41	932 $\pm$ 37	909 $\pm$ 9	875 $\pm$ 41	914 $\pm$ 18
1985		940 $\pm$ 35	932 $\pm$ 20	933 $\pm$ 29	869 $\pm$ 93	935 $\pm$ 29
1986		953 $\pm$ 26	1037 $\pm$ 22	945 $\pm$ 21	903	967 $\pm$ 20
1987	800 $\pm$ 153	935 $\pm$ 15	952 $\pm$ 30	910 $\pm$ 35	1130	936 $\pm$ 19
<b>Red drum</b>						
1983			572 $\pm$ 82			572 $\pm$ 82
1984		675	598 $\pm$ 22			635 $\pm$ 334
1985			494 $\pm$ 8			494 $\pm$ 8
1986		666	608			654 $\pm$ 19
1987	621	658	606 $\pm$ 22			636 $\pm$ 15

Table J.5. (Cont'd.)

Species Year	Area						Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre		
<b>Red snapper</b>							
1983		312 ± 12	393 ± 60	334 ± 20	350 ± 11		327 ± 16
1984		280 ± 2	350 ± 22	379 ± 42	371 ± 12		372 ± 32
1985		299 ± 9	320 ± 6	352 ± 7	415 ± 53		324 ± 11
1986		297 ± 16	350 ± 22	328 ± 16	424 ± 23		339 ± 12
1987	324 ± 29	325 ± 10	247 ± 12	322 ± 53	358 ± 5		369 ± 23
<b>Sand seatrout</b>							
1983		332 ± 0	335 ± 3				333 ± 2
1984		284 ± 14	355 ± 8	338			325 ± 16
1985		324 ± 29	363 ± 14				354 ± 18
1986		255	335 ± 8				272 ± 26
1987	318 ± 12	314 ± 20	360 ± 1				321 ± 6
<b>Spanish mackerel</b>							
1983		656 ± 40	603 ± 32	598 ± 28	687		630 ± 49
1984		584 ± 4	502 ± 24	542 ± 21	494		563 ± 24
1985		552 ± 21	571 ± 22	581 ± 64	638 ± 59		560 ± 24
1986		544 ± 36	732	630			545 ± 1
1987	527 ± 15	536 ± 23	583 ± 51	453 ± 68			526 ± 19
<b>Spotted seatrout</b>							
1983			393 ± 60				392 ± 59
1984			566				566
1985		477	459 ± 37	379			449 ± 187
1986		501 ± 33	442 ± 4				500 ± 2
1987	377		438 ± 7				377
<b>Vermillion snapper</b>							
1983				281			281
1984				319			319
1985							
1986		262					262
1987		262		312			312 ± 2

Table J.5. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
All species combined <sup>a</sup>						
1983		462 ± 45	509 ± 35	707 ± 69	422 ± 29	516 ± 47
1984		611 ± 22	567 ± 32	644 ± 38	498 ± 41	598 ± 35
1985		605 ± 55	553 ± 46	665 ± 34	596 ± 69	605 ± 47
1986		696 ± 77	539 ± 41	541 ± 44	590 ± 111	637 ± 50
1987	443 ± 27	547 ± 74	565 ± 40	647 ± 76	493 ± 91	562 ± 17

<sup>a</sup>Includes "other" species.

Table J.6. Mean total lengths of fishes (mm/fish)  $\pm$  1 SE caught by private-boat fishermen in the EEZ during the low-use season by species and area (1983-1988). Blank = no fish measured. No standard error = only 1 fish measured.

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Atlantic croaker</b>						
1983-84			270			270
1984-85						
1985-86					275	275 $\pm$ 0
1986-87		274				
1987-88						
<b>Atlantic sharpnose shark</b>						
1983-84					1017	1017
1984-85						
1985-86						
1986-87						
1987-88						
<b>Cobia</b>						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
<b>King mackerel</b>						
1983-84						
1984-85						
1985-86						
1986-87			940			940
1987-88						
<b>Red drum</b>						
1983-84			529 $\pm$ 16			529 $\pm$ 16
1984-85						
1985-86	623		680			625 $\pm$ 625
1986-87			634 $\pm$ 39			634
1987-88	670					670

Table J.6. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Red snapper</b>						
1983-84			358 ± 13			358 ± 13
1984-85			372 ± 14		310	358 ± 81
1985-86	423 ± 79		354		341	413 ± 113
1986-87	313		316 ± 11		373	338 ± 21
1987-88	325			395	319	390 ± 7
<b>Sand seatrout</b>						
1983-84			332 ± 13			332 ± 13
1984-85			362			362
1985-86		323	317 ± 2			318 ± 91
1986-87		316	309 ± 27			310 ± 2
1987-88		348				348
<b>Spanish mackerel</b>						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
<b>Spotted seatrout</b>						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
<b>Vermilion snapper</b>						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						

Table J.6. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
All species combined <sup>a</sup>						
1983-84			499 ± 164			499 ± 164
1984-85			408 ± 10		606 ± 347	459 ± 97
1985-86		395 ± 59	364 ± 32		378	391 ± 90
1986-87		385 ± 27	398 ± 29		362 ± 8	385 ± 11
1987-88		343	338	440	492	426 ± 17

<sup>a</sup> Includes "other" species.

Table J.7. Annual mean weights of fishes (kg/fish)  $\pm$  1 SE caught by private-boat fishermen in the EEZ by species and area (1982-1988). Blank = no fish weighed. No standard error = only 1 fish weighed.

Species Year	Area						Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre		
<b>Atlantic croaker</b>							
1982-83		0.35	0.53 $\pm$ 0.05	0.21			0.26 $\pm$ 0.14
1983-84		0.17 $\pm$ 0.01	0.25				0.18 $\pm$ 0.04
1984-85			0.36 $\pm$ 0.04	0.54			0.40 $\pm$ 0.13
1985-86			0.14				0.14
1986-87		0.26				0.27	0.27
1987-88	0.12 $\pm$ <.01	0.25	0.13				0.22 $\pm$ 0.04
<b>Atlantic sharpnose shark</b>							
1982-83 <sup>b</sup>							
1983-84		5.34 $\pm$ 0.08	5.76	5.39 $\pm$ 0.24			5.40 $\pm$ 0.70
1984-85		6.44 $\pm$ 0.08	3.17 $\pm$ 0.72	8.62 $\pm$ 0.88		7.70	7.37 $\pm$ 5.75
1985-86		6.18	5.65 $\pm$ 0.37	6.09 $\pm$ 0.40			6.06 $\pm$ 1.61
1986-87		5.09 $\pm$ 0.06	5.72 $\pm$ 1.89	5.74 $\pm$ 0.74		7.69	6.11 $\pm$ 2.88
1987-88	5.82 $\pm$ 0.44	5.73 $\pm$ 0.12	3.49 $\pm$ 0.35	6.75 $\pm$ 0.50			5.29 $\pm$ 1.15
<b>Cobia</b>							
1982-83		10.68	5.58 $\pm$ 1.59	9.14 $\pm$ 1.13		5.38	7.16 $\pm$ 1.57
1983-84		14.41 $\pm$ 3.46	7.26 $\pm$ 2.53	12.94 $\pm$ 2.04		8.94	11.01 $\pm$ 1.81
1984-85		5.50	15.66 $\pm$ 2.78	4.23		6.10	7.74 $\pm$ 5.23
1985-86		8.67 $\pm$ 2.68	9.92 $\pm$ 1.14	7.03 $\pm$ 1.36		6.08	7.99 $\pm$ 1.83
1986-87		6.23	11.24 $\pm$ 3.05	6.04 $\pm$ 0.29			10.63 $\pm$ 2.77
1987-88	4.56 $\pm$ 2.19	10.65	9.92 $\pm$ 2.55	9.61 $\pm$ 2.20			8.44 $\pm$ 1.52
<b>King mackerel</b>							
1982-83		5.98 $\pm$ 1.27	5.76 $\pm$ 0.92	5.69 $\pm$ 0.42			5.72 $\pm$ 0.44
1983-84		6.91 $\pm$ 1.35	9.91 $\pm$ 0.84	9.32 $\pm$ 0.83		3.40 $\pm$ 0.40	9.02 $\pm$ 0.91
1984-85		7.87 $\pm$ 1.10	8.15 $\pm$ 1.01	7.16 $\pm$ 0.24		5.62 $\pm$ 1.56	7.36 $\pm$ 0.49
1985-86		8.12 $\pm$ 1.09	7.81 $\pm$ 0.56	8.51 $\pm$ 1.17		6.48 $\pm$ 0.96	8.16 $\pm$ 0.98
1986-87		8.30 $\pm$ 0.64	10.87 $\pm$ 0.74	8.18 $\pm$ 0.61		7.14 $\pm$ 2.79	8.76 $\pm$ 0.88
1987-88	5.84 $\pm$ 3.13	7.82 $\pm$ 0.27	9.15 $\pm$ 1.11	7.34 $\pm$ 0.74		6.84	8.07 $\pm$ 0.57
						13.37	

Table J.7. (Cont'd.)

Species Year	Area						Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre		
<b>Red drum</b>							
1982-83			3.15				3.15
1983-84			1.90 ± 0.38				1.90 ± 0.38
1984-85		3.30	2.40 ± 0.27				2.83 ± 1.71
1984-85		2.61	1.80 ± 0.61				2.54 ± 2.44
1986-87		3.18	2.78 ± 0.37				2.90 ± 1.21
1987-88	2.56	3.13 ± 0.02	2.66 ± 0.43				2.86 ± 0.20
<b>Red snapper</b>							
1982-83			0.51 ± 0.14	0.57 ± 0.15	0.91 ± 0.53		0.66 ± 0.19
1983-84		0.44 ± 0.22	0.82 ± 0.05	0.56 ± 0.09	0.66 ± 0.09		0.56 ± 0.09
1984-85		0.51 ± 0.02	0.92 ± 0.18	0.98 ± 0.35	0.77 ± 0.09		0.91 ± 0.24
1985-86		1.10 ± 0.49	0.49 ± 0.04	0.73 ± 0.09	0.99 ± 0.36		1.00 ± 0.41
1986-87		0.43 ± 0.04	0.64 ± 0.11	0.56 ± 0.11	0.92 ± 0.13		0.65 ± 0.10
1987-88	0.54 ± 0.13	0.58 ± 0.05	1.25 ± 0.28	0.75 ± 0.25	0.56 ± 0.09		0.85 ± 0.15
<b>Sand seatrout</b>							
1982-83			0.43 ± 0.15	0.25 ± 0.44			0.39 ± 0.22
1983-84			0.40 ± 0.04				0.40 ± 0.04
1984-85		0.39	0.50 ± 0.03	0.41			0.40 ± 0.40
1985-86		0.25 ± 0.04	0.51 ± 0.06				0.48 ± 0.06
1986-87		0.39 ± 0.08	0.37 ± 0.04				0.33 ± 0.05
1987-88	0.35 ± 0.04	0.23 ± 0.08	0.42 ± 0.02				0.37 ± 0.02
<b>Spanish mackerele</b>							
1982-83			1.44 ± 0.17	0.31			1.00 ± 0.21
1983-84		0.94 ± 0.09	1.29 ± 0.09	1.14 ± 0.15	1.63		1.35 ± 0.23
1984-85		1.48 ± 0.24	0.68 ± 0.10	0.83 ± 0.09	0.62 ± 0.62		0.96 ± 0.06
1985-86		1.06 ± 0.02	0.97 ± 0.09	1.10 ± 0.29	1.36 ± 0.40		1.00 ± 0.11
1986-87		0.99	1.96	1.27			0.91 ± 0.17
1987-88	0.77 ± 0.06	0.90 ± 0.16	1.24 ± 0.07	0.52 ± 0.19			0.79 ± 0.07



Table J.7. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Spotted seatrout</b>						
1982-83		1.05	0.29			0.40 ± 0.35
1983-84			0.60 ± 0.26			0.60 ± 0.26
1984-85			1.73			1.73
1985-86		1.02	0.98 ± 0.26	0.50		0.91 ± 0.46
1986-87		1.24 ± 0.20	0.82 ± 0.02			1.23 ± 0.19
1987-88	0.52		0.50			0.50 ± 0.01
<b>Vermillion snapper</b>						
1982-83 <sup>b</sup>				0.24		0.24
1983-84				0.36		0.36
1984-85						
1985-86						
1986-87		0.19				0.19
1987-88			0.52 ± 0.42	0.37		0.38 ± 0.03
<b>All species combined<sup>a</sup></b>						
1982-83		1.52 ± 1.51	2.01 ± 1.57	2.70 ± 2.14	1.13 ± 2.02	2.11 ± 1.34
1983-84		2.37 ± 0.87	3.27 ± 0.27	5.61 ± 1.00	0.96 ± 0.30	3.44 ± 0.25
1984-85		3.44 ± 0.24	2.89 ± 0.41	4.56 ± 0.69	2.48 ± 0.57	3.49 ± 0.52
1985-86		3.64 ± 1.10	3.41 ± 0.66	5.43 ± 0.62	2.96 ± 1.23	3.88 ± 0.92
1986-87		4.73 ± 1.22	3.14 ± 0.61	3.35 ± 0.70	1.17 ± 0.51	3.73 ± 0.69
1987-88	1.32 ± 0.34	2.77 ± 1.36	3.49 ± 0.50	4.19 ± 1.02	1.32 ± 0.86	3.31 ± 0.38

<sup>a</sup>Includes "other" species.<sup>b</sup>Mean weights are not available for this species in this year.

Table J.8. Mean weights of fishes (kg/fish)  $\pm$  1 SE caught by private-boat fishermen in the EEZ during the high-use season by species and area (1982-1987). Blank = no fish weighed. No standard error = only 1 fish weighed.

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Atlantic croaker</b>						
1982				0.21		0.21
1983		0.17 $\pm$ 0.01		0.54		0.17 $\pm$ 0.01
1984			0.36 $\pm$ 0.04			0.40 $\pm$ 0.13
1985			0.14			0.14
1986						
1987	0.12	0.25	0.13			0.22 $\pm$ 0.04
<b>Atlantic sharpnose shark</b>						
1982 <sup>b</sup>						
1983		5.34 $\pm$ 0.08	5.76	5.39 $\pm$ 0.24		5.40 $\pm$ 0.69
1984		6.44 $\pm$ 0.08	3.17 $\pm$ 0.72	8.62 $\pm$ 0.88		6.41 $\pm$ 0.16
1985		6.18	5.65 $\pm$ 0.37	6.09 $\pm$ 0.40		6.06 $\pm$ 1.61
1986		5.09 $\pm$ 0.06	5.72 $\pm$ 1.89	5.74 $\pm$ 0.74	7.69	6.11 $\pm$ 0.70
1987	5.82 $\pm$ 0.44	5.73 $\pm$ 0.12	3.49 $\pm$ 0.35			5.29 $\pm$ 1.15
<b>Cobia</b>						
1982		10.67	5.14 $\pm$ 1.15	8.70 $\pm$ 1.58	5.38	5.28 $\pm$ 0.20
1983		14.41 $\pm$ 3.46	22.75 $\pm$ 16.84	12.94 $\pm$ 2.04	8.94	14.14 $\pm$ 4.34
1984		5.50	15.66 $\pm$ 2.78	4.23	6.10	7.72 $\pm$ 5.24
1985		8.67 $\pm$ 2.68	9.92 $\pm$ 1.14	7.03 $\pm$ 1.36	6.08	7.99 $\pm$ 1.83
1986		6.73	11.24 $\pm$ 3.05	6.04 $\pm$ 0.29		10.63 $\pm$ 0.90
1987	4.56 $\pm$ 2.19	10.65	9.92 $\pm$ 2.55	9.61 $\pm$ 2.20		8.44 $\pm$ 1.52
<b>King mackerel</b>						
1982		6.13 $\pm$ 0.52	5.70 $\pm$ 0.28	5.60 $\pm$ 0.18	3.40 $\pm$ 0.32	5.57 $\pm$ 0.27
1983		6.91 $\pm$ 1.35	9.91 $\pm$ 0.84	9.32 $\pm$ 0.83	5.62 $\pm$ 1.56	9.07 $\pm$ 0.90
1984		7.87 $\pm$ 1.10	8.15 $\pm$ 1.01	7.16 $\pm$ 0.24	6.48 $\pm$ 0.96	7.34 $\pm$ 0.48
1985		8.12 $\pm$ 1.09	7.81 $\pm$ 0.56	8.51 $\pm$ 1.17	7.14 $\pm$ 2.79	8.16 $\pm$ 0.98
1986		8.30 $\pm$ 0.64	10.91 $\pm$ 0.76	8.18 $\pm$ 0.61	6.84	8.76 $\pm$ 0.62
1987	5.84 $\pm$ 3.13	7.82 $\pm$ 0.27	9.15 $\pm$ 1.11	7.34 $\pm$ 0.74	13.37	8.07 $\pm$ 0.57

Table J.8. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Red drum						
1982			2.38 ± 0.89			2.38 ± 0.89
1983			2.40 ± 0.27			2.83 ± 1.72
1984		3.30	1.28 ± 0.07			1.28 ± 0.07
1985			2.57			3.05 ± 0.20
1986		3.18				2.84 ± 0.19
1987		3.11 ± 0.01	2.66 ± 0.43			
Red snapper						
1982		0.49 ± 0.07	0.47 ± 0.51	0.53 ± 0.06	0.91 ± 0.53	0.68 ± 0.12
1983		0.45 ± 0.05	0.84 ± 0.29	0.56 ± 0.09	0.66 ± 0.09	0.55 ± 0.10
1984		0.51 ± 0.02	0.89 ± 0.22	0.98 ± 0.35	0.79 ± 0.09	0.92 ± 0.27
1985		0.49 ± 0.02	0.46 ± 0.03	0.73 ± 0.09	1.19 ± 0.46	0.58 ± 0.07
1986		0.38 ± 0.07	0.68 ± 0.14	0.56 ± 0.11	1.25 ± 0.39	0.63 ± 0.08
1987	0.54 ± 0.13	0.57 ± 0.07	1.25 ± 0.28	0.59 ± 0.31	0.64 ± 0.03	0.98 ± 0.22
Sand seatrout						
1982			0.39 ± 0.03	0.25 ± 0.10		0.39 ± 0.20
1983		0.39 ± 0.00	0.41 ± 0.01			0.40 ± 0.01
1984		0.25 ± 0.04	0.50 ± 0.03	0.41		0.39 ± 0.04
1985		0.40 ± 0.14	0.53 ± 0.05			0.50 ± 0.07
1986		0.18	0.41 ± 0.03			0.22 ± 0.08
1987		0.34 ± 0.06	0.42 ± 0.02			0.37 ± 0.02
Spanish mackerel						
1982		0.95 ± 0.03	1.46 ± 0.14	0.31		1.03 ± 0.14
1983		1.48 ± 0.24	1.17 ± 0.15	1.14 ± 0.15	1.63	1.32 ± 0.23
1984		1.06 ± 0.02	0.68 ± 0.10	0.83 ± 0.09	0.62	0.96 ± 0.06
1985		0.99 ± 0.09	0.97 ± 0.09	1.10 ± 0.29	1.36 ± 0.40	1.00 ± 0.11
1986		0.90 ± 0.16	1.96	1.27		0.91 ± 0.01
1987	0.77 ± 0.06	0.82 ± 0.10	1.24 ± 0.07	0.52 ± 0.19		0.79 ± 0.07

Table J.8. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Spotted seatrout</b>						
1982		1.05	0.29			0.46 ± 0.27
1983			0.60 ± 0.26			0.60 ± 0.26
1984			1.73			1.73
1985		1.02	0.98 ± 0.26	0.50		0.91 ± 0.46
1986		1.24 ± 0.20	0.82 ± 0.02			1.23 ± 0.01
1987			0.50			0.50 ± 0.01
<b>Vermilion snapper</b>						
1982 <sup>b</sup>				0.24		0.24
1983				0.36		0.36
1984						
1985						
1986				0.37		0.19
1987		0.19	0.52 ± 0.42			0.38 ± 0.03
<b>All species combined<sup>a</sup></b>						
1982		1.55 ± 0.41	2.90 ± 0.59	2.90 ± 0.61	2.55 ± 1.23	2.79 ± 0.13
1983		2.37 ± 0.87	3.36 ± 1.81	5.61 ± 1.00	0.96 ± 0.30	3.00 ± 0.54
1984		3.44 ± 0.24	3.26 ± 0.47	4.56 ± 0.69	2.38 ± 0.56	3.74 ± 0.55
1985		4.56 ± 1.42	3.50 ± 0.68	5.43 ± 0.62	3.77 ± 1.22	4.45 ± 1.00
1986		5.59 ± 0.97	3.63 ± 0.72	3.35 ± 0.70	2.27 ± 1.47	4.73 ± 0.70
1987	1.32 ± 0.34	3.13 ± 1.50	3.49 ± 0.50	4.71 ± 1.10	2.07 ± 1.66	3.32 ± 0.26

<sup>a</sup>Includes "other" species.<sup>b</sup>Mean weights are not available for this species in this year.

Table J.9. Mean weights of fishes (kg/fish)  $\pm$  1 SE caught by private-boat fishermen in the EEZ during the low-use season by species and area (1982-1988). Blank = no fish weighed. No standard error = only 1 fish weighed.

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Atlantic croaker</b>						
1982-83		0.35	0.53 $\pm$ 0.04			0.40 $\pm$ 0.07
1983-84			0.25			0.25
1984-85						
1985-86						
1986-87		0.26			0.27	0.27 $\pm$ 0.00
1987-88						
<b>Atlantic sharpnose shark</b>						
1982-83 <sup>b</sup>						
1983-84						
1984-85					7.70	7.70
1985-86						
1986-87						
1987-88						
<b>Cobia</b>						
1982-83						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
<b>King mackerel</b>						
1982-83						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
			7.56			7.56

Table J.9. (Cont'd.)

Species Year	Area						Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre		
<b>Red drum</b>							
1982-83			3.15				3.15
1983-84			1.59 ± 0.15				1.59 ± 0.15
1984-85							
1985-86	2.61		3.38				2.64
1986-87			2.87 ± 0.52				2.87
1987-88	3.23						3.23
<b>Red snapper</b>							
1982-83			0.56 ± 0.04				0.56
1983-84			0.72 ± 0.04				0.72 ± 0.04
1984-85			1.04 ± 0.17				0.89 ± 0.22
1985-86			0.81				1.40 ± 0.77
1986-87	1.51 ± 0.79		0.49 ± 0.06				0.61 ± 0.12
1987-88	0.47			1.04			1.01 ± 0.04
	0.62						
<b>Sand seatrout</b>							
1982-83			0.43 ± 0.03				0.43
1983-84			0.40 ± 0.05				0.40 ± 0.05
1984-85			0.52				0.52
1985-86	0.36		0.35 ± 0.01				0.35 ± 0.11
1986-87	0.34		0.34 ± 0.08				0.34 ± 0.00
1987-88	0.46						0.46
<b>Spanish mackereel</b>							
1982-83							
1983-84							
1984-85							
1985-86							
1986-87							
1987-88							

Table J.9. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Spotted seatrout						
1982-83						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
Vermillion snapper						
1982-83 <sup>b</sup>						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
All species combined <sup>a</sup>						
1982-83		0.30	0.47 ± 0.04	2.92		0.40 ± 0.08
1983-84			0.53 ± 0.06			0.53 ± 0.06
1984-85			0.91 ± 0.22		3.42 ± 3.61	1.56 ± 1.09
1985-86		1.43 ± 0.88	0.79 ± 0.16		0.50	1.29 ± 0.79
1986-87		0.38 ± 0.03	1.49 ± 0.90		0.70	1.02 ± 0.36
1987-88		0.70		1.00	0.40	0.97 ± 0.04

<sup>a</sup>Includes "other" species.

<sup>b</sup>Mean weights are not available for this species in this year.

Table J.10. Annual mean catch rates of fishes (No./man-h)  $\pm$  1 SE caught by private-boat fishermen in the EEZ by species and area (1982-1988).

Species Year	Area						Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre		
<b>Atlantic croaker</b>							
1982-83		<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.02 $\pm$ 0.02	<.01 $\pm$ <.01
1983-84		<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.00	0.00	<.01 $\pm$ <.01
1984-85		0.00	<.01 $\pm$ <.01	0.00	0.00	0.00	<.01 $\pm$ <.01
1985-86		0.00	0.00	0.00	0.00	0.00	0.00
1986-87		0.00	0.00	0.00	0.00	<.01 $\pm$ <.01	0.00
1987-88	0.01 $\pm$ 0.01	<.01 $\pm$ <.01	0.00	0.00	0.00	0.00	<.01 $\pm$ <.01
<b>Atlantic sharpnose shark</b>							
1982-83 <sup>b</sup>							
1983-84		<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01
1984-85		0.02 $\pm$ 0.01	0.01 $\pm$ 0.01	0.00	0.00	0.06 $\pm$ 0.06	0.01 $\pm$ 0.01
1985-86		<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.01 $\pm$ <.01	<.01 $\pm$ <.01	0.00	0.01 $\pm$ <.01
1986-87		<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.01 $\pm$ 0.01	<.01 $\pm$ <.01
1987-88	<.01 $\pm$ <.01	0.00	0.01 $\pm$ 0.01	0.01 $\pm$ 0.01	0.01 $\pm$ 0.01	0.00	<.01 $\pm$ <.01
<b>Cobia</b>							
1982-83		<.01 $\pm$ <.01	0.01 $\pm$ <.01	0.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01
1983-84		0.01 $\pm$ 0.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01
1984-85		0.00	<.01 $\pm$ <.01	0.00	0.00	0.01 $\pm$ 0.01	<.01 $\pm$ <.01
1985-86		<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01
1986-87		0.00	0.02 $\pm$ 0.02	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01
1987-88	0.01 $\pm$ 0.01	0.00	<.01 $\pm$ <.01	<.01	<.01	0.00	<.01
<b>King mackerel</b>							
1982-83		0.06 $\pm$ 0.04	0.08 $\pm$ 0.02	0.08 $\pm$ 0.02	0.05 $\pm$ 0.01	0.04 $\pm$ 0.02	0.06 $\pm$ 0.02
1983-84		0.03 $\pm$ 0.02	0.04 $\pm$ 0.02	0.04 $\pm$ 0.02	0.08 $\pm$ 0.05	<.01 $\pm$ <.01	0.01 $\pm$ <.01
1984-85		0.03 $\pm$ 0.02	0.05 $\pm$ 0.02	0.05 $\pm$ 0.02	0.08 $\pm$ 0.03	0.02 $\pm$ 0.01	0.06 $\pm$ 0.01
1985-86		0.04 $\pm$ 0.02	0.10 $\pm$ 0.06	0.10 $\pm$ 0.06	0.04 $\pm$ 0.01	0.01 $\pm$ <.01	0.05 $\pm$ 0.01
1986-87		0.06 $\pm$ 0.04	0.06 $\pm$ 0.04	0.06 $\pm$ 0.04	0.02 $\pm$ 0.02	0.02 $\pm$ 0.02	0.05 $\pm$ 0.02
1987-88	0.01 $\pm$ 0.01	<.01 $\pm$ <.01	0.04 $\pm$ 0.02	0.04 $\pm$ 0.02	0.05 $\pm$ 0.03	0.03 $\pm$ 0.03	<.01 $\pm$ <.01



Table J.10. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Red drum</b>						
1982-83		0.00	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1983-84		0.00	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1984-85		<.01 ± <.01	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1985-86		<.01 ± <.01	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1986-87		0.00	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1987-88	0.00	0.00	<.01 ± <.01	0.00	0.00	<.01 ± <.01
<b>Red snapper</b>						
1982-83		0.12 ± 0.07	0.22 ± 0.10	0.04 ± 0.02	0.50 ± 0.22	0.15 ± 0.04
1983-84		0.64 ± 0.44	0.32 ± 0.17	0.02 ± 0.02	0.24 ± 0.16	0.24 ± 0.10
1984-85		0.01 ± 0.01	0.19 ± 0.10	0.12 ± 0.07	0.19 ± 0.12	0.12 ± 0.04
1985-86		0.15 ± 0.12	0.06 ± 0.03	0.01 ± 0.01	0.18 ± 0.15	0.09 ± 0.05
1986-87		0.04 ± 0.04	0.18 ± 0.09	0.06 ± 0.04	0.26 ± 0.25	0.09 ± 0.04
1987-88	0.28 ± 0.18	0.01 ± 0.01	0.15 ± 0.08	0.24 ± 0.23	0.10 ± 0.09	0.19 ± 0.10
<b>Sand seatrout</b>						
1982-83		0.37 ± 0.37	0.27 ± 0.16	0.01 ± 0.01	0.02 ± 0.02	0.21 ± 0.14
1983-84		0.01 ± <.01	0.21 ± 0.12	0.00	<.01 ± <.01	<.01 ± <.01
1984-85		0.06 ± 0.05	0.08 ± 0.04	<.01 ± <.01	0.00	0.03 ± 0.01
1985-86		0.01 ± 0.01	0.07 ± 0.05	0.00	0.00	0.01 ± 0.01
1986-87		0.01 ± 0.01	0.06 ± 0.04	0.00	0.00	0.01 ± 0.01
1987-88	0.04 ± 0.03	<.01 ± <.01	<.01 ± <.01	0.00	0.00	<.01 ± <.01
<b>Spanish mackerel</b>						
1982-83		0.02 ± 0.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.01 ± <.01
1983-84		0.02 ± 0.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01
1984-85		0.02 ± 0.02	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01
1985-86		0.01 ± 0.01	0.01 ± 0.01	<.01 ± <.01	0.01 ± <.01	0.01 ± <.01
1986-87		0.03 ± 0.02	0.00	0.00	0.00	0.01 ± 0.01
1987-88	0.01 ± 0.01	<.01 ± <.01	<.01 ± <.01	0.01 ± 0.01	0.00	<.01 ± <.01

Table J.10. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Spotted seatrout</b>						
1982-83		<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01
1983-84		0.00	0.00	0.00	0.00	0.00
1984-85		0.00	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1985-86		0.00	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1986-87		0.01 ± 0.01	<.01 ± <.01	0.00	0.00	0.01 ± <.01
1987-88	<.01 ± <.01	0.00	<.01 ± <.01	0.00	0.00	0.00
<b>Vermilion snapper</b>						
1982-83 <sup>b</sup>						
1983-84		0.00	0.00	0.00	0.00	0.00
1984-85		0.00	0.00	<.01 ± <.01	0.00	<.01 ± <.01
1984-85		0.00	0.00	0.00	0.00	0.00
1986-87		0.00	0.00	0.00	0.00	0.00
1987-88	0.00	0.00	0.00	0.00	0.00	<.01 ± <.01
<b>Other species</b>						
1982-83		0.04 ± 0.02	0.06 ± 0.02	0.05 ± 0.02	0.05 ± 0.02	0.05 ± 0.01
1983-84		0.21	0.06	0.04	0.08 ± 0.07	0.08
1984-85		0.12	0.23	0.03	0.12	0.10
1985-86		0.12	0.17	0.05 ± 0.02	0.14 ± 0.10	0.10
1986-87		0.11 ± 0.07	0.16	0.04 ± 0.03	0.04 ± 0.02	0.10
1987-88	0.10 ± 0.06	0.06 ± 0.06	0.20 ± 0.09	0.04 ± 0.02	0.06 ± 0.05	0.10 ± 0.03
<b>All species combined<sup>a</sup></b>						
1982-83		0.61 ± 0.45	0.65 ± 0.22	0.15 ± 0.05	0.63 ± 0.27	0.48 ± 0.18
1983-84		0.92 ± 0.54	0.64 ± 0.28	0.15 ± 0.10	0.32 ± 0.22	0.41 ± 0.15
1984-85		0.24 ± 0.14	0.58 ± 0.22	0.23 ± 0.10	0.41 ± 0.21	0.32 ± 0.08
1985-86		0.34 ± 0.19	0.42 ± 0.16	0.13 ± 0.04	0.32 ± 0.23	0.27 ± 0.08
1986-87		0.26 ± 0.13	0.49 ± 0.22	0.13 ± 0.09	0.33 ± 0.26	0.28 ± 0.09
1987-88	10.93 ± 4.03	0.08 ± 0.07	0.42 ± 0.17	0.34 ± 0.26	0.19 ± 0.14	0.36 ± 0.13

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual totals.<sup>b</sup>This species is included in other species in this year.

Table J.11. Mean catch rates of fishes (No./man-h)  $\pm$  1 SE caught by private-boat fishermen in the EEZ during the high-use season by species and area (1982-1987).

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Atlantic croaker</b>						
1982		0.00	0.00	<.01 $\pm$ <.01	0.02 $\pm$ 0.02	<.01 $\pm$ <.01
1983		<.01 $\pm$ <.01	0.00	0.00	0.00	<.01 $\pm$ <.01
1984		0.00	0.01 $\pm$ 0.01	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01
1985		0.00	0.00	0.00	0.00	0.00
1986		0.00	0.00	0.00	0.00	0.00
1987	0.01 $\pm$ 0.01	<.01 $\pm$ <.01	0.00	0.00	0.00	<.01 $\pm$ <.01
<b>Atlantic sharpnose shark</b>						
1982 <sup>b</sup>						
1983		<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01
1984		0.02 $\pm$ 0.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01
1985		<.01 $\pm$ <.01	0.01 $\pm$ <.01	0.01 $\pm$ <.01	0.00	0.01 $\pm$ <.01
1986		<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.01 $\pm$ 0.01	<.01 $\pm$ <.01
1987	<.01 $\pm$ <.01	0.00	0.01 $\pm$ 0.01	0.01 $\pm$ 0.01	0.00	<.01 $\pm$ <.01
<b>Cobia</b>						
1982		<.01 $\pm$ <.01	0.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.01 $\pm$ <.01
1983		0.01 $\pm$ 0.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01
1984		<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.01 $\pm$ 0.01	<.01 $\pm$ <.01
1985		<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01	<.01 $\pm$ <.01
1986		0.00	0.03 $\pm$ 0.03	<.01 $\pm$ <.01	0.00	0.01 $\pm$ <.01
1987	0.01 $\pm$ 0.01	0.00	<.01 $\pm$ <.01	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01
<b>King mackerel</b>						
1982		0.05 $\pm$ 0.03	0.06 $\pm$ 0.03	0.04 $\pm$ 0.02	0.04 $\pm$ 0.03	0.05 $\pm$ 0.01
1983		0.03 $\pm$ 0.02	0.05 $\pm$ 0.02	0.08 $\pm$ 0.06	0.01 $\pm$ 0.01	0.06 $\pm$ 0.03
1984		0.03 $\pm$ 0.02	0.06 $\pm$ 0.02	0.08 $\pm$ 0.03	0.02 $\pm$ 0.01	0.06 $\pm$ 0.02
1985		0.05 $\pm$ 0.03	0.11 $\pm$ 0.06	0.04 $\pm$ 0.01	0.01 $\pm$ <.01	0.05 $\pm$ 0.02
1986		0.07 $\pm$ 0.09	0.08 $\pm$ 0.06	0.02 $\pm$ 0.02	0.02 $\pm$ 0.02	0.06 $\pm$ 0.02
1987	0.01 $\pm$ 0.01	<.01 $\pm$ <.01	0.04 $\pm$ 0.02	0.06 $\pm$ 0.04	0.04 $\pm$ 0.04	0.04 $\pm$ 0.02

Table J.11. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Red drum</b>						
1982		0.00	0.00	0.00	0.00	0.00
1983		0.00	<.01 ± <.01	<.01 ± <.01	0.00	0.00
1984		<.01 ± <.01	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1985		0.00	<.01 ± <.01	0.00	0.00	0.00
1986		<.01 ± <.01	<.01 ± <.01	0.00	0.00	0.00
1987	0.00	0.00	<.01 ± <.01	0.00	0.00	<.01 ± <.01
<b>Red snapper</b>						
1982		0.13 ± 0.79	0.07 ± 0.04	0.04 ± 0.02	0.36 ± 0.21	0.11 ± 0.03
1983		0.64 ± 0.44	0.29 ± 0.19	0.02 ± 0.02	0.51 ± 0.31	0.23 ± 0.11
1984		0.01 ± 0.01	0.08 ± 0.03	0.12 ± 0.07	0.18 ± 0.12	0.19 ± 0.04
1985		0.03 ± 0.07	0.06 ± 0.02	0.01 ± 0.01	0.04 ± 0.04	0.03 ± 0.01
1986		0.01 ± 0.01	0.11 ± 0.07	0.06 ± 0.04	0.03 ± 0.02	0.04 ± 0.02
1987	0.28 ± 0.18	0.01 ± 0.01	0.16 ± 0.08	0.01 ± 0.01	0.02 ± 0.02	0.09 ± 0.04
<b>Sand seatrout</b>						
1982		0.00	0.22 ± 0.17	<.01 ± <.01	0.02 ± 0.02	0.07 ± 0.06
1983		0.01 ± <.01	0.02 ± 0.01	0.00	<.01 ± <.01	<.01 ± <.01
1984		0.06 ± 0.04	0.10 ± 0.04	<.01 ± <.01	0.00	0.02 ± 0.01
1985		0.01 ± 0.01	0.06 ± 0.06	0.00	0.00	0.01 ± 0.01
1986		0.01 ± 0.01	0.01 ± <.01	0.00	0.00	<.01 ± <.01
1987	0.04 ± 0.03	<.01 ± <.01	<.01 ± <.01	0.00	0.00	<.01 ± <.01
<b>Spanish mackerel</b>						
1982		0.01 ± 0.01	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1983		0.02 ± 0.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	0.01 ± <.01
1984		0.02 ± 0.02	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01	<.01 ± <.01
1985		0.01 ± 0.01	0.01 ± 0.01	<.01 ± <.01	0.01 ± 0.01	0.01 ± <.01
1986		0.03 ± 0.03	0.00	0.00	0.00	0.02 ± 0.01
1987	0.01 ± 0.01	<.01 ± <.01	<.01 ± <.01	0.01 ± 0.01	0.00	0.01 ± <.01

Table J.11. (Cont'd.)

Species Year	Area						Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre		
<b>Spotted seatrout</b>							
1982		<.01 ± <.01	<.01 ± <.01	0.00	0.00	0.00	<.01 ± <.01
1983		0.00	<.01 ± <.01	0.00	0.00	0.00	0.00
1984		0.00	<.01 ± <.01	0.00	0.00	0.00	0.00
1985		0.00	<.01 ± <.01	<.01 ± <.01	0.00	0.00	0.00
1986		0.01 ± 0.01	<.01 ± <.01	0.00	0.00	0.00	0.01 ± 0.01
1987	<.01 ± <.01	0.00	<.01 ± <.01	0.00	0.00	0.00	<.01
<b>Vermillion snapper</b>							
1982 <sup>b</sup>							
1983		0.00	0.00	0.00	0.00	0.00	0.00
1984		0.00	0.00	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1985		0.00	0.00	0.00	0.00	0.00	0.00
1986		0.00	0.00	0.00	0.00	0.00	0.00
1987	0.00	0.00	0.00	<.01 ± <.01	0.00	0.00	<.01 ± <.01
<b>Other species</b>							
1982		0.06 ± 0.03	0.04 ± 0.02	0.03 ± 0.01	0.04 ± 0.03	0.04 ± 0.03	0.04 ± 0.01
1983		0.21	0.05	0.04	0.16 ± 0.16	0.08	0.08
1984		0.11	0.10	0.03	0.13	0.07	0.07
1985		0.10	0.19	0.05 ± 0.02	0.09 ± 0.09	0.09	0.09
1986		0.11 ± 0.08	0.08	0.05 ± 0.03	0.04 ± 0.03	0.08 ± 0.04	0.08 ± 0.04
1987	0.10	0.06 ± 0.06	0.18	0.03 ± 0.02	0.02	0.09 ± 0.03	0.09 ± 0.03
<b>All species combined<sup>a</sup></b>							
1982		0.24 ± 0.13	0.41 ± 0.25	0.12 ± 0.04	0.49 ± 0.27	0.30 ± 0.10	0.30 ± 0.10
1983		0.92 ± 0.54	0.41 ± 0.22	0.15 ± 0.10	0.68 ± 0.40	0.39 ± 0.16	0.39 ± 0.16
1984		0.24 ± 0.14	0.36 ± 0.11	0.23 ± 0.10	0.34 ± 0.20	0.27 ± 0.09	0.27 ± 0.09
1985		0.20 ± 0.11	0.44 ± 0.17	0.13 ± 0.04	0.15 ± 0.11	0.20 ± 0.06	0.20 ± 0.06
1986		0.24 ± 0.13	0.31 ± 0.13	0.13 ± 0.09	0.10 ± 0.06	0.21 ± 0.08	0.21 ± 0.08
1987	0.47 ± 0.26	0.07 ± 0.07	0.41 ± 0.18	0.12 ± 0.07	0.08 ± 0.06	0.27 ± 0.08	0.27 ± 0.08

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual totals.<sup>b</sup>This species is included in other species in this year.

Table J.12. Mean catch rates of fishes (No./man-h)  $\pm$  1 SE caught by private-boat fishermen in the EEZ during the low-use season by species and area (1982-1988). Blank = no fishermen interviewed.

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide <sup>a</sup>
<b>Atlantic croaker</b>						
1982-83		0.03 $\pm$ 0.03	<.01 $\pm$ <.01	0.00	0.00	0.01 $\pm$ 0.01
1983-84			<.01 $\pm$ <.01		0.00	<.01 $\pm$ <.01
1984-85			0.00		0.00	0.00
1985-86		0.00	0.00	0.00	0.00	0.00
1986-87		<.01 $\pm$ <.01	0.00	0.00	0.01 $\pm$ 0.01	<.01 $\pm$ <.01
1987-88		0.00	0.00	0.00	0.00	0.00
<b>Atlantic sharpnose shark</b>						
1982-83 <sup>b</sup>					0.00	0.00
1983-84			0.00		0.00	0.00
1984-85			0.00		0.44 $\pm$ 0.44	0.16 $\pm$ 0.16
1985-86		0.00	0.00	0.00	0.00	0.00
1986-87		0.00	0.00	0.00	0.00	0.00
1987-88		0.00	0.00	0.00	0.00	0.00
<b>Cobia</b>						
1982-83		0.00	0.00	0.00		0.00
1983-84			0.00		0.00	0.00
1984-85			0.00		0.00	0.00
1985-86		0.00	0.00	0.00	0.00	0.00
1986-87		0.00	0.00	0.00	0.00	0.00
1987-88		0.00	0.00	0.00	0.00	0.00
<b>King mackerel</b>						
1982-83		0.00	0.00	0.00	0.00	0.00
1983-84			0.00		0.00	0.00
1984-85			0.02 $\pm$ 0.02		0.00	0.02 $\pm$ 0.02
1985-86		0.00	0.00	0.00	0.00	0.00
1986-87		0.00	<.01 $\pm$ <.01	0.00	0.00	<.01 $\pm$ <.01
1987-88		0.00	0.00	0.00	0.00	0.00

Table J.12. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Red drum</b>						
1982-83		0.00	<.01 ± <.01	0.00	0.00	<.01 ± <.01
1983-84			0.02 ± 0.01		0.00	<.01 ± <.01
1984-85			0.00		0.00	0.00
1985-86		0.04 ± 0.04	<.01 ± <.01	0.00	0.00	0.02 ± 0.02
1986-87		0.00	0.01 ± 0.01	0.00	0.00	0.01 ± <.01
1987-88		0.01 ± 0.01	0.00	0.00	0.00	<.01 ± <.01
<b>Red snapper</b>						
1982-83		0.49 ± 0.49	2.72 ± 2.60	0.10 ± 0.10		1.70 ± 1.50
1983-84			0.48 ± 0.31		0.00	0.10 ± 0.09
1984-85			0.62 ± 0.52		0.30 ± 0.30	0.50 ± 0.36
1985-86		1.92 ± 1.79	0.14 ± 0.14	0.00	0.91 ± 0.91	1.18 ± 0.97
1986-87		0.55 ± 0.55	0.37 ± 0.28	0.00	1.49 ± 1.49	0.60 ± 0.38
1987-88		0.34 ± 0.34	0.00	1.41 ± 1.41	0.63 ± 0.63	0.97 ± 0.94
<b>Sand seatrout</b>						
1982-83		6.24 ± 6.24	0.42 ± 0.35	0.00		2.07 ± 1.90
1983-84			1.07 ± 0.71		0.00	0.22 ± 0.19
1984-85			0.05 ± 0.05		0.00	0.03 ± 0.03
1985-86		0.03 ± 0.03	0.12 ± 0.12	0.00	0.00	0.05 ± 0.04
1986-87		0.04 ± 0.04	0.21 ± 0.16	0.00	0.00	0.11 ± 0.08
1987-88		0.03 ± 0.03	0.00	0.00	0.00	<.01 ± <.01
<b>Spanish mackerel</b>						
1982-83		0.00	0.00	0.00		0.00
1983-84			0.00		0.00	0.00
1984-85			0.00		0.00	0.00
1985-86		0.00	0.00	0.00	0.00	0.00
1986-87		0.00	0.00	0.00	0.00	0.00
1987-88		0.00	0.00	0.00	0.00	0.00

Table J.12. (Cont'd.)

Species Year	Area						Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre		
<b>Spotted seatrout</b>							
1982-83		0.00	0.00	0.00	0.00		0.00
1983-84			0.00			0.00	0.00
1984-85			0.00			0.00	0.00
1985-86		0.00	0.00	0.00	0.00	0.00	0.00
1986-87		0.00	0.00	0.00	0.00	0.00	0.00
1987-88		0.00	0.00	0.00	0.00	0.00	0.00
<b>Vermillion snapper</b>							
1982-83 <sup>b</sup>							
1983-84			0.00			0.00	0.00
1984-85			0.00			0.00	0.00
1985-86		0.00	0.00	0.00	0.00	0.00	0.00
1986-87		0.00	0.00	0.00	0.00	0.00	0.00
1987-88		0.00	0.00	0.00	0.00	0.00	0.00
<b>Other species</b>							
1982-83		0.03 ± 0.03	0.09 ± 0.08	0.12 ± 0.12			0.08 ± 0.05
1983-84			0.14			0.00	0.03
1984-85			0.72			0.07 ± 0.07	0.48
1985-86		0.31	0.04	0.00	0.00	0.39 ± 0.39	0.22
1986-87		0.06 ± 0.06	0.40	0.00	0.00	0.03 ± 0.02	0.21
1987-88		0.10	0.55 ± 0.55	0.08 ± 0.08		0.32 ± 0.32	0.18 ± 0.15
<b>All species combined<sup>a</sup></b>							
1982-83		6.78 ± 6.78	3.24 ± 2.90	0.22 ± 0.18			3.86 ± 2.87
1983-84			1.71 ± 1.05			0.00	0.36 ± 0.30
1984-85			1.42 ± 1.13				1.19 ± 0.78
1985-86		2.29 ± 2.12	0.30 ± 0.29	0.00		0.82 ± 0.73	1.47 ± 1.16
1986-87		0.64 ± 0.63	0.99 ± 0.75	0.00		1.30 ± 1.50	2.94 ± 0.54
1987-88		0.48 ± 0.48	0.55 ± 0.55	1.49 ± 1.49		0.95 ± 0.95	1.15 ± 1.06

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual totals.<sup>b</sup>This species is included in other species in this year.



Table J.13. Percent composition of "other" species caught by private-boat fishermen in the EEZ by area and season (1983-1988).

Year Season	Common name	Scientific name	Area					Coastwide	
			Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre		
1983-84									
High use	Atlantic bonito	<u>Sarda sarda</u>			1.07			0.85	1.92
	Atlantic spadefish	<u>Chaetodipterus faber</u>	3.85						3.85
	Black drum	<u>Pogonias cromis</u>	1.50		0.21				1.71
	Blacktip shark	<u>Carcharhinus limbatus</u>			1.28	0.64		0.43	2.35
	Bluefish	<u>Pomatomus saltatrix</u>	2.99		0.21				3.21
	Blue runner	<u>Caranx crysos</u>	6.84		2.56	0.43		0.43	10.26
	Cero	<u>Scomberomorus regalis</u>			0.21				0.21
	Crevalle jack	<u>Caranx hippos</u>	0.64		1.28	2.99			4.91
	Dolphin	<u>Coryphaena hippurus</u>	9.83		13.03	7.48		0.64	30.98
	Dusky shark	<u>Carcharhinus obscurus</u>				1.50			1.50
	Gray snapper	<u>Lutjanus griseus</u>				0.85			0.85
	Gray triggerfish	<u>Balistes capricus</u>			2.78	0.85			3.63
	Great barracuda	<u>Sphyræna barracuda</u>				0.21		0.21	0.43
	Greater amberjack	<u>Seriola dumerili</u>	0.43		5.34				5.77
	Gulf kingfish	<u>Menticirrhus littoralis</u>	0.21			0.43			0.64
	Hardhead	<u>Arius felis</u>	0.21						0.21
	Ladyfish	<u>Elops saurus</u>			0.21				0.21
	Lane snapper	<u>Lutjanus synagris</u>	1.50		0.21		0.21		1.92
	Little tunny	<u>Euthynnus alletteratus</u>	0.21		0.21		3.63		4.06
	Mackerels sp.	Family Scombridae				0.43			0.43
	Ocellated flounder	<u>Ancylopsetta quadrocellata</u>	0.21						0.21
	Pigfish	<u>Orthopristis chrysoptera</u>	0.21				0.43		0.64
	Pinfish	<u>Lagodon rhomboides</u>			0.21				0.85
	Rainbow runner	<u>Elagalis bipinnulata</u>			0.21				0.43
	Remora sp.	Family Echeineidae	0.21						0.21
	Requiem sharks	Family Carcharhinidae					2.78		2.78
	Rock hind	<u>Epinephelus adscensionis</u>					0.64		0.64
	Rock sea bass	<u>Centropristis philadelphica</u>					1.92		1.92
	Sailfish	<u>Istiophorus platypterus</u>					0.64		0.64
	Sandbar shark	<u>Carcharhinus plumbeus</u>						0.21	0.21
	Scamp	<u>Myceroperca phenax</u>			0.21				0.21
	Sheepshead	<u>Archosargus probatocephalus</u>	0.64		5.13			0.43	5.77
	Silver seatrout	<u>Cynoscion nothus</u>							0.43
	Snowy grouper	<u>Epinephelus niveatus</u>					0.21		0.21
	Southern flounder	<u>Paralichthys lethostigma</u>					0.21		0.21
	Southern kingfish	<u>Menticirrhus americanus</u>	0.21		2.35				2.56

Table J.13. (Cont'd.)

Year Season	Common name	Scientific name	Area						
			Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide	
Low use	Spinner shark	<u>Carcharhinus brevipinna</u>			0.64	0.21		0.85	
	Wahoo	<u>Acanthocybium solanderi</u>				0.64		0.64	
	Warsaw grouper	<u>Epinephelus nigritus</u>	0.43		0.64		0.21	1.28	
Low use	Black drum	<u>Pogonius cromis</u>			15.38			15.38	
	Gulf kingfish	<u>Menticirrhus littoralis</u>			50.77			50.77	
	Pigfish	<u>Orthopristis chrysoptera</u>			3.08			3.08	
	Pinfish	<u>Lagodon rhomboides</u>			3.08			3.08	
	Rock hind	<u>Epinephelus adscensionis</u>			3.08			3.08	
	Silver seatrout	<u>Cynoscion nothus</u>			10.77			10.77	
	Southern kingfish	<u>Menticirrhus americanus</u>			6.15			6.15	
	Warsaw grouper	<u>Epinephelus nigritus</u>			7.69			7.69	
	1984-85 High use	Atlantic bonito	<u>Sarda sarda</u>			3.74			3.74
		Atlantic spadefish	<u>Chaetodipterus faber</u>			2.55			5.27
Blackfin tuna		<u>Thunnus atlanticus</u>	0.68		0.17	2.04		1.36	
Blacktip shark		<u>Carcharhinus limbatus</u>		0.17	0.17	1.19	1.19	1.53	
Black drum		<u>Pogonius cromis</u>		0.34	7.99			8.33	
Bluefish		<u>Pomatomus saltatrix</u>		7.65	2.21			10.03	
Blue runner		<u>Caranx crysos</u>			1.19	1.70	1.19	4.08	
Cero		<u>Scomberomorus regalis</u>			0.17			0.17	
Crevalle jack		<u>Caranx hippos</u>			0.85	1.53		2.38	
Dolphin		<u>Coryphaena hippurus</u>		0.34	8.16	15.14		25.17	
Finetooth shark		<u>Carcharhinus isodon</u>			0.17			0.17	
Gray triggerfish		<u>Balistes capricus</u>			1.19			1.36	
Great barracuda		<u>Sphyrnaea barracuda</u>			0.85	0.34	0.17	1.36	
Greater amberjack		<u>Seriola dumerilii</u>			2.21	4.25		6.46	
Harvestfish		<u>Peprilus alepidotus</u>			0.17			0.17	
Jacks sp.		Family Carangidae			0.17	0.17		0.17	
Ladyfish		<u>Elops saurus</u>			0.17			0.17	
Lane snapper		<u>Lutjanus synagris</u>	0.17		0.51	0.17		0.85	
Little tunny		<u>Euthynnus alletteratus</u>	0.17		0.85	3.23	2.89	7.14	
Pigfish		<u>Orthopristis chrysoptera</u>			0.34	0.51		0.85	
Pinfish		<u>Lagodon rhomboides</u>			0.17			0.17	
Pompano dolphin		<u>Coryphaena equisetis</u>			1.87			2.04	
Rainbow runner		<u>Elagatis bipinnulata</u>			1.19		0.17	1.19	

Table J.13. (Cont'd.)

Year Season	Common name	Scientific name	Area					
			Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
	Red hind	<u>Epinephelus guttatus</u>				0.17		0.17
	Requiem sharks	Family <u>Carcharhinidae</u>				0.34		0.34
	Rock hind	<u>Epinephelus adscensionis</u>		0.34	0.17	0.17		0.68
	Rock sea bass	<u>Centropristis philadelphica</u>				0.17		0.17
	Sailfish	<u>Istiophorus platyterus</u>			0.17		0.17	0.34
	Scalloped hammerhead	<u>Sphyrna lewini</u>					0.17	0.17
	Sheepshead	<u>Archosargus probatocephalus</u>		0.85				1.19
	Silver seatrout	<u>Cynoscion nothus</u>		0.51	2.72		5.10	8.33
	Smalltail shark	<u>Carcharhinus porosus</u>			0.17			0.17
	Southern flounder	<u>Paralichthys lethostigma</u>			0.17		0.34	2.21
	Southern kingfish	<u>Menticirrhus americana</u>			0.17	1.70		0.17
	Southern stingray	<u>Dasyatis americana</u>			0.17			0.17
	Tarpon	<u>Megalops atlanticus</u>				0.17		0.17
	Tomtate	<u>Haemulon aurolineatum</u>				0.17		0.17
	Wahoo	<u>Ancanthocybium solanderi</u>				0.17		0.17
	Warsaw grouper	<u>Epinephelus nigritus</u>					0.17	0.17
	White marlin	<u>Tetrapturus albidus</u>					0.17	0.17
	Yellowfin tuna	<u>Thunnus albacores</u>					0.17	0.17
Low use	Atlantic bonito	<u>Sarda sarda</u>			0.88			0.88
	Black drum	<u>Pogonius cromis</u>			10.62			10.62
	Dolphin	<u>Coryphaena hippurus</u>			45.13			45.13
	Gag	<u>Mycteroperca microlepis</u>			0.88			0.88
	Gray triggerfish	<u>Balistes capricus</u>					1.77	1.77
	Silver seatrout	<u>Cynoscion nothus</u>			36.28		2.65	38.94
	Southern kingfish	<u>Menticirrhus americanus</u>			1.77			1.77
1985-86	Almaco jack	<u>Seriola rivirolana</u>			0.30		1.88	2.18
High use	Atlantic bonito	<u>Sarda sarda</u>		0.75	0.38		0.23	1.35
	Atlantic spadefish	<u>Chaetodipterus faber</u>		1.58	2.33		0.15	4.06
	Banded shrimp eel	<u>Opichthus sp.</u>					0.08	0.08
	Black drum	<u>Pogonias cromis</u>		0.08	1.58		0.08	1.73
	Blackfin tuna	<u>Thunnus atlanticus</u>					0.23	1.05
	Blacktip shark	<u>Carcharhinus limbatus</u>		0.60	0.08		0.83	0.90
	Bluefin tuna	<u>Thunnus thynnus</u>					0.23	0.90
							0.15	0.15

Table J.13. (Cont'd.)

Year Season	Common name	Scientific name	Area					
			Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
	Bluefish	<u>Pomatomis saltatrix</u>		0.90	0.30			1.20
	Blue runner	<u>Caranx crysos</u>			0.23	0.08	0.08	0.30
	Bull shark	<u>Carcharhinus leucas</u>		0.15	0.08	0.08	0.08	0.30
	Cero	<u>Scomberomorus regalis</u>			0.08			0.08
	Crevalle jack	<u>Caranx hippos</u>		0.45	0.08	0.15		0.68
	Dolphins sp.	Family <u>Coryphaenidae</u>			0.53			0.53
	Dolphin	<u>Coryphaena hippurus</u>		12.32	13.52	10.67		36.51
	Florida pompano	<u>Trachinotus carolinus</u>			1.20			1.20
	Gag	<u>Mycteroperca microlepis</u>			0.08			0.08
	Gray triggerfish	<u>Balistes carpicus</u>			0.75	0.75	0.75	1.50
	Great barracuda	<u>Sphyrna barracuda</u>		0.08	0.75	0.68		1.50
	Great hammerhead	<u>Sphyrna mokarrai</u>		0.08				0.08
	Greater amberjack	<u>Seriola dumerilii</u>		0.68	1.50	2.10		4.28
	Gulf toadfish	<u>Opsanus beta</u>			0.08			0.08
	Hardhead catfish	<u>Arius felis</u>						0.08
	Horseeye jack	<u>Caranx latus</u>			0.08	0.08		0.08
	Jacks sp.	Family <u>Carangidae</u>			0.08			0.08
	Jewfish	<u>Epinephalus itajara</u>				0.08		0.08
	Lane snapper	<u>Lutjanus synagris</u>			0.15			0.15
	Little tunny	<u>Ethynnus alletteratus</u>		1.50	2.85	0.90	3.01	8.26
	Mackerels sp.	Family <u>Scombridae</u>			0.08			0.08
	Pigfish	<u>Orthopristis chrysoptera</u>		0.30	0.53	0.15		0.98
	Pinfish	<u>Lagodon rhomboides</u>		0.23	0.08			0.30
	Pompano dolphin	<u>Coryphaena equisetis</u>			1.13			1.13
	Rainbow runner	<u>Elagatis bipinnulata</u>			0.08			0.08
	Remora	<u>Remora remora</u>				0.15		0.15
	Requiem sharks	Family <u>Carcharhinidae</u>			0.30			0.60
	Rock hind	<u>Epinephalus adscensionis</u>		0.08		0.15		0.23
	Rock sea bass	<u>Centropristis philadelphica</u>				0.08		0.08
	Sailfish	<u>Istiophorus platypterus</u>				0.30	0.08	0.38
	Sandbar shark	<u>Carcharhinus plumbeus</u>				0.98		0.98
	Scalloped hammerhead	<u>Sphyrna lewini</u>			0.15			0.15
	Scamp	<u>Mycteroperca phenax</u>				0.30	0.08	0.38
	Sheepshead	<u>Archosargus probatocephalus</u>			0.15	0.08		0.23
	Silky shark	<u>Carcharhinus falciiformis</u>		0.08				0.08
	Smooth dogfish	<u>Mustelus canis</u>		0.30				0.30
	Silver seatrout	<u>Cynoscion nothus</u>		0.08	20.59		0.08	20.74
	Snappers sp.	Family <u>Lutjanidae</u>			1.88			1.88

Table J.13. (Cont'd.)

Year Season	Common name	Scientific name	Area					Coastwide
			Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Low use	Southern flounder	<u>Paralichthys lethostigma</u>		0.23				0.23
	Southern kingfish	<u>Menticirrhus americanus</u>			0.15			0.15
	Tripletail	<u>Lobotes surinamensis</u>		0.30				0.30
	Wahoo	<u>Acanthocybium solanderi</u>			0.08			0.08
	Warsaw grouper	<u>Epinephelus nigritus</u>		0.15	0.60	0.45		1.20
	Black drum	<u>Pogonias cromis</u>		1.64	3.28			4.92
	Bluefish	<u>Pomatomus saltatrix</u>		1.64				1.64
	Gray triggerfish	<u>Balistes caprisicus</u>		4.92			9.84	14.75
	Greater amberjack	<u>Seriola dumerili</u>			1.64			1.64
	Grunts sp.	Family Haemulidae		14.75				14.75
Jewfish	<u>Epinephelus itajara</u>		1.64				1.64	
Little tunny	<u>Euthynnus alletteratus</u>				3.28		3.28	
Pigfish	<u>Orthopristis chrysoptera</u>		14.75				14.75	
Pinfish	<u>Lagodon rhomboides</u>		1.64				1.64	
Rock hind	<u>Epinephelus adscensionis</u>			4.92			4.92	
Scamp	<u>Myceterperca phenax</u>					4.92	4.92	
Silver seatrout	<u>Cynoscion nothus</u>		19.67				19.67	
Warsaw grouper	<u>Epinephelus nigritus</u>		9.84	1.64			11.48	
1986-87 High use	Almaco jack	<u>Seriola rivirolana</u>			1.63		0.18	1.81
	Atlantic bonito	<u>Sarda sarda</u>			0.36		0.36	0.72
	Atlantic spadefish	<u>Chaetodipterus faber</u>			4.16		4.52	12.30
	Bearded brotula	<u>Brotula barbata</u>		3.62			0.18	0.18
	Black drum	<u>Pogonius cromis</u>			0.54			0.54
	Blackfin tuna	<u>Thunnus atlanticus</u>					0.18	0.18
	Blacktip shark	<u>Carcharhinus limbatus</u>			3.25		0.54	4.16
	Blue runner	<u>Caranx crysos</u>		0.36			0.18	2.53
	Bluefish	<u>Pomatomus saltatrix</u>		0.18	1.63		0.54	0.90
	Blue gill	<u>Lepomis macrochirus</u>		0.18	0.72		0.18	3.25
	Bonnethead	<u>Sphyrna tiburo</u>			0.18			0.18
	Bull shark	<u>Carcharhinus leucas</u>					0.18	0.18
	Cero	<u>Scomberomorus regalis</u>			0.36			0.36
	Crevalle jack	<u>Caranx hippos</u>		1.81			1.27	3.80
	Dolphin	<u>Coryphaena hippurus</u>		11.75			9.22	29.11
	Finetooth shark	<u>Carcharhinus isodon</u>			7.78		0.36	0.18

Table J.13. (Cont'd.)

Year Season	Common name	Scientific name	Area					Coastwide
			Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
	Florida pompano	<u>Trachinotus carolinus</u>			0.18			0.18
	Gafftopsail catfish	<u>Bagre marinus</u>			0.90			0.90
	Gray triggerfish	<u>Balistes capricus</u>			5.61	0.54		6.15
	Great barracuda	<u>Sphyræna barracuda</u>			0.72	0.18		0.90
	Greater amberjack	<u>Seriola dumerili</u>			10.85	1.63		12.66
	Guaguanche	<u>Sphyræna guachancho</u>		0.18		0.18		0.18
	Hardhead catfish	<u>Arius felis</u>				0.36		0.36
	Jacks sp.	Family Carangidae			0.36	0.18		0.54
	Ladyfish	<u>Elops saurus</u>			0.18	0.18		0.36
	Lane snapper	<u>Lutjanus synagris</u>		0.18	0.36	0.36		0.90
	Lemon shark	<u>Negaprion brevirostris</u>						0.18
	Little tunny	<u>Euthynnus alletteratus</u>				0.72	0.54	4.34
	Pigfish	<u>Orthopristis chrysoptera</u>		2.71	0.90			0.90
	Pintfish	<u>Lagodon rhomboides</u>			0.18	0.18		0.36
	Pompano dolphin	<u>Coryphaena equisetis</u>					0.18	0.18
	Queen triggerfish	<u>Balistes vetula</u>			0.36			0.36
	Rainbow runner	<u>Elagatis bipinnulata</u>			0.18			0.18
	Requiem sharks	Family Carcharhinidae			0.18			0.18
	Rock hind	<u>Epinephelus adscensionis</u>			0.54			0.54
	Sailfish	<u>Istiophorus platypterus</u>			0.18		0.18	0.36
	Sea basses sp.	Family Serranidae			0.36			0.36
	Sea catfishes	Family Arridae				0.18		0.18
	Scalloped hammerhead	<u>Sphyrna lewini</u>					0.18	0.18
	Sheepshead	<u>Archosargus probatocephalus</u>			1.63			1.63
	Silver seatrout	<u>Cynoscion nothus</u>		2.35	0.36			2.71
	Southern flounder	<u>Paralichthys lethostigma</u>			0.54			0.54
	Southern kingfish	<u>Menticirrhus americanus</u>						1.27
	Spotted spoon-nose eel	<u>Echiophis intertinctus</u>		1.27	0.18			0.18
	Tomtate	<u>Haemulon aurolineatum</u>						0.18
	Warsaw grouper	<u>Epinephelus nigritus</u>			0.72		0.18	0.18
	Yellowtail snapper	<u>Ocyurus chrysurus</u>			0.18			0.18
Low use	Atlantic bonito	<u>Sarda sarda</u>			1.83			1.83
	Black drum	<u>Pogonius cromis</u>			12.84			12.84
	Bluefish	<u>Pomatomus saltatrix</u>						3.67
	Bony fishes sp.	Class Osteichthyes		3.67	0.92			0.92
	Crevalle Jack	<u>Caranx hippos</u>			0.92			0.92

Table J.13. (Cont'd.)

Year Season	Common name	Scientific name	Area					Coastwide	
			Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre		
	Gray snapper	<u>Lutjanus griseus</u>			32.11			0.92	0.92
	Greater amberjack	<u>Seriola dumerili</u>							32.11
	Pigfish	<u>Orthopristis chrysoptera</u>		0.92					0.92
	Pompano dolphin	<u>Coryphaena equisetis</u>			17.43				17.43
	Requiem sharks	Family <u>Carcharhinidae</u>			2.75				2.75
	Rock hind	<u>Epinephalus adscensionis</u>			4.59				4.59
	Sheepshead	<u>Archosargus probatocephalus</u>			7.34				7.34
	Silver seatrout	<u>Cynoscion nothus</u>						0.92	0.92
	Southern kingfish	<u>Menticirrhus americanus</u>			1.83				1.83
	Wahoo	<u>Acanthocybium solanderi</u>						0.92	0.92
	Warsaw grouper	<u>Epinephalus nigritus</u>		2.75	6.42				9.17
1987-88									
High use	Atlantic bonito	<u>Sarda sarda</u>	0.39						0.39
	African pompano	<u>Alectis alalis</u>	0.13						0.13
	Atlantic spadefish	<u>Chaetodipterus faber</u>	6.4	1.05			0.26		7.45
	Black drum	<u>Pogonias cromis</u>	1.05						1.57
	Blackfin tuna	<u>Thunnus atlanticus</u>			0.26				0.26
	Blacktip shark	<u>Carcharhinus limbatus</u>	4.05	0.13					0.13
	Blue runner	<u>Caranx crysos</u>		0.26	2.09			0.39	6.67
	Bluefish	<u>Pomatomus saltatrix</u>	2.09	1.70	0.39				0.65
	Bonnethead	<u>Sphyrna tiburo</u>	0.13	0.13	1.44				5.23
	Bull shark	<u>Carcharhinus leucas</u>	0.13	0.39	0.26				0.52
	Cero	<u>Scomberomorus regalis</u>						0.13	0.52
	Crevalle jack	<u>Caranx hippos</u>			0.13				0.13
	Dolphins sp.	Family <u>Coryphaenidae</u>			0.26			0.65	0.92
	Dolphin	<u>Coryphaena hippurus</u>			0.39				0.39
	Dusky shark	<u>Carcharhinus obscurus</u>	0.65	2.22	32.42			3.66	39.08
	Florida pompano	<u>Trachinotus carolinus</u>						0.13	0.13
	Gafftopsail catfish	<u>Bagre marinus</u>	0.92	0.92	0.13				1.96
	Gray triggerfish	<u>Balistes capricus</u>	1.31		0.39				1.70
	Great hammerhead	<u>Sphyrna mokarran</u>	1.31	2.22	1.83				5.36
	Greater amberjack	<u>Seriola dumerili</u>	0.13						0.13
	Gulf flounder	<u>Paralichthys albigutta</u>	0.52		4.31				4.84
	Gulf kingfish	<u>Menticirrhus littoralis</u>							0.13
	Great barracuda	<u>Sphyrna barracuda</u>		0.13	0.26				0.26
	Hardhead catfish	<u>Arius felis</u>	0.26		1.05				1.05

Table J.13. (Cont'd.)

Year Season	Common name	Scientific name	Area					
			Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
	Jewfish	<u>Epinephelus itajara</u>			0.13			0.13
	Ladyfish	<u>Elops saurus</u>	0.26					0.26
	Lane snapper	<u>Lutjanus synagris</u>	0.13	0.13	0.65		0.13	1.05
	Little tunny	<u>Euthynnus alletteratus</u>	0.39	0.78	1.96		0.39	3.53
	Pigfish	<u>Orthopristis chrysoptera</u>		0.13				0.13
	Pinfish	<u>Lagodon rhomboides</u>		0.13				0.13
	Pompano dolphin	<u>Coryphaena equisetis</u>			1.57			1.57
	Requiem sharks	Family <u>Carcharhinidae</u>	0.65	1.57	0.26			2.48
	Rock hind	<u>Epinephalus adscensionis</u>			0.13		0.13	0.26
	Rock sea bass	<u>Centropristis philadelphica</u>			0.13			0.13
	Sand tigers sp.	Family <u>Odontaspidae</u>	1.31					1.31
	Sea basses sp.	Family <u>Serranidae</u>		0.13			0.26	0.39
	Scalloped hammerhead	<u>Sphyrna lewini</u>					0.13	0.13
	Sheepshead	<u>Archosargus probatocephalus</u>	0.65		1.05			1.70
	Southern kingfish	<u>Menticirrhus americanus</u>		0.13	0.13			0.26
	Southern flounder	<u>Paralichthys lethostigma</u>	1.05	0.26	1.31			2.61
	Speckled hind	<u>Epinephelus drummondhayi</u>			0.13			0.13
	Spotted pinfish	<u>Diplodus holbrooki</u>			0.13			0.13
	Tripletail	<u>Lobotes surinamensis</u>			0.13			0.13
	Wahoo	<u>Acanthocybium solanderi</u>			0.13			0.13
	Warsaw grouper	<u>Epinephalus nigritus</u>			3.79			3.79
Low use	Atlantic spadefish	<u>Chaetodipterus faber</u>					2.13	2.13
	Black drum	<u>Pogonias cromis</u>		2.13				2.13
	Gray triggerfish	<u>Balistes capricus</u>		4.26			6.38	10.64
	Gulf kingfish	<u>Menticirrhus littoralis</u>			48.94			48.94
	Pigfish	<u>Orthopristis chrysoptera</u>		21.28				21.28
	Southern flounder	<u>Paralichthys lethostigma</u>		2.13				2.13
	Warsaw grouper	<u>Epinephalus nigritus</u>		4.26			6.38	12.77



Table J.14. Pressure estimates (man-h x 1000)  $\pm$  1 SE for private-boat fishermen in the EEZ by season and area (1982-1988).

Area	Year	High-use season	Low-use season	Annual
Sabine Lake	1987-88	10.5 $\pm$ 3.8	0.1 $\pm$ 0.1	10.6 $\pm$ 3.8
Galveston	1982-83	86.5 $\pm$ 52.3	5.4 $\pm$ 5.4	91.9 $\pm$ 37.8
	1983-84	41.8 $\pm$ 14.3	0.0	41.8 $\pm$ 14.3
	1984-85	30.5 $\pm$ 11.1	0.0	30.5 $\pm$ 11.1
	1985-86	106.8 $\pm$ 40.1	7.7 $\pm$ 5.3	114.5 $\pm$ 40.4
	1986-87	92.6 $\pm$ 31.7	6.0 $\pm$ 4.9	98.6 $\pm$ 32.0
	1987-88	38.8 $\pm$ 19.5	2.8 $\pm$ 2.8	41.7 $\pm$ 19.7
Matagorda	1982-83	65.2 $\pm$ 9.7	4.5 $\pm$ 1.4	69.7 $\pm$ 6.9
	1983-84	23.9 $\pm$ 8.3	4.9 $\pm$ 2.1	28.8 $\pm$ 8.6
	1984-85	23.4 $\pm$ 4.6	6.0 $\pm$ 3.8	29.4 $\pm$ 6.0
	1985-86	33.9 $\pm$ 9.0	4.6 $\pm$ 3.5	38.5 $\pm$ 9.7
	1986-87	24.0 $\pm$ 7.3	8.3 $\pm$ 4.3	32.3 $\pm$ 8.5
	1987-88	62.2 $\pm$ 17.9	4.2 $\pm$ 3.2	66.4 $\pm$ 18.2
Corpus Christi	1982-83	74.8 $\pm$ 10.5	4.6 $\pm$ 2.0	79.4 $\pm$ 8.2
	1983-84	114.7 $\pm$ 52.9	0.0	114.7 $\pm$ 52.9
	1984-85	84.6 $\pm$ 21.7	0.0	84.6 $\pm$ 21.7
	1985-86	102.8 $\pm$ 18.1	0.4 $\pm$ 0.4	103.2 $\pm$ 18.1
	1986-87	39.0 $\pm$ 15.1	0.4 $\pm$ 0.4	39.4 $\pm$ 15.1
	1987-88	67.1 $\pm$ 28.9	13.8 $\pm$ 13.8	80.9 $\pm$ 32.0
Lower Laguna Madre	1982-83	17.9 $\pm$ 5.1	0.0	17.9 $\pm$ 5.1
	1983-84	16.8 $\pm$ 7.7	18.6 $\pm$ 18.6	35.4 $\pm$ 20.1
	1984-85	21.0 $\pm$ 8.6	3.6 $\pm$ 2.8	24.5 $\pm$ 9.0
	1985-86	9.6 $\pm$ 4.3	1.7 $\pm$ 1.7	11.3 $\pm$ 4.6
	1986-87	15.1 $\pm$ 7.9	2.9 $\pm$ 1.5	18.0 $\pm$ 8.0
	1987-88	3.7 $\pm$ 2.2	0.5 $\pm$ 0.5	4.2 $\pm$ 2.3

Table J.14. (Cont'd.)

Area	Year	High-use season		Low-use season		Annual
Coastwide <sup>a</sup>						
	1982-83	245.8 ± 60.2	14.4 ± 8.6	260.2 ± 43.6		
	1983-84	197.2 ± 56.0	23.5 ± 18.7	220.7 ± 59.0		
	1984-85	159.5 ± 26.3	9.5 ± 4.7	169.1 ± 26.7		
	1985-86	253.1 ± 45.1	14.4 ± 6.6	267.5 ± 45.6		
	1986-87	171.1 ± 36.7	17.7 ± 6.7	188.7 ± 37.3		
	1987-88	182.2 ± 39.6	21.3 ± 14.4	203.5 ± 42.1		

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual totals.

Table J.15. Number of days surveyed and number of private-boat fishermen interviewed ( ) in the EEZ by season and area (1982-1988).

Year Season	Area						Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre		
1982-83							
High use		97 (163)	170 (503)	176 (612)	78 (105)	521 (1383)	
Low use		36 (6)	72 (34)	72 (8)	36 (0)	216 (48)	
Annual		133 (169)	242 (537)	248 (620)	114 (105)	737 (1431)	
1983-84							
High use		95 (122)	129 (294)	141 (321)	97 (75)	462 (812)	
Low use		36 (0)	66 (72)	65 (0)	36 (3)	203 (75)	
Annual		131 (122)	195 (366)	206 (321)	133 (78)	665 (887)	
1984-85							
High use		96 (34)	127 (422)	136 (756)	97 (168)	456 (1380)	
Low use		36 (0)	61 (23)	65 (6)	36 (8)	199 (37)	
Annual		132 (34)	189 (445)	201 (762)	133 (176)	655 (1417)	
1985-86							
High use		97 (353)	128 (492)	140 (687)	97 (71)	462 (1603)	
Low use		36 (22)	62 (19)	66 (4)	36 (3)	200 (48)	
Annual		133 (375)	190 (511)	206 (691)	133 (74)	662 (1651)	
1986-87							
High use		97 (346)	129 (274)	151 (312)	97 (50)	474 (985)	
Low use		36 (23)	63 (35)	62 (5)	36 (15)	191 (78)	
Annual		133 (369)	192 (311)	213 (317)	133 (65)	804 (1065)	
1987-88							
High use	72 (165)	97 (144)	108 (334)	109 (253)	97 (17)	483 (913)	
Low use	36 (0)	34 (18)	47 (7)	51 (3)	36 (2)	204 (30)	
Annual	108 (165)	131 (162)	155 (341)	160 (256)	133 (19)	687 (943)	

Table J.16. Mean fishing-party size (No. of fishermen) and mean trip length (h) for private-boat fishermen in the EEZ by area season (1982-1988). Blank = no fishermen interviewed.

Area Year	Mean fishing-party size			Mean trip length		
	High-use season	Low-use season	Annual	High-use season	Low-use season	Annual
Sabine Lake 1987-88	3.0		3.0	9.4		9.4
Galveston 1982-83	3.1	1.7	3.0	7.9	8.2	8.0
1983-84	3.0		3.0	9.2		9.2
1984-85	3.0		3.0	7.0		7.0
1985-86	3.3	2.4	3.2	8.8	8.9	8.8
1986-87	3.3	3.3	3.3	8.4	7.0	8.4
1987-88	2.8	3.6	2.9	8.4	8.8	8.4
Matagorda 1982-83	3.1	2.6	3.1	8.2	7.7	8.1
1983-84	3.2	3.0	3.1	7.7	6.9	7.5
1984-85	3.2	2.6	3.2	8.0	6.5	7.9
1985-86	3.2	3.2	3.2	7.3	7.4	7.4
1986-87	3.4	2.9	3.3	8.8	7.4	8.6
1987-88	3.3	3.5	3.3	9.6	6.2	9.5
Corpus Christi 1982-83	3.2	2.7	3.2	7.1	8.0	7.1
1983-84	3.2		3.2	7.6		7.6
1984-85	3.3		3.3	6.9		6.9
1985-86	3.3	4.0	3.3	7.7	7.0	7.7
1986-87	2.9	5.0	2.9	7.5	8.0	7.5
1987-88	3.0	3.0	3.0	7.5	8.5	7.5
Lower Laguna Madre 1982-83	3.3		3.3	8.0		8.0
1983-84	2.6	3.0	2.6	7.8	10.0	7.8
1984-85	3.3	2.7	3.3	7.5	7.5	7.5
1985-86	3.7	3.0	3.7	7.6	9.5	7.7
1986-87	3.3	3.0	3.2	7.5	7.3	7.4
1987-88	2.4	2.0	2.4	10.2	9.5	10.1

Table J.16. (Cont'd.)

Area Year	Mean fishing-party size			Mean trip length		
	High-use season	Low-use season	Annual	High-use season	Low-use season	Annual
Coastwide						
1982-83	3.2	2.5	3.2	7.6	7.8	7.6
1983-84	3.1	3.0	3.1	7.9	7.0	7.8
1984-85	3.2	2.6	3.2	7.3	6.8	7.3
1985-86	3.3	2.8	3.3	7.8	8.3	7.8
1986-87	3.2	3.1	3.2	8.1	7.3	8.1
1987-88	3.1	3.3	3.1	8.8	8.3	8.8

Table J.17. Percent composition of the residential origin of private-boat fishermen-trips in the EEZ by area (1982-1988). Blank = no fishermen interviewed.

Area	Year <sup>a</sup>	Adjacent coastal countries	Non-adjacent coastal countries	Non-coastal countries	Other states and countries
Sabine Lake	1987-88				
	High use	90	5	1	4
	Low use				
	Annual	90	5	1	4
Galveston	1982-83				
	High use	100	0	0	0
	Low use	100	0	0	0
	Annual	100	0	0	0
1983-84	High use	89	0	7	3
	Low use				
	Annual	87	0	10	3
1984-85	High use	93	7	0	0
	Low use				
	Annual	93	7	0	0
1985-86	High use	88	1	11	1
	Low use	100	0	0	0
	Annual	89	1	10	1
1986-87	High use	86	3	10	2
	Low use	78	0	9	13
	Annual	85	2	9	3
1987-88	High use	92	1	5	1
	Low use	94	0	6	0
	Annual	93	1	5	1

Table J.17. (Cont'd.)

Area Year <sup>a</sup>	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
<b>Matagorda</b>				
<b>1982-83</b>				
High use	59	19	22	0
Low use	100	0	0	0
Annual	61	18	21	0
<b>1983-84</b>				
High use	42	25	30	3
Low use	47	26	26	0
Annual	43	25	29	3
<b>1984-85</b>				
High use	50	16	34	0
Low use	30	43	26	0
Annual	49	17	33	0
<b>1985-86</b>				
High use	53	18	28	1
Low use	79	21	0	0
Annual	54	18	27	1
<b>1986-87</b>				
High use	40	17	42	1
Low use	51	46	3	0
Annual	42	20	37	1
<b>1987-88</b>				
High use	38	25	35	2
Low use	0	100	0	0
Annual	38	27	34	2
<b>Corpus Christi</b>				
<b>1982-83</b>				
High use	28	16	55	1
Low use	62	37	0	0
Annual	28	16	55	1

Table J.17. (Cont'd.)

Area Year <sup>a</sup>	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
1983-84				
High use	26	26	44	3
Low use				
Annual	26	26	44	3
1984-85				
High use	18	17	62	2
Low use				
Annual	18	17	62	2
1985-86				
High use	24	13	61	2
Low use	0	100	0	0
Annual	24	13	60	2
1986-87				
High use	26	23	49	1
Low use	60	0	40	0
Annual	27	23	49	1
1987-88				
High use	24	13	62	2
Low use	0	0	100	0
Annual	24	12	62	2
Lower Laguna Madre				
1982-83				
High use	85	6	9	0
Low use				
Annual	85	6	9	0
1983-84				
High use	59	8	31	3
Low use	100	0	0	0
Annual	60	8	29	3



Table J.17. (Cont'd.)

Area Year <sup>a</sup>	Adjacent coastal countries	Non-adjacent coastal countries	Non-coastal countries	Other states and countries
1984-85				
High use	67	17	15	1
Low use	100	0	0	0
Annual	69	16	14	1
1985-86				
High use	65	10	17	8
Low use	100	0	0	0
Annual	66	9	16	8
1986-87				
High use	52	14	34	0
Low use	93	7	0	0
Annual	62	12	26	0
1987-88				
High use	65	24	12	0
Low use	100	0	0	0
Annual	68	21	11	0
Coastwide				
1982-83				
High use	52	14	33	1
Low use	94	6	0	0
Annual	54	14	32	1
1983-84				
High use	44	20	33	3
Low use	49	25	25	0
Annual	44	21	32	3
1984-85				
High use	38	16	44	1
Low use	48	31	19	0
Annual	38	17	44	1

Table J.17. (Cont'd.)

Area Year <sup>a</sup>	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
1985-86				
High use	49	11	38	2
Low use	83	17	0	0
Annual	50	12	37	2
1986-87				
High use	52	14	33	1
Low use	68	22	6	4
Annual	53	14	31	2
1987-88				
High use	53	14	31	2
Low use	63	23	13	0
Annual	53	15	30	2

<sup>a</sup> Prior to May 1983 all fishermen in a fishing party were assigned to the boat owner's residence.

Appendix K: Estimates for party-boat fishing in the Exclusive Economic Zone (EEZ) off Texas.





Table K.1. (Cont'd.)

Species Year	Area						Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre		
Other species							
1983-84		0.2 ± 0.2	<.1 ± <.1	14.8 ± 12.1	0.8 ± 0.4	15.8 ± 12.1	
1984-85		0.0	<.1 ± <.1	0.8 ± 0.3	1.4 ± 0.9	2.1 ± 1.0	
1985-86		0.2 ± 0.2	0.0	0.6	3.4 ± 2.4	4.2	
1986-87		0.9 ± 0.8	0.3 ± 0.3	2.1 ± 2.0	5.2 ± 2.9	8.5 ± 3.7	
1987-88	0.0	11.1 ± 11.0	0.1 ± 0.1	1.7 ± 1.7	5.6 ± 2.9	18.5 ± 11.5	
All species combined <sup>a</sup>							
1983-84		2.1 ± 2.0	0.1 ± 0.1	27.0 ± 14.5	4.3 ± 2.1	33.5 ± 14.8	
1984-85		0.0	0.1 ± 0.1	5.0 ± 2.4	1.6 ± 1.0	6.6 ± 2.6	
1985-86		1.1 ± 1.1	0.0	3.7 ± 2.5	4.0 ± 2.4	8.8 ± 3.6	
1986-87		2.7 ± 2.5	0.4 ± 0.4	3.3 ± 2.4	6.9 ± 3.2	13.3 ± 4.7	
1987-88	0.0	16.4 ± 14.8	0.6 ± 0.4	2.6 ± 2.3	7.7 ± 3.2	27.3 ± 15.3	

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual totals.

Table K.2. Estimated landings of fishes (No. x 1000) ± 1 SE caught by party-boat fishermen in the EEZ during the high-use season by species and area (1983-1987).

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Atlantic croaker</b>						
1983		0.0	0.0	0.0	0.0	0.0
1984		0.0	0.0	0.0	0.0	0.0
1985		0.0	0.0	0.0	0.0	0.0
1986		0.0	0.0	0.0	0.0	0.0
1987	0.0	0.0	0.0	0.0	0.0	0.0
<b>Atlantic sharpnose shark</b>						
1983		0.0	0.0	0.4 ± 0.4	0.0	0.4 ± 0.4
1984		0.0	0.0	0.0	0.0	0.0
1985		0.0	0.0	<.1 ± <.1	<.1 ± <.1	<.1 ± <.1
1986		<.1 ± <.1	0.0	0.1 ± 0.1	0.0	0.1 ± 0.1
1987	0.0	0.0	<.1 ± <.1	0.0	0.0	<.1 ± <.1
<b>Cobia</b>						
1983		0.0	0.0	0.0	0.0	0.0
1984		0.0	0.0	<.1 ± <.1	0.0	<.1 ± <.1
1985		0.0	0.0	<.1 ± <.1	0.0	<.1 ± <.1
1986		0.0	0.0	0.0	0.0	<.1 ± <.1
1987	0.0	0.0	0.0	0.0	0.0	0.0
<b>King mackerel</b>						
1983		1.6 ± 1.6	<.1 ± <.1	11.7 ± 7.2	0.2 ± 0.1	13.5 ± 7.5
1984		0.0	<.1 ± <.1	4.2 ± 2.2	<.1 ± <.1	4.2 ± 2.2
1985		0.3 ± 0.3	0.0	0.5 ± 0.4	<.1 ± <.1	0.8 ± 0.5
1986		1.6 ± 1.6	<.1 ± <.1	1.1 ± 0.9	0.7 ± 0.7	3.4 ± 1.9
1987	0.0	2.9 ± 2.5	0.1 ± 0.1	0.8 ± 0.6	0.3 ± 0.2	4.1 ± 2.6
<b>Red drum</b>						
1983		0.0	0.0	0.0	0.0	0.0
1984		0.0	0.0	0.0	0.0	0.0
1985		0.0	0.0	0.0	0.0	0.0
1986		0.0	0.0	0.0	0.0	0.0
1987	0.0	0.0	0.0	0.0	0.0	0.0





Table K.2. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Other species						
1983		0.2 ± 0.2	<.1 ± <.1	14.8 ± 12.1	0.8 ± 0.4	15.8 ± 12.1
1984		0.0	<.1 ± <.1	0.8 ± 0.3	0.5 ± 0.4	1.3 ± 0.5
1985		0.2 ± 0.2	0.0	0.6	3.4 ± 2.4	4.2
1986		0.9 ± 0.8	<.1 ± <.1	2.1 ± 2.0	4.7 ± 2.9	7.8 ± 3.6
1987	0.0	11.1 ± 11.0	0.2	1.7 ± 1.7	4.1 ± 2.5	17.0 ± 11.4
All species combined <sup>a</sup>						
1983		2.1 ± 2.0	0.1 ± 0.1	27.0 ± 14.5	4.3 ± 2.1	33.5 ± 14.8
1984		0.0	0.1 ± 0.1	5.0 ± 2.4	0.8 ± 0.5	5.8 ± 2.5
1985		1.1 ± 1.1	0.0	3.7 ± 2.5	4.0 ± 2.4	8.8 ± 3.6
1986		2.7 ± 2.5	<.1 ± <.1	3.3 ± 2.4	6.4 ± 3.1	12.5 ± 4.7
1987	0.0	16.4 ± 14.8	0.6 ± 0.4	2.6 ± 2.3	6.2 ± 2.9	25.8 ± 15.2

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual totals.

Table K.3. Estimated landings of fishes (No. x 1000)  $\pm$  1 SE caught by party-boat fishermen in the EEZ during the low-use season by species and area (1983-1988).

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide <sup>a</sup>
<b>Atlantic croaker</b>						
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.0	0.0
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.0
<b>Atlantic sharpnose shark</b>						
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.0	0.0
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.0
<b>Cobia</b>						
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.0	0.0
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.0
<b>King mackerel</b>						
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.0	0.0
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.0
<b>Red drum</b>						
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.0	0.0
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.0

Table K.3. (Cont'd.)

Species Year	Area					Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Red snapper</b>						
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.0	0.0
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	<.1 ± <.1	0.0	0.0	<.1 ± <.1
1987-88	0.0	0.0	0.0	0.0	0.0	0.0
<b>Sand seatrout</b>						
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.0	0.0
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.0
<b>Spanish mackerel</b>						
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.0	0.0
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.0
<b>Spotted seatrout</b>						
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.0	0.0
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.0
<b>Vermillion snapper</b>						
1983-84		0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.0	0.0
1985-86		0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.0

Table K.3. (Cont'd.)

Species Year	Area						Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre		
Other species							
1983-84		0.0	0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.0	0.8 ± 0.8	0.8 ± 0.8
1985-86		0.0	0.0	0.3 ± 0.3	0.0	0.0	0.0
1986-87		0.0	0.0	0.0	0.0	0.5 ± 0.5	0.8 ± 0.6
1987-88	0.0	0.0	0.0	0.0	1.5 ± 1.5	1.5 ± 1.5	1.5 ± 1.5
All species combined <sup>a</sup>							
1983-84		0.0	0.0	0.0	0.0	0.0	0.0
1984-85		0.0	0.0	0.0	0.0	0.8 ± 0.8	0.8 ± 0.8
1985-86		0.0	0.0	0.0	0.0	0.0	0.0
1986-87		0.0	0.4 ± 0.4	0.0	0.0	0.5 ± 0.5	0.8 ± 0.6
1987-88	0.0	0.0	0.0	0.0	1.5 ± 1.5	1.5 ± 1.5	1.5 ± 1.5

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual totals.

Table K.4. Annual mean total lengths of fishes (mm/fish)  $\pm$  1 SE caught by party-boat fishermen in the EEZ by species and area (1983-1988). Blank = no fish measured. No standard error = only 1 fish measured.

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
<b>Atlantic croaker</b>						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
<b>Atlantic sharpnose shark</b>						
1983-84						
1984-85					864	864
1985-86						
1986-87				940 $\pm$ 9		940
1987-88						
<b>Cobia</b>						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
<b>King mackerel</b>						
1983-84		974	1136	990 $\pm$ 23	832 $\pm$ 40	985 $\pm$ 139
1984-85			941	1001 $\pm$ 62	812	825 $\pm$ 75
1985-86		853		953	1130	919
1986-87		798	979	1039 $\pm$ 40	752	867 $\pm$ 78
1987-88		840 $\pm$ 254	1017 $\pm$ 39	906 $\pm$ 12	857 $\pm$ 63	860 $\pm$ 21
<b>Red drum</b>						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						

Table K.4. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Red snapper</b>						
1983-84			530		354	357 ± 177
1984-85					407	407
1985-86		454			340 ± 32	398 ± 245
1986-87			511		419	421 ± 5
1987-88			512 ± 10		363 ± 23	378 ± 28
<b>Sand seatrout</b>						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
<b>Spanish mackerel</b>						
1983-84		578		603 ± 8	588	588 ± 227
1984-85					714	588
1985-86		729				724
1986-87		416				416
1987-88		595	647	440		594 ± 1
<b>Spotted seatrout</b>						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
<b>Vermillion snapper</b>						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						

Table K.4. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
All species combined <sup>a</sup>						
1983-84		738 ± 236	768 ± 363	970 ± 67	421 ± 65	867 ± 105
1984-85			756 ± 756	868 ± 8	614 ± 16	806 ± 14
1985-86		552		895	531 ± 79	687 ± 482
1986-87		766 ± 25	612 ± 120	751 ± 167	498 ± 56	619 ± 88
1987-88		717 ± 172	771 ± 138	759 ± 67	474 ± 68	654 ± 74

<sup>a</sup>Includes "other" species.

Table K.5. Mean total lengths of fishes (mm/fish)  $\pm$  1 SE caught by party-boat fishermen in the EEZ during the high-use season by species and area (1983-1987). Blank = no fish measured. No standard error = only 1 fish measured.

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
<b>Atlantic croaker</b>						
1983						
1984						
1985						
1986						
1987						
<b>Atlantic sharpnose shark</b>						
1983						
1984					864	864
1985				940 $\pm$ 9		940
1986						750
1987			750 $\pm$ 47			
<b>Cobia</b>						
1983						
1984						
1985						
1986			1030			1030
1987						
<b>King mackerel</b>						
1983		974	1136	990 $\pm$ 23	832 $\pm$ 40	987 $\pm$ 141
1984			941			999 $\pm$ 76
1985		853		953	1130	919 $\pm$ 919
1986		798	979	1039 $\pm$ 40	752	867 $\pm$ 78
1987		840 $\pm$ 254	1017 $\pm$ 39	906 $\pm$ 12	857 $\pm$ 63	860 $\pm$ 21
<b>Red drum</b>						
1983						
1984						
1985						
1986						
1987						



Table K.5. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Red snapper</b>						
1983			530		354	355 ± 355
1984						
1985	454				340 ± 32	398 ± 245
1986					419	419
1987			512 ± 10		363 ± 23	378 ± 28
<b>Sand seatrout</b>						
1983						
1984						
1985						
1986						
1987						
<b>Spanish mackerel</b>						
1983		578 ± 578		603 ± 8		589 ± 327
1984						
1985		729			714	724 ± 724
1986		416				416
1987		595	647	440		594 ± 1
<b>Spotted seatrout</b>						
1983						
1984						
1985						
1986						
1987						
<b>Vermilion snapper</b>						
1983						
1984						
1985						
1986						
1987						

Table K.5. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
All species combined <sup>a</sup>						
1983		851	998	970 ± 67	421 ± 65	893 ± 118
1984			756			833 ± 17
1985		552		895	531 ± 79	687 ± 482
1986		766 ± 25	857 ± 117	751 ± 167	491 ± 55	621 ± 94
1987		717 ± 172	771 ± 138	759 ± 67	463 ± 68	662 ± 69

<sup>a</sup>Includes "other" species.

Table K.6. Annual mean weights of fishes (kg/fish)  $\pm$  1 SE caught by party-boat fishermen in the EEZ by species and area (1983-1988). Blank = no fish weighed. No standard error = only 1 fish weighed.

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
<b>Atlantic croaker</b>						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
<b>Atlantic sharpnose shark</b>						
1983-84						
1984-85					4.49	4.49
1985-86						6.08
1986-87				6.08 $\pm$ 0.27		2.69
1987-88			2.69 $\pm$ 0.55			
<b>Cobia</b>						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88			7.51 $\pm$ 1.17			7.51 $\pm$ 1.17
<b>King mackerel</b>						
1983-84		9.33	14.24	9.55 $\pm$ 0.73	5.49 $\pm$ 0.93	9.49 $\pm$ 1.81
1984-85			7.76	9.97 $\pm$ 1.87	4.83	9.90 $\pm$ 1.93
1985-86		5.68		8.33	13.34	7.43
1986-87		4.69	9.32	10.52 $\pm$ 1.38	3.85	6.40 $\pm$ 1.88
1987-88		7.03 $\pm$ 5.27	9.94 $\pm$ 1.02	7.33 $\pm$ 0.36	5.89 $\pm$ 1.29	7.12 $\pm$ 0.17
<b>Red drum</b>						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						

Table K.6. (Cont'd.)

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
<b>Red snapper</b>						
1983-84			2.12		0.68	0.69 ± 0.69
1984-85					1.01	1.01
1985-86	2.13				0.58 ± 0.18	1.36 ± 1.16
1986-87			2.09		1.12	1.15 ± 0.06
1987-88			2.13 ± 0.08		0.70 ± 0.17	0.85 ± 0.26
<b>Sand seatrout</b>						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
<b>Spanish mackerel</b>						
1983-84		1.01		1.12 ± 0.05		1.06 ± 0.59
1984-85		1.94			1.04	1.04
1985-86		0.38			1.83	1.90
1986-87		1.07				0.38
1987-88			1.37	0.44		1.07 ± 0.01
<b>Spotted seatrout</b>						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						
<b>Vermilion snapper</b>						
1983-84						
1984-85						
1985-86						
1986-87						
1987-88						

Table K.6. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
All species combined <sup>a</sup>						
1983-84		7.20 ± 7.20	12.50 ± 12.50	15.17 ± 7.14	1.56 ± 1.04	12.92 ± 6.38
1984-85			7.70 ± 7.70	10.93 ± 1.19	2.70 ± 2.70	8.91 ± 1.61
1985-86		3.30		8.80	2.09 ± 1.52	5.07 ± 4.81
1986-87		4.20 ± 4.20	4.84 ± 2.68	11.70 ± 2.92	1.18 ± 0.15	4.50 ± 2.85
1987-88		4.65 ± 4.44	6.22 ± 2.03	6.68 ± 0.30	1.52 ± 0.79	3.99 ± 0.97

<sup>a</sup> Includes "other" species.

Table K.7. Mean weights of fishes (kg/fish)  $\pm$  1 SE caught by party-boat fishermen in the EEZ during the high-use season by species and area (1983-1987). Blank = no fish weighed. No standard error = only 1 fish weighed.

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
<b>Atlantic croaker</b>						
1983						
1984						
1985						
1986						
1987						
<b>Atlantic sharpnose shark</b>						
1983						
1984					4.49	4.49
1985				6.08 $\pm$ 0.27		6.08
1986						2.69
1987			2.69 $\pm$ 0.55			
<b>Cobia</b>						
1983						
1984						
1985						
1986			8.68			8.68
1987						
<b>King mackerel</b>						
1983		9.33	14.24	9.55 $\pm$ 0.73	5.49 $\pm$ 0.93	9.49 $\pm$ 1.81
1984			7.76	9.97 $\pm$ 1.87	4.83	9.90 $\pm$ 1.43
1985		5.68		8.33	13.34	7.43 $\pm$ 7.43
1986		4.69	9.32	10.52 $\pm$ 1.38	3.85	6.40 $\pm$ 1.88
1987	7.03 $\pm$ 5.27		9.94 $\pm$ 1.02	7.33 $\pm$ 0.36	5.89 $\pm$ 1.29	7.12 $\pm$ 0.17
<b>Red drum</b>						
1983						
1984						
1985						
1986						
1987						

Table K.7. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Red snapper						
1983		2.12			0.68	0.69 ± 0.69
1984					1.01	1.01
1985		2.13			0.58 ± 0.18	1.36 ± 1.16
1986					1.12	1.12
1987			2.13 ± 0.08		0.70 ± 0.17	0.85 ± 0.26
Sand seatrout						
1983						
1984						
1985						
1986						
1987						
Spanish mackerel						
1983		1.01		1.12 ± 0.05	1.04	1.06 ± 0.59
1984					1.83	1.04
1985		1.94				1.90 ± 1.90
1986		0.38				0.38
1987		1.07	1.37	0.44		1.07 ± 0.01
Spotted seatrout						
1983						
1984						
1985						
1986						
1987						
Vermilion snapper						
1983						
1984						
1985						
1986						
1987						

Table K.7. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
All species combined <sup>a</sup>						
1983		7.20	12.50	15.17 ± 7.14	1.56 ± 1.04	12.92 ± 6.38
1984			7.70	10.93 ± 1.19	2.70	9.80 ± 1.46
1985		3.30		8.80	2.09 ± 1.52	5.07 ± 4.81
1986		4.20	9.20	11.70 ± 2.92	1.18 ± 0.15	4.63 ± 2.97
1987		4.65 ± 4.44	6.22 ± 2.03	6.68 ± 0.30	1.52 ± 0.79	4.14 ± 0.87

<sup>a</sup> Includes "other" species.



Table K.8. Annual mean catch rates of fishes (No./man-h)  $\pm$  1 SE caught by party-boat fishermen in the EEZ by species and area (1983-1988). Blank = no fishermen interviewed.

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
<b>Atlantic croaker</b>						
1983-84		0.00	0.00	0.00	0.00	0.00
1984-85			0.00	0.00	0.00	0.00
1985-86		0.00		0.00	0.00	0.00
1986-87		0.00	0.00	0.00	0.00	0.00
1987-88		0.00	0.00	0.00	0.00	0.00
<b>Atlantic sharpnose shark</b>						
1983-84		0.00	0.00	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01
1984-85			0.00	0.00	0.00	0.00
1985-86		0.00		<.01 $\pm$ <.01	0.01 $\pm$ 0.01	<.01 $\pm$ <.01
1986-87		<.01 $\pm$ <.01	0.00	0.01 $\pm$ 0.01	0.00	<.01 $\pm$ <.01
1987-88		0.00	<.01 $\pm$ <.01	0.00	0.00	0.00
<b>Cobia</b>						
1983-84		0.00	0.00	0.00	0.00	0.00
1984-85			0.00	<.01 $\pm$ <.01	0.00	<.01 $\pm$ <.01
1985-86		0.00		0.01 $\pm$ 0.01	0.00	<.01 $\pm$ <.01
1986-87		0.00	0.01 $\pm$ 0.01	0.00	0.00	0.00
1987-88		0.00	0.00	0.00	0.00	0.00
<b>King mackerel</b>						
1983-84		0.19 $\pm$ 0.19	0.03 $\pm$ 0.03	0.11 $\pm$ 0.08	0.03 $\pm$ 0.02	0.12 $\pm$ 0.07
1984-85			0.05 $\pm$ 0.05	0.20 $\pm$ 0.12	0.01 $\pm$ 0.01	0.14 $\pm$ 0.08
1985-86		0.09 $\pm$ 0.09		0.06 $\pm$ 0.06	<.01 $\pm$ <.01	0.04 $\pm$ 0.03
1986-87		0.10 $\pm$ 0.10	0.02 $\pm$ 0.02	0.12 $\pm$ 0.11	0.04 $\pm$ 0.04	0.08 $\pm$ 0.05
1987-88		0.02 $\pm$ 0.02	0.03 $\pm$ 0.02	0.11 $\pm$ 0.10	0.04 $\pm$ 0.03	0.03 $\pm$ 0.03
<b>Red drum</b>						
1983-84		0.00	0.00	0.00	0.00	0.00
1984-85			0.00	0.00	0.00	0.00
1985-86		0.00		0.00	0.00	0.00
1986-87		0.00	0.00	0.00	0.00	0.00
1987-88		0.00	0.00	0.00	0.00	0.00

Table K.8. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Red snapper</b>						
1983-84	0.00	0.00	<.01 ± <.01	0.00	0.55 ± 0.42	0.03 ± 0.02
1984-85			0.00	0.00	0.02 ± 0.02	0.01 ± 0.01
1985-86	0.15 ± 0.15			0.37 ± 0.34	0.07 ± 0.06	0.21 ± 0.14
1986-87	0.00		0.02 ± 0.02	0.00	0.06 ± 0.06	0.02 ± 0.02
1987-88	0.00		0.04 ± 0.04	0.00	0.26 ± 0.20	0.02 ± 0.01
<b>Sand seatrout</b>						
1983-84	0.00	0.00	0.00	0.00	0.00	0.00
1984-85			0.00	0.00	0.00	0.00
1985-86	0.00		0.00	0.00	0.00	0.00
1986-87	0.00		0.00	0.00	0.00	0.00
1987-88	0.00		0.00	0.00	0.00	0.00
<b>Spanish mackerel</b>						
1983-84	0.03 ± 0.03		0.00	<.01 ± <.01	0.00	<.01 ± <.01
1984-85			0.00	0.00	<.01 ± <.01	<.01 ± <.01
1985-86	0.02 ± 0.02			0.00	<.01 ± <.01	<.01 ± <.01
1986-87	0.01 ± 0.01		0.00	0.00	0.00	<.01 ± <.01
1987-88	0.02 ± 0.02		<.01 ± <.01	<.01 ± <.01	0.00	0.02 ± 0.02
<b>Spotted seatrout</b>						
1983-84	0.00		0.00	0.00	0.00	0.00
1984-85			0.00	0.00	0.00	0.00
1985-86	0.00		0.00	0.00	0.00	0.00
1986-87	0.00		0.00	0.00	0.00	0.00
1987-88	0.00		0.00	0.00	0.00	0.00
<b>Vermilion snapper</b>						
1983-84	0.00		0.00	0.00	0.00	0.00
1984-85			0.00	0.00	0.00	0.00
1985-86	0.00		0.00	0.00	0.00	0.00
1986-87	0.00		0.00	0.00	0.00	0.00
1987-88	0.00		0.00	0.00	0.00	0.00

Table K.8. (Cont'd.)

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
Other species						
1983-84		0.03 ± 0.02	<.01 ± <.01	0.15 ± 0.13	0.14 ± 0.10	0.14 ± 0.11
1984-85			0.06 ± 0.06	0.04 ± 0.02	0.16 ± 0.13	0.07 ± 0.04
1985-86		0.06 ± 0.06		0.08	0.45 ± 0.34	0.23
1986-87		0.06 ± 0.06	0.26 ± 0.25	0.23 ± 0.23	0.28 ± 0.19	0.19 ± 0.11
1987-88		0.09 ± 0.09	0.04	0.24 ± 0.24	0.78 ± 0.51	0.13 ± 0.12
All species combined <sup>a</sup>						
1983-84		0.26 ± 0.25	0.04 ± 0.04	0.27 ± 0.18	0.72 ± 0.50	0.29 ± 0.16
1984-85			0.11 ± 0.11	0.23 ± 0.14	0.20 ± 0.15	0.22 ± 0.11
1985-86		0.32 ± 0.32		0.52 ± 0.42	0.53 ± 0.36	0.49 ± 0.25
1986-87		0.17 ± 0.17	0.31 ± 0.29	0.36 ± 0.32	0.38 ± 0.23	0.30 ± 0.16
1987-88		0.14 ± 0.13	0.11 ± 0.10	0.36 ± 0.34	1.07 ± 0.64	0.19 ± 0.17

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual totals.

Table K.9. Mean catch rates of fishes (No./man-h)  $\pm$  1 SE caught by party-boat fishermen in the EEZ during the high-use season by species and area (1983-1987). Blank = no fishermen interviewed.

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
<b>Atlantic croaker</b>						
1983		0.00	0.00	0.00	0.00	0.00
1984			0.00	0.00	0.00	0.00
1985		0.00		0.00	0.00	0.00
1986		0.00	0.00	0.00	0.00	0.00
1987		0.00	0.00	0.00	0.00	0.00
<b>Atlantic sharpnose shark</b>						
1983		0.00	0.00	$<.01 \pm <.01$	0.00	$<.01 \pm <.01$
1984			0.00	0.00	0.00	0.00
1985		0.00		$0.02 \pm 0.02$	$0.04 \pm 0.04$	$<.01 \pm <.01$
1986		0.00	0.00	$0.01 \pm 0.01$	0.00	$<.01 \pm <.01$
1987		0.00	$<.01 \pm <.01$	0.00	0.00	0.00
<b>Cobia</b>						
1983		0.00	0.00	0.00	0.00	0.00
1984			0.00	$<.01 \pm <.01$	0.00	$<.01 \pm <.01$
1985		0.00		0.00	0.00	0.00
1986		0.00	$0.01 \pm 0.01$	$0.01 \pm 0.01$	0.00	0.00
1987		0.00	0.00	0.00	0.00	0.00
<b>King mackere </b>						
1983		$0.19 \pm 0.19$	$0.03 \pm 0.03$	$0.12 \pm 0.08$	$0.03 \pm 0.02$	$0.12 \pm 0.07$
1984			$0.05 \pm 0.05$	$0.20 \pm 0.12$	$0.01 \pm 0.01$	$0.16 \pm 0.09$
1985		$0.09 \pm 0.09$		$0.06 \pm 0.06$	$<.01 \pm <.01$	$0.04 \pm 0.03$
1986		$0.10 \pm 0.10$	$0.05 \pm 0.05$	$0.12 \pm 0.11$	$0.04 \pm 0.04$	$0.08 \pm 0.06$
1987		$0.02 \pm 0.02$	$0.03 \pm 0.02$	$0.11 \pm 0.10$	$0.05 \pm 0.05$	$0.03 \pm 0.03$
<b>Red drum</b>						
1983		0.00	0.00	0.00	0.00	0.00
1984			0.00	0.00	0.00	0.00
1985		0.00		0.00	0.00	0.00
1986		0.00	0.00	0.00	0.00	0.00
1987		0.00	0.00	0.00	0.00	0.00



Table K.9. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
Other species						
1983		0.03 ± 0.03	<.01 ± <.01	0.15 ± 0.12	0.14 ± 0.10	0.14 ± 0.11
1984			0.06 ± 0.06	0.04 ± 0.02	0.11 ± 0.10	0.05 ± 0.02
1985		0.06 ± 0.06		0.11	0.45 ± 0.34	0.23
1986		0.06 ± 0.06	0.08 ± 0.08	0.23 ± 0.23	0.29 ± 0.21	0.19 ± 0.11
1987		0.09 ± 0.09	0.04	0.24 ± 0.24	0.83 ± 0.61	0.12 ± 0.11
All species combined <sup>a</sup>						
1983		0.26 ± 0.25	0.04 ± 0.04	0.27 ± 0.18	0.72 ± 0.50	0.29 ± 0.16
1984			0.11 ± 0.11	0.23 ± 0.14	0.17 ± 0.14	0.22 ± 0.11
1985		0.32 ± 0.32		0.27 ± 0.15	0.53 ± 0.37	0.49 ± 0.25
1986		0.17 ± 0.17	0.14 ± 0.14	0.36 ± 0.32	0.40 ± 0.26	0.30 ± 0.17
1987		0.14 ± 0.13	0.11 ± 0.10	0.36 ± 0.34	1.26 ± 0.81	0.19 ± 0.17

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual totals.

Table K.10. Mean catch rates of fishes (No./man-h)  $\pm$  1 SE caught by party-boat fishermen in the EEZ during the low-use season by species and area (1983-1988). Blank = no fishermen interviewed.

Species Year	Area					
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
<b>Atlantic croaker</b>						
1983-84				0.00	0.00	
1984-85				0.00	0.00	
1985-86			0.00	0.00	0.00	
1986-87				0.00	0.00	
1987-88				0.00	0.00	
<b>Atlantic sharpnose shark</b>						
1983-84				0.00	0.00	
1984-85				0.00	0.00	
1985-86			0.00	0.00	0.00	
1986-87				0.00	0.00	
1987-88				0.00	0.00	
<b>Cobia</b>						
1983-84				0.00	0.00	
1984-85				0.00	0.00	
1985-86				0.00	0.00	
1986-87			0.01 $\pm$ 0.01	0.00	0.00	<.01 $\pm$ <.01
1987-88				0.00	0.00	
<b>King mackerel</b>						
1983-84				0.00	0.00	
1984-85				0.00	0.00	
1985-86			0.00	0.00	0.00	
1986-87				0.00	0.00	
1987-88				0.00	0.00	
<b>Red drum</b>						
1983-84				0.00	0.00	
1984-85				0.00	0.00	
1985-86			0.00	0.00	0.00	
1986-87				0.00	0.00	
1987-88				0.00	0.00	

Table K.10. (Cont'd.)

Species Year	Area					Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	
<b>Red snapper</b>						
1983-84					0.00	0.00
1984-85						
1985-86					0.00	0.01 ± 0.01
1986-87					0.00	0.00
1987-88			0.03 ± 0.03			
<b>Sand seatrout</b>						
1983-84					0.00	0.00
1984-85						
1985-86					0.00	0.00
1986-87			0.00		0.00	0.00
1987-88						
<b>Spanish mackerel</b>						
1983-84					0.00	0.00
1984-85						
1985-86					0.00	0.00
1986-87					0.00	0.00
1987-88			0.00			
<b>Spotted seatrout</b>						
1983-84					0.00	0.00
1984-85						
1985-86					0.00	0.00
1986-87					0.00	0.00
1987-88			0.00			
<b>Vermilion snapper</b>						
1983-84					0.00	0.00
1984-85						
1985-86					0.00	0.00
1986-87					0.00	0.00
1987-88			0.00			



Table K.10. (Cont'd.)

Species Year	Area				Coastwide
	Sabine Lake	Galveston	Matagorda	Corpus Christi	
Other species					
1983-84				0.24 ± 0.24	0.24 ± 0.24
1984-85				0.20 ± 0.20	0.24 ± 0.21
1985-86			0.33 ± 0.33	0.67 ± 0.67	0.67 ± 0.67
1986-87					
1987-88					
All species combined <sup>a</sup>					
1983-84				0.24 ± 0.24	0.24 ± 0.24
1984-85				0.20 ± 0.20	0.25 ± 0.22
1985-86			0.37 ± 0.37	0.67 ± 0.67	0.67 ± 0.67
1986-87					
1987-88					

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual totals.

Table K.11. Percent composition of "mother" species caught by party-boat fishermen in the EEZ by area and season (1983-1988).

Year Season	Common name	Scientific name	Area						
			Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide	
1983-84 High use	Atlantic bonito	<u>Sarda sarda</u>			1.20		40.96	42.17	
	Blacktip shark	<u>Carcharhinus limbatus</u>				4.82		4.82	
	Blue fish	<u>Pomatodus saltatrix</u>				1.20		2.41	
	Blue runner	<u>Caranx crysos</u>	1.20				1.20	1.20	
	Crevalle jack	<u>Caranx hippos</u>				10.84	1.20	12.05	
	Dolphin	<u>Coryphaena hippurus</u>				3.61	1.20	4.82	
	Dusky shark	<u>Carcharhinus obscurus</u>				2.41		2.41	
	Little tunny	<u>Euthynnus alletteratus</u>				15.66	2.41	19.28	
	Requiem sharks	Family <u>Carcharhinidae</u>		1.20		7.23		7.23	
	Scalloped hammerhead	<u>Sphyrna lewini</u>				1.20		1.20	
	Wahoo	<u>Acanthocybium solanderi</u>					2.41	2.41	
	1984-85 High use	Blacktip shark	<u>Carcharhinus limbatus</u>				1.67		1.67
		Crevalle jack	<u>Caranx hippos</u>				1.00		1.00
Dolphin		<u>Coryphaena hippurus</u>			6.67	45.00	5.00	56.67	
Little tunny		<u>Euthynnus alletteratus</u>				3.33	27.00	30.33	
Little tunny		<u>Euthynnus alletteratus</u>					10.00	10.00	
1985-86 High use	Blackfin tuna	<u>Thunnus atlanticus</u>					7.41	7.41	
	Blacktip shark	<u>Carcharhinus limbatus</u>				2.47		2.47	
	Blue runner	<u>Caranx crysos</u>					1.23	1.23	
	Crevalle jack	<u>Caranx hippos</u>				1.23		1.23	
	Dolphin	<u>Coryphaena hippurus</u>				3.70	4.94	8.64	
	Greater amberjack	<u>Seriola dumerili</u>	4.94					4.94	
	Little tunny	<u>Euthynnus alletteratus</u>				9.88	46.91	56.79	
	Rock hind	<u>Epinephelus adscensionis</u>					2.47	2.47	
	Sea basses sp.	Family <u>Serranidae</u>							
	Sheepshead	<u>Archosargus probatocephalus</u>						1.23	
	Silky shark	<u>Carcharhinus falciformis</u>					1.23	1.23	

Table K.11. (Cont'd.)

Year	Season	Common name	Scientific name	Area							
				Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide		
1986-87	High use	Atlantic bonito	<u>Sarda sarda</u>			2.16				2.16	
		Blue runner	<u>Caranx crysos</u>					8.63		8.63	
		Bluefish	<u>Pomatomis saltatrix</u>			2.88				2.88	
		Crevalle Jack	<u>Caranx hippos</u>		1.44	0.72			0.72	2.88	
		Dolphin	<u>Coryphaena hippurus</u>		5.76	1.44			1.44	20.86	
		Great barracuda	<u>Sphyraena barracuda</u>			0.72				0.72	
		Greater amberjack	<u>Seriola dumerili</u>					3.60		3.60	
		Little tunny	<u>Euthynnus alletteratus</u>					57.55		57.55	
		Sailfish	<u>Istiophorus platyferus</u>			0.72				0.72	
				Blue runner	<u>Caranx crysos</u>					1.92	1.92
				Crevalle Jack	<u>Caranx hippos</u>					1.92	1.92
		Little tunny	<u>Euthynnus alletteratus</u>					19.23	19.23		
		Pompano dolphin	<u>Coryphaena equisetis</u>			76.92			76.92		
1987-88	High Use	Atlantic bonito	<u>Sarda sarda</u>							3.82	
		Black drum	<u>Pogonias cromis</u>		3.82	0.76				0.76	
		Blacktip shark	<u>Carcharhinus limbatus</u>		0.76					0.76	
		Crevalle Jack	<u>Caranx hippos</u>		0.76				0.00	3.82	
		Dog snapper	<u>Lutjanus jocu</u>						3.05	11.45	
		Dolphin	<u>Coryphaena hippurus</u>		2.29	2.29			0.76	13.74	
		Gag	<u>Mycteroperca microlepis</u>						3.05	3.05	
		Knobbed porgy	<u>Calamus nodosus</u>						2.29	2.29	
		Lane snapper	<u>Lutjanus synagris</u>						1.53	1.53	
		Little tunny	<u>Euthynnus alletteratus</u>						36.64	41.98	
		Pigfish	<u>Orthopristis chrysoptera</u>		0.76	3.05			1.53	0.76	
		Pompano dolphin	<u>Coryphaena equisetis</u>		0.76					0.76	
		Rock hind	<u>Epinephelus adscensionis</u>							6.11	
		Scamp	<u>Mycteroperca phenax</u>							3.05	
		Sheepshead	<u>Archosargus probatocephalus</u>							2.29	
		Silver seatrout	<u>Cynoscion nothus</u>							0.76	
		Smooth puffer	<u>Lagocephalus laevigatus</u>							0.76	
		Warsaw grouper	<u>Epinephelus nigritus</u>			0.76				0.76	1.53

Table K.11. (Cont'd.)

Year	Season	Common name	Scientific name	Area					
				Sabine Lake	Galveston	Matagorda	Corpus Christi	Lower Laguna Madre	Coastwide
		Crevalle jack	<u>Caranx hippos</u>					6.25	6.25
		Little tuny	<u>Euthynnus alletteratus</u>					93.75	93.75

Table K.12. Pressure estimates (man-h x 1000)  $\pm$  1 SE for party-boat fishermen in the EEZ by season and area (1983-1988).

Area	Year	High-use season	Low-use season	Annual <sup>a</sup>
Sabine Lake	1987-88	0.0	0.0	0.0
Galveston	1983-84	8.3 $\pm$ 5.9	0.0	8.3 $\pm$ 5.9
	1984-85	0.0	0.0	0.0
	1985-86	3.5 $\pm$ 3.5	0.0	3.5 $\pm$ 3.5
	1986-87	15.7 $\pm$ 14.9	0.0	15.7 $\pm$ 14.9
	1987-88	121.2 $\pm$ 114.5	0.0	121.2 $\pm$ 114.5
Matagorda	1983-84	1.7 $\pm$ 1.4	0.0	1.7 $\pm$ 1.4
	1984-85	0.5 $\pm$ 0.5	0.0	0.5 $\pm$ 0.5
	1985-86	0.0	0.0	0.0
	1986-87	0.4 $\pm$ 0.3	1.0 $\pm$ 1.0	1.3 $\pm$ 1.0
	1987-88	5.3 $\pm$ 3.9	0.0	5.3 $\pm$ 3.9
Corpus Christi	1983-84	101.1 $\pm$ 45.9	0.0	101.1 $\pm$ 45.9
	1984-85	21.2 $\pm$ 7.5	0.0	21.2 $\pm$ 7.5
	1985-86	7.0 $\pm$ 4.0	0.0	7.0 $\pm$ 4.0
	1986-87	9.0 $\pm$ 6.3	0.0	9.0 $\pm$ 6.3
	1987-88	7.2 $\pm$ 5.4	0.0	7.2 $\pm$ 5.4
Lower Laguna Madre	1983-84	6.0 $\pm$ 3.4	0.0	6.0 $\pm$ 3.4
	1984-85	4.7 $\pm$ 3.2	3.5 $\pm$ 3.5	8.2 $\pm$ 4.8
	1985-86	7.5 $\pm$ 2.8	0.0	7.5 $\pm$ 2.8
	1986-87	16.1 $\pm$ 7.8	2.3 $\pm$ 2.3	18.4 $\pm$ 8.1
	1987-88	4.9 $\pm$ 2.4	2.3 $\pm$ 2.3	7.1 $\pm$ 3.3
Coastwide <sup>a</sup>	1983-84	117.1 $\pm$ 46.4	0.0	117.1 $\pm$ 46.4
	1984-85	26.5 $\pm$ 8.2	3.5 $\pm$ 3.5	30.0 $\pm$ 8.9
	1985-86	18.0 $\pm$ 6.0	0.0	18.0 $\pm$ 6.0
	1986-87	41.2 $\pm$ 18.0	3.2 $\pm$ 2.5	44.4 $\pm$ 18.1
	1987-88	138.6 $\pm$ 114.7	2.3 $\pm$ 2.3	140.8 $\pm$ 114.8

<sup>a</sup>Due to rounding of numbers, these totals may not exactly equal individual totals.

Table K.13. Number of days surveyed and number of party-boat fishermen interviewed ( ) in the EEZ by season and area (1983-1988).

Species Year	Area							Coastwide <sup>a</sup>
	Sabine Lake	Galveston	Matagorda	Corpus Christi		Lower Laguna Madre		
1983-84								
High use	0 (0)	95 (10)	129 (10)	141 (68)	97 (35)	462 (123)		
Low use	0 (0)	36 (0)	66 (0)	65 (0)	36 (0)	203 (0)		
Annual	0 (0)	131 (10)	195 (10)	206 (68)	133 (35)	665 (123)		
1984-85								
High use	0 (0)	96 (0)	127 (6)	136 (68)	97 (24)	456 (98)		
Low use	0 (0)	36 (0)	61 (0)	65 (0)	36 (7)	199 (7)		
Annual	0 (0)	132 (0)	188 (6)	201 (68)	133 (31)	655 (105)		
1985-86								
High use	0 (0)	97 (6)	128 (0)	140 (35)	97 (41)	462 (82)		
Low use	0 (0)	36 (0)	62 (0)	66 (0)	36 (0)	200 (0)		
Annual	0 (0)	133 (6)	190 (0)	206 (35)	133 (41)	662 (82)		
1986-87								
High use	0 (0)	97 (12)	129 (19)	151 (13)	97 (54)	474 (98)		
Low use	0 (0)	36 (0)	63 (11)	62 (0)	36 (6)	197 (17)		
Annual	0 (0)	133 (12)	192 (30)	213 (13)	133 (60)	671 (115)		
1987-88								
High use	72 (0)	97 (17)	108 (37)	109 (36)	97 (30)	580 (120)		
Low use	36 (0)	34 (0)	47 (0)	51 (0)	36 (4)	240 (4)		
Annual	108 (0)	131 (17)	155 (37)	160 (36)	133 (34)	820 (124)		

Table K.14. Mean fishing-party size (No. of fishermen) and mean trip length (h) for party-boat fishermen in the EEZ by area season (1983-1988). Blank = no fishermen interviewed.

Area Year	Mean fishing-party size			Mean trip length		
	High-use season	Low-use season	Annual	High-use season	Low-use season	Annual
<b>Sabine Lake</b>						
1987-88						
<b>Galveston</b>						
1983-84	5.0		5.0	8.0		8.0
1984-85						
1985-86	6.0		6.0	11.0		11.0
1986-87	4.0		4.0	10.3		10.3
1987-88	4.2		4.2	6.8		6.8
<b>Matagorda</b>						
1983-84	5.0		5.0	6.2		6.2
1984-85	6.0		6.0	10.5		10.5
1985-86						
1986-87	6.3	11.0	7.5	7.7	11.0	8.5
1987-88	7.4		7.4	9.6		9.6
<b>Corpus Christi</b>						
1983-84	4.2		4.2	7.8		7.8
1984-85	4.0		4.0	8.1		8.1
1985-86	3.9		3.9	7.4		7.4
1986-87	4.3		4.3	9.8		9.8
1987-88	3.6		3.6	8.0		8.0
<b>Lower Laguna Madre</b>						
1983-84	3.2		3.2	10.6		10.6
1984-85	4.8	7.0	5.2	5.9	6.0	5.9
1985-86	3.7		3.7	6.2		6.2
1986-87	4.5	6.0	4.6	6.0	1	6.4
1987-88	3.8	4.0	3.8	6.8	6.0	6.7
<b>Coastwide</b>						
1983-84	4.0		4.0	8.7		8.7
1984-85	4.3	7.0	4.4	7.7	6.0	7.7
1985-86	3.9		3.9	7.0		7.0
1986-87	4.7	8.5	5.0	7.4	10.5	7.7
1987-88	4.4	4.0	4.4	7.7	6.0	7.7

Table K.15. Percent composition of the residential origin of party-boat fishermen-trips in the EEZ by area (1983-88). Blank = no fishermen interviewed.

Area Year	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Sabine Lake 1987-88				
High use				
Low use				
Annual				
Galveston 1983-84	100	0	0	0
High use				
Low use				
Annual	100	0	0	0
1984-85				
High use				
Low use				
Annual				
1985-86	100	0	0	0
High use				
Low use				
Annual	100	0	0	0
1986-87	100	0	0	0
High use				
Low use				
Annual	100	0	0	0
1987-88	88	0	12	0
High use				
Low use				
Annual	88	0	12	0
Matagorda 1983-84	30	20	50	0
High use				
Low use				
Annual	30	20	50	0



Table K.15. (Cont'd.)

Area Year	Adjacent coastal countries	Non-adjacent coastal countries	Non-coastal countries	Other states and countries
1986-87				
High use	0	0	100	0
Low use				
Annual	0	0	100	0
1987-88				
High use	11	0	86	3
Low use				
Annual	11	0	86	3
Lower Laguna Madre				
1983-84				
High use	23	26	51	0
Low use				
Annual	23	26	51	0
1984-85				
High use	21	0	79	0
Low use	43	0	0	57
Annual	26	0	61	13
1985-86				
High use	10	22	54	15
Low use				
Annual	10	22	54	15
1986-87				
High use	2	0	85	13
Low use	50	0	0	50
Annual	7	0	76	17
1987-88				
High use	27	0	53	20
Low use	100	0	0	0
Annual	35	0	47	18

Table K.15. (Cont'd.)

Area Year	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
1984-85				
High use	0	100	0	0
Low use				
Annual	0	100	0	0
1985-86				
High use				
Low use				
Annual				
1986-87				
High use	47	0	53	0
Low use	100	0	0	0
Annual	67	0	33 $\frac{1}{2}$	0
1987-88				
High use	16	51	32	0
Low use				
Annual	16	51	32	0
Corpus Christi				
1983-84				
High use	4	13	66	16
Low use				
Annual	4	13	66	16
1984-85				
High use	9	24	60	7
Low use				
Annual	9	24	60	7
1985-86				
High use	11	17	54	17
Low use				
Annual	11	17	54	17

Table K.15. (Cont'd.)

Area Year	Adjacent coastal counties	Non-adjacent coastal counties	Non-coastal counties	Other states and countries
Coastwide				
1983-84				
High use	20	16	55	9
Low use				
Annual	20	16	55	9
1984-85				
High use	11	22	61	5
Low use	43	0	0	57
Annual	13	21	57	9
1985-86				
High use	17	18	50	15
Low use				
Annual	17	18	50	15
1986-87				
High use	22	0	70	7
Low use	82	0	0	18
Annual	31	0	60	9
1987-88				
High use	28	16	51	6
Low use	100	0	0	0
Annual	30	15	49	6

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